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May 29, 2013

Ellen Jackson, Central Region Section Head,
Remediation and State-Lead Division
Oil Control Program
1800 Washington Boulevard
Baltimore, MD 21230-1718

VIA: OVERNIGHT MAIL

Re: Site Investigation Summary Report and Risk Assessment
1644 and 1646 Yakona Road
Towson, MD

Dear Ms. Jackson:

Enclosed are three hard copies and one electronic copy of the Site Investigation Summary Report and Risk Assessment for the residential properties located at 1644 and 1646 Yakona Road in Towson, Maryland. The report was prepared in accordance with the Maryland Department of the Environment's (MDE) Request for Risk Evaluation Work Plan directive letter dated December 7, 2012 and the Site Investigation Work Plan prepared by WSP and submitted to MDE on January 9, 2013.

Based on the data compared to default and conservative exposure assumptions, as well as reasonable foreseeable exposure concentrations, the estimated risks were found to be acceptable according to MDE guidance. If, after your evaluation of the report, you have any questions or would like further information regarding the risk assessment at the subject sites, please contact the undersigned and we will schedule a meeting in your office. Thank you for your continued assistance and oversight.

Sincerely,



Donald G. Bull

Enclosure

cc: Chris Ralston, MDE
Jenny Herman, MDE
John Schenkewitz, Hess
Steve Leifer, Baker Botts LLP
Anthony Cellinese, 1644 Yakona Road (w/enclosure)
Melvin Teal, 1646 Yakona Road (w/enclosure)



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WSP

SITE INVESTIGATION SUMMARY REPORT AND RISK ASSESSMENT

1644 and 1646 Yakona Road, Towson, Maryland

May 29, 2013

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1644 and 1646 Yakona Road, Towson, Maryland

May 29, 2013

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1 Introduction

WSP was retained by Baker Botts, LLP to prepare this Site Investigation Summary Report and Risk Assessment at a duplex residential property located at 1644 and 1646 Yakona Road in Towson, Maryland (Figure 1). The Maryland Department of the Environment (MDE) has requested that risk assessments be conducted to evaluate potential human health risks at a duplex residential property located at 1644 and 1646 Yakona Road as they relate to potential releases from the Hess station located at 1613 Joppa Road in Towson, Maryland. In correspondence dated December 7, 2012, the MDE requested an investigation of the source of odors reported by the residents of 1644 Yakona Road to determine whether volatile organic compounds (VOCs) previously detected in groundwater samples collected from their basement sumps are potentially affecting indoor air quality. WSP submitted a Site Investigation Work Plan (SIP) for these activities on January 9, 2013, and the MDE conditionally approved the SIP in a letter issued on February 19, 2013.

2 Site Investigation Activities

In April 2013, SIP activities were conducted at 1644 and 1646 Yakona Road and included the collection of soil, groundwater, soil vapor, indoor air, and sump water. The sample locations are presented on Figures 2 through 4.

The field activities were performed in accordance with standard technical practices and procedures and are consistent with WSP's standard operating procedure (SOPs; Appendix A), the Maryland Environmental Assessment Technology (MEAT) for Leaking Underground Storage Tanks guidance (MDE 2003), the U.S. Environmental Protection Agency's (EPA's) Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (EPA 2002) and the EPA's Draft Standard Operating Procedure (SOP) for Installation of Sub-Slab Vapor Probes and Sampling Using EPA Method TO-15 to Support Vapor Intrusion Investigations (EPA 2004). All field activities related to indoor air were directed by Keith Green, a Certified Industrial Hygienist (CIH) and Senior Project Director for WSP.

Samples were collected in the appropriate laboratory provided containers, labeled, placed in an ice-filled cooler (where appropriate), and handled under strict chain-of-custody procedures. Non-dedicated drilling and sampling equipment was decontaminated after each use as outlined in WSP's Standard Operating Procedure (SOP) 10 (Appendix A).

2.1 Soil and Groundwater Sampling

On April 4, 2013, four soil borings (SB-01 through SB-04) were advanced to 10 feet below ground surface (bgs) to collect soil and groundwater samples (Figure 2). A small-diameter borehole was installed at each location using portable, tripod-mounted split-spoon sampling equipment. Continuous soil samples were collected from the ground surface to the borehole termination depth. Upon recovery, the soils were visually screened for evidence of contamination, logged using the unified soil classification system, and screened for organic vapors in the field with a flame ionization detector (FID). This information was recorded in a field book. Boring logs are included in Appendix B.

Field screening did not indicate the presence of organic vapors in the soils encountered above the observed water table (approximately 6 feet to 8 feet bgs); therefore, soil samples were collected from each boring for laboratory analysis from the 2.0-2.5 feet bgs depth interval in accordance with the approved SIP.

Soil samples were placed in the appropriate pre-preserved laboratory-supplied containers and labeled with a unique identification number, collection date and time, analytical method, and sampler initials. The samples were couriered to Phase Separation Science in Baltimore, Maryland, using proper chain-of-custody procedures. The soil samples were analyzed for VOCs, including fuel oxygenates and naphthalene, using EPA Solid Waste (SW)-846 Test Method 8260B, total petroleum hydrocarbons (TPH) diesel range organics (TPH-DRO) and gasoline-range organics (TPH-GRO) using EPA SW-846 Test Method 8015B, and polycyclic aromatic hydrocarbons (PAHs) using EPA SW-846 Test Method 8270C. All soil samples collected for VOC analysis were collected and field preserved in accordance with EPA Method 5035 (e.g., Terracore samplers).

Grab groundwater samples were collected at SB-03 and SB-04 without installing permanent monitoring wells. Given the fine-grained nature of the saturated material, temporary well points were installed to facilitate groundwater sample collection. Each temporary well point was constructed of 10 feet of 1-inch diameter inside diameter (ID), threaded, 0.010-inch machine slotted polyvinyl chloride (PVC) screen. Groundwater samples were collected using dedicated polyethylene tubing with a bottom check valve connected to a peristaltic pump. One well volume of groundwater was purged from SB-03 before the sample was collected. Temporary well SB-04 was purged dry and allowed to recharge before a sample was collected.

Groundwater samples were placed in the appropriate pre-preserved laboratory-supplied containers and labeled with a unique identification number, collection date and time, analytical method, and sampler initials. The samples were couriered to Phase Separation Science in Baltimore, Maryland, using proper chain-of-custody procedures. The groundwater samples were analyzed for VOCs using EPA SW-846 Test Method 8260B, including fuel

oxygenates and naphthalene, PAHs using EPA SW-846 Test Method 8270C, TPH-DRO and TPH-GRO using EPA SW-846 Test Method 8015B, and methane using EPA SW-846 Test Method 8015.

Quality assurance/quality control (QA/QC) samples consisted of a blind duplicate sample of soil sample SB-01 (called SB-040413), a blind duplicate sample of groundwater sample SB-04 (called 040413 [GW]), and a matrix spike and a matrix spike duplicate sample of SB-01 submitted for the same suite of analysis as the original sample. Additionally, a trip blank was submitted for analysis of VOCs by EPA Method 8620B. The QA/QC sample results are included in the laboratory data packages (Appendix C).

Following completion of the soil and groundwater sampling activities, the 1-inch PVC screen was removed from the subsurface, if present, and the boreholes were backfilled with a combination of soil cuttings and bentonite.

2.2 Soil Vapor Sampling

Soil vapor samples were collected to evaluate the potential for a complete exposure pathway of petroleum-related constituents in groundwater through the vapor intrusion fate and transport process. Four soil vapor samples were collected from temporary sampling points located along the outside foundation walls of the duplex residence in areas not obstructed by patios, decks, or additions (Figure 2). The depth to groundwater was predetermined from a previous groundwater sampling investigation and was confirmed to be at or above the depths of the basement floors; therefore, no sub-slab vapor samples were collected.

Soil borings were advanced using a 2.5-inch diameter hand auger to approximately 4 feet bgs, which is approximately 1 foot above the groundwater surface. A soil vapor probe, constructed of a 6-inch long stainless steel screen attached to a section of 0.25-inch ID Teflon-lined tubing, was then installed in the bottom of the borehole. Quartz sand was placed around and approximately 6 inches above the top of the screen to create a 1-foot sample interval. The annular space above the sand pack was filled to the ground surface with hydrated bentonite. Approximately 300 to 500 milliliters of air were purged from the probe to remove ambient air from the screened interval, annulus, and tubing. The air was purged using a low-flow air pump at a flow rate of 0.75-milliliter per minute. Immediately after the probes were purged, the end of the tubing that extended above the ground surface was folded and taped closed to prohibit the passage of air in or out of the tubing.

Two soil vapor samples were collected at each residence for analysis of VOCs using 6-liter Summa canisters connected to the tubing. The Summa canisters were certified clean by Pace Analytical Laboratories. The certification involves analyzing the ambient air inside a cleaned canister using EPA Method TO-15. If no target compounds are detected above method quantitation limits, the canister is evacuated again to be used for collection of an air sample. If target compounds are detected at concentrations above method quantitation limits, the canister is re-cleaned and reanalyzed for the target compounds. The certification data for the soil vapor canisters is presented in Table C-1 of Appendix C; the laboratory data report is provided in Appendix C.

The sample numbers identify the address and location of the sample in relation to the house; samples ending with an “F” were collected near the front of the residence and samples ending with a “B” were collected in the back of the residence. Each Summa canister arrived at the site under approximately 30 pounds per square inch (PSI) of vacuum. The extraction time was controlled by dedicated flow regulators preset by the laboratory to collect a sample within a 1-hour period. Sample collection was terminated when the vacuum in the canisters dropped to between -2 to -8 inches of mercury on the canisters’ pressure gauge or at the end of a period of 1 hour. Following collection of each soil vapor sample, the tubing and probe were removed from the ground and the borehole was backfilled with soil cuttings.

Soil vapor samples were labeled with a unique identification number, collection date and time, analytical method, and sampler initials. The samples were shipped via overnight courier to Pace Analytical Laboratories, Inc. laboratory located in Minneapolis, Minnesota, using proper chain-of-custody procedures. The soil vapor samples were analyzed for VOCs using EPA Test Method TO-15. QA/QC samples consisted of a trip blank (1644/46-TRP-040313) submitted for analysis of VOCs by EPA Test Method TO-15.

2.3 Sump Water Sampling

Sump water samples were collected from the water present in the basement sumps located in each residence. The samples were collected using a peristaltic pump and dedicated, disposable polyethylene tubing. Sump water samples were decanted into the appropriate pre-preserved laboratory-supplied containers and labeled with a unique identification number, collection date and time, analytical method, and sampler initials. The sample numbers identify the house address. The samples were couriered to Phase Separation Science in Baltimore, Maryland, using proper chain-of-custody procedures. The sump water samples were analyzed for VOCs using EPA SW-846 Test Method 8260B, including fuel oxygenates and naphthalene, PAHs using EPA SW-846 Test Method 8270C, TPH-DRO and TPH-GRO using EPA SW-846 Test Method 8015B, and methane using EPA SW-846 Test Method 8015.

2.4 Indoor Air Inventory and Sampling

The objective of the indoor assessment is to evaluate the source of odors reported by homeowners and whether petroleum-related VOCs previously detected in water samples collected from basement sumps are potentially affecting indoor air quality.

A pre-sampling site inspection and material inventory was conducted at each residence a minimum of 2 days before conducting the sampling activities. During the site inspection, WSP completed an indoor air quality questionnaire and building inventory form (Appendix D), and conducted an inventory of materials and equipment stored in the basement and first floor living spaces. The materials and equipment of concern include, but are not limited to, petroleum products, gas-powered equipment, kerosene heaters, petroleum-based finishes, products containing petroleum distillates, cosmetics, perfumes and colognes, and pesticides. In general, the volatile ingredients of each material, if available, were recorded on the inventory form and the containers were scanned with a photoionization detector (RAE Systems ppbRAE or equivalent) for potential vapor emissions. WSP elected to group containers of similar material (e.g., latex paints) on the inventory form with a comment regarding the condition of the containers, rather than recording the ingredients on each container. If the contents of a container were not listed on the label, WSP recorded the product name and manufacturer's name and address (as available) on the inventory form. WSP recommended that the homeowners either remove any materials and equipment that are emitting VOCs from the structure, or seal the containers or equipment in plastic bags at least 24 hours before the scheduled sampling time.

WSP collected indoor air samples from the basement and first floor living space of each residence (Figure 3). The sample numbers identify the address and location of the sample in relation to the house; samples collected on the first floor of the residences were given an "A" identifier and samples collected in the basement were given a "B" identifier. The outdoor (i.e., ambient) air sample was labeled with the identifier "BK". Indoor air samples were submitted for analysis of VOCs using EPA Test Method TO-15, TPH-DRO using EPA Test Method TO-17, bioaerosols, and mold; the outdoor air sample was submitted for the analysis of VOCs using EPA Test Method TO-15, TPH-DRO using EPA Test Method TO-17.

Indoor and outdoor air samples for VOC analysis were collected using evacuated, certified-clean (See Section 2.2), pre-assembled 6-liter Summa canisters connected to flow regulators that allowed air samples to be collected over a 24-hour period; an in-line moisture filter was connected to the outdoor air sample canister to prevent moisture from entering the canister, which could lead to biased sample results. The indoor air sampling canisters were placed approximately 3 to 5 feet above the floor to best approximate the breathing zone (i.e., 1 square meter surrounding human air passage ways) of residents living in the home. The outdoor air sample was collected approximately 5 feet above the ground by securing the canister to a portable stepladder. Physical and visible barriers were placed around each canister, as necessary, so that it was not disturbed during sample collection. WSP set the canisters in place, recorded the unique canister and regulator number, opened the mass flow regulator, and recorded the level of vacuum in the container. The starting vacuum pressure was recorded in the field logbook. WSP instructed the homeowners to leave the canisters in place without moving them for the full 24-hour sampling period. After 24 hours, the level of vacuum remaining in the containers was recorded, the mass flow regulators were closed, the

flow regulators were removed from the canisters to complete the sample collection, the canisters were labeled with the sample names, and the canisters were prepared for shipment. The samples were shipped via overnight courier to Pace Analytical Laboratories, Inc. laboratory located in Minneapolis, Minnesota, using proper chain-of-custody procedures. The air samples were analyzed for VOCs using EPA Test Method TO-15. QA/QC air sampling samples consisted of one blind duplicate of sample 1644-A-040313 (called 1000-B-040313) submitted for analysis of VOCs by EPA Method TO-15.

Indoor and outdoor air samples for TPH-DRO analysis were collected using pre-calibrated SKC, Inc. Model PCXR8 sampling pumps. The pumps were connected to multi-bed carbotrap 300 tubes, which were used to collect air samples for TPH-DRO analysis. These sampling tubes were constructed of stainless steel and packed by the laboratory with Carbopack C (a weak sorbent), Carbopack B (a medium sorbent), and Carbosieve SIII (a strong sorbent). The samples were collected at approximately 0.1 liters per minute (lpm) for 60 minutes to meet the volume requirements of EPA Compendium Method TO-17. After the collection period expired, the sample tubes were sealed with laboratory-provided caps, labeled with the sample names, and placed on ice for shipment. The samples were shipped via overnight courier to Eurofins Air Toxics laboratory in Folsom, California, using proper chain-of-custody procedures. The air samples were analyzed for TPH-DRO using EPA Test Method TO-17. Shortly after the collected period ended, the sampling pumps were post-calibrated and the flow rates were recorded.

Bioaerosols, such as mold and bacteria are ubiquitous in the environment and may cause unpleasant odors in high moisture areas of a home, such as basements. Quantitative air cultures for bioaerosols analysis were obtained by using an Andersen N6 Single Stage Cascade Impactor connected to a high volume air pump. The pump drew 28.3 liters per minute (LPM) of air through the impactor onto prepared growth media in petri dishes. The air sample was drawn over petri dishes containing malt extract agar (MEA) and cellulose agar for mold spores and tryptic soy agar (TSA) for bacterial culture. Each sample was collected for 5 minutes for a total air volume of approximately 140 liters. The single stage impactors were decontaminated using 90 percent isopropyl alcohol between each sampling location. After collection, the petri dishes were sealed, labeled with the sample names, and placed on ice for shipment. The samples were shipped via overnight courier to Aerobiology Laboratories in Dulles, Virginia, using proper chain-of-custody procedures. This laboratory participates in the American Industrial Hygiene Association Laboratory Accreditation Programs, LLC accreditation to the ISO/IEC 17025:2005 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in environmental microbiology (certification number 102977).

2.5 Data Validation

In addition to the laboratory QA/QC samples, the data were validated by Mr. John Johnson, a WSP associate. The analytical data have been validated in accordance with current EPA quality assurance protocols. There were no significant changes to the data reported by the laboratory because of the data validation. The certified laboratory analytical reports are provided in Appendix C and the data validation is provided in Appendix E.

3 Sampling Results

In accordance with the SIP, soil, groundwater, soil vapor, indoor air, and sump water samples were collected and submitted for laboratory analysis. The sampling results are presented in Tables 1 through 8; comparisons to applicable standards were used to determine if potentially significant levels of compounds associated with refined petroleum products (i.e., gasoline) are present. Laboratory data, including certification and QA/QC data, and data validation are provided in Appendices C and D.

3.1 Soil Sampling Results

Soil samples were collected from two soil boring locations at each address (1644 and 1646 Yakona Road) and submitted for analysis of VOCs, including fuel oxygenates and naphthalene, PAHs, TPH-GRO, and TPH-DRO (Table 1 and Figure 2).

Soil sampling results were compared to both the EPA's Regional Screening Levels (RSLs; EPA 2012) for residential soils and the MDE soil generic numeric cleanup standards (GNCSs; MDE 2008; Table 1). These risk-based numerical values reflect direct contact or exposure to soil containing petroleum-related compounds of concern (COCs) under a residential land use scenario and the protection of groundwater exposure pathway.

Acetone was detected in three of the four soil samples and the duplicate sample at concentrations below the screening criteria; concentrations ranged from 11 micrograms per kilogram (µg/kg; estimated below the laboratory reporting limit) to 35 µg/kg. The minimum comparative criterion is 2,400 µg/kg (EPA RSL; Table 1). One temporarily identified compound (TIC), hexanal, was identified in the duplicate sample (SB-040413 [2-2.5]) of SB-01 at an estimated concentration of 11 µg/kg. Neither the EPA's RSLs nor the MDE's soil GNCSs provide a hexanal soil criterion (Table 1).

No PAHs, TPH-DRO, or TPH-GRO were detected at concentrations above the method quantitation limits in any of the soil samples (Table 1).

3.2 Groundwater Sampling Results

Grab groundwater samples were collected from one soil boring location at each residence (SB-03 and SB-04) and submitted for analysis of VOCs, including fuel oxygenates and naphthalene, PAHs, TPH-GRO, TPH-DRO, and methane (Table 2 and Figure 2).

Groundwater sampling results were compared to the EPA's maximum contaminant limits (MCLs; EPA 2013), the EPA's tap water RSLs, and the MDE's groundwater GNCSs for Type I and II Aquifers (Table 2). The use of the MDE' groundwater GNCSs as comparative criteria assumes that the water-bearing zone sampled comprises part of a regional aquifer system meeting one of these designations (MDE 2008).

No VOCs, PAHs, TPH-GRO, or methane were detected at concentrations above the method quantitation limit in the groundwater samples. Diesel-range total petroleum hydrocarbons (TPH-DRO) were detected in one groundwater sample (SB-03) at a concentration of 0.08 milligrams per liter (mg/l), which is above the MDE groundwater GNCS of 0.047 mg/l (Table 2).

3.3 Soil Vapor Sampling Results

Two soil vapor samples were collected at each residence (Figure 2) and were submitted for analysis of VOCs by EPA Method TO-15 and TPH-DRO (Table 3).

An attenuation factor of 10 was applied to the EPA's indoor air RSLs for comparison to the soil vapor data (Table 3). These risk-based numerical values reflect toxicity and chemical-specific exposure to COC-containing soil vapor for a residential use scenario.

Tetrachloroethylene (PCE), a non-site related chlorinated VOC, was detected above the screening criterion of 470 micrograms per cubic meter (µg/m^3) in soil vapor sample 1644-F-040313 (842 µg/m^3). Chloroform, also a non-site related chlorinated VOC, was detected in two soil vapor samples (1644-R-040313 and 1646-R-040313) at concentrations of 148 µg/m^3 and 16.4 µg/m^3, respectively. These concentrations are above the screening criterion of 5.3 µg/m^3 (Table 3).

Petroleum-related VOCs were detected in each of the soil vapor samples (Table 3); however only four VOCs (1,2,4-trimethylbenzene [1,2,4-TMB], benzene, ethylbenzene, and naphthalene) were detected in one or more of the four soil vapor samples at concentrations above the screening criteria. 1,2,4-TMB was detected in the soil vapor sample 1644-R-040313 at a concentration of 668 µg/m^3, which is above the screening criterion of 310 µg/m^3.

Benzene and ethylbenzene were detected in one soil vapor sample 1644-F-040313 at concentrations of 96.1 µg/m^3 and 142 µg/m^3, respectively. These results are above the screening criteria for benzene and ethylbenzene of 16 µg/m^3 and 49 µg/m^3, respectively.

Naphthalene was detected in two samples (1644-R-040313 and 1646-R-040313) at concentrations of 11.3 µg/m^3 and 3.7 µg/m^3, respectively. These concentrations are above the screening criterion of 3.6 µg/m^3 (Table 3).

TPH-DRO was detected in each of the soil vapor samples at concentrations ranging from 520 µg/m^3 to 3,800 µg/m^3; the trip blank also contained a detectable concentration (160 µg/m^3) of TPH-DRO. The EPA's RSLs do not provide a screening criterion for TPH-DRO (Table 3).

3.4 Sump Water Sampling Results

Sump water samples were collected from the basement sumps at each of the residences at 1644 and 1646 Yakona Road and submitted for analysis of VOCs, including fuel oxygenates and naphthalene, PAHs, TPH-GRO, TPH-DRO, and methane (Figure 3 and Table 4).

Sump water sampling results were compared to the MCLs, the EPA's tap water RSLs, and the MDE's groundwater GNCSs for Type I and II Aquifers (Table 4).

No VOCs, PAHs, TPH-GRO, or methane were detected above the method quantitation limits in the sump water samples. TPH-DRO was detected in one of the sump water samples (1646 Sump) at a concentration equal to the method quantitation limit (0.04 mg/l) and below the MDE groundwater GNCS (0.047 mg/l; Table 4).

3.5 Indoor Air Sampling Results

Indoor air samples were collected from the basement and from the first floor of the residences at 1644 and 1646 Yakona Road (Figure 3) and were submitted for analysis of VOCs by EPA Method TO-15, TPH-DRO, and bioaerosols (Tables 5 through 7).

3.5.1 VOC Sampling Results

The EPA's residential indoor air RSLs were used as the comparative criteria to evaluate the indoor and ambient air data. These risk-based numerical values reflect toxicity and chemical-specific exposure to COC-containing air for a residential use scenario.

Several petroleum-related VOCs were detected in the indoor and ambient air samples; however only two VOCs (benzene and naphthalene) were detected at concentrations above the RSLs (Table 5). Chloroform, a non-site

related chlorinated VOC, was detected in one indoor air sample (1646-A-040313) at a concentration of 1.5 µg/m^3, which is above the RSL of 0.53 µg/m^3 (Table 5).

Benzene was detected in one indoor air sample (1644-B-040313) and its duplicate sample (1000-B-040313) at concentrations of 1.7 µg/m^3 and 2.1 µg/m^3, respectively. These concentrations are above the RSL for benzene (1.6 µg/m^3). Naphthalene was detected in the duplicate indoor air sample (1000-B-040313) of 1644-B-040313 at a concentration (2.4 µg/m^3) above the RSL (0.36 µg/m^3; Table 5).

TPH-DRO was detected in each of the indoor air samples with the exception of the basement sample from 1646 Yakona Road (1646-B-040313). Concentrations of TPH-DRO ranged from 170 µg/m^3 to 280 µg/m^3; the trip blank also contained a detectable concentration of TPH-DRO (160 µg/m^3). The RSLs do not provide a screening criterion for TPH-DRO (Table 3).

The ambient air sample collected from the backyard of the Yakona Road residence contained similar COCs and concentrations as were detected in the indoor air samples (Table 5 and Figure 3). No VOCs were detected in the ambient air sample at concentrations above the RSLs (Table 5).

3.5.2 Bioaerosol Results

Indoor and ambient air samples were collected for fungal and bacterial analyses (Tables 6 and 7). There are no screening criteria for any species of mold or bacteria. Indoor air bioaerosol sample results were compared to ambient air sample (i.e., background) results to determine if there is a source of mold or bacteria within the residences, which may be evidence of conditions within the homes that are leading to an amplification of these bioaerosols and potentially causing odors within the homes. A count of viable colony-forming units (CFU) for mold and bacteria was conducted and combined with the total air volume collected, which gives a quantitative value for species concentrations in air expressed as CFU per cubic meter (CFU/m^3) was calculated. Using industry and academic guidance literature, each species identified was researched for potential allergenic activity or suspected health effects, prevalence in the environment, and growth characteristics.

Generally, the fungal and bacterial species identified in the indoor air samples were similar to those identified in the ambient air samples. The mold species that were identified are (Table 6):

- Alternaria species: is a well-recognized plant disease causing agent, which is cosmopolitan and ubiquitous in nature. The genera is currently comprised of about 40 to 50 species and are commonly isolated from plants, soil, food, and indoor air (Mold & Bacteria Consulting Laboratories 2013a).
- Aspergillus niger: is commonly found as a saprophyte growing on dead leaves, stored grain, compost piles, and other decaying vegetation. The spores are widespread, and are often associated with organic materials and soil (EPA 1997).
- Aspergillus species: are the genera to which Aspergillus niger, Aspergillus fumagata, Aspergillus ochraceus, Aspergillus sydowii, and Aspergillus versicolor belong. Although each species is slightly different, the genera are ubiquitous and found in soil and on plants. The species is a common fungus that can be found in indoor and outdoor environments. According to the Centers for Disease Control and Prevention (CDC), most people breathe in *Aspergillus* spores every day without being affected (http://www.cdc.gov/fungal).
- Black yeast: is a reportedly commonly found fungi in moist indoor environments.
- Chaetomium species: is a dematiaceous filamentous fungus isolated from soil, air, and from decomposing plant debris, especially woody or straw (Toxic Mold, Black Mold, Household Mold Problems, & Toxic Black Mold Damage Information Center 2013a).
- Cladosporium species: have a worldwide distribution and are amongst the most common of air-borne mold. It includes about 40 species naturally found in soil, on decaying plant material and as plant pathogens. Isolates of Cladosporium are frequently isolated as contaminants (Mold & Bacteria Consulting Laboratories 2013a).
- Dactylaria: is a member of the dematiaceous (brown-pigmented), fungi are a large and heterogenous group of molds that are found in soil and decaying plants/leaves.

- Epicoccum species: is a dematiaceous mitosporic mold widely distributed and commonly isolated from air, soil and foodstuff. It is found also in some animals and textiles (Doctor Fungus 2013a).
- Humicola species: is a cosmopolitan fungus isolated from soil and plant material. Humicola is strongly cellulolytic and is very common in soils high in organic matter (Caltex Mold Services 2013).
- Mucor species: is a filamentous fungus found in soil, plants, decaying fruits and vegetables, as well as being ubiquitous in nature and a common laboratory contaminant (Doctor Fungus 2013b).
- Non-sporulating colonies: Fungi that have not produced spores under the given environmental conditions (e.g., lack of appropriate light, moisture, temperature, or specific nutrient conditions) are grouped under the name non-sporulating fungi (Kilambi, Srivandana 2010).
- Paecilomyces species: is a cosmopolitan filamentous fungus, which is isolated from soil and decaying plant material and often associated in decay of food products and cosmetics (Toxic Mold, Black Mold, Household Mold Problems, & Toxic Black Mold Damage Information Center 2013b).
- Penicillium species: is a ubiquitous, cosmopolitan fungi common on many organic substrates.
- Rhodotorula species: are members of the genus Rhodotorula, and the family Cryptococcaceae. The spores are common airborne yeasts that can be isolated from skin, urine and feces fungi and showing remarkable ubiquity.
- Trichoderma species: is widely distributed in the soil, plant material, decaying vegetation, and wood (Doctor Fungus 2013c).
- Yeast: are characterized by a wide dispersion of natural habitats and are common on plant leaves and flowers, soil, and salt water. Yeasts are also found on the skin surfaces and in the intestinal tracts of warm-blooded animals, where they may live symbiotically or as parasites (Toxic Mold, Black Mold, Household Mold Problems, & Toxic Black Mold Damage Information Center 2013c).

The average total fungal count of the indoor air samples was approximately 266 CFU/m^3. The total fungal count of the outdoor air sample was 114 CFU/m^3 (Table 6). Generally, indoor airborne concentrations are compared to outdoor air concentrations to evaluate the potential for amplified mold growth within a building envelope (i.e., mold growth supported by indoor air conditions). Although it is ideal to have concentrations for all species below the background sample, this is not the only criteria upon which data is compared. In this case, the species identified in the indoor samples are similar to those identified in the background sample, and the overall spore counts were relatively low when compared to historical outdoor samples collected in this region during this time of year (WSP 2011). When all of these factors are considered, these sample results do not indicate a mold amplification condition in the indoor areas. Therefore, the slightly elevated airborne mold spore counts in the indoor air samples are not likely indicative of an amplification condition. There is no indication that airborne mold concentrations are affecting indoor air quality in the homes or causing unwanted odors.

The bacteria species that were identified are (Table 7):

- Bacillus species: aerobic saprophyte and probiotic bacteria. They are substantially different from other probiotic bacteria, though, being primarily aerobic saprophytes found in the soil (Applied and Environmental Microbiology 2000).
- Coag-negative Staphylococcus species: the staphylococci constitute a formidable pathogenic genus that is responsible for many opportunistic infections in humans and animals. In hospitals, for example, coagulase-negative staphylococci are responsible for 26% of all nosocomial bloodstream infections (American Society for Microbiology 1997).
- Micrococcus species: are usually regarded as contaminants from skin and mucous membranes.
- Streptomyces species: species belonging to the branch of gram-positive bacteria known as actinomycetes. They are used to produce the majority of antibiotics used in human and veterinary medicine and agriculture, as well as anti-parasitic agents, herbicides, pharmacologically active metabolites (e.g. immuno-suppressants) and several enzymes important in the food and other industries (Micron 2013).

The average total bacterial count of the indoor air samples was approximately 3,150 CFU/m^3. The total bacterial count of the outdoor air sample was 35 CFU/m^3 (Table 7). The difference in concentrations of bacteria in the indoor environment when compared to the outdoor environment may indicate an unsanitary condition within the residences; however, there is no indication that airborne bacteria concentrations are causing unwanted odors. Therefore, these concentrations were not further evaluated in this report.

4 Risk Assessment

The purpose of the risk assessment is to consider potential human health risks as they relate to potential historical releases of petroleum-containing products from the Hess station. The risk assessment addresses the potentially affected environmental media sampled in the site investigation and focuses on the data that represent residual petroleum-related COCs from the historical releases. Only COCs that are related to potential historical releases from the station (e.g., gasoline) are included in the risk evaluation.

The risk assessment identifies the complete conceptual site model (CSM), discusses the selection of media-specific compounds of potential concern (COPCs), identifies current and future potential receptors, characterizes potentially complete exposure pathways, presents the sources of toxicological criteria for the identified COPCs, and characterizes potential risks to receptors identified in the CSM for each residence included in the investigation. For this risk assessment, COPCs are those petroleum-related constituents that may represent a risk to residents by way of indoor air, groundwater, or sump water. Uncertainties in the risk assessment are discussed in Section 4.5.3.

This risk assessment was conducted in the manner described in the approved Work Plan and in accordance with the following state and EPA risk assessment guidance:

- MDE GNCSs for Soil and Groundwater, Interim Final Guidance (MDE 2008)
- Voluntary Cleanup Program Guidance Document, Environmental Restoration & Redevelopment Program (MDE 2006)
- RSLs (EPA 2012)
- Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (EPA 2002)
- Guidance for Data Usability in Risk Assessment (EPA 1992)
- Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual Part A (EPA 1989)
- Risk Assessment Guidance for Superfund Volume 1: Human Health Evaluation Manual Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments (EPA 2001)
- Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual Part F, Supplemental Guidance for Inhalation Risk Assessment (EPA 2009a)

4.1 Conceptual Site Model

Based on previous investigations, historical releases from the Hess station located at 1613 East Joppa Road impacted groundwater in the vicinity and downgradient of the gas station (WSP 2011).

Residents of the target properties complained of petroleum-related odors within the duplex located at 1644 and 1646 Yakona Road. These residences differ from previous risk evaluations on Yakona Road in that there is no reported flooding of basements. Therefore, the only potential exposures to petroleum constituents related to the Hess station include groundwater collected in basement sumps and the vapor intrusion pathways.

Water enters the basements through integrated sumps in the basements that were likely designed to capture shallow groundwater beneath the basement floor. These sumps are connected to pumps that convey water through buried pipes, which discharge to the street in front of the townhouses. The source of the water from the sumps is likely a mixture of shallow groundwater and storm water runoff.

4.1.1 Potential Receptors

The potential current and future exposure scenarios for the foreseeable land uses based on the potential frequency and duration of exposure include residents, visitors, trespassers, maintenance workers, utility workers, and construction workers. Residents were selected as the current and future onsite receptors; the potential risks to the

other receptors are considered less than the potential range of risk for the resident receptors, and, thus, it is not necessary to evaluate these exposure scenarios in the risk assessment. In addition, the current and future scenarios are considered to be the same because the Yakona Road site investigation area is zoned residential, and there are no future plans for land redevelopment for other zoned uses.

Based on the above assumptions, the potential onsite receptors include adult and child residents exposed to COPCs in potentially affected environmental media. Table 9 presents a summary of the potential receptors; individual exposure pathway tables are presented in Appendix F. Potentially complete exposure routes include exposure to COPCs in groundwater via inhalation of vapors intruding into the residences and direct contact (dermal and incidental ingestion) with sump water or water entering the basement.

4.2 Hazard Identification

The purpose of the hazard identification process is to summarize the environmental media data, and to screen the data to determine the COPCs that are evaluated further in the risk assessment process.

4.2.1 Data Management

The soil, groundwater, indoor air, soil vapor, and sump water data used in the risk assessment (see selection of COPCs below) include the results of the sampling activities conducted as part of this SIP. The data was managed in an electronic database, and was compiled by COC, sample location, and sample depth, if applicable. All descriptive and statistical analysis of the data was performed using the most recent version of ProUCL (Version 4.1) that was developed for the EPA (EPA 2010).

4.2.2 Selection of COPCs

In accordance with the SIP, the COPCs were selected for each residence by comparing maximum measured COC concentrations in the sampled environmental media with the lower of the EPA's RSLs or the MDE's GNCSs. The RSLs were developed by the Oak Ridge National laboratory under an interagency agreement to help risk assessors determine whether levels of contamination found at a site may warrant further investigation or remedial action using the latest toxicity values, EPA default exposure assumptions and physical and chemical properties. A factor of 0.1 was applied to the RSLs based on non-carcinogenic toxicity per MDE guidance (MDE 2006). The MDE soil and groundwater GNCS were developed by the MDE to be protective of human health such that the levels of substances in either soil or groundwater would not pose harm to human receptors and no further action would be required at a property. The screening process for environmental media without established screening guidelines is discussed below.

As discussed in Section 4, COPCs detected, but not associated with historical releases from the Hess station, are not included in the risk evaluation. Additionally, surface water data were not evaluated further in the risk evaluation.

As discussed above, bioaerosols (i.e., fungal and bacterial colonies in air) samples were collected to evaluate the potential for mold and bacteria to be causing odors within the homes. However, molds and bacteria are not related to the release of petroleum-related constituents and, thus, were not considered in the assessment of risk posed by petroleum-related COPCs identified in groundwater. Additionally, there are no screening criteria for any species of mold or bacteria; therefore, indoor air sample results were only to evaluate potential odors related to the presence of molds and bacterial species (discussed in Section 3.5.2).

Maximum soil concentrations were below the EPA RSLs for residential soil (Table 1); therefore, soils are not considered further in the risk assessment.

Maximum groundwater concentrations were compared to the MDE standards for Type I and II aquifers (Table 2). Only the concentration of TPH-DRO in the groundwater sample collected at 1646 Yakona Road (SB-03) was above the applicable MDE standard. As affected groundwater is not used as a potable source, groundwater was not

considered further in this risk assessment. The presence of affected groundwater in the sump water in the residents is addressed below.

Maximum indoor air and soil vapor concentrations were compared to the EPA's RSLs for residential air (Table 3); an attenuation factor of 10 was used for comparison to soil vapor concentrations (Table 5). The attenuation factor of 10 is an appropriate assumption of attenuation as a result of migration of vapors through the subsurface and structure of the residence (EPA 2008). There is not a RSL or GNCS for TPH-DRO in air because the analysis represents a group of compounds rather than individual compounds. As discussed earlier, TPH-DRO is a semi-quantitative analysis that includes all petroleum-related constituents with carbon chains in the range of C10-C28 and the individual organic compounds related to potential gasoline releases in the DRO carbon chain range are included in the VOC air sample analyte list, which are evaluated in the risk assessment. Therefore, TPH-DRO was not further evaluated in the risk assessment.

The COPCs identified for indoor air for each residence are presented in Table 10. In addition to the COPCs identified on Table 10, the following were also detected in soil vapor samples at concentrations above RSLs: 1,3,5-trimethylbenzene, 2-butanone, and o-xylene. However, these soil vapor COPCs were not detected in the indoor air samples at concentrations above the RSLs; therefore, they were not evaluated further in the risk assessment. As discussed in Section 3, ambient air samples were collected to provide insight to potential sources of COPCs from ambient conditions. The ambient air sample results contained detections of similar COCs as the indoor air results and may be contributing to indoor air concentrations.

Maximum sump water concentrations were compared to the dermal screening levels presented in the 2011 Risk Assessment Report (Table 4). Only TPH-DRO was detected at a concentration above dermal screening levels. As discussed earlier, TPH-DRO is a semi-quantitative analysis that includes all petroleum-related constituents with carbon chains in the range of C10-C28 and the individual organic compounds related to potential gasoline releases in the DRO carbon chain range are included in the VOC air sample analyte list, which are evaluated in the risk assessment. Therefore, sump water, including TPH-DRO, was not considered further in the risk assessment.

The individual residence COPC screening tables in the Risk Assessment Guidance Superfund (RAGS) Part D (EPA 2001) format are presented in Appendix F. COPCs that were not selected based on the toxicity-based screening concentrations were not evaluated further in the risk assessment.

4.3 Exposure Assessment

The purpose of the exposure assessment is to predict the magnitude and frequency of potential human exposure to each identified COPC as a result of the hazard identification. The CSM described the potential receptors and affected environmental media of concern.

4.3.1 Exposure Point Concentration

Medium-specific exposure point concentrations (EPCs) are a reasonable maximum exposure (RME) statistic. The RME was the maximum detected concentration as the sample size (ranging from one to three samples per location) was too small to perform meaningful statistics. All COPCs detected at least once within a medium were included as an EPC. The EPCs for each residence are presented in Appendix F.

4.3.2 Exposure Assumptions and Equations

The exposure assumptions are presented in Tables 11 and 12. The exposure equations used in this risk assessment are consistent with relevant guidance and the SIP (EPA 1991 and EPA 2009b).

4.4 Toxicity Assessment

The purpose of the toxicity assessment is to determine the relationship between the dose of a COPC taken into the body, and the probability that an adverse effect will result from that dose. Toxicity values were selected for both carcinogenic and non-carcinogenic effects as outlined in the SIP and consistent with relevant guidance (Tables 13 and 14).

4.5 Risk Characterization

The purpose of the risk characterization is to provide a conservative estimate of the potential risk resulting from exposure to identified COPCs. Included in this section is a quantitative estimate of potential carcinogenic and non-carcinogenic risks for potentially complete exposure pathways identified for each receptor.

4.5.1 Risk Estimate

Carcinogenic risks for each residence were estimated by summing the excess lifetime cancer risk over all exposure pathways and comparing the total risk to the MDE target risk of 1×10^{-5}. For non-carcinogens, the individual hazard quotients were summed for an overall hazard index (HI) for each residence. If the HI is less than 1, then no adverse health effects are likely associated with exposures from potential historical petroleum releases from the Hess station.

4.5.2 Risk Results

Risks were summed across pathways for each receptor under current and future site use conditions. As discussed in Section 4.1, the current site use is residential; as no redevelopment is planned, the future site use is also considered to be residential. The risk results are summarized by receptor in Table 15. The individual residence risk results and summaries are presented in Appendix F.

At the 1644 Yakona Road property, the total excess lifetime cancer risk calculated for the resident adult complete exposure pathways (8.6×10^{-6}) and for the residential child (2.1×10^{-6}) do not exceed the MDE acceptable level of risk (1.0×10^{-5}). The HI calculated for the resident adult and the residential child (0.84) is less than the MDE acceptable HI of 1.

At the 1646 Yakona Road property, the total excess lifetime cancer risk calculated for the resident adult complete exposure pathways (4.0×10^{-6}) and for the residential child (9.9×10^{-7}) do not exceed the MDE acceptable level of risk (1.0×10^{-5}). The HI calculated for the resident adult and the residential child (0.31) is less than the MDE acceptable HI of 1.

4.5.3 Uncertainty Analysis

The procedures and inputs used to assess potential human health risks in this and similar Human Health Risk Assessments are subject to a wide variety of uncertainties. In general, there are five main sources of uncertainty and variability in risk assessments of well-characterized sites:

- environmental chemistry sampling and analysis
- environmental parameter measurements
- fate and transport modeling
- toxicological data and dose-response extrapolations
- combinations of the above

These sources of uncertainty as they pertain to this risk assessment are discussed below.

Variability in environmental chemistry sampling and analysis error can stem from the sampling and analysis procedures, and from the heterogeneity of the matrix being sampled. Changes in the types of soil, total organic carbon content, and grain size can affect the percent recovery of chemicals from soil samples, which in turn changes the reported concentration of the chemicals detected in the sample. Natural sample variation, typically following a log-normal distribution in environmental applications, is also expected.

Indoor air sample results reflect not only those compounds possibly entering the residence via vapor intrusion, but also the presence of VOCs off-gassing from products stored in the residence. An indoor air survey was conducted concurrent with the indoor air sampling activities. The surveys included chemical inventories that showed typical household cleaners, as well as paints, thinners, spray degreasers, and insecticides. Although residents were asked to remove all chemicals from the sampling areas, WSP observed many of the chemicals during the sampling event. The surveys are included in Appendix D.

Elevated detection limits in the sample results can present a potential uncertainty in the selection of COPCs. Detection limits that exceeded the comparison criteria were elevated due to concentrations of other compounds in that sample. If the data with higher detection levels were used in the risk assessment process, this may result in an overestimate of the potential risks to the receptors.

Exposure estimation is another potential source of variability and uncertainty. Exposure estimates in many cases are highly dependent on the prediction of intake values, exposure frequency, exposure duration, and other exposure assumptions used in the assessment. As a result, actual exposure to receptors could be considerably less than the estimates contained in this risk assessment.

Additionally, consistent with EPA guidance, the exposure parameters used in this risk assessment were selected to ensure that potential exposure was not underestimated. However, actual exposure could be considerably less than the estimates contained in the risk assessment.

The results of animal studies are used to predict the potential health effects of chemicals in humans. Extrapolation of toxicological data from animal tests is a large source of uncertainty in any risk assessment. There may be important but unidentified differences in uptake, metabolism, and distribution in the body between the test species and man. Typically, the animals are administered high doses of a chemical in a standard diet while humans are generally exposed too much lower doses in a highly variable diet. Humans have a 70-year lifetime and may be exposed intermittently for an exposure period ranging from months to a full lifetime. Because of these differences, it is not surprising that extrapolation error is a large source of uncertainty in risk assessment.

Many carcinogenic compounds have not been shown to be genotoxic. The EPA currently assumes that exposure to small amounts of any carcinogen poses some probability of causing cancer. Therefore, the EPA's default guidance for carcinogens assumes that no threshold dose (dose below which no effect would occur) exists for carcinogens. However, nongenotoxic chemicals may indeed have a threshold due to varying mechanisms of toxicity. There is currently considerable scientific and regulatory policy debate on this issue and if an actual threshold does exist for certain compounds, the use of a linear nonthreshold approach in this assessment will overestimate risk.

Uncertainties from different sources are compounded in the risk assessment. For example, if a chronic daily intake for a contaminant measured in the environment is compared to a reference dose to determine potential health hazard, the uncertainties in the concentration measurement, exposure assumptions, and the toxicology are all expressed in the result. In order to ensure that human health is adequately protected, the public health assessment incorporates conservative (unlikely to underestimate risk) approaches and uncertainty factors. In conclusion, based on uncertainties discussed above, the default and conservative assumptions used in this risk assessment would likely overestimate the actual risks to the receptors as a result of releases from the Hess station.

5 Summary

To evaluate hypothetical exposures associated with potential historical releases from the Hess station, the approved SIP was implemented and the sampling results were evaluated in the risk assessment. Applicable state and federal guidance were used to identify potentially complete exposure pathways for residential receptors and to characterize potential risks to these receptors. Based on default and conservative exposure assumptions and reasonable foreseeable exposure concentrations, estimated risks were found to be acceptable according to MDE guidance at 1644 and 1646 Yakona Road.

6 Acronyms

1,2,4-TMB	1,2,4-trimethylbenzene
bgs	below ground surface
CDC	Center for Disease Control and Prevention
CFU	colony-forming units
CFU/m^3	colony-forming units per cubic meter
CIH	certified industrial hygienist
COCs	compounds of concern
COPCs	compounds of potential concern
CSM	conceptual site model
DRO	diesel range organics
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
FID	Flam ionized detector
GNCS	MDE generic numeric cleanup standard
GRO	gasoline range organics
HI	hazard index
ID	inside diameter
lpm	liters per minute
MCLs	EPA maximum contaminant limits
MDE	Maryland Department of the Environment
MEA	malt extract agar
MEAT	Maryland Environmental Assessment Technology
mg/l	milligrams per liter
PAHs	polycyclic aromatic hydrocarbons
PCE	tetrachloroethylene
PSI	pounds per square inch
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
RAGS	Risk Assessment Guidance Superfund
RME	reasonable maximum exposure
RSL	EPA regional screening level
SIP	Site Investigation Work Plan
SOPs	standard operating procedures
SW	solid waste
TIC	temporarily identified compound
TPH	total petroleum hydrocarbons
TIC	tryptic soy agar
µg/kg	micrograms per kilogram
µg/m3	micrograms per cubic meter
VOCs	volatile organic compounds

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Figures

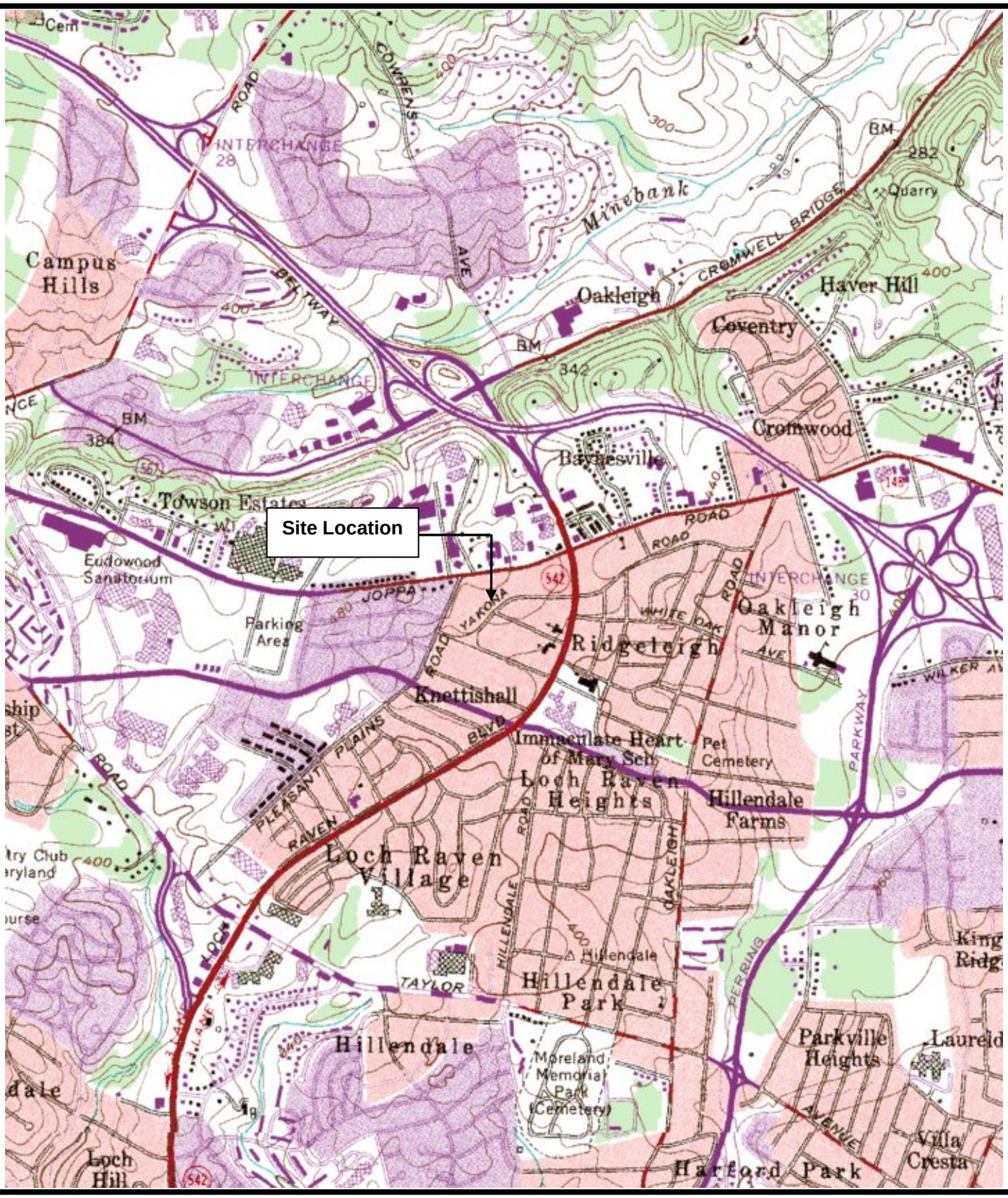
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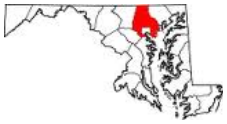
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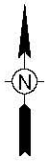
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REFERENCE:
7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLE
TOWSON, MARYLAND
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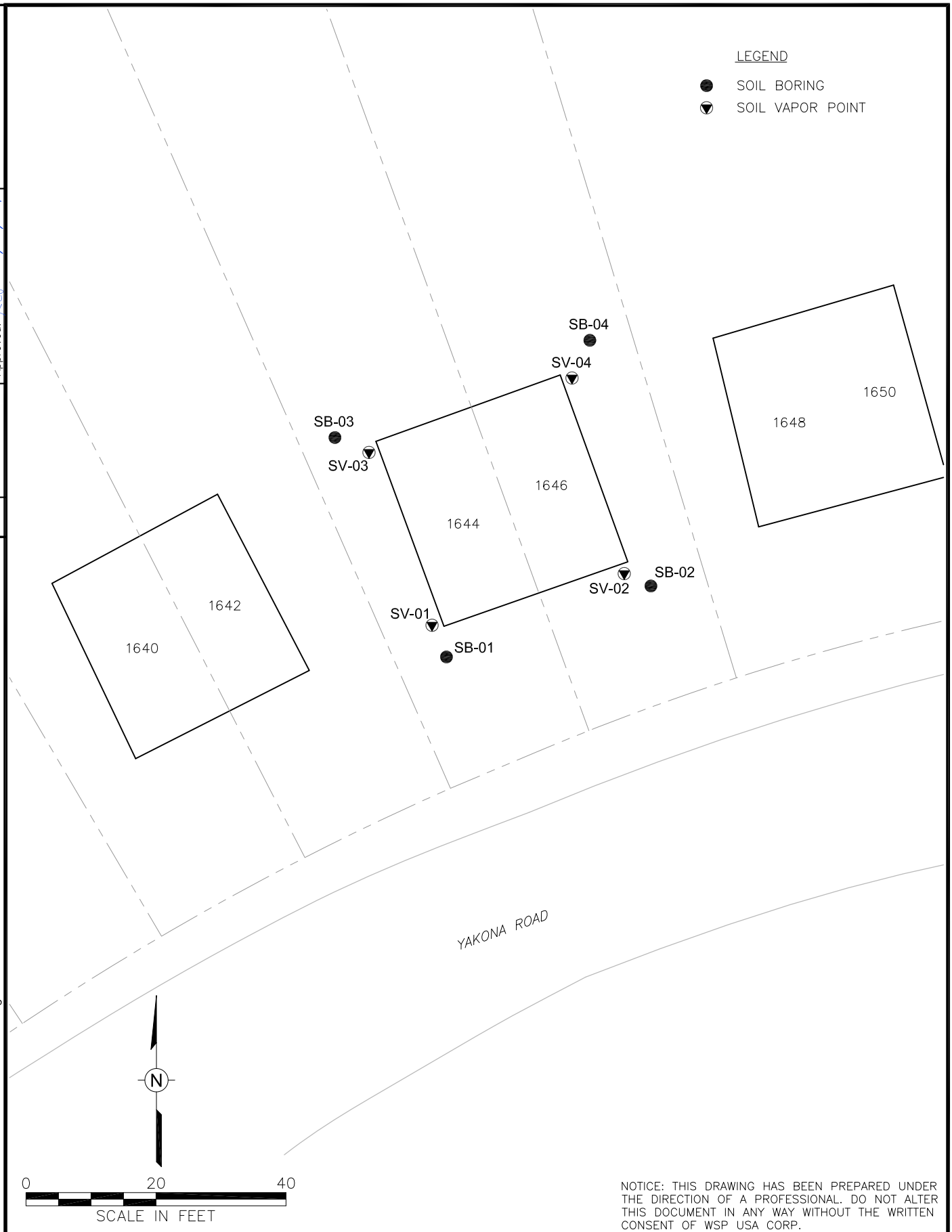
FIGURE 1

SITE LOCATION MAP

1612 THROUGH 1642 YAKONA ROAD
TOWSON, MARYLAND

PREPARED FOR

BAKER BOTTS LLC
WASHINGTON, DC



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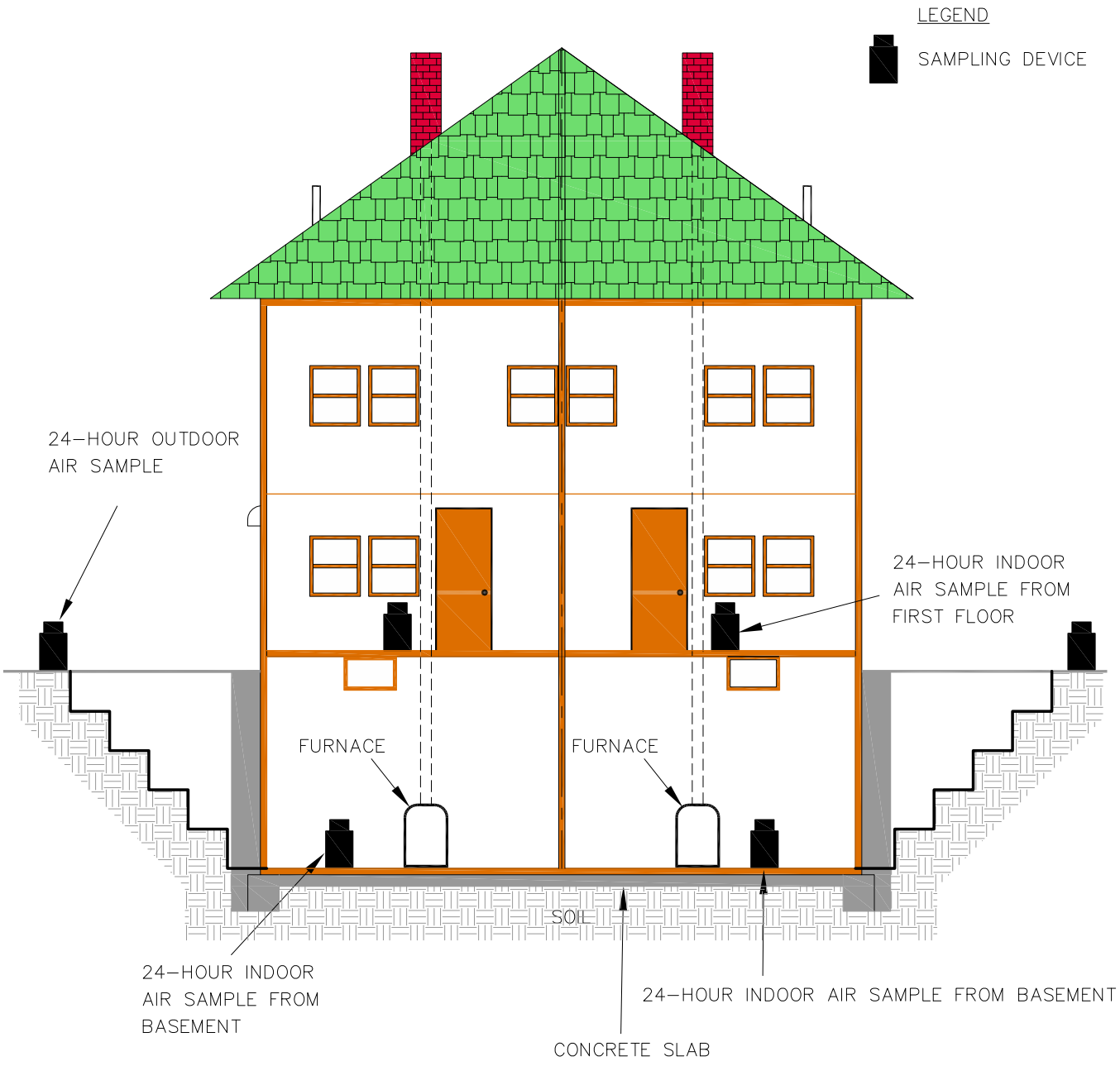
Figure 2

SOIL BORING LOCATIONS
APRIL 2013

1644/1646 YAKONA ROAD
TOWSON, MARYLAND

PREPARED FOR
HESS CORPORATION

A	Drawn By: EGC	Checked: KJ 5/29/2013	Approved: KJ 5/29/2013	DWG Name: 00004184-004



NOTE: THIS DIAGRAM DEPICTS THE GENERAL LOCATIONS OF AIR SAMPLES COLLECTED FROM WITHIN, OUTSIDE, AND BENEATH THE BUILDING. THE SAMPLE IDS ARE PROVIDED AS A REFERENCE TO THE ANALYTICAL LABORATORY REPORT.

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Figure 3

SCHEMATIC RESIDENCE SHOWING AIR SAMPLE LOCATIONS

1644/1646 YAKONA ROAD
TOWSON, MARYLAND

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Tables

Table 1

Soil Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Sample ID:				SB-01	(d)	SB-040413	(d)	SB-02	SB-03	SB-04
Sample Depth:				2.0-2.5		2.0-2.5		2.0-2.5	2.0-2.5	2.0-2.5
Date Sampled:				4/4/2013		4/4/2013		4/4/2013	4/4/2013	4/4/2013
Parameters	**RSL Residential Soil - Direct Contact (b)**	**RSL Protection of Groundwater (b)**	**GNCS Soil - Direct Contact (c)**	**GCNS Protection of Groundwater (c)**						
TCL VOCs plus Oxygenates + TICs (ug/kg)										
1,1,1-Trichloroethane	8,700,000	2,600	200,000,000	32,000	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,1,2,2-Tetrachloroethane	560	0.03	14,000	0.68	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,1,2-Trichloroethane	1,100	0.08	50,000	0.78	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,1,2-Trichlorotrifluoroethane	43,000,000	130,000	-	-	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,1-Dichloroethane	3,300	0.7	20,000,000	5,100	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,1-Dichloroethene	240,000	93	5,100,000	2,900	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,2,3-Trichlorobenzene	49,000	15	-	-	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,2,4-Trichlorobenzene	22,000	3	1,000,000	2,400	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,2-Dibromo-3-chloropropane	5.4	0.00014	3,600	0.0037	43 U		42 U	39 U	37 U	40 U
1,2-Dibromoethane	34	0.0018	1,400	0.06	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,2-Dichlorobenzene	1,900,000	270	9,200,000	4,600	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,2-Dichloroethane	430	0.04	31,000	1	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,2-Dichloropropane	940	0.13	42,000	3.4	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,3-Dichlorobenzene	-	-	310,000	290	5.4 U		5.2 U	4.9 U	4.6 U	5 U
1,4-Dichlorobenzene	2,400	0.4	120,000	4.2	5.4 U		5.2 U	4.9 U	4.6 U	5 U
2-Butanone (MEK)	28,000,000	1,000	61,000,000	29,000	21 U		21 U	20 U	18 U	20 U
2-Hexanone (MBK)	210,000	7.9	-	-	21 U		21 U	20 U	18 U	20 U
4-Methyl-2-Pentanone (MIBK)	5,300,000	230	-	59,000	21 U		21 U	20 U	18 U	20 U
Acetone	61,000,000	2,400	92,000,000	22,000	12 J		35	20 J	18 U	11 J
Benzene	1,100	0.2	52,000	1.9	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Bromochloromethane	160,000	21	-	-	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Bromodichloromethane	270	0.032	46,000	1.1	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Bromoform	62,000	2.1	360,000	67	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Bromomethane	7,300	1.8	140,000	41	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Carbon Disulfide	820,000	210	10,000,000	19,000	11 U		10 U	9.8 U	9.2 U	10 U
Carbon tetrachloride	610	0.15	22,000	2.1	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Chlorobenzene	290,000	49	2,000,000	680	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Chloroethane	15,000,000	5,900	990,000	19	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Chloroform	290	0.053	1,000,000	0.91	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Chloromethane	120,000	49	-	930	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Cyclohexane	7,000,000	13,000	-	-	21 U		21 U	20 U	18 U	20 U
Dibromochloromethane	680	0.039	34,000	0.83	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Dichlorodifluoromethane	94,000	300	-	-	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Diisopropyl ether	2,400,000	370	-	-	11.0 U		10.0 U	9.8 U	9.2 U	10 U
Ethylbenzene	5,400	1.5	10,000,000	15,000	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Hexanal (TIC)	-	-	-	-	ND		11 J	ND	ND	ND
Isopropylbenzene	2,100,000	640	10,000,000	64,000	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Methyl Acetate	78,000,000	3,200	-	-	21 U		21 U	20 U	18 U	20 U
Methyl-t-Butyl Ether	43,000	2.8	720,000	12	5.4 U		5.2 U	4.9 U	4.6 U	5 U
Methylcyclohexane	-	-	-	-	21 U		21 U	20 U	18 U	20 U

Table 1

Soil Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

				Sample ID:	SB-01	(d)	SB-040413	(d)	SB-02	SB-03	SB-04
				Sample Depth:	2.0-2.5		2.0-2.5		2.0-2.5	2.0-2.5	2.0-2.5
				Date Sampled:	4/4/2013		4/4/2013		4/4/2013	4/4/2013	4/4/2013
Parameters	**RSL Residential Soil - Direct Contact (b)**	**RSL Protection of Groundwater (b)**	**GNCS Soil - Direct Contact (c)**	**GCNS Protection of Groundwater (c)**							
TCL VOCs plus Oxygenates + TICs (ug/kg)											
Methylene chloride	56,000	2.5	380,000	19	5.4 U		5.2 U		4.9 U	4.6 U	5 U
Naphthalene	3,600	0.47	2,000,000	150	5.4 U		5.2 U		4.9 U	4.6 U	5 U
Styrene	6,300,000	1,200	20,000,000	57,000	5.4 U		5.2 U		4.9 U	4.6 U	5 U
Tetrachloroethene	22,000	4.4	5,300	4.7	5.4 U		5.2 U		4.9 U	4.6 U	5 U
Toluene	5,000,000	590	8,200,000	27,000	5.4 U		5.2 U		4.9 U	4.6 U	5 U
Trichloroethene	910	0.16	7,200	0.26	5.4 U		5.2 U		4.9 U	4.6 U	5 U
Trichlorofluoromethane	790,000	690	-	-	5.4 U		5.2 U		4.9 U	4.6 U	5 U
Vinyl Chloride	60	0.0053	4,000	0.12	5.4 U		5.2 U		4.9 U	4.6 U	5 U
cis-1,2-Dichloroethene	160,000	8.2	1,000,000	-	5.4 U		5.2 U		4.9 U	4.6 U	5 U
cis-1,3-Dichloropropene	-	-	29,000	3.1	5.4 U		5.2 U		4.9 U	4.6 U	5 U
m&p-Xylene	590,000	180	-	-	11.0 U		10.0 U		9.8 U	9.2 U	10 U
o-Xylene	690,000	190	-	-	5.4 U		5.2 U		4.9 U	4.6 U	5 U
tert-Amyl alcohol	-	-	-	-	43 U		42 U		39 U	37 U	40 U
tert-Amyl ethyl ether	-	-	-	-	43 U		42 U		39 U	37 U	40 U
tert-Amyl methyl ether	-	-	-	-	43 U		42 U		39 U	37 U	40 U
tert-Butyl Alcohol	-	-	-	-	43 U		42 U		39 U	37 U	40 U
tert-Butyl ethyl ether	-	-	-	-	11 U		10 U		9.8 U	9.2 U	10 U
trans-1,2-Dichloroethene	150,000	25	2,000,000	720	5.4 U		5.2 U		4.9 U	4.6 U	5 U
trans-1,3-Dichloropropene	-	-	29,000	3.1	5.4 U		5.2 U		4.9 U	4.6 U	5 U
Polyaromatic Hydrocarbons (PAHs) (ug/kg)											
2-Methylnaphthalene	230,000	140	410,000	4,400	190 U		190 U		200 U	200 U	200 U
Acenaphthene	3,400,000	4,100	6,100,000	100,000	190 U		190 U		200 U	200 U	200 U
Acenaphthylene	-	-	6,100,000	100,000	190 U		190 U		200 U	200 U	200 U
Anthracene	17,000,000	42,000	31,000,000	470,000	190 U		190 U		200 U	200 U	200 U
Benzo(a)anthracene	150	10	3,900	480	190 U		190 U		200 U	200 U	200 U
Benzo(a)pyrene	15	3.5	390	120	27 U		26 U		28 U	28 U	28 U
Benzo(b)fluoranthene	150	35	3,900	1,500	190 U		190 U		200 U	200 U	200 U
Benzo(g,h,i)perylene	-	-	3,100,000	680,000	190 U		190 U		200 U	200 U	200 U
Benzo(k)fluoranthene	1,500	350	39,000	15,000	190 U		190 U		200 U	200 U	200 U
Chrysene	15,000	1,100	390,000	48,000	190 U		190 U		200 U	200 U	200 U
Dibenz(a,h)Anthracene	15	11	390	460	27 U		26 U		28 U	28 U	28 U
Fluoranthene	2,300,000	70,000	4,100,000	6,300,000	190 U		190 U		200 U	200 U	200 U
Fluorene	2,300,000	4,000	4,100,000	140,000	190 U		190 U		200 U	200 U	200 U
Indeno(1,2,3-c,d)Pyrene	150	200	3,900	4,200	190 U		190 U		200 U	200 U	200 U
Naphthalene	3,600	0.47	2,000,000	150	190 U		190 U		200 U	200 U	200 U
Phenanthrene	-	-	31,000,000	470,000	190 U		190 U		200 U	200 U	200 U
Pyrene	1,700,000	9,500	3,100,000	680,000	190 U		190 U		200 U	200 U	200 U
TPH-DRO (mg/kg)	-	-	2,300	-	4.6 U		4.5 U		4.8 U	4.7 U	4.9 U
TPH-GRO (ug/kg)	-	-	2,300,000	-	110 U		110 U		120 U	120 U	120 U

Bold and blue value indicates concentration above the minimum criteria

a/ TCL = target compound list; VOC = volatile organic compounds; TIC = temporarily identified compounds; mg/kg = milligrams per kilogram; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; J = estimated concentration; U = not detected.

b/ US Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (November 2012) for residential soil exposure scenario; available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm (accessed May 15, 2013).
c/ MDE's 2008 Generic Numeric Cleanup Standards (GCNS) for Soil and Groundwater; available at:
http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 15, 2013).
d/ Sample and duplicate.

Table 2

Groundwater Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Parameters	EPA MCL (b)	RSL for Tapwater (c)	MDE Residential Groundwater GNCS (d)	Sample ID: / Date Sampled: SB-03 (GW)	SB-04 (GW) (e)	SB-040413 (GW) (e)	Trip Blank
TCL VOCs plus Oxygenates + TICs (ug/l)							
1,1,1-Trichloroethane	200	7,500	200	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	-	0.066	0.05	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	0.24	5	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	-	53,000	-	1 U	1 U	1 U	1 U
1,1-Dichloroethane	-	2.4	90	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	260	7	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	-	5.2	-	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	70	1	70	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	0.2	0.00032	0.2	10 U	10 U	10 U	10 U
1,2-Dibromoethane	0.05	0.007	0.05	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	600	280	600	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	0.15	5	1 U	1 U	1 U	1 U
1,2-Dichloropropane	5	0.38	5	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	-	-	2	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	75	0.42	75	1 U	1 U	1 U	1 U
2-Butanone (MEK)	-	4,900	700	10 U	10 U	10 U	10 U
2-Hexanone (MBK)	-	34	-	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone (MIBK)	-	1,000	630	5 U	5 U	5 U	5 U
Acetone	-	12,000	550	10 U	10 U	10 U	10 U
Benzene	5	0.39	5	1 U	1 U	1 U	1 U
Bromochloromethane	-	83	-	1 U	1 U	1 U	1 U
Bromodichloromethane	80	0.12	80	1 U	1 U	1 U	1 U
Bromoform	80	7.9	80	5 U	5 U	5 U	5 U
Bromomethane	-	7	0.85	1 U	1 U	1 U	1 U
Carbon Disulfide	-	720	100	10 U	10 U	10 U	10 U
Carbon tetrachloride	5	0.39	5	1 U	1 U	1 U	1 U
Chlorobenzene	100	72	100	1 U	1 U	1 U	1 U
Chloroethane	-	21,000	3.6	1 U	1 U	1 U	1 U
Chloroform	80	0.19	80	1 U	1 U	1 U	1 U
Chloromethane	-	190	19	1 U	1 U	1 U	1 U
Cyclohexane	-	13,000	-	10 U	10 U	10 U	10 U
Dibromochloromethane	80	0.15	80	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	-	190	-	1 U	1 U	1 U	1 U
Diisopropyl ether	-	1,500	-	10 U	10 U	10 U	10 U
Ethylbenzene	700	1.3	700	1 U	1 U	1 U	1 U
Isopropylbenzene	-	390	66	1 U	1 U	1 U	1 U
Methyl Acetate	-	16,000	-	10 U	10 U	10 U	10 U
Methyl-t-Butyl Ether	-	12	20	1 U	1 U	1 U	1 U
Methylcyclohexane	-	-	-	10 U	10 U	10 U	10 U
Methylene chloride	5	10	5	1 U	1 U	1 U	1 U
Naphthalene	-	0.14	0.65	1 U	1 U	1 U	1 U
Styrene	100	1,100	100	1 U	1 U	1 U	1 U

Table 2

Groundwater Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

	EPA MCL (b)	RSL for Tapwater (c)	Sample ID: / Date Sampled: MDE Residential Groundwater GNCS (d)	SB-03 (GW)	SB-04 (GW) (e)	SB-040413 (GW) (e)	Trip Blank
Tetrachloroethene	5	10	5	1 U	1 U	1 U	1 U
Toluene	1,000	860	1,000	1 U	1 U	1 U	1 U
Trichloroethene	5	0.44	5	1 U	1 U	1 U	1 U
Trichlorofluoromethane	-	1,100	-	5 U	5 U	5 U	5 U
Vinyl chloride	2	0.015	2	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	28	70	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	-	0.44	1 U	1 U	1 U	1 U
m&p-Xylene	-	190	-	2 U	2 U	2 U	2 U
o-Xylene	-	190	-	1.0 U	1 U	1 U	1 U
tert-Amyl alcohol	-	-	-	20 U	20 U	20 U	20 U
tert-Amyl ethyl ether	-	-	-	10 U	10 U	10 U	10 U
tert-Amyl methyl ether	-	-	-	10 U	10 U	10 U	10 U
tert-Butanol	-	-	-	20 U	20 U	20 U	20 U
tert-Butyl ethyl ether	-	-	-	10 U	10 U	10 U	10 U
trans-1,2-Dichloroethene	100	86	100	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	-	-	0.44	1 U	1 U	1 U	1 U
Polyaromatic Hydrocarbons (PAHs) (ug/l)							
2-Methylnaphthalene	-	27	2.4	2 U	2.2 U	2 U	NS
Acenaphthene	-	400	37	5 U	5.6 U	5 U	NS
Acenaphthylene	-	-	37	5 U	5.6 U	5 U	NS
Anthracene	-	1,300	180	5 U	5.6 U	5 U	NS
Benzo(a)anthracene	-	0.029	0.2	0.5 U	0.6 U	0.5 U	NS
Benzo(a)pyrene	0.2	0.0029	0.2	0.5 U	0.6 U	0.5 U	NS
Benzo(b)fluoranthene	-	0.029	0.2	0.5 U	0.6 U	0.5 U	NS
Benzo(g,h,i)perylene	-	-	18	5 U	5.6 U	5 U	NS
Benzo(k)fluoranthene	-	0.290	0.3	0.5 U	0.6 U	0.5 U	NS
Chrysene	-	2.9	3	2 U	2.2 U	2 U	NS
Dibenz(a,h)Anthracene	-	0.0029	0.2	0.5 U	0.6 U	0.5 U	NS
Fluoranthene	-	630	150	5 U	5.6 U	5 U	NS
Fluorene	-	220	24	5 U	5.6 U	5 U	NS
Indeno(1,2,3-c,d)Pyrene	-	0.029	0.2	0.5 U	0.6 U	0.5 U	NS
Naphthalene	-	0.14	0.65	0.5 U	0.6 U	0.5 U	NS
Phenanthrene	-	-	180	5 U	5.6 U	5 U	NS
Pyrene	-	87	18	5 U	5.6 U	5 U	NS
Methane in Water (mg/l)							
Methane	-	-	-	0.0059 U	0.0067 U	0.0062 U	NS
TPH-DRO (mg/l)	-	-	0.047	**0.080**	0.040 U	0.044	NS
TPH-GRO (ug/l)	-	-	47	40 U	40 U	40 U	NS

Bold and blue value indicates concentration above the minimum criteria

a/ TCL = target compound list; VOC = volatile organic compounds; TIC = temporarily identified compounds; µg/l = micrograms per liter; mg/l = milligrams per liter; NS = not sampled; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; U = not detected.
b/ US Environmental Protection Agency (EPA) National Primary Drinking Water Regulations: Maximum Contaminant Limits (MCLs); available at: http://water.epa.gov/drink/contaminants/index.cfm (accessed May 22, 2013) .
c/ EPA Regional Screening Levels (RSLs) (November 2012) for tapwater available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm (accessed May 15, 2013).
d/ MDE's 2008 Generic Numeric Cleanup Standards (GCNS) for Soil and Groundwater; available at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 15, 2013).
e/ Sample and duplicate.

Table 3

Soil Vapor Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Sample ID:		1644-F-040313	1644-R-040313	1646-F-040313	1646-R-040313	1644/46-TRP-040313
Date Sampled:		4/4/2013	4/4/2013	4/4/2013	4/4/2013	4/3/2013
	RSL (b)					
Parameters						
VOCs (ug/m3)						
1,1,1-Trichloroethane	220,000	34.4 U	137 U	1.7 U	1.7 U	NS
1,1,2,2-Tetrachloroethane	2.1	22 U	86.2 U	1.1 U	1.1 U	NS
1,1,2-Trichloroethane	7.7	17 U	67.9 U	0.85 U	0.85 U	NS
1,1,2-Trichlorotrifluoroethane	1,300,000	49.6 U	198 U	2.5 U	2.5 U	NS
1,1-Dichloroethane	77	25.4 U	101 U	1.3 U	1.3 U	NS
1,1-Dichloroethene	8,800	25.1 U	100 U	1.3 U	1.3 U	NS
1,2,4-Trichlorobenzene	88	46.8 U	2.2 U	2.3 U	2.3 U	NS
1,2,4-Trimethylbenzene	310	229	**668**	26.1	1.5 U	NS
1,2-Dibromoethane (EDB)	0.2	48.4 U	193 U	2.4 U	2.4 U	NS
1,2-Dichlorobenzene	8,800	37.8 U	1.8 U	1.9 U	1.9 U	NS
1,2-Dichloroethane	4.7	13 U	51 U	0.64 U	0.64 U	NS
1,2-Dichloropropane	12	29.1 U	116 U	1.5 U	1.5 U	NS
1,3,5-Trimethylbenzene	-	86.1	270	8.3	1.5 U	NS
1,3-Butadiene	4.1	14 U	56 U	1 U	1 U	NS
1,3-Dichlorobenzene	-	37.8 U	151 U	1.9 U	1.9 U	NS
1,4-Dichlorobenzene	11	37.8 U	151 U	1.9 U	1.9 U	NS
2-Butanone (MEK)	220,000	18.6 U	12,300	0.93 U	105	NS
2-Hexanone	1,300	25.7 U	1.2 U	1.3 U	1.3 U	NS
4-Ethyltoluene	-	81.9	409	7.8	1.6 U	NS
4-Methyl-2-pentanone (MIBK)	130,000	25.7 U	102 U	1.3 U	1.3 U	NS
Acetone	1,400,000	15 U	59.3 U	7.8	684	NS
Benzene	16	**96.1**	40.1 U	6.3	7	NS
Bromodichloromethane	3.3	42.2 U	168 U	2.1 U	2.1 U	NS
Bromoform	110	65.1 U	259 U	3.3 U	3.3 U	NS
Bromomethane	220	24.5 U	97.6 U	1.2 U	1.2 U	NS
Carbon disulfide	31,000	19.5 U	77.8 U	0.98 U	10.5	NS
Carbon tetrachloride	20	19.8 U	79 U	0.99 U	1 U	NS
Chlorobenzene	2,200	29.1 U	116 U	1.5 U	1.5 U	NS
Chloroethane	440,000	16.7 U	66.7 U	0.8 U	0.8 U	NS
Chloroform	5.3	**148**	122 U	1.5 U	**16.4**	NS
Chloromethane	3,900	13 U	51.9 U	0.65 U	0.65 U	NS
cis-1,2-Dichloroethene	-	25.1 U	100 U	1.3 U	1.3 U	NS
cis-1,3-Dichloropropene	-	28.5 U	114 U	1.4 U	1.4 U	NS
Cyclohexane	260,000	168	86.4 U	8.9	6.4	NS
Dibromochloromethane	4.5	53.6 U	214 U	2.7 U	2.7 U	NS
Dichlorodifluoromethane	4,400	31.3 U	125 U	2.1	1.6 U	NS
Dichlorotetrafluoroethane	-	44 U	175 U	2.2 U	2.2 U	NS
Ethyl acetate	-	22.6 U	6,890	1.1 U	1.1 U	NS
Ethylbenzene	49	**142**	109 U	11.6	10.3	NS
Hexachloro-1,3-butadiene	5.6	68.2 U	3.2 U	3.4 U	3.4 U	NS
m&p-Xylene	4,400	774	217 U	56.5	48.3	NS
Methylene Chloride	12,000	99.9	230	7.5	5.8	NS
Methyl-tert-butyl ether	470	22.6 U	90.1 U	1.1 U	1.1 U	NS
Naphthalene	3.6	33.2 U	**11.3**	2.3	**3.7**	NS
n-Heptane	-	589	102 U	22.4	24.2	NS
n-Hexane	31,000	583	88.9 U	21	12.6	NS
o-Xylene	4,400	186	109 U	15.3	14.7	NS
Propylene	130,000	10.8 U	43.2 U	7.3	0.54 U	NS
Styrene	44,000	80.2	107 U	5.7	5.1	NS
Tetrachloroethene	470	**842**	85.1 U	40	49.1	NS
Tetrahydrofuran	88,000	18.6 U	74.1 U	0.93 U	0.93 U	NS
Toluene	220,000	704	95.1 U	50.2	40.2	NS
trans-1,2-Dichloroethene	2,600	25.1 U	100 U	1.3 U	1.3 U	NS
trans-1,3-Dichloropropene	-	28.5 U	114 U	1.4 U	1.4 U	NS
Trichloroethene	30	17 U	67.9 U	1.9	0.85 U	NS
Trichlorofluoromethane	31,000	35.3 U	141 U	1.8 U	1.8 U	NS
Vinyl acetate	8,800	22.2 U	88.4 U	1.1 U	1.1 U	NS
Vinyl chloride	28	8.1 U	32.1 U	0.4 U	0.4 U	NS
TPH-DRO (C10-C24) (ug/m3)	-	2,100	860	520	3,800	160

Bold and blue value indicates concentration above the minimum criteria

a/ VOCs = volatile organic compounds; µg/m3 = micrograms per cubic meter; NS = not sampled; "-" indicates no screening level available; U = not detected; TPH = total petroleum hydrocarbons; DRO = diesel range organics.

b/ US Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (November 2012) for residential indoor air exposure scenario times attenuation factor of 10; available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm (accessed May 15, 2013).

Table 4

Sump Water Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Parameters	EPA MCL (b)	RSL for Tapwater (c)	MDE Residential Groundwater GNCS (d)	Sample ID: 1644-Sump Date Sampled: 4/4/2013	Sample ID: 1646-Sump Date Sampled: 4/5/2013
TCL VOCs plus Oxygenates + TICs (ug/kg)					
1,1,1-Trichloroethane	200	7,500	200	1 U	1 U
1,1,2,2-Tetrachloroethane	-	0.066	0.05	1 U	1 U
1,1,2-Trichloroethane	5	0.24	5	1 U	1 U
1,1,2-Trichlorotrifluoroethane	-	53,000	-	1 U	1 U
1,1-Dichloroethane	-	2.4	90	1 U	1 U
1,1-Dichloroethene	7	260	7	1 U	1 U
1,2,3-Trichlorobenzene	-	5.2	-	1 U	1 U
1,2,4-Trichlorobenzene	70	1	70	1 U	1 U
1,2-Dibromo-3-chloropropane	0.2	0.00032	0.2	10 U	10 U
1,2-Dibromoethane	0.05	0.007	0.05	1 U	1 U
1,2-Dichlorobenzene	600	280	600	1 U	1 U
1,2-Dichloroethane	5	0.15	5	1 U	1 U
1,2-Dichloropropane	5	0.38	5	1 U	1 U
1,3-Dichlorobenzene	-	-	2	1 U	1 U
1,4-Dichlorobenzene	75	0.42	75	1 U	1 U
2-Butanone (MEK)	-	4,900	700	10 U	10 U
2-Hexanone (MBK)	-	34	-	10 U	10 U
4-Methyl-2-Pentanone (MIBK)	-	1,000	630	5 U	5 U
Acetone	-	12,000	550	10 U	10 U
Benzene	5	0.39	5	1 U	1 U
Bromochloromethane	-	83	-	1 U	1 U
Bromodichloromethane	80	0.12	80	1 U	1 U
Bromoform	80	7.9	80	5 U	5 U
Bromomethane	-	7	0.85	1 U	1 U
Carbon Disulfide	-	720	100	10 U	10 U
Carbon tetrachloride	5	0.39	5	1 U	1 U
Chlorobenzene	100	72	100	1 U	1 U
Chloroethane	-	21,000	3.6	1 U	1 U
Chloroform	80	0.19	80	1 U	1 U
Chloromethane	-	190	19	1 U	1 U
Cyclohexane	-	13,000	-	10 U	10 U
Dibromochloromethane	80	0.15	80	1 U	1 U
Dichlorodifluoromethane	-	190	-	1 U	1 U
Diisopropyl ether	-	1,500	-	10 U	10 U
Ethylbenzene	700	1.3	700	1 U	1 U
Isopropylbenzene	-	390	66	1 U	1 U
Methyl Acetate	-	16,000	-	10 U	10 U
Methyl-t-Butyl Ether	-	12	20	1 U	1 U
Methylcyclohexane	-	-	-	10 U	10 U
Methylene chloride	5	10	5	1 U	1 U
Naphthalene	-	0.14	0.65	1 U	1 U
Styrene	100	1,100	100	1 U	1 U
Tetrachloroethene	5	10	5	1 U	1 U
Toluene	1,000	860	1,000	1 U	1 U
Trichloroethene	5	0.44	5	1 U	1 U
Trichlorofluoromethane	-	1,100	-	5 U	5 U
Vinyl chloride	2	0.015	2	1 U	1 U
cis-1,2-Dichloroethene	70	28	70	1 U	1 U
cis-1,3-Dichloropropene	-	-	0.44	1 U	1 U
m&p-Xylene	-	190	-	2 U	2 U
o-Xylene	-	190	-	1.0 U	1 U
tert-Amyl alcohol	-	-	-	20 U	20 U
tert-Amyl ethyl ether	-	-	-	10 U	10 U

Table 4

Sump Water Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Parameters	EPA MCL (b)	RSL for Tapwater (c)	MDE Residential Groundwater GNCS (d)	Sample ID: 1644-Sump Date Sampled: 4/4/2013	Sample ID: 1646-Sump Date Sampled: 4/5/2013
tert-Amyl methyl ether	-	-	-	10 U	10 U
tert-Butanol	-	-	-	20 U	20 U
tert-Butyl ethyl ether	-	-	-	10 U	10 U
trans-1,2-Dichloroethene	100	86	100	1 U	1 U
trans-1,3-Dichloropropene	-	-	0.44	1 U	1 U
Polyaromatic Hydrocarbons (PAHs) (ug/l)					
2-Methylnaphthalene	-	27	2.4	2 U	2 U
Acenaphthene	-	400	37	5 U	5 U
Acenaphthylene	-	-	37	5 U	5 U
Anthracene	-	1,300	180	5 U	5 U
Benzo(a)anthracene	-	0.029	0.2	0.5 U	0.5 U
Benzo(a)pyrene	0.2	0.0029	0.2	0.5 U	0.5 U
Benzo(b)fluoranthene	-	0.029	0.2	0.5 U	0.5 U
Benzo(g,h,i)perylene	-	-	18	5 U	5 U
Benzo(k)fluoranthene	-	0.290	0.3	0.5 U	0.5 U
Chrysene	-	2.9	3	2 U	2 U
Dibenz(a,h)Anthracene	-	0.0029	0.2	0.5 U	0.5 U
Fluoranthene	-	630	150	5 U	5 U
Fluorene	-	220	24	5 U	5 U
Indeno(1,2,3-c,d)Pyrene	-	0.029	0.2	0.5 U	0.5 U
Naphthalene	-	0.14	0.65	0.5 U	0.5 U
Phenanthrene	-	-	180	5 U	5 U
Pyrene	-	87	18	5 U	5 U
Methane in Water (mg/l)					
Methane	-	-	-	0.0057 U	0.0057 U
TPH-DRO (mg/l)	-	-	0.047	0.040 U	0.040
TPH-GRO (ug/l)	-	-	47	40 U	40 U

Bold and blue value indicates concentration above the minimum criteria

a/ TCL = target compound list; VOC = volatile organic compounds; TIC = temporarily identified compounds;µg/l = micrograms per liter; mg/l = milligrams per liter; NS = not sampled; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; U = not detected.
b/ US Environmental Protection Agency (EPA) National Primary Drinking Water Regulations: Maximum Contaminant Limits (MCLs); available at: http://water.epa.gov/drink/contaminants/index.cfm (accessed May 22, 2013) .
c/ EPA Regional Screening Levels (RSLs) (November 2012) for tapwater; available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm (accessed May 15, 2013).
d/ MDE's 2008 Generic Numeric Cleanup Standards (GCNS) for Soil and Groundwater; available at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 15, 2013).

Table 5

Indoor and Ambient Air VOC Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Parameters	RSL for Residential Indoor Air (b)	1644-A-040313 4/4/2013	1644-B-040313 (c) 4/4/2013	1000-B-040313 (c) 4/4/2013	1646-A-040313 4/4/2013	1646-B-040313 4/4/2013	1644/46-BK-040313 (d) 4/4/2013
VOCs (ug/m3)							
1,1,1-Trichloroethane	22,000	1.6 U	1.4 U	1.5 U	1.7 U	1.5 U	1.9 U
1,1,2,2-Tetrachloroethane	0.21	1.0 U	0.9 U	0.94 U	1.0 U	0.94 U	1.2 U
1,1,2-Trichloroethane	0.77	0.79 U	0.69 U	0.74 U	0.82 U	0.74 U	0.93 U
1,1,2-Trichlorotrifluoroethane	130,000	2.3 U	2.0 U	2.1 U	2.4 U	2.1 U	2.7 U
1,1-Dichloroethane	7.7	1.2 U	1.0 U	1.1 U	1.2 U	1.1 U	1.4 U
1,1-Dichloroethene	880	1.2 U	1.0 U	1.1 U	1.2 U	1.1 U	1.4 U
1,2,4-Trichlorobenzene	8.8	2.2 U	1.9 U	2.0 U	2.2 U	2.0 U	2.6 U
1,2,4-Trimethylbenzene	31	1.8	3.8	5.6	2.0	1.7	1.7 U
1,2-Dibromoethane (EDB)	0.02	2.2 U	2.0 U	2.1 U	2.3 U	2.1 U	2.6 U
1,2-Dichlorobenzene	880	1.8 U	1.5 U	1.6 U	1.8 U	1.6 U	2.1 U
1,2-Dichloroethane	0.47	0.59 U	0.52 U	0.55 U	0.61 U	0.55 U	0.69 U
1,2-Dichloropropane	1.2	1.4 U	1.2 U	1.3 U	1.4 U	1.3 U	1.6 U
1,3,5-Trimethylbenzene	-	1.4 U	1.3 U	1.3 U	1.5 U	1.3 U	1.7 U
1,3-Butadiene	0.41	0.65 U	0.57 U	0.60 U	0.67 U	0.60 U	0.76 U
1,3-Dichlorobenzene	-	1.8 U	1.5 U	1.6 U	1.8 U	1.6 U	2.1 U
1,4-Dichlorobenzene	1.1	1.8 U	1.5 U	1.6 U	1.8 U	1.6 U	2.1 U
2-Butanone (MEK)	22,000	1.7	0.76 U	3.9	5.6	1.9	1.0 U
2-Hexanone	130	1.2 U	1.0 U	1.1 U	1.2 U	1.1 U	1.4 U
4-Ethyltoluene	-	1.4 U	1.6	2.0	1.5 U	1.3 U	1.7 U
4-Methyl-2-pentanone (MIBK	13,000	1.2 U	1.0 U	1.1 U	1.2 U	1.1 U	1.4 U
Acetone	140,000	29.2	0.6 U	0.64 U	0.72 U	0.64 U	0.9
Benzene	1.6	1.4	**1.7**	**2.1**	1.1	0.64	0.55 U
Bromodichloromethane	0.33	2.0 U	1.7 U	1.8 U	2.0 U	1.8 U	2.3 U
Bromoform	11	3.0 U	2.6 U	2.8 U	3.1 U	2.8 U	3.5 U
Bromomethane	22	1.1 U	1.0 U	1.1 U	1.2 U	1.1 U	1.3 U
Carbon disulfide	3,100	0.91 U	0.79 U	0.84 U	0.94 U	0.84 U	1.1 U
Carbon tetrachloride	2	0.92 U	0.81 U	0.86 U	1.0 U	0.9 U	1.1 U
Chlorobenzene	220	1.4 U	1.2 U	1.3 U	1.4 U	1.3 U	1.6 U
Chloroethane	44,000	0.8 U	0.7 U	0.7 U	0.8 U	0.7 U	0.9 U
Chloroform	0.53	1.4 U	1.2 U	1.3 U	**1.5**	1.3 U	1.7 U
Chloromethane	390	0.63	0.63	0.72	0.97	0.56 U	0.71 U
cis-1,2-Dichloroethene	-	1.2 U	1.0 U	1.1 U	1.2 U	1.1 U	1.4 U
cis-1,3-Dichloropropene	-	1.3 U	1.2 U	1.2 U	1.4 U	1.2 U	1.6 U
Cyclohexane	26,000	2.9	3.0	3.5	2.2	1.8	1.2 U
Dibromochloromethane	0.45	2.5 U	2.2 U	2.3 U	2.6 U	2.3 U	2.9 U
Dichlorodifluoromethane	440	2.2	2.2	2.6	2.4	2.1	1.7 U
Dichlorotetrafluoroethane	-	2.0 U	1.8 U	1.9 U	2.1 U	1.9 U	2.4 U
Ethyl acetate	-	74.4	0.92 U	1.0 U	24.4	3.0	1.2 U
Ethylbenzene	4.9	2.1	2.8	3.9	1.4	1.2 U	1.5 U
Hexachloro-1,3-butadiene	0.56	3.2 U	2.8 U	2.9 U	3.3 U	2.9 U	3.7 U
m&p-Xylene	440	6.6	10.2	13.3	2.6 U	2.4 U	3.0 U
Methylene Chloride	1,200	1.3	1.4	1.9	1.6	0.95 U	16.3
Methyl-tert-butyl ether	47	1.1 U	0.9 U	0.98 U	1.1 U	0.98 U	1.2 U
Naphthalene	0.36	1.5 U	1.3 U	**2.4**	1.6 U	1.4 U	1.8 U
n-Heptane	-	4.2	4.0	4.9	3.9	3.2	1.4 U
n-Hexane	3,100	4.7	4.9	5.7	2.3	1.7	2.8
o-Xylene	440	1.9	2.8	4.1	1.3 U	1.2 U	1.5 U

Table 5

Indoor and Ambient Air VOC Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Propylene	13,000	0.50 U	0.44 U	0.47 U	0.52 U	0.47 U	0.59 U
Styrene	4,400	1.3 U	1.1 U	1.2 U	1.3 U	1.2 U	1.5 U
Tetrachloroethene	47	1.0 U	0.87 U	0.9 U	1.0 U	0.92 U	1.2 U
Tetrahydrofurar	8,800	0.9 U	0.8 U	0.8 U	0.9 U	0.8 U	1.0 U
Toluene	22,000	7.0	8.1	10.1	7.0	2.3	1.3 U
trans-1,2-Dichloroethene	260	1.2 U	1.0 U	1.1 U	1.2 U	1.1 U	1.4 U
trans-1,3-Dichloropropene	-	1.3 U	1.2 U	1.2 U	1.4 U	1.2 U	1.6 U
Trichloroethene	3	2.9	0.69 U	1.0	1.1	2.4	0.93 U
Trichlorofluoromethane	3,100	1.6 U	1.4 U	1.5 U	1.7 U	1.5 U	1.9 U
Vinyl acetate	880	1.0 U	0.9 U	0.96 U	1.1 U	0.96 U	1.2 U
Vinyl chloride	2.8	0.37 U	0.33 U	0.35 U	0.39 U	0.35 U	0.44 U
TPH-DRO (C10-C24) (ug/m3)	-	280	170	NS	280	170 U	160 U

Bold and blue value indicates concentration above the minimum criteria

a/ VOCs = volatile organic compounds; µg/m3 = micrograms per cubic meter; NS = not sampled; "-" indicates no screening level available; U = not detected; TPH = total petroleum hydrocarbons; DRO = diesel range organics.
b/ US Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (November 2012) for residential indoor air exposure scenari available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm (accessed May 15, 2013).
c/ Sample and duplicate.
d/ Ambient air sample.

Table 6

Indoor and Ambient Air Mold Sample Result Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Sample Number:	1644-A	1644-B (b)	1646-A	1646-B	1644/44-BK
Sample Location:	**Living Room**	**Basement**	**Living Room**	**Basement**	**Outdoor**
Total Volume (liters):	145	145	145	145	145
Total fungal colony forming units (CFU/m3):	165	418	187	293	114
Mold Species Identification (Percentage)					
Alternaria species	-	-	-	3%	6%
Aspergillus niger	4%	4%	-	-	-
Aspergillus ochraceus	9%	-	-	-	-
Aspergillus sydowii	-	-	-	3%	-
Aspergillus species	18%	-	-	-	-
Aspergillus versicolor	-	-	4%	-	-
Black yeast	-	-	-	3%	-
Chaetomium species	9%	28%	-	-	-
Cladosporium species	18%	20%	58%	57%	81%
Dactylaria	-	-	-	3%	-
Epicoccum species	-	-	4%	5%	-
Humicola species	-	18%	-	-	-
Mucor species	4%	2%	-	-	-
Non-sporulating colony	-	-	4%	-	-
Paecilomyces species	-	-	-	-	6%
Papulaspora species	-	27%	-	-	-
Penicillium species	39%	-	19%	20%	-
Rhodotorula species	-	-	12%	-	-
Trichoderma species	-	2%	-	-	-
Yeast	-	-	-	8%	6%

a/ "-" = not detected; air samples collected via Thermo Andersen N6 single stage viable sample impactor; CFU/m3 = colony-forming units per cubic meter.

Table 7

Indoor and Ambient Air Bacteria Sample Result Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Sample Number:	1644-A	1644-B	1646-A	1646-B	1644/44-BK
Sample Location:	**Living Room**	**Basement**	**Living Room**	**Basement**	**Outdoor**
Total Volume (liters):	145	145	145	145	145
Total colony forming units (cfu/m3):	316	11,913	85	285	35
Bacteria Species Identification (Percentage)					
Bacillus species	84%	100%	17%	46%	100%
Coag-negative Staphylococcus	-	-	17%	46%	-
Micrococcus species	-	-	-	8	-
Streptomyces species	16%	-	17%	17%	-

a/ "-" = not detected; air samples collected via Thermo Andersen N6 single stage viable sample impactor; CFU/m3 = colony-forming units per cubic meter.

Table 8

Surface Water Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Parameters	Sample ID: / Date Sampled:	Human Health (b)	Surface Water 4/5/2013
TCL VOCs plus Oxygenates + TICs (ug/l)			
1,1,1-Trichloroethane		200	1 U
1,1,2,2-Tetrachloroethane		1.7	1 U
1,1,2-Trichloroethane		5.9	1 U
1,1,2-Trichlorotrifluoroethane		-	1 U
1,1-Dichloroethane		-	1 U
1,1-Dichloroethene		330	1 U
1,2,3-Trichlorobenzene		-	1 U
1,2,4-Trichlorobenzene		35	1 U
1,2-Dibromo-3-chloropropane		-	10 U
1,2-Dibromoethane		-	1 U
1,2-Dichlorobenzene		420	1 U
1,2-Dichloroethane		3.8	1 U
1,2-Dichloropropane		5	1 U
1,3-Dichlorobenzene		320	1 U
1,4-Dichlorobenzene		63	1 U
2-Butanone (MEK)		-	10 U
2-Hexanone (MBK)		-	10 U
4-Methyl-2-Pentanone (MIBK)		-	5 U
Acetone		-	10 U
Benzene		22	1 U
Bromochloromethane		-	1 U
Bromodichloromethane		80	1 U
Bromoform		80	5 U
Bromomethane		47	1 U
Carbon Disulfide		-	10 U
Carbon tetrachloride		2.3	1 U
Chlorobenzene		130	1 U
Chloroethane		-	1 U
Chloroform		80	1 U
Chloromethane		-	1 U
Cyclohexane		-	10 U
Dibromochloromethane		80	1 U
Dichlorodifluoromethane		-	1 U
Diisopropyl ether		-	10 U

Table 8

Surface Water Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Ethylbenzene	530	1 U
Isopropylbenzene	-	1 U
Methyl Acetate	-	10 U
Methyl-t-Butyl Ether	-	1 U
Methylcyclohexane	-	10 U
Methylene chloride	46	1 U
Naphthalene	-	1 U
Styrene	-	1 U
Tetrachloroethene	6.9	1 U
Toluene	1,300	1 U
Trichloroethene	25	1 U
Trichlorofluoromethane	-	5 U
Vinyl chloride	0.25	1 U
cis-1,2-Dichloroethene	-	1 U
cis-1,3-Dichloropropene	-	1 U
m&p-Xylene	-	2 U
o-Xylene	-	1 U
tert-Amyl alcohol	-	20 U
tert-Amyl ethyl ether	-	10 U
tert-Amyl methyl ether	-	10 U
tert-Butanol	-	20 U
tert-Butyl ethyl ether	-	10 U
trans-1,2-Dichloroethene	140	1 U
trans-1,3-Dichloropropene		1 U
Polyaromatic Hydrocarbons (PAHs) (ug/l)		
2-Methylnaphthalene	-	2 U
Acenaphthene	670	5 U
Acenaphthylene	-	5 U
Anthracene	8,300	5 U
Benzo(a)anthracene	0.038	**0.67**
Benzo(a)pyrene	0.038	**0.96**
Benzo(b)fluoranthene	0.038	0.5 U
Benzo(g,h,i)perylene	-	5 U
Benzo(k)fluoranthene	0.038	**0.78**
Chrysene	0.038	2 U
Dibenz(a,h)Anthracene	0.038	0.5 U
Fluoranthene	130	5 U
Fluorene	1,100	5 U
Indeno(1,2,3-c,d)Pyrene	0.038	**0.51**
Naphthalene	-	0.5 U
Phenanthrene	-	5 U
Pyrene	830	5 U

Table 8

Surface Water Sample Results Summary
1644 and 1646 Yakona Road
Towson, Maryland (a)

Methane in Water (mg/l)		
Methane	-	0.0064 U
TPH-DRO (mg/l)	-	0.19
TPH-GRO (ug/l)	-	40 U

Bold and blue value indicates concentration above the minimum criteria

a/ TCL = target compound list; VOC = volatile organic compounds; TIC = temporarily identified compounds; µg/l = micrograms per liter; mg/l = milligrams per liter; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; U = not detected.
b/ Maryland Department of the Environment. 2013 Surface Water Quality Criteria; minimum criteria for human health + organism or human health presented; no freshwater aquatic life criteria for analystes; available at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 22, 2013).

Table 9

Exposure Pathways Post Interim Measures
1644 and 1646 Yakona Road
Towson, Maryland (a)

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route (b)	Exposure Assumptions (c)	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/ Future	Groundwater	Groundwater	Indoor air	Resident	Adult	I	Table 4-7	Quantitative	Current land use is residential
				Resident	Child	I	Table 4-9	Quantitative	Current land use is residential
				Employee	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Employee Dependent	Child	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Maintenance worker	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Visitor	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Utility worker	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk

a/ Refer to text for additional discussion
b/ I = inhalation, D = dermal, and Ig = ingestion
c/ Number refers to exposure assumption tables; same current and future exposure assumptions have same table numbe

Table 10

Summary of COPCs for Individual Residences
1644 and 1646 Yakona Road
Towson, Maryland (a)

Address	Media	COPCs
1644	Indoor Air	1,2,4-Trimethylbenzene Benzene Ethylbenzene m&p-Xylenes Naphthalene
1646	Indoor Air	1,2,4-Trimethylbenzene Benzene Ethylbenzene

a/ COPCs = constituents of potential concern.

Table 11

Exposure Assumptions: Resident Adult
(Groundwater, Vapor Intrusion)
1644 and 1646 Yakona Road
Towson, Maryland (a)

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Indoor air
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference
Inhalation	ET	Exposure time	hr/day	24	MDE 2008 (a), EPA 2009 (b)
	EF	Exposure frequency	day/yr	350	MDE 2008, EPA 2009
	ED	Exposure duration	yr	24	MDE 2008, EPA 2009
	CF	Conversion factor	mg/µg	1.00E-03	EPA 2009
	AT-NC	Averaging time - noncancer	hours	210,240	EPA 2009
	AT-C	Averaging time - cancer	hours	613,200	EPA 2009

a/ RME = reasonable maximum exposure; hr/day = hours per day; day/yr = days per year; yr = year; mg/ug = milligrams per microgram.
b/ MDE 2008: Maryland Department of the Environment. 2008. Cleanup Standards for Soil and Groundwater. Interim Final Guidance. June.
c/ EPA 2009: U.S. Environmental Protection Agency. 2009. Risk Assessment Guidance for Superfund: Volume I. Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) Interim Final. Office of Emergency and Remedial Response, Washington, D.C. EPA-540-R-070-002.

Table 12

Exposure Assumptions: Resident Child
(Groundwater, Vapor Intrusion)
1644 and 1646 Yakona Road
Towson, Maryland (a)

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Indoor air
Receptor Population: Resident
Receptor Age: Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference
Inhalation	ET	Exposure time	hr/day	24	MDE 2008 (a), EPA 2009 (b)
	EF	Exposure frequency	day/yr	350	MDE2008, EPA 2009
	ED	Exposure duration	yr	6	MDE 2008, EPA 2009
	CF	Conversion factor	mg/µg	1.00E-03	EPA 2009
	AT-NC	Averaging time - noncancer	hours	52,560	EPA 2009
	AT-C	Averaging time - cancer	hours	613,200	EPA 2009

a/ RME = reasonable maximum exposure; hr/day = hours per day; day/yr = days per year; yr = year; mg/ug = milligrams per microgram.

b/ MDE 2008: Maryland Department of the Environment. 2008. Cleanup Standards for Soil and Groundwater. Interim Final Guidance. June.

c/ EPA 2009: U.S. Environmental Protection Agency. 2009. Risk Assessment Guidance for Superfund: Volume I. Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) Interim Final. Office of Emergency and Remedial Response, Washington, D.C. EPA-540-R-070-002.

Table 13

Cancer Toxicity Data
1644 and 1646 Yakona Road Properties
Towson, Maryland (a)

COPC	CAS No.	Oral Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Oral to Dermal Adjustment Factor	Oral to Dermal Adjustment Factor Source	Adjusted Dermal Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Weight of Evidence/ Cancer Guideline Description (b)	Source	Inhalation Unit Risk $(\mu g/m^3)^{-1}$	Weight of Evidence/ Cancer Guideline Description (b)	Source
1,2,4-Trimethylbenzene	95-63-6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	73-41-2	NA	NA	NA	NA	NA	NA	7.8E-06	A	IRIS
Ethylbenzene	100-41-4	1.1E-02	1	EPA 2012	1.1E-02	2B	CalEPA	2.5E-06	2B	CalEPA
m&p-Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	91-20-3	NA	NA	NA	NA	NA	NA	3.40E-05	NA	CalEPA

a/ COPC = chemical of potential concern; IRIS = Integrated Risk Information System; µg/m3 = micrograms per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics; NA = Not applicable/available; (mg/kg-day)-1 = milligram per kilogram per day; EPA = Environmental Protection Agency; CalEPA = California Environmental Protection Agency.
b/ U.S. Environmental Protection Agency Group: A - Human carcinogen; 2B - Possibly Carcinogenic to Humans.

Table 14

Non-Cancer Toxicity Data
1644 and 1646 Yakona Road
Towson, Maryland (a)

COPC	CAS No.	Oral RfD Value mg/kg-day	Oral to Dermal Adjustment Factor	Oral to Dermal Adjustment Factor Source	Adjusted Oral RfD Value mg/kg-day	Primary Target Organ	Source	Inhalation RfC Value mg/m^3	Primary Target Organ	Source
1,2,4-Trimethylbenzene	95-63-6	NA	NA	NA	NA	NA	NA	7.00E-03	blood	PPRTV
Benzene	73-41-2	NA	NA	NA	NA	NA	NA	3.00E-02	blood	IRIS
Ethylbenzene	100-41-4	1.00E-01	1.00E+00	EPA 2012	1.00E-01	liver, kidney	IRIS	1.00E+00	fetus	IRIS
m&p-xylenes	NA	2.00E-01	1.00E+00	EPA 2012	2.00E-01	whole body (mortality), nervous system	IRIS	NA	NA	NA
Naphthalene	91-20-3	2.00E-02	1.00E+00	EPA 2012	2.00E-02	whole body (decreased weight), kidney, thymus	IRIS	3.00E-03	nasal	IRIS

a/ COPC = chemical of potential concern; IRIS = Integrated Risk Information System; mg/m3 = milligrams per cubic meter; NA = Not applicable/available; (mg/kg-day) = milligram per kilogram-day; EPA = Environmental Protection Agency; PPRV = peer provisional reviewed value.

EPA RSLs (November 2012) for residential soil exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment Guidance. Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm.

Appendix A – WSP's Standard Operating Procedures

WSP ENVIRONMENT & ENERGY

STANDARD OPERATING FIELD PROCEDURES

Standard Operating Field Procedures

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12	Chip, Wipe, and Sweep Sampling
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22 Soil Head Space Screening (Field Procedure)

23 Underground Utility Locating

24 Soil Sampling Using GeoProbe® System or Equivalent

25 Groundwater Sampling Using GeoProbe® System or Equivalent

26 Managing Investigation Derived Waste

27 Soil Sampling Using a Rotosonic Sampler

28 Sampling of Private Water Supply Wells

29 Aquifer Pumping Tests

30 *In Situ* Single Well Hydraulic Conductivity Test (Slug Test)

Standard Operating Procedure – 1

Note Taking and Log Book Entries

Materials:

Permanently bound log book (no spiral-bound log books)
Black or blue ballpoint pen (waterproof ink)

Procedure:

1. Use black or blue ballpoint pen with waterproof ink. Felt-tip pens should not be used.

2. Reserve the inside front cover for business cards from key personnel who visit the site (including the person in charge of the log book).

3. On the first page of the log book, place a return for reward notice, WSP's phone number, and the project manager's name.

4. Enter the following on the second page of the log book: project name, project number, project manager's name, onsite contacts, onsite telephone number and address, telephone numbers for all key personnel, and emergency fire and medical telephone numbers.

5. Number each page, initial each page, and put the date at the top of each page. Start a new page for each day. At the end of a day, summarize the day's activities, sign the page, and put a slash through the rest of the blank lines. Start the next day on a new page.

6. Enter the time (in military time, e.g., 0830) in the left column of each page when an entry is recorded in the field notebook.

7. If a mistake is made in an entry, cross out the mistake with one line and initial the end of the line.

8. At all times, maintain the chain of custody on the field log book.

Content:

1. Be sure that log book entries are LEGIBLE and contain accurate and inclusive documentation of project field activities.

2. Provide sufficient detail to enable others to reconstruct the activities observed.

3. Thoroughly describe all field activities while onsite. Be objective, factual, and thorough. Language should be free of personal feelings or other terminology that might prove inappropriate.

4. Describe problems, delays, and any unusual occurrences such as wrong equipment or breakdowns along with the resolutions and recommendations that resulted.

5. Fully document any deviations from or changes in the work plan.

6. Describe the weather and changes in the weather, particularly during sampling events.

7. Sketch a map of the facility or areas onsite where activities are occurring, especially the location of sampling points.

8. During sampling activities, record all information pertaining to the sampling event. Include descriptive locations and diagrams of the sample locations, time, sample media, analysis, sampling procedure, equipment used, sizes and types of containers, preservation and any resulting reactions, sampling identification (especially for duplicate samples), shipping procedures (record airbill numbers), and addresses.

9. Note decontamination or disposal procedures for all equipment, samples, and protective clothing and how effectively each is performed.

10. If possible, photograph all sample locations and areas of interest. Maintain a photographic log in the field log book and include:

    Date, time, photographer, name of site, general direction faced, description of the subject taken, and sequential number of the photograph and the roll number.

11. Record the names and affiliations of key personnel onsite each day.

12. List all field equipment used and record field measurements, including distances, monitoring and testing instrument readings (e.g., photoionization detector (PID), organic vapor analyzer (OVA), pH, conductivity, model numbers, etc.), and calibration activities.

13. Record proposed work schedules and changes in current schedules in the log book.

14. Describe site security measures.

15. Include drum inventory for all investigation-derived waste (IDW) materials generated during site activities. Provide information on how IDW material was labeled.

Standard Operating Procedure - 2

Sample Container, Preservatives, & Holding Times

Scope:

This operating procedure describes the ways and means of selecting the appropriate sampling containers for environmental sampling.

Application:

The purpose of this procedure is to assure that sample volumes and preservatives are sufficient for analytical services required under EPA-approved protocols.

Materials:

Sample containers
Sample container labels
Indelible (waterproof) markers or pens
Clear tape

Procedures:

1. Refer to Table 1 for minimum sample volume and glassware types required for sampling a particular matrix and compound class.

2. Select the appropriate glassware (i.e., bottles or jars) from those provided by the analytical laboratory. Verify that the analytical laboratory has provided the correct number of sample containers and the correct preservatives for the project per the sampling plan requirements.

3. The analytical laboratory should always provide extra sample containers for all analytical parameters in case of breakage or other problems encountered in the field. This is particularly true for VOC sample containers (i.e., 40-ml vials).

4. Report any discrepancies or non-receipt of specific types of sample containers to the Quality Assurance Officer immediately. Arrangements should be made with the laboratory to immediately ship the missing or additional sampling containers to the project site.

5. Apply WSP sample labels to the sample containers.

6. Information on the sample labels should contain the following data:

    Site/Project name
    Project/Task number
    Unique sample identification number
    Sample date
    Time of sample collection (military system, e.g., 0000 to 2400 hours)
    Analytical parameters
    Preservative
    Sampling personnel

7. Once sample containers are properly labeled, the sample labels should be wrapped with clear tape to prevent deterioration of sample label.

8. Proceed with the sample collection per the sampling plan requirements.

9. Collected samples should be immediately placed in an iced cooler to maintain as close as possible a 4°C atmosphere for shipment to the analytical laboratory. Follow sample shipping procedures detailed in Sample Shipping Standard Operating Procedures.

10. Recommended order of sample collection:

In-situ measurements (e.g., temperature, pH, specific conductance)
Volatile organic analytes (VOA)
Purgeable organic carbon (POC)
Purgeable organic halogens (POX)
Total organic halogens (TOX)
Total organic carbon (TOC)
Extractable organics
Total petroleum hydrocarbons (TPH)
Total metals
Dissolved metals
Microbiologicals
Phenols
Cyanide
Sulfate and chloride
Turbidity
Nitrate and ammonia
Radionuclides

Table 1 – Sample Containers, Preservatives, and Holding Times

Analytical Parameter	Matrix	Sampling Container Size and Type	Preservatives	Maximum Holding Time
Metals, except mercury and hexavalent chromium	Solid	8-oz. glass jar	Cool to 4o C	180 days
Mercury	Solid	8-oz. glass jar	Cool to 4o C	28 days
Hexavalent chromium	Solid	8-oz. glass jar	Cool to 4o C	24 hours
Metals, except mercury and hexavalent chromium	Aqueous	500-ml plastic container with Teflon-lined plastic cap	HNO3, pH<2 Cool to 4o C	180 days
Mercury	Aqueous	500-ml plastic container with Teflon-lined plastic cap	HNO3, pH<2 Cool to 4o C	28 days
Hexavalent chromium	Aqueous	500-ml plastic container with Teflon-lined plastic cap	Cool to 4o C	24 hours
Volatile organics	Solid	4-oz. glass jar with Teflon-lined cap	Cool to 4o C	14 days
Volatile organics	Aqueous	Three 40-ml glass vials with Teflon-lined caps	HCl, pH<2 Cool to 4o C	14 days

Analytical Parameter	**Matrix**	**Sampling Container Size and Type**	**Preservatives**	**Maximum Holding Time**
Semivolatile organics	Solid	8-oz. amber glass jar with Teflon-lined cap	Cool to 4o C	14 days to extraction 40 days from extraction to analysis
Semivolatile organics	Aqueous	Two 1,000-ml amber glass jars with Teflon-lined caps	Cool to 4o C	7 days to extraction 40 days from extraction to analysis
Cyanide	Solid	8-oz. glass jar	Cool to 4o C	14 days
Cyanide	Aqueous	One 500-ml plastic container	NaOH, pH>12, Cool to 4o C	14 days
TCLP Volatiles	Solid	8-oz. glass jar with Teflon-lined cap	Cool to 4o C	14 days to TCLP extraction 14 days from extraction to analysis
TCLP Semivolatile Organics	Solid	8-oz. glass jar	Cool to 4o C	14 days for TCLP extraction 7 days for preparative extraction 40 days from extraction to analysis
TCLP Metals, except Mercury	Solid	8-oz. glass jar	Cool to 4o C	180 days for TCLP extraction 180 days from preparative extraction to analysis

Analytical Parameter	**Matrix**	**Sampling Container Size and Type**	**Preservatives**	**Maximum Holding Time**
TCLP Mercury	Solid	8-oz. glass jar	Cool to 4o C	28 days for TCLP extraction 28 days from preparative extraction to analysis
Total Petroleum Hydrocarbons	Solid	4-oz. glass jar with Teflon-lined cap	Cool to 4o C	14 days for extraction 40 days for analysis
Total Petroleum Hydrocarbons (EPA Method 418.1)	Aqueous	1-liter amber glass jar	Cool to 4o C	14 days for extraction 40 days for analysis
Total Petroleum Hydrocarbons (EPA Method 8015 GRO)	Aqueous	2 40-ml glass vials	Cool to 4o C	14 days for extraction 40 days for analysis
Total Petroleum Hydrocarbons (EPA Method 8015 DRO)	Aqueous	2 40-ml glass vials	Cool to 4o C	14 days for extraction 40 days for analysis

Standard Operating Procedure - 3

Groundwater Sampling

Materials:

Bound sampling notebook
Groundwater monitoring data log forms
Well key
Adjustable wrench or manhole wrench
Plastic sheeting
Photoionization detector (PID)
Flashlight or mirror
Electronic water level indicator or interface probe
Bailer (bottom loading)
Pump (for purging)
Nylon or polyethylene rope
Temperature, pH, and conductivity meters
Other field meters, as appropriate (i.e., turbidity meter, DO meter, etc.)
Sample bottles, labels, indelible markers, and clear tape
Peristaltic pump
0.45-micron filter
Teflon tubing
Polyethylene tubing
Pocket knife or scissors
Saranex or Tyvek suit (if required by Health & Safety Plan)
Nitrile gloves
Vinyl gloves

Note: To sample using a low flow submersible pump, see SOP-3b.

Procedure:

1. Verify locations of wells, media to be sampled, and parameters to be analyzed for as specified in the sampling plan.

2. Prepare field log book with description of site, weather, participants, and other relevant observations, including all sampling data necessary to complete the groundwater monitoring data log (Refer to SOP-1). Inspect the well for soundness of protective casing and surface ground seal.

3. With the field personnel in Level C personal protective equipment, unless historical data warrants downgrading to Level D protective equipment, survey around the base of the well and wellhead with a PID; remove well cap, place probe of PID in wellhead, and record PID response in field book. Survey breathing zone to ensure that the level of personal protection is appropriate. Note observations on the groundwater monitoring data log.

4. Check for floating product layer (LNAPLs) and sinking free product layer (DNAPLs). Measure thickness with an oil/water interface probe in accordance with EPA or state guidance documents or requirements. (If NAPL sampling is required, see the sampling procedures in SOP-3a).

5. Measure the casing inside diameter (CID) and record in inches. From the top of the casing, measure the depth (in feet) to water (DTW) with an electronic water level indicator and record in the field log book. Static water level measurements must be recorded from the surveyor's mark at the top of the casing, if present. If no mark is present, mark a location with a metal file or indelible marker on the casing for future reference. Measure and record the total depth (in feet) (TD) of the well.

6. Monitoring wells should be sampled by starting with the upgradient (or clean wells) and proceeding downgradient (in the order from most to least contaminated wells) for the remaining monitoring wells.

7. Calculate the length of the water column in the well casing:

   length = (TD - DTW)

   Calculate the volume of water in gallons in one well casing:

   For a 2-inch well: or $vol=0.041\ d^2h$

   vol = [(TD - DTW) * 0.16] where: h = TD-DTW

   For a 4-inch well: d = diameter of well

   vol = [(TD - DTW) * 0.65]

   For a 6-inch well:

   vol = [(TD - DTW) * 1.47]

   or calculate the volume using the formula:

   $vol = (TD - DTW)(CID)^2(0.041)$ CID=casing inside diameter in inches

8. Remove a minimum of three well volumes before sampling. To determine the number of gallons required to purge the well, multiply the number of gallons in one well volume (calculations above) by three. Record the minimum purge volume in the field log book. Record water color, suspended particulates, discoloration of casing, casing diameter and material, any unusual occurrences during sampling, and any pertinent weather details in the field log book.

9. Place plastic sheeting around the well before beginning purging process. Once plastic is around well, the purging process may begin. Do not allow the bailer rope to come into contact with the ground surface (i.e., keep the rope on the plastic). Keep the plastic as clean as possible.

10. Carefully lower the bailer attached to bailer cord into the well and allow the bottom to sink 1 foot below the water surface to capture surficial water only. Remove bailer and inspect it for LNAPL. If any are found, or if sampling plan requires, secure samples of the LNAPL in accordance with SOP-3a for analysis if sufficient volume is present. Place collected samples on ice. DO NOT PURGE OR SAMPLE GROUNDWATER IN WELL CONTAINING LNAPL.

11. During the purging process, geochemical measurements (e.g., pH, conductivity, turbidity, and temperature) should be collected a minimum of four times (i.e., before purging and after the removal of each well volume). Record these data in the field log book.

12. Continue bailing at a uniform rate. Each time, empty the bailer into a calibrated container for measurement. Dispose of the contents in an appropriate container for later disposal in compliance with federal and state laws.

13. A decontaminated submersible pump may be used in place of a bailer to purge wells when the diameter of the well is large or the purge volume is large. Refer to SOP-16 for submersible pump decontamination procedures.

14. If well is bailed dry before removing three well volumes, allow well to recharge and proceed to sample. Wells shall not be bailed dry if doing so will cause recharge water to enter the well in a cascading fashion but instead will be bailed at a rate which will minimize the agitation of recharged water. If full recovery exceeds 2 hours, sample as soon as sufficient volume is available within 3 hours of purging.

15. After the minimum purge volume has been removed, review the geochemical measurements to ensure that readings have stabilized. Readings should be within 10% of the previous reading. If the geochemical measurements have not stabilized, continue to purge the well until the monitoring parameters do not vary more than 10 percent between two successive well volumes removed.

16. Affix a sample label to each sample container and complete all required information (sample no., date, time, sampler's initials, analysis, preservatives). Place clear tape over the label. Record sample number, well number, date, time, and the sampler's initials in the field book.

17. Collect the groundwater samples after purging is complete. While collecting samples, lower the bailer slowly to avoid agitating the water. Sample first for VOCs, taking care to remove all air bubbles from the vial and minimize agitation. Collect remaining organic samples then inorganic samples.

    The recommended order of sample collection is as follows:

    In field measurements (e.g., temperature, pH, specific conductance, turbidity, dissolved oxygen)
    Volatile organic compounds (VOCs)
    Purgeable organic carbon (POC)
    Purgeable organic halogens (POX)
    Total organic halons (TOX)
    Total organic carbon (TOC)
    Extractable organics
    Total metals
    Dissolved metals
    Phenols
    Cyanide
    Sulfate and chloride
    Turbidity
    Nitrate and ammonia
    Radionuclides

18. Thoroughly decontaminate all equipment used before proceeding to the next well. Discard used bailer cord, plastic sheeting, towels, gloves, etc., in a plastic bag.

19. Complete chain-of-custody forms with appropriate sampling information.

20. Complete both front and back of the groundwater monitoring data log (attachment) for each monitoring well or sampling point upon return from the field, using data from the field log book.

Filtering of Metal Samples:

1. Assemble peristaltic pump per operating manual instructions, which accompany pump.

2. At the pump intake, attach polyethylene tubing to the tubing at the head of the peristaltic pump. The polyethylene tubing should be long enough to extend to the bottom of the bailer. At the pump discharge end, attach a clean 0.45-micron filter (or appropriate sized filter) to the Teflon tubing.

3. Turn on the pump and draw the water from the bailer, through the pump and filter, and into the sample container.

4. Disassemble the pump head and discard the polyethylene and Teflon tubing and filter in a plastic bag.

Attachment 1 – Groundwater Monitoring Data Log
Found on next page

Groundwater Monitoring Data Log

Well No./Designation _____ Date: _____

Site Data

Site Name: _____ WSP Sampling Team ___

Site Address: _____ WSP Project No.: _____

Weather Conditions: _____

Well Description

Well Location: _____

Well Security: _____

Casing Material: Inner _____ Outer _____

Organic Vapors (PID, OVA, TIP): Wellhead _____ ppm

Breathing Zone _____ ppm

Nonaqueous Phase (thickness): _____

Reference Point (e.g., top of PVC casing): _____

Purge Data

Purge Method: _____

(Note: Allow water level to equilibrate after removing well cap)

Total Well Depth (TD): _____ ft Depth to Water (DTW): _____

Casing Inner Diameter (CID): _____ inches

To calculate well volume: Well Vol.(gal)=$(CID)^2(0.04)(TD-DTW)$

Well Volume: _____ gal x 3=Purge Volume _____ gal

Purge Time: Begin _____ End _____

Data: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 1: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 2: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 3: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 4: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 5: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume Purged: _____ Purged Dry: Yes No

Disposal Method for Purgewater: _____

Water Description

Odor: Prepurge _____ Postpurge _____

Color: Prepurge _____ Postpurge _____

Sampling Data

Sampling Method: _____

Sampling Time: Begin _____ End _____

Analytical Parameters (circle appropriate parameters):

VOCs BNA BNE Total (Unfiltered) Metals

Dissolved (Filtered) Metals TPH PCB Cyanide

Other: _____

_____

Comments: _____

_____

_____

Standard Operating Procedure - 3a

Dense Nonaqueous Phase Liquid Sampling

Materials:

Items listed in SOP-3
Interface gauging probe or weighted tape coated with reactive indicator paste
Peristaltic pump, inertial pump, stainless steel double check valve bailer, or fluorocarbon resin double check valve bailer
Stainless steel cable or cable coated with an inert material (e.g., Teflon®)

Procedure:

1. Follow SOP-3 (Groundwater Sampling) procedures 1 through 6.

2. Check for a light nonaqueous phase liquid (LNAPL) layer, and a dense nonaqueous phase liquid (DNAPL) layer. Measure the thickness of the LNAPL and/or DNAPL layer using an appropriate interface gauging probe or a weighted tape coated with the appropriate reactive indicator paste for the suspected NAPL.

3. If no LNAPL is present in the well, proceed to procedure 4. If both LNAPL and DNAPL are detected in the well, slowly lower a bailer to just below the LNAPL layer. Remove the bailer from the well and containerize the LNAPL.

4. Select the appropriate DNAPL sampling device. If the DNAPL layer is of sufficient thickness, a suction-lift pump may be used. DNAPL can be sampled from wells where the water table is less than 25 feet below ground surface (bgs) using a peristaltic pump, and less than 300 feet bgs using an inertial pump. If the DNAPL is not of sufficient thickness or a suction-lift pump is unavailable, use a double check valve bailer to collect the sample. Use a bailer constructed of stainless steel to collect DNAPL samples for organic analyses and a bailer constructed of fluorocarbon resin to collect DNAPL samples for inorganic analyses. The cable used to raise and lower the bailer must be composed of an inert material such as stainless steel or coated with an inert material such as Teflon®.

5. Following removal of the LNAPL, immediately lower the DNAPL sampling device into the well. If using a bailer, slowly lower the bailer to the well bottom and then raise it slowly, causing as little agitation of the sample as possible. Minimize contact of the bailer with the well casing as it is raised.

6. If the sample is collected with a bailer, transfer the DNAPL to the sample container using the bottom check valve, allowing the DNAPL to slowly drain from the bailer.

7. If a suction-lift pump is used to collect the sample, use a low pumping rate to prevent agitation of the sample.

8. Continue following SOP-3 Groundwater Sampling procedures 19 through 21.

Standard Operating Procedure – 3b

Groundwater Sampling Using Low – Flow Submersible Pump

Materials:

Sampling notebook/Field log book
Groundwater monitoring data log forms
Well key
Adjustable wrench or manhole wrench
Photoionization detector (PID)
Flashlight or mirror
Electronic water level indicator
pH, conductivity, temperature meter
Oxidation potential meter (Eh)
Dissolved oxygen meter
Turbidity meter
Sample bottles, sample tags or labels, indelible markers, and clear tape
Appropriate power supply
Redi-Flo 2 submersible pump (or equivalent) and Teflon® tubing
Flow-through cell for pump or appropriate-sized beakers for meters
Buckets or drum for water storage
Pocket knife or scissors
Level C or Level D Personal Protective Equipment
Nitrile or latex gloves

Note: This SOP is only to be used if the applicable state of federal agency approves of purging and sampling groundwater using a submersible pump.

Procedure:

1. Verify locations of wells, media to be sampled, and parameters to be analyzed as specified in the sampling plan.

2. Prepare field log book with description of site, weather, participants, and other relevant observations (Refer to SOP-1)

3. As the following steps are completed, fill-in both front and back of the groundwater monitoring data log (Attachment 1 in SOP-1).

4. With the field personnel in Level D personal protective equipment, unless historical data, information, or suspicious warrants upgrading to Level C protective equipment, survey around the base of the well and wellhead with a PID; remove well cap, place probe of PID in wellhead, and record PID response in field book. Survey breathing zone to ensure that the level of personal protection is appropriate. Note observations on the groundwater monitoring data log. (See Site Health and Safety Plan for appropriate measuring techniques and upgrade requirements).

5. Inspect water surface in the well; use flashlight if necessary. Note any observable floating product and record observations in the field book.

6. Measure and record the extent of the top of the well riser above the ground. If well is a flush mount, measure and record the top of the well riser below the ground. Measure the casing (riser) inside diameter (CID) and record in inches. From the top of the riser, measure the depth (in feet) to water (DTW) with an electronic water level indicator and record on the groundwater monitoring data log. Static water level measurements must be recorded from the surveyor's mark at the top of the riser, if present. If no mark is present, mark a location with a metal file or indelible marker on the north side of the riser for future reference. Measure and record the total depth (TD, in feet) to the bottom of the well.

7. Check for light non-aqueous phase liquids (LNAPLs) and dense non-aqueous phase liquids (DNAPLs). Measure thickness with a oil/water interface probe in accordance with the RCRA Groundwater Monitoring Technical Enforcement Guidance Document (November 1992).

8. Monitoring wells should be purged/sampled by starting with the upgradient (or clean wells) and proceeding downgradient (in the order from least to most contaminated wells) for the remaining monitoring wells.

9. If LNAPL was observed, carefully lower a bailer attached to an appropriate length of new nylon rope into the well and allow the bottom to sink 1 foot below the water surface to capture LNAPL only. Remove bailer and dispose of LNAPL appropriately. Record the quantity of LNAPL removed in the field book.

10. Place plastic sheeting around the wellhead. Carefully lower the pump into the well and place the pump intake in the center of the saturated screen interval, near the top of the well screen if the screen is submerged.

11. Begin purging the well at 0.2 to 0.5 L/min (0.05 to 0.13 gal/min). The water level should optimally be monitored continuously, but at a minimum, every 3 to 5 minutes during purging. Ideally, a steady flow rate should be maintained that results in a stabilized water level (less than 0.3 feet of variation). Pumping rates should, if needed, be reduced to the minimum capabilities of the pump to ensure stabilization of the water level. However, care should be taken to maintain pump suction and to avoid entrainment of air in the tubing. Record each adjustment made to the pumping rate ad the water level measured immediately after each adjustment.

12. If the recharge rate of the well is very low, care should be taken to avoid loss of pressure in the tubing line, cascading through the sand pack, or pumping the well dry. In these cases, purging should be interrupted before the water in the well reaches a level below the top of the pump. Sampling should commence as soon as the volume in the well has recovered sufficiently to permit collection of samples.

13. During purging of the well, monitor the following geochemical parameters every 3 to 5 minutes: turbidity, dissolved oxygen, redox potential (Eh), temperature, specific conductance, and pH. In-line analyzers and continuous readout displays are highly recommended. The well is considered stabilized and ready for sample collection once turbidity, redox potential, and dissolved oxygen in in-line or downhole analyses of groundwater have stabilized within approximately 10% over at least two measurements – for example, over two successive measurements made three minutes apart. Turbidity should be less than 50 NTUs (decrease pumping rate to lower turbidity measurements). Dissolved oxygen and Eh must be obtained in a manner in which the sample is not exposed to air prior to the measurement. Other parameters may be taken in a clean container, such as a glass beaker.

14. If a well is purged to dryness before removing three well volumes, allow well to recharge and proceed to collect sample. If full recovery exceeds 2 hours, the well should be sampled as soon as sufficient volume is available or within a maximum of 3 hours from purging dry.

15. Collect groundwater samples after purging is completed. Collect the samples using the sampling pump operated at a maximum rate of 0.25 L/min (0.07 gal/min)(or to the rate of the purging activities) to avoid agitating the water. Sample first for VOCs, taking care to remove all air bubbles from the vial and minimize agitation. Collect remaining organic samples then inorganic samples.

    The recommended order of sample collection is as follows:

    In-field measurements (e.g., temperature, pH, Eh, specific conductance, dissolved oxygen, turbidity)
    Volatile organic compounds (VOCs)
    Purgeable organic carbon (POC)
    Purgeable organic halogens (POX)
    Total organic halogens (TOX)
    Total organic carbon (TOC)
    Extractable organics
    Pesticides and herbicides
    Total metals
    Dissolved metals
    Phenols
    Cyanide
    Sulfate and chloride
    Nitrate and ammonia
    Radionuclides

16. Affix a sample tag or label to each sample container and complete all required information (sample no., date, time, sampler's initials, analysis, preservatives). Place clear tape over the tag or label. Record sample designation, date, time, and the sampler's initials on the sample tracking form and in the field book. Complete chain-of-custody forms with appropriate sampling information.

17. Remove the pump and tubing from the well. Inspect the well for soundness of protective casing and surface ground seal. Record water color, suspended particulates, discoloration of casing, any unusual occurrences during sampling, and any pertinent weather details on the groundwater monitoring data log.

18. Thoroughly decontaminate all equipment used before proceeding to the next well. See SOP No. 16 for details on decontamination procedures. Discard used towels, tubing, gloves, etc., in a plastic bag. Refer to the Investigation Derived Waste Management Plan for the site for appropriate storage and disposal methods of these materials.

Standard Operating Procedure - 4

Surface Water and Sediment Sampling (using hand trowel)

Surface Water Sampling

Materials:

Nitrile gloves
Saranex or Tyvek suit
Vinyl gloves
Bulldog boots
Hip-waders
Sample containers
Sample labels and indelible marker
Bound field log book

Procedure:

1. Collection of surface water samples should be completed before collection of the stream sediment samples from the same location. This procedure will eliminate the introduction of sediment and turbulence in the surface water that is to be sampled.

2 The sampler should wear hip-waders or rubber boots and gloves, or Saranex or Tyvek sleeves duct taped onto nitrile gloves, to avoid dermal contact with the surface water.

3. Extreme caution should be exercised when wading into the stream at the sampling location to minimize disturbance of the fine sediments.

4. Because of possible unseen water hazards, two people should be present during the collection of surface water samples.

5. If collecting several surface water samples from the same surface water body, start sampling at the downstream location and progressively move upstream. The sampler should always face upstream (i.e., upcurrent) when collecting the surface water sample.

6. The surface water sample container should be placed into the flowing water and the sample should be collected from just beneath the stream surface.

7. The sample container should be labeled before sample collection. After the sample is collected, the container should be sealed, and placed into a cooler for shipment to the analytical laboratory.

8. The sampling location should be described, including width of stream, depth of stream, water color, and approximate surface flow (e.g., slow, fast moving, etc.).

9. Sampling locations should be marked with a stake or flagged for future reference. Locations should be recorded with respect to a permanent feature, if available.

10. Complete chain of custody form with appropriate sampling information.

11. If collecting sediment samples, proceed to collect the sample from this location.

Sediment Sampling

Materials:

Hand trowels (stainless steel or Teflon)
Nitrile gloves
Vinyl gloves
Tray, mixing pans, Ziploc® plastic bags
Stainless steel or Teflon spoons
Aluminum foil
Saranex or Tyvek suit
Hip-waders of rubber boots
Sample containers
Sample labels and indelible marker
Bound field log book

Procedure:

1. The hand trowel can be used to sample shallow stream bottom sediments, where the depth of water does not exceed 1 foot, using the same procedures specified in the Standard Operating Procedures for Collection of Soils Samples Using a Hand Trowel. The sediment corer or other appropriate sampling device should be used in water deeper than 1 foot (see SOP-6).

2. The sampler should wear hip-waders or rubber boots and gloves, or Saranex or Tyvek sleeves duct taped onto nitrile gloves, to avoid dermal contact with the water.

3. Extreme caution should be exercised when wading into the stream at the sampling location to minimize disturbance of the fine sediments.

4. If collecting several sediment samples from the stream, start sampling at the downstream location and progressively move upstream. The sampler should always face upstream (into the current) when collecting the sediment sample.

5. Insert the trowel into the sediment bed and retrieve sediment. Carefully remove the trowel from the water to avoid washing sediment from the blade. The trowel blade should be tilted at a slight angle, if necessary, to drain excess water from the blade before placing the sediment in the mixing tray.

6. If more sediment is needed to provide sufficient sample volume, reinsert trowel at the sample location and retrieve as before.

7. Examine contents of tray. For volatile organic compound (VOC) samples, do not mix the sediment sample in the tray. Transfer sediment directly into sample containers, choosing your sample from various portions of the tray to simulate homogeneity.

8. After the collection of VOC samples and before filling other sample containers, mix the contents of the tray so a homogeneous texture remains.

9. Transfer the tray contents to the sample containers.

10. The sample container should be labeled before sample collection. After the sample is collected, the container should be sealed, wiped clean of excess sediment material, and placed in a cooler with ice or freezer packs for shipment to the analytical laboratory. Complete chain-of-custody form with appropriate sampling information.

11. The sampling location should be described, including width of stream, depth of stream, water color, and approximate surface flow (e.g., slow, fast moving, etc.).

12. Sampling locations should be marked with a stake or flagged for future reference. Locations should be recorded with respect to a permanent feature, if available.

Standard Operating Procedure - 5

Sediment/Sludge Sampling with Ekman Dredge

Application:

Sediment/sludge samples can be collected with an Ekman dredge, which is normally used when collecting samples from lagoons or other aqueous systems. The dredge consists of a spring-loaded set of jaws with a brass sampling bucket that is lowered to retrieve samples. The dredge can be mounted on a pole or suspended from a line. This may not be used for samples to be analyzed for metals and organics.

Materials:

Ekman dredge
Saranex or Tyvek suit
Overboots or hip-waders
Stainless steel spoons or scoops
Plastic sheeting or garbage bags
Nitrile, surgical, or work gloves
Trays, mixing pans, or Ziploc® plastic bags

Procedure:

1. Sampler should don personal protective equipment as required to prevent dermal contact with sample media.

2. Carefully open jaws of the Ekman dredge and set trip lines to trigger device.

3. Gently lower the Ekman dredge through the aqueous media until it rests on the sediment.

4. To close the jaws of the Ekman dredge, send the messenger down the line; or if the dredge is pole-mounted, strike the spring release button on the top of the pole. The weight will strike the trigger mechanism, causing the spring-loaded jaws to close. This will trap the sludge/sediment inside the sampling bucket.

5. To minimize disturbance and to avoid washing the sample from the dredge bucket, slowly retrieve the dredge through the liquid column above it.

6. The sediment sample should be removed from the dredge bucket with a stainless steel scoop or spoon and transferred directly to the labeled sample container if volatile organic compounds are being analyzed for. The remaining sediment/sludge material should be homogenized in a sampling tray before transferring to the sample container.

7. The sample container should be sealed, labeled, and placed in a cooler with ice or freezer packs for shipment to the analytical laboratory.

8. The sampling locations should be described including width of stream or vessel, depth of stream or vessel, and approximate surface flow rate, if applicable. Locations should be flagged or marked with a stake for future reference.

9. Keep detailed notes in the field log book of the sample location, sample description, sample length, sampler's name, and the requested analytical parameters.

10. Completed chain-of-custody forms with appropriate sampling information.

Standard Operating Procedure - 6

Sediment Sampling Using Hand Corer

Application:

Sampling bottom sediment in shallow surface water bodies and lagoons

Materials:

Hand corer
Extension handle
Analyte-inert core tube liners (glass, Teflon, etc.)
Nitrile, surgical, or work gloves
Protective overboots
Tray, mixing pans, or Ziploc® plastic bags
Stainless steel spoons or trowel
Pipe wrenches
Bound log book

Assembly:

1. Secure the core tube head assembly onto the core tube, as specified by manufacturers instructions.

2. Remove end liner caps and wrapping from a clean core tube liner and insert the liner into the core tube.

3. Insert a clean core retainer into the bottom of the core tube liner so that its convex end points away from the bottom. Plastic materials should not be used if organic analytes are of concern.

4. Screw the shoe (nose cone) onto the bottom of the core tube. The hand corer is now fully assembled for use.

5. If the hand corer is used from a boat or overhead structure, either of the following two attachments can be used:

    a) *5-foot extension handles can be attached to the top of the core head assembly with a threaded adapter fitting, nut, and bolt. The long handle is used to push the corer into bottom sediment.*

    b) *The corer can be lowered to the bottom with a rope. The rope can be tied to a clevis pin that mounts on the core head assembly with a nut and bolt.*

Use:

1. Place nitrile gloves on hands before collecting samples.

2. Sampler should avoid wading into surface water, if possible. If not possible, the sampler should carefully approach the sample location to minimize disturbance of fine sediments.

3. Place the corer in a vertical position perpendicular to the bottom at the desired sample location.

4. The hand corer should be lowered slowly to minimize disturbance of sediments.

5. If using the corer from a wading position push it down into the sediment while turning the handle. The push and twist technique can also be used with the long extension handle attached to the corer.

6. If the corer is attached to a rope, detachable weights can be put on top of the core head assembly by threading the rope through the holes in the center of the weights. The shoe of the corer should not be resting on the bottom before being advanced. Further penetration will be achieved by allowing the corer to fall freely through the water while in a vertical position to strike the bottom. The weights will increase the force of the corer as it strikes the bottom.

7. When sufficient sample has been collected, it is usually necessary to push it back and forth from different angles to loosen the seal between the bottom and the core tube before pulling it up.

8. Slowly retrieve the core tube and place it on a clean surface in a vertical position. Slowly tilt it toward a horizontal position (this can be done immediately following retrieval of the sampling device). This will open the flapper valve and allow water that entered the tube to leak out.

9. Unscrew and remove the core head assembly and shoe from the core tube. Pipe wrenches may be used to unscrew the core tube assembly. Slide the core tube liner out of the core tube.

10. If undisturbed sediment core samples are needed, do not remove the sediment sample from the core tube. Retain the core sample in the core tube liner (i.e., inner sleeve) and place Teflon end caps on each liner end. Label the inner tube and tape the end caps on the tube liner for shipment to the laboratory. Plastic materials, including end cap, should not be used if organic analytes are of concern.

11. To remove sediment from the core tube, place the core tube liner over a sampling tray and remove its contents by inserting the brass rod into the top end of the tube and pushing. The brass rod should be decontaminated and wrapped in clean aluminum foil between each use.

12. If additional sediment is needed to provide necessary sample volume, reassemble the corer using a separate, clean core tube liner and repeat steps 1-11.

13. For volatile organic compound (VOC) samples, do not mix the sample before sampling for VOCs. Transfer sediment from the tray directly into sample containers.

14. Examine the contents of the tray. After the collection of VOC samples and before filling other sample containers, mix the sediment so a homogeneous particle size and texture remain.

15. Using the stainless steel spoon, transfer the tray contents to the sample containers.

16. The sample container should be labeled before sample collection. After the sample is collected, the container should be sealed, wiped clean of excess sediment, and placed in a cooler with ice or freezer packs for shipment to the analytical laboratory.

17. Complete chain-of-custody form with appropriate sample information.

18. The sample location should be described, including depth of the surface water body and approximate surface flow. The location should be flagged or marked for future reference, if possible.

Standard Operating Procedure - 7

Sludge Sampling with Sludge Judge

Application:

The sludge judge is useful for obtaining a core sample of semi-liquid sludge or water and sludge. This instrument is a long, narrow polyethylene tube with a check valve on the bottom. The tube is graduated in 6-inch intervals for easy identification of sampling depth. A sludge judge may not be used for organics.

Materials:

Sludge judge
Saranex or Tyvek suit
Sample containers, labels, and indelible marker
Tray or mixing pans
Aluminum foil
Plastic sheeting or garbage bags
Nitrile gloves
Vinyl gloves
Eye protection
Over boots
Stainless steel scoops, trowels, or spoons

Procedure:

1. Sampling personnel should don the appropriate personal protective equipment based on the type of material being sampled and its historical characteristics.

2. Slowly insert the sludge judge into the material being sampled.

3. When the sludge judge has filled with material, pull back on the sampler to close the check valve and retrieve the sludge sample.

4. If a liquid sample is not required, decant any liquid into a separate container or back into the vessel being sampled. Transfer the remaining sludge sample directly into a labeled sample container by pouring the sludge from the top of the sampling tube. If a liquid sample is required, decant any liquid in the tube directly into sample containers; retrieve the sludge from tube.

5 The sample container should be sealed, labeled, and placed in a cooler with ice or freezer packs for shipment to the analytical laboratory.

6. Keep detailed notes in the field log book of the sample location, sample description, sample depth, sampler’s name, and the requested analytical parameters.

7. Complete chain-of-custody forms with appropriate sampling information

Standard Operating Procedure - 8

Sludge Sampling with Coring Tube

Materials:

Field log book
Personal protective equipment (PPE)
Coring tube
Hammer
Plastic tube liners
Hack saw and replacement blades
Mixing tray or bowl
Plastic sheeting
Stainless steel spoon or trowel
Expanding ruler or tape measure

Note: Decontamination is not required for dedicated sampling equipment.

Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. Insert a plastic liner into the coring tube to collect an undisturbed sample. A plastic core catcher may be used to improve sample recovery.

3. The sample is collected by pushing or hammering the coring tube into the material to the desired depth, making sure not to exceed the length of the coring tube. Continuous core samples can be obtained from stable coreholes by re-inserting the coring device into the same core-hole. However, a new plastic liner must be placed in the coring device before each sample is collected.

4. Remove the sampler by pulling and twisting the coring tube until it breaks free from the material. This will result in a core that is approximately 2 feet long.

5. If the sample needs to be collected from a depth greater than 2 feet, place a new plastic liner into the tube and re-insert the sampler into the same core-hole and repeat Steps 3 and 4.

6. Remove the plastic liner from the coring tube and decant any excess water above the core.

7. Cut the plastic liner at the desired sample interval using a hack saw with a decontaminated blade. For VOC samples, extrude the sample material directly into a sample container. A closed-system sampler (e.g., Encore Sampler) should be used, if necessary, to collect sludge samples for VOC analysis using EPA Method 5035 for preservation.

8. For all other parameters, a stainless steel spoon or trowel should be used to transfer the sample material into a decontaminated mixing tray or bowl to be homogenized. The decontaminated stainless steel spoon or trowel can be used to remove gummy or thick sludge from the tube, if required.

9. If necessary, screen the sludge with a PID/OVA or perform a headspace analysis in accordance with SOP 22. Record the reading in the field logbook.

10. Record the sample location, sample description, sample depth, sampler's name, and the requested analytical parameters in the field log book.

11. Label the containers, cover the labels with tape, and immediately place the containers in a cooler maintained at an ambient temperature of 4° Celsius with wet ice. Freezer packs or dry ice should not be used for sample preservation.

12. Complete chain-of-custody forms with appropriate sampling information.

13. Samples should be maintained and shipped in accordance with SOP 20.

14. Properly manage all PPE and investigation-derived wastes in accordance with state and federal requirements.

Standard Operating Procedure – 9

Soil Sampling Using Bucket Auger

Materials:

Field log book
Personal protective equipment (PPE)
Bucket augers
Auger extension rods
Auger handle
Pipe wrenches (for threaded connections)
Push pins (for snap connections)
Stainless steel spoons or trowels
Mixing tray or bowl
Plastic sheeting
Expanding ruler or tape measure

Note: Decontamination is not required for dedicated sampling equipment.

Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. Remove all vegetation or other surface material (e.g., gravel) with a hand trowel or other tool (e.g., shovel).

3. Advance the borehole to the desired sampling depth (i.e., the top of the sample interval). Attach a decontaminated auger bucket to collect the soil sample.

4. Place the auger bucket in the borehole. Grip the cross-handle with both hands and twist it clockwise to advance the auger.

5. Withdraw the auger bucket from the borehole and place it on plastic sheeting. For VOC samples, use a decontaminated stainless steel spoon or trowel to transfer the sample material directly into the appropriate sample container. A closed-system sampler (e.g., Encore Sampler) should be used, if necessary, to collect sludge samples for VOC analysis using EPA Method 5035 for preservation.

6. Remove the retrieved soil from the bucket with a decontaminated stainless steel spoon or trowel and place the material in a decontaminated mixing tray or bowl. If additional soil is needed to provide sufficient sample volume, repeat Step 4.

7. If necessary, screen the lead end of the auger with a PID/OVA or perform headspace analysis in accordance with SOP 22. Record the reading in the field logbook.

8. Describe the remaining sample material in accordance with ASTM International Standard D 2488 and the Unified Soil Classification System. Record the sample description in the field logbook.

9. For all other parameters, the sample material should be transferred into a decontaminated mixing tray or bowl. Use the stainless steel spoon to separate large clumps of soil material and mix the contents of the tray to a homogeneous particle size and texture.

10. Examine the contents of the tray and remove coarse gravel, organic material (e.g., roots, grass, and woody material) and any other debris with the stainless steel spoon.

11. Transfer the tray contents to the appropriate sample container using a stainless steel spoon.

12. Label the containers, cover the labels with tape, and immediately place the containers in a cooler maintained at an ambient temperature of 4° Celsius with wet ice. Freezer packs or dry ice should not be used for sample preservation.

13. Measure and record the sample depth in the field logbook, along with the sample location, sampler name, and the requested analytical parameters.

14. Complete the chain-of-custody form with appropriate sampling information.

15. Samples should be maintained and shipped in accordance with SOP 20.

16. Properly manage all PPE and investigation-derived wastes in accordance with state and federal requirements.

Standard Operating Procedure - 10

Split-Spoon Soil Sampling

Application:

To collect soil samples with a split-spoon sampler that is advanced and retrieved with a drill rig.

Materials:

Field log book
Personal protective equipment (PPE)
Split-spoon samplers
Stainless steel spoons or trowels
Mixing tray or bowl
Pipe wrenches
Expanding ruler or tape measure

Note: Decontamination is not required for dedicated sampling equipment.

Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. Ensure that the soil boring has reached the desired sample depth and that loose soil in the bottom of the boring has been cleaned out.

3. The drillers will attach a decontaminated split-spoon sampler to the lead drilling rod, lower it to the bottom of the boring, and advance the split-spoon into the undisturbed soil. Record in the field logbook the number of blows for every 6 inches the sampler is advanced.

4. When the split-spoon has reached the desired depth, the driller will retrieve the split-spoon and disconnect the split-spoon from the drilling rod.

5. Remove the head and shoe from the split-spoon and note which end of the sampler is the top and bottom. Separate the split-spoon sampler into two halves keeping all of the soil in one of the halves (if possible).

6. Measure the length of material recovered in the sampler with respect to the penetration depth and record this ratio in the field logbook.

7. If field screening for organic vapors is required, break or cut the soil core every 3 to 4 inches and quickly scan the breaks in the core material with a PID/OVA. Headspace analyses, if required, should be performed in accordance with SOP 22. Record the reading in the field logbook.

8. For VOC samples, transfer the soil directly into the sample containers with a decontaminated stainless steel spoon**.** A closed-system sampler (e.g., Encore Sampler) should be used, if necessary, to collect sludge samples for VOC analysis using EPA Method 5035 for preservation.

9. Describe the remaining sample material in accordance with ASTM International Standard D 2488 and the Unified Soil Classification System. Record the information in the field logbook.

   Note: the top of the split-spoon often contains float material, which is not to be included in the soil sample or sample description.

10. If it is necessary to collect soil samples for non-volatile parameters, transfer the recovered soil to a decontaminated mixing tray or bowl with a decontaminated stainless steel spoon. Soil material lodged within the split-spoon shoe should also be placed in the mixing tray or bowl for sampling.

11. Examine contents of the tray and remove pebbles, organic material, (e.g., roots, grass, and woody material), and other debris with the stainless steel spoon. Use the same spoon to chop apart clumps of soil and mix the contents of the tray to a homogeneous particle size and texture.

12. Transfer the soil material to the appropriate sample containers using the stainless steel spoon.

13. Label the containers, cover the labels with tape, and immediately place the containers in a cooler maintained at an ambient temperature of 4° Celsius with wet ice. Freezer packs or dry ice should not be used for sample preservation.

14. Record the sample location, sample depth, sampler name, and the requested analytical parameters in the field log book.

15. Complete the chain-of-custody form with appropriate sampling information.

16. Samples should be maintained and shipped in accordance with SOP 20.

17. Properly manage all PPE and investigation-derived wastes in accordance with state and federal requirements.

BORING LOG WSP Environment & Energy 11190 Sunrise Valley Drive, Suite 300 Reston, Virginia 20191	**PROJECT**	Boring No. Sheet ___ of Date Drilled

Drilling Co. Driller Geologist	Boring Location Ground Elevation TOC Elevation

Boring Method Hole Diameter Inside Diameter Total Depth	Casing/S Type Diameter Screen Length Screen Slot Size	Sampler Method Length (ft) Hammer (lb) Fall (in)

Depth	P.I.D. (ppm)	Percent Recovery	Sample Depth	Blows/6"	Well Design	Sample Description

Standard Operating Procedure - 11

Soil Sampling Using Hand Trowel

Application:

To collect surface or shallow subsurface soil samples with a hand trowel.

Materials:

Field log book
Personal protective equipment (PPE)
Stainless steel trowels or spoons
Mixing tray or bowl
Plastic sheeting

Note: Decontamination is not required for dedicated sampling equipment.

Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. Remove the resealable plastic bag and aluminum foil from a decontaminated stainless steel trowel or spoon.

3. Remove any vegetation or other surface material (e.g., gravel) from the sample location with a trowel or other tool (e.g., shovel).

4. Push the trowel or spoon into the soil to the desired sampling depth. If sampling a loose gravelly or sandy soil, carefully remove the trowel so that the blade approaches a horizontal position to prevent soil from falling off the blade. If sampling a stiff silty or clayey soil, it may be necessary to remove and reinsert the trowel to loosen the soil. Shallow subsurface soil samples can be collected by digging a hole (e.g., with a shovel or trowel) and collecting a soil sample at the desired depth. A decontaminated stainless steel trowel or spoon should be used for sample collection.

5. Repeat Step 4 if more soil is needed to provide sufficient sample volume.

6. If required, screen the recovered soil with a PID/OVA or perform headspace analyses in accordance with SOP 22. Record the reading in the field logbook.

7. For VOC samples, transfer soil directly into the sample container with the stainless steel trowel. A closed-system sampler (e.g., Encore Sampler) should be used, if necessary, to collect sludge samples for VOC analysis using EPA Method 5035 for preservation.

8. Describe the remaining sample material in accordance with ASTM International Standard D 2488 and the Unified Soil Classification System. Record the sample description in the field logbook.

9. If soil samples will be collected for non-volatile parameters, use the stainless steel spoon to chop apart clumps of soil material and mix the contents of the tray to a homogeneous particle size and texture.

10. Examine contents of the tray and remove pebbles, organic material, (e.g., roots, grass, and woody material), and other debris with a stainless steel trowel or spoon.

11. Transfer the tray contents to the appropriate sample container using a stainless steel spoon.

12. Label the containers, cover the labels with tape, and immediately place the containers in a cooler maintained at an ambient temperature of 4° Celsius with wet ice. Freezer packs or dry ice should not be used for sample preservation.

13. Record the sample location, sample depth, sampler name, and the requested analytical parameters in the field log book.

14. Complete the chain-of-custody form with appropriate sampling information.

15. Samples should be maintained and shipped in accordance with SOP 20.

16. Properly manage all PPE and investigation-derived wastes in accordance with state and federal requirements.

Standard Operating Procedure - 12

Chip, Wipe, and Sweep Sampling

Application:

These methods of sample collection are intended for monitoring surficial contamination of nonvolatile species of analytes on porous surfaces for chip samples and smooth surfaces for wipe samples. Also included is a method for collecting dust samples from porous or non-porous surfaces.

Materials:

Lab-clean sample containers of proper size and composition
Field and travel blanks
Site log book
Sample analysis request forms
Chain of custody forms
Custody seals
Sample seals
Disposable surgical gloves
Sterile wrapped gauze pad (3 in. X 3 in.)
Appropriate pesticide (HPLC) grade solvent
Medium-sized, laboratory-cleaned paint brush
Medium-sized, laboratory-cleaned chisel
Autoclaved aluminum foil
Camera
Distilled/deionized water

Procedure:

Preparation

1. Determine the extent of the sampling effort, the sampling methods to be employed, and the types and amounts of equipment and supplies needed.

2. Obtain necessary sampling and monitoring equipment. Decontaminate or pre-clean the equipment, and ensure that it is in working order.

3. Perform a general site survey and mark all sampling locations. Measure off the designated area and photo document.

Chip Sample Collection

1. Don a new pair of disposable surgical gloves. Remove aluminum foil wrap from the laboratory-cleaned chisel or equivalent sampling device.

2. Chip the sample area horizontally, then vertically to an even depth of approximately 1/8 inch. Collect the chipped fragments using a decontaminated dustpan and bristle brush and transfer the sample directly into the labeled sample bottle. Cap the container, attach the label and custody seal, and place in a double plastic bag. Store the samples out of direct sunlight and cool to 40 Celsius.

3. Record all pertinent data (sample location, sample description, sample depth, sampling personnel, and the requested analytical parameters) in the site logbook. Complete chain-of-custody forms with appropriate sampling information.

Wipe Sample Collection

1. Don a new pair of disposable surgical gloves. Open a new sterile package of gauze pad. Soak the pad with the appropriate solvent (one in which the contaminant is most soluble). Wipe the marked surface area using firm strokes. Wipe vertically, then horizontally to ensure complete surface coverage.

2. Place the gauze pad in an appropriately prepared sample container with a Teflon-lined cap. Cap the sample container, attach the label and custody seal, and place in a double plastic bag.

3. Record all pertinent data (sample location, sample description, sample depth, sampling personnel, and the requested analytical parameters) in the site logbook. Complete the chain-of-custody forms before taking the next sample.

4. A blank sample should be collected for each sampling event. This consists of a sterile gauze pad, wet with the appropriate solvent, and placed in a prepared sample container. The blank will help identify potential introduction of contaminants via the sampling methods, the pad, solvent, or sample container.

5. Store samples out of direct sunlight and cool to 40 Celsius.

Sweep Sample Collection

1. Don a new pair of disposable surgical gloves. Sweep the measured area using a dedicated brush and collect the sample in a dedicated dustpan (pre-cleaned).

2. Transfer the sample from the dustpan to the sample container. Cap the sample container, attach the label and custody seal, and place in a double plastic bag.

3. Record all pertinent data (sample location, sample description, sample depth, sampling personnel, and the requested analytical parameters) in the site logbook. Complete the chain-of-custody form before taking the next sample.

4. Store samples out of direct sunlight and cool to 40 Celsius.

Standard Operating Procedure - 13

Concrete Core Sampling

Materials:

Concrete corer and drill
Tap water or containers of water
Concrete chisel
Hammer
Aluminum foil
Ionic detergent
Wet/dry vacuum
Stiff-bristled brushes
Sandpaper
Nitrile gloves
Respiratory protection
Tyvek suits
Paper towels
Eye protection
Indelible marker
Kimwipes
Generator (i.e., electrical power)
Extension cord (heavy duty)
Pipe wrenches
Work gloves
Garden hose

Procedure:

1. Clean surface area to be sampled by scrubbing it using ionic detergent (e.g., Whisk solution) and stiff-bristled brush. Rinse the surface with deionized water, then remove the water by vacuuming surface with wet/dry vacuum.

2. Remove any sealant coatings from the surface area using sandpaper or a grinder. Wash, rinse, and vacuum the surface area.

3 Move the drill into position and connect the decontaminated concrete corer to the drill. Connect the water supply and pressure distribution tank.

4. Establish vacuum pressure to hold core drilling rig to the floor.

5. Lower the corer to within 2 inches of the surface, start the drill, and slowly lower the corer to the surface.

6. Keep a steady stream of water flowing through the corer to cool the concrete, prevent the concrete core from splitting, and control fugitive dust. Do not remove corer from the hole until the required depth is reached. However, should the concrete corer become lodged, shut off power immediately to avoid injury.

7. With the drill still operating, remove the corer from core hole and shut off. Observe the hole to see if core was removed. If the concrete core is still in the floor or the core barrel, use a concrete chisel and rubber mallet to break the core loose.

8. When removing the core from the corer, handle the core with clean nitrile gloves.

9. Place a label on the top of the core written with a permanent marking pen. DO NOT WRITE on the core itself, especially if volatile organic compound analysis is requested. Measure the total length of core and record it in the field log book. Wrap the core in aluminum foil and place it in a labeled sample container.

10. Keep detailed notes in the field log book of the sample location, sample description, sample depth, sampling personnel, and the requested analytical parameters.

11. Complete chain-of-custody forms with appropriate sampling information

Standard Operating Procedure - 14

Waste Pile Sampling

Application:

As with soil sampling, waste pile samples can be collected at the surface or at depth, and different equipment is required in each instance. Surface samples can be collected most efficiently with a trowel or scoop. For samples at depth, a decontaminated, clean bucket auger may be required. For a sample core, waste pile samplers may be used. To collect representative samples of a waste pile, composite samples may be required. The objectives of the sampling program will dictate the need to collect composite samples. A grid system set-up on the waste pile may also be used to collect individual or composite samples.

Materials:

Stainless steel trowels or scoops
Stainless steel spoons
Bucket augers
Extension rods
Auger handle
Pipe wrenches
Teflon tape
Work, nitrile, and surgical gloves
Saranex or Tyvek suit
Eye protection
Respirator (if necessary)
Analytical buckets
Tray, mixing pans
Ziploc® plastic bags
Aluminum foil
Stakes and string (grid system)
Plastic sheeting
HNu or other photoionization detector (PID)

Procedure:

1. At the desired sampling location, clear away the accumulated surface debris.

2. The sampler should put on the correct personal protective equipment as dictated by the medium to be sampled and the project. Care should be taken to ensure that contact between the waste material and the skin, eyes, and face of the sampling personnel is prevented.

3. If a grid system is being employed for sampling the waste pile, lay out the grid according to the developed sampling plan.

4. Assemble the sample equipment (e.g., bucket augers) if necessary, and collect the samples at the chosen designations.
5. Collect an adequate volume of waste from a depth of 0-6 inches using the bucket auger, trowel, or scoop at the desired sampling locations. Record the PID measurement in the open borehole.

6. If using a bucket auger, advance the decontaminated bucket auger by turning the bucket auger clockwise into the sample medium. To remove the auger, turn the auger counter-clockwise and pull it from the borehole. This procedure is repeated until sampling is complete. If the sampled waste pile is heterogeneous, a clean, decontaminated bucket must be used every time to collect the sample of the waste material, if necessitated by the objectives of the sampling plan.

7. If composite samples are to be collected, transfer the waste material to a clean tray or mixing pan for compositing. Report the PID measurement of the material in the tray. Use a clean, decontaminated spoon, scoop, or trowel to homogenize the sample. Remove any foreign matter (e.g., rocks, sticks, or other debris) from the tray. Transfer the waste sample directly into a prelabeled sample container. A wide-mouth sampling container is preferable for containing the sample, as it requires less disturbance of the waste sample as the sample is being transferred into the labeled sample container.

8. Keep detailed notes in the field log book of the sample location, details about the grid spacing, sample description, sample depth, PID measurements, sampler's name, and the requested analytical parameters.

9. Complete the chain-of-custody forms with the appropriate sampling information.

Standard Operating Procedure - 15

Decontamination of Drilling Equipment

Materials:

Canvas or plastic tarp(s)
4-mil polyethylene liner
Pressurized steam cleaner (steam jenny)
55-gallon steel drums with bung (closed) tops
55-gallon steel drums with open tops, rings, lids, ring-nut and ring-bolt
Hammer, nails, duct tape, extension cord(s)
Wood boards - 4" x 4", 2" x 4" or 2" x6"
Portable wet/dry vacuum
Shovel, funnel, and squeegee

Construction of Decontamination Basin:

1. Place tarp(s) on flat, firm surface in an accessible area of the site away from areas of surface contamination. Use enough tarp to accommodate the rear of the drilling rig and hollow stem augers and to prevent overspray from the steam jenny from falling onto adjacent soil surfaces. If necessary, place more than one tarp on the ground. Overlap tarp edges and secure with duct tape. Area should be slightly inclined toward one corner so that the decontamination water will pool in one corner for easier pumping to the containment drums.

2. Place a layer of polyethylene liner on top of the tarp(s). If one sheet cannot completely cover the tarp, use another one. Overlap the sheets at the edges and secure with duct tape.

3. Place 4" x 4" boards along the tarp's outer edges to form a square or rectangular basin. Roll each 4" x 4" board toward the center so the tarp and polyethylene wrap completely around it at least once. Secure the tarp and liner to the top of the boards with nails, tacks or heavy-duty staples.

4. Place the drums, steam cleaner, and wet/dry vacuum adjacent to one side of the basin on the outside.

Decontamination Procedure:

1. Unload drilling equipment from the drilling rig and place in one side of the basin.

2. Activate the steam cleaner. Personnel performing steam cleaning should don rubber boots, Tyvek or Saranex suits, rubber gloves, and a hard hat with a face shield for splash protection.

3. Clean each piece of drilling equipment, including auger bits, drill bits, portable power augers, hollow stem augers, auger holders, split spoons, rod lifters, and drilling rods, by holding the nozzle of the steam cleaner a few inches away. Wood 2" x 4"s can be placed on the basin floor to prevent drilling equipment from coming into contact with solids that will build up beneath it as it is being steam cleaned.

4. After each piece is cleaned, place it on rows of 2" x 4" boards in a separate area of the basin.

5. If space allows, position the rear of the drill rig in the basin and use the steam cleaner to clean off rig surfaces and the hoist and derrick as needed.

6. Reload drilling equipment onto rig and drive it out of the basin.

7. Vacuum up liquids on the basin floor with the flexible hose of the portable wet/dry vacuum. A long-handled squeegee can be used to pool liquid together to aid vacuuming.

8. Remove accumulated solids from the basin floor with a shovel and place in open-top drums. During removal of the accumulated solids, be careful so that the polyethylene liner is not torn, cut, or punctured with the shovel.

9. Empty the canister of the wet/dry vacuum into a bung-top drum using a funnel.

10. Secure and tighten tops of drums and apply appropriate hazardous waste or nonhazardous waste labels to each drum. The accumulation date should be placed on each drum. An inventory of all onsite drums should be entered into the field log book by field personnel. All drums should be marked, numbered, or labeled with an indelible marker for future reference.

11. On completion of onsite work, the properly labeled and inventoried drums should be stored within a newly constructed pad or basin until disposal is arranged. This containment area should be constructed of wooden boards with a polyethylene liner, as described above.

12. Materials used in construction of the decontamination basin or pad should be disassembled and placed into a properly labeled drum for future disposal.

13. All drilling equipment and the drill rig should be decontaminated on arrival onsite and before the start of any drilling activity. On completion of site work, the drilling equipment and rig should be decontaminated by the drilling contractor before departure from the site.

Standard Operating Procedure - 16

Decontamination of Submersible Pumps

Materials:

Field logbook
Personal protective equipment (PPE)
Polyethylene sheeting
Garbage bags
Nonphosphate detergent (e.g., Liquinox or Alconox)
Tap water
Deionized water
Two containers (e.g., garbage cans, buckets, plastic tubs)
Nylon brushes
Isopropanol
Spray bottles
Paper towels

Note: To limit the potential for cross-contamination between wells, wells should be pumped in the order of increasing constituent concentrations whenever possible. This SOP assumes that dedicated tubing is being used at each well. If dedicated tubing is not being used, the tubing should also be decontaminated using the following procedures.

Decontamination Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. Prepare a decontamination area by spreading polyethylene sheeting on a firm, flat surface (if possible). Create a berm around the decontamination area to contain inadvertent spillage. A berm can be created by rolling under the edges of the polysheeting or by draping the plastic over a wooden frame, etc.

3. Place two clean containers (e.g., garbage cans, buckets, plastic tubs) on the polysheeting. Place tap water in one container with non-phosphate detergent. Place only tap water in the second container. The containers may also be lined with garbage bags.

4. If an oily film or residue is observed on the pump or leads when they are removed from the well, the pump should be sprayed with isopropanol to remove the oil and then wiped clean with paper towels before proceeding with Step 5 below. The oily rinsate should be contained in a separate container for proper disposal.

5. Place the pump and wire leads in the container of non-phosphate detergent and tap water and scrub the exterior of the pump with a brush. Circulate the soapy solution through the pump for at least 5 minutes. Rinse the exterior of the pump and leads with additional tap water to remove excess soap (if necessary) before proceeding with Step 6.

6. Place the pump and leads in the container of tap water and run the pump for a least 5 minutes. Run water through the pump until all residual detergent has been removed. The soapy solution and rinse water should be changed when it becomes oily or too silty.

7. Remove the pump and leads from the rinse water. Spray off the pump thoroughly with deionized water and wipe it dry with clean paper towels. Wipe off the wire leads with a paper towel soaked with deionized water.

8. Wrap the pump and leads in plastic sheeting or a new plastic garbage bag to prevent possible contamination during transportation. Label the sheeting or bag with the date of decontamination for future reference.

9. Properly manage all PPE and decontamination rinsate in accordance with state and federal requirements (See SOP 26). The spent wash water and rinse water can potentially be placed in the facility's waste water treatment system. However, field personnel should obtain approval from facility personnel and from the local POTW.

Standard Operating Procedure - 17

Decontamination of Water Level Indicators

Materials:

Field logbook
Personal protective equipment (PPE)
Non-phosphate detergent (e.g., Liquinox or Alconox)
Deionized water
Isopropanol
Two buckets
Spray bottles
Paper towels

Note: To limit the potential for cross-contamination between wells, wells should be gauged in the order of increasing constituent concentrations whenever possible.

Decontamination Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. If the groundwater is grossly contaminated (i.e., LNAPL or DNAPL is present), the tape should be pulled out of the well, NOT reeled up, and placed directly into a bucket of nonphosphate detergent and tap water. The tape and probe should be scrubbed with a brush to remove visible contamination. The tape and probe should then be rinsed in a second bucket of tap water before proceeding with Step 3. If persistent stains or oily films remain, apply isopropanol to a paper towel and wipe the tape and probe until clean.

3. Thoroughly wet a paper towel with deionized water from a spray bottle. Fold the paper towel over the tape and wipe it as the tape is reeled up.

4. The water level probe should also be sprayed with deionized water and wiped dry with a clean paper towel.

5. Place water level indicator in the clean carrying case or in a clean plastic bag to prevent contamination during transportation.

6. Properly manage all PPE, used paper towels, and decontamination rinsates in accordance with state and federal requirements (See SOP 26).

Standard Operating Procedure - 18

Decontamination of Interface Probe

Materials:

Field logbook
Personal protective equipment (PPE)
Nonphosphate detergent (e.g., Liquinox or Alconox)
Deionized water
Isopropanol
Two buckets
Spray bottles
Paper towels

Decontamination Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. If the groundwater is grossly contaminated (i.e., LNAPL or DNAPL is present), the tape should be pulled out of the well, NOT reeled up, and placed directly into a bucket of nonphosphate detergent and tap water. The tape and probe should be scrubbed with a brush to remove visible contamination. The tape and probe should then be rinsed in a bucket of tap water before proceeding with Step 3. If persistent stains or oily films remain, apply isopropanol to a paper towel and wipe the tape and probe until clean.

3. Thoroughly wet a paper towel with deionized water from a spray bottle. Fold the paper towel over the tape and wipe it as the tape is reeled up.

4. The interface probe should be sprayed with deionized water and wiped dry with a clean paper towel.

5. Place the interface probe in the clean carrying case or in a clean plastic bag to prevent contamination during transportation.

6. Properly manage all PPE, used paper towels, and decontamination rinsates in accordance with state and federal requirements (See SOP 26).

Standard Operating Procedure - 19

Decontamination of Sampling Equipment

Materials:

Field logbook
Personal protective equipment (PPE)
Deionized water
10% nitric acid solution
Nylon brushes
Containers (e.g., garbage cans, buckets, plastic tubs)
Nonphosphate detergent (e.g., Liquinox or Alconox)
Isopropanol
Aluminum foil
Polyethylene sheeting
Plastic garbage bags
Paper towels
Spray bottles
Duct tape

Note: All sampling equipment must be decontaminated before shipment to the office.

Decontamination Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. Prepare a decontamination area by spreading polyethylene sheeting on a firm, flat surface (if possible). Create a berm around the decontamination area to contain inadvertent spillage. A berm can be created by rolling under the edges of the polysheeting or by draping the plastic over a wooden frame, etc.

3. Prepare a solution of nonphosphate detergent and tap water in a container.

4. Wipe sampling equipment with paper towels to remove residual soil or gross contamination. Heavy oils or grease may be removed with paper towels soaked with isopropanol.

5. Disassemble sampling equipment (e.g., split-spoon samplers and bailers). Wash equipment thoroughly in a nonphosphate detergent and hot tap water (if available) solution. Teflon bailers must be disassembled and the inside washed with a long-handled bottle brush or short-handled brush pulled through the bailer with rope.

6. Rinse the equipment with hot tap water (if available).

7. If the equipment will be used to collect samples for metals analysis, follow the tap water rinse with a 10% nitric acid solution rinse. Carbon steel equipment (e.g., bucket augers, split-spoons) should be rinsed with 1% nitric acid solution to reduce the potential for oxidizing the metal surfaces. Collect the nitric acid rinse in a separate bucket for proper disposal. Rinse the equipment with tap water.

8. Thoroughly rinse the equipment with deionized water.

9. Spray the equipment with isopropanol and allow to completely air dry. The solvent rinse must be collected in a separate bucket. Isopropanol is the recommended solvent for organic contaminants because it is readily available and is not a Department of Transportation hazardous material. However, other solvents (e.g., acetone, hexane, methanol) may be more effective in removing certain contaminants, such as oils or PCBs. Please note that many state programs and USEPA regions specify the solvents to be used for equipment decontamination.

10. Rinse the equipment with deionized water using at least five times the volume of solvent used in the previous step.

11. After the equipment has been allowed to completely air dry, each piece must be individually wrapped with aluminum foil (shiny side out), and then wrapped in plastic.

    Note: Decontamination solvents may introduce contaminants to environmental samples. It is very important to ensure that the equipment has completely dried before use or storage.

12. After the final decontamination event on a project, label each piece of equipment with the date of decontamination, the initials of decontamination personnel, and the type of decontamination solutions used.

13. Note any discrepancies from standard decontamination procedures in the field logbook.

14. Field decontamination presents unique problems in disposal of decontamination solutions. The spent wash water and rinse water can potentially be placed in the facility's waste water treatment system. However, field personnel should obtain approval from facility personnel and from the local POTW. If no wastewater treatment system is present onsite, or if approval cannot be obtained from the facility and local POTW, the wash water should be containerized for offsite disposal in accordance with state and federal requirements. The volume of spent solvent generated during field decontamination should be minimal. Solvents should be collected in separate buckets and allowed to evaporate. See SOP 26 for information on managing investigation-derived wastes.

15. Paper towels soaked with solvent should be allowed to air dry and be disposed of with the general trash. Under no circumstances should any decontamination solution be disposed of on soil surfaces.

Standard Operating Procedure – 20

Sample Shipping Procedures

Materials:

Suitable shipping container (e.g., plastic cooler or lab supplied styrofoam cooler)
Chain-of-custody forms
Custody seals
WSP mailing labels
Strapping, clear packing, or duct tape
Ziploc® plastic bags
Knife or scissors
Permanent marker
Latex or nitrile gloves
Large plastic garbage bag
Wet ice
Bubble wrap or other packing material
Universal sorbent materials
Sample container custody seals (if required)
Federal Express form (with WSP account number)
Vermiculite (or commercially available cat litter)

Procedures:

For shipping purposes, samples are segregated into two classes; environmental samples and restricted articles (i.e., hazardous materials). Environmental samples can also be categorized based on expected or historical analyte levels (i.e., low or high). An environmental sample is one that is not defined as a hazardous material by the Department of Transportation (DOT, 49 CFR Part 171.8). The DOT defines a "hazardous material" as a substance which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated. Any material of a suspected hazardous nature, previously characterized as hazardous, or known to be hazardous is considered a restricted article.

In general, the two major concerns in shipping samples are protecting the samples from incidental breakage during shipment and complying with applicable DOT and courier requirements for restricted article shipments.

Protecting the samples from incidental breakage can be achieved using "common sense." All samples should be packed in a manner that will not allow them to freely move about in the cooler or shipping container. Glass surfaces should not be allowed to contact each other. When possible, repack the samples in the same materials that they were originally received in from the laboratory. Each container should be cushioned with plastic bubble wrap, styrofoam, or other nonreactive cushioning material. Shipping hazardous materials should conform to the packaging, marking, labeling, and shipping instructions identified in 49 CFR Parts 172 & 173.

Environmental samples shall be packed for shipment using the following procedures:

1. Line the shipping container with a large, heavy-duty plastic garbage bag. Place universal sorbent materials (e.g., sorbent pads) between the cooler and the heavy-duty plastic bag. The amount of sorbent material should be sufficient to absorb the volume of wet ice and aqueous samples. If using a plastic cooler, securely tape the drain plug closed on the outside of the cooler.

2. Place 2-4 inches of bubble wrap or other packing material inside the heavy-duty plastic bag in the bottom of the cooler.

3. The sample packer should wear latex or nitrile gloves when handling the samples during the packing process.

4. Place the bottles in the cooler with sufficient space to allow for the addition of more bubble wrap or other packing material between the bottles. Large or heavy sample containers should be placed on the bottom of the cooler with lighter samples (i.e., VOAs) placed on top to eliminate breakage.

5. Place the "wet ice" inside two sealed heavy-duty zipper-style plastic bags and package the bags of ice on top of or between the samples. Pack enough ice in the cooler to chill the samples during transit. If the cooler is shipped on a Friday or Saturday for Monday delivery, double the amount of ice placed in the cooler (Monday delivery should be used only as a last resort). Fill all remaining space with bubble wrap or other packing material. Securely close and seal with tape the top of the heavy-duty plastic bag.

6. Place chain-of-custody form (and, if applicable, CLP traffic reports) into a Ziploc® plastic bag and affix to the cooler's inside lid, then close the cooler. Securely fasten the top of the cooler shut with tape. Place two signed and dated chain-of-custody seals on the top and sides of the cooler so that the cooler cannot be opened without breaking the seals.

7. Once cooler is sealed, shake test the cooler to make sure that there are no loose sample containers in the cooler. If loose samples are detected, open the cooler and repack the samples.

8. Using clear tape, affix a mailing label with WSP’s return address to the top of the cooler.

9. Ship samples via priority overnight express to the contracted analytical laboratory for next morning delivery. If applicable, check the appropriate box on the airbill for Saturday delivery.

10. Declare value of samples on the shipping form for insurance purposes. The declared value should reflect the cost to recollect the samples.

11. Record the tracking numbers from the Federal Express forms in the field notebook and on the chain of custody form. Also, retain the customer's copy of the Federal Express airbill.

Hazardous materials should be packed according to the above procedures with the following additions:

1. Place samples in individual Ziploc® plastic bags and secure with a plastic tie or tape.

2. Place samples in paint cans in a manner which would prevent bottle breakage (i.e., do not place glass against glass).

3. Place vermiculite or other absorbent packing material in the paint can around the samples. The amount of packing material used should be sufficient to absorb the entire contents of the sample if the container is broken during shipment.

4. Secure a lid to the paint can with can clips and label the outside of the can with sample numbers and quantity. Mark the paint can with "This End Up" and arrow labels that indicate the proper upward position of the paint can.

5. Package the paint cans in DOT-authorized boxes or coolers, with appropriate DOT shipping labels and markings on two adjacent sides of the box or cooler.

6. Ship the restricted articles via overnight courier following the courier's documentation requirements. A special airbill must be completed for each shipment. Retain a copy of the airbill for WSP records and tracking purposes, if necessary.

Standard Operating Procedure – 21

Field Quality Assurance/Quality Control Samples

Materials:

Field logbook
Personal protective equipment (PPE)
Sample containers
Sample labels
Clear tape
Laboratory analyte free water
Clean or dedicated sampling equipment

Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. Select the appropriate glassware for the field Quality Assurance/Quality Control (QA/QC) samples. Refer to the WSP Standard Operating Procedure for Sample Container, Preservatives, and Holding Times to determine the appropriate bottles to use.

3. Field QA/QC samples include the following:

   trip blanks
   duplicate samples
   equipment blanks

4. Trip blanks should be provided by the analytical laboratory for all projects where samples are being collected for analysis of volatile organic compounds (VOCs). Trip blanks should accompany the sample bottles from the analytical laboratory to the site, accompany the sample containers at all times during the sampling event, and return to the laboratory with the sample containers. One trip blank should be submitted to the analytical laboratory with each shipment containing samples for VOC analysis. The trip blank should be analyzed only for VOCs.

5. One duplicate sample should be collected for every 20 samples of each matrix (e.g., soil and groundwater) collected during each sampling event. Duplicate samples of soil and other solid matrices should be collected by dividing the sample material in half and alternately filling the two sample bottle sets. Duplicate samples of groundwater and other aqueous matrices should be collected by alternately filling the two sample bottle sets from the same sampling vessel (e.g., bailer). The appropriate SOP should be followed for the collection of each sample type (soil, groundwater, sediment, sludge). Duplicate samples should be analyzed for all the analytes that are being analyzed for during the sampling event.

6. One equipment blank should be collected in the field at a rate of one per type of equipment per decontamination event not to exceed one per day. If dedicated sampling equipment is used, the equipment blanks should be prepared in the field before sampling begins. If field decontamination of sampling equipment is required, the equipment blanks should be prepared after the equipment has been used and field-decontaminated at least once. Equipment blanks should be prepared by filling or rinsing the precleaned equipment with analyte-free water and

collecting the rinsate in the appropriate sample containers. The samples should be labeled, preserved, and filtered (if required) in the same manner as the environmental samples. Equipment blanks should be analyzed for all the analytes for which the environmental samples are being analyzed. Decontamination of the equipment following equipment blank procurement is not required.

7. All QA/QC samples should be submitted to the analytical laboratory with unique sample numbers. Therefore, the QA/QC samples should be labeled as separate environmental samples following the same numbering scheme used during that particular sampling event. However, the QA/QC samples should be clearly identified on WSP's copy of the chain-of-custody form and in the field logbook.

Standard Operating Procedure - 22

Soil Head Space Screening (Field Technique)

Materials:

PPE
Field logbook
Photoionization detector (PID) and/or Flame Ionization Detector (FID)
Aluminum foil
Clear 8-oz to 16-oz glass large-mouth containers with lids
Stainless steel spoon
Zipper-style plastic bags

Procedure:

1. Use appropriate PPE as specified in the site-specific health and safety plan.

2. Check PID to ensure that it is working properly.

3. Using WSP's standard operating procedure (SOP) for collecting soil, sludge, or sediment, half-fill a clean glass jar with sample. Place a piece of aluminum foil over the top of the jar and tightly seal the jar. Label the jar indicating the sampling location, depth, and date. Store the jar upside down until the sample is analyzed.

4. If jars are not available, collect the sample using a zipper-style plastic bag (e.g., Ziploc®). Seal and label the bag as specified in item 3.

5. Shake the sample vigorously for approximately 15 seconds.

6. If necessary, warm the sample to room temperature (70°F) by placing the jar in a heated room or vehicle. This step is very important when the ambient temperature is below 32°F.

7. After waiting approximately 15 minutes, carefully unscrew the lid of the jar without disturbing the aluminum foil. Pierce a hole through the aluminum foil using the tip of the PID. If using zipper-style bags, open the bag slightly and place the tip of the probe into the opening. Do not insert the probe into the soil and avoid the uptake of water droplets.

8. Following probe insertion, record the highest meter response. Using the foil seal/probe insertion method, maximum response should occur between 2 seconds and 5 seconds. Erratic PID response may result from high organic vapor concentrations or elevated headspace moisture. If these conditions exist, the headspace data should be qualified or discounted.

9. Record the sample location, depth, soil texture (i.e., clay or sand), and PID reading in the field notebook. Also record the ambient temperature, humidity, and whether moisture was present in the jar or plastic bag. These points are important because on very cold days volatilization of organic compounds is reduced and water vapor present in the jar may cause the PID to give a false reading. Be consistent in your procedure and in your recording of the data.

10. Duplicate 10 % of the headspace samples by collecting two samples from the same location and following items 2 through 9 above. The headspace screening data from both jars should be recorded and compared. Generally, replicate values should be consistent to plus or minus 20%.

11. Samples collected for headspace screening should not be retained for laboratory analysis. Dispose of the soil and jar appropriately.

Standard Operating Procedure – 23

Underground Utility Locating

Application:

The purpose of this procedure is to ensure that all required and appropriate procedures are followed to locate and mark subsurface utilities (e.g., electrical lines, natural gas lines, communication lines) before initiating any intrusive field activities (e.g., drilling, test pits, trenching). Compliance with this procedure is mandatory before intrusive work can be conducted on a WSP project. This procedure is intended to allow the work to proceed safely and will minimize the potential for damaging underground utilities. Intrusive work includes all activities that require WSP's employees or their subcontractors to penetrate the ground surface. Examples of intrusive work include, but are not limited to probing, drilling, injection, test pit excavations, trenching, and remedial excavations.

Materials:

Record of the communication utility locating form (Attachment 1)
Field logbook
Wooden stakes
Spray paint
Flagging tape
As-built drawings for sub grade utilities (if available)
Hand auger or post-hole digger
Hand-held magnetometer or cable locator (optional, if and only if private utility locator has cleared the area and personnel have been properly trained in the use of the equipment)

Procedure:

Pre-site Mobilization

1. Gather the necessary information to complete the record of communication utility locating form (Attachment 1).

2. Contact the state utility locating service (e.g., One-Call, Miss-Dig). It is imperative to contact the locating service with sufficient lead-time to allow all utility providers to visit the site location. In each case, the state utility locating service will provide the caller with a legal dig date. Under no circumstances will intrusive work begin before the legal dig date provided by the call center. The telephone numbers for the locating service in selected states are listed in Table 1. However, the telephone number is typically listed in the area Yellow Pages. Provide the utility locating service with any information they request concerning the site and work activity in order to locate utilities at the site. Several states, including California, require that the proposed drilling locations be marked with white spray paint before contacting the locating services. The following information provided by the locating service should be documented in a record of communication utility locating form (Attachment 1): utility providers that will be contacted, and a utility clearance ticket number. The ticket number will be used by the various utility companies to reference the clearance request and to contact the caller with clearance verifications (see note below).

Note 1: Generally, the public utility companies will mark underground lines up to the private property boundary. However, you should request that the utility companies mark their utilities in the work areas on the site. If the utility companies will not provide that service, a private utility locating service **MUST** be contracted.

Note 2: Some utilities (e.g., sewer, water, cable TV) may not be included by the State locating service. The State locating service will provide you with a list of utilities that will be notified based on the information provided regarding the sites location. Compare this list with utilities generally expected at all sites (e.g., sewer, water, gas, communication, electric). If any expected utilities are absent from the contact list, you **MUST** contact the utilities directly for clearance before the start of intrusive activities. Record all contacts on the utility locating record of communication form.

3. Identify a site contact familiar with the utilities on the property (e.g., plant manager, facility engineer, maintenance supervisor), and provide this individual with a site plan showing the proposed locations of all soil borings, monitoring wells, test pits, and other areas where intrusive activities will be conducted. Ask the site contact for all drawings concerning underground utilities in the proposed work areas.

4. No intrusive work should be done before the legal dig date provided by the State utility locating service. No intrusive activities should be conducted along or near public right-of-ways until all utilities have been marked and visually verified in the area of investigation. In addition, **NO** field activities shall be conducted on private property unless the State locating service or a private utility locating service has confirmed the presence or clearance of onsite utilities.

Site Mobilization

1. Locate all proposed drilling and trenching locations, both onsite and offsite, with spray paint, stakes, or other appropriate markers.

2. Verify that **ALL** utility companies listed by the municipal locating service, and any contacted directly by WSP, have either marked the underground lines in the specified work areas or have responded with "no conflict." Document on the utility record of communication form as each utility mark is visually confirmed.

   Note: When receiving verbal clearances by telephone from utility companies, or their subcontractors, it is imperative that you verify which utilities are being cleared, particularly when dealing with subcontractors that may be marking more than one utility.

3. Review all available as-built utility diagrams and plans with the site contact to identify potential areas where underground lines may be present. The review should confirm the locations marked by the locating services and identify utilities that may have been omitted by the locating services. If the as-built drawings do not confirm utilities marked by the locating services, follow instructions in Section 6. If possible, obtain a copy(s) of the utility plans for future reference in the field.

   Conduct a site walk with the site contact. During the site walk, attempt to obtain a general knowledge of the types of utilities present in the work areas. Furthermore, survey your surroundings to identify features that require electricity (e.g., parking lot lights, pad-mounted

transformers) or suggest the presence of underground utilities, such as linear depressions in the ground. Check these items against the utility locating record of communication form checklist. For example, check to see whether major electrical lines are aboveground, or locate underground sewer lines by using the locations of manholes and storm water grates. Keep in mind that many sewer lines can be offset from catch basins.

4. A minimum of 4 feet clearance should exist between utilities and proposed drilling locations, and a minimum of 6 feet between utilities and proposed trenching locations. A minimum distance of 15 feet should be maintained by heavy equipment (e.g., excavator buckets, drill rig towers and rods) from overhead power lines. A safe distance of 25 feet should be maintained from high tension overhead power lines. In the event that work must be conducted within 25 feet of high tension wires, the lines should be wrapped and insulated by the local utilities. If a utility conflict is identified, adjust the proposed location(s) using the criteria given above. These minimum distances should be increased whenever possible to offer additional assurance that utilities will not be encountered.

5. A private utility locating service **MUST** be used for work on private property in cases where the public utility locating service does not mark utilities on the subject property. It is **NOT ACCEPTABLE** to rely on as-built drawings or verbal utility clearances. A private locator may not be necessary in rare instances; however, these cases must be discussed with the project manager **AND** a partner or executive partner of WSP before work may proceed.

   A listing of several private subsurface utility locating firms is provided in Table 2. In addition, a hand-held magnetometer or magnetic-cable locating device can be used to augment, but not replace, clearance for each work area. Use of this equipment is restricted to employees with proper training on the use of hand-held utility locating equipment. Proper training is defined as having working knowledge of the manufacturer's operating procedures, and the completion of at least one successful location under the supervision of a qualified person.

6. In some cases, state and private locating services may not be able to identify all utilities. In areas where uncertainty still exists concerning the presence of underground utilities after clearance by state and private locating services, a hand auger or post-hole digger can be used to probe the shallow subsurface before using any heavy equipment (drill rig, backhoe). The probe hole should be advanced a minimum of 4 feet below ground surface at each proposed drilling or excavation location. A sufficient number of probe holes should be completed so that the area is cleared for the proposed intrusive activity. For drilling, a minimum of three holes installed in a triangular pattern should be advanced at each location. The use of hand digging methods in **NO WAY** replaces the need State and private utility locating services. Hand digging techniques should only be employed if uncertainty regarding the location of underground lines still exists after clearances by the State locating service and a private locating service.

7. Discuss the site conditions with the subcontractor and recommend that care be used at the start of the intrusive activities. Field personnel should always consider the presence of unidentified utilities at each work area. In addition, field personnel have the authority and responsibility to postpone intrusive activities if insufficient information, as stipulated in this SOP, is available, or if onsite reconnaissance identifies inconsistencies in the findings of utility locators. In these instances, field personnel should contact the project manager or a member of the health and safety committee, and an executive partner or partner of WSP before proceeding with the proposed work. The first priority on every project is to ensure that the work is conducted safely.

Again, it is the requirement of this SOP to obtain site utility clearances from the State utility locating service. If the State locating service does not provide onsite (i.e., work area) utility clearance, a private locating service must be contracted to clear the work areas before digging, drilling, or probing begins. Although certain instances and site conditions may appear to allow intrusive work without prior clearance, **ALL** deviations from this SOP **MUST** be approved by the project manager and a partner or executive partner **BEFORE** beginning intrusive work.

8. If the scope of the intrusive activity locations changes, the scope of intrusion expands or includes a new onsite or offsite area(s), review the existing information to determine whether the area(s) can be safely cleared of all potential underground utilities. If necessary, contact the state locating service and request another clearance for the new area(s) of investigation and retain a private locator in accordance with Item 5 above. Remember, the new request will provide a new legal dig date before which NO INTRUSVE WORK CAN BEGIN. Additionally, if a clearance ticket will expire while the work is ongoing (typically after 14 days), a new clearance must be requested at before the first ticket expires so that work can continue uninterrupted. Refer to the communication utility locating form for the legal dig date time frame required by the State locating service.

PUBLIC and PRIVATE UTILITY LOCATING FORM

Project:_____ Project Manager:_____

Project Number:_____

Project Start Date:_____ Duration of Project:_____

Project Location (Site Address):_____

Project Site Description (complete the following with all information available *before* calling):

Work Being Done For: (*Company or Individual Name)*: _____

State: _____County:_____ City/Place: _____

Street: _____(*Only one street per ticket)* Zip Code:_____

Nearest Intersecting Street: _____

Lat/Long:_____Parcel/Tax map ID:_____

Description of the area to be marked *(Provide the following: Street working on, which side of street, how far in which direction from nearest intersecting street; etc.)*:

_____

_____

Locations for proposed borings or digging identified with paint and/or stakes? (circle one): YES NO N/A

NOW, MAKE THE CALL:

Call Placed to Phone No.: _____

Date of Call:_____Time of Call:_____a.m. / p.m.

Ticket No. Assigned to Location Request:_____

Assigned Legal Dig Date: ___ / ___ / ___ Assigned Legal Dig Time: ____ AM / PM

The Following Table Must Be Completed Before Work Can Begin:

CALL BACK/FAX BACK INFORMATION RECORD						
	Gas	Communication	Electric	Water	Sewer	Other
Responsible Company (provided by OneCall operator)						
Date Notified						
Time Notified						
Notified By						
Phone Number						
Marks Complete						
No Conflict						
No Facilities						

Calls Made By:_____ Form Completed By:_____

Project Manager Notified of Results (initial if completed):_____

Onsite Underground and Overhead Utility Clearance Checklist

Visual Confirmation of Marked Public Utilities:

Utility Type	Visual Cues	Marks Confirmed (initial)	No Markings Seen (initial)
Water	Blue Markings, fire hydrant, manholes; water meter, sprinkler heads, AST, hose bib		
Gas	Yellow Markings, gas meter, manholes; yellow bollards		
Electric	Red Markings, parking lot lights, overhead lines (telephone poles), underground vaults, manholes; conduit on buildings		
Sewer (sanitary/storm)	White or Blue Markings, underground vaults, manholes, drain grates		
Communication	Red or White Markings, red bollards, telephone poles; manholes; conduit on buildings		

Visual Confirmation of Marked Private Utilities (at onsite drilling/digging locations):

Utility Type	Visual Cues	Marks Confirmed	No Markings Seen (initial)	Not Applicable (initial)
Water	fire hydrant, manholes; water meter, ASTs, interior connections, hose bib, valve box			
Irrigation	sprinkler heads, hose bibs			
Gas	gas meter, manholes; yellow bollards, interior connections, valve box			
Electric	parking lot lights, interior connections, overhead lines, underground vaults, manholes, transformers/switchgear; conduit on buildings			
Sanitary/Storm/ Septic System	underground vaults, manholes, drain grates, leach field, sand mound, no evidence of sanitary sewer (for septic system			
Production Equipment	USTs (fill pipes and vent pipes), ASTs (overhead and underground pipelines), manholes/valve pits; pump islands			
Communication	Red/orange bollards, telephone poles, interior connections; manholes; conduit on buildings			

If any Utilities have "No Marking Seen" checked, private locating must be conducted to clear each drilling/digging area.

Site Visit Made By:_____

Form Completed By:_____

Standard Operating Procedure – 24

Soil Sampling Using GeoProbe® System or Equivalent

Application:

To perform depth-discrete soil sampling with 2-foot or 4-foot long samplers using hydraulically-driven soil sampling equipment (GeoProbe® System or Equivalent).

Materials:

Stainless steel soil sampler (2-foot or 4-foot long)
Clear acetate liners
Tape measure or expandable ruler
Utility knife
Photoionization detector (PID)
Stainless steel spoons
Aluminum tray or stainless steel mixing bowl[a]
Nitrile or latex gloves
Field notebook

Procedure:

1. Calibrate the PID in accordance to the manufacturer's instructions. Decontaminate all down-hole sampling equipment and the utility knife, spoons, and mixing bowl per SOP 19 before initiating any boring activities. Ensure that the location is clear of all underground utilities and pipelines.

2. Attach a decontaminated 2-foot or 4-foot long stainless steel sampler fitted with a new, clear acetate liner and a decontaminated removable cutting shoe to small-diameter rods. Lower the stainless steel sampler to the top of the desired sampling depth.

3. Advance the stainless steel sampler through the desired sample interval. Record in the dedicated field notebook the interval through which the sampler was pushed.

4. After the sampler has reached the desired depth, retrieve the sampler by first removing the rods and then disconnecting the sampler. Remove the cutting shoe and acetate liner containing the soil column from the sampler. Measure the length of the material recovered relative to the interval the sampler was advanced, and record this information in the field notebook.

5. Cut the acetate liner using a utility knife to expose the recovered soil. Quickly scan the recovered soil with the PID and if necessary, immediately collect samples for VOC analysis. If the plan indicates the collection of samples for headspace analysis, collect this sample after obtaining the sample for VOC analysis per SOP 22. Record the PID readings in the field notebook.

6. For VOC samples, transfer soil directly from the acetate liner into the sample containers with a clean, stainless steel spoon. Fill the VOC sample container with a representative sample from the entire length of the recovered sample core, or other designated sample interval[a]. Fill the VOC container completely, leaving no headspace.

7. Describe the recovered soil using the Unified Soil Classification System or standard geological descriptions. Record the sample description in the field notebook.

8. If it is necessary to mix the sample, transfer the soil from the acetate liner to a clean aluminum tray or decontaminated stainless steel mixing bowl with a decontaminated stainless steel spoon[b].

9. Examine contents of the tray/bowl and remove rock fragments and organic debris, such as roots, grass, and woody material, with the stainless steel spoon. Use the same spoon to chop apart clumps of dirt and mix the contents of the tray to a homogeneous particle size and soil texture. Transfer the tray/bowl contents to the appropriate sample containers using the stainless steel spoon.

10. The sample container(s) should be sealed, labeled, and placed in a cooler with ice or freezer packs to maintain 4° Celsius for shipment to the analytical laboratory.

11. Complete the chain-of-custody form with the appropriate sampling information.

a) NJDEP's Field Sampling Procedures Manual requires the collection of soil samples for VOC analysis from the 0.5-foot interval that exhibits the highest reading during the field (PID) screening.

b) U.S. Environmental Protection Agency (EPA) Region 4 requires a glass bowl for homogenizing soil for sample collection.

Standard Operating Procedure – 25

Groundwater Sampling Using Geoprobe® System or Equivalent

Application:

To perform groundwater sampling using hydraulically-driven screen point sampling equipment (GeoProbe® System or Equivalent).

Materials:

Stainless steel probe rods with treads sealed with Teflon® tape or O-rings
Stainless steel screen point sampler
Stainless steel mini-bailer
Teflon®-coated stainless steel wire or thin nylon line
Polyethylene tubing (3/8-inch) fitted with a stainless steel check valve
Silicone tubing
0.45-micron filter
Peristaltic pump
Sample bottles, labels, indelible markers, and clear tape
Nitrile or latex gloves

Procedure:

1. Decontaminate all down-hole equipment before conducting sampling activities at each location. Ensure that the sampling location has been cleared of all underground utilities.

2. Drive the stainless steel point sampler into the subsurface material. The design of the sampler should allow the screen to remain retracted within the probe rods until it is driven to the appropriate sampling depth.

3. After reaching the desired depth, pull back on the stainless steel sheath to expose the screen. The point on the probe rods will be displaced and is not recoverable[a].

4. Purging is not required for probes that are sealed and opened at the target depth for sample collection. Exposed probes that are driven through the soil to the desired water sample depth must be purged of a minimum of three probe-rod volumes of water before sampling is conducted.

5. Groundwater samples can be collected using a mini-bailer lowered on Teflon®-coated stainless steel wire or nylon line inside the probe rods. Another method of sample collection involves the use of a clean section of 3/8-inch polyethylene tubing fitted with a stainless steel bottom check valve. The polyethylene tubing is inserted down the probe rods to the desired sampling depth. Oscillate the polyethylene tubing up and down to drive a column of water to the surface. A peristaltic pump may be attached to the sample tubing and used to pump water to the surface. The peristaltic pump should not be used to collect samples for VOC analysis.

6. Immediately collect samples for VOC analysis, if required. Transfer the groundwater directly form the sampling equipment (mini-bailer, polyethylene tubing) to the sample containers. If analyzing for dissolved metals, the sample must be filtered in the field. See note below with regards to field filtering of metal samples.

7. Seal and label each sample container and place in a cooler with ice or freezer packs to maintain 4° Celsius for shipment to the analytical laboratory.

8. Complete the chain-of-custody form with appropriate sampling information.

    a) Where samples are collected from depths greater than 15-20 feet below the water table, a water level indicator may be inserted into the rods before exposing the screen to determine whether water is entering through the rod joints or disposable probe point.

Field Filtering of Metal Samples:

1. Assemble peristaltic pump per operating manual instructions that accompany the pump. Silicone tubing is generally used though the head of the pump.

2. Attach polyethylene tubing to the inflow end of the silicone tubing. The polyethylene tubing should be long enough to extend to the bottom of the screen point. Attach a clean filter to the outflow end of the silicone tubing.

3. Turn on the pump and slowly draw the water from the sampling equipment, through the pump and filter, and into the sample container. If sediment is visible in the sample container, filter break-through has occurred and the sampling and filtering process will need to be repeated.

4. Disassemble the pump head and discard the tubing and filter.

Standard Operating Procedure – 26

Managing Investigation Derived Waste

Application:

The purpose of this SOP is to provide instructions for handling, storing, and sampling Investigation Derived Waste (IDW) pending disposal. *All IDW should be handled as hazardous waste unless information exists which would allow it to be classified as non-hazardous waste.* IDW generated during a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response action must be managed in compliance with applicable or relevant and appropriate requirements (ARARs) to the extent practicable and with applicable requirements of the CERCLA offsite policy. (EPA Guidance Document OERR Directive 9345.3-02)

IDW includes soil cuttings, development water, purge water, drilling fluids, decontamination fluids, personal protective equipment, and sampling equipment.

Materials:

Non-Hazardous and Hazardous Waste Labels
Investigation Derived Waste Log (Figure 1)
Permanent Ink Marking Pen Paint Stick/Pen
Sampling Equipment (Refer to Sampling SOPs)
Sample Jars
Chain of Custody Forms
Cooler

Procedure:

Hazardous IDW

1. All IDW should be handled as hazardous waste unless information exists which would allow it to classified as non-hazardous waste. New or existing site data (i.e., soil and groundwater results) and generator knowledge can be used to classify the IDW.

If site data or generator knowledge indicates that the IDW is determined to be hazardous the following procedures will apply:

- The IDW must be placed in DOT approved containers (55-gallon drum, roll-off container, or temporary storage tank).
- The containers must remain closed except when adding, sampling, or inspecting the material.
- All containers must be labeled with the words “Hazardous Waste”.
- An accumulation start date and the contents of the container must be included on the label.
- Investigation Derived Waste Logs (Figure 1) must be completed before leaving the site. One copy of the log should be presented to the site contact and the original provided to the project manager. Once the material has been removed from the site, the IDW log should be stamped “Removed” and placed in the project file.

- The IDW containers must be stored in a secure onsite location (facility hazardous waste storage area if one exists).
- Disposal of the IDW must be completed within **90 days** of the date the waste was generated. If the facility is a small quantity generator, 180 days is allowed for shipment of the waste offsite.
- Onsite disposal may be allowed or appropriate under certain conditions. Refer to OERR Directive 9345.3-02 for guidance, especially for CERCLA sites.
- WSP personnel should notify the site contact that weekly inspections of the IDW must be conducted and documented.
- WSP personnel should also instruct the site contact that this waste must be included in the facilities annual or biannual reports.

2. If the IDW is presumed to be hazardous and sampling is required to confirm its classification, it should be labeled Hazardous Waste-Pending Analysis. The waste should be sampled before leaving the site (See sampling SOPs). It should be noted that EPA methods 8260 and 8270 may be more cost effective than running the full Toxicity Characteristic Leaching Procedure (TCLP) scan. TSD Facilities will usually specify the required analysis for their waste profiles.

Non-Hazardous IDW

1. If information exists to classify the IDW as non-hazardous waste, the following procedures can be implemented:

Soil Cuttings

- Spread around the borehole or other onsite location with the approval of facility personnel
- Place back in the boring
- Containerize and dispose offsite

Groundwater

- Pour onto ground next to well to allow infiltration
- Containerize and dispose offsite
- Discharge to POTW with approval of facility personnel
- Discharge to onsite wastewater treatment plant with approval of facility personnel

Decontamination Fluids

- Pour onto ground (from containers) to allow infiltration
- Containerize and dispose offsite
- Discharge to POTW with approval of facility personnel
- Discharge to onsite wastewater treatment plant with approval of facility personnel

PPE

- Double bag and deposit in site dumpster
- Containerize and dispose offsite

If the IDW is containerized and is non-hazardous, the following procedures will apply:

- The non-hazardous IDW must be placed in DOT approved containers (55-gallon drum, roll-off container, or temporary storage tank).

- The containers should remain closed except when adding, sampling, or inspecting the material.
- All containers must be labeled with the words “Non-Hazardous Waste”.
- An accumulation date and the contents of the container should be included on the label.
- Complete the IDW log (Figure 1). One copy of the log should be presented to your site contact and the original should be given to the project manager.
- The IDW containers must be stored in a secure onsite location.
- Arrangements for disposal *should* be completed within 90 days of the accumulation start date.

Investigation Derived Waste Log

Date: _____

Site Information

Site Name: _____ Site EPA ID #: _____

Site Contact: _____ Site Address: _____

Contact Telephone No: _____

Waste Identification

Type of Waste Generated (check one of the following):

☐ Soil Cuttings ☐ PPE ☐ Decontamination Water

☐ Groundwater ☐ Storm Water ☐ Drilling Fluids

☐ Other (Describe): _____

Field Activities that generated the Waste:

☐ Soil Borings ☐ Well Sampling ☐ Well Installation

☐ Decon ☐ Excavation ☐ Pumping Tests

☐ Other (Describe): _____

Generation Date: _____ ***90-Day Deadline***: _____

Quantity of Waste Generated and Container Type: _____

_____

_____

Storage Location: _____

Waste Identification (Check One of the Following);

☐ Non Hazardous Waste (pending analysis)
☐ Non Hazardous Waste (based on site information or generator knowledge)
☐ Hazardous Waste (pending analysis)
☐ Hazardous Waste (based on site information or generator knowledge)

If generator knowledge or site information was used for identification, explain: _____

_____

_____

Type of Label Applied to Container: ☐ Non Haz ☐ Hazardous ☐ PCB ☐ Used Oil

WSP Information (Note: One copy to site contact - the original in project file)

Personnel/Contact: _____ Project No.: _____

Telephone: _____

Standard Operating Procedure – 27

Soil Sampling Using a Rotosonic Sampler

Application:

To perform soil sampling with a rotosonic drill rig sampler advanced ahead of the temporary casing.

Materials:

Rotosonic samplers
Rotosonic sample bags (plastic)
Knife
Photoionization detector (PID)
Ziplock plastic bags (quart size)
Nitrile or latex gloves
Sample containers
Field Notebook
Marker

Procedure:

1. Decontaminate all downhole drilling and sampling equipment in accordance with the appropriate procedures before initiating any intrusive work.

2. Ensure that the temporary rotosonic casing has been advanced to immediately above the desired sample depth and loose soil in the bottom of the borehole has been removed.

3. The drillers will attach a decontaminated rotosonic sampler to the drilling rods, lower it to the bottom of the borehole, and advance the sampler through the soil using the rotosonic rig. (Note: the standard rotosonic sampler is capable of collecting a 10-foot long continuous core although 5-foot samplers may also be available. It may be desirable to advance the sampler less than 10 feet to avoid penetrating relatively thin confining layers.)

4. After the sampler has penetrated the desired sample interval, the drillers will retrieve the sampler and disconnect it from the drilling rods.

5. The drillers will place a 4-inch diameter plastic bag over the bottom end of the sampler and vibrate the rotosonic drill head until the sample is extruded from the core barrel and fills the bag. After filling, remove the bag and place it on plastic sheeting for examination and screening. Note the orientation of the sample (i.e., which end is “up”) and the depth interval. Be sure the examination/screening area is far enough away from the drilling rig exhaust pipe or other potential sources of contaminants that could effect the screening results.

6. Wearing new gloves, cut the sample bag lengthwise using a decontaminated knife. Immediately scan the recovered soil material with a PID at approximately 2-foot intervals and record the readings in the field notebook.

7. Collect samples for soil headspace analysis using the procedure described in WSP's SOP 22 or other approved method/guidance. Record all headspace readings in the field notebook.[a]

8. If soil samples are being collected for VOC analysis, immediately transfer soil directly from the recovered core into the appropriate sample container(s). Collect the sample from the desired depth based on the sampling plan or field screening results. Label the container(s) with the sample name, depth, date and time of collection, sampler name, and analysis requested. Immediately place the containers in a cooler with ice to maintain a temperature at 4^{o}C.

9. Collect samples for other parameters, as needed, in accordance with the sampling plan.

10. Describe the recovered soil using the Unified Soil Classification System or standard geological descriptions, and include PID measurements, sample number(s) and depth(s), and observations such as staining or odor. Write all descriptive information in the field notebook.

11. Complete the chain-of-custody form with the appropriate sampling information.

[a] A "background" headspace measurement should also be obtained on an empty bag. Depending on the manufacturer of the bag and ambient temperatures, a background measurement of up to 5 ppm may be present.

Standard Operating Procedure – 28

Sampling of Private Water Supply Wells

Scope:

This procedure describes the method for collecting representative groundwater samples from a domestic or other private water supply well.

Materials:

Business cards
Field notebook
Temperature, pH, and conductivity meter(s)
Sample containers
Cooler
Labels
Indelible markers
Nitrile or latex gloves
Chain of custody forms
Bucket or pail (1 or 2-gallon)
Paper towels or Kimwipes

Pre-Sampling Activities:

1. Verify the location of the well to be sampled and analytical parameters as specified in the sampling plan.

2. Contact the well owner and explain the scope of work. If no information has been obtained about the well, try to obtain information from the owner regarding the exact well location, well construction details, static water depth, well depth, casing diameter, well yield, date drilled and drilling company, previous testing, presence of water treatment components, resource aquifer, and well use. Locate the well on a site or USGS topographic map for future reference.

3. If insufficient well information is obtained from the owner, consider performing a water well survey to obtain the information.

Sampling Procedures:

1. Prepare the field notebook with description of site, well location and owner, weather conditions, sampling personnel, and other relevant observations.

2. Inspect the well to verify construction and other information concerning the well.

3. Identify a cold water tap or spigot for sample collection. The sampling point should be as close to the well as possible, and before the water passes through any treatment systems, heating unit, or storage system. If a suitable sampling point is not available, try to find another well at the site or take steps to minimize the impact of any potential interferences to the sample. Document in the field notebook whether you can or cannot collect a water sample before any treatment or storage components.

4. If sampling from a tap or faucet, try to remove any aerators, filters, or other devices from the tap before purging. If the sampling point is outside, consider removing any hoses connected to the spigot. (However, hoses may be allowed to remain attached during purging to divert large volumes of water from buildings, septic systems, etc).

5. Start to purge the system by running water from a tap or outside spigot. Use a small bucket or pail and watch to determine the purge rate for the system. If the water sample is to be collected from a tap located after a pressurization or holding tank, a sufficient volume should be pumped from the well to allow for the complete exchange of water into the holding tank and the point where the sample is to be collected.[a]

6. Geochemical measurements (pH, conductivity, and temperature) of the water should be collected at regular intervals (every 1-2 minutes) after the start of purging. Record all measurements in the field notebook.

7. Review the geochemical measurements to ensure that readings have stabilized (within 10% of the previous reading). If the geochemical measurements have not stabilized, continue to purge the well until the measurements do not vary more than 10% between two successive measurements (if possible).

8. Collect the groundwater samples after purging is complete. While collecting samples, reduce the water flow to a thin stream. The flow rate should be high enough to deliver a smooth stream of water without splashing but low enough to permit filling of the sample bottles without turning the valve down during sampling. Collect the samples in accordance with the procedures described in WSP's SOP 2 – Sample Containers Preservatives and Holding Times. Label each container with the site name, sample name, date and time of collection, samplers, preservatives (if added), and analyses. Place the sample containers in a rigid cooler with ice maintained at a minimum of 4^0C.

9. Decontaminate all field meters and other non-disposable equipment, and properly dispose of any used paper towels, gloves, etc.

10. Complete chain-of-custody forms with appropriate sampling information.

[a] It is advisable to open as many inside taps as possible during the purging process to facilitate the exchange of water in holding tanks.

RECORD OF COMMUNICATION
UTILITY LOCATING FORM

Date of Call: _____/ _____/ _____ Time of Call: _____a.m. / p.m.

Name of Utility Service Protection Center Called: _____

Call Placed to Phone No.: ( ) - _____ Call taken by operator: _____

Ticket No. Assigned to Location Request: _____

Co. ID # (*if assigned by Utility Service Protection Center*): _____

Person Calling _____Company Phone: ( ) - _____

Alternate Contact Name: _____ Alternate Contact Phone: ( ) - _____

Company Address: _____

Assigned Start Date: _____ / _____ / _____ a.m. (8:00 – 12:00) / p.m. (12:00 – 5:00)

Type of Work: _____ Use of Explosives: Y / N

Potential Boring Locations Identified with White Paint and/or Stakes: Y / N / Not Applicable

Work Being Done For: (*Company or Individual Name)*: _____

State: _____ County: _____ City/Place: _____

Street: _____*(Only one street per ticket)* Zip Code: _____

Nearest Intersecting Street: _____

Map Page: _____Grid(s): _____

Description of the area to be marked *(Provide the following: Street working on, which side of street, how far in which direction from nearest intersecting street; etc.)*:

_____

_____

Map of the area to be marked faxed to the Utility Service Protection Center: Y / N / Not Accepted

Utility Service Protection Center Fax No.: ( ) - _____

CALL BACK INFORMATION RECORD

	Gas	Tele.	Elec.	Wtr.	Swr.	Cable TV	Other
Date Notified							
Time Notified							
Notified By							
Phone Number							
Marks Complete							
No Conflict							
No Facilities							

Groundwater Monitoring Data Log

Well No./Designation _____ Date: _____

Site Data

Site Name: _____ WSP Sampling Team ___

Site Address: _____ WSP project No.: _____

Weather Conditions: _____

Well Description

Well Location: _____

Well Security: _____

Casing Material: Inner _____ Outer _____

Organic Vapors (PID, OVA, TIP): Wellhead _____ ppm

Breathing Zone _____ ppm

Nonaqueous Phase (thickness): _____

Reference Point (e.g., top of PVC casing): _____

Purge Data

Purge Method: _____

(Note: Allow water level to equilibrate after removing well cap)

Total Well Depth (TD): _____ ft Depth to Water (DTW): _____

Casing Inner Diameter (CID): _____ inches

To calculate well volume: Well Vol.(gal)=$(CID)^2(0.04)(TD-DTW)$

Well Volume: _____ gal x 3=Purge Volume _____ gal

Purge Time: Begin _____ End _____

Prepurge Data: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 1: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 2: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 3: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 4: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume 5: Temp _____ pH _____ Spec. Cond._____Turb. _____Other _____

Volume Purged: _____ Purged Dry: Yes No

Disposal Method for Purgewater: _____

Water Description

Odor: Prepurge _____ Postpurge _____

Color: Prepurge _____ Postpurge _____

Sampling Data

Sampling Method: _____

Sampling Time: Begin _____ End _____

Analytical Parameters (circle appropriate parameters):

VOCs BNA BNE Total (Unfiltered) Metals

Dissolved (Filtered) Metals TPH PCB Cyanide

Other: _____

_____

Comments: _____

_____

_____

Standard Operating Procedure – 29
Aquifer Pumping Tests

Scope:
This standard operating procedure (SOP) describes the methods and techniques used to perform aquifer pumping tests on partially- or fully-penetrating test wells.

Objective:
Aquifer tests are generally performed to measure the hydraulic characteristics of a water-bearing zone that has been identified and partially characterized (e.g., total depth of the water-bearing unit, groundwater flow direction, texture of the matrix, etc.) by investigations at the site. The tests generally include four separate phases: a background monitoring phase; a stepped-rate pumping test; a constant-rate pumping test; and a recovery test. Aquifer tests typically include a pumping well where the aquifer is stressed by removing formation water, and at least one observation well where the response to pumping is measured.

This SOP is designed to provide the user with a general outline for conducting each phase of the aquifer test and assumes the user is familiar with basic field procedures, such as recording field notes (SOP 1), well gauging (SOP 3) and equipment decontamination (SOPs 16 through 19). This SOP does not cover aquifer test planning (e.g., layout of the pumping and observation wells, estimation of pumping rates, selection of pump types, etc.) nor does it cover the analysis of the aquifer test results for determining the characteristics of the water-bearing zone. These topics require a significant amount of planning and are more appropriately addressed in the work plan or a dedicated aquifer test plan.

These procedures are oriented towards *In situ*-brand transducers and data loggers, which are the current state-of-the-art and the brand most often used by WSP. While some specifics may be slightly different for other brands of monitoring equipment, the overall sequence of work should be similar and readily adaptable to any equipment set-up.

Because of the inherent complexity and the number of different tests involved, this SOP is divided into four sections. Each section provides an overview of the objective of the test and a brief description of the methods to be used. The set-up procedures are cumulative; each phase of the aquifer test uses equipment or procedures that were used in the previous phase of the test. The reader is encouraged to read the entire SOP before beginning any onsite activities.

Preliminary Procedures

Materials:

Field notebook
Laptop computer with appropriate ports and adapters
Vented pressure transducer with internal or external data loggers
Barometric pressure monitoring equipment
Electronic water level meter or oil/water interface probe (if necessary)
Photoionization detector (PID)
Groundwater extraction pump and appropriate tubing
Power supply
Water storage tank
Flow meter(s) and/or flow gauge(s)
Stopwatch
Small (1 to 5 gallon) container with known capacity
Nitrile gloves
Heat resistant gloves
Tape measure
Exacto, pocket knife, or scissors
Pump lift line (polypropylene rope or other suitable material)
Duct tape
Indelible marker or metal file
Paper towels
5-gallon bucket(s)
Distilled water (decontamination of downhole equipment)
Plastic sheeting
Waste labels (if necessary)

1. Review site Health and Safety Plan (HASP) before mobilizing to the field. Discuss groundwater contamination constituents and specific HASP issues with Project Manager and determine the proper level of PPE.

2. Prepare field book (SOP No. 1) daily with site description, weather conditions, participants, and other relevant observations, including all data necessary to complete the hydraulic conductivity tests. Pay careful attention to the weather conditions (e.g., changes in temperature, precipitation, wind, etc.) both locally and regionally as these can adversely affect the data.

3. Survey the ambient (background) air around the base of the well casing and wellhead for organic vapors (if appropriate) using a PID, or equivalent. Record air monitoring measurements in the field book.

4. Inspect extraction well and observation/test wells (e.g., monitoring wells or piezometers) for soundness of protective casing, surface ground seal, and locking mechanism; record findings in the field book.

5. Unlock protective casing or flush mounted curb box. Remove well cap or plug, place PID probe in wellhead, and record PID response in field book. Survey breathing zone to ensure that PPE level is appropriate.

6. Place plastic sheeting around the head of the extraction well or observation well before initiating any down well measurements or testing activities.

7. Allow static water level to equilibrate, as appropriate, before gauging the wells.

8. Measure the inside diameter (ID) of the casing and record in inches. From the top of the casing, measure the depth to water (DTW) and total depth (TD) of the well (in hundredths of a foot with an electronic water level indicator and record in the field book). Water levels should be measured from the surveyor's mark at the top of the casing, or if no mark is present, from the north side of the casing. Be sure to mark a location with a metal file or indelible marker on the north side of the casing if the surveyor mark is absent and record in the field book for future reference.

9. Thoroughly decontaminate (SOP No. 17) the water level indicator cable during retrieval using distilled water and paper towels.

10. **Do not create an airtight seal by replacing the well caps at the locations that will be used during the pumping tests.** It is important that they be open to the atmosphere. Take steps, if necessary, to protect the openings by loosely covering the well opening with the protective steel cover or other material to prevent rain, snow, or debris from entering the well during the test.

Background Monitoring Test

This portion of the aquifer test involves monitoring each of the wells (pumping and observation wells) selected for the aquifer test for a period of time, usually a minimum of 24 hours, to identify any naturally-occurring (e.g., changes in barometric pressure, earth tides, rain events, etc.) or man-made (e.g., artificial recharge, nearby pumping wells, trains, etc.) forces that might systematically alter or potentially mask water level changes during the pumping portions of the aquifer test. Data collected from the background monitoring phase establishes a baseline that can be used to correct the pumping test data by analytically removing the non-pumping trends. Background data can also be used to help determine if the water-bearing unit is confined or unconfined.

The physical placement of the downhole equipment for this portion of the test will be used for the remaining phases of the aquifer test.

1. Assemble all of the monitoring gear (transducers, data loggers, cables, etc.). Verify the transducers have power (for transducers with onboard loggers) and sufficient cable length to reach the intended monitoring zone. Each cable should be fitted with a desiccant cartridge (provided by equipment supplier) to prevent moisture from building up in the transducer vent line. Also, verify that the transducers are rated for the intended water depths; Table 1 provides the criteria for selecting the appropriate transducer. Transducers with the lowest pressure rating appropriate for the anticipated depths should be selected as the device accuracy decreases as the pressure rating increases.

Table 1

Maximum Depth Below Water Table for Pressure Transducer (a)

Pressure Transducer (PSI)	Depth Below Water Table (feet)
10	23
20	46
30	69
50	115

a/ PSI=pounds per square inch

2. Mark each transducer (on the sonde itself) with the well identification number to avoid confusion during data recovery after all phases of the aquifer test have been completed.

3. Familiarize yourself with the data logging software. Transducers with onboard data loggers usually require an interface with a laptop or a hand-held computer running the appropriate proprietary software. Additional cables or adapters (e.g., RS-232 [serial] to Universal Serial Bus [USB]) may be necessary to physically link the computer to the data loggers.

4. Thoroughly decontaminate the pressure transducers using a non-phosphate detergent and distilled water before placement of equipment into the extraction well or observation

wells. Decontaminated equipment should be placed on or wrapped in clean plastic sheeting until inserted into the monitoring well or piezometer.

5. Determine the depth below ground surface at which you will be setting the individual transducers for the pumping and observations wells:

    a. The most critical placement will be the transducer installed in the pumping well. This transducer is typically positioned below the pump (which will be installed in the next phase of the aquifer test) to allow water level measurements during periods of significant drawdown. If the well is shallow enough and the depth rating of the transducer is sufficient to withstand the pressure (Table 1), the transducer can simply be lowered to a depth just above the bottom of the well; take care to not allow the transducer to contact the bottom of the well during installation. If the transducer is to be positioned below the pump and above the bottom of the well, measure the length from the transducer bottom up the cable and mark the cable for easy reference when lowering into the well. In either case, be sure the transducer position is such that the bottom of the pump will not contact the top of the transducer.

    b. The placement of transducers in the observation wells is less critical. The units need only be positioned below the level of expected drawdown in each well (you should have some idea of this based on your site characterization and aquifer test design). As with the pumping well transducer placement, the easiest positioning is to place the transducer at a depth just above the bottom of the observation well (see Table 1).

6. Practice defining, running, stopping, and downloading data using the laptop or hand-held computer before installing any of the transducers in the pumping or observation wells. **Be sure that the internal time settings in the transducers, loggers, barometric pressure monitoring equipment, laptop, and/or hand-held computer are synchronized before programming any tests.** This step is critical to ensuring a simultaneous start (and stop) of the test, contemporaneous data collection, and synchronized data logs.

7. Follow manufacturer's specifications to prepare the barometric monitoring equipment. The unit should be placed in the same general area as the pumping well.

8. Program the background monitoring test into each data logger and the barometric pressure monitoring equipment. The background monitoring data is recorded on a linear time scale (e.g., once every 15 minutes). As barometric pressure, tides, and other natural forces typically yield changes in the wells that occur over the space of 1 to 2 hours, data collected on a schedule of once every 15 to 30 minutes should provide a data set that is sufficiently dense to follow any systematic trends. Water levels that can change on more rapid scales (e.g., karst terrain) may require shorter sampling intervals. Check the aquifer test plan to verify the appropriate timing.

9. Secure the transducer cable to the wellhead, protective casing, or curb box using duct tape, "S-hooks", or other appropriate methods. The transducers should be secured so that they **do not** move vertically within the water column during the aquifer tests. Be careful not to pinch or kink the cable, which could block the transducer's vent to the atmosphere.

10. Allow the groundwater elevation in the test wells to re-equilibrate with the surrounding formation after the insertion of the transducers. The amount of time required for this step will be dictated by the characteristics of the formation. Wells with recovery times of less than a minute should be allowed to stand a minimum of fifteen minutes before initiating the background test.

11. Run the background monitoring test for a minimum of 24 hours. Do not disturb the pumping or observation wells during the monitoring period. Be sure to record any changes in the weather, especially rain or snow events, and any other environmental or physical changes (e.g., tides, train schedules, etc.) that may potentially alter the water levels in the wells. Aquifer tests conducted in karst terrain should also note regional precipitation events (i.e., within a 20 mile radius) because even distant meteoric water can quickly be transmitted over long distances through infiltration in karstic terrain.

12. **Do not stop the barometric data monitoring equipment at the end of the background monitoring test.** Barometric data should be collected for all phases of the aquifer test.

13. Download the groundwater and barometric pressure data to the laptop or hand-held device and create a back-up copy of the data. It is not necessary to erase the data loggers, as most contain sufficient memory to store millions of data points; leaving data on the loggers provides a secondary back-up system. Verify that all of the data has been transferred to the laptop or another storage media (e.g., compact discs) before erasing the data files from the loggers.

Stepped-Rate Pumping Test

The stepped-rate, or variable-rate, pumping test is designed to stress the aquifer with a series of short-term pumping periods with incrementally higher pumping rates to determine the maximum sustainable pumping rate. The primary purpose of the stepped-rate test is to establish the pumping parameters for a constant-rate test; however, data from the stepped-rate tests can be used, if sufficient data is collected, as support for the constant-rate analysis. The stepped-rate test usually involves a minimum of three pumping periods or "steps" to establish the response of the aquifer.

The following procedures assume that the background monitoring test has been completed and the monitoring equipment remains in place.

1. The groundwater extraction method should be selected based on the depth to water, the anticipated flow rate, and the availability of power. Submersible pumps should incorporate a backflow check-valve(s) that prevents water within the riser pipe from flowing back into the well when the pump is shut off. Check the aquifer test design to verify the pump requirements and appropriate type of tubing.

2. Before installation, measure the length to the pumping intake depth specified in the aquifer test plan; the length includes the lift line and attached submersible pump or the length of tubing for non-submersible pumps (e.g., peristaltic pumps). Accurate measurements are critical to avoid contact with the transducers during installation and when using electric submersible pumps in low yield aquifers. **Dry pumping electric submersible pumps, even for short periods of time, may damage the device.**

3. Install and secure the tubing or submersible pump and tubing in the pumping well to the specified depth.

4. Attach a flow through meter to the discharge/conveyance line. Digital and optical styles are available, depending upon the predicted flow rates. Be sure to check the manufacturer's recommendations for calibration and ensure that the meter is equipped with the properly sized fittings. The flow meter measurements should be periodically verified by manually estimating the time necessary to fill a container of known capacity.

5. Extracted groundwater exiting the flow meter should be piped to a water storage tank with sufficient capacity. The tank should be constructed of materials that are compatible with contaminants that may be present in the groundwater and any applicable state or federal regulations (i.e., Department of Transportation), especially if the material will be managed as investigation-derived waste (SOP 26).

6. Define the stepped-rate tests in each data logger and the barometric pressure monitoring equipment. **Be sure that the internal time settings in the transducers, loggers, barometric pressure monitoring equipment, laptop, and/or hand-held computer are synchronized before programming any tests.** The stepped-rate test is a **logarithmic** test. Data is collected rapidly in the first portion of the test, often several times per second, with the time between successive water level measurements becoming progressively longer as the test proceeds. This approach yields dense data in the early portion of the test where changes in water levels are occurring rapidly and less data as the water levels approach a steady-state. Most data loggers will convert the logarithmic measurement schedule to a linear schedule at a pre-designated time, which can be

programmed during the test set-up. Typical log-linear conversion times range from 1 to 5 minutes for the short-term (i.e., one hour or less) steps; however, the actual conversion time should be estimated based on the aquifer test design and adjusted (for the constant-rate pump phase to follow) in the field based on observations during the individual stepped-rate tests. Table 2 provides typical log-linear conversion times for various test durations.

Table 2

Maximum Log-linear Conversion Times for Various Pumping Test Durations

Duration of Testing (Minutes)	Maximum Log-linear Conversion Time (Minutes)
10-15	1
15-60	5
60-300	30
300-1440	60

7. Gauge the pumping and observation wells prior to beginning the tests to establish the groundwater elevation at static (i.e., non-pumping) conditions (need to ensure that the pumping well has re-established static conditions following insertion of the pump). These data will be used to determine the amount of drawdown during the tests. Wells should be gauged manually and using the transducers. Record the data in the field notebook.

8. Variable-rate tests typically consist of at least three pumping sessions with different pumping rates, one of which is the anticipated maximum extraction rate estimated from the existing site characterization data. Pumping strategies often begin at some fraction of the maximum anticipated rate (i.e., one-half) with increasing steps towards the maximum. An alternate strategy begins with the anticipated maximum pumping rate and adjusts the steps up or down based on the drawdown observed in the pumping well. In either case, it is important that at least one of the pumping sessions be conducted at a rate that is greater than the initial estimate to verify that the maximum sustainable pumping rate has been achieved.

9. Begin the variable-rate test sequence. Careful synchronization of the start of the test and the pump are critical to ensure optimal data capture during the initial drawdown phase. Begin pumping the well 0.5 to 5 seconds **after** the data collection has started; starting pumping before the data loggers begin collecting data will result in the loss of important early drawdown data.

10. Monitor the pumping rate and groundwater elevation frequently during the test. Pumping rates should be maintained within 5 percent of the target extraction rate. Groundwater elevations in the pumping well should be monitored regularly using both the transducer and an electronic water level meter to ensure that the well is not dewatered during the test. Record discharge rates, meter readings, and manual water level measurements in the field book.

11. Continue each step for the prescribed amount of time, or until the water level in the extraction and observation wells reach stabilization. It is important to run the initial step

long enough to establish that the effects of well storage (i.e., water stored in the well casing and surrounding filter pack) have dissipated and formation water is being drawn into the well. If the water levels do not stabilize and the continued operation of the test will expose an electric submersible pump, discontinue the test and reevaluate the pumping rate.

12. Water levels should be allowed to recover to static conditions (i.e., within 95 percent of the initial elevations) between each step. **Do not remove the transducers or the pump from the test wells at the end of the test**.

13. Download the groundwater elevation and barometric pressure data to the laptop or hand-held device and create a back-up copy of the data. It is not necessary to erase the data from the loggers as most contain sufficient memory to store millions of data points; leaving data on the loggers also provides a secondary back-up system. Verify that all of the data has been transferred to the laptop or another storage media (e.g., compact discs) before erasing the data files from the loggers.

Constant-Rate Pumping Test/Recovery Test

The constant-rate pumping phase of the aquifer test is designed to stress the water-bearing zone over an extended period of time to evaluate the hydraulic conductivity and storage parameters of the unit. Typical constant-rate tests are run for 48 to 72 hours using the maximum pumping rate established during stepped-rate tests. The constant-rate test includes a recovery phase which occurs immediately after the pump is turned off. The recovery test is a passive test performed to monitor the response of the water-bearing zone as it recovers from the stress induced by the constant-rate test. Recovery is typically measured for 24 hours.

1. The set-up for the constant-rate test is identical to that of the stepped-rate tests. Groundwater levels should be at static, pre-pumping conditions before starting the constant-rate test.

2. Program the constant-rate test into the loggers and barometric pressure monitoring equipment. **Be sure that the internal time settings in the transducers, loggers, barometric pressure monitoring equipment, laptop, and/or hand-held computer are synchronized before programming any tests.** The constant-rate test is a **logarithmic** test. Caution should be used when setting the conversion time for the test. High sampling frequencies that are important in the early phase of pumping become less desirable as the test proceeds and the water levels stabilize. Typical constant-rate tests performed in low to moderate yield unconsolidated units have conversion times that range between 15 and 60 minutes.

3. Begin the constant-rate test. Careful synchronization of the start of the test and the pump are critical to ensure optimal data capture during the initial drawdown phase. Begin pumping the well 0.5 to 5 seconds **after** the data collection has started; starting pumping before the data loggers begin collecting data will result in the loss of important early drawdown data.

4. Monitor the pumping rate and groundwater elevations periodically during the test. As with the stepped-rate test, pumping rates should be maintained with ± 5 percent of the target extraction rate and the water levels above the pump should be checked to ensure that the well is not being dewatered. Groundwater elevations in the pumping well should be monitored regularly using both the transducer and an electronic water level meter to ensure that the well is not dewatered during the test. Record discharge rates, meter readings, and manual water level measurements in the field book. Monitoring should be more frequent at the beginning of the test with reductions in the monitoring schedule, as appropriate. Once stabilization has been achieved, the monitoring schedule can be reduced further; however, monitoring should be conducted, at a minimum, every two hours after the water levels have stabilized to verify that the pumping rate remains constant, the water levels have not decreased due to changes in the water-bearing unit storage, and other equipment is operating as designed. Record the monitoring intervals and results in the field book.

5. Using the data recorded by the data loggers and barometric monitoring equipment, continue the constant-rate test for the prescribed amount of time or until the groundwater level in the pumping and observation wells reach stabilization.

6. At the conclusion of the constant-rate pumping test, suspend all data recording but **do not shut off the pump** or remove any equipment from the wells. Download the constant-rate test data from the data loggers.

7. Program a recovery test into each transducer using a laptop or hand-held device. **Be sure that the internal time settings in the transducers, loggers, barometric pressure monitoring equipment, laptop, and/or hand-held computer are synchronized before programming any**

tests. The recovery phase is a **logarithmic** test. Log-linear conversion times should be the same for the recovery period as those used for the constant-rate pumping test.

8. Begin the start sequence for the recovery test. Careful synchronization of the start of the data loggers and the pump shutdown is critical for capturing the early response data that occurs as soon as the pumps are shut down (this is the inverse of the drawdown data collected during the pumping phases of the test). The pump should be shut down approximately 0.5 to 5 seconds after the data loggers begin recording the test.

9. Continue the recovery test for the prescribed amount of time or until the water level in the extraction and observation wells has returned to 95 percent of the pre-pumping static water level. **Do not remove the downhole equipment (e.g., pump, transducers) until the completion of the recovery test**.

10. Download the groundwater elevation and barometric pressure data to the hand-held device and create a back-up copy of the data on a laptop computer at the conclusion of the recovery test. It is not necessary to erase the data from the loggers as most contain sufficient memory to store millions of data points; leaving data on the loggers also provides a secondary back-up system. Verify that all of the data has been transferred to the laptop or other storage media (e.g., compact discs) before erasing the data files from the data loggers.

11. Remove the pump, tubing, piping, transducer cables, and transducers from the test wells and place them on plastic sheeting around the well or in a bucket. Replace well cap, locking expandable plug, and secure test wells with locking mechanism.

12. Decontaminate transducers, transducer cables, and pump with distilled water and paper towels (SOP No. 17). Decontaminated equipment should be placed on, in, or wrapped in plastic until further use. Properly dispose of decontamination water, PPE, lift line, and other disposable supplies in accordance with the IDW plan.

Standard Operating Procedures – 30
***In Situ* Single Well Hydraulic Conductivity Test (Slug Test)**

Scope:

This standard operating procedure describes the methods and techniques to be employed for performing *in situ* single well hydraulic conductivity tests, or slug tests, on partially- or fully-penetrating monitoring wells or piezometers.

Objective:

The objective of performing *in situ* single well hydraulic conductivity tests, or slug tests, is to measure the hydraulic characteristics of the aquifer (water-bearing zone) in the immediate vicinity of the monitoring well or piezometer for aquifer characterization. The hydraulic conductivity test is performed by creating an instantaneous change in the water level by either inserting (falling head) or withdrawing (rising head) a slug from a monitoring well or piezometer that is at equilibrium.

Materials:

Field book
Monitoring well lock keys
Hand tools (wrenches), if necessary
Water level indicator
Pressure transducer-internal/external logger (Troll, PDA, or Hermit, see Table 1)
Oil/water interface probe, if necessary
Photoionization detector (PID), if necessary
Closed volume slug (polyvinyl chloride [PVC] pipe filled with sand, cement, or other inert material)
Nitrile or heat resistant gloves
Tape measure
Exacto, pocket knife, or scissors
Rope
Duct tape
Indelible marker or metal file
Paper towels
5-gallon bucket(s)
Distilled water (decontamination of downhole equipment)
Plastic sheeting

Procedures:

1. Review site Health and Safety Plan (HASP) before mobilizing to the field. Discuss groundwater contamination constituents and specific HASP issues with Project Manager.

2. Prepare field book (SOP No. 1) with site description, weather conditions, participants, and other relevant observations, including all data necessary to complete the hydraulic conductivity tests, or slug tests. Verify monitoring well or piezometer locations.

3. With field personnel in Level D personal protective equipment (PPE), unless historical data warrants upgrading to Level C PPE, survey ambient (background) air around the base of the well

casing and wellhead for organic vapors using a photoionization detector (PID) or equivalent. Record air monitoring measurements in field book.

4. Inspect monitoring well or piezometer for soundness of protective casing, surface ground seal, and locking mechanism.

5. Unlock protective casing or flush mounted curb box. Remove well cap or plug, place PID probe at wellhead, and record PID response in field book. Survey breathing zone to ensure that PPE level is appropriate. Record air monitoring measurements in the field book.

6. Place plastic sheeting around the monitoring well or piezometer head before initiating any down well measurement or testing activities. After plastic is placed around the monitoring well covering the ground surface, measurement and testing procedures may commence. If necessary, place tape on well casing to prevent cutting or slicing of rope or cable.

7. Allow static water level to equilibrate, as appropriate, before measuring or determining the presence or thickness of a floating product layer (LNAPL) or a sinking free product layer (DNAPL). Measure thickness using an oil/water interface probe, if necessary, in accordance with EPA RCRA Groundwater Monitoring Technical Enforcement Guidance Document [November 1992], state guidance, or site work plan documents (SOP No. 3a). Record observations in the field book. If LNAPL or DNAPL are present, do **NOT** perform hydraulic conductivity tests in the monitoring well/piezometer.

8. Measure the monitoring well or piezometer casing inside diameter (ID) and record in inches. From the top of the casing, measure the depth (in hundredths of a foot) to water (DTW) with an electronic water level indicator and record in the field book. Static water level measurements must be recorded from the surveyor's mark at the top of the casing, if present. If no mark is present, mark a location with a metal file or indelible marker on the north side of the casing and record in the field book for future reference. Measure and record the total depth (TD), in hundredths of a foot, of the monitoring well or piezometer.

9. Thoroughly decontaminate (SOP No. 17) the water level indicator cable during retrieval from the monitoring well or piezometer using distilled water and paper towels.
10. Thoroughly decontaminate the pressure transducer and closed volume slug using distilled water before placement of equipment into the monitoring well or piezometer. Decontaminated equipment should be placed on or wrapped in clean plastic sheeting until inserted into the monitoring well or piezometer. Record pertinent data logger and pressure transducer information (model or serial number and pressure transducer rating) in field book.

11. Using the tape measure, measure the length from the transducer bottom up the cable to a point where the transducer will be positioned in the monitoring well or piezometer. Mark the transducer cable at the appropriate length for reference. The transducer must be positioned at a depth below the static water level so upon total insertion of the slug into the water column (slug completely enters the water column), the slug bottom does not contact the top of the transducer.

12. Position the transducer in the monitoring well or piezometer below the static water level to the point where mark is aligned with the monitoring well or piezometer survey mark. Allow transducer to equilibrate for a minimum of 10 minutes before starting test.

13. Secure transducer cable to the wellhead, the well casing, protective casing (i.e., duct tape), or the curb box (i.e., "s" hooks). Note, the transducer must be secured such that the transducer can **NOT** move vertically within the water column during performance of the hydraulic

conductivity tests. If using an external data logger, connect the transducer cable to the automatic data logger.

14. Power the data logger/transducer and check for proper operation and battery life. Enter monitoring well/piezometer information, transducer reference data, and testing parameters. Generate a test file for each planned individual slug test; the number of tests to be performed should be determined by the Project Manager, but should be no less than three (two falling and one rising) per monitoring well/piezometer. Verify that data logger/transducer collection mode is programmed to record on the logarithmic scale, with a maximum asymptotic interval of 10 minutes.

15. Evaluate water level stabilization by reviewing pressure head readings from the transducer. Once pressure readings have stabilized, record the transducer reference point (zero or reference head).

16. Verify that the slug is full and closed, as applicable. Closed volume slug should be of an appropriate diameter and length to displace an appropriate water volume on insertion into the water column. Secure rope to the top of the closed volume slug; checking knot to be certain rope will not untie during testing process. Using the tape measure, measure the length from the bottom of the closed volume slug up the rope to a point where the slug will be positioned immediately above the recorded static water level. Mark this location.

17. On the rope, mark a second depth measurement corresponding to the depth at which the slug should be lowered into the water column (falling head). The slug must be positioned below the static water level upon total insertion into the water column, but above the level of the transducer. Secure the closed volume slug rope to well head, the well casing, protective casing, or the curb box using duct tape or some other means.

18. In preparation for the first test, lower the closed volume slug into the monitoring well or piezometer so that the slug bottom is suspended immediately above the static water column. This position should correspond to the first mark (No. 16 above).

19. **Falling-Head Tests**

    Start the test on the data logger and, approximately 0.5 second to 1 second later, smoothly but quickly lower the closed volume slug into the water column (falling- head test, slug in) until the second mark is positioned equal to the wellhead survey mark. Be sure that the slug does not move the transducer cable.

    Rising-Head Tests

    Start the data logger and approximately 0.5 second to 1 second later, smoothly, but quickly, remove the closed volume slug from the water column (rising-head or bail-down test, slug out) until the first mark is positioned equal to the wellhead survey mark (ensuring that the slug is above the original static water level). Be sure that the slug does not move the transducer cable.

20. During each hydraulic conductivity test, monitor (review) the water level data collected on the data logger to ensure proper operation. Record weather changes, heavy equipment movement, or other conditions that may affect water level measurements in the field book. In addition, verification should also be conducted to determine that the volume of the slug is roughly equal to the volume of water displaced, as measured by the data logger. Using the data recorded by the data logger, continue the hydraulic conductivity test, or slug test, until the water level in the

monitoring well or piezometer returns to the smaller of either 0.02-foot from the original static water level or within five percent of the change in head.

21. Using the data logger, stop collecting measurements when the static water level stabilizes as described in Step 20.

22. After completion of the testing procedures at a location, remove closed volume slug, transducer cable, and transducer from the monitoring well or piezometer and place on plastic sheeting around the well or in a bucket. Replace well cap, expandable plug, curb box top and secure monitoring well or piezometer with locking mechanism.

23. Decontaminate transducer, transducer cable, and closed volume slug with distilled water and paper towels (SOP No. 17). Decontaminated equipment should be placed on, in, or wrapped in plastic until further use. Properly dispose of decontamination water, PPE, rope, and other disposable supplies in accordance with the investigation-derived waste (IDW) plan.

24. In the field, periodically, and/or before concluding the field activities, download data files from the transducer/logger to a computer diskette or laptop computer.

General Notes:

If groundwater quality data is available for the well(s) being tested, conduct the slug tests in the order of increasing contaminant levels to reduce the potential for cross-contamination.

Single well hydraulic conductivity test, or slug test, data should be analyzed using appropriate aquifer type (unconfined, confined, etc.), method (Bouwer and Rice, Hvorslev, etc.), monitoring well or piezometer construction parameters (fully- or partially-penetrating), pre-testing water level measurements, and HydroSOLV's AQTESOLV for Windows (or equivalent) software package.

Hydraulic conductivity (K) values are calculated (length/time) as centimeters per second (cm/sec), meters per second (m/sec), or feet per second (ft/sec).

Pressure transducer selection criteria:

Table 1

Maximum Depth Below Water Level for Pressure Transducer (a)

Pressure Transducer (PSI)	Depth Below Water Table (feet)
11	23
21	46
31	69
51	115

a/ PSI=pounds per square inch

Appendix B – Soil Boring Logs

Boring Log: SB-01

Project: 1644/1646 Yakona Rd

Project No.: 4184

Location: Towson, MD

Completion Date: April 4, 2013

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 10

Borehole Diameter (inches): 2

**AMSL = Above mean sea level*

Sample Data					Subsurface Profile	
Depth	Sample/Interval	FID(ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
1		0.0	2 2 3 3	100		***Organic Soil (OL/OH)*** Light brown (7.5 YR 6/3) organic silt, soft, dry, no odor, no bedding ***Sandy Lean Clay (CL)*** Reddish yellow (7.5 YR 7/6) clay with some fine sand, soft, dry, no odor, no bedding
2						
3	SB-01 (2-2.5)	0.0	1 2 2 2	100		***Silty Sand (SM)*** Strong brown (7.5 YR 4/6) fine sand with some silt, soft, moist, no odor, no bedding ***Sandy Lean Clay (CL)*** Yellowish red (5 YR 5/6) clay with some fine sand, soft, moist, no odor, no bedding
4						
5		0.0	2 2 7 7	100		***Sandy Lean Clay (CL)*** Very pale brown (10 YR 8/2) clay with some fine to medium sand, soft, moist, no odor, no bedding
6						***Poorly-Graded Sand (SP)*** Reddish yellow (7.5 YR 7/6) medium sand, loose, wet, no odor, no bedding
7		0.0	7 7 8 10	100		***Lean Clay with Sand (CL)*** Reddish yellow (7.5 YR 7/6) clay with trace medium sand, stiff, dry, no odor, no bedding
8						
9		0.0	8 7 7 7	100		***Poorly-Graded Sand (SP)*** Reddish yellow (7.5 YR 7/6) medium sand, loose, wet, no odor, no bedding
10						***Lean Clay (CL)*** Reddish yellow (7.5 YR 7/6) clay, stiff, moist, no odor, no bedding
						Bottom of Boring at 10 feet

Geologist(s): Robert Wallace

Subcontractor: MDA Drilling

Driller/Operator: Ken Manos

Method: Direct Push

WSP Environment & Energy

Boring Log: SB-02

Project: 1644/1646 Yakona Rd

Project No.: 4184

Location: Towson, MD

Completion Date: April 4, 2013

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 10

Borehole Diameter (inches): 2

*AMSL = Above mean sea level

Depth	Sample/Interval	FID(ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
1		0.0	2, 2, 3, 2	80		***Organic Soil (OL/OH)*** Brown (7.5 YR 5/2) organic silt, stiff, dry, no odor, no bedding ***Sandy Lean Clay (CL)*** Reddish yellow (10 YR 8/7) clay with some sand, soft, dry, some very pale brown mottling (10 YR 8/2), no odor, no bedding
2						
3	SB-02 (2-2.5)	0.0	2, 2, 3, 4	60		***Clayey Sand (SC)*** Brown (7.5 YR 5/2) fine sand with some clay, soft, moist, no odor, no bedding ***Sandy Lean Clay (CL)*** Reddish yellow (7.5 YR 7/6) clay with some fine sand, stiff, dry, no odor, no bedding
4						
5		0.0	8, 8, 12, 12	100		
6						
7		0.0	6, 7, 8, 10	100		***Clayey Sand (SC)*** Brownish gray (7.5 YR 5/3) fine sand with some clay, dense, dry, no odor, no bedding ***Sandy Lean Clay (CL)*** Reddish yellow (7.5 YR 7/6) clay with some fine to medium sand, stiff, dry, no odor, no bedding
8						
9		0.0	10, 10, 10, 10	100		***Sandy Lean Clay with Gravel (CL)*** Redish yellow (7.5 YR 7/6) clay with some fine to medium sand and trace fine gravel, stiff, dry, no odor, no bedding
10						Bottom of Boring at 10 feet No water in boring

Geologist(s): Robert Wallace

Subcontractor: MDA Drilling

Driller/Operator: Ken Manos

Method: Direct Push

WSP Environment & Energy

Boring Log: SB-03

Project: 1644/1646 Yakona Rd

Project No.: 4184

Location: Towson, MD

Completion Date: April 4, 2001

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 10

Borehole Diameter (inches): 2

*AMSL = Above mean sea level

Depth	Sample/Interval	FID(ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
1		0.0	2, 2, 1, 1	100		***Organic Soil (OL/OH)*** Brown (7.5 YR 5/3) organic silt, soft, dry, no odor, no bedding
						Poorly-Graded Sand with Clay (SP-SC) Reddish yellow (7.5 YR 7/6) fine sand with trace clay, loose, dry, no odor, no bedding
2						***Sandy Lean Clay (CL)*** Light brown (7.5 YR 6/3) clay with some fine sand, soft, dry, no odor, no bedding
3	SB-03 (2-2.5)	0.0	1, 2, 4, 6	100		***Lean Clay with Sand (CL)*** Yellowish brown (10 YR 5/4) clay with trace fine sand, soft, dry, no odor, no bedding
4						***Sandy Lean Clay (CL)*** Yellowish brown (10 YR 5/4) clay with some sand, soft, moist, no odor, no bedding
5		0.0	6, 8, 11, 11	100		***Poorly-Graded Sand with Clay (SP-SC)*** Reddish yellow (7.5 YR 7/6) fine sand with trace clay, loose, moist, no odor, no bedding
6						***Poorly-Graded Sand (SP)*** Yellowish red (5 YR 5/6) fine to medium sand, loose, wet, no odor, no bedding
7		0.0	6, 8, 11, 12	100		
8						
9		0.0	10, 10, 7, 8	100		
10						

Bottom of Boring at 10 feet

Geologist(s): Robert Wallace

Subcontractor: MDA Drilling

Driller/Operator: Ken Manos

Method: Direct Push

WSP Environment & Energy

Boring Log: SB-04

Project: 1644/1646 Yakona Rd

Project No.: 4184

Location: Towson, MD

Completion Date: April 4, 2013

Surface Elevation (feet AMSL*): Not Determined

Total Depth (feet): 10

Borehole Diameter (inches): 2

*AMSL = Above mean sea level

Sample Data					Subsurface Profile	
Depth	Sample/Interval	FID(ppm)	Blow Count	% Recovery	Lithology	Description
						Ground Surface
1		0.0	2, 3, 1, 2	100		***Organic Soil (OL/OH)*** Brown (7.5 YR 5/3) organic silt. soft, dry, no odor, no bedding
						Lean Clay with Sand (CL) Reddish yellow (7.5 YR 6/6) clay with trace fine sand, soft, dry, no odor, no bedding
2						***Sandy Lean Clay (CL)*** Light brown (7.5 YR 6/3) clay with some fine sand, soft, dry, no odor, no bedding
3	SB-04 (2-2.5)	0.0	3, 3, 8, 12	100		***Sandy Lean Clay (CL)*** Reddish yellow (7.5 YR 7/6) clay with some fine sand, soft, moist, some very pale brown mottling (10 YR 8/2), no odor, no bedding
4						
5		0.0	6, 12, 6, 8	100		
6						***Poorly-Graded Sand with Clay (SP-SC)*** Very pale brown (10 YR 8/2) fine sand with trace clay, loose, moist, no odor, no bedding
7		0.0	7, 7, 10, 12	100		
8						***Lean Clay with Sand (CL)*** Yellowish red (5 YR 5/6) clay with trace fine to medium sand, stiff, dry, no odor, no bedding
9		0.0	10, 10, 10, 8	100		***Poorly-Graded Sand (SP)*** Yellowish red (5 YR 5/6) medium sand, loose, wet, no odor, no bedding
10						

Bottom of Boring at 10 feet

Geologist(s): Robert Wallace

Subcontractor: MDA Drilling

Driller/Operator: Ken Manos

Method: Direct Push

WSP Environment & Energy

Appendix C – Laboratory Analytical Reports

Analytical Report for

WSP Environment & Energy - Reston

Certificate of Analysis No.: 13040516

Project Manager: Keith Green
Project Name : Yakona Rd
Project Location: Towson MD
Project ID : 4184

April 10, 2013

Phase Separation Science, Inc.
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

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PHASE SEPARATION SCIENCE, INC.

April 10, 2013

Keith Green
WSP Environment & Energy - Reston
11190 Sunrise Valley Dr., Ste. 300
Reston, VA 20191

Reference: PSS Work Order(s) No: **13040516**
Project Name: Yakona Rd
Project Location: Towson MD
Project ID.: 4184

Dear Keith Green :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **13040516**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on May 10, 2013. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt , the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

Sample Summary

Client Name: WSP Environment & Energy - Reston

Project Name: Yakona Rd

Work Order Number(s): 13040516

Project ID: 4184

The following samples were received under chain of custody by Phase Separation Science (PSS) on 04/05/2013 at 01:00 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
13040516-001	SB-02 (2-2.5)	SOIL	04/04/13 10:25
13040516-002	SB-04 (2-2.5)	SOIL	04/04/13 11:13
13040516-003	SB-03 (2-2.5)	SOIL	04/04/13 11:52
13040516-004	SB-01 (2-2.5)	SOIL	04/04/13 13:00
13040516-005	SB-040413 (2-2.5)	SOIL	04/04/13 13:10
13040516-006	1644-Sump	WATER	04/04/13 13:15
13040516-007	SB-03 (GW)	WATER	04/04/13 14:45
13040516-008	SB-040413 (GW)	WATER	04/04/13 15:15
13040516-009	SB-04 (GW)	WATER	04/04/13 15:45
13040516-010	1646-Sump	WATER	04/05/13 10:15
13040516-011	Surface Water	WATER	04/05/13 10:40
13040516-012	Trip Blank	WATER	04/05/13 00:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. The following analytical results are never reported on a dry weight basis: pH, flashpoint, moisture and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05 07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for non-potable water samples tested for compliance for Virginia Pollution Discharge Elimination System (VDPES) permits and Virginia Pollutant Abatement (VPA) permits, have a maximum holding time of 15 minutes established by 40CFR136.3.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the LOD.
- LOD Limit of Detection. An estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

Case Narrative Summary

Client Name: WSP Environment & Energy - Reston

Project Name: Yakona Rd

Work Order Number(s): 13040516
Project ID: 4184

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Sample Receipt:

Per client, analyze DRO on all soils. For waters, VOA analyzed from the unpreserved VOA vials (hold time reduced to 7 days), GRO analyzed from the 2 preserved VOA vials, and Dissolved Methane analyzed from the 2 Sodium Bisulfate vials (preservative should not affect the analysis).

Client requested MS/MSD analyses for sample -007 (SB-03 GW). Insufficient sample volume was provided to perform MS/MSD for all analyses.

Analyses associated with analyst code 4010 were performed by Maryland Spectral Services

Analytical:

TCL Volatiles plus Oxygenates + TICs

Batch: 105220

The recovery of tert-Butyl alcohol slightly exceeded the laboratory control limits for the matrix spike and matrix spike duplicate (MS/MSD) but fell within the marginal exceedance limits. This analyte was not detected in the client sample and recovery was acceptable in the laboratory control sample (LCS).

The recovery of 4-Methyl-2-pentanone exceeded the laboratory control limits for the MS/MSD. This analyte was not detected in the client sample and recovery was acceptable in the laboratory control sample (LCS).

The following analytes exceeded the laboratory control limits for the LCS but were not detected in the client samples: chlorobenzene; m&p Xylene; o-Xylene; styrene; isopropylbenzene; and 1,3-Dichlorobenzene. The recoveries of all analytes except chlorobenzene fell within marginal exceedance limits.

Batch: 105222

Sample containers were unpreserved but analyses were performed within 7 days. The sample pH was measured as follows: -006 = 5; -007 = 5; -008 = 5; -009 = 5; -010 = 5; -009 = 6. The trip blank was preserved and had a pH of 3.

For the matrix spike (MS), recovery of chloroethane fell slightly below the laboratory control limits but within the marginal exceedance limits. The recovery of the matrix spike duplicate (MSD) was acceptable. The relative percent difference (RPD) between the MS and MSD exceeded laboratory control limits.

For the MS and MSD, the recovery of 1,2-Dibromo-3-chloropropane exceeded the laboratory control limits; the reovery of the LCS was acceptable and the analyte was not detected in the client sample.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-02 (2-2.5) **Date/Time Sampled: 04/04/2013 10:25** **PSS Sample ID: 13040516-001**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.8		1	4.8	04/08/13	04/08/13 15:42	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	61	04/08/13	04/08/13 11:51	1035

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-02 (2-2.5) **Date/Time Sampled: 04/04/2013 10:25** **PSS Sample ID: 13040516-001**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Chloromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Vinyl Chloride	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
tert-Butyl Alcohol	ND	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
Bromomethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Chloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Acetone	**20**	ug/kg	20	J	1	9.8	04/08/13	04/08/13 13:55	1011
Cyclohexane	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
Trichlorofluoromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1-Dichloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Methylene chloride	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
trans-1,2-Dichloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Methyl-t-Butyl Ether	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1-Dichloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
2-Butanone (MEK)	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
cis-1,2-Dichloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Bromochloromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Chloroform	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1,1-Trichloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2-Dichloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Carbon tetrachloride	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Benzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2-Dichloropropane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Carbon Disulfide	ND	ug/kg	9.8		1	4.9	04/08/13	04/08/13 13:55	1011
Methylcyclohexane	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
Trichloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Methyl Acetate	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
Bromodichloromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
cis-1,3-Dichloropropene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-02 (2-2.5) | **Date/Time Sampled: 04/04/2013 10:25** | **PSS Sample ID: 13040516-001**
Matrix: SOIL | **Date/Time Received: 04/05/2013 13:00** | **% Solids: 82**

TCL Volatiles plus Oxygenates + TICs — Analytical Method: SW-846 8260 B — Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
trans-1,3-Dichloropropene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1,2-Trichloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Toluene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
2-Hexanone (MBK)	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
1,2-Dibromoethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Dibromochloromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
tert-Butyl ethyl ether	ND	ug/kg	9.8		1	4.9	04/08/13	04/08/13 13:55	1011
tert-Amyl methyl ether	ND	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
Diisopropyl ether	ND	ug/kg	9.8		1	4.9	04/08/13	04/08/13 13:55	1011
tert-Amyl ethyl ether	ND	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
tert-Amyl alcohol	ND	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
Bromoform	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Tetrachloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Chlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Ethylbenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
m&p-Xylene	ND	ug/kg	9.8		1	4.9	04/08/13	04/08/13 13:55	1011
Styrene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
o-Xylene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Isopropylbenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,3-Dichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,4-Dichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2-Dichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
1,2,4-Trichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Naphthalene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2,3-Trichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-02 (2-2.5) **Date/Time Sampled: 04/04/2013 10:25** **PSS Sample ID: 13040516-001**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Acenaphthylene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Anthracene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Benzo(a)anthracene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Benzo(a)pyrene	ND	ug/kg	28		1	28	04/09/13	04/09/13 18:23	1014
Benzo(b)fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Benzo(g,h,i)perylene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Benzo(k)fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Chrysene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Dibenz(a,h)Anthracene	ND	ug/kg	28		1	28	04/09/13	04/09/13 18:23	1014
Fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Fluorene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
2-Methylnaphthalene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Naphthalene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Phenanthrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Pyrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (2-2.5) **Date/Time Sampled: 04/04/2013 11:13** **PSS Sample ID: 13040516-002**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.9		1	4.9	04/08/13	04/08/13 16:04	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	60	04/08/13	04/08/13 12:18	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (2-2.5) **Date/Time Sampled: 04/04/2013 11:13** **PSS Sample ID: 13040516-002**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Chloromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Vinyl Chloride	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
tert-Butyl Alcohol	ND	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
Bromomethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Chloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Acetone	11	ug/kg	20	J	1	10	04/08/13	04/08/13 15:54	1011
Cyclohexane	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
Trichlorofluoromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1-Dichloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Methylene chloride	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Methyl-t-Butyl Ether	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1-Dichloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
2-Butanone (MEK)	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Bromochloromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Chloroform	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1,1-Trichloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2-Dichloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Carbon tetrachloride	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Benzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2-Dichloropropane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Carbon Disulfide	ND	ug/kg	10		1	5	04/08/13	04/08/13 15:54	1011
Methylcyclohexane	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
Trichloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Methyl Acetate	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
Bromodichloromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (2-2.5) **Date/Time Sampled: 04/04/2013 11:13** **PSS Sample ID: 13040516-002**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
trans-1,3-Dichloropropene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1,2-Trichloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Toluene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
2-Hexanone (MBK)	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
1,2-Dibromoethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Dibromochloromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
tert-Butyl ethyl ether	ND	ug/kg	10		1	5	04/08/13	04/08/13 15:54	1011
tert-Amyl methyl ether	ND	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
Diisopropyl ether	ND	ug/kg	10		1	5	04/08/13	04/08/13 15:54	1011
tert-Amyl ethyl ether	ND	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
tert-Amyl alcohol	ND	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
Bromoform	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Tetrachloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Chlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Ethylbenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
m&p-Xylene	ND	ug/kg	10		1	5	04/08/13	04/08/13 15:54	1011
Styrene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
o-Xylene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Isopropylbenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,3-Dichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,4-Dichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2-Dichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Naphthalene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (2-2.5) **Date/Time Sampled: 04/04/2013 11:13** **PSS Sample ID: 13040516-002**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Acenaphthylene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Anthracene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Benzo(a)anthracene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Benzo(a)pyrene	ND	ug/kg	28		1	28	04/09/13	04/09/13 18:51	1014
Benzo(b)fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Benzo(g,h,i)perylene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Benzo(k)fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Chrysene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Dibenz(a,h)Anthracene	ND	ug/kg	28		1	28	04/09/13	04/09/13 18:51	1014
Fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Fluorene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
2-Methylnaphthalene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Naphthalene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Phenanthrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Pyrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (2-2.5) **Date/Time Sampled: 04/04/2013 11:52** **PSS Sample ID: 13040516-003**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 85**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.7		1	4.7	04/08/13	04/08/13 17:33	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	59	04/08/13	04/08/13 15:56	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (2-2.5) **Date/Time Sampled: 04/04/2013 11:52** **PSS Sample ID: 13040516-003**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 85**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Chloromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Vinyl Chloride	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
tert-Butyl Alcohol	ND	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
Bromomethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Chloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Acetone	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
Cyclohexane	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
Trichlorofluoromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1-Dichloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Methylene chloride	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
trans-1,2-Dichloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Methyl-t-Butyl Ether	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1-Dichloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
2-Butanone (MEK)	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
cis-1,2-Dichloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Bromochloromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Chloroform	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1,1-Trichloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2-Dichloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Carbon tetrachloride	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Benzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2-Dichloropropane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Carbon Disulfide	ND	ug/kg	9.2		1	4.6	04/08/13	04/08/13 13:27	1011
Methylcyclohexane	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
Trichloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Methyl Acetate	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
Bromodichloromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
cis-1,3-Dichloropropene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (2-2.5) **Date/Time Sampled: 04/04/2013 11:52** **PSS Sample ID: 13040516-003**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 85**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
trans-1,3-Dichloropropene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1,2-Trichloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Toluene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
2-Hexanone (MBK)	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
1,2-Dibromoethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Dibromochloromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
tert-Butyl ethyl ether	ND	ug/kg	9.2		1	4.6	04/08/13	04/08/13 13:27	1011
tert-Amyl methyl ether	ND	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
Diisopropyl ether	ND	ug/kg	9.2		1	4.6	04/08/13	04/08/13 13:27	1011
tert-Amyl ethyl ether	ND	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
tert-Amyl alcohol	ND	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
Bromoform	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Tetrachloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Chlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Ethylbenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
m&p-Xylene	ND	ug/kg	9.2		1	4.6	04/08/13	04/08/13 13:27	1011
Styrene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
o-Xylene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Isopropylbenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,3-Dichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,4-Dichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2-Dichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
1,2,4-Trichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Naphthalene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2,3-Trichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (2-2.5) **Date/Time Sampled: 04/04/2013 11:52** **PSS Sample ID: 13040516-003**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 85**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Acenaphthylene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Anthracene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Benzo(a)anthracene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Benzo(a)pyrene	ND	ug/kg	28		1	28	04/09/13	04/09/13 19:19	1014
Benzo(b)fluoranthene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Benzo(g,h,i)perylene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Benzo(k)fluoranthene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Chrysene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Dibenz(a,h)Anthracene	ND	ug/kg	28		1	28	04/09/13	04/09/13 19:19	1014
Fluoranthene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Fluorene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
2-Methylnaphthalene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Naphthalene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Phenanthrene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Pyrene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-01 (2-2.5) **Date/Time Sampled: 04/04/2013 13:00** **PSS Sample ID: 13040516-004**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 86**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.6		1	4.6	04/08/13	04/08/13 16:26	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	57	04/08/13	04/08/13 13:12	1035

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No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-01 (2-2.5) **Date/Time Sampled: 04/04/2013 13:00** **PSS Sample ID: 13040516-004**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 86**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Chloromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Vinyl Chloride	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
tert-Butyl Alcohol	ND	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
Bromomethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Chloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Acetone	**12**	ug/kg	21	J	1	11	04/08/13	04/08/13 16:49	1011
Cyclohexane	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
Trichlorofluoromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1-Dichloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Methylene chloride	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Methyl-t-Butyl Ether	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1-Dichloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
2-Butanone (MEK)	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Bromochloromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Chloroform	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1,1-Trichloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2-Dichloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Carbon tetrachloride	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Benzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2-Dichloropropane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Carbon Disulfide	ND	ug/kg	11		1	5.4	04/08/13	04/08/13 16:49	1011
Methylcyclohexane	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
Trichloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Methyl Acetate	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
Bromodichloromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-01 (2-2.5) **Date/Time Sampled: 04/04/2013 13:00** **PSS Sample ID: 13040516-004**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 86**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
trans-1,3-Dichloropropene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1,2-Trichloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Toluene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
2-Hexanone (MBK)	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
1,2-Dibromoethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Dibromochloromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
tert-Butyl ethyl ether	ND	ug/kg	11		1	5.4	04/08/13	04/08/13 16:49	1011
tert-Amyl methyl ether	ND	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
Diisopropyl ether	ND	ug/kg	11		1	5.4	04/08/13	04/08/13 16:49	1011
tert-Amyl ethyl ether	ND	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
tert-Amyl alcohol	ND	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
Bromoform	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Tetrachloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Chlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Ethylbenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
m&p-Xylene	ND	ug/kg	11		1	5.4	04/08/13	04/08/13 16:49	1011
Styrene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
o-Xylene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Isopropylbenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,3-Dichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,4-Dichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2-Dichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Naphthalene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-01 (2-2.5) | **Date/Time Sampled: 04/04/2013 13:00** | **PSS Sample ID: 13040516-004**
Matrix: SOIL | **Date/Time Received: 04/05/2013 13:00** | **% Solids: 86**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Acenaphthylene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Anthracene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Benzo(a)anthracene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Benzo(a)pyrene	ND	ug/kg	27		1	27	04/09/13	04/09/13 17:54	1014
Benzo(b)fluoranthene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Benzo(g,h,i)perylene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Benzo(k)fluoranthene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Chrysene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Dibenz(a,h)Anthracene	ND	ug/kg	27		1	27	04/09/13	04/09/13 17:54	1014
Fluoranthene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Fluorene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
2-Methylnaphthalene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Naphthalene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Phenanthrene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Pyrene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014

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WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (2-2.5) **Date/Time Sampled: 04/04/2013 13:10** **PSS Sample ID: 13040516-005**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 88**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.5		1	4.5	04/08/13	04/08/13 16:26	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	04/08/13	04/08/13 13:39	1035

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (2-2.5) | **Date/Time Sampled: 04/04/2013 13:10** | **PSS Sample ID: 13040516-005**
Matrix: SOIL | **Date/Time Received: 04/05/2013 13:00** | **% Solids: 88**

TCL Volatiles plus Oxygenates + TICs | Analytical Method: SW-846 8260 B | Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Chloromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Vinyl Chloride	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
tert-Butyl Alcohol	ND	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
Bromomethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Chloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Acetone	**35**	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
Cyclohexane	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
Trichlorofluoromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1-Dichloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Methylene chloride	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Methyl-t-Butyl Ether	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1-Dichloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
2-Butanone (MEK)	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Bromochloromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Chloroform	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1,1-Trichloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2-Dichloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Carbon tetrachloride	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Benzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2-Dichloropropane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Carbon Disulfide	ND	ug/kg	10		1	5.2	04/08/13	04/08/13 16:21	1011
Methylcyclohexane	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
Trichloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Methyl Acetate	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
Bromodichloromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (2-2.5) | **Date/Time Sampled: 04/04/2013 13:10** | **PSS Sample ID: 13040516-005**
Matrix: SOIL | **Date/Time Received: 04/05/2013 13:00** | **% Solids: 88**

TCL Volatiles plus Oxygenates + TICs | Analytical Method: SW-846 8260 B | Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
trans-1,3-Dichloropropene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1,2-Trichloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Toluene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
2-Hexanone (MBK)	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
1,2-Dibromoethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Dibromochloromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
tert-Butyl ethyl ether	ND	ug/kg	10		1	5.2	04/08/13	04/08/13 16:21	1011
tert-Amyl methyl ether	ND	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
Diisopropyl ether	ND	ug/kg	10		1	5.2	04/08/13	04/08/13 16:21	1011
tert-Amyl ethyl ether	ND	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
tert-Amyl alcohol	ND	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
Bromoform	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Tetrachloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Chlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Ethylbenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
m&p-Xylene	ND	ug/kg	10		1	5.2	04/08/13	04/08/13 16:21	1011
Styrene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
o-Xylene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Isopropylbenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,3-Dichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,4-Dichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2-Dichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Naphthalene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Hexanal (TIC)	11	ug/kg	5.2	J	1	5.2	04/08/13	04/08/13 16:21	1011

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (2-2.5) **Date/Time Sampled: 04/04/2013 13:10** **PSS Sample ID: 13040516-005**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 88**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Acenaphthylene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Anthracene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Benzo(a)anthracene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Benzo(a)pyrene	ND	ug/kg	26		1	26	04/09/13	04/09/13 19:48	1014
Benzo(b)fluoranthene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Benzo(g,h,i)perylene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Benzo(k)fluoranthene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Chrysene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Dibenz(a,h)Anthracene	ND	ug/kg	26		1	26	04/09/13	04/09/13 19:48	1014
Fluoranthene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Fluorene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
2-Methylnaphthalene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Naphthalene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Phenanthrene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Pyrene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014

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No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1644-Sump **Date/Time Sampled: 04/04/2013 13:15** **PSS Sample ID: 13040516-006**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0057		0.0057	04/08/13	04/08/13 12:32	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/L	0.040		1	0.04	04/08/13	04/08/13 20:53	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 18:02	1035

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April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1644-Sump **Date/Time Sampled: 04/04/2013 13:15** **PSS Sample ID: 13040516-006**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
tert-Butanol	ND	ug/L	20		1	10	04/08/13	04/09/13 05:33	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:33	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011

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April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1644-Sump **Date/Time Sampled: 04/04/2013 13:15** **PSS Sample ID: 13040516-006**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:33	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
tert-Amyl alcohol	ND	ug/L	20		1	10	04/08/13	04/09/13 05:33	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:33	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 05:33	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011

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No: 13040516

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April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1644-Sump **Date/Time Sampled: 04/04/2013 13:15** **PSS Sample ID: 13040516-006**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Benzo(a)anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Benzo(a)pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Benzo(k)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 19:31	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 19:31	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (GW) **Date/Time Sampled: 04/04/2013 14:45** **PSS Sample ID: 13040516-007**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0059		0.0059	04/08/13	04/08/13 12:40	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	**0.080**	mg/L	0.050		1	0.05	04/08/13	04/08/13 20:31	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 18:27	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (GW) **Date/Time Sampled: 04/04/2013 14:45** **PSS Sample ID: 13040516-007**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
tert-Butanol	ND	ug/L	20		1	10	04/08/13	04/09/13 05:04	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:04	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (GW) **Date/Time Sampled: 04/04/2013 14:45** **PSS Sample ID: 13040516-007**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:04	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
tert-Amyl alcohol	ND	ug/L	20		1	10	04/08/13	04/09/13 05:04	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:04	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 05:04	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (GW) **Date/Time Sampled: 04/04/2013 14:45** **PSS Sample ID: 13040516-007**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Benzo(a)anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Benzo(a)pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Benzo(k)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 19:59	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 19:59	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (GW) **Date/Time Sampled: 04/04/2013 15:15** **PSS Sample ID: 13040516-006**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0062		0.0062	04/08/13	04/08/13 12:50	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	**0.044**	mg/L	0.042		1	0.042	04/08/13	04/08/13 20:53	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 18:53	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (GW) **Date/Time Sampled: 04/04/2013 15:15** **PSS Sample ID: 13040516-008**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
tert-Butanol	ND	ug/L	20		1	10	04/08/13	04/09/13 06:01	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:01	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (GW) **Date/Time Sampled: 04/04/2013 15:15** **PSS Sample ID: 13040516-008**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:01	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
tert-Amyl alcohol	ND	ug/L	20		1	10	04/08/13	04/09/13 06:01	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:01	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 06:01	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (GW) **Date/Time Sampled: 04/04/2013 15:15** **PSS Sample ID: 13040516-006**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Benzo(a)anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Benzo(a)pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Benzo(k)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 20:28	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 20:28	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (GW) **Date/Time Sampled: 04/04/2013 15:45** **PSS Sample ID: 13040516-009**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0067		0.0067	04/08/13	04/08/13 13:04	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/L	0.040		1	0.04	04/08/13	04/08/13 21:15	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 19:18	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (GW) **Date/Time Sampled: 04/04/2013 15:45** **PSS Sample ID: 13040516-009**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
tert-Butanol	ND	ug/L	20		1	10	04/08/13	04/09/13 06:30	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:30	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (GW) **Date/Time Sampled: 04/04/2013 15:45** **PSS Sample ID: 13040516-009**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:30	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
tert-Amyl alcohol	ND	ug/L	20		1	10	04/08/13	04/09/13 06:30	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:30	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 06:30	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (GW) **Date/Time Sampled: 04/04/2013 15:45** **PSS Sample ID: 13040516-009**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Acenaphthylene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Anthracene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Benzo(a)anthracene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Benzo(a)pyrene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Benzo(b)fluoranthene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Benzo(g,h,i)perylene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Benzo(k)fluoranthene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Chrysene	ND	ug/L	2.2		1	1.1	04/08/13	04/08/13 20:56	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Fluoranthene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Fluorene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
2-Methylnaphthalene	ND	ug/L	2.2		1	2.2	04/08/13	04/08/13 20:56	1014
Naphthalene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Phenanthrene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Pyrene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1646-Sump **Date/Time Sampled: 04/05/2013 10:15** **PSS Sample ID: 13040516-010**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0057		0.0057	04/08/13	04/08/13 13:14	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	**0.040**	mg/L	0.040		1	0.04	04/08/13	04/08/13 21:15	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 19:44	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1646-Sump **Date/Time Sampled: 04/05/2013 10:15** **PSS Sample ID: 13040516-010**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
tert-Butanol	ND	ug/L	20		1	10	04/08/13	04/09/13 06:59	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:59	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1646-Sump **Date/Time Sampled: 04/05/2013 10:15** **PSS Sample ID: 13040516-010**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:59	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
tert-Amyl alcohol	ND	ug/L	20		1	10	04/08/13	04/09/13 06:59	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:59	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 06:59	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1646-Sump **Date/Time Sampled: 04/05/2013 10:15** **PSS Sample ID: 13040516-010**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Benzo(a)anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Benzo(a)pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Benzo(k)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 21:24	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 21:24	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Surface Water **Date/Time Sampled: 04/05/2013 10:40** **PSS Sample ID: 13040516-011**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0064		0.0064	04/08/13	04/08/13 13:23	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	**0.19**	mg/L	0.049		1	0.049	04/08/13	04/08/13 21:37	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 20:09	1035

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No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Surface Water **Date/Time Sampled: 04/05/2013 10:40** **PSS Sample ID: 13040516-011**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=6 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
tert-Butanol	ND	ug/L	20		1	10	04/08/13	04/09/13 07:27	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 07:27	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Surface Water **Date/Time Sampled: 04/05/2013 10:40** **PSS Sample ID: 13040516-011**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=6 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 07:27	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
tert-Amyl alcohol	ND	ug/L	20		1	10	04/08/13	04/09/13 07:27	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 07:27	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 07:27	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Surface Water **Date/Time Sampled: 04/05/2013 10:40** **PSS Sample ID: 13040516-011**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Benzo(a)anthracene	**0.67**	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Benzo(a)pyrene	**0.96**	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Benzo(k)fluoranthene	**0.78**	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 21:52	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Indeno(1,2,3-c,d)Pyrene	**0.51**	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 21:52	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Trip Blank **Date/Time Sampled: 04/05/2013 00:00** **PSS Sample ID: 13040516-012**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=3 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
tert-Butanol	ND	ug/L	20		1	10	04/08/13	04/09/13 04:34	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 04:34	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011

OFFICES:
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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Trip Blank **Date/Time Sampled: 04/05/2013 00:00** **PSS Sample ID: 13040516-012**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=3 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 04:34	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
tert-Amyl alcohol	ND	ug/L	20		1	10	04/08/13	04/09/13 04:34	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 04:34	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 04:34	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011

CHAIN OF CUSTODY RECORD

1304O516

Page 1 of 1

Project Number:	Site and Location:
4184	Yakona Rd, Towson, MD
Contact Name: Keith.Green@WSPGroup.com	**Contact Email:**
Sampler's Name: RJW CBR	**Sampler's Signature:**

Matrices: S = Soil; Aq = Water; A = Air; Bu = Bulk; W = Wipe; Bi = Biota; OW = Oily Waste; O = Other

Requested Analyses

	Sample Identification:	Depth	Date	Time	Matrix	Number of Containers	8260B-TCL VOCs	8015C-TPH-GRO	8270C-PAHs	8015-DG	8015C-TPH-DRO				Remarks
1	SB-02 (2-2.5)	2'-2.5'	4/4/13	1025	S	4	X	X	X						
2	SB-04 (2-2.5)	2'-2.5'	"	1113	S	4	X	X	X						
3	SB-03 (2-2.5)	2'-2.5'	"	1152	S	4	X	X	X						
	MS/MSD	2'-2.5'	"	1242	S	4	X	X	X						MS of SB-01 (2-2.5)
4	SB-01 (2-2.5)	2'-2.5'	"	1300	S	4	X	X	X						
5	SB-04 0413 (2-2.5)	2'-2.5'	"	1310	S	4	X	X	X						
6	1644-Sump	—	"	1315	AQ	9	X	X	X	X	X				
7	SB-03 (GW)	—	"	1445	AQ	9	X	X	X	X	X				
8	SB-040413 (GW)	—	"	1515	AQ	9	X	X	X	X	X				
9	SB-04 (GW)	—	"	1545	AQ	9	X	X	X	X	X				
	MS/MSD #2	—	"	1550	AQ	9	X	X	X	X	X				MS of SB-03 (GW)
10	1646-Sump	—	4/5/13	1015	AQ	9	X	X	X	X	X				
11	Surface Water	—	"	1040	AQ	9	X	X	X	X	X				
12	Trip Blank (AT 4/5/13)														
Final															

# of Coolers:	2
Custody Seal:	N/A both
Ice Present:	Yes Temp: 1°C 4.6°C
Shipping Carrier:	Client

Relinquished by (Signature):	4/5/13 1135 Date / Time	Received by (Signature):	Laboratory Name: PSS
Relinquished by (Signature):	4/5/13 1350 Date / Time	Received by (Signature): Cat L D F	Laboratory Location: Baltimore
Turn-Around Time: 3-DAY		Tracking Number:	Custody Seal Numbers:
			Method of Shipment: Deliver to lab

WSP Environment & Energy

- [x] Reston Office: 11190 Sunrise Valley Dr., #300, Reston, VA 20191 / Tel: 703-709-6500
- [ ] Pittsburgh Office: 750 Holiday Dr., #410, Pittsburgh, PA 15220 / Tel: 412-604-1040
- [ ] San Jose Office: 2025 Gateway Place, #435, San Jose, CA 95110 / Tel: 408-453-6100
- [ ] New Jersey Office: 200 Cottontail Ln., Somerset, NJ 08873 / Tel: 732-564-0888
- [ ] Denver Office: 4600 South Ulster, #930, Denver, CO 80237 / Tel: 303-850-9200
- [ ] Minneapolis Office: 123 North 3rd St., #808, Minneapolis, MN 55401 / Tel: 612-343-0510
- [ ] Woburn Office: 300 Trade Center, Suite 4690, Woburn, MA 01801
- [ ] Cazenovia Office: 5 Sullivan St., Cazenovia, NY 13035 / Tel: 315-655-3900

Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	13040516	**Received By**	Cathy Thompson
Client Name	WSP Environment & Energy - Restor	**Date Received**	04/05/2013 01:00:00 PM
Project Name	Yakona Rd	**Delivered By**	Client
Project Number	4184	**Tracking No**	Not Applicable
Disposal Date	05/10/2013	**Logged In By**	Cathy Thompson

Shipping Container(s)

No. of Coolers	2	Ice	Present
		Temp (deg C)	1
Custody Seal(s) Intact?	N/A	Temp Blank Present	No
Seal(s) Signed / Dated?	N/A		
		Sampler Name	RJW CBR
Documentation		MD DW Cert. No.	N/A
COC agrees with sample labels?	Yes		
Chain of Custody	Yes		
		Custody Seal(s) Intact?	Not Applicable
Sample Container		Seal(s) Signed / Dated	Not Applicable
Appropriate for Specified Analysis?	Yes		
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 12 — Total No. of Containers Received 75

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(ph<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Per client, analyze DRO on all soils. For waters, VOA analyzed from the unpreserved VOA vials (hold time reduced to 7 days), GRO analyzed from the 2 preserved VOA vials, and Dissolved Methane analyzed from the 2 Sodium Bisulfate vials (preservative should not affect the analysis).

Client requested MS/MSD analyses for sample -007 (SB-03 GW). Insufficient sample volume was provided to perform MS/MSD for all analyses.

Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	13040516	**Received By**	Cathy Thompson
Client Name	WSP Environment & Energy - Restor	**Date Received**	04/05/2013 01:00:00 PM
Project Name	Yakona Rd	**Delivered By**	Client
Project Number	4184	**Tracking No**	Not Applicable
		Logged In By	Cathy Thompson

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By: _____ Date: 04/05/2013
Cathy Thompson

PM Review and Approval: _____ Date: 04/08/2013
Simon Crisp

Analytical Data Package Information Summary

Work Order(s): 13040516
Report Prepared For: WSP Environment & Energy - Reston, Reston
Project Name: Yakona Rd
Project Manager: Keith Green

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Received	Prepared	Analyzed
ASTM D2216 05	SB-02 (2-2.5)	Initial	13040516-001	1050	S	105209	105209	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-04 (2-2.5)	Initial	13040516-002	1050	S	I05209	105209	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (2-2.5)	Initial	13040516-003	1050	S	105209	105209	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5)	Initial	13040516-004	1050	S	105209	105209	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-040413 (2-2.5)	Initial	13040516-005	1050	S	105209	105209	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (2-2.5)	Initial	13040516-003	1050	S	105211	105211	04/04/2013	04/05/2013	04/09/2013	04/09/2013
SM 6211B/EPA 8015	1644-Sump	Initial	13040516-006	4010	W	105251	105251	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (GW)	Initial	13040516-007	4010	W	105251	105251	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-040413 (GW)	Initial	13040516-008	4010	W	105251	105251	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-04 (GW)	Initial	13040516-009	4010	W	105251	105251	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	1646-Sump	Initial	13040516-010	4010	W	105251	105251	04/05/2013	04/05/2013	04/08/2013	04/08/2013
	Surface Water	Initial	13040516-011	4010	W	105251	105251	04/05/2013	04/05/2013	04/08/2013	04/08/2013
SW-846 8015 C	SB-02 (2-2.5)	Initial	13040516-001	1040	S	45470	105208	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-04 (2-2.5)	Initial	13040516-002	1040	S	45470	105208	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (2-2.5)	Initial	13040516-003	1040	S	45470	105208	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5)	Initial	13040516-004	1040	S	45470	105208	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-040413 (2-2.5)	Initial	13040516-005	1040	S	45470	105208	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	45470-1-BKS	BKS	45470-1-BKS	1040	S	45470	105208	--------	04/05/2013	04/08/2013	04/08/2013
	45470-1-BLK	BLK	45470-1-BLK	1040	S	45470	105208	--------	04/05/2013	04/08/2013	04/08/2013
	45470-1-BSD	BSD	45470-1-BSD	1040	S	45470	105208	--------	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5) S	MS	13040516-004 S	1040	S	45470	105208	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5) SD	MSD	13040516-004 SD	1040	S	45470	105208	04/04/2013	04/05/2013	04/08/2013	04/08/2013
SW-846 8015 C	1644-Sump	Initial	13040516-006	1040	W	45471	105246	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (GW)	Initial	13040516-007	1040	W	45471	105246	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-040413 (GW)	Initial	13040516-008	1040	W	45471	105246	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-04 (GW)	Initial	13040516-009	1040	W	45471	105246	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	1646-Sump	Initial	13040516-010	1040	W	45471	105246	04/05/2013	04/05/2013	04/08/2013	04/08/2013
	Surface Water	Initial	13040516-011	1040	W	45471	105246	04/05/2013	04/05/2013	04/08/2013	04/08/2013

Analytical Data Package Information Summary

Work Order(s): 13040516
Report Prepared For: WSP Environment & Energy - Reston, Reston
Project Name: Yakona Rd
Project Manager: Keith Green

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Received	Prepared	Analyzed
SW-846 8015 C	45471-1-BKS	BKS	45471-1-BKS	1040	W	45471	105246	--------	04/05/2013	04/08/2013	04/08/2013
	45471-1-BLK	BLK	45471-1-BLK	1040	W	45471	105246	--------	04/05/2013	04/08/2013	04/08/2013
	45471-1-BSD	BSD	45471-1-BSD	1040	W	45471	105246	--------	04/05/2013	04/08/2013	04/08/2013
	SB-03 (GW) S	MS	13040516-007 S	1040	W	45471	105246	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (GW) SD	MSD	13040516-007 SD	1040	W	45471	105246	04/04/2013	04/05/2013	04/08/2013	04/08/2013
SW-846 8015C	SB-02 (2-2.5)	Initial	13040516-001	1035	S	45494	105218	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-04 (2-2.5)	Initial	13040516-002	1035	S	45494	105218	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (2-2.5)	Initial	13040516-003	1035	S	45494	105218	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5)	Initial	13040516-004	1035	S	45494	105218	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-040413 (2-2.5)	Initial	13040516-005	1035	S	45494	105218	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	45494-2-BKS	BKS	45494-2-BKS	1035	S	45494	105218	--------	04/05/2013	04/08/2013	04/08/2013
	45494-2-BLK	BLK	45494-2-BLK	1035	S	45494	105218	--------	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5) S	MS	13040516-004 S	1035	S	45494	105218	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5) SD	MSD	13040516-004 SD	1035	S	45494	105218	04/04/2013	04/05/2013	04/08/2013	04/08/2013
SW-846 8015C	1644-Sump	Initial	13040516-006	1035	W	45504	105230	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (GW)	Initial	13040516-007	1035	W	45504	105230	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-040413 (GW)	Initial	13040516-008	1035	W	45504	105230	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-04 (GW)	Initial	13040516-009	1035	W	45504	105230	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	1646-Sump	Initial	13040516-010	1035	W	45504	105230	04/05/2013	04/05/2013	04/08/2013	04/08/2013
	Surface Water	Initial	13040516-011	1035	W	45504	105230	04/05/2013	04/05/2013	04/08/2013	04/08/2013
	45504-2-BKS	BKS	45504-2-BKS	1035	W	45504	105230	--------	04/05/2013	04/08/2013	04/08/2013
	45504-2-BLK	BLK	45504-2-BLK	1035	W	45504	105230	--------	04/05/2013	04/08/2013	04/08/2013
	SB-03 (GW) S	MS	13040516-007 S	1035	W	45504	105230	04/04/2013	04/05/2013	04/08/2013	04/09/2013
	SB-03 (GW) SD	MSD	13040516-007 SD	1035	W	45504	105230	04/04/2013	04/05/2013	04/08/2013	04/09/2013
SW-846 8260 B	SB-02 (2-2.5)	Initial	13040516-001	1011	S	45496	105220	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-04 (2-2.5)	Initial	13040516-002	1011	S	45496	105220	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (2-2.5)	Initial	13040516-003	1011	S	45496	105220	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5)	Initial	13040516-004	1011	S	45496	105220	04/04/2013	04/05/2013	04/08/2013	04/08/2013

Analytical Data Package Information Summary

Work Order(s): 13040516
Report Prepared For: WSP Environment & Energy - Reston, Reston
Project Name: Yakona Rd
Project Manager: Keith Green

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Received	Prepared	Analyzed
SW-846 8260 B	SB-040413 (2-2.5)	Initial	13040516-005	1011	S	45496	105220	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	45496-1-BKS	BKS	45496-1-BKS	1011	S	45496	105220	--------	04/05/2013	04/08/2013	04/08/2013
	45496-1-BLK	BLK	45496-1-BLK	1011	S	45496	105220	--------	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5) S	MS	13040516-004 S	1011	S	45496	105220	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-01 (2-2.5) SD	MSD	13040516-004 SD	1011	S	45496	105220	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	1644-Sump	Initial	13040516-006	1011	W	45498	105222	04/04/2013	04/05/2013	04/08/2013	04/09/2013
	SB-03 (GW)	Initial	13040516-007	1011	W	45498	105222	04/04/2013	04/05/2013	04/08/2013	04/09/2013
	SB-040413 (GW)	Initial	13040516-008	1011	W	45498	105222	04/04/2013	04/05/2013	04/08/2013	04/09/2013
	SB-04 (GW)	Initial	13040516-009	1011	W	45498	105222	04/04/2013	04/05/2013	04/08/2013	04/09/2013
	1646-Sump	Initial	13040516-010	1011	W	45498	105222	04/05/2013	04/05/2013	04/08/2013	04/09/2013
	Surface Water	Initial	13040516-011	1011	W	45498	105222	04/05/2013	04/05/2013	04/08/2013	04/09/2013
	Trip Blank	Initial	13040516-012	1011	W	45498	105222	04/05/2013	04/05/2013	04/08/2013	04/09/2013
	45498-1-BKS	BKS	45498-1-BKS	1011	W	45498	105222	--------	04/05/2013	04/08/2013	04/09/2013
	45498-1-BLK	BLK	45498-1-BLK	1011	W	45498	105222	--------	04/05/2013	04/08/2013	04/09/2013
	SB-03 (GW) S	MS	13040516-007 S	1011	W	45498	105222	04/04/2013	04/05/2013	04/08/2013	04/09/2013
	SB-03 (GW) SD	MSD	13040516-007 SD	1011	W	45498	105222	04/04/2013	04/05/2013	04/08/2013	04/09/2013
SW-846 8270 C	1644-Sump	Initial	13040516-006	1014	W	45474	105216	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-03 (GW)	Initial	13040516-007	1014	W	45474	105216	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-040413 (GW)	Initial	13040516-008	1014	W	45474	105216	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	SB-04 (GW)	Initial	13040516-009	1014	W	45474	105216	04/04/2013	04/05/2013	04/08/2013	04/08/2013
	1646-Sump	Initial	13040516-010	1014	W	45474	105216	04/05/2013	04/05/2013	04/08/2013	04/08/2013
	Surface Water	Initial	13040516-011	1014	W	45474	105216	04/05/2013	04/05/2013	04/08/2013	04/08/2013
	45474-1-BKS	BKS	45474-1-BKS	1014	W	45474	105216	--------	04/05/2013	04/08/2013	04/08/2013
	45474-1-BLK	BLK	45474-1-BLK	1014	W	45474	105216	--------	04/05/2013	04/08/2013	04/08/2013
	45474-1-BSD	BSD	45474-1-BSD	1014	W	45474	105216	--------	04/05/2013	04/08/2013	04/08/2013
	SB-02 (2-2.5)	Initial	13040516-001	1014	S	45492	105245	04/04/2013	04/05/2013	04/09/2013	04/09/2013
	SB-04 (2-2.5)	Initial	13040516-002	1014	S	45492	105245	04/04/2013	04/05/2013	04/09/2013	04/09/2013
	SB-03 (2-2.5)	Initial	13040516-003	1014	S	45492	105245	04/04/2013	04/05/2013	04/09/2013	04/09/2013
	SB-01 (2-2.5)	Initial	13040516-004	1014	S	45492	105245	04/04/2013	04/05/2013	04/09/2013	04/09/2013

Analytical Data Package Information Summary

Work Order(s): 13040516
Report Prepared For: WSP Environment & Energy - Reston, Reston
Project Name: Yakona Rd
Project Manager: Keith Green

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Received	Prepared	Analyzed
SW-846 8270 C	SB-040413 (2-2.5)	Initial	13040516-005	1014	S	45492	105245	04/04/2013	04/05/2013	04/09/2013	04/09/2013
	45492-1-BKS	BKS	45492-1-BKS	1014	S	45492	105245	--------	04/05/2013	04/09/2013	04/09/2013
	45492-1-BLK	BLK	45492-1-BLK	1014	S	45492	105245	--------	04/05/2013	04/09/2013	04/09/2013
	45492-1-BSD	BSD	45492-1-BSD	1014	S	45492	105245	--------	04/05/2013	04/09/2013	04/09/2013
	SB-01 (2-2.5) S	MS	13040516-004 S	1014	S	45492	105245	04/04/2013	04/05/2013	04/09/2013	04/09/2013
	SB-01 (2-2.5) SD	MSD	13040516-004 SD	1014	S	45492	105245	04/04/2013	04/05/2013	04/09/2013	04/09/2013

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-02 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105208 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-001

Sample wt/vol: 30.32 (g/mL): g Lab File ID: 13040837.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	Q
	TPH-DRO (Diesel Range Organics)	4.8	U

SW8015DRO

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-04 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105208 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-002

Sample wt/vol: 30.08 (g/mL): g Lab File ID: 13040839.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	Q
	TPH-DRO (Diesel Range Organics)	4.9	U

(1) Cannot be separated from Diphenylamine

SW8015DRO

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-03 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105208 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-003

Sample wt/vol: 30.23 (g/mL): g Lab File ID: 13040848.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 15 Decanted: (Y/N) CLEAR Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	Q
	TPH-DRO (Diesel Range Organics)	4.7	U

SW8015DRO

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105208 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-004

Sample wt/vol: 30.49 (g/mL): g Lab File ID: 13040841.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 14 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	Q
	TPH-DRO (Diesel Range Organics)	4.6	U

(1) Cannot be separated from Diphenylamine

SW8015DRO

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-040413 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105208 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-005

Sample wt/vol: 30.14 (g/mL): g Lab File ID: 13040842.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	Q
	TPH-DRO (Diesel Range Organics)	4.5	U

SW8015DRO

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

1644-SUMP

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-006

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040865.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	0.040	U

(1) Cannot be separated from Diphenylamine

SW8015DRO

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-03 (GW)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-007

Sample wt/vol: 800 (g/mL): ml Lab File ID: 13040864.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	0.080	

SW8015DRO

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-040413 (GW)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-008

Sample wt/vol: 950 (g/mL): ml Lab File ID: 13040866.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	0.044	

(1) Cannot be separated from Diphenylamine

SW8015DRO

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-04 (GW)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-009

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040867.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	0.040	U

SW8015DRO

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

1646-SUMP

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-010

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040868.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	0.040	

(1) Cannot be separated from Diphenylamine

SW8015DRO

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SURFACE WATER

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-011

Sample wt/vol: 820 (g/mL): ml Lab File ID: 13040869.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	0.19	

SW8015DRO

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040837.D Vial: 29
Acq On : 8 Apr 2013 3:42 pm Operator: PY
Sample : 13040516-001 Inst : DRO #2
Misc : Soil#45470 30.32g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 08 16:21:45 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

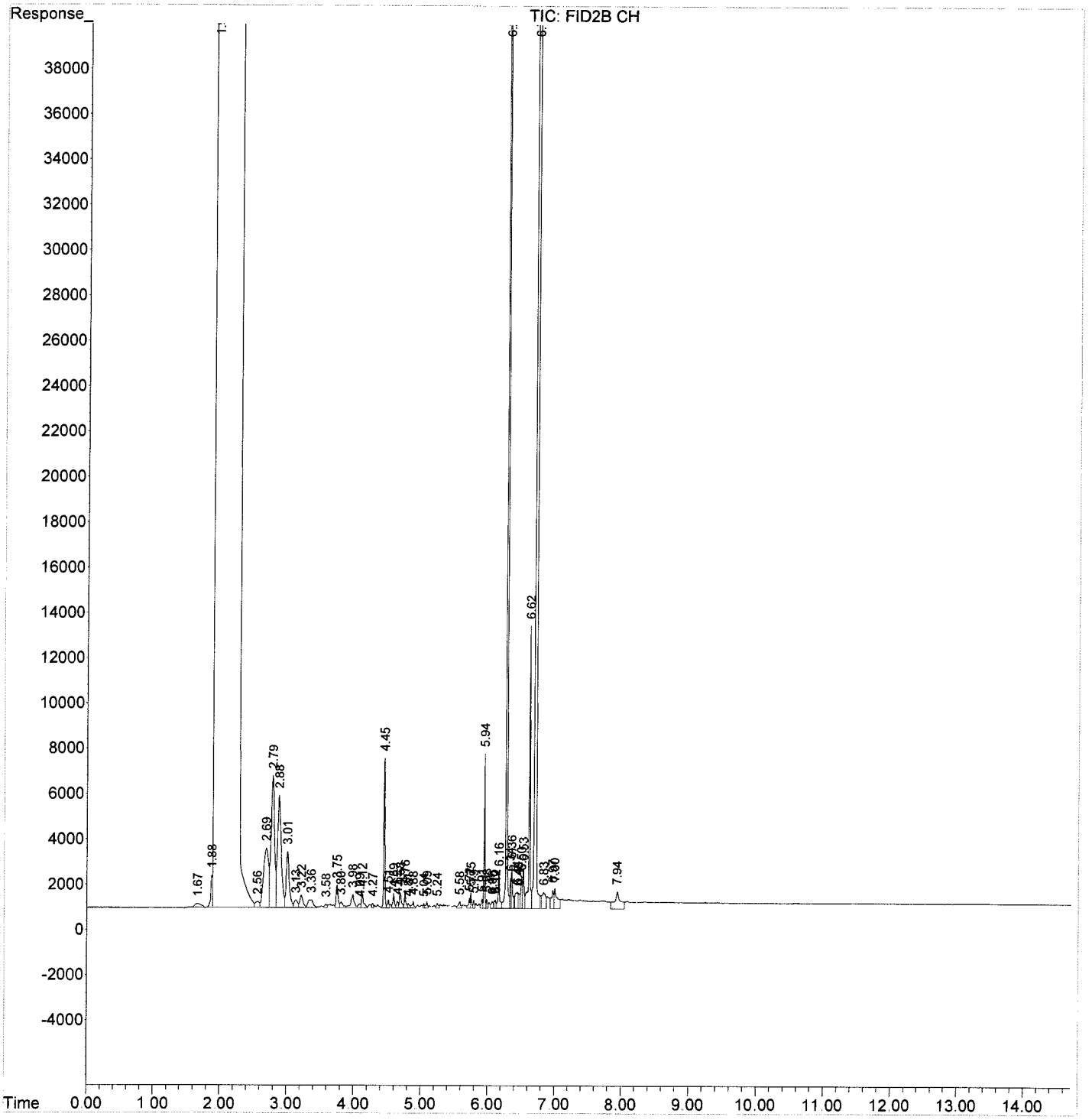
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	24590363	796.048 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 79.60%	
Target Compounds			
1) H DRO	6.80	1649925	57.165 mg/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : P:\DRO\2\DATA\130408.SEC\13040837.D Vial: 29
Acq On : 8 Apr 2013 3:42 pm Operator: PY
Sample : 13040516-001 Inst : DRO #2
Misc : Soil#45470 30.32g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 8 16:21 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040839.D Vial: 30
Acq On : 8 Apr 2013 4:04 pm Operator: PY
Sample : 13040516-002 Inst : DRO #2
Misc : Soil#45470 30.08g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 08 16:21:57 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	25531789	826.524 mg/L
Spiked Amount 1000.000	Range 50 - 150	Recovery =	82.65%
Target Compounds			
1) H DRO	6.80	524276	<MDL mg/L

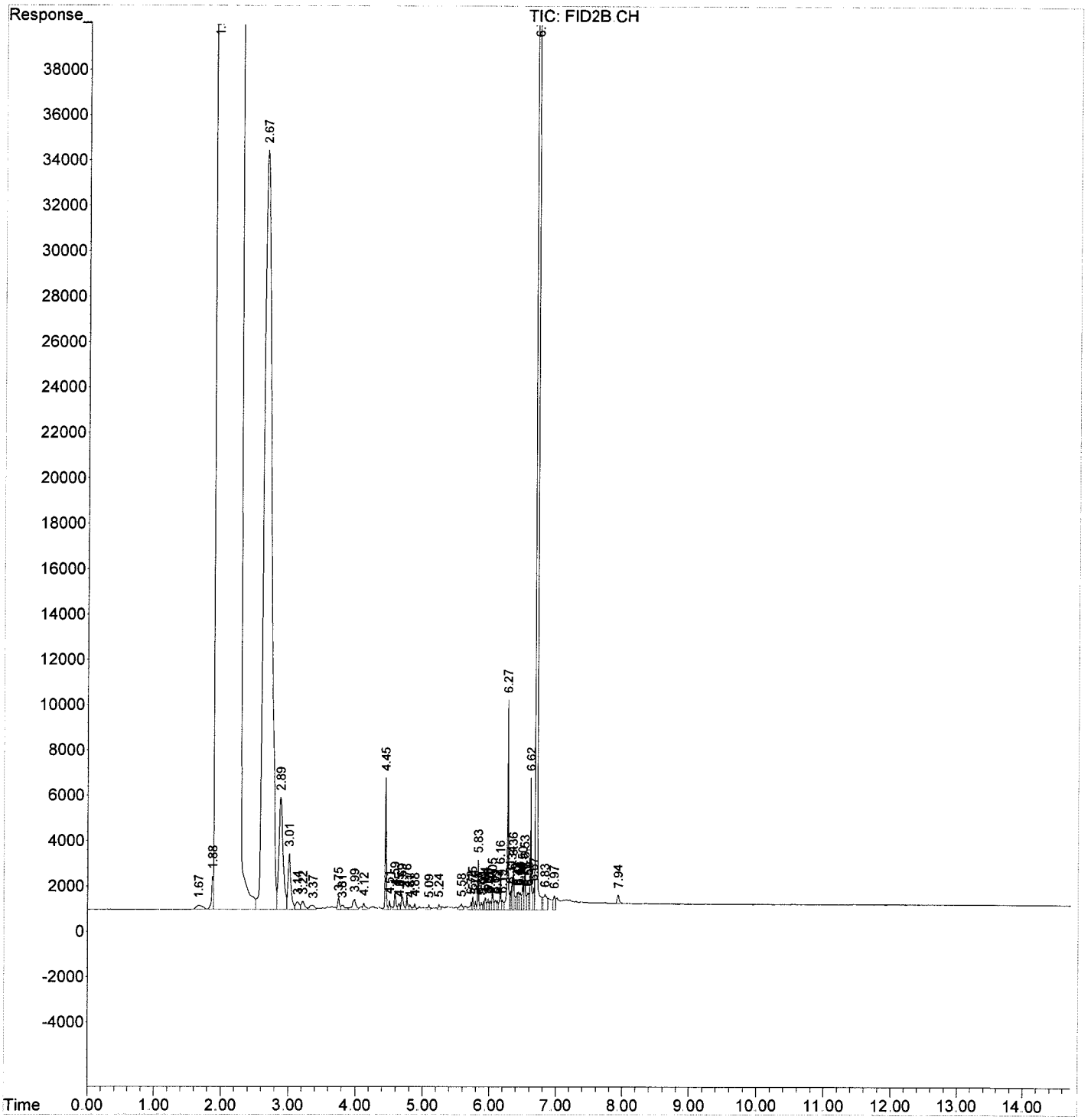
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040839.D Vial: 30
Acq On : 8 Apr 2013 4:04 pm Operator: PY
Sample : 13040516-002 Inst : DRO #2
Misc : Soil#45470 30.08g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 8 16:21 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040848.D Vial: 98
Acq On : 8 Apr 2013 5:33 pm Operator: PY
Sample : 13040516-003 Inst : DRO #2
Misc : Soil#45470 30.23g Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 09 14:33:04 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	38369494	759.296 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 75.93%	
Target Compounds			
1) H DRO	6.48	1550397	41.517 mg/L

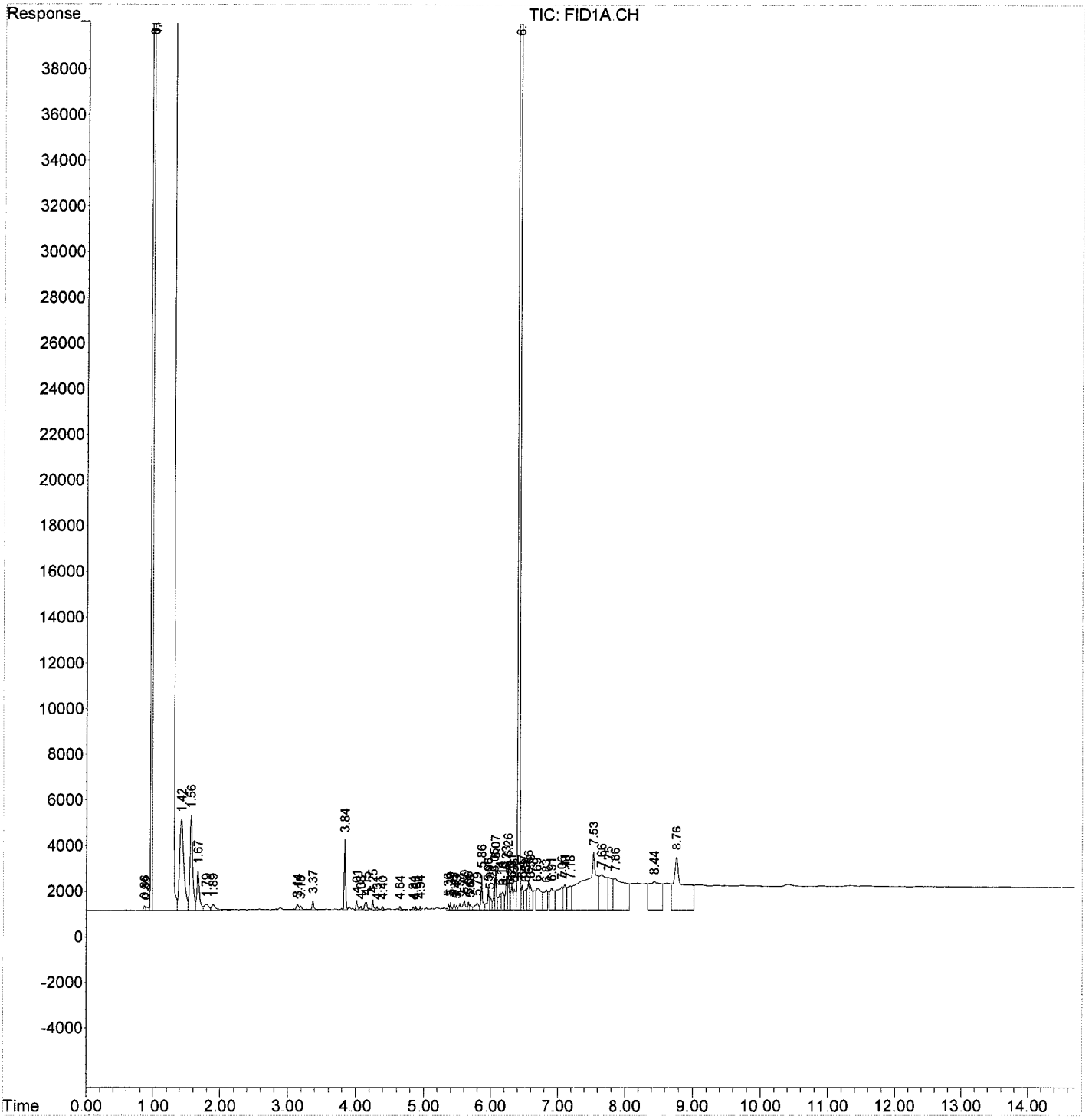
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040848.D Vial: 98
Acq On : 8 Apr 2013 5:33 pm Operator: PY
Sample : 13040516-003 Inst : DRO #2
Misc : Soil#45470 30.23g Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 9 14:32 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040841.D Vial: 31
Acq On : 8 Apr 2013 4:26 pm Operator: PY
Sample : 13040516-004 Inst : DRO #2
Misc : Soil#45470 30.49g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 08 16:44:36 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

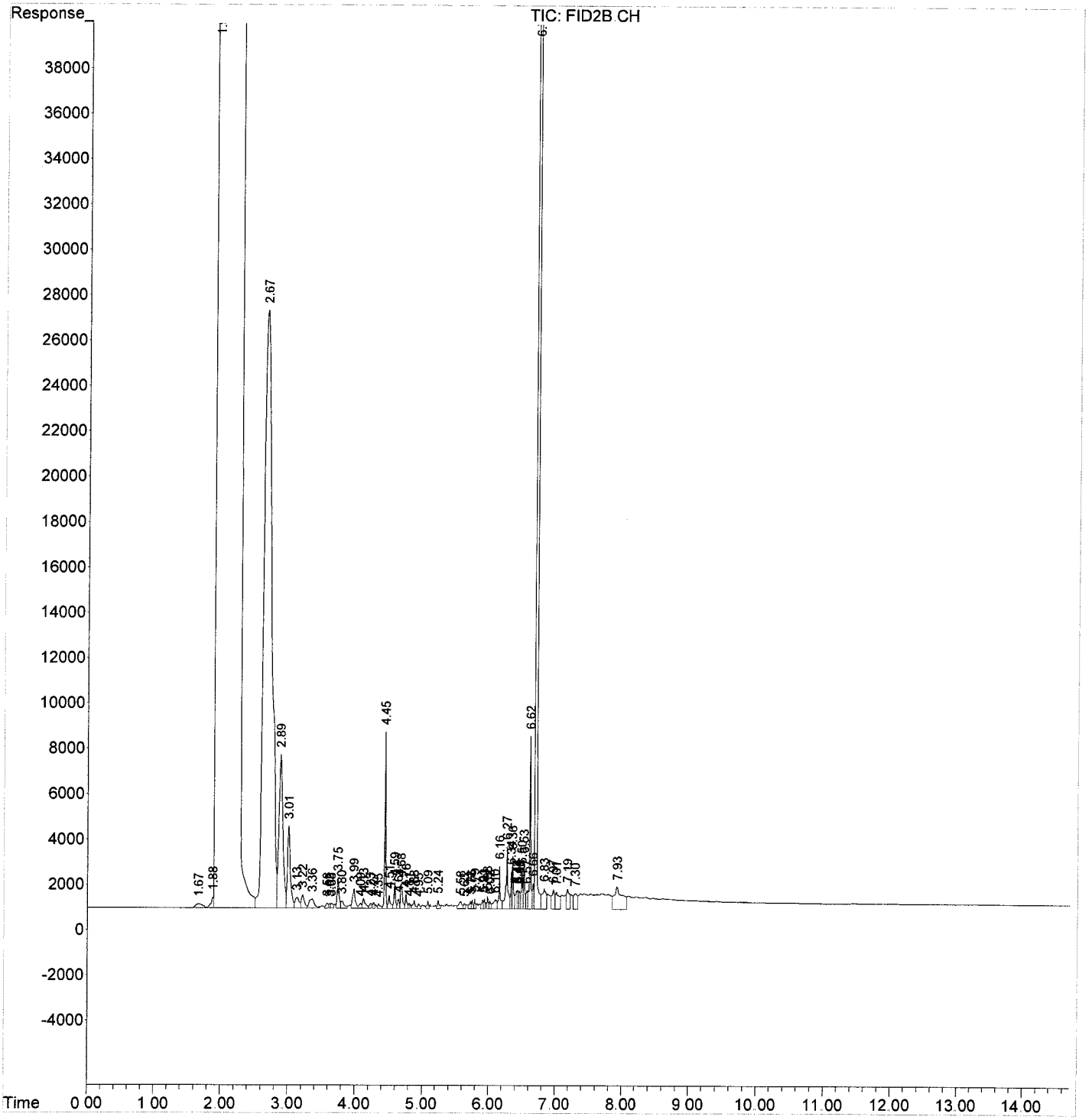
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S O-Terphenyl	6.71	24473782	792.274	mg/L
Spiked Amount 1000.000	Range 50 - 150	Recovery = 79.23%		
Target Compounds				
1) H DRO	6.80	668051	<MDL	mg/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : P:\DRO\2\DATA\130408.SEC\13040841.D Vial: 31
Acq On : 8 Apr 2013 4:26 pm Operator: PY
Sample : 13040516-004 Inst : DRO #2
Misc : Soil#45470 30.49g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 8 16:44 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040842.D Vial: 32
Acq On : 8 Apr 2013 4:26 pm Operator: PY
Sample : 13040516-005 Inst : DRO #2
Misc : Soil#45470 30.14g Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 08 16:43:32 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	46209910	914.451 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 91.45%	
Target Compounds			
1) H DRO	6.48	2553608	68.381 mg/L

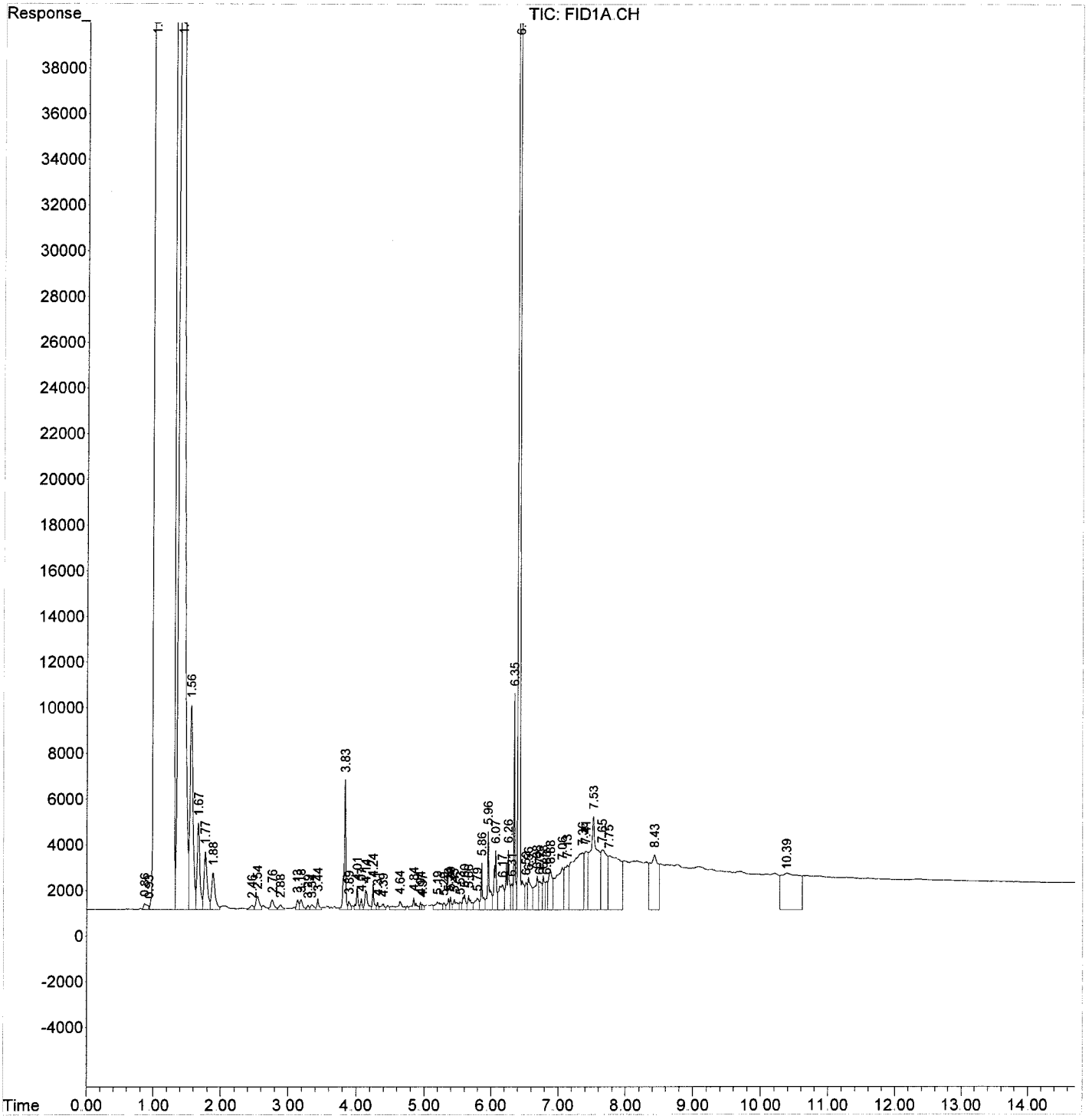
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040842.D Vial: 32
Acq On : 8 Apr 2013 4:26 pm Operator: PY
Sample : 13040516-005 Inst : DRO #2
Misc : Soil#45470 30.14g Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 8 16:43 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040865.D Vial: 46
Acq On : 8 Apr 2013 8:53 pm Operator: PY
Sample : 13040516-006 Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 14:51:50 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S O-Terphenyl	6.71	30083110	973.861	mg/L
Spiked Amount 1000.000 Range 50 - 150 Recovery = 97.39%				
Target Compounds				
1) H DRO	6.80	777954	<MDL	mg/L

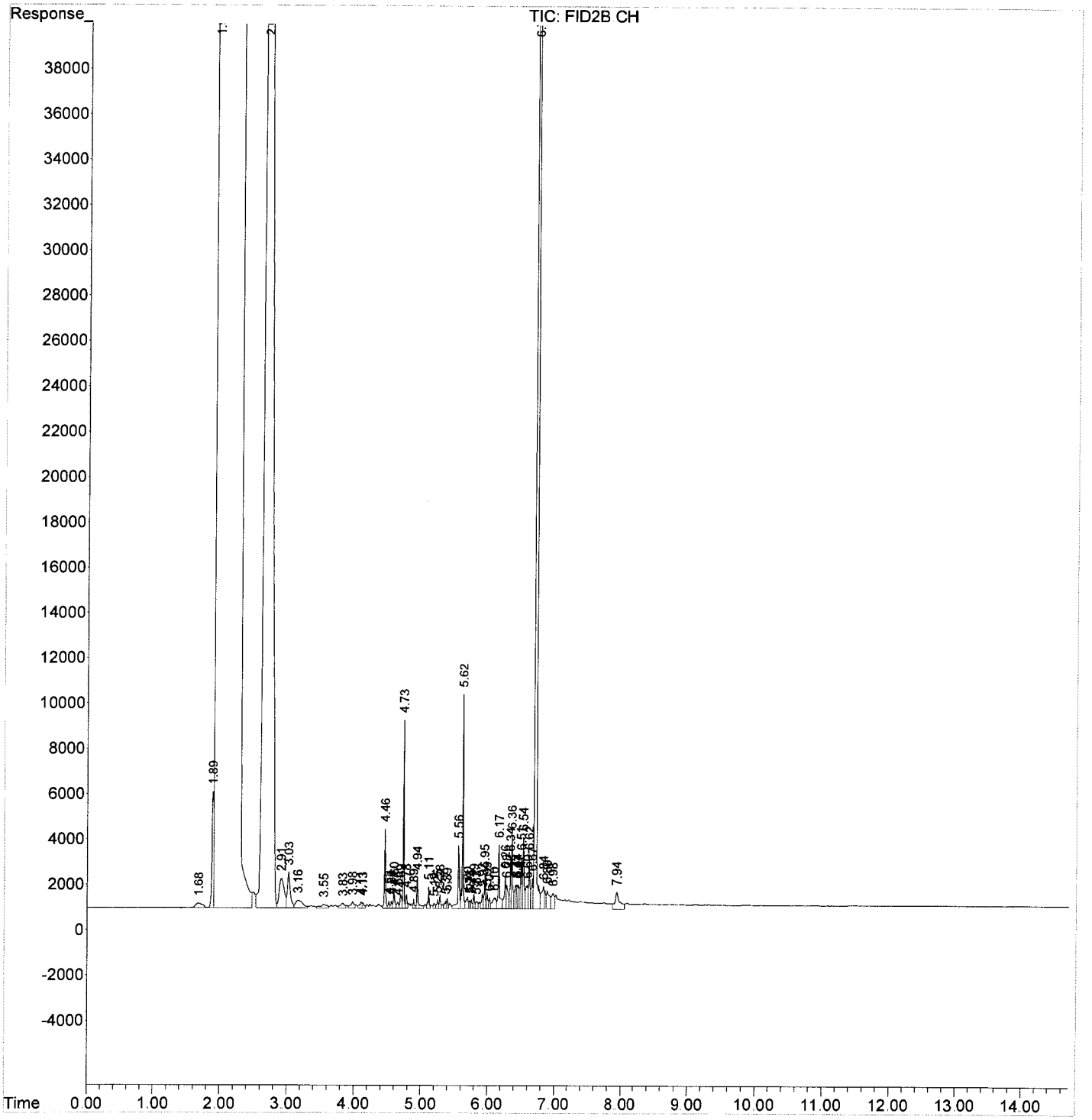
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040865.D Vial: 46
Acq On : 8 Apr 2013 8:53 pm Operator: PY
Sample : 13040516-006 Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 14:51 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040864.D Vial: 45
Acq On : 8 Apr 2013 8:31 pm Operator: PY
Sample : 13040516-007 Inst : DRO #2
Misc : #45471 800mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 09 14:35:28 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

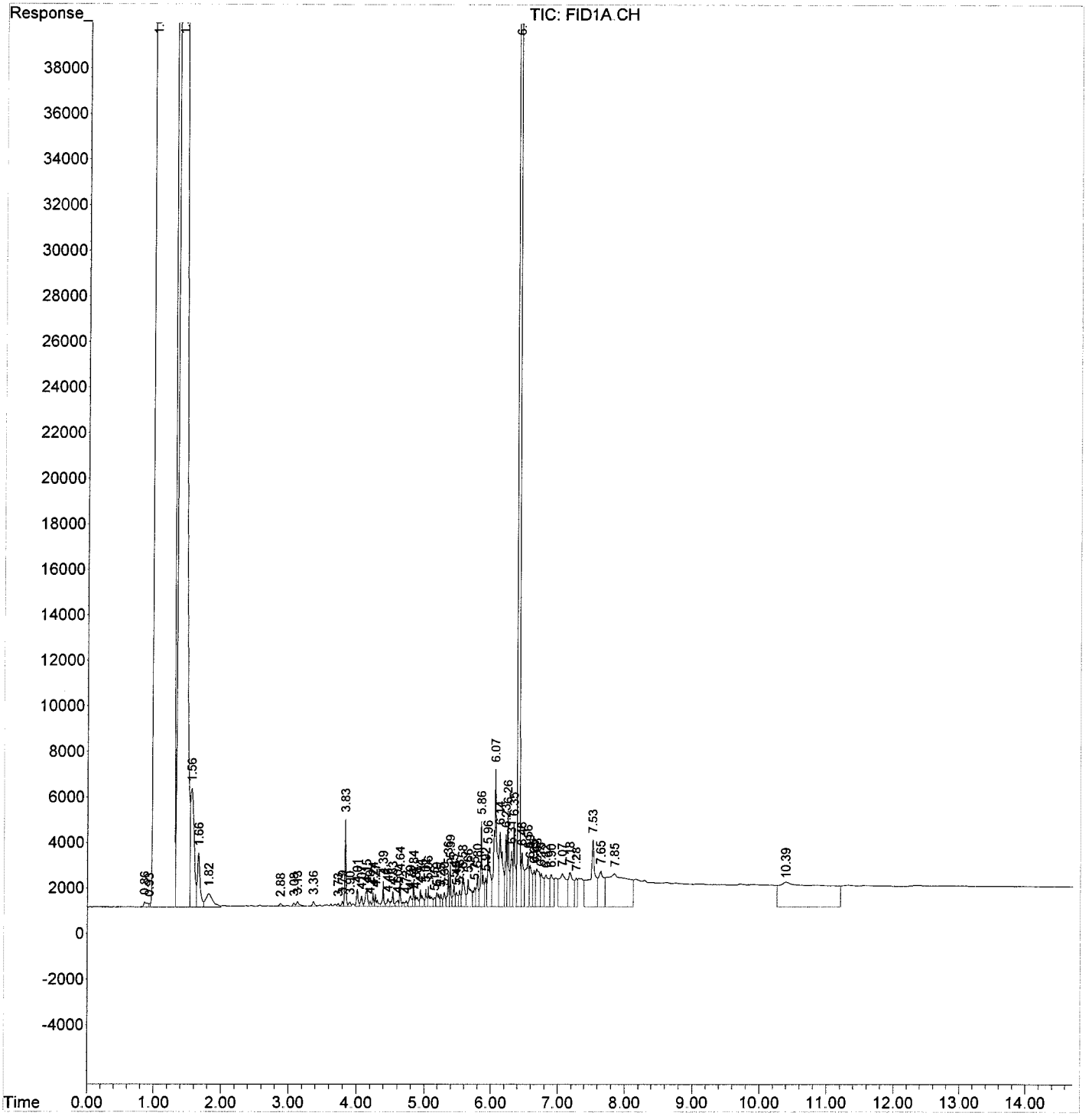
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	46221094	914.672 mg/L
Spiked Amount 1000.000 Range 50 - 131 Recovery = 91.47%			
Target Compounds			
1) H DRO	6.48	2388930	63.972 mg/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : P:\DRO\2\DATA\130408\13040864.D Vial: 45
Acq On : 8 Apr 2013 8:31 pm Operator: PY
Sample : 13040516-007 Inst : DRO #2
Misc : #45471 800mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 9 14:35 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040866.D Vial: 47
Acq On : 8 Apr 2013 8:53 pm Operator: PY
Sample : 13040516-008 Inst : DRO #2
Misc : #45471 950mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 09 14:35:44 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	40040334	792.360 mg/L
Spiked Amount 1000.000	Range 50 - 131	Recovery =	79.24%
Target Compounds			
1) H DRO	6.48	1563652	41.872 mg/L

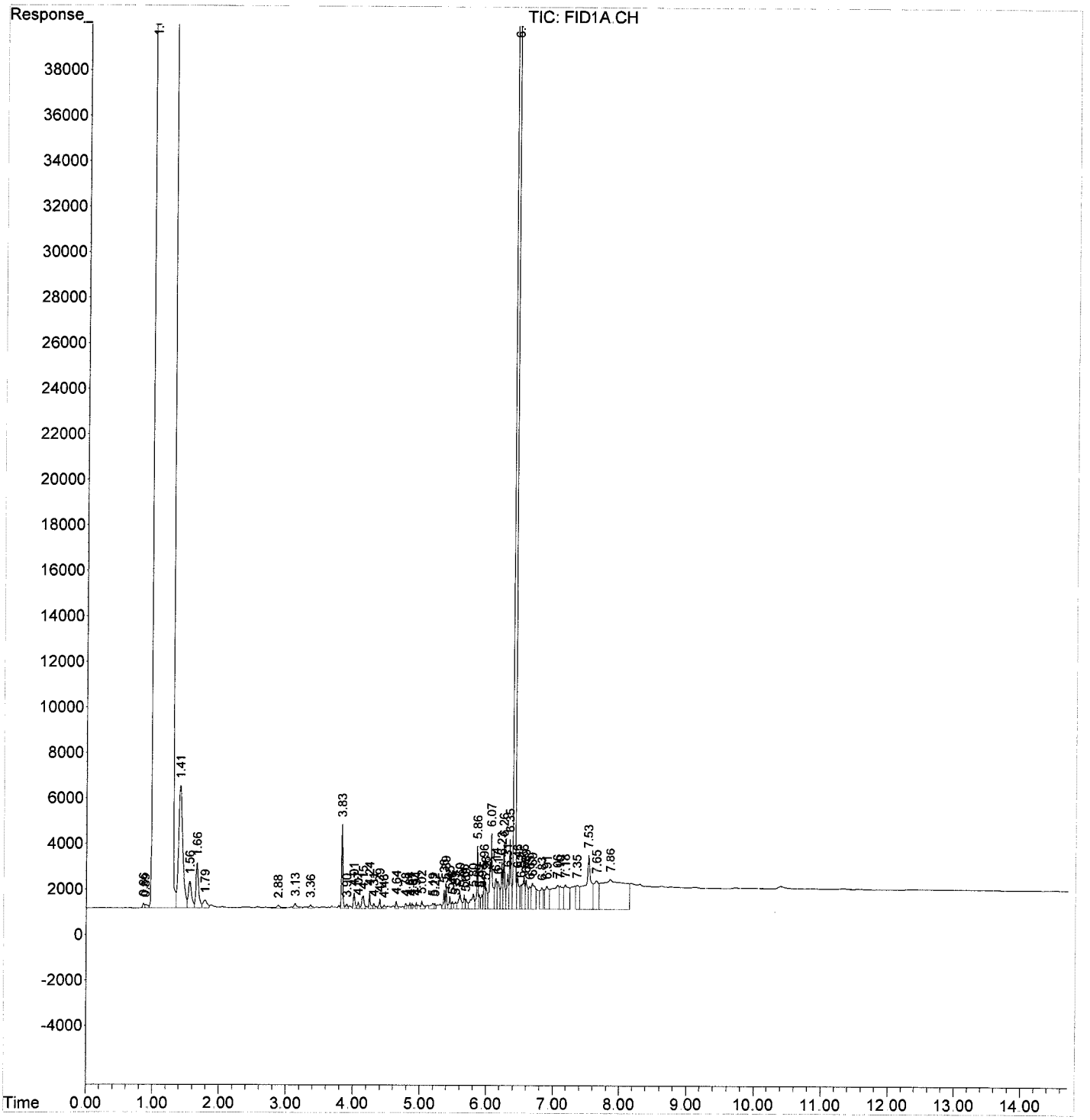
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040866.D Vial: 47
Acq On : 8 Apr 2013 8:53 pm Operator: PY
Sample : 13040516-008 Inst : DRO #2
Misc : #45471 950mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 9 14:35 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040867.D Vial: 48
Acq On : 8 Apr 2013 9:15 pm Operator: PY
Sample : 13040516-009 Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 14:52:05 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	25578112	828.024 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 82.80%	
Target Compounds			
1) H DRO	6.80	442537	<MDL mg/L

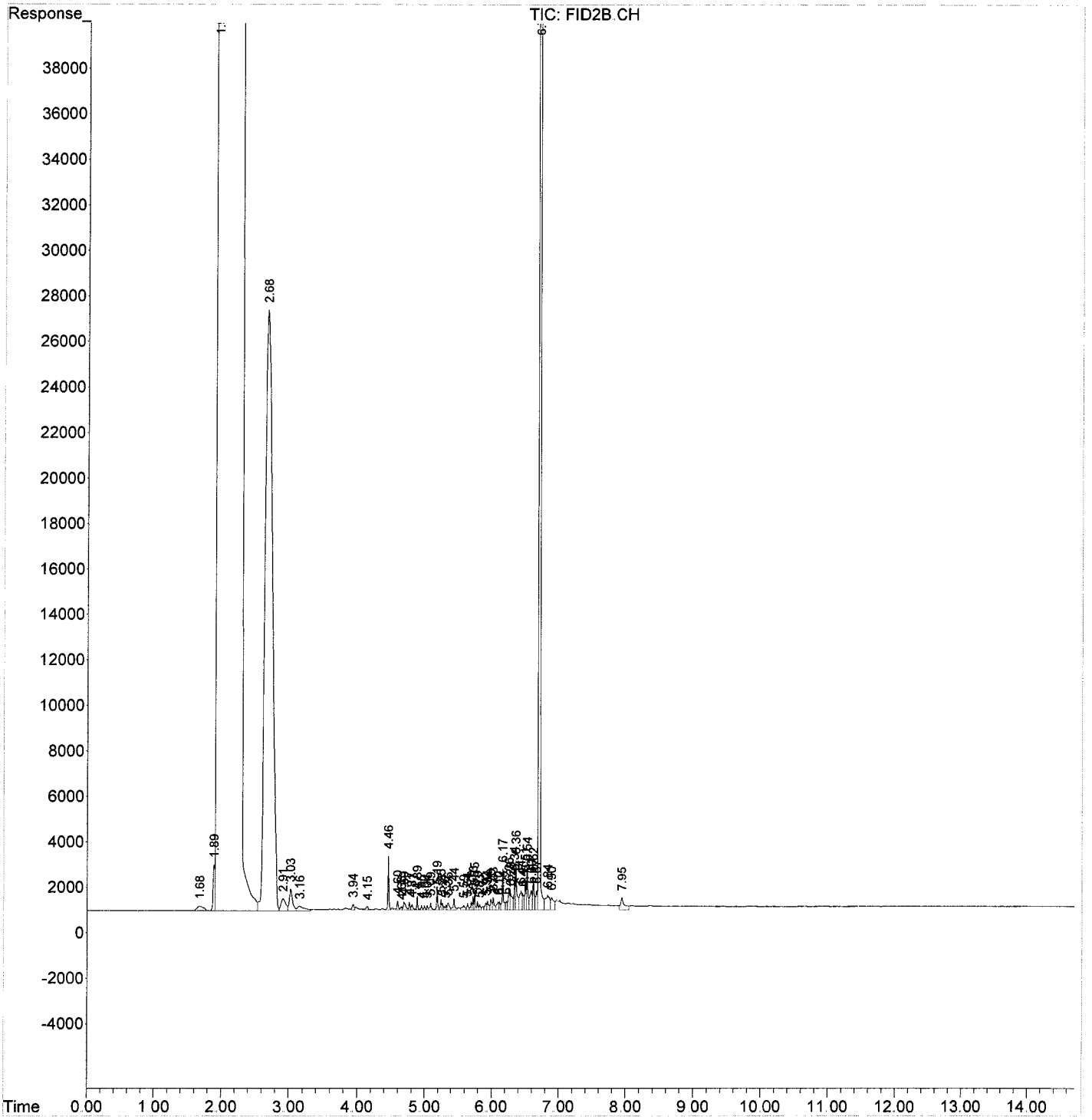
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040867.D Vial: 48
Acq On : 8 Apr 2013 9:15 pm Operator: PY
Sample : 13040516-009 Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 14:51 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040868.D Vial: 49
Acq On : 8 Apr 2013 9:15 pm Operator: PY
Sample : 13040516-010 Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 09 14:36:02 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	44212073	874.915 mg/L
Spiked Amount 1000.000 Range 50 - 131 Recovery = 87.49%			
Target Compounds			
1) H DRO	6.48	1501269	40.201 mg/L

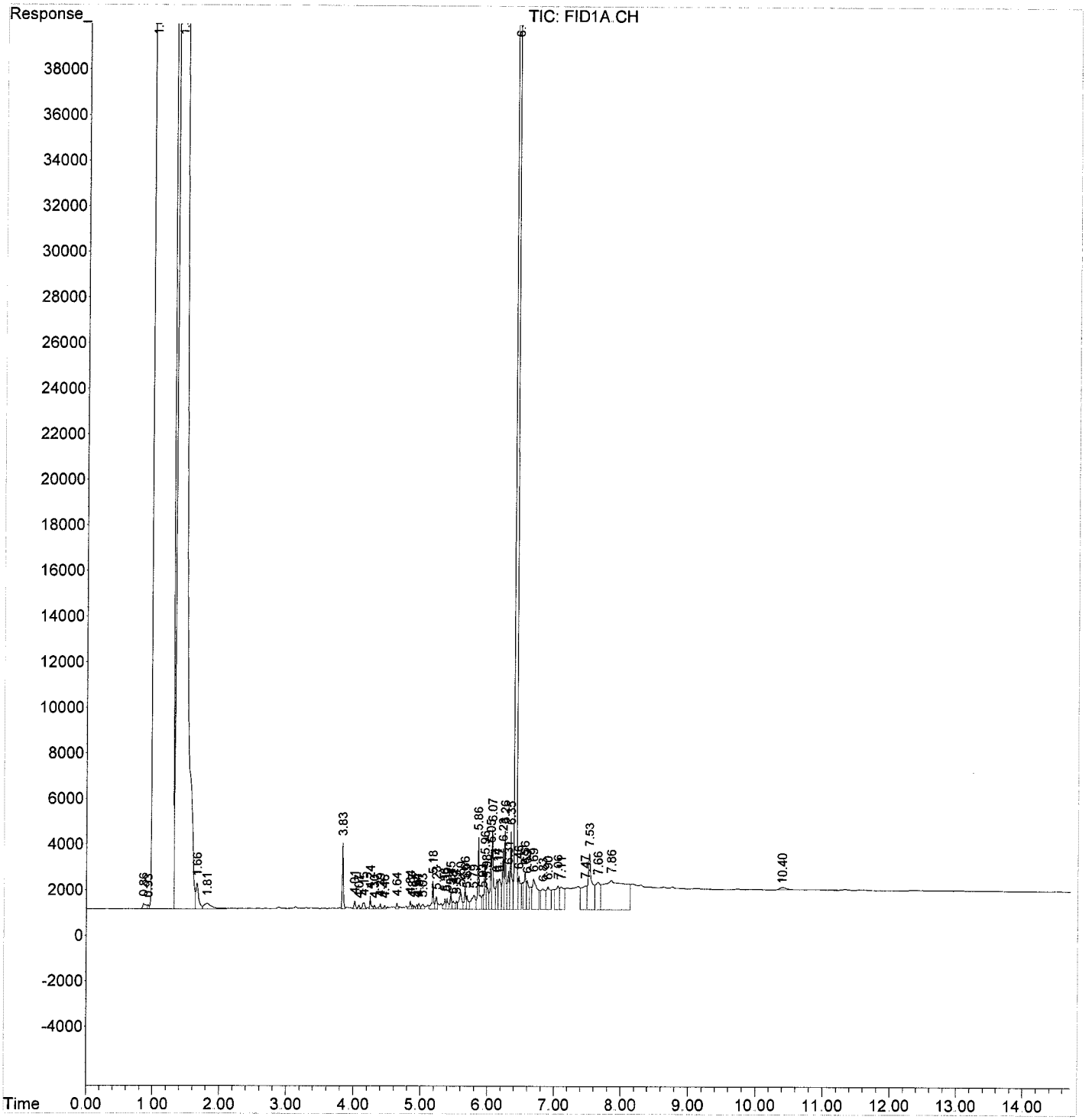
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040868.D Vial: 49
Acq On : 8 Apr 2013 9:15 pm Operator: PY
Sample : 13040516-010 Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 9 14:35 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040869.D Vial: 50
Acq On : 8 Apr 2013 9:37 pm Operator: PY
Sample : 13040516-011 Inst : DRO #2
Misc : #45471 820mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 14:52:19 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	27846008	901.441 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 90.14%	
Target Compounds			
1) H DRO	6.80	4438838	153.794 mg/L

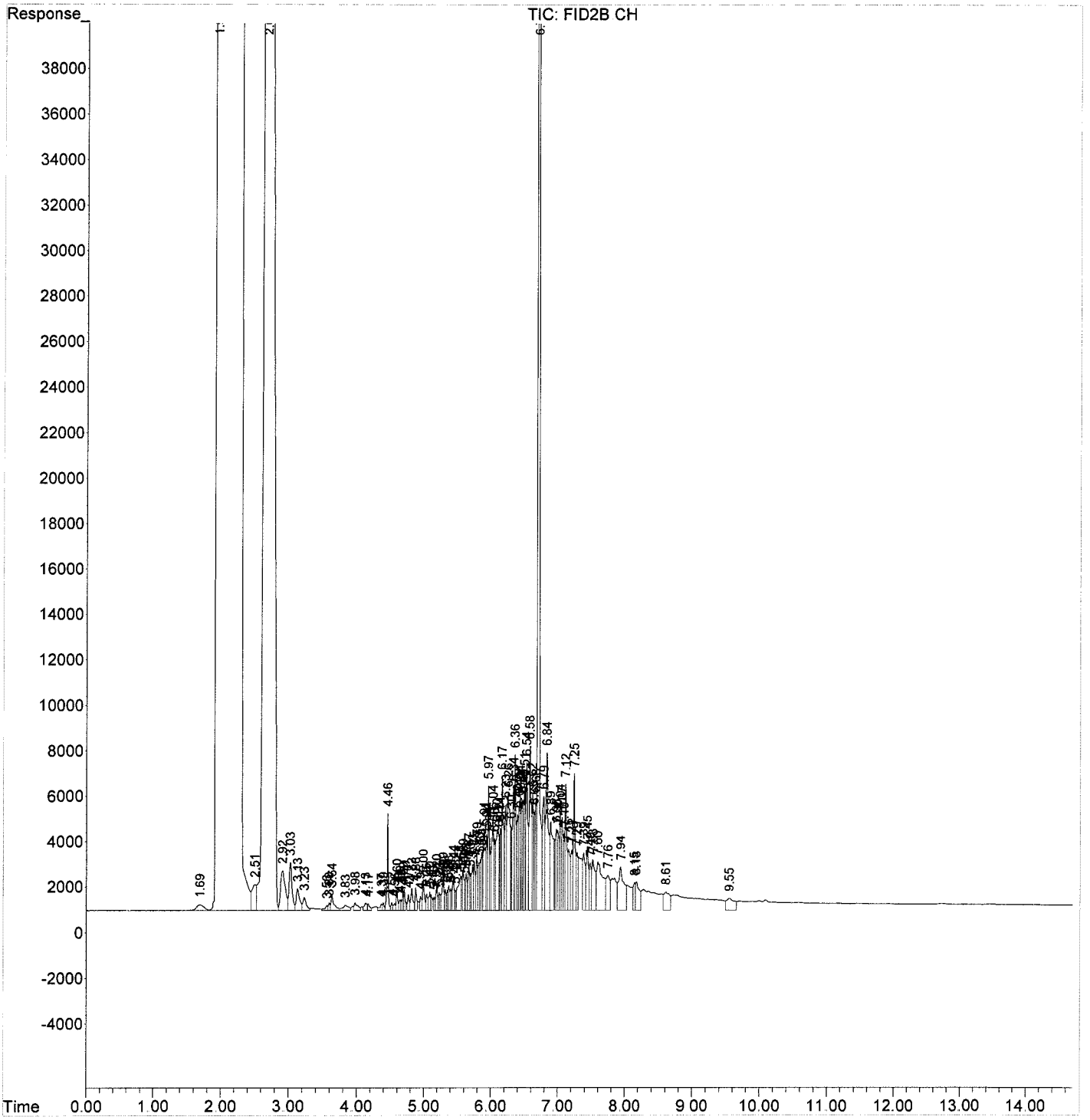
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

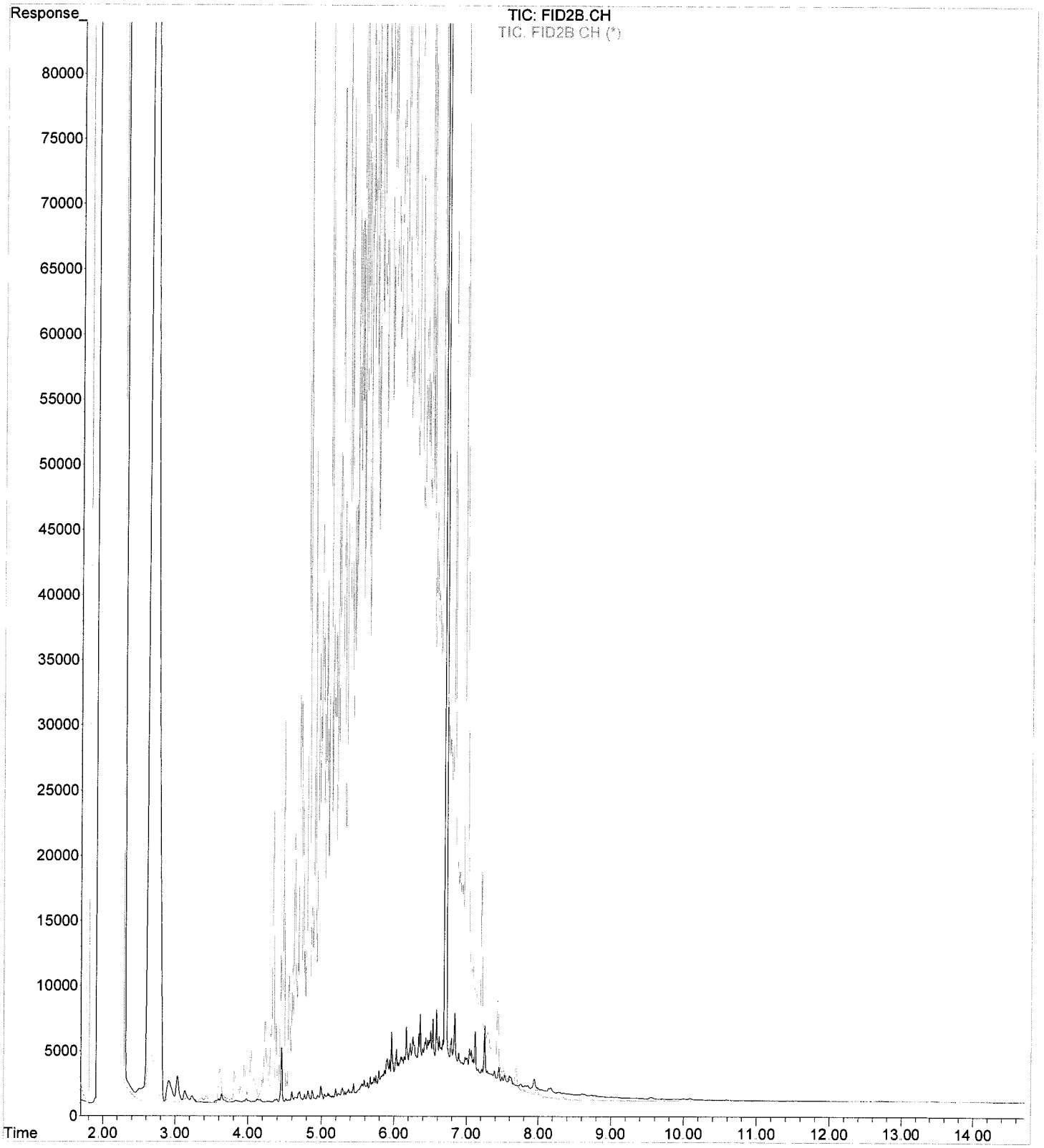
Data File : P:\DRO\2\DATA\130408.SEC\13040869.D Vial: 50
Acq On : 8 Apr 2013 9:37 pm Operator: PY
Sample : 13040516-011 Inst : DRO #2
Misc : #45471 820mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 14:51 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



File : P:\DRO\2\DATA\130408.SEC\13040869.D
Operator : PY
Acquired : 8 Apr 2013 9:37 pm using AcqMethod C10C28MB.M
Instrument : DRO #2
Sample Name: 13040516-011
Misc Info : #45471 820mg/L
Vial Number: 50



2G - FORM II SV-1

WATER SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod Ref No.: _____ SDG No. : 13040516

	EPA SAMPLE NO.	SDMC1	SDMC2	SDMC3	SDMC4	SDMC5	SDMC6	SDMC7	SDMC8
		(o-Ter) #	() #	() #	() #	() #	() #	() #	() #
1	45471-1-BKS	79							
2	SB-03 (GW) S	86							
3	45471-1-BSD	70							
4	SB-03 (GW) SD	86							
5	45471-1-BLK	85							
6	SB-03 (GW)	91							
7	SB-040413 (GW)	79							
8	1644-Sump	97							
9	SB-04 (GW)	83							
10	1646-Sump	87							
11	Surface Water	90							

		QC LIMITS
SDMC1	(o-Ter) = o-Terphenyl	(50 - 131)
SDMC2	_____	_____
SDMC3	_____	_____
SDMC4	_____	_____
SDMC5	_____	_____
SDMC6	_____	_____
SDMC7	_____	_____
SDMC8	_____	_____

\# Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

2J - FORM II SV-3
SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod Ref No.: _____ SDG No. : 13040516

Level: (LOW/MED) _____

	EPA SAMPLE NO.	SDMC1	SDMC2	SDMC3	SDMC4	SDMC5	SDMC6	SDMC7	Total Out
		(o-Ter) #	() #	() #	() #	() #	() #	() #	
1	45470-1-BKS	78							0
2	45470-1-BSD	78							0
3	SB-02 (2-2.5)	80							0
4	SB-04 (2-2.5)	83							0
5	SB-01 (2-2.5)	79							0
6	SB-040413 (2-2.5)	91							0
7	SB-01 (2-2.5) S	76							0
8	SB-01 (2-2.5) SD	74							0
9	SB-03 (2-2.5)	76							0
10	45470-1-BLK	74							0

		QC LIMITS
SDMC1	(o-Ter) = o-Terphenyl	(10 - 189)
SDMC2	_____	_____
SDMC3	_____	_____
SDMC4	_____	_____
SDMC5	_____	_____
SDMC6	_____	_____
SDMC7	_____	_____

Column to be used to flag recovery values

* Values outside of contract required QC limits

SW8015DRO

3C - FORM III SV-1
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-03 (GW)

COMPOUND	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	MS CONCENTRATION mg/L	MS % REC #	QC LIMITS REC.
TPH-DRO (Diesel Range Organics)	2.0	<0.08000	1.516	76	33-157

COMPOUND	SPIKE ADDED mg/L	MSD CONCENTRATION mg/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
TPH-DRO (Diesel Range Organics)	2.0	1.625	81	7	25	33-157

Column to be used to flag recovery and RPD Values with an asterisk.
* Values outside of QC limits

RPD 0 Out of 1 outside limits

Spike Recovery : 0 Out of 2 outside limit

COMMENTS: _____

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-03 (GW) S

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-007 S

Sample wt/vol: 500 (g/mL): ml Lab File ID: 13040860.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	1.516	

(1) Cannot be separated from Diphenylamine

SW8015DRO

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-03 (GW) SD

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-007 SD

Sample wt/vol: 500 (g/mL): ml Lab File ID: 13040862.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	1.625	

SW8015DRO

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040860.D Vial: 41
Acq On : 8 Apr 2013 7:46 pm Operator: PY
Sample : 13040516-007MS Inst : DRO #2
Misc : #45471 500mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 09 14:35:02 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	43501879	860.861 mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery = 86.09%	
Target Compounds			
1) H DRO	6.48	28311894	758.145 mg/L

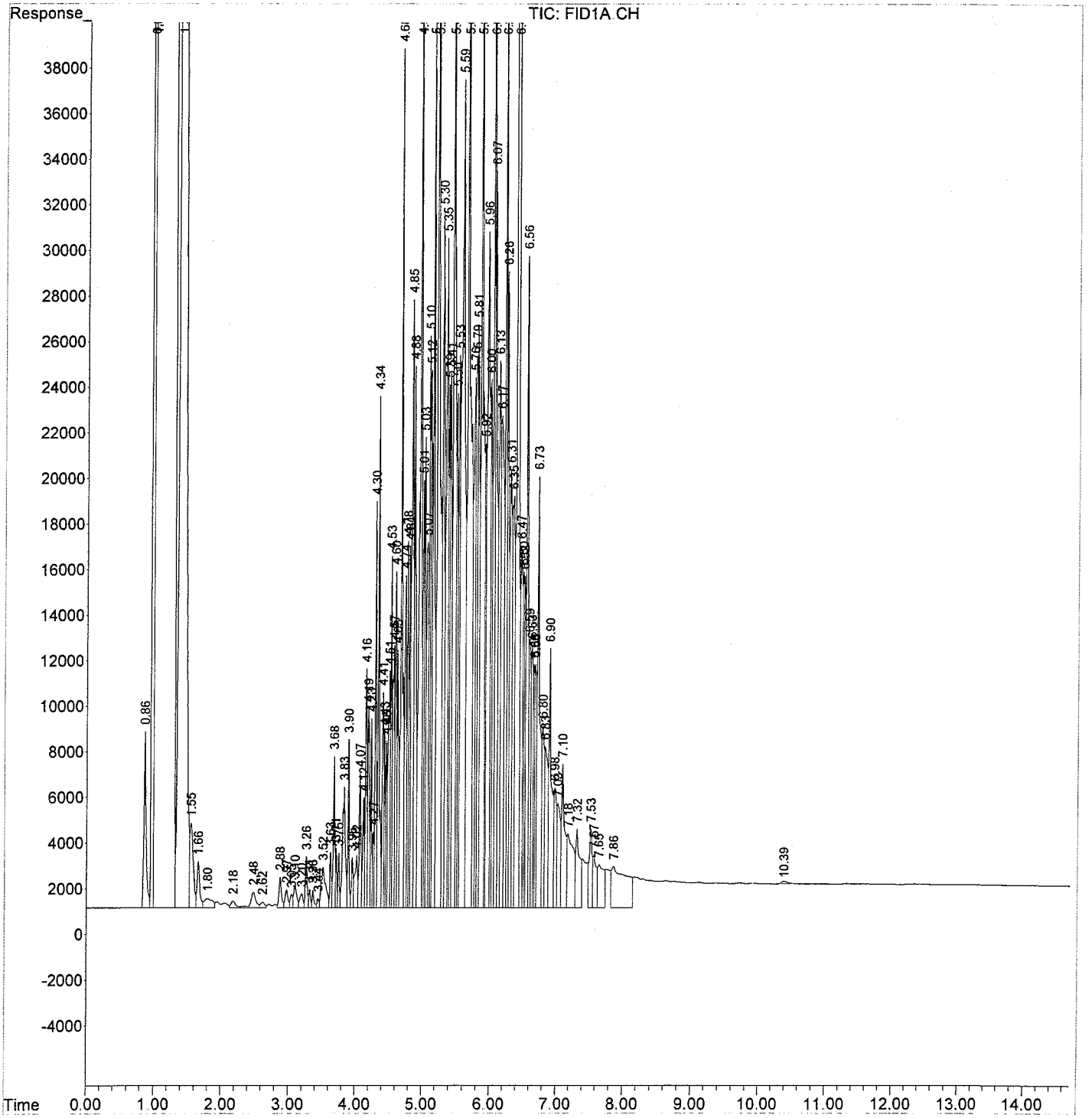
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040860.D Vial: 41
Acq On : 8 Apr 2013 7:46 pm Operator: PY
Sample : 13040516-007MS Inst : DRO #2
Misc : #45471 500mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 9 14:34 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040862.D Vial: 43
Acq On : 8 Apr 2013 8:08 pm Operator: PY
Sample : 13040516-007MSD Inst : DRO #2
Misc : #45471 500mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 09 14:35:14 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	43686742	864.519 mg/L
Spiked Amount 1000.000	Range 50 - 131	Recovery =	86.45%
Target Compounds			
1) H DRO	6.48	30348224	812.675 mg/L

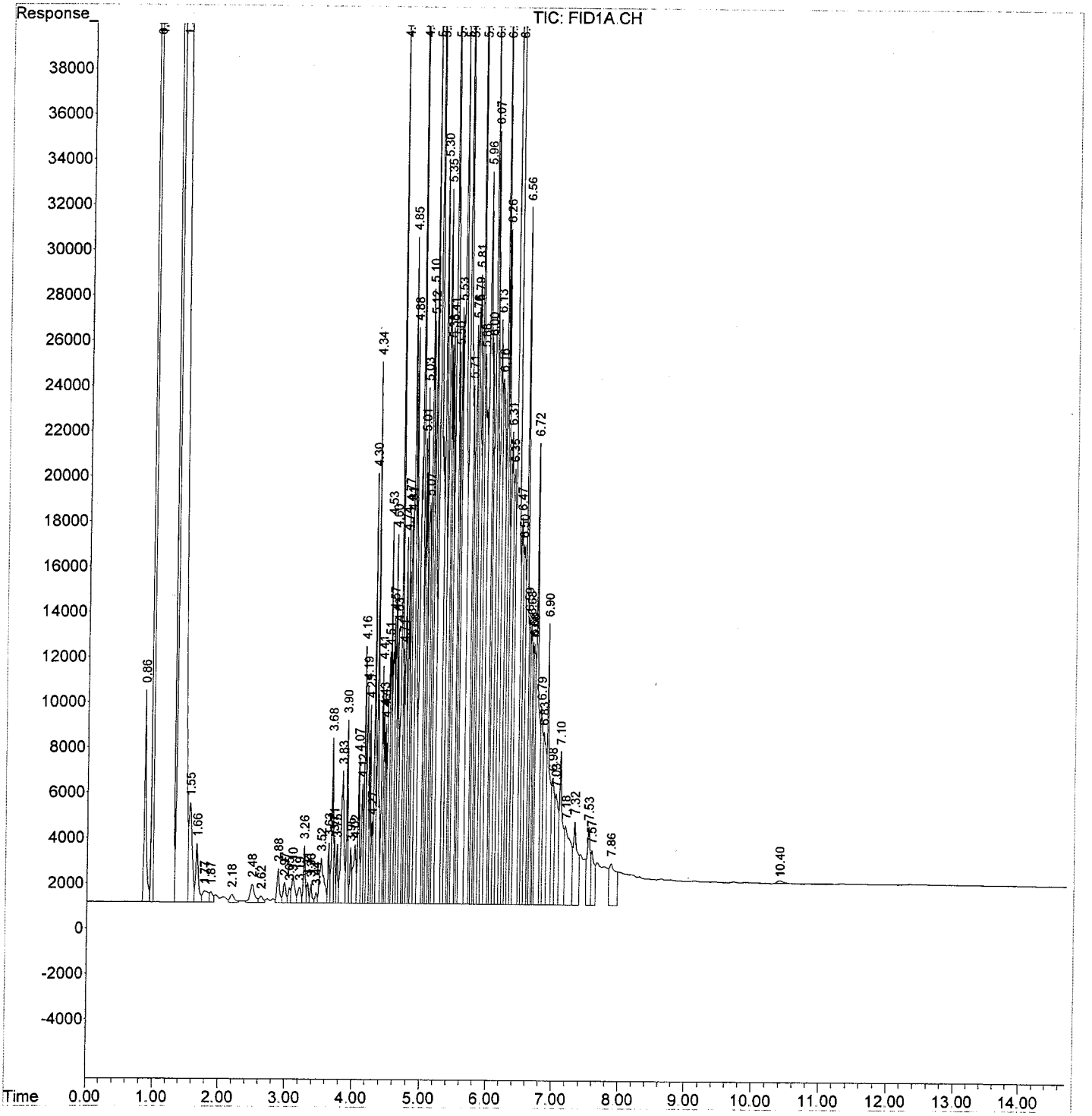
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040862.D Vial: 43
Acq On : 8 Apr 2013 8:08 pm Operator: PY
Sample : 13040516-007MSD Inst : DRO #2
Misc : #45471 500mg/L Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 9 14:34 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



3D - FORM III SV-2

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix Spike - EPA Sample No. **SB-01 (2-2.5)** Level : (low / med) LOW

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS CONCENTRATION mg/kg	MS % REC #	QC LIMITS REC.
TPH-DRO (Diesel Range Organics)	38.61	0	29.58	77	13-183

COMPOUND	SPIKE ADDED mg/kg	MSD CONCENTRATION mg/kg	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
TPH-DRO (Diesel Range Organics)	38.71	29.46	76	1	30	13-183

Column to be used to flag recovery and RPD Values with an asterisk.

* Values outside of QC limits

RPD 0 Out of 1 outside limits

Spike Recovery : 0 Out of 2 outside limits

COMMENTS: _____

_____

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5) S

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105208 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-004 S

Sample wt/vol: 30.12 (g/mL): g Lab File ID: 13040845.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 14 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	Q
	TPH-DRO (Diesel Range Organics)	29.58	

SW8015DRO

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5) SD

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105208 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-004 SD

Sample wt/vol: 30.04 (g/mL): g Lab File ID: 13040847.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 14 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	Q
	TPH-DRO (Diesel Range Organics)	29.46	

(1) Cannot be separated from Diphenylamine

SW8015DRO

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040845.D Vial: 96
Acq On : 8 Apr 2013 5:11 pm Operator: PY
Sample : 13040516-004MS Inst : DRO #2
Misc : Soil#45470 30.12g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 08 17:28:56 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	23594285	763.803 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 76.38%	
Target Compounds			
1) H DRO	6.80	22111386	766.100 mg/L

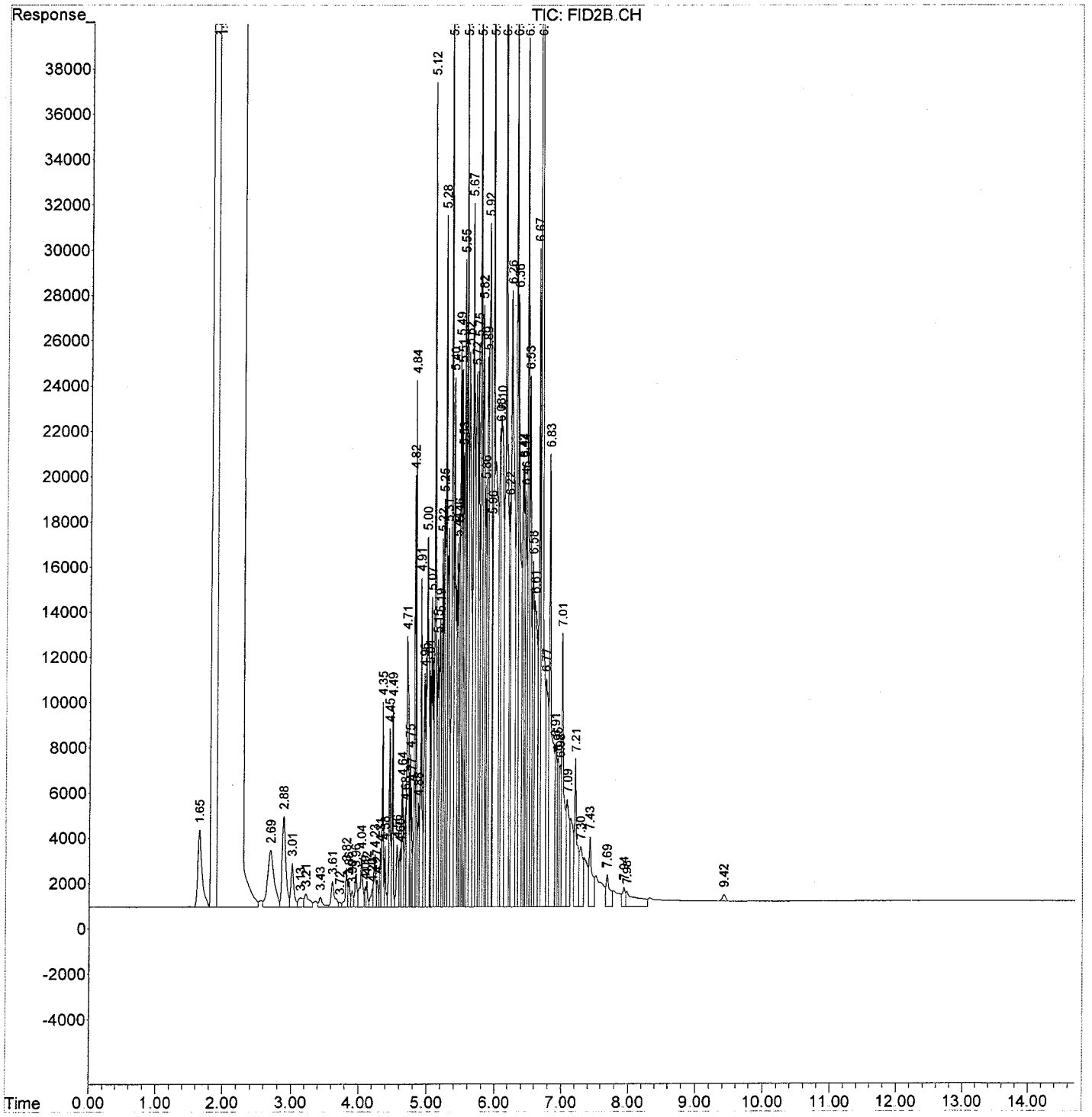
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040845.D Vial: 96
Acq On : 8 Apr 2013 5:11 pm Operator: PY
Sample : 13040516-004MS Inst : DRO #2
Misc : Soil#45470 30.12g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 8 17:28 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040847.D Vial: 97
Acq On : 8 Apr 2013 5:33 pm Operator: PY
Sample : 13040516-004MSD Inst : DRO #2
Misc : Soil#45470 30.04g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 14:45:42 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

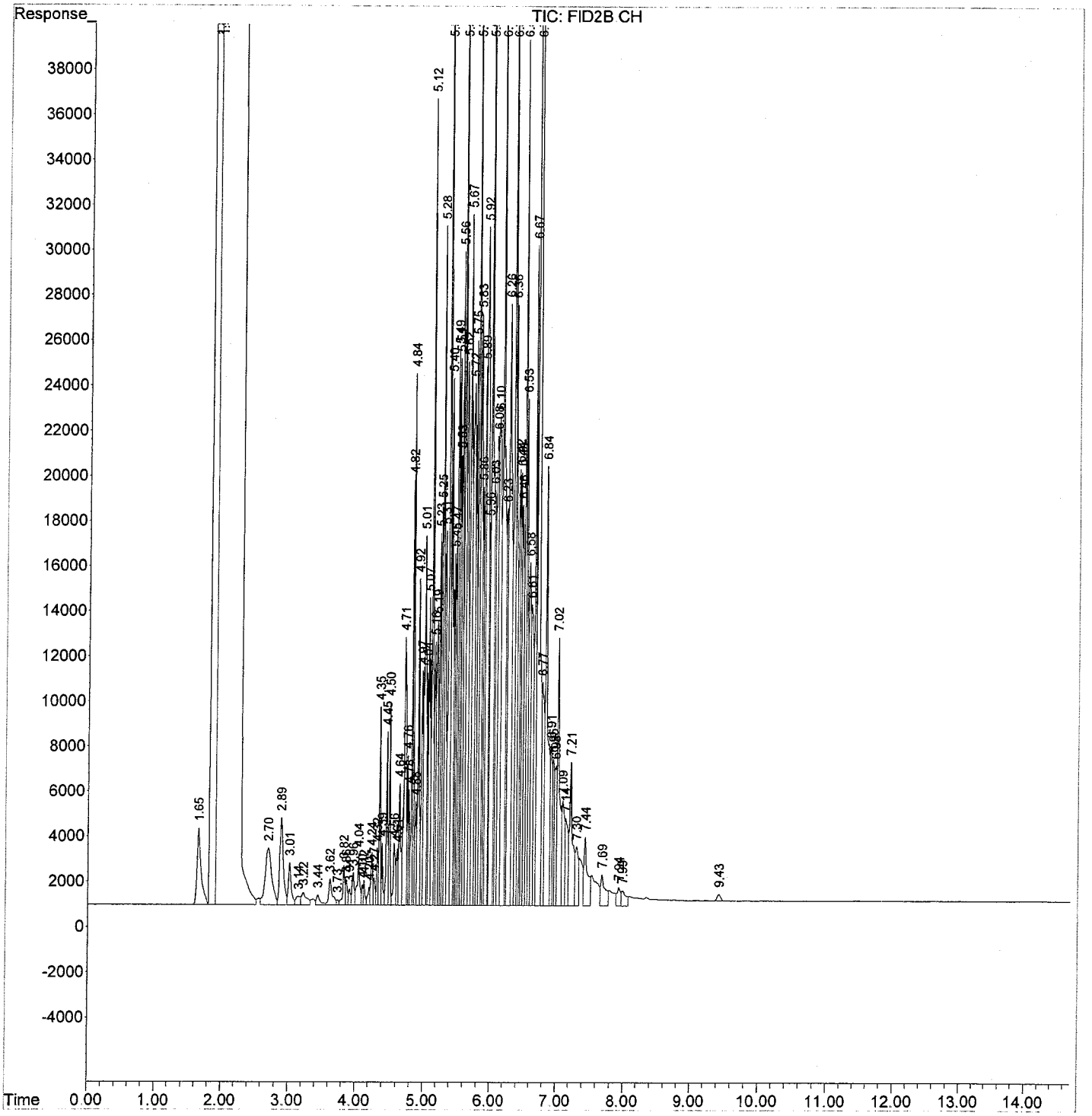
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	22792576	737.849 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 73.78%	
Target Compounds			
1) H DRO	6.80	21962908	760.955 mg/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File : P:\DRO\2\DATA\130408.SEC\13040847.D Vial: 97
Acq On : 8 Apr 2013 5:33 pm Operator: PY
Sample : 13040516-004MSD Inst : DRO #2
Misc : Soil#45470 30.04g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 14:45 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



3C - FORM III SV-1
WATER SEMIVOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. :45471-1-BKS

COMPOUND	SPIKE ADDED mg/L	BLANK CONCENTRATION mg/L	BKS CONCENTRATION mg/L	BKS % REC #	QC LIMITS REC.
TPH-DRO (Diesel Range Organics)	1.0	0	0.8309	83	60-104

COMPOUND	SPIKE ADDED mg/L	BSD CONCENTRATION mg/L	BSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
TPH-DRO (Diesel Range Organics)	1.0	0.7996	80	4	20	60-104

Column to be used to flag recovery and RPD Values with an asterisk.
* Values outside of QC limits

RPD 0 Out of 2 outside limits

Spike Recovery : 0 Out of 2 outside limit

COMMENTS: _____

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

45471-1-BKS

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 45471-1-BKS

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040859.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	0.8309	

(1) Cannot be separated from Diphenylamine

SW8015DRO

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040859.D Vial: 40
Acq On : 8 Apr 2013 7:46 pm Operator: PY
Sample : 45471-1-BKS Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 14:50:47 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	24406618	790.100 mg/L
Spiked Amount 1000.000	Range 50 - 150	Recovery =	79.01%
Target Compounds			
1) H DRO	6.80	23981956	830.910 mg/L

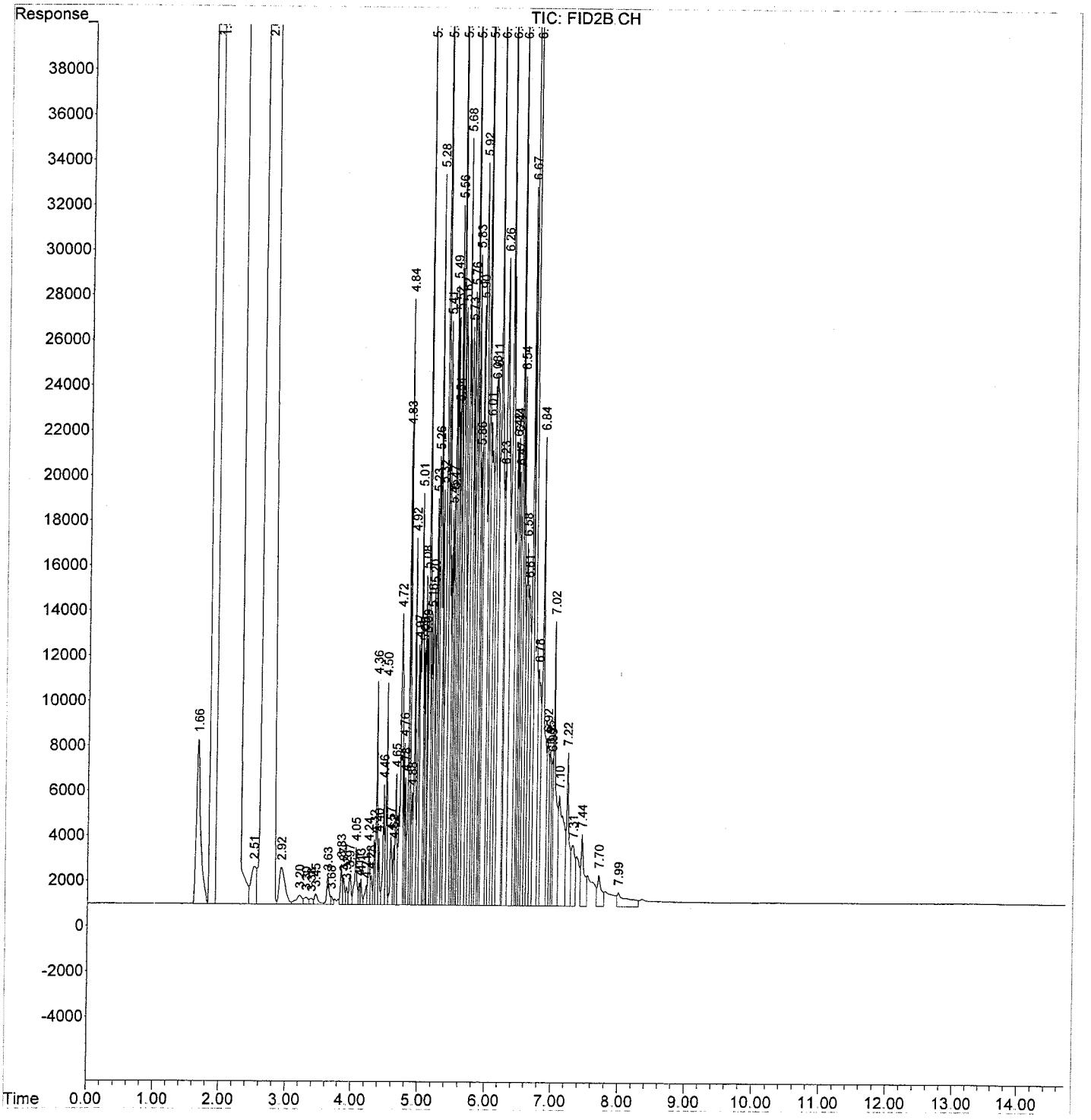
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040859.D Vial: 40
Acq On : 8 Apr 2013 7:46 pm Operator: PY
Sample : 45471-1-BKS Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 14:50 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040861.D Vial: 42
Acq On : 8 Apr 2013 8:08 pm Operator: PY
Sample : 45471-1-BSD Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 14:51:01 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	21581232	698.635 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 69.86%	
Target Compounds			
1) H DRO	6.80	23079573	799.645 mg/L

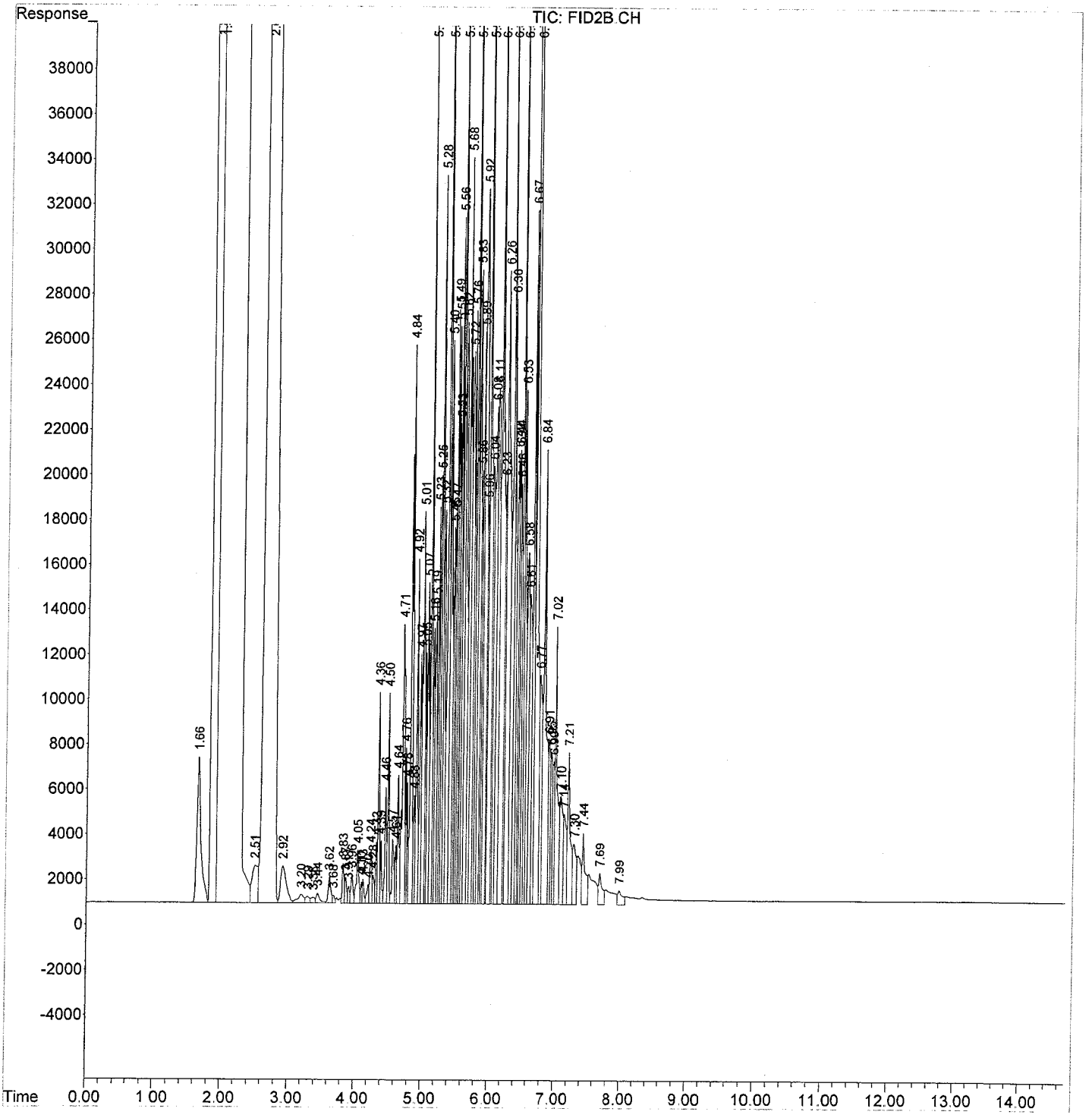
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040861.D Vial: 42
Acq On : 8 Apr 2013 8:08 pm Operator: PY
Sample : 45471-1-BSD Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 14:50 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



3D - FORM III SV-2

SOIL SEMIVOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. :45470-1-BKS Level : (low / med) LOW

COMPOUND	SPIKE ADDED mg/kg	BLANK CONCENTRATION mg/kg	BKS CONCENTRATION mg/kg	BKS % REC #	QC LIMITS REC.
TPH-DRO (Diesel Range Organics)	33.21	0	24.50	74	56-110

COMPOUND	SPIKE ADDED mg/kg	BSD CONCENTRATION mg/kg	BSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
TPH-DRO (Diesel Range Organics)	33.19	25.67	77	5	25	56-110

Column to be used to flag recovery and RPD Values with an asterisk.

* Values outside of QC limits

RPD 0 Out of 1 outside limits

Spike Recovery : 0 Out of 2 outside limit

COMMENTS: _____

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

45470-1-BKS

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105208 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOLID Lab Sample Id: 45470-1-BKS

Sample wt/vol: 30.11 (g/mL): g Lab File ID: 13040836.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 0 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/kg	Q
	TPH-DRO (Diesel Range Organics)	24.50	

(1) Cannot be separated from Diphenylamine

SW8015DRO

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040836.D Vial: 24
Acq On : 8 Apr 2013 3:19 pm Operator: PY
Sample : 45470-1-BKS Inst : DRO #2
Misc : Soil#45470 30.11g Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 08 15:36:53 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	39273021	777.176 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 77.72%	
Target Compounds			
1) H DRO	6.48	27550730	737.762 mg/L

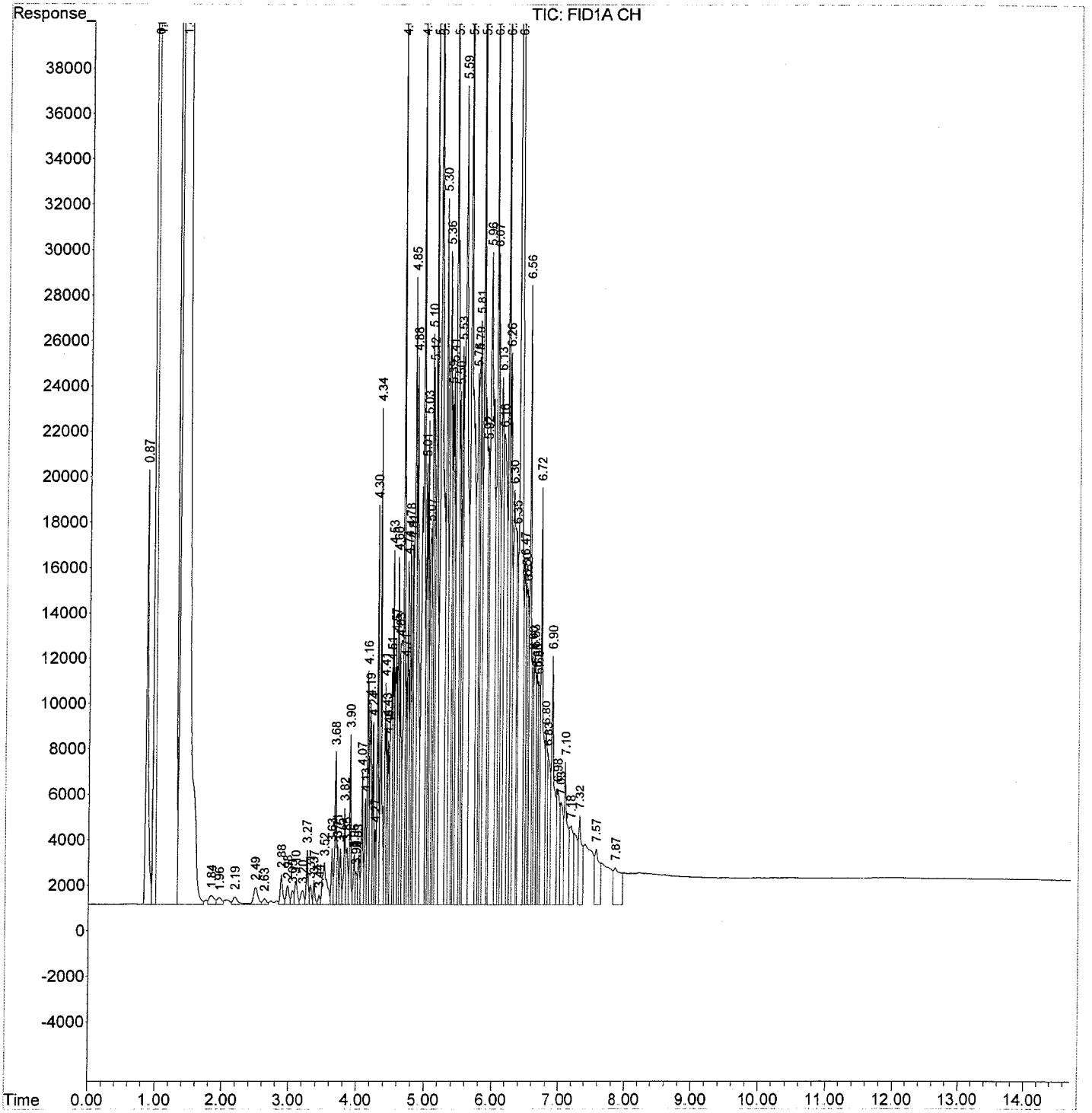
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040836.D Vial: 24
Acq On : 8 Apr 2013 3:19 pm Operator: PY
Sample : 45470-1-BKS Inst : DRO #2
Misc : Soil#45470 30.11g Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 8 15:36 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040838.D Vial: 26
Acq On : 8 Apr 2013 3:42 pm Operator: PY
Sample : 45470-1-BSD Inst : DRO #2
Misc : Soil#45470 30.13g Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 08 16:22:22 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	39203368	775.798 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 77.58%	
Target Compounds			
1) H DRO	6.48	28888098	773.575 mg/L

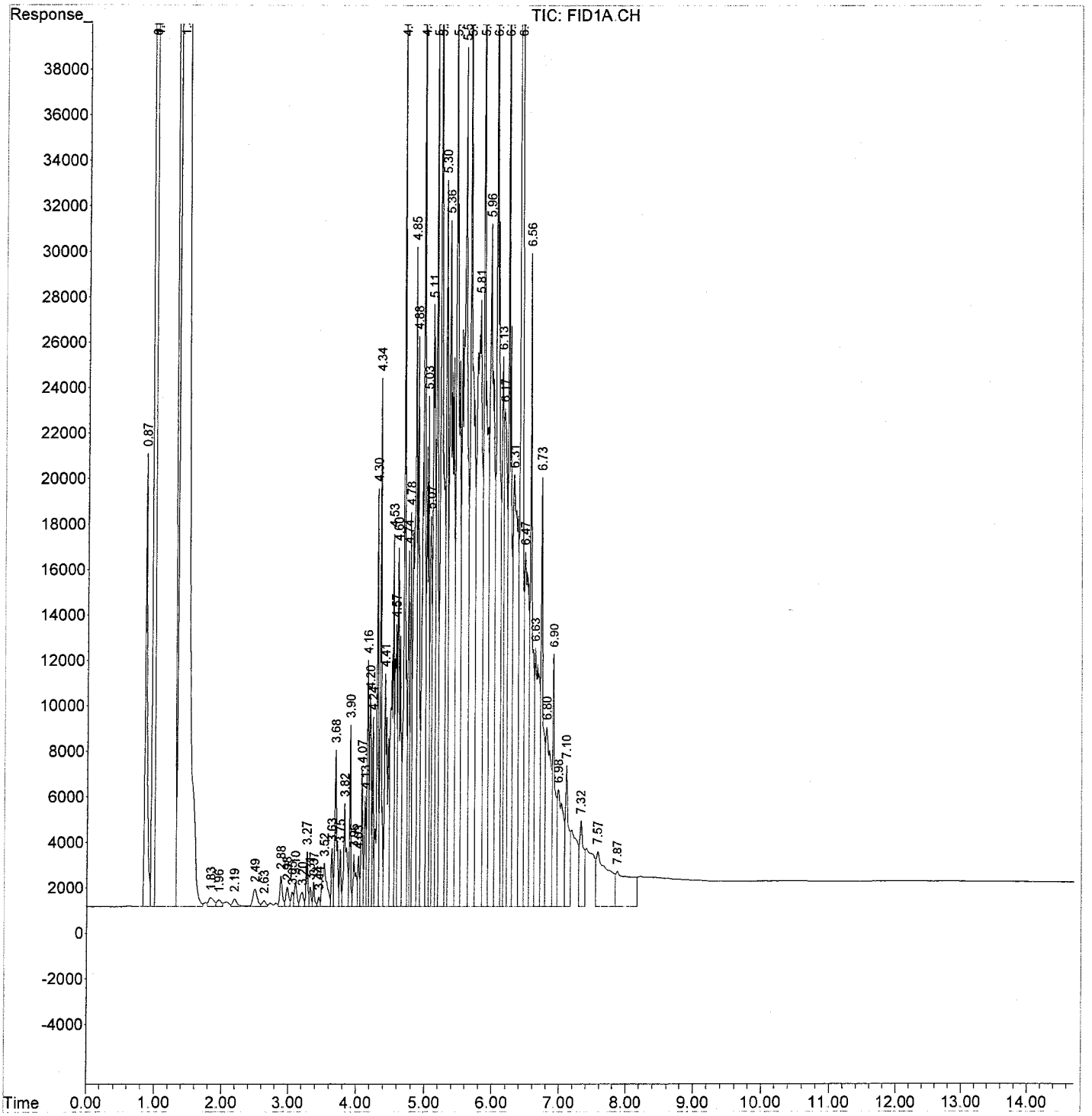
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040838.D Vial: 26
Acq On : 8 Apr 2013 3:42 pm Operator: PY
Sample : 45470-1-BSD Inst : DRO #2
Misc : Soil#45470 30.13g Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 8 16:22 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



4C - FORM IV SV
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

45471-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No. : 13040516

Lab File ID: 13040863 Lab Sample ID: 45471-1-BLK

Instrument ID: Glycol Date Extracted: 04/08/2013

Matrix: (soil/sed/ water) WATER Date Analyzed: 04/08/2013

Level: (low/med) LOW Time Analyzed: 20:31

Extraction: (Type) SEPF GPC Cleanup: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	SB-03 (GW) S	13040516-007 S	13040860	04/08/13
2	45471-1-BKS	45471-1-BKS	13040859	04/08/13
3	SB-03 (GW) SD	13040516-007 SD	13040862	04/08/13
4	45471-1-BSD	45471-1-BSD	13040861	04/08/13
5	SB-03 (GW)	13040516-007	13040864	04/08/13
6	SB-040413 (GW)	13040516-008	13040866	04/08/13
7	1644-SUMP	13040516-006	13040865	04/08/13
8	SB-04 (GW)	13040516-009	13040867	04/08/13
9	1646-SUMP	13040516-010	13040868	04/08/13
10	SURFACE WATER	13040516-011	13040869	04/08/13

COMMENTS: _____

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

45471-1-BLK

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105246 Mod. Ref No : _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 45471-1-BLK

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040863.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) mg/L	Q
	TPH-DRO (Diesel Range Organics)	0.04000	U

SW8015DRO

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040863.D Vial: 44
Acq On : 8 Apr 2013 8:31 pm Operator: PY
Sample : 45471-1-BLK Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 14:51:16 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	26352691	853.099 mg/L
Spiked Amount 1000.000	Range 50 - 150	Recovery =	85.31%
Target Compounds			
1) H DRO	6.80	105859	<MDL mg/L

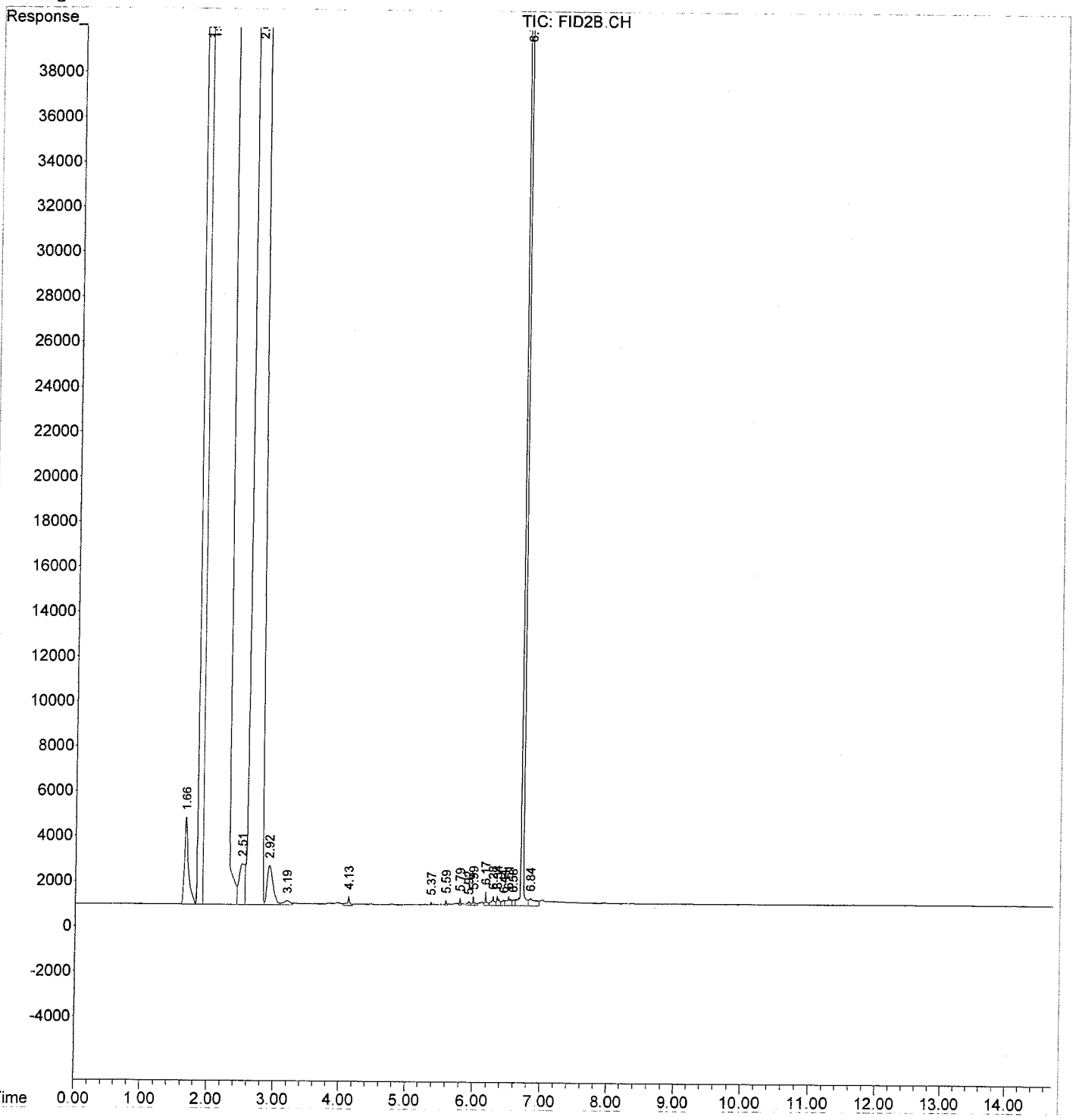
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040863.D Vial: 44
Acq On : 8 Apr 2013 8:31 pm Operator: PY
Sample : 45471-1-BLK Inst : DRO #2
Misc : #45471 1000mg/L Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 14:50 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



4C - FORM IV SV
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

45470-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod. Ref No.: _____ SDG No.: 13040516

Lab File ID: 13040849 Lab Sample ID: 45470-1-BLK

Instrument ID: Glycol Date Extracted: 04/08/2013

Matrix: (soil/sed/ water) SOIL Date Analyzed: 04/08/2013

Level: (low/med) LOW Time Analyzed: 17:56

Extraction: (Type) SONC GPC Cleanup: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	45470-1-BKS	45470-1-BKS	13040836	04/08/13
2	45470-1-BSD	45470-1-BSD	13040838	04/08/13
3	SB-02 (2-2.5)	13040516-001	13040837	04/08/13
4	SB-04 (2-2.5)	13040516-002	13040839	04/08/13
5	SB-01 (2-2.5)	13040516-004	13040841	04/08/13
6	SB-040413 (2-2.5)	13040516-005	13040842	04/08/13
7	SB-01 (2-2.5) S	13040516-004 S	13040845	04/08/13
8	SB-01 (2-2.5) SD	13040516-004 SD	13040847	04/08/13
9	SB-03 (2-2.5)	13040516-003	13040848	04/08/13

COMMENTS: _____

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040849.D Vial: 28
Acq On : 8 Apr 2013 5:56 pm Operator: PY
Sample : 45470-1-BLK Inst : DRO #2
Misc : Soil#45470 30.02g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 14:46:45 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	22958065	743.207 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery =	74.32%
Target Compounds			
1) H DRO	6.80	604628	<MDL mg/L

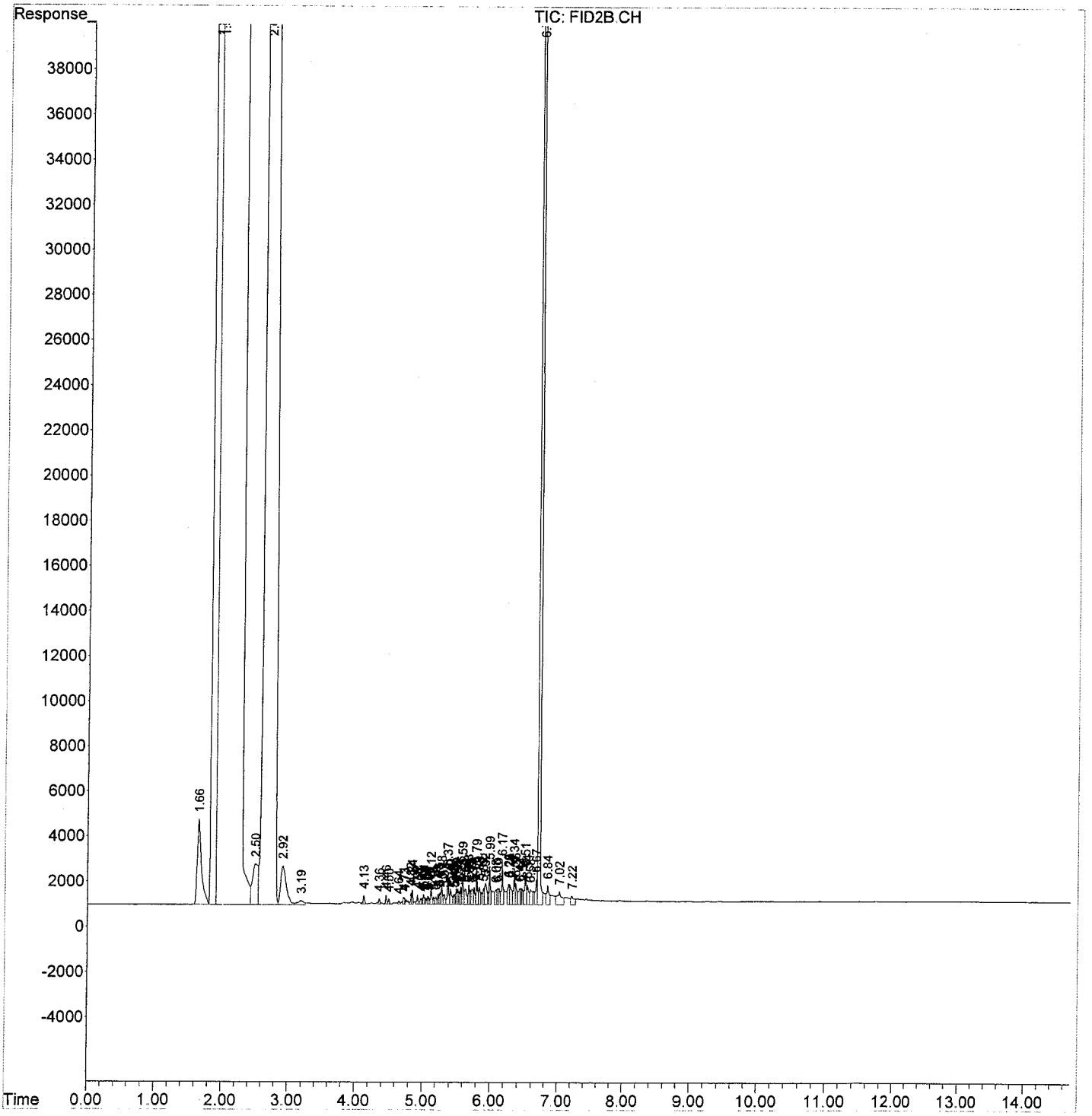
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040849.D Vial: 28
Acq On : 8 Apr 2013 5:56 pm Operator: PY
Sample : 45470-1-BLK Inst : DRO #2
Misc : Soil#45470 30.02g Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 14:46 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Injection Log

Directory: P:\DRO\2\DATA\130312

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1		13031202.D	1.	Instrument Blank	ID#1337-1 MeCl2	12 Mar 2013 14:01
2	7	13031204.D	1.	Retention Time Markers	ID#A2359 10D	12 Mar 2013 14:23
3	8	13031206.D	1.	ICAL_DRO@10000mg/L	ID#A2374 Ex.12/07/13	12 Mar 2013 14:46
4	9	13031208.D	1.	ICAL_DRO@5000mg/L	ID#A2375 Ex.12/07/13	12 Mar 2013 15:08
5	10	13031210.D	1.	ICAL_DRO@2500mg/L	ID#A2376 Ex.12/07/13	12 Mar 2013 15:30
6	11	13031212.D	1.	ICAL_DRO@1000mg/L	ID#A2377 Ex.12/07/13	12 Mar 2013 15:53
7	12	13031214.D	1.	ICAL_DRO@500mg/L	ID#A2378 Ex.12/07/13	12 Mar 2013 16:16
8	13	13031216.D	1.	ICAL_DRO@100mg/L	ID#A2378 Ex.12/07/13	12 Mar 2013 16:38
9	14	13031218.D	1.	ICAL_DRO@40mg/L	ID#A2380 Ex.12/07/13	12 Mar 2013 17:01
10	15	13031220.D	1.	ICV/CCV_DRO@2500mg/L	ID#A2381 Ex.12/07/13	12 Mar 2013 17:23
11	100	13031222.D	1.	CCV_DRO@2500mg/L	ID#A2381 Ex.12/07/13	12 Mar 2013 17:46
12	16	13031224.D	1.	13031204-001	Soil#45127 30.83gr	12 Mar 2013 18:08
13	17	13031226.D	1.	13031204-002	Soil#45127 30.39gr	12 Mar 2013 18:31
14	19	13031228.D	1.	13031204-004	Soil#45127 30.16gr	12 Mar 2013 18:53
15	21	13031230.D	1.	13031204-005	Soil#45127 30.15gr	12 Mar 2013 19:15
16	100	13031232.D	1.	CCV_DRO@2500mg/L	ID#A2381 Ex.12/10/13	12 Mar 2013 19:38
17	23	13031234.D	1.	45127-1-BKS	Soil#45127 30.10gr	12 Mar 2013 20:00
18	25	13031236.D	1.	45127-1-BSD	Soil#45127 30.14gr	12 Mar 2013 20:22
19	27	13031238.D	1.	45127-1-BLK	Soil#45127 30.02gr	12 Mar 2013 20:45
20	29	13031240.D	1.	13030824-002	Soil#45127 30.17gr	12 Mar 2013 21:07
21	100	13031242.D	1.	CCV_DRO@2500mg/L	ID#A2381 Ex.12/10/13	12 Mar 2013 21:29
22	42	13031244.D	1.	13030815-001MS	Soil#45105 30.21gr	12 Mar 2013 21:52
23	44	13031246.D	1.	13030815-001MSD	Soil#45105 30.13gr	12 Mar 2013 22:14
24	46	13031248.D	1.	13030815-001	Soil#45105 30.21gr	12 Mar 2013 22:36
25	48	13031250.D	1.	13030720-001	Soil#45105 30.06gr	12 Mar 2013 22:59
26	50	13031252.D	1.	13030601-001	Soil#45105 30.21gr	12 Mar 2013 23:21
27	52	13031254.D	1.	13030613-001	Soil#45105 30.55gr	12 Mar 2013 23:43
28	54	13031256.D	1.	13030613-002	Soil#45105 30.07gr	13 Mar 2013 00:06
29	97	13031258.D	1.	INSTR. BLK	INSTR. BLK	13 Mar 2013 00:28
30	100	13031260.D	1.	CCV_DRO@2500mg/L	ID#A2381 Ex.12/10/13	13 Mar 2013 00:51

I-Cal # 104611

104611(cs) / 104630(cw)

Injection Log

Directory: P:\DRO\2\DATA\130312

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
31	32	13031262.D	1.	13030824-008	Soil#45127 30.12gr	13 Mar 2013 08:56
32	34	13031264.D	1.	13030824-012	Soil#45127 30.28gr	13 Mar 2013 09:18
33	36	13031266.D	1.	13030824-010	Soil#45127 30.07gr	13 Mar 2013 09:40
34	38	13031268.D	1.	13030824-009	Soil#45127 30.10gr	13 Mar 2013 10:03
35	40	13031270.D	1.	13030824-004	Soil#45127 30.44gr	13 Mar 2013 10:25
36	51	13031272.D	1.	13030603-001	Soil#45105 30.21gr 200D	13 Mar 2013 10:47
37	100	13031274.D	1.	CCV_DRO@2500mg/L	ID#A2381 Ex.12/10/13	13 Mar 2013 11:10
38	58	13031276.D	1.	13031101-004	#45128 1000ml	13 Mar 2013 11:32
39	60	13031278.D	1.	13031101-006	#45128 1000ml	13 Mar 2013 11:54
40	62	13031280.D	1.	13031101-008	#45128 1000ml	13 Mar 2013 12:17
41	64	13031282.D	1.	13031101-010	#45128 1000ml	13 Mar 2013 12:39
42	66	13031284.D	1.	13031101-002	#45128 1000ml	13 Mar 2013 13:01
43	100	13031286.D	1.	CCV_DRO@2500mg/L	ID#A2381 Ex.12/10/13	13 Mar 2013 13:24

Response Factor Report DRO #2

Method : P:\DRO\2\DATA\130409\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013

Calibration Files
1 =13031218.D 2 =13031216.D 3 =13031214.D
4 =13031212.D 5 =13031210.D 6 =13031208.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1) H	DRO	4.477	3.804	3.659	3.754	3.821	3.377	3.734	E4	10.57
2) S	O-Terphenyl	5.831	4.758	4.631	4.857	5.338	4.905	5.053	E4	8.90

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031202.D Vial: 6
Acq On : 12 Mar 2013 2:01 pm Operator: PY
Sample : INSTRUMENT BLANK Inst : DRO #2
Misc : ID#1337-1 MeCl2 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 13 09:10:51 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S O-Terphenyl	6.40	12164	<MDL	mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery =	0.00%#	
Target Compounds				
1) H DRO	6.48	103802	<MDL	mg/L

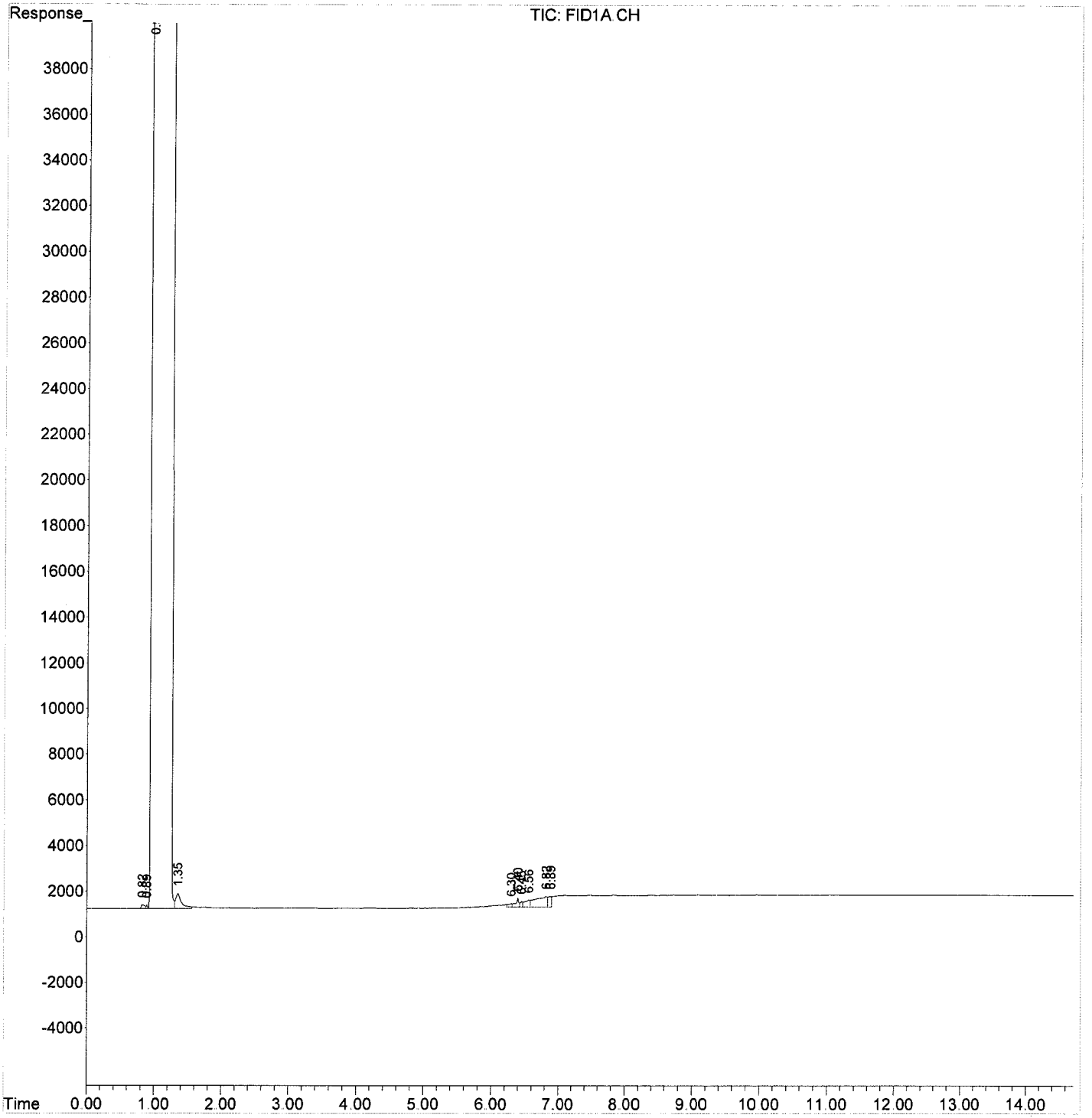
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

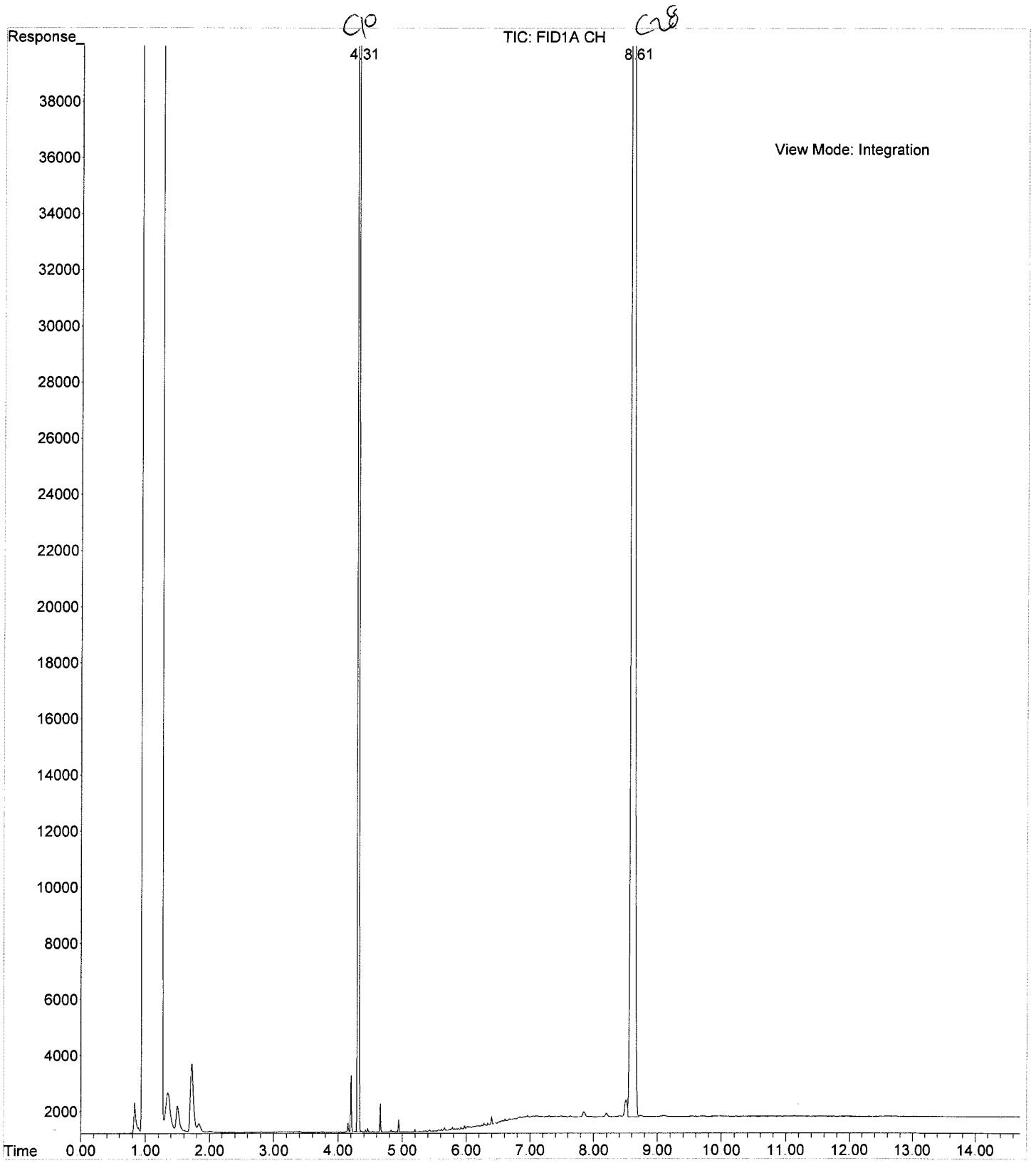
Data File : P:\DRO\2\DATA\130312\13031202.D Vial: 6
Acq On : 12 Mar 2013 2:01 pm Operator: PY
Sample : INSTRUMENT BLANK Inst : DRO #2
Misc : ID#1337-1 MeCl2 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 13 9:10 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



File : P:\DRO\2\DATA\130312\13031204.D
Operator : PY
Acquired : 12 Mar 2013 2:23 pm using AcqMethod C10C28MB.M
Instrument : DRO #2
Sample Name: Retention Time Markers
Misc Info : ID#A2359 10D
Vial Number: 7



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031206.D Vial: 8
Acq On : 12 Mar 2013 2:46 pm Operator: PY
Sample : ICAL_DRO@10000mg/L Inst : DRO #2
Misc : ID#A2374 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:19:20 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:18:12 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.39	11451979	226.624 mg/L
Spiked Amount 1000.000	Range 50 - 131	Recovery =	22.66%#
Target Compounds			
1) H DRO	6.48	324726080	8695.620 mg/L

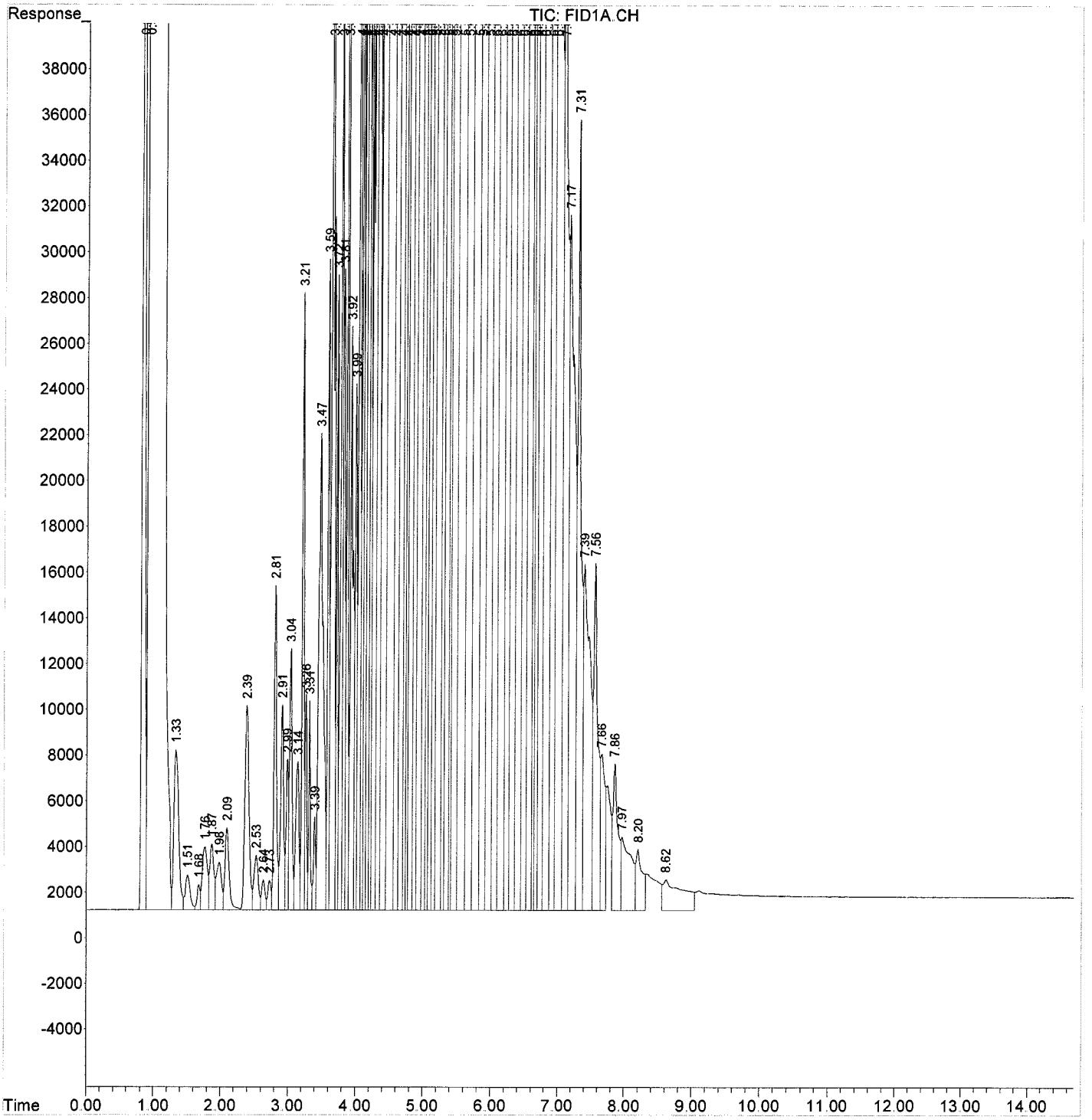
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031206.D Vial: 8
Acq On : 12 Mar 2013 2:46 pm Operator: PY
Sample : ICAL_DRO@10000mg/L Inst : DRO #2
Misc : ID#A2374 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:19 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:18:12 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031208.D Vial: 9
Acq On : 12 Mar 2013 3:08 pm Operator: PY
Sample : ICAL_DRO@5000mg/L Inst : DRO #2
Misc : ID#A2375 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:20:01 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:19:55 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.41	61306756	1213.203 mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery = 121.32%	
Target Compounds			
1) H DRO	6.48	168872648	4522.126 mg/L

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031208.D Vial: 9
Acq On : 12 Mar 2013 3:08 pm Operator: PY
Sample : ICAL_DRO@5000mg/L Inst : DRO #2
Misc : ID#A2375 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:20:01 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:19:55 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.41	61306756	1213.203 mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery = 121.32%	
Target Compounds			
1) H DRO	6.48	168872648	4522.126 mg/L

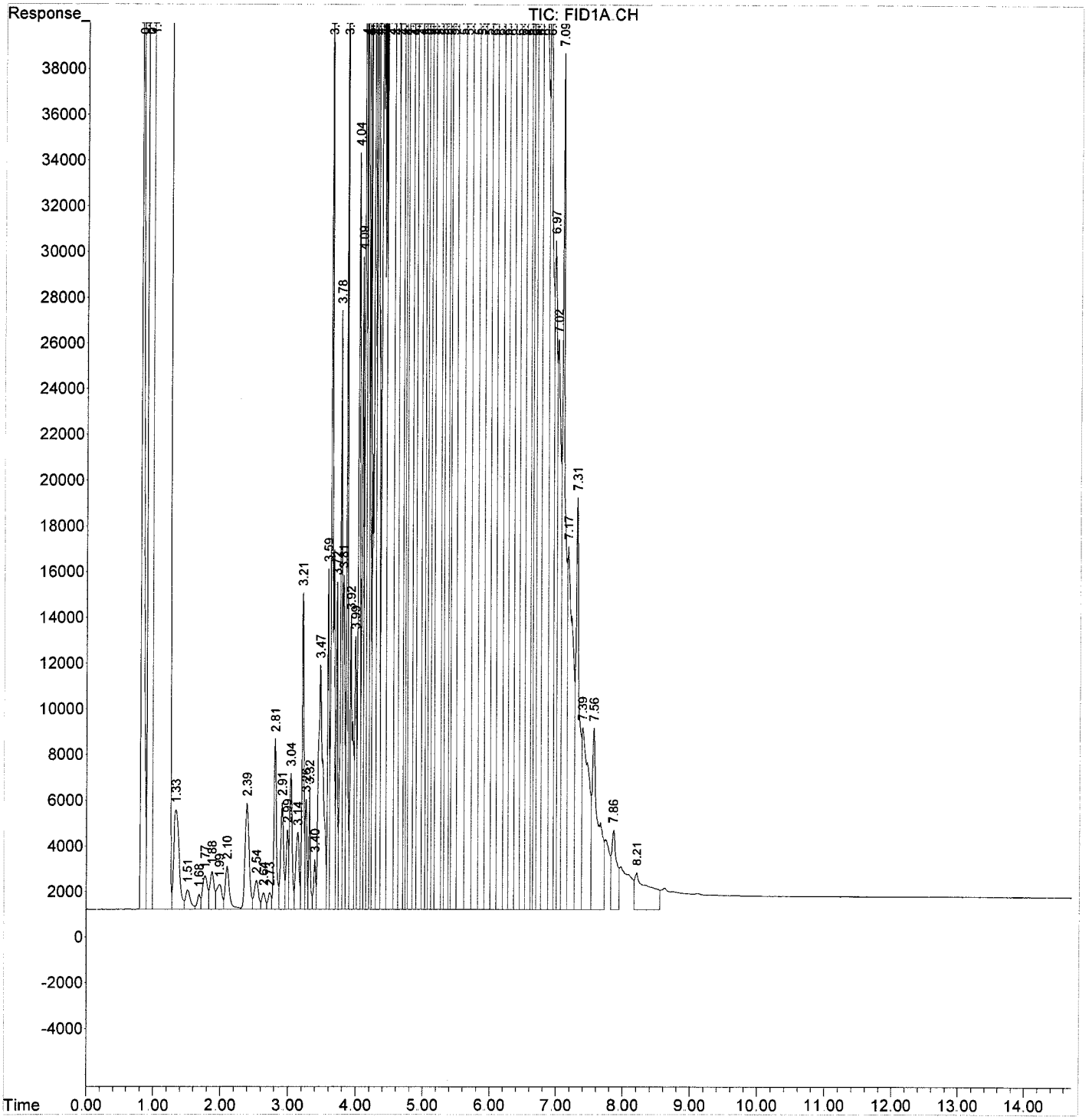
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031208.D Vial: 9
Acq On : 12 Mar 2013 3:08 pm Operator: PY
Sample : ICAL_DRO@5000mg/L Inst : DRO #2
Misc : ID#A2375 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:20 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:19:55 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031210.D Vial: 10
Acq On : 12 Mar 2013 3:30 pm Operator: PY
Sample : ICAL_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2376 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:20:18 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:20:13 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
2) S	O-Terphenyl	6.41	53376797	1056.277 mg/L
Spiked Amount	1000.000	Range 50 - 131	Recovery =	105.63%
	Target Compounds			
1) H	DRO	6.48	95533952	2558.239 mg/L

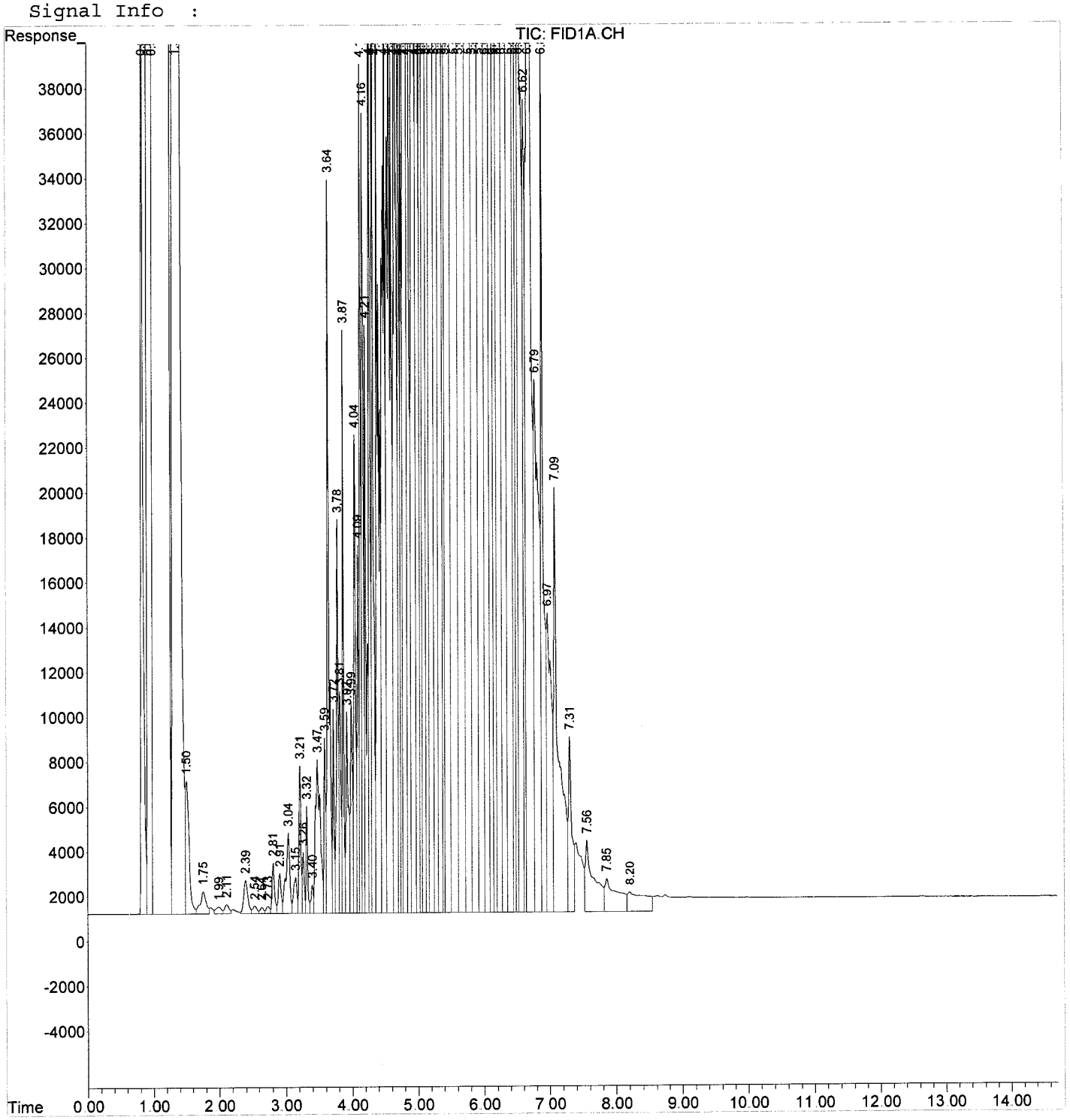
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031210.D Vial: 10
Acq On : 12 Mar 2013 3:30 pm Operator: PY
Sample : ICAL_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2376 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:20 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:20:13 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031212.D Vial: 11
Acq On : 12 Mar 2013 3:53 pm Operator: PY
Sample : ICAL_DRO@1000mg/L Inst : DRO #2
Misc : ID#A2377 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:20:42 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:20:35 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.41	36428156	720.879 mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery = 72.09%	
Target Compounds			
1) H DRO	6.48	37540771	1005.279 mg/L

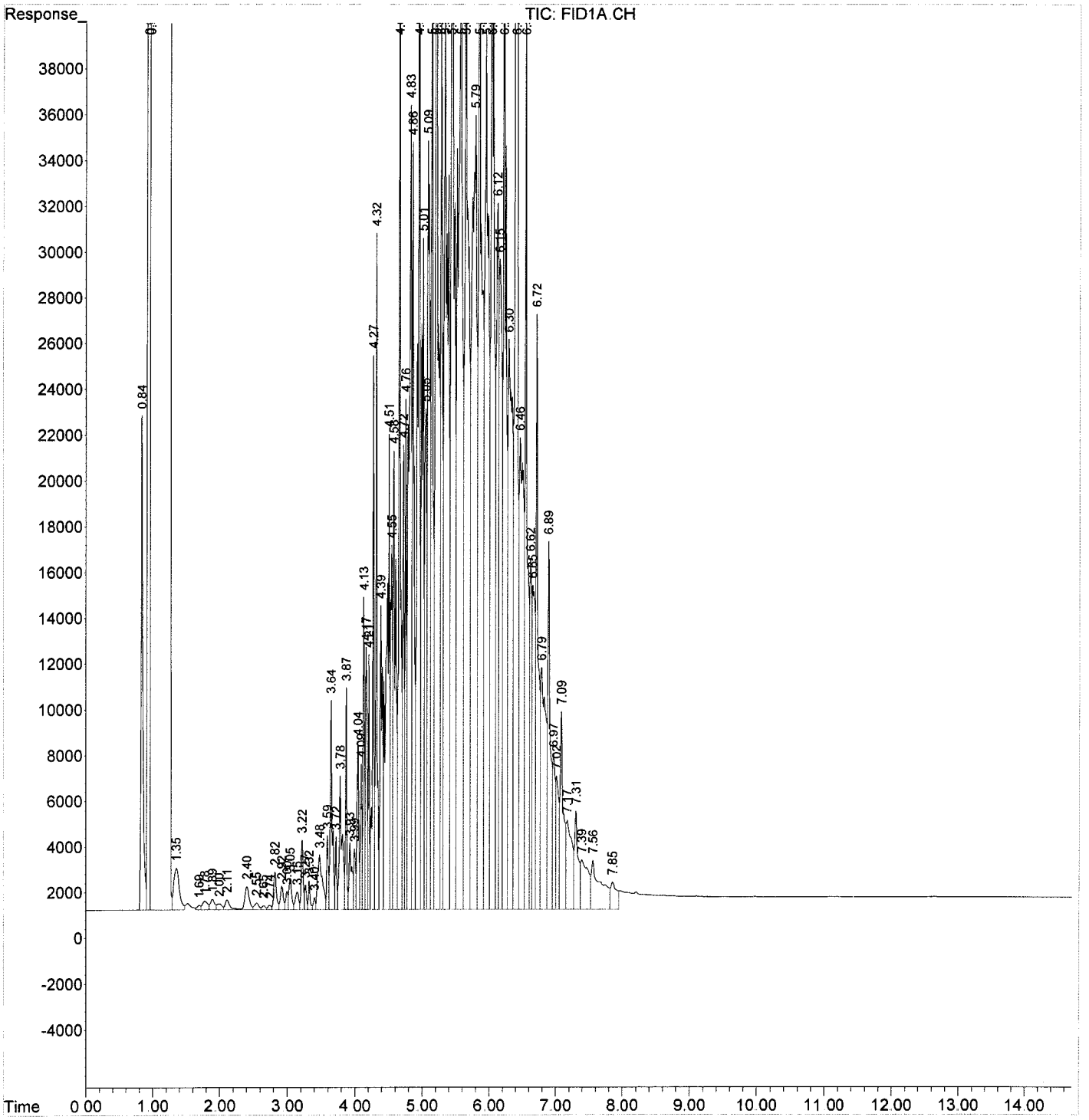
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031212.D Vial: 11
Acq On : 12 Mar 2013 3:53 pm Operator: PY
Sample : ICAL_DRO@1000mg/L Inst : DRO #2
Misc : ID#A2377 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:20 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:20:35 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031214.D Vial: 12
Acq On : 12 Mar 2013 4:16 pm Operator: PY
Sample : ICAL_DRO@500mg/L Inst : DRO #2
Misc : ID#A2378 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:21:01 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:20:56 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.41	23156481	458.245 mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery = 45.82%#	
Target Compounds			
1) H DRO	6.48	18295413	489.921 mg/L

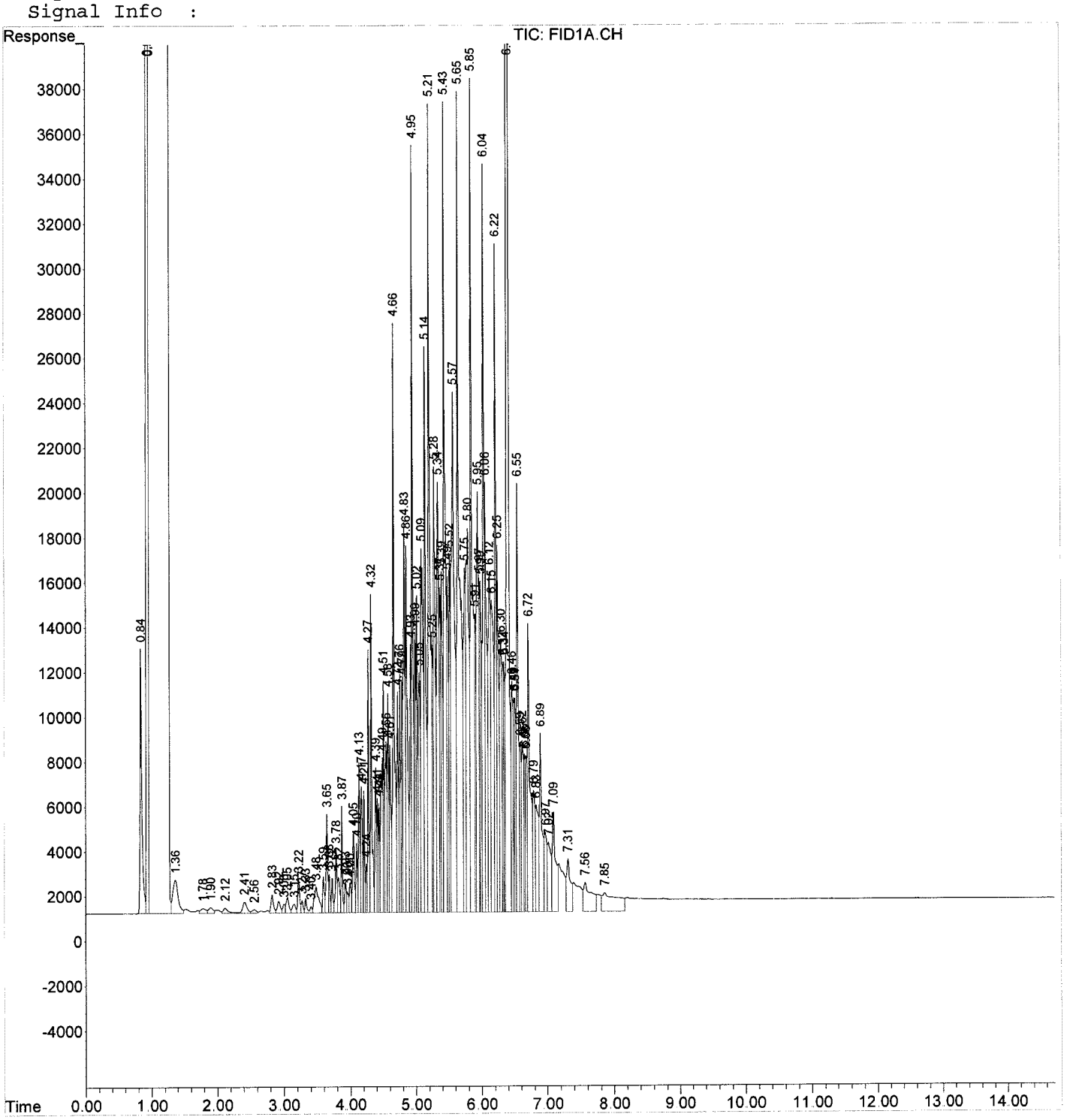
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031214.D Vial: 12
Acq On : 12 Mar 2013 4:16 pm Operator: PY
Sample : ICAL_DRO@500mg/L Inst : DRO #2
Misc : ID#A2378 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:21 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:20:56 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031216.D Vial: 13
Acq On : 12 Mar 2013 4:38 pm Operator: PY
Sample : ICAL_DRO@100mg/L Inst : DRO #2
Misc : ID#A2378 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:21:20 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:13 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.41	4757740	94.151 mg/L
Spiked Amount 1000.000	Range 50 - 131	Recovery =	9.42%#
Target Compounds			
1) H DRO	6.48	3804333	101.874 mg/L

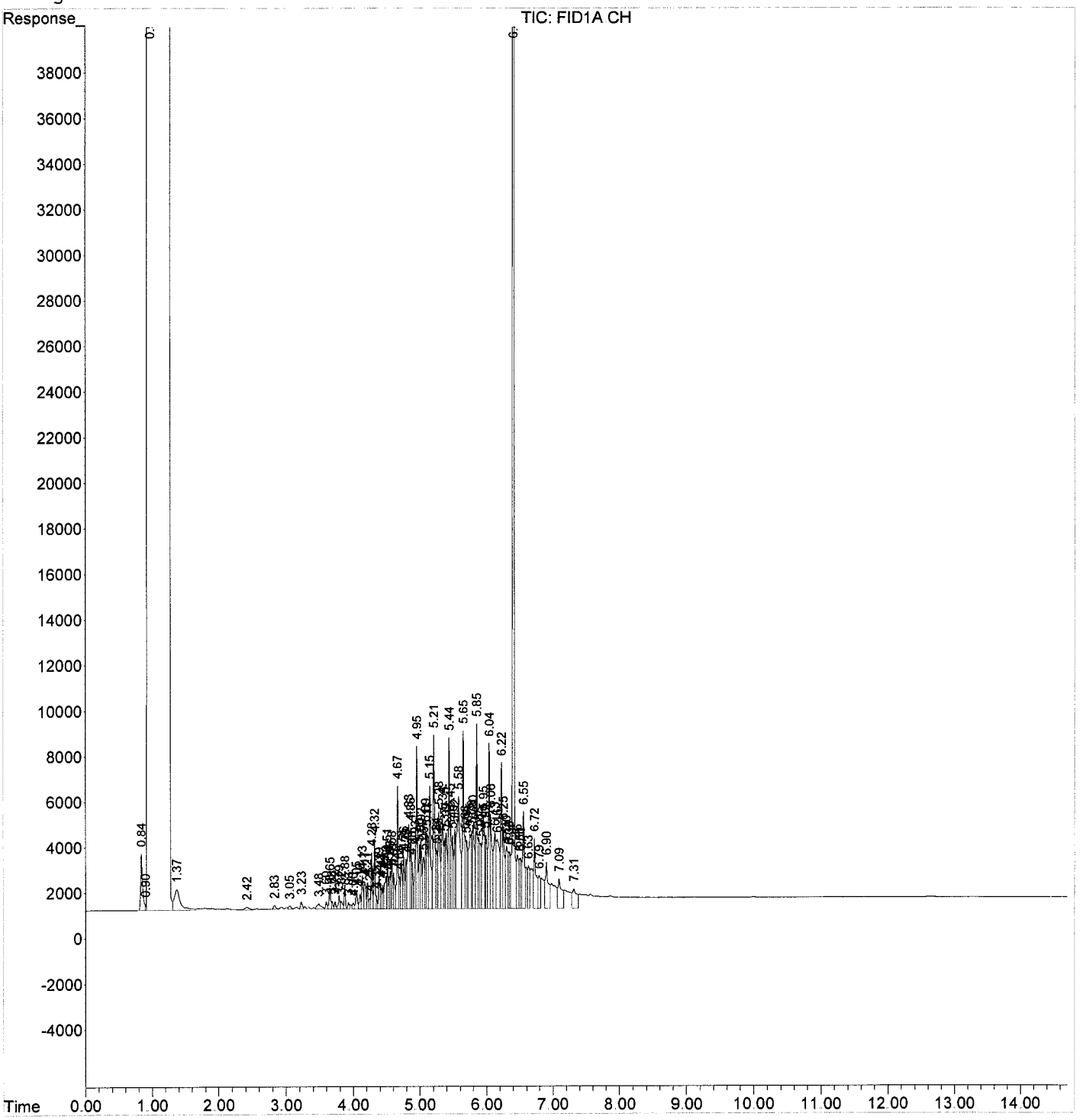
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031216.D Vial: 13
Acq On : 12 Mar 2013 4:38 pm Operator: PY
Sample : ICAL_DRO@100mg/L Inst : DRO #2
Misc : ID#A2378 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:21 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:13 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031218.D Vial: 14
Acq On : 12 Mar 2013 5:01 pm Operator: PY
Sample : ICAL_DRO@40mg/L Inst : DRO #2
Misc : ID#A2380 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:21:40 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:33 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.41	2332577	46.159 mg/L
Spiked Amount 1000.000 Range 50 - 131 Recovery = 4.62%#			
Target Compounds			
1) H DRO	6.48	1790792	47.954 mg/L

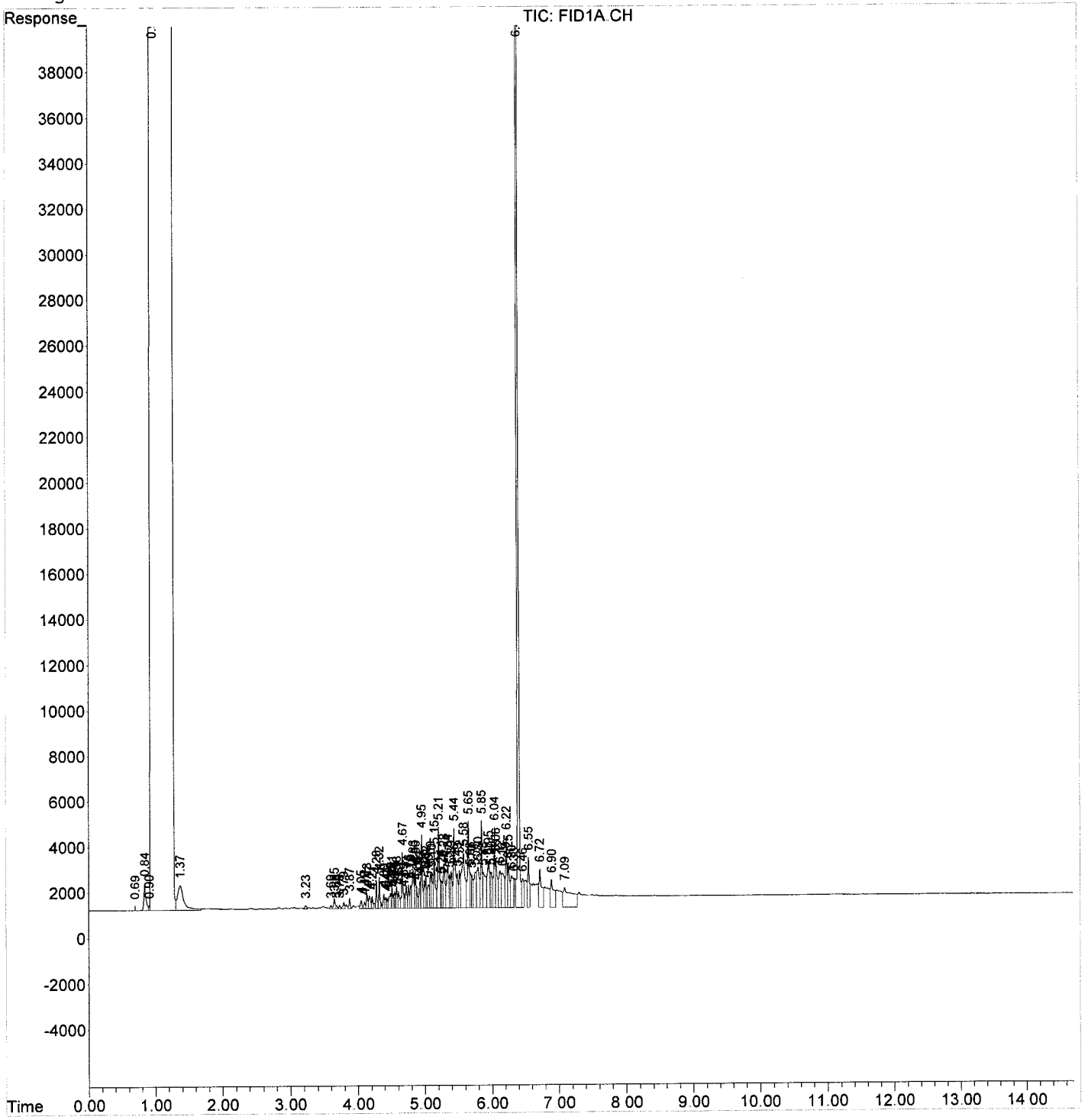
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031218.D Vial: 14
Acq On : 12 Mar 2013 5:01 pm Operator: PY
Sample : ICAL_DRO@40mg/L Inst : DRO #2
Misc : ID#A2380 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:21 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:33 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130312\13031220.D Vial: 15
Acq On : 12 Mar 2013 5:23 pm Operator: PY
Sample : ICV/CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2381 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130409\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	37.344	39.720 E3	-6.4	0#	0.00
2	S	O-Terphenyl	50.533	56.237 E3	-11.3	0#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13031220.D 130312DROFRO2.M Wed Apr 10 11:44:36 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130312\13031220.D
Acq On : 12 Mar 2013 5:23 pm
Sample : ICV/CCV_DRO@2500mg/L
Misc : ID#A2381 Ex.12/07/13
IntFile : EVENTS.E

Vial: 15
Operator: PY
Inst : DRO #2
Multiplr: 1.00

Method : P:\DRO\2\DATA\130409\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13031220.D 130312DROFRO2.M Wed Apr 10 11:44:36 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031220.D Vial: 15
Acq On : 12 Mar 2013 5:23 pm Operator: PY
Sample : ICV/CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2381 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:38:41 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.41	56237250	1112.882 mg/L m
Spiked Amount 1000.000	Range 50 - 131	Recovery = 111.29%	
Target Compounds			
1) H DRO	6.48	99300378	2659.098 mg/L

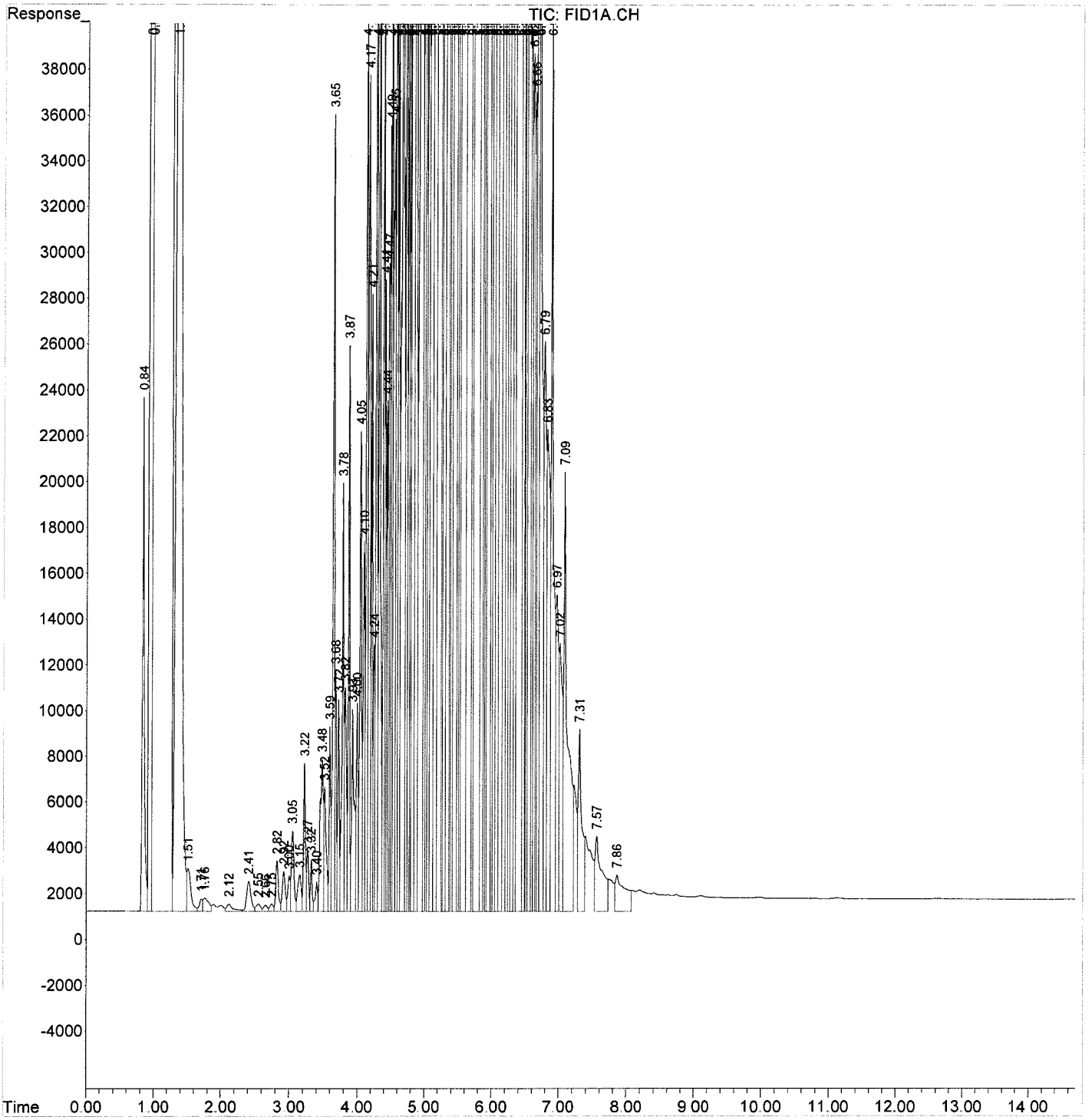
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031220.D Vial: 15
Acq On : 12 Mar 2013 5:23 pm Operator: PY
Sample : ICV/CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2381 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 17:39 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130312\13031222.D Vial: 100
Acq On : 12 Mar 2013 5:46 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2381 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130409\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	37.344	41.419 E3	-10.9	0#	0.00
2	S	O-Terphenyl	50.533	56.122 E3	-11.1	0#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13031222.D 130312DROFRO2.M Wed Apr 10 11:44:48 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130312\13031222.D Vial: 100
Acq On : 12 Mar 2013 5:46 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2381 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130409\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13031222.D 130312DROFRO2.M Wed Apr 10 11:44:48 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031222.D Vial: 100
Acq On : 12 Mar 2013 5:46 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2381 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 18:01:38 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.41	56122240	1110.606 mg/L m
Spiked Amount 1000.000 Range 50 - 131		Recovery = 111.06%	
Target Compounds			
1) H DRO	6.48	103547566	2772.830 mg/L

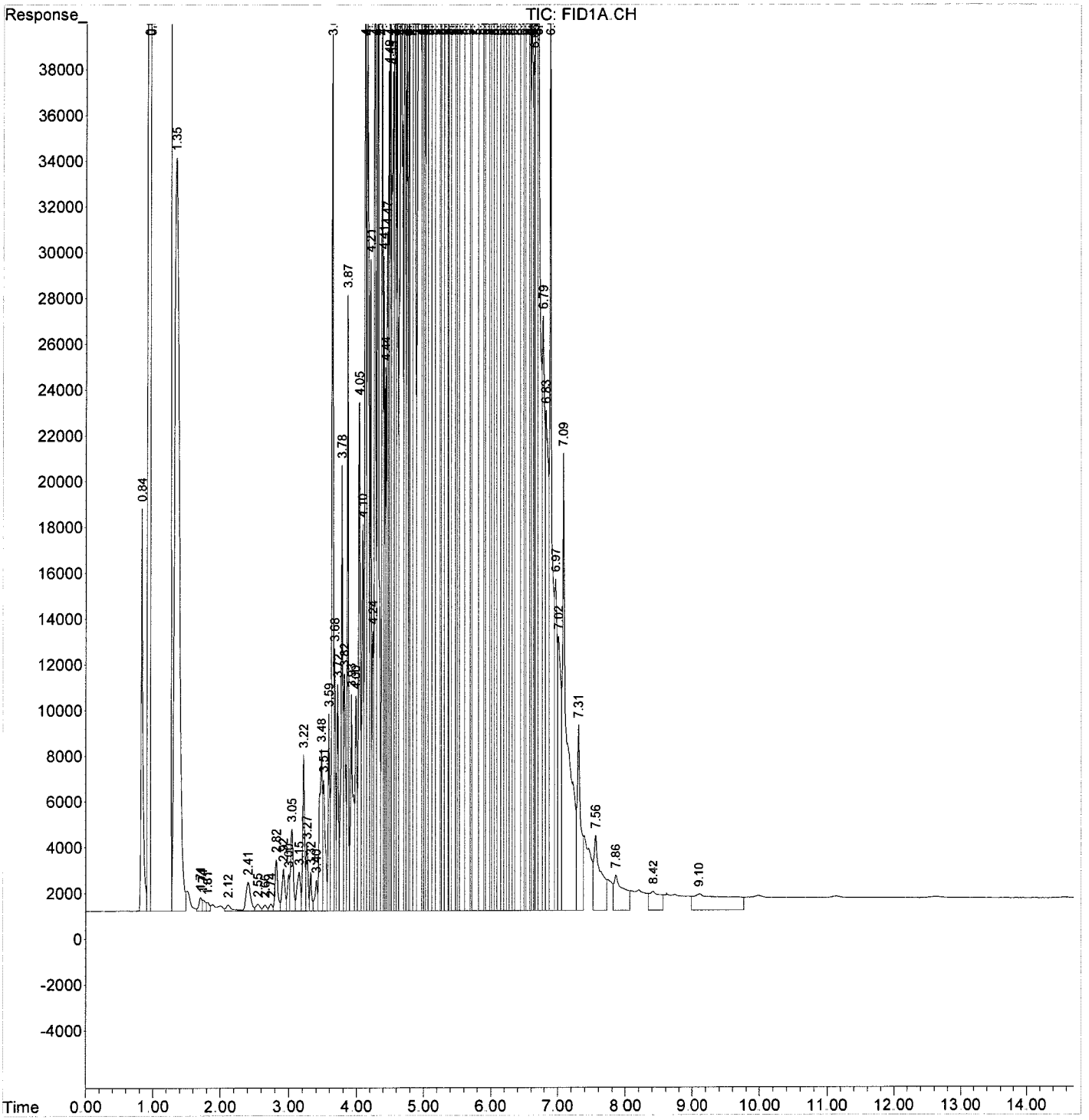
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130312\13031222.D Vial: 100
Acq On : 12 Mar 2013 5:46 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2381 Ex.12/07/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 12 18:01 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Injection Log

Directory: P:\DRO\2\DATA\130328.SEC

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1		13032801.D	1.			
2	1	13032803.D	1.	INSTRUMENT BLANK	#1337-1 MeCl2	28 Mar 2013 10:46
3	2	13032805.D	1.	Retention Time Markers	#A2359 10D	28 Mar 2013 11:08
4	3	13032807.D	1.	ICAL_DRO@10000mg/L	#A2374 Ex.12/07/13	28 Mar 2013 11:31
5	4	13032809.D	1.	ICAL_DRO@5000mg/L	#A2375 Ex.12/07/13	28 Mar 2013 11:54
6	5	13032811.D	1.	ICAL_DRO@2500mg/L	#A2376 Ex.12/07/13	28 Mar 2013 12:17
7	6	13032813.D	1.	ICAL_DRO@1000mg/L	#A2377 Ex.12/07/13	28 Mar 2013 12:39
8	7	13032815.D	1.	ICAL_DRO@500mg/L	#A2378 Ex.12/07/13	28 Mar 2013 13:02
9	8	13032817.D	1.	ICAL_DRO@100mg/L	#A2379 Ex.12/07/13	28 Mar 2013 13:25
10	9	13032819.D	1.	ICAL_DRO@40mg/L	#A2380 Ex.12/07/13	28 Mar 2013 13:48
11	10	13032821.D	1.	ICV/CCV_DRO@2500mg/L	#A2494 Ex.09/22/13	28 Mar 2013 14:11
12	99	13032823.D	1.	CCV_DRO@2500mg/L	#A2494 Ex.09/22/13	28 Mar 2013 14:34
13	14	13032825.D	1.	13032715-001	Soil#45346 30.43gr	28 Mar 2013 14:57
14	16	13032827.D	1.	13032721-004	Soil#45346 30.15gr	28 Mar 2013 15:20
15	18	13032829.D	1.	13032721-005	Soil#45346 30.21g	28 Mar 2013 15:42
16	20	13032831.D	1.	13032715-003	Soil#45346 30.46g	28 Mar 2013 16:05
17	22	13032833.D	1.	13032721-003	Soil#45346 30.19g 50D	28 Mar 2013 16:28
18	24	13032835.D	1.	13032721-002	Soil#45346 30.62g	28 Mar 2013 16:50
19	99	13032837.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13	28 Mar 2013 17:14

#105034

(105034CS)

Response Factor Report DRO #2

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013

Calibration Files
1 =13032819.D 2 =13032817.D 3 =13032815.D
4 =13032813.D 5 =13032811.D 6 =13032809.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	H	DRO	3.071	2.697	2.846	2.949	2.788	2.414	2.886 E4	11.09
2)	S	O-Terphenyl	3.467	2.822	2.920	3.191	3.145	2.989	3.089 E4	7.48

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032803.D Vial: 1
Acq On : 28 Mar 2013 10:46 am Operator: PY
Sample : INSTRUMENT BLANK Inst : DRO #2
Misc : #1337-1 MeCl2 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Mar 29 11:49:00 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S O-Terphenyl	6.69f	9291	<MDL	mg/L
Spiked Amount 1000.000	Range 50 - 131	Recovery =	0.00%#	
Target Compounds				
1) H DRO	0.00	0	N.D.	mg/L

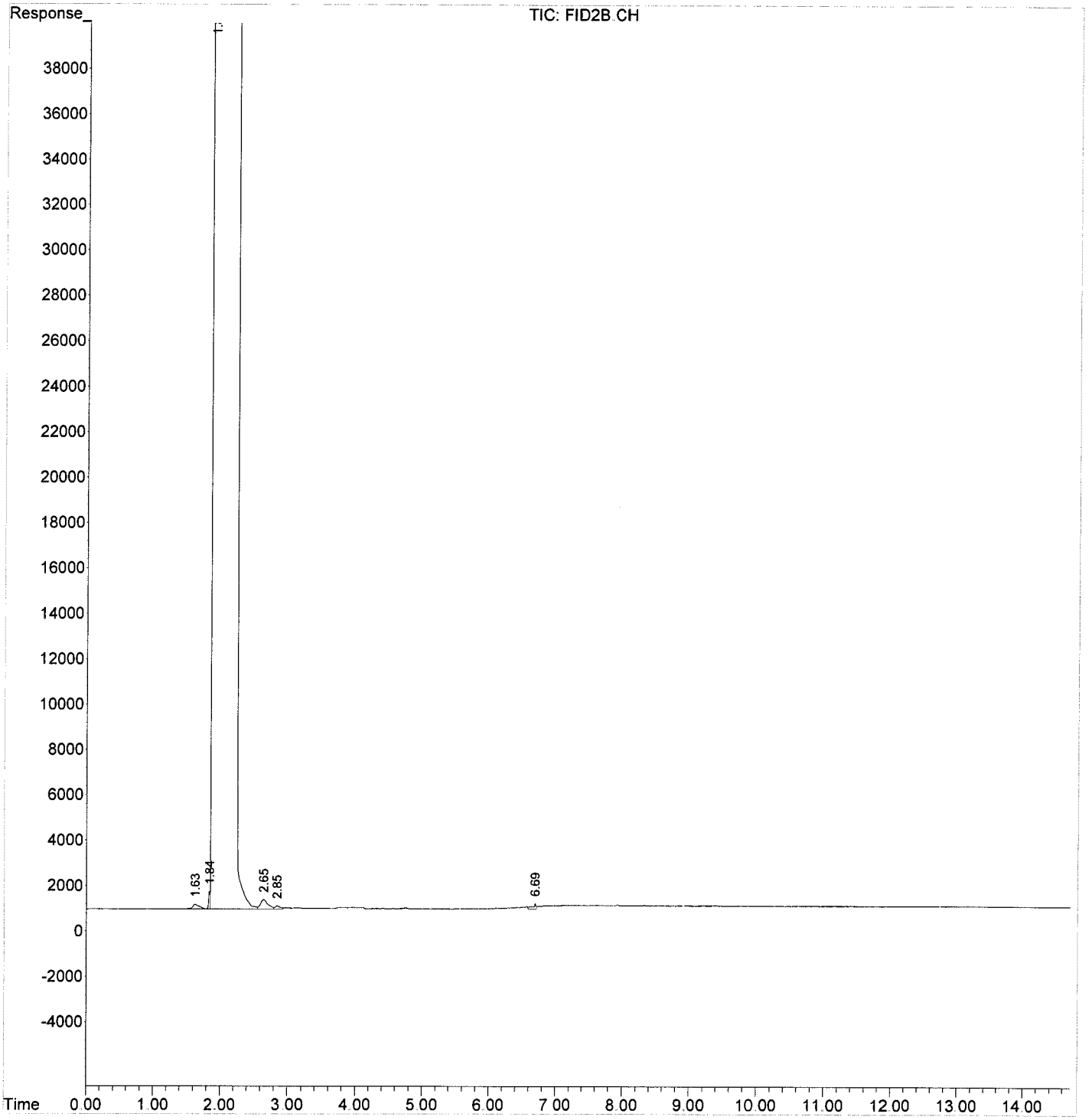
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

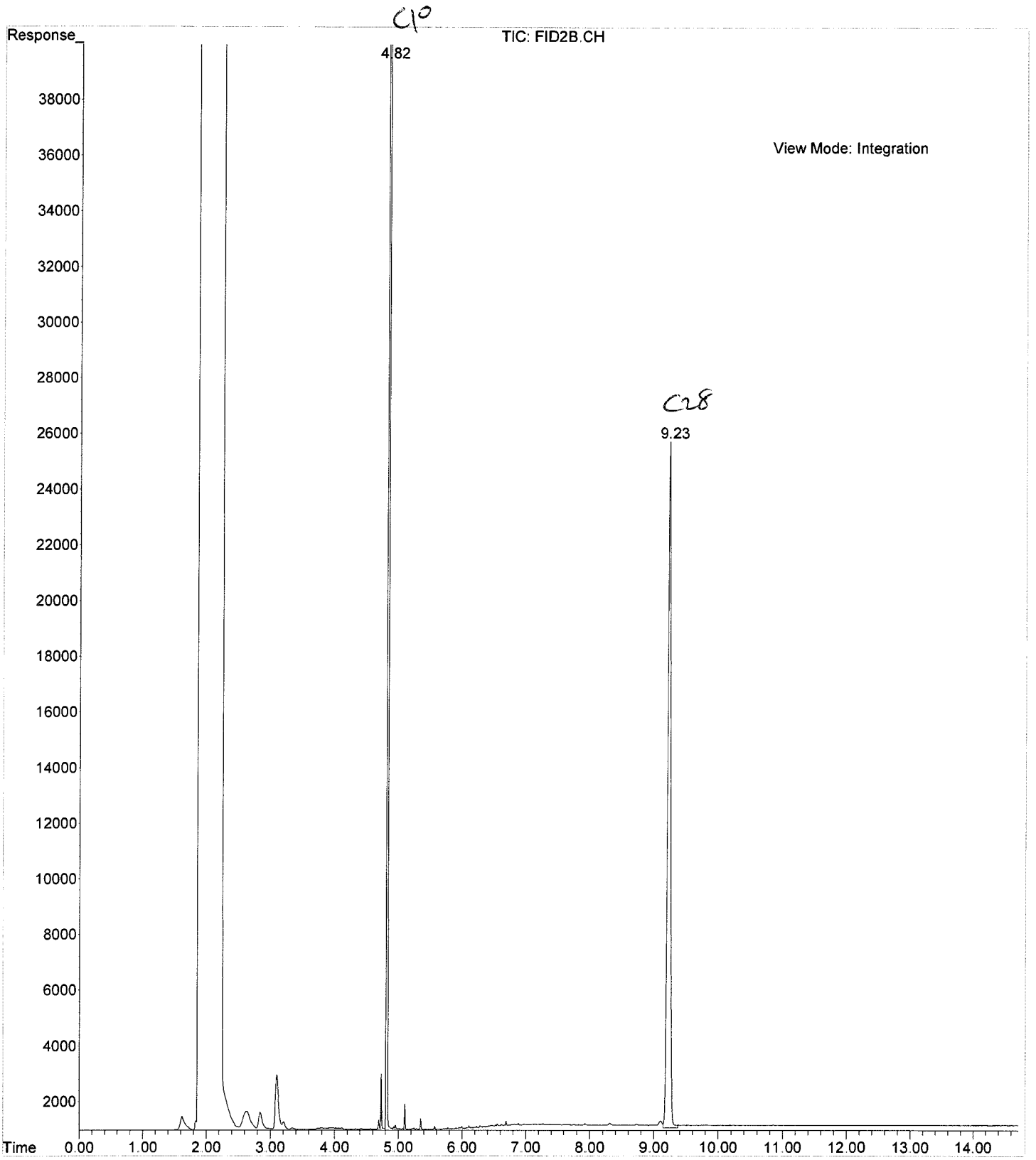
Data File : P:\DRO\2\DATA\130328.SEC\13032803.D Vial: 1
Acq On : 28 Mar 2013 10:46 am Operator: PY
Sample : INSTRUMENT BLANK Inst : DRO #2
Misc : #1337-1 MeCl2 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 11:48 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



File : P:\DRO\2\DATA\130328.SEC\13032805.D
Operator : PY
Acquired : 28 Mar 2013 11:08 am using AcqMethod C10C28MB.M
Instrument : DRO #2
Sample Name: Retention Time Markers
Misc Info : #A2359 10D
Vial Number: 2



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032807.D Vial: 3
Acq On : 28 Mar 2013 11:31 am Operator: PY
Sample : ICAL_DRO@10000mg/L Inst : DRO #2
Misc : #A2374 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 11:49:12 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 11:48:56 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.69	3580621	81.746 mg/L
Spiked Amount 1000.000 Range 50 - 150 Recovery = 8.17%#			
Target Compounds			
1) H DRO	6.80	343986849	10630.461 mg/L

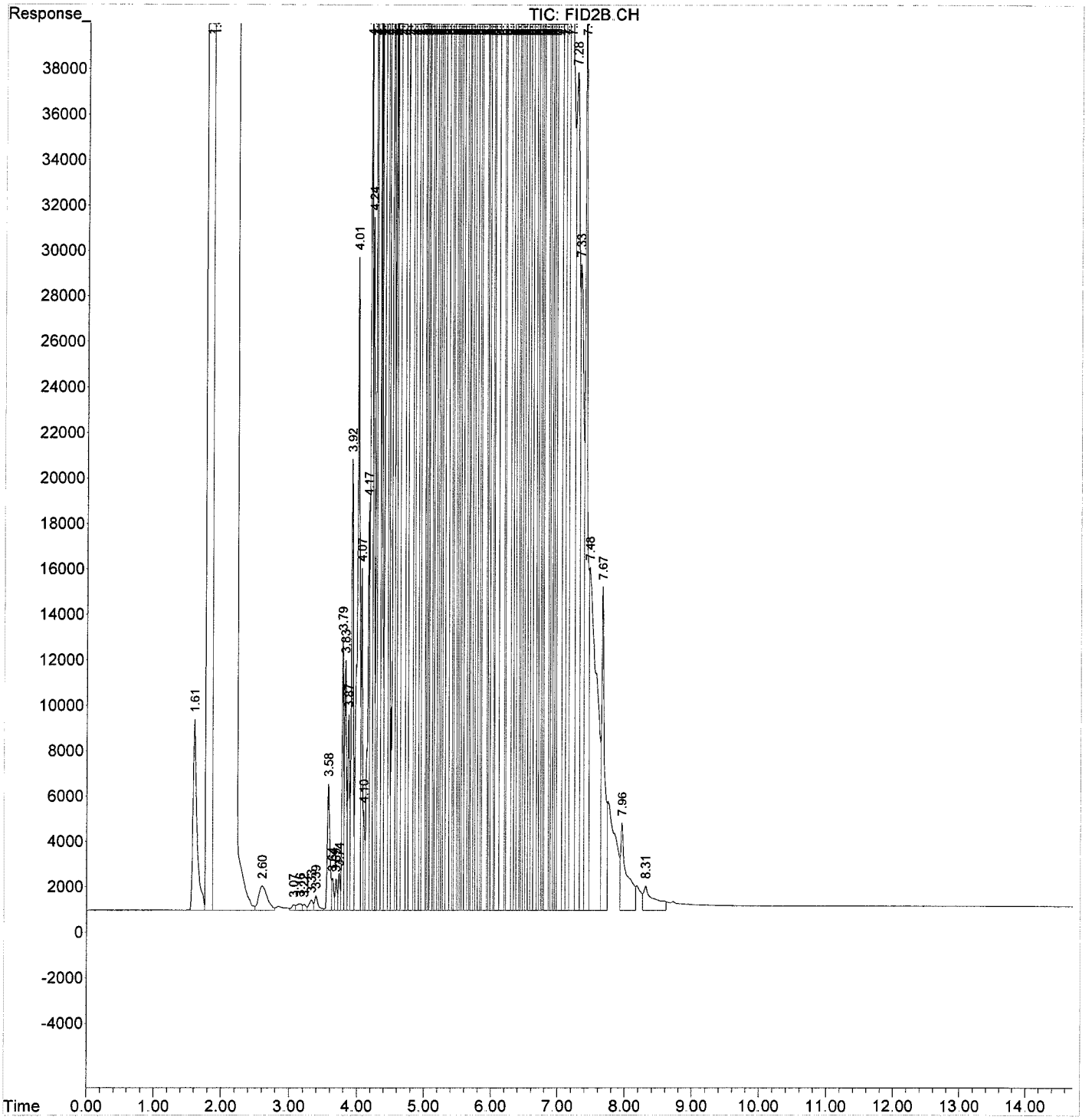
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032807.D Vial: 3
Acq On : 28 Mar 2013 11:31 am Operator: PY
Sample : ICAL_DRO@10000mg/L Inst : DRO #2
Misc : #A2374 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 11:49 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 11:48:56 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032809.D Vial: 4
Acq On : 28 Mar 2013 11:54 am Operator: PY
Sample : ICAL_DRO@5000mg/L Inst : DRO #2
Misc : #A2375 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 12:26:33 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 11:49:37 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.70	37361316	852.963 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 85.30%	
Target Compounds			
1) H DRO	6.80	120687594	3591.679 mg/L

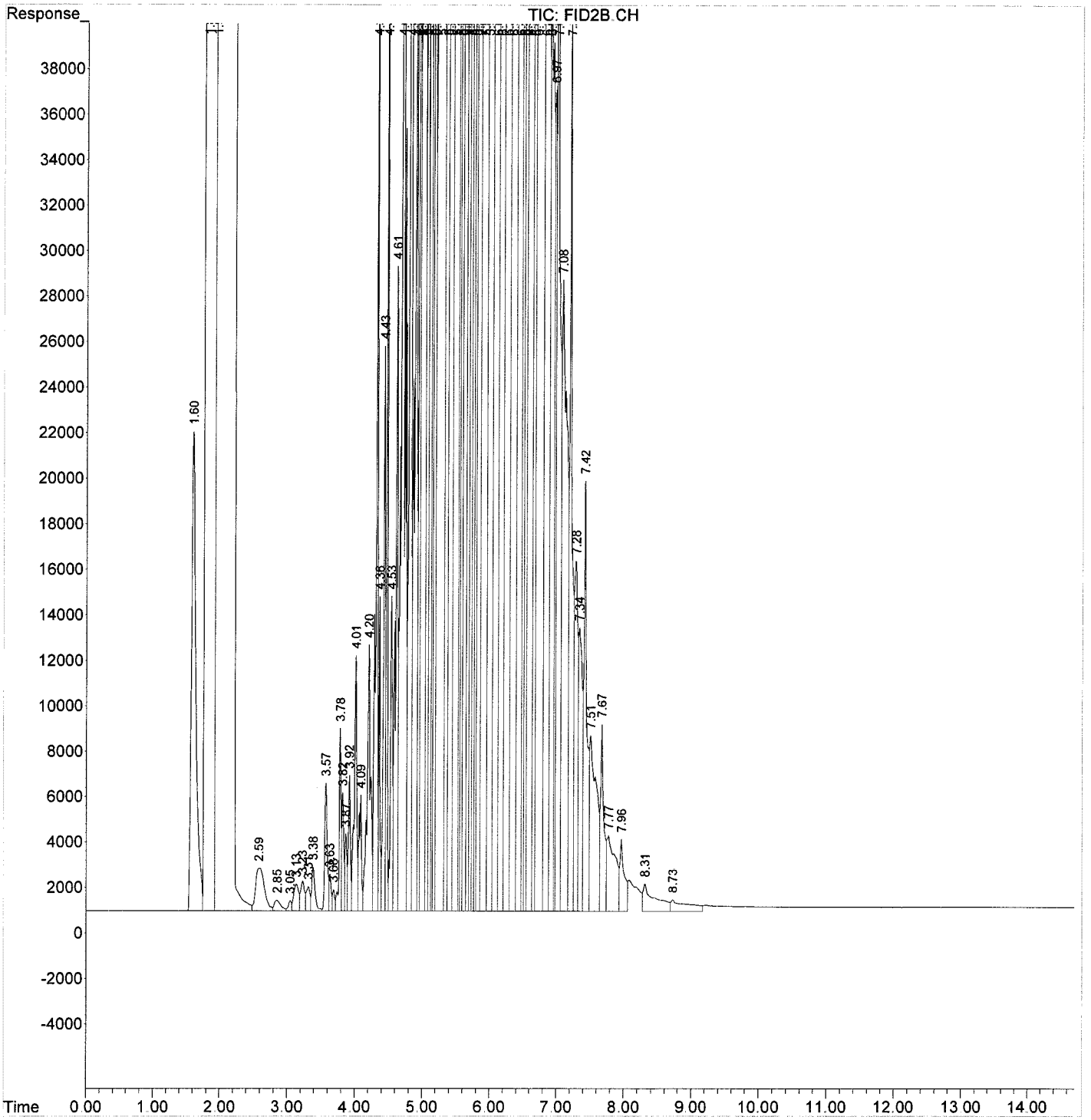
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032809.D Vial: 4
Acq On : 28 Mar 2013 11:54 am Operator: PY
Sample : ICAL_DRO@5000mg/L Inst : DRO #2
Misc : #A2375 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 12:26 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 11:49:37 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032811.D Vial: 5
Acq On : 28 Mar 2013 12:17 pm Operator: PY
Sample : ICAL_DRO@2500mg/L Inst : DRO #2
Misc : #A2376 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 09:45:41 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.70	31446444	1017.995 mg/L
Spiked Amount 1000.000 Range 50 - 150 Recovery = 101.80%			
Target Compounds			
1) H DRO	6.80	69695955	2414.776 mg/L

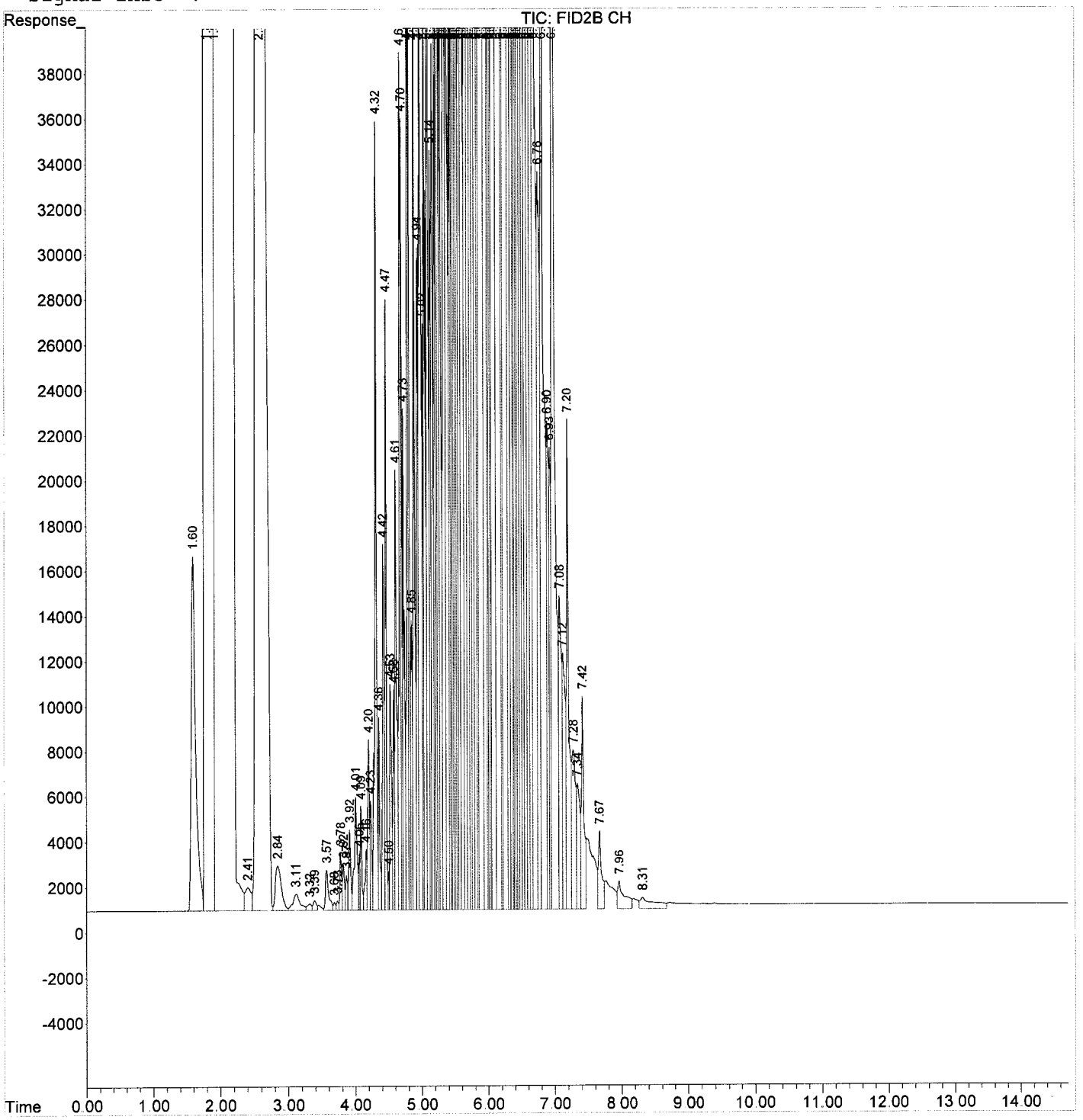
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032811.D Vial: 5
Acq On : 28 Mar 2013 12:17 pm Operator: PY
Sample : ICAL_DRO@2500mg/L Inst : DRO #2
Misc : #A2376 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 9:45 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032813.D Vial: 6
Acq On : 28 Mar 2013 12:39 pm Operator: PY
Sample : ICAL_DRO@1000mg/L Inst : DRO #2
Misc : #A2377 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 12:56:13 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 12:33:45 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.70	23934434	780.443 mg/L
Spiked Amount 1000.000 Range 50 - 150 Recovery = 78.04%			
Target Compounds			
1) H DRO	6.80	29488647	895.518 mg/L

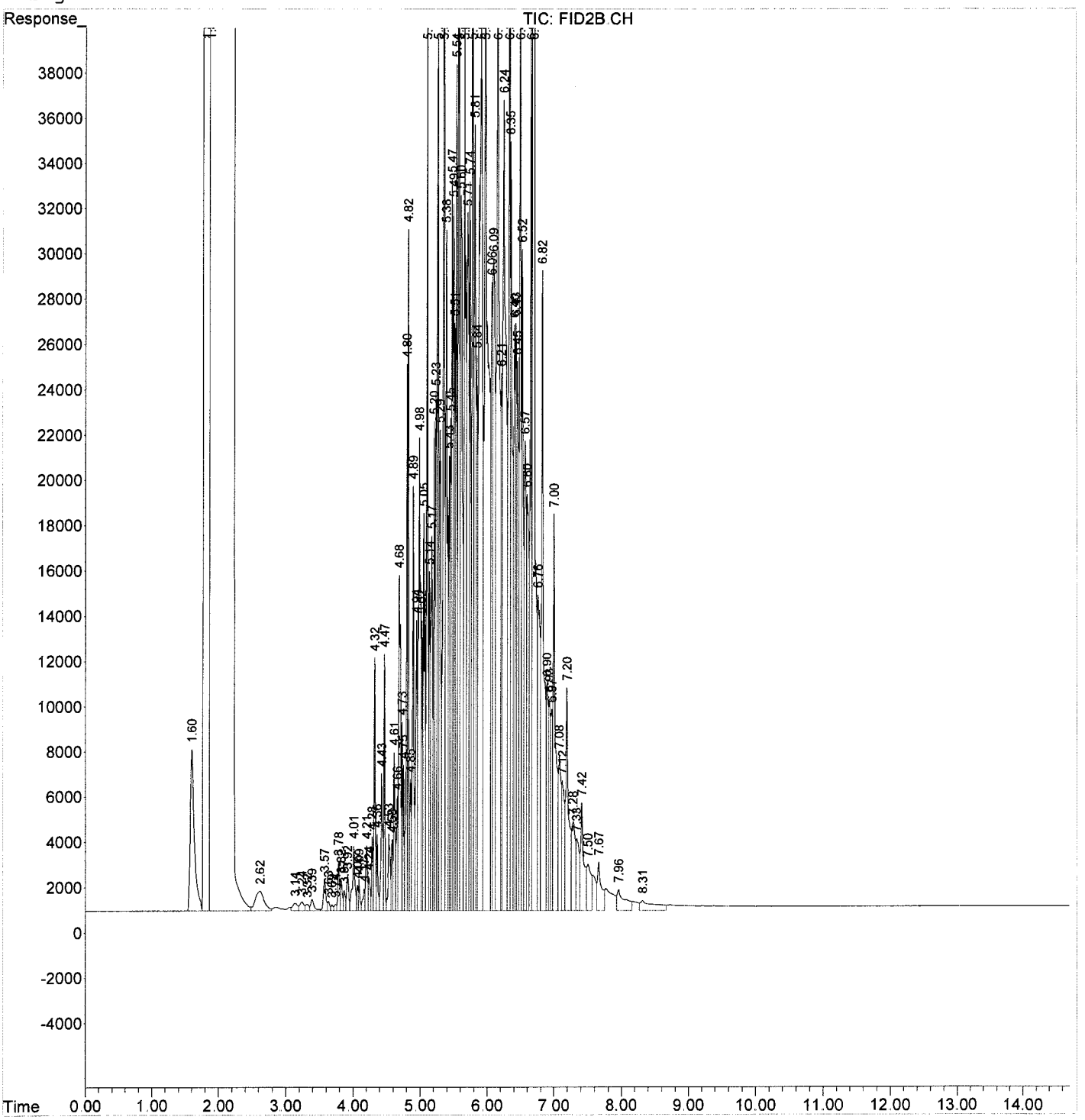
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032813.D Vial: 6
Acq On : 28 Mar 2013 12:39 pm Operator: PY
Sample : ICAL_DRO@1000mg/L Inst : DRO #2
Misc : #A2377 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 12:56 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 12:33:45 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032815.D Vial: 7
Acq On : 28 Mar 2013 1:02 pm Operator: PY
Sample : ICAL_DRO@500mg/L Inst : DRO #2
Misc : #A2378 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 13:22:27 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 12:57:01 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.69	14601491	469.763 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 46.98%#	
Target Compounds			
1) H DRO	6.80	14227995	491.030 mg/L

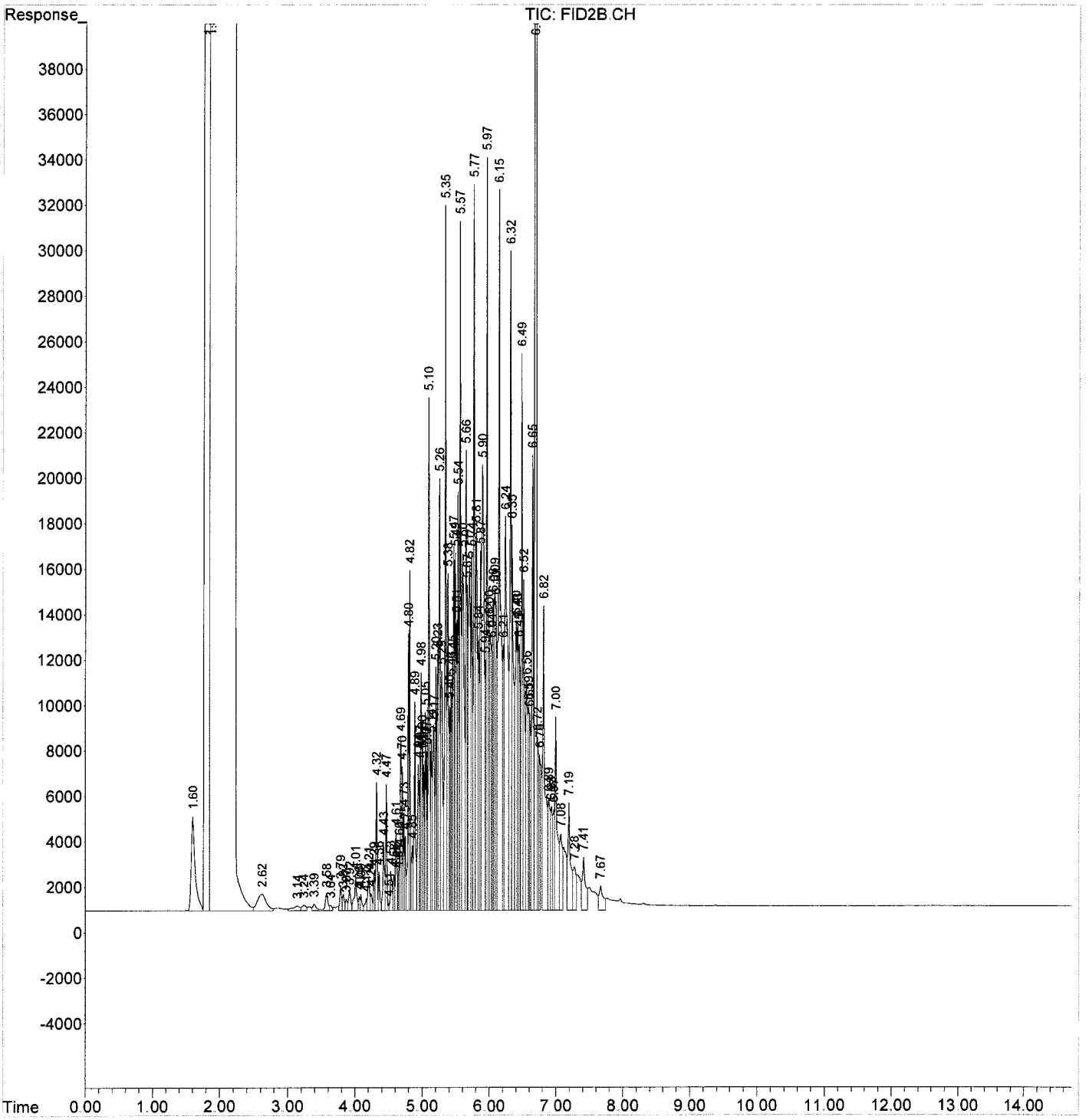
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032815.D Vial: 7
Acq On : 28 Mar 2013 1:02 pm Operator: PY
Sample : ICAL_DRO@500mg/L Inst : DRO #2
Misc : #A2378 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 13:22 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 12:57:01 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032817.D Vial: 8
Acq On : 28 Mar 2013 1:25 pm Operator: PY
Sample : ICAL_DRO@100mg/L Inst : DRO #2
Misc : #A2379 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 13:41:52 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 13:22:42 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.69	2821800	92.177 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery =	9.22%#
Target Compounds			
1) H DRO	6.80	2696768	93.405 mg/L

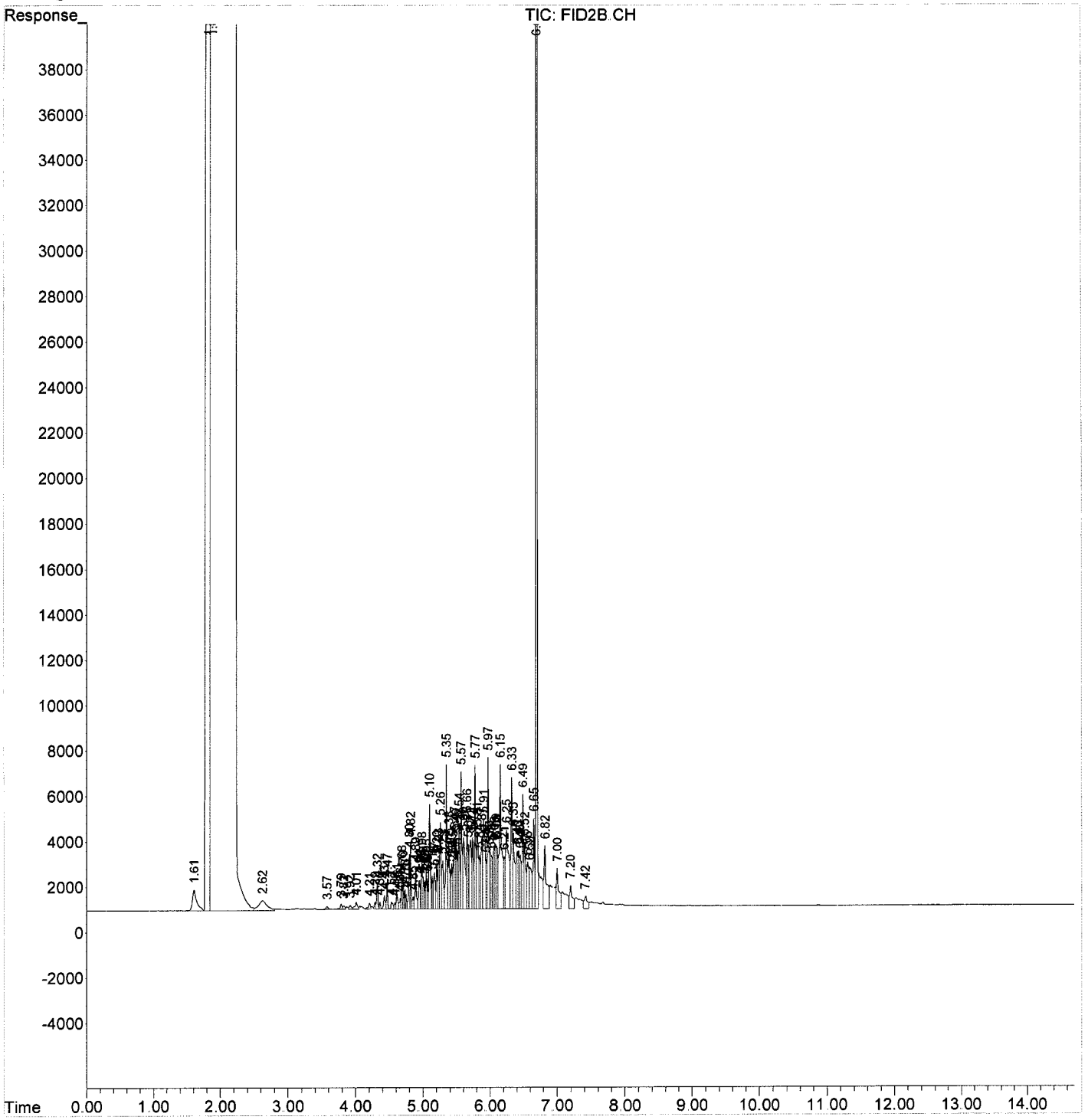
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032817.D Vial: 8
Acq On : 28 Mar 2013 1:25 pm Operator: PY
Sample : ICAL_DRO@100mg/L Inst : DRO #2
Misc : #A2379 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 13:41 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 13:22:42 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032819.D Vial: 9
Acq On : 28 Mar 2013 1:48 pm Operator: PY
Sample : ICAL_DRO@40mg/L Inst : DRO #2
Misc : #A2380 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 14:04:44 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 13:42:04 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.69	1386970	46.027 mg/L
Spiked Amount 1000.000 Range 50 - 150 Recovery = 4.60%#			
Target Compounds			
1) H DRO	6.80	1228364	43.018 mg/L

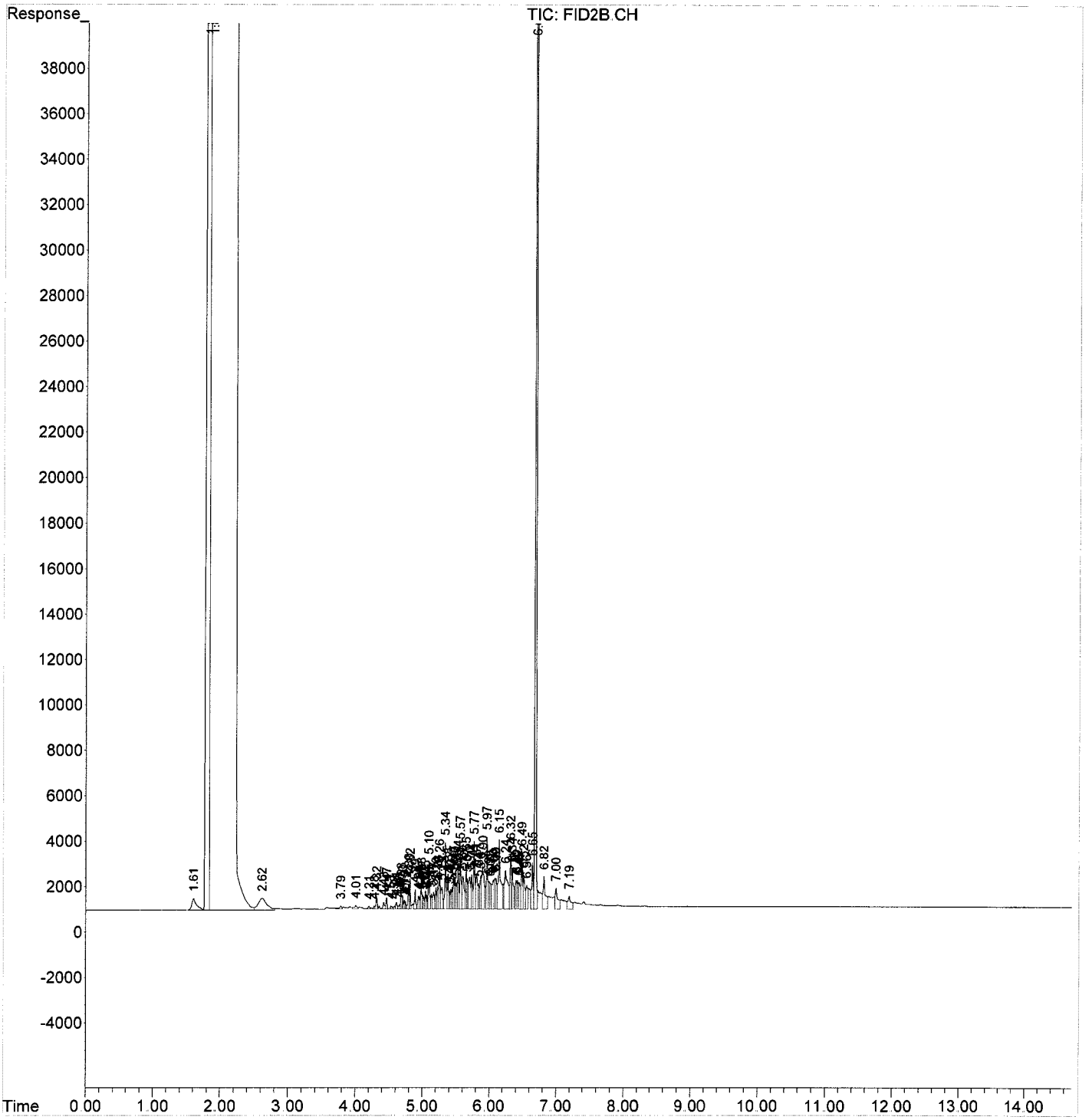
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032819.D Vial: 9
Acq On : 28 Mar 2013 1:48 pm Operator: PY
Sample : ICAL_DRO@40mg/L Inst : DRO #2
Misc : #A2380 Ex.12/07/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 14:04 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 13:42:04 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130328.SEC\13032821.D Vial: 10
Acq On : 28 Mar 2013 2:11 pm Operator: PY
Sample : ICV/CCV_DRO@2500mg/L Inst : DRO #2
Misc : #A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	28.862	28.417 E3	1.5	0#	0.00
2	S	O-Terphenyl	30.891	34.216 E3	-10.8	0#	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13032821.D 130328DROBCK2.M Wed Apr 10 11:32:23 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130328.SEC\13032821.D Vial: 10
Acq On : 28 Mar 2013 2:11 pm Operator: PY
Sample : ICV/CCV_DRO@2500mg/L Inst : DRO #2
Misc : #A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032821.D Vial: 10
Acq On : 28 Mar 2013 2:11 pm Operator: PY
Sample : ICV/CCV_DRO@2500mg/L Inst : DRO #2
Misc : #A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 14:27:35 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.69	34215699	1107.643 mg/L
Spiked Amount 1000.000 Range 50 - 150 Recovery = 110.76%			
Target Compounds			
1) H DRO	6.80	71042150	2461.418 mg/L

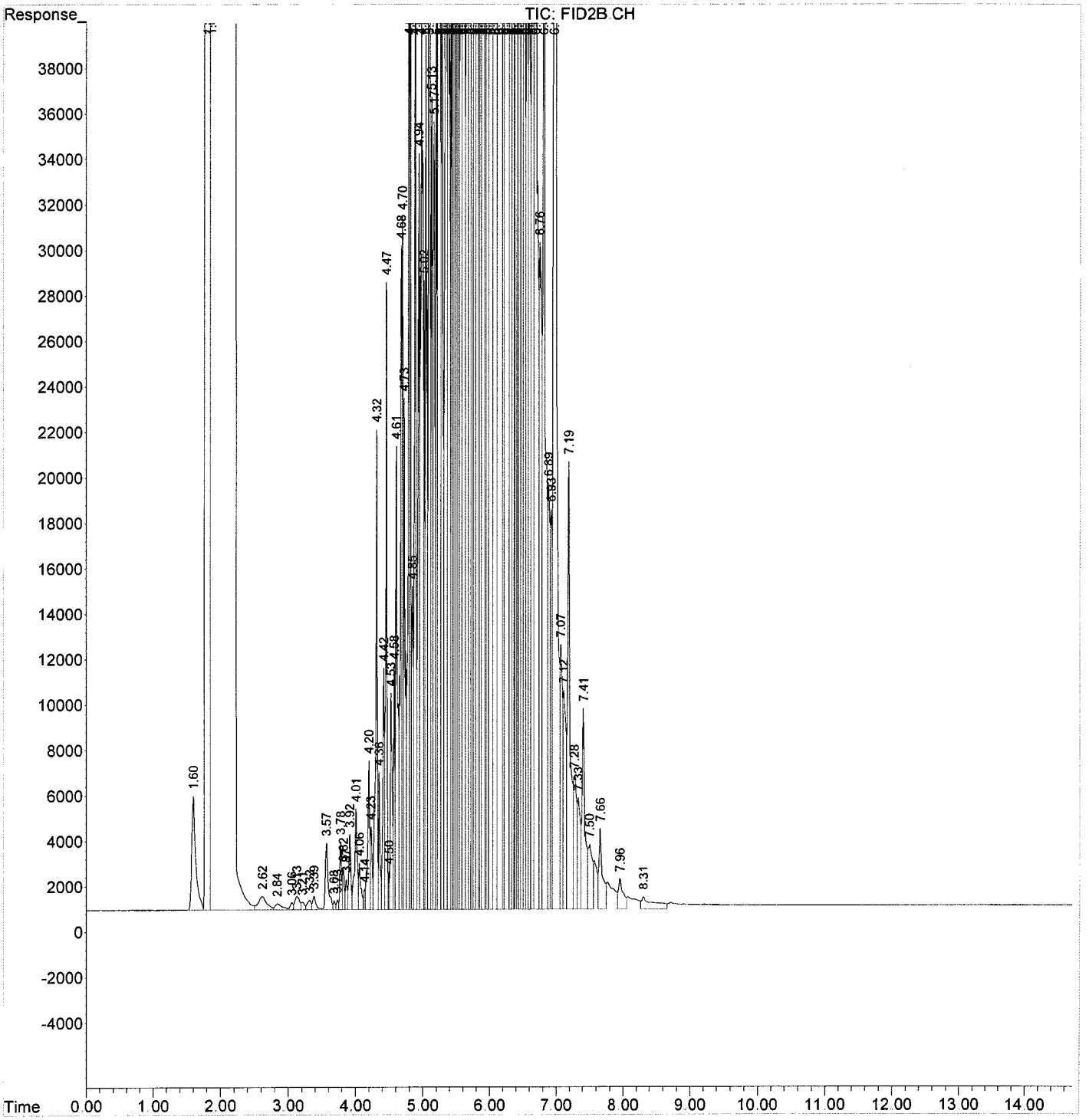
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032821.D Vial: 10
Acq On : 28 Mar 2013 2:11 pm Operator: PY
Sample : ICV/CCV_DRO@2500mg/L Inst : DRO #2
Misc : #A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 14:27 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130328.SEC\13032823.D Vial: 99
Acq On : 28 Mar 2013 2:34 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : #A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	28.862	27.724 E3	3.9	0#	0.00
2	S	O-Terphenyl	30.891	33.267 E3	-7.7	0#	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13032823.D 130328DROBCK2.M Wed Apr 10 11:32:16 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130328.SEC\13032823.D Vial: 99
Acq On : 28 Mar 2013 2:34 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : #A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13032823.D 130328DROBCK2.M Wed Apr 10 11:32:16 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032823.D Vial: 99
Acq On : 28 Mar 2013 2:34 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : #A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 14:50:11 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.69	33267159	1076.936 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 107.69%	
Target Compounds			
1) H DRO	6.80	69309258	2401.378 mg/L

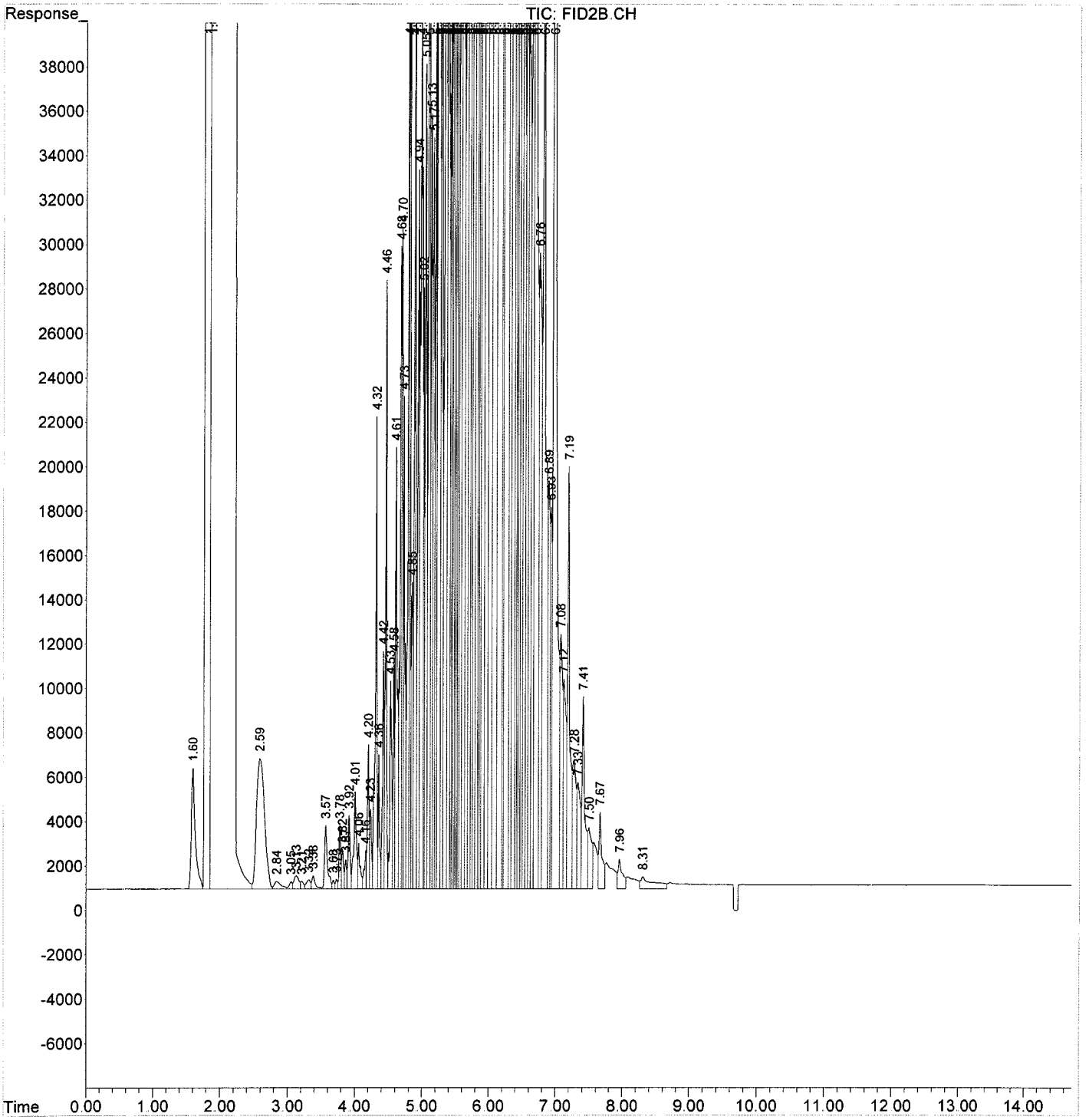
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130328.SEC\13032823.D Vial: 99
Acq On : 28 Mar 2013 2:34 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : #A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 28 14:49 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Instrument QC Recovery

Project Name: Yakona Rd

Work Order #: 13040516 **Project ID:** 4184

Lab Batch ID: 105246 **Date Prepared:** 04/08/2013 **Sample:** CCV-F4 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2470	2500	99	80-120	

Lab Batch ID: 105246 **Date Prepared:** 04/08/2013 **Sample:** CCV-F5 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2470	2500	99	80-120	

Lab Batch ID: 105246 **Date Prepared:** 04/09/2013 **Sample:** CCV-F6 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/09/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2180	2500	87	80-120	

Lab Batch ID: 105246 **Date Prepared:** 04/08/2013 **Sample:** CCV-R4 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2520	2500	101	80-120	

Recovery [C] = 100*[A]/[B]

H = Recovery of CCV exceeded the laboratory control limits
L = Recovery of CCV below the laboratory control limits

Version: 1.024

Instrument QC Recovery

Project Name: Yakona Rd

Work Order #: 13040516 **Project ID:** 4184

Lab Batch ID: 105246 **Date Prepared:** 04/08/2013 **Sample:** CCV-R5 **Analyst:** 1040

Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2530	2500	101	80-120	

Lab Batch ID: 105246 **Date Prepared:** 04/09/2013 **Sample:** CCV-R6 **Analyst:** 1040

Reporting Units: mg/L **Date Analyzed:** 04/09/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2560	2500	102	80-120	

Recovery [C] = 100*[A]/[B]

H = Recovery of CCV exceeded the laboratory control limits
L = Recovery of CCV below the laboratory control limits

Version: 1 024

Instrument QC Recovery

Project Name: Yakona Rd

Work Order #: 13040516 **Project ID:** 4184

Lab Batch ID: 105208 **Date Prepared:** 04/08/2013 **Sample:** CCV-F3 **Analyst:** 1040

Reporting Units: mg/kg **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Solid

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2430	2500	97	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/08/2013 **Sample:** CCV-R3 **Analyst:** 1040

Reporting Units: mg/kg **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Solid

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2510	2500	100	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/09/2013 **Sample:** CCV-F1 **Analyst:** 1040

Reporting Units: mg/L **Date Analyzed:** 04/09/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2240	2500	90	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/08/2013 **Sample:** CCV-F1 **Analyst:** 1040

Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2490	2500	100	80-120	

Recovery [C] = 100*[A]/[B]

H = Recovery of CCV exceeded the laboratory control limits
L = Recovery of CCV below the laboratory control limits

Version: 1.025

Instrument QC Recovery

Project Name: Yakona Rd

Work Order #: 13040516 **Project ID:** 4184

Lab Batch ID: 105208 **Date Prepared:** 04/08/2013 **Sample:** CCV-F2 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2490	2500	100	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/09/2013 **Sample:** CCV-F2 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/09/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2300	2500	92	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/08/2013 **Sample:** CCV-F4 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2470	2500	99	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/09/2013 **Sample:** CCV-F6 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/09/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2180	2500	87	80-120	

Recovery [C] = 100*[A]/[B]

H = Recovery of CCV exceeded the laboratory control limits
L = Recovery of CCV below the laboratory control limits

Version: 1.025

Instrument QC Recovery

Project Name: Yakona Rd

Work Order #: 13040516 **Project ID:** 4184

Lab Batch ID: 105208 **Date Prepared:** 04/09/2013 **Sample:** CCV-F7 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/09/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2360	2500	94	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/08/2013 **Sample:** CCV-R1 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2320	2500	93	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/08/2013 **Sample:** CCV-R2 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2540	2500	102	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/08/2013 **Sample:** CCV-R4 **Analyst:** 1040
Reporting Units: mg/L **Date Analyzed:** 04/08/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2520	2500	101	80-120	

Recovery [C] = 100*[A]/[B]

H = Recovery of CCV exceeded the laboratory control limits
L = Recovery of CCV below the laboratory control limits

Version: 1 025

Instrument QC Recovery

Project Name: Yakona Rd

Work Order #: 13040516 **Project ID:** 4184

Lab Batch ID: 105208 **Date Prepared:** 04/09/2013 **Sample:** CCV-R6 **Analyst:** 1040

Reporting Units: mg/L **Date Analyzed:** 04/09/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2560	2500	102	80-120	

Lab Batch ID: 105208 **Date Prepared:** 04/09/2013 **Sample:** CCV-R7 **Analyst:** 1040

Reporting Units: mg/L **Date Analyzed:** 04/09/2013 **Method:** SW8015DRO **Matrix:** Water

Total Petroleum Hydrocarbons - DRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-DRO (Diesel Range Organics)	2540	2500	102	80-120	

Recovery [C] = 100*[A]/[B]

H = Recovery of CCV exceeded the laboratory control limits
L = Recovery of CCV below the laboratory control limits

Version: 1.025

Injection Log

Directory: P:\DRO\2\DATA\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info			Injected
1		13040802.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13			8 Apr 2013 08:50
2	2	13040804.D	1.	13040319-001MS	Soil#45447	31.00g		8 Apr 2013 09:12
3	4	13040806.D	1.	13040319-001MSD	Soil#45447	29.17g		8 Apr 2013 09:34
4	6	13040808.D	1.	13040319-001	Soil#45447	29.89g		8 Apr 2013 09:56
5	8	13040810.D	1.	13040319-002	Soil#45447	29.31g		8 Apr 2013 10:19
6	10	13040812.D	1.	13040215-002	Soil#45447	29.65g	20D	8 Apr 2013 10:41
7	12	13040814.D	1.	13040215-004	Soil#45447	29.62g	10D	8 Apr 2013 11:03
8	14	13040816.D	1.	13040215-006	Soil#45447	29.76g		8 Apr 2013 11:25
9	16	13040818.D	1.	13040215-001	Soil#45447	29.71g	20D	8 Apr 2013 11:47
10	17	13040820.D	1.	13040415-001	Soil#45447	29.71g	10D	8 Apr 2013 12:09
11	22	13040822.D	1.	13040407-001	Soil#45447	29.66g	200D	8 Apr 2013 12:31
12	17	13040824.D	1.	13040415-001	Soil#45447	29.71g	200D	8 Apr 2013 12:54
13	97	13040826.D	1.	Diesel Fuel#4	1000mg/L			8 Apr 2013 13:16
14	100	13040828.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13			8 Apr 2013 13:50
15	19	13040830.D	1.	13040510-001	Soil#45447	31.13g	20D	8 Apr 2013 14:12
16	20	13040832.D	1.	13040419-003	Soil#45447	30.76g	100D	8 Apr 2013 14:35
17	21	13040834.D	1.	13040419-004	Soil#45447	31.23g	100D	8 Apr 2013 14:57
18	24	13040836.D	1.	45470-1-BKS	Soil#45470	30.11g		8 Apr 2013 15:19
19	26	13040838.D	1.	45470-1-BSD	Soil#45470	30.13g		8 Apr 2013 15:42
20	28	13040840.D	1.	45470-1-BLK Re-inject	Soil#45470	30.02g		8 Apr 2013 16:04
21	32	13040842.D	1.	13040516-005	Soil#45470	30.14g		8 Apr 2013 16:26
22	100	13040844.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13			8 Apr 2013 16:49
23	33	13040846.D	1.	13040522-001	Soil#45470	30.04g		8 Apr 2013 17:11
24	98	13040848.D	1.	13040516-003	Soil#45470	30.23g		8 Apr 2013 17:33
25	34	13040850.D	1.	13040522-002	Soil#45470	30.31g		8 Apr 2013 17:56
26	36	13040852.D	1.	13040522-004	Soil#45470	30.24g		8 Apr 2013 18:18
27	38	13040854.D	1.	13040522-006	Soil#45470	30.34g		8 Apr 2013 18:40
28	32	13040856.D	1.	13040516-005	Soil#45470	30.14g		8 Apr 2013 19:02
29	100	13040858.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13			8 Apr 2013 19:24

105208(S), 105246(W)

Injection Log

Directory: P:\DRO\2\DATA\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
30	41	13040860.D	1.	13040516-007MS	#45471 500mg/L	8 Apr 2013 19:46
31	43	13040862.D	1.	13040516-007MSD	#45471 500mg/L	8 Apr 2013 20:08
32	45	13040864.D	1.	13040516-007	#45471 800mg/L	8 Apr 2013 20:31
33	47	13040866.D	1.	13040516-008	#45471 950mg/L	8 Apr 2013 20:53
34	49	13040868.D	1.	13040516-010	#45471 1000mg/L	8 Apr 2013 21:15
35	51	13040870.D	1.	13040406-001	#45471 750mg/L	8 Apr 2013 21:37
36	100	13040872.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13	8 Apr 2013 21:59
37	53	13040874.D	1.	13040509-001	#45471 1000mg/L	8 Apr 2013 22:21
38	55	13040876.D	1.	13040509-002	#45471 1000mg/L	8 Apr 2013 22:44
39	57	13040878.D	1.	13040509-003	#45471 1000mg/L	8 Apr 2013 23:06
40	59	13040880.D	1.	13040509-005	#45471 1000mg/L	8 Apr 2013 23:28
41	61	13040882.D	1.	13040509-007	#45471 1000mg/L	8 Apr 2013 23:50
42	63	13040884.D	1.	13040509-009	#45471 1000mg/L	9 Apr 2013 00:13
43	65	13040886.D	1.	ok 13040509-011 very low surr. recovery	#45471 1000mg/L	9 Apr 2013 00:35
44	100	13040888.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13	9 Apr 2013 00:57
45	67	13040890.D	1.	13040519-001MS	Soil#45485 29.54g	9 Apr 2013 01:20
46	69	13040892.D	1.	13040519-001MSD	Soil#45485 30.81g	9 Apr 2013 01:42
47	71	13040894.D	1.	13040519-001 need dilution	Soil#45485 30.72g	9 Apr 2013 02:04
48	73	13040896.D	1.	13040519-003	Soil#45485 29.71g	9 Apr 2013 02:26
49	75	13040898.D	1.	13040524-001 need dilution	Soil#45485 31.78g	9 Apr 2013 02:49
50	77	13040900.D	1.	13040524-003	Soil#45485 30.32g	9 Apr 2013 03:11
51	79	13040902.D	1.	13040529-001	Soil#45485 29.76g	9 Apr 2013 03:34
52	100	13040904.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13	9 Apr 2013 03:56
53	100	13040906.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13	9 Apr 2013 04:18

Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408\13040828.D Vial: 100
Acq On : 8 Apr 2013 1:50 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	37.344	37.139 E3	0.5	0#	0.00
2	S	O-Terphenyl	50.533	53.111 E3	-5.1	0#	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040828.D 130312DROFRO2.M Wed Apr 10 11:19:19 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408\13040828.D Vial: 100
Acq On : 8 Apr 2013 1:50 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Response Factor Report DRO #2

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013

Calibration Files
1 =13031218.D 2 =13031216.D 3 =13031214.D
4 =13031212.D 5 =13031210.D 6 =13031208.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	H	DRO	4.477	3.804	3.659	3.754	3.821	3.377	3.734	E4	10.57
2)	S	O-Terphenyl	5.831	4.758	4.631	4.857	5.338	4.905	5.053	E4	8.90

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040828.D Vial: 100
Acq On : 8 Apr 2013 1:50 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 08 14:06:06 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	53110689	1051.010 mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery = 105.10%	
Target Compounds			
1) H DRO	6.48	92848633	2486.331 mg/L

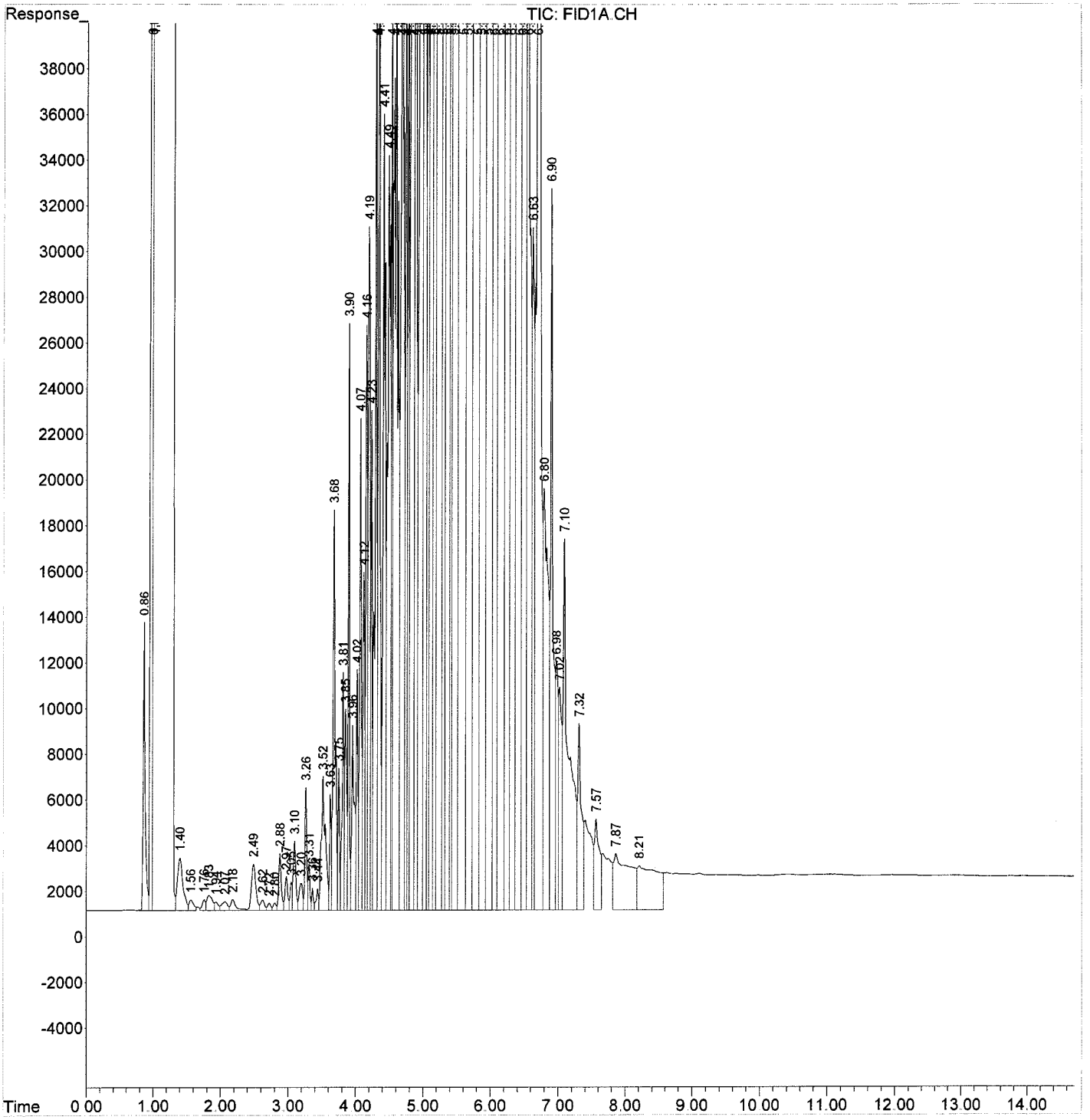
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040828.D Vial: 100
Acq On : 8 Apr 2013 1:50 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 8 14:05 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408\13040844.D Vial: 100
Acq On : 8 Apr 2013 4:49 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	37.344	36.312 E3	2.8	0#	0.00
2	S	O-Terphenyl	50.533	52.354 E3	-3.6	0#	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040844.D 130312DROFRO2.M Wed Apr 10 11:19:36 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408\13040844.D Vial: 100
Acq On : 8 Apr 2013 4:49 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040844.D Vial: 100
Acq On : 8 Apr 2013 4:49 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 08 17:05:34 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	52354374	1036.044 mg/L
Spiked Amount 1000.000 Range 50 - 131 Recovery = 103.60%			
Target Compounds			
1) H DRO	6.48	90779655	2430.927 mg/L

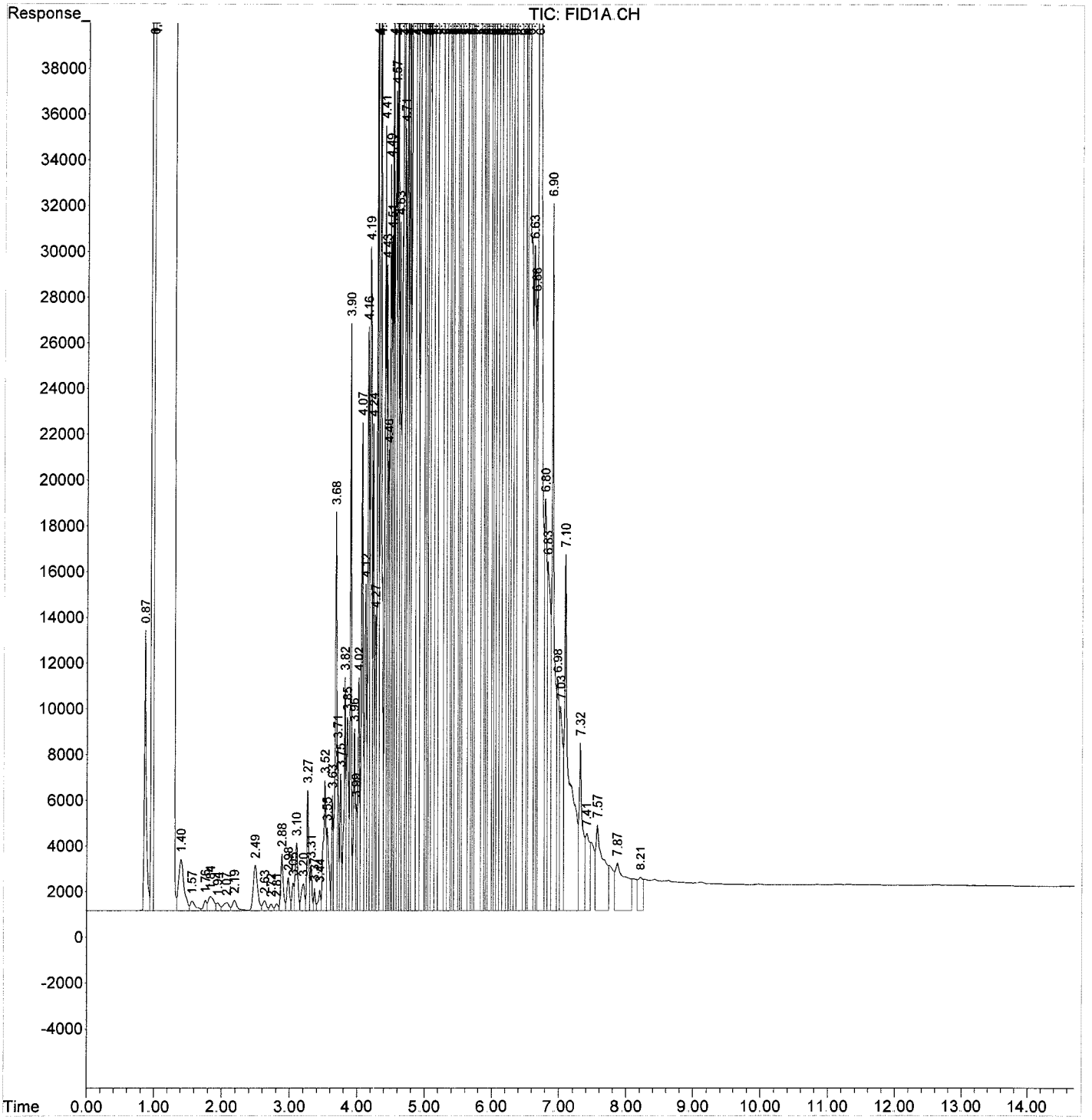
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040844.D Vial: 100
Acq On : 8 Apr 2013 4:49 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 8 17:05 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408\13040858.D Vial: 100
Acq On : 8 Apr 2013 7:24 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	37.344	36.955 E3	1.0	0#	0.00
2	S	O-Terphenyl	50.533	53.495 E3	-5.9	0#	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040858.D 130312DROFRO2.M Wed Apr 10 11:20:00 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408\13040858.D Vial: 100
Acq On : 8 Apr 2013 7:24 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040858.D 130312DROFRO2.M Wed Apr 10 11:20:00 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040858.D Vial: 100
Acq On : 8 Apr 2013 7:24 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 09 13:47:08 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	53494738	1058.610 mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery = 105.86%	
Target Compounds			
1) H DRO	6.48	92386855	2473.965 mg/L

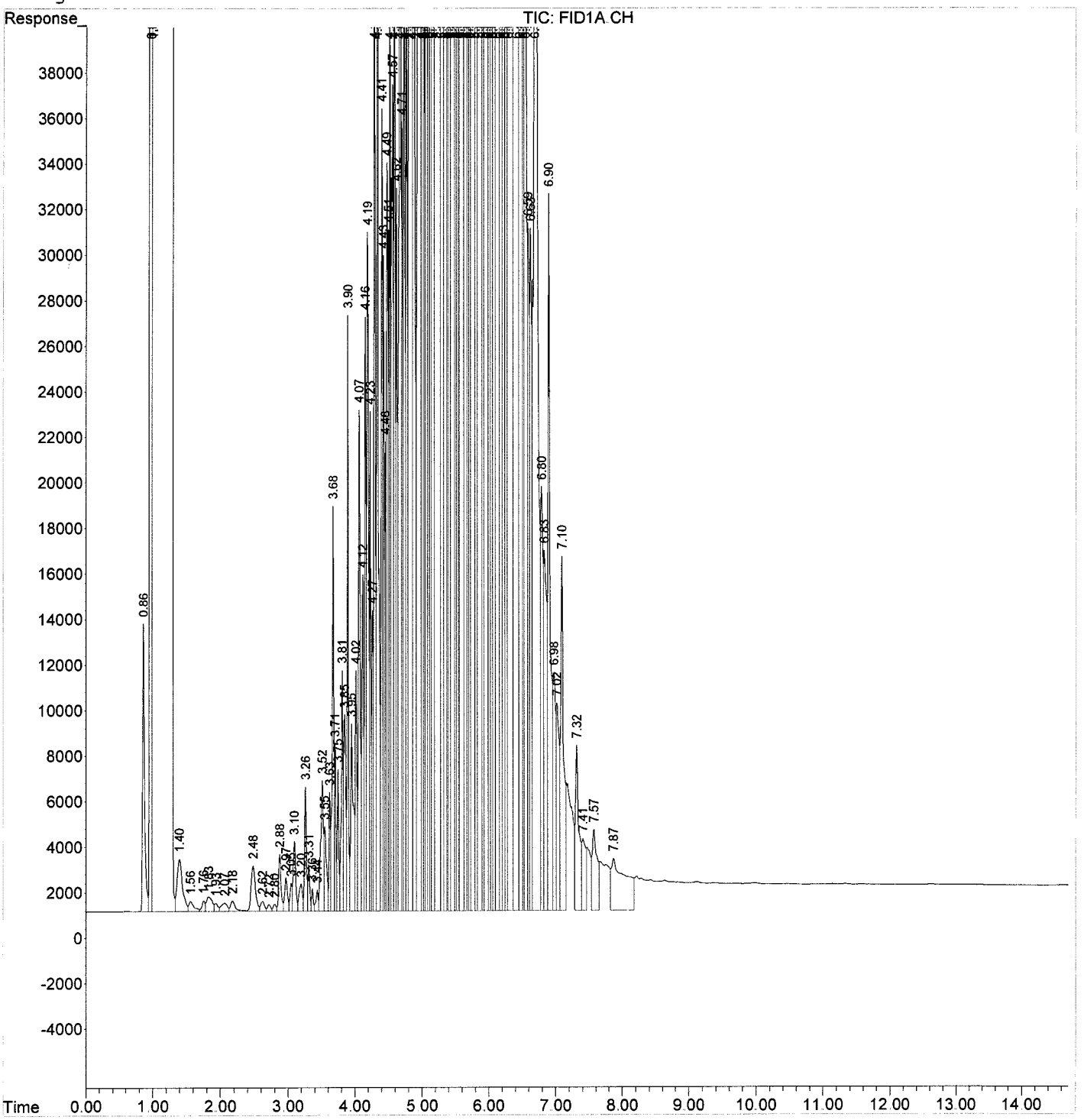
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040858.D Vial: 100
Acq On : 8 Apr 2013 7:24 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 9 13:46 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408\13040872.D Vial: 100
Acq On : 8 Apr 2013 9:59 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	37.344	36.934 E3	1.1	0#	0.00
2	S	O-Terphenyl	50.533	53.431 E3	-5.7	0#	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040872.D 130312DROFRO2.M Wed Apr 10 11:20:28 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408\13040872.D Vial: 100
Acq On : 8 Apr 2013 9:59 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040872.D 130312DROFRO2.M Wed Apr 10 11:20:28 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040872.D Vial: 100
Acq On : 8 Apr 2013 9:59 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 09 13:47:29 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	53431453	1057.358 mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery = 105.74%	
Target Compounds			
1) H DRO	6.48	92335968	2472.602 mg/L

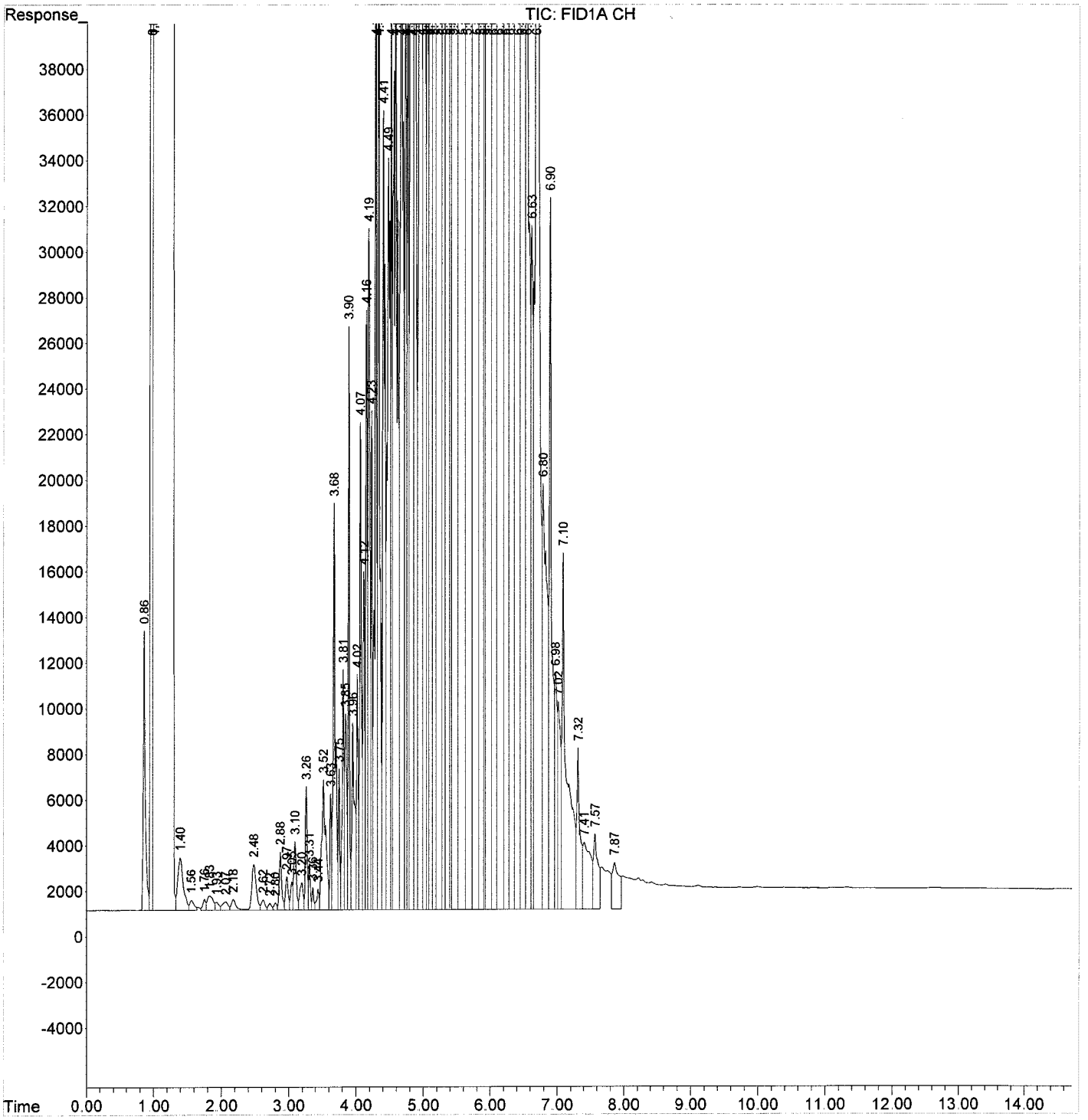
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040872.D Vial: 100
Acq On : 8 Apr 2013 9:59 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 9 13:47 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408\13040888.D Vial: 100
Acq On : 9 Apr 2013 12:57 am Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	37.344	32.580 E3	12.8	0#	0.00
2	S	O-Terphenyl	50.533	47.251 E3	6.5	0#	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040888.D 130312DROFRO2.M Wed Apr 10 11:20:54 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408\13040888.D Vial: 100
Acq On : 9 Apr 2013 12:57 am Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E

Method : P:\DRO\2\DATA\130408\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040888.D Vial: 100
Acq On : 9 Apr 2013 12:57 am Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 09 13:47:46 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.42	47250790	935.049 mg/L
Spiked Amount 1000.000 Range 50 - 131		Recovery = 93.50%	
Target Compounds			
1) H DRO	6.48	81449036	2181.069 mg/L

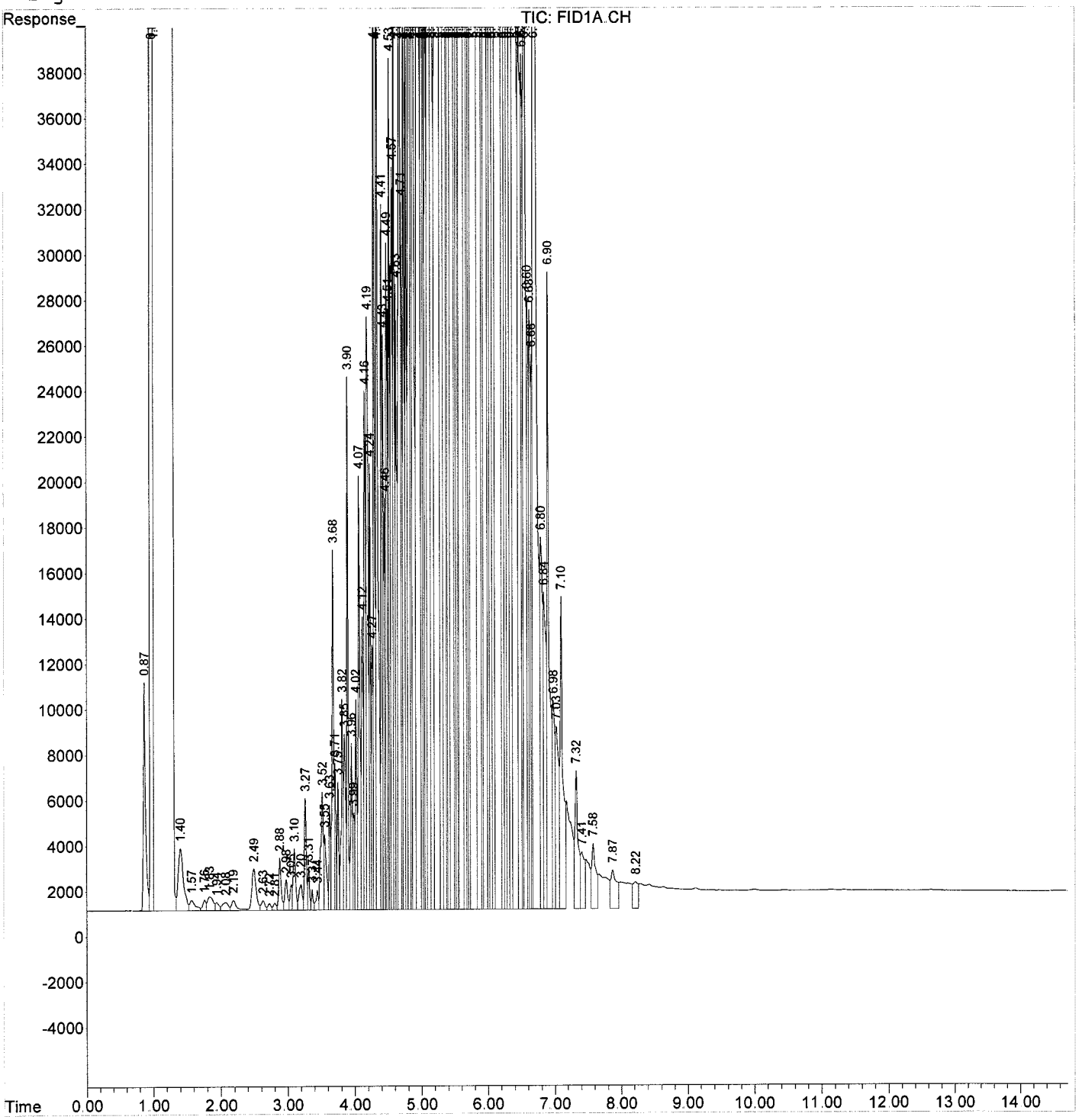
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408\13040888.D Vial: 100
Acq On : 9 Apr 2013 12:57 am Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Apr 9 13:47 2013 Quant Results File: 130312DROFRO2.RES

Quant Method : P:\DRO\2...\130312DROFRO2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Mar 12 17:21:53 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Injection Log

Directory: P:\DRO\2\DATA\130408.SEC

Line	Vial	FileName	Multiplier	SampleName	Misc Info			Injected
1		13040801.D	1.	CCV-DRO@2500mg/L	ID#A2494 Ex.09/22/13			
2	1	13040803.D	1.	45465-1-BKS	Soil#45447	29.84g		8Apr2013 08:50
3	3	13040805.D	1.	45465-1-BSD	Soil#45447	29.59g		8 Apr 2013 09:12
4	5	13040807.D	1.	45465-1-BLK	Soil#45447	30.25g		8 Apr 2013 09:34
5	7	13040809.D	1.	13040318-001	Soil#45447	30.12g		8 Apr 2013 09:56
6	9	13040811.D	1.	13040419-002	Soil#45447	29.87g		8 Apr 2013 10:19
7	11	13040813.D	1.	13040215-003	Soil#45447	30.21g	10D	8 Apr 2013 10:41
8	13	13040815.D	1.	13040215-005	Soil#45447	30.63g		8 Apr 2013 11:03
9	15	13040817.D	1.	13040319-003	Soil#45447	31.12g		8 Apr 2013 11:25
10	18	13040819.D	1.	13040419-001	Soil#45447	30.82g		8 Apr 2013 11:47
11	19	13040821.D	1.	13040510-001	Soil#45447	31.13g		8 Apr 2013 12:09
12	21	13040823.D	1.	13040419-004	Soil#45447	31.23g		8 Apr 2013 12:31
13	96	13040825.D	1.	Diesel Fuel#4	1000mg/L			8 Apr 2013 12:54
14	99	13040827.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13			8 Apr 2013 13:16
15	11	13040829.D	1.	13040215-003	Soil#45447	30.21g		8 Apr 2013 13:50
16	13	13040831.D	1.	13040215-005	Soil#45447	30.63g	10D	8 Apr 2013 14:12
17	22	13040833.D	1.	13040407-001	Soil#45447	29.66g	100D	8 Apr 2013 14:35
18	12	13040835.D	1.	13040215-004	Soil#45447	29.62g		8 Apr 2013 14:57
19	29	13040837.D	1.	13040516-001	Soil#45470	30.32g		8 Apr 2013 15:19
20	30	13040839.D	1.	13040516-002	Soil#45470	30.08g		8 Apr 2013 15:42
21	31	13040841.D	1.	13040516-004	Soil#45470	30.49g		8 Apr 2013 16:04
22	99	13040843.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13			8 Apr 2013 16:26
23	96	13040845.D	1.	13040516-004MS	Soil#45470	30.12g		8 Apr 2013 16:49
24	97	13040847.D	1.	13040516-004MSD	Soil#45470	30.04g		8 Apr 2013 17:11
25	28	13040849.D	1.	45470-1-BLK	Soil#45470	30.02g		8 Apr 2013 17:33
26	35	13040851.D	1.	13040522-003	Soil#45470	30.03g		8 Apr 2013 17:56
27	37	13040853.D	1.	13040522-005 need dilution	Soil#45470	30.57g		8 Apr 2013 18:18
28	39	13040855.D	1.	13040523-001	Soil#45470	30.63g		8 Apr 2013 18:40
29	99	13040857.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13			8 Apr 2013 19:02
								8 Apr 2013 19:24

105208S, 105246CW

Injection Log

Directory: P:\DRO\2\DATA\130408.SEC

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
30	40	13040859.D	1.	45471-1-BKS	#45471 1000mg/L	8 Apr 2013 19:46
31	42	13040861.D	1.	45471-1-BSD	#45471 1000mg/L	8 Apr 2013 20:08
32	44	13040863.D	1.	45471-1-BLK	#45471 1000mg/L	8 Apr 2013 20:31
33	46	13040865.D	1.	13040516-006	#45471 1000mg/L	8 Apr 2013 20:53
34	48	13040867.D	1.	13040516-009	#45471 1000mg/L	8 Apr 2013 21:15
35	50	13040869.D	1.	13040516-011	#45471 820mg/L	8 Apr 2013 21:37
36	99	13040871.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13	8 Apr 2013 21:59
37	52	13040873.D	1.	45473-1-BKS	#45471 1000mg/L	8 Apr 2013 22:21
38	54	13040875.D	1.	45473-1-BSD	#45471 1000mg/L	8 Apr 2013 22:44
39	56	13040877.D	1.	45473-1-BLK	#45471 1000mg/L	8 Apr 2013 23:06
40	58	13040879.D	1.	13040509-004	#45471 1000mg/L	8 Apr 2013 23:28
41	60	13040881.D	1.	13040509-006	#45471 1000mg/L	8 Apr 2013 23:50
42	62	13040883.D	1.	13040509-008	#45471 1000mg/L	9 Apr 2013 00:13
43	64	13040885.D	1.	13040509-010	#45471 1000mg/L	9 Apr 2013 00:35
44	99	13040887.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13	9 Apr 2013 00:57
45	66	13040889.D	1.	45485-1-BKS	Soil#45485 29.54g	9 Apr 2013 01:20
46	68	13040891.D	1.	45485-1-BSD	Soil#45485 30.40g	9 Apr 2013 01:42
47	70	13040893.D	1.	45485-1-BLK	Soil#45485 29.56g	9 Apr 2013 02:04
48	72	13040895.D	1.	13040519-002 need dilution	Soil#45485 31.83g	9 Apr 2013 02:26
49	74	13040897.D	1.	13040519-004	Soil#45485 30.60g	9 Apr 2013 02:49
50	76	13040899.D	1.	13040524-002 need dilution	Soil#45485 29.76g	9 Apr 2013 03:11
51	78	13040901.D	1.	13040524-004 ↓	Soil#45485 29.29g	9 Apr 2013 03:34
52	99	13040903.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13	9 Apr 2013 03:56
53	99	13040905.D	1.	CCV_DRO@2500mg/L	ID#A2494 Ex.09/22/13	9 Apr 2013 04:18

Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408.SEC\13040827.D Vial: 99
Acq On : 8 Apr 2013 1:50 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	28.862	29.312 E3	-1.6	0#	0.00
2	S	O-Terphenyl	30.891	30.790 E3	0.3	0#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040827.D 130328DROBCK2.M Wed Apr 10 11:21:58 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408.SEC\13040827.D Vial: 99
Acq On : 8 Apr 2013 1:50 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040827.D 130328DROBCK2.M Wed Apr 10 11:21:58 2013 Page 2

Response Factor Report DRO #2

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013

Calibration Files
1 =13032819.D 2 =13032817.D 3 =13032815.D
4 =13032813.D 5 =13032811.D 6 =13032809.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	H	DRO	3.071	2.697	2.846	2.949	2.788	2.414	2.886 E4	11.09
2)	S	O-Terphenyl	3.467	2.822	2.920	3.191	3.145	2.989	3.089 E4	7.48

(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040827.D Vial: 99
Acq On : 8 Apr 2013 1:50 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 08 14:06:34 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	30789539	996.730 mg/L
Spiked Amount 1000.000	Range 50 - 150	Recovery =	99.67%
Target Compounds			
1) H DRO	6.80	73279160	2538.924 mg/L

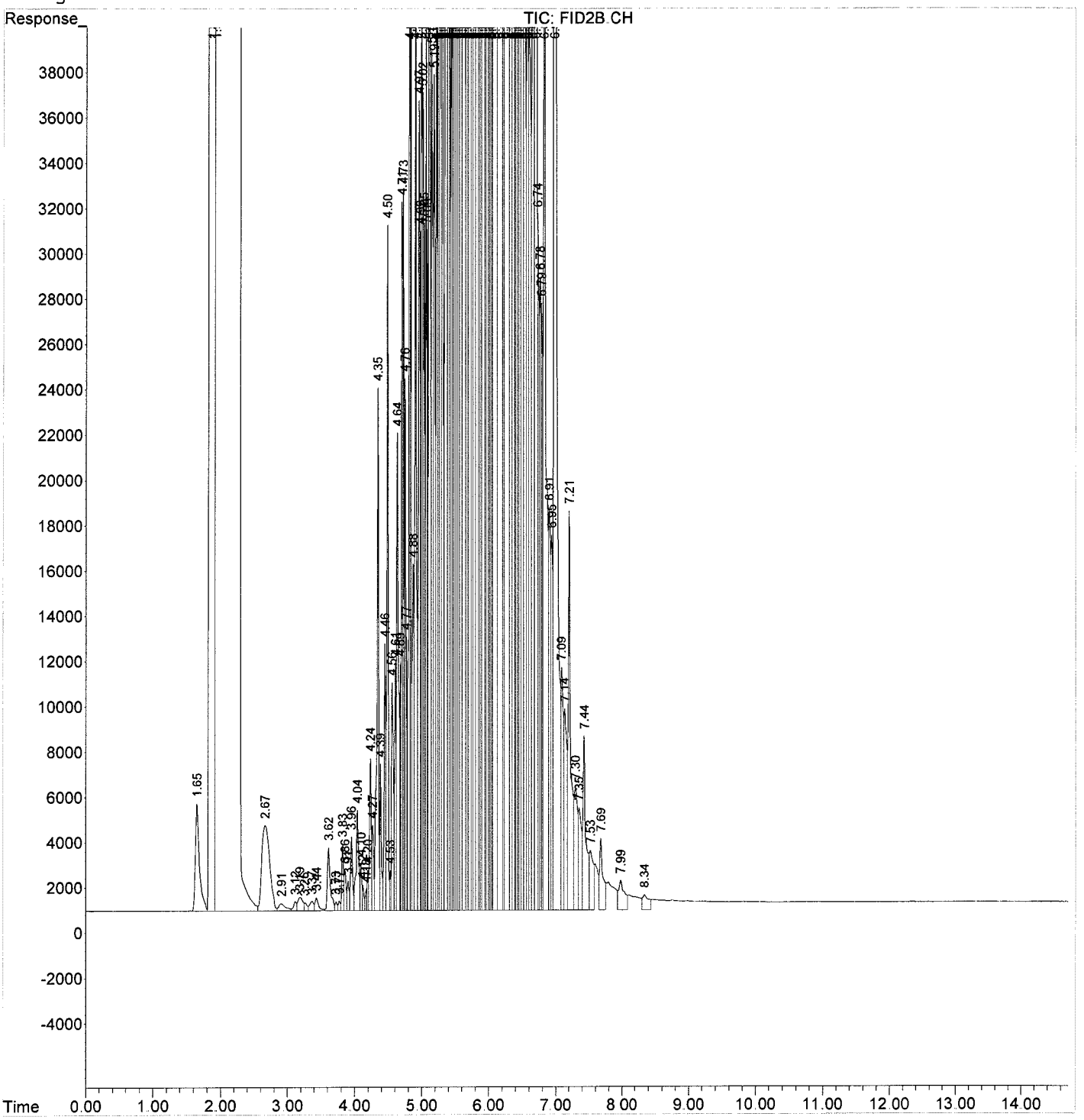
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040827.D Vial: 99
Acq On : 8 Apr 2013 1:50 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 8 14:06 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408.SEC\13040843.D Vial: 99
Acq On : 8 Apr 2013 4:49 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	28.862	28.967 E3	-0.4	0#	0.00
2	S	O-Terphenyl	30.891	31.866 E3	-3.2	0#	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040843.D 130328DROBCK2.M Wed Apr 10 11:22:28 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408.SEC\13040843.D Vial: 99
Acq On : 8 Apr 2013 4:49 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040843.D 130328DROBCK2.M Wed Apr 10 11:22:28 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040843.D Vial: 99
Acq On : 8 Apr 2013 4:49 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 08 17:05:02 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	31865991	1031.577 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 103.16%	
Target Compounds			
1) H DRO	6.80	72418465	2509.103 mg/L

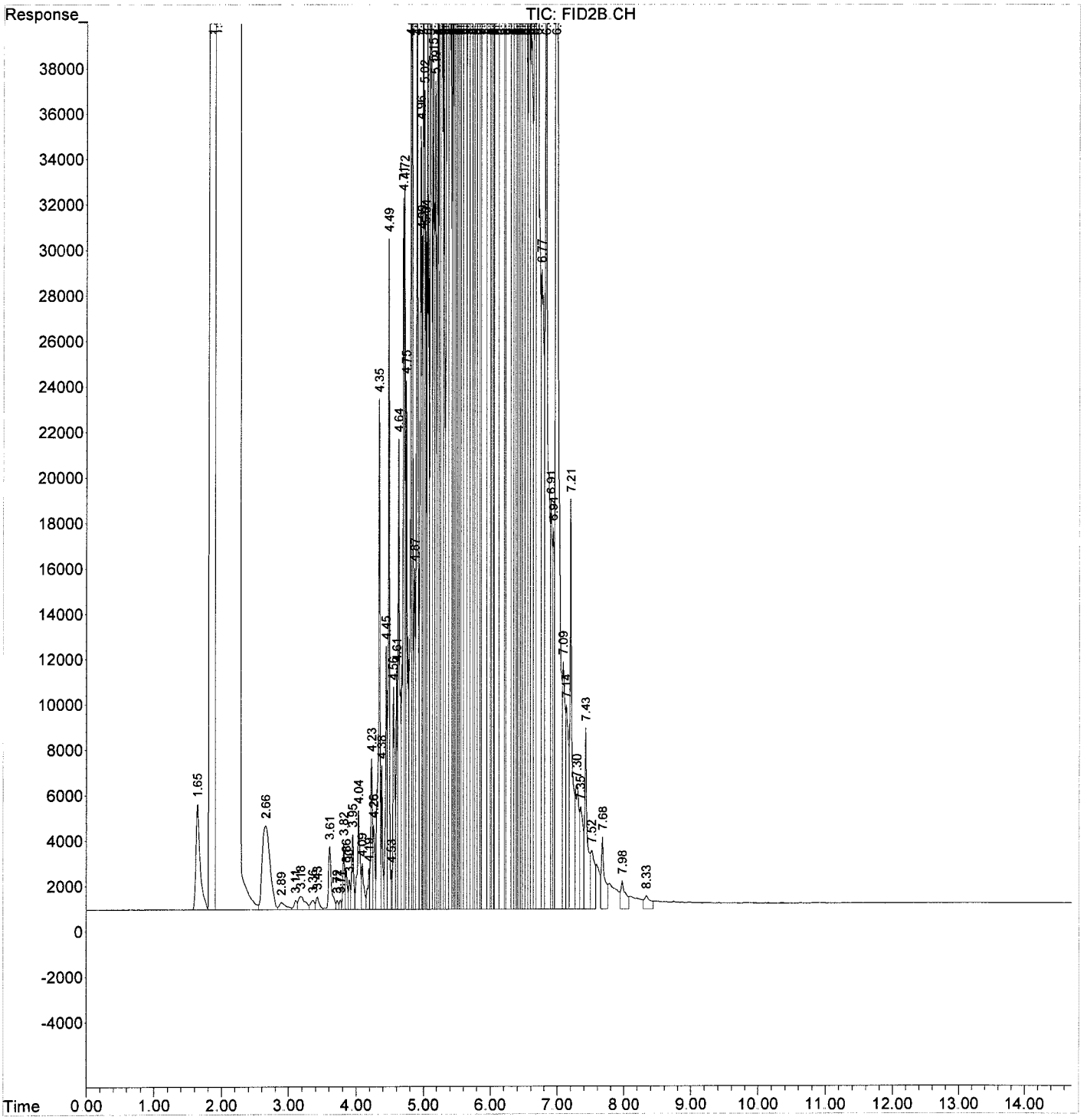
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040843.D Vial: 99
Acq On : 8 Apr 2013 4:49 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 8 17:04 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408.SEC\13040857.D Vial: 99
Acq On : 8 Apr 2013 7:24 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	28.862	29.113 E3	-0.9	0#	0.00
2	S	O-Terphenyl	30.891	30.432 E3	1.5	0#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040857.D 130328DROBCK2.M Wed Apr 10 11:22:40 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408.SEC\13040857.D Vial: 99
Acq On : 8 Apr 2013 7:24 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040857.D 130328DROBCK2.M Wed Apr 10 11:22:40 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040857.D Vial: 99
Acq On : 8 Apr 2013 7:24 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 13:48:59 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	30432253	985.164 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 98.52%	
Target Compounds			
1) H DRO	6.80	72782996	2521.733 mg/L

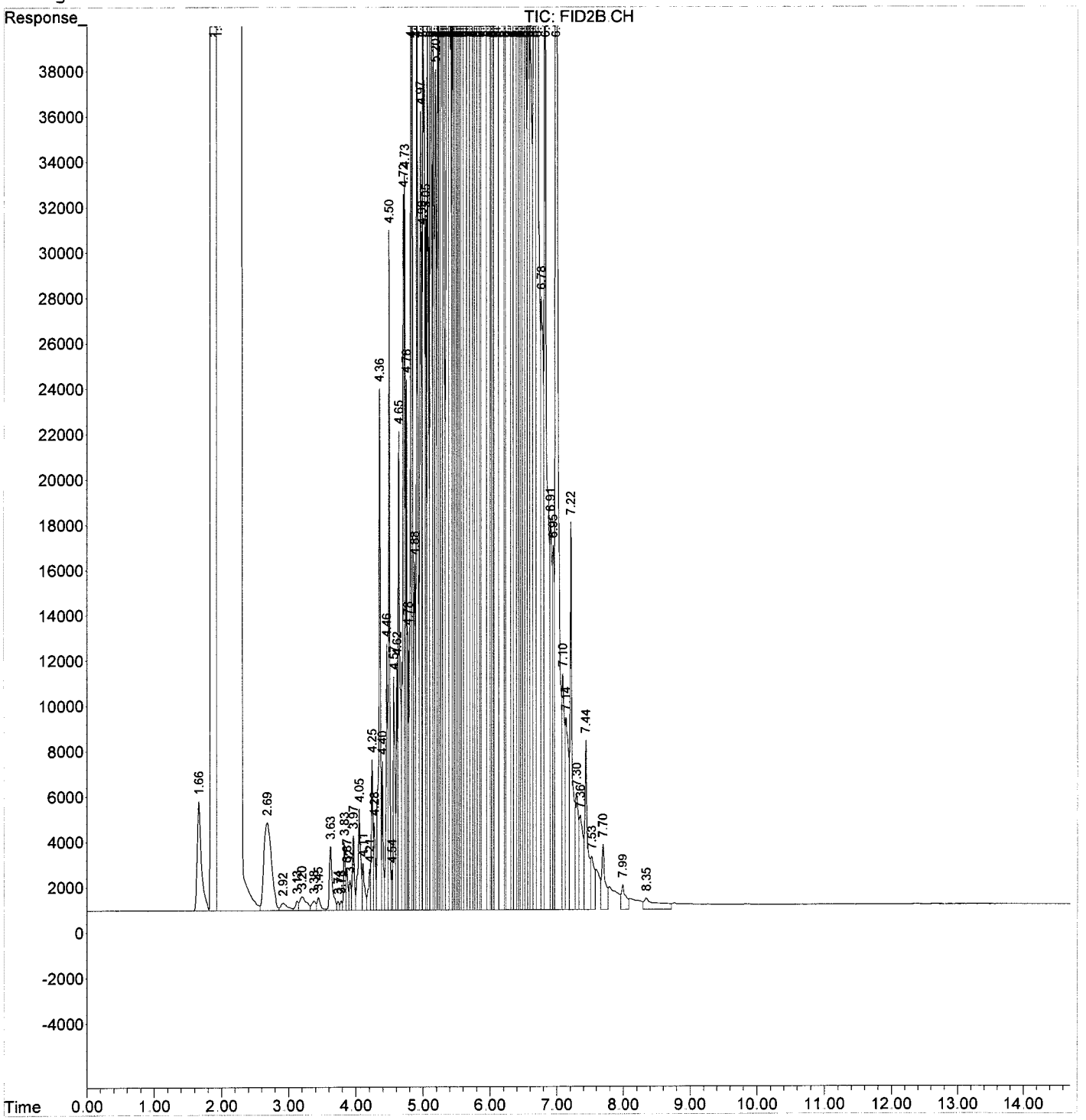
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040857.D Vial: 99
Acq On : 8 Apr 2013 7:24 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 13:48 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408.SEC\13040871.D Vial: 99
Acq On : 8 Apr 2013 9:59 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	28.862	29.229 E3	-1.3	0#	0.00
2	S	O-Terphenyl	30.891	30.765 E3	0.4	0#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040871.D 130328DROBCK2.M Wed Apr 10 11:22:53 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408.SEC\13040871.D Vial: 99
Acq On : 8 Apr 2013 9:59 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040871.D 130328DROBCK2.M Wed Apr 10 11:22:53 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040871.D Vial: 99
Acq On : 8 Apr 2013 9:59 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 13:49:14 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	30765290	995.945 mg/L
Spiked Amount 1000.000	Range 50 - 150	Recovery =	99.59%
Target Compounds			
1) H DRO	6.80	73072308	2531.757 mg/L

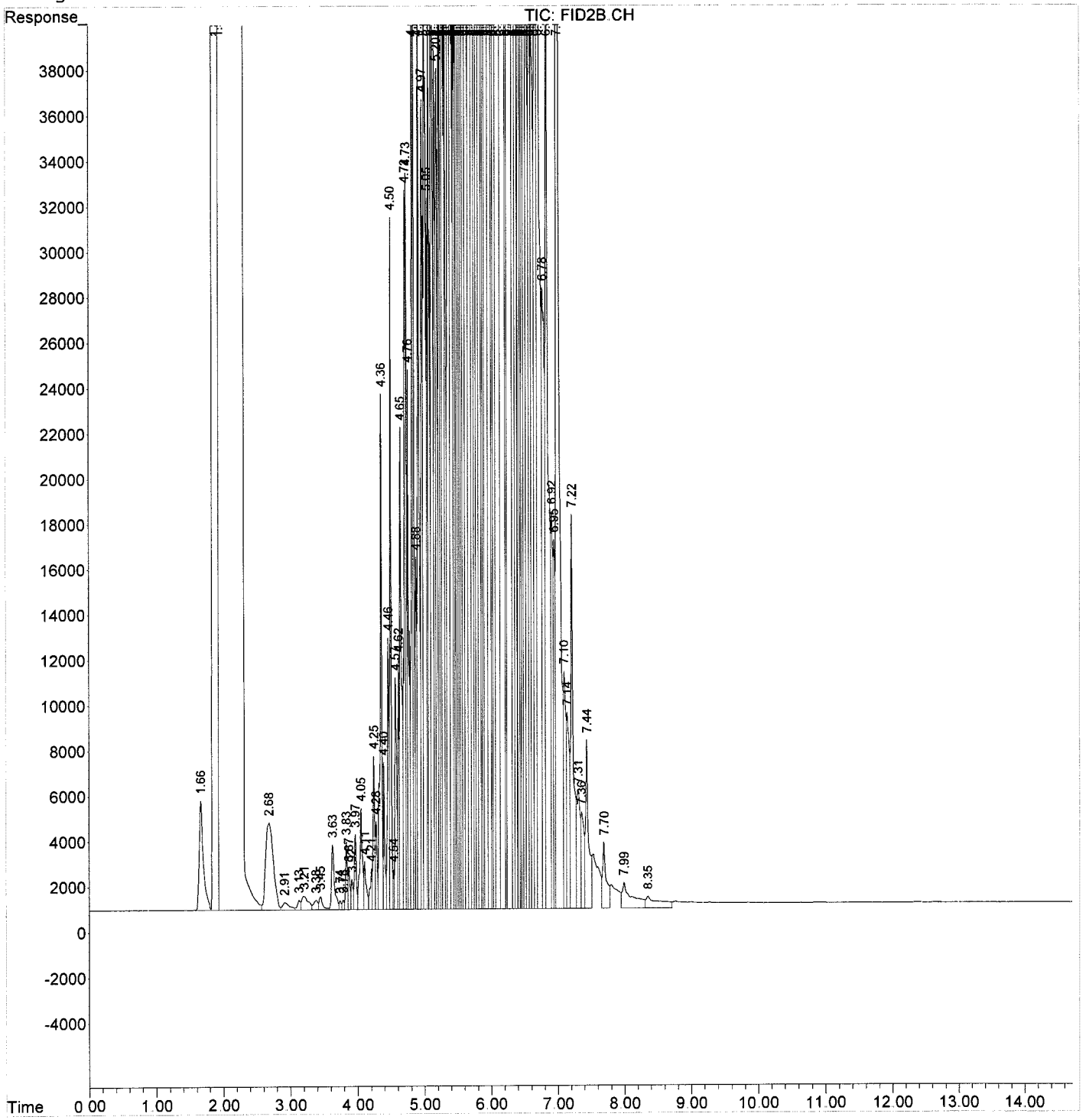
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040871.D Vial: 99
Acq On : 8 Apr 2013 9:59 pm Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 13:48 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : P:\DRO\2\DATA\130408.SEC\13040887.D Vial: 99
Acq On : 9 Apr 2013 12:57 am Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	H	DRO	28.862	29.603 E3	-2.6	0#	0.00
2	S	O-Terphenyl	30.891	31.100 E3	-0.7	0#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040887.D 130328DROBCK2.M Wed Apr 10 11:23:04 2013 Page 1

Evaluate Continuing Calibration Report - Not Founds

Data File : P:\DRO\2\DATA\130408.SEC\13040887.D Vial: 99
Acq On : 9 Apr 2013 12:57 am Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e

Method : P:\DRO\2\DATA\130408.SEC\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Tue Apr 09 15:39:25 2013
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040887.D 130328DROBCK2.M Wed Apr 10 11:23:04 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040887.D Vial: 99
Acq On : 9 Apr 2013 12:57 am Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 09 13:49:31 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Initial Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
2) S O-Terphenyl	6.71	31100131	1006.785 mg/L
Spiked Amount 1000.000 Range 50 - 150		Recovery = 100.68%	
Target Compounds			
1) H DRO	6.80	74007491	2564.159 mg/L

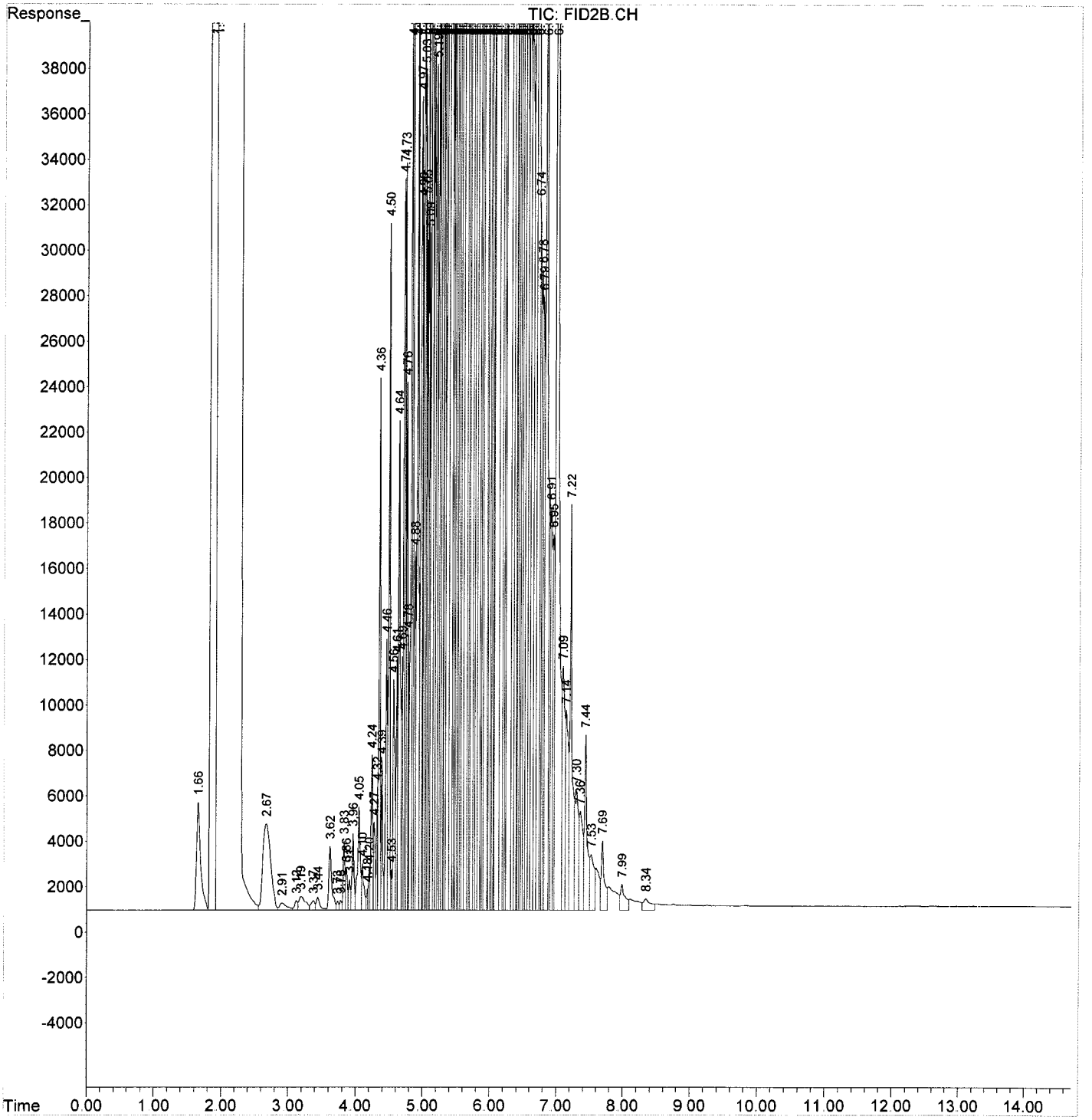
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : P:\DRO\2\DATA\130408.SEC\13040887.D Vial: 99
Acq On : 9 Apr 2013 12:57 am Operator: PY
Sample : CCV_DRO@2500mg/L Inst : DRO #2
Misc : ID#A2494 Ex.09/22/13 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 9 13:49 2013 Quant Results File: 130328DROBCK2.RES

Quant Method : P:\DRO\2...\130328DROBCK2.M (Chemstation Integrator)
Title : ALS8270.M
Last Update : Thu Mar 28 14:04:58 2013
Response via : Multiple Level Calibration
DataAcq Meth : C10C28MB.M

Volume Inj. :
Signal Phase :
Signal Info :



Waters and Soils For Extraction

Analytical : **SW8015DRO / SW8015DRO_MDE**
Prep: **SW3510C**
Matrix: **WATER**

21410 - GC TPH/Hydrocarbons Organic Department

Tech: Viktoriya Krasnovskaya
Prep Seq: **45471**

Method Description : Total Petroleum Hydrocarbons - DRO

Factor Calculation : d = b * c / a ;

	Client	Lab ID	Type	Client Sample Id	Prep Date	HT Expiration	Due Date	Smp Wt(g)/ Vol (ml) (a)	Final Vol (ml) (b)	Additional Dilution (c)	Factor (d)	Initial PH (5.0-9.0)	Final PH	Chlorine Absent? Y / N	Extract Cleanup Type	Extract Cleanup Date
1		45471-1-BKS	BKS	45471-1-BKS	04/08/13			1000 ML	1	1	.001				None	--------
2		45471-1-BLK	BLK	45471-1-BLK	04/08/13			1000 ML	1	1	.001				None	--------
3		45471-1-BSD	BSD	45471-1-BSD	04/08/13			1000 ML	1	1	.001				None	--------
4	2546	13040516-007 S	MS	SR-03 (GW) S	04/08/13	04/11/13	04/10/13	500 ML	1	1	.002				None	--------
5	2546	13040516-007 SD	MSD	SR-03 (GW) SD	04/08/13	04/11/13	04/10/13	500 ML	1	1	.002				None	--------
6	2546	13040516-006	SMP	1644-Sump	04/08/13	04/11/13	04/10/13	1000 ML	1	1	.001				None	--------
7	2546	13040516-007	SMP	SR-03 (GW)	04/08/13	04/11/13	04/10/13	800 ML	1	1	.00125				None	--------
8	2546	13040516-008	SMP	SR-040413 (GW)	04/08/13	04/11/13	04/10/13	950 ML	1	1	.00105				None	--------
9	2546	13040516-009	SMP	SR-04 (GW)	04/08/13	04/11/13	04/10/13	1000 ML	1	1	.001				None	--------
10	2546	13040516-010	SMP	1646-Sump	04/08/13	04/12/13	04/10/13	1000 ML	1	1	.001				None	--------
11	2546	13040516-011	SMP	Surface Water	04/08/13	04/12/13	04/10/13	820 ML	1	1	.00122				None	--------

Comments :

Spk Std ID : A2371
Surr / Int ID : A2493
Reagent ID : 1416-1, E069

Prepared By : VK
Date : 4/8/13
Reviewed By:
Date:

Waters and Soils For Extraction

Analytical : **SW8015DRO / SW8015DRO**
Prep: **SW3550**
Matrix: **SOLID**

21410 - GC TPH/Hydrocarbons Organic Department

Tech: Viktoriya Krasnovskaya
Prep Seq: **45470**

Method Description : Total Petroleum Hydrocarbons - DRO

Factor Calculation : d = b * c / a ;

	Client	Lab ID	Type	Client Sample Id	Prep Date	HT Expiration	Due Date	Smp Wt(g)/ Vol (ml) (a)	Final Vol (ml) (b)	Additional Dilution (c)	Factor (d)	Initial PH (5.0-9.0)	Final PH	Chlorine Absent? Y / N	Extract Cleanup Type	Extract Cleanup Date
1		45470-1-BKS	BKS	45470-1-BKS	04/08/13			30.11 GR	1	1	.03321				None	---------
2		45470-1-BLK	BLK	45470-1-BLK	04/08/13			30.02 GR	1	1	.03331				None	---------
3		45470-1-BSD	BSD	45470-1-BSD	04/08/13			30.13 GR	1	1	.03319				None	---------
4	2546	13040516-004 S	MS	SB-01 (2-2.5) S	04/08/13	04/18/13	04/10/13	30.12 GR	1	1	.03320				None	---------
5	2546	13040516-004 SD	MSD	SB-01 (2-2.5) SD	04/08/13	04/18/13	04/10/13	30.04 GR	1	1	.03329				None	---------
6	2546	13040516-001	SMP	SB-02 (2-2.5)	04/08/13	04/18/13	04/10/13	30.32 GR	1	1	.03298				None	---------
7	2546	13040516-002	SMP	SB-04 (2-2.5)	04/08/13	04/18/13	04/10/13	30.08 GR	1	1	.03324				None	---------
8	2546	13040516-003	SMP	SB-03 (2-2.5)	04/08/13	04/18/13	04/10/13	30.23 GR	1	1	.03308				None	---------
9	2546	13040516-004	SMP	SB-01 (2-2.5)	04/08/13	04/18/13	04/10/13	30.49 GR	1	1	.03280				None	---------
10	2546	13040516-005	SMP	SB-040413 (2-2.5)	04/08/13	04/18/13	04/10/13	30.14 GR	1	1	.03318				None	---------
11	2165	13040522-001	SMP	10893-PIT1-4/4	04/08/13	04/18/13	04/10/13	30.04 GR	1	1	.03329				None	---------
12	2165	13040522-002	SMP	10893-PIT2-4/4-EAST	04/08/13	04/18/13	04/10/13	30.31 GR	1	1	.03299				None	---------
13	2165	13040522-003	SMP	10893-PIT2-4/4-WEST	04/08/13	04/18/13	04/10/13	30.03 GR	1	1	.0333				None	---------

Comments :

Spk Std ID : AZ371
Surr / Int ID : AZ492
Reagent ID : 1411-1 5069

Prepared By : VK
Date : 4/15/13
Reviewed By:
Date:

Waters and Soils For Extraction

Analytical : **SW8015DRO / SW8015DRO**
Prep: **SW3550**
Matrix: **SOLID**

21410 - GC TPH/Hydrocarbons Organic Department

Tech: Viktoriya Krasnovskaya
Prep Seq: **45470**

Method Description : Total Petroleum Hydrocarbons - DRO

Factor Calculation : d = b * c / a ;

	Client	Lab ID	Type	Client Sample Id	Prep Date	HT Expiration	Due Date	Smp Wt(g)/ Vol (ml) (a)	Final Vol (ml) (b)	Additional Dilution (c)	Factor (d)	Initial PH (5.0-9.0)	Final PH	Chlorine Absent? Y / N		
14	2165	13040522-004	SMP	10893-TANK3-EAST	04/08/13	04/18/13	04/10/13	30.24 GR	1	1	.03307				None	--------
15	2165	13040522-005	SMP	10893-TANK3-MID	04/08/13	04/18/13	04/10/13	30.57 GR	1	1	.03271				None	--------
16	2165	13040522-006	SMP	10893-TANK3-WEST	04/08/13	04/18/13	04/10/13	30.34 GR	1	1	.03296				None	--------
17	6159	13040523-001	SMP	413-RR-A1	04/08/13	04/16/13	04/10/13	30.63 GR	1	1	.03265				None	--------

Comments : _____

_____

_____

Spk Std ID : _____

Surr / Int ID : _____

Reagent ID : _____

Prepared By : _____ Date : _____

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-02 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105218 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-001

Sample wt/vol: 5.00 (g/mL) g Lab File ID: 13040808

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 18 Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
	TPH-GRO (Gasoline Range Organics)	120	U

SW8021B_SW8015

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-04 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105218 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-002

Sample wt/vol: 5.07 (g/mL) g Lab File ID: 13040809

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 18 Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
	TPH-GRO (Gasoline Range Organics)	120	U

SW8021B_SW8015

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-03 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105218 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-003

Sample wt/vol: 5.01 (g/mL) g Lab File ID: 13040817

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 15 Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
	TPH-GRO (Gasoline Range Organics)	120	U

SW8021B_SW8015

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105218 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004

Sample wt/vol: 5.09 (g/mL) g Lab File ID: 13040811

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
	TPH-GRO (Gasoline Range Organics)	110	U

SW8021B_SW8015

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-040413 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105218 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-005

Sample wt/vol: 5.03 (g/mL) g Lab File ID: 13040812

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 12 Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
	TPH-GRO (Gasoline Range Organics)	110	U

SW8021B_SW8015

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1644-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-006

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040823

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	40	U

SW8021B_SW8015

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-03 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040824

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	40	U

SW8021B_SW8015

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-040413 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-008

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040825

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	40	U

SW8021B_SW8015

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-04 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-009

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040826

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	40	U

SW8021B_SW8015

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1646-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-010

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040827

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec _____ Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	40	U

SW8021B_SW8015

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SURFACE WATER

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-011

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040828

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	40	U

SW8021B_SW8015

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040808.D\FID1B.CH Vial: 8
Signal #2 : P:\BTEX\1\DATA\130408\13040808.D\FID2A.CH
Acq On : 8 Apr 2013 11:51 am Operator: ABC
Sample : 13040516-001 5.00g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 13:33:29 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.71	15733902	86.058 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	86.06%	
11) S	GRO Surrogate	3.71	6588086	95.060 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	95.06%	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.50	18958	0.095 ppb
2) M	Benzene	2.68	43149	0.074 ppb
4) M	Toluene	5.64	368444	0.627 ppb
5) M	Ethylbenzene	7.53	164465	0.332 ppb
6) M	m&p-Xylene	7.73	692845	1.224 ppb
7) M	o-Xylene	8.06	348146	0.728 ppb
8) M	Naphthalene	11.08	269980	2.045 ppb
10) H	GRO	5.00	1861194	28.380 ppb

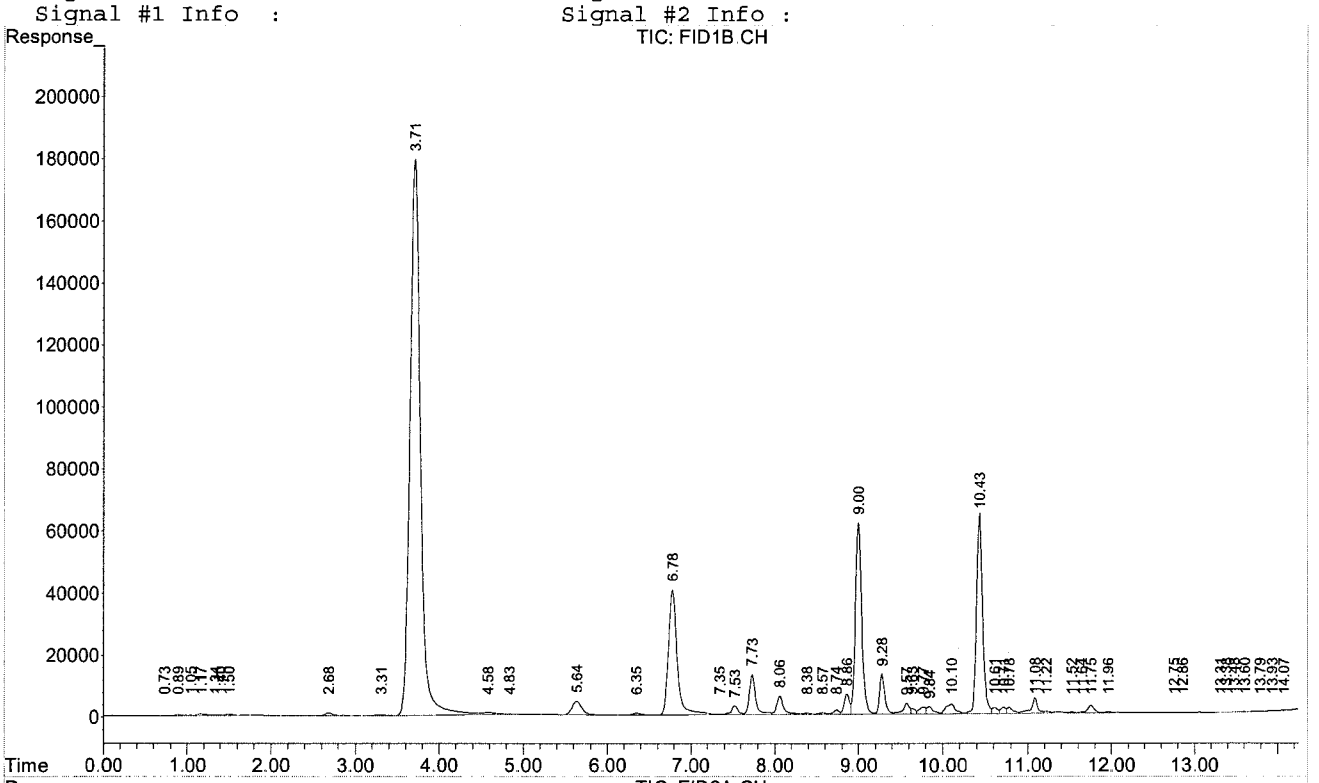
(f)=RT Delta > 1/2 Window (m)=manual int.

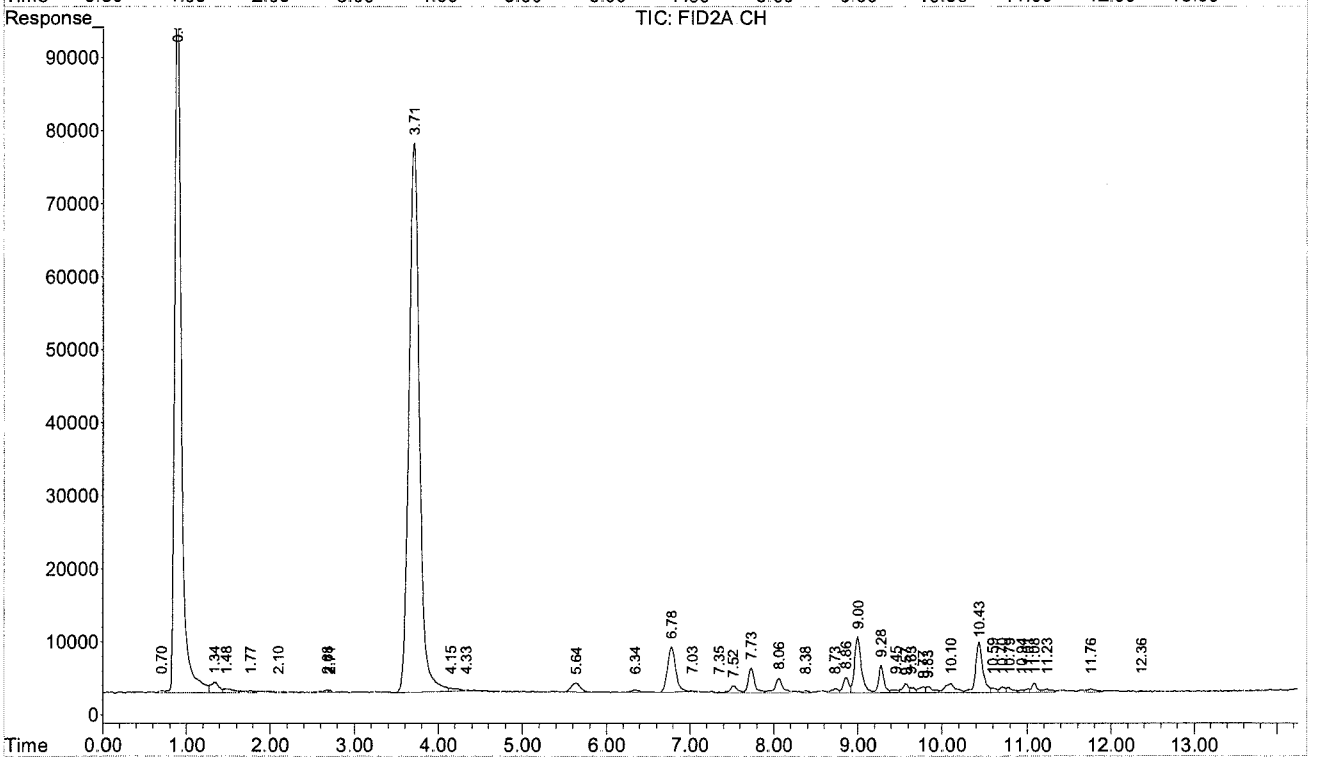
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040808.D\FID1B.CH Vial: 8
Signal #2 : P:\BTEX\1\DATA\130408\13040808.D\FID2A.CH
Acq On : 8 Apr 2013 11:51 am Operator: ABC
Sample : 13040516-001 5.00g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 13:33 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040809.D\FID1B.CH Vial: 9
Signal #2 : P:\BTEX\1\DATA\130408\13040809.D\FID2A.CH
Acq On : 8 Apr 2013 12:18 pm Operator: ABC
Sample : 13040516-002 5.07g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 13:33:30 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

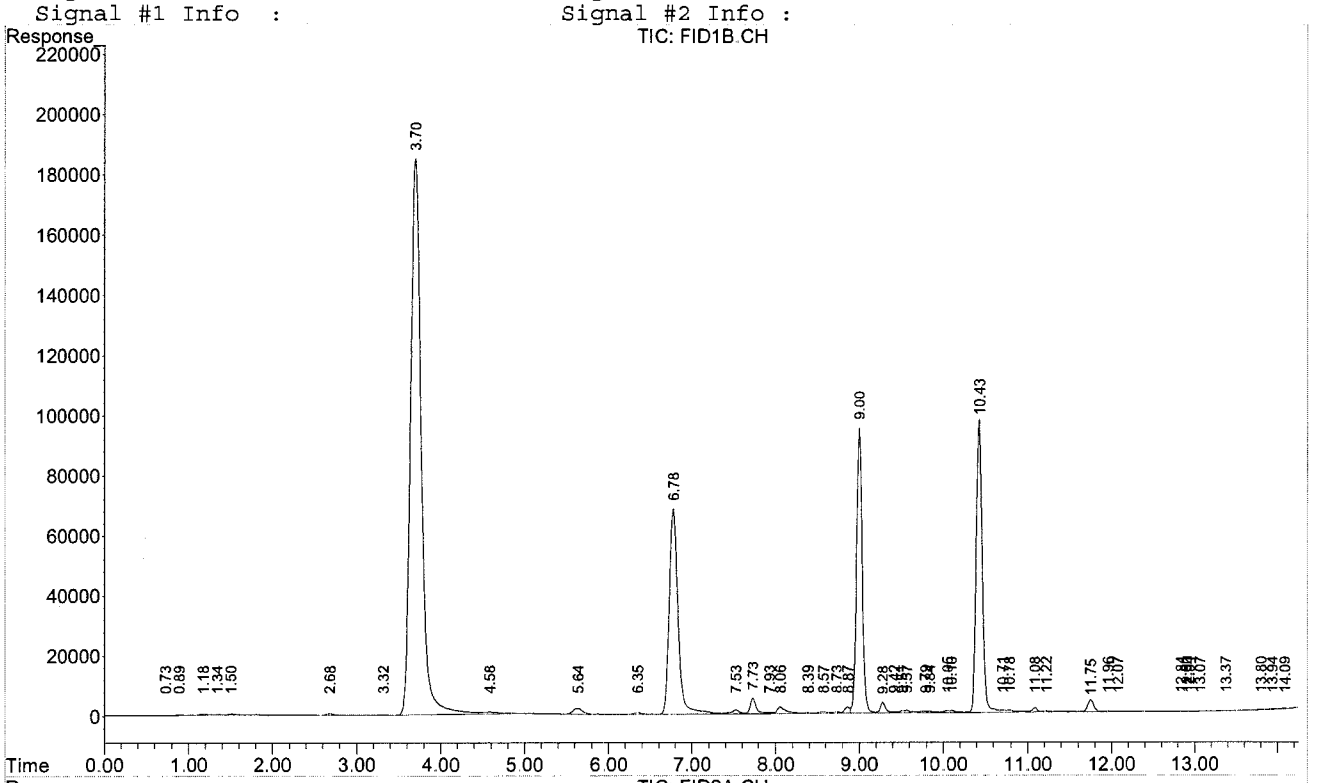
Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

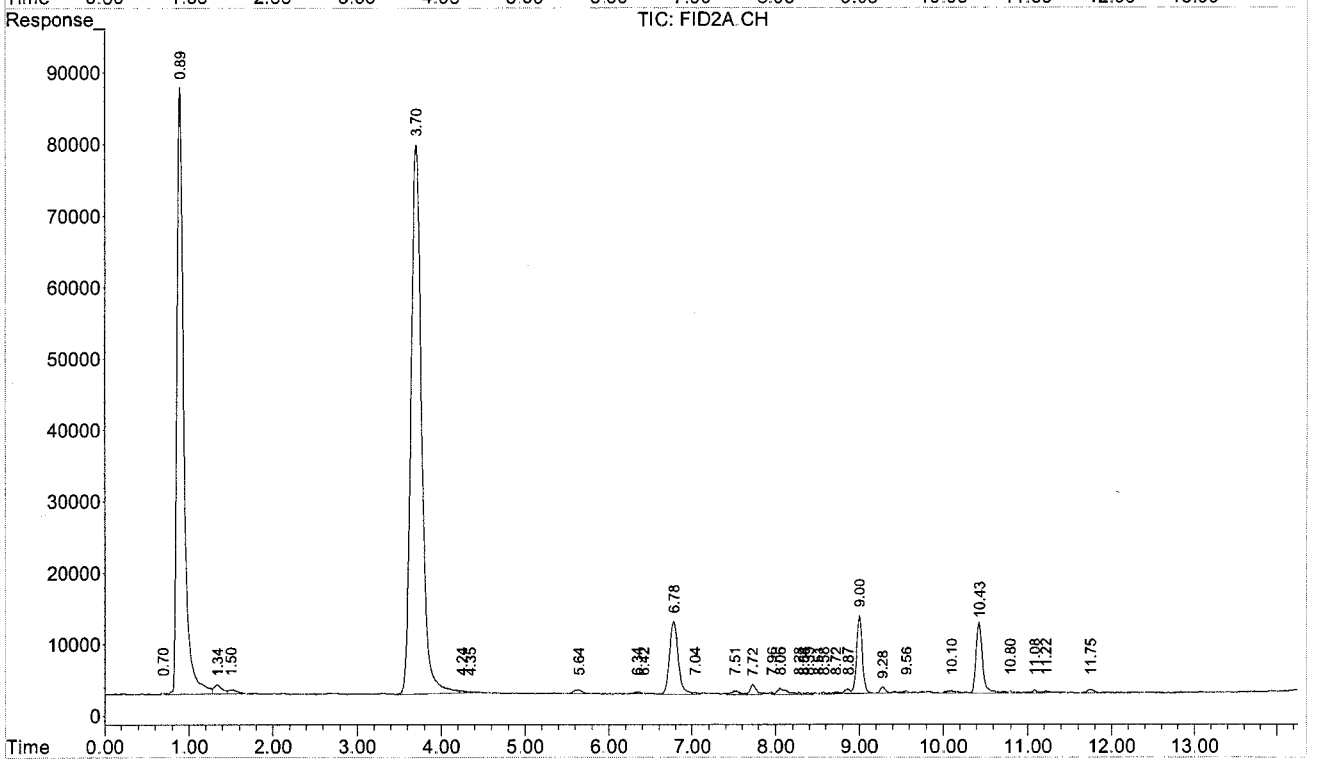
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.70	16216231	88.696 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	88.70%	
11) S	GRO Surrogate	3.70	6709493	96.811 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	96.81%	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.50	17575	0.088 ppb
2) M	Benzene	2.68	24498	0.042 ppb
4) M	Toluene	5.64	160071	0.272 ppb
5) M	Ethylbenzene	7.53	106941	0.216 ppb
6) M	m&p-Xylene	7.73	277150	0.490 ppb
7) M	o-Xylene	8.06	165750	0.347 ppb
8) M	Naphthalene	11.08	75998	0.576 ppb
10) H	GRO	5.00	1728920	26.363 ppb

Signal #1 : P:\BTEX\1\DATA\130408\13040809.D\FID1B.CH Vial: 9
Signal #2 : P:\BTEX\1\DATA\130408\13040809.D\FID2A.CH
Acq On : 8 Apr 2013 12:18 pm Operator: ABC
Sample : 13040516-002 5.07g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 13:33 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040817.D\FID1B.CH Vial: 17
Signal #2 : P:\BTEX\1\DATA\130408\13040817.D\FID2A.CH
Acq On : 8 Apr 2013 3:56 pm Operator: ABC
Sample : 13040516-003 5.01g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 10:55:10 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.70	17168499	93.905 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	93.91%	
11) S	GRO Surrogate	3.70	6975845	100.655 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	100.66%	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.50	17439	0.087 ppb
2) M	Benzene	2.68	17365	0.030 ppb
4) M	Toluene	5.63	153638	0.262 ppb
5) M	Ethylbenzene	7.53	68004	0.137 ppb
6) M	m&p-Xylene	7.73	199047	0.352 ppb
7) M	o-Xylene	8.06	91174	0.191 ppb
8) M	Naphthalene	11.08	24396	0.185 ppb
10) H	GRO	5.00	733024	11.177 ppb

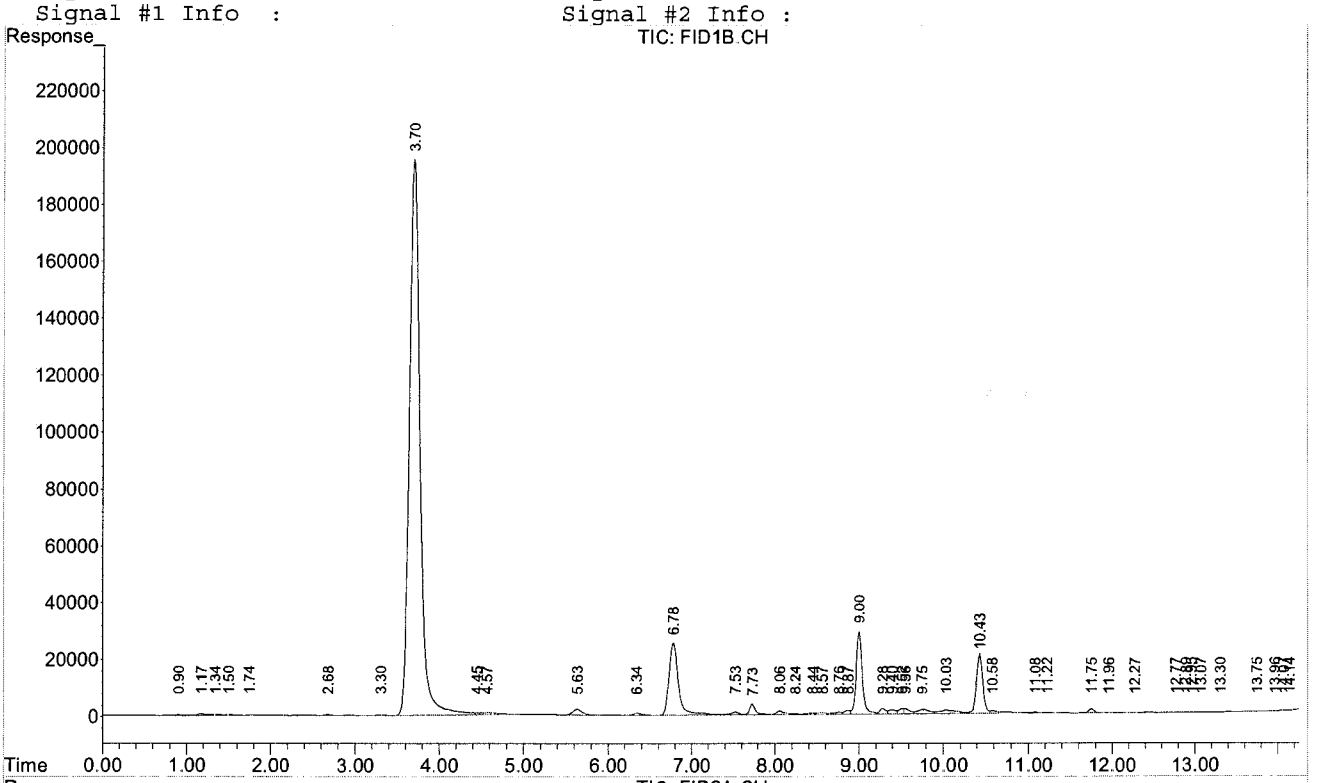
(f)=RT Delta > 1/2 Window (m)=manual int.

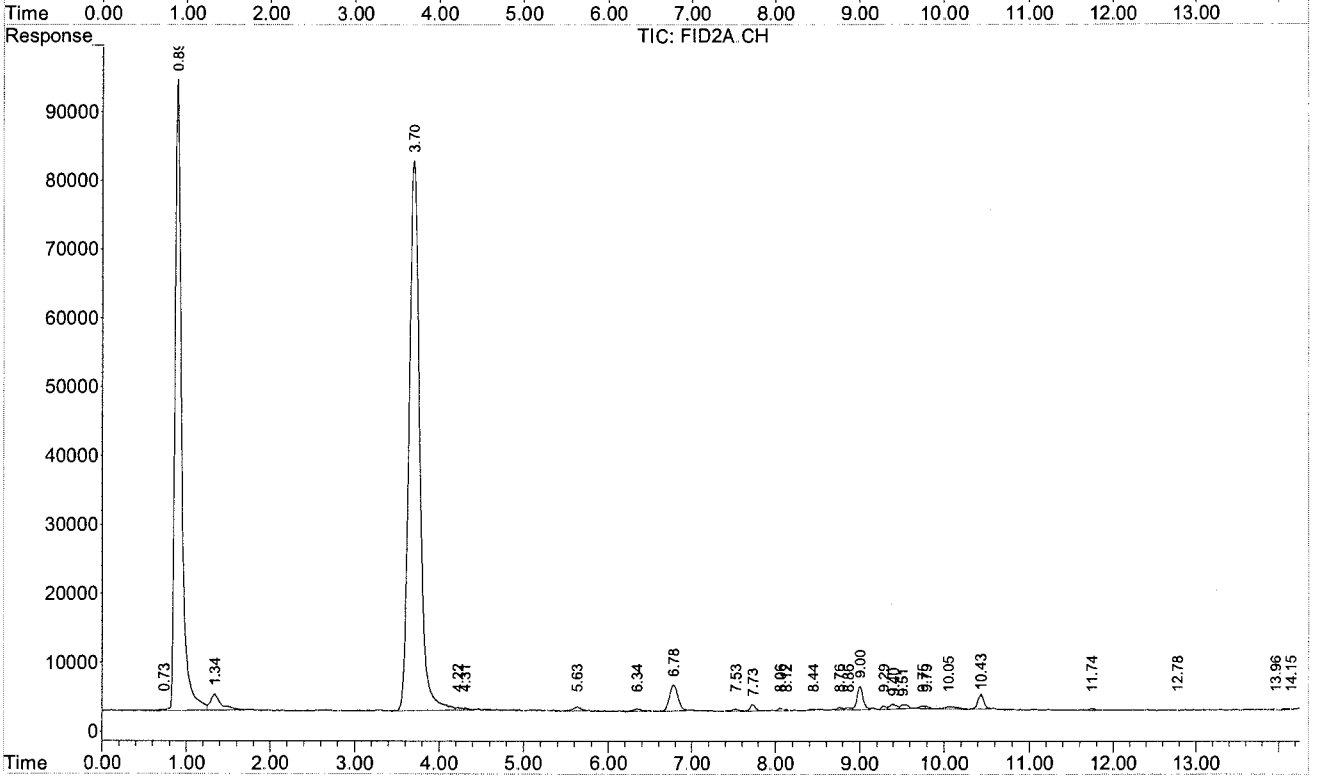
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040817.D\FID1B.CH Vial: 17
Signal #2 : P:\BTEX\1\DATA\130408\13040817.D\FID2A.CH
Acq On : 8 Apr 2013 3:56 pm Operator: ABC
Sample : 13040516-003 5.01g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 10:55 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040811.D\FID1B.CH Vial: 11
Signal #2 : P:\BTEX\1\DATA\130408\13040811.D\FID2A.CH
Acq On : 8 Apr 2013 1:12 pm Operator: ABC
Sample : 13040516-004 5.09g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 13:33:32 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.71	16968243	92.810 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	92.81%	
11) S	GRO Surrogate	3.70	6851251	98.857 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	98.86%	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.50	28870	0.145 ppb
2) M	Benzene	2.69	24375	0.042 ppb
4) M	Toluene	5.64	117773	0.200 ppb
5) M	Ethylbenzene	7.53	85033	0.172 ppb
6) M	m&p-Xylene	7.73	223625	0.395 ppb
7) M	o-Xylene	8.06	106630	0.223 ppb
8) M	Naphthalene	11.08	50680	0.384 ppb
10) H	GRO	5.00	1339771	20.429 ppb

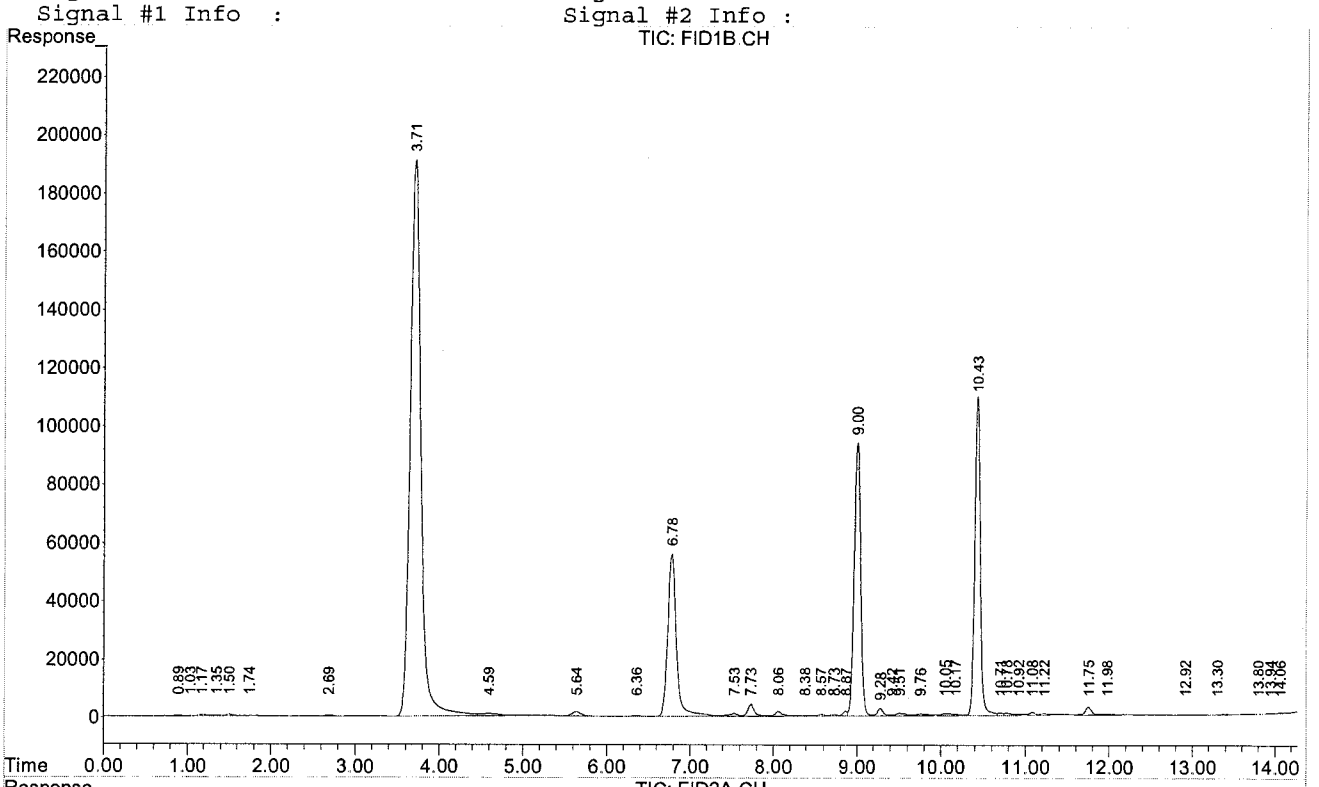
(f)=RT Delta > 1/2 Window (m)=manual int.

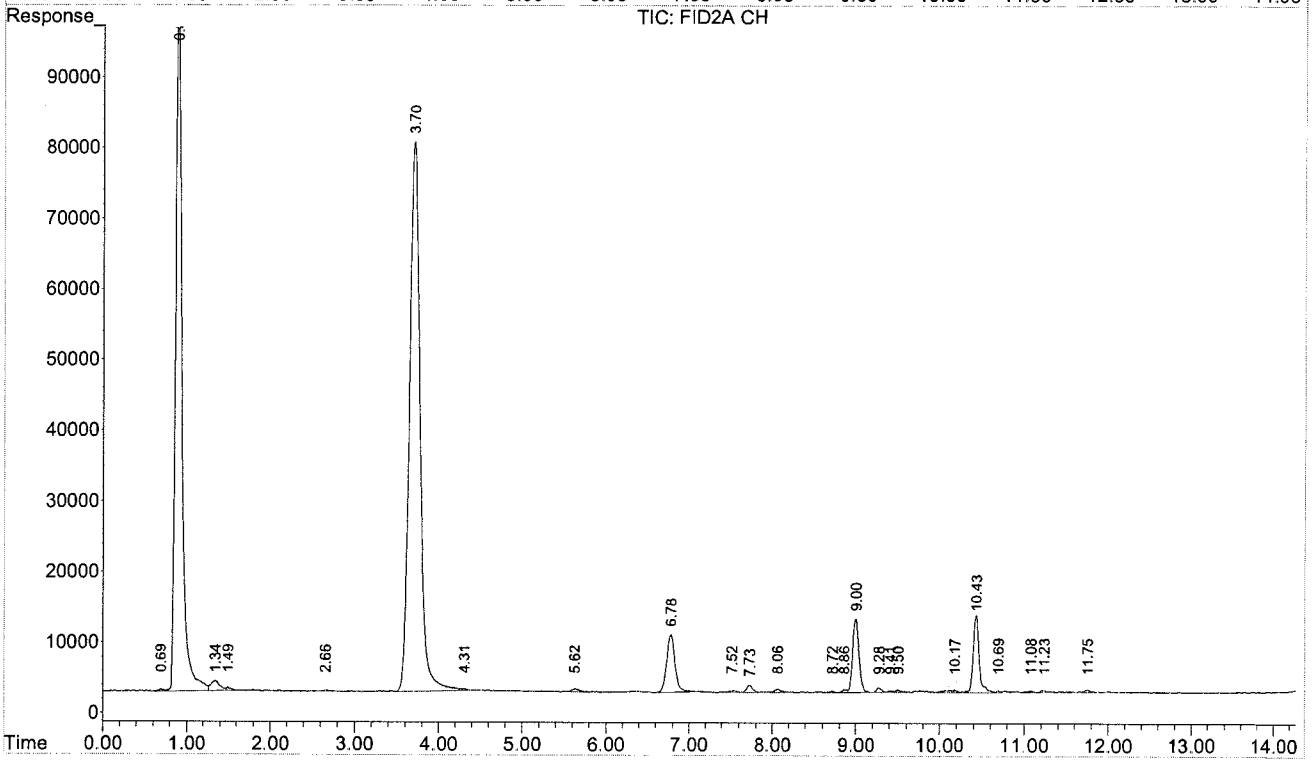
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040811.D\FID1B.CH Vial: 11
Signal #2 : P:\BTEX\1\DATA\130408\13040811.D\FID2A.CH
Acq On : 8 Apr 2013 1:12 pm Operator: ABC
Sample : 13040516-004 5.09g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 13:33 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040812.D\FID1B.CH Vial: 12
Signal #2 : P:\BTEX\1\DATA\130408\13040812.D\FID2A.CH
Acq On : 8 Apr 2013 1:39 pm Operator: ABC
Sample : 13040516-005 5.03g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 10:55:06 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.70	17282741	94.530 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	94.53%	
11) S	GRO Surrogate	3.70	6896866	99.515 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	99.52%	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.50	13280	0.067 ppb
2) M	Benzene	2.69	22819	0.039 ppb
4) M	Toluene	5.63	126478	0.215 ppb
5) M	Ethylbenzene	7.53	80267	0.162 ppb
6) M	m&p-Xylene	7.73	227502	0.402 ppb
7) M	o-Xylene	8.06	112211	0.235 ppb
8) M	Naphthalene	11.08	57847	0.439 ppb
10) H	GRO	5.00	1094988	16.696 ppb

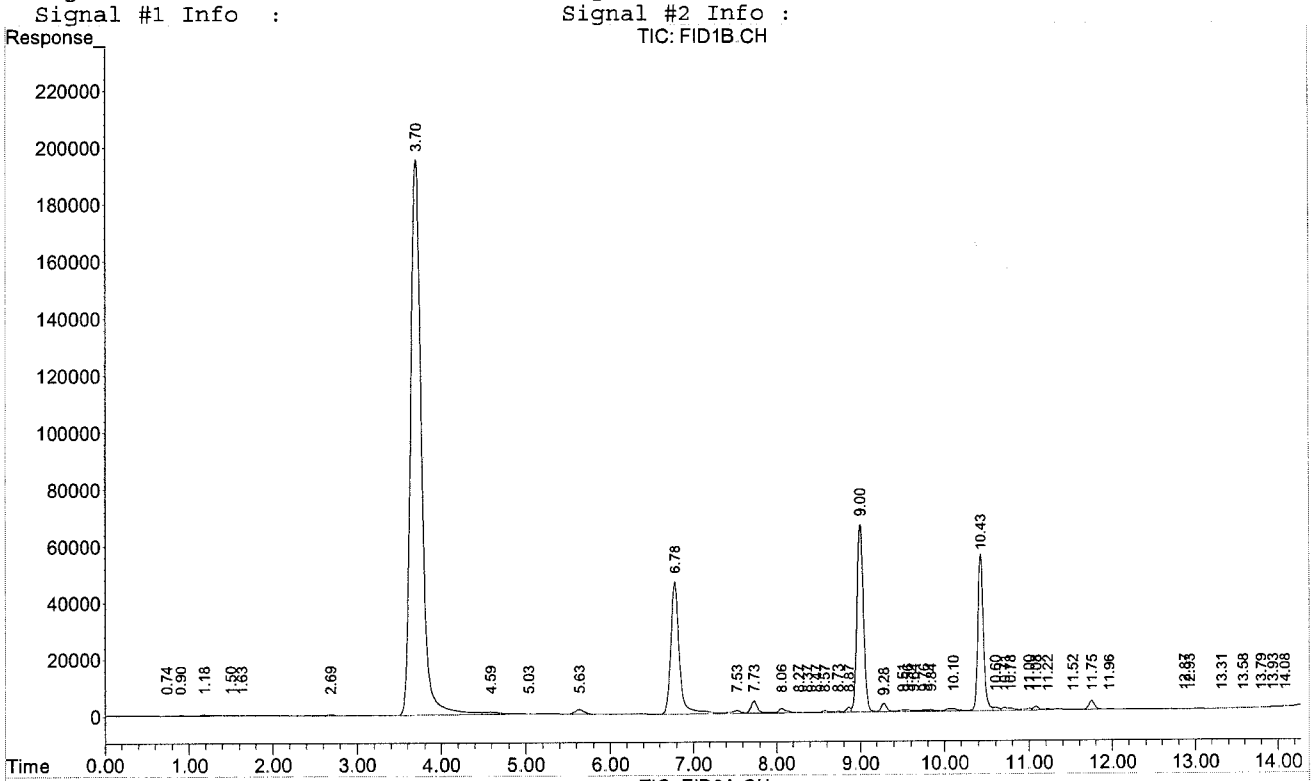
(f)=RT Delta > 1/2 Window (m)=manual int.

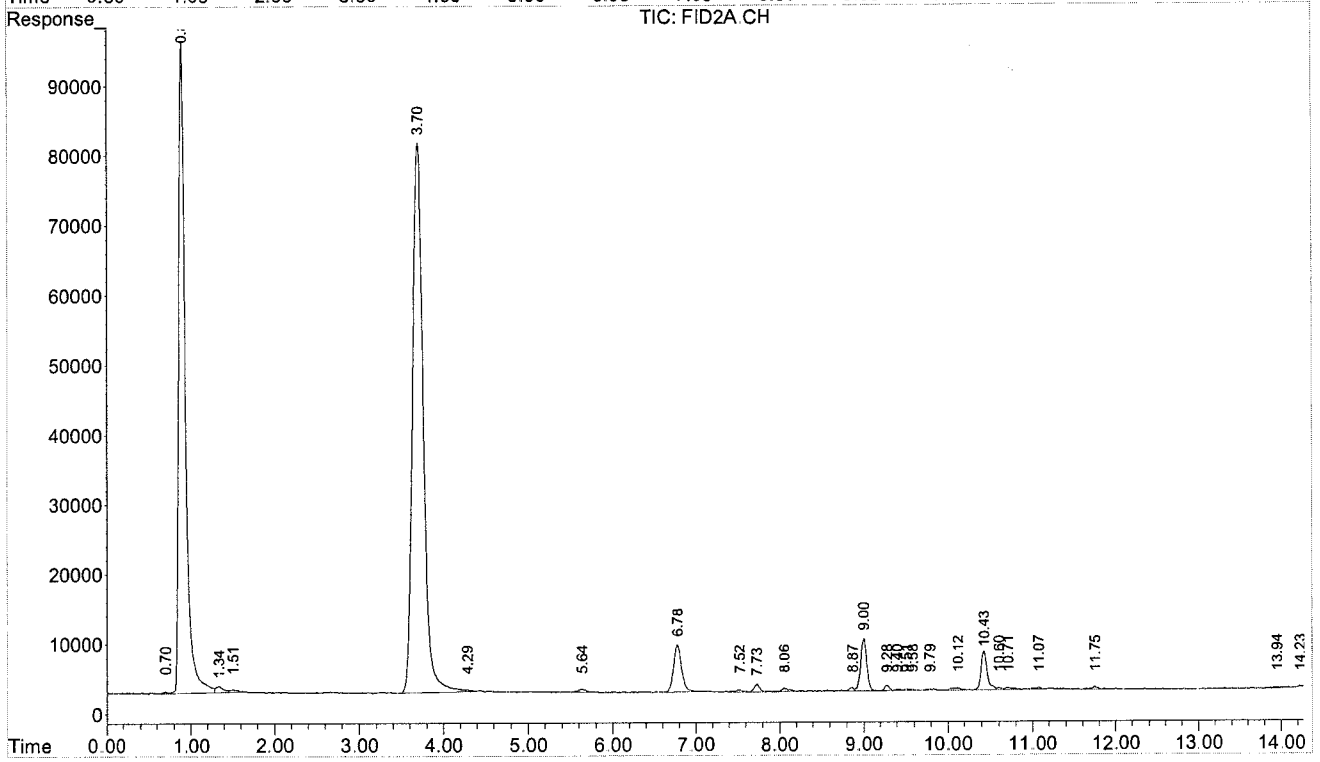
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040812.D\FID1B.CH Vial: 12
Signal #2 : P:\BTEX\1\DATA\130408\13040812.D\FID2A.CH
Acq On : 8 Apr 2013 1:39 pm Operator: ABC
Sample : 13040516-005 5.03g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 10:55 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040823.D\FID1B.CH Vial: 23
Signal #2 : P:\BTEX\2\DATA\130408\13040823.D\FID2A.CH
Acq On : 8 Apr 2013 6:02 pm Operator: ABC
Sample : 13040516-006 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:41 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.22	14672720	97.739 ppb
Spiked Amount	100.000 Range 84 - 110	Recovery =	97.74%	
11) s	GRO Surrogate	3.22	8819575	76.868 ppb
Spiked Amount	100.000 Range 69 - 100	Recovery =	76.87%	
	Target Compounds			
1) M	Methyl-t-butyl ether	0.00	0	N.D. ppb
2) M	Benzene	0.00	0	N.D. ppb
4) M	Toluene	0.00	0	N.D. ppb
5) M	Ethylbenzene	7.18	107619	0.808 ppb
6) M	m&p-Xylene	7.42	151774	0.945 ppb
7) M	o-Xylene	7.76	73582	0.488 ppb
8) M	Naphthalene	0.00	0	N.D. ppb
10) H	GRO	5.00	921490	27.336 ppb

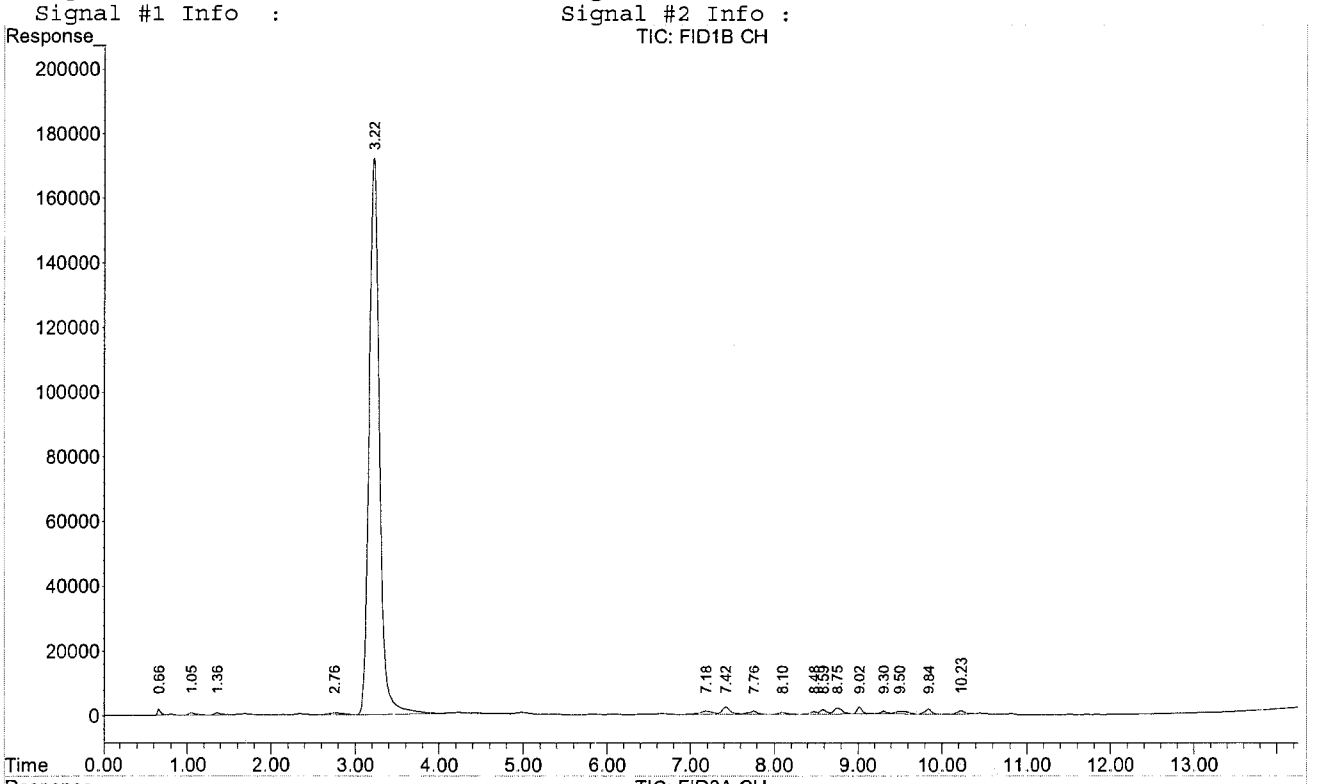
(f)=RT Delta > 1/2 Window (m)=manual int.

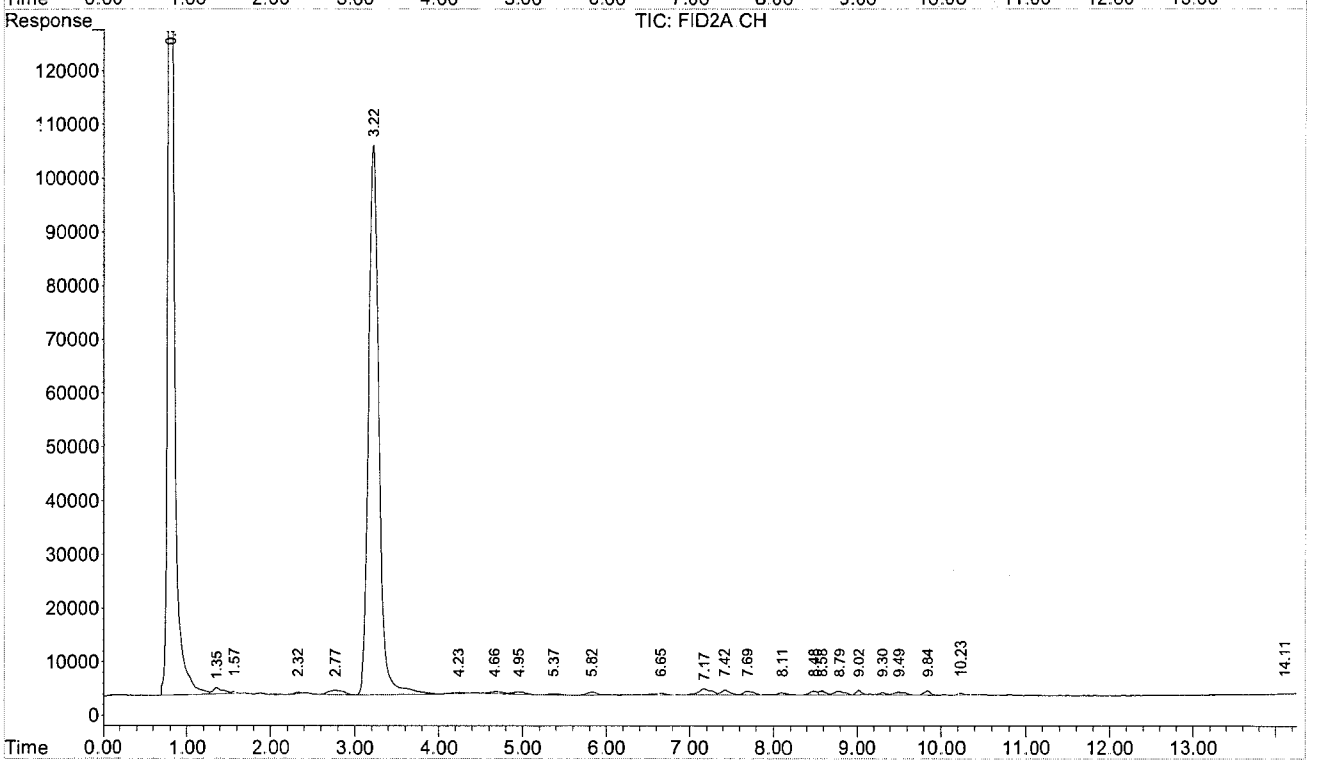
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040823.D\FID1B.CH Vial: 23
Signal #2 : P:\BTEX\2\DATA\130408\13040823.D\FID2A.CH
Acq On : 8 Apr 2013 6:02 pm Operator: ABC
Sample : 13040516-006 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040824.D\FID1B.CH Vial: 24
Signal #2 : P:\BTEX\2\DATA\130408\13040824.D\FID2A.CH
Acq On : 8 Apr 2013 6:27 pm Operator: ABC
Sample : 13040516-007 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:42 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

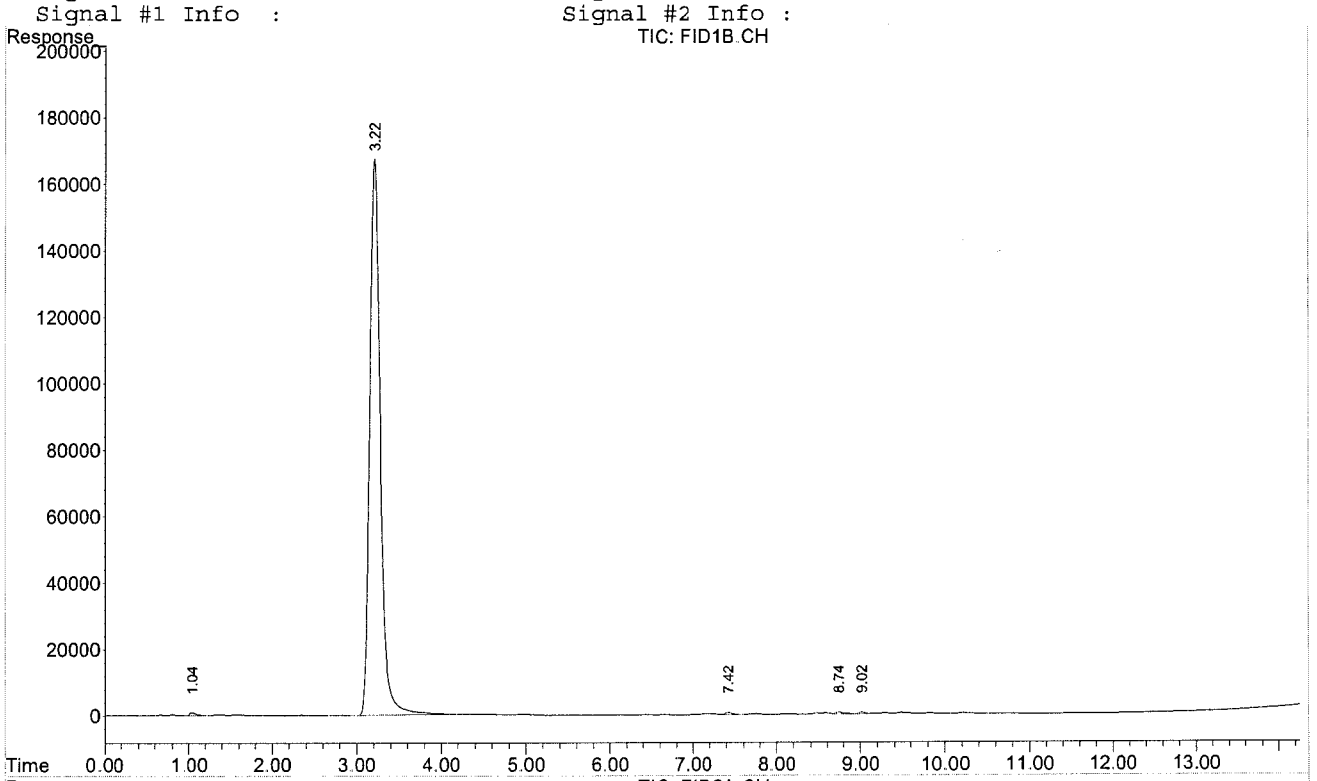
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.22	14391429	95.865 ppb
Spiked Amount	100.000 Range 84 - 110	Recovery =	95.86%	
11) s	GRO Surrogate	3.22	8554615	74.558 ppb
Spiked Amount	100.000 Range 69 - 100	Recovery =	74.56%	
	Target Compounds			
1) M	Methyl-t-butyl ether	0.00	0	N.D. ppb
2) M	Benzene	0.00	0	N.D. ppb
4) M	Toluene	0.00	0	N.D. ppb
5) M	Ethylbenzene	0.00	0	N.D. ppb
6) M	m&p-Xylene	7.42	37509	0.234 ppb
7) M	o-Xylene	0.00	0	N.D. ppb
8) M	Naphthalene	0.00	0	N.D. ppb
10) H	GRO	5.00	191242	5.673 ppb

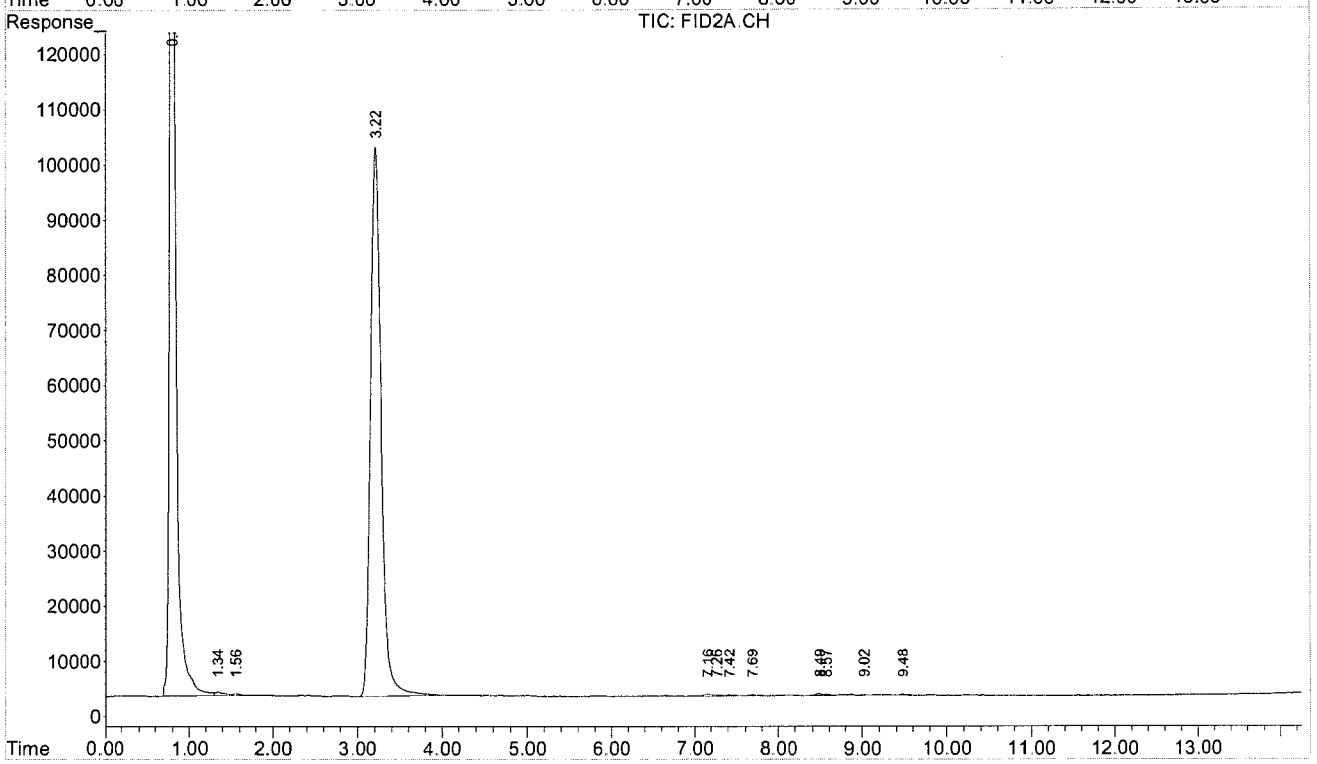
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040824.D\FID1B.CH Vial: 24
Signal #2 : P:\BTEX\2\DATA\130408\13040824.D\FID2A.CH
Acq On : 8 Apr 2013 6:27 pm Operator: ABC
Sample : 13040516-007 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040825.D\FID1B.CH Vial: 25
Signal #2 : P:\BTEX\2\DATA\130408\13040825.D\FID2A.CH
Acq On : 8 Apr 2013 6:53 pm Operator: ABC
Sample : 13040516-008 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:42 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.22	14441971	96.202 ppb
Spiked Amount	100.000 Range 84 - 110	Recovery =	96.20%	
11) s	GRO Surrogate	3.22	8490819	74.002 ppb
Spiked Amount	100.000 Range 69 - 100	Recovery =	74.00%	
	Target Compounds			
1) M	Methyl-t-butyl ether	0.00	0	N.D. ppb
2) M	Benzene	0.00	0	N.D. ppb
4) M	Toluene	0.00	0	N.D. ppb
5) M	Ethylbenzene	0.00	0	N.D. ppb
6) M	m&p-Xylene	0.00	0	N.D. ppb
7) M	o-Xylene	0.00	0	N.D. ppb
8) M	Naphthalene	0.00	0	N.D. ppb
10) H	GRO	5.00	130812	3.881 ppb

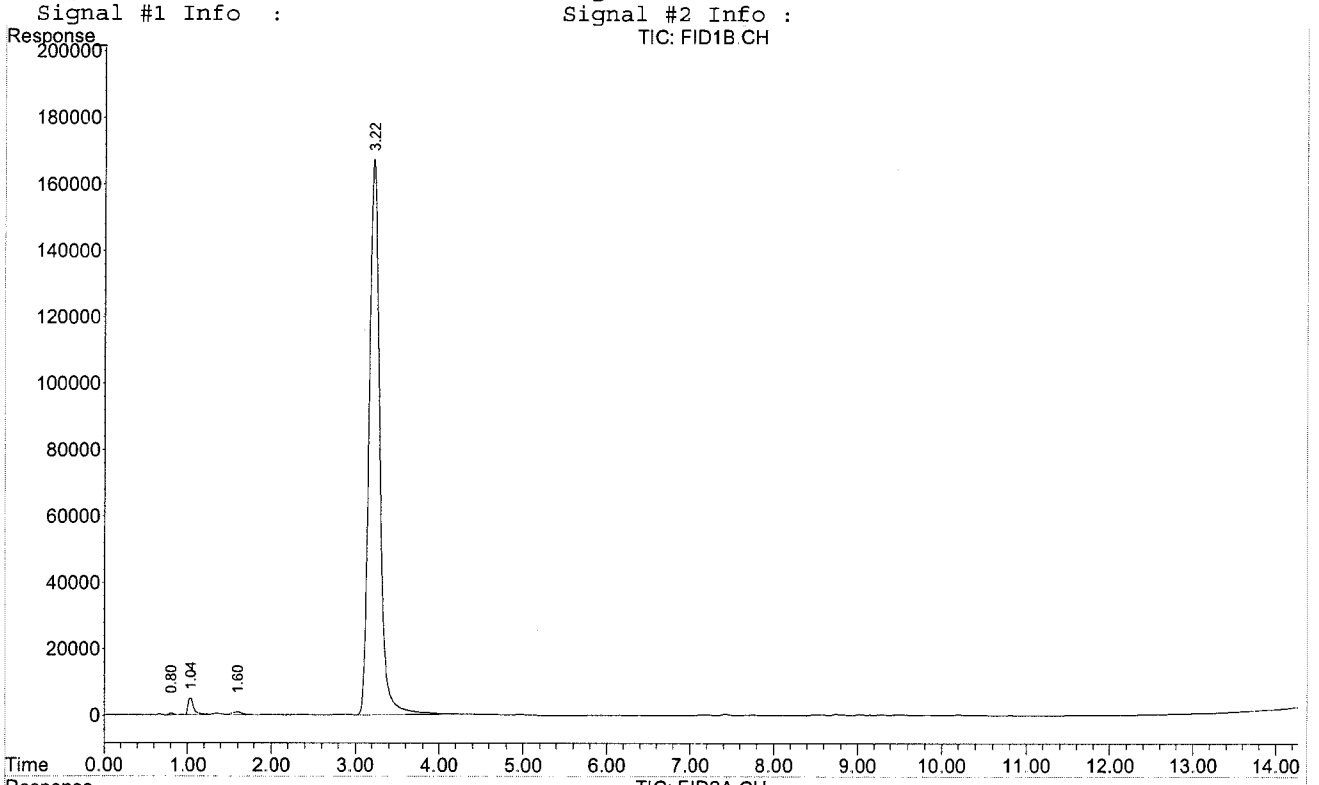
(f)=RT Delta > 1/2 Window (m)=manual int.

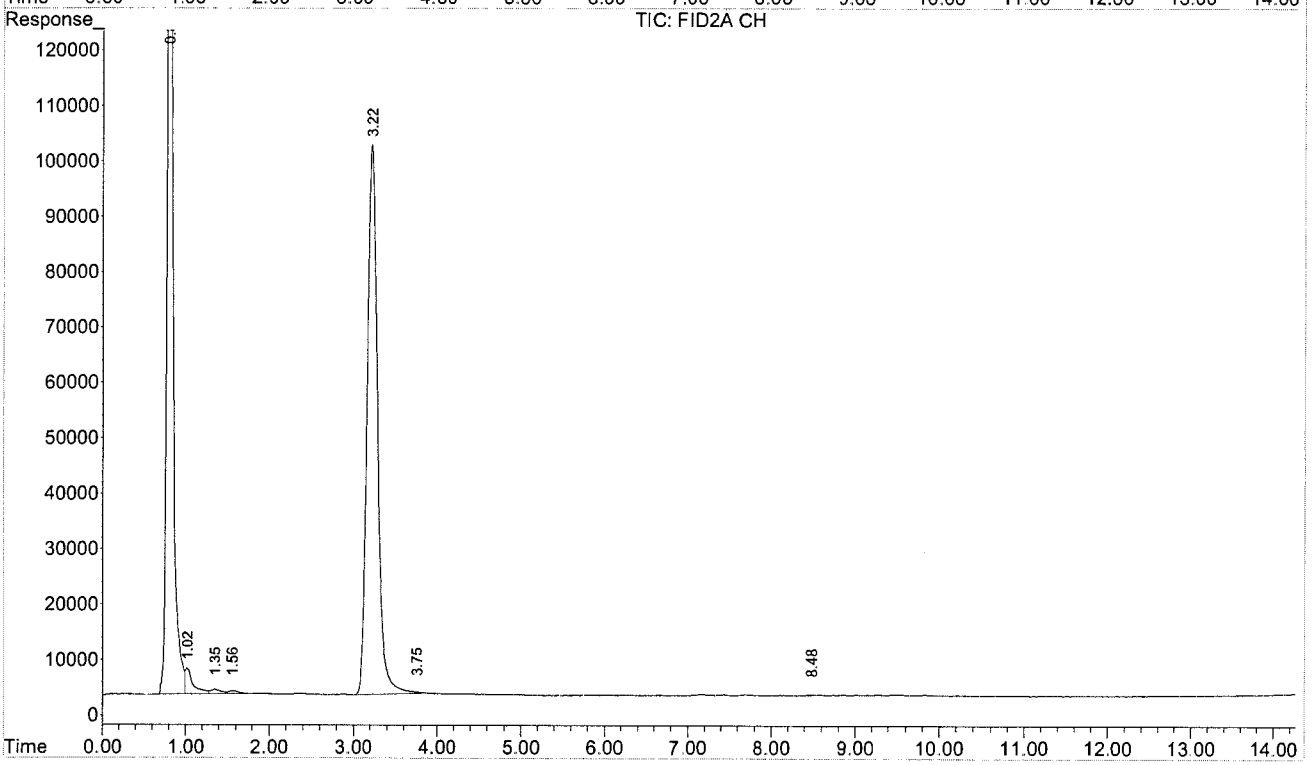
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040825.D\FID1B.CH Vial: 25
Signal #2 : P:\BTEX\2\DATA\130408\13040825.D\FID2A.CH
Acq On : 8 Apr 2013 6:53 pm Operator: ABC
Sample : 13040516-008 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040826.D\FID1B.CH Vial: 26
Signal #2 : P:\BTEX\2\DATA\130408\13040826.D\FID2A.CH
Acq On : 8 Apr 2013 7:18 pm Operator: ABC
Sample : 13040516-009 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:43 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

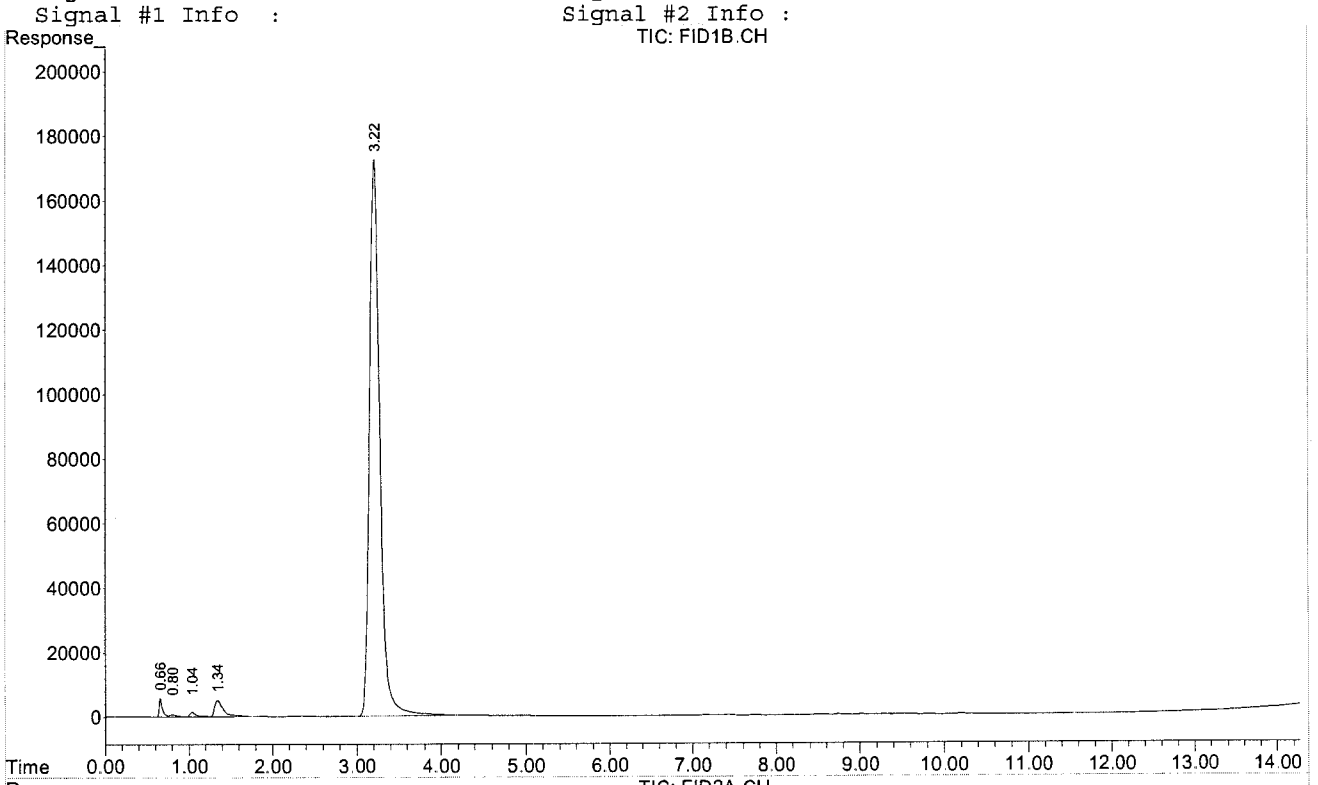
	Compound		R.T.	Response	Conc Units
	System Monitoring Compounds				
3)	S BTEX Surrogate		3.22	14859110	98.981 ppb
Spiked Amount	100.000	Range 84 - 110		Recovery =	98.98%
11)	s GRO Surrogate		3.22	8717746	75.980 ppb
Spiked Amount	100.000	Range 69 - 100		Recovery =	75.98%
	Target Compounds				
1)	M Methyl-t-butyl ether		0.00	0	N.D. ppb
2)	M Benzene		0.00	0	N.D. ppb
4)	M Toluene		0.00	0	N.D. ppb
5)	M Ethylbenzene		0.00	0	N.D. ppb
6)	M m&p-Xylene		0.00	0	N.D. ppb
7)	M o-Xylene		0.00	0	N.D. ppb
8)	M Naphthalene		0.00	0	N.D. ppb
10)	H GRO		5.00	254928	7.562 ppb

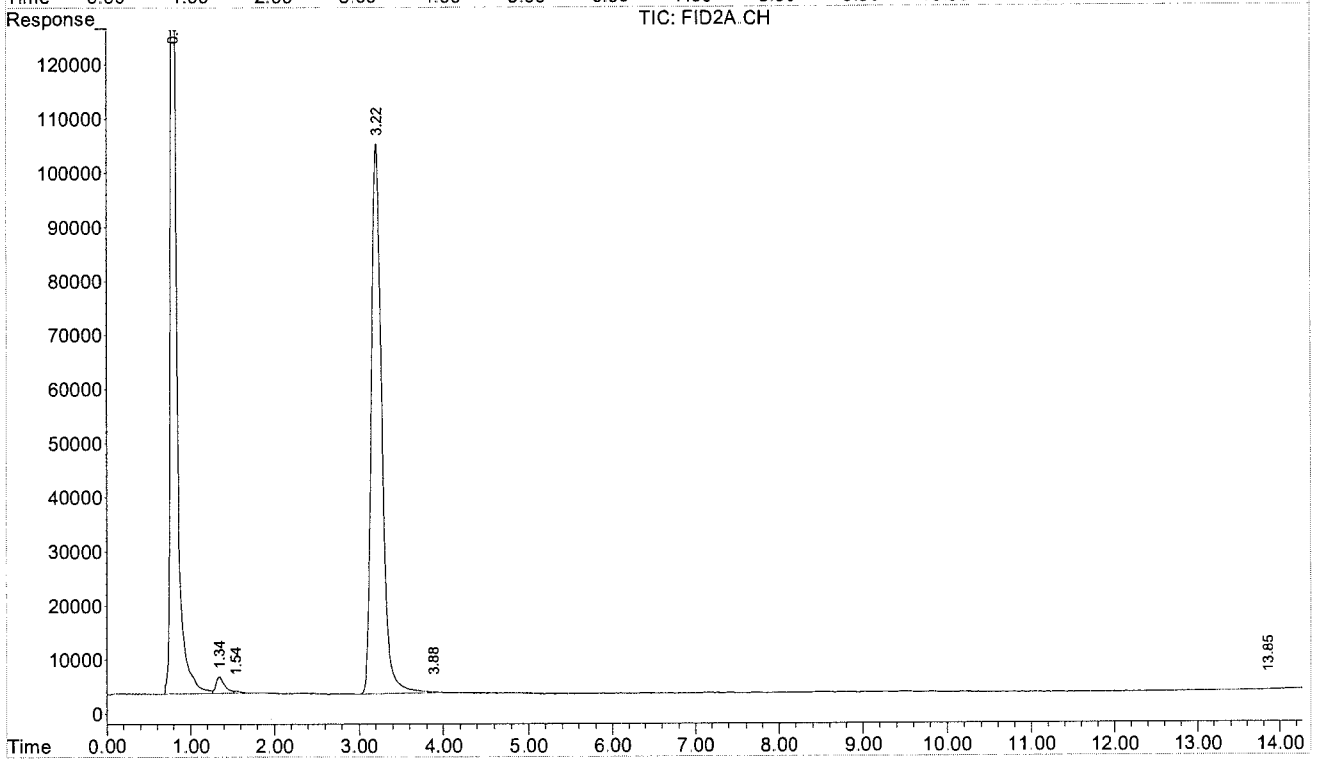
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040826.D\FID1B.CH Vial: 26
Signal #2 : P:\BTEX\2\DATA\130408\13040826.D\FID2A.CH
Acq On : 8 Apr 2013 7:18 pm Operator: ABC
Sample : 13040516-009 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040827.D\FID1B.CH Vial: 27
Signal #2 : P:\BTEX\2\DATA\130408\13040827.D\FID2A.CH
Acq On : 8 Apr 2013 7:44 pm Operator: ABC
Sample : 13040516-010 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:43 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

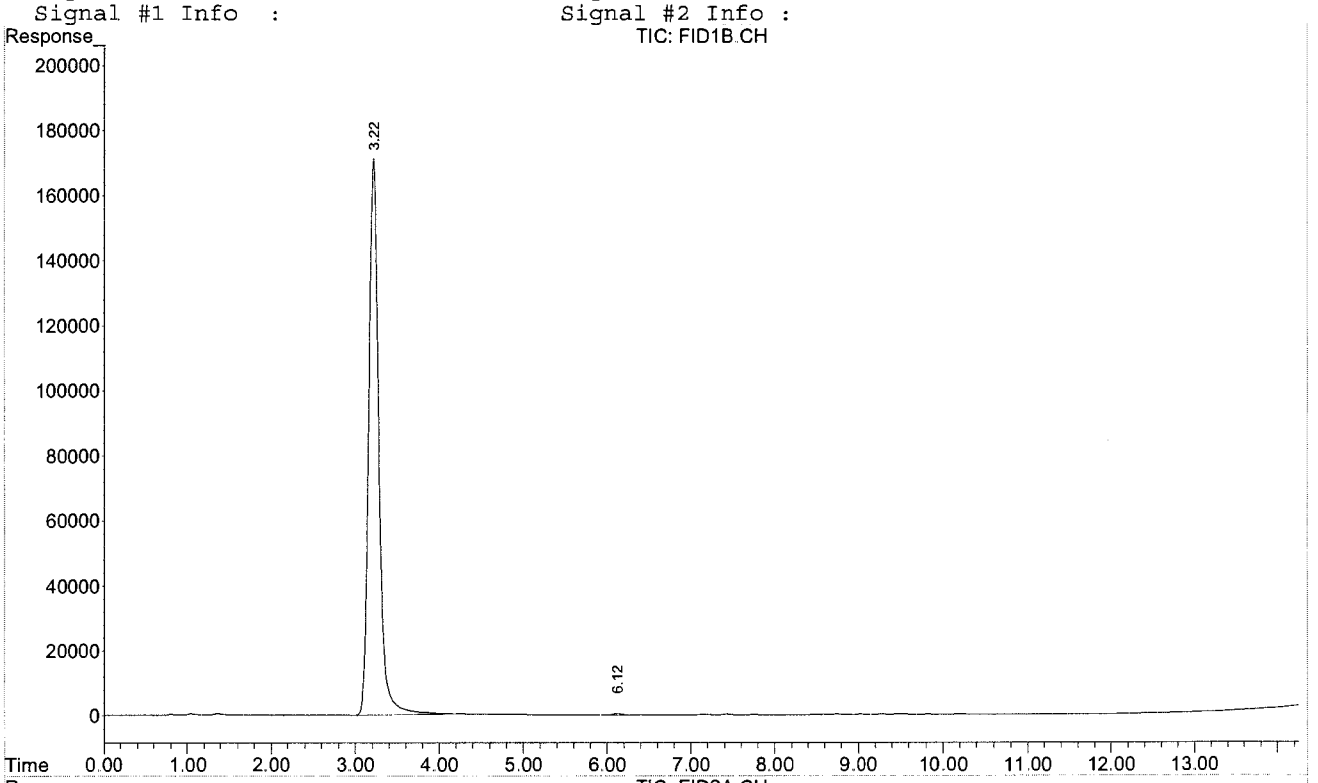
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3) S	BTEX Surrogate	3.22	14820299	98.722	ppb
Spiked Amount	100.000 Range 84 - 110	Recovery =	98.72%		
11) s	GRO Surrogate	3.22	8685598	75.700	ppb
Spiked Amount	100.000 Range 69 - 100	Recovery =	75.70%		
	Target Compounds				
1) M	Methyl-t-butyl ether	0.00	0	N.D.	ppb
2) M	Benzene	0.00	0	N.D.	ppb
4) M	Toluene	0.00	0	N.D.	ppb
5) M	Ethylbenzene	0.00	0	N.D.	ppb
6) M	m&p-Xylene	0.00	0	N.D.	ppb
7) M	o-Xylene	0.00	0	N.D.	ppb
8) M	Naphthalene	0.00	0	N.D.	ppb
10) H	GRO	5.00	42311	1.255	ppb

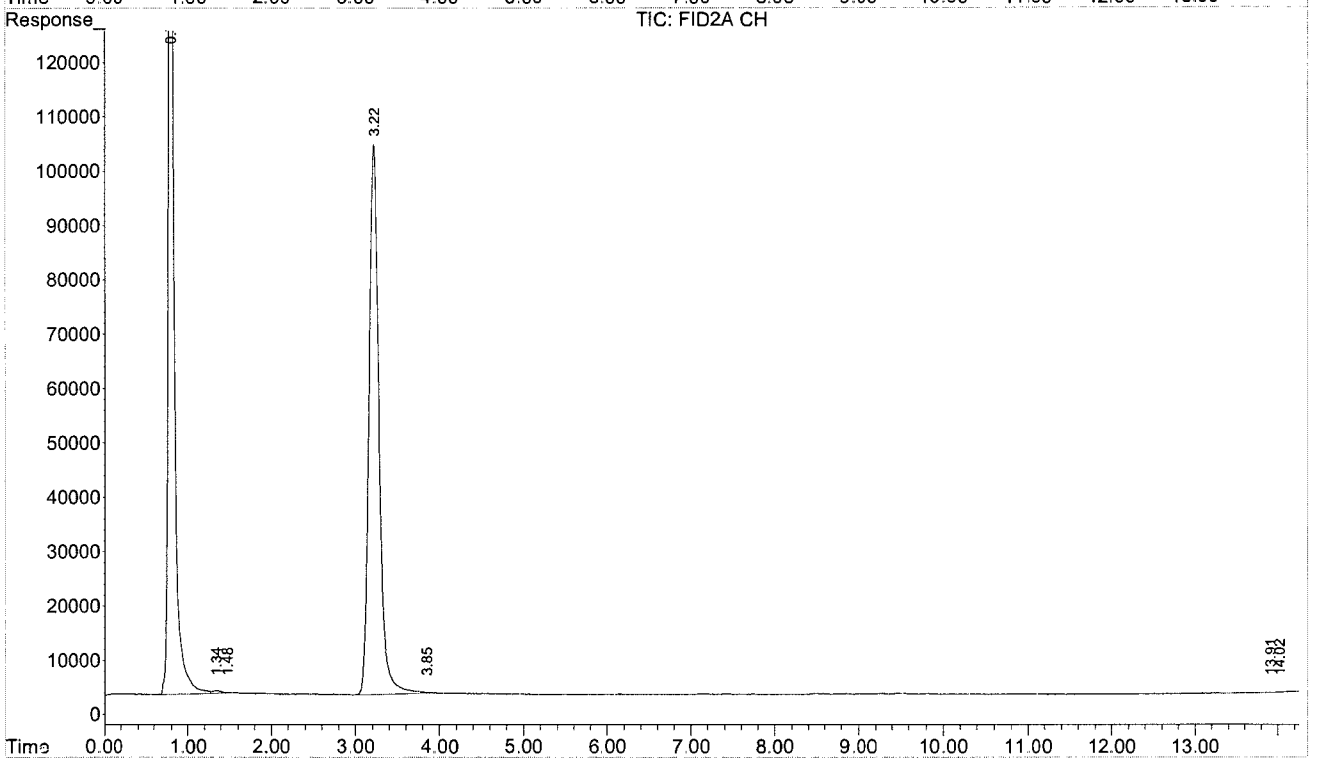
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040827.D\FID1B.CH Vial: 27
Signal #2 : P:\BTEX\2\DATA\130408\13040827.D\FID2A.CH
Acq On : 8 Apr 2013 7:44 pm Operator: ABC
Sample : 13040516-010 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040828.D\FID1B.CH Vial: 28
Signal #2 : P:\BTEX\2\DATA\130408\13040828.D\FID2A.CH
Acq On : 8 Apr 2013 8:09 pm Operator: ABC
Sample : 13040516-011 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:44 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

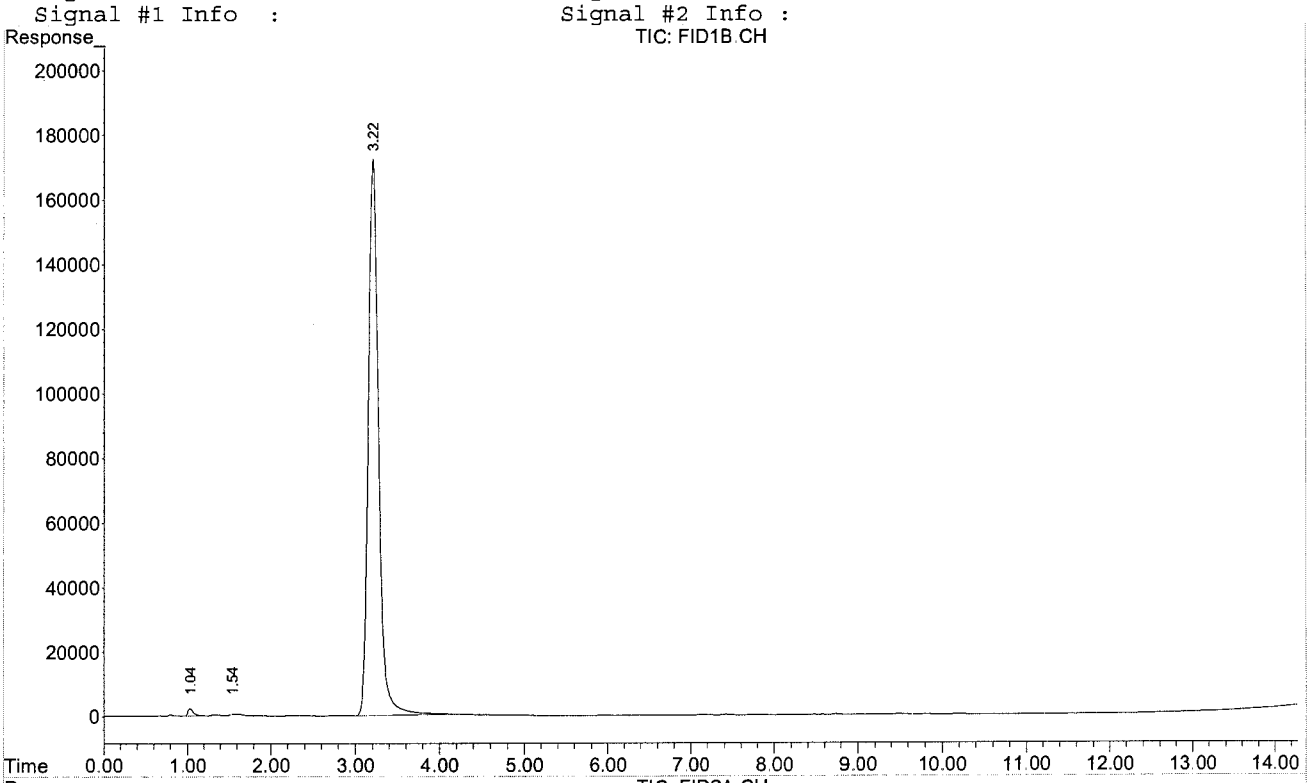
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.22	14900624	99.257 ppb
Spiked Amount	100.000	Range 84 - 110	Recovery =	99.26%
11) s	GRO Surrogate	3.22	8710816	75.920 ppb
Spiked Amount	100.000	Range 69 - 100	Recovery =	75.92%
	Target Compounds			
1) M	Methyl-t-butyl ether	0.00	0	N.D. ppb
2) M	Benzene	0.00	0	N.D. ppb
4) M	Toluene	0.00	0	N.D. ppb
5) M	Ethylbenzene	0.00	0	N.D. ppb
6) M	m&p-Xylene	0.00	0	N.D. ppb
7) M	o-Xylene	0.00	0	N.D. ppb
8) M	Naphthalene	0.00	0	N.D. ppb
10) H	GRO	5.00	45399	1.347 ppb

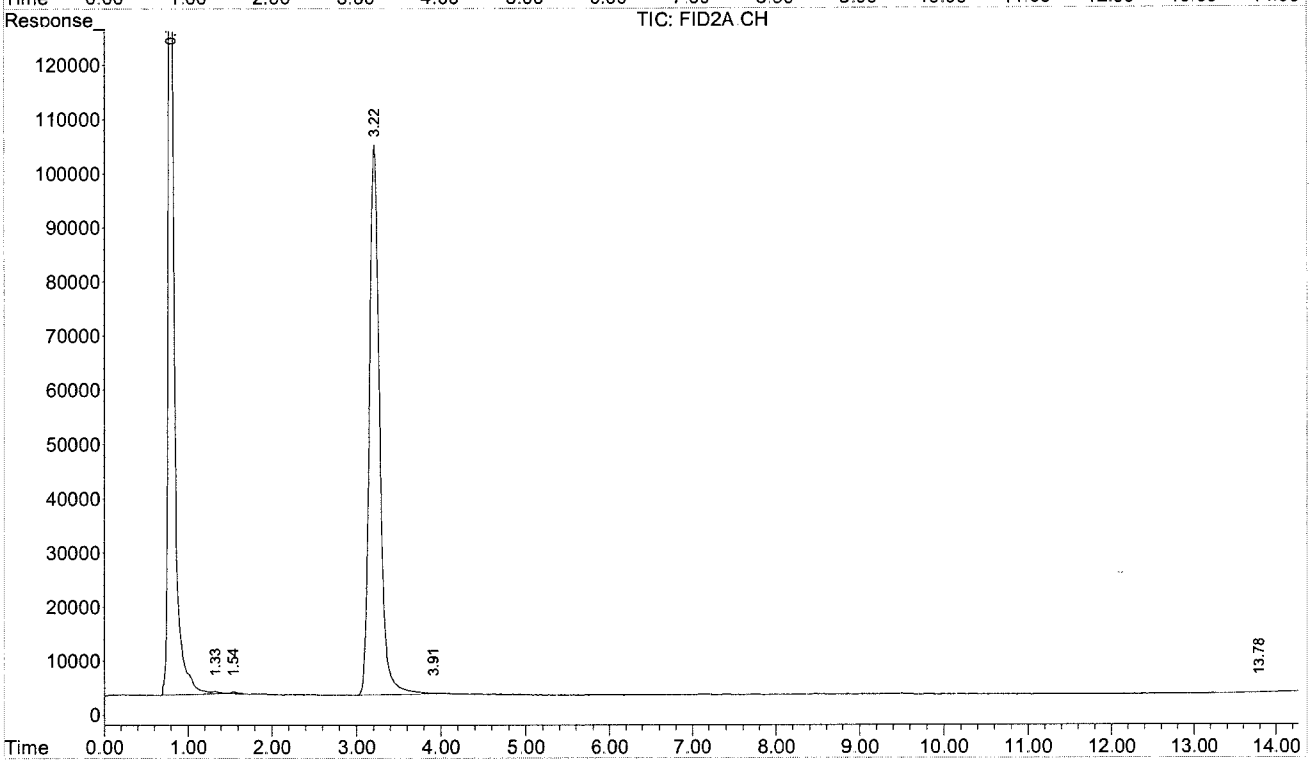
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040828.D\FID1B.CH Vial: 28
Signal #2 : P:\BTEX\2\DATA\130408\13040828.D\FID2A.CH
Acq On : 8 Apr 2013 8:09 pm Operator: ABC
Sample : 13040516-011 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





2A - FORM II VOA-1
WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod Ref No.: _____ SDG No. : 13040516

Level: (TRACE or LOW/MED) _____

	EPA SAMPLE NO.	VDMC1	VDMC2	VDMC3	VDMC4	VDMC5	VDMC6	VDMC7	Total Out
		(TFT) #	() #	() #	() #	() #	() #	() #	
1	45504-2-BLK	77							0
2	45504-2-BKS	103*							1
3	1644-Sump	77							0
4	SB-03 (GW)	75							0
5	SB-040413 (GW)	74							0
6	SB-04 (GW)	76							0
7	1646-Sump	76							0
8	Surface Water	76							0
9	SB-03 (GW) S	100							0
10	SB-03 (GW) SD	99							0

		QC LIMITS
VDMC1	(TFT) = a,a,a-Trifluorotoluene	(69 - 100)
VDMC2	_____	_____
VDMC3	_____	_____
VDMC4	_____	_____
VDMC5	_____	_____
VDMC6	_____	_____
VDMC7	_____	_____

Column to be used to flag recovery values

* Values outside of contract required QC limits

SW8021B SW8015

2C - FORM II VOA-3
SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod Ref No.: _____ SDG No. : 13040516

Level: (TRACE or LOW/MED) _____

	EPA SAMPLE NO.	VDMC1 (TFT) #	VDMC2 () #	VDMC3 () #	VDMC4 () #	VDMC5 () #	VDMC6 () #	VDMC7 () #	Total Out
1	45494-2-BLK	98							0
2	45494-2-BKS	125*							1
3	SB-02 (2-2.5)	95							0
4	SB-04 (2-2.5)	97							0
5	SB-01 (2-2.5)	99							0
6	SB-040413 (2-2.5)	100							0
7	SB-03 (2-2.5)	101							0
8	SB-01 (2-2.5) S	120							0
9	SB-01 (2-2.5) SD	124*							1

		QC LIMITS
VDMC1	(TFT) = a,a,a-Trifluorotoluene	(51 - 122)
VDMC2	_____	_____
VDMC3	_____	_____
VDMC4	_____	_____
VDMC5	_____	_____
VDMC6	_____	_____
VDMC7	_____	_____

Column to be used to flag recovery values

* Values outside of contract required QC limits

SW8021B SW8015

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-03 (GW)

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC #	QC LIMITS REC.
TPH-GRO (Gasoline Range Organics)	5000.00	0	4503	90	67-134

COMPOUND	SPIKE ADDED ug/L	MSD CONCENTRATION ug/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
TPH-GRO (Gasoline Range Organics)	5000.00	4311	86	4	0- 25	54-134

Column to be used to flag recovery and RPD Values with an asterisk.
* Values outside of QC limits

RPD 1 Out of 1 outside limits

Spike Recovery : 0 Out of 2 outside limit

COMMENTS: _____

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-03 (GW) S

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007 S

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040839

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	4503	

SW8021B_SW8015

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-03 (GW) SD

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007 SD

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040840

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	4311	

SW8021B_SW8015

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040839.D\FID1B.CH Vial: 39
Signal #2 : P:\BTEX\2\DATA\130408\13040839.D\FID2A.CH
Acq On : 9 Apr 2013 12:47 am Operator: ABC
Sample : 13040516-007 MS GRO Water 5ml Inst : BTEX #2
Misc : 1ul A2458 10ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:52 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		R.T.	Response	Conc	Units
	System Monitoring Compounds					
3) S	BTEX Surrogate		3.22	16986960	113.155	ppb
Spiked Amount	100.000	Range 84 - 110		Recovery =	113.16%#	
11) s	GRO Surrogate		3.22	11418217	99.516	ppb
Spiked Amount	100.000	Range 69 - 100		Recovery =	99.52%	
	Target Compounds					
1) M	Methyl-t-butyl ether		0.00	0	N.D.	ppb
2) M	Benzene		2.35	16283343	82.838	ppb
4) M	Toluene		5.00	74762845	416.596	ppb
5) M	Ethylbenzene		7.20	13497554	101.328	ppb
6) M	m&p-Xylene		7.41	50856581	316.753	ppb
7) M	o-Xylene		7.75	19388728	128.631	ppb
8) M	Naphthalene		10.81	618447	76.850	ppb
10) H	GRO		5.00	151804388	4503.287	ppb

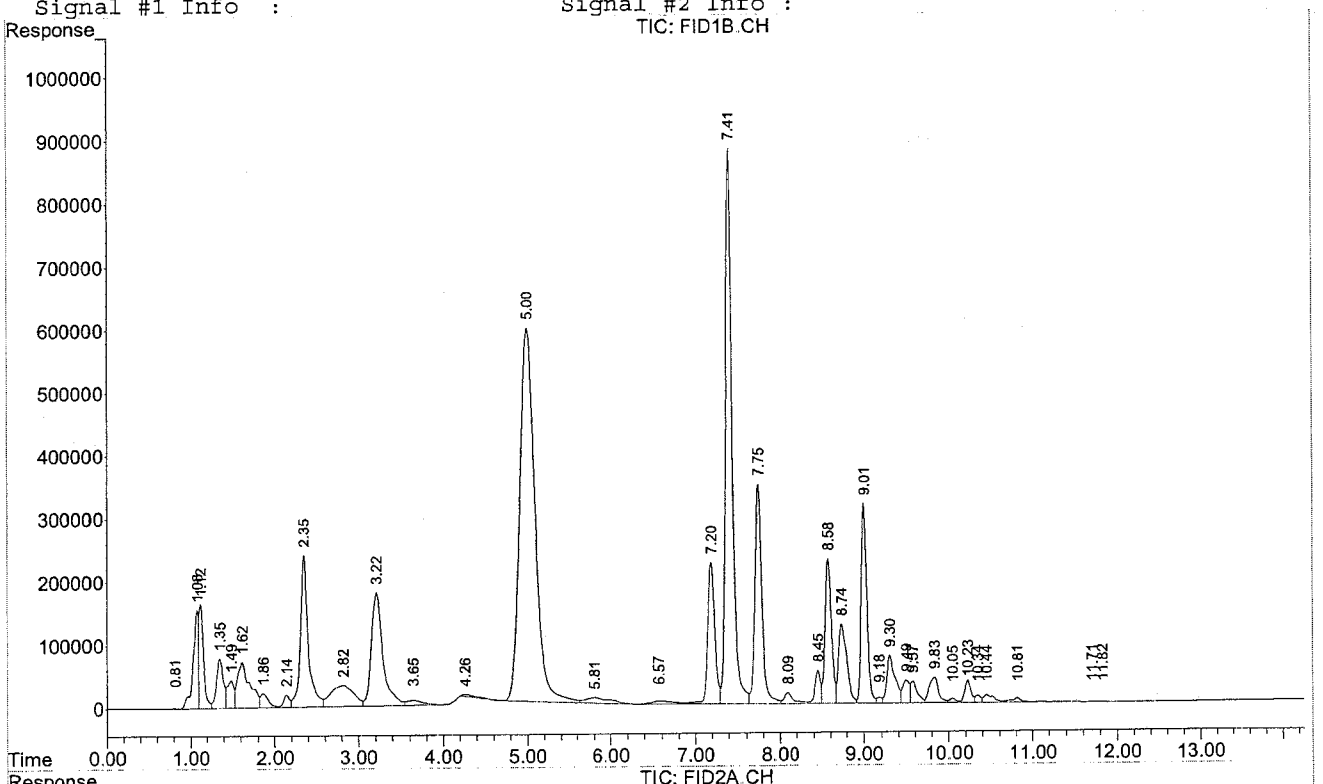
(f)=RT Delta > 1/2 Window (m)=manual int.

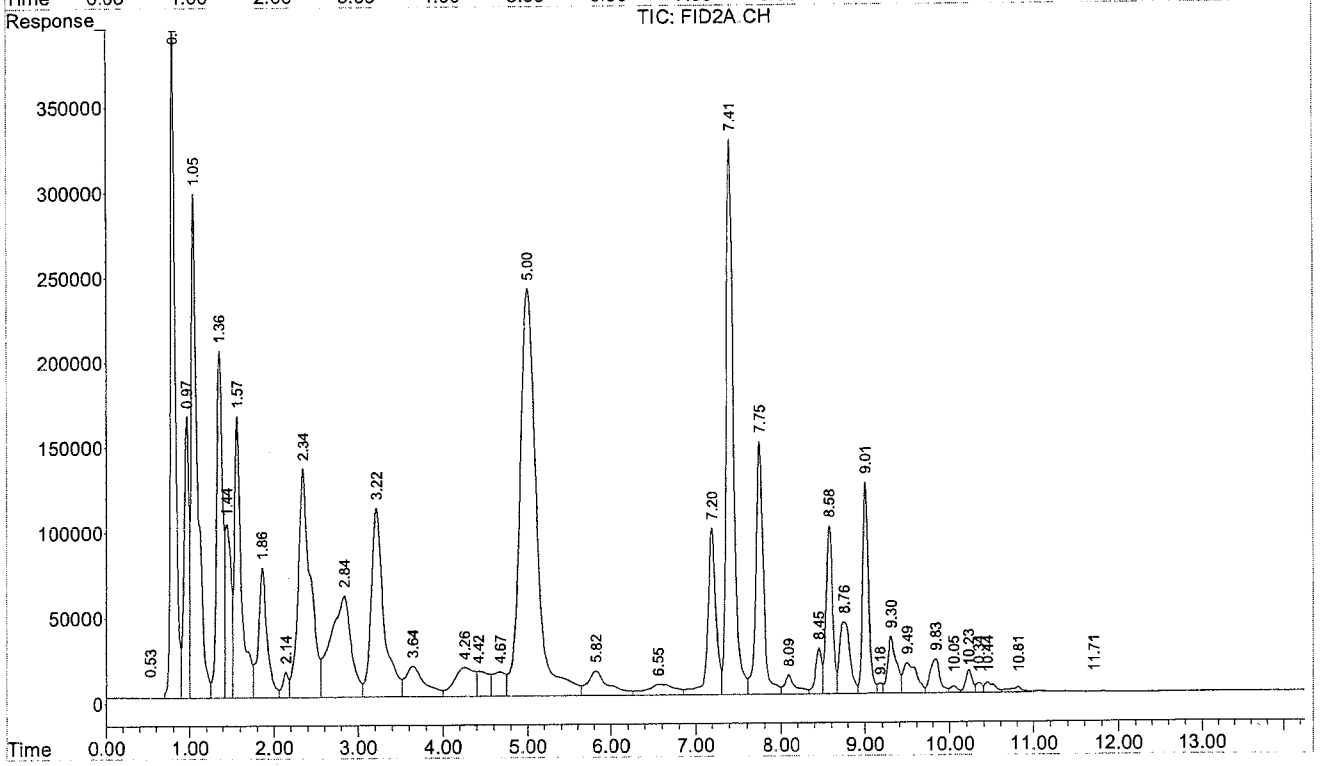
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040839.D\FID1B.CH Vial: 39
Signal #2 : P:\BTEX\2\DATA\130408\13040839.D\FID2A.CH
Acq On : 9 Apr 2013 12:47 am Operator: ABC
Sample : 13040516-007 MS GRO Water 5ml Inst : BTEX #2
Misc : 1ul A2458 10ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040840.D\FID1B.CH Vial: 40
Signal #2 : P:\BTEX\2\DATA\130408\13040840.D\FID2A.CH
Acq On : 9 Apr 2013 1:13 am Operator: ABC
Sample : 13040516-007 MSD GRO Water 5ml Inst : BTEX #2
Misc : 1ul A2458 10ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:53 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

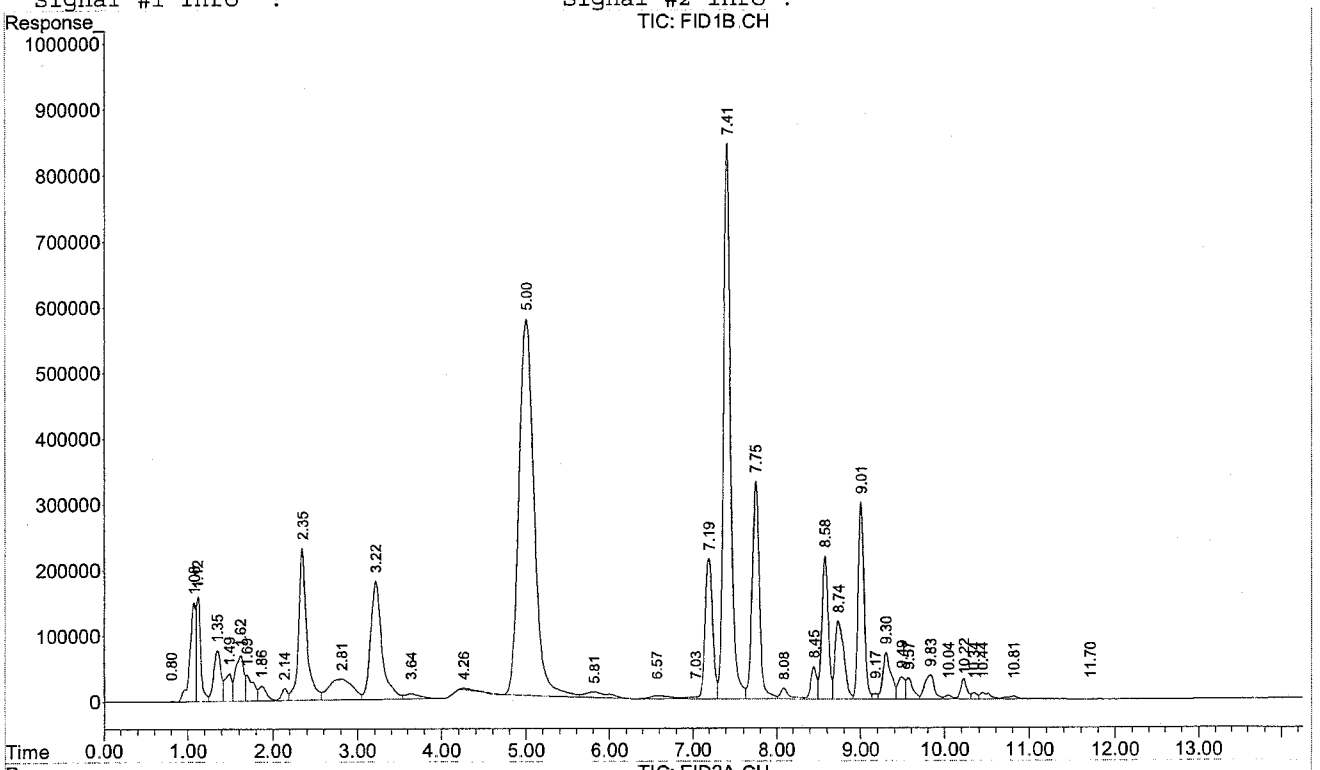
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S BTEX Surrogate	3.22	16988163	113.163 ppb
Spiked Amount 100.000 Range 84 - 110	Recovery = 113.16%#		
11) s GRO Surrogate	3.22	11306748	98.545 ppb
Spiked Amount 100.000 Range 69 - 100	Recovery = 98.55%		
Target Compounds			
1) M Methyl-t-butyl ether	0.00	0	N.D. ppb
2) M Benzene	2.35	15673818	79.737 ppb
4) M Toluene	5.00	72435375	403.627 ppb
5) M Ethylbenzene	7.19	12711516	95.427 ppb
6) M m&p-Xylene	7.41	49072943	305.644 ppb
7) M o-Xylene	7.75	18671224	123.871 ppb
8) M Naphthalene	10.81	459729	57.127 ppb
10) H GRO	5.00	145337871	4311.457 ppb

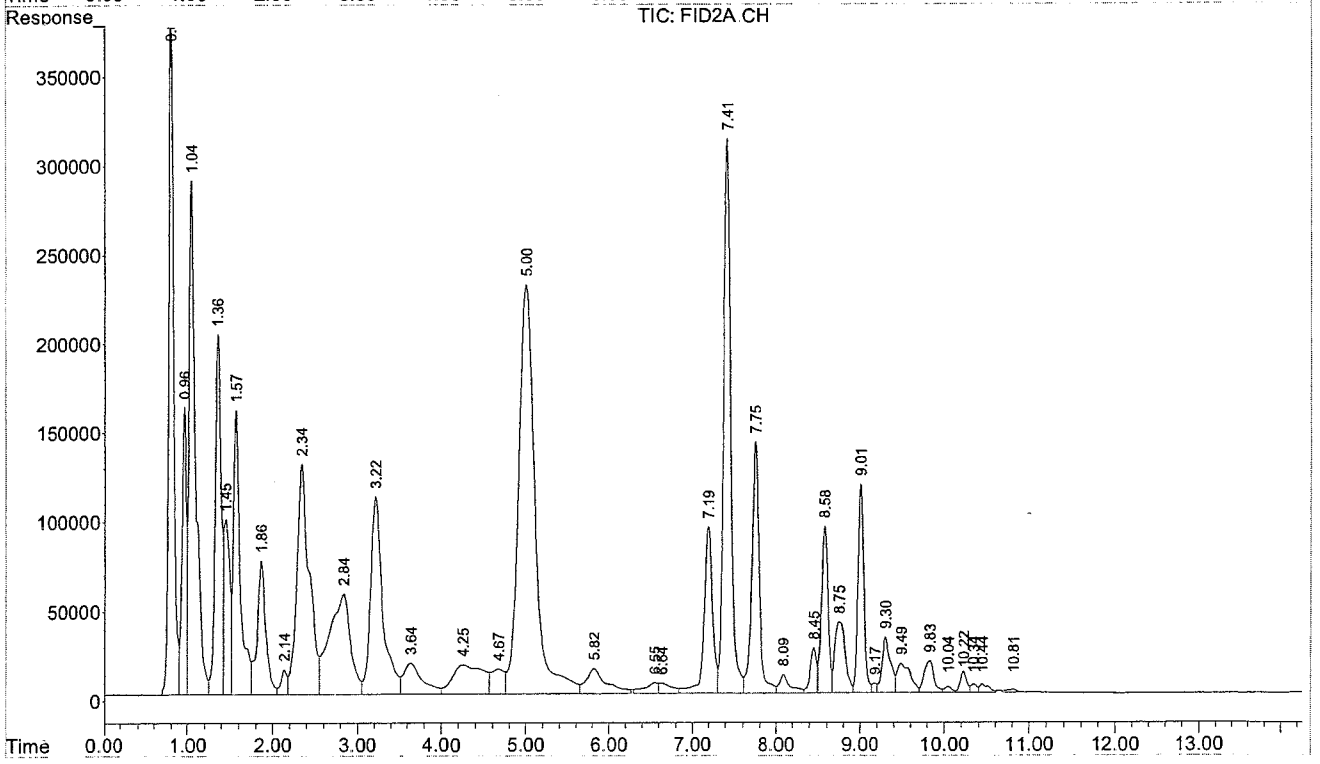
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040840.D\FID1B.CH Vial: 40
Signal #2 : P:\BTEX\2\DATA\130408\13040840.D\FID2A.CH
Acq On : 9 Apr 2013 1:13 am Operator: ABC
Sample : 13040516-007 MSD GRO Water 5ml Inst : BTEX #2
Misc : 1ul A2458 10ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040824.D\FID1B.CH Vial: 24
Signal #2 : P:\BTEX\2\DATA\130408\13040824.D\FID2A.CH
Acq On : 8 Apr 2013 6:27 pm Operator: ABC
Sample : 13040516-007 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:42 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

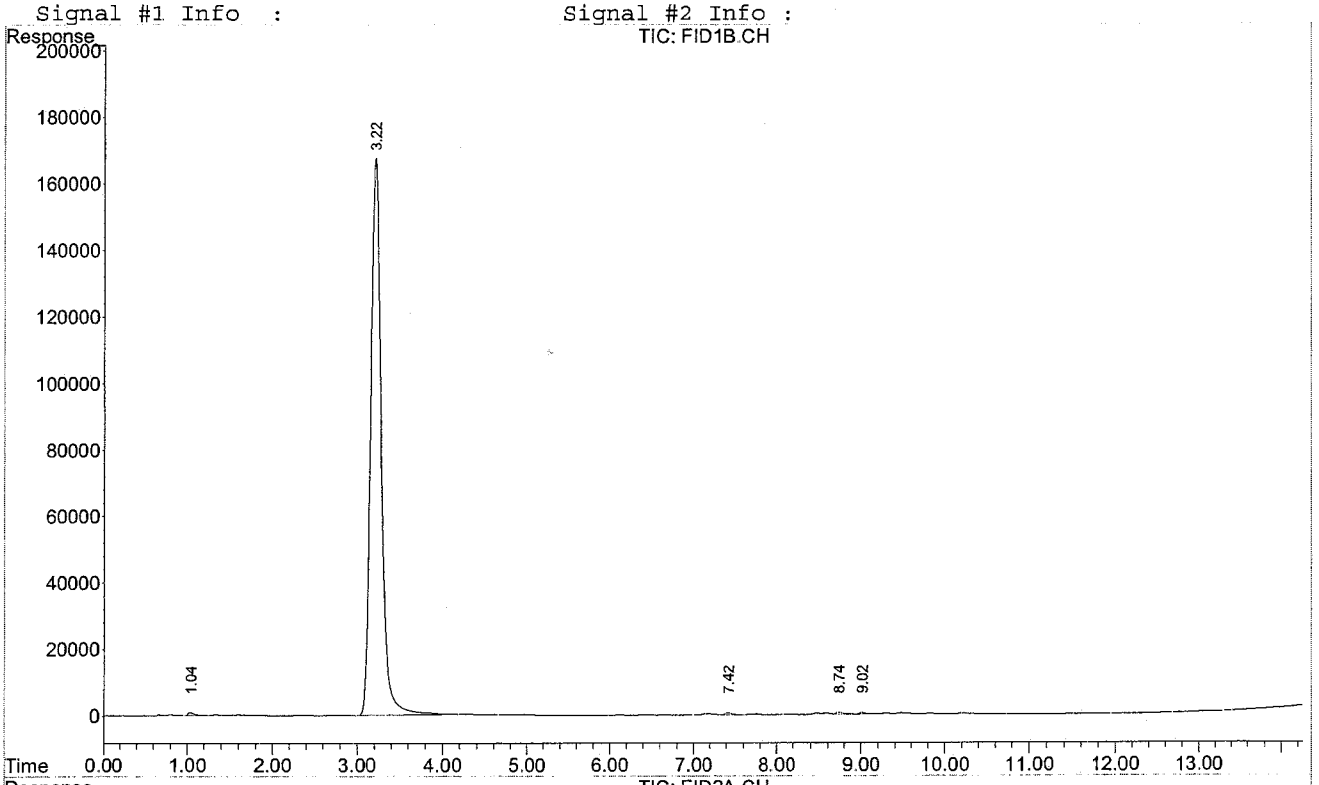
	Compound		R.T.	Response	Conc	Units
	System Monitoring Compounds					
3) S	BTEX Surrogate		3.22	14391429	95.865	ppb
Spiked Amount	100.000	Range 84 - 110		Recovery =	95.86%	
11) s	GRO Surrogate		3.22	8554615	74.558	ppb
Spiked Amount	100.000	Range 69 - 100		Recovery =	74.56%	
	Target Compounds					
1) M	Methyl-t-butyl ether		0.00	0	N.D.	ppb
2) M	Benzene		0.00	0	N.D.	ppb
4) M	Toluene		0.00	0	N.D.	ppb
5) M	Ethylbenzene		0.00	0	N.D.	ppb
6) M	m&p-Xylene		7.42	37509	0.234	ppb
7) M	o-Xylene		0.00	0	N.D.	ppb
8) M	Naphthalene		0.00	0	N.D.	ppb
10) H	GRO		5.00	191242	5.673	ppb

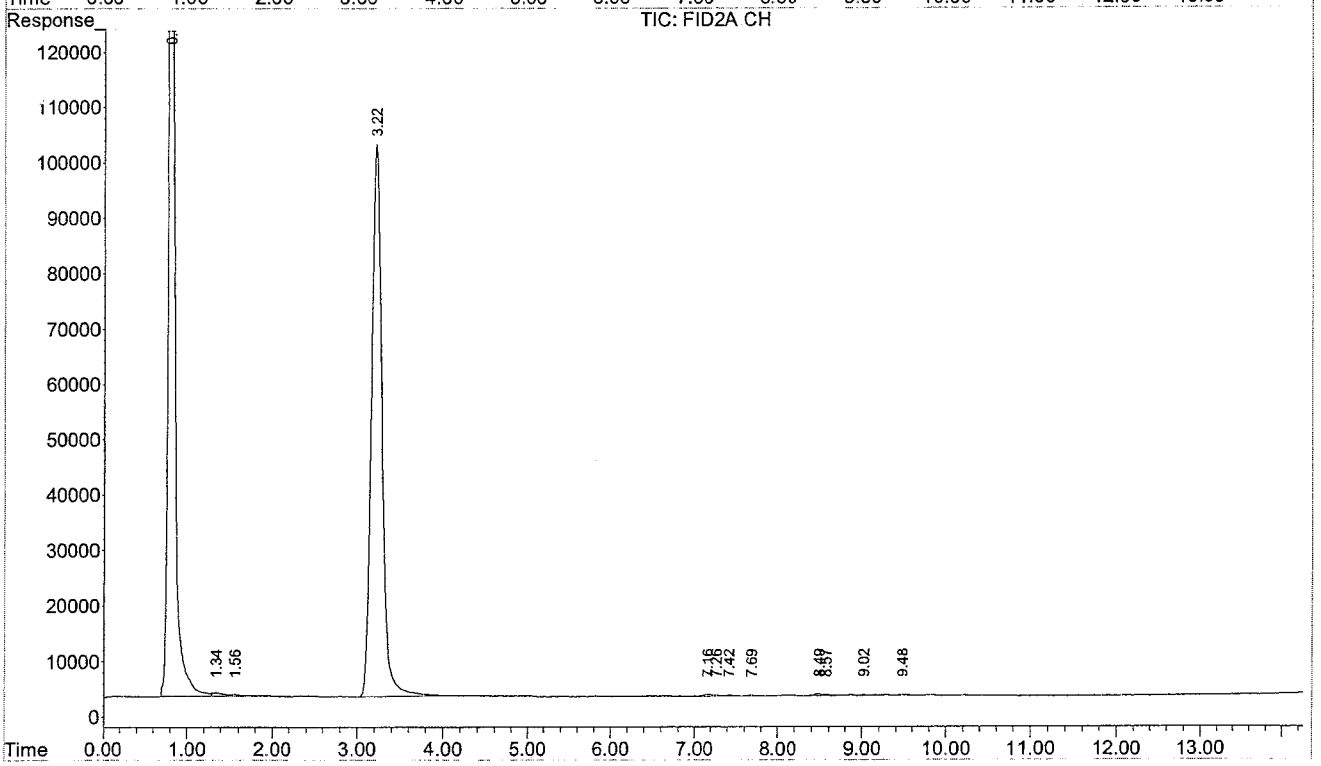
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040824.D\FID1B.CH Vial: 24
Signal #2 : P:\BTEX\2\DATA\130408\13040824.D\FID2A.CH
Acq On : 8 Apr 2013 6:27 pm Operator: ABC
Sample : 13040516-007 Water 5ml Inst : BTEX #2
Misc : 1ul A2458 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-01 (2-2.5) Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS CONCENTRATION ug/kg	MS % REC	#	QC LIMITS REC.
TPH-GRO (Gasoline Range Organics)	5722.00	0	5308	93		59-99

COMPOUND	SPIKE ADDED ug/kg	MSD CONCENTRATION ug/kg	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC
TPH-GRO (Gasoline Range Organics)	5768.00	5703	99		7		0-30	59-99

Column to be used to flag recovery and RPD Values with an asterisk.
* Values outside of QC limits

RPD 0 Out of 1 outside limits

Spike Recovery : 0 Out of 2 outside limit

COMMENTS: _____

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5) S

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105218 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004 S

Sample wt/vol: 5.08 (g/mL) g Lab File ID: 13040819

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
	TPH-GRO (Gasoline Range Organics)	5308	

SW8021B_SW8015

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5) SD

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105218 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004 SD

Sample wt/vol: 5.04 (g/mL) g Lab File ID: 13040820

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
	TPH-GRO (Gasoline Range Organics)	5703	

SW8021B_SW8015

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040819.D\FID1B.CH Vial: 19
Signal #2 : P:\BTEX\1\DATA\130408\13040819.D\FID2A.CH
Acq On : 8 Apr 2013 4:51 pm Operator: ABC
Sample : 13040516-004 MS GRO 5.08g Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 10:55:11 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

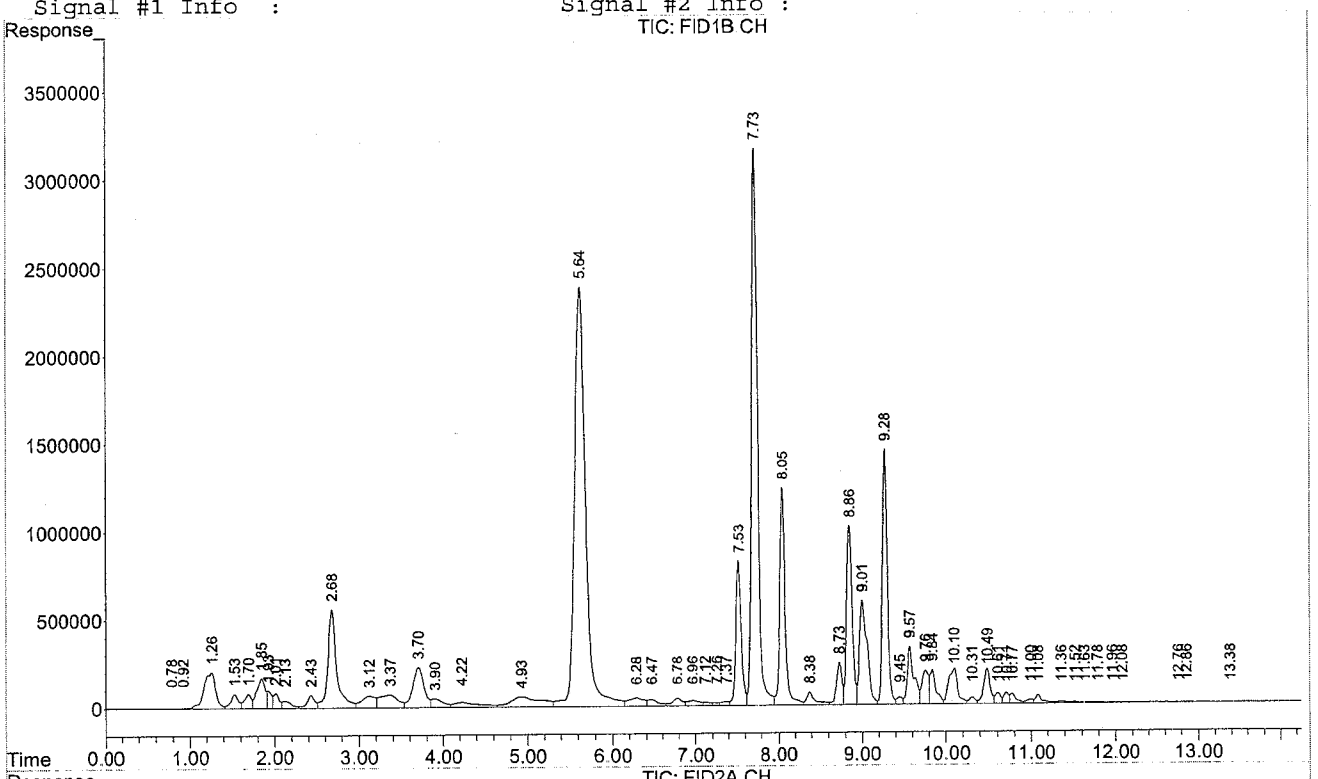
Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

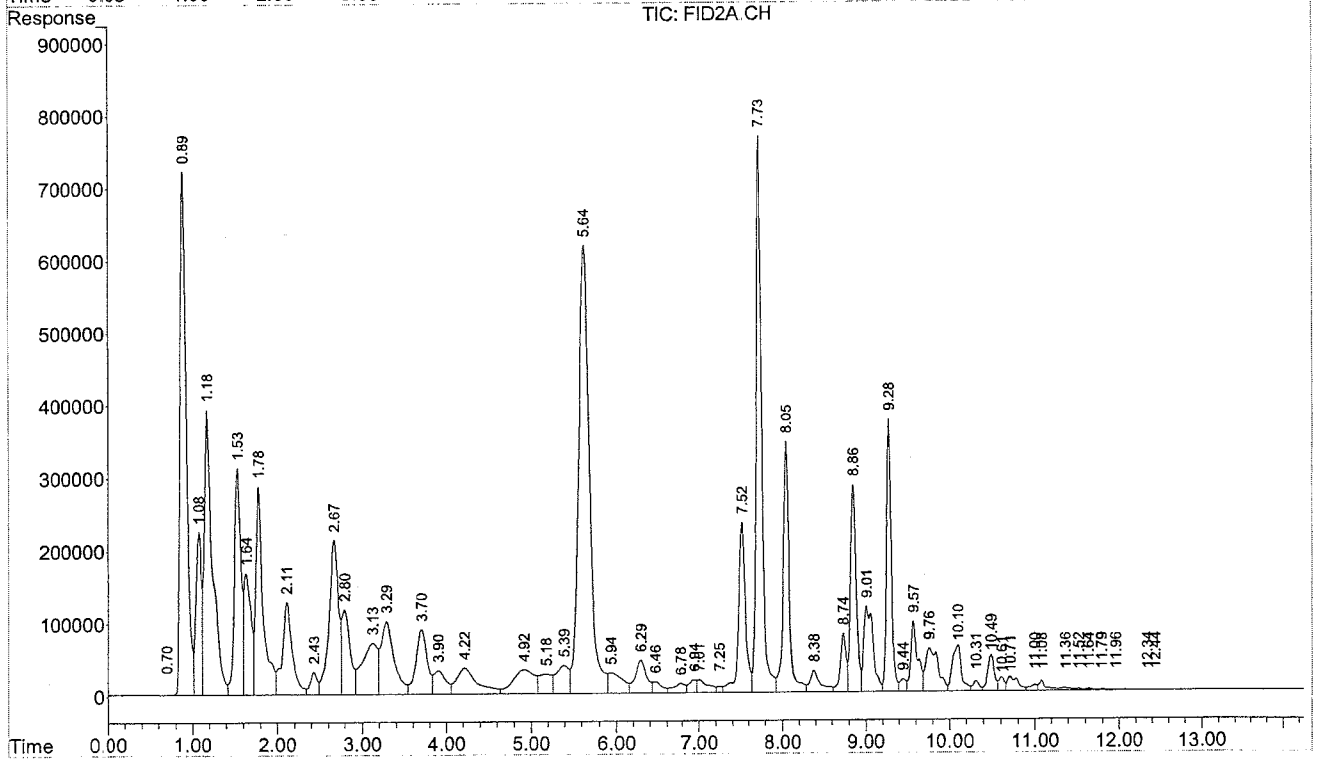
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S BTEX Surrogate	3.70	21335572	116.697 ppb
Spiked Amount 100.000 Range 65 - 133		Recovery = 116.70%	
11) S GRO Surrogate	3.70	8305987	119.847 ppb
Spiked Amount 100.000 Range 51 - 122		Recovery = 119.85%	
Target Compounds			
1) M Methyl-t-butyl ether	1.53	5059272	25.971 ppb
2) M Benzene	2.68	41408325	71.248 ppb
4) M Toluene	5.64	211776838	360.456 ppb
5) M Ethylbenzene	7.53	40373669	81.465 ppb
6) M m&p-Xylene	7.73	153425453	299.661 ppb
7) M o-Xylene	8.05	58302238	127.751 ppb
8) M Naphthalene	11.08	2693307	20.273 ppb
10) H GRO	5.00	304140860	4637.571 ppb

Signal #1 : P:\BTEX\1\DATA\130408\13040819.D\FID1B.CH Vial: 19
Signal #2 : P:\BTEX\1\DATA\130408\13040819.D\FID2A.CH
Acq On : 8 Apr 2013 4:51 pm Operator: ABC
Sample : 13040516-004 MS GRO 5.08g Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 10:55 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040820.D\FID1B.CH Vial: 20
Signal #2 : P:\BTEX\1\DATA\130408\13040820.D\FID2A.CH
Acq On : 8 Apr 2013 5:18 pm Operator: ABC
Sample : 13040516-004 MSD GRO 5.04g Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 10:55:12 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

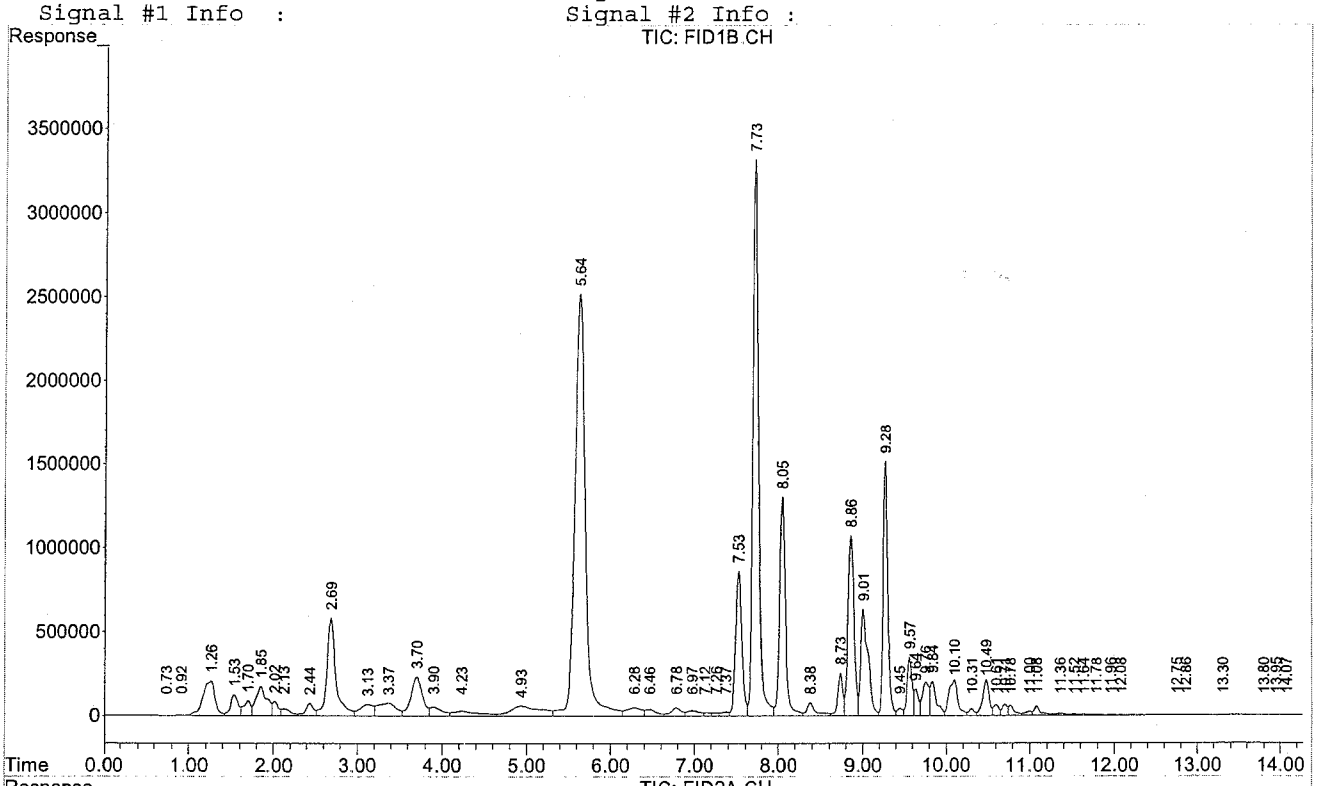
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.70	21682765	118.596 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery	= 118.60%	
11) S	GRO Surrogate	3.70	8586354	123.893 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery	= 123.89%#	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.53	7565045	39.302 ppb
2) M	Benzene	2.69	43445665	74.753 ppb
4) M	Toluene	5.64	223776671	380.881 ppb
5) M	Ethylbenzene	7.53	42756385	86.273 ppb
6) M	m&p-Xylene	7.73	161461013	317.334 ppb
7) M	o-Xylene	8.05	61268946	134.595 ppb
8) M	Naphthalene	11.08	2923277	21.990 ppb
10) H	GRO	5.00	324203048	4943.481 ppb

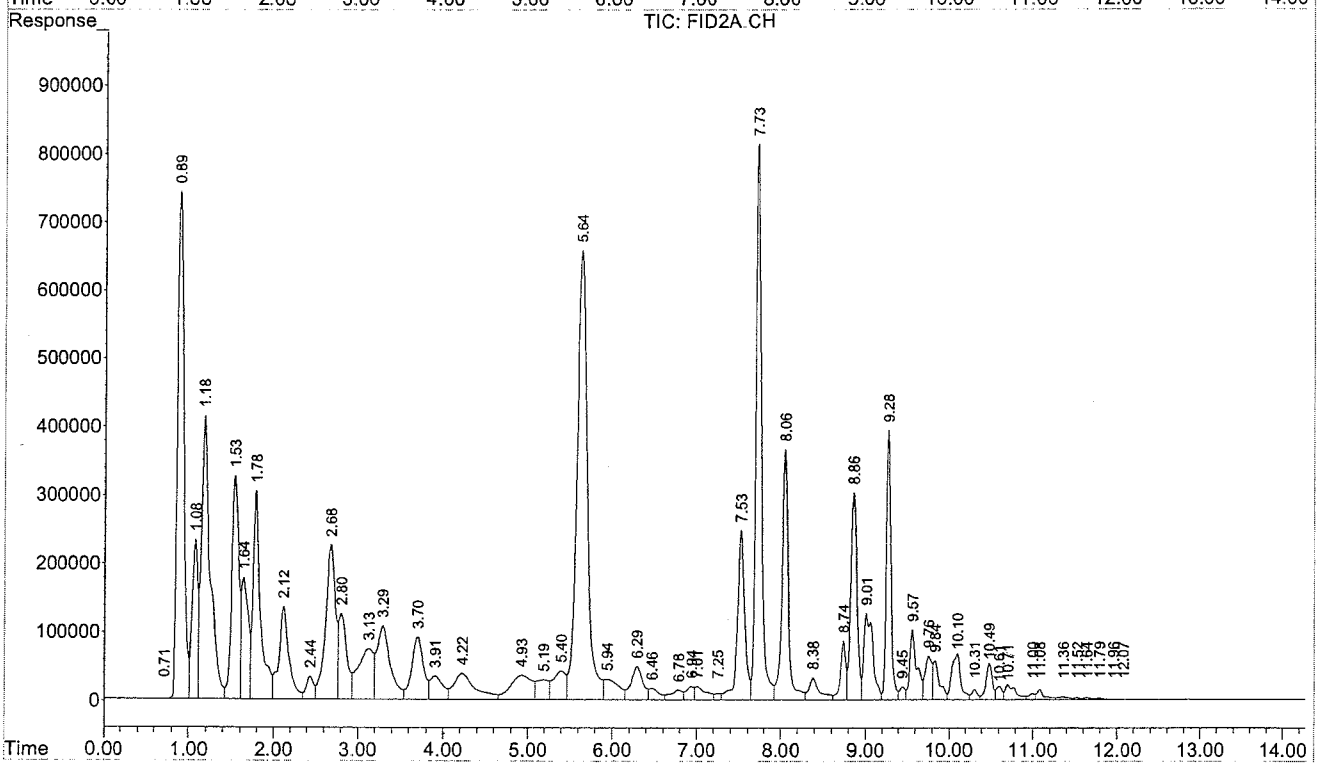
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\1\DATA\130408\13040820.D\FID1B.CH Vial: 20
Signal #2 : P:\BTEX\1\DATA\130408\13040820.D\FID2A.CH
Acq On : 8 Apr 2013 5:18 pm Operator: ABC
Sample : 13040516-004 MSD GRO 5.04g Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 10:55 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040811.D\FID1B.CH Vial: 11
Signal #2 : P:\BTEX\1\DATA\130408\13040811.D\FID2A.CH
Acq On : 8 Apr 2013 1:12 pm Operator: ABC
Sample : 13040516-004 5.09g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 13:33:32 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

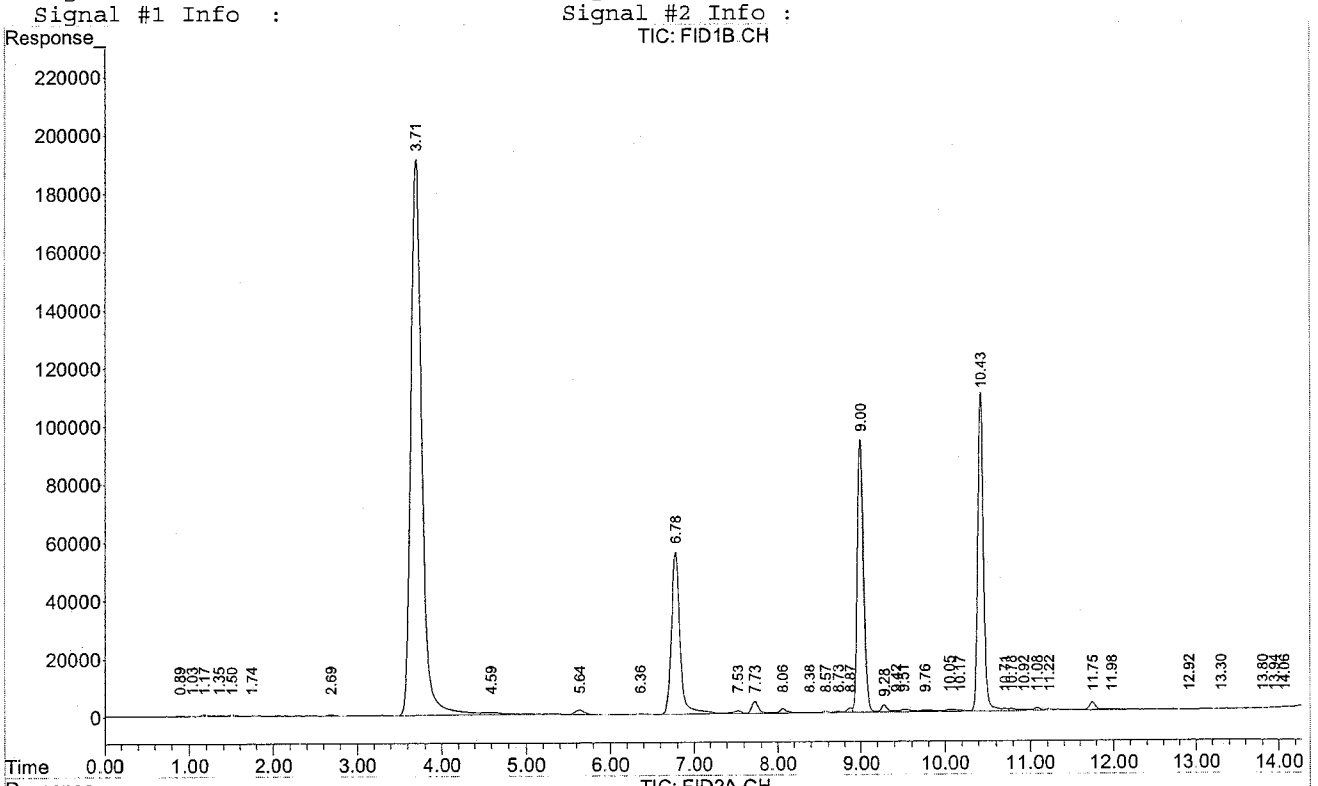
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.71	16968243	92.810 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	92.81%	
11) S	GRO Surrogate	3.70	6851251	98.857 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	98.86%	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.50	28870	0.145 ppb
2) M	Benzene	2.69	24375	0.042 ppb
4) M	Toluene	5.64	117773	0.200 ppb
5) M	Ethylbenzene	7.53	85033	0.172 ppb
6) M	m&p-Xylene	7.73	223625	0.395 ppb
7) M	o-Xylene	8.06	106630	0.223 ppb
8) M	Naphthalene	11.08	50680	0.384 ppb
10) H	GRO	5.00	1339771	20.429 ppb

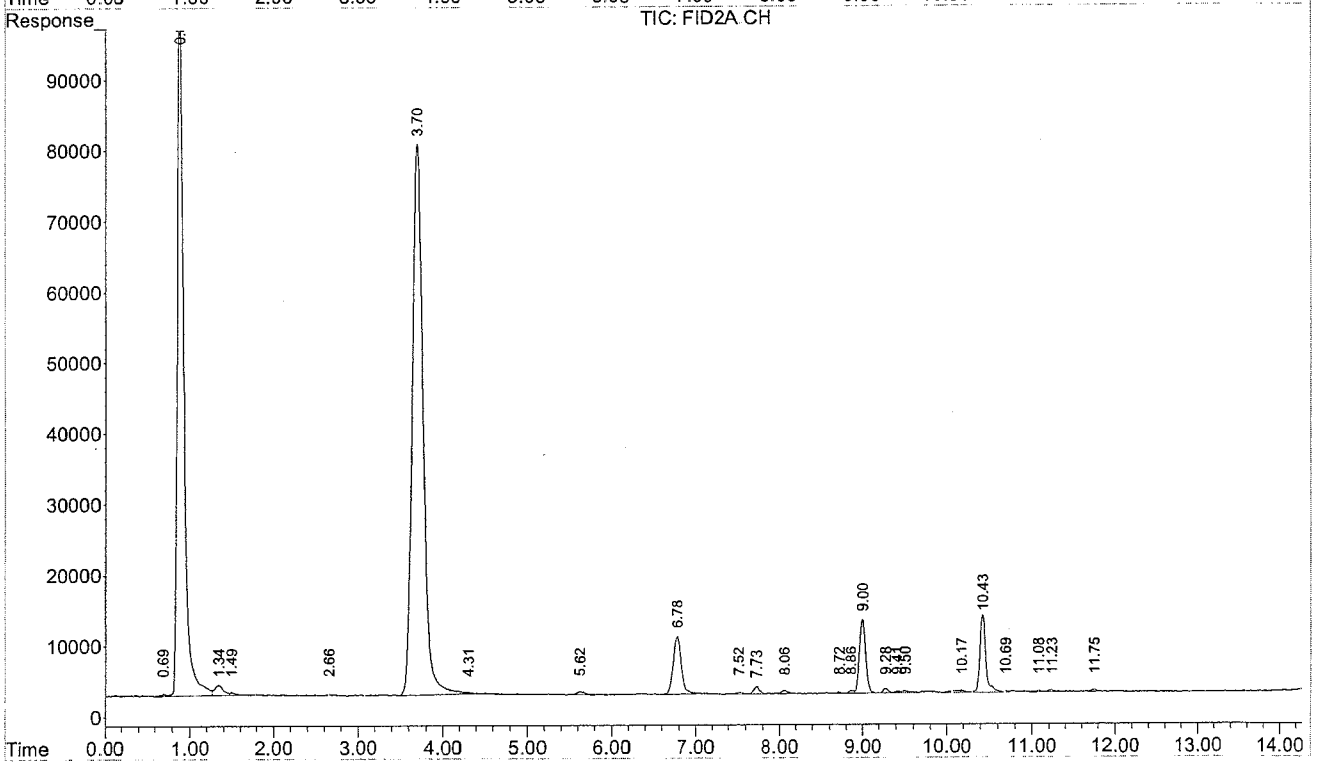
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040811.D\FID1B.CH Vial: 11
Signal #2 : P:\BTEX\1\DATA\130408\13040811.D\FID2A.CH
Acq On : 8 Apr 2013 1:12 pm Operator: ABC
Sample : 13040516-004 5.09g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 13:33 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





3A

WATER VOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. :45504-2-BKS

COMPOUND	SPIKE ADDED ug/L	BLANK CONCENTRATION ug/L	BKS CONCENTRATION ug/L	BKS % REC	#	QC LIMITS REC
TPH-GRO (Gasoline Range Organics)	5000.00	0	5276	106		64-127

Column to be used to flag recovery and RPD Values with an asterisk.
* Values outside of QC limits

RPD 0 Out of 0 outside limits

Spike Recovery : 0 Out of 1 outside limit

COMMENTS: _____

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45504-2-BKS

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 45504-2-BKS

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040822

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	5276	

SW8021B_SW8015

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040822.D\FID1B.CH Vial: 22
Signal #2 : P:\BTEX\2\DATA\130408\13040822.D\FID2A.CH
Acq On : 8 Apr 2013 5:36 pm Operator: ABC
Sample : LCS, GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 12.5ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:40 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

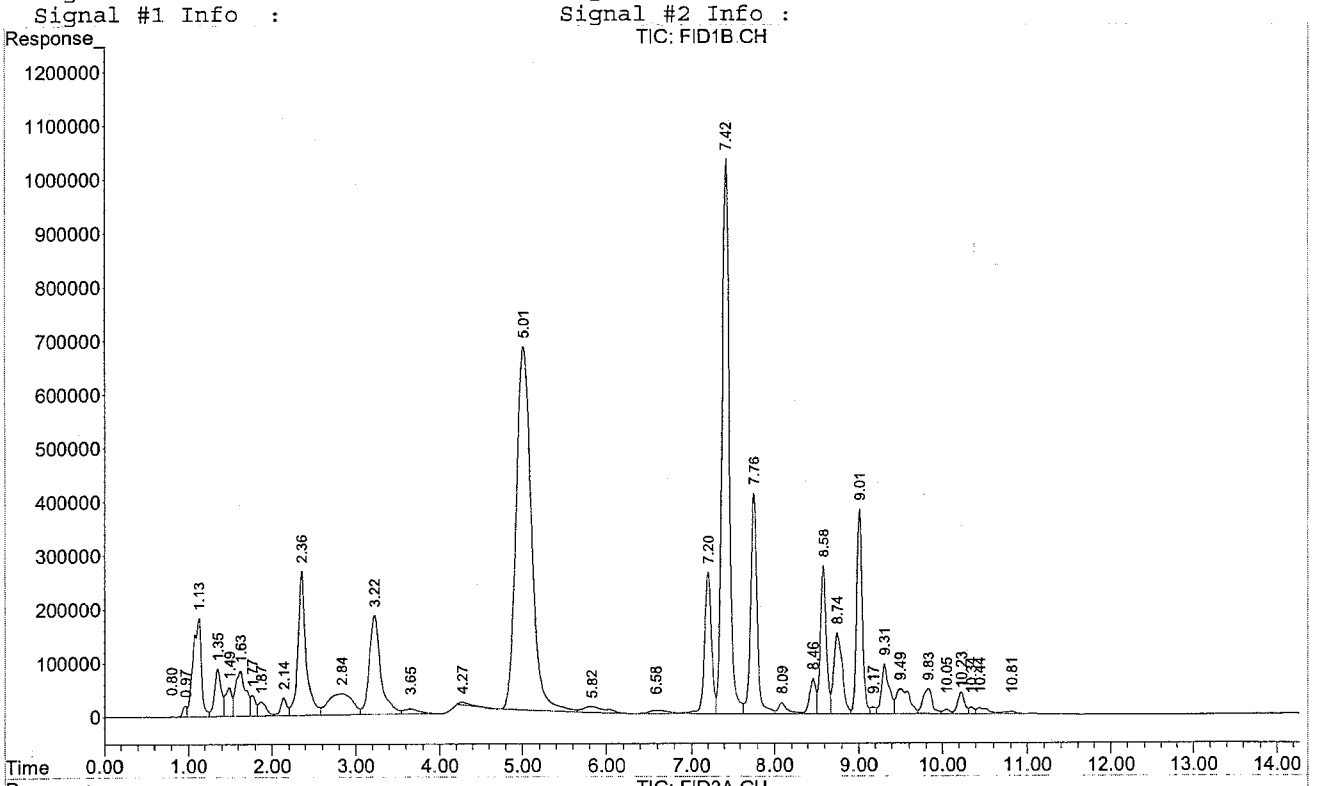
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S BTEX Surrogate	3.22	17728746	118.096 ppb
Spiked Amount 100.000 Range 84 - 110	Recovery = 118.10%#		
11) s GRO Surrogate	3.23	11866700	103.425 ppb
Spiked Amount 100.000 Range 69 - 100	Recovery = 103.42%#		
Target Compounds			
1) M Methyl-t-butyl ether	0.00	0	N.D. ppb
2) M Benzene	2.36	18306057	93.128 ppb
4) M Toluene	5.01	85421456	475.988 ppb
5) M Ethylbenzene	7.20	16070407	120.643 ppb
6) M m&p-Xylene	7.42	59650007	371.522 ppb
7) M o-Xylene	7.76	22980228	152.458 ppb
8) M Naphthalene	10.81	392777	48.808 ppb
10) H GRO	5.00	177852900	5276.018 ppb

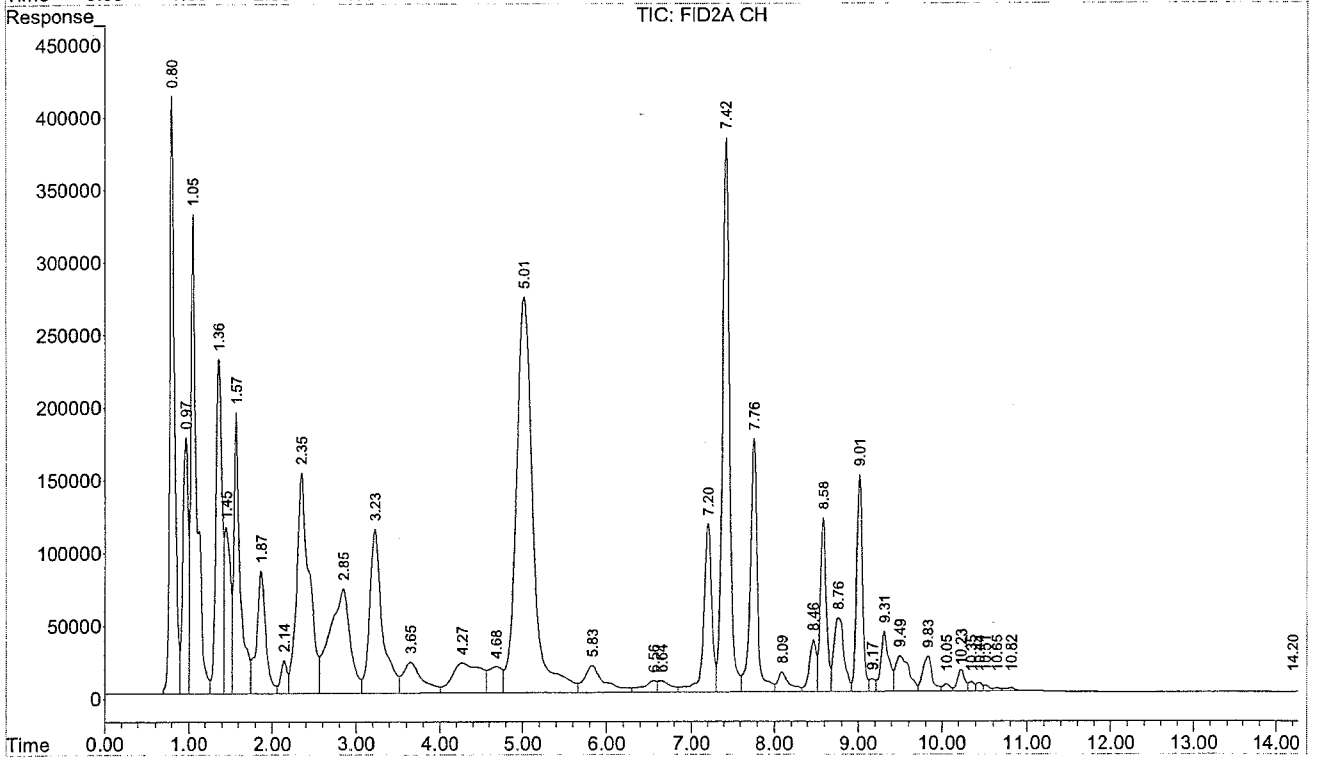
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040822.D\FID1B.CH Vial: 22
Signal #2 : P:\BTEX\2\DATA\130408\13040822.D\FID2A.CH
Acq On : 8 Apr 2013 5:36 pm Operator: ABC
Sample : LCS, GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 12.5ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





3B

SOIL VOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. :45494-2-BKS Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	BLANK CONCENTRATION ug/kg	BKS CONCENTRATION ug/kg	BKS % REC #	QC LIMITS REC.
TPH-GRO (Gasoline Range Organics)	4980.00	0	4851	97	56-100

Column to be used to flag recovery and RPD Values with an asterisk.

* Values outside of QC limits

RPD 0 Out of 0 outside limits

Spike Recovery : 0 Out of 1 outside limit

COMMENTS: _____

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45494-2-BKS

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105218 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOLID Lab Sample ID: 45494-2-BKS

Sample wt/vol: 5.02 (g/mL) g Lab File ID: 13040807

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 0 Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
	TPH-GRO (Gasoline Range Organics)	4851	

SW8021B_SW8015

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040807.D\FID1B.CH Vial: 7
Signal #2 : P:\BTEX\1\DATA\130408\13040807.D\FID2A.CH
Acq On : 8 Apr 2013 11:24 am Operator: ABC
Sample : LCS GRO 5000ppb 5.02g Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 13:33:29 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

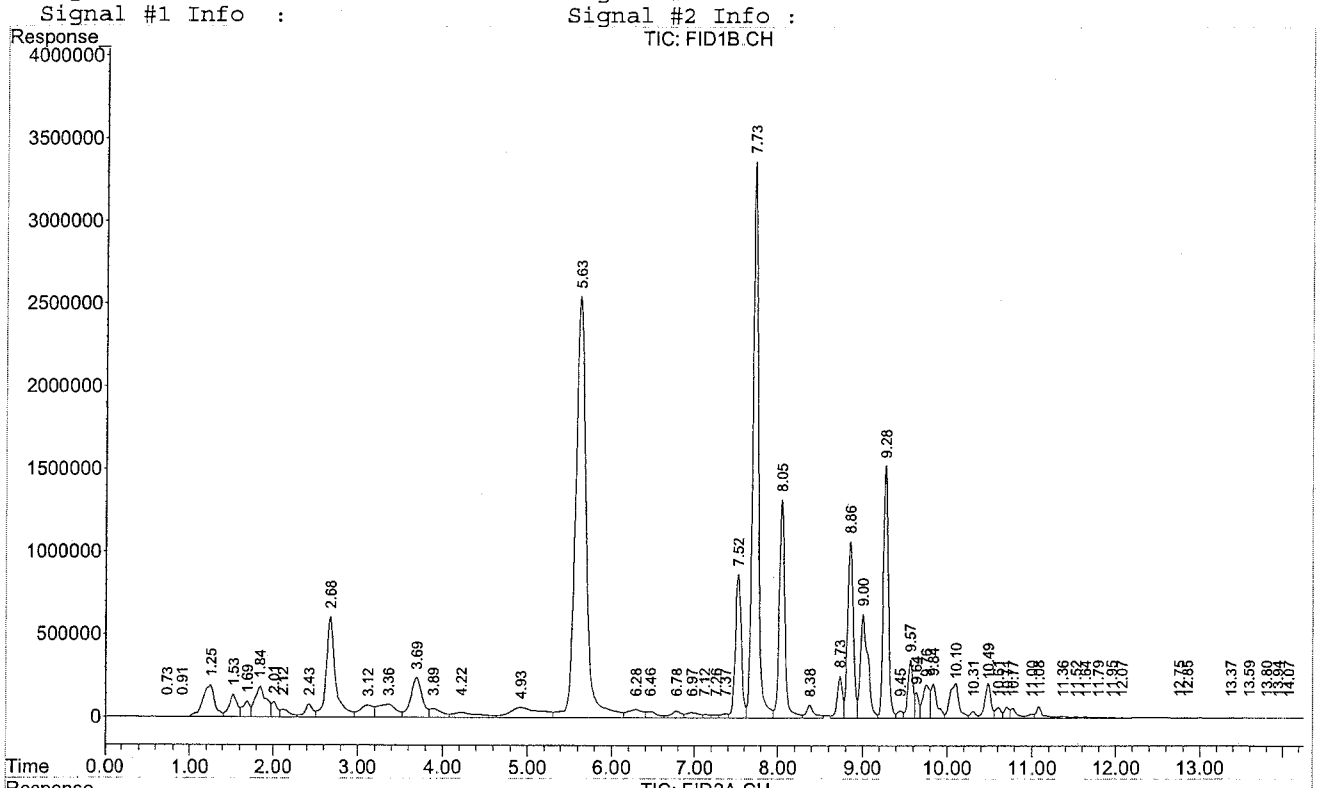
Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

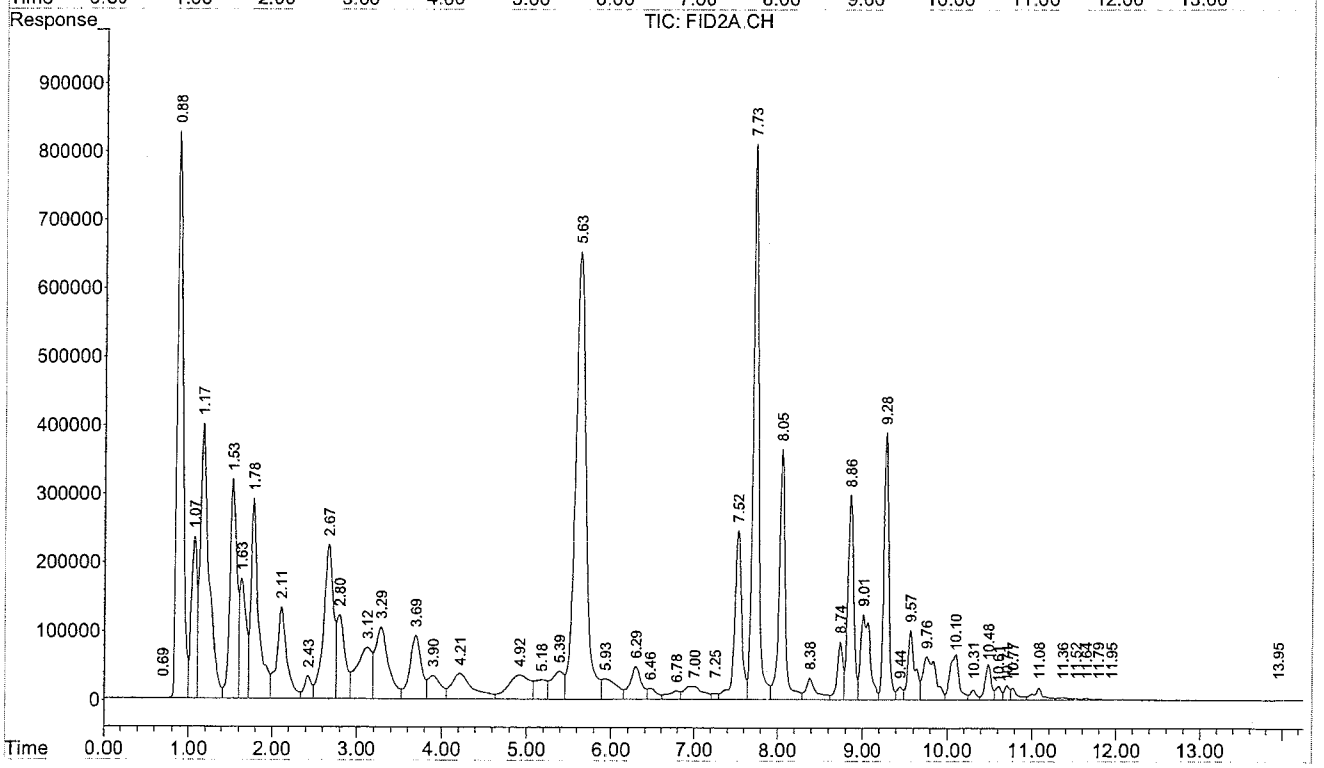
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3)	S BTEX Surrogate	3.69	22489237	123.007 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery	= 123.01%	
11)	S GRO Surrogate	3.69	8647094	124.769 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery	= 124.77%#	
	Target Compounds			
1)	M Methyl-t-butyl ether	1.53	9082028	47.537 ppb
2)	M Benzene	2.68	45605510	78.470 ppb
4)	M Toluene	5.63	227766770	387.672 ppb
5)	M Ethylbenzene	7.52	42914069	86.591 ppb
6)	M m&p-Xylene	7.73	162059968	318.662 ppb
7)	M o-Xylene	8.05	61567452	135.286 ppb
8)	M Naphthalene	11.08	3578104	26.870 ppb
10)	H GRO	5.00	319434698	4870.773 ppb

Signal #1 : P:\BTEX\1\DATA\130408\13040807.D\FID1B.CH Vial: 7
Signal #2 : P:\BTEX\1\DATA\130408\13040807.D\FID2A.CH
Acq On : 8 Apr 2013 11:24 am Operator: ABC
Sample : LCS GRO 5000ppb 5.02g Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 13:33 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
45504-2-BLK

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID 13040820 Lab Sample ID : 45504-2-BLK

Instrument ID : BTEX #2

Matrix: (SOIL/SED/WATER WATER Date Analyzed : 04/08/2013

Level : (TRACE or LOW/MED)LOW Time Analyzed : 16:46

GC Column : _____ ID : _____ (mm) Heated Purge (Y/N) : N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
39	45504-1-BKS	45504-1-BKS	13040821.D	17:11
40	45504-2-BKS	45504-2-BKS	13040822.D	17:36
41	1644-SUMP	13040516-006	13040823.D	18:02
42	SB-03 (GW)	13040516-007	13040824.D	18:27
43	SB-040413 (GW)	13040516-008	13040825.D	18:53
44	SB-04 (GW)	13040516-009	13040826.D	19:18
45	1646-SUMP	13040516-010	13040827.D	19:44
46	SURFACE WATER	13040516-011	13040828.D	20:09
47	SB-03 (GW) S	13040516-007 S	13040839.D	00:47
48	SB-03 (GW) SD	13040516-007 SD	13040840.D	01:13
49	MW-4 S	13040420-004 S	13040841.D	01:38
50	MW-4 SD	13040420-004 SD	13040842.D	02:03

Comments _____

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45504-2-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105230 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 45504-2-BLK

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040820

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
	TPH-GRO (Gasoline Range Organics)	40.00	U

SW8021B_SW8015

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040820.D\FID1B.CH Vial: 20
Signal #2 : P:\BTEX\2\DATA\130408\13040820.D\FID2A.CH
Acq On : 8 Apr 2013 4:46 pm Operator: ABC
Sample : Method Blank Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:39 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

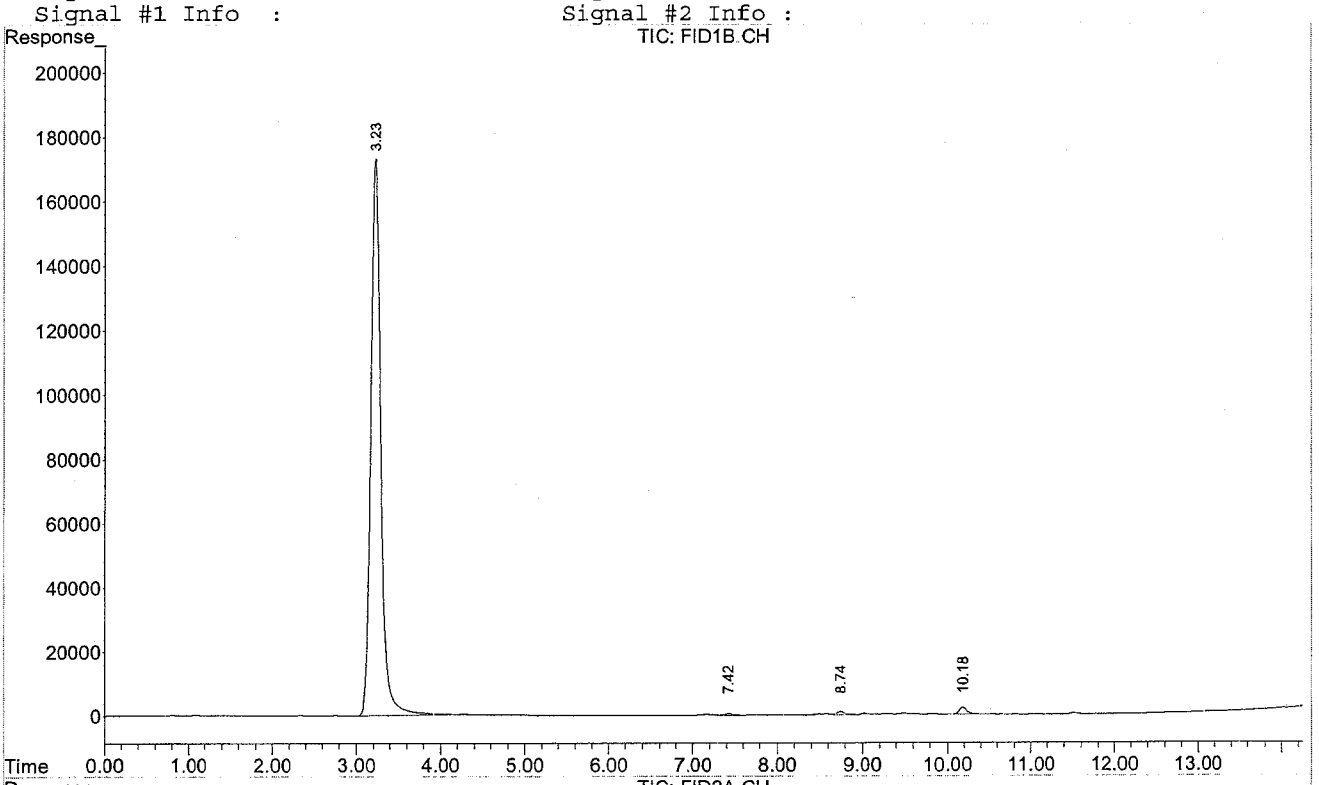
	Compound		R.T.	Response	Conc	Units
	System Monitoring Compounds					
3) S	BTEX Surrogate		3.23	14862676	99.005	ppb
Spiked Amount	100.000	Range	84 - 110	Recovery =	99.00%	
11) s	GRO Surrogate		3.23	8835095	77.003	ppb
Spiked Amount	100.000	Range	69 - 100	Recovery =	77.00%	
	Target Compounds					
1) M	Methyl-t-butyl ether		0.00	0	N.D.	ppb
2) M	Benzene		0.00	0	N.D.	ppb
4) M	Toluene		0.00	0	N.D.	ppb
5) M	Ethylbenzene		0.00	0	N.D.	ppb
6) M	m&p-Xylene		7.42	30489	0.190	ppb
7) M	o-Xylene		0.00	0	N.D.	ppb
8) M	Naphthalene		0.00	0	N.D.	ppb
10) H	GRO		5.00	66605	1.976	ppb

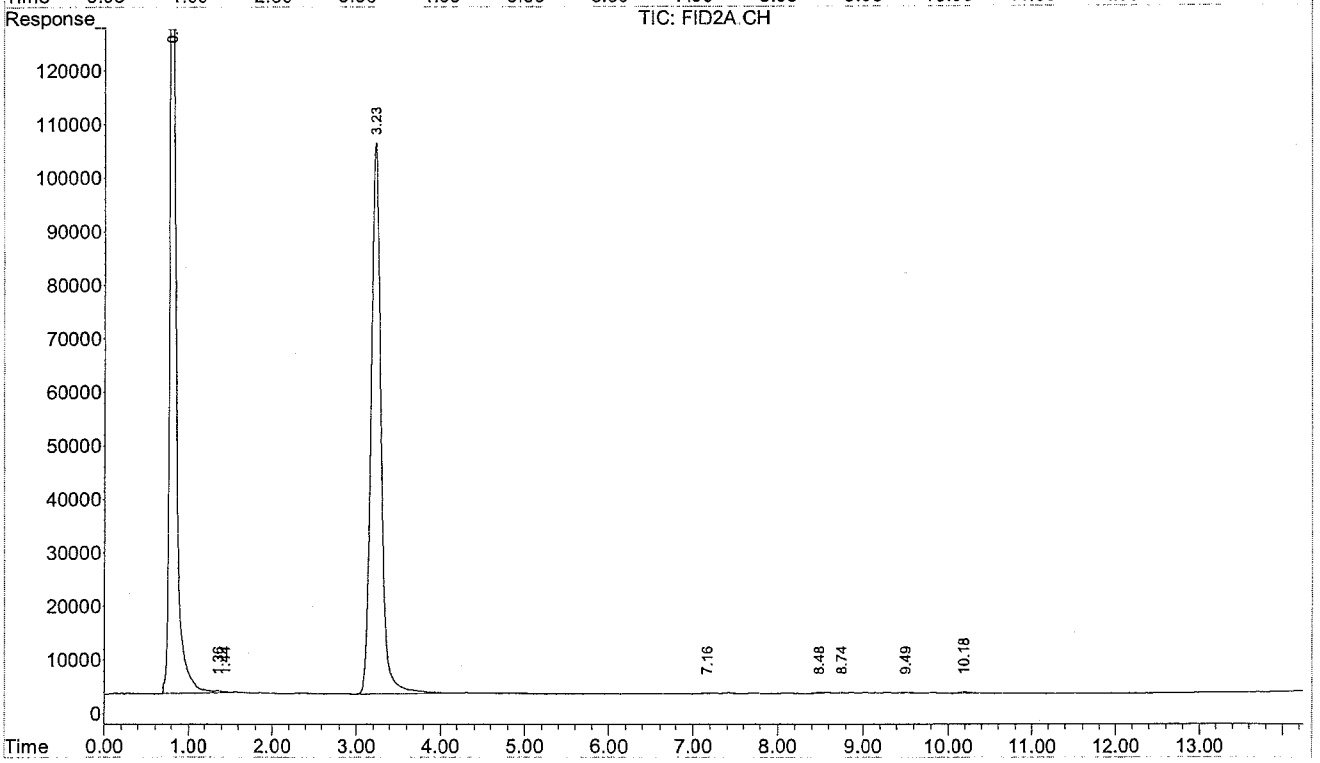
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040820.D\FID1B.CH Vial: 20
Signal #2 : P:\BTEX\2\DATA\130408\13040820.D\FID2A.CH
Acq On : 8 Apr 2013 4:46 pm Operator: ABC
Sample : Method Blank Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
45494-2-BLK

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID 13040805 Lab Sample ID : 45494-2-BLK

Instrument ID : BTEX #1

Matrix: (SOIL/SED/WATER SOLID Date Analyzed : 04/08/2013

Level : (TRACE or LOW/MED)LOW Time Analyzed : 10:29

GC Column : _____ ID : _____ (mm) Heated Purge (Y/N) : N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	45494-2-BKS	45494-2-BKS	13040807.D	11:24
2	SB-02 (2-2.5)	13040516-001	13040808.D	11:51
3	SB-04 (2-2.5)	13040516-002	13040809.D	12:18
4	SB-01 (2-2.5)	13040516-004	13040811.D	13:12
5	SB-040413 (2-2.5)	13040516-005	13040812.D	13:39
6	SB-03 (2-2.5)	13040516-003	13040817.D	15:56
7	SB-01 (2-2.5) S	13040516-004 S	13040819.D	16:51
8	SB-01 (2-2.5) SD	13040516-004 SD	13040820.D	17:18

Comments _____

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45494-2-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105218 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOLID Lab Sample ID: 45494-2-BLK

Sample wt/vol: 5.14 (g/mL) g Lab File ID: 13040805

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 0 Date Analyzed: 04/08/2013

GC Column: _____ ID: _____ (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
	TPH-GRO (Gasoline Range Organics)	49.52	J

SW8021B_SW8015

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040805.D\FID1B.CH Vial: 5
Signal #2 : P:\BTEX\1\DATA\130408\13040805.D\FID2A.CH
Acq On : 8 Apr 2013 10:29 am Operator: ABC
Sample : Method Blank 5.14g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 13:33:27 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

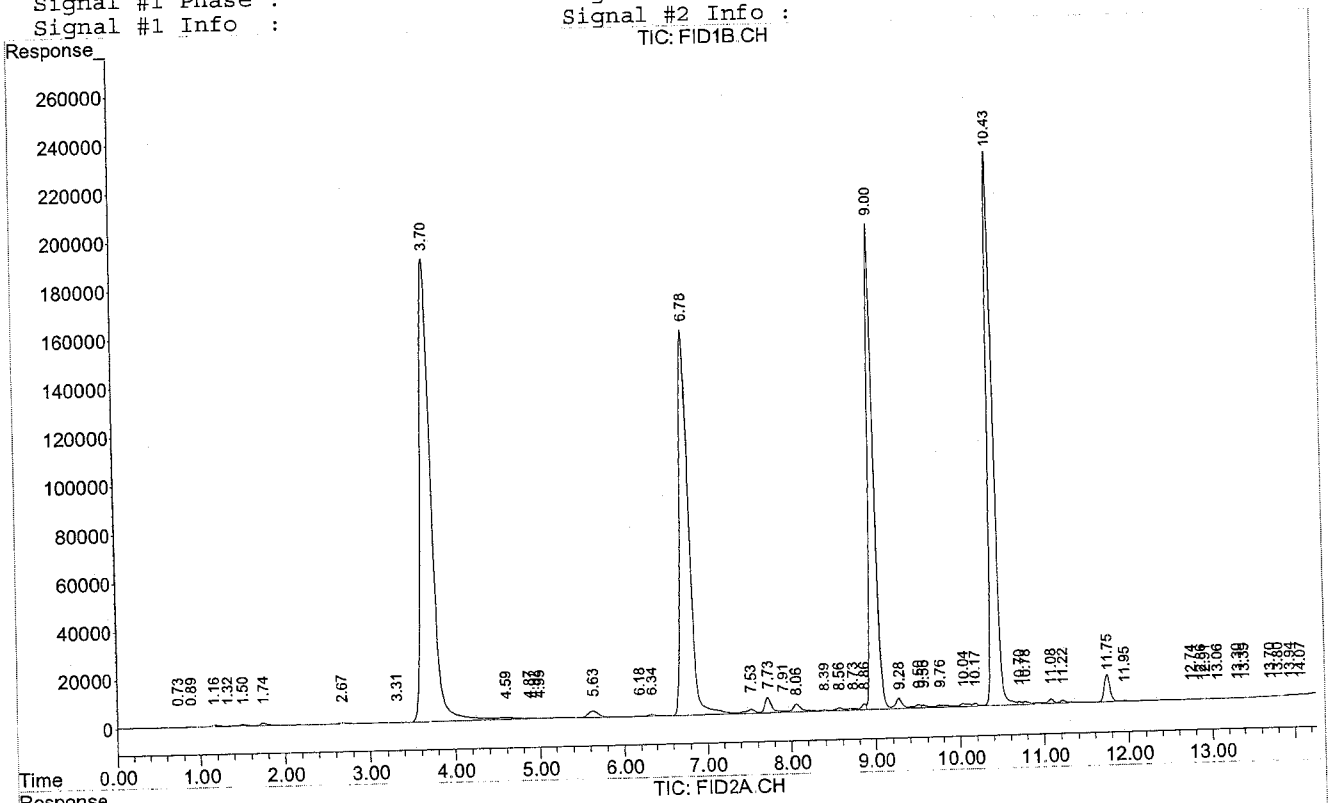
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.70	16880131	92.328 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	92.33%	
11) S	GRO Surrogate	3.70	6815635	98.343 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	98.34%	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.50	27986	0.140 ppb
2) M	Benzene	2.67	36089	0.062 ppb
4) M	Toluene	5.63	216909	0.369 ppb
5) M	Ethylbenzene	7.53	129483	0.261 ppb
6) M	m&p-Xylene	7.73	345631	0.611 ppb
7) M	o-Xylene	8.06	233341	0.488 ppb
8) M	Naphthalene	11.08	105430	0.799 ppb
10) H	GRO	5.00	3338947	50.913 ppb

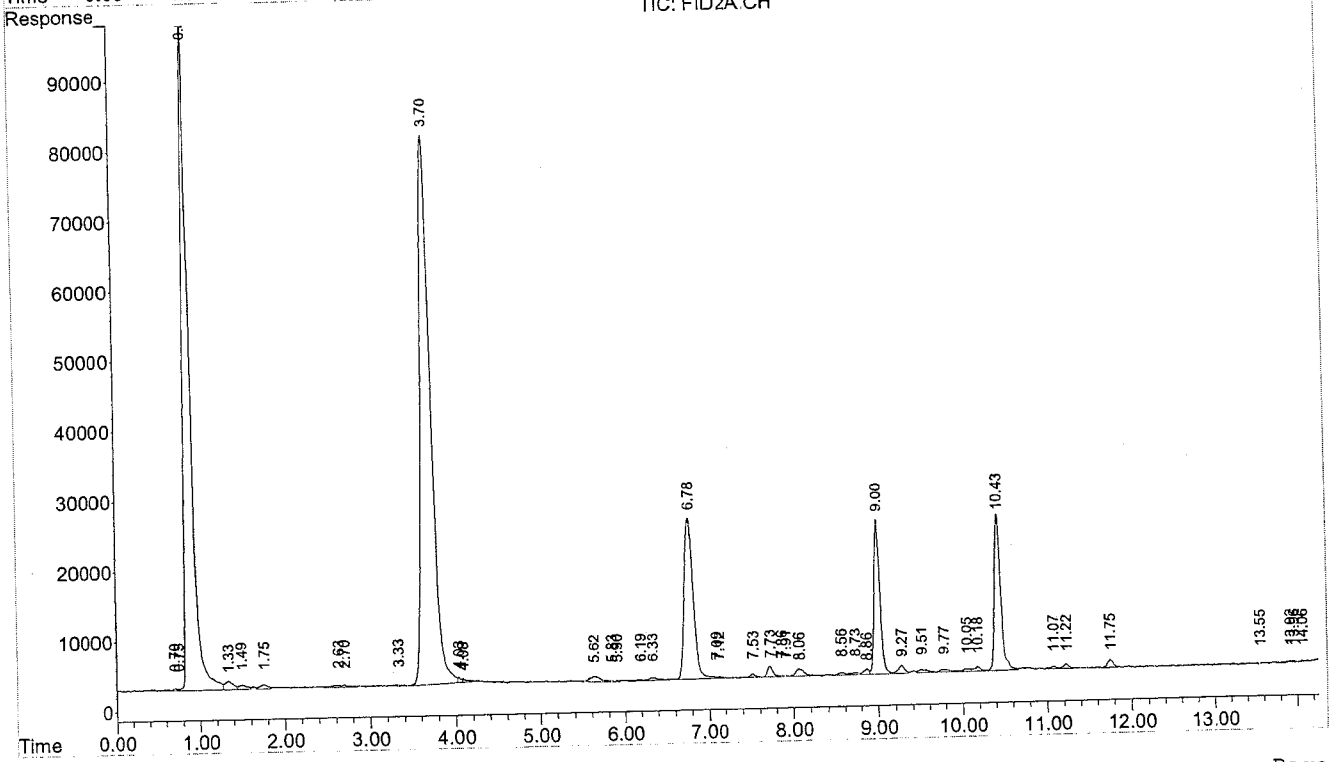
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040805.D\FID1B.CH Vial: 5
Signal #2 : P:\BTEX\1\DATA\130408\13040805.D\FID2A.CH
Acq On : 8 Apr 2013 10:29 am Operator: ABC
Sample : Method Blank 5.14g Inst : BTEX #1
Misc : 1ul A2455 Soil Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 13:33 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Injection Log

Directory: P:\BTEX\2\DATA\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13040801.D	1.	GRO Retention Time Marker Water 5ml	1ul A2458 5ul 1219-2	8 Apr 2013 08:35
2	2	13040802.D	1.	Rinse Blank Water 5ml	1ul A2458	8 Apr 2013 09:01
3	3	13040803.D	1.	ICAL 7 GRO 40ppb Water 5ml	1ul A2458 5ul A2497	8 Apr 2013 09:26
4	4	13040804.D	1.	ICAL 1 GRO 100ppb Water 5ml	1ul A2458 12.5ul A2497	8 Apr 2013 09:51
5	5	13040805.D	1.	ICAL 2 GRO 1000ppb Water 5ml	1ul A2458 2.5ul A2492	8 Apr 2013 10:17
6	6	13040806.D	1.	ICAL 3 GRO 5000ppb Water 5ml	1ul A2458 12.5ul A2492	8 Apr 2013 10:42
7	7	13040807.D	1.	ICAL 4 GRO 10,000ppb Water 5ml	1ul A2458 25ul A2492	8 Apr 2013 11:07
8	8	13040808.D	1.	ICAL 5 GRO 20,000ppb Water 5ml	1ul A2458 50ul A2492	8 Apr 2013 11:32
9	9	13040809.D	1.	ICAL 6 GRO 50,000ppb Water 5ml	1ul A2458 125ul A2492	8 Apr 2013 11:58
10	10	13040810.D	1.	Rinse Blank Water 5ml	1ul A2458	8 Apr 2013 12:23
11	11	13040811.D	1.	Rinse Blank Water 5ml	1ul A2458	8 Apr 2013 12:49
12	12	13040812.D	1.	ICAL 7 GRO 40ppb Water 5ml	1ul A2458 5ul A2497	8 Apr 2013 13:14
13	13	13040813.D	1.	ICAL 1 GRO 100ppb Water 5ml	1ul A2458 12.5ul A2497	8 Apr 2013 13:39
14	14	13040814.D	1.	ICV, GRO 50ppb Water 5ml	1ul A2458 12.5ul 3407	8 Apr 2013 14:13
15	15	13040815.D	1.	GRO Retention Time Marker Water 5ml	1ul A2458 5ul 1219-2	8 Apr 2013 14:38
16	16	13040816.D	1.	CCV, BTEXNM 50ppb Water 5ml	1ul A2458 25ul 1397-1	8 Apr 2013 15:04
17	17	13040817.D	1.	CCV, GRO 5000ppb Water 5ml	1ul A2458 5ul 12.5ul 2492	8 Apr 2013 15:30
18	18	13040818.D	1.	Method Blank Water 5ml	1ul A2458 5ul	8 Apr 2013 15:55
19	19	13040819.D	1.	Method Blank Water 5ml	1ul A2458 5ul	8 Apr 2013 16:20
20	20	13040820.D	1.	Method Blank Water 5ml	1ul A2458 5ul	8 Apr 2013 16:46
21	21	13040821.D	1.	LCS, BTEXNM 50ppb Water 5ml	1ul A2458 25ul 1397-1	8 Apr 2013 17:11
22	22	13040822.D	1.	LCS, GRO 5000ppb Water 5ml	1ul A2458 12.5ul 2492	8 Apr 2013 17:36
23	23	13040823.D	1.	13040516-006 Water 5ml	1ul A2458	8 Apr 2013 18:02
24	24	13040824.D	1.	13040516-007 Water 5ml	1ul A2458	8 Apr 2013 18:27
25	25	13040825.D	1.	13040516-008 Water 5ml	1ul A2458	8 Apr 2013 18:53
26	26	13040826.D	1.	13040516-009 Water 5ml	1ul A2458	8 Apr 2013 19:18
27	27	13040827.D	1.	13040516-010 Water 5ml	1ul A2458	8 Apr 2013 19:44
28	28	13040828.D	1.	13040516-011 Water 5ml	1ul A2458	8 Apr 2013 20:09
29	29	13040829.D	1.	13040420-004 Water 5ml 25x	1ul A2458	8 Apr 2013 20:35
30	30	13040830.D	1.	13040420-011 Water 5ml	1ul A2458	8 Apr 2013 21:00
31	31	13040831.D	1.	13040420-014 Water 5ml	1ul A2458	8 Apr 2013 21:25
32	32	13040832.D	1.	13040420-015 Water 5ml	1ul A2458	8 Apr 2013 21:50
33	33	13040833.D	1.	13040420-010 Water 5ml 10x	1ul A2458	8 Apr 2013 22:16
34	34	13040834.D	1.	13040420-006 Water 5ml	1ul A2458	8 Apr 2013 22:41
35	35	13040835.D	1.	13040420-001 Water 5ml 25x	1ul A2458	8 Apr 2013 23:06
36	36	13040836.D	1.	13040420-012 Water 5ml 50x	1ul A2458	8 Apr 2013 23:32
37	37	13040837.D	1.	13040420-016 Water 5ml 10x	1ul A2458	8 Apr 2013 23:57
38	38	13040838.D	1.	13040420-013 10D 10x	1ul A2458 5ml to 50ml final volume	9 Apr 2013 00:22
39	39	13040839.D	1.	13040516-007 MS GRO Water 5ml	1ul A2458 10ul 2492	9 Apr 2013 00:47
40	40	13040840.D	1.	13040516-007 MSD GRO Water 5ml	1ul A2458 10ul 2492	9 Apr 2013 01:13
41	41	13040841.D	1.	13040420-004 MS BTEXNM Water 5ml	1ul A2458 20ul 1397-1	9 Apr 2013 01:38

Injection Log

Directory: P:\BTEX\2\DATA\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
42	42	13040842.D	1.	13040420-004 MSD BTEXNM Water 5ml	1ul A2458 20ul 1397-1	9 Apr 2013 02:03
43	43	13040843.D	1.	CCV, BTEXNM 50ppb Water 5ml	1ul A2458 25ul 1397-1	9 Apr 2013 02:29
44	44	13040844.D	1.	CCV, GRO 5000ppb Water 5ml	1ul A2458 5ul 12.5ul 2492	9 Apr 2013 02:54
45	45	13040845.D	1.	GRO Retention Time Marker Water 5ml	1ul A2458 5ul 1219-2	9 Apr 2013 03:19
46	46	13040846.D	1.	Method Blank Water 5ml	1ul A2458	9 Apr 2013 03:45
47	47	13040847.D	1.	Method Blank Water 5ml	1ul A2458	9 Apr 2013 04:10
48	48	13040848.D	1.	Method Blank Water 5ml	1ul A2458	9 Apr 2013 04:35
49	49	13040849.D	1.	LCS, BTEXNM 50ppb Water 5ml	1ul A2458 25ul 1397-1	9 Apr 2013 05:01
50	50	13040850.D	1.	LCS, GRO 5000ppb Water 5ml	1ul A2458 12.5ul 2492	9 Apr 2013 05:26
51	51	13040851.D	1.	1300420-002 10D 25X	1ul A2458 5ml to 50ml final volume	9 Apr 2013 05:51
52	52	13040852.D	1.	1300420-003 10D 100X	1ul A2458 5ml to 50ml final volume	9 Apr 2013 06:17
53	53	13040853.D	1.	1300420-005 10D	1ul A2458 5ml to 50ml final volume	9 Apr 2013 06:42
54	54	13040854.D	1.	1300420-007 10D 50X	1ul A2458 5ml to 50ml final volume	9 Apr 2013 07:08
55	55	13040855.D	1.	1300420-008 10D 25X	1ul A2458 5ml to 50ml final volume	9 Apr 2013 07:33
56	56	13040856.D	1.	1300420-009 10D 25X #-45565	1ul A2458 5ml to 50ml final volume	9 Apr 2013 07:59
57	57	13040857.D	1.	1300420-004 25D 100X	1ul A2458 2ml to 50ml final volume	9 Apr 2013 09:13
58	58	13040858.D	1.	1300420-015 10D #-105234	1ul A2458 5ml to 50ml final volume	9 Apr 2013 09:38
59	59	13040859.D	1.	1300420-010 10D	1ul A2458 5ml to 50ml final volume	9 Apr 2013 10:03
60	60	13040860.D	1.	1300420-006 10D	1ul A2458 5ml to 50ml final volume	9 Apr 2013 10:29
61	61	13040861.D	1.	1300420-001 25D	1ul A2458 2ml to 50ml final volume	9 Apr 2013 10:54
62	62	13040862.D	1.	1300420-012 50D	1ul A2458 1ml to 50ml final volume	9 Apr 2013 11:19
63	63	13040863.D	1.	1300420-016 10D	1ul A2458 5ml to 50ml final volume	9 Apr 2013 11:47
64	64	13040864.D	1.	1300420-013 50D	1ul A2458 1ml to 50ml final volume	9 Apr 2013 12:12
65	65	13040865.D	1.	1300420-002 25D	1ul A2458 2ml to 50ml final volume	9 Apr 2013 12:37
66	66	13040866.D	1.	1300420-003 100D	1ul A2458 0.5ml to 50ml final volume	9 Apr 2013 13:02
67	67	13040867.D	1.	LCSD, GRO 5000ppb Water 5ml	1ul A2458 12.5ul 2492	9 Apr 2013 13:27
68	68	13040868.D	1.	LCSD, BTEXNM 50ppb Water 5ml	1ul A2458 25ul 1397-1	9 Apr 2013 13:53
69	69	13040869.D	1.	CCV, BTEXNM 50ppb Water 5ml	1ul A2458 25ul 1397-1	9 Apr 2013 14:18
70	70	13040870.D	1.	CCV, GRO 5000ppb Water 5ml	1ul A2458 5ul 12.5ul 2492	9 Apr 2013 14:44 ✓
71	71	13040871.D	1.	GRO Retention Time Marker Water 5ml	1ul A2458 5ul 1219-2	9 Apr 2013 15:09
72	72	13040872.D	1.	Method Blank Water 5ml	1ul A2458	9 Apr 2013 16:30
73	73	13040873.D	1.	Method Blank Water 5ml	1ul A2458	9 Apr 2013 16:55
74	74	13040874.D	1.	LCS, BTEXNM 50ppb Water 5ml	1ul A2458 25ul 1397-1	9 Apr 2013 17:21

Injection Log

Directory: P:\BTEX\2\DATA\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
75	75	13040875.D	1.	LCS, GRO 5000ppb Water 5ml	1ul A2458 12.5ul 2492	9 Apr 2013 17:46
76	76	13040876.D	1.	13040901-021 Water 5ml	1ul A2458	9 Apr 2013 18:11
77	77	13040877.D	1.	13040901-023 Water 5ml	1ul A2458	9 Apr 2013 18:37
78	78	13040878.D	1.	13040901-024 Water 5ml	1ul A2458	9 Apr 2013 19:02
79	79	13040879.D	1.	13040903-004 Water 5ml	1ul A2458	9 Apr 2013 19:27
80	80	13040880.D	1.	13040908-001 Water 5ml	1ul A2458	9 Apr 2013 19:53
81	81	13040881.D	1.	13040908-002 Water 5ml	1ul A2458	9 Apr 2013 20:18
82	82	13040882.D	1.	13040908-003 Water 5ml	1ul A2458	9 Apr 2013 20:44
83	83	13040883.D	1.	13040908-004 Water 5ml	1ul A2458	9 Apr 2013 21:09
84	84	13040884.D	1.	13040908-005 Water 5ml	1ul A2458	9 Apr 2013 21:34
85	85	13040885.D	1.	13040908-006 Water 5ml	1ul A2458	9 Apr 2013 22:00
86	86	13040886.D	1.	13040908-007 Water 5ml	1ul A2458	9 Apr 2013 22:25
87	87	13040887.D	1.	13040908-008 Water 5ml	1ul A2458	9 Apr 2013 22:50
88	88	13040888.D	1.	13040908-009 Water 5ml	1ul A2458	9 Apr 2013 23:16
89	89	13040889.D	1.	13040908-010 Water 5ml	1ul A2458	9 Apr 2013 23:41
90	90	13040890.D	1.	13040908-011 Water 5ml	1ul A2458	10 Apr 2013 00:07
91	91	13040891.D	1.	13040908-001 MS GRO Water 5ml	1ul A2458 10ul 2492	10 Apr 2013 00:32
92	92	13040892.D	1.	13040908-001 MSD GRO Water 5ml	1ul A2458 10ul 2492	10 Apr 2013 00:58
93	93	13040893.D	1.	CCV, GRO 5000ppb Water 5ml	1ul A2458 5ul 12.5ul 2492	10 Apr 2013 01:23
94	94	13040894.D	1.	CCV, BTEXNM 50ppb Water 5ml	1ul A2458 25ul 1397-1	10 Apr 2013 01:49
95	95	13040895.D	1.	GRO Retention Time Marker Water 5ml	1ul A2458 5ul 1219-2	10 Apr 2013 02:14

Response Factor Report BTEX #2

Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013

Calibration Files
1 =13040507.D 2 =13040508.D 3 =13040509.D
4 =13040510.D 5 =13040511.D 6 =13040512.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	M	Methyl-t-butyl e	6.604	7.624	7.892	7.904	7.479	7.241	7.457	E4	6.55
2)	M	Benzene	1.775	1.942	2.129	2.035	2.016	1.897	1.966	E5	6.26
3)	S	BTEX Surrogate	1.511	1.434	1.488	1.538	1.513	1.522	1.501	E5	2.44
4)	M	Toluene	1.587	1.710	1.910	1.879	1.887	1.794	1.795	E5	7.01
5)	M	Ethylbenzene	1.307	1.281	1.397	1.347	1.361	1.298	1.332	E5	3.31
6)	M	m&p-Xylene	1.560	1.621	1.722	1.632	1.615	1.483	1.606	E5	4.96
7)	M	o-Xylene	1.440	1.549	1.635	1.544	1.488	1.388	1.507	E5	5.82
8)	M	Naphthalene	8.540	7.142	8.212	7.577	8.398	8.415	8.047	E3	6.96

Signal #2 Calibration Files
1 =13040507.D 2 =13040508.D 3 =13040509.D
4 =13040510.D 5 =13040511.D 6 =13040512.D

		Compound	1	2	3	4	5	6	Avg		%RSD
10)	H	GRO							3.371	E4	18.22
11)	s	GRO Surrogate							1.147	E5	22.99

(#) = Out of Range ### Number of calibration levels exceeded format ###

Calibration Report BTEX #2

Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration

Calibration Files
1 =13040507 2 =13040508 3 =13040509 4 =13040510 5 =13040511
6 =13040512 GRO1=13040813 GRO2=13040805 GRO3=13040806 GRO4=13040807
GRO5=13040808 GRO6=13040809 GRO7=13040812

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	M	Methyl-t-butyl ether	Avg	-----	7.4574 e4	-----	0.0655
2)	M	Benzene	Avg	-----	1.9657 e5	-----	0.0626
3)	S	BTEX Surrogate	Avg	-----	1.5012 e5	-----	0.0244
4)	M	Toluene	Avg	-----	1.7946 e5	-----	0.0701
5)	M	Ethylbenzene	Avg	-----	1.3321 e5	-----	0.0331
6)	M	m&p-Xylene	Avg	-----	1.6056 e5	-----	0.0496
7)	M	o-Xylene	Avg	-----	1.5073 e5	-----	0.0582
8)	M	Naphthalene	Avg	-----	8.0474 e3	-----	0.0696

Signal #2 Calibration Files
1 =13040507 2 =13040508 3 =13040509 4 =13040510 5 =13040511
6 =13040512 GRO1=13040813 GRO2=13040805 GRO3=13040806 GRO4=13040807
GRO5=13040808 GRO6=13040809 GRO7=13040812

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
10)	H	GRO	Avg	-----	3.3710 e4	-----	0.1822
11)	s	GRO Surrogate	Avg	-----	1.1474 e5	-----	0.2299

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040813.D\FID1B.CH Vial: 13
Signal #2 : P:\BTEX\2\DATA\130408\13040813.D\FID2A.CH
Acq On : 8 Apr 2013 1:39 pm Operator: ABC
Sample : ICAL 1 GRO 100ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 12.5ul A2497 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 13:57:24 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 13:57:22 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

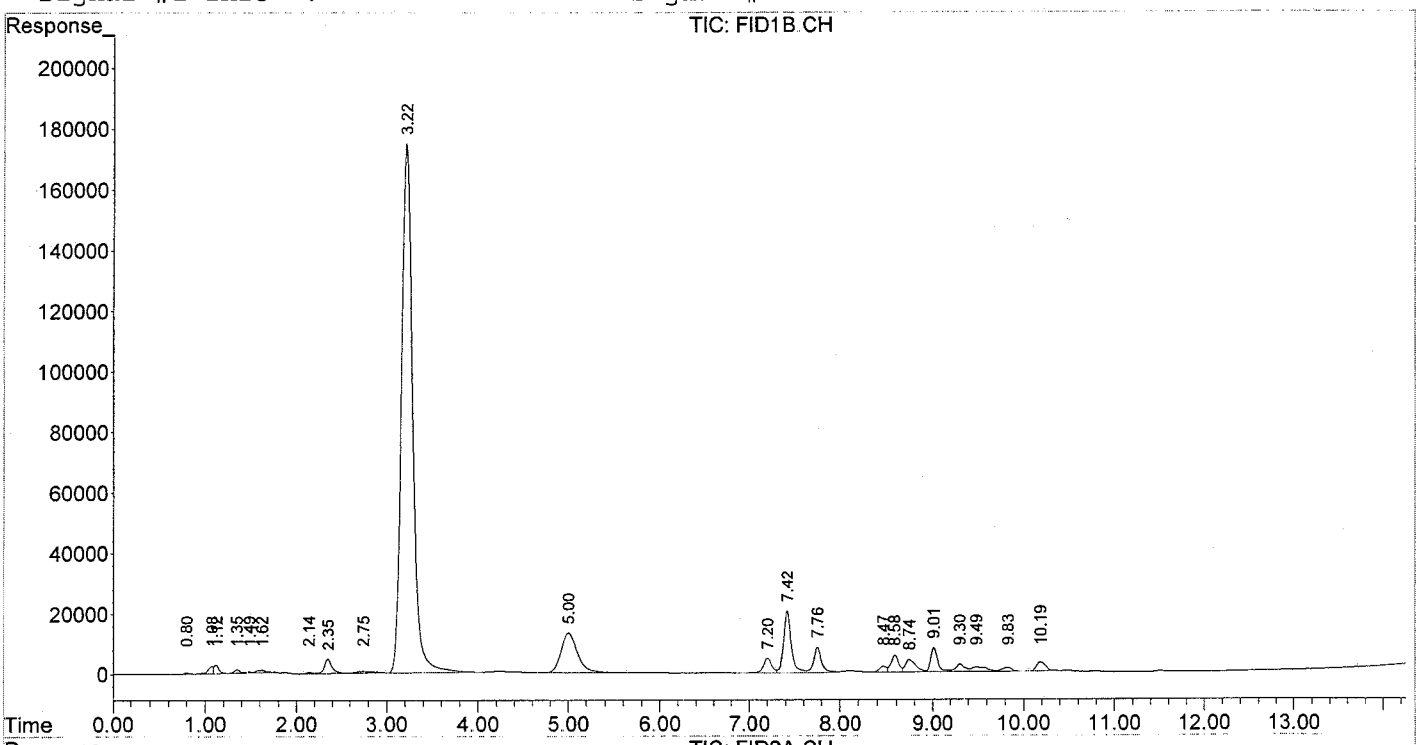
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3)	S BTEX Surrogate	3.22	14950382	NoCal	ppb
Spiked Amount	100.000 Range 84 - 110	Recovery =	0.00%#		
11)	s GRO Surrogate	3.22	8828312	NoCal	ppb
Spiked Amount	100.000 Range 69 - 100	Recovery =	0.00%#		
	Target Compounds				
1)	M Methyl-t-butyl ether	0.00	0	N.D.	ppb
2)	M Benzene	2.35	302054	NoCal	ppb
4)	M Toluene	5.00	1677983	NoCal	ppb
5)	M Ethylbenzene	7.20	321325	NoCal	ppb
6)	M m&p-Xylene	7.42	1244499	NoCal	ppb
7)	M o-Xylene	7.76	511926	NoCal	ppb
8)	M Naphthalene	0.00	0	N.D.	ppb
10)	H GRO	5.00	3155887	NoCal	ppb

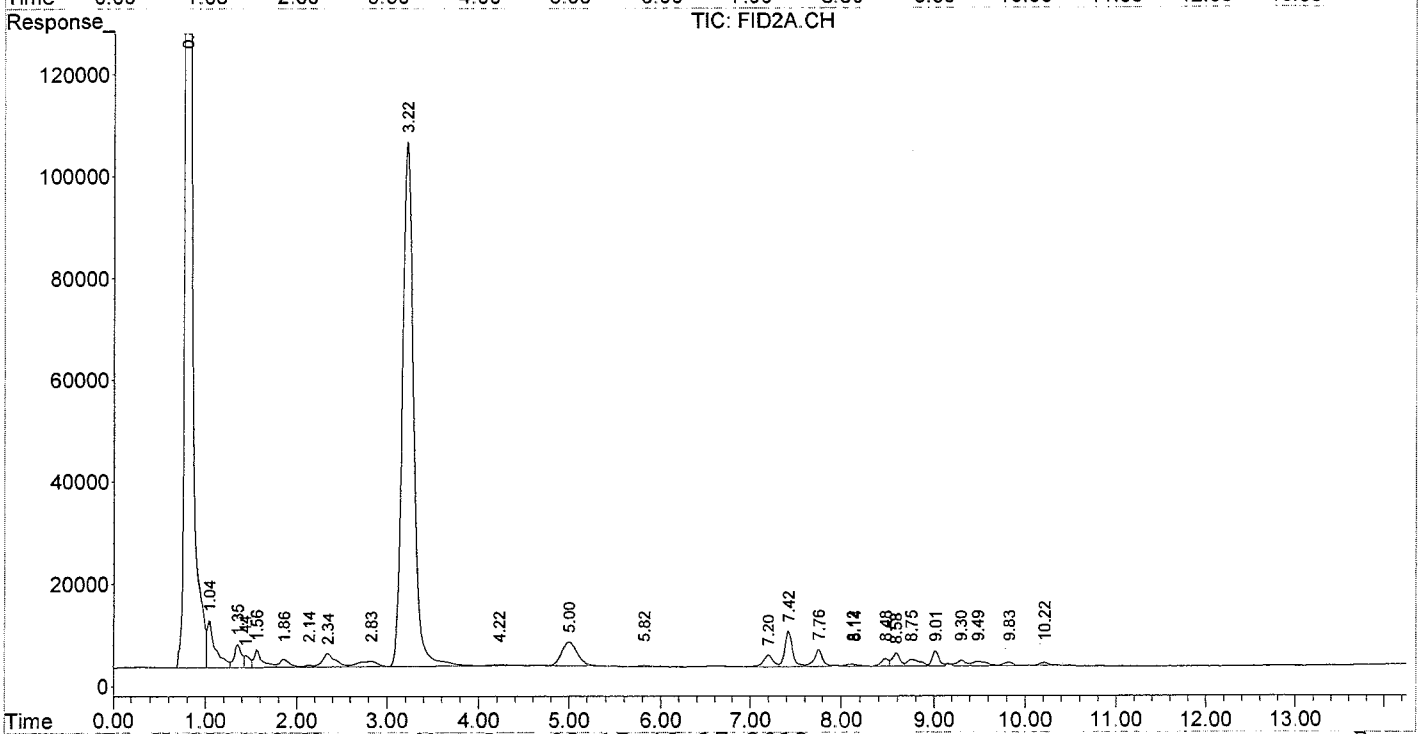
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040813.D\FID1B.CH Vial: 13
Signal #2 : P:\BTEX\2\DATA\130408\13040813.D\FID2A.CH
Acq On : 8 Apr 2013 1:39 pm Operator: ABC
Sample : ICAL 1 GRO 100ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 12.5ul A2497 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 13:57 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 13:57:22 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040805.D\FID1B.CH Vial: 5
Signal #2 : P:\BTEX\2\DATA\130408\13040805.D\FID2A.CH
Acq On : 8 Apr 2013 10:17 am Operator: ABC
Sample : ICAL 2 GRO 1000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 2.5ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 11:57:21 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 11:57:00 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3) S	BTEX Surrogate	3.22	15517020	NoCal	ppb
Spiked Amount	100.000 Range	84 - 110	Recovery =	0.00%#	
11) s	GRO Surrogate	3.22	9099367	NoCal	ppb
Spiked Amount	100.000 Range	69 - 100	Recovery =	0.00%#	
	Target Compounds				
1) M	Methyl-t-butyl ether	0.00	0	N.D.	ppb
2) M	Benzene	2.35	2860040	NoCal	ppb
4) M	Toluene	5.00	15837159	NoCal	ppb
5) M	Ethylbenzene	7.20	2481194	NoCal	ppb
6) M	m&p-Xylene	7.41	10471827	NoCal	ppb
7) M	o-Xylene	7.75	4111439	NoCal	ppb
8) M	Naphthalene	10.82	49865	NoCal	ppb
10) H	GRO	5.00	23311296	NoCal	ppb

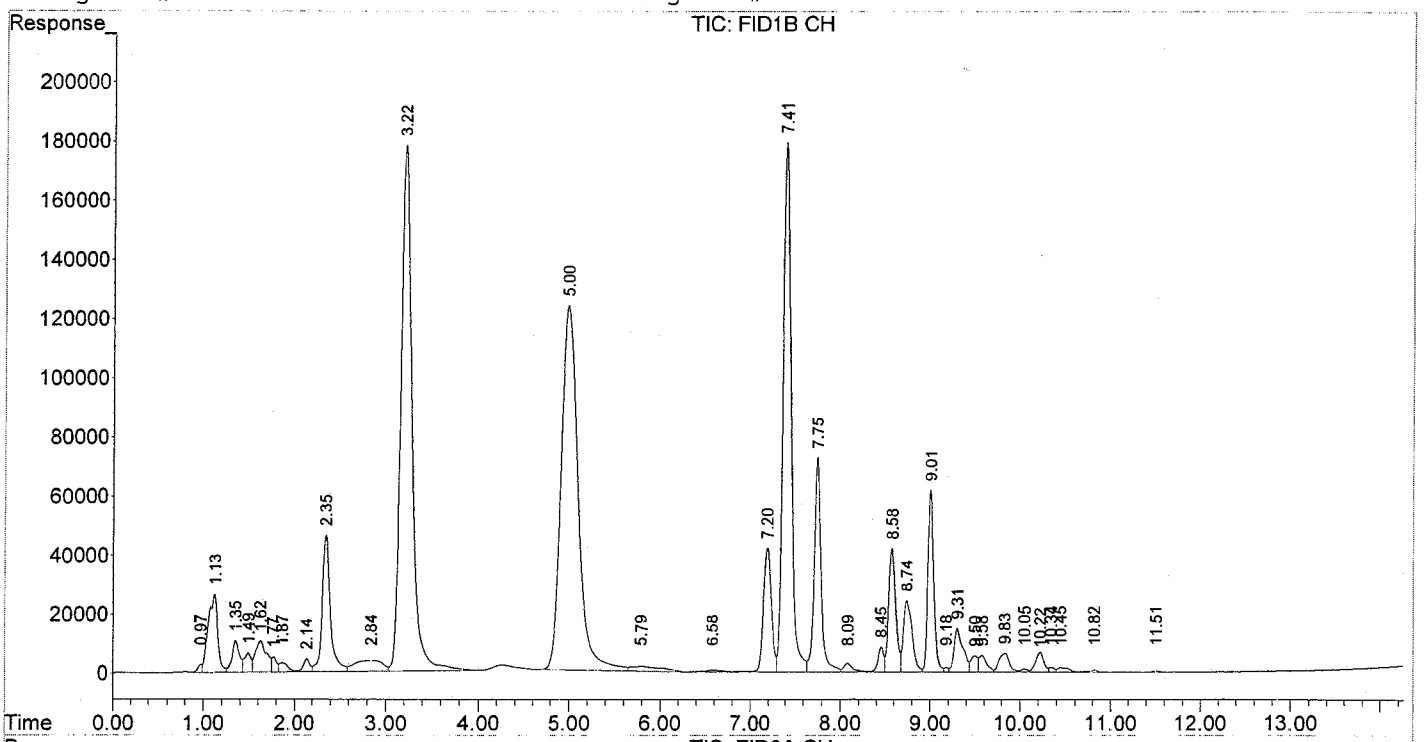
(f)=RT Delta > 1/2 Window (m)=manual int.

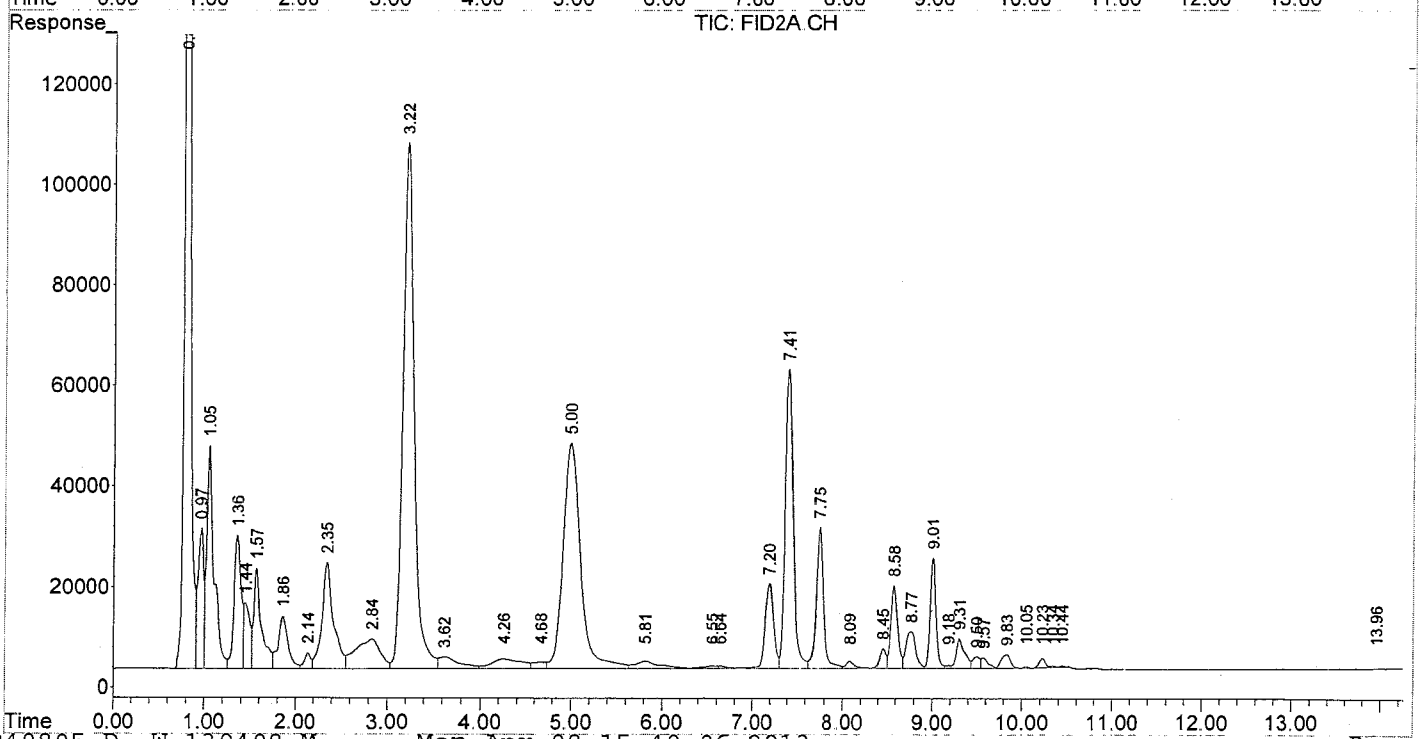
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040805.D\FID1B.CH Vial: 5
Signal #2 : P:\BTEX\2\DATA\130408\13040805.D\FID2A.CH
Acq On : 8 Apr 2013 10:17 am Operator: ABC
Sample : ICAL 2 GRO 1000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 2.5ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 11:57 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 11:57:00 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040806.D\FID1B.CH Vial: 6
Signal #2 : P:\BTEX\2\DATA\130408\13040806.D\FID2A.CH
Acq On : 8 Apr 2013 10:42 am Operator: ABC
Sample : ICAL 3 GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 12.5ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 11:57:26 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 11:57:00 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3)	S BTEX Surrogate	3.22	17393891	NoCal	ppb
Spiked Amount	100.000 Range 84 - 110	Recovery =	0.00%#		
11)	s GRO Surrogate	3.22	11587221	NoCal	ppb
Spiked Amount	100.000 Range 69 - 100	Recovery =	0.00%#		
	Target Compounds				
1)	M Methyl-t-butyl ether	0.00	0	N.D.	ppb
2)	M Benzene	2.35	18757190	NoCal	ppb
4)	M Toluene	5.00	86474820	NoCal	ppb
5)	M Ethylbenzene	7.19	16504973	NoCal	ppb
6)	M m&p-Xylene	7.41	61060362	NoCal	ppb
7)	M o-Xylene	7.75	23653904	NoCal	ppb
8)	M Naphthalene	10.81	364149	NoCal	ppb
10)	H GRO	5.00	182371977	NoCal	ppb

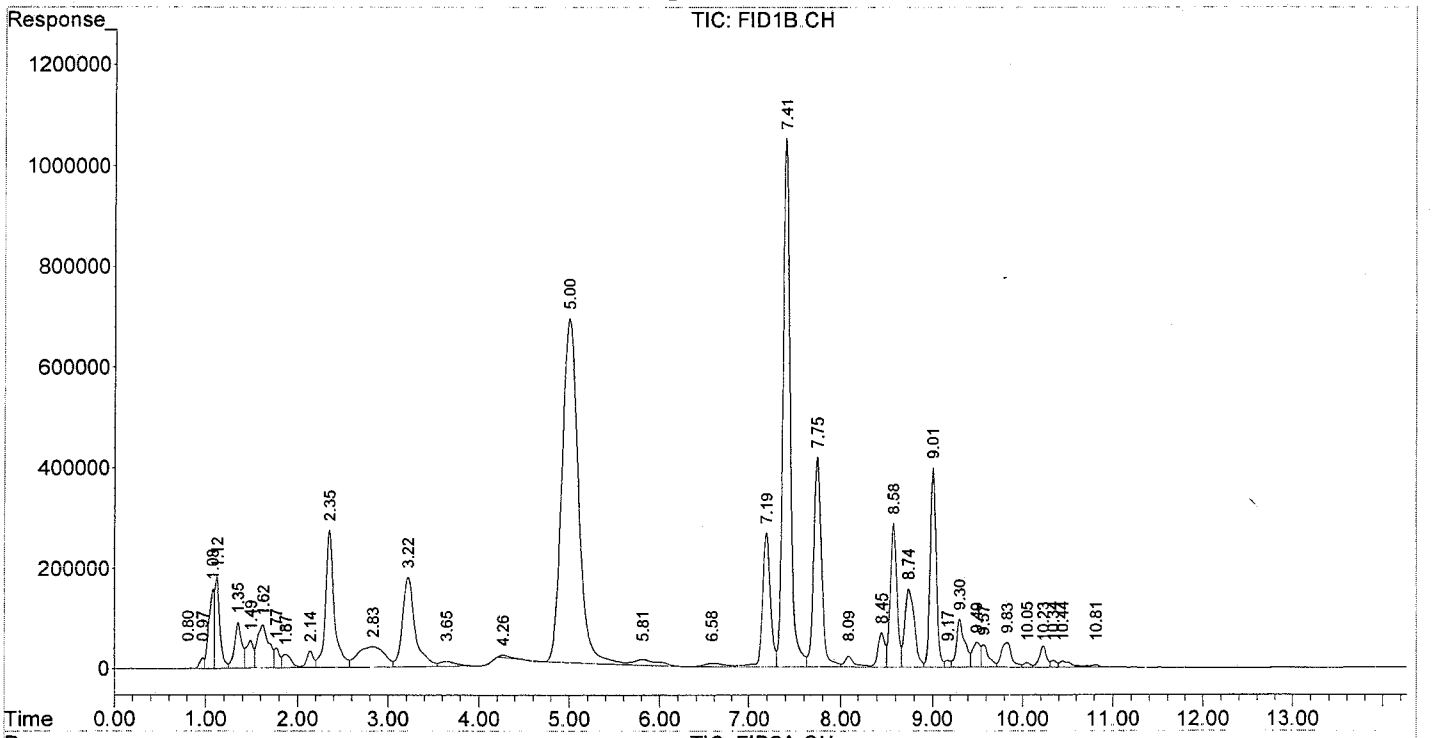
(f)=RT Delta > 1/2 Window (m)=manual int.

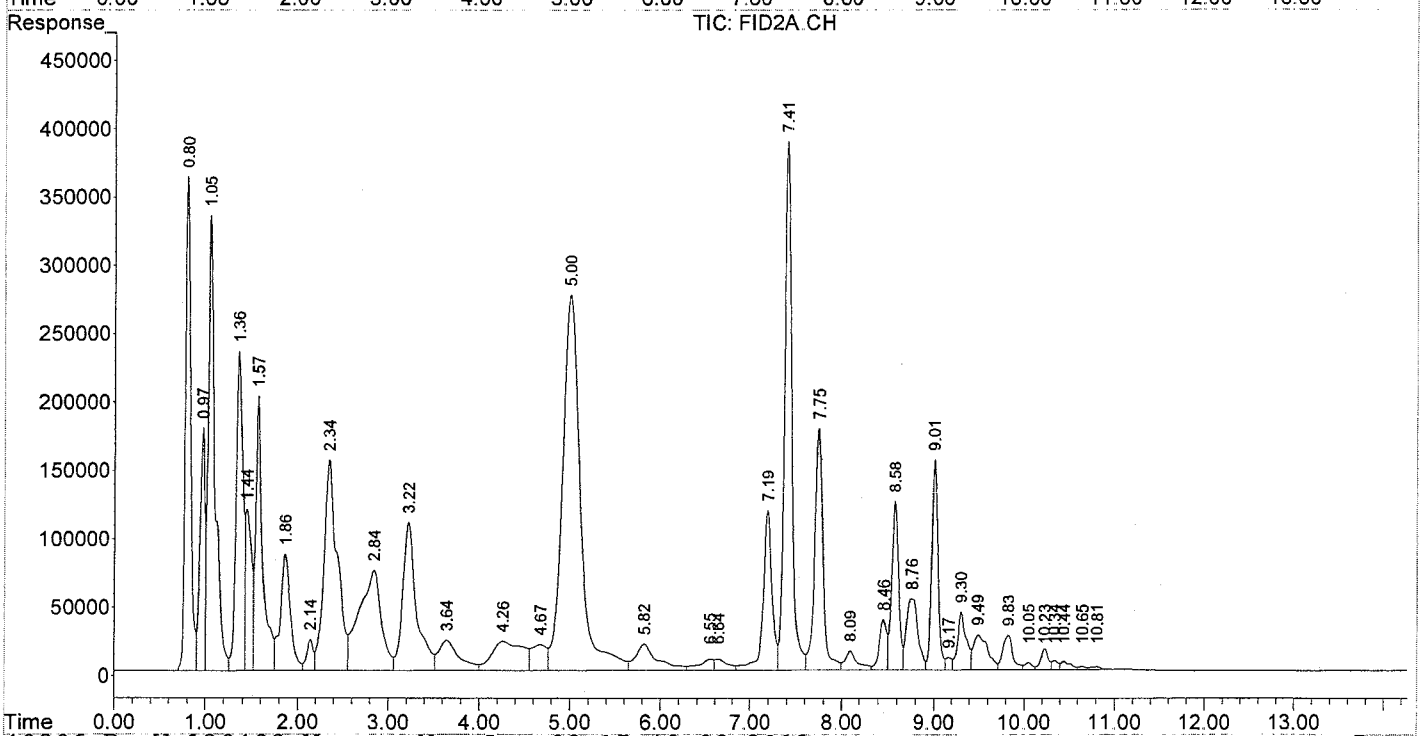
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040806.D\FID1B.CH Vial: 6
Signal #2 : P:\BTEX\2\DATA\130408\13040806.D\FID2A.CH
Acq On : 8 Apr 2013 10:42 am Operator: ABC
Sample : ICAL 3 GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 12.5ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 11:57 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 11:57:00 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040807.D\FID1B.CH Vial: 7
Signal #2 : P:\BTEX\2\DATA\130408\13040807.D\FID2A.CH
Acq On : 8 Apr 2013 11:07 am Operator: ABC
Sample : ICAL 4 GRO 10,000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 25ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 11:57:29 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 11:57:00 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3)	S BTEX Surrogate	3.22	19904389	NoCal	ppb
Spiked Amount	100.000 Range 84 - 110	Recovery =	0.00%#		
11)	s GRO Surrogate	3.22	14089389	NoCal	ppb
Spiked Amount	100.000 Range 69 - 100	Recovery =	0.00%#		
	Target Compounds				
1)	M Methyl-t-butyl ether	0.00	0	N.D.	ppb
2)	M Benzene	2.35	33663542	NoCal	ppb
4)	M Toluene	5.01	158328068	NoCal	ppb
5)	M Ethylbenzene	7.20	29733131	NoCal	ppb
6)	M m&p-Xylene	7.41	108801418	NoCal	ppb
7)	M o-Xylene	7.75	42351250	NoCal	ppb
8)	M Naphthalene	10.81	940368	NoCal	ppb
10)	H GRO	5.00	320005160	NoCal	ppb

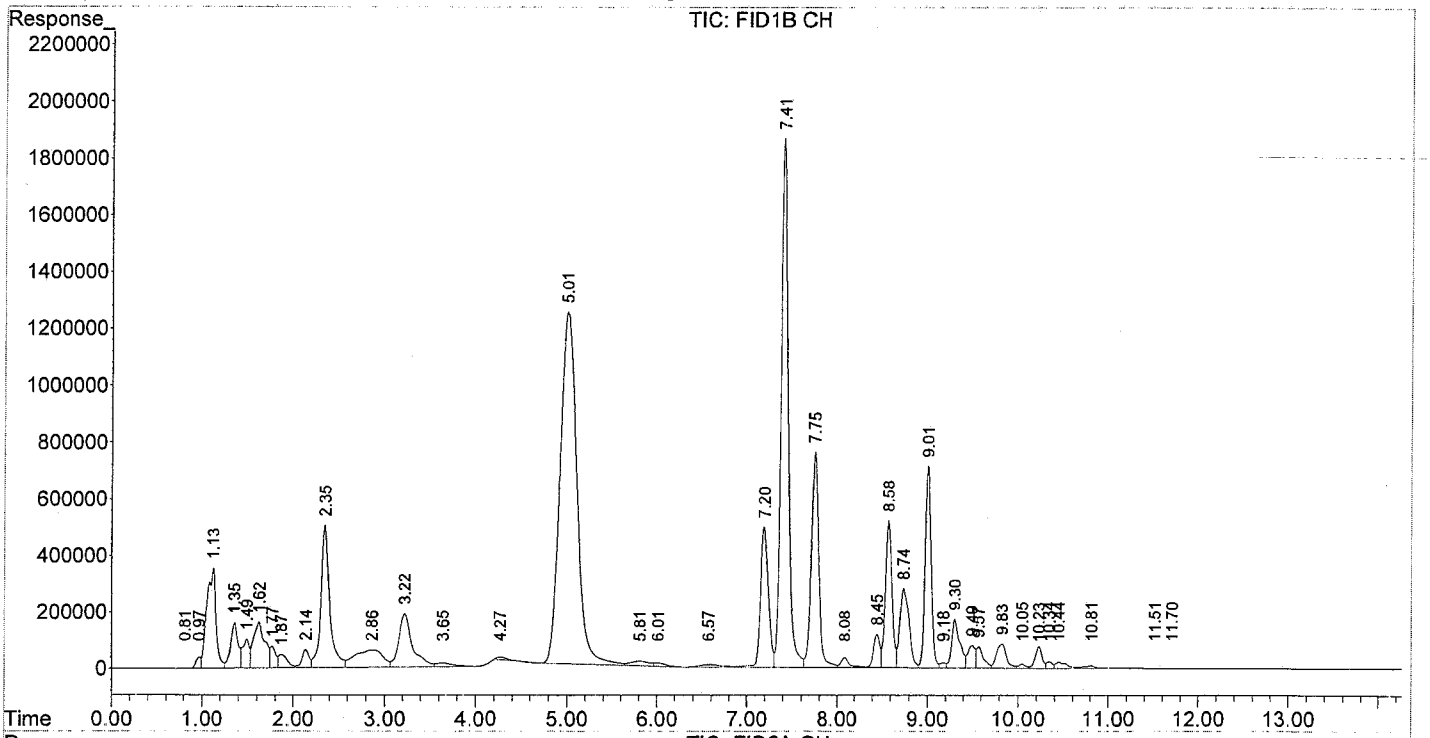
(f)=RT Delta > 1/2 Window (m)=manual int.

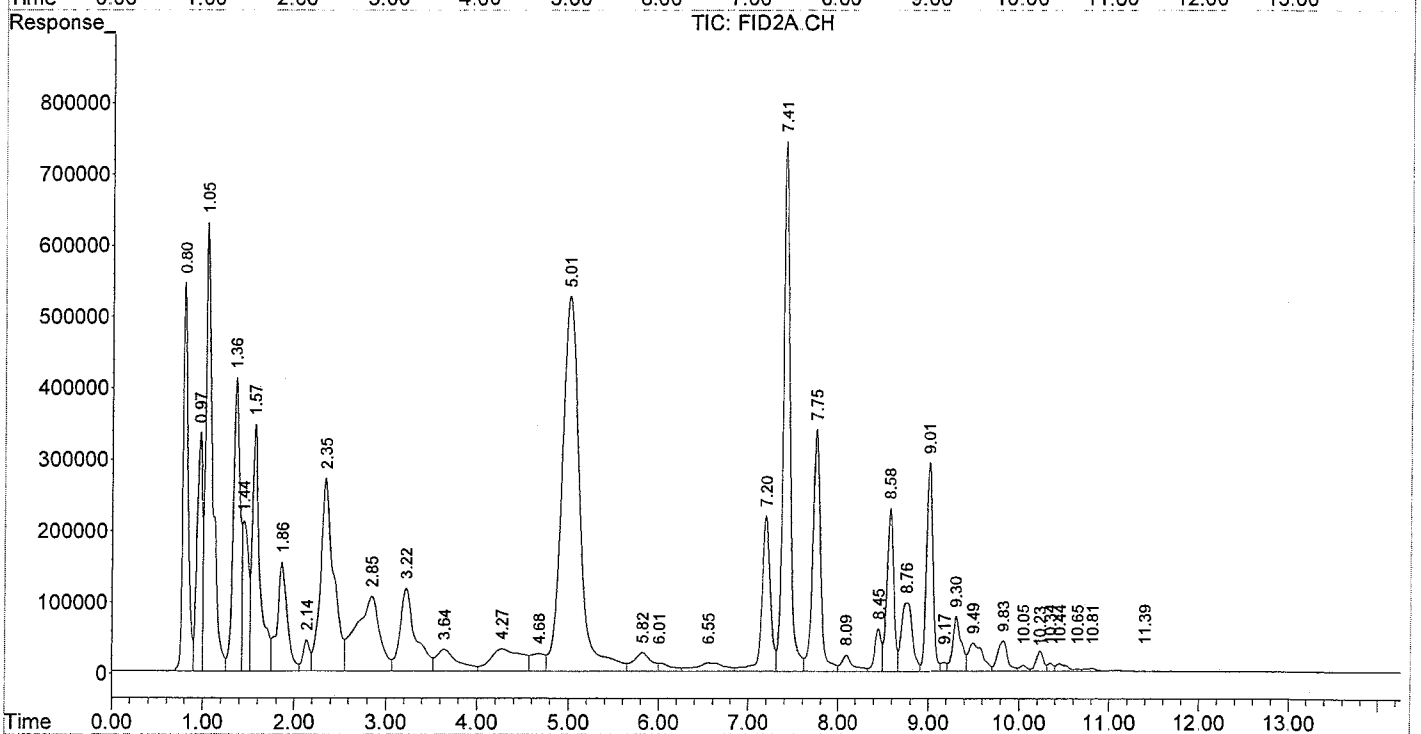
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040807.D\FID1B.CH Vial: 7
Signal #2 : P:\BTEX\2\DATA\130408\13040807.D\FID2A.CH
Acq On : 8 Apr 2013 11:07 am Operator: ABC
Sample : ICAL 4 GRO 10,000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 25ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 11:57 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 11:57:00 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040808.D\FID1B.CH Vial: 8
Signal #2 : P:\BTEX\2\DATA\130408\13040808.D\FID2A.CH
Acq On : 8 Apr 2013 11:32 am Operator: ABC
Sample : ICAL 5 GRO 20,000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 50ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 11:57:35 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 11:57:00 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3) S	BTEX Surrogate	3.22	18551844	NoCal	ppb
Spiked Amount	100.000 Range 84 - 110		Recovery =	0.00%#	
11) s	GRO Surrogate	3.22	12683263	NoCal	ppb
Spiked Amount	100.000 Range 69 - 100		Recovery =	0.00%#	
	Target Compounds				
1) M	Methyl-t-butyl ether	0.00	0	N.D.	ppb
2) M	Benzene	2.36	67112277	NoCal	ppb
4) M	Toluene	5.03	298475960	NoCal	ppb
5) M	Ethylbenzene	7.20	60191676	NoCal	ppb
6) M	m&p-Xylene	7.42	199911230	NoCal	ppb
7) M	o-Xylene	7.75	82348167	NoCal	ppb
8) M	Naphthalene	10.81	2554036	NoCal	ppb
10) H	GRO	5.00	724565407	NoCal	ppb

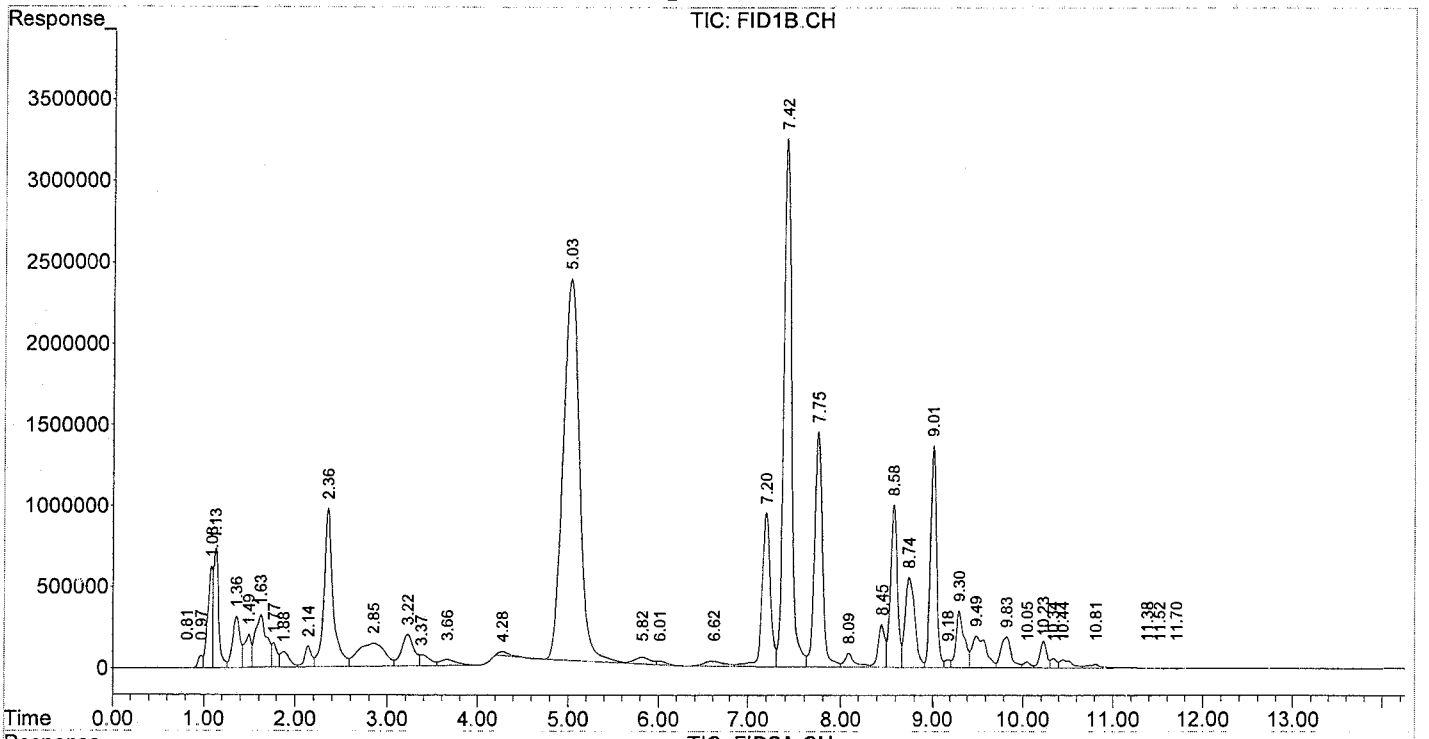
(f)=RT Delta > 1/2 Window (m)=manual int.

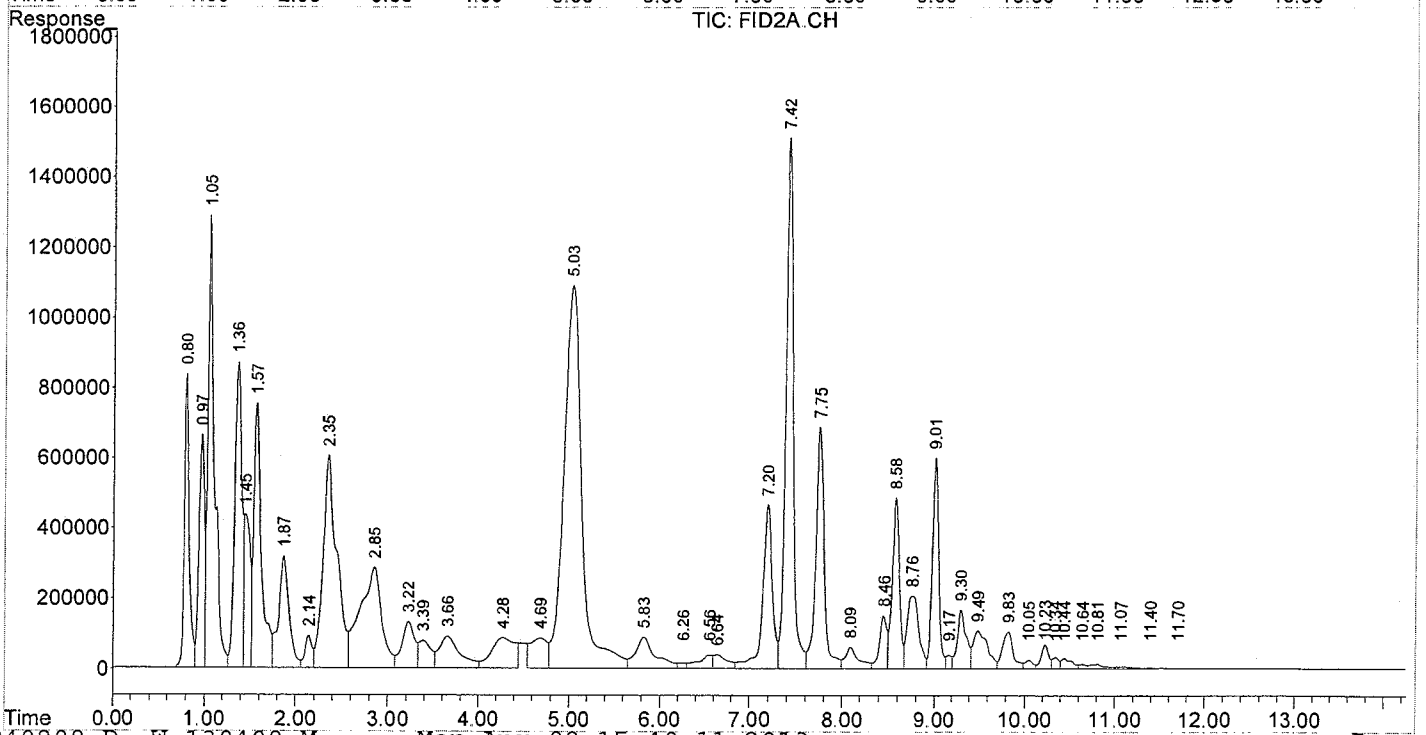
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040808.D\FID1B.CH Vial: 8
Signal #2 : P:\BTEX\2\DATA\130408\13040808.D\FID2A.CH
Acq On : 8 Apr 2013 11:32 am Operator: ABC
Sample : ICAL 5 GRO 20,000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 50ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 11:57 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 11:57:00 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040809.D\FID1B.CH Vial: 9
Signal #2 : P:\BTEX\2\DATA\130408\13040809.D\FID2A.CH
Acq On : 8 Apr 2013 11:58 am Operator: ABC
Sample : ICAL 6 GRO 50,000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 125ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 12:14:35 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 12:14:31 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) S BTEX Surrogate	3.22	20212571	NoCal	ppb
Spiked Amount 100.000 Range 84 - 110	Recovery =	0.00%#		
11) s GRO Surrogate	3.22	15194420	NoCal	ppb
Spiked Amount 100.000 Range 69 - 100	Recovery =	0.00%#		
Target Compounds				
1) M Methyl-t-butyl ether	0.00	0	N.D.	ppb
2) M Benzene	2.36	144190572	NoCal	ppb
4) M Toluene	5.07f	588240814	NoCal	ppb
5) M Ethylbenzene	7.21	131165152	NoCal	ppb
6) M m&p-Xylene	7.43	356516901	NoCal	ppb
7) M o-Xylene	7.76	178907064	NoCal	ppb
8) M Naphthalene	10.81	5524146	NoCal	ppb
10) H GRO	5.00	1644580116	NoCal	ppb

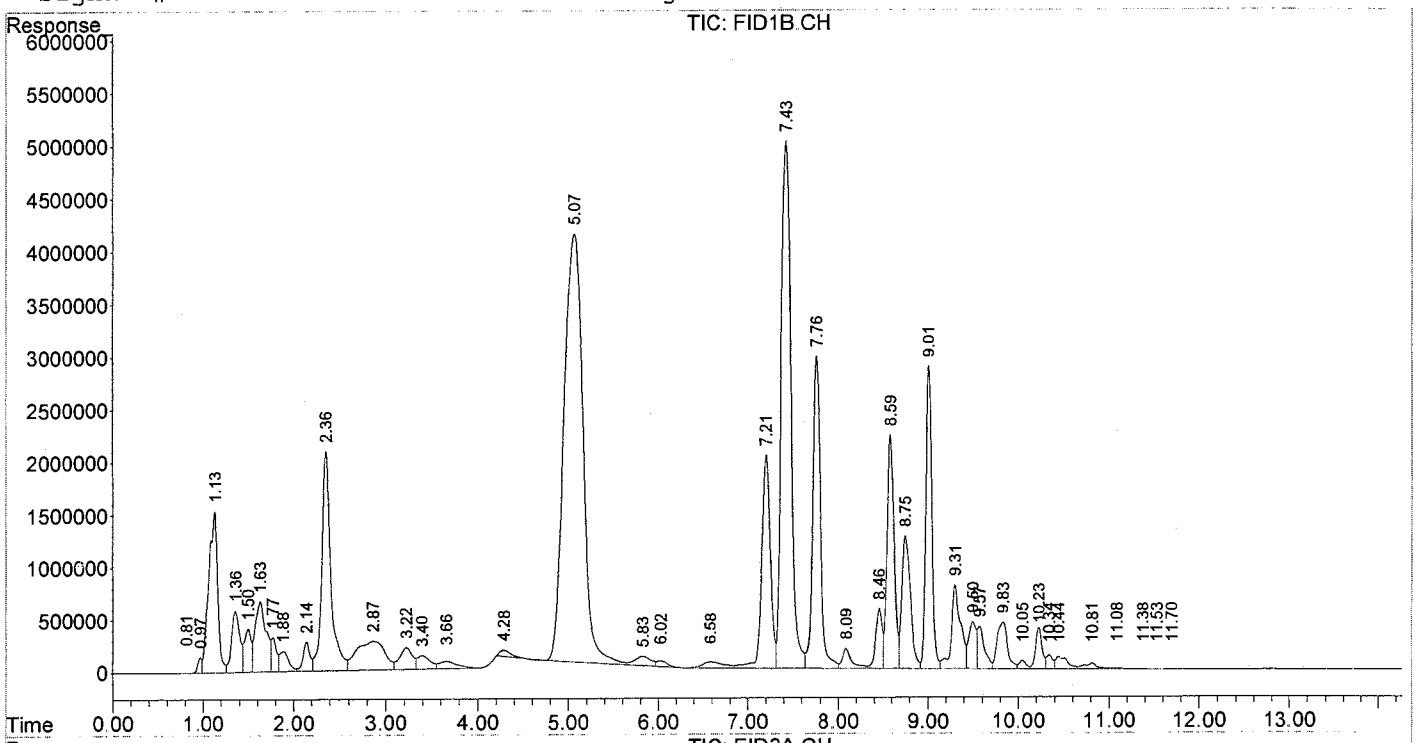
(f)=RT Delta > 1/2 Window (m)=manual int.

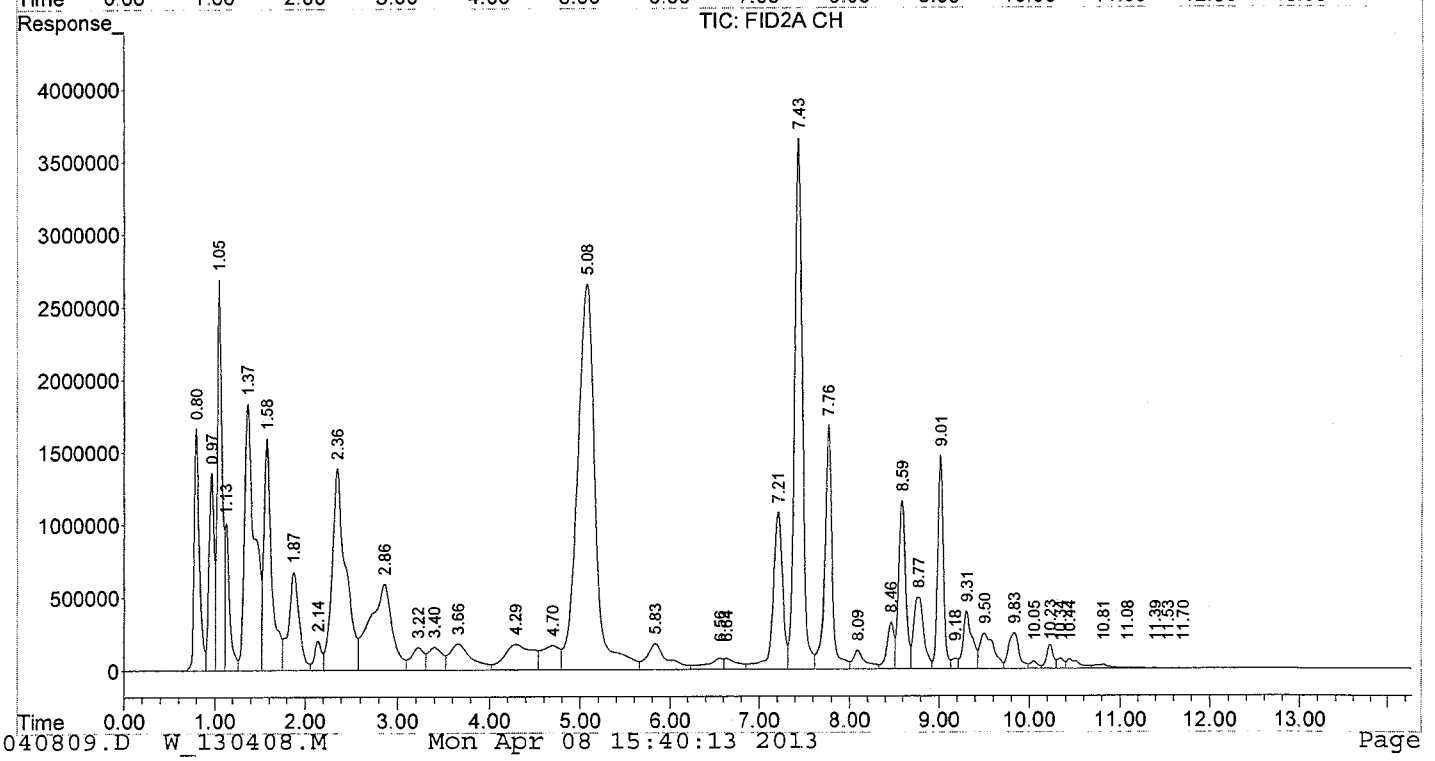
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040809.D\FID1B.CH Vial: 9
Signal #2 : P:\BTEX\2\DATA\130408\13040809.D\FID2A.CH
Acq On : 8 Apr 2013 11:58 am Operator: ABC
Sample : ICAL 6 GRO 50,000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 125ul A2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 12:14 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 12:14:31 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040812.D\FID1B.CH Vial: 12
Signal #2 : P:\BTEX\2\DATA\130408\13040812.D\FID2A.CH
Acq On : 8 Apr 2013 1:14 pm Operator: ABC
Sample : ICAL 7 GRO 40ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul A2497 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 13:29:34 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 13:29:31 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) S BTEX Surrogate	3.21	14966161	NoCal	ppb
Spiked Amount 100.000 Range 84 - 110	Recovery =	0.00%#		
11) s GRO Surrogate	3.21	8833941	NoCal	ppb
Spiked Amount 100.000 Range 69 - 100	Recovery =	0.00%#		
Target Compounds				
1) M Methyl-t-butyl ether	0.00	0	N.D.	ppb
2) M Benzene	2.35	117807	NoCal	ppb
4) M Toluene	5.00	603799	NoCal	ppb
5) M Ethylbenzene	7.20	205528	NoCal	ppb
6) M m&p-Xylene	7.42	543271	NoCal	ppb
7) M o-Xylene	7.75	254498	NoCal	ppb
8) M Naphthalene	0.00	0	N.D.	ppb
10) H GRO	5.00	1740114	NoCal	ppb

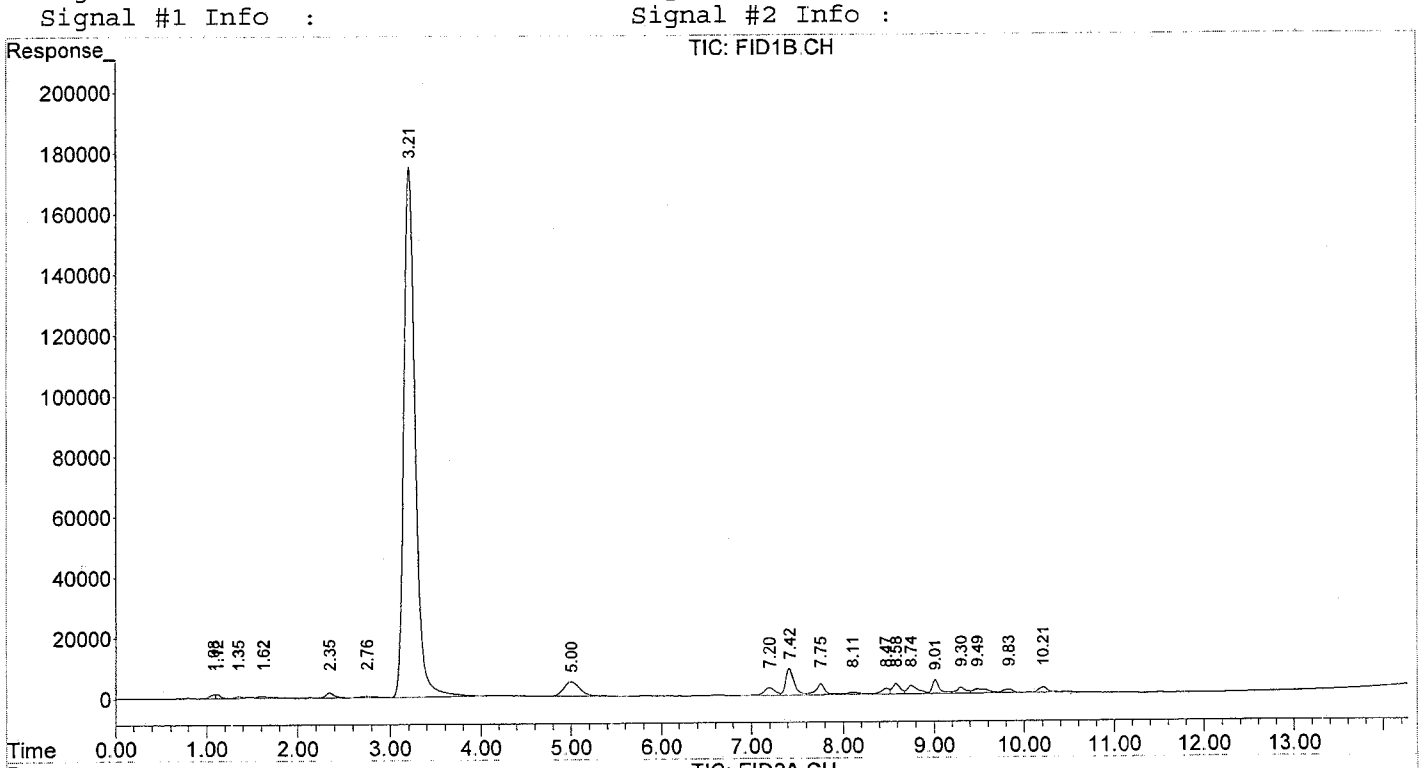
(f)=RT Delta > 1/2 Window (m)=manual int.

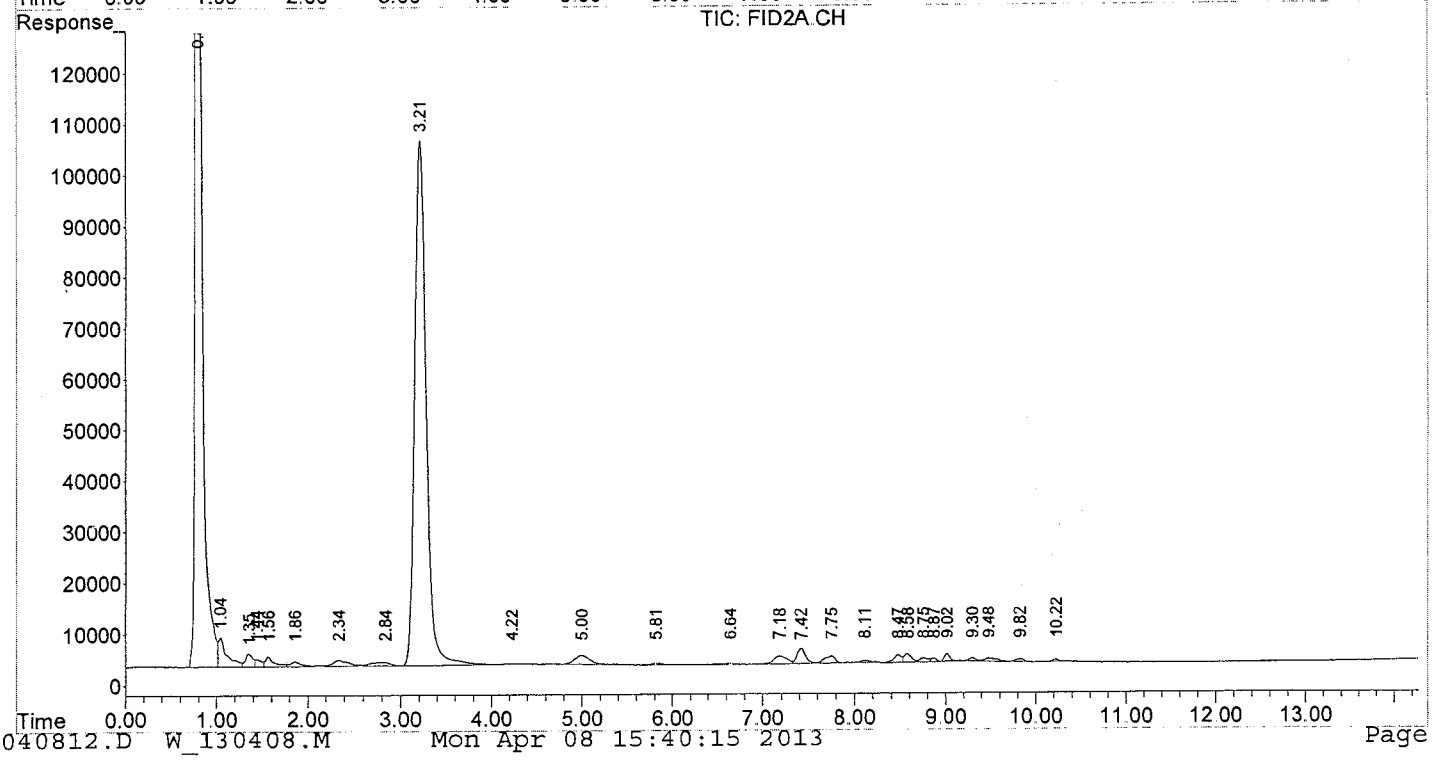
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040812.D\FID1B.CH Vial: 12
Signal #2 : P:\BTEX\2\DATA\130408\13040812.D\FID2A.CH
Acq On : 8 Apr 2013 1:14 pm Operator: ABC
Sample : ICAL 7 GRO 40ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul A2497 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 13:29 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 13:29:31 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Signal #1 : P:\BTEX\2\DATA\130408\13040814.D\FID1B.CH Vial: 14
Signal #2 : P:\BTEX\2\DATA\130408\13040814.D\FID2A.CH
Acq On : 8 Apr 2013 2:13 pm Operator: ABC
Sample : ICV, GRO 50ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 12.5ul 3407 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E

Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
2	M	Benzene	196.569	0.000 E3	100.0#	126	-0.02
3	S	BTEX Surrogate	150.121	0.000 E3	100.0#	108	-0.02
4	M	Toluene	179.461	0.000 E3	100.0#	81	-0.02
5	M	Ethylbenzene	133.206	0.000 E3	100.0#	83	0.00
6	M	m&p-Xylene	160.556	0.000 E3	100.0#	88	0.00
7	M	o-Xylene	150.731	0.000 E3	100.0#	80	0.00
8	M	Naphthalene	8.047	0.000 E3	100.0#	47#	0.00
		Signal #2					
10	H	GRO	33.710	40.204 E3	-19.3	110	0.00
11	s	GRO Surrogate	114.737	127.828 E3	-11.4	110	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040814.D W_130408.M Mon Apr 08 15:40:37 2013 Page 1

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040814.D\FID1B.CH Vial: 14
Signal #2 : P:\BTEX\2\DATA\130408\13040814.D\FID2A.CH
Acq On : 8 Apr 2013 2:13 pm Operator: ABC
Sample : ICV, GRO 50ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 12.5ul 3407 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 15:36:28 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.20	18754318	124.928 ppb
Spiked Amount	100.000 Range	84 - 110	Recovery =	124.93%#
11) s	GRO Surrogate	3.20	12782842	111.410 ppb
Spiked Amount	100.000 Range	69 - 100	Recovery =	111.41%#
	Target Compounds			
1) M	Methyl-t-butyl ether	0.00	0	N.D. ppb
2) M	Benzene	2.34	23644797	120.287 ppb
4) M	Toluene	4.99	70128200	390.771 ppb
5) M	Ethylbenzene	7.19	13727451	103.054 ppb
6) M	m&p-Xylene	7.41	53874402	335.549 ppb
7) M	o-Xylene	7.75	18972467	125.870 ppb
8) M	Naphthalene	10.81	171429	21.302 ppb
10) H	GRO	5.00	201017608	5963.201 ppb

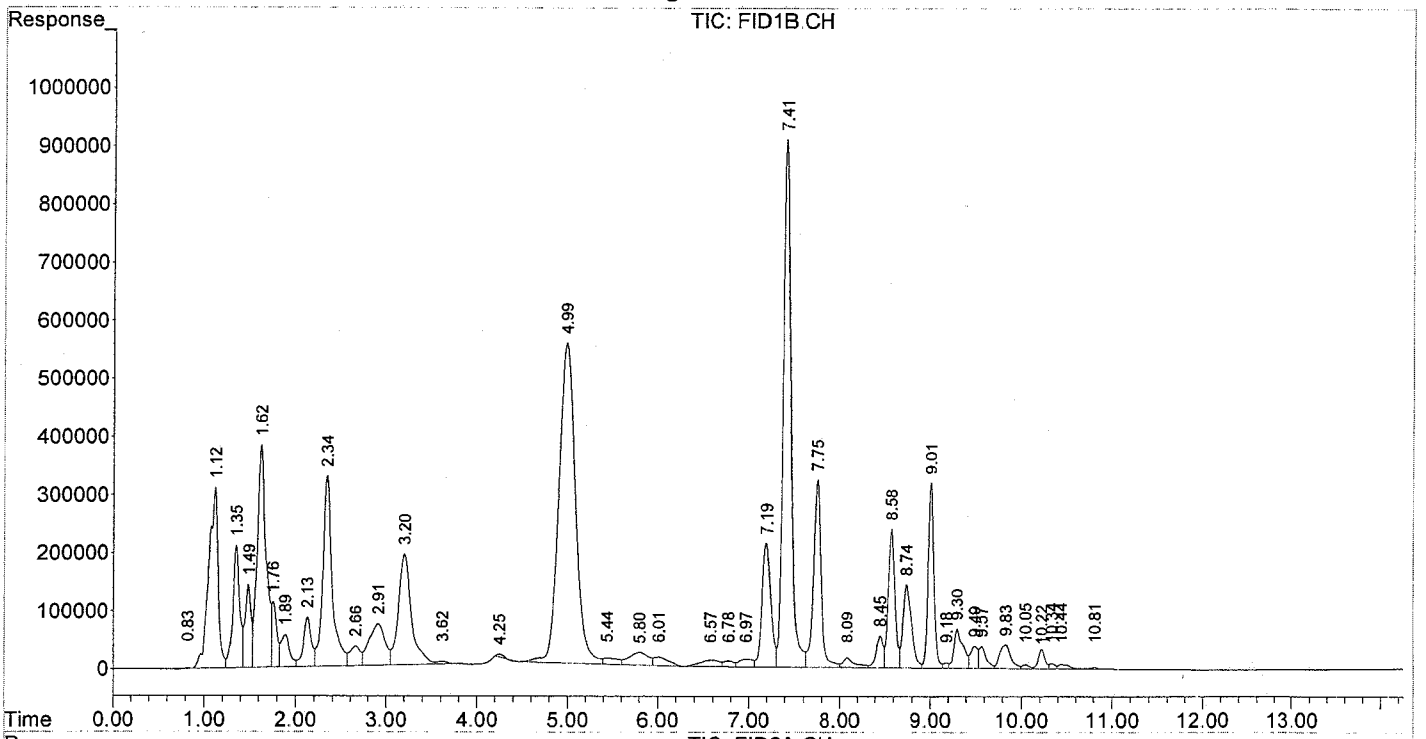
(f)=RT Delta > 1/2 Window (m)=manual int.

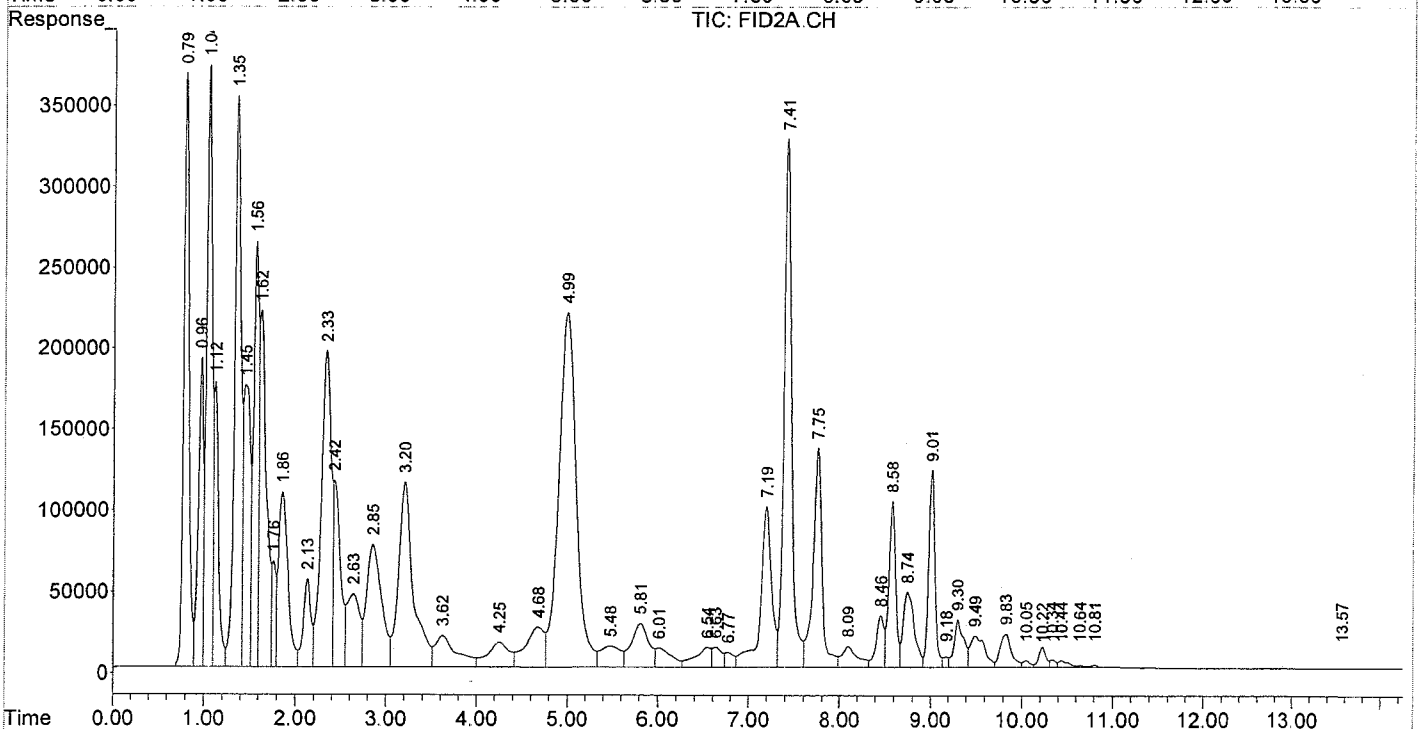
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040814.D\FID1B.CH Vial: 14
Signal #2 : P:\BTEX\2\DATA\130408\13040814.D\FID2A.CH
Acq On : 8 Apr 2013 2:13 pm Operator: ABC
Sample : ICV, GRO 50ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 12.5ul 3407 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 15:36 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040815.D\FID1B.CH Vial: 15
Signal #2 : P:\BTEX\2\DATA\130408\13040815.D\FID2A.CH
Acq On : 8 Apr 2013 2:38 pm Operator: ABC
Sample : GRO Retention Time Marker Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 15:36:38 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3)	S BTEX Surrogate	3.21	12217288	81.383 ppb
Spiked Amount	100.000 Range 84 - 110	Recovery =	81.38%#	
11)	s GRO Surrogate	3.21	7172095	62.509 ppb
Spiked Amount	100.000 Range 69 - 100	Recovery =	62.51%#	
	Target Compounds			
1)	M Methyl-t-butyl ether	0.00	0	N.D. ppb
2)	M Benzene	0.00	0	N.D. ppb
4)	M Toluene	4.98	95611	0.533 ppb
5)	M Ethylbenzene	7.17	180648	1.356 ppb
6)	M m&p-Xylene	7.42	178799	1.114 ppb
7)	M o-Xylene	7.76	91405	0.606 ppb
8)	M Naphthalene	0.00	0	N.D. ppb
10)	H GRO	5.00	7023670	208.358 ppb

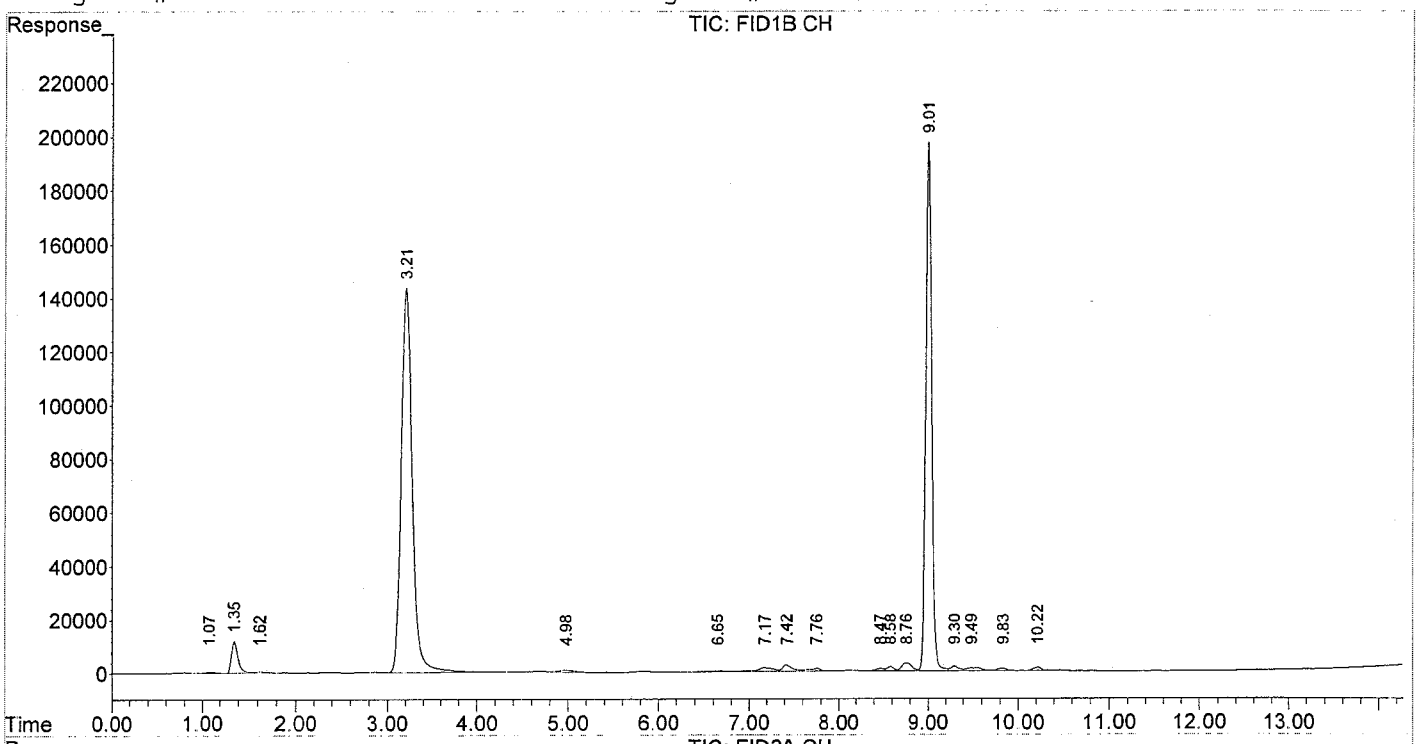
(f)=RT Delta > 1/2 Window (m)=manual int.

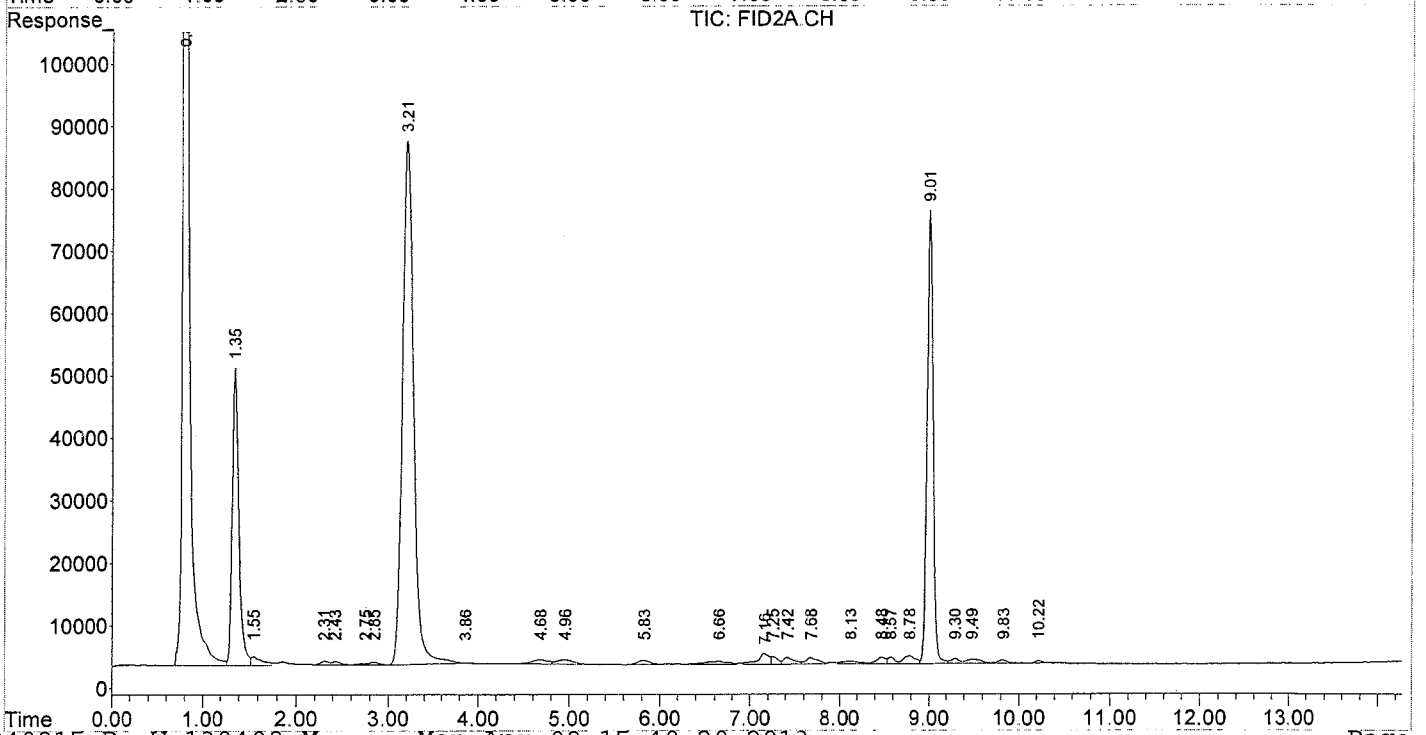
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040815.D\FID1B.CH Vial: 15
Signal #2 : P:\BTEX\2\DATA\130408\13040815.D\FID2A.CH
Acq On : 8 Apr 2013 2:38 pm Operator: ABC
Sample : GRO Retention Time Marker Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 15:36 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Injection Log

Directory: P:\BTEX2012\1\Data\121102

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	12110201.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 11:25
2	2	12110202.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 11:52
3	3	12110203.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 12:19
4	4	12110204.D	1.	ICAL 1 BTEXNM 1ppb 5ml	1ul A2315 Soil 0.5ul A2354	2 Nov 2012 12:47
5	5	12110205.D	1.	ICAL 2 BTEXNM 5ppb 5ml	1ul A2315 Soil 2.5ul A2354	2 Nov 2012 13:14
6	6	12110206.D	1.	ICAL 3 BTEXNM 20ppb 5ml	1ul A2315 Soil 1ul 1258-3	2 Nov 2012 13:42
7	7	12110207.D	1.	ICAL 4 BTEXNM 50ppb 5ml	1ul A2315 Soil 2.5ul 1258-3	2 Nov 2012 14:09
8	8	12110208.D	1.	ICAL 5 BTEXNM 200ppb 5ml	1ul A2315 Soil 10ul 1258-3	2 Nov 2012 14:36
9	9	12110209.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 15:04
10	10	12110210.D	1.	ICAL 6 BTEXNM 500ppb 5ml	1ul A2315 Soil 25ul 1258-3	2 Nov 2012 15:31
11	11	12110211.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 15:59
12	12	12110212.D	1.	ICV, BTEXNM 50ppb 5ml	1ul A2315 Soil 2.5ul 1258-4	2 Nov 2012 16:26
13	13	12110213.D	1.	GRO Retention Time Marker Water 5ml	1ul A2315 Soil 5ul 1219-1	2 Nov 2012 16:54
14	14	12110214.D	1.	Rinse Blank Water 5ml	1ul A2315 Soil	2 Nov 2012 17:21
15	15	12110215.D	1.	ICAL 1 GRO 40ppb 5ml	1ul A2315 Soil 0.8ul A2341	2 Nov 2012 17:49
16	16	12110216.D	1.	ICAL 2 GRO 100ppb 5ml	1ul A2315 Soil 2ul A2341	2 Nov 2012 18:16
17	17	12110217.D	1.	ICAL 3 GRO 1000ppb 5ml	1ul A2315 Soil 1ul A2340	2 Nov 2012 18:44
18	18	12110218.D	1.	ICAL 4 GRO 5000ppb 5ml	1ul A2315 Soil 5ul A2340	2 Nov 2012 19:11
19	19	12110219.D	1.	ICAL 5 GRO 10,000ppb 5ml	1ul A2315 Soil 10ul A2340	2 Nov 2012 19:39
20	20	12110220.D	1.	ICAL 6 GRO 20,000ppb 5ml	1ul A2315 Soil 20ul A2340	2 Nov 2012 20:05
21	21	12110221.D	1.	ICAL 7 GRO 50,000ppb 5ml	1ul A2315 Soil 50ul A2340	2 Nov 2012 20:32
22	22	12110222.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 21:00
23	23	12110223.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 21:27
24	24	12110224.D	1.	ICV, GRO 5000ppb 5ml	1ul A2315 Soil 5ul A2342	2 Nov 2012 21:54
25	25	12110225.D	1.	GRO Retention Time Marker Water 5ml	1ul A2315 Soil 5ul 1219-1	2 Nov 2012 22:21
26	26	12110226.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 22:49
27	27	12110227.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 23:16
28	28	12110228.D	1.	Rinse Blank	1ul A2315 Soil	2 Nov 2012 23:44
29	29	12110229.D	1.	Rinse Blank	1ul A2315 Soil	3 Nov 2012 00:11
30	30	12110230.D	1.	ICAL 1 BTEXNM 1ppb 5ml	1ul A2315 Soil 0.5ul A2354	3 Nov 2012 00:38
31	31	12110231.D	1.	ICAL 2 BTEXNM 5ppb 5ml	1ul A2315 Soil 2.5ul A2354	3 Nov 2012 01:05
32	32	12110232.D	1.	ICAL 3 BTEXNM 20ppb 5ml	1ul A2315 Soil 1ul 1258-3	3 Nov 2012 01:33
33	33	12110233.D	1.	ICAL 4 BTEXNM 50ppb 5ml	1ul A2315 Soil 2.5ul 1258-3	3 Nov 2012 01:59
34	34	12110234.D	1.	ICAL 5 BTEXNM 200ppb 5ml	1ul A2315 Soil 10ul 1258-3	3 Nov 2012 02:26

Injection Log

Directory: P:\BTEX2012\1\Data\121102

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
35	35	12110235.D	1.	Rinse Blank	1ul A2315 Soil	3 Nov 2012 02:54
36	36	12110236.D	1.	ICAL 6 BTEXNM 500ppb 5ml	1ul A2315 Soil 25ul 1258-3	3 Nov 2012 03:21
37	37	12110237.D	1.	Rinse Blank	1ul A2315 Soil	3 Nov 2012 03:48
38	38	12110238.D	1.	ICV, BTEXNM 50ppb 5ml	1ul A2315 Soil 2.5ul 1258-4	3 Nov 2012 04:16

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110215.D\FID1B.CH Vial: 15
Signal #2 : P:\BTEX2012\1\DATA\121102\12110215.D\FID2A.CH
Acq On : 2 Nov 2012 5:49 pm Operator: ABC
Sample : ICAL 1 GRO 40ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 0.8ul A2341 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 05 09:54:18 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3) S	BTEX Surrogate	3.68	12387079	NoCal	ppb
Spiked Amount	100.000	Range 65 - 133	Recovery =	0.00%#	
11) S	GRO Surrogate	3.68	6131020	NoCal	ppb
Spiked Amount	100.000	Range 51 - 122	Recovery =	0.00%#	
	Target Compounds				
1) M	Methyl-t-butyl ether	0.00	0	N.D.	ppb
2) M	Benzene	2.66	315897	NoCal	ppb
4) M	Toluene	5.61	1685265	NoCal	ppb
5) M	Ethylbenzene	7.52	337592	NoCal	ppb
6) M	m&p-Xylene	7.72	1332084	NoCal	ppb
7) M	o-Xylene	8.05	489542	NoCal	ppb
8) M	Naphthalene	11.08	95174	NoCal	ppb
10) H	GRO	5.00	2829349	NoCal	ppb

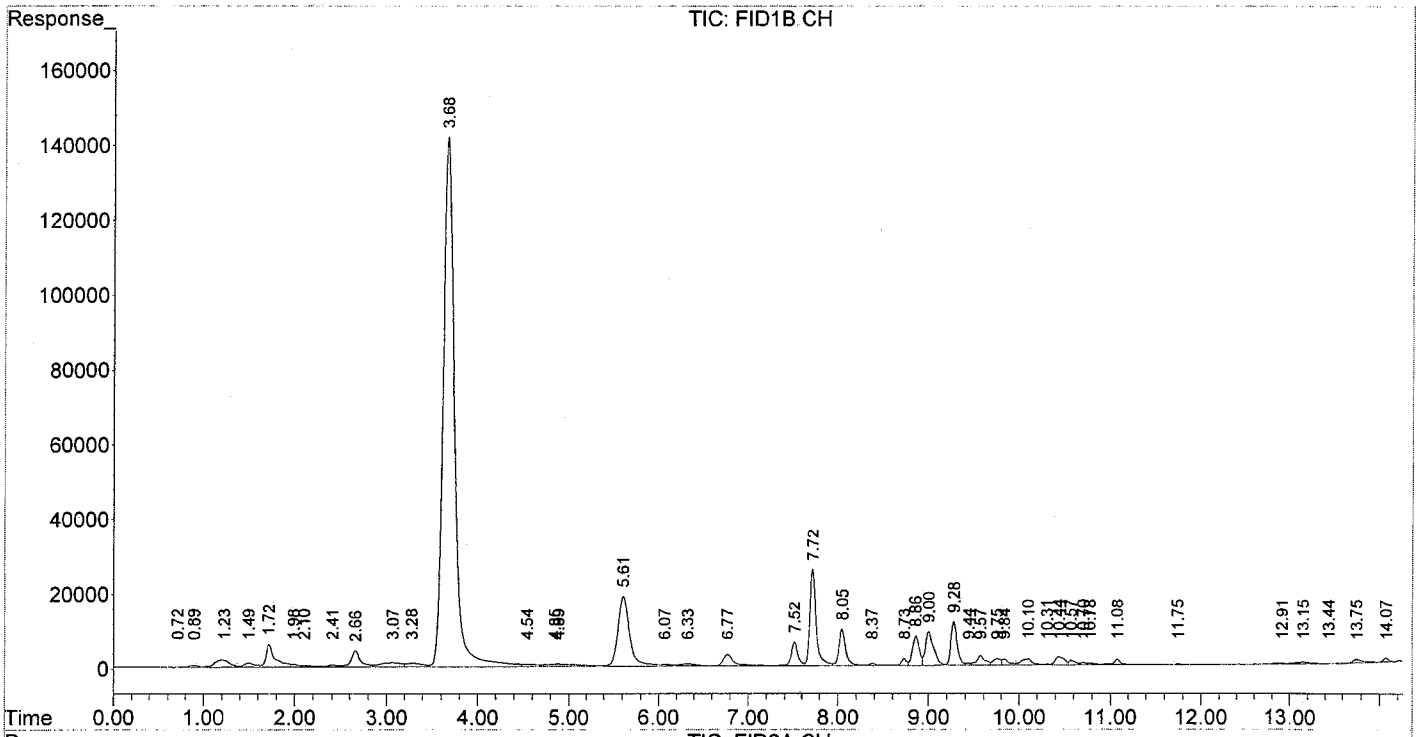
(f)=RT Delta > 1/2 Window (m)=manual int.

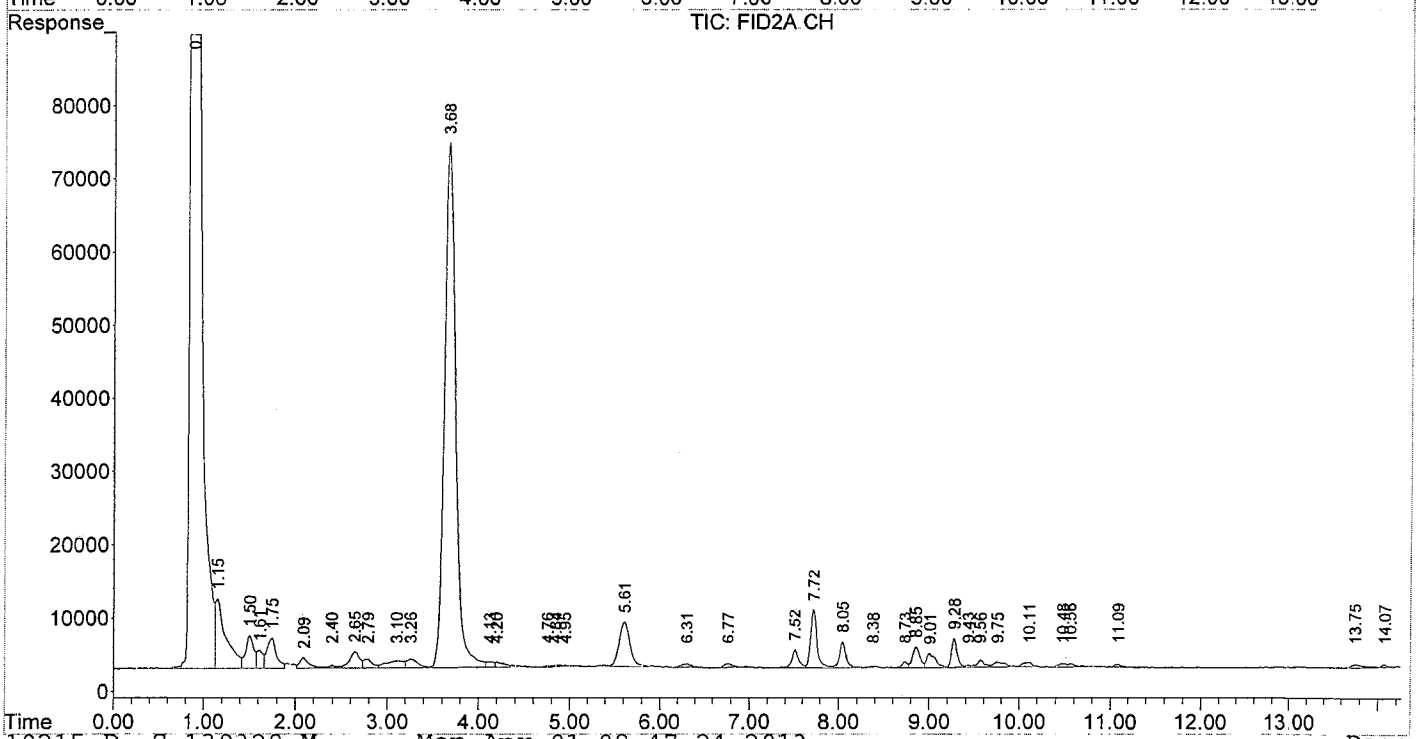
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110215.D\FID1B.CH Vial: 15
Signal #2 : P:\BTEX2012\1\DATA\121102\12110215.D\FID2A.CH
Acq On : 2 Nov 2012 5:49 pm Operator: ABC
Sample : ICAL 1 GRO 40ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 0.8ul A2341 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 5 10:54 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110216.D\FID1B.CH Vial: 16
Signal #2 : P:\BTEX2012\1\DATA\121102\12110216.D\FID2A.CH
Acq On : 2 Nov 2012 6:16 pm Operator: ABC
Sample : ICAL 2 GRO 100ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 2ul A2341 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 05 09:54:23 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3)	S BTEX Surrogate	3.68	12598489	NoCal	ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	0.00%#		
11)	S GRO Surrogate	3.68	6079725	NoCal	ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	0.00%#		
	Target Compounds				
1)	M Methyl-t-butyl ether	0.00	0	N.D.	ppb
2)	M Benzene	2.67	794984	NoCal	ppb
4)	M Toluene	5.61	4268945	NoCal	ppb
5)	M Ethylbenzene	7.52	829403	NoCal	ppb
6)	M m&p-Xylene	7.72	3298075	NoCal	ppb
7)	M o-Xylene	8.05	1227333	NoCal	ppb
8)	M Naphthalene	11.08	102242	NoCal	ppb
10)	H GRO	5.00	6937877	NoCal	ppb

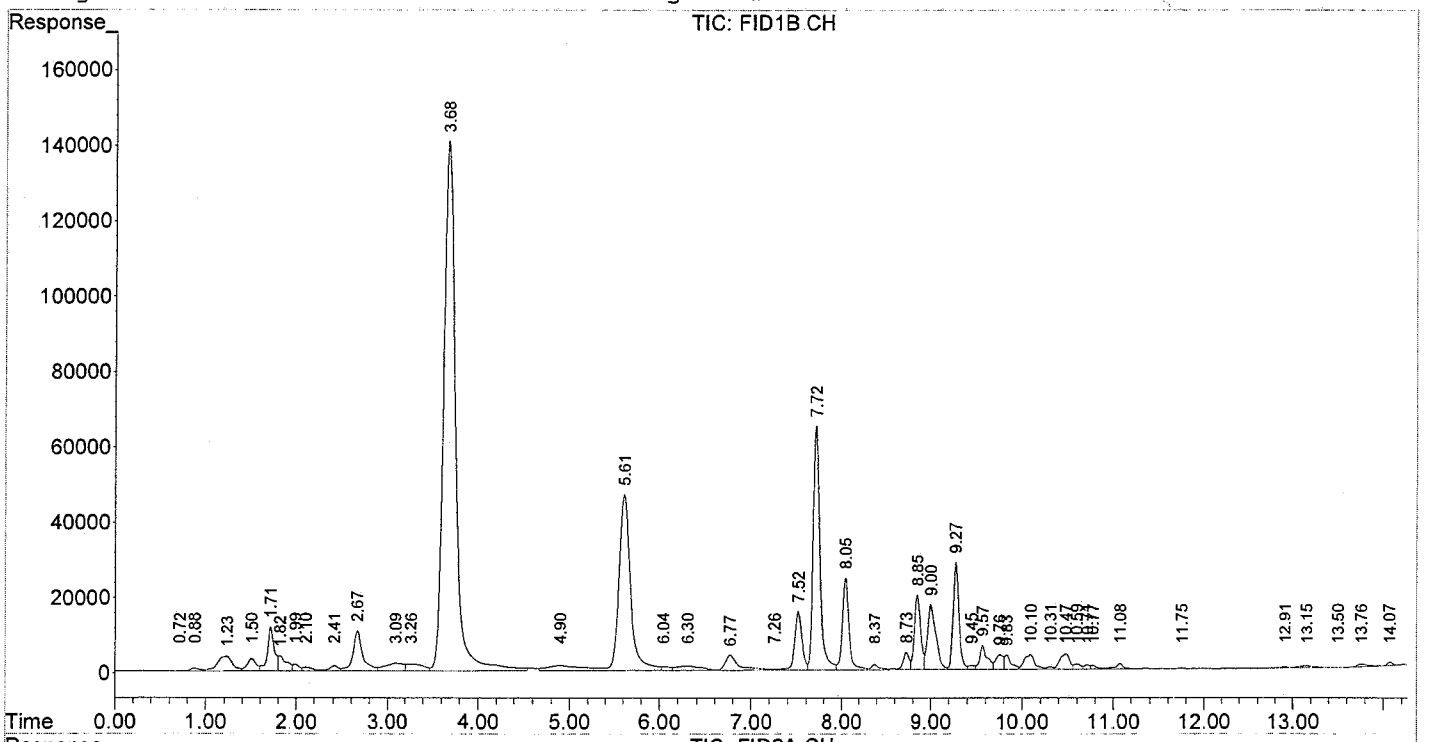
(f)=RT Delta > 1/2 Window (m)=manual int.

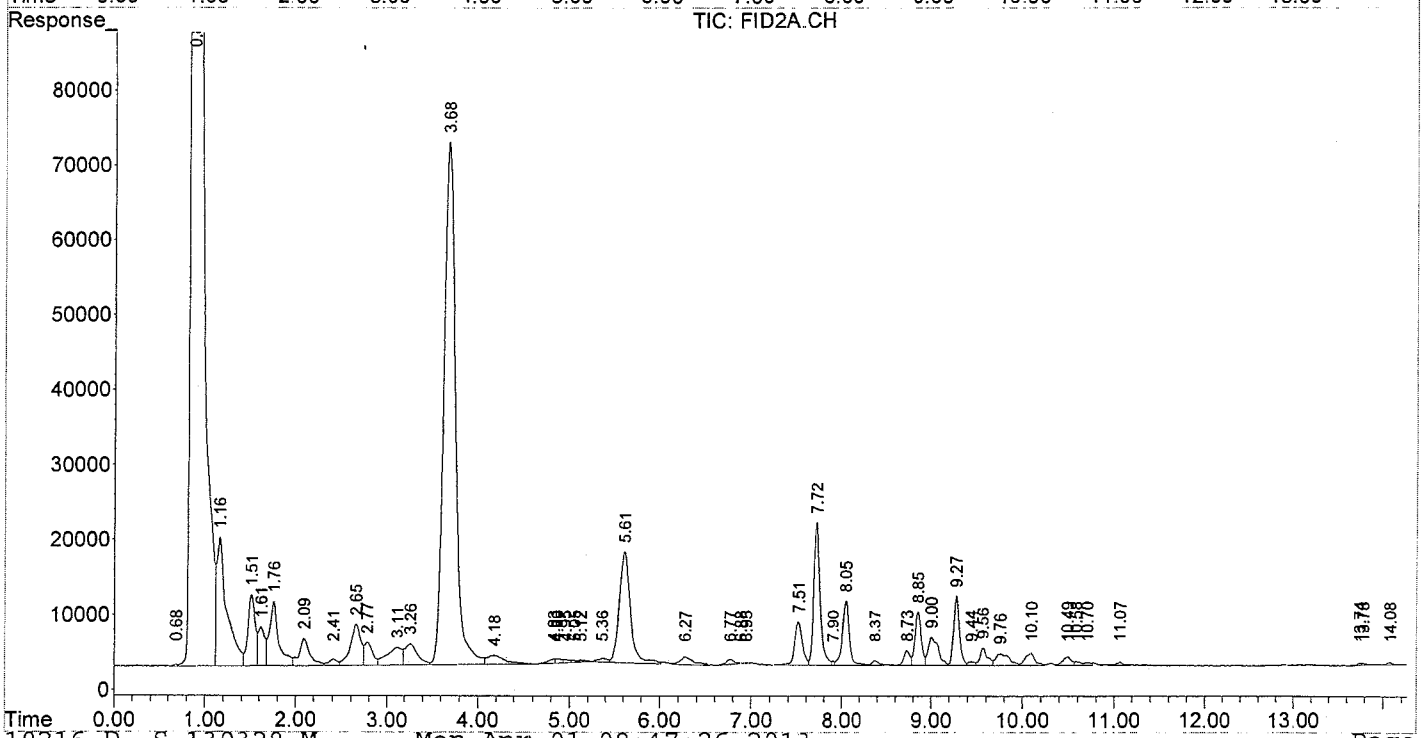
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110216.D\FID1B.CH Vial: 16
Signal #2 : P:\BTEX2012\1\DATA\121102\12110216.D\FID2A.CH
Acq On : 2 Nov 2012 6:16 pm Operator: ABC
Sample : ICAL 2 GRO 100ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 2ul A2341 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 5 10:54 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110217.D\FID1B.CH Vial: 17
Signal #2 : P:\BTEX2012\1\DATA\121102\12110217.D\FID2A.CH
Acq On : 2 Nov 2012 6:44 pm Operator: ABC
Sample : ICAL 3 GRO 1000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 1ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 05 09:54:26 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

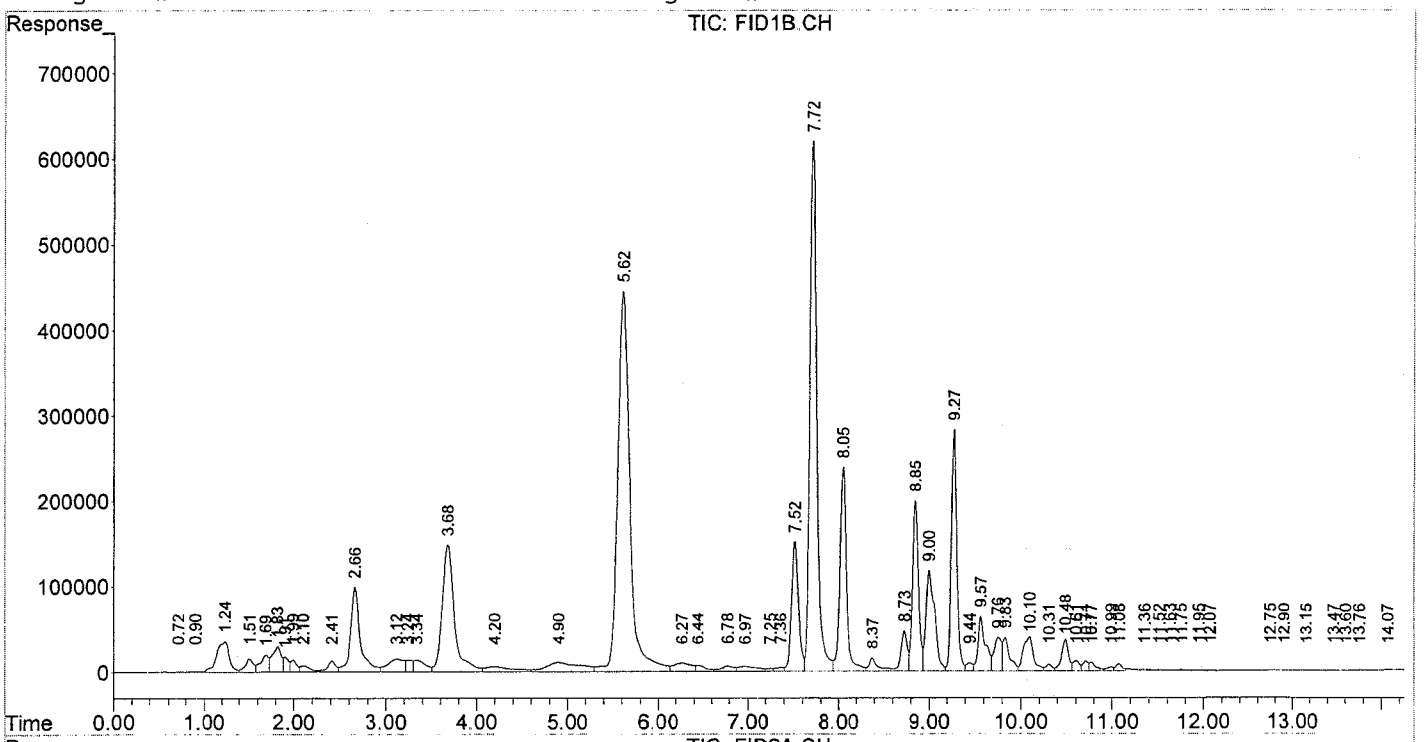
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3) S	BTEX Surrogate	3.68	13934951	NoCal	ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	0.00%#		
11) S	GRO Surrogate	3.68	6710872	NoCal	ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	0.00%#		
	Target Compounds				
1) M	Methyl-t-butyl ether	1.51	991821	NoCal	ppb
2) M	Benzene	2.66	7297244	NoCal	ppb
4) M	Toluene	5.62	40640685	NoCal	ppb
5) M	Ethylbenzene	7.52	7748840	NoCal	ppb
6) M	m&p-Xylene	7.72	31177201	NoCal	ppb
7) M	o-Xylene	8.05	11853553	NoCal	ppb
8) M	Naphthalene	11.08	356071	NoCal	ppb
10) H	GRO	5.00	64826230	NoCal	ppb

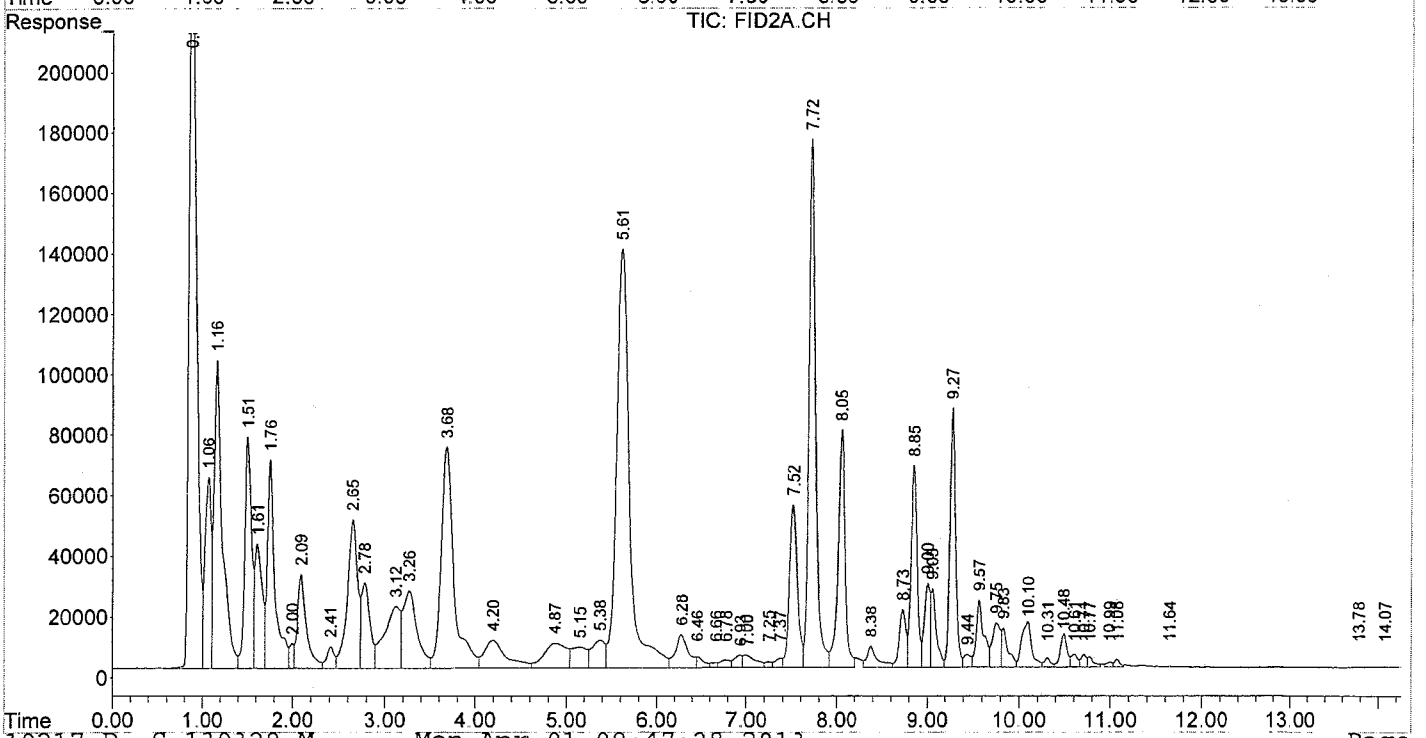
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX2012\1\DATA\121102\12110217.D\FID1B.CH Vial: 17
Signal #2 : P:\BTEX2012\1\DATA\121102\12110217.D\FID2A.CH
Acq On : 2 Nov 2012 6:44 pm Operator: ABC
Sample : ICAL 3 GRO 1000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 1ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 5 10:54 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110218.D\FID1B.CH Vial: 18
Signal #2 : P:\BTEX2012\1\DATA\121102\12110218.D\FID2A.CH
Acq On : 2 Nov 2012 7:11 pm Operator: ABC
Sample : ICAL 4 GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 5ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 05 09:54:29 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3)	S BTEX Surrogate	3.67	16337932	NoCal	ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	0.00%#		
11)	S GRO Surrogate	3.67	6529020	NoCal	ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	0.00%#		
	Target Compounds				
1)	M Methyl-t-butyl ether	1.51	5070918	NoCal	ppb
2)	M Benzene	2.66	38880527	NoCal	ppb
4)	M Toluene	5.62	201067125	NoCal	ppb
5)	M Ethylbenzene	7.52	38567909	NoCal	ppb
6)	M m&p-Xylene	7.72	148438410	NoCal	ppb
7)	M o-Xylene	8.05	56605682	NoCal	ppb
8)	M Naphthalene	11.08	1997284	NoCal	ppb
10)	H GRO	5.00	327023291	NoCal	ppb

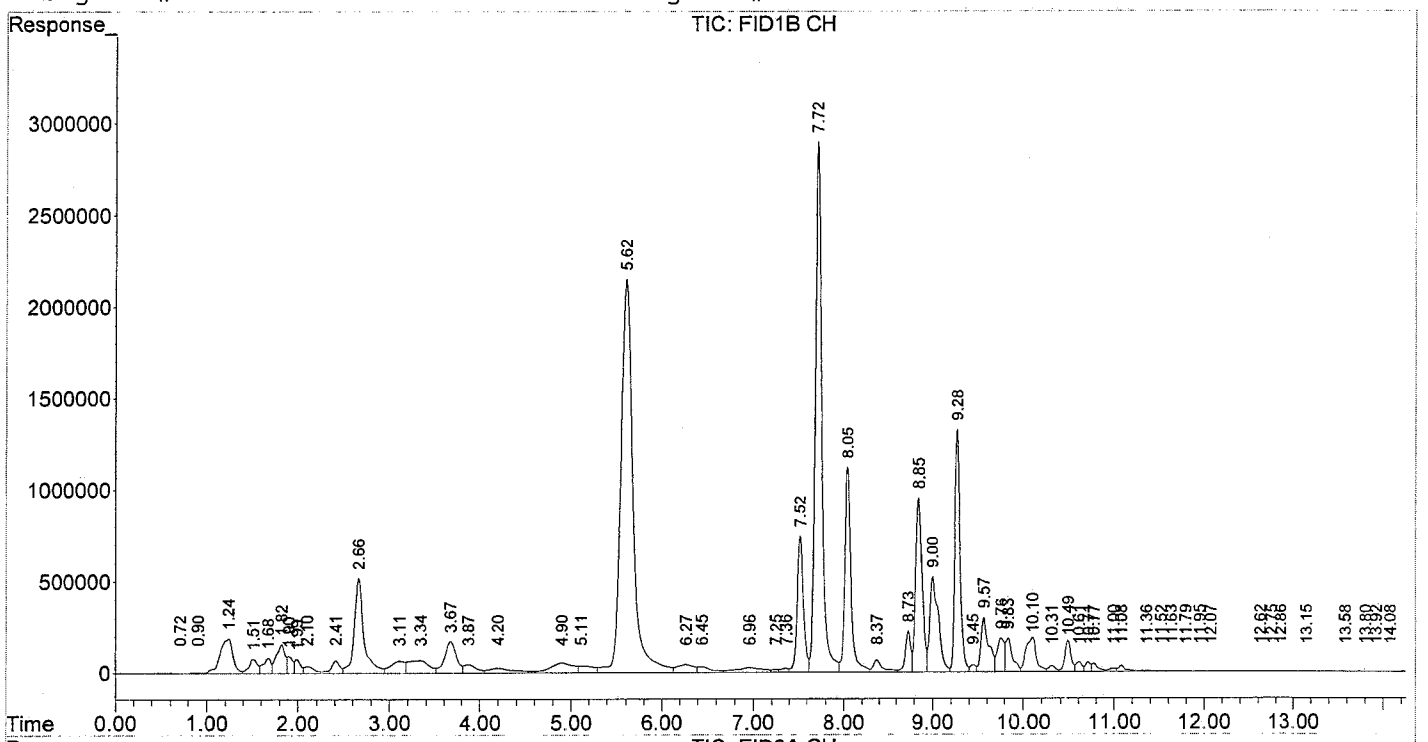
(f)=RT Delta > 1/2 Window (m)=manual int.

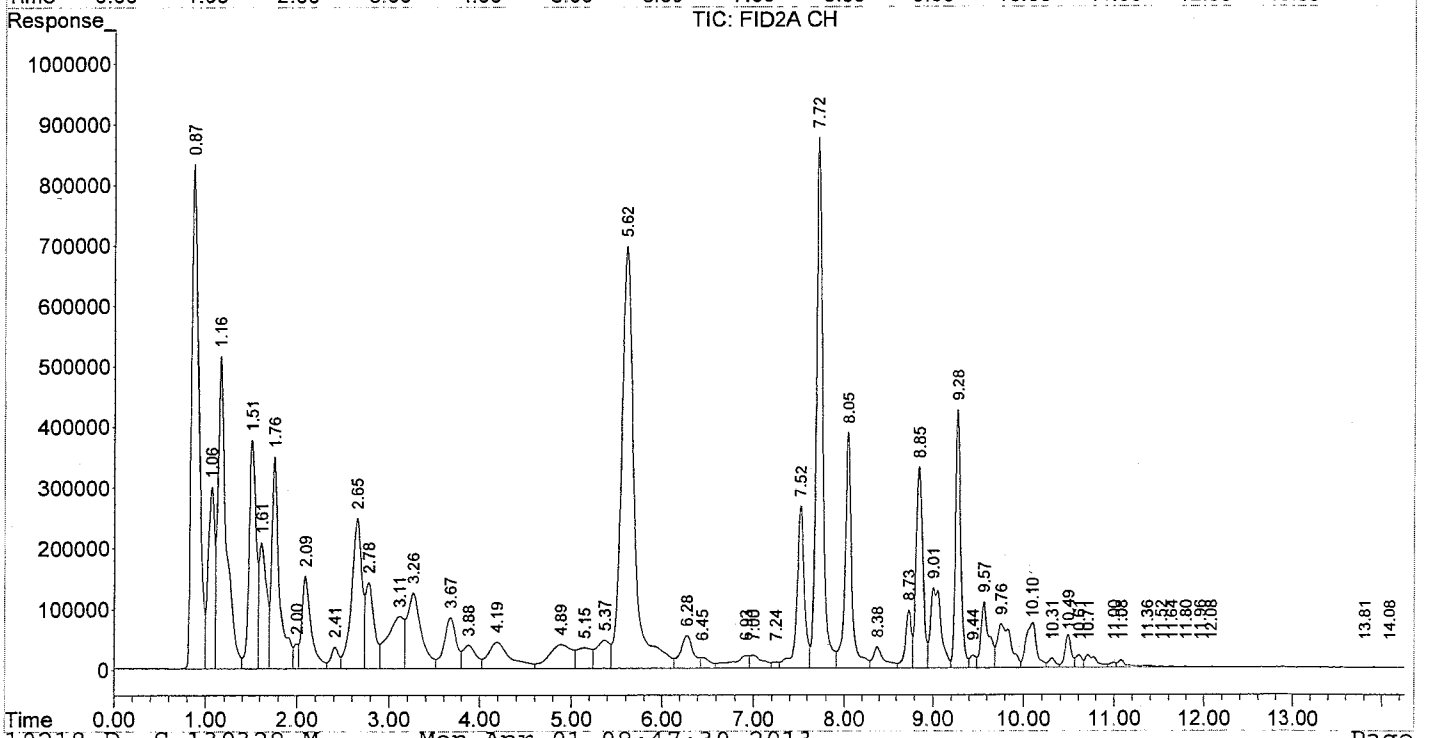
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110218.D\FID1B.CH Vial: 18
Signal #2 : P:\BTEX2012\1\DATA\121102\12110218.D\FID2A.CH
Acq On : 2 Nov 2012 7:11 pm Operator: ABC
Sample : ICAL 4 GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 5ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 5 10:54 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110219.D\FID1B.CH Vial: 19
Signal #2 : P:\BTEX2012\1\DATA\121102\12110219.D\FID2A.CH
Acq On : 2 Nov 2012 7:39 pm Operator: ABC
Sample : ICAL 5 GRO 10,000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 10ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 05 09:54:35 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3)	S BTEX Surrogate	3.67	18889811	NoCal	ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	0.00%#		
11)	S GRO Surrogate	3.67	6705700	NoCal	ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	0.00%#		
	Target Compounds				
1)	M Methyl-t-butyl ether	1.51	11557816	NoCal	ppb
2)	M Benzene	2.66	74235138	NoCal	ppb
4)	M Toluene	5.62	371244292	NoCal	ppb
5)	M Ethylbenzene	7.52	73545063	NoCal	ppb
6)	M m&p-Xylene	7.73	267659459	NoCal	ppb
7)	M o-Xylene	8.05	104341301	NoCal	ppb
8)	M Naphthalene	11.08	3757730	NoCal	ppb
10)	H GRO	5.00	634074410	NoCal	ppb

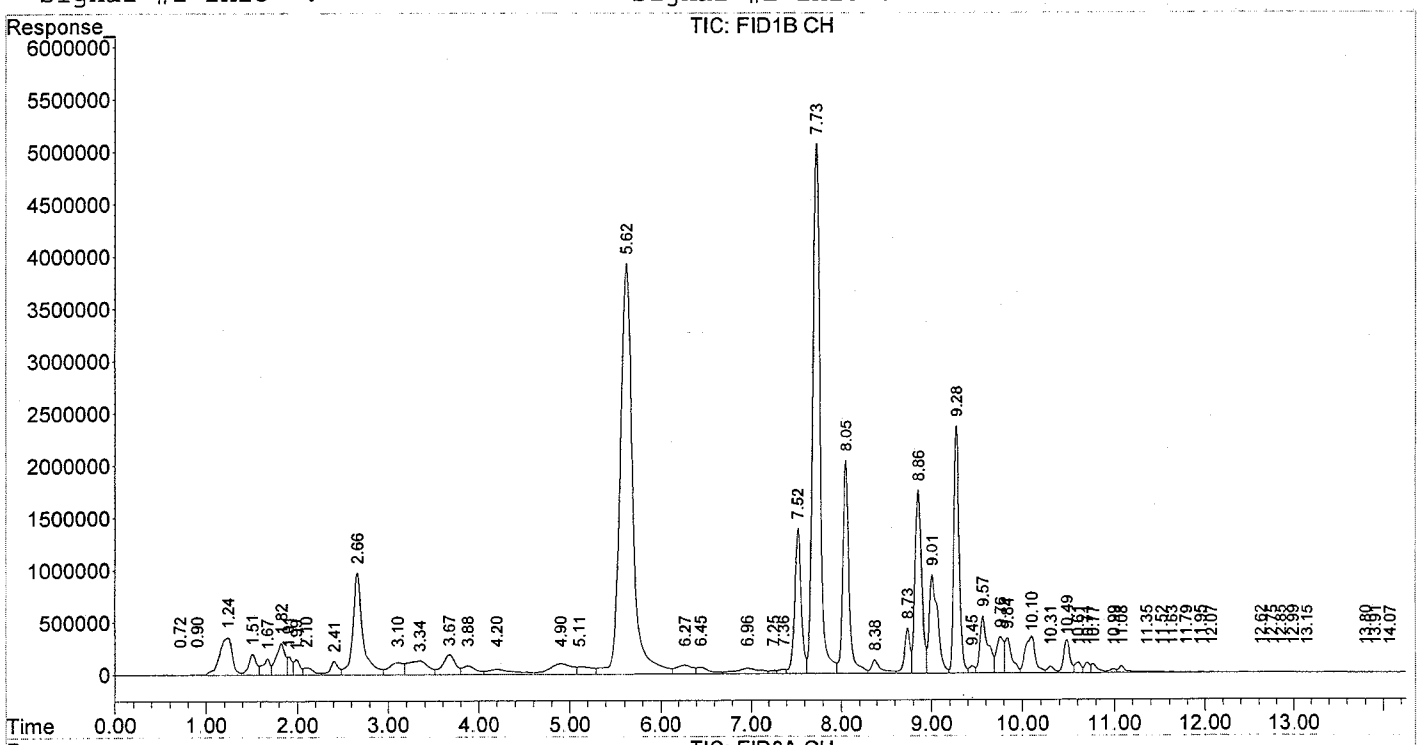
(f)=RT Delta > 1/2 Window (m)=manual int.

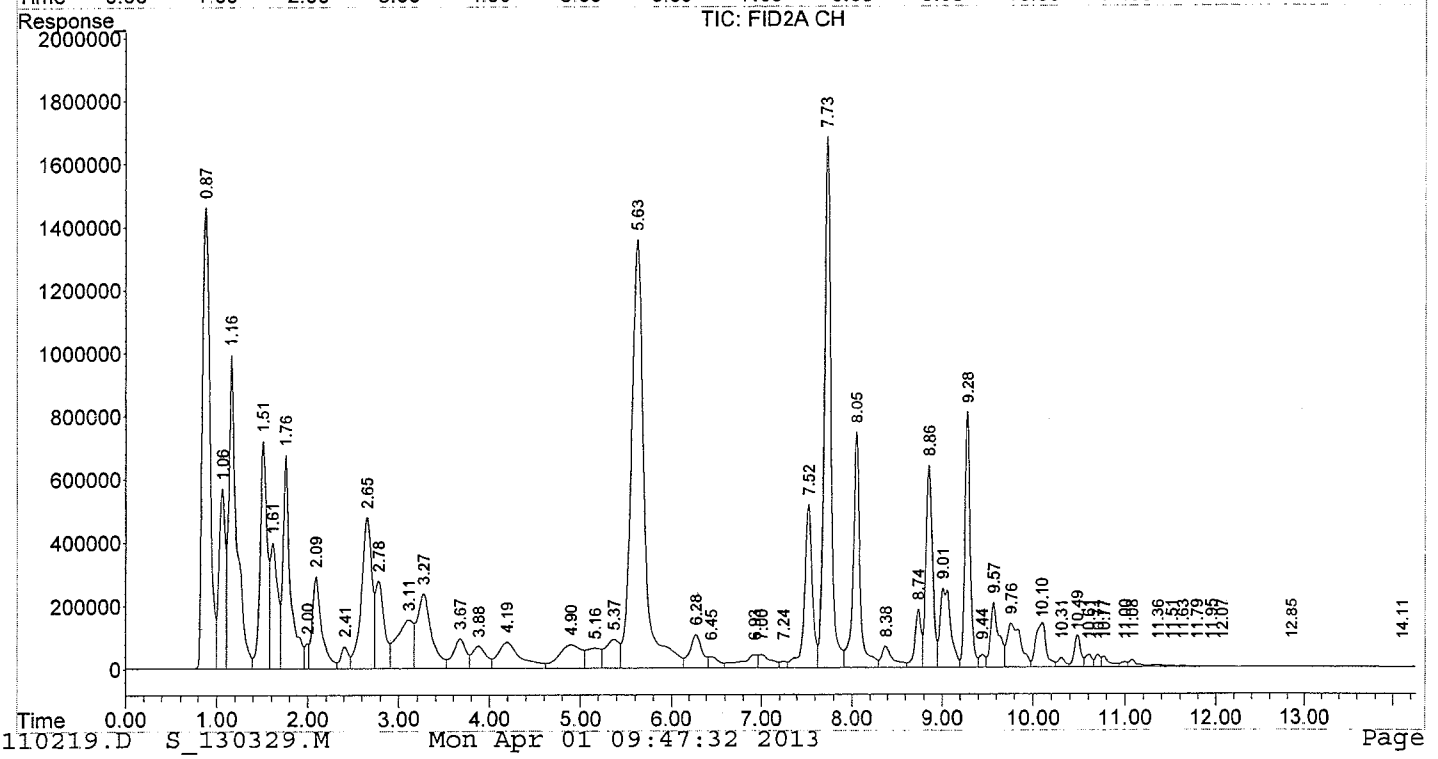
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110219.D\FID1B.CH Vial: 19
Signal #2 : P:\BTEX2012\1\DATA\121102\12110219.D\FID2A.CH
Acq On : 2 Nov 2012 7:39 pm Operator: ABC
Sample : ICAL 5 GRO 10,000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 10ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 5 10:54 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110220.D\FID1B.CH Vial: 20
Signal #2 : P:\BTEX2012\1\DATA\121102\12110220.D\FID2A.CH
Acq On : 2 Nov 2012 8:05 pm Operator: ABC
Sample : ICAL 6 GRO 20,000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 20ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 05 09:54:40 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3) S	BTEX Surrogate	3.67	24487725	NoCal	ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	0.00%#		
11) S	GRO Surrogate	3.67	7454516	NoCal	ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	0.00%#		
	Target Compounds				
1) M	Methyl-t-butyl ether	1.51	18826829	NoCal	ppb
2) M	Benzene	2.67	145383357	NoCal	ppb
4) M	Toluene	5.64	666524611	NoCal	ppb
5) M	Ethylbenzene	7.53	144006686	NoCal	ppb
6) M	m&p-Xylene	7.74	459532434	NoCal	ppb
7) M	o-Xylene	8.06	193547976	NoCal	ppb
8) M	Naphthalene	11.08	5899926	NoCal	ppb
10) H	GRO	5.00	1276967040	NoCal	ppb

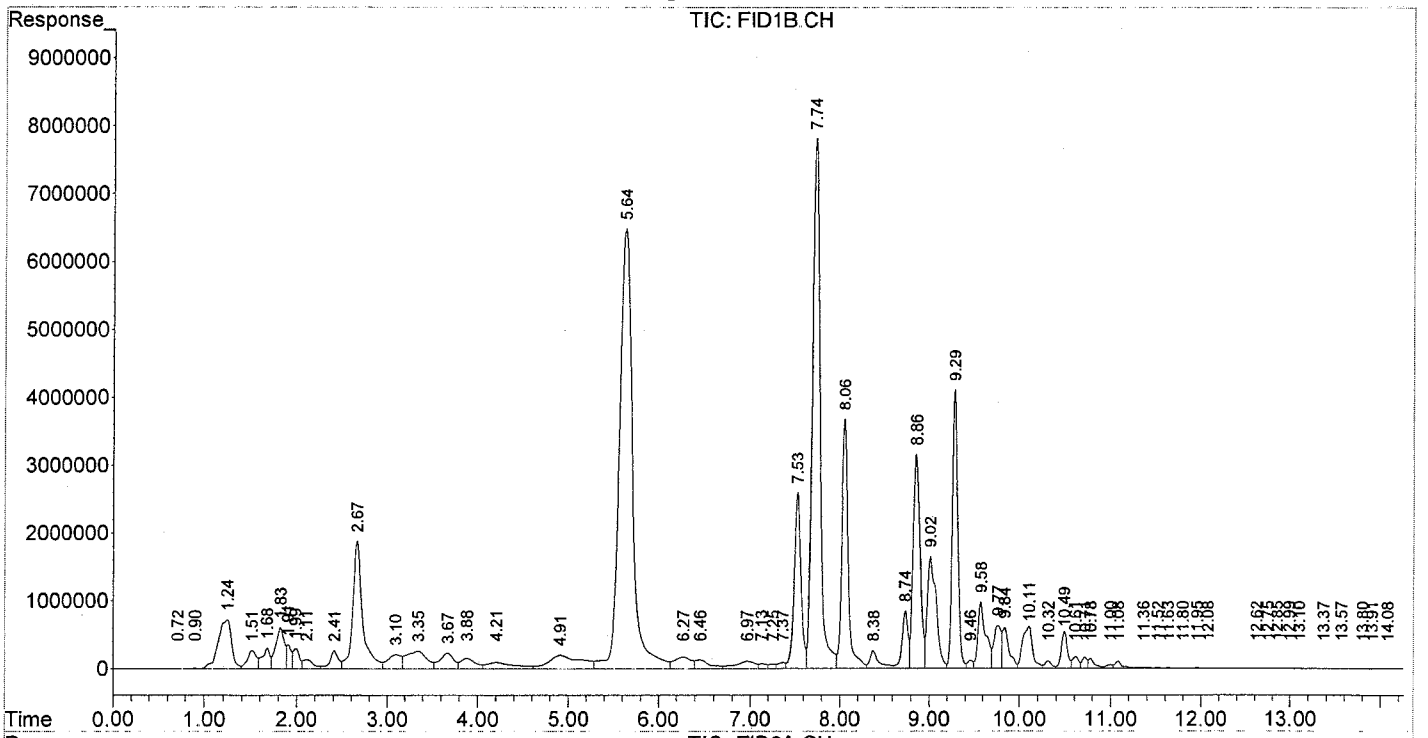
(f)=RT Delta > 1/2 Window (m)=manual int.

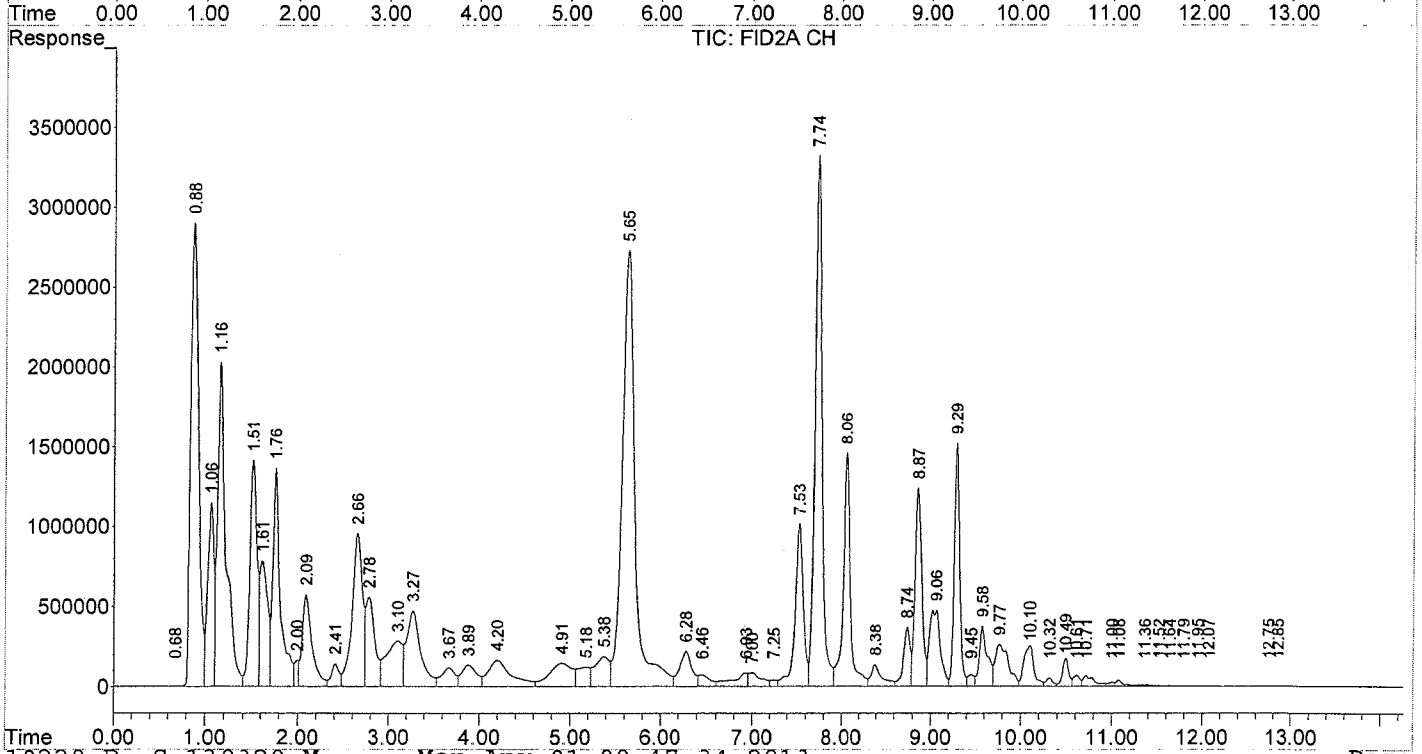
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110220.D\FID1B.CH Vial: 20
Signal #2 : P:\BTEX2012\1\DATA\121102\12110220.D\FID2A.CH
Acq On : 2 Nov 2012 8:05 pm Operator: ABC
Sample : ICAL 6 GRO 20,000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 20ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 5 10:54 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110221.D\FID1B.CH Vial: 21
Signal #2 : P:\BTEX2012\1\DATA\121102\12110221.D\FID2A.CH
Acq On : 2 Nov 2012 8:32 pm Operator: ABC
Sample : ICAL 7 GRO 50,000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 50ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 05 09:54:45 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3)	S BTEX Surrogate	3.67	38908170	NoCal	ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	0.00%#		
11)	S GRO Surrogate	3.67	8902523	NoCal	ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	0.00%#		
	Target Compounds				
1)	M Methyl-t-butyl ether	1.51	43004681	NoCal	ppb
2)	M Benzene	2.68	319271551	NoCal	ppb
4)	M Toluene	5.69f	1222295494	NoCal	ppb
5)	M Ethylbenzene	7.54	315748736	NoCal	ppb
6)	M m&p-Xylene	7.76	783202217	NoCal	ppb
7)	M o-Xylene	8.08	401920033	NoCal	ppb
8)	M Naphthalene	11.08	10718188	NoCal	ppb
10)	H GRO	5.00	3073718197	NoCal	ppb

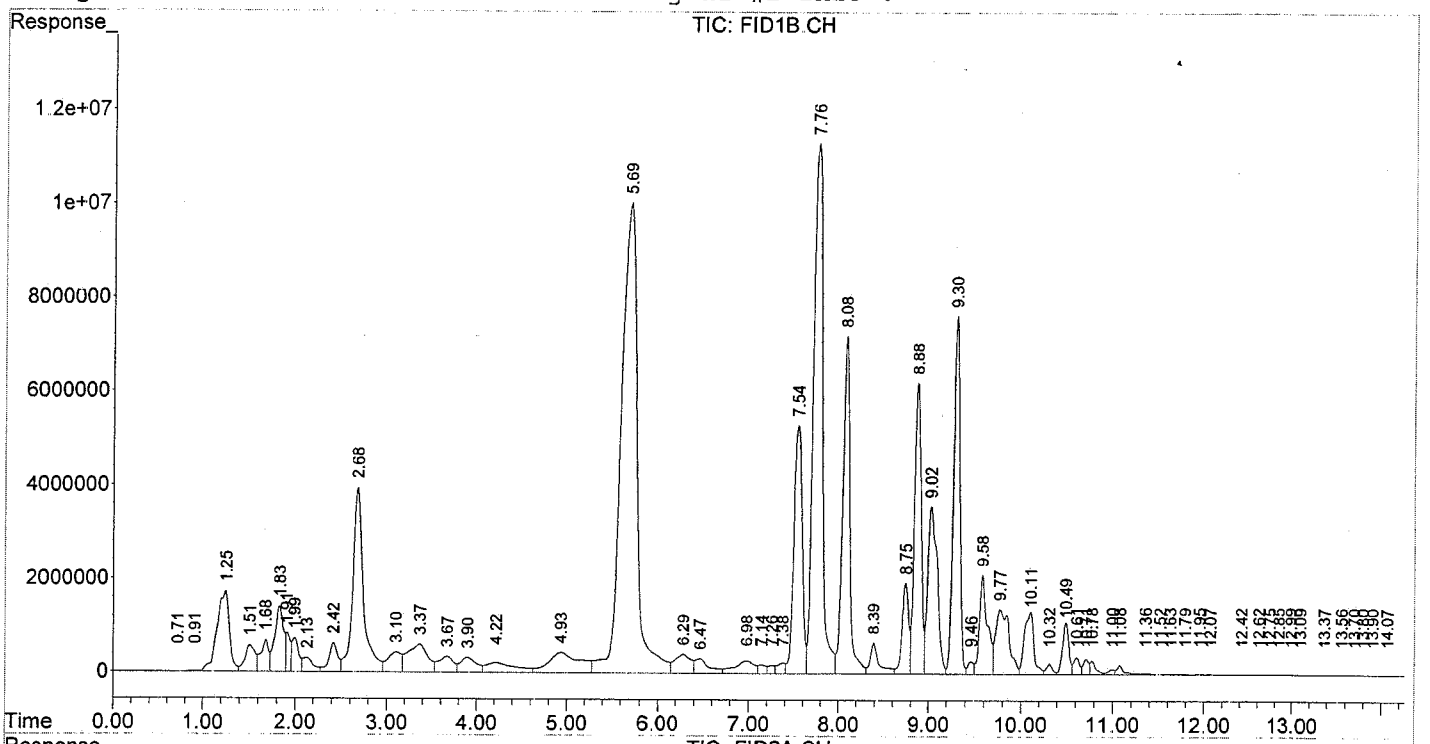
(f)=RT Delta > 1/2 Window (m)=manual int.

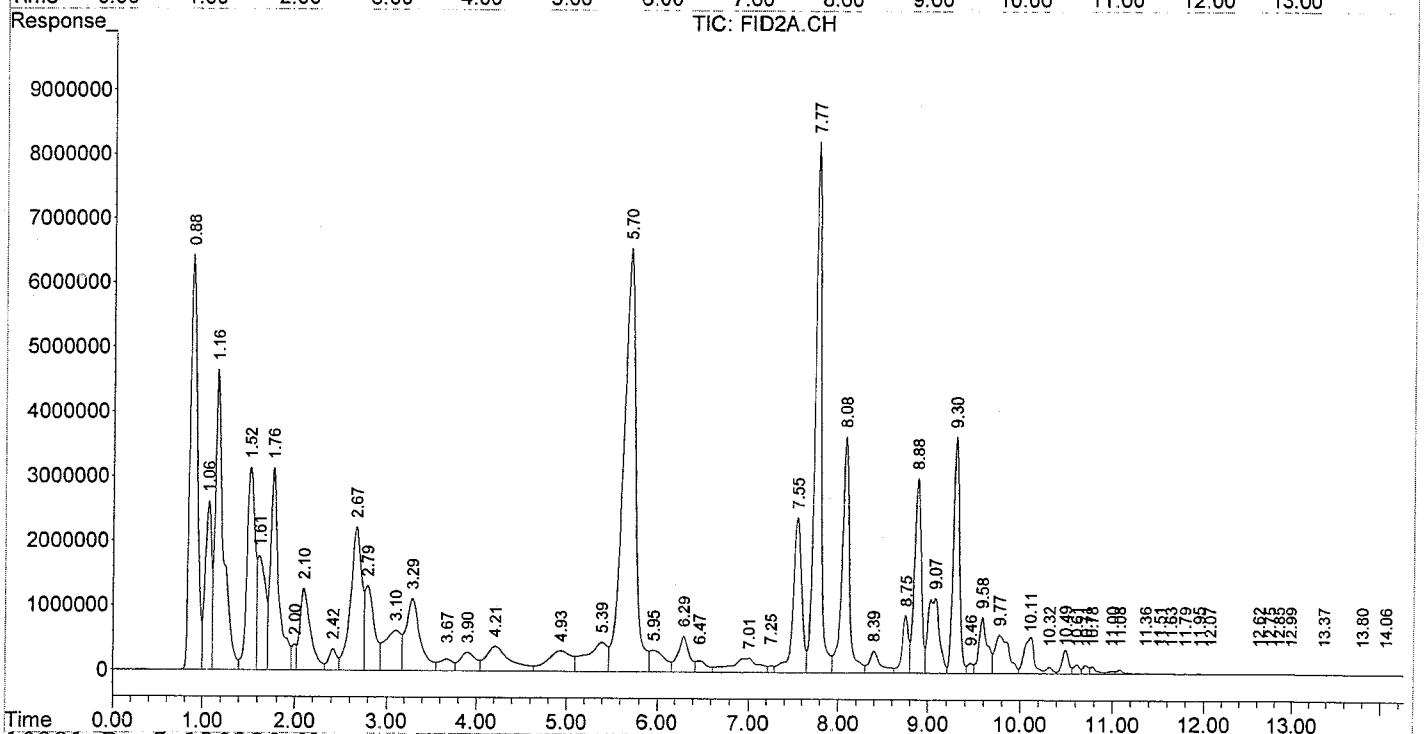
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110221.D\FID1B.CH Vial: 21
Signal #2 : P:\BTEX2012\1\DATA\121102\12110221.D\FID2A.CH
Acq On : 2 Nov 2012 8:32 pm Operator: ABC
Sample : ICAL 7 GRO 50,000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 50ul A2340 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 5 10:54 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 09:54:06 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Signal #1 : P:\BTEX2012\1\DATA\121102\12110224.D\FID1B.CH Vial: 24
Signal #2 : P:\BTEX2012\1\DATA\121102\12110224.D\FID2A.CH
Acq On : 2 Nov 2012 9:54 pm Operator: ABC
Sample : ICV, GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 5ul A2342 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E

Method : P:\BTEX\1\DATA\130329\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	M	Methyl-t-butyl ether	163.875	0.000 E3	100.0#	348#	0.00
2	M	Benzene	581.187	0.000 E3	100.0#	130	0.00
3	S	BTEX Surrogate	182.828	0.000 E3	100.0#	122	0.00
4	M	Toluene	587.524	0.000 E3	100.0#	88	0.00
5	M	Ethylbenzene	495.593	0.000 E3	100.0#	89	0.00
6	M	m&p-Xylene	591.163	0.000 E3	100.0#	94	0.00
7	M	o-Xylene	529.859	0.000 E3	100.0#	85	0.00
8	M	Naphthalene	149.027	0.000 E3	100.0#	106	0.00
		Signal #2					
10	H	GRO	65.582	69.670 E3	-6.2	107	0.00
11	S	GRO Surrogate	69.305	72.669 E3	-4.9	111	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
12110224.D S_130329.M Mon Apr 01 09:48:02 2013 Page 1

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110224.D\FID1B.CH Vial: 24
Signal #2 : P:\BTEX2012\1\DATA\121102\12110224.D\FID2A.CH
Acq On : 2 Nov 2012 9:54 pm Operator: ABC
Sample : ICV, GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 5ul A2342 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 05 10:02:14 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 10:01:30 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3)	S BTEX Surrogate	3.67	20007272	159.541 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery = 159.54%#		
11)	S GRO Surrogate	3.67	7266870	104.854 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery = 104.85%		
	Target Compounds			
1)	M Methyl-t-butyl ether	1.51	17643210	146.240 ppb
2)	M Benzene	2.66	50395351	113.312 ppb
4)	M Toluene	5.62	176717075	405.076 ppb
5)	M Ethylbenzene	7.52	34458066	98.002 ppb
6)	M m&p-Xylene	7.72	139088867	328.066 ppb
7)	M o-Xylene	8.05	48050129	126.364 ppb
8)	M Naphthalene	11.08	2110824	38.699 ppb
10)	H GRO	5.00	348348493	5311.653 ppb

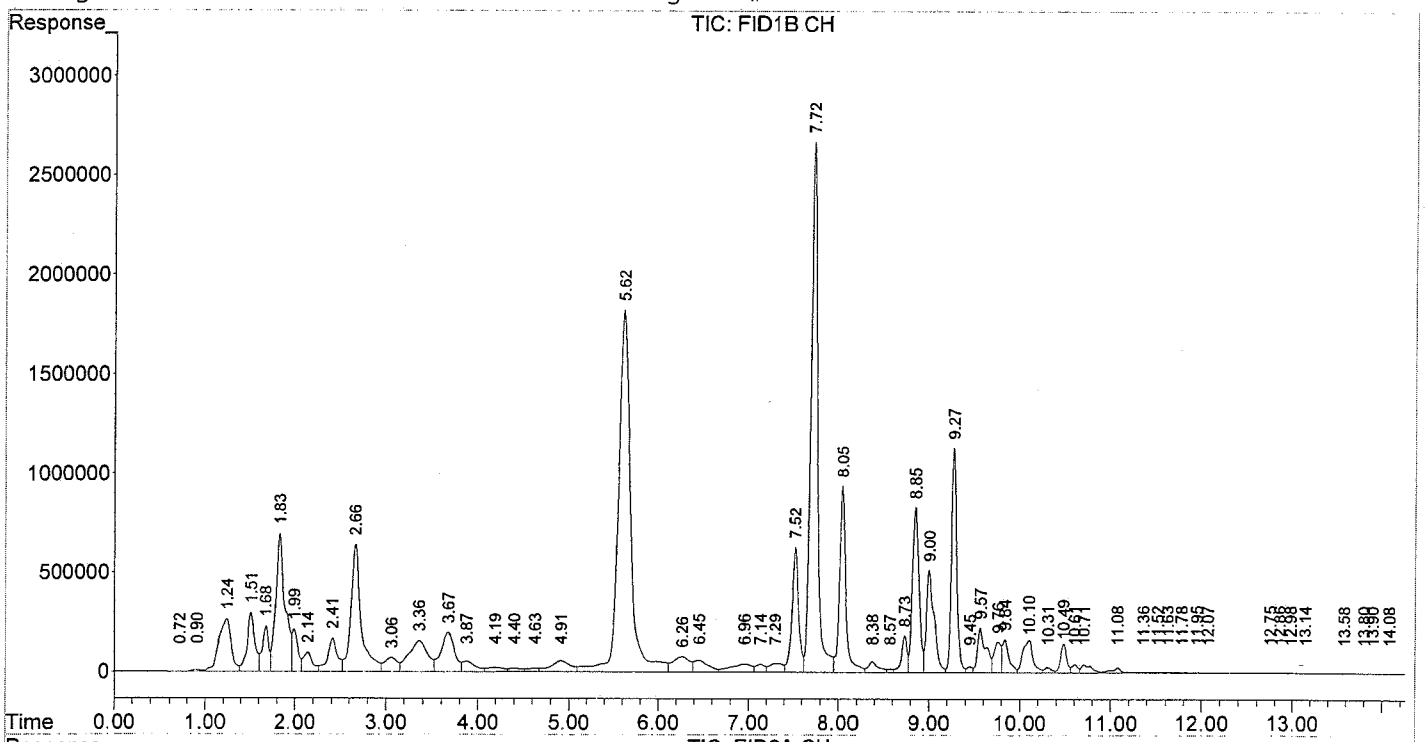
(f)=RT Delta > 1/2 Window (m)=manual int.

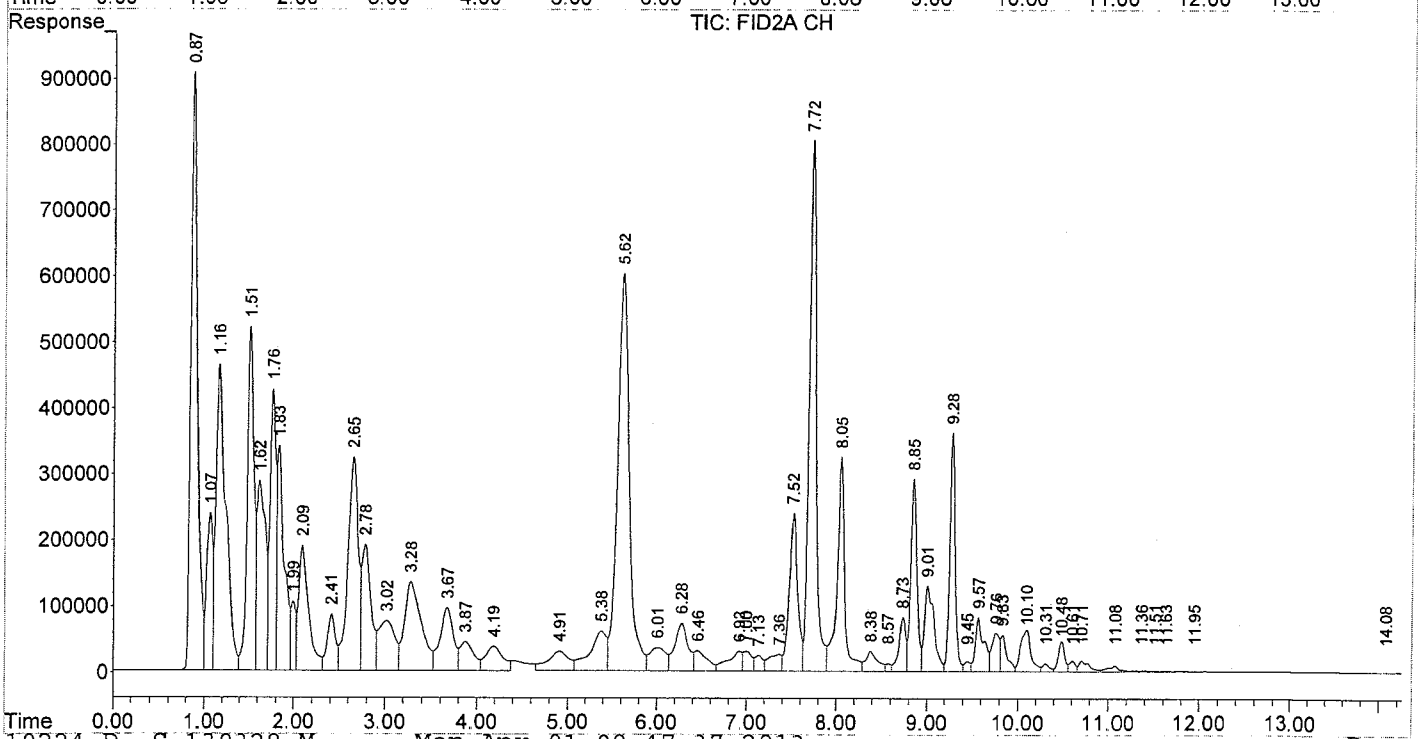
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110224.D\FID1B.CH Vial: 24
Signal #2 : P:\BTEX2012\1\DATA\121102\12110224.D\FID2A.CH
Acq On : 2 Nov 2012 9:54 pm Operator: ABC
Sample : ICV, GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 5ul A2342 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 5 11:02 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 10:01:30 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110225.D\FID1B.CH Vial: 25
Signal #2 : P:\BTEX2012\1\DATA\121102\12110225.D\FID2A.CH
Acq On : 2 Nov 2012 10:21 pm Operator: ABC
Sample : GRO Retention Time Marker Water 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 5ul 1219-1 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 05 10:02:15 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 10:01:30 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3)	S BTEX Surrogate	3.67	11547903	92.085 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	92.08%	
11)	S GRO Surrogate	3.67	6121994	88.334 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	88.33%	
	Target Compounds			
1)	M Methyl-t-butyl ether	0.00	0	N.D. ppb
2)	M Benzene	2.66	39050	0.088 ppb
4)	M Toluene	5.61	384016	0.880 ppb
5)	M Ethylbenzene	7.52	96963	0.276 ppb
6)	M m&p-Xylene	7.72	453260	1.069 ppb
7)	M o-Xylene	8.05	170389	0.448 ppb
8)	M Naphthalene	11.08	106228	1.948 ppb
10)	H GRO	5.00	19929252	303.883 ppb

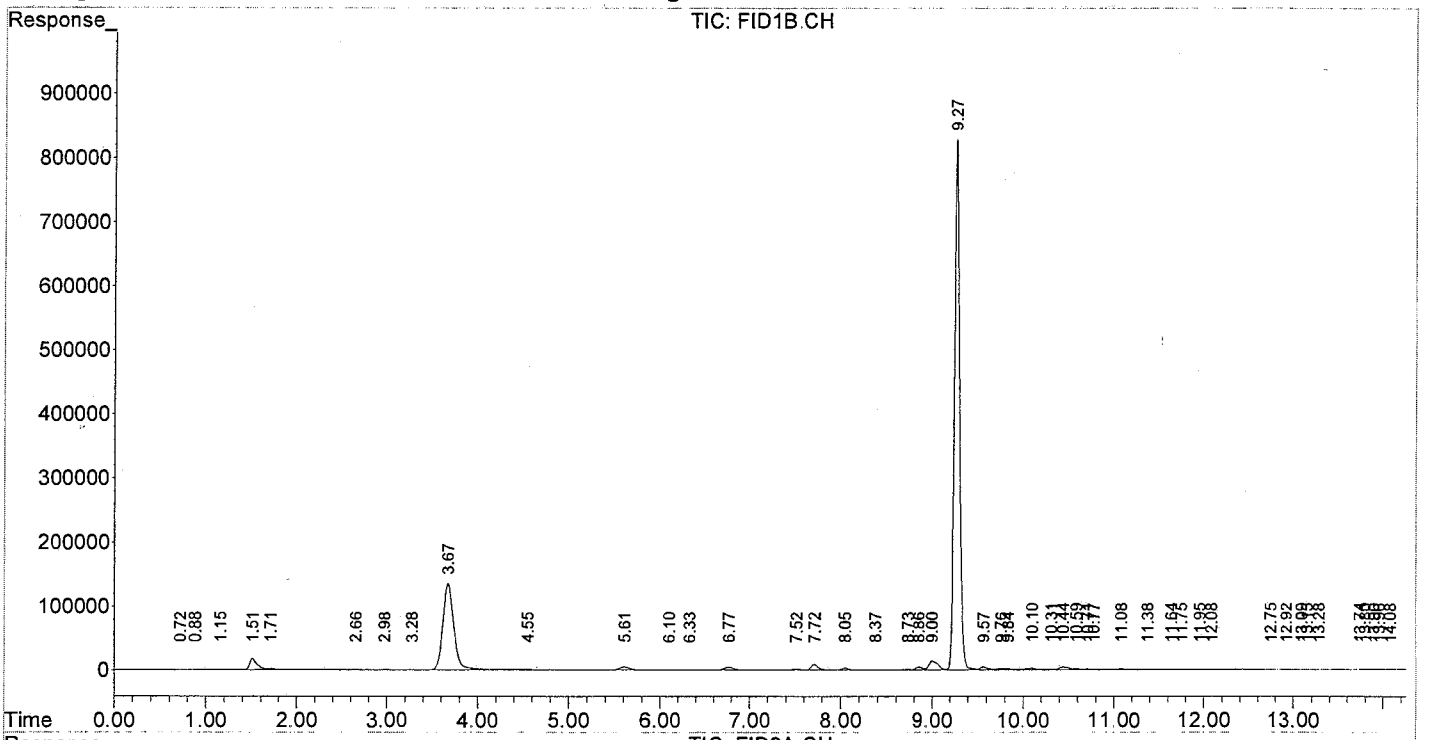
(f)=RT Delta > 1/2 Window (m)=manual int.

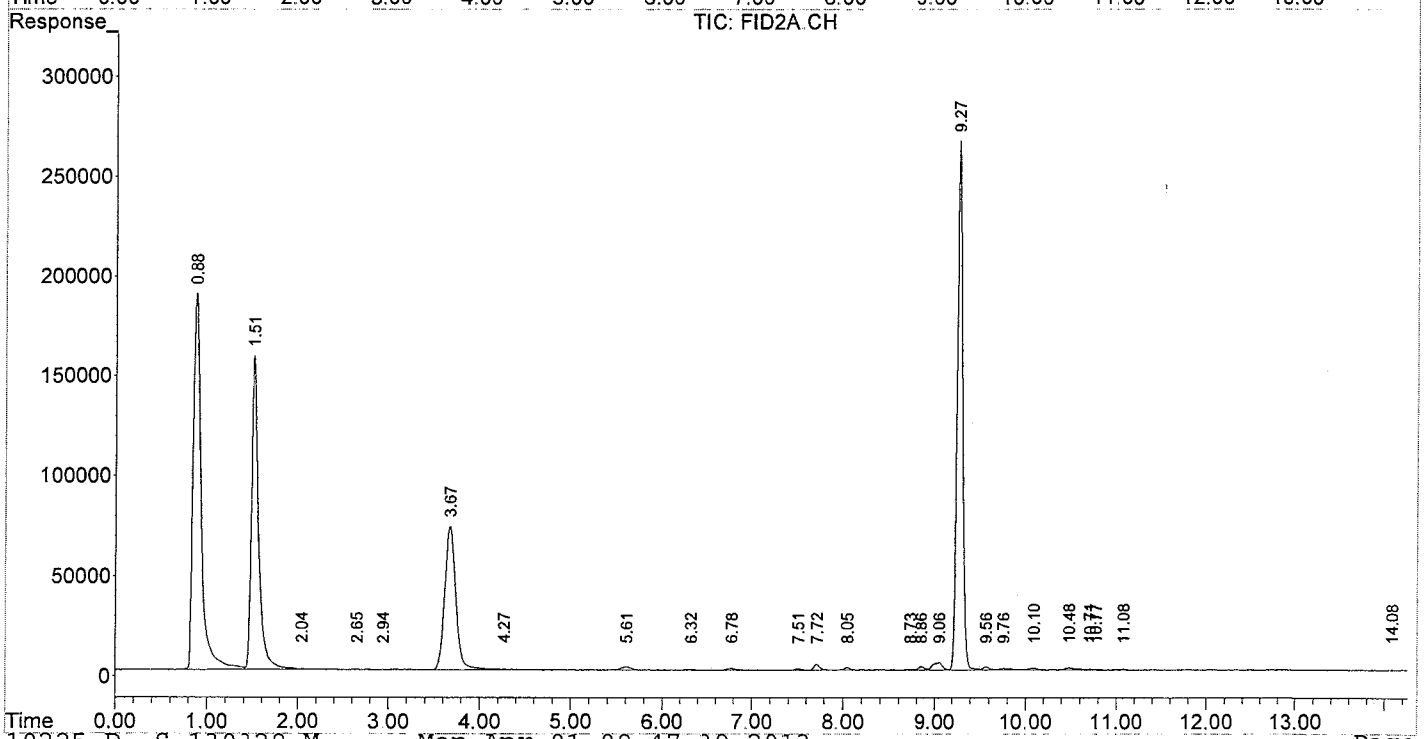
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX2012\1\DATA\121102\12110225.D\FID1B.CH Vial: 25
Signal #2 : P:\BTEX2012\1\DATA\121102\12110225.D\FID2A.CH
Acq On : 2 Nov 2012 10:21 pm Operator: ABC
Sample : GRO Retention Time Marker Water 5ml Inst : BTEX #1
Misc : 1ul A2315 Soil 5ul 1219-1 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Nov 5 11:02 2012 Quant Results File: S_121102.RES

Quant Method : P:\BTEX\1\DATA\121102\S_121102.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 05 10:01:30 2012
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Instrument QC Recovery

Project Name: Yakona Rd

Work Order #: 13040516 **Project ID:** 4184

Lab Batch ID: 105230 **Date Prepared:** 04/09/2013 **Sample:** CCV, GRO **Analyst:** 1035

Reporting Units: ug/L **Date Analyzed:** 04/09/2013 **Method:** SW8021B_SW8015 **Matrix:** Water

Purgeable Aromatics plus TPH-GRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-GRO (Gasoline Range Organics)	4840	5000	97	80-120	

Lab Batch ID: 105230 **Date Prepared:** 04/08/2013 **Sample:** CCV, GRO **Analyst:** 1035

Reporting Units: ug/L **Date Analyzed:** 04/08/2013 **Method:** SW8021B_SW8015 **Matrix:** Water

Purgeable Aromatics plus TPH-GRO Analytes	Result [A]	Instrument QC RECOVERY STUDY: Spike Added [B]	Spike %R [C]	Control Limits %R	Flags
TPH-GRO (Gasoline Range Organics)	5270	5000	105	80-120	

Recovery [C] = 100*[A]/[B]

H = Recovery of CCV exceeded the laboratory control limits
L = Recovery of CCV below the laboratory control limits

Version: 1 026

Response Factor Report BTEX #2

Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013

Calibration Files
1 =13040507.D 2 =13040508.D 3 =13040509.D
4 =13040510.D 5 =13040511.D 6 =13040512.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	M	Methyl-t-butyl e	6.604	7.624	7.892	7.904	7.479	7.241	7.457	E4	6.55
2)	M	Benzene	1.775	1.942	2.129	2.035	2.016	1.897	1.966	E5	6.26
3)	S	BTEX Surrogate	1.511	1.434	1.488	1.538	1.513	1.522	1.501	E5	2.44
4)	M	Toluene	1.587	1.710	1.910	1.879	1.887	1.794	1.795	E5	7.01
5)	M	Ethylbenzene	1.307	1.281	1.397	1.347	1.361	1.298	1.332	E5	3.31
6)	M	m&p-Xylene	1.560	1.621	1.722	1.632	1.615	1.483	1.606	E5	4.96
7)	M	o-Xylene	1.440	1.549	1.635	1.544	1.488	1.388	1.507	E5	5.82
8)	M	Naphthalene	8.540	7.142	8.212	7.577	8.398	8.415	8.047	E3	6.96

Signal #2 Calibration Files
1 =13040507.D 2 =13040508.D 3 =13040509.D
4 =13040510.D 5 =13040511.D 6 =13040512.D

		Compound	1	2	3	4	5	6	Avg		%RSD
10)	H	GRO							3.371	E4	18.22
11)	s	GRO Surrogate							1.147	E5	22.99

(#) = Out of Range ### Number of calibration levels exceeded format ###

Calibration Report BTEX #2

Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration

Calibration Files
1 =13040507 2 =13040508 3 =13040509 4 =13040510 5 =13040511
6 =13040512 GRO1=13040813 GRO2=13040805 GRO3=13040806 GRO4=13040807
GRO5=13040808 GRO6=13040809 GRO7=13040812

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	M	Methyl-t-butyl ether	Avg	-----	7.4574 e4	-----	0.0655
2)	M	Benzene	Avg	-----	1.9657 e5	-----	0.0626
3)	S	BTEX Surrogate	Avg	-----	1.5012 e5	-----	0.0244
4)	M	Toluene	Avg	-----	1.7946 e5	-----	0.0701
5)	M	Ethylbenzene	Avg	-----	1.3321 e5	-----	0.0331
6)	M	m&p-Xylene	Avg	-----	1.6056 e5	-----	0.0496
7)	M	o-Xylene	Avg	-----	1.5073 e5	-----	0.0582
8)	M	Naphthalene	Avg	-----	8.0474 e3	-----	0.0696

Signal #2 Calibration Files
1 =13040507 2 =13040508 3 =13040509 4 =13040510 5 =13040511
6 =13040512 GRO1=13040813 GRO2=13040805 GRO3=13040806 GRO4=13040807
GRO5=13040808 GRO6=13040809 GRO7=13040812

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
10)	H	GRO	Avg	-----	3.3710 e4	-----	0.1822
11)	s	GRO Surrogate	Avg	-----	1.1474 e5	-----	0.2299

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040815.D\FID1B.CH Vial: 15
Signal #2 : P:\BTEX\2\DATA\130408\13040815.D\FID2A.CH
Acq On : 8 Apr 2013 2:38 pm Operator: ABC
Sample : GRO Retention Time Marker Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 15:36:38 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		R.T.	Response	Conc Units
	System Monitoring Compounds				
3) S	BTEX Surrogate		3.21	12217288	81.383 ppb
Spiked Amount	100.000	Range 84 - 110		Recovery =	81.38%#
11) s	GRO Surrogate		3.21	7172095	62.509 ppb
Spiked Amount	100.000	Range 69 - 100		Recovery =	62.51%#
	Target Compounds				
1) M	Methyl-t-butyl ether		0.00	0	N.D. ppb
2) M	Benzene		0.00	0	N.D. ppb
4) M	Toluene		4.98	95611	0.533 ppb
5) M	Ethylbenzene		7.17	180648	1.356 ppb
6) M	m&p-Xylene		7.42	178799	1.114 ppb
7) M	o-Xylene		7.76	91405	0.606 ppb
8) M	Naphthalene		0.00	0	N.D. ppb
10) H	GRO		5.00	7023670	208.358 ppb

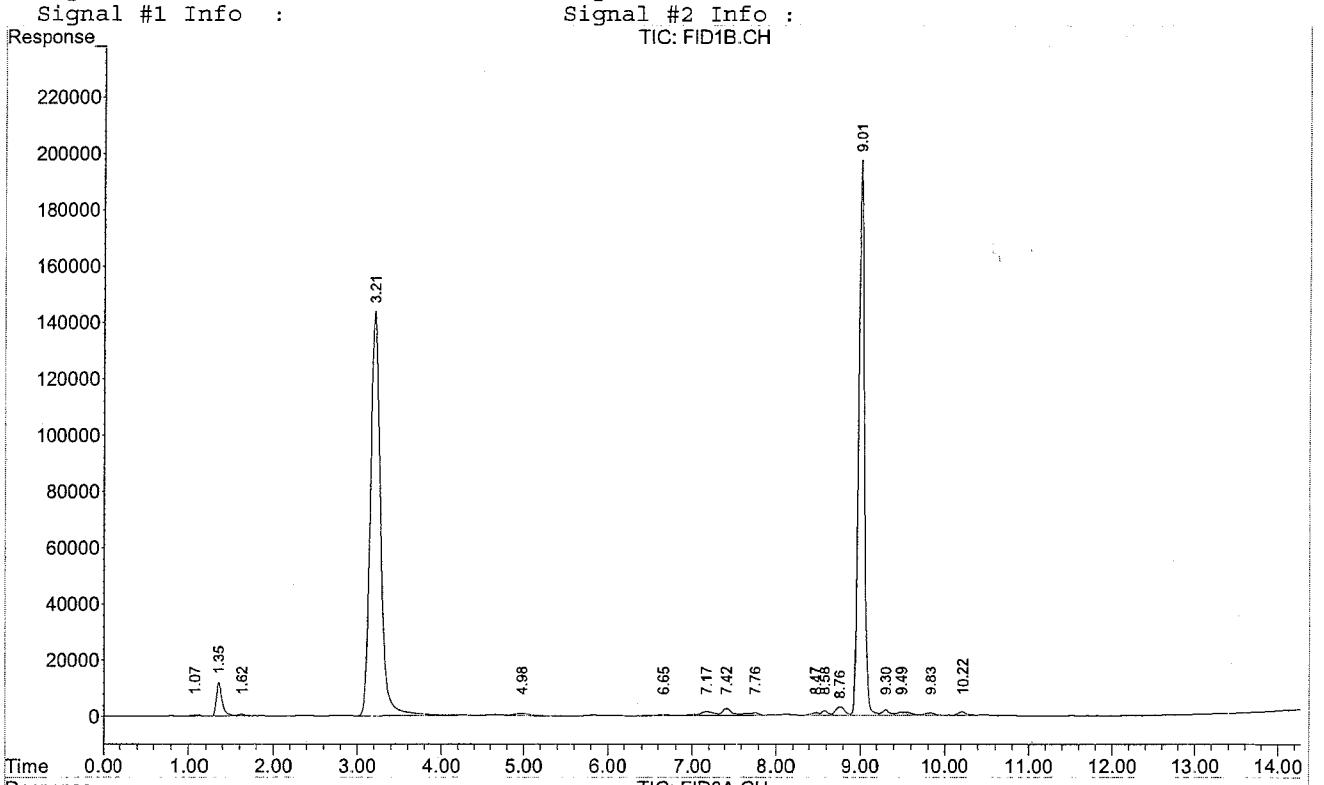
(f)=RT Delta > 1/2 Window (m)=manual int.

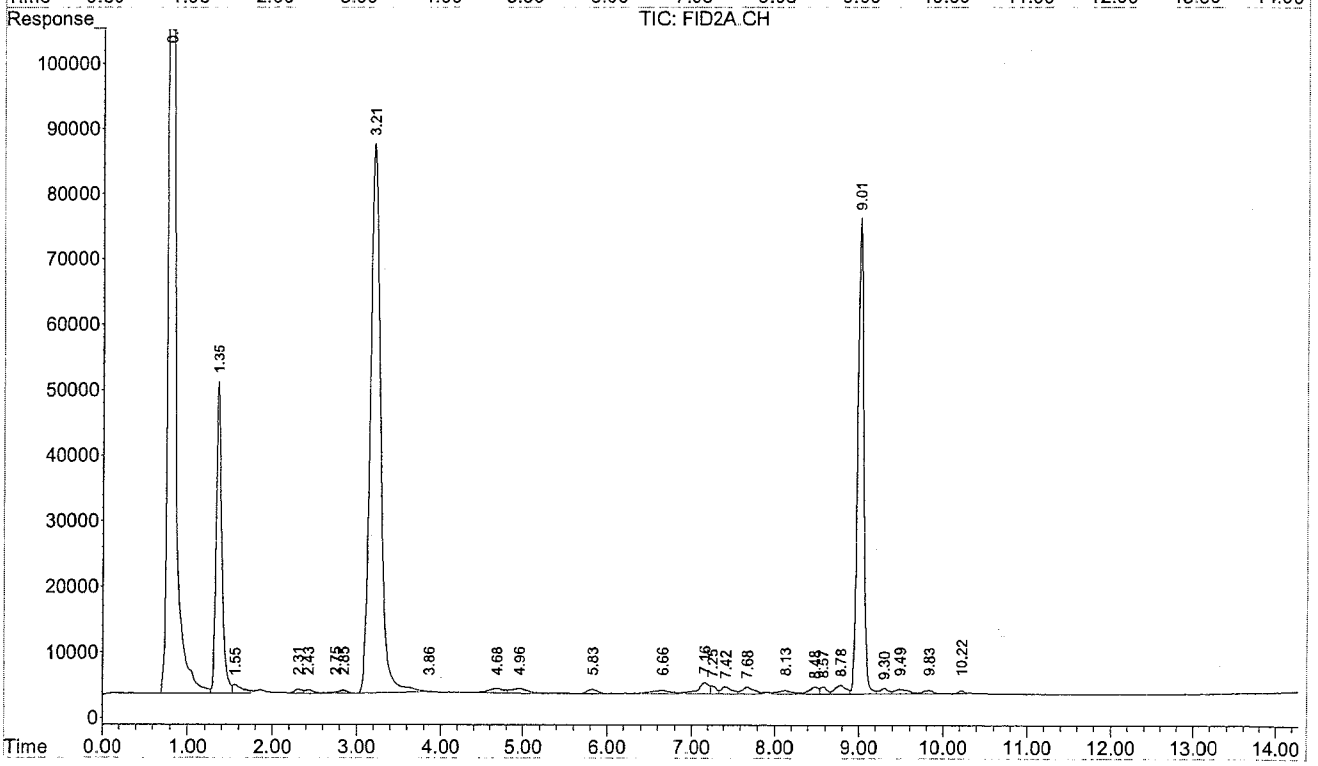
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040815.D\FID1B.CH Vial: 15
Signal #2 : P:\BTEX\2\DATA\130408\13040815.D\FID2A.CH
Acq On : 8 Apr 2013 2:38 pm Operator: ABC
Sample : GRO Retention Time Marker Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 15:36 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Signal #1 : P:\BTEX\2\DATA\130408\13040817.D\FID1B.CH Vial: 17
Signal #2 : P:\BTEX\2\DATA\130408\13040817.D\FID2A.CH
Acq On : 8 Apr 2013 3:30 pm Operator: ABC
Sample : CCV, GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 12.5ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E

Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
2	M	Benzene	196.569	0.000 E3	100.0#	98	0.00
3	S	BTEX Surrogate	150.121	0.000 E3	100.0#	102	-0.01
4	M	Toluene	179.461	0.000 E3	100.0#	98	0.00
5	M	Ethylbenzene	133.206	0.000 E3	100.0#	97	0.00
6	M	m&p-Xylene	160.556	0.000 E3	100.0#	97	0.00
7	M	o-Xylene	150.731	0.000 E3	100.0#	96	0.00
8	M	Naphthalene	8.047	0.000 E3	100.0#	107	0.00
		Signal #2					
10	H	GRO	33.710	35.494 E3	-5.3	97	0.00
11	s	GRO Surrogate	114.737	117.426 E3	-2.3	101	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13040817.D W_130408.M Tue Apr 09 12:15:08 2013 Page 1
4/9/2013 13:38

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040817.D\FID1B.CH Vial: 17
Signal #2 : P:\BTEX\2\DATA\130408\13040817.D\FID2A.CH
Acq On : 8 Apr 2013 3:30 pm Operator: ABC
Sample : CCV, GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 12.5ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 15:45:31 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

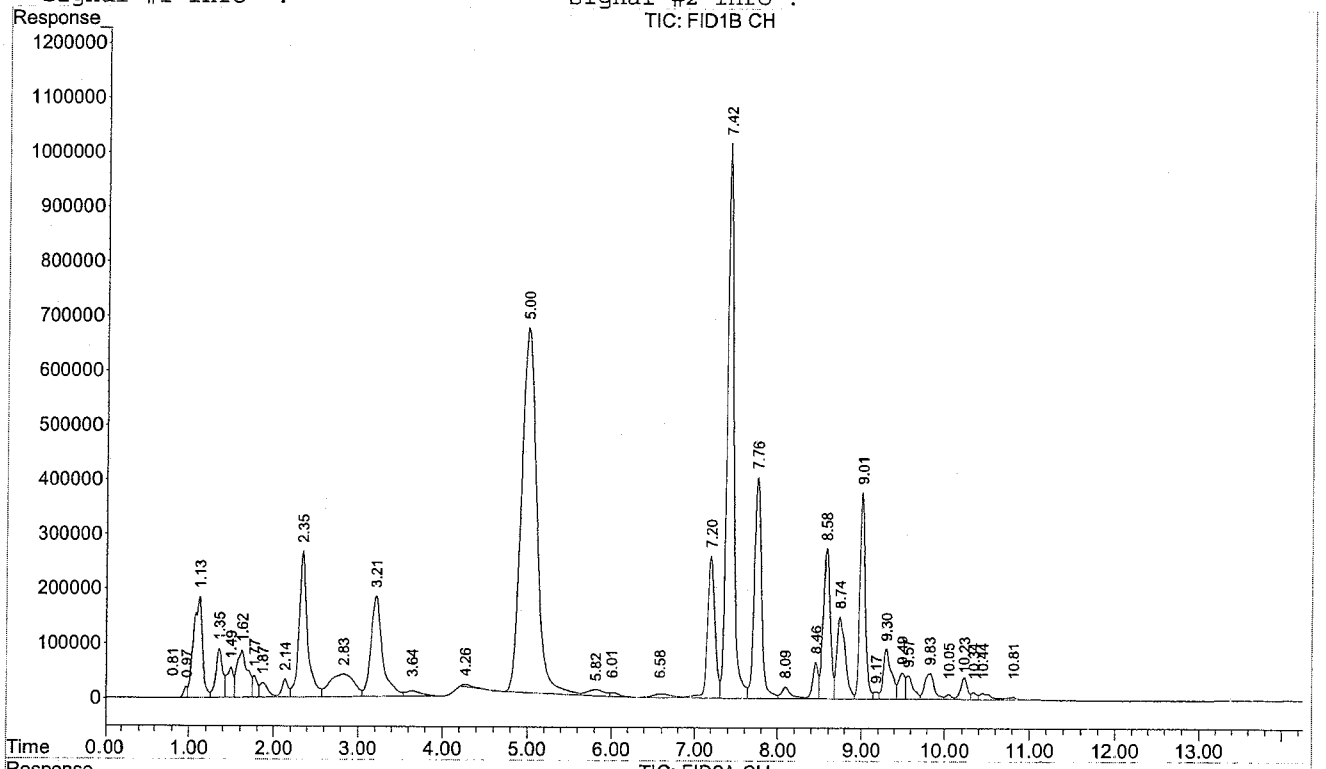
	Compound		R.T.	Response	Conc Units
	System Monitoring Compounds				
3)	S BTEX Surrogate		3.21	17718289	118.027 ppb
Spiked Amount	100.000	Range	84 - 110	Recovery	= 118.03%#
11)	s GRO Surrogate		3.22	11742649	102.344 ppb
Spiked Amount	100.000	Range	69 - 100	Recovery	= 102.34%#
	Target Compounds				
1)	M Methyl-t-butyl ether		0.00	0	N.D. ppb
2)	M Benzene		2.35	18321524	93.207 ppb
4)	M Toluene		5.00	84531205	471.027 ppb
5)	M Ethylbenzene		7.20	16010001	120.190 ppb
6)	M m&p-Xylene		7.42	58973838	367.310 ppb
7)	M o-Xylene		7.76	22737500	150.848 ppb
8)	M Naphthalene		10.81	390103	48.475 ppb
10)	H GRO		5.00	177470348	5264.670 ppb

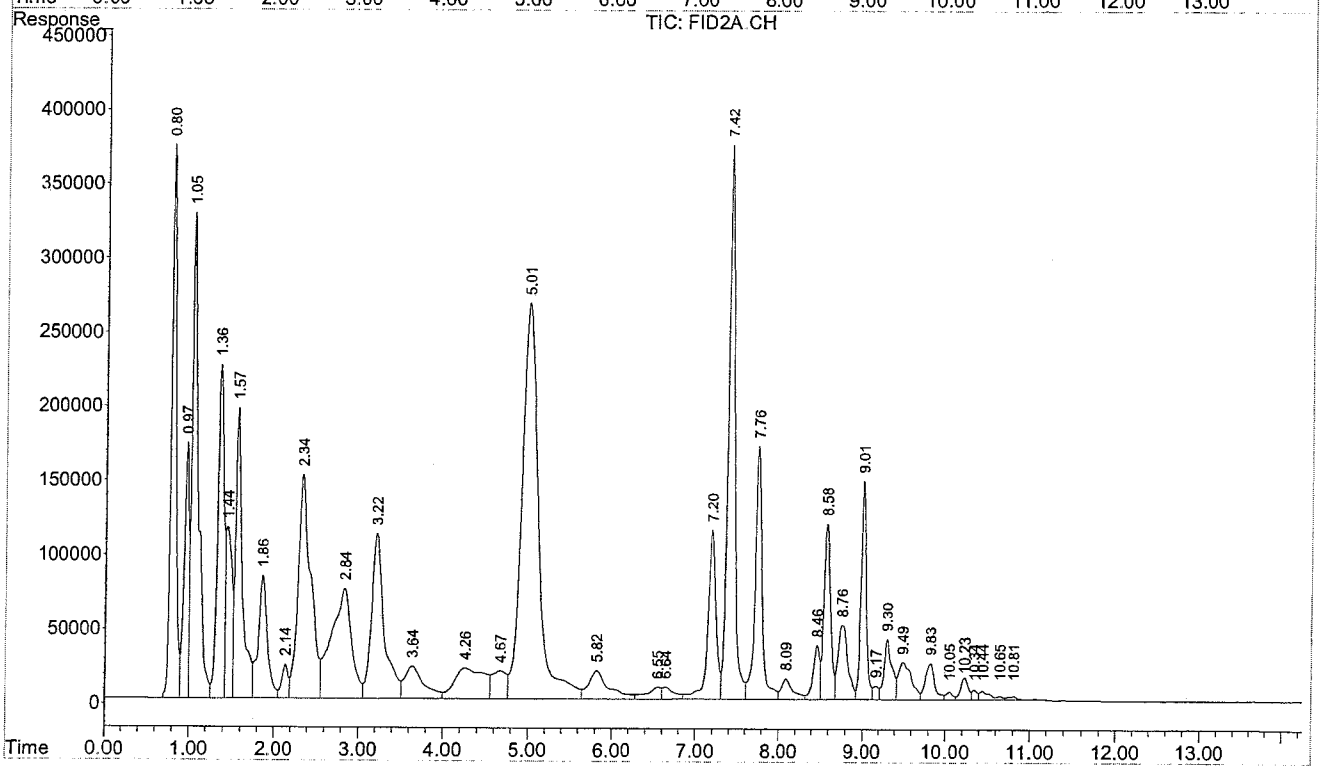
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040817.D\FID1B.CH Vial: 17
Signal #2 : P:\BTEX\2\DATA\130408\13040817.D\FID2A.CH
Acq On : 8 Apr 2013 3:30 pm Operator: ABC
Sample : CCV, GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 12.5ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 15:45 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Signal #1 : P:\BTEX\2\DATA\130408\13040844.D\FID1B.CH Vial: 44
Signal #2 : P:\BTEX\2\DATA\130408\13040844.D\FID2A.CH
Acq On : 9 Apr 2013 2:54 am Operator: ABC
Sample : CCV, GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 12.5ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E

Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
2	M	Benzene	196.569	0.000 E3	100.0#	90	0.00
3	S	BTEX Surrogate	150.121	0.000 E3	100.0#	98	-0.01
4	M	Toluene	179.461	0.000 E3	100.0#	91	-0.01
5	M	Ethylbenzene	133.206	0.000 E3	100.0#	88	0.00
6	M	m&p-Xylene	160.556	0.000 E3	100.0#	90	0.00
7	M	o-Xylene	150.731	0.000 E3	100.0#	89	0.00
8	M	Naphthalene	8.047	0.000 E3	100.0#	112	0.00
		Signal #2					
10	H	GRO	33.710	32.625 E3	3.2	89	0.00
11	s	GRO Surrogate	114.737	115.415 E3	-0.6	100	-0.01

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040844.D\FID1B.CH Vial: 44
Signal #2 : P:\BTEX\2\DATA\130408\13040844.D\FID2A.CH
Acq On : 9 Apr 2013 2:54 am Operator: ABC
Sample : CCV, GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 12.5ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:56 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

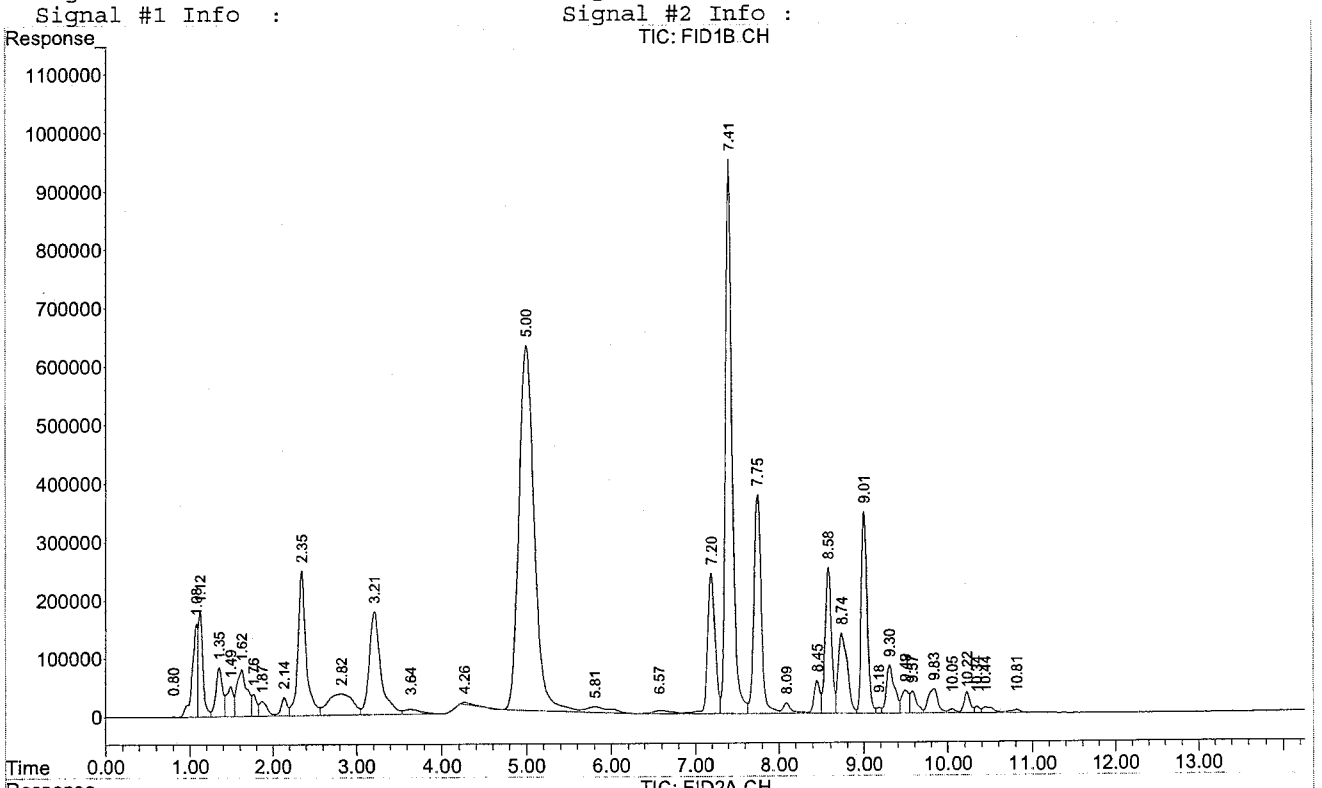
	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
3)	S BTEX Surrogate	3.21	17054646	113.606	ppb
Spiked Amount	100.000 Range 84 - 110	Recovery = 113.61%#			
11)	s GRO Surrogate	3.22	11541541	100.591	ppb
Spiked Amount	100.000 Range 69 - 100	Recovery = 100.59%#			
	Target Compounds				
1)	M Methyl-t-butyl ether	0.00	0	N.D.	ppb
2)	M Benzene	2.35	16951230	86.235	ppb
4)	M Toluene	5.00	79080636	440.656	ppb
5)	M Ethylbenzene	7.20	14543560	109.181	ppb
6)	M m&p-Xylene	7.41	54874534	341.778	ppb
7)	M o-Xylene	7.75	20962776	139.074	ppb
8)	M Naphthalene	10.81	408531	50.765	ppb
10)	H GRO	5.00	163123111	4839.058	ppb

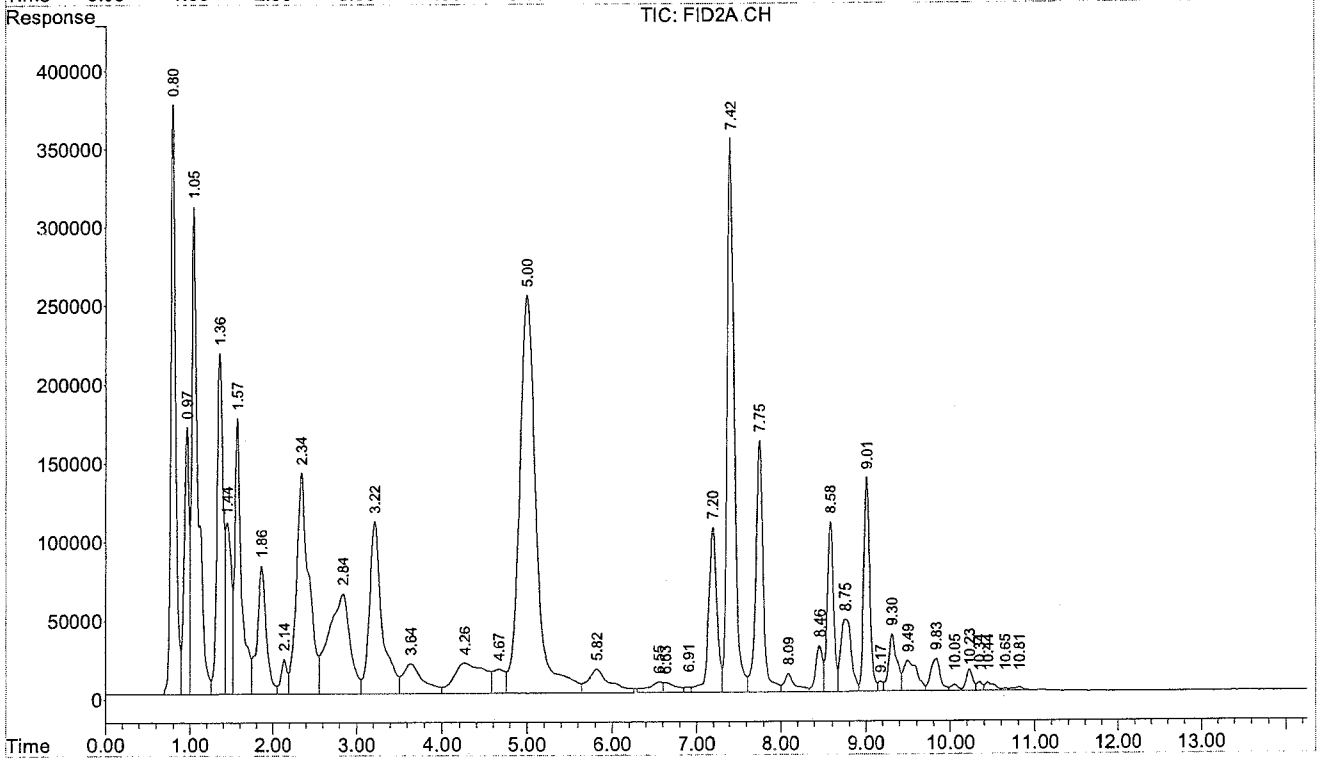
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040844.D\FID1B.CH Vial: 44
Signal #2 : P:\BTEX\2\DATA\130408\13040844.D\FID2A.CH
Acq On : 9 Apr 2013 2:54 am Operator: ABC
Sample : CCV, GRO 5000ppb Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 12.5ul 2492 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\2\DATA\130408\13040845.D\FID1B.CH Vial: 45
Signal #2 : P:\BTEX\2\DATA\130408\13040845.D\FID2A.CH
Acq On : 9 Apr 2013 3:19 am Operator: ABC
Sample : GRO Retention Time Marker Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 08:49:57 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

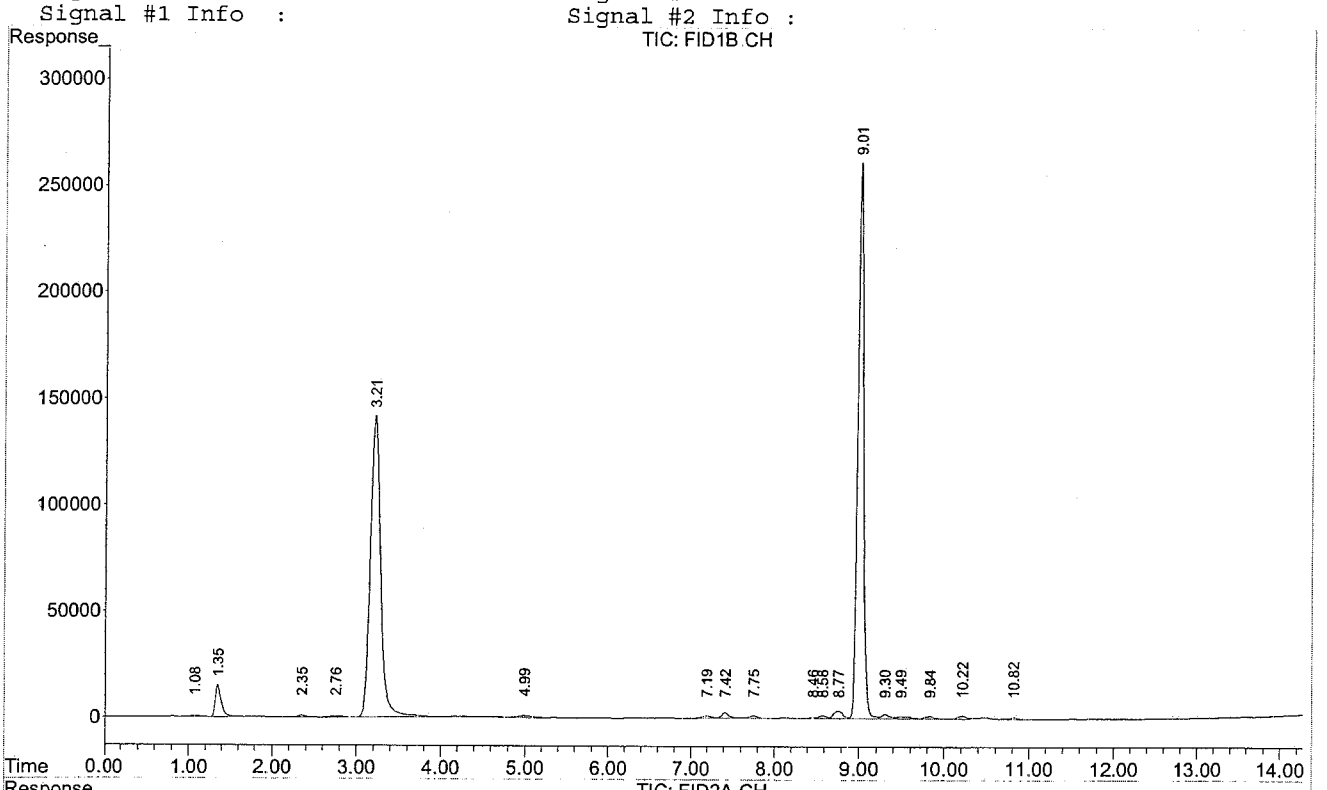
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S BTEX Surrogate	3.21	12053258	80.290 ppb
Spiked Amount 100.000 Range 84 - 110	Recovery = 80.29%#		
11) s GRO Surrogate	3.21	7363729	64.179 ppb
Spiked Amount 100.000 Range 69 - 100	Recovery = 64.18%#		
Target Compounds			
1) M Methyl-t-butyl ether	0.00	0	N.D. ppb
2) M Benzene	2.35	55249	0.281 ppb
4) M Toluene	4.99	82380	0.459 ppb
5) M Ethylbenzene	7.19	90443	0.679 ppb
6) M m&p-Xylene	7.42	167194	1.041 ppb
7) M o-Xylene	7.75	81462	0.540 ppb
8) M Naphthalene	10.82	41772	5.191 ppb
10) H GRO	5.00	8488916	251.824 ppb

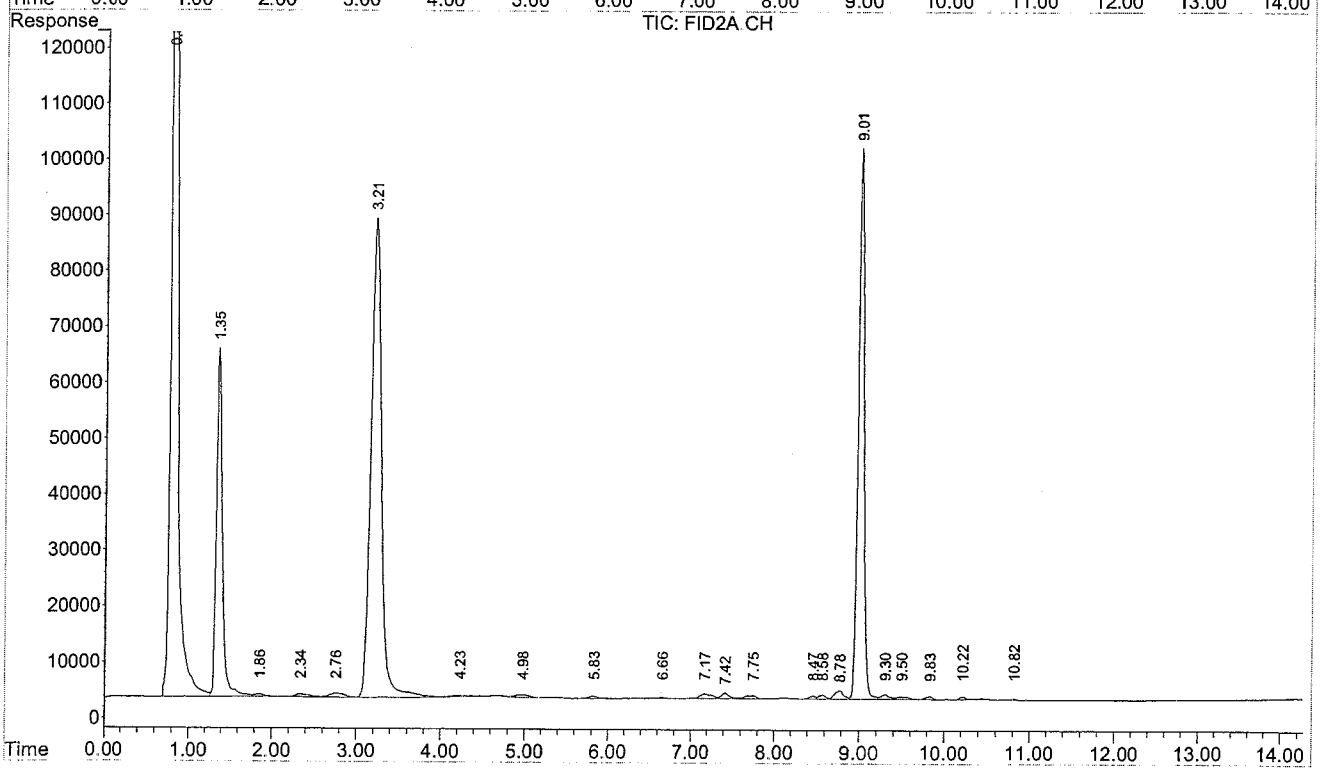
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\2\DATA\130408\13040845.D\FID1B.CH Vial: 45
Signal #2 : P:\BTEX\2\DATA\130408\13040845.D\FID2A.CH
Acq On : 9 Apr 2013 3:19 am Operator: ABC
Sample : GRO Retention Time Marker Water 5ml Inst : BTEX #2
Misc : 1ul A2458 5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 8:49 2013 Quant Results File: W_130408.RES

Quant Method : P:\BTEX\2\DATA\130408\W_130408.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 08 15:35:36 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC2.M

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Instrument QC Recovery

Project Name: Yakona Rd

Work Order #: 13040516 **Project ID:** 4184

Lab Batch ID: 105218 **Date Prepared:** 04/08/2013 **Sample:** CCV, GRO **Analyst:** 1035

Reporting Units: ug/L **Date Analyzed:** 04/08/2013 **Method:** SW8021B_SW8015 **Matrix:** Water

		Instrument QC RECOVERY STUDY			
Total Petroleum Hydrocarbons-GRO Analytes	**Result [A]**	**Spike Added [B]**	**Spike %R [C]**	**Control Limits %R**	**Flags**
TPH-GRO (Gasoline Range Organics)	5480	5000	110	80-120	

Lab Batch ID: 105218 **Date Prepared:** 04/08/2013 **Sample:** CCV, GRO **Analyst:** 1035

Reporting Units: ug/L **Date Analyzed:** 04/08/2013 **Method:** SW8021B_SW8015 **Matrix:** Water

		Instrument QC RECOVERY STUDY			
Total Petroleum Hydrocarbons-GRO Analytes	**Result [A]**	**Spike Added [B]**	**Spike %R [C]**	**Control Limits %R**	**Flags**
TPH-GRO (Gasoline Range Organics)	5430	5000	109	80-120	

Recovery [C] = 100*[A]/[B]

H = Recovery of CCV exceeded the laboratory control limits
L = Recovery of CCV below the laboratory control limits

Version: 1.027

Injection Log

Directory: P:\BTEX\1\DATA\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13040801.D	1.	GRO Retention Time Marker 5ml	1ul A2458 Soil 0.5ul 1219-2	8 Apr 2013 08:29
2	2	13040802.D	1.	CCV BTEXNM 50ppb 5ml	1ul A2458 Soil 2.5ul 1397-1	8 Apr 2013 08:57
3	3	13040803.D	1.	CCV GRO 5000ppb 5ml	1ul A2455 Soil 5ul A2455	8 Apr 2013 09:24 ✓
4	4	13040804.D	1.	Method Blank 5.00g	1ul A2455 Soil	8 Apr 2013 10:02
5	5	13040805.D	1.	Method Blank 5.14g	1ul A2455 Soil	8 Apr 2013 10:29
6	6	13040806.D	1.	LCS BTEXNM 50ppb 5.06g	1ul A2458 Soil 2.5ul 1397-1	8 Apr 2013 10:56
7	7	13040807.D	1.	LCS GRO 5000ppb 5.02g	1ul A2455 Soil 5ul A2455	8 Apr 2013 11:24
8	8	13040808.D	1.	13040516-001 5.00g	1ul A2455 Soil	8 Apr 2013 11:51
9	9	13040809.D	1.	13040516-002 5.07g	1ul A2455 Soil	8 Apr 2013 12:18
10	10	13040810.D	1.	~~13040516-003 5.05g~~	1ul A2455 Soil	8 Apr 2013 12:45
11	11	13040811.D	1.	13040516-004 5.09g	1ul A2455 Soil	8 Apr 2013 13:12
12	12	13040812.D	1.	13040516-005 5.03g	1ul A2455 Soil	8 Apr 2013 13:39
13	13	13040813.D	1.	13040522-002 5.07g	1ul A2455 Soil	8 Apr 2013 14:07
14	14	13040814.D	1.	13040522-003 5.02g	1ul A2455 Soil	8 Apr 2013 14:34
15	15	13040815.D	1.	13040520-001 5.05g	1ul A2455 Soil	8 Apr 2013 15:02
16	16	13040816.D	1.	13040520-002 5.00g ✓	1ul A2455 Soil	8 Apr 2013 15:29
17	17	13040817.D	1.	13040516-003 5.01g	1ul A2455 Soil	8 Apr 2013 15:56
18	18	13040818.D	1.	13040527-001 5.01g ✓	1ul A2455 Soil	8 Apr 2013 16:24
19	19	13040819.D	1.	13040516-004 MS GRO 5.08g	1ul A2455 Soil 5ul A2455	8 Apr 2013 16:51
20	20	13040820.D	1.	13040516-004 MSD GRO 5.04g	1ul A2455 Soil 5ul A2455	8 Apr 2013 17:18
21	21	13040821.D	1.	CCV BTEXNM 50ppb 5ml	1ul A2458 Soil 2.5ul 1397-1	8 Apr 2013 17:46
22	22	13040822.D	1.	CCV GRO 5000ppb 5ml	1ul A2455 Soil 5ul A2455	8 Apr 2013 18:13 ✓
23	23	13040823.D	1.	GRO Retention Time Marker 5ml	1ul A2458 Soil 0.5ul 1219-2	8 Apr 2013 18:40

P- 45494

I - 10548

Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013

Calibration Files
1 =13032906.D 2 =13032907.D 3 =13032908.D
4 =13032909.D 5 =13032910.D 6 =13032912.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	M	Methyl-t-butyl e	2.266	1.685	1.761	1.295	1.706	1.119	1.639	E5	24.46
2)	M	Benzene	5.930	5.856	5.882	6.041	5.663	5.500	5.812	E5	3.38
3)	S	BTEX Surrogate	1.814	1.807	1.812	1.844	1.916	1.777	1.828	E5	2.62
4)	M	Toluene	7.653	5.947	5.622	5.674	5.234	5.121	5.875	E5	15.69
5)	M	Ethylbenzene	6.384	5.140	4.928	4.785	4.342	4.157	4.956	E5	15.93
6)	M	m&p-Xylene	8.543	6.387	6.047	5.729	4.907	3.857	5.912	E5	26.67
7)	M	o-Xylene	7.273	5.660	5.435	5.100	4.391	3.933	5.299	E5	21.97
8)	M	Naphthalene	2.158	1.176	1.342	1.293	1.418	1.554	1.490	E5	23.53

Signal #2 Calibration Files
1 =13032906.D 2 =13032907.D 3 =13032908.D
4 =13032909.D 5 =13032910.D 6 =13032912.D

		Compound	1	2	3	4	5	6	Avg		%RSD
10)	H	GRO							6.558	E4	5.06
11)	S	GRO Surrogate							6.930	E4	14.17

(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration

Calibration Files
1 =13032906 2 =13032907 3 =13032908 4 =13032909 5 =13032910
6 =13032912 GRO1=12110215 GRO2=12110216 GRO3=12110217 GRO4=12110218
GRO5=12110219 GRO6=12110220 GRO7=12110221

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	M	Methyl-t-butyl ether	QuadF	-----	1.9933 e5	-1.7414 e2	0.9958
2)	M	Benzene	Avg	-----	5.8119 e5	-----	0.0338
3)	S	BTEX Surrogate	Avg	-----	1.8283 e5	-----	0.0262
4)	M	Toluene	Avg	-----	5.8752 e5	-----	0.1569
5)	M	Ethylbenzene	Avg	-----	4.9559 e5	-----	0.1593
6)	M	m&p-Xylene	QuadF	-----	5.6611 e5	-1.8060 e2	0.9999
7)	M	o-Xylene	QuadF	-----	4.7813 e5	-1.7029 e2	0.9998
8)	M	Naphthalene	QuadF	-----	1.3190 e5	4.7087 e1	1.0000

Signal #2 Calibration Files
1 =13032906 2 =13032907 3 =13032908 4 =13032909 5 =13032910
6 =13032912 GRO1=12110215 GRO2=12110216 GRO3=12110217 GRO4=12110218
GRO5=12110219 GRO6=12110220 GRO7=12110221

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
10)	H	GRO	Avg	-----	6.5582 e4	-----	0.0506
11)	S	GRO Surrogate	Avg	-----	6.9305 e4	-----	0.1417

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040801.D\FID1B.CH Vial: 1
Signal #2 : P:\BTEX\1\DATA\130408\13040801.D\FID2A.CH
Acq On : 8 Apr 2013 8:29 am Operator: ABC
Sample : GRO Retention Time Marker 5ml Inst : BTEX #1
Misc : 1ul A2458 Soil 0.5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 09:45:14 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

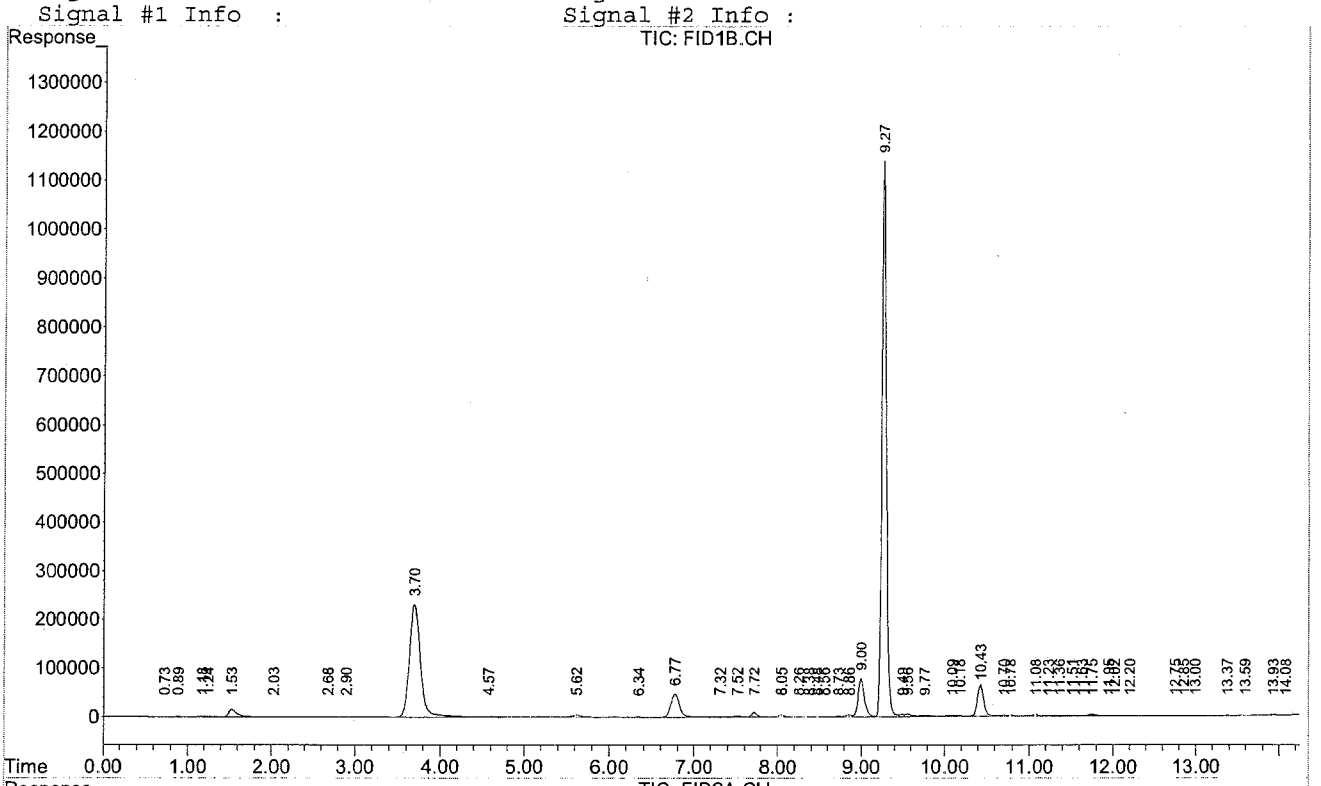
	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.70	20627296	112.823 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	112.82%	
11) S	GRO Surrogate	3.70	7993084	115.332 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	115.33%	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.53	1082240	5.455 ppb
2) M	Benzene	2.68	65217	0.112 ppb
4) M	Toluene	5.62	266603	0.454 ppb
5) M	Ethylbenzene	7.52	122841	0.248 ppb
6) M	m&p-Xylene	7.72	463476	0.819 ppb
7) M	o-Xylene	8.05	185132	0.387 ppb
8) M	Naphthalene	11.08	297304	2.252 ppb
10) H	GRO	5.00	16413235	250.271 ppb

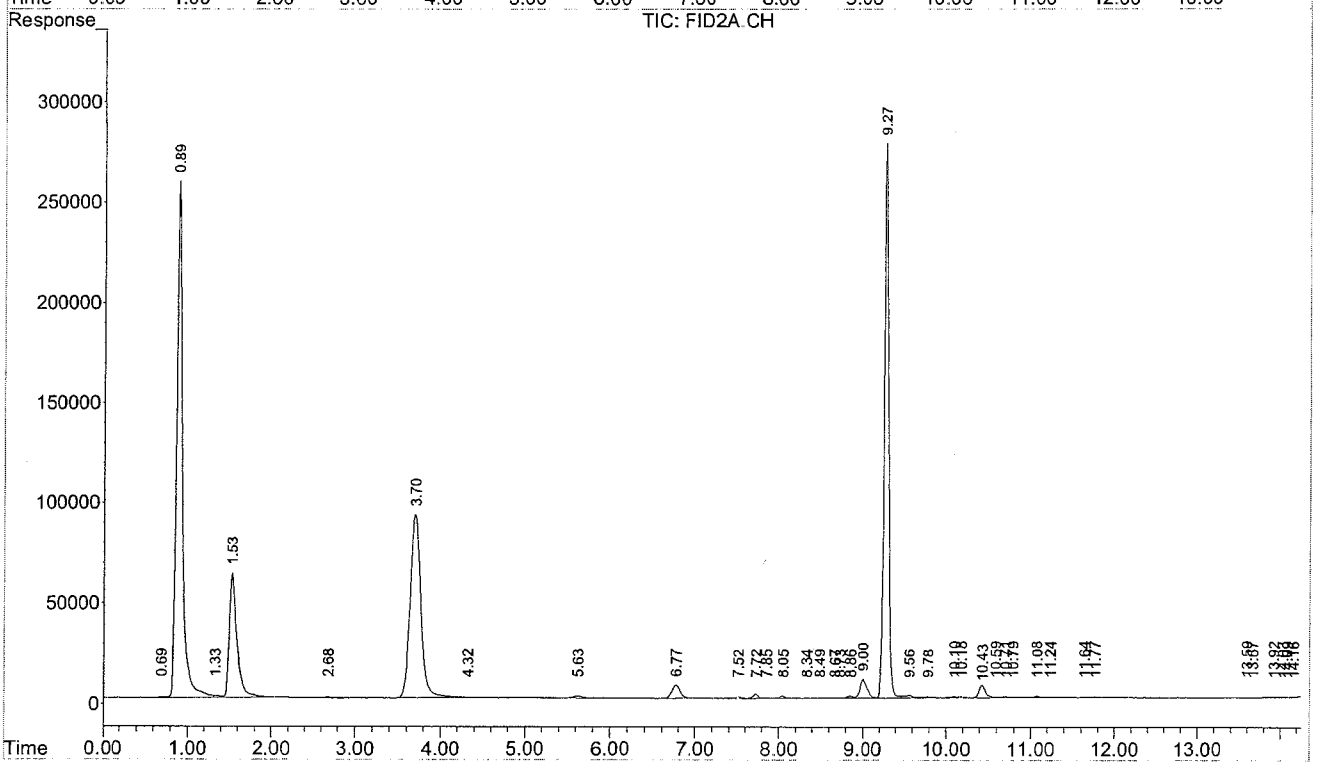
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040801.D\FID1B.CH Vial: 1
Signal #2 : P:\BTEX\1\DATA\130408\13040801.D\FID2A.CH
Acq On : 8 Apr 2013 8:29 am Operator: ABC
Sample : GRO Retention Time Marker 5ml Inst : BTEX #1
Misc : 1ul A2458 Soil 0.5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 9:45 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Evaluate Continuing Calibration Report

Signal #1 : P:\BTEX\1\DATA\130408\13040803.D\FID1B.CH Vial: 3
Signal #2 : P:\BTEX\1\DATA\130408\13040803.D\FID2A.CH
Acq On : 8 Apr 2013 9:24 am Operator: ABC
Sample : CCV GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E

Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	M	Methyl-t-butyl ether	163.875	0.000 E3	100.0#	186#	0.02
2	M	Benzene	581.187	0.000 E3	100.0#	125	0.02
3	S	BTEX Surrogate	182.828	0.000 E3	100.0#	143	0.02
4	M	Toluene	587.524	0.000 E3	100.0#	123	0.01
5	M	Ethylbenzene	495.593	0.000 E3	100.0#	126	0.00
6	M	m&p-Xylene	591.163	0.000 E3	100.0#	122	0.00
7	M	o-Xylene	529.859	0.000 E3	100.0#	122	0.00
8	M	Naphthalene	149.027	0.000 E3	100.0#	215#	0.00
		Signal #2					
10	H	GRO	65.582	71.276 E3	-8.7	109	0.00
11	S	GRO Surrogate	69.305	89.415 E3	-29.0#	137	0.02

Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040803.D\FID1B.CH Vial: 3
Signal #2 : P:\BTEX\1\DATA\130408\13040803.D\FID2A.CH
Acq On : 8 Apr 2013 9:24 am Operator: ABC
Sample : CCV GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 08 09:45:27 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound		R.T.	Response	Conc Units
	System Monitoring Compounds				
3)	S BTEX Surrogate		3.69	23430799	128.157 ppb
Spiked Amount	100.000	Range 65 - 133		Recovery =	128.16%
11)	S GRO Surrogate		3.69	8941545	129.018 ppb
Spiked Amount	100.000	Range 51 - 122		Recovery =	129.02%#
	Target Compounds				
1)	M Methyl-t-butyl ether		1.53	9423779	49.411 ppb
2)	M Benzene		2.68	48770037	83.915 ppb
4)	M Toluene		5.63	246884622	420.212 ppb
5)	M Ethylbenzene		7.52	48511591	97.886 ppb
6)	M m&p-Xylene		7.72	180940379	361.250 ppb
7)	M o-Xylene		8.05	69040668	152.702 ppb
8)	M Naphthalene		11.08	4293537	32.182 ppb
10)	H GRO		5.00	356378697	5434.099 ppb

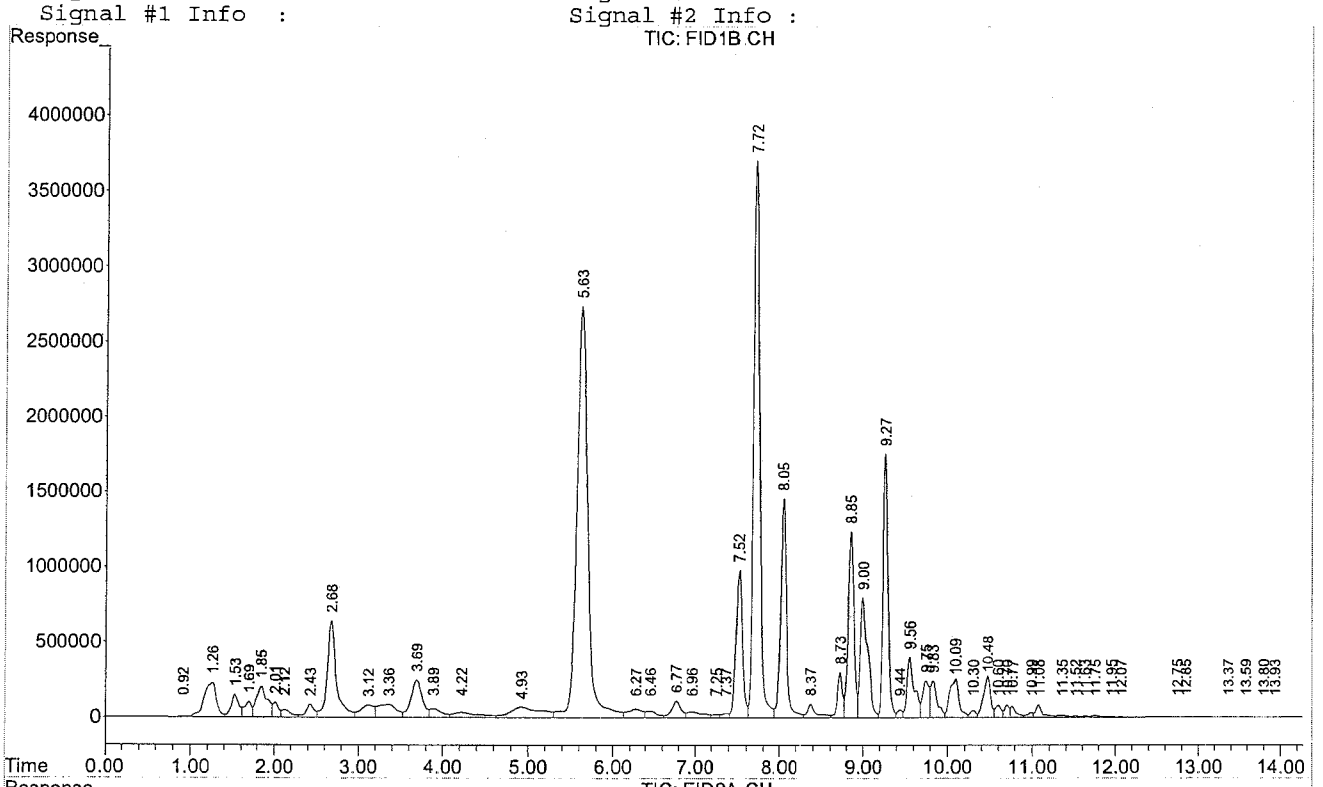
(f)=RT Delta > 1/2 Window (m)=manual int.

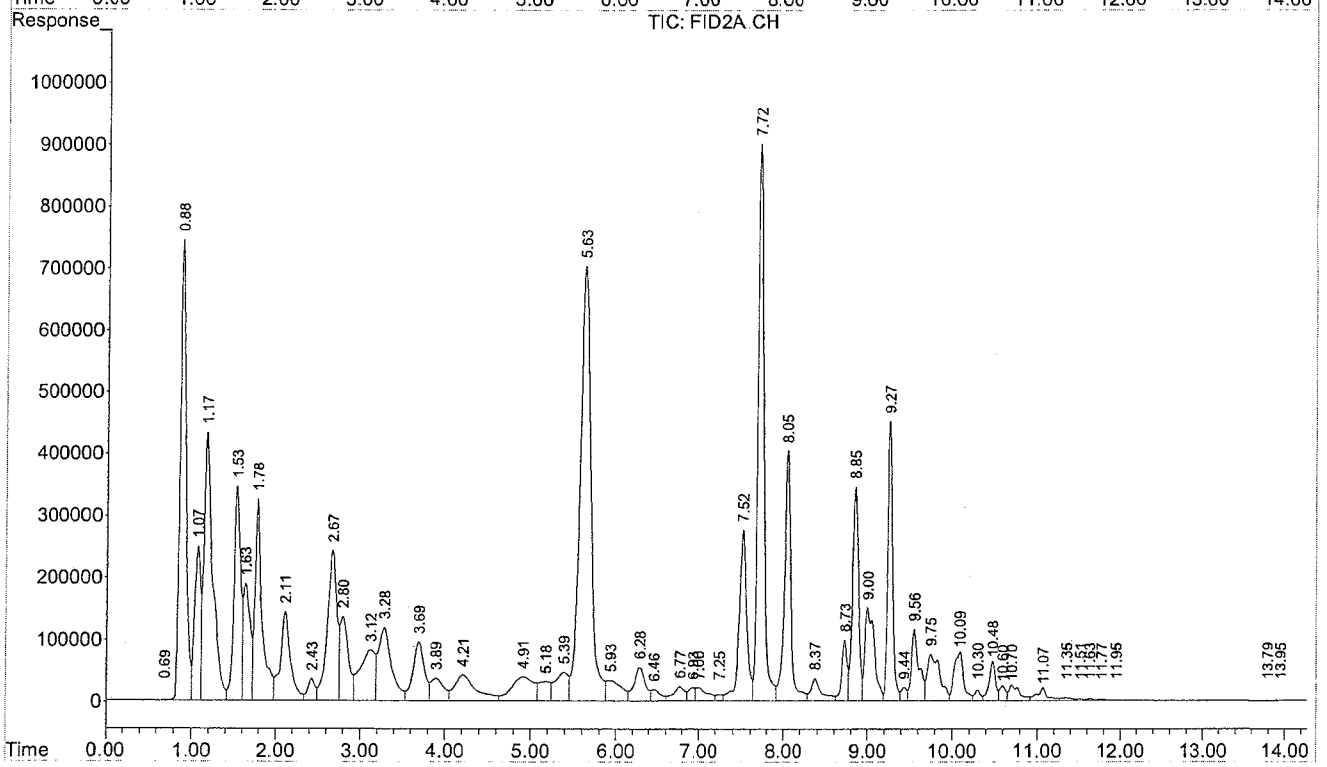
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040803.D\FID1B.CH Vial: 3
Signal #2 : P:\BTEX\1\DATA\130408\13040803.D\FID2A.CH
Acq On : 8 Apr 2013 9:24 am Operator: ABC
Sample : CCV GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 8 9:45 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040822.D\FID1B.CH Vial: 22
Signal #2 : P:\BTEX\1\DATA\130408\13040822.D\FID2A.CH
Acq On : 8 Apr 2013 6:13 pm Operator: ABC
Sample : CCV GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 10:55:14 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

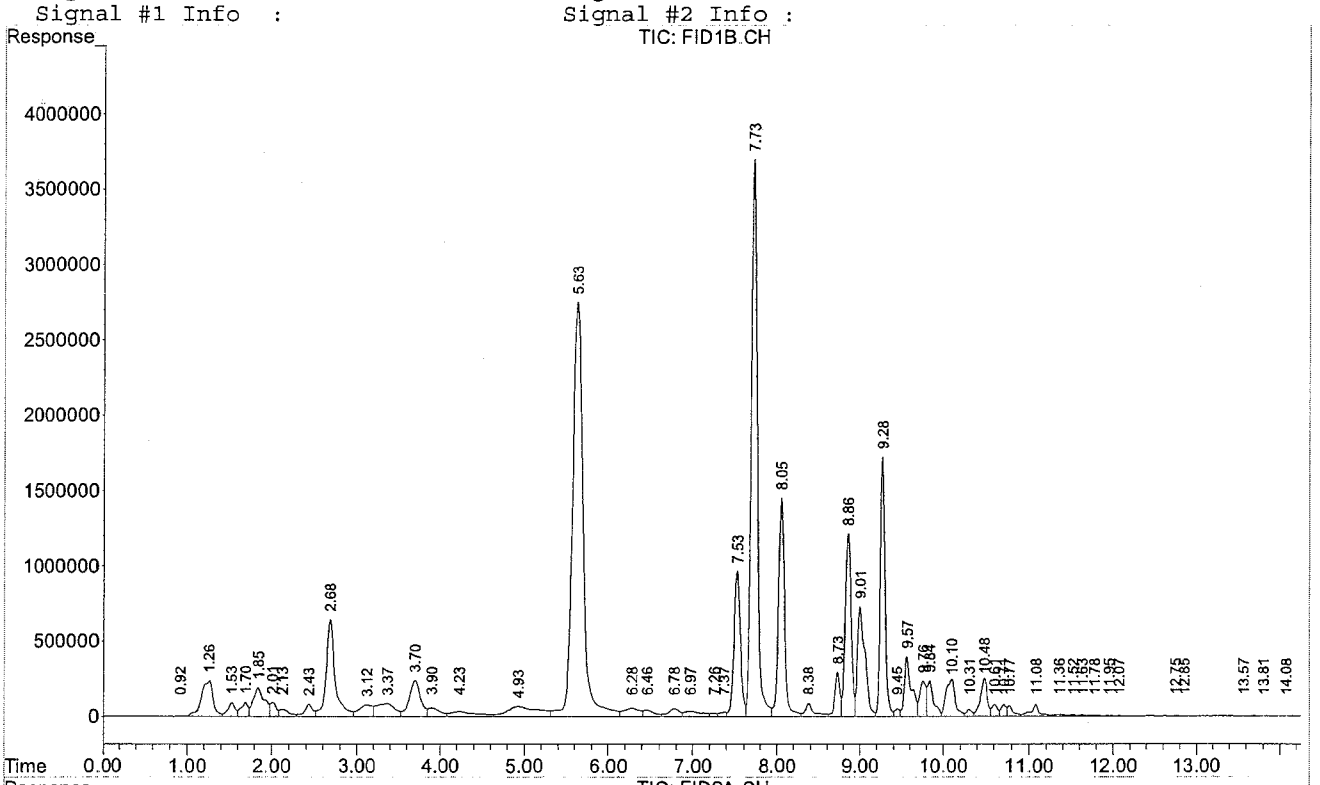
	Compound		R.T.	Response	Conc	Units
	System Monitoring Compounds					
3)	S BTEX Surrogate		3.70	22422415	122.642	ppb
Spiked Amount	100.000	Range 65 - 133		Recovery =	122.64%	
11)	S GRO Surrogate		3.70	8741319	126.129	ppb
Spiked Amount	100.000	Range 51 - 122		Recovery =	126.13%#	
	Target Compounds					
1)	M Methyl-t-butyl ether		1.53	5801564	29.886	ppb
2)	M Benzene		2.68	48118836	82.794	ppb
4)	M Toluene		5.63	246594859	419.719	ppb
5)	M Ethylbenzene		7.53	48097374	97.050	ppb
6)	M m&p-Xylene		7.73	178980749	356.760	ppb
7)	M o-Xylene		8.05	68485083	151.399	ppb
8)	M Naphthalene		11.08	5372535	40.157	ppb
10)	H GRO		5.00	359083104	5475.336	ppb

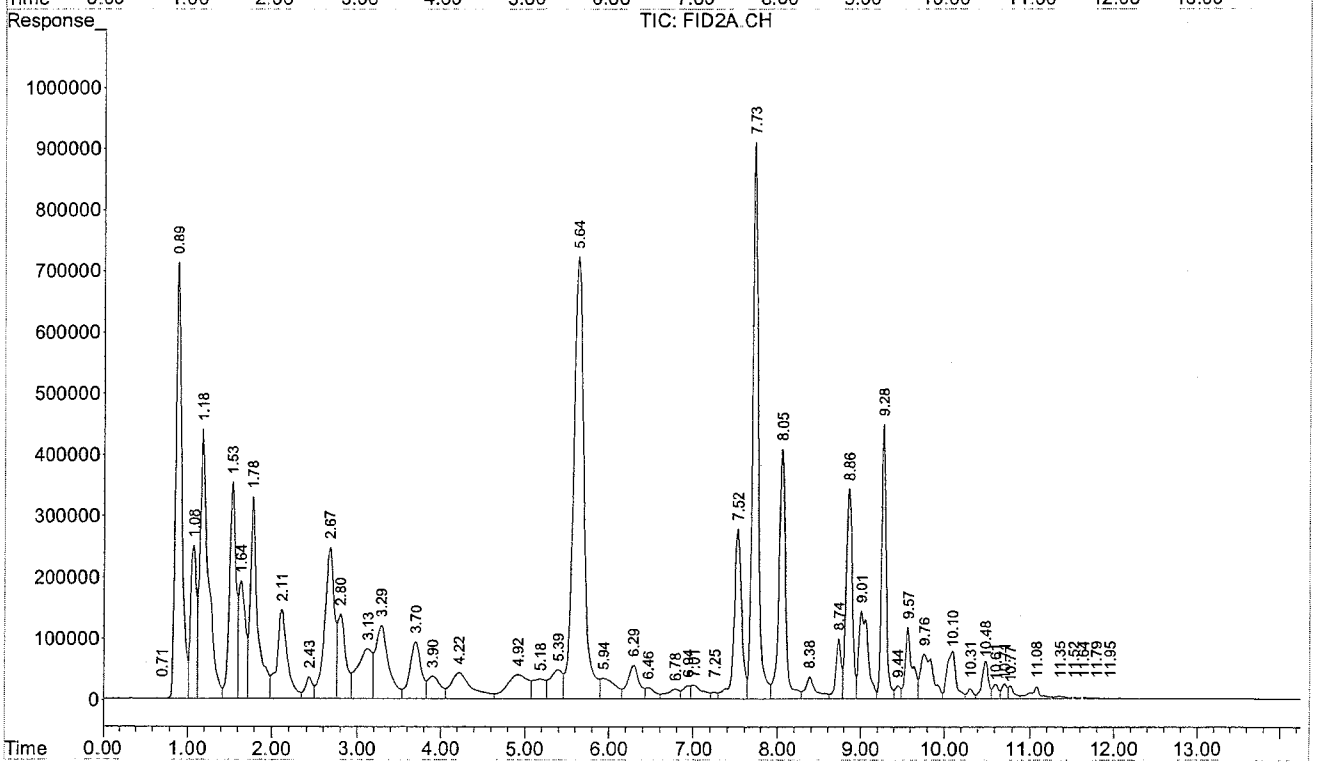
(f)=RT Delta > 1/2 Window (m)=manual int.

Signal #1 : P:\BTEX\1\DATA\130408\13040822.D\FID1B.CH Vial: 22
Signal #2 : P:\BTEX\1\DATA\130408\13040822.D\FID2A.CH
Acq On : 8 Apr 2013 6:13 pm Operator: ABC
Sample : CCV GRO 5000ppb 5ml Inst : BTEX #1
Misc : 1ul A2455 Soil 5ul A2455 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 10:55 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040823.D\FID1B.CH Vial: 23
Signal #2 : P:\BTEX\1\DATA\130408\13040823.D\FID2A.CH
Acq On : 8 Apr 2013 6:40 pm Operator: ABC
Sample : GRO Retention Time Marker 5ml Inst : BTEX #1
Misc : 1ul A2458 Soil 0.5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 09 10:55:14 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
3) S	BTEX Surrogate	3.70	16538481	90.459 ppb
Spiked Amount	100.000 Range 65 - 133	Recovery =	90.46%	
11) S	GRO Surrogate	3.70	7046015	101.667 ppb
Spiked Amount	100.000 Range 51 - 122	Recovery =	101.67%	
	Target Compounds			
1) M	Methyl-t-butyl ether	1.53	879588	4.430 ppb
2) M	Benzene	2.69	39924	0.069 ppb
4) M	Toluene	5.63	410371	0.698 ppb
5) M	Ethylbenzene	7.53	170539	0.344 ppb
6) M	m&p-Xylene	7.73	606955	1.073 ppb
7) M	o-Xylene	8.05	262477	0.549 ppb
8) M	Naphthalene	11.08	243821	1.847 ppb
10) H	GRO	5.00	16749767	255.402 ppb

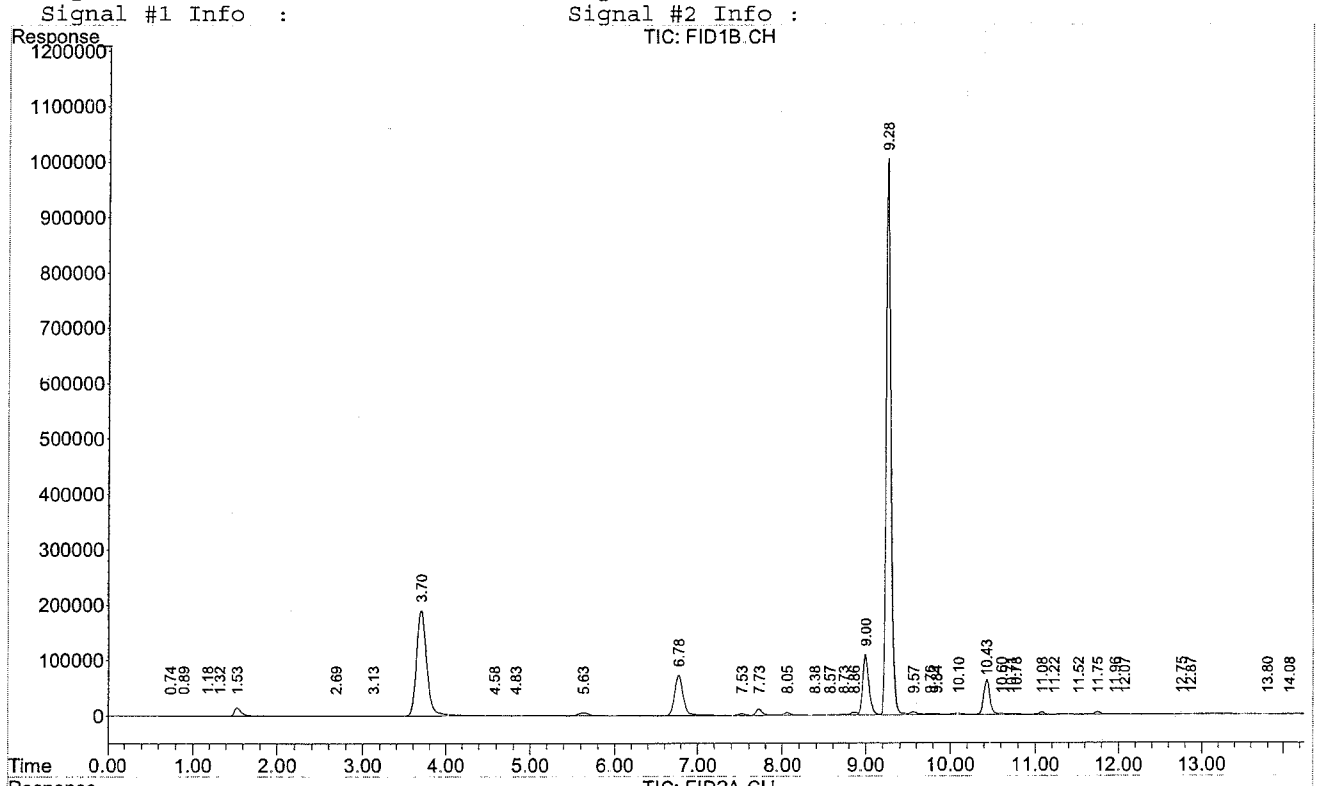
(f)=RT Delta > 1/2 Window (m)=manual int.

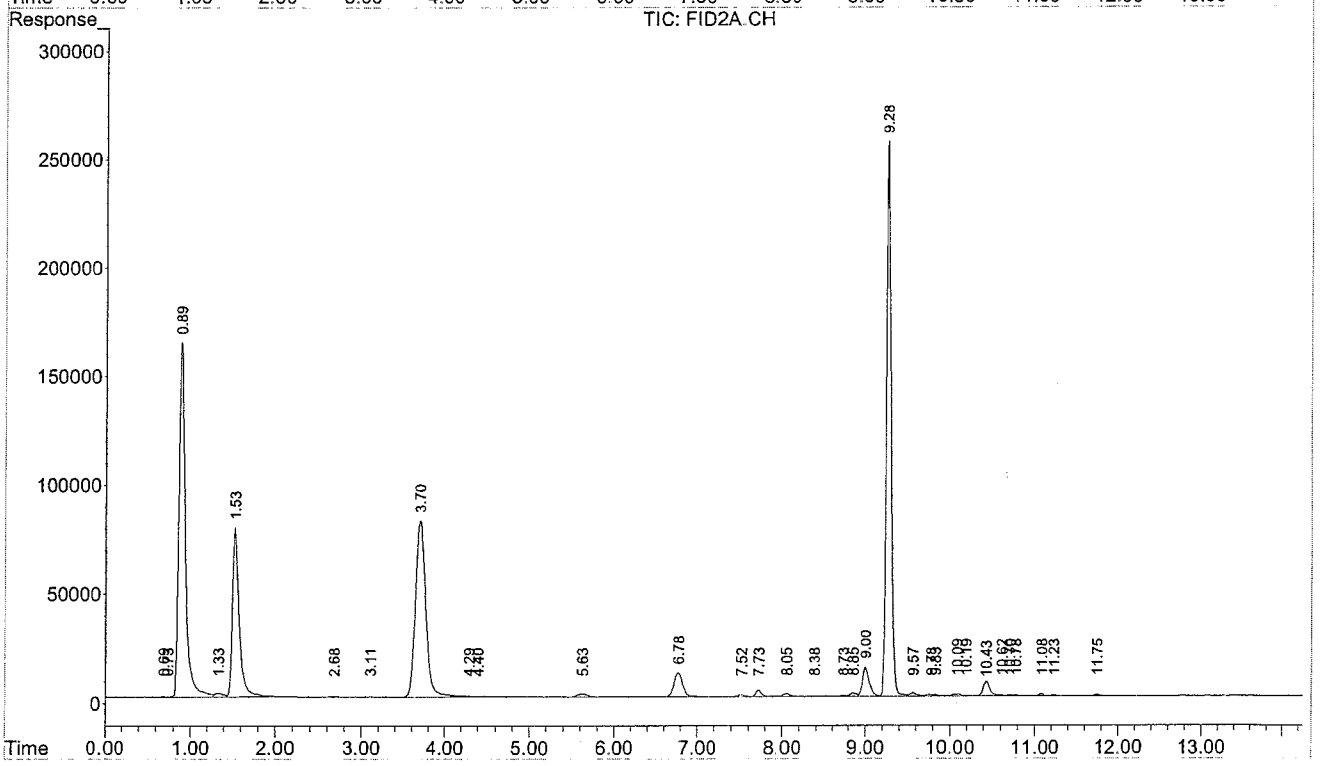
Quantitation Report (QT Reviewed)

Signal #1 : P:\BTEX\1\DATA\130408\13040823.D\FID1B.CH Vial: 23
Signal #2 : P:\BTEX\1\DATA\130408\13040823.D\FID2A.CH
Acq On : 8 Apr 2013 6:40 pm Operator: ABC
Sample : GRO Retention Time Marker 5ml Inst : BTEX #1
Misc : 1ul A2458 Soil 0.5ul 1219-2 Multiplr: 1.00
IntFile Signal #1: LSCINT.E IntFile Signal #2: EVENTS2.E
Quant Time: Apr 9 10:55 2013 Quant Results File: S_130329.RES

Quant Method : P:\BTEX\1\DATA\130408\S_130329.M (Chemstation Integrator)
Title :
Last Update : Mon Apr 01 09:45:55 2013
Response via : Initial Calibration
DataAcq Meth : ACQ_GC1.M

Volume Inj. : Purged Method
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-02 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-001

Sample wt/vol: 6.22 (g/mL) g Lab File ID: 13040810

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 18 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
75-71-8	Dichlorodifluoromethane	4.9	U
74-87-3	Chloromethane	4.9	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.9	U
75-01-4	Vinyl Chloride	4.9	U
75-65-0	tert-Butyl Alcohol	39	U
74-83-9	Bromomethane	4.9	U
75-00-3	Chloroethane	4.9	U
67-64-1	Acetone	20	J
110-82-7	Cyclohexane	20	U
75-69-4	Trichlorofluoromethane	4.9	U
75-35-4	1,1-Dichloroethene	4.9	U
75-09-2	Methylene chloride	4.9	U
156-60-5	trans-1,2-Dichloroethene	4.9	U
1634-04-4	Methyl-t-Butyl Ether	4.9	U
75-34-3	1,1-Dichloroethane	4.9	U
78-93-3	2-Butanone (MEK)	20	U
156-59-2	cis-1,2-Dichloroethene	4.9	U
74-97-5	Bromochloromethane	4.9	U
67-66-3	Chloroform	4.9	U
71-55-6	1,1,1-Trichloroethane	4.9	U
107-06-2	1,2-Dichloroethane	4.9	U
56-23-5	Carbon tetrachloride	4.9	U
71-43-2	Benzene	4.9	U
78-87-5	1,2-Dichloropropane	4.9	U
75-15-0	Carbon Disulfide	9.8	U
108-87-2	Methylcyclohexane	20	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-02 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-001

Sample wt/vol: 6.22 (g/mL) g Lab File ID: 13040810

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 18 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
79-01-6	Trichloroethene	4.9	U
79-20-9	Methyl Acetate	20	U
75-27-4	Bromodichloromethane	4.9	U
10061-01-5	cis-1,3-Dichloropropene	4.9	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	20	U
10061-02-6	trans-1,3-Dichloropropene	4.9	U
79-00-5	1,1,2-Trichloroethane	4.9	U
108-88-3	Toluene	4.9	U
591-78-6	2-Hexanone (MBK)	20	U
106-93-4	1,2-Dibromoethane	4.9	U
124-48-1	Dibromochloromethane	4.9	U
637-92-3	tert-Butyl ethyl ether	9.8	U
994-05-8	tert-Amyl methyl ether	39	U
108-20-3	Diisopropyl ether	9.8	U
919-94-8	tert-Amyl ethyl ether	39	U
75-85-4	tert-Amyl alcohol	39	U
75-25-2	Bromoform	4.9	U
127-18-4	Tetrachloroethene	4.9	U
108-90-7	Chlorobenzene	4.9	U
100-41-4	Ethylbenzene	4.9	U
108-38-3	m&p-Xylene	9.8	U
100-42-5	Styrene	4.9	U
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U
95-47-6	o-Xylene	4.9	U
98-82-8	Isopropylbenzene	4.9	U
541-73-1	1,3-Dichlorobenzene	4.9	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-02 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-001

Sample wt/vol: 6.22 (g/mL) g Lab File ID: 13040810

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 18 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
106-46-7	1,4-Dichlorobenzene	4.9	U
95-50-1	1,2-Dichlorobenzene	4.9	U
96-12-8	1,2-Dibromo-3-chloropropane	39	U
120-82-1	1,2,4-Trichlorobenzene	4.9	U
91-20-3	Naphthalene	4.9	U
87-61-6	1,2,3-Trichlorobenzene	4.9	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-04 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-002

Sample wt/vol: 6.05 (g/mL) g Lab File ID: 13040814

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 18 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
76-13-1	1,1,2-Trichlorotrifluoroethane	5.0	U
75-01-4	Vinyl Chloride	5.0	U
75-65-0	tert-Butyl Alcohol	40	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
67-64-1	Acetone	11	J
110-82-7	Cyclohexane	20	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl-t-Butyl Ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
78-93-3	2-Butanone (MEK)	20	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-15-0	Carbon Disulfide	10	U
108-87-2	Methylcyclohexane	20	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-04 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-002

Sample wt/vol: 6.05 (g/mL) g Lab File ID: 13040814

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 18 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
79-01-6	Trichloroethene	5.0	U
79-20-9	Methyl Acetate	20	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	20	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
108-88-3	Toluene	5.0	U
591-78-6	2-Hexanone (MBK)	20	U
106-93-4	1,2-Dibromoethane	5.0	U
124-48-1	Dibromochloromethane	5.0	U
637-92-3	tert-Butyl ethyl ether	10	U
994-05-8	tert-Amyl methyl ether	40	U
108-20-3	Diisopropyl ether	10	U
919-94-8	tert-Amyl ethyl ether	40	U
75-85-4	tert-Amyl alcohol	40	U
75-25-2	Bromoform	5.0	U
127-18-4	Tetrachloroethene	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
108-38-3	m&p-Xylene	10	U
100-42-5	Styrene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
95-47-6	o-Xylene	5.0	U
98-82-8	Isopropylbenzene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-04 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-002

Sample wt/vol: 6.05 (g/mL) g Lab File ID: 13040814

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 18 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	40	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
91-20-3	Naphthalene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U

SW8260B

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-03 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-003

Sample wt/vol: 6.38 (g/mL) g Lab File ID: 13040809

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 15 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
75-71-8	Dichlorodifluoromethane	4.6	U
74-87-3	Chloromethane	4.6	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.6	U
75-01-4	Vinyl Chloride	4.6	U
75-65-0	tert-Butyl Alcohol	37	U
74-83-9	Bromomethane	4.6	U
75-00-3	Chloroethane	4.6	U
67-64-1	Acetone	18	U
110-82-7	Cyclohexane	18	U
75-69-4	Trichlorofluoromethane	4.6	U
75-35-4	1,1-Dichloroethene	4.6	U
75-09-2	Methylene chloride	4.6	U
156-60-5	trans-1,2-Dichloroethene	4.6	U
1634-04-4	Methyl-t-Butyl Ether	4.6	U
75-34-3	1,1-Dichloroethane	4.6	U
78-93-3	2-Butanone (MEK)	18	U
156-59-2	cis-1,2-Dichloroethene	4.6	U
74-97-5	Bromochloromethane	4.6	U
67-66-3	Chloroform	4.6	U
71-55-6	1,1,1-Trichloroethane	4.6	U
107-06-2	1,2-Dichloroethane	4.6	U
56-23-5	Carbon tetrachloride	4.6	U
71-43-2	Benzene	4.6	U
78-87-5	1,2-Dichloropropane	4.6	U
75-15-0	Carbon Disulfide	9.2	U
108-87-2	Methylcyclohexane	18	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-03 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-003

Sample wt/vol: 6.38 (g/mL) g Lab File ID: 13040809

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 15 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
79-01-6	Trichloroethene	4.6	U
79-20-9	Methyl Acetate	18	U
75-27-4	Bromodichloromethane	4.6	U
10061-01-5	cis-1,3-Dichloropropene	4.6	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	18	U
10061-02-6	trans-1,3-Dichloropropene	4.6	U
79-00-5	1,1,2-Trichloroethane	4.6	U
108-88-3	Toluene	4.6	U
591-78-6	2-Hexanone (MBK)	18	U
106-93-4	1,2-Dibromoethane	4.6	U
124-48-1	Dibromochloromethane	4.6	U
637-92-3	tert-Butyl ethyl ether	9.2	U
994-05-8	tert-Amyl methyl ether	37	U
108-20-3	Diisopropyl ether	9.2	U
919-94-8	tert-Amyl ethyl ether	37	U
75-85-4	tert-Amyl alcohol	37	U
75-25-2	Bromoform	4.6	U
127-18-4	Tetrachloroethene	4.6	U
108-90-7	Chlorobenzene	4.6	U
100-41-4	Ethylbenzene	4.6	U
108-38-3	m&p-Xylene	9.2	U
100-42-5	Styrene	4.6	U
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U
95-47-6	o-Xylene	4.6	U
98-82-8	Isopropylbenzene	4.6	U
541-73-1	1,3-Dichlorobenzene	4.6	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-03 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-003

Sample wt/vol: 6.38 (g/mL) g Lab File ID: 13040809

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 15 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
106-46-7	1,4-Dichlorobenzene	4.6	U
95-50-1	1,2-Dichlorobenzene	4.6	U
96-12-8	1,2-Dibromo-3-chloropropane	37	U
120-82-1	1,2,4-Trichlorobenzene	4.6	U
91-20-3	Naphthalene	4.6	U
87-61-6	1,2,3-Trichlorobenzene	4.6	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-01 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004

Sample wt/vol: 5.42 (g/mL) g Lab File ID: 13040816

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
75-71-8	Dichlorodifluoromethane	5.4	U
74-87-3	Chloromethane	5.4	U
76-13-1	1,1,2-Trichlorotrifluoroethane	5.4	U
75-01-4	Vinyl Chloride	5.4	U
75-65-0	tert-Butyl Alcohol	43	U
74-83-9	Bromomethane	5.4	U
75-00-3	Chloroethane	5.4	U
67-64-1	Acetone	12	J
110-82-7	Cyclohexane	21	U
75-69-4	Trichlorofluoromethane	5.4	U
75-35-4	1,1-Dichloroethene	5.4	U
75-09-2	Methylene chloride	5.4	U
156-60-5	trans-1,2-Dichloroethene	5.4	U
1634-04-4	Methyl-t-Butyl Ether	5.4	U
75-34-3	1,1-Dichloroethane	5.4	U
78-93-3	2-Butanone (MEK)	21	U
156-59-2	cis-1,2-Dichloroethene	5.4	U
74-97-5	Bromochloromethane	5.4	U
67-66-3	Chloroform	5.4	U
71-55-6	1,1,1-Trichloroethane	5.4	U
107-06-2	1,2-Dichloroethane	5.4	U
56-23-5	Carbon tetrachloride	5.4	U
71-43-2	Benzene	5.4	U
78-87-5	1,2-Dichloropropane	5.4	U
75-15-0	Carbon Disulfide	11	U
108-87-2	Methylcyclohexane	21	U

SW8260B

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-01 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004

Sample wt/vol: 5.42 (g/mL) g Lab File ID: 13040816

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
79-01-6	Trichloroethene	5.4	U
79-20-9	Methyl Acetate	21	U
75-27-4	Bromodichloromethane	5.4	U
10061-01-5	cis-1,3-Dichloropropene	5.4	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	21	U
10061-02-6	trans-1,3-Dichloropropene	5.4	U
79-00-5	1,1,2-Trichloroethane	5.4	U
108-88-3	Toluene	5.4	U
591-78-6	2-Hexanone (MBK)	21	U
106-93-4	1,2-Dibromoethane	5.4	U
124-48-1	Dibromochloromethane	5.4	U
637-92-3	tert-Butyl ethyl ether	11	U
994-05-8	tert-Amyl methyl ether	43	U
108-20-3	Diisopropyl ether	11	U
919-94-8	tert-Amyl ethyl ether	43	U
75-85-4	tert-Amyl alcohol	43	U
75-25-2	Bromoform	5.4	U
127-18-4	Tetrachloroethene	5.4	U
108-90-7	Chlorobenzene	5.4	U
100-41-4	Ethylbenzene	5.4	U
108-38-3	m&p-Xylene	11	U
100-42-5	Styrene	5.4	U
79-34-5	1,1,2,2-Tetrachloroethane	5.4	U
95-47-6	o-Xylene	5.4	U
98-82-8	Isopropylbenzene	5.4	U
541-73-1	1,3-Dichlorobenzene	5.4	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-01 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004

Sample wt/vol: 5.42 (g/mL) g Lab File ID: 13040816

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
106-46-7	1,4-Dichlorobenzene	5.4	U
95-50-1	1,2-Dichlorobenzene	5.4	U
96-12-8	1,2-Dibromo-3-chloropropane	43	U
120-82-1	1,2,4-Trichlorobenzene	5.4	U
91-20-3	Naphthalene	5.4	U
87-61-6	1,2,3-Trichlorobenzene	5.4	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-040413 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-005

Sample wt/vol: 5.42 (g/mL) g Lab File ID: 13040815

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 12 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
75-71-8	Dichlorodifluoromethane	5.2	U
74-87-3	Chloromethane	5.2	U
76-13-1	1,1,2-Trichlorotrifluoroethane	5.2	U
75-01-4	Vinyl Chloride	5.2	U
75-65-0	tert-Butyl Alcohol	42	U
74-83-9	Bromomethane	5.2	U
75-00-3	Chloroethane	5.2	U
67-64-1	Acetone	35	
110-82-7	Cyclohexane	21	U
75-69-4	Trichlorofluoromethane	5.2	U
75-35-4	1,1-Dichloroethene	5.2	U
75-09-2	Methylene chloride	5.2	U
156-60-5	trans-1,2-Dichloroethene	5.2	U
1634-04-4	Methyl-t-Butyl Ether	5.2	U
75-34-3	1,1-Dichloroethane	5.2	U
78-93-3	2-Butanone (MEK)	21	U
156-59-2	cis-1,2-Dichloroethene	5.2	U
74-97-5	Bromochloromethane	5.2	U
67-66-3	Chloroform	5.2	U
71-55-6	1,1,1-Trichloroethane	5.2	U
107-06-2	1,2-Dichloroethane	5.2	U
56-23-5	Carbon tetrachloride	5.2	U
71-43-2	Benzene	5.2	U
78-87-5	1,2-Dichloropropane	5.2	U
75-15-0	Carbon Disulfide	10	U
108-87-2	Methylcyclohexane	21	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-040413 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-005

Sample wt/vol: 5.42 (g/mL) g Lab File ID: 13040815

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 12 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
79-01-6	Trichloroethene	5.2	U
79-20-9	Methyl Acetate	21	U
75-27-4	Bromodichloromethane	5.2	U
10061-01-5	cis-1,3-Dichloropropene	5.2	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	21	U
10061-02-6	trans-1,3-Dichloropropene	5.2	U
79-00-5	1,1,2-Trichloroethane	5.2	U
108-88-3	Toluene	5.2	U
591-78-6	2-Hexanone (MBK)	21	U
106-93-4	1,2-Dibromoethane	5.2	U
124-48-1	Dibromochloromethane	5.2	U
637-92-3	tert-Butyl ethyl ether	10	U
994-05-8	tert-Amyl methyl ether	42	U
108-20-3	Diisopropyl ether	10	U
919-94-8	tert-Amyl ethyl ether	42	U
75-85-4	tert-Amyl alcohol	42	U
75-25-2	Bromoform	5.2	U
127-18-4	Tetrachloroethene	5.2	U
108-90-7	Chlorobenzene	5.2	U
100-41-4	Ethylbenzene	5.2	U
108-38-3	m&p-Xylene	10	U
100-42-5	Styrene	5.2	U
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U
95-47-6	o-Xylene	5.2	U
98-82-8	Isopropylbenzene	5.2	U
541-73-1	1,3-Dichlorobenzene	5.2	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-040413 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-005

Sample wt/vol: 5.42 (g/mL) g Lab File ID: 13040815

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 12 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
106-46-7	1,4-Dichlorobenzene	5.2	U
95-50-1	1,2-Dichlorobenzene	5.2	U
96-12-8	1,2-Dibromo-3-chloropropane	42	U
120-82-1	1,2,4-Trichlorobenzene	5.2	U
91-20-3	Naphthalene	5.2	U
87-61-6	1,2,3-Trichlorobenzene	5.2	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
1644-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-006

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040840

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
75-65-0	tert-Butanol	20	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	10	U
110-82-7	Cyclohexane	10	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
1634-04-4	Methyl-t-Butyl Ether	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U

SW8260B

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
1644-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: 105222 Mod. Ref. No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-006

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040840

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	10	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
108-88-3	Toluene	1.0	U
591-78-6	2-Hexanone (MBK)	10	U
106-93-4	1,2-Dibromoethane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
919-94-8	tert-Amyl ethyl ether	10	U
637-92-3	tert-Butyl ethyl ether	10	U
108-20-3	Diisopropyl ether	10	U
994-05-8	tert-Amyl methyl ether	10	U
75-85-4	tert-Amyl alcohol	20	U
75-25-2	Bromoform	5.0	U
127-18-4	Tetrachloroethene	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-38-3	m&p-Xylene	2.0	U
100-42-5	Styrene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
95-47-6	o-Xylene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U

SW8260B

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1644-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-006

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040840

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-03 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040839

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
75-65-0	tert-Butanol	20	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	10	U
110-82-7	Cyclohexane	10	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
1634-04-4	Methyl-t-Butyl Ether	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-03 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040839

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	10	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
108-88-3	Toluene	1.0	U
591-78-6	2-Hexanone (MBK)	10	U
106-93-4	1,2-Dibromoethane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
919-94-8	tert-Amyl ethyl ether	10	U
637-92-3	tert-Butyl ethyl ether	10	U
108-20-3	Diisopropyl ether	10	U
994-05-8	tert-Amyl methyl ether	10	U
75-85-4	tert-Amyl alcohol	20	U
75-25-2	Bromoform	5.0	U
127-18-4	Tetrachloroethene	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-38-3	m&p-Xylene	2.0	U
100-42-5	Styrene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
95-47-6	o-Xylene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-03 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040839

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-040413 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-008

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040841

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
75-65-0	tert-Butanol	20	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	10	U
110-82-7	Cyclohexane	10	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
1634-04-4	Methyl-t-Butyl Ether	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U

SW8260B

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-040413 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-008

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040841

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	10	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
108-88-3	Toluene	1.0	U
591-78-6	2-Hexanone (MBK)	10	U
106-93-4	1,2-Dibromoethane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
919-94-8	tert-Amyl ethyl ether	10	U
637-92-3	tert-Butyl ethyl ether	10	U
108-20-3	Diisopropyl ether	10	U
994-05-8	tert-Amyl methyl ether	10	U
75-85-4	tert-Amyl alcohol	20	U
75-25-2	Bromoform	5.0	U
127-18-4	Tetrachloroethene	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-38-3	m&p-Xylene	2.0	U
100-42-5	Styrene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
95-47-6	o-Xylene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U

SW8260B

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-040413 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-008

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040841

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

SW8260B

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-04 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-009

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040842

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
75-65-0	tert-Butanol	20	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	10	U
110-82-7	Cyclohexane	10	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
1634-04-4	Methyl-t-Butyl Ether	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-04 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-009

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040842

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	10	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
108-88-3	Toluene	1.0	U
591-78-6	2-Hexanone (MBK)	10	U
106-93-4	1,2-Dibromoethane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
919-94-8	tert-Amyl ethyl ether	10	U
637-92-3	tert-Butyl ethyl ether	10	U
108-20-3	Diisopropyl ether	10	U
994-05-8	tert-Amyl methyl ether	10	U
75-85-4	tert-Amyl alcohol	20	U
75-25-2	Bromoform	5.0	U
127-18-4	Tetrachloroethene	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-38-3	m&p-Xylene	2.0	U
100-42-5	Styrene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
95-47-6	o-Xylene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-04 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-009

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040842

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
1646-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-010

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040843

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
75-65-0	tert-Butanol	20	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	10	U
110-82-7	Cyclohexane	10	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
1634-04-4	Methyl-t-Butyl Ether	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1646-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-010

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040843

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	10	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
108-88-3	Toluene	1.0	U
591-78-6	2-Hexanone (MBK)	10	U
106-93-4	1,2-Dibromoethane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
919-94-8	tert-Amyl ethyl ether	10	U
637-92-3	tert-Butyl ethyl ether	10	U
108-20-3	Diisopropyl ether	10	U
994-05-8	tert-Amyl methyl ether	10	U
75-85-4	tert-Amyl alcohol	20	U
75-25-2	Bromoform	5.0	U
127-18-4	Tetrachloroethene	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-38-3	m&p-Xylene	2.0	U
100-42-5	Styrene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
95-47-6	o-Xylene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
1646-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-010

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040843

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SURFACE WATER

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-011

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040844

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
75-65-0	tert-Butanol	20	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	10	U
110-82-7	Cyclohexane	10	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
1634-04-4	Methyl-t-Butyl Ether	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SURFACE WATER

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-011

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040844

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	10	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
108-88-3	Toluene	1.0	U
591-78-6	2-Hexanone (MBK)	10	U
106-93-4	1,2-Dibromoethane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
919-94-8	tert-Amyl ethyl ether	10	U
637-92-3	tert-Butyl ethyl ether	10	U
108-20-3	Diisopropyl ether	10	U
994-05-8	tert-Amyl methyl ether	10	U
75-85-4	tert-Amyl alcohol	20	U
75-25-2	Bromoform	5.0	U
127-18-4	Tetrachloroethene	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-38-3	m&p-Xylene	2.0	U
100-42-5	Styrene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
95-47-6	o-Xylene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SURFACE WATER

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: 105222 Mod. Ref. No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-011

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040844

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

SW8260B

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-012

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040838

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.0	U
74-87-3	Chloromethane	1.0	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1.0	U
75-01-4	Vinyl chloride	1.0	U
75-65-0	tert-Butanol	20	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	10	U
110-82-7	Cyclohexane	10	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-09-2	Methylene chloride	1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	U
1634-04-4	Methyl-t-Butyl Ether	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone (MEK)	10	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
74-97-5	Bromochloromethane	1.0	U
67-66-3	Chloroform	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
56-23-5	Carbon tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
79-20-9	Methyl Acetate	10	U
108-87-2	Methylcyclohexane	10	U

SW8260B

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
TRIP BLANK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-012

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040838

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	1.0	U
75-15-0	Carbon Disulfide	10	U
75-27-4	Bromodichloromethane	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
108-88-3	Toluene	1.0	U
591-78-6	2-Hexanone (MBK)	10	U
106-93-4	1,2-Dibromoethane	1.0	U
124-48-1	Dibromochloromethane	1.0	U
919-94-8	tert-Amyl ethyl ether	10	U
637-92-3	tert-Butyl ethyl ether	10	U
108-20-3	Diisopropyl ether	10	U
994-05-8	tert-Amyl methyl ether	10	U
75-85-4	tert-Amyl alcohol	20	U
75-25-2	Bromoform	5.0	U
127-18-4	Tetrachloroethene	1.0	U
108-90-7	Chlorobenzene	1.0	U
100-41-4	Ethylbenzene	1.0	U
108-38-3	m&p-Xylene	2.0	U
100-42-5	Styrene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
95-47-6	o-Xylene	1.0	U
98-82-8	Isopropylbenzene	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U

SW8260B

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-012

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040838

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
91-20-3	Naphthalene	1.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SB-02 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-001

Sample wt/vol: 6.22 (g/mL) g Lab File ID: 13040810

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 18 Date Analyzed: 04/08/2013

GC Column: ID: 1.0 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (µ L): Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SB-04 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE
Contract: 4184

Lab Code: PHASE
Case No. : _____
Mod. Ref No.: _____
SDG No.: 13040516

Matrix: (SOIL/SED/WATER) SOIL
Lab Sample ID: 13040516-002

Sample wt/vol: 6.05 (g/mL) g
Lab File ID: 13040814

Level: (TRACE or LOW/MED) LOW
Date Received: 04/05/2013

% Moisture: not dec. 18
Date Analyzed: 04/08/2013

GC Column:
ID: 1.0 (mm)
Dilution Factor: _____

Soil Extract Volume: _____ (µ L):
Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____
Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SB-03 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-003

Sample wt/vol: 6.38 (g/mL) g Lab File ID: 13040809

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 15 Date Analyzed: 04/08/2013

GC Column: ID: 1.0 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (μ L): Soil Aliquot Volume: 0 (μ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SB-01 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004

Sample wt/vol: 5.42 (g/mL) g Lab File ID: 13040816

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: ID: 1.0 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (µ L): Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SB-040413 (2-2.5)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-005

Sample wt/vol: 5.42 (g/mL) g Lab File ID: 13040815

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 12 Date Analyzed: 04/08/2013

GC Column: ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L): Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1	000066-25-1	Hexanal	10.12	11	J

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
1644-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-006

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040840

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (μ L): Soil Aliquot Volume: 0 (μ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SB-03 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040839

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (µ L): Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SB-040413 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-008

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040841

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (μ L): Soil Aliquot Volume: 0 (μ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SB-04 (GW)

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-009

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040842

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (µ L): Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
1646-SUMP

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-010

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040843

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (µ L): Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
SURFACE WATER

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-011

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040844

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (µ L): Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
TRIP BLANK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-012

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040838

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (μ L): Soil Aliquot Volume: 0 (μ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

Data File : P:\VOC\1\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 1:55 pm Operator: AK
Sample : 13040516-001 6.22g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:13 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.12	96	604788	50.00	ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	365914	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	165523	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.28	113	157890	54.42	ug/L	0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 108.84%			
47) Toluene d-8 SS#2	9.08	98	476526	49.88	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 99.76%			
70) 4-Bromofluorobenzene SS#3	12.23	95	207929	44.46	ug/L	0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 88.92%			
Target Compounds						Qvalue
9) Acetone	3.12	58	5069	19.90	ug/L	# 85

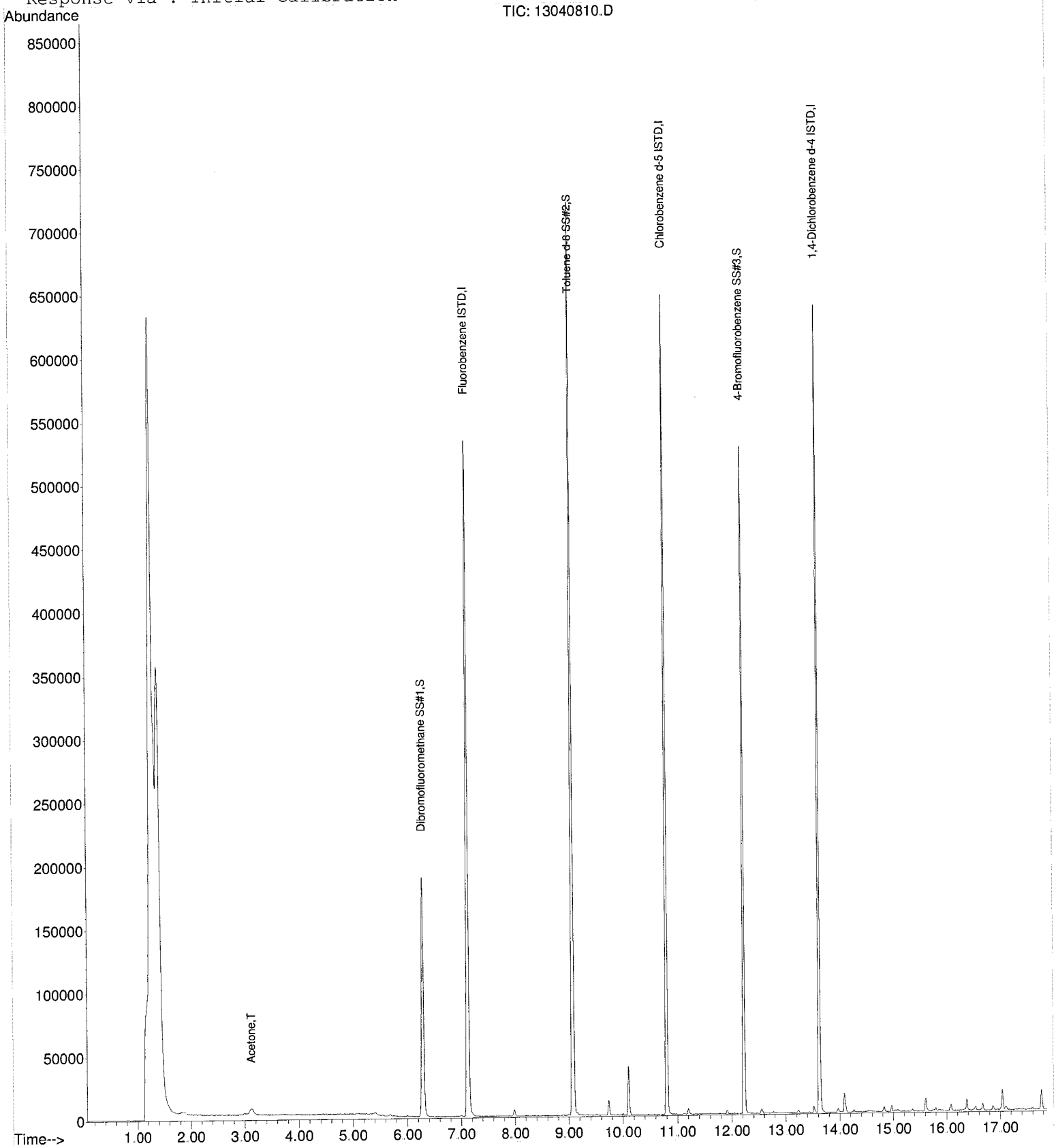
(#) = qualifier out of range (m) = manual integration
13040810.D VOC-S.M Tue Apr 09 08:18:04 2013 Page 1

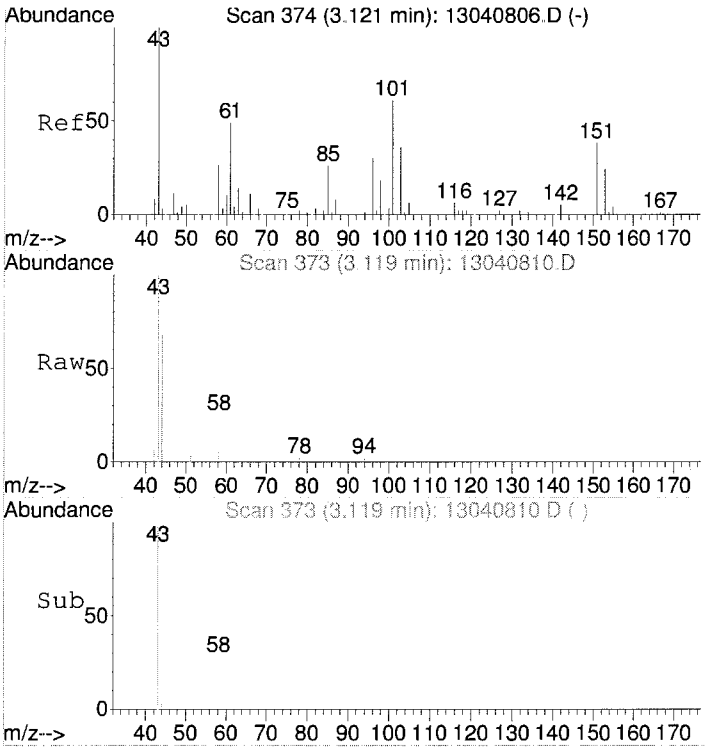
Data File : P:\VOC\1\DATA\130408\13040810.D
Acq On : 8 Apr 2013 1:55 pm
Sample : 13040516-001 6.22g t-core
Misc : soil 1uL A2338
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013

Vial: 10
Operator: AK
Inst : VOA1
Multiplr: 1.00

Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration

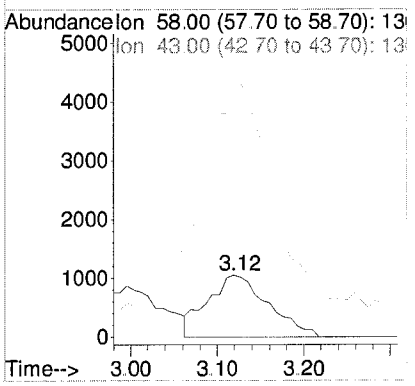




#9
Acetone
Concen: 19.90 ug/L
RT: 3.12 min Scan# 373
Delta R.T. -0.00 min
Lab File: 13040810.D
Acq: 8 Apr 2013 1:55 pm

Tgt Ion: 58 Resp: 5069

Ion	Ratio	Lower	Upper
58	100		
43	425.4	369.8	409.8#



erator ID: AK Date Acquired: 8 Apr 2013 1:55 pm
ta File: P:\VOC\1\DATA\130408\13040810.D
me: 13040516-001 6.22g t-core
sc: soil 1uL A2338
thod: P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

						--Internal Standard---			
TIC	Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\1\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 1:55 pm Operator: AK
Sample : 13040516-001 6.22g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

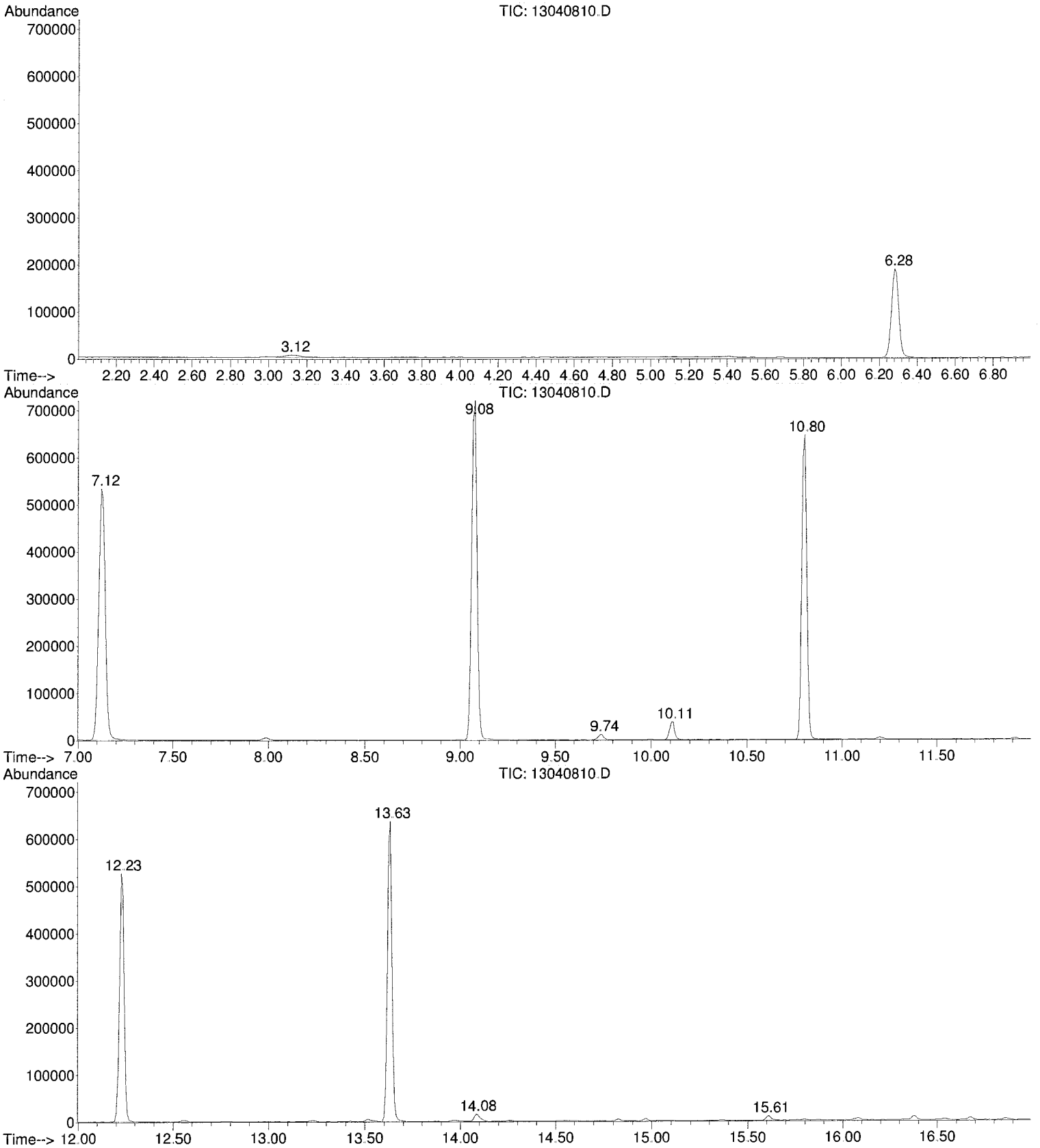
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.119	363	373	387	rVB2	5006	28205	2.05%	0.440%
2	6.283	749	758	771	rBV	188454	497015	36.09%	7.749%
3	7.122	853	860	876	rBV	533169	1250589	90.80%	19.499%
4	9.078	1091	1098	1106	rBV	719969	1377278	100.00%	21.475%
5	9.735	1173	1178	1186	rVB2	11430	23747	1.72%	0.370%
6	10.113	1218	1224	1229	rBV	37935	68251	4.96%	1.064%
7	10.804	1302	1308	1321	rBV	647023	1145757	83.19%	17.865%
8	12.226	1476	1481	1490	rBV	526242	892072	64.77%	13.909%
9	13.631	1646	1652	1663	rVV	637091	1079253	78.36%	16.828%
0	14.083	1701	1707	1714	rVB2	15009	32013	2.32%	0.499%
1	15.612	1887	1893	1900	rBV2	10194	19332	1.40%	0.301%

Sum of corrected areas: 6413512

File : P:\VOC\1\DATA\130408\13040810.D
Operator : AK
Acquired : 8 Apr 2013 1:55 pm using AcqMethod VOC1
Instrument : VOA1
Sample Name: 13040516-001 6.22g t-core
Misc Info : soil 1uL A2338
Vial Number: 10
Quant File :VOC-S.RES (RTE Integrator)



Data File : P:\VOC\1\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 3:54 pm Operator: AK
Sample : 13040516-002 6.05g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:16 2013 Quant Results File: VOC-S.RES

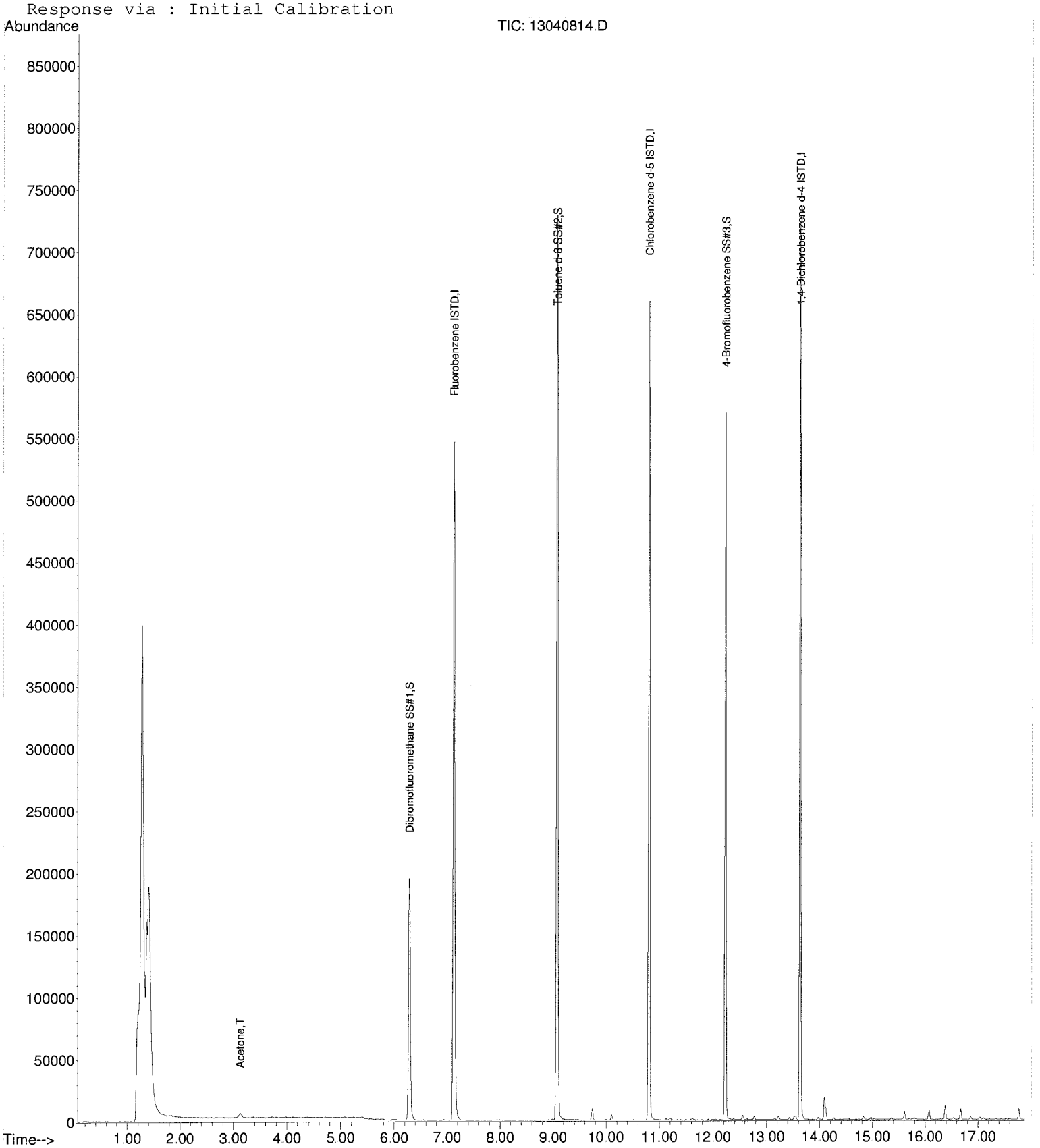
Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

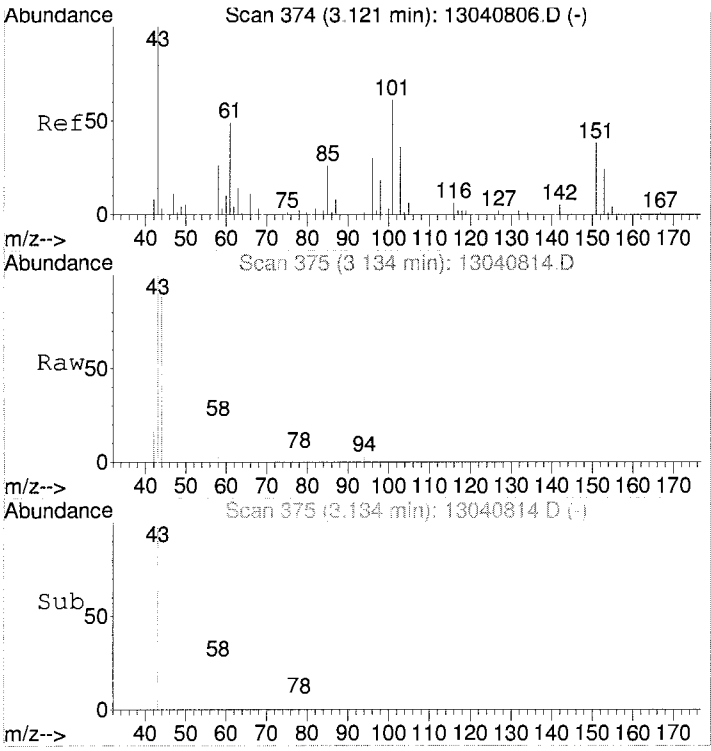
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	568710	50.00	ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	366347	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	179980	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.29	113	147545	54.08	ug/L	0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 108.16%			
47) Toluene d-8 SS#2	9.08	98	460106	51.21	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 102.42%			
70) 4-Bromofluorobenzene SS#3	12.23	95	214515	42.18	ug/L	0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 84.36%			
Target Compounds						Qvalue
9) Acetone	3.13	58	2611	10.90	ug/L	# 90

(#) = qualifier out of range (m) = manual integration
13040814.D VOC-S.M Tue Apr 09 08:25:56 2013 Page 1

Data File : P:\VOC\1\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 3:54 pm Operator: AK
Sample : 13040516-002 6.05g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration

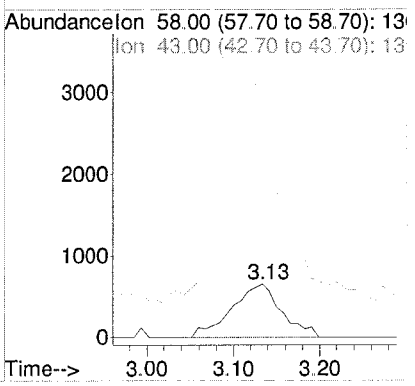




#9
Acetone
Concen: 10.90 ug/L
RT: 3.13 min Scan# 375
Delta R.T. 0.01 min
Lab File: 13040814.D
Acq: 8 Apr 2013 3:54 pm

Tgt Ion: 58 Resp: 2611

Ion	Ratio	Lower	Upper
58	100		
43	413.0	369.8	409.8#



erator ID: AK Date Acquired: 8 Apr 2013 3:54 pm
ta File: P:\VOC\1\DATA\130408\13040814.D
me: 13040516-002 6.05g t-core
sc: soil 1uL A2338
thod: P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\1\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 3:54 pm Operator: AK
Sample : 13040516-002 6.05g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

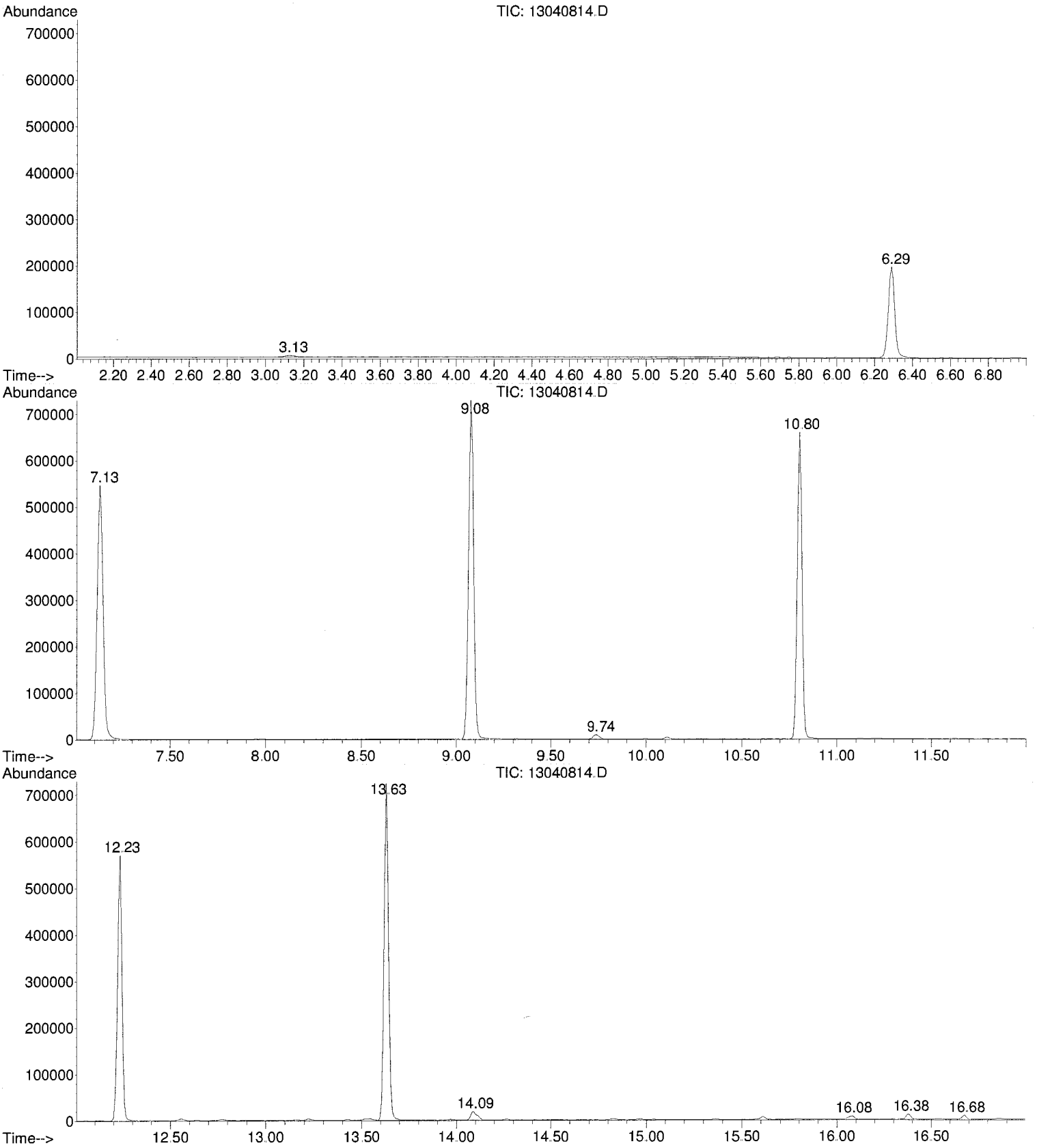
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.126	364	374	380	rBV2	3559	14111	1.05%	0.222%
2	6.290	751	759	774	rBV	194581	461749	34.46%	7.272%
3	7.128	854	861	876	rBV	546121	1172998	87.53%	18.473%
4	9.076	1092	1098	1111	rBV	728802	1340123	100.00%	21.105%
5	9.742	1174	1179	1185	rVB2	9062	19482	1.45%	0.307%
6	10.802	1302	1308	1320	rBV	660009	1145093	85.45%	18.033%
7	12.232	1477	1482	1493	rBV	569727	926757	69.15%	14.595%
8	13.629	1647	1652	1667	rBV	723658	1177515	87.87%	18.544%
9	14.090	1701	1708	1714	rBV3	18346	43103	3.22%	0.679%
0	16.079	1945	1950	1954	rBV5	7180	14854	1.11%	0.234%
1	16.383	1978	1987	1990	rBV	10905	19880	1.48%	0.313%
2	16.679	2019	2023	2027	rVB	8725	14208	1.06%	0.224%

Sum of corrected areas: 6349873

File : P:\VOC\1\DATA\130408\13040814.D
Operator : AK
Acquired : 8 Apr 2013 3:54 pm using AcqMethod VOC1
Instrument : VOA1
Sample Name: 13040516-002 6.05g t-core
Misc Info : soil 1uL A2338
Vial Number: 14
Quant File :VOC-S.RES (RTE Integrator)



Data File : P:\VOC\1\DATA\130408\13040809.D Vial: 9
Acq On : 8 Apr 2013 1:27 pm Operator: AK
Sample : 13040516-003 6.38g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:12 2013 Quant Results File: VOC-S.RES

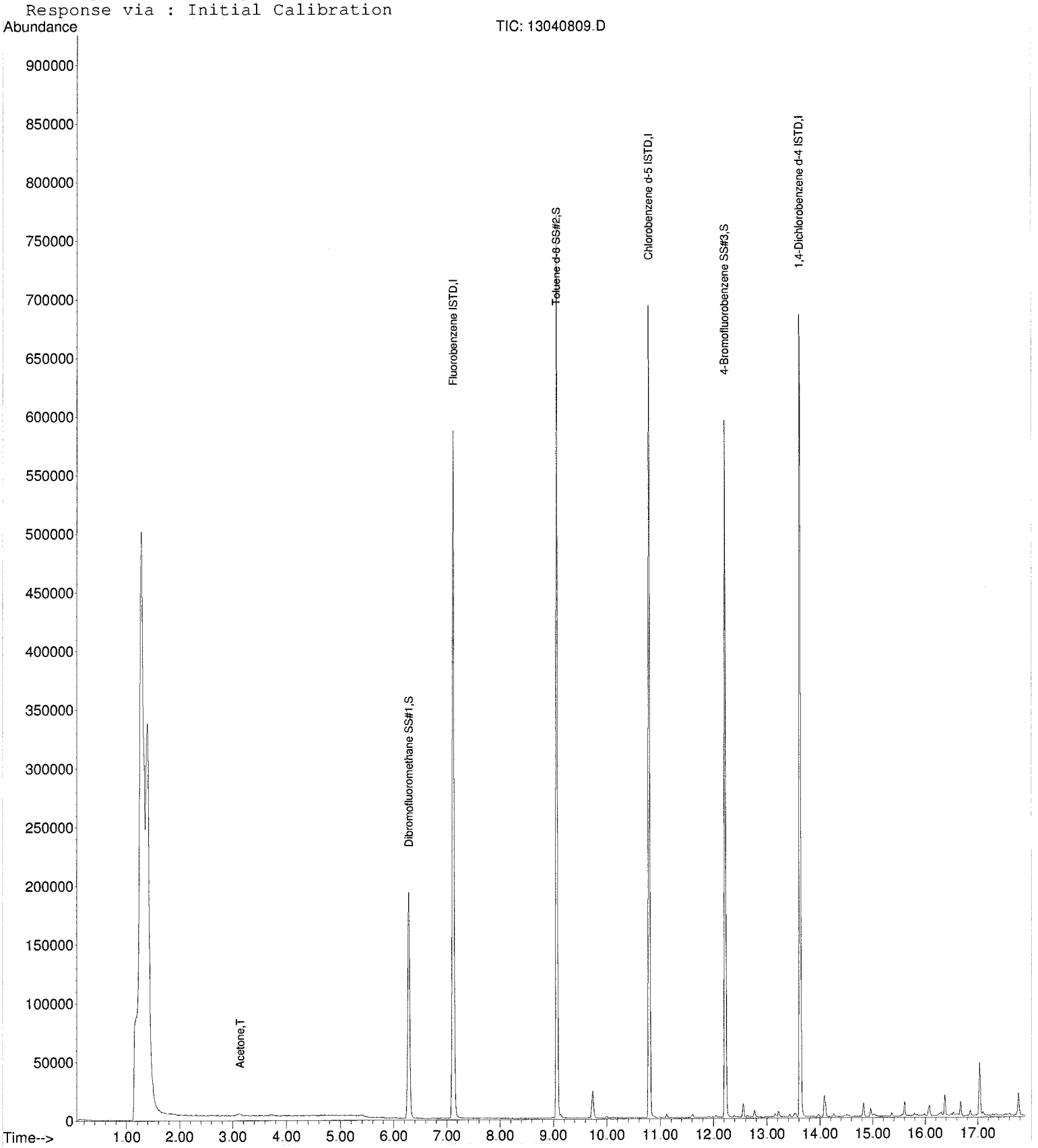
Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

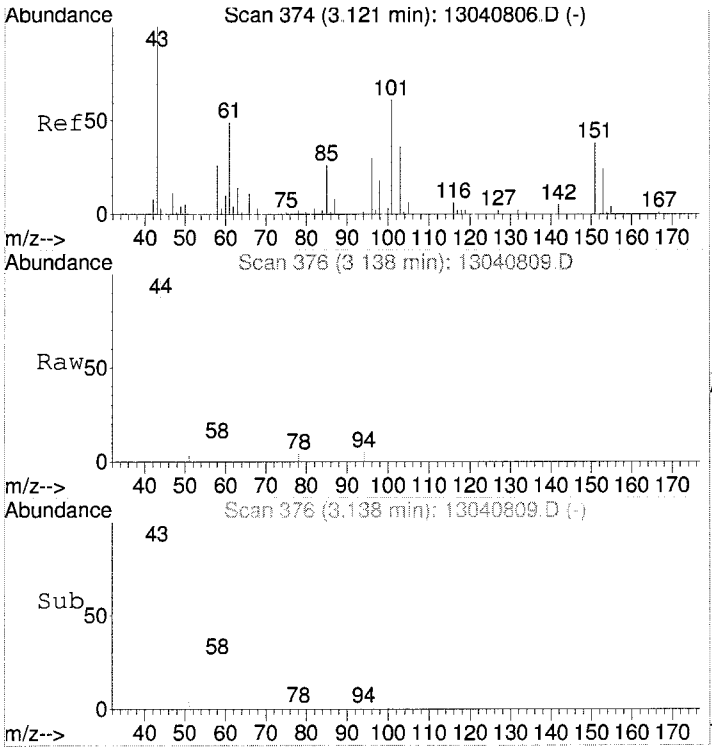
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.12	96	632647	50.00	ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	383386	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	184034	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.29	113	159413	52.52	ug/L	0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 105.04%			
47) Toluene d-8 SS#2	9.07	98	494252	49.45	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 98.90%			
70) 4-Bromofluorobenzene SS#3	12.23	95	221279	42.55	ug/L	0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 85.10%			
Target Compounds						Qvalue
9) Acetone	3.14	58	1365	5.12	ug/L	# 46

(#) = qualifier out of range (m) = manual integration
13040809.D VOC-S.M Tue Apr 09 08:17:46 2013 Page 1

Data File : P:\VOC\1\DATA\130408\13040809.D Vial: 9
Acq On : 8 Apr 2013 1:27 pm Operator: AK
Sample : 13040516-003 6.38g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration

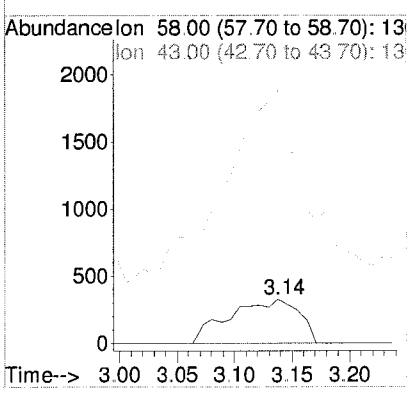




#9
Acetone
Concen: 5.12 ug/L
RT: 3.14 min Scan# 376
Delta R.T. 0.02 min
Lab File: 13040809.D
Acq: 8 Apr 2013 1:27 pm

Tgt Ion: 58 Resp: 1365

Ion	Ratio	Lower	Upper
58	100		
43	514.7	369.8	409.8#



erator ID: AK Date Acquired: 8 Apr 2013 1:27 pm
ta File: P:\VOC\1\DATA\130408\13040809.D
me: 13040516-003 6.38g t-core
sc: soil 1uL A2338
thod: P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

						--Internal Standard---			
TIC	Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\1\DATA\130408\13040809.D Vial: 9
Acq On : 8 Apr 2013 1:27 pm Operator: AK
Sample : 13040516-003 6.38g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

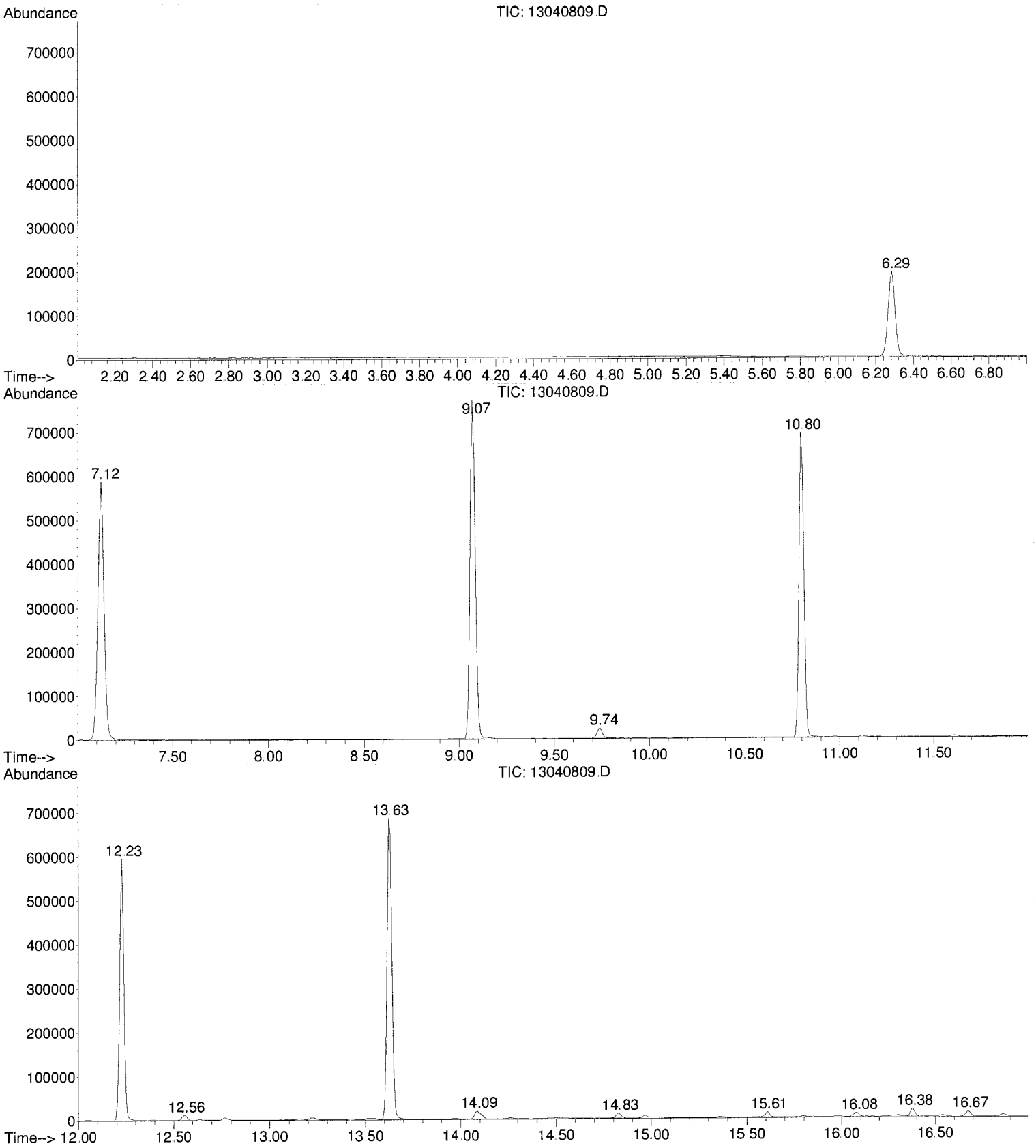
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.286	750	759	772	rBV	192929	500571	34.71%	7.303%
2	7.124	853	861	876	rBV	586520	1310039	90.83%	19.113%
3	9.072	1092	1098	1105	rBV	770666	1442304	100.00%	21.042%
4	9.738	1173	1179	1186	rBV	23088	47612	3.30%	0.695%
5	10.798	1303	1308	1323	rVB	693332	1197850	83.05%	17.476%
6	12.228	1477	1482	1493	rBV	595402	963830	66.83%	14.062%
7	12.557	1517	1522	1527	rVB3	11585	22031	1.53%	0.321%
8	13.625	1647	1652	1665	rBV	685662	1218838	84.51%	17.782%
9	14.086	1704	1708	1717	rVB2	18156	42890	2.97%	0.626%
0	14.825	1792	1798	1804	rVB	11318	21660	1.50%	0.316%
1	15.606	1890	1893	1899	rVB	12219	18861	1.31%	0.275%
2	16.083	1946	1951	1956	rBV4	8772	18424	1.28%	0.269%
3	16.379	1983	1987	1992	rVB2	17450	28671	1.99%	0.418%
4	16.675	2019	2023	2028	rVB2	12220	20696	1.43%	0.302%

Sum of corrected areas: 6854277

File : P:\VOC\1\DATA\130408\13040809.D
Operator : AK
Acquired : 8 Apr 2013 1:27 pm using AcqMethod VOC1
Instrument : VOA1
Sample Name: 13040516-003 6.38g t-core
Misc Info : soil 1uL A2338
Vial Number: 9
Quant File :VOC-S.RES (RTE Integrator)



Data File : P:\VOC\1\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 4:49 pm Operator: AK
Sample : 13040516-004 5.42g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:17 2013 Quant Results File: VOC-S.RES

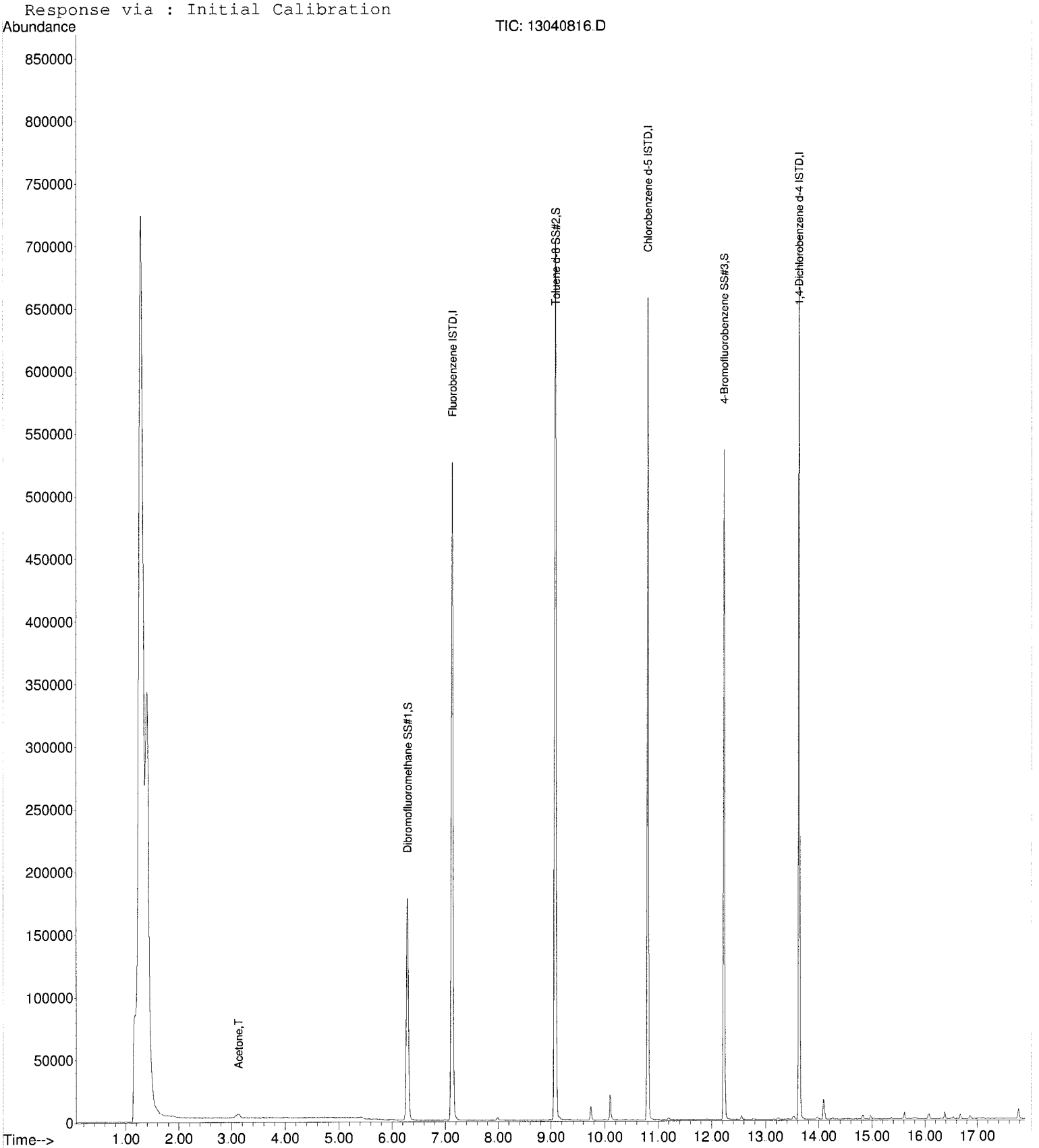
Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

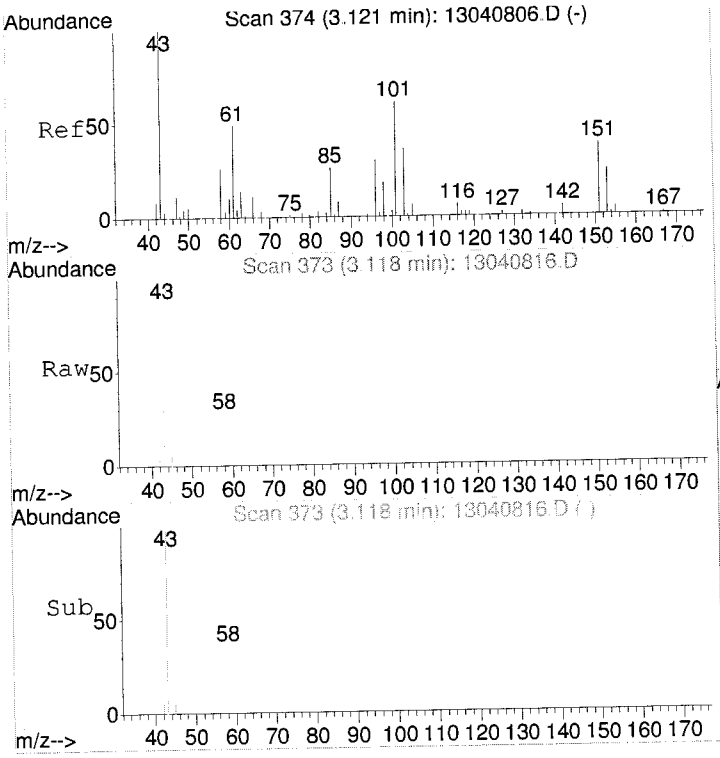
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	573470	50.00	ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	358605	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	176698	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.29	113	150332	54.64	ug/L	0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 109.28%			
47) Toluene d-8 SS#2	9.08	98	455225	50.25	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 100.50%			
70) 4-Bromofluorobenzene SS#3	12.23	95	207208	41.50	ug/L	0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 83.00%			
Target Compounds						Qvalue
9) Acetone	3.12	58	2713	11.24	ug/L	# 82

(#) = qualifier out of range (m) = manual integration
13040816.D VOC-S.M Tue Apr 09 08:31:53 2013

Data File : P:\VOC\1\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 4:49 pm Operator: AK
Sample : 13040516-004 5.42g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration

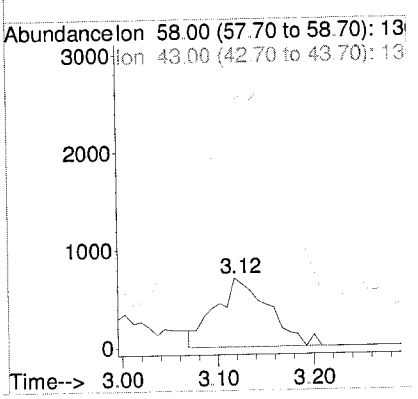




#9
Acetone
Concen: 11.24 ug/L
RT: 3.12 min Scan# 373
Delta R.T. -0.00 min
Lab File: 13040816.D
Acq: 8 Apr 2013 4:49 pm

Tgt Ion: 58 Resp: 2713

Ion	Ratio	Lower	Upper
58	100		
43	431.8	369.8	409.8#



erator ID: AK Date Acquired: 8 Apr 2013 4:49 pm
ta File: P:\VOC\1\DATA\130408\13040816.D
me: 13040516-004 5.42g t-core
sc: soil 1uL A2338
thod: P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

						Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\1\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 4:49 pm Operator: AK
Sample : 13040516-004 5.42g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

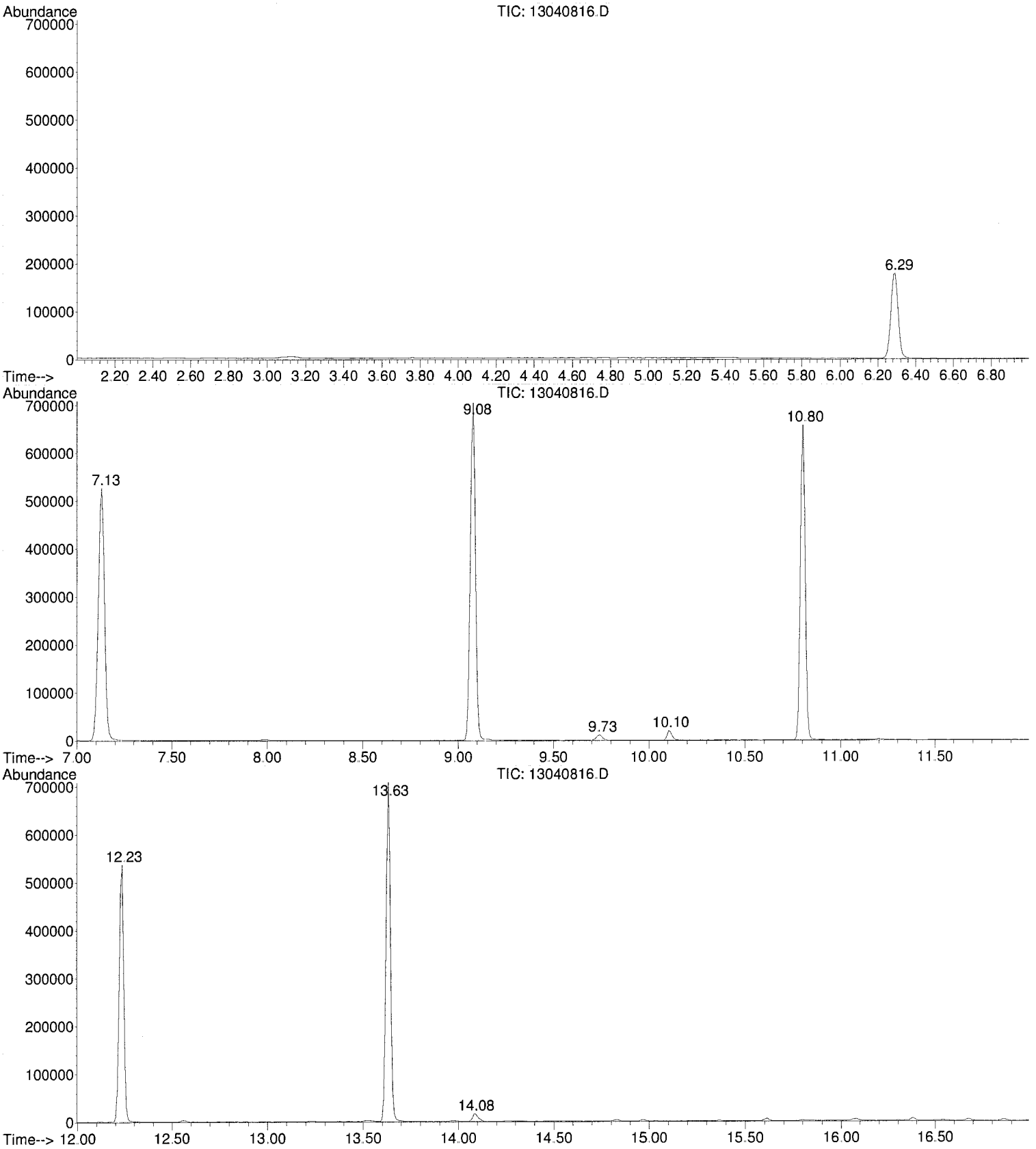
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.291	750	759	770	rBV	177259	471633	35.80%	7.559%
2	7.129	853	861	874	rBV	526043	1185380	89.98%	18.997%
3	9.077	1092	1098	1106	rBV	703614	1317362	100.00%	21.113%
4	9.735	1173	1178	1186	rVB	10907	22865	1.74%	0.366%
5	10.104	1219	1223	1234	rVB	19738	33200	2.52%	0.532%
6	10.803	1302	1308	1325	rBV	657692	1118968	84.94%	17.933%
7	12.233	1476	1482	1492	rBV	536090	904468	68.66%	14.495%
8	13.630	1647	1652	1664	rBV	708175	1153210	87.54%	18.482%
9	14.082	1704	1707	1717	rVB2	15849	32627	2.48%	0.523%

Sum of corrected areas: 6239713

File : P:\VOC\1\DATA\130408\13040816.D
Operator : AK
Acquired : 8 Apr 2013 4:49 pm using AcqMethod VOC1
Instrument : VOA1
Sample Name: 13040516-004 5.42g t-core
Misc Info : soil 1uL A2338
Vial Number: 16
Quant File :VOC-S.RES (RTE Integrator)



Data File : P:\VOC\1\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 4:21 pm Operator: AK
Sample : 13040516-005 5.97g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:16 2013 Quant Results File: VOC-S.RES

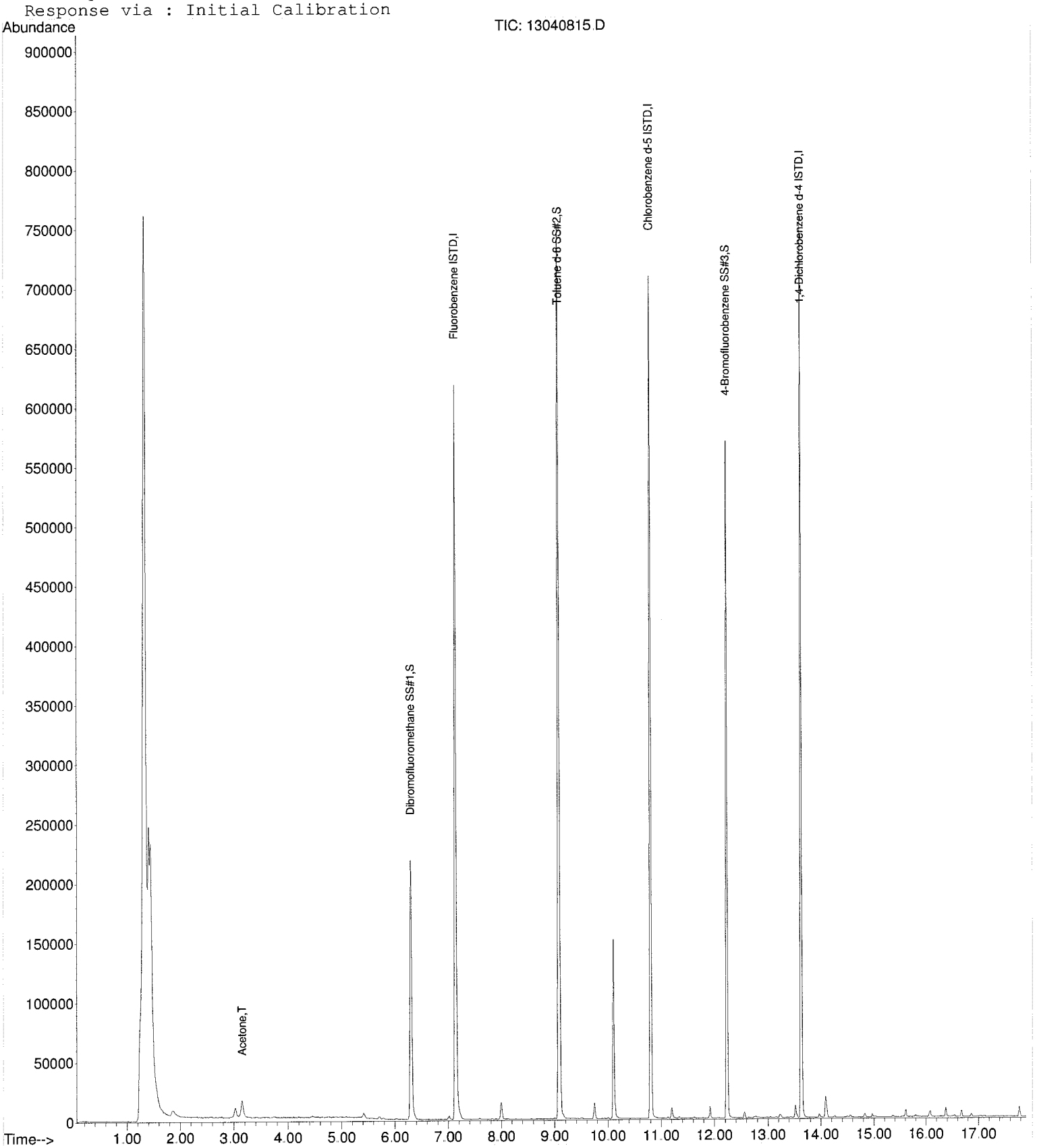
Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

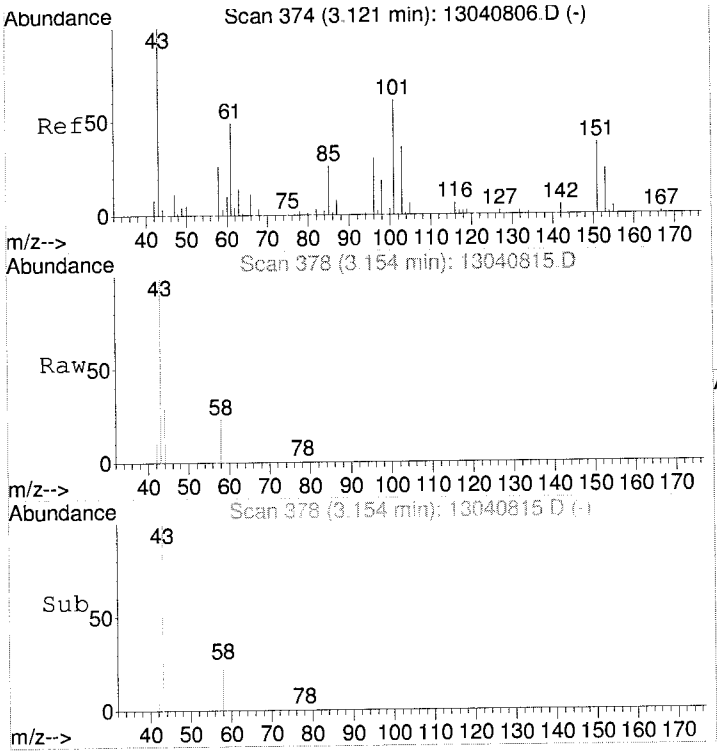
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.14	96	629160	50.00	ug/L	0.02
53) Chlorobenzene d-5 ISTD	10.81	117	395260	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	188860	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.30	113	161206	53.41	ug/L	0.02
Spiked Amount 50.000	Range 75 - 128		Recovery = 106.82%			
47) Toluene d-8 SS#2	9.09	98	501098	50.42	ug/L	0.02
Spiked Amount 50.000	Range 77 - 120		Recovery = 100.84%			
70) 4-Bromofluorobenzene SS#3	12.23	95	230817	43.25	ug/L	0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 86.50%			
Target Compounds						Qvalue
9) Acetone	3.15	58	8741	32.99	ug/L	95

(#) = qualifier out of range (m) = manual integration
13040815.D VOC-S.M Tue Apr 09 08:30:51 2013 Page 1

Data File : P:\VOC\1\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 4:21 pm Operator: AK
Sample : 13040516-005 5.97g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration

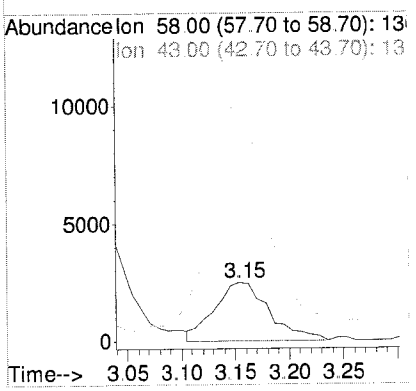




#9
Acetone
Concen: 32.99 ug/L
RT: 3.15 min Scan# 378
Delta R.T. 0.03 min
Lab File: 13040815.D
Acq: 8 Apr 2013 4:21 pm

Tgt Ion: 58 Resp: 8741

Ion	Ratio	Lower	Upper
58	100		
43	402.0	369.8	409.8



erator ID: AK Date Acquired: 8 Apr 2013 4:21 pm
ta File: P:\VOC\1\DATA\130408\13040815.D
me: 13040516-005 5.97g t-core
sc: soil 1uL A2338
thod: P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

						Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
xanal	10.12	10.1	ug/L	250863	2	10.81	1237150	50.0

Data File : P:\VOC\1\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 4:21 pm Operator: AK
Sample : 13040516-005 5.97g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

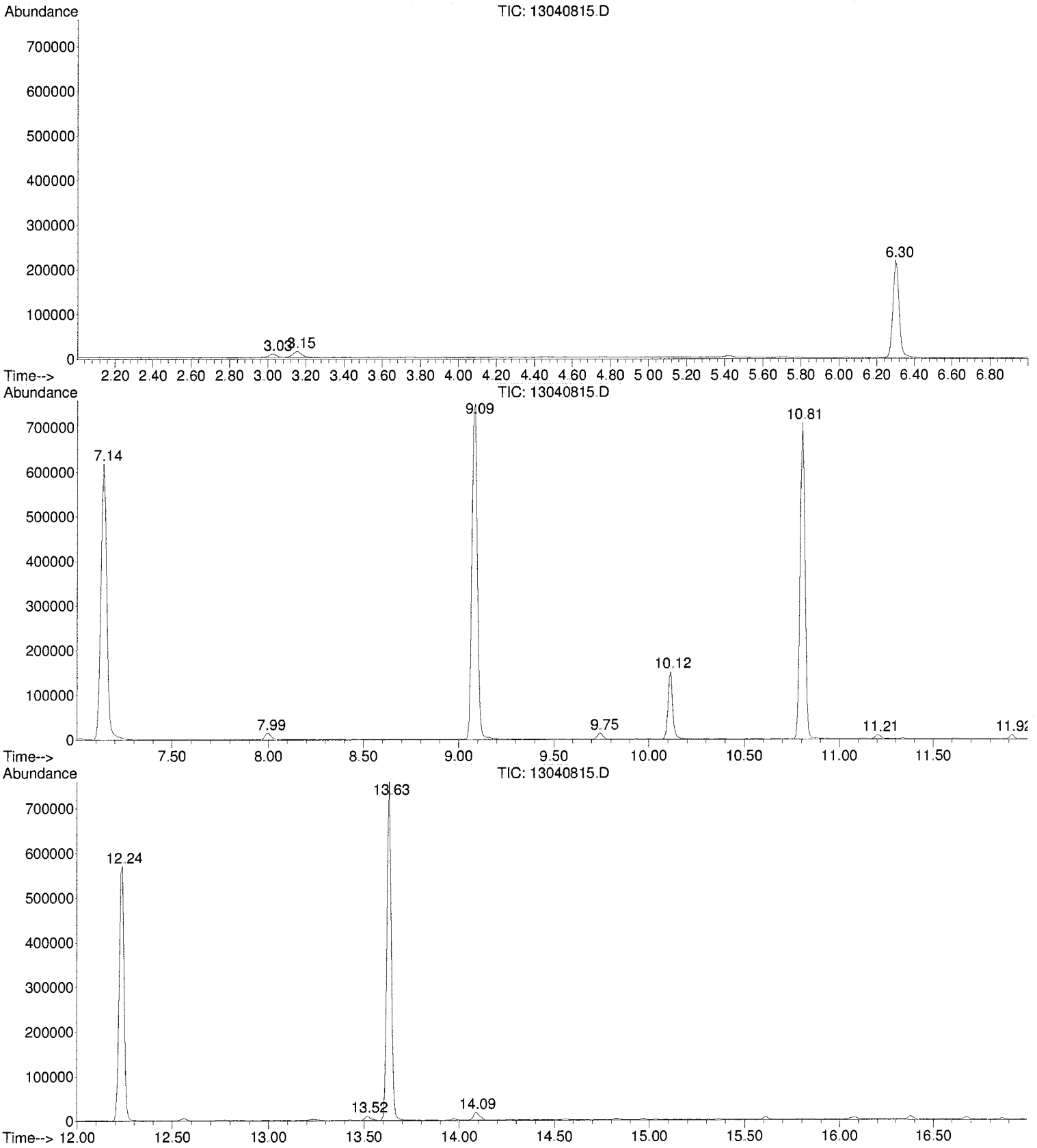
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.031	355	363	368	rBV	7565	22098	1.53%	0.307%
2	3.154	370	378	389	rVB	14066	45709	3.16%	0.635%
3	6.302	754	761	775	rBV	217816	507602	35.04%	7.056%
4	7.140	856	863	884	rBV	617619	1302339	89.90%	18.103%
5	7.995	963	967	973	rVB	13660	28665	1.98%	0.398%
6	9.088	1094	1100	1117	rVB	750879	1448673	100.00%	20.137%
7	9.745	1175	1180	1185	rBV	13397	27291	1.88%	0.379%
8	10.115	1219	1225	1235	rBV	151026	250863	17.32%	3.487%
9	10.806	1303	1309	1324	rBV	708809	1237146	85.40%	17.197%
0	11.208	1351	1358	1367	rBV	9021	19676	1.36%	0.274%
1	11.915	1437	1444	1451	rVB	9580	15465	1.07%	0.215%
2	12.236	1477	1483	1495	rBV	569658	993727	68.60%	13.813%
3	13.518	1634	1639	1646	rBV3	10381	19602	1.35%	0.272%
4	13.633	1647	1653	1668	rVV	759492	1236359	85.34%	17.186%
5	14.085	1703	1708	1715	rBV2	17568	38886	2.68%	0.541%

Sum of corrected areas: 7194101

File : P:\VOC\1\DATA\130408\13040815.D
Operator : AK
Acquired : 8 Apr 2013 4:21 pm using AcqMethod VOC1
Instrument : VOA1
Sample Name: 13040516-005 5.97g t-core
Misc Info : soil 1uL A2338
Vial Number: 15
Quant File :VOC-S.RES (RTE Integrator)



Data File : P:\VOC\1\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 4:21 pm Operator: AK
Sample : 13040516-005 5.97g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Library : C:\DATABASE\NIST98.L

****

Peak Number 1 Hexanal Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.12	10.14 ug/L	250863	Chlorobenzene d-5 ISTD	10.81

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hexanal	100	C6H12O	000066-25-1	90
2	Hexanal	100	C6H12O	000066-25-1	83
3	Hexanal	100	C6H12O	000066-25-1	83
4	Hexanal	100	C6H12O	000066-25-1	78
5	Cyclobutanol, 2-ethyl-	100	C6H12O	035301-43-0	64

Data File : P:\VOC\2\DATA\130408\13040840.D Vial: 40
Acq On : 9 Apr 2013 5:33 am Operator: AK
Sample : 13040516-006 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:55 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

PMS 4/9/13

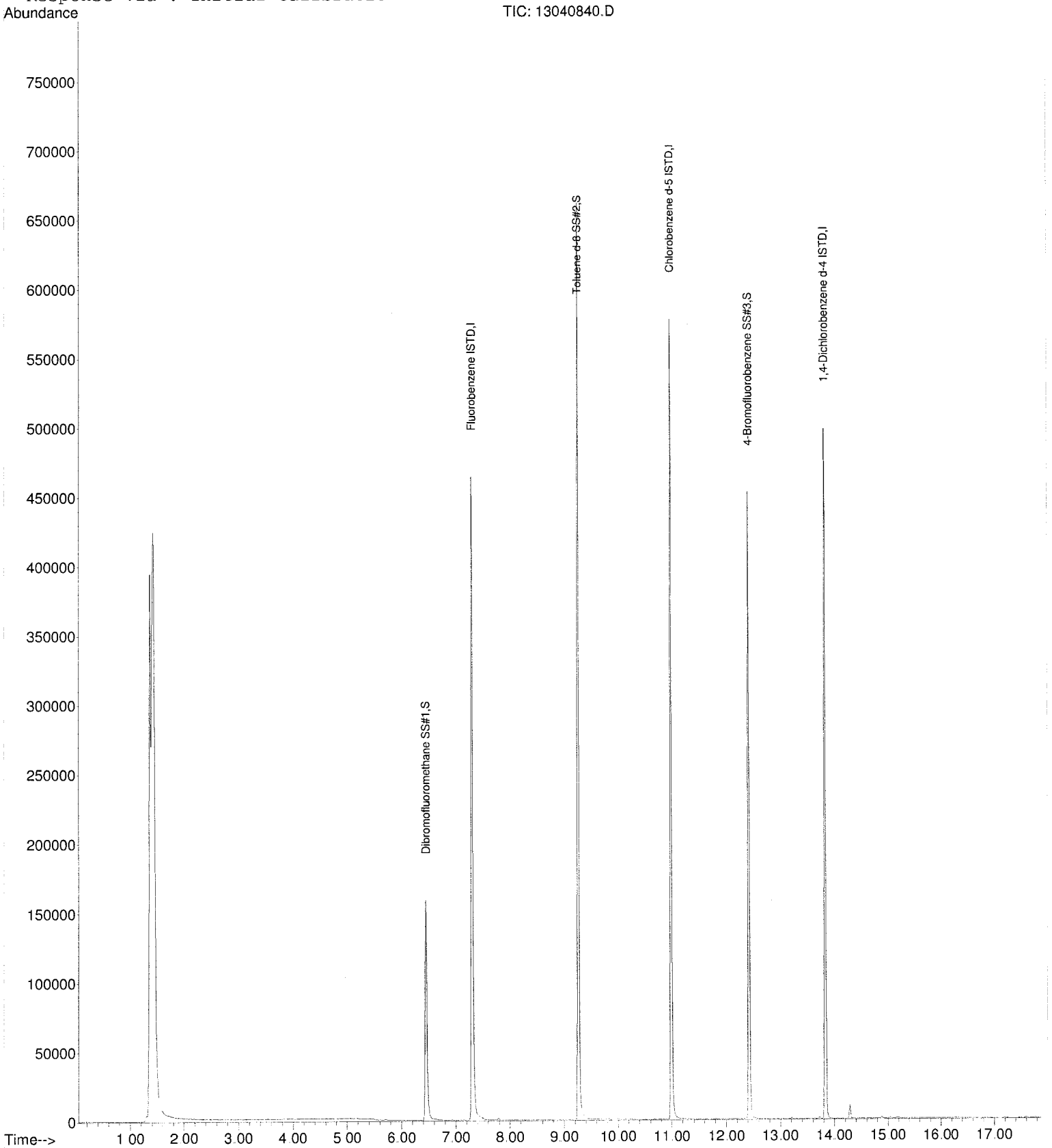
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	547423	50.00	ug/L	0.00
54) Chlorobenzene d-5 ISTD	10.99	117	371181	50.00	ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	143270	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	121088	48.84	ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 97.68%			
48) Toluene d-8 SS#2	9.27	98	472874	49.26	ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 98.52%			
71) 4-Bromofluorobenzene SS#3	12.42	95	175496	49.77	ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 99.54%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
13040840.D VOC-W.M Tue Apr 09 12:03:31 2013

Data File : P:\VOC\2\DATA\130408\13040840.D Vial: 40
Acq On : 9 Apr 2013 5:33 am Operator: AK
Sample : 13040516-006 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:56 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



erator ID: AK Date Acquired: 9 Apr 2013 5:33 am
ta File: P:\VOC\2\DATA\130408\13040840.D
me: 13040516-006 5mL
sc: water 1uL A2338
thod: P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\2\DATA\130408\13040840.D Vial: 40
Acq On : 9 Apr 2013 5:33 am Operator: AK
Sample : 13040516-006 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

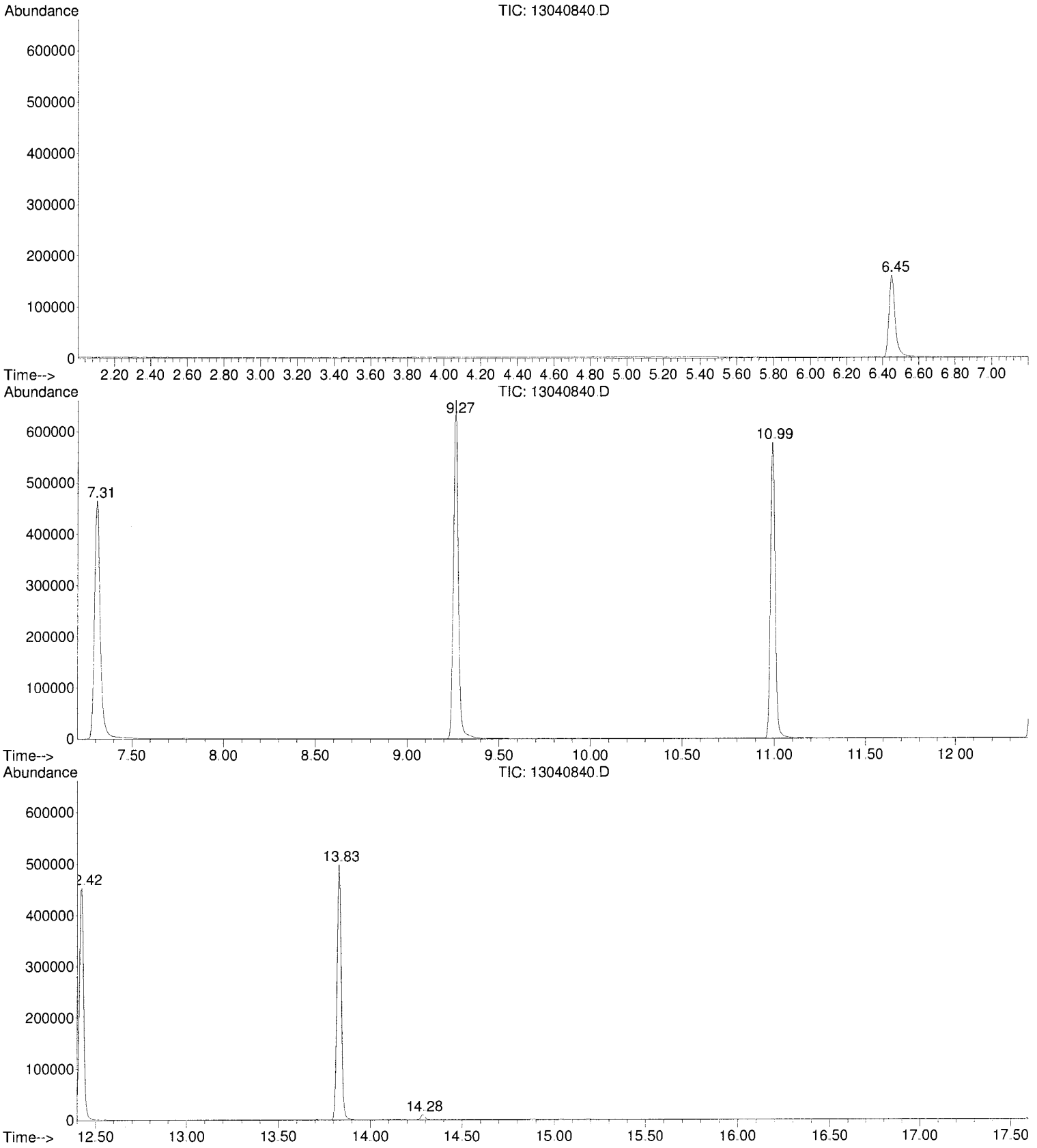
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.451	1261	1272	1293	rBV	158874	369775	30.22%	7.150%
2	7.307	1428	1442	1471	rBV	464417	1014361	82.90%	19.615%
3	9.266	1820	1831	1862	rBV	661588	1223534	100.00%	23.659%
4	10.994	2165	2174	2195	rBV	577651	990020	80.91%	19.144%
5	12.425	2449	2458	2479	rBV	452632	746324	61.00%	14.432%
6	13.830	2728	2737	2753	rBV	498101	811163	66.30%	15.685%
7	14.284	2821	2827	2835	rVB2	10029	16286	1.33%	0.315%

Sum of corrected areas: 5171463

File : P:\VOC\2\DATA\130408\13040840.D
Operator : AK
Acquired : 9 Apr 2013 5:33 am using AcqMethod VOC2
Instrument : VOA2
Sample Name: 13040516-006 5mL
Misc Info : water 1uL A2338
Vial Number: 40
Quant File :VOC-W.RES (RTE Integrator)



Data File : P:\VOC\2\DATA\130408\13040839.D Vial: 39
Acq On : 9 Apr 2013 5:04 am Operator: AK
Sample : 13040516-007 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:54 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

PHS AK 4/9/13

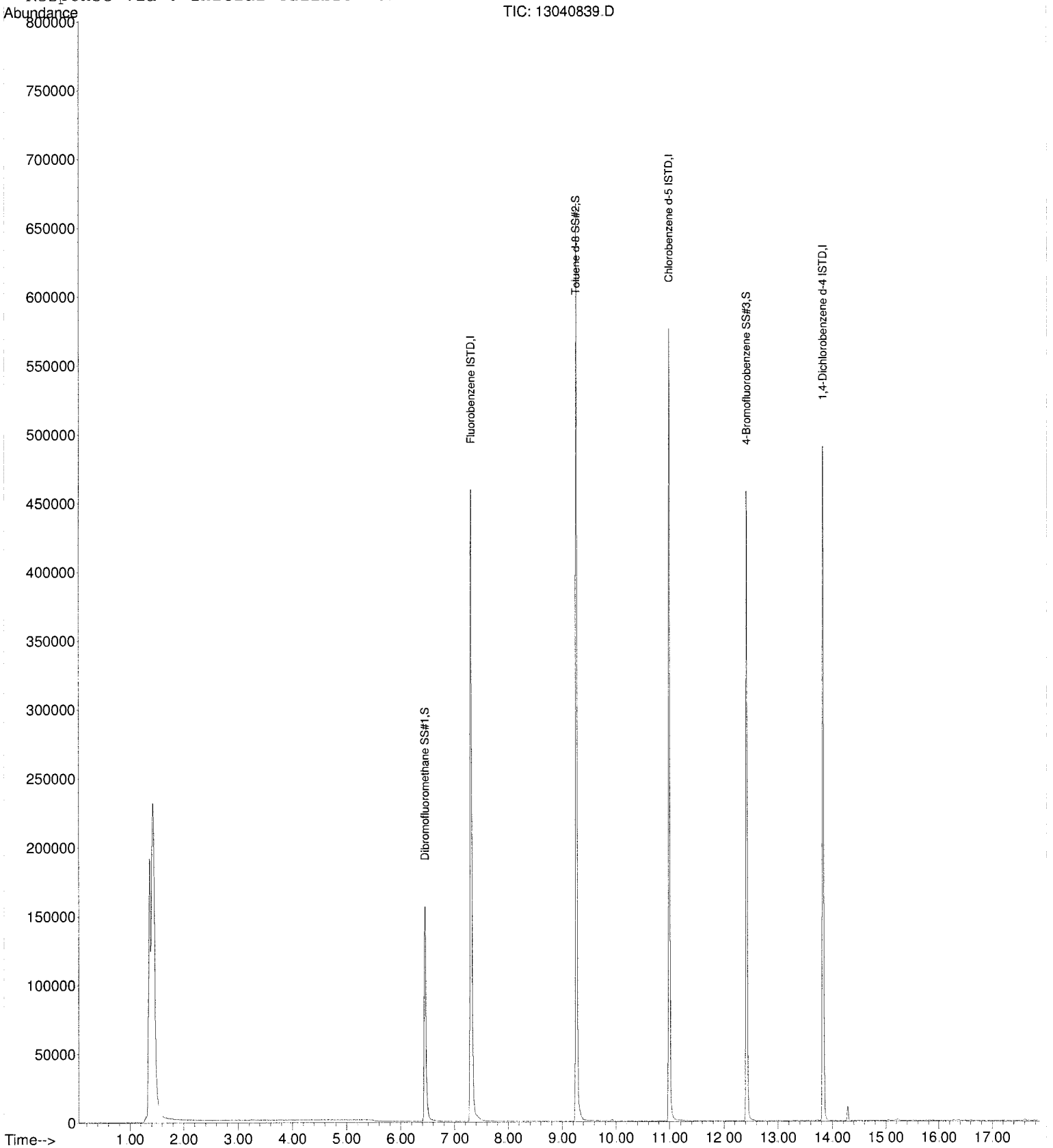
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	555500	50.00	ug/L	0.00
54) Chlorobenzene d-5 ISTD	11.00	117	378199	50.00	ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	141444	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	123008	48.90	ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 97.80%			
48) Toluene d-8 SS#2	9.26	98	474587	48.72	ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 97.44%			
71) 4-Bromofluorobenzene SS#3	12.42	95	177330	50.94	ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 101.88%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
13040839.D VOC-W.M Tue Apr 09 12:02:59 2013 Page 1

Data File : P:\VOC\2\DATA\130408\13040839.D Vial: 39
Acq On : 9 Apr 2013 5:04 am Operator: AK
Sample : 13040516-007 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:02 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



erator ID: AK Date Acquired: 9 Apr 2013 5:04 am
ta File: P:\VOC\2\DATA\130408\13040839.D
me: 13040516-007 5mL
sc: water 1uL A2338
thod: P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\2\DATA\130408\13040839.D Vial: 39
Acq On : 9 Apr 2013 5:04 am Operator: AK
Sample : 13040516-007 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

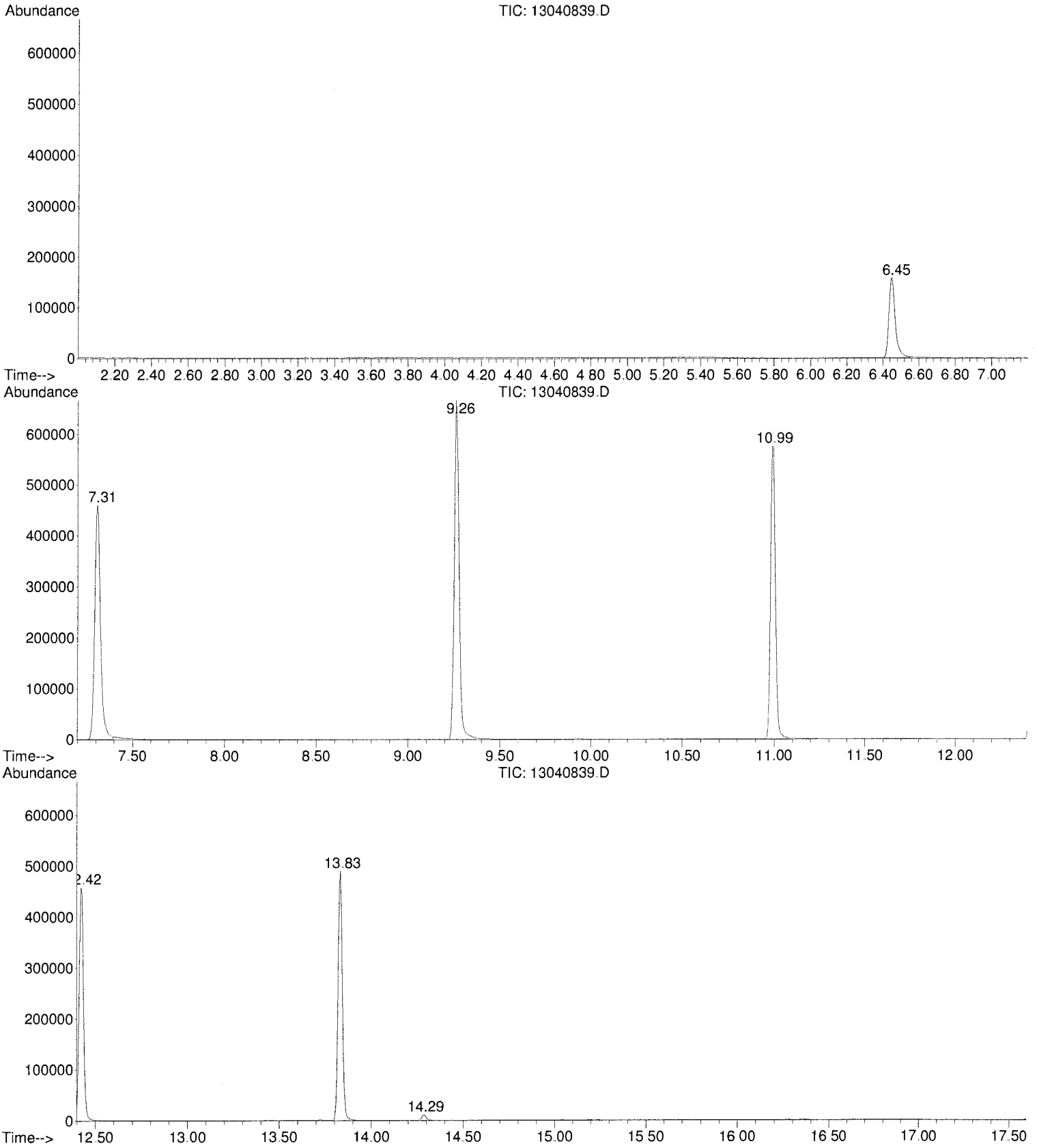
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.453	1262	1272	1292	rBV	156215	374916	30.53%	7.215%
2	7.309	1430	1442	1459	rBV	458947	1018456	82.93%	19.599%
3	9.264	1821	1830	1853	rBV	666824	1228116	100.00%	23.634%
4	10.992	2164	2173	2193	rBV	575536	1006773	81.98%	19.374%
5	12.422	2449	2457	2473	rBV	457659	751107	61.16%	14.454%
6	13.832	2729	2737	2756	rBV	490018	799823	65.13%	15.392%
7	14.286	2820	2827	2837	rBV2	10595	17242	1.40%	0.332%

Sum of corrected areas: 5196433

File : P:\VOC\2\DATA\130408\13040839.D
Operator : AK
Acquired : 9 Apr 2013 5:04 am using AcqMethod VOC2
Instrument : VOA2
Sample Name: 13040516-007 5mL
Misc Info : water 1uL A2338
Vial Number: 39
Quant File :VOC-W.RES (RTE Integrator)



Data File : P:\VOC\2\DATA\130408\13040841.D Vial: 41
Acq On : 9 Apr 2013 6:01 am Operator: AK
Sample : 13040516-008 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:56 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

PHS AK 4/9/13

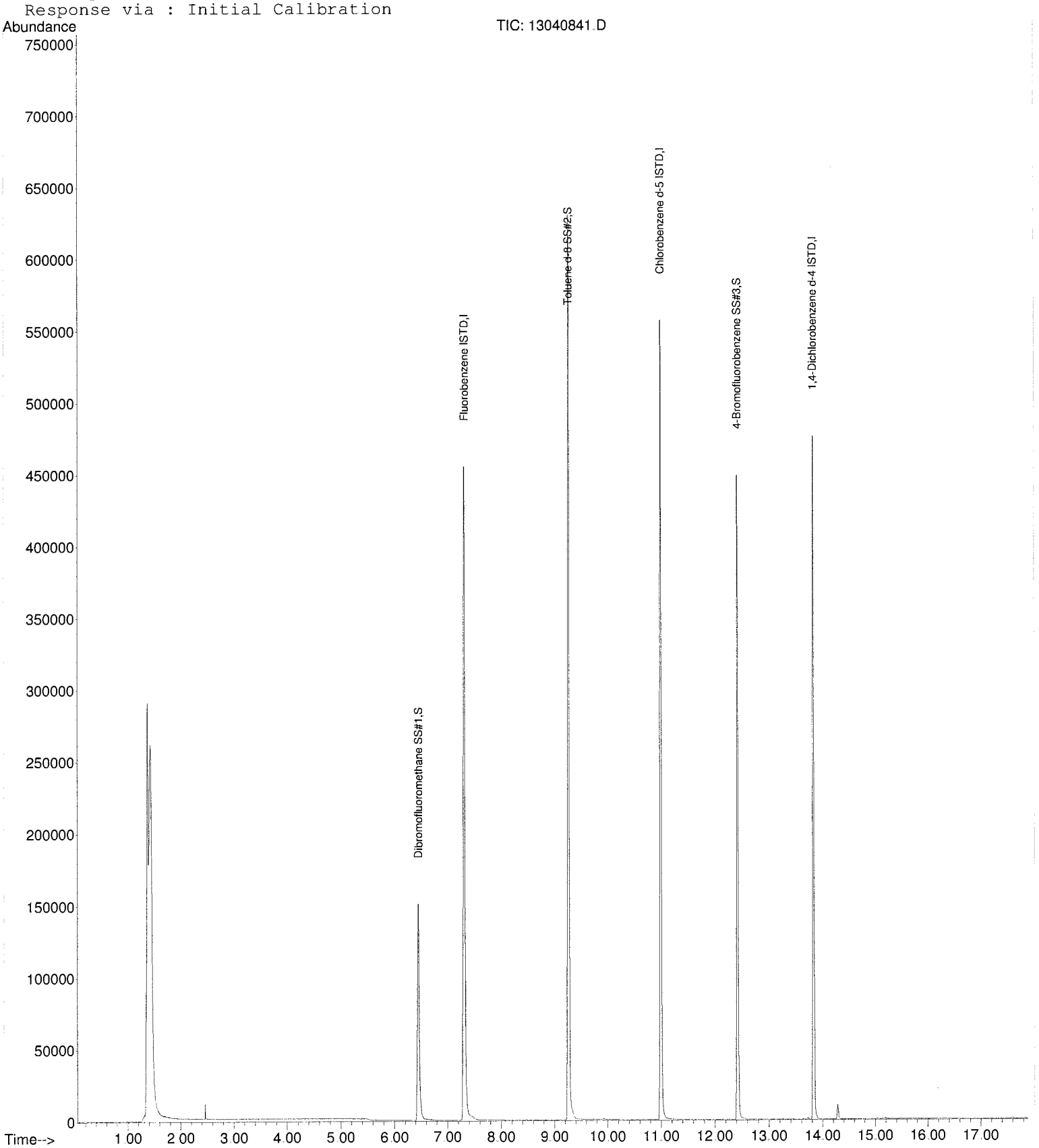
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	533772	50.00	ug/L	0.00
54) Chlorobenzene d-5 ISTD	10.99	117	363668	50.00	ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	140048	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	117091	48.44	ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 96.88%			
48) Toluene d-8 SS#2	9.26	98	458562	48.99	ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 97.98%			
71) 4-Bromofluorobenzene SS#3	12.42	95	170887	49.58	ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 99.16%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
13040841.D VOC-W.M Tue Apr 09 12:04:09 2013 Page 1

Data File : P:\VOC\2\DATA\130408\13040841.D Vial: 41
Acq On : 9 Apr 2013 6:01 am Operator: AK
Sample : 13040516-008 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:56 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



erator ID: AK Date Acquired: 9 Apr 2013 6:01 am
ta File: P:\VOC\2\DATA\130408\13040841.D
me: 13040516-008 5mL
sc: water 1uL A2338
thod: P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

						Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc	

Data File : P:\VOC\2\DATA\130408\13040841.D Vial: 41
Acq On : 9 Apr 2013 6:01 am Operator: AK
Sample : 13040516-008 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

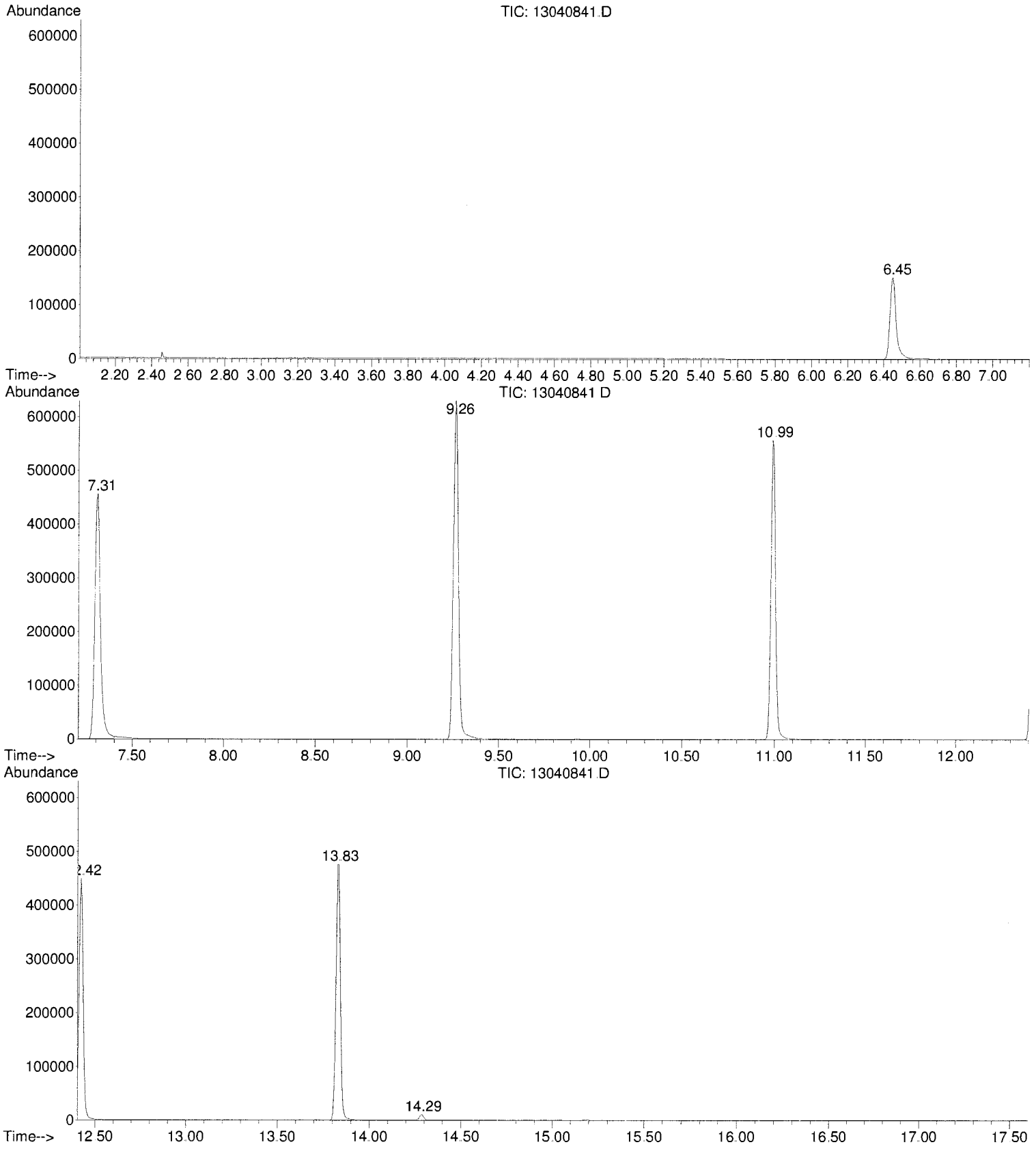
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.453	1262	1272	1296	rBV	151115	361086	30.46%	7.190%
2	7.309	1431	1442	1460	rBV	455548	974315	82.20%	19.400%
3	9.263	1820	1830	1857	rBV	630576	1185314	100.00%	23.601%
4	10.991	2165	2173	2194	rBV	557303	961551	81.12%	19.146%
5	12.422	2448	2457	2477	rBV	449283	730111	61.60%	14.537%
6	13.827	2728	2736	2753	rBV	476238	793106	66.91%	15.792%
7	14.285	2818	2827	2836	rVB	10428	16783	1.42%	0.334%

Sum of corrected areas: 5022266

File : P:\VOC\2\DATA\130408\13040841.D
Operator : AK
Acquired : 9 Apr 2013 6:01 am using AcqMethod VOC2
Instrument : VOA2
Sample Name: 13040516-008 5mL
Misc Info : water 1uL A2338
Vial Number: 41
Quant File :VOC-W.RES (RTE Integrator)



Data File : P:\VOC\2\DATA\130408\13040842.D Vial: 42
Acq On : 9 Apr 2013 6:30 am Operator: AK
Sample : 13040516-009 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:57 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

PHS AK 4/9/13

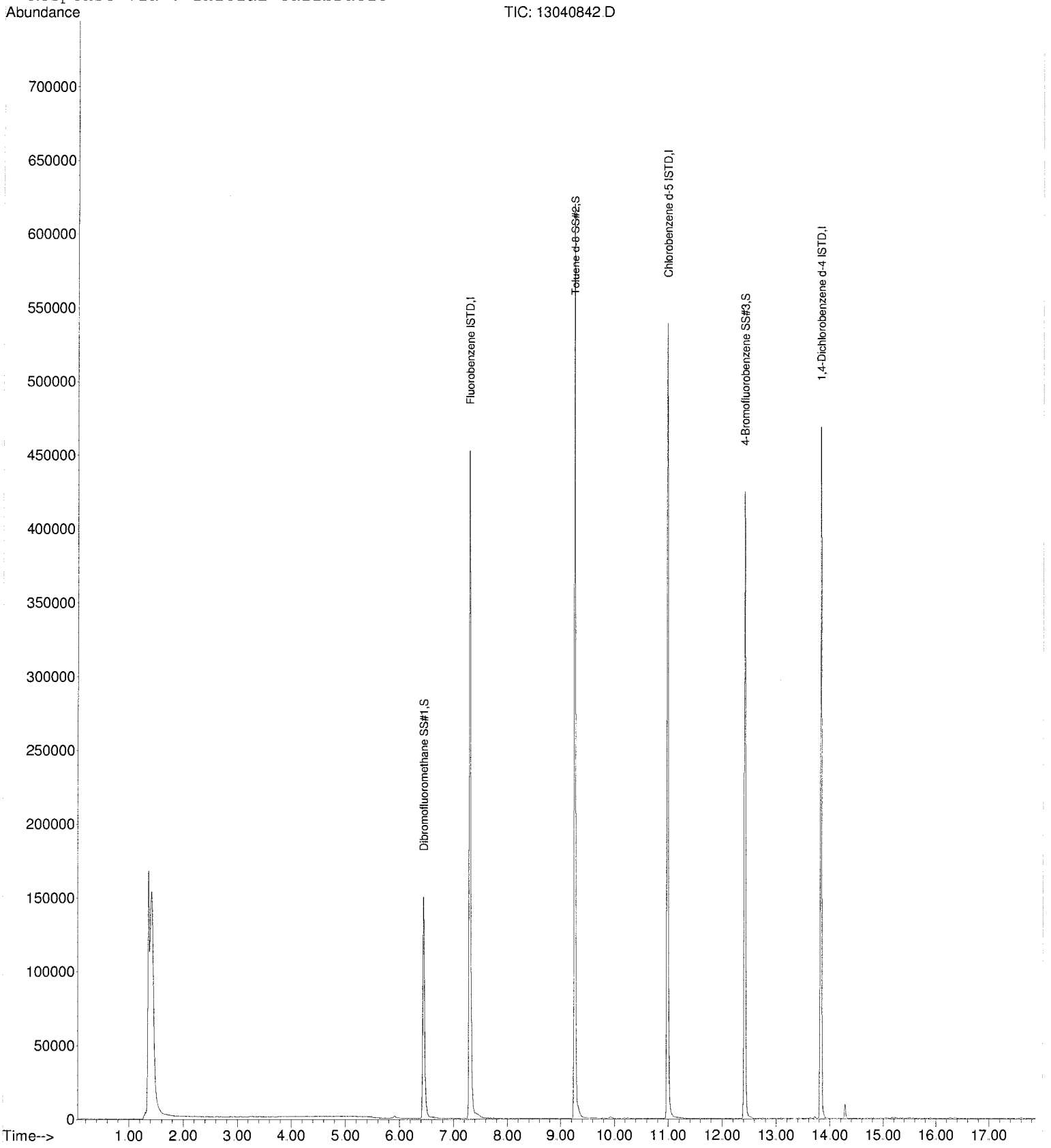
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	509924	50.00	ug/L	0.00
54) Chlorobenzene d-5 ISTD	10.99	117	353342	50.00	ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	133426	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	113672	49.23	ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 98.46%			
48) Toluene d-8 SS#2	9.26	98	450751	50.41	ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 100.82%			
71) 4-Bromofluorobenzene SS#3	12.42	95	167596	51.04	ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 102.08%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
13040842.D VOC-W.M Tue Apr 09 12:04:58 2013 Page 1

Data File : P:\VOC\2\DATA\130408\13040842.D Vial: 42
Acq On : 9 Apr 2013 6:30 am Operator: AK
Sample : 13040516-009 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:04 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



erator ID: AK Date Acquired: 9 Apr 2013 6:30 am
ta File: P:\VOC\2\DATA\130408\13040842.D
me: 13040516-009 5mL
sc: water 1uL A2338
thod: P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\2\DATA\130408\13040842.D Vial: 42
Acq On : 9 Apr 2013 6:30 am Operator: AK
Sample : 13040516-009 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

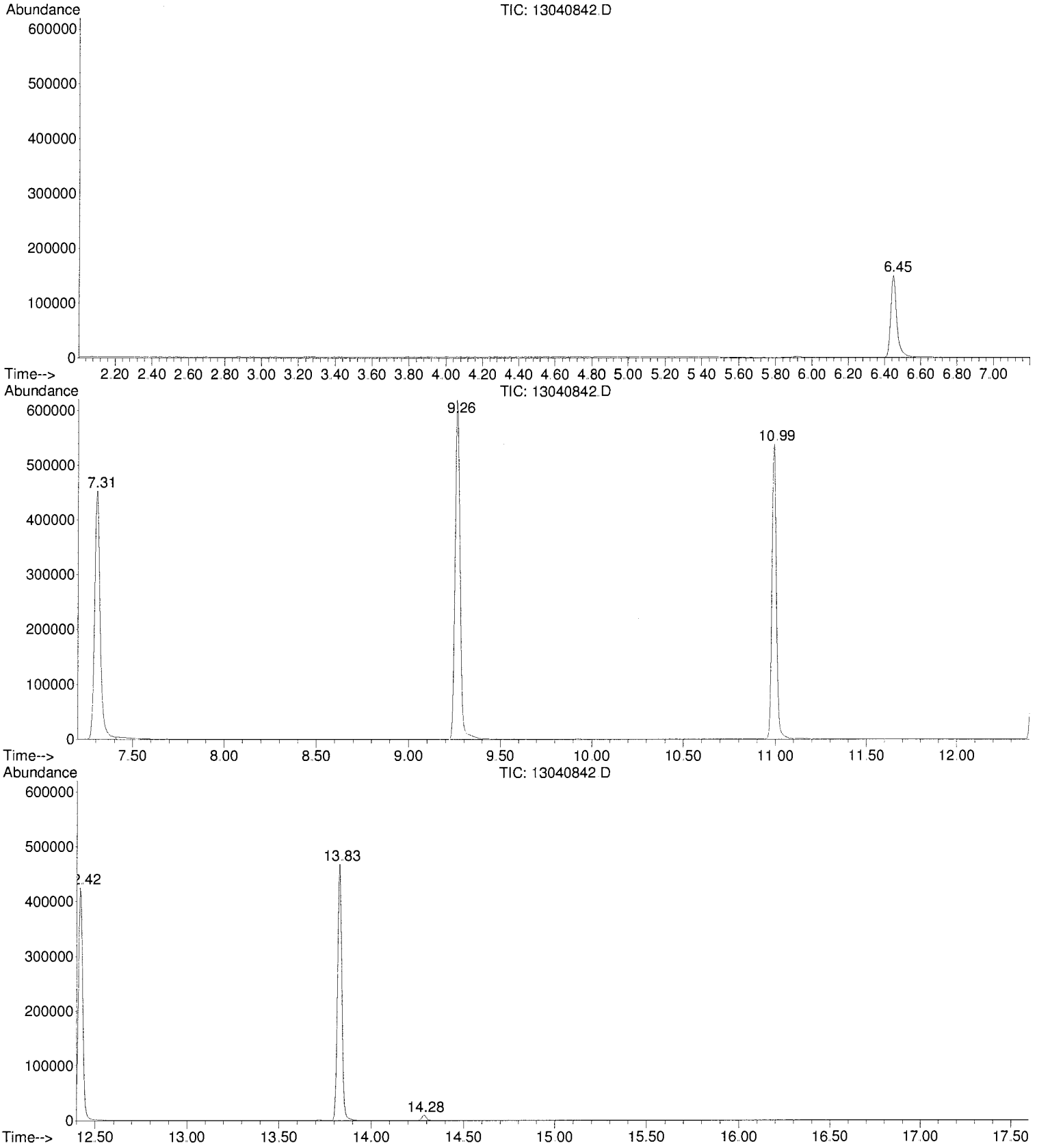
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.451	1261	1272	1296	rBV	150154	352538	30.30%	7.207%
2	7.307	1431	1442	1462	rBV	452820	957075	82.27%	19.565%
3	9.262	1819	1830	1858	rBV	620018	1163370	100.00%	23.782%
4	10.995	2163	2174	2194	rBV	538812	941110	80.90%	19.239%
5	12.420	2449	2457	2474	rBV	424667	701815	60.33%	14.347%
6	13.831	2728	2737	2757	rBV	468504	760301	65.35%	15.543%
7	14.284	2820	2827	2838	rVB2	9500	15535	1.34%	0.318%

Sum of corrected areas: 4891744

File : P:\VOC\2\DATA\130408\13040842.D
Operator : AK
Acquired : 9 Apr 2013 6:30 am using AcqMethod VOC2
Instrument : VOA2
Sample Name: 13040516-009 5mL
Misc Info : water 1uL A2338
Vial Number: 42
Quant File :VOC-W.RES (RTE Integrator)



Data File : P:\VOC\2\DATA\130408\13040843.D Vial: 43
Acq On : 9 Apr 2013 6:59 am Operator: AK
Sample : 13040516-010 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:58 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

pH 5 AK 4/9/13

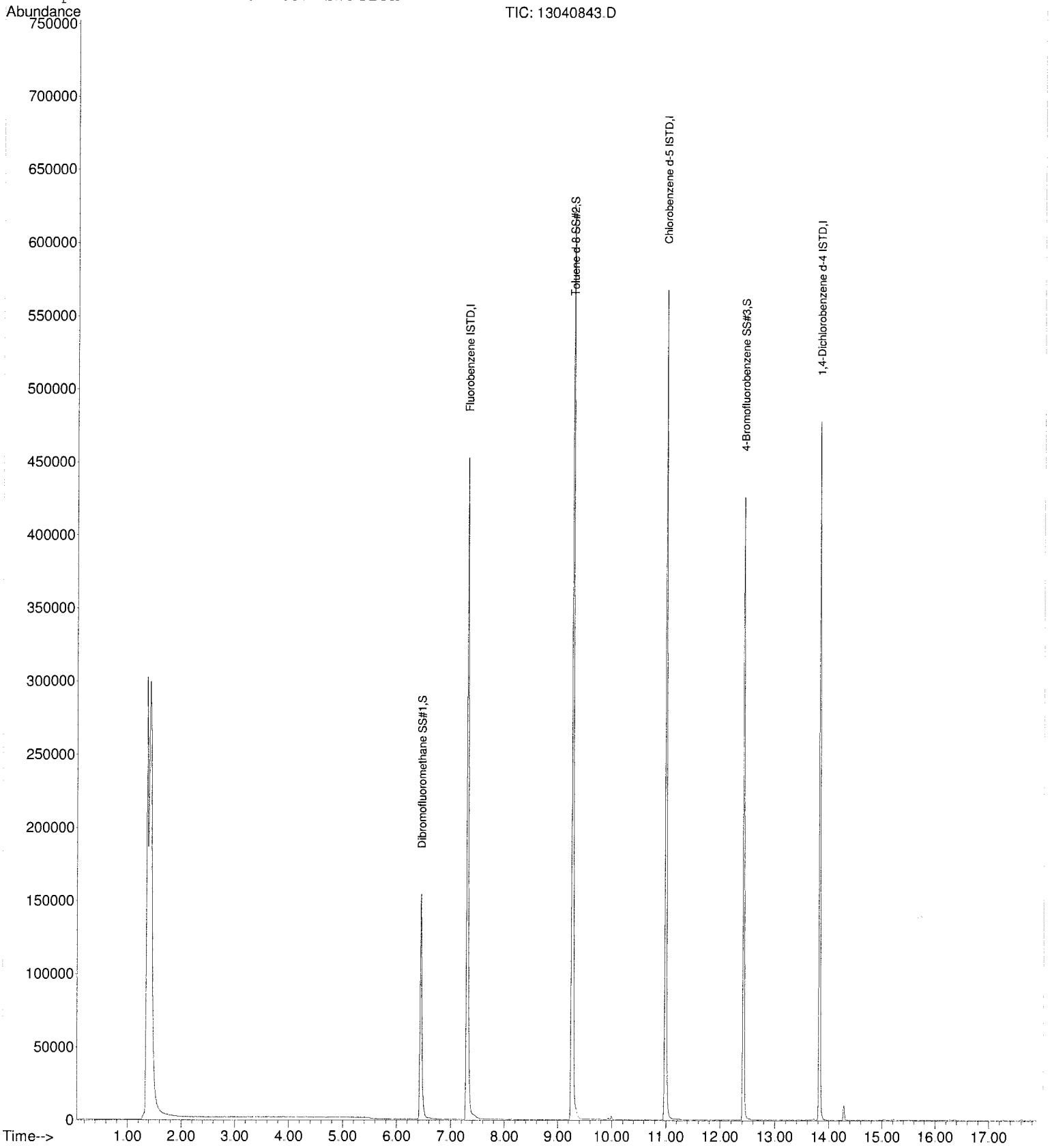
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	532301	50.00	ug/L	0.00
54) Chlorobenzene d-5 ISTD	10.99	117	358347	50.00	ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	137864	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	117655	48.81	ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 97.62%			
48) Toluene d-8 SS#2	9.26	98	452399	48.46	ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 96.92%			
71) 4-Bromofluorobenzene SS#3	12.42	95	168848	49.76	ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 99.52%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
13040843.D VOC-W.M Tue Apr 09 12:07:23 2013 Page 1

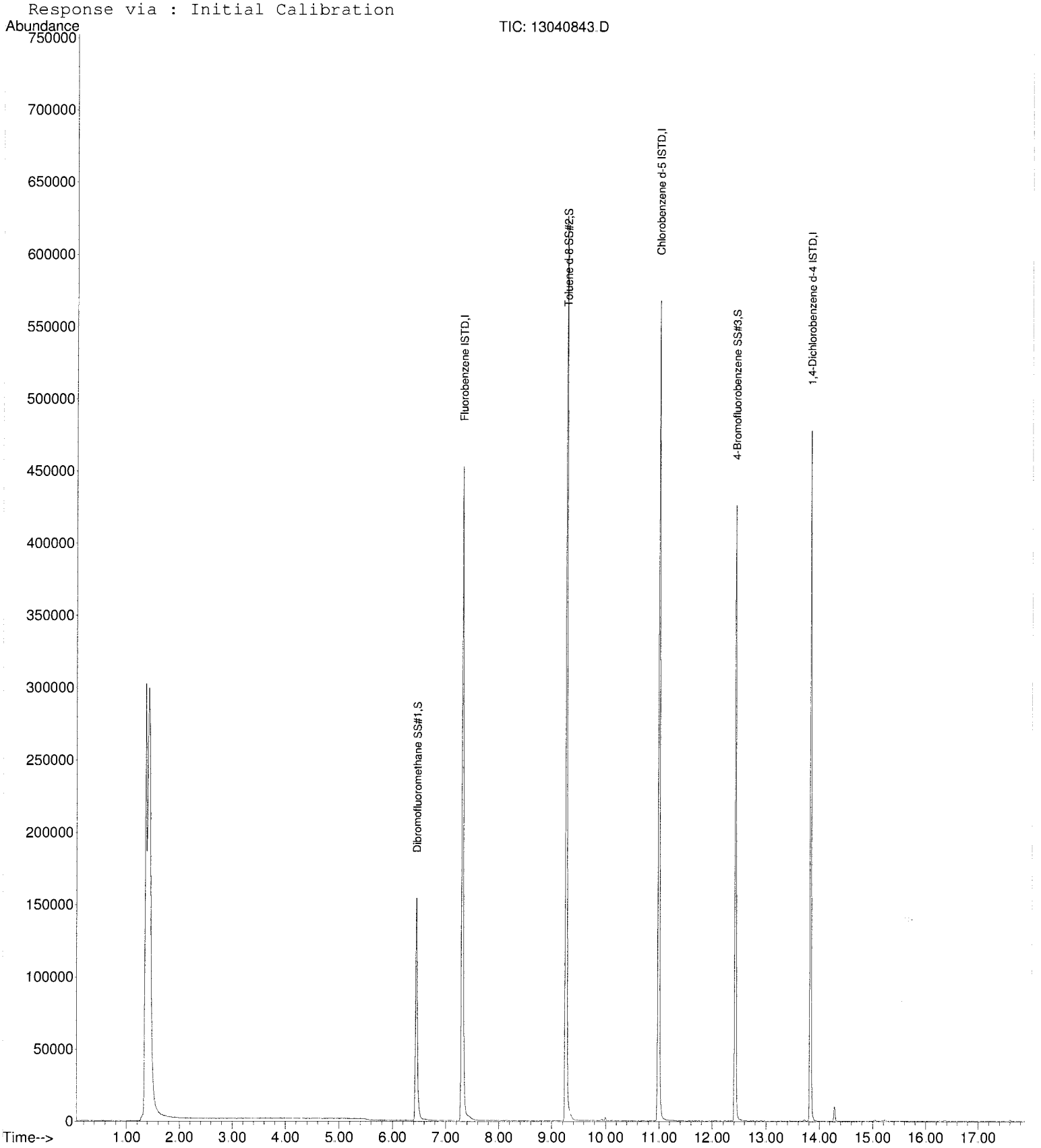
Data File : P:\VOC\2\DATA\130408\13040843.D Vial: 43
Acq On : 9 Apr 2013 6:59 am Operator: AK
Sample : 13040516-010 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:56 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040843.D Vial: 43
Acq On : 9 Apr 2013 6:59 am Operator: AK
Sample : 13040516-010 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:56 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



erator ID: AK Date Acquired: 9 Apr 2013 6:59 am
ta File: P:\VOC\2\DATA\130408\13040843.D
me: 13040516-010 5mL
sc: water 1uL A2338
thod: P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

						--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc	

Data File : P:\VOC\2\DATA\130408\13040843.D Vial: 43
Acq On : 9 Apr 2013 6:59 am Operator: AK
Sample : 13040516-010 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

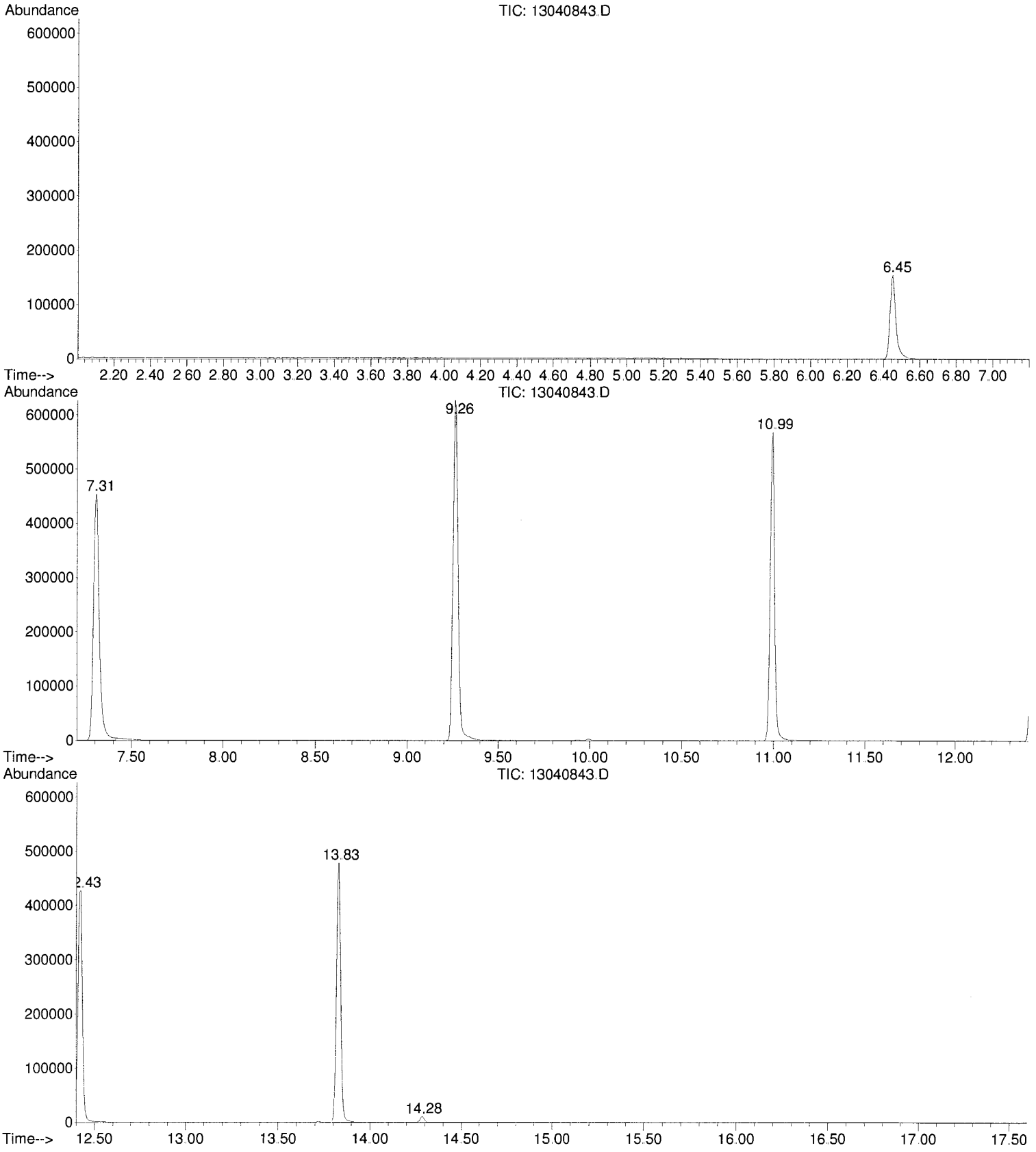
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.451	1261	1271	1292	rBV	154206	356219	30.21%	7.145%
2	7.307	1430	1441	1462	rBV	453094	976657	82.84%	19.590%
3	9.262	1820	1829	1860	rBV	626525	1178973	100.00%	23.649%
4	10.994	2164	2173	2191	rBV	568372	959861	81.42%	19.254%
5	12.425	2448	2457	2474	rBV	426471	716476	60.77%	14.372%
6	13.830	2727	2736	2754	rBV	478270	781466	66.28%	15.675%
7	14.284	2820	2826	2832	rBV2	10067	15725	1.33%	0.315%

Sum of corrected areas: 4985377

File : P:\VOC\2\DATA\130408\13040843.D
Operator : AK
Acquired : 9 Apr 2013 6:59 am using AcqMethod VOC2
Instrument : VOA2
Sample Name: 13040516-010 5mL
Misc Info : water 1uL A2338
Vial Number: 43
Quant File :VOC-W.RES (RTE Integrator)



Data File : P:\VOC\2\DATA\130408\13040844.D Vial: 44
Acq On : 9 Apr 2013 7:27 am Operator: AK
Sample : 13040516-011 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:59 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

PM 6 AK 4/9/13

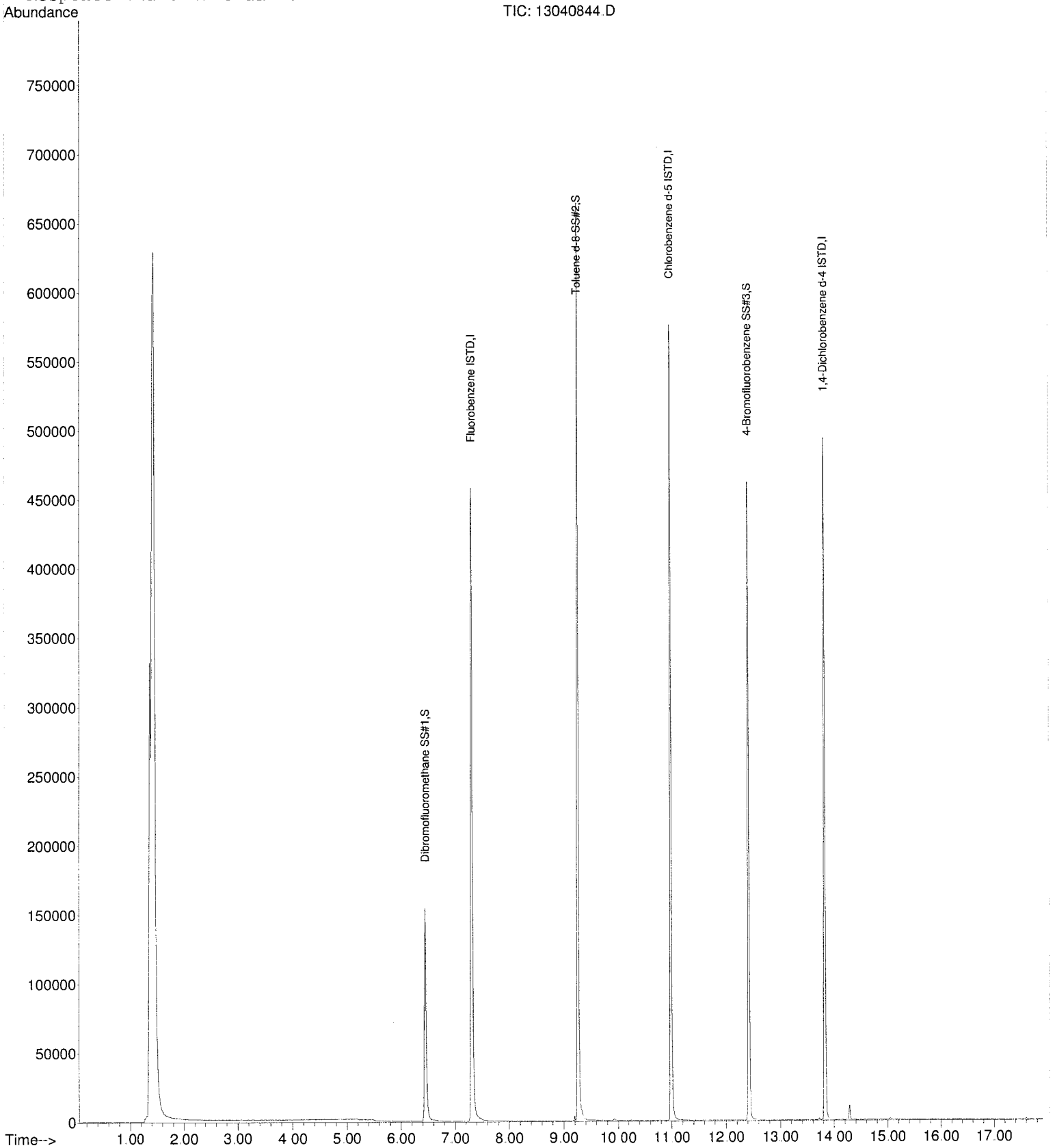
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	547905	50.00	ug/L	0.00
54) Chlorobenzene d-5 ISTD	10.99	117	371744	50.00	ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	143881	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	120985	48.76	ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 97.52%			
48) Toluene d-8 SS#2	9.26	98	475142	49.45	ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 98.90%			
71) 4-Bromofluorobenzene SS#3	12.42	95	170128	48.04	ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 96.08%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
13040844.D VOC-W.M Tue Apr 09 12:08:04 2013 Page 1

Data File : P:\VOC\2\DATA\130408\13040844.D Vial: 44
Acq On : 9 Apr 2013 7:27 am Operator: AK
Sample : 13040516-011 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:56 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



erator ID: AK Date Acquired: 9 Apr 2013 7:27 am
ta File: P:\VOC\2\DATA\130408\13040844.D
me: 13040516-011 5mL
sc: water 1uL A2338
thod: P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\2\DATA\130408\13040844.D Vial: 44
Acq On : 9 Apr 2013 7:27 am Operator: AK
Sample : 13040516-011 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

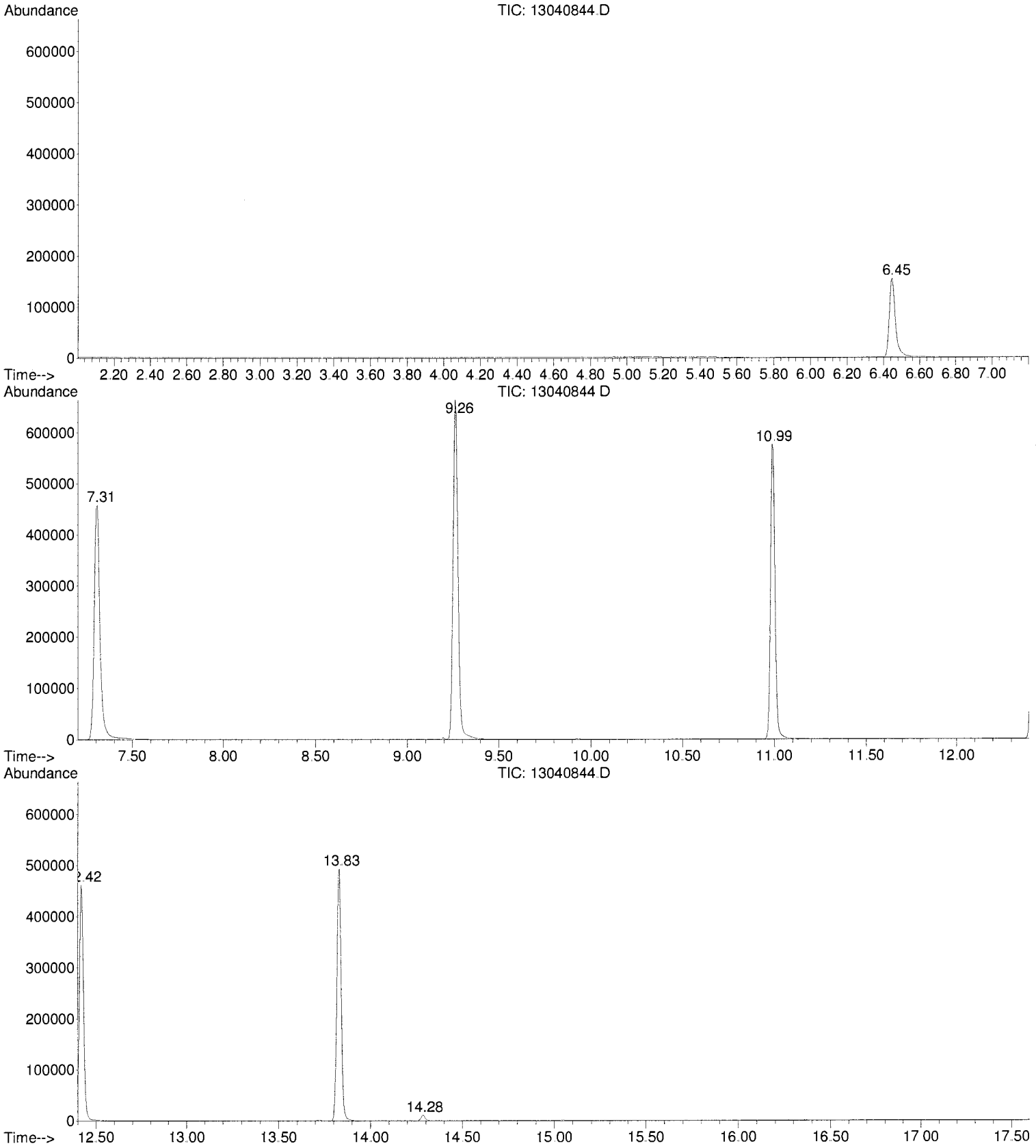
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.451	1261	1271	1291	rBV	154263	365749	29.79%	7.121%
2	7.307	1428	1441	1465	rBV2	457698	1001926	81.61%	19.506%
3	9.262	1820	1829	1866	rBV	663794	1227674	100.00%	23.901%
4	10.989	2164	2172	2195	rBV	575649	984666	80.21%	19.170%
5	12.420	2448	2456	2473	rBV2	461566	736979	60.03%	14.348%
6	13.830	2727	2736	2753	rBV	493027	803267	65.43%	15.638%
7	14.284	2820	2826	2835	rVB	10706	16259	1.32%	0.317%

Sum of corrected areas: 5136520

File : P:\VOC\2\DATA\130408\13040844.D
Operator : AK
Acquired : 9 Apr 2013 7:27 am using AcqMethod VOC2
Instrument : VOA2
Sample Name: 13040516-011 5mL
Misc Info : water 1uL A2338
Vial Number: 44
Quant File :VOC-W.RES (RTE Integrator)



Data File : P:\VOC\2\DATA\130408\13040838.D Vial: 38
Acq On : 9 Apr 2013 4:34 am Operator: AK
Sample : 13040516-012 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:54 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

pH 3 AK 4/9/13

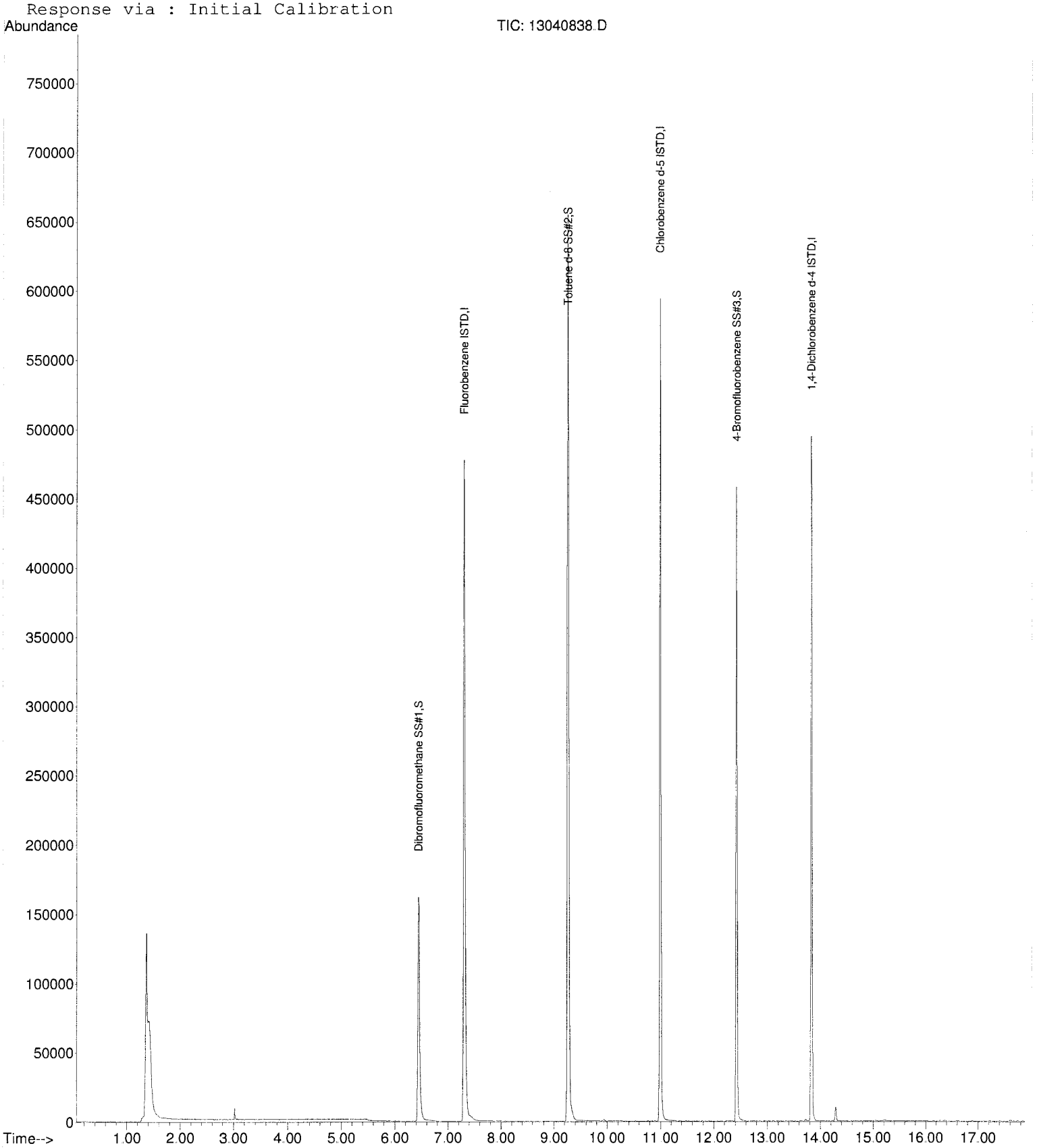
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	543154	50.00	ug/L	0.00
54) Chlorobenzene d-5 ISTD	10.99	117	375119	50.00	ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	143482	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	122766	49.91	ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 99.82%			
48) Toluene d-8 SS#2	9.27	98	477374	50.12	ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 100.24%			
71) 4-Bromofluorobenzene SS#3	12.43	95	175899	49.81	ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 99.62%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
13040838.D VOC-W.M Tue Apr 09 12:02:22 2013

Data File : P:\VOC\2\DATA\130408\13040838.D Vial: 38
Acq On : 9 Apr 2013 4:34 am Operator: AK
Sample : 13040516-012 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:56 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



erator ID: AK Date Acquired: 9 Apr 2013 4:34 am
ta File: P:\VOC\2\DATA\130408\13040838.D
me: 13040516-012 5mL
sc: water 1uL A2338
thod: P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

						--Internal Standard---			
TIC	Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\2\DATA\130408\13040838.D Vial: 38
Acq On : 9 Apr 2013 4:34 am Operator: AK
Sample : 13040516-012 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

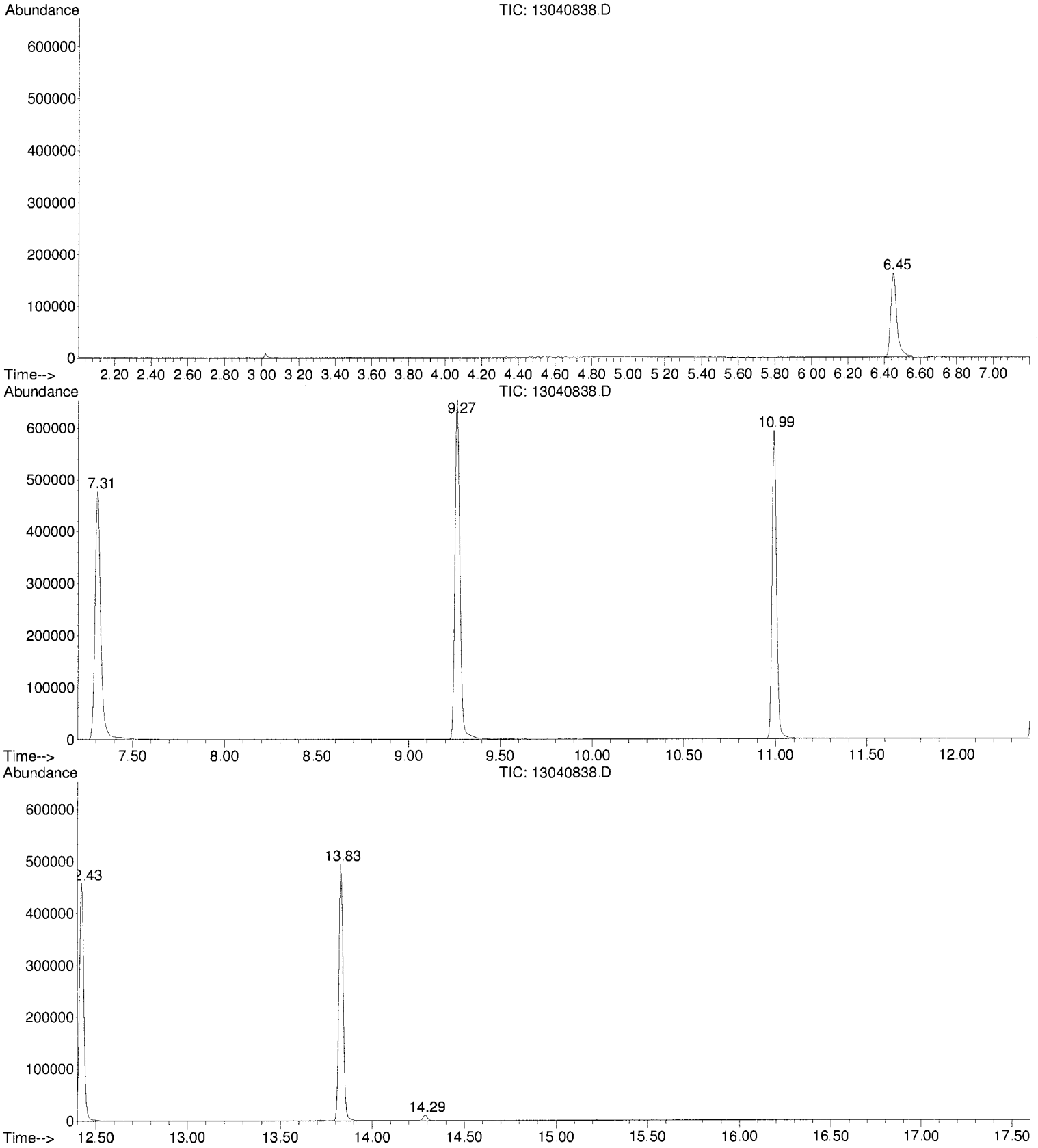
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.451	1262	1272	1293	rBV	161731	376115	30.57%	7.221%
2	7.307	1432	1442	1473	rBV	477667	1024328	83.25%	19.667%
3	9.267	1821	1831	1854	rBV	654443	1230440	100.00%	23.624%
4	10.995	2165	2174	2194	rBV	593953	998611	81.16%	19.173%
5	12.425	2449	2458	2471	rBV	457867	747761	60.77%	14.357%
6	13.831	2728	2737	2755	rBV	494499	814356	66.18%	15.635%
7	14.289	2821	2828	2840	rVB	10179	16771	1.36%	0.322%

Sum of corrected areas: 5208382

File : P:\VOC\2\DATA\130408\13040838.D
Operator : AK
Acquired : 9 Apr 2013 4:34 am using AcqMethod VOC2
Instrument : VOA2
Sample Name: 13040516-012 5mL
Misc Info : water 1uL A2338
Vial Number: 38
Quant File :VOC-W.RES (RTE Integrator)



2A - FORM II VOA-1
WATER VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod Ref No.: _____ SDG No. : 13040516

Level: (TRACE or LOW/MED) _____

	EPA SAMPLE NO.	VDMC1 (BFB) #	VDMC2 (DFB) #	VDMC3 (TOL) #	VDMC4 () #	VDMC5 () #	VDMC6 () #	VDMC7 () #	Total Out
1	45498-1-BKS	99	101	102					0
2	45498-1-BLK	100	97	98					0
3	Trip Blank	100	100	100					0
4	SB-03 (GW)	102	98	97					0
5	1644-Sump	100	98	99					0
6	SB-040413 (GW)	99	97	98					0
7	SB-04 (GW)	102	98	101					0
8	1646-Sump	100	98	97					0
9	Surface Water	96	98	99					0
10	SB-03 (GW) S	98	100	99					0
11	SB-03 (GW) SD	101	101	97					0

		QC LIMITS
VDMC1	(BFB) = 4-Bromofluorobenzene	(89 - 112)
VDMC2	(DFB) = Dibromofluoromethane	(94 - 107)
VDMC3	(TOL) = Toluene-D8	(96 - 104)
VDMC4	_____	_____
VDMC5	_____	_____
VDMC6	_____	_____
VDMC7	_____	_____

Column to be used to flag recovery values

* Values outside of contract required QC limits

SW8260B

2C - FORM II VOA-3
SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod Ref No.: _____ SDG No. : 13040516

Level: (TRACE or LOW/MED) _____

	EPA SAMPLE NO.	VDMC1 (BFB) #	VDMC2 (DFB) #	VDMC3 (TOL) #	VDMC4 () #	VDMC5 () #	VDMC6 () #	VDMC7 () #	Total Out
1	45496-1-BLK	87	103	99					0
2	45496-1-BKS	88	103	100					0
3	SB-03 (2-2.5)	85	105	99					0
4	SB-02 (2-2.5)	89	109	100					0
5	SB-01 (2-2.5) S	88	108	101					0
6	SB-01 (2-2.5) SD	87	107	102					0
7	SB-04 (2-2.5)	84	108	102					0
8	SB-040413 (2-2.5)	87	107	101					0
9	SB-01 (2-2.5)	83	109	101					0

		QC LIMITS
VDMC1	(BFB) = 4-Bromofluorobenzene	(73 - 111)
VDMC2	(DFB) = Dibromofluoromethane	(75 - 128)
VDMC3	(TOL) = Toluene-D8	(77 - 120)
VDMC4	_____	_____
VDMC5	_____	_____
VDMC6	_____	_____
VDMC7	_____	_____

Column to be used to flag recovery values

* Values outside of contract required QC limits

SW8260B

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-03 (GW)

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	#	QC LIMITS REC.
Dichlorodifluoromethane	50.00	0	55.13	110		66-170
Chloromethane	50.00	0	53.42	107		74-130
1,1,2-Trichlorotrifluoroethane	50.00	0	56.05	112		76-133
Vinyl chloride	50.00	0	55.62	111		72-136
tert-Butanol	50.00	0	48.80	98		10-193
Bromomethane	50.00	0	54.66	109		82-140
Chloroethane	50.00	0	33.82	68	*	77-135
Acetone	50.00	0	60.59	121		22-154
Cyclohexane	50.00	0	58.18	116		44-159
Trichlorofluoromethane	50.00	0	58.28	117		79-156
1,1-Dichloroethene	50.00	0	54.41	109		84-125
Methylene chloride	50.00	0	54.57	109		81-123
trans-1,2-Dichloroethene	50.00	0	59.49	119		85-132
Methyl-t-Butyl Ether	50.00	0	55.13	110		75-135
1,1-Dichloroethane	50.00	0	57.65	115		88-126
2-Butanone (MEK)	50.00	0	56.98	114		33-143
cis-1,2-Dichloroethene	50.00	0	54.66	109		90-132
Bromochloromethane	50.00	0	56.37	113		90-131
Chloroform	50.00	0	56.17	112		91-136
1,1,1-Trichloroethane	50.00	0	62.63	125		90-158
1,2-Dichloroethane	50.00	0	58.65	117		90-137
Carbon tetrachloride	50.00	0	48.51	97		80-157
Benzene	50.00	0	54.48	109		85-131
1,2-Dichloropropane	50.00	0	56.42	113		84-129
Methyl Acetate	50.00	0	53.65	107		40-127
Methylcyclohexane	50.00	0	54.22	108		64-140
Trichloroethene	50.00	0	55.13	110		89-134
Carbon Disulfide	50.00	0	55.80	112		79-134
Bromodichloromethane	50.00	0	56.73	113		78-125
cis-1,3-Dichloropropene	50.00	0	54.71	109		72-116
4-Methyl-2-Pentanone (MIBK)	50.00	0	56.92	114		60-127
trans-1,3-Dichloropropene	50.00	0	47.15	94		69-115
1,1,2-Trichloroethane	50.00	0	56.12	112		83-129
Toluene	50.00	0	54.39	109		87-125
2-Hexanone (MBK)	50.00	0	56.77	114		59-127
1,2-Dibromoethane	50.00	0	56.79	114		86-128
Dibromochloromethane	50.00	0	47.60	95		68-128
tert-Amyl ethyl ether	50.00	0	55.10	110		73-131
tert-Butyl ethyl ether	50.00	0	54.61	109		81-129
Diisopropyl ether	50.00	0	54.40	109		82-120
tert-Amyl methyl ether	50.00	0	53.63	107		76-130
tert-Amyl alcohol	50.00	0	41.62	83		13-161

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-03 (GW)

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	#	QC LIMITS REC.
Bromoform	50.00	0	44.27	89		57-124
Tetrachloroethene	50.00	0	52.56	105		91-127
Chlorobenzene	50.00	0	54.93	110		87-123
Ethylbenzene	50.00	0	55.94	112		88-129
m&p-Xylene	100.00	0	110.1	110		88-126
Styrene	50.00	0	56.49	113		88-129
1,1,2,2-Tetrachloroethane	50.00	0	54.37	109		77-125
o-Xylene	50.00	0	56.07	112		91-128
Isopropylbenzene	50.00	0	53.71	107		86-134
1,3-Dichlorobenzene	50.00	0	52.00	104		86-121
1,4-Dichlorobenzene	50.00	0	52.41	105		84-118
1,2-Dichlorobenzene	50.00	0	52.43	105		85-119
1,2-Dibromo-3-chloropropane	50.00	0	53.79	108	*	56-107
1,2,4-Trichlorobenzene	50.00	0	48.24	96		50-130
Naphthalene	50.00	0	46.97	94		38-143
1,2,3-Trichlorobenzene	50.00	0	46.76	94		36-135

COMPOUND	SPIKE ADDED ug/L	MSD CONCENTRATION ug/L	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC
Dichlorodifluoromethane	50.00	54.32	109		1		0- 25	66-170
Chloromethane	50.00	54.32	109		2		0- 25	74-130
1,1,2-Trichlorotrifluoroethane	50.00	55.83	112		0		0- 25	76-133
Vinyl chloride	50.00	54.78	110		2		0- 25	72-136
tert-Butanol	50.00	54.63	109		11		0- 25	10-193
Bromomethane	50.00	55.19	110		1		0- 25	82-140
Chloroethane	50.00	55.77	112		49	*	0- 25	77-135
Acetone	50.00	48.18	96		23		0- 25	22-154
Cyclohexane	50.00	59.48	119		2		0- 25	44-159
Trichlorofluoromethane	50.00	58.56	117		0		0- 25	79-156
1,1-Dichloroethene	50.00	53.81	108		1		0- 25	84-125
Methylene chloride	50.00	55.12	110		1		0- 25	81-123
trans-1,2-Dichloroethene	50.00	57.92	116		3		0- 25	85-132
Methyl-t-Butyl Ether	50.00	55.22	110		0		0- 25	75-135
1,1-Dichloroethane	50.00	56.79	114		2		0- 25	88-126
2-Butanone (MEK)	50.00	54.31	109		5		0- 25	33-143
cis-1,2-Dichloroethene	50.00	53.81	108		2		0- 25	90-132
Bromochloromethane	50.00	57.11	114		1		0- 25	90-131
Chloroform	50.00	57.84	116		3		0- 25	91-136
1,1,1-Trichloroethane	50.00	61.65	123		2		0- 25	90-158
1,2-Dichloroethane	50.00	59.08	118		1		0- 25	90-137
Carbon tetrachloride	50.00	49.73	99		2		0- 25	80-157
Benzene	50.00	54.85	110		1		0- 25	85-131

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-03 (GW)

COMPOUND	SPIKE ADDED ug/L	MSD CONCENTRATION ug/L	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC
1,2-Dichloropropane	50.00	57.75	116		2		0- 25	84-129
Methyl Acetate	50.00	52.74	105		2		0- 25	40-127
Methylcyclohexane	50.00	58.20	116		7		0- 25	64-140
Trichloroethene	50.00	55.03	110		0		0- 25	89-134
Carbon Disulfide	50.00	54.06	108		3		0- 25	79-134
Bromodichloromethane	50.00	60.29	121		6		0- 25	78-125
cis-1,3-Dichloropropene	50.00	56.11	112		3		0- 25	72-116
4-Methyl-2-Pentanone (MIBK)	50.00	56.28	113		1		0- 25	60-127
trans-1,3-Dichloropropene	50.00	48.42	97		3		0- 25	69-115
1,1,2-Trichloroethane	50.00	56.81	114		1		0- 25	83-129
Toluene	50.00	54.85	110		1		0- 25	87-125
2-Hexanone (MBK)	50.00	55.08	110		3		0- 25	59-127
1,2-Dibromoethane	50.00	59.06	118		4		0- 25	86-128
Dibromochloromethane	50.00	50.08	100		5		0- 25	68-128
tert-Amyl ethyl ether	50.00	56.06	112		2		0- 25	73-131
tert-Butyl ethyl ether	50.00	53.65	107		2		0- 25	81-129
Diisopropyl ether	50.00	54.14	108		0		0- 25	82-120
tert-Amyl methyl ether	50.00	53.43	107		0		0- 25	76-130
tert-Amyl alcohol	50.00	49.27	99		17		0- 25	13-161
Bromoform	50.00	47.03	94		6		0- 25	57-124
Tetrachloroethene	50.00	53.41	107		2		0- 25	91-127
Chlorobenzene	50.00	57.08	114		4		0- 25	87-123
Ethylbenzene	50.00	57.42	115		3		0- 25	88-129
m&p-Xylene	100.00	114	114		3		0- 25	88-126
Styrene	50.00	59.55	119		5		0- 25	88-129
1,1,2,2-Tetrachloroethane	50.00	57.32	115		5		0- 25	77-125
o-Xylene	50.00	58.12	116		4		0- 25	91-128
Isopropylbenzene	50.00	55.46	111		3		0- 25	86-134
1,3-Dichlorobenzene	50.00	56.42	113		8		0- 25	86-121
1,4-Dichlorobenzene	50.00	56.07	112		7		0- 25	84-118
1,2-Dichlorobenzene	50.00	56.08	112		7		0- 25	85-119
1,2-Dibromo-3-chloropropane	50.00	59.42	119	*	10		0- 25	56-107
1,2,4-Trichlorobenzene	50.00	56.48	113		16		0- 25	50-130
Naphthalene	50.00	57.66	115		20		0- 25	38-143
1,2,3-Trichlorobenzene	50.00	57.00	114		20		0- 25	36-135

Column to be used to flag recovery and RPD Values with an asterisk.
* Values outside of QC limits

RPD 1 Out of 58 outside limits

Spike Recovery : 3 Out of 116 outside limit

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-03 (GW)

COMMENTS: _____

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-03 (GW) S

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007 S

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040847

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	55.13	
74-87-3	Chloromethane	53.42	
76-13-1	1,1,2-Trichlorotrifluoroethane	56.05	
75-01-4	Vinyl chloride	55.62	
75-65-0	tert-Butanol	48.80	
74-83-9	Bromomethane	54.66	
75-00-3	Chloroethane	33.82	
67-64-1	Acetone	60.59	
110-82-7	Cyclohexane	58.18	
75-69-4	Trichlorofluoromethane	58.28	
75-35-4	1,1-Dichloroethene	54.41	
75-09-2	Methylene chloride	54.57	
156-60-5	trans-1,2-Dichloroethene	59.49	
1634-04-4	Methyl-t-Butyl Ether	55.13	
75-34-3	1,1-Dichloroethane	57.65	
78-93-3	2-Butanone (MEK)	56.98	
156-59-2	cis-1,2-Dichloroethene	54.66	
74-97-5	Bromochloromethane	56.37	
67-66-3	Chloroform	56.17	
71-55-6	1,1,1-Trichloroethane	62.63	
107-06-2	1,2-Dichloroethane	58.65	
56-23-5	Carbon tetrachloride	48.51	
71-43-2	Benzene	54.48	
78-87-5	1,2-Dichloropropane	56.42	
79-20-9	Methyl Acetate	53.65	
108-87-2	Methylcyclohexane	54.22	

SW8260B

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-03 (GW) S

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007 S

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040847

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	55.13	
75-15-0	Carbon Disulfide	55.80	
75-27-4	Bromodichloromethane	56.73	
10061-01-5	cis-1,3-Dichloropropene	54.71	
108-10-1	4-Methyl-2-Pentanone (MIBK)	56.92	
10061-02-6	trans-1,3-Dichloropropene	47.15	
79-00-5	1,1,2-Trichloroethane	56.12	
108-88-3	Toluene	54.39	
591-78-6	2-Hexanone (MBK)	56.77	
106-93-4	1,2-Dibromoethane	56.79	
124-48-1	Dibromochloromethane	47.60	
919-94-8	tert-Amyl ethyl ether	55.10	
637-92-3	tert-Butyl ethyl ether	54.61	
108-20-3	Diisopropyl ether	54.40	
994-05-8	tert-Amyl methyl ether	53.63	
75-85-4	tert-Amyl alcohol	41.62	
75-25-2	Bromoform	44.27	
127-18-4	Tetrachloroethene	52.56	
108-90-7	Chlorobenzene	54.93	
100-41-4	Ethylbenzene	55.94	
108-38-3	m&p-Xylene	110.1	
100-42-5	Styrene	56.49	
79-34-5	1,1,2,2-Tetrachloroethane	54.37	
95-47-6	o-Xylene	56.07	
98-82-8	Isopropylbenzene	53.71	
541-73-1	1,3-Dichlorobenzene	52.00	

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-03 (GW) S

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007 S

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040847

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	52.41	
95-50-1	1,2-Dichlorobenzene	52.43	
96-12-8	1,2-Dibromo-3-chloropropane	53.79	
120-82-1	1,2,4-Trichlorobenzene	48.24	
91-20-3	Naphthalene	46.97	
87-61-6	1,2,3-Trichlorobenzene	46.76	

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-03 (GW) SD

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007 SD

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040848

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	54.32	
74-87-3	Chloromethane	54.32	
76-13-1	1,1,2-Trichlorotrifluoroethane	55.83	
75-01-4	Vinyl chloride	54.78	
75-65-0	tert-Butanol	54.63	
74-83-9	Bromomethane	55.19	
75-00-3	Chloroethane	55.77	
67-64-1	Acetone	48.18	
110-82-7	Cyclohexane	59.48	
75-69-4	Trichlorofluoromethane	58.56	
75-35-4	1,1-Dichloroethene	53.81	
75-09-2	Methylene chloride	55.12	
156-60-5	trans-1,2-Dichloroethene	57.92	
1634-04-4	Methyl-t-Butyl Ether	55.22	
75-34-3	1,1-Dichloroethane	56.79	
78-93-3	2-Butanone (MEK)	54.31	
156-59-2	cis-1,2-Dichloroethene	53.81	
74-97-5	Bromochloromethane	57.11	
67-66-3	Chloroform	57.84	
71-55-6	1,1,1-Trichloroethane	61.65	
107-06-2	1,2-Dichloroethane	59.08	
56-23-5	Carbon tetrachloride	49.73	
71-43-2	Benzene	54.85	
78-87-5	1,2-Dichloropropane	57.75	
79-20-9	Methyl Acetate	52.74	
108-87-2	Methylcyclohexane	58.20	

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-03 (GW) SD

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007 SD

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040848

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	55.03	
75-15-0	Carbon Disulfide	54.06	
75-27-4	Bromodichloromethane	60.29	
10061-01-5	cis-1,3-Dichloropropene	56.11	
108-10-1	4-Methyl-2-Pentanone (MIBK)	56.28	
10061-02-6	trans-1,3-Dichloropropene	48.42	
79-00-5	1,1,2-Trichloroethane	56.81	
108-88-3	Toluene	54.85	
591-78-6	2-Hexanone (MBK)	55.08	
106-93-4	1,2-Dibromoethane	59.06	
124-48-1	Dibromochloromethane	50.08	
919-94-8	tert-Amyl ethyl ether	56.06	
637-92-3	tert-Butyl ethyl ether	53.65	
108-20-3	Diisopropyl ether	54.14	
994-05-8	tert-Amyl methyl ether	53.43	
75-85-4	tert-Amyl alcohol	49.27	
75-25-2	Bromoform	47.03	
127-18-4	Tetrachloroethene	53.41	
108-90-7	Chlorobenzene	57.08	
100-41-4	Ethylbenzene	57.42	
108-38-3	m&p-Xylene	114	
100-42-5	Styrene	59.55	
79-34-5	1,1,2,2-Tetrachloroethane	57.32	
95-47-6	o-Xylene	58.12	
98-82-8	Isopropylbenzene	55.46	
541-73-1	1,3-Dichlorobenzene	56.42	

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-03 (GW) SD

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 13040516-007 SD

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040848

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	56.07	
95-50-1	1,2-Dichlorobenzene	56.08	
96-12-8	1,2-Dibromo-3-chloropropane	59.42	
120-82-1	1,2,4-Trichlorobenzene	56.48	
91-20-3	Naphthalene	57.66	
87-61-6	1,2,3-Trichlorobenzene	57.00	

SW8260B

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:57:39 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	525032	50.00 ug/L	0.00
54) Chlorobenzene d-5 ISTD	10.99	117	356596	50.00 ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	141886	50.00 ug/L	0.00
System Monitoring Compounds					
29) Dibromofluoromethane SS#1	6.45	113	119055	50.07 ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 100.14%		
48) Toluene d-8 SS#2	9.26	98	454809	49.40 ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 98.80%		
71) 4-Bromofluorobenzene SS#3	12.42	95	171030	48.98 ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 97.96%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.51	85	134459	55.13 ug/L	91
3) Chloromethane	1.74	50	169893	53.42 ug/L #	60
4) VINYL CHLORIDE	1.82	62	193503	55.62 ug/L #	55
5) Bromomethane	2.17	94	114650	54.66 ug/L	100
6) Chloroethane	2.28	64	53788	33.82 ug/L	88
7) Trichlorofluoromethane	2.54	101	137785m	58.28 ug/L	
8) acrolein	3.04	56	15440	54.33 ug/L	89
9) Acetone	3.26	58	6869	60.59 ug/L	91
10) 1,1-DICHLOROETHENE	3.18	96	112641m	54.41 ug/L	
11) 1,1,2-Trichlorotrifluoroet	3.19	101	76552m	56.05 ug/L	
12) iodomethane	3.38	142	167497m	56.30 ug/L	
13) Carbon Disulfide	3.42	76	318114	55.80 ug/L	98
14) Methyl Acetate	3.74	74	13906	53.65 ug/L	100
15) Methylene chloride	3.85	84	114834m	54.57 ug/L	
16) tert-Butanol	4.17	59	3872m	48.80 ug/L	
17) acrylonitrile	4.26	53	33011	59.45 ug/L	95
18) trans-1,2-Dichloroethene	4.27	96	108033	59.49 ug/L	100
19) Methyl-t-Butyl Ether	4.32	73	248186	55.13 ug/L	100
20) 1,1-Dichloroethane	4.92	63	168371	57.65 ug/L	99
21) vinyl acetate	5.07	43	181859	56.24 ug/L	95
22) Diisopropyl ether	5.11	45	345767	54.40 ug/L	98
23) tert-Butyl ethyl ether	5.64	59	311058	54.61 ug/L	97
24) 2,2-Dichloropropane	5.76	77	48937	41.96 ug/L	95
25) cis-1,2-Dichloroethene	5.78	96	131215	54.66 ug/L	97
26) 2-Butanone (MEK)	5.85	72	9148	56.98 ug/L	100
27) Bromochloromethane	6.09	128	56449	56.37 ug/L	95
28) CHLOROFORM	6.24	83	174600	56.17 ug/L	99
30) 1,1,1-Trichloroethane	6.44	97	115379	62.63 ug/L	95
31) Cyclohexane	6.50	56	90740	58.18 ug/L	92
32) Carbon tetrachloride	6.65	117	84262	48.51 ug/L	100
33) 1,1-Dichloropropene	6.67	75	132677	56.38 ug/L	98
34) Benzene`	6.93	78	449177	54.48 ug/L	99
35) 1,2-Dichloroethane	6.97	62	119635	58.65 ug/L	96
36) tert-Amyl alcohol	7.07	59	2815m	41.62 ug/L	
37) tert-Amyl methyl ether	7.14	73	285233	53.63 ug/L	96
38) Trichloroethene	7.77	95	105688	55.13 ug/L	96
39) 1,2-DICHLOROPROPANE	8.04	63	111287	56.42 ug/L	100
40) Methylcyclohexane	7.99	83	86309	54.22 ug/L	98
41) tert-Amyl ethyl ether	8.14	59	258796	55.10 ug/L	96
42) Dibromomethane	8.18	93	66518	56.09 ug/L	97
43) 1,4-Dioxane	8.24	88	7417	910.37 ug/L #	85
44) Bromodichloromethane	8.40	83	123719	56.73 ug/L	100
45) 2-Chloroethylvinyl Ether	8.80	63	49791	40.90 ug/L	98
46) cis-1,3-Dichloropropene	8.95	75	167996	54.71 ug/L	98
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	14944	56.92 ug/L #	90

(#) = qualifier out of range (m) = manual integration
13040847.D VOC-W.M Tue Apr 09 12:12:08 2013

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:57:39 2013 Quant Results File: VOC-W.RES

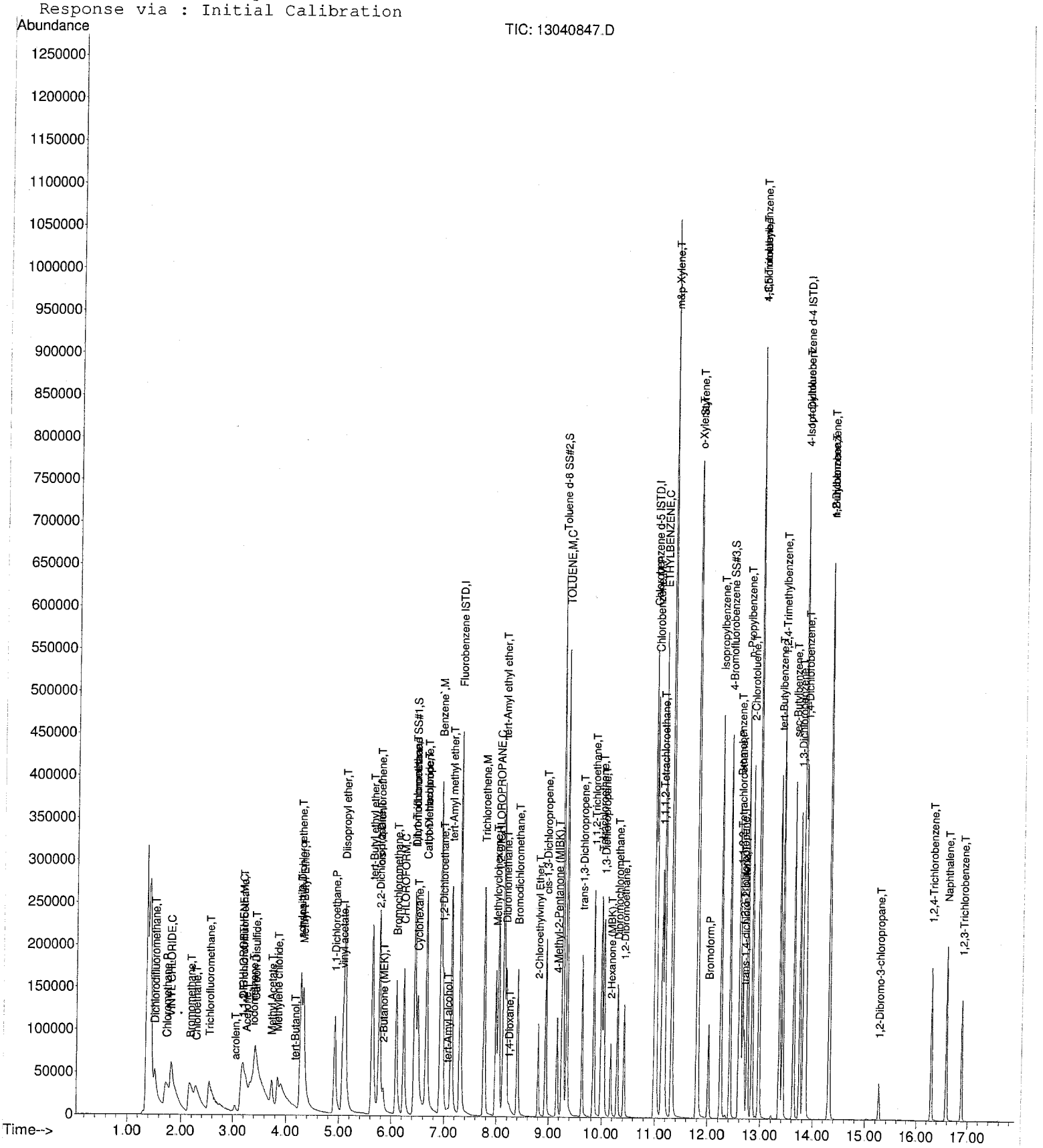
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49) TOLUENE	9.34	92	275849	54.39	ug/L		99
50) trans-1,3-Dichloropropene	9.63	75	137868	47.15	ug/L		99
51) 1,1,2-Trichloroethane	9.84	83	78234	56.12	ug/L		98
52) Tetrachloroethene	10.00	164	65890	52.56	ug/L		97
53) 2-Hexanone (MBK)	10.17	43	64508	56.77	ug/L		98
55) 1,3-Dichloropropane	10.04	76	169502	56.89	ug/L		98
56) Dibromochloromethane	10.30	129	86850	47.60	ug/L		99
57) 1,2-Dibromoethane	10.42	107	99587	56.79	ug/L		98
58) Chlorobenzene	11.02	112	294146	54.93	ug/L		98
59) 1,1,1,2-Tetrachloroethane	11.14	131	86686	57.58	ug/L		99
60) ETHYLBENZENE	11.17	91	447487	55.94	ug/L		100
61) m&p-Xylene	11.32	106	355812	110.11	ug/L		96
62) o-Xylene	11.79	106	180527	56.07	ug/L		99
63) Styrene	11.81	104	332459	56.49	ug/L		100
64) Bromoform	12.02	173	49861	44.27	ug/L		99
65) 1,2,3-Trichloropropane	12.66	75	84659m	56.10	ug/L		
66) Bromobenzene	12.59	156	102599	54.65	ug/L		97
67) trans-1,4-dichloro-2-buten	12.69	53	22126	45.14	ug/L	#	97
68) n-Propylbenzene	12.75	91	416243	56.11	ug/L		97
70) Isopropylbenzene	12.25	105	369048	53.71	ug/L		98
72) 1,1,2,2-Tetrachloroethane	12.62	83	116791	54.37	ug/L		100
73) 2-Chlorotoluene	12.84	91	265209	53.02	ug/L		99
74) 4-Chlorotoluene	12.97	91	305922	53.61	ug/L		98
75) 1,3,5-Trimethylbenzene	12.97	105	290201	54.49	ug/L		98
76) tert-Butylbenzene	13.36	119	214684	54.64	ug/L		96
77) 1,2,4-Trimethylbenzene	13.42	105	295670	53.58	ug/L		96
78) sec-Butylbenzene	13.63	105	322141	53.83	ug/L		99
79) 4-Isopropyltoluene	13.81	119	258186	52.69	ug/L		98
80) 1,3-Dichlorobenzene	13.75	146	160325	52.00	ug/L		98
81) 1,4-Dichlorobenzene	13.86	146	167194	52.41	ug/L		98
82) 1,2-Dichlorobenzene	14.31	146	153265	52.43	ug/L		97
83) n-Butylbenzene	14.32	91	231856	53.02	ug/L		99
84) 1,2-Dibromo-3-chloropropan	15.27	75	11926	53.79	ug/L		92
85) 1,2,4-Trichlorobenzene	16.29	180	61697	48.24	ug/L		99
86) Naphthalene	16.59	128	168350	46.97	ug/L		100
87) 1,2,3-Trichlorobenzene	16.89	180	50087	46.76	ug/L		99

(#) = qualifier out of range (m) = manual integration
13040847.D VOC-W.M Tue Apr 09 12:12:08 2013

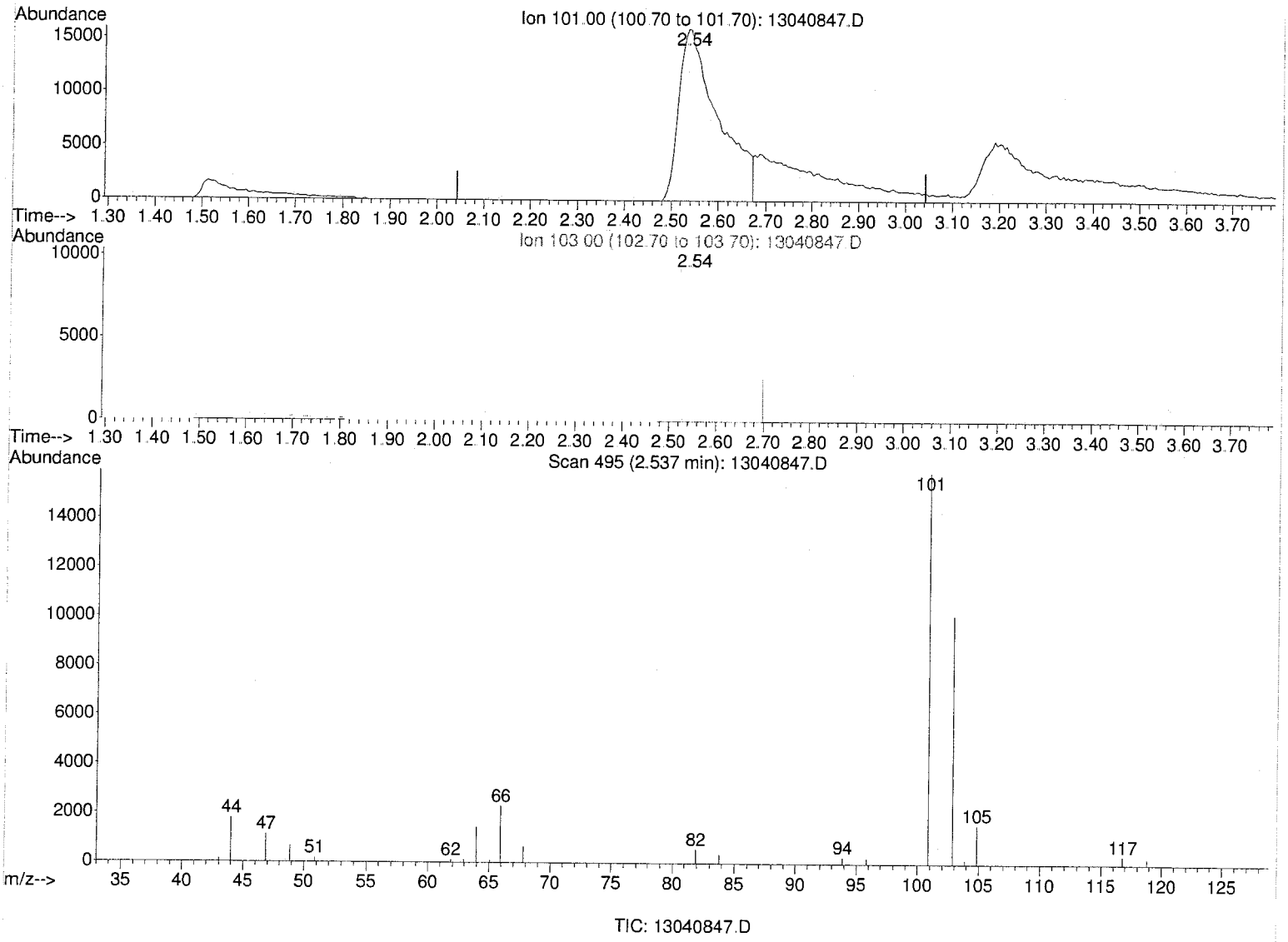
Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:11 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(7) Trichlorofluoromethane (T)

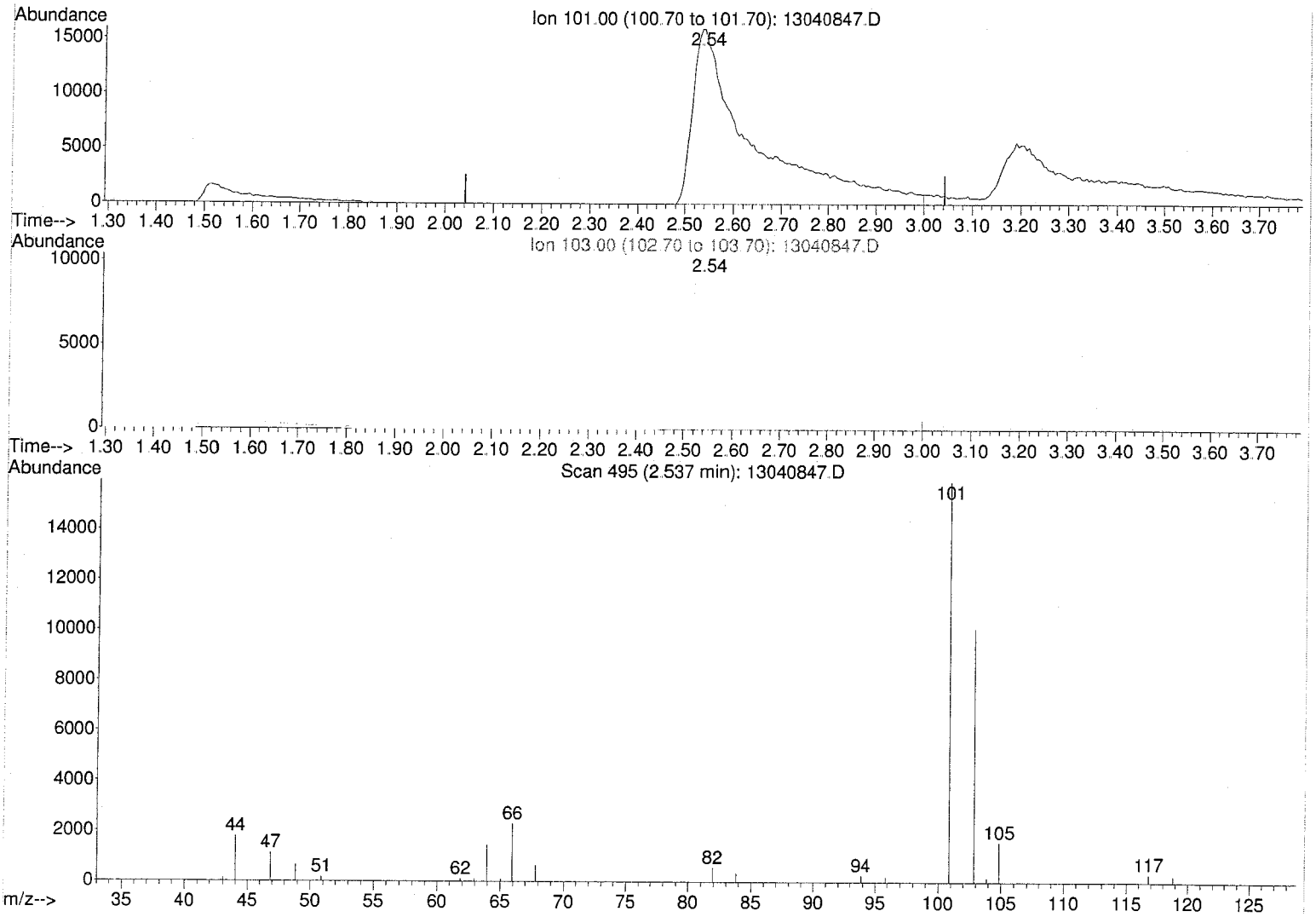
2.54min 39.06ug/L

response 92350

Ion	Exp%	Act%
101.00	100	100
103.00	65.30	69.67
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:09 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(7) Trichlorofluoromethane (T)

2.54min 58.28ug/L m

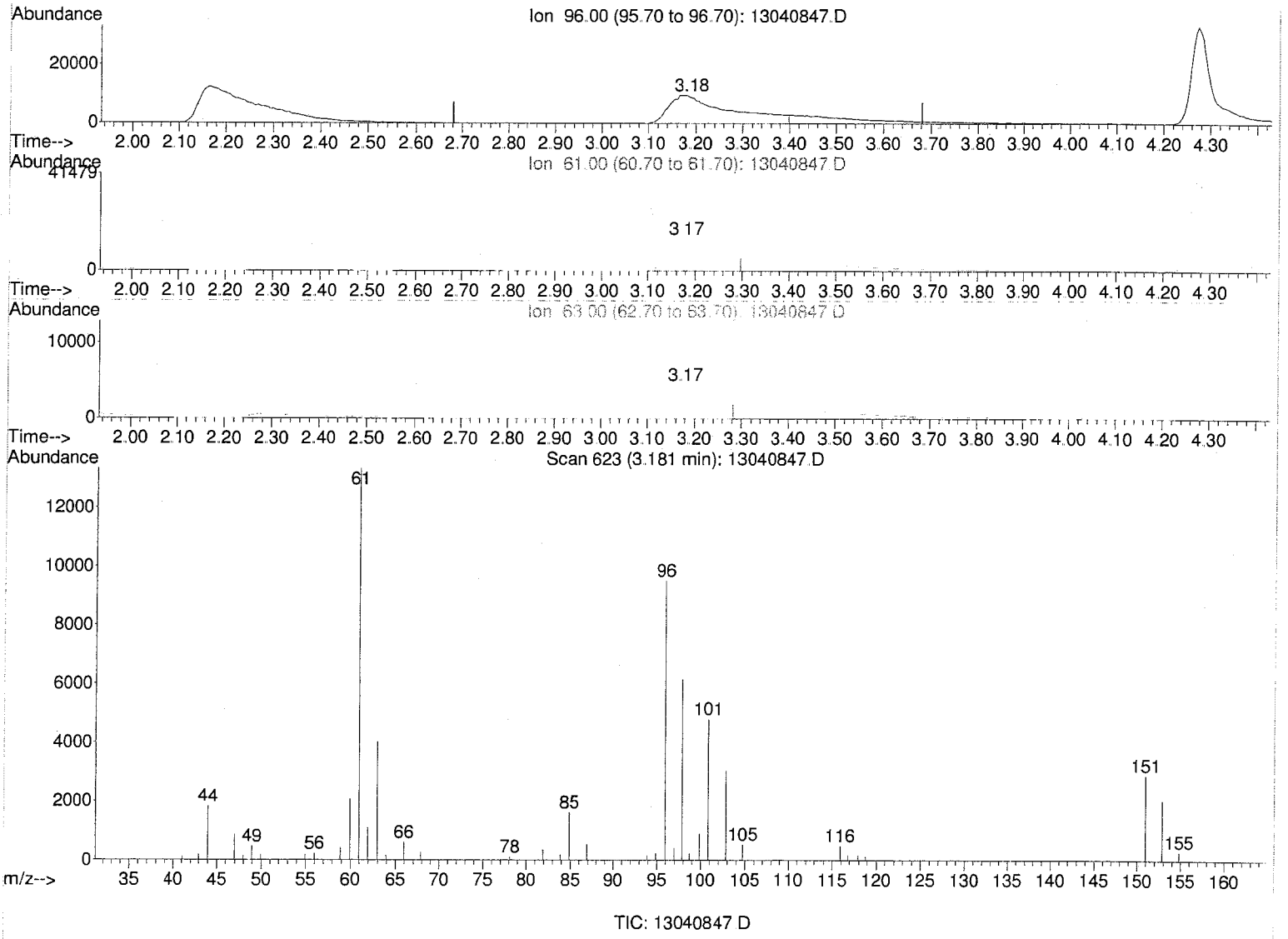
response 137785

Ion	Exp%	Act%
101.00	100	100
103.00	65.30	64.99
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:09 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847 D

(10) 1,1-DICHLOROETHENE (M,C)

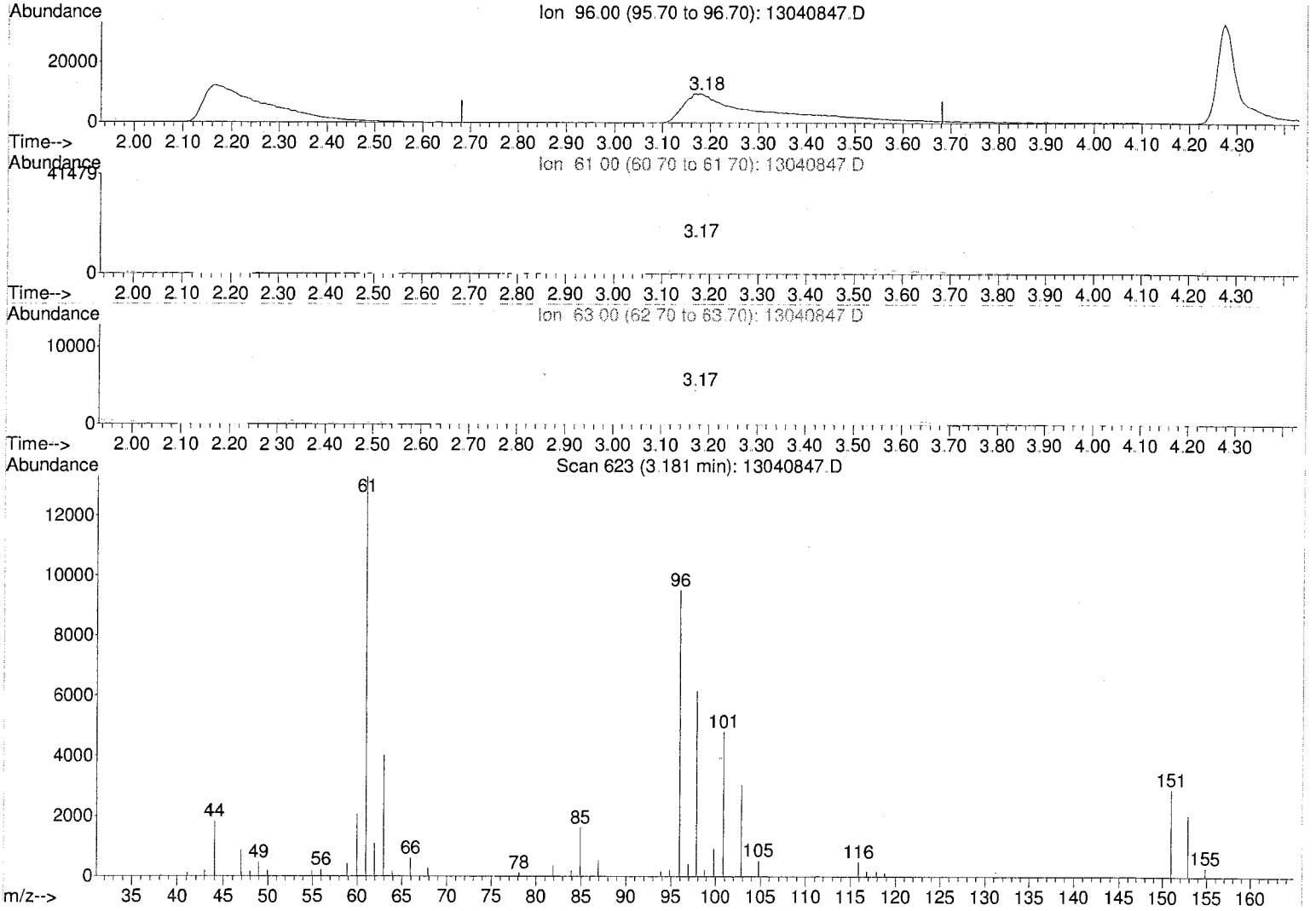
3.18min 41.25ug/L

response 85396

Ion	Exp%	Act%
96.00	100	100
61.00	136.90	107.89#
63.00	44.90	32.76
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:10 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(10) 1,1-DICHLOROETHENE (M,C)

3.18min 54.41ug/L m

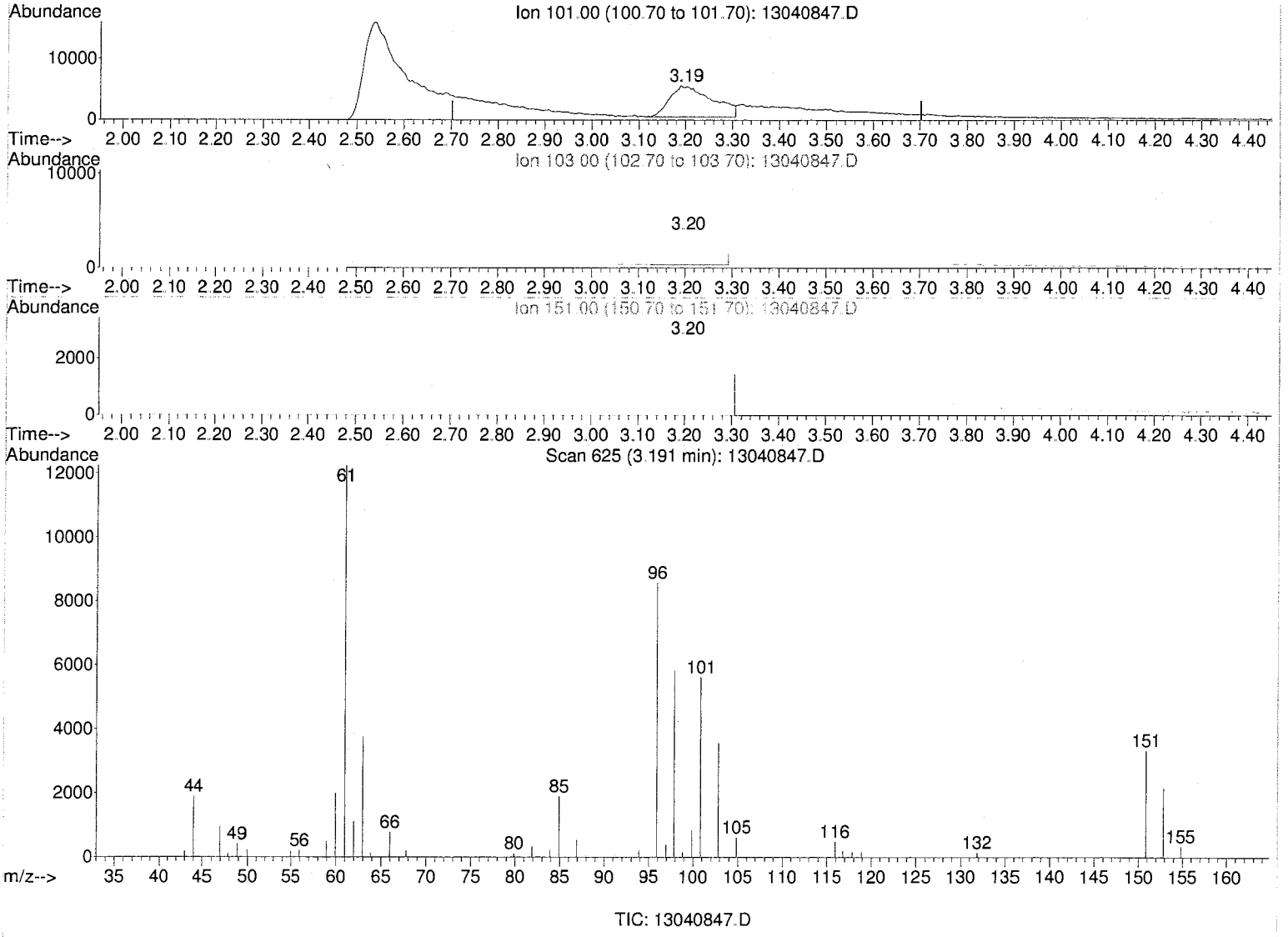
response 112641

Ion	Exp%	Act%
96.00	100	100
61.00	136.90	139.06
63.00	44.90	45.21
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:10 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

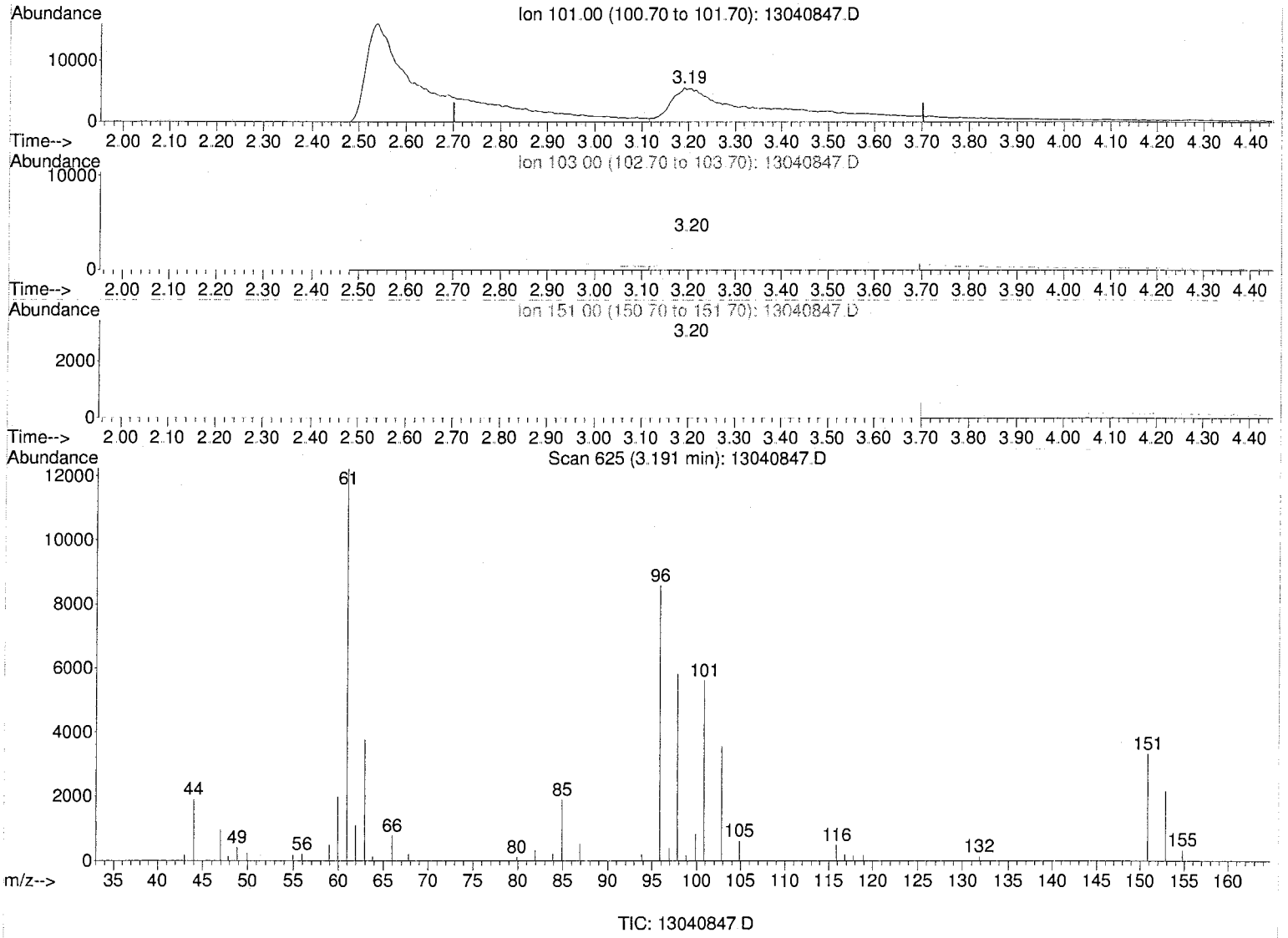
3.19min 23.78ug/L

response 32475

Ion	Exp%	Act%
101.00	100	100
103.00	64.40	59.71
151.00	64.40	71.38
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:10 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.19min 56.05ug/L m

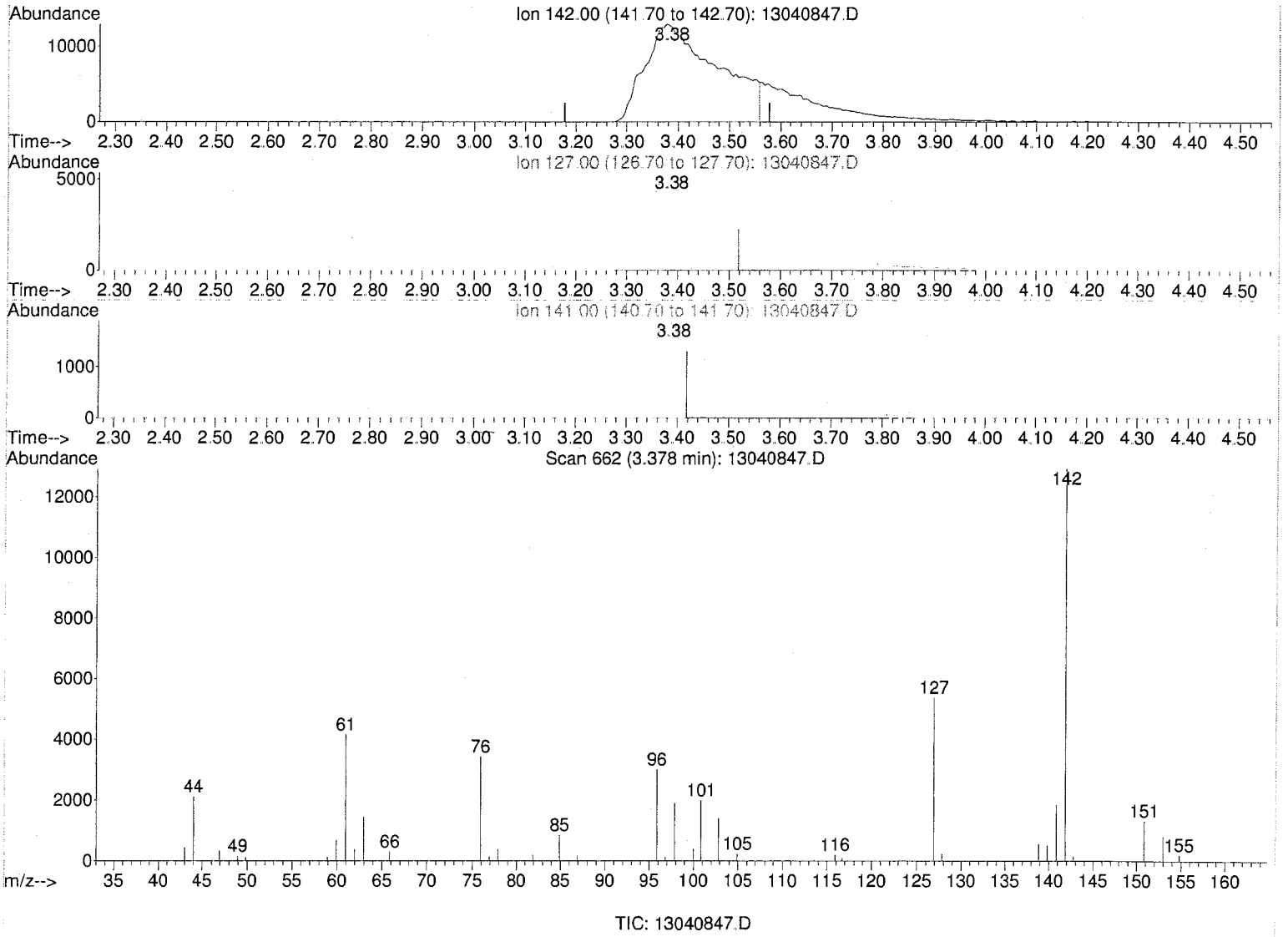
response 76552

Ion	Exp%	Act%
101.00	100	100
103.00	64.40	64.00
151.00	64.40	61.90
0.00	0.00	0.00

AF 4/9/13

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:10 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(12) iodomethane (T)

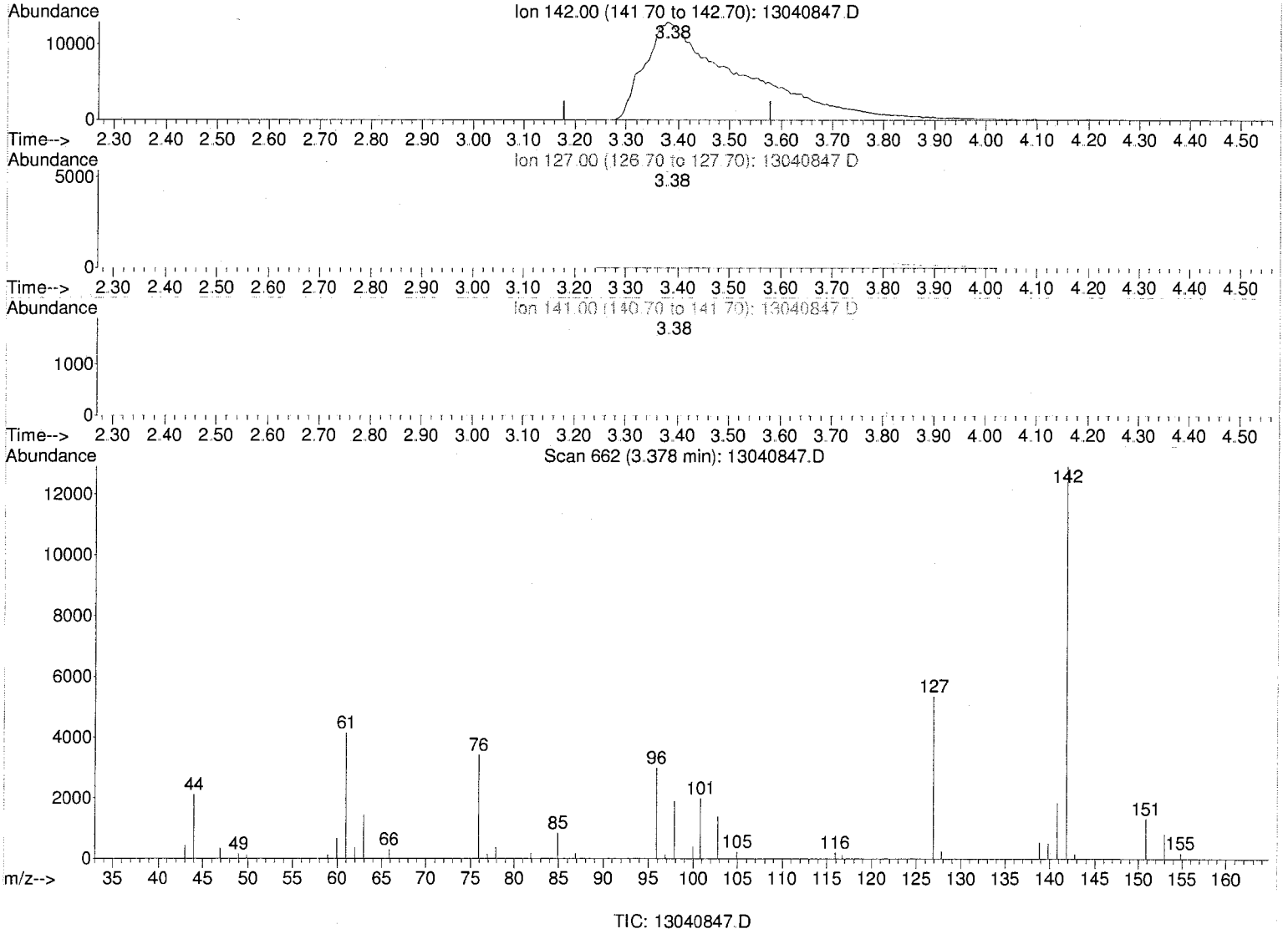
3.38min 42 68ug/L

response 126985

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	35.33
141.00	14.10	7.61
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:10 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(12) iodomethane (T)

3.38min 56.30ug/L m

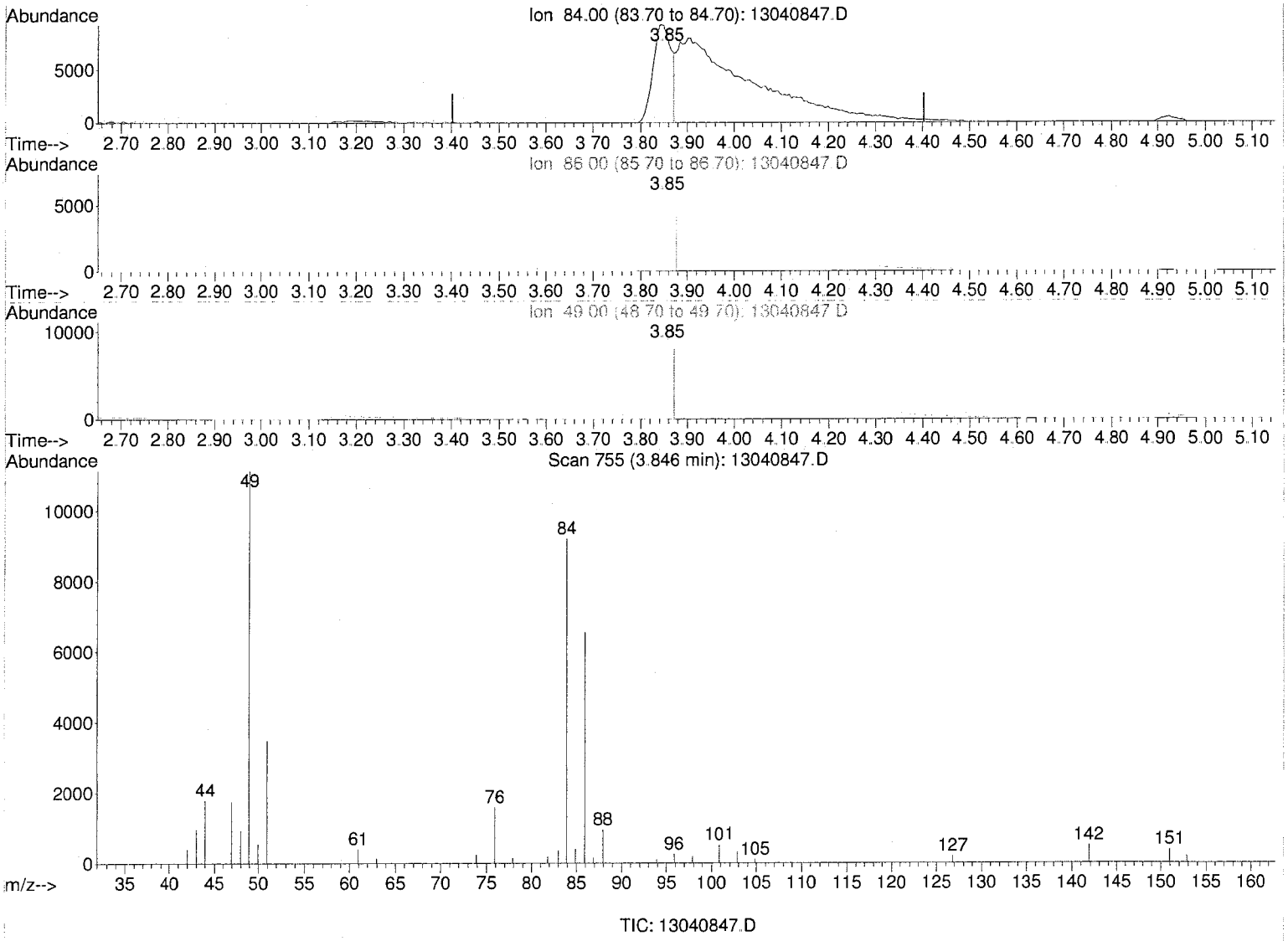
response 167497

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	39.45
141.00	14.10	14.05
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:10 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(15) Methylene chloride (T)

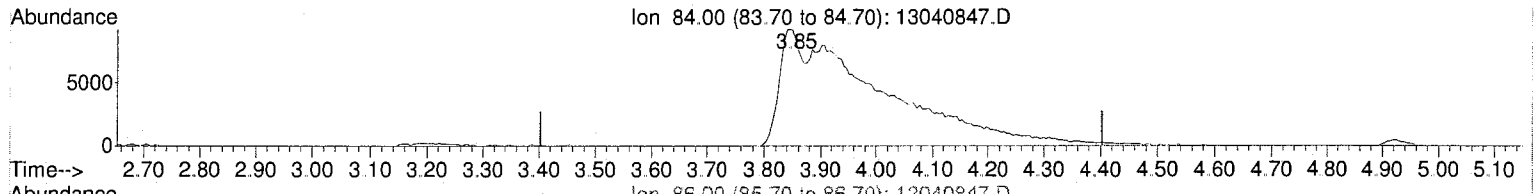
3.85min 11.88ug/L

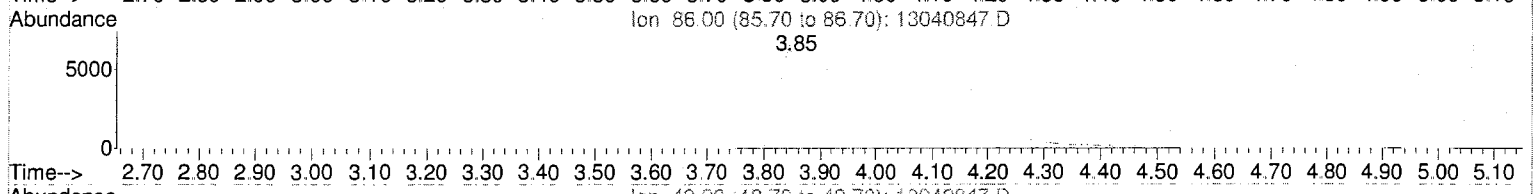
response 25005

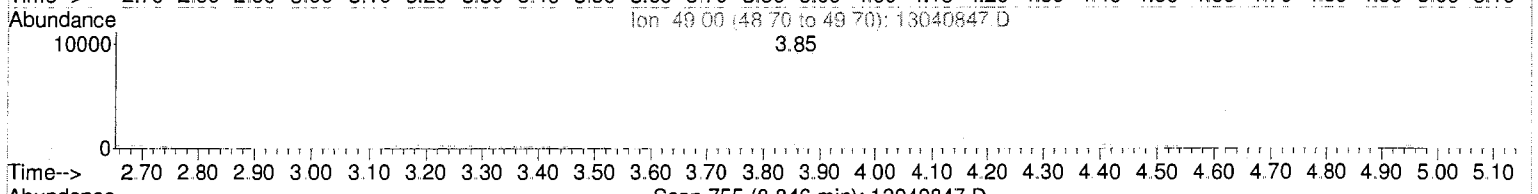
Ion	Exp%	Act%
84.00	100	100
86.00	65.10	70.23
49.00	120.70	122.97
0.00	0.00	0.00

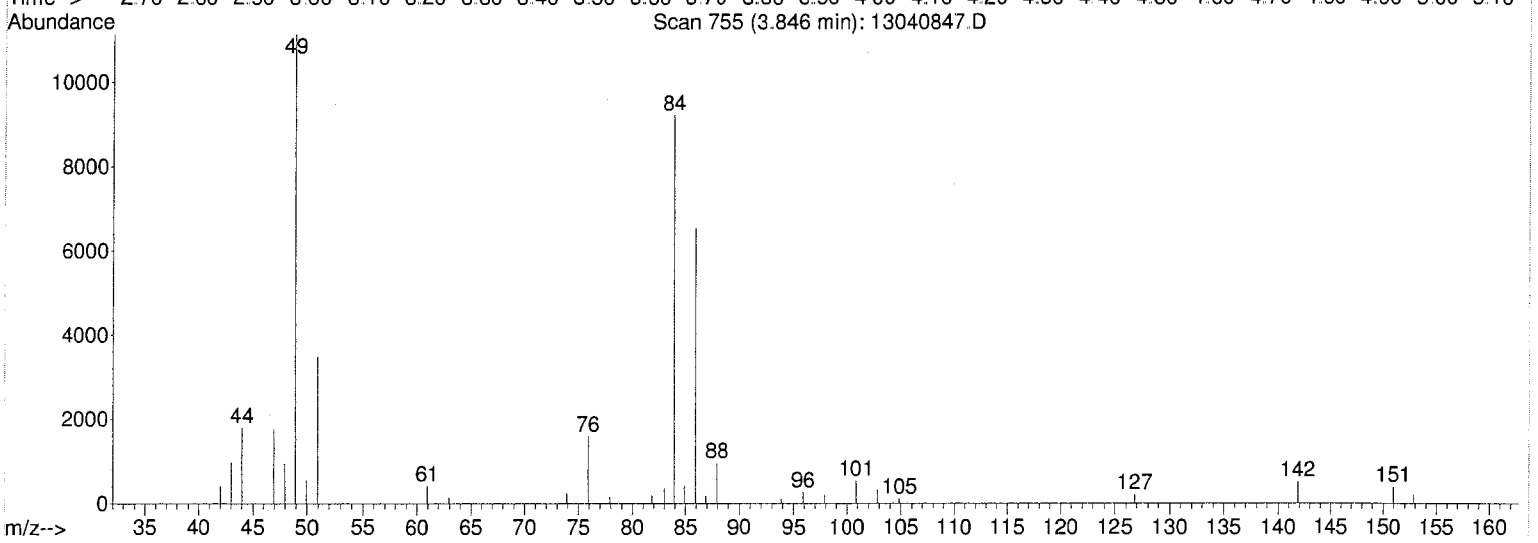
Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:11 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration









TIC: 13040847.D

AK 4/9/13

(15) Methylene chloride (T)

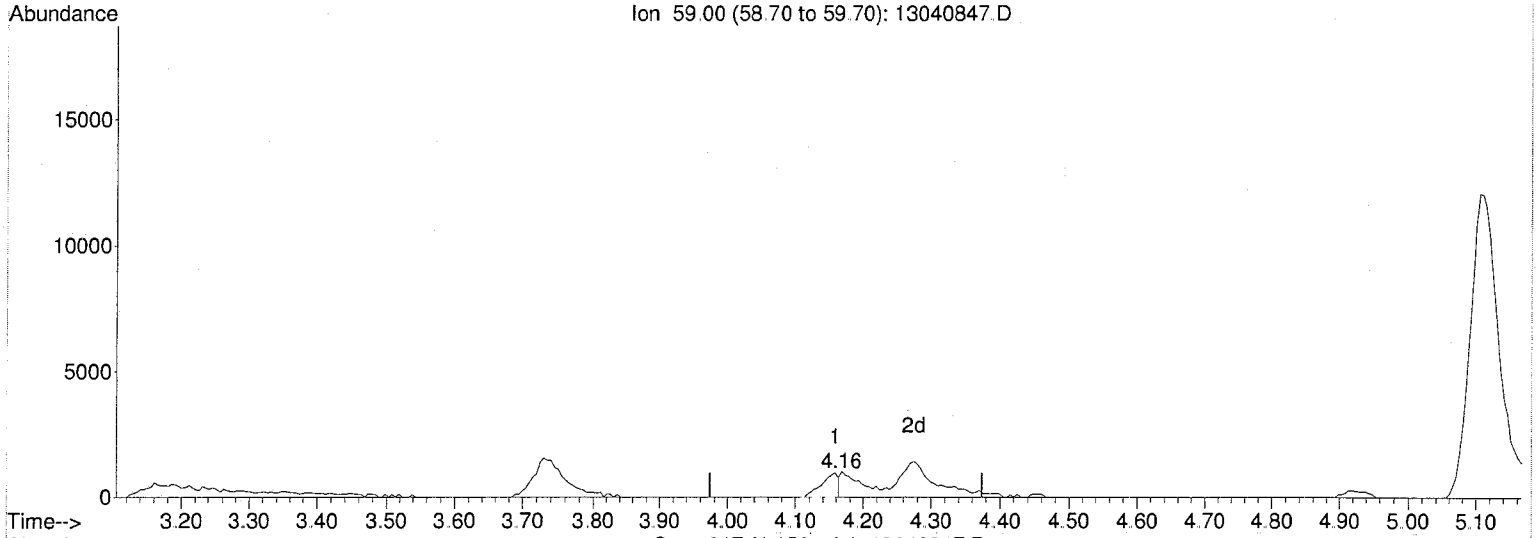
3.85min 54.57ug/L m

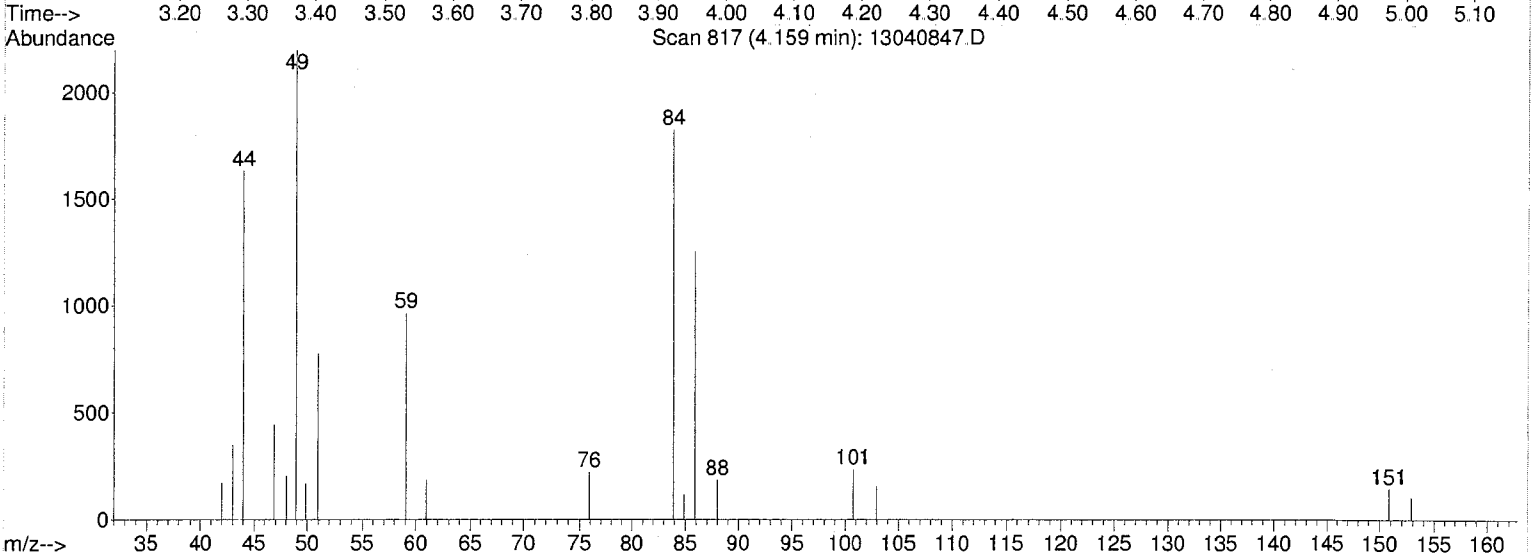
response 114834

Ion	Exp%	Act%
84.00	100	100
86.00	65.10	64.95
49.00	120.70	125.26
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:11 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration





TIC: 13040847.D

(16) tert-Butanol (T)

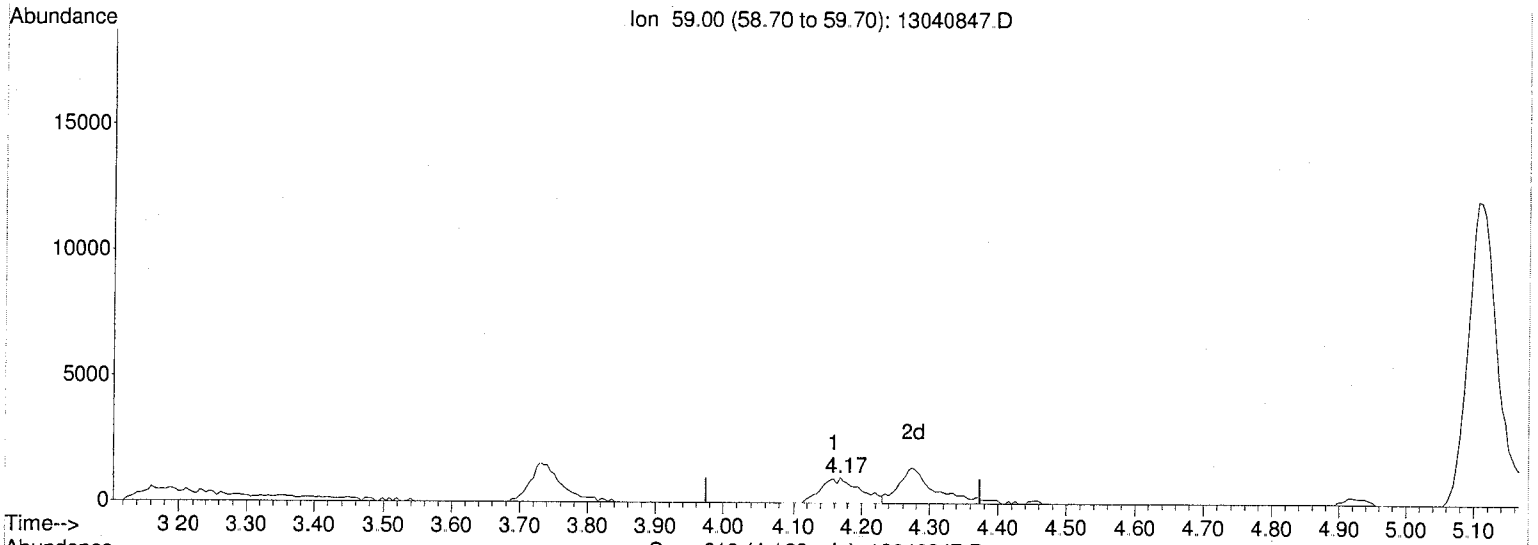
4.16min 20.54ug/L

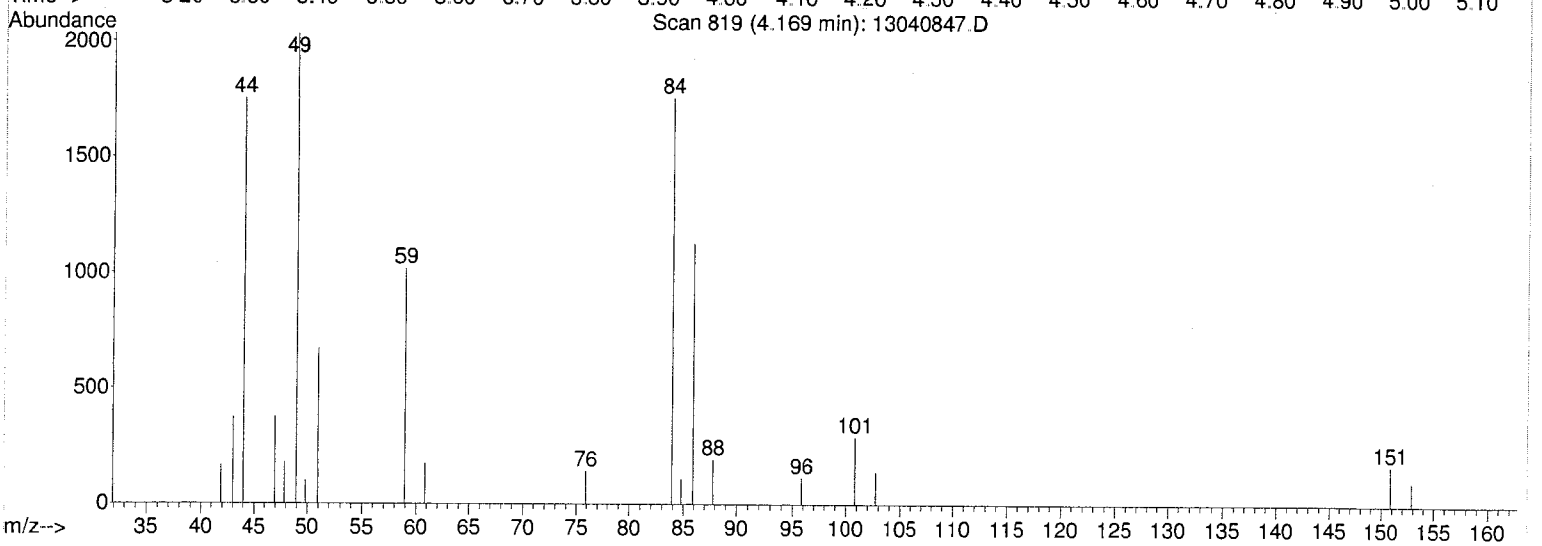
response 1676

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:11 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration





TIC: 13040847.D

(16) tert-Butanol (T)

4.17min 48.80ug/L m

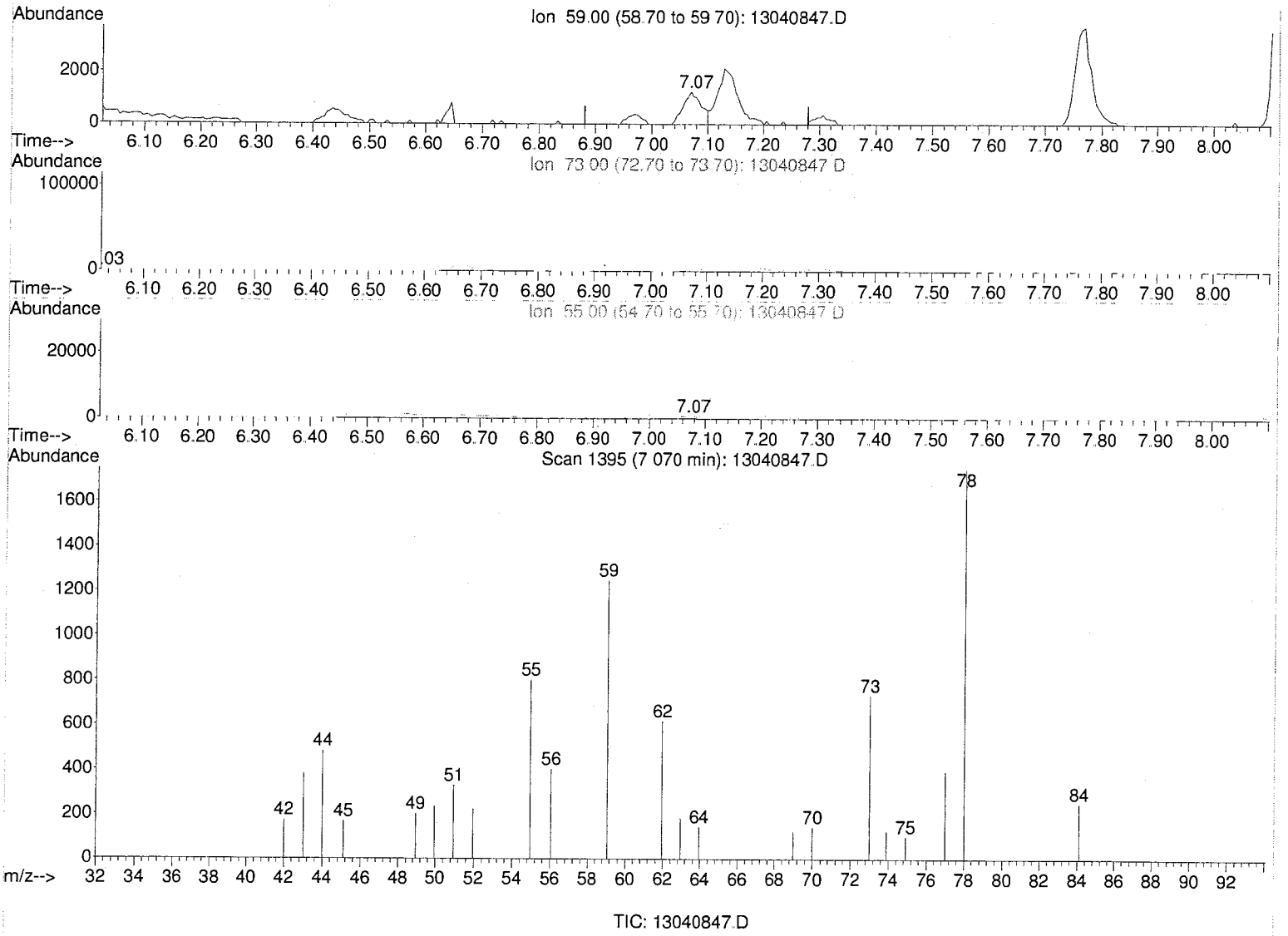
response 3872

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:11 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(36) tert-Amyl alcohol (T)

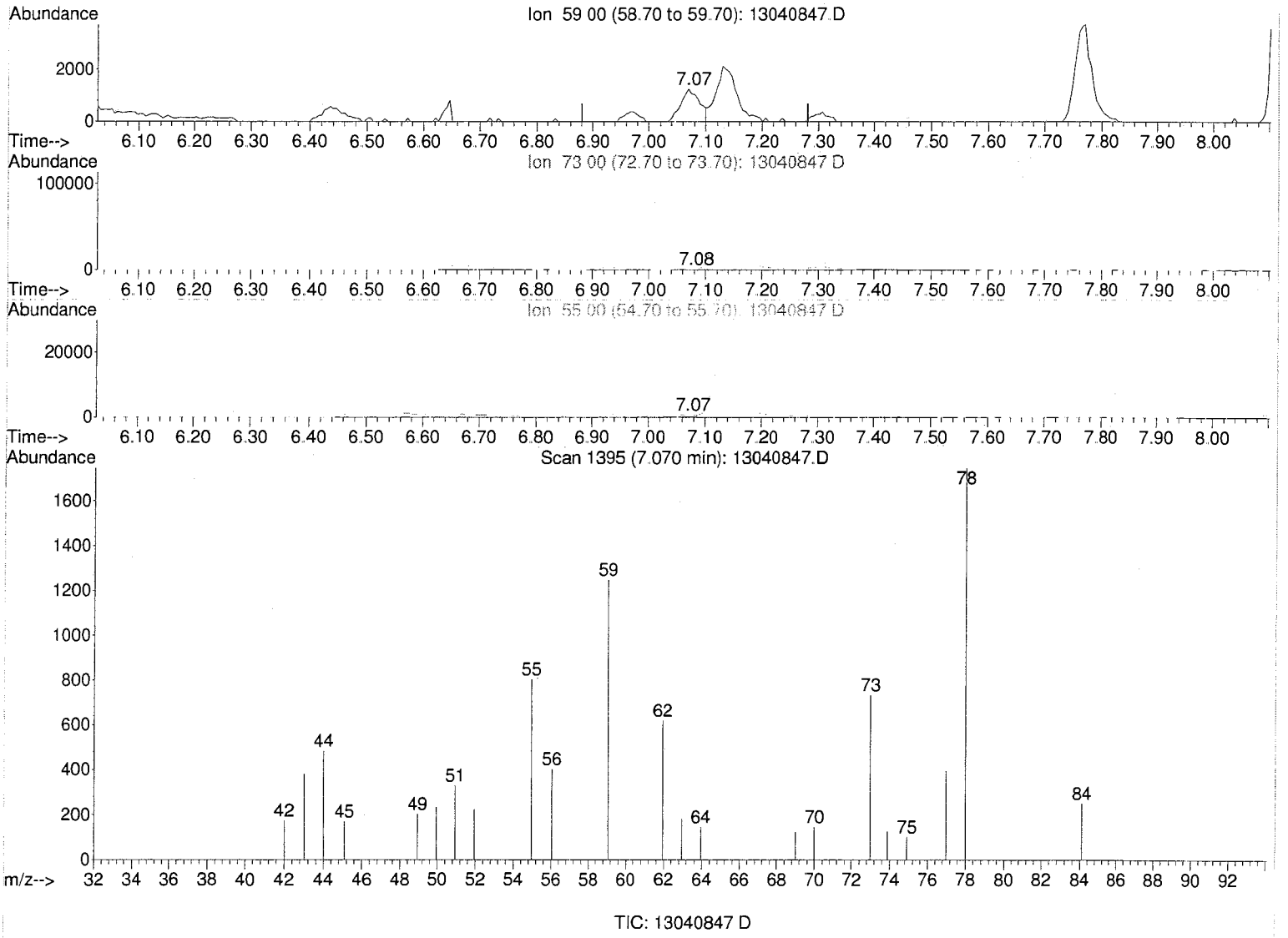
7.07min 41.62ug/L

response 2815

Ion	Exp%	Act%
59.00	100	100
73.00	52.80	0.00#
55.00	32.10	49.02
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:11 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(36) tert-Amyl alcohol (T)

7.07min 41.62ug/L m

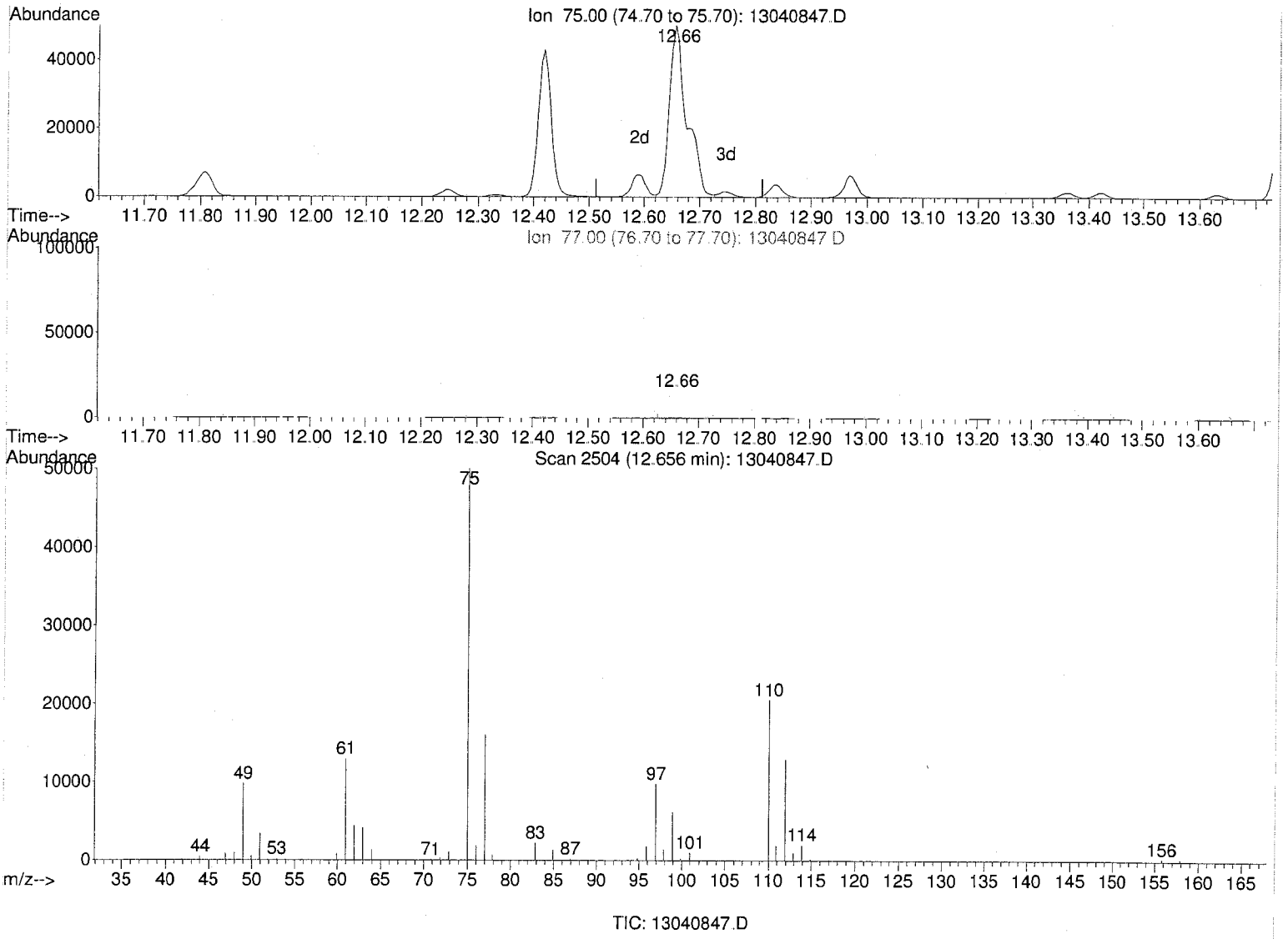
response 2815

Ion	Exp%	Act%
59.00	100	100
73.00	52.80	53.21
55.00	32.10	49.02
0.00	0.00	0.00

AIC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:11 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(65) 1,2,3-Trichloropropane (T)

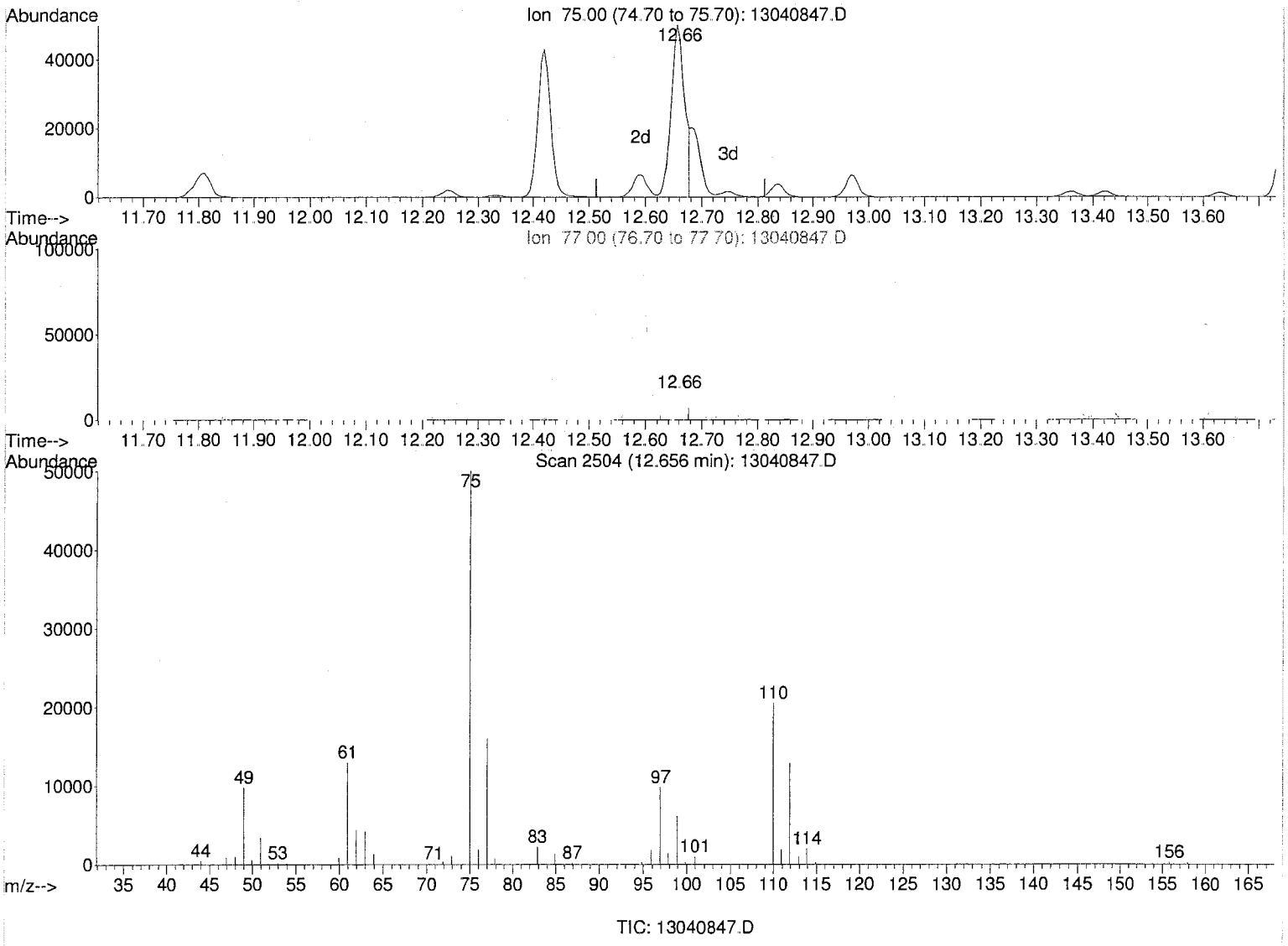
12.66min 72.88ug/L

response 109985

Ion	Exp%	Act%
75.00	100	100
77.00	36.30	33.82
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040847.D Vial: 47
Acq On : 9 Apr 2013 8:54 am Operator: AK
Sample : 13040516-007 MS Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:11 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040847.D

(65) 1,2,3-Trichloropropane (T)

12.66min 56.10ug/L m

response 84659

Ion	Exp%	Act%
75.00	100	100
77.00	36.30	34.15
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:57:40 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene ISTD	7.30	96	512495	50.00	ug/L		0.00
54) Chlorobenzene d-5 ISTD	10.99	117	341467	50.00	ug/L		0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	134017	50.00	ug/L		0.00
System Monitoring Compounds							
29) Dibromofluoromethane SS#1	6.45	113	116672	50.27	ug/L		0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 100.54%				
48) Toluene d-8 SS#2	9.26	98	434936	48.39	ug/L		-0.01
Spiked Amount 50.000	Range 96 - 104		Recovery = 96.78%				
71) 4-Bromofluorobenzene SS#3	12.42	95	165816	50.27	ug/L		0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 100.54%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.51	85	129326	54.32	ug/L		100
3) Chloromethane	1.73	50	168619	54.32	ug/L		98
4) VINYL CHLORIDE	1.81	62	186051	54.78	ug/L		99
5) Bromomethane	2.17	94	113009	55.19	ug/L		99
6) Chloroethane	2.29	64	86568	55.77	ug/L		94
7) Trichlorofluoromethane	2.54	101	135156m	58.56	ug/L		
8) acrolein	3.03	56	14483	52.21	ug/L		96
9) Acetone	3.25	58	5354	48.18	ug/L	#	56
10) 1,1-DICHLOROETHENE	3.18	96	108733m	53.81	ug/L		
11) 1,1,2-Trichlorotrifluoroet	3.20	101	74441m	55.83	ug/L		
12) iodomethane	3.38	142	169074m	58.22	ug/L		
13) Carbon Disulfide	3.42	76	300799	54.06	ug/L		98
14) Methyl Acetate	3.73	74	13343	52.74	ug/L		95
15) Methylene chloride	3.85	84	113211m	55.12	ug/L		
16) tert-Butanol	4.16	59	4206	54.63	ug/L		100
17) acrylonitrile	4.26	53	31310	57.76	ug/L		97
18) trans-1,2-Dichloroethene	4.27	96	102674	57.92	ug/L		99
19) Methyl-t-Butyl Ether	4.32	73	242619	55.22	ug/L		100
20) 1,1-Dichloroethane	4.92	63	161901	56.79	ug/L		100
21) vinyl acetate	5.07	43	183552m	58.15	ug/L		
22) Diisopropyl ether	5.11	45	335894	54.14	ug/L		98
23) tert-Butyl ethyl ether	5.63	59	298267	53.65	ug/L		97
24) 2,2-Dichloropropane	5.76	77	45964	40.37	ug/L		95
25) cis-1,2-Dichloroethene	5.77	96	126089	53.81	ug/L		99
26) 2-Butanone (MEK)	5.85	72	8511	54.31	ug/L		96
27) Bromochloromethane	6.09	128	55823	57.11	ug/L		96
28) CHLOROFORM	6.23	83	175483	57.84	ug/L		99
30) 1,1,1-Trichloroethane	6.44	97	110845	61.65	ug/L		92
31) Cyclohexane	6.50	56	90555	59.48	ug/L		94
32) Carbon tetrachloride	6.65	117	84311	49.73	ug/L		97
33) 1,1-Dichloropropene	6.66	75	127070	55.32	ug/L		99
34) Benzene`	6.93	78	441430	54.85	ug/L		99
35) 1,2-Dichloroethane	6.96	62	117632	59.08	ug/L		96
36) tert-Amyl alcohol	7.07	59	3237m	49.27	ug/L		
37) tert-Amyl methyl ether	7.13	73	277363	53.43	ug/L		96
38) Trichloroethene	7.77	95	102983	55.03	ug/L		96
39) 1,2-DICHLOROPROPANE	8.04	63	111190	57.75	ug/L		100
40) Methylcyclohexane	7.99	83	90422	58.20	ug/L		98
41) tert-Amyl ethyl ether	8.13	59	256981	56.06	ug/L		96
42) Dibromomethane	8.18	93	66496	57.44	ug/L		95
43) 1,4-Dioxane	8.24	88	8563	1076.74	ug/L	#	81
44) Bromodichloromethane	8.40	83	128347	60.29	ug/L		99
45) 2-Chloroethylvinyl Ether	8.80	63	49968	42.05	ug/L		99
46) cis-1,3-Dichloropropene	8.95	75	168181	56.11	ug/L		99
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	14423	56.28	ug/L	#	91

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:57:40 2013 Quant Results File: VOC-W.RES

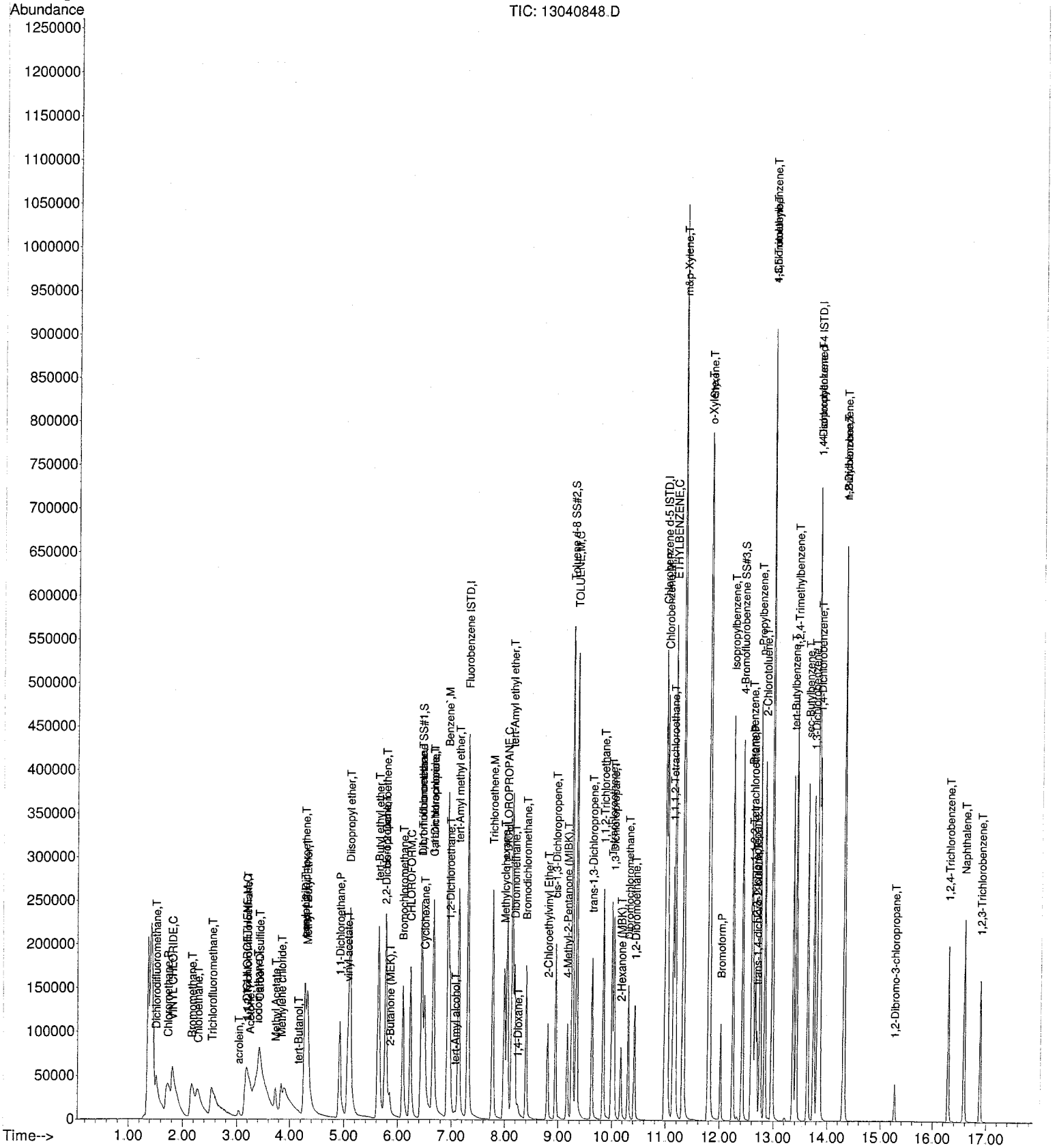
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	TOLUENE	9.34	92	271532	54.85	ug/L		100
50)	trans-1,3-Dichloropropene	9.63	75	138190	48.42	ug/L		100
51)	1,1,2-Trichloroethane	9.84	83	77306	56.81	ug/L		99
52)	Tetrachloroethene	9.99	164	65358	53.41	ug/L		98
53)	2-Hexanone (MBK)	10.17	43	61087	55.08	ug/L		99
55)	1,3-Dichloropropane	10.03	76	167947	58.86	ug/L		99
56)	Dibromochloromethane	10.30	129	87496	50.08	ug/L		97
57)	1,2-Dibromoethane	10.43	107	99182	59.06	ug/L		99
58)	Chlorobenzene	11.02	112	292668	57.08	ug/L		96
59)	1,1,1,2-Tetrachloroethane	11.13	131	85831	59.54	ug/L		98
60)	ETHYLBENZENE	11.17	91	439819	57.42	ug/L		99
61)	m&p-Xylene	11.32	106	352603	113.95	ug/L		96
62)	o-Xylene	11.79	106	179217	58.12	ug/L		98
63)	Styrene	11.81	104	335618	59.55	ug/L		100
64)	Bromoform	12.02	173	50730	47.03	ug/L		99
65)	1,2,3-Trichloropropane	12.65	75	83776m	57.98	ug/L		
66)	Bromobenzene	12.59	156	104101	57.91	ug/L		97
67)	trans-1,4-dichloro-2-buten	12.69	53	22065	47.01	ug/L	#	97
68)	n-Propylbenzene	12.75	91	409206	57.61	ug/L		97
70)	Isopropylbenzene	12.25	105	359940	55.46	ug/L		97
72)	1,1,2,2-Tetrachloroethane	12.62	83	116297	57.32	ug/L		99
73)	2-Chlorotoluene	12.84	91	265933	56.29	ug/L		99
74)	4-Chlorotoluene	12.97	91	311152	57.73	ug/L		99
75)	1,3,5-Trimethylbenzene	12.97	105	291044	57.86	ug/L		98
76)	tert-Butylbenzene	13.36	119	213165	57.44	ug/L		95
77)	1,2,4-Trimethylbenzene	13.42	105	291643	55.95	ug/L		94
78)	sec-Butylbenzene	13.63	105	321996	56.97	ug/L		99
79)	4-Isopropyltoluene	13.82	119	257753	55.69	ug/L		97
80)	1,3-Dichlorobenzene	13.74	146	164297	56.42	ug/L		98
81)	1,4-Dichlorobenzene	13.86	146	168955	56.07	ug/L		98
82)	1,2-Dichlorobenzene	14.31	146	154840	56.08	ug/L		97
83)	n-Butylbenzene	14.31	91	233555	56.54	ug/L		99
84)	1,2-Dibromo-3-chloropropan	15.27	75	12445	59.42	ug/L		91
85)	1,2,4-Trichlorobenzene	16.29	180	68227	56.48	ug/L		98
86)	Naphthalene	16.59	128	195195	57.66	ug/L		100
87)	1,2,3-Trichlorobenzene	16.89	180	57669	57.00	ug/L		99

(#) = qualifier out of range (m) = manual integration

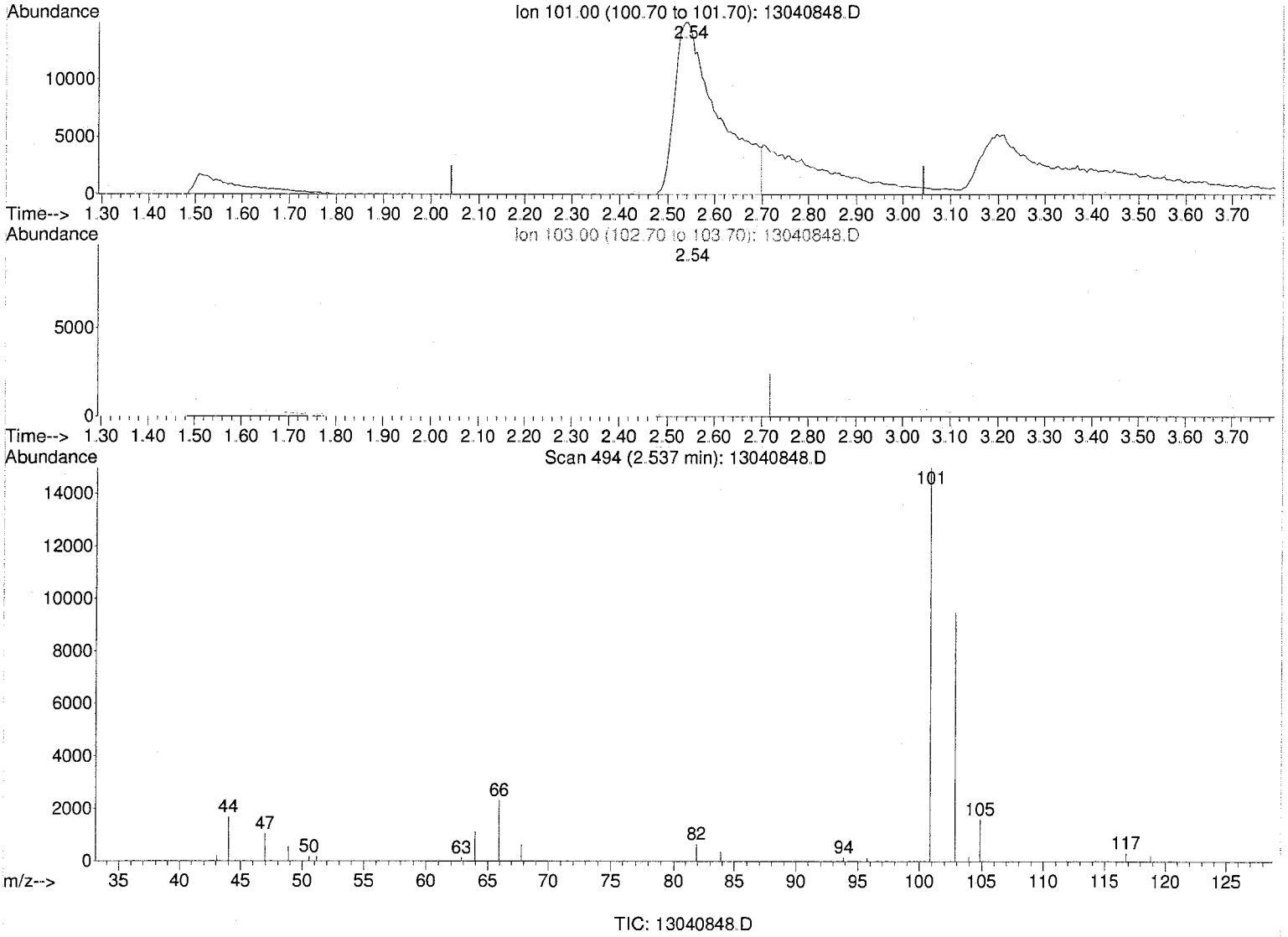
Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:14 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(7) Trichlorofluoromethane (T)

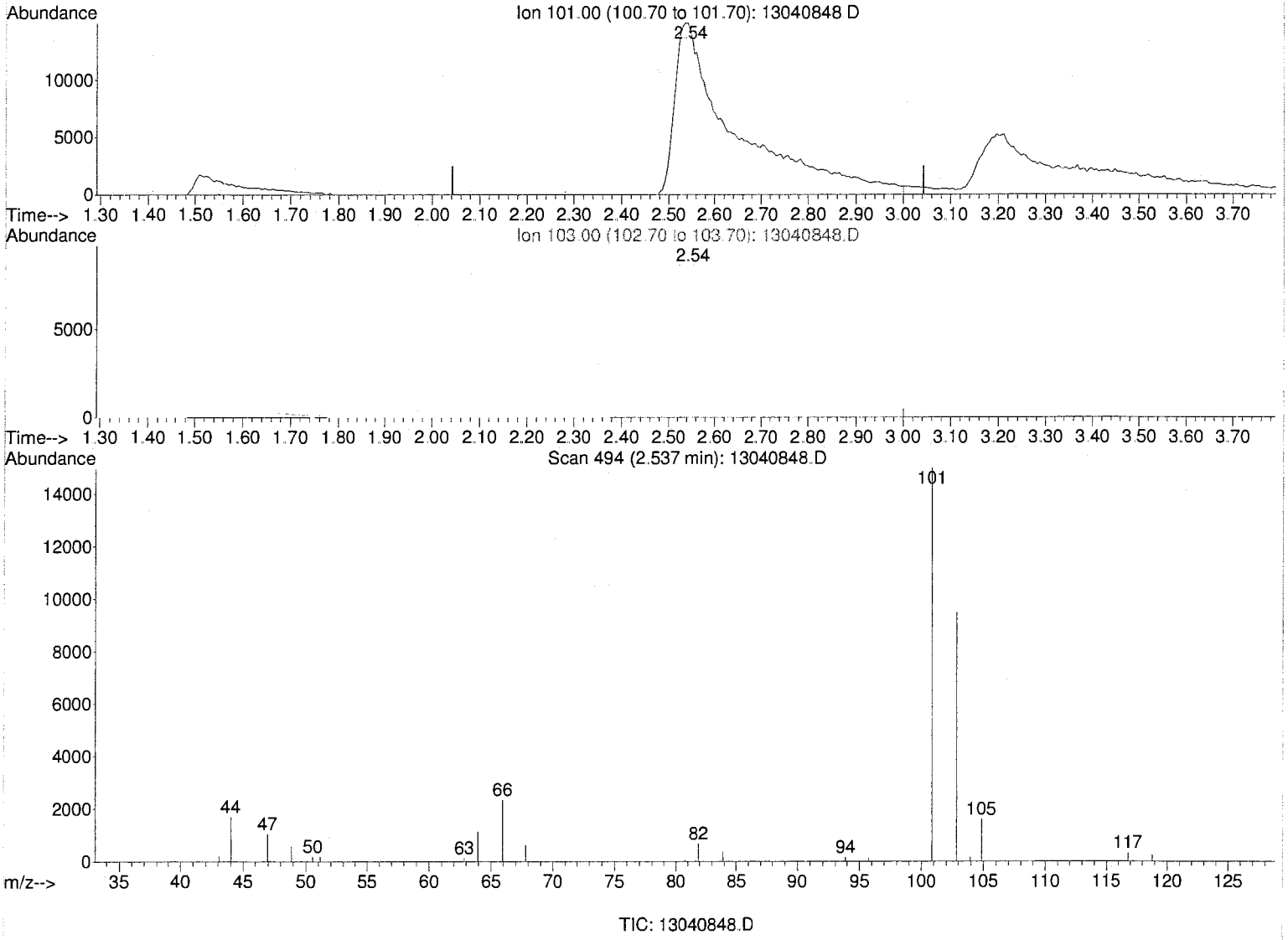
2.54min 42.38ug/L

response 97809

Ion	Exp%	Act%
101.00	100	100
103.00	65.30	67.71
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:12 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(7) Trichlorofluoromethane (T)

2.54min 58.56ug/L m

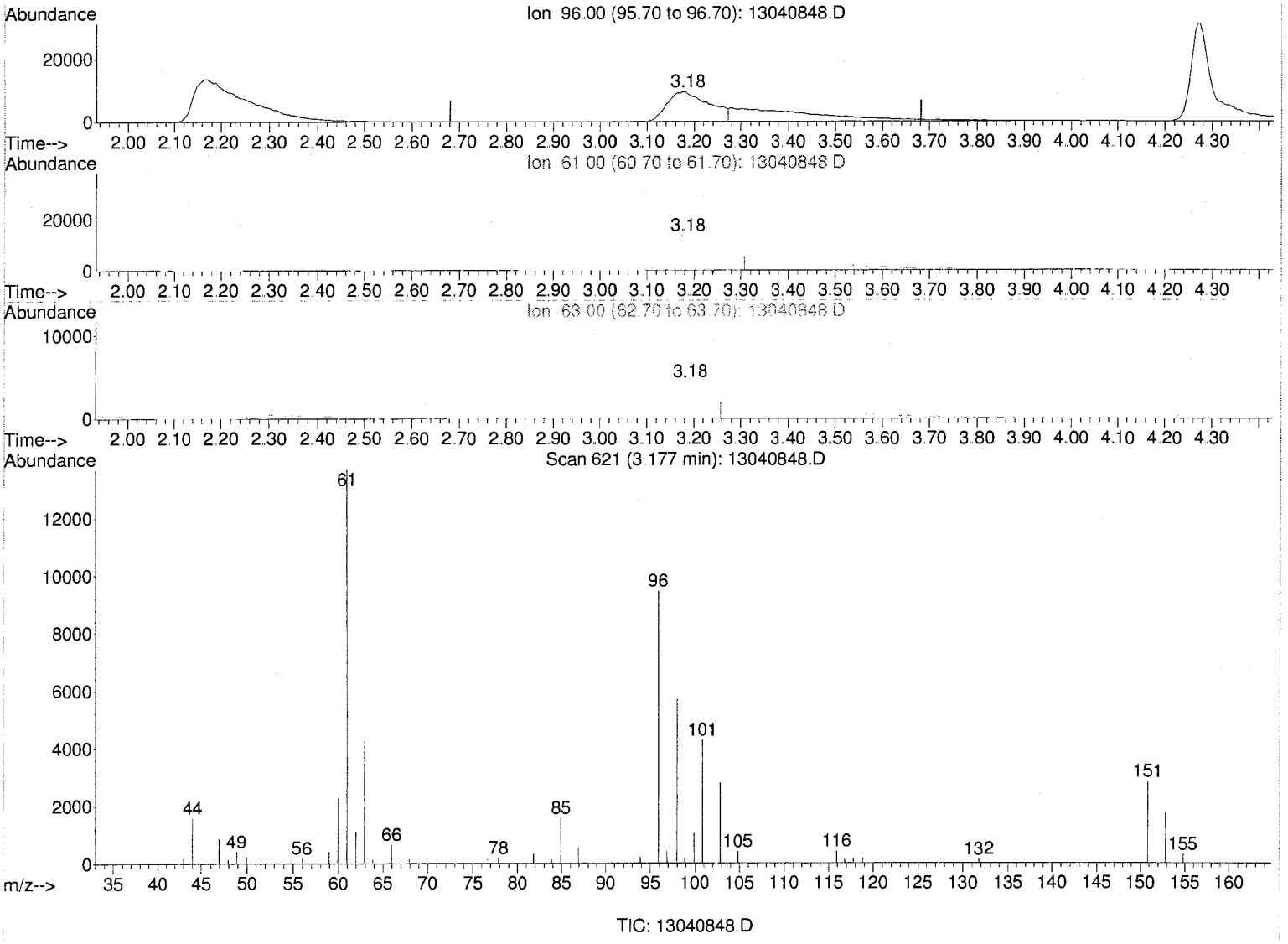
response 135156

Ion	Exp%	Act%
101.00	100	100
103.00	65.30	64.79
0.00	0.00	0.00
0.00	0.00	0.00

AC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:12 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(10) 1,1-DICHLOROETHENE (M,C)

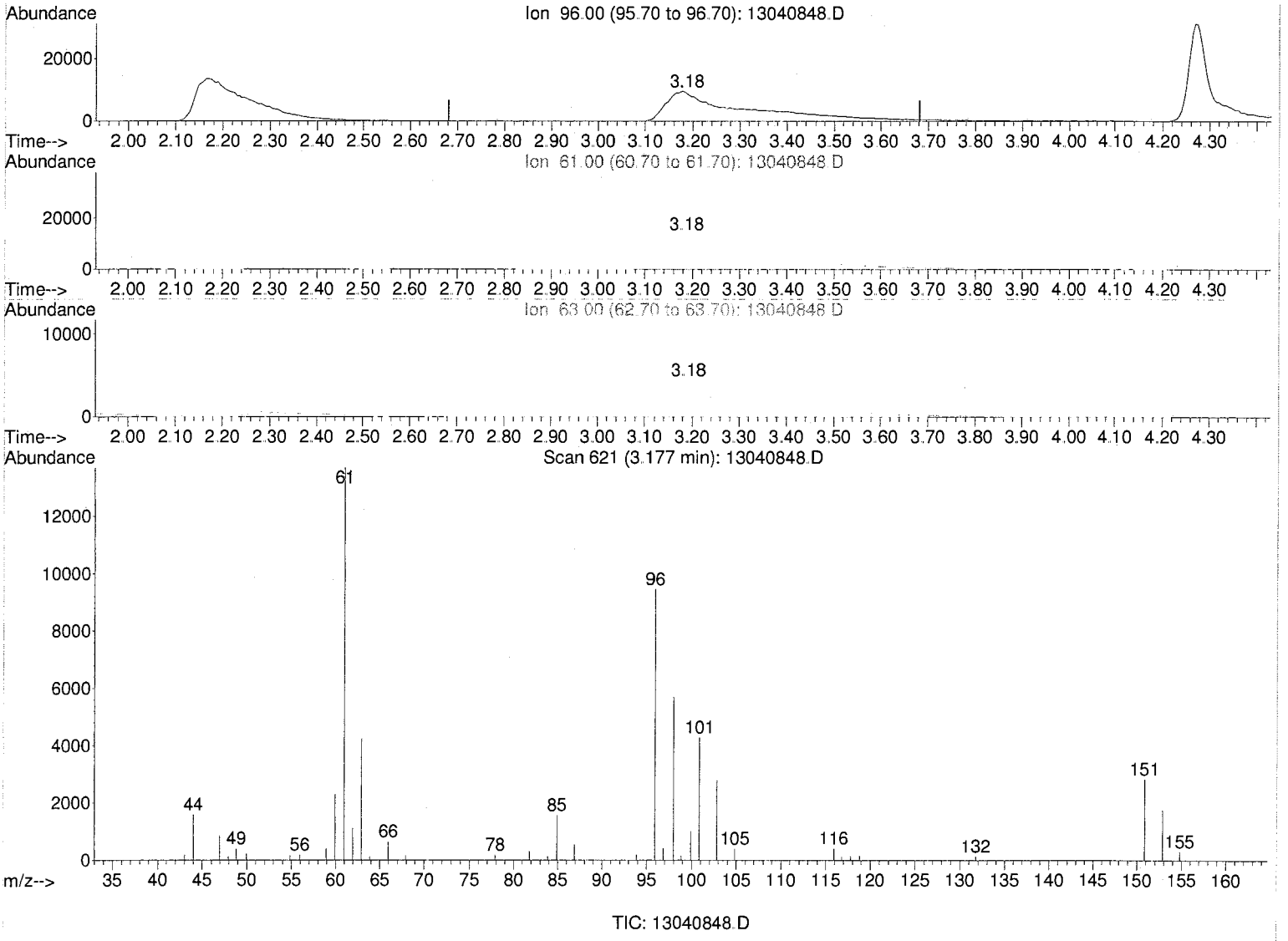
3.18min 28.83ug/L

response 58257

Ion	Exp%	Act%
96.00	100	100
61.00	136.90	161.48#
63.00	44.90	42.38
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:12 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(10) 1,1-DICHLOROETHENE (M,C)

3.18min 53.81ug/L m

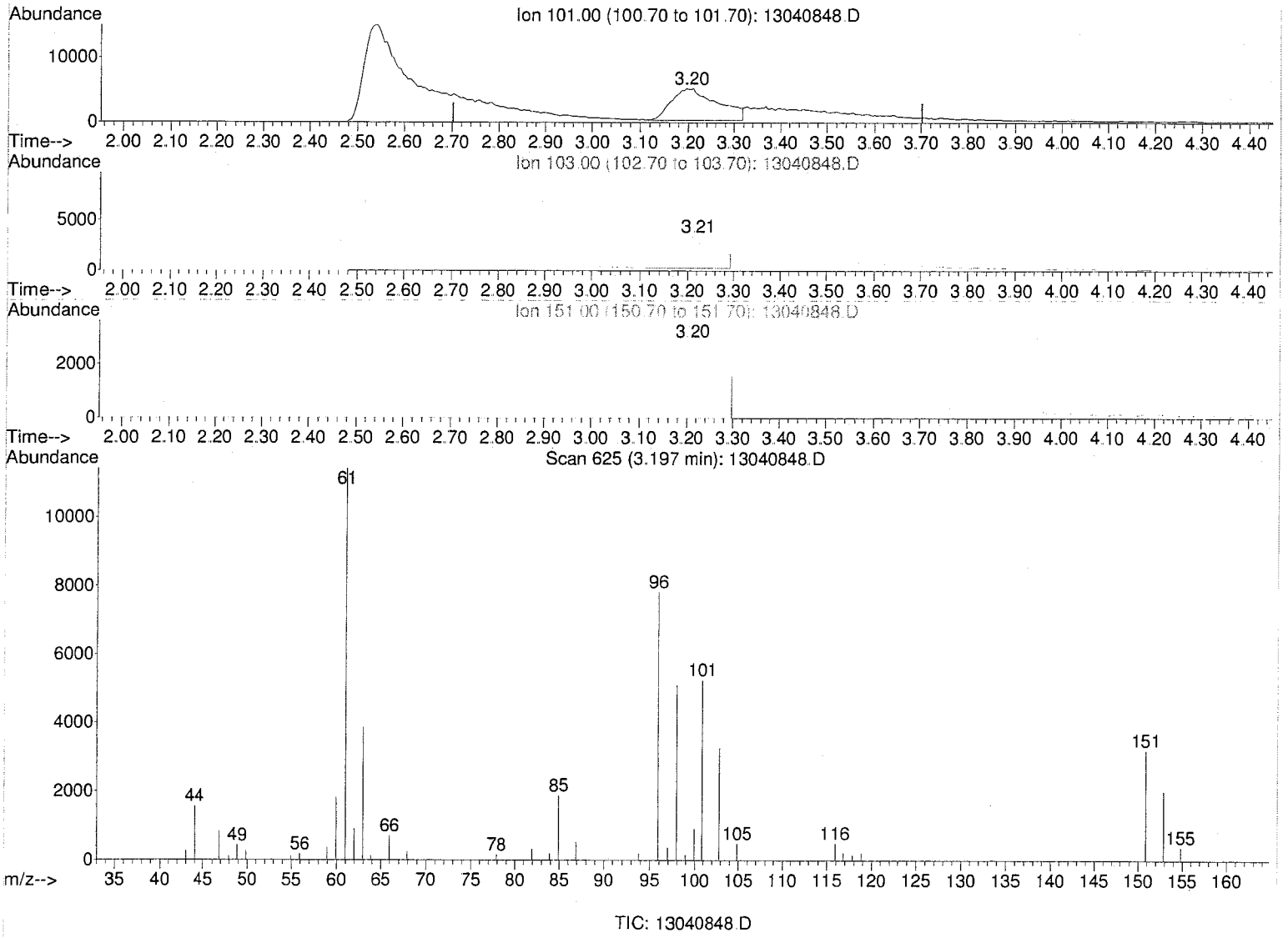
response 108733

Ion	Exp%	Act%
96.00	100	100
61.00	136.90	140.34
63.00	44.90	46.02
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:12 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

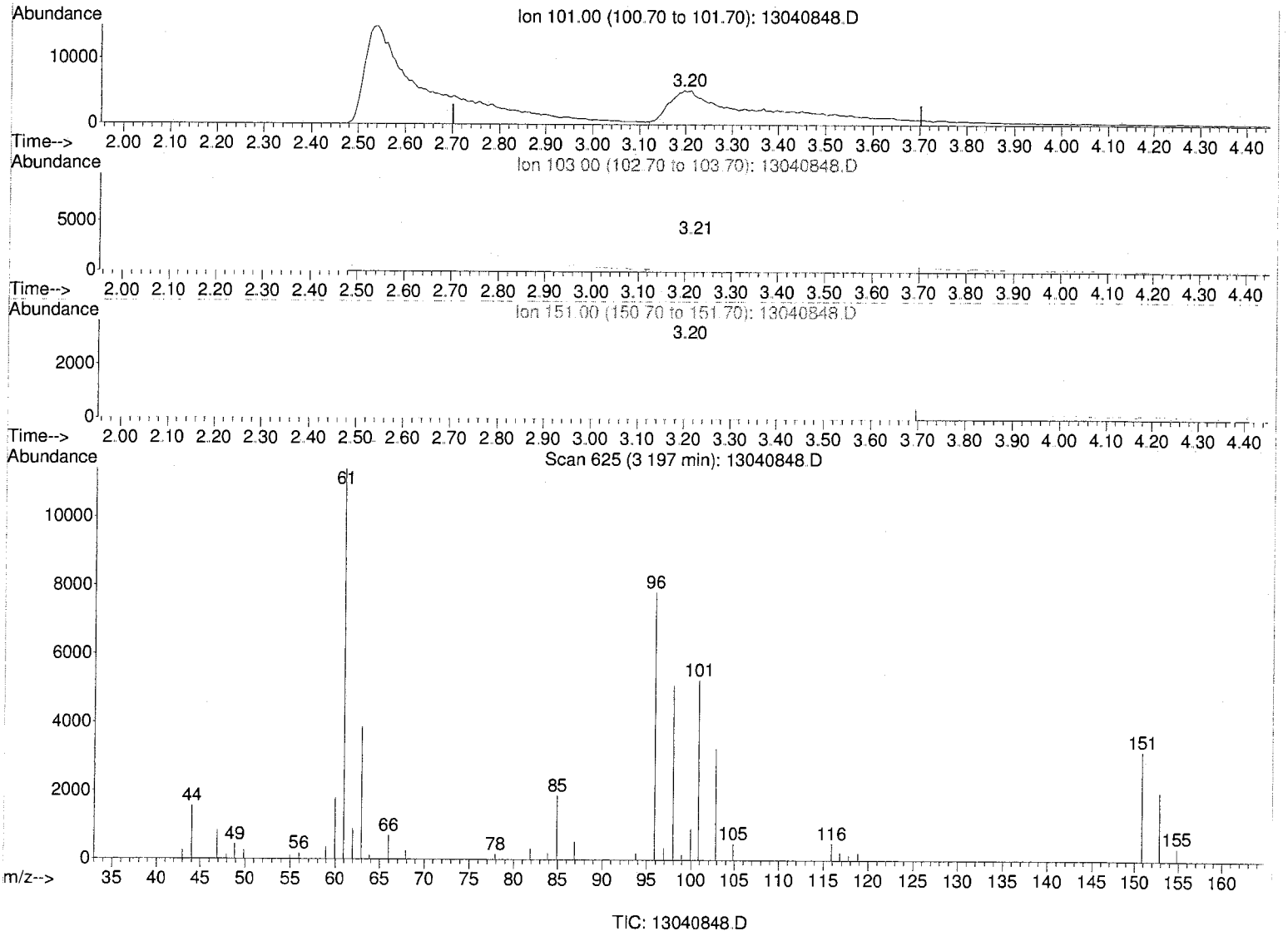
3.20min 25.58ug/L

response 34106

Ion	Exp%	Act%
101.00	100	100
103.00	64.40	56.17
151.00	64.40	65.94
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:13 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.20min 55.83ug/L m

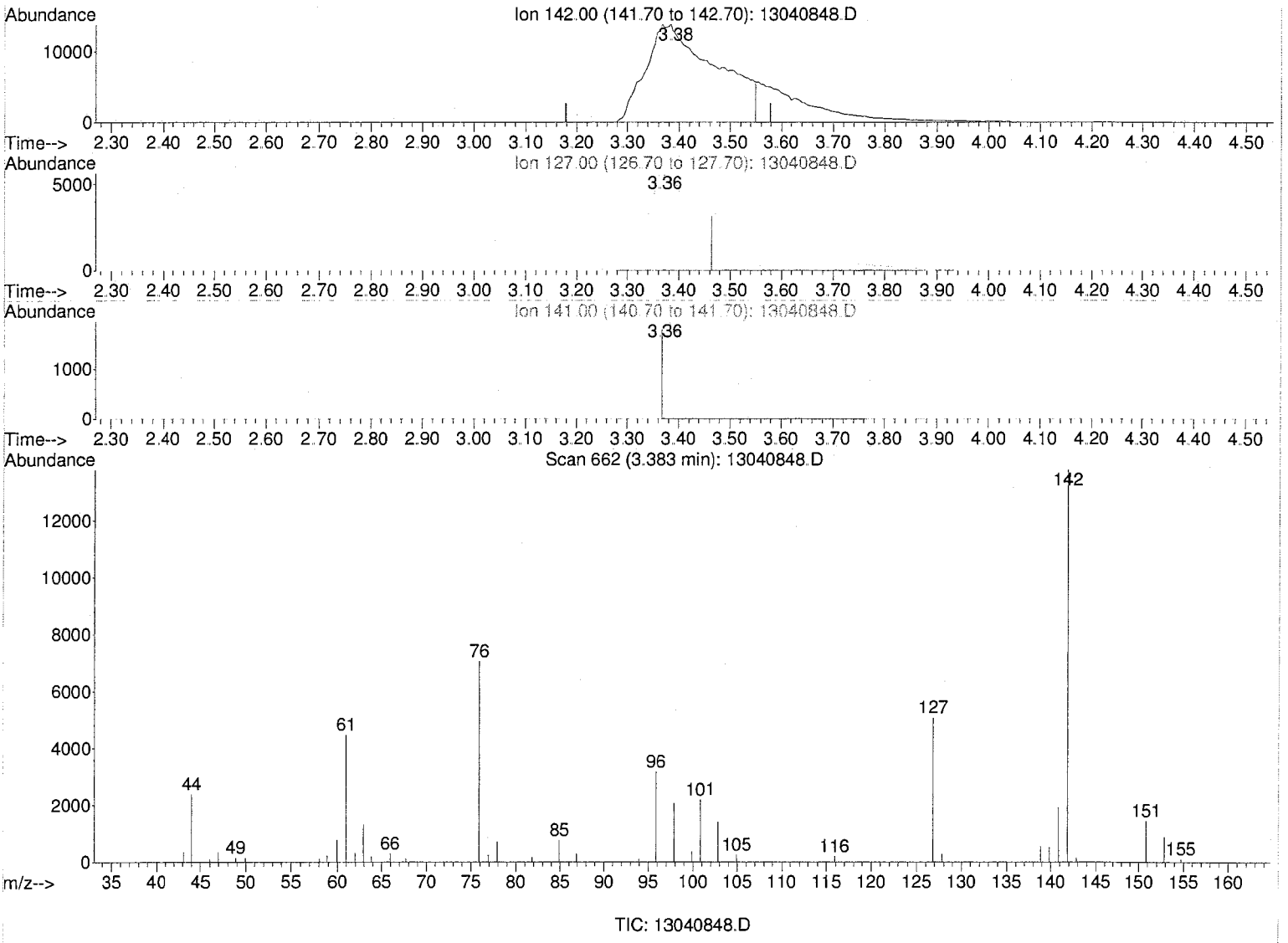
response 74441

Ion	Exp%	Act%
101.00	100	100
103.00	64.40	64.75
151.00	64.40	65.11
0.00	0.00	0.00

AC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:13 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(12) iodomethane (T)

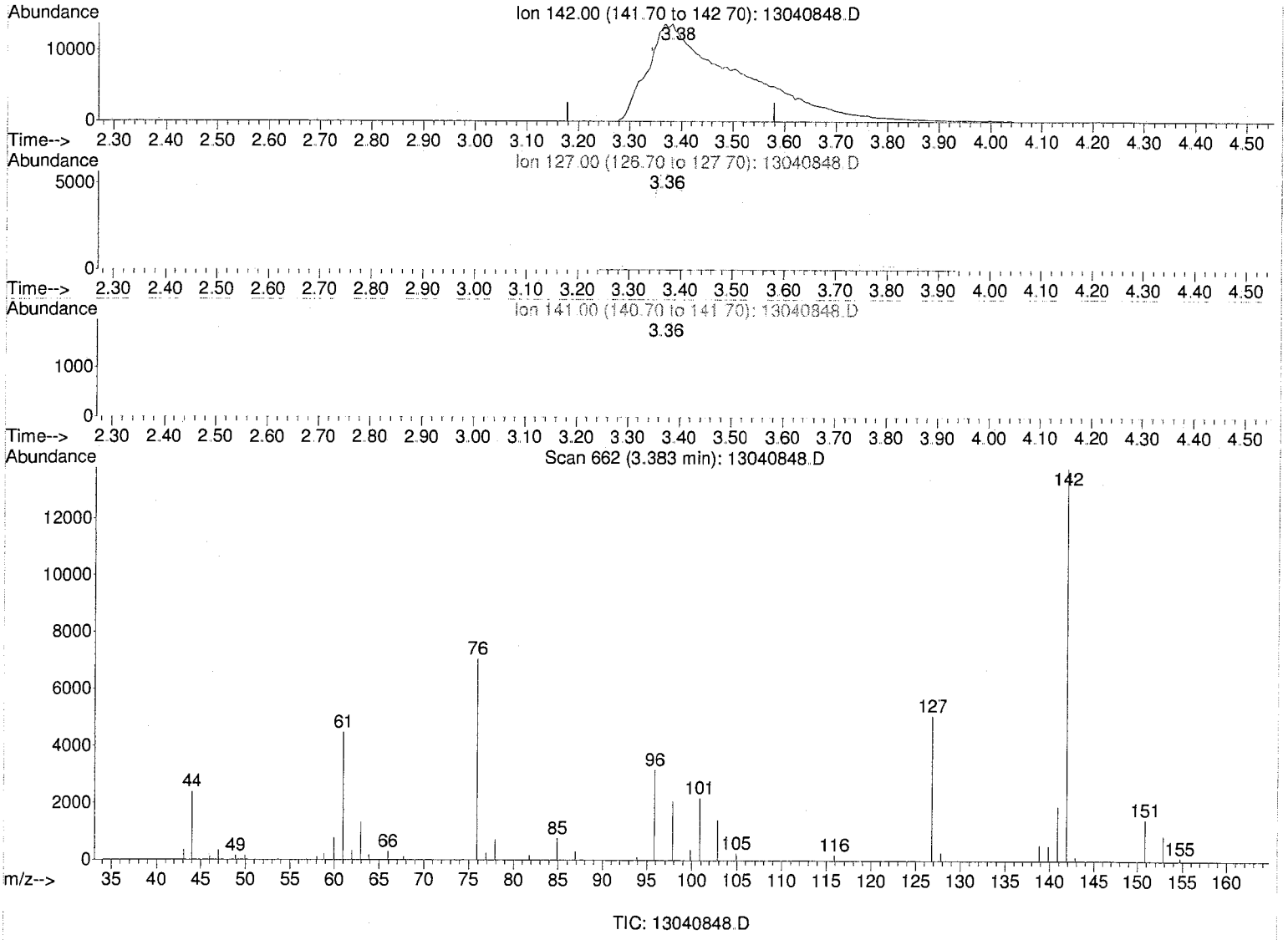
3.38min 45.11ug/L

response 131002

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	28.91
141.00	14.10	3.69
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:13 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(12) iodomethane (T)

3.38min 58.22ug/L m

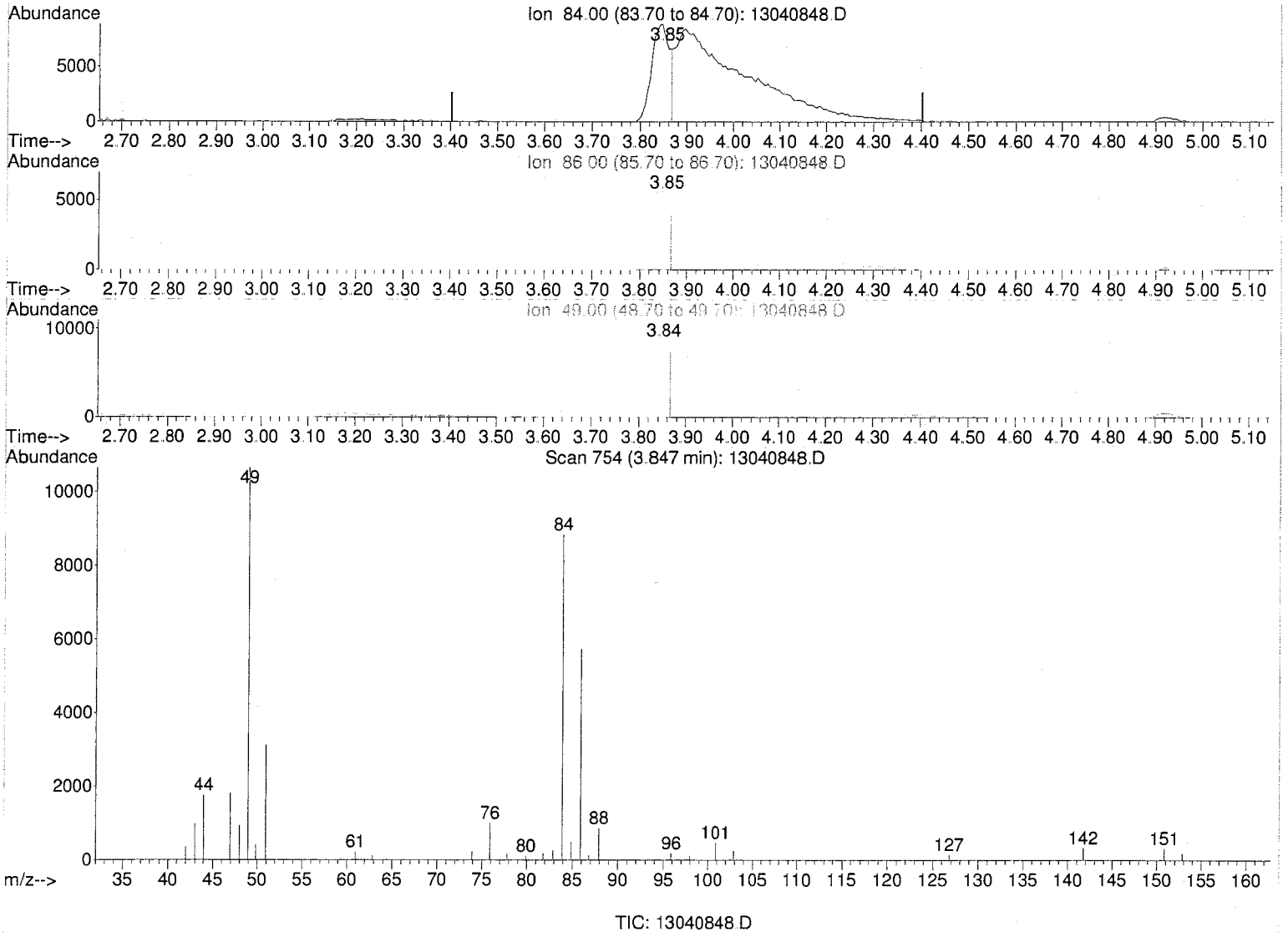
response 169074

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	39.38
141.00	14.10	14.02
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:13 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(15) Methylene chloride (T)

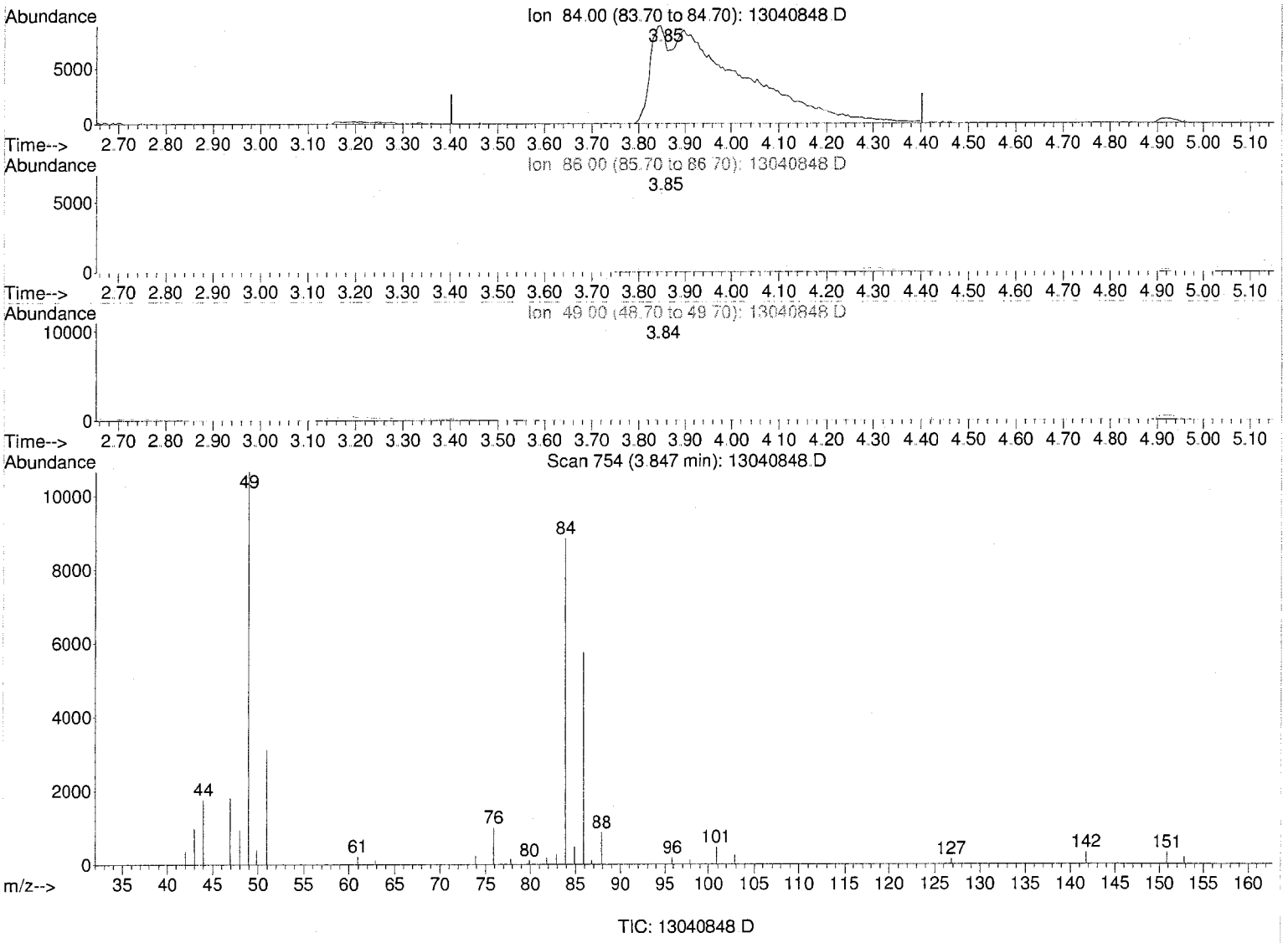
3.85min 11.44ug/L

response 23490

Ion	Exp%	Act%
84.00	100	100
86.00	65.10	63.34
49.00	120.70	120.09
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:13 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848 D

(15) Methylene chloride (T)

3.85min 55.12ug/L m

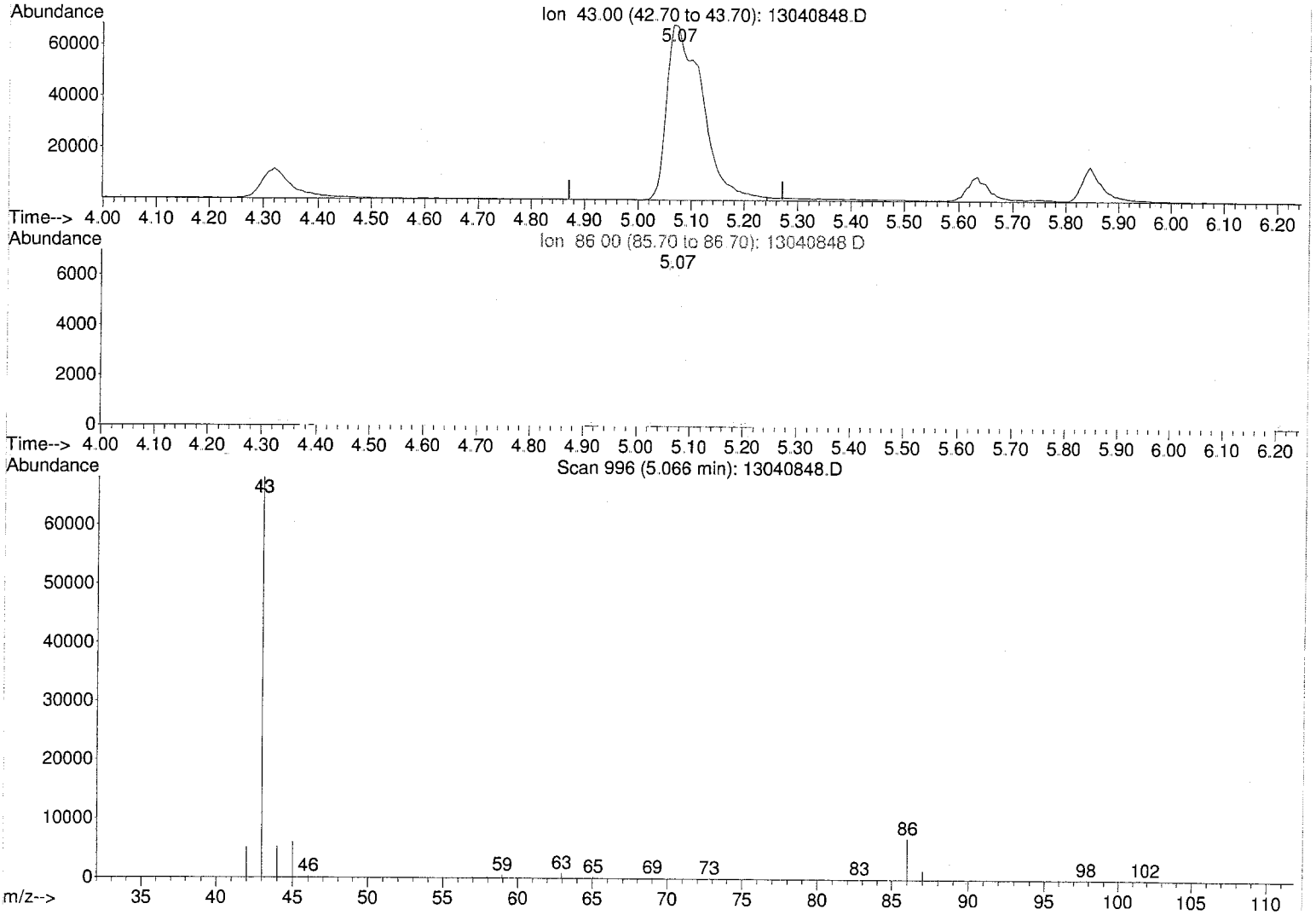
response 113211

Ion	Exp%	Act%
84.00	100	100
86.00	65.10	64.40
49.00	120.70	123.29
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:13 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(21) vinyl acetate (T)

5.07min 99.73ug/L

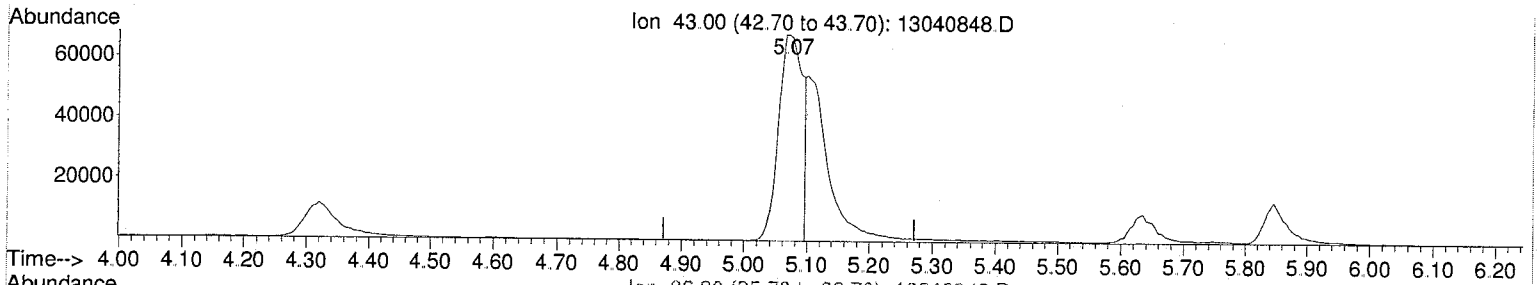
response 314799

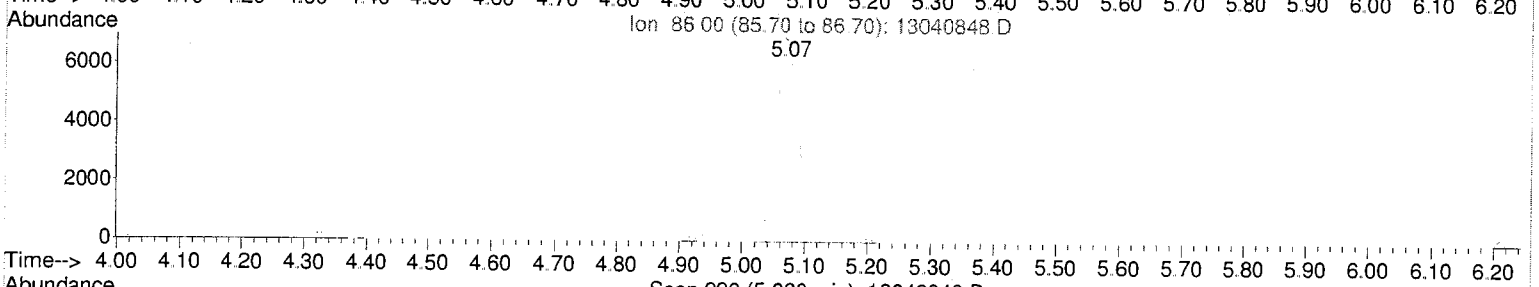
Ion	Exp%	Act%
43.00	100	100
86.00	12.90	6.30
0.00	0.00	0.00
0.00	0.00	0.00

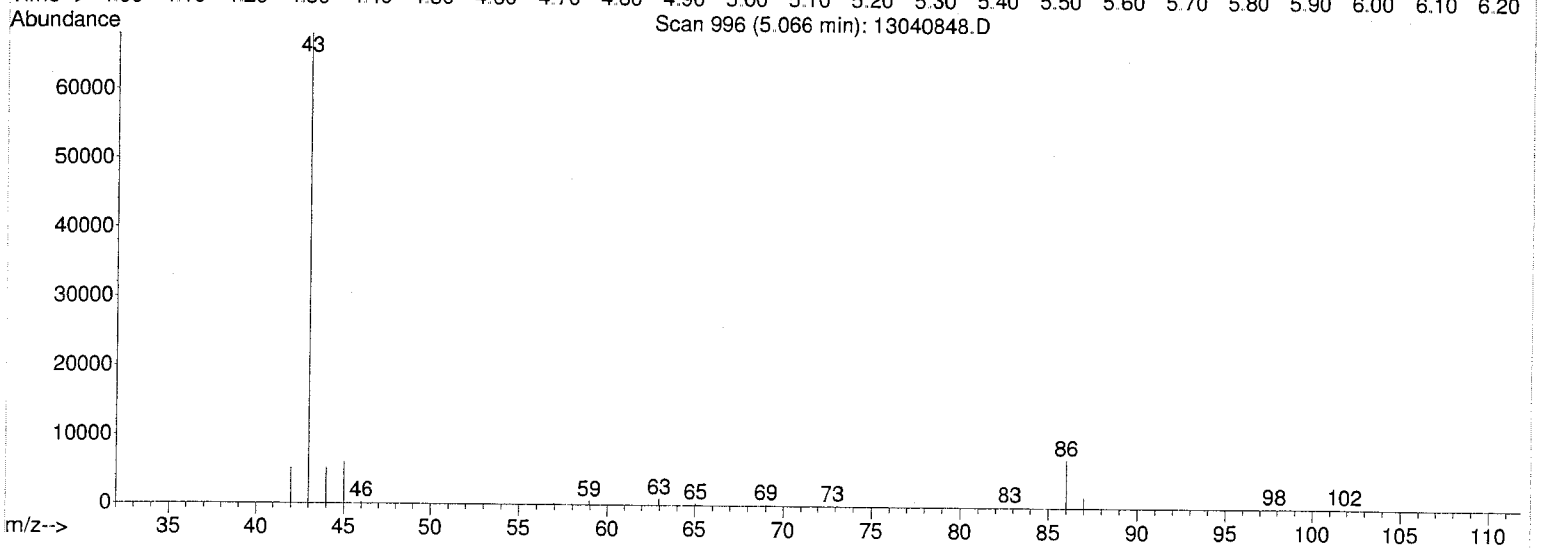
Data File : P:\VOC\2\DATA\130408\13040848.D
Acq On : 9 Apr 2013 9:23 am
Sample : 13040516-007 MSD
Misc : water 1uL A2338 10ul 1405-4, 1351-2
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:14 2013

Vial: 48
Operator: AK
Inst : VOA2
Multiplr: 1.00
Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration







TIC: 13040848.D

(21) vinyl acetate (T)

5.07min 58.15ug/L m

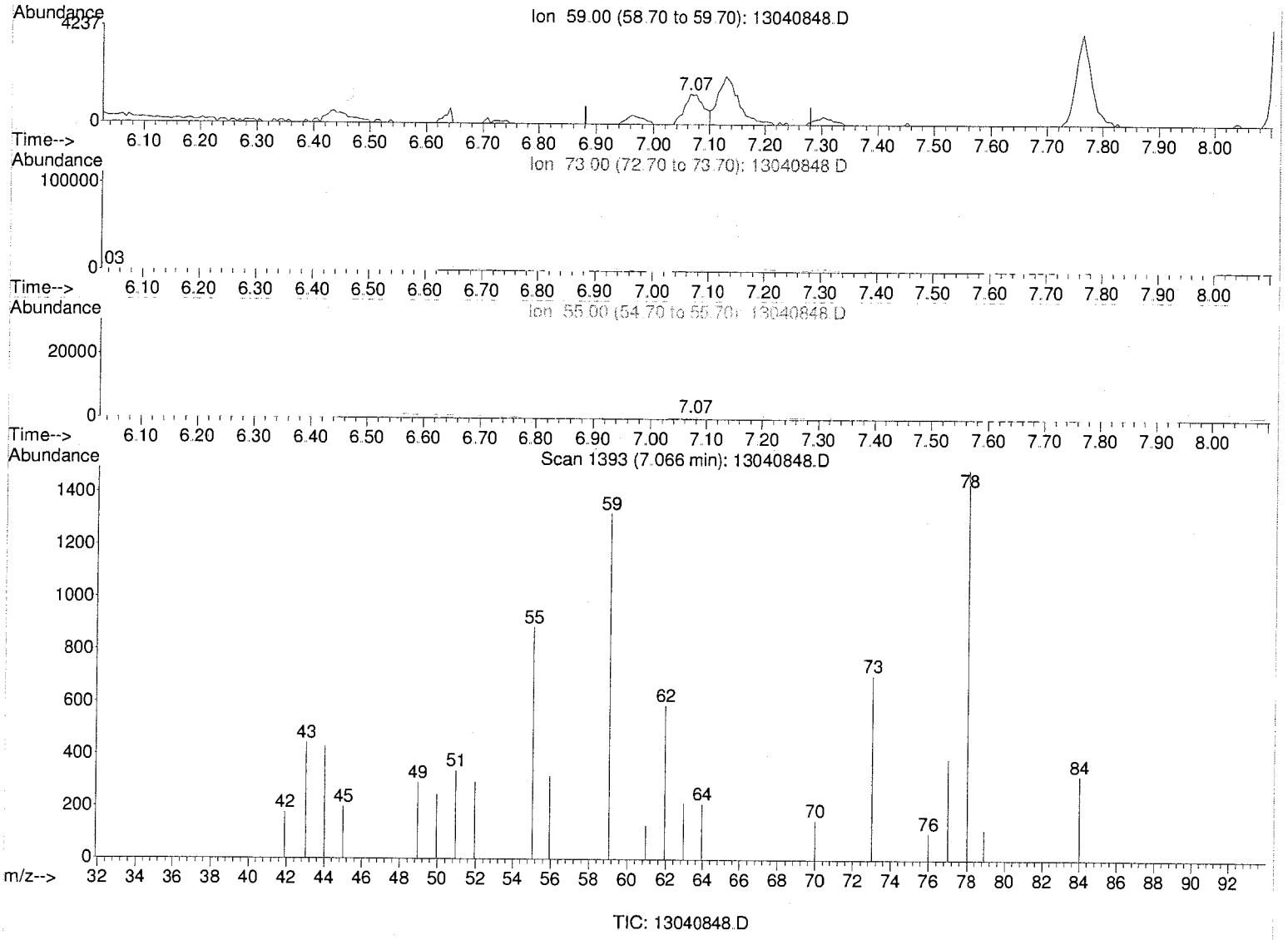
response 183552

Ion	Exp%	Act%
43.00	100	100
86.00	12.90	10.80
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:14 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(36) tert-Amyl alcohol (T)

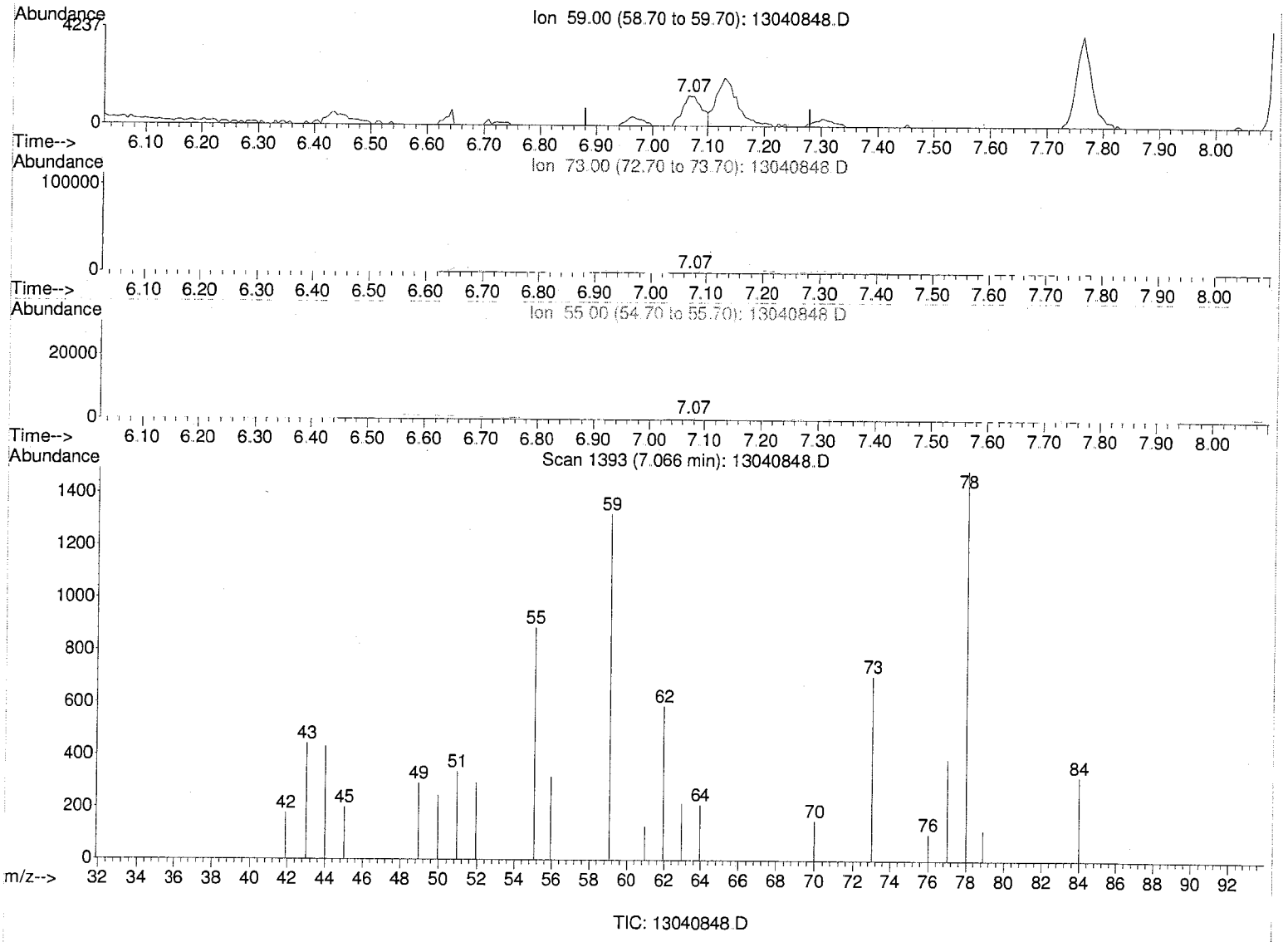
7.07min 49.27ug/L

response 3237

Ion	Exp%	Act%
59.00	100	100
73.00	52.80	0.00#
55.00	32.10	42.54
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:14 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(36) tert-Amyl alcohol (T)

7.07min 49.27ug/L m

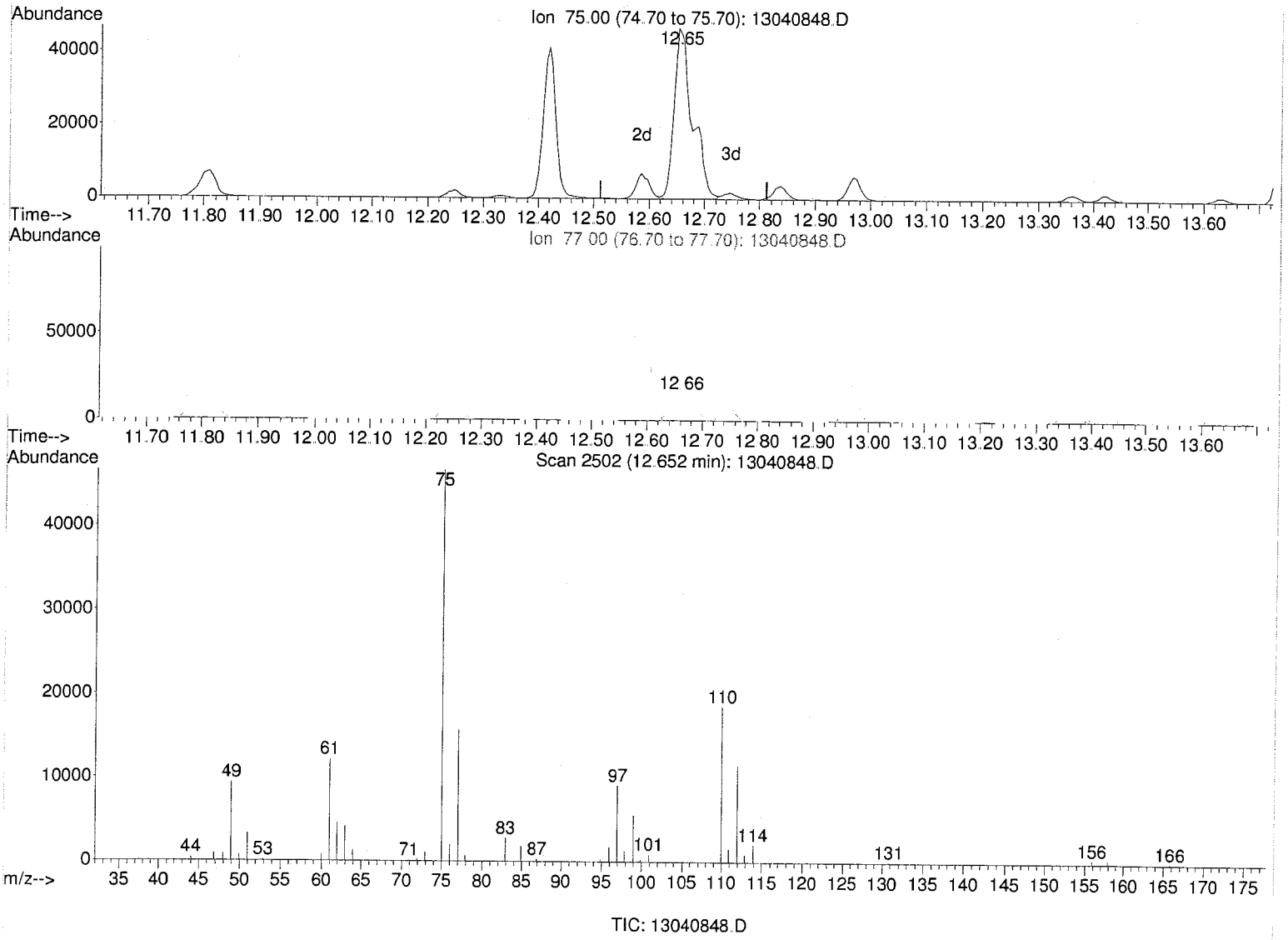
response 3237

Ion	Exp%	Act%
59.00	100	100
73.00	52.80	38.55
55.00	32.10	42.54
0.00	0.00	0.00

AAC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:14 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(65) 1,2,3-Trichloropropane (T)

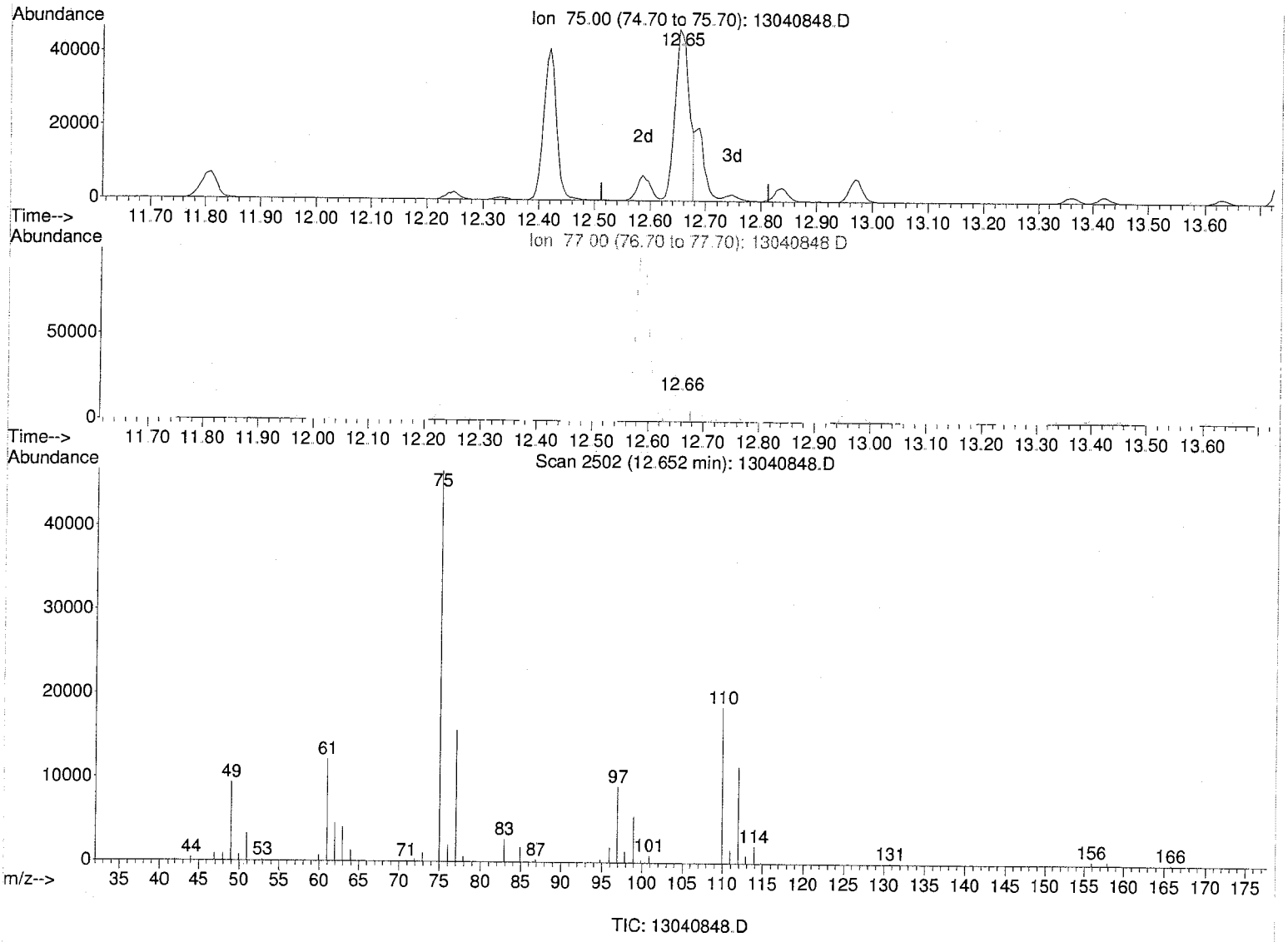
12.65min 74.22ug/L

response 107255

Ion	Exp%	Act%
75.00	100	100
77.00	36.30	34.47
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040848.D Vial: 48
Acq On : 9 Apr 2013 9:23 am Operator: AK
Sample : 13040516-007 MSD Inst : VOA2
Misc : water 1uL A2338 10ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:14 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040848.D

(65) 1,2,3-Trichloropropane (T)

12.65min 57.98ug/L m

response 83776

Ion	Exp%	Act%
75.00	100	100
77.00	36.30	34.55
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Quantitation Report (QT/LSC Reviewed)

Data File : P:\VOC\2\DATA\130408\13040839.D
Acq On : 9 Apr 2013 5:04 am
Sample : 13040516-007 5mL
Misc : water 1uL A2338
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:54 2013

Vial: 39
Operator: AK
Inst : VOA2
Multiplr: 1.00

Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	555500	50.00	ug/L	0.00
54) Chlorobenzene d-5 ISTD	11.00	117	378199	50.00	ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	141444	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	123008	48.90	ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 97.80%			
48) Toluene d-8 SS#2	9.26	98	474587	48.72	ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 97.44%			
71) 4-Bromofluorobenzene SS#3	12.42	95	177330	50.94	ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 101.88%			

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.00	85	0	N.D.
3) Chloromethane	0.00	50	0	N.D.
4) VINYL CHLORIDE	0.00	62	0	N.D.
5) Bromomethane	2.16	94	35	N.D.
6) Chloroethane	0.00	64	0	N.D.
7) Trichlorofluoromethane	0.00	101	0	N.D.
8) acrolein	0.00	56	0	N.D.
9) Acetone	0.00	58	0	N.D. d
10) 1,1-DICHLOROETHENE	0.00	96	0	N.D.
11) 1,1,2-Trichlorotrifluoroet	0.00	101	0	N.D.
12) iodomethane	0.00	142	0	N.D.
13) Carbon Disulfide	0.00	76	0	N.D.
14) Methyl Acetate	0.00	74	0	N.D.
15) Methylene chloride	0.00	84	0	N.D.
16) tert-Butanol	0.00	59	0	N.D.
17) acrylonitrile	0.00	53	0	N.D.
18) trans-1,2-Dichloroethene	0.00	96	0	N.D.
19) Methyl-t-Butyl Ether	0.00	73	0	N.D.
20) 1,1-Dichloroethane	0.00	63	0	N.D.
21) vinyl acetate	5.08	43	240	N.D.
22) Diisopropyl ether	0.00	45	0	N.D.
23) tert-Butyl ethyl ether	0.00	59	0	N.D.
24) 2,2-Dichloropropane	0.00	77	0	N.D.
25) cis-1,2-Dichloroethene	0.00	96	0	N.D.
26) 2-Butanone (MEK)	0.00	72	0	N.D.
27) Bromochloromethane	0.00	128	0	N.D.
28) CHLOROFORM	0.00	83	0	N.D.
30) 1,1,1-Trichloroethane	0.00	97	0	N.D.
31) Cyclohexane	0.00	56	0	N.D.
32) Carbon tetrachloride	0.00	117	0	N.D.
33) 1,1-Dichloropropene	0.00	75	0	N.D.
34) Benzene`	6.92	78	255	N.D.
35) 1,2-Dichloroethane	0.00	62	0	N.D.
36) tert-Amyl alcohol	0.00	59	0	N.D.
37) tert-Amyl methyl ether	0.00	73	0	N.D.
38) Trichloroethene	0.00	95	0	N.D.
39) 1,2-DICHLOROPROPANE	0.00	63	0	N.D.
40) Methylcyclohexane	7.99	83	32	N.D.
41) tert-Amyl ethyl ether	0.00	59	0	N.D.

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT/LSC Reviewed)

Data File : P:\VOC\2\DATA\130408\13040839.D Vial: 39
Acq On : 9 Apr 2013 5:04 am Operator: AK
Sample : 13040516-007 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:54 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Dibromomethane	0.00	93	0	N.D.	
43)	1,4-Dioxane	0.00	88	0	N.D.	
44)	Bromodichloromethane	0.00	83	0	N.D.	
45)	2-Chloroethylvinyl Ether	0.00	63	0	N.D.	
46)	cis-1,3-Dichloropropene	0.00	75	0	N.D.	
47)	4-Methyl-2-Pentanone (MIBK	0.00	100	0	N.D.	
49)	TOLUENE	9.34	92	73	N.D.	
50)	trans-1,3-Dichloropropene	0.00	75	0	N.D.	
51)	1,1,2-Trichloroethane	0.00	83	0	N.D.	
52)	Tetrachloroethene	0.00	164	0	N.D.	
53)	2-Hexanone (MBK)	10.17	43	32	N.D.	
55)	1,3-Dichloropropane	0.00	76	0	N.D.	
56)	Dibromochloromethane	0.00	129	0	N.D.	
57)	1,2-Dibromoethane	0.00	107	0	N.D.	
58)	Chlorobenzene	11.04	112	32	N.D.	
59)	1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.	
60)	ETHYLBENZENE	11.18	91	107	N.D.	
61)	m&p-Xylene	11.32	106	40	N.D.	
62)	o-Xylene	0.00	106	0	N.D.	
63)	Styrene	0.00	104	0	N.D.	
64)	Bromoform	0.00	173	0	N.D.	
65)	1,2,3-Trichloropropane	12.54	75	64	N.D.	
66)	Bromobenzene	0.00	156	0	N.D.	
67)	trans-1,4-dichloro-2-buten	0.00	53	0	N.D.	
68)	n-Propylbenzene	12.75	91	351	N.D.	
70)	Isopropylbenzene	12.25	105	79	N.D.	
72)	1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
73)	2-Chlorotoluene	12.85	91	41	N.D.	
74)	4-Chlorotoluene	12.98	91	76	N.D.	
75)	1,3,5-Trimethylbenzene	0.00	105	0	N.D.	
76)	tert-Butylbenzene	13.36	119	110	N.D.	
77)	1,2,4-Trimethylbenzene	13.42	105	288	N.D.	
78)	sec-Butylbenzene	13.64	105	368	N.D.	
79)	4-Isopropyltoluene	13.83	119	320	N.D.	
80)	1,3-Dichlorobenzene	13.75	146	31	N.D.	
81)	1,4-Dichlorobenzene	13.86	146	63	N.D.	
82)	1,2-Dichlorobenzene	14.31	146	71	N.D.	
83)	n-Butylbenzene	14.32	91	154	N.D.	
84)	1,2-Dibromo-3-chloropropan	0.00	75	0	N.D.	
85)	1,2,4-Trichlorobenzene	16.29	180	178	N.D.	
86)	Naphthalene	16.59	128	372	N.D.	
87)	1,2,3-Trichlorobenzene	16.89	180	164	N.D.	

(#) = qualifier out of range (m) = manual integration
13040839.D VOC-W.M Tue Apr 09 12:22:08 2013

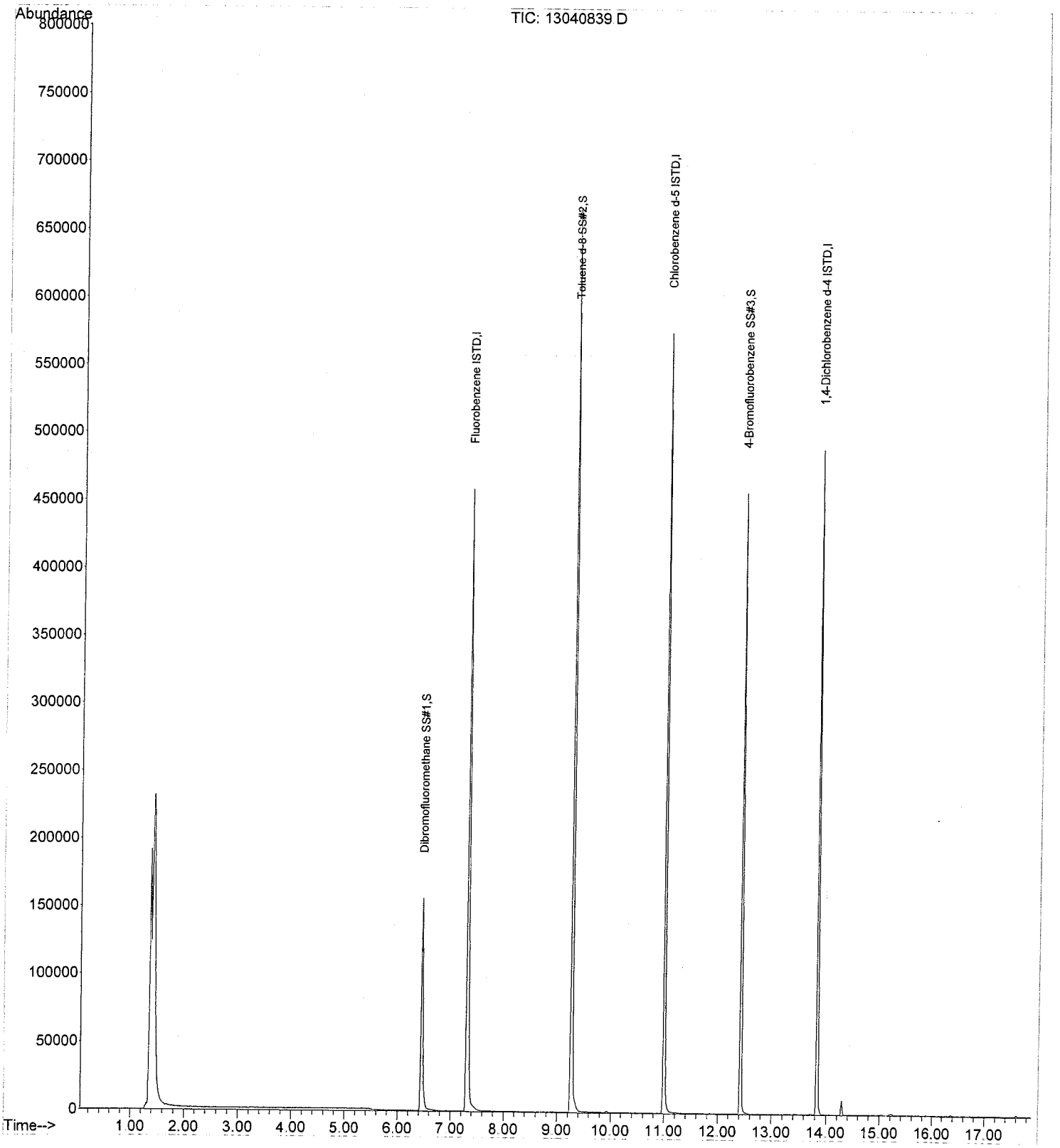
Quantitation Report (QT/LSC Reviewed)

Data File : P:\VOC\2\DATA\130408\13040839.D
Acq On : 9 Apr 2013 5:04 am
Sample : 13040516-007 5mL
Misc : water 1uL A2338
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:02 2013

Vial: 39
Operator: AK
Inst : VOA2
Multiplr: 1.00

Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-01 (2-2.5) Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS CONCENTRATION ug/kg	MS % REC	#	QC LIMITS REC.
Dichlorodifluoromethane	56.17	0	41.01	73		38-187
Chloromethane	56.17	0	37.68	67		45-174
1,1,2-Trichlorotrifluoroethane	56.17	0	41.34	74		35-166
Vinyl Chloride	56.17	0	44.57	79		40-165
tert-Butyl Alcohol	56.17	0	66.63	119	*	13-114
Bromomethane	56.17	0	56.32	100		42-168
Chloroethane	56.17	0	38.95	69		45-171
Acetone	56.17	12.06	85.37	131		42-146
Cyclohexane	56.17	0	36.31	65		20-144
Trichlorofluoromethane	56.17	0	50.43	90		35-163
1,1-Dichloroethene	56.17	0	43.90	78		46-157
Methylene chloride	56.17	0	43.99	78		49-137
trans-1,2-Dichloroethene	56.17	0	41.62	74		48-144
Methyl-t-Butyl Ether	56.17	0	48.21	86		40-120
1,1-Dichloroethane	56.17	0	38.43	68		46-134
2-Butanone (MEK)	56.17	0	75.29	134		39-147
cis-1,2-Dichloroethene	56.17	0	44.98	80		49-128
Bromochloromethane	56.17	0	52.97	94		54-112
Chloroform	56.17	0	38.83	69		48-124
1,1,1-Trichloroethane	56.17	0	36.63	65		38-126
1,2-Dichloroethane	56.17	0	43.92	78		39-118
Carbon tetrachloride	56.17	0	39.04	70		35-128
Benzene	56.17	0	40.48	72		50-134
1,2-Dichloropropane	56.17	0	45.74	81		48-128
Carbon Disulfide	56.17	0	35.91	64		31-137
Methylcyclohexane	56.17	0	39.15	70		12-145
Trichloroethene	56.17	0	41.49	74		46-122
Methyl Acetate	56.17	0	77.07	137		42-143
Bromodichloromethane	56.17	0	39.85	71		38-123
cis-1,3-Dichloropropene	56.17	0	45.46	81		34-131
4-Methyl-2-Pentanone (MIBK)	56.17	0	83.37	148	*	42-119
trans-1,3-Dichloropropene	56.17	0	47.75	85		28-131
1,1,2-Trichloroethane	56.17	0	53.27	95		40-131
Toluene	56.17	0	43.56	78		38-128
2-Hexanone (MBK)	56.17	0	71.87	128		29-141
1,2-Dibromoethane	56.17	0	56.31	100		46-112
Dibromochloromethane	56.17	0	47.51	85		51-110
tert-Butyl ethyl ether	56.17	0	42.50	76		34-121
tert-Amyl methyl ether	56.17	0	42.26	75		23-123
Diisopropyl ether	56.17	0	40.35	72		44-133
tert-Amyl ethyl ether	56.17	0	36.16	64		28-114
tert-Amyl alcohol	56.17	0	58.78	105		9-115
Bromoform	56.17	0	55.35	99		44-108

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-01 (2-2.5) Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS CONCENTRATION ug/kg	MS % REC #	QC LIMITS REC.
Tetrachloroethene	56.17	0	46.84	83	25-132
Chlorobenzene	56.17	0	44.17	79	40-121
Ethylbenzene	56.17	0	40.83	73	44-125
m&p-Xylene	112.30	0	86.25	77	42-125
Styrene	56.17	0	43.39	77	55-111
1,1,2,2-Tetrachloroethane	56.17	0	60.32	107	59-117
o-Xylene	56.17	0	42.02	75	36-123
Isopropylbenzene	56.17	0	42.02	75	32-120
1,3-Dichlorobenzene	56.17	0	45.78	82	20-125
1,4-Dichlorobenzene	56.17	0	46.04	82	30-121
1,2-Dichlorobenzene	56.17	0	47.14	84	23-123
1,2-Dibromo-3-chloropropane	56.17	0	62.01	110	37-122
1,2,4-Trichlorobenzene	56.17	0	48.22	86	7-111
Naphthalene	56.17	0	59.46	106	22-121
1,2,3-Trichlorobenzene	56.17	0	49.96	89	6-111

COMPOUND	SPIKE ADDED ug/kg	MSD CONCENTRATION ug/kg	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Dichlorodifluoromethane	58.93	45.20	77	10	0-30	38-187
Chloromethane	58.93	45.27	77	18	0-30	45-174
1,1,2-Trichlorotrifluoroethane	58.93	44.41	75	7	0-30	35-166
Vinyl Chloride	58.93	52.10	88	16	0-30	40-165
tert-Butyl Alcohol	58.93	68.19	116 *	2	0-30	13-114
Bromomethane	58.93	63.78	108	12	0-30	42-168
Chloroethane	58.93	42.33	72	8	0-30	45-171
Acetone	58.93	80.14	116	6	0-30	42-146
Cyclohexane	58.93	39.88	68	9	0-30	20-144
Trichlorofluoromethane	58.93	55.04	93	9	0-30	35-163
1,1-Dichloroethene	58.93	48.44	82	10	0-30	46-157
Methylene chloride	58.93	47.17	80	7	0-30	49-137
trans-1,2-Dichloroethene	58.93	45.32	77	9	0-30	48-144
Methyl-t-Butyl Ether	58.93	49.93	85	4	0-30	40-120
1,1-Dichloroethane	58.93	39.80	68	4	0-30	46-134
2-Butanone (MEK)	58.93	74.89	127	1	0-30	39-147
cis-1,2-Dichloroethene	58.93	47.94	81	6	0-30	49-128
Bromochloromethane	58.93	55.81	95	5	0-30	54-112
Chloroform	58.93	41.94	71	8	0-30	48-124
1,1,1-Trichloroethane	58.93	39.56	67	8	0-30	38-126
1,2-Dichloroethane	58.93	46.82	79	6	0-30	39-118
Carbon tetrachloride	58.93	42.62	72	9	0-30	35-128
Benzene	58.93	44.50	76	9	0-30	50-134
1,2-Dichloropropane	58.93	48.86	83	7	0-30	48-128
Carbon Disulfide	58.93	39.83	68	10	0-30	31-137

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Matrix Spike - EPA Sample No. SB-01 (2-2.5) Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	MSD CONCENTRATION ug/kg	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC
Methylcyclohexane	58.93	43.37	74		10		0-30	12-145
Trichloroethene	58.93	45.72	78		10		0-30	46-122
Methyl Acetate	58.93	71.33	121		8		0-30	42-143
Bromodichloromethane	58.93	42.79	73		7		0-30	38-123
cis-1,3-Dichloropropene	58.93	47.94	81		5		0-30	34-131
4-Methyl-2-Pentanone (MIBK)	58.93	87.13	148	*	4		0-30	42-119
trans-1,3-Dichloropropene	58.93	51.60	88		8		0-30	28-131
1,1,2-Trichloroethane	58.93	55.99	95		5		0-30	40-131
Toluene	58.93	47.36	80		8		0-30	38-128
2-Hexanone (MBK)	58.93	73.01	124		2		0-30	29-141
1,2-Dibromoethane	58.93	59.46	101		5		0-30	46-112
Dibromochloromethane	58.93	49.93	85		5		0-30	51-110
tert-Butyl ethyl ether	58.93	35.28	60		19		0-30	34-121
tert-Amyl methyl ether	58.93	44.57	76		5		0-30	23-123
Diisopropyl ether	58.93	42.23	72		5		0-30	44-133
tert-Amyl ethyl ether	58.93	38.37	65		6		0-30	28-114
tert-Amyl alcohol	58.93	61.15	104		4		0-30	9-115
Bromoform	58.93	57.37	97		4		0-30	44-108
Tetrachloroethene	58.93	50.53	86		8		0-30	25-132
Chlorobenzene	58.93	47.92	81		8		0-30	40-121
Ethylbenzene	58.93	44.13	75		8		0-30	44-125
m&p-Xylene	117.90	93.57	79		8		0-30	42-125
Styrene	58.93	45.51	77		5		0-30	55-111
1,1,2,2-Tetrachloroethane	58.93	61.99	105		3		0-30	59-117
o-Xylene	58.93	45.03	76		7		0-30	36-123
Isopropylbenzene	58.93	44.46	75		6		0-30	32-120
1,3-Dichlorobenzene	58.93	48.35	82		5		0-30	20-125
1,4-Dichlorobenzene	58.93	48.83	83		6		0-30	30-121
1,2-Dichlorobenzene	58.93	49.67	84		5		0-30	23-123
1,2-Dibromo-3-chloropropane	58.93	60.41	103		3		0-30	37-122
1,2,4-Trichlorobenzene	58.93	50.84	86		5		0-30	7-111
Naphthalene	58.93	56.14	95		6		0-30	22-121
1,2,3-Trichlorobenzene	58.93	51.26	87		3		0-30	6-111

Column to be used to flag recovery and RPD Values with an asterisk.

* Values outside of QC limits

RPD 0 Out of 58 outside limits

Spike Recovery : 4 Out of 116 outside limit

COMMENTS: _____

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-01 (2-2.5) S

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004 S

Sample wt/vol: 6.21 (g/mL) g Lab File ID: 13040811

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
75-71-8	Dichlorodifluoromethane	41.01	
74-87-3	Chloromethane	37.68	
76-13-1	1,1,2-Trichlorotrifluoroethane	41.34	
75-01-4	Vinyl Chloride	44.57	
75-65-0	tert-Butyl Alcohol	66.63	
74-83-9	Bromomethane	56.32	
75-00-3	Chloroethane	38.95	
67-64-1	Acetone	85.37	
110-82-7	Cyclohexane	36.31	
75-69-4	Trichlorofluoromethane	50.43	
75-35-4	1,1-Dichloroethene	43.90	
75-09-2	Methylene chloride	43.99	
156-60-5	trans-1,2-Dichloroethene	41.62	
1634-04-4	Methyl-t-Butyl Ether	48.21	
75-34-3	1,1-Dichloroethane	38.43	
78-93-3	2-Butanone (MEK)	75.29	
156-59-2	cis-1,2-Dichloroethene	44.98	
74-97-5	Bromochloromethane	52.97	
67-66-3	Chloroform	38.83	
71-55-6	1,1,1-Trichloroethane	36.63	
107-06-2	1,2-Dichloroethane	43.92	
56-23-5	Carbon tetrachloride	39.04	
71-43-2	Benzene	40.48	
78-87-5	1,2-Dichloropropane	45.74	
75-15-0	Carbon Disulfide	35.91	
108-87-2	Methylcyclohexane	39.15	

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-01 (2-2.5) S

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004 S

Sample wt/vol: 6.21 (g/mL) g Lab File ID: 13040811

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
79-01-6	Trichloroethene	41.49	
79-20-9	Methyl Acetate	77.07	
75-27-4	Bromodichloromethane	39.85	
10061-01-5	cis-1,3-Dichloropropene	45.46	
108-10-1	4-Methyl-2-Pentanone (MIBK)	83.37	
10061-02-6	trans-1,3-Dichloropropene	47.75	
79-00-5	1,1,2-Trichloroethane	53.27	
108-88-3	Toluene	43.56	
591-78-6	2-Hexanone (MBK)	71.87	
106-93-4	1,2-Dibromoethane	56.31	
124-48-1	Dibromochloromethane	47.51	
637-92-3	tert-Butyl ethyl ether	42.50	
994-05-8	tert-Amyl methyl ether	42.26	
108-20-3	Diisopropyl ether	40.35	
919-94-8	tert-Amyl ethyl ether	36.16	J
75-85-4	tert-Amyl alcohol	58.78	
75-25-2	Bromoform	55.35	
127-18-4	Tetrachloroethene	46.84	
108-90-7	Chlorobenzene	44.17	
100-41-4	Ethylbenzene	40.83	
108-38-3	m&p-Xylene	86.25	
100-42-5	Styrene	43.39	
79-34-5	1,1,2,2-Tetrachloroethane	60.32	
95-47-6	o-Xylene	42.02	
98-82-8	Isopropylbenzene	42.02	
541-73-1	1,3-Dichlorobenzene	45.78	

SW8260B

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-01 (2-2.5) S

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: 105220 Mod. Ref. No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004 S

Sample wt/vol: 6.21 (g/mL) g Lab File ID: 13040811

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
106-46-7	1,4-Dichlorobenzene	46.04	
95-50-1	1,2-Dichlorobenzene	47.14	
96-12-8	1,2-Dibromo-3-chloropropane	62.01	
120-82-1	1,2,4-Trichlorobenzene	48.22	
91-20-3	Naphthalene	59.46	
87-61-6	1,2,3-Trichlorobenzene	49.96	

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-01 (2-2.5) SD

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004 SD

Sample wt/vol: 5.92 (g/mL) g Lab File ID: 13040812

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
75-71-8	Dichlorodifluoromethane	45.20	
74-87-3	Chloromethane	45.27	
76-13-1	1,1,2-Trichlorotrifluoroethane	44.41	
75-01-4	Vinyl Chloride	52.10	
75-65-0	tert-Butyl Alcohol	68.19	
74-83-9	Bromomethane	63.78	
75-00-3	Chloroethane	42.33	
67-64-1	Acetone	80.14	
110-82-7	Cyclohexane	39.88	
75-69-4	Trichlorofluoromethane	55.04	
75-35-4	1,1-Dichloroethene	48.44	
75-09-2	Methylene chloride	47.17	
156-60-5	trans-1,2-Dichloroethene	45.32	
1634-04-4	Methyl-t-Butyl Ether	49.93	
75-34-3	1,1-Dichloroethane	39.80	
78-93-3	2-Butanone (MEK)	74.89	
156-59-2	cis-1,2-Dichloroethene	47.94	
74-97-5	Bromochloromethane	55.81	
67-66-3	Chloroform	41.94	
71-55-6	1,1,1-Trichloroethane	39.56	
107-06-2	1,2-Dichloroethane	46.82	
56-23-5	Carbon tetrachloride	42.62	
71-43-2	Benzene	44.50	
78-87-5	1,2-Dichloropropane	48.86	
75-15-0	Carbon Disulfide	39.83	
108-87-2	Methylcyclohexane	43.37	

SW8260B

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-01 (2-2.5) SD

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004 SD

Sample wt/vol: 5.92 (g/mL) g Lab File ID: 13040812

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
79-01-6	Trichloroethene	45.72	
79-20-9	Methyl Acetate	71.33	
75-27-4	Bromodichloromethane	42.79	
10061-01-5	cis-1,3-Dichloropropene	47.94	
108-10-1	4-Methyl-2-Pentanone (MIBK)	87.13	
10061-02-6	trans-1,3-Dichloropropene	51.60	
79-00-5	1,1,2-Trichloroethane	55.99	
108-88-3	Toluene	47.36	
591-78-6	2-Hexanone (MBK)	73.01	
106-93-4	1,2-Dibromoethane	59.46	
124-48-1	Dibromochloromethane	49.93	
637-92-3	tert-Butyl ethyl ether	35.28	
994-05-8	tert-Amyl methyl ether	44.57	
108-20-3	Diisopropyl ether	42.23	
919-94-8	tert-Amyl ethyl ether	38.37	J
75-85-4	tert-Amyl alcohol	61.15	
75-25-2	Bromoform	57.37	
127-18-4	Tetrachloroethene	50.53	
108-90-7	Chlorobenzene	47.92	
100-41-4	Ethylbenzene	44.13	
108-38-3	m&p-Xylene	93.57	
100-42-5	Styrene	45.51	
79-34-5	1,1,2,2-Tetrachloroethane	61.99	
95-47-6	o-Xylene	45.03	
98-82-8	Isopropylbenzene	44.46	
541-73-1	1,3-Dichlorobenzene	48.35	

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-01 (2-2.5) SD

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: 13040516-004 SD

Sample wt/vol: 5.92 (g/mL) g Lab File ID: 13040812

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 14 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
106-46-7	1,4-Dichlorobenzene	48.83	
95-50-1	1,2-Dichlorobenzene	49.67	
96-12-8	1,2-Dibromo-3-chloropropane	60.41	
120-82-1	1,2,4-Trichlorobenzene	50.84	
91-20-3	Naphthalene	56.14	
87-61-6	1,2,3-Trichlorobenzene	51.26	

SW8260B

Data File : P:\VOC\1\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 2:27 pm Operator: AK
Sample : 13040516-004 6.21g t-core MS Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:13 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.12	96	602119	50.00	ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.81	117	371892	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	176719	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.29	113	155599	53.87	ug/L	0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 107.74%			
47) Toluene d-8 SS#2	9.07	98	480967	50.56	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 101.12%			
70) 4-Bromofluorobenzene SS#3	12.23	95	219471	43.95	ug/L	0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 87.90%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.53	85	87233	43.80	ug/L	98
3) Chloromethane	1.67	50	130815	40.25	ug/L	99
4) VINYL CHLORIDE	1.82	62	122761	47.61	ug/L	98
5) Bromomethane	2.11	94	65643	60.16	ug/L	94
6) Chloroethane	2.16	64	53430	41.60	ug/L	96
7) Trichlorofluoromethane	2.52	101	111559m	53.86	ug/L	
8) acrolein	2.92	56	36795	74.08	ug/L	85
9) Acetone	3.13	58	23119	91.19	ug/L	97
10) 1,1-DICHLOROETHENE	3.10	96	66387	46.89	ug/L	97
11) 1,1,2-Trichlorotrifluoroet	3.11	101	64755	44.16	ug/L	94
12) iodomethane	3.24	142	111238	40.77	ug/L	100
13) Carbon Disulfide	3.37	76	183995	38.36	ug/L	100
14) Methyl Acetate	3.57	74	26219	82.32	ug/L	100
15) Methylene chloride	3.74	84	85307	46.99	ug/L	96
16) tert-Butanol	4.00	59	40137	71.17	ug/L	100
17) acrylonitrile	4.12	53	76197	77.85	ug/L	98
18) trans-1,2-Dichloroethene	4.13	96	71094	44.45	ug/L	98
19) Methyl-t-Butyl Ether	4.13	73	276166	51.49	ug/L	99
20) 1,1-Dichloroethane	4.76	63	136218	41.05	ug/L	99
21) vinyl acetate	4.90	43	519369	56.28	ug/L	96
22) Diisopropyl ether	4.91	45	354348	43.10	ug/L	99
23) tert-Butyl ethyl ether	5.45	59	373257	45.39	ug/L	99
24) 2,2-Dichloropropane	5.59	77	112003	43.26	ug/L	97
25) cis-1,2-Dichloroethene	5.61	96	112815	48.04	ug/L	95
26) 2-Butanone (MEK)	5.68	72	27423	80.42	ug/L #	81
27) Bromochloromethane	5.93	128	56348	56.58	ug/L	96
28) CHLOROFORM	6.07	83	167877	41.47	ug/L	99
30) 1,1,1-Trichloroethane	6.26	97	113345	39.13	ug/L	99
31) Cyclohexane	6.31	56	169449	38.78	ug/L	91
32) Carbon tetrachloride	6.47	117	97574	41.70	ug/L	99
33) 1,1-Dichloropropene	6.48	75	127574	48.72	ug/L	99
34) Benzene`	6.75	78	351266	43.24	ug/L	99
35) 1,2-Dichloroethane	6.80	62	169397	46.91	ug/L	99
36) tert-Amyl alcohol	6.92	59	40401	62.78	ug/L #	100
37) tert-Amyl methyl ether	6.95	73	357061	45.14	ug/L	99
38) Trichloroethene	7.58	95	88294	44.32	ug/L	98
39) 1,2-DICHLOROPROPANE	7.86	63	118698	48.86	ug/L	100
40) Methylcyclohexane	7.79	83	139061	41.82	ug/L	99
41) tert-Amyl ethyl ether	7.95	59	276812	38.62	ug/L	98
42) Dibromomethane	8.01	93	84067	57.18	ug/L	98
43) 1,4-Dioxane	8.07	88	65341	1867.94	ug/L	93
44) Bromodichloromethane	8.23	83	139905	42.56	ug/L	100
45) cis-1,3-Dichloropropene	8.78	75	195394	48.56	ug/L	99
46) 4-Methyl-2-Pentanone (MIBK	9.00	100	34427	89.05	ug/L #	84
48) TOLUENE	9.15	92	215044	46.53	ug/L	100

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\1\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 2:27 pm Operator: AK
Sample : 13040516-004 6.21g t-core MS Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:13 2013 Quant Results File: VOC-S.RES

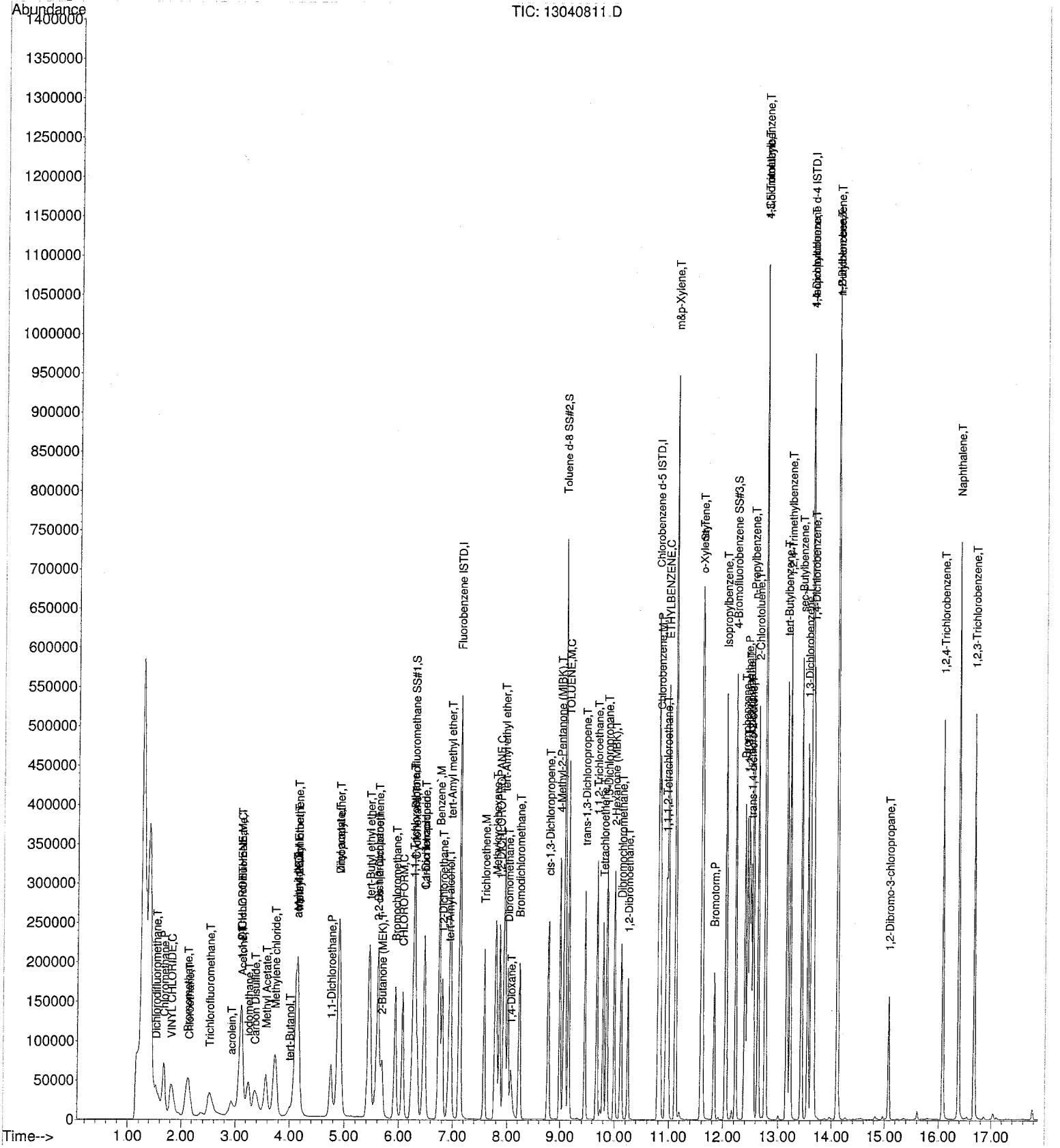
Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	trans-1,3-Dichloropropene	9.46	75	197164	51.00	ug/L		99
50)	1,1,2-Trichloroethane	9.67	83	91474	56.90	ug/L		100
51)	Tetrachloroethene	9.79	164	55303	50.03	ug/L		99
52)	2-Hexanone (MBK)	10.00	43	240862	76.77	ug/L		98
54)	1,3-Dichloropropane	9.86	76	214419	54.13	ug/L		99
55)	Dibromochloromethane	10.12	129	109692	50.75	ug/L		100
56)	1,2-Dibromoethane	10.25	107	129009	60.15	ug/L		99
57)	Chlorobenzene	10.83	112	237454	47.18	ug/L		99
58)	1,1,1,2-Tetrachloroethane	10.95	131	84336	44.85	ug/L		100
59)	ETHYLBENZENE	10.98	91	407524	43.61	ug/L		99
60)	m&p-Xylene	11.13	106	294646	92.13	ug/L		100
61)	o-Xylene	11.59	106	152644	44.88	ug/L		97
62)	Styrene	11.62	104	290328	46.35	ug/L		99
63)	Bromoform	11.83	173	82831	59.12	ug/L		100
64)	1,2,3-Trichloropropane	12.47	75	198777m	70.28	ug/L		
65)	Bromobenzene	12.40	156	98920	50.15	ug/L		99
66)	trans-1,4-dichloro-2-buten	12.51	53	86772	59.56	ug/L	#	98
67)	n-Propylbenzene	12.55	91	520766	45.45	ug/L		99
69)	Isopropylbenzene	12.05	105	381245	44.88	ug/L		100
71)	1,1,2,2-Tetrachloroethane	12.44	83	210630	64.43	ug/L		99
72)	2-Chlorotoluene	12.64	91	318215	42.73	ug/L		99
73)	4-Chlorotoluene	12.78	91	369249	44.78	ug/L		100
74)	1,3,5-Trimethylbenzene	12.77	105	341729	45.81	ug/L		100
75)	tert-Butylbenzene	13.16	119	283450	45.92	ug/L		100
76)	1,2,4-Trimethylbenzene	13.22	105	364581	45.76	ug/L		100
77)	sec-Butylbenzene	13.43	105	442916	46.14	ug/L		100
78)	4-Isopropyltoluene	13.62	119	371034	47.74	ug/L		100
79)	1,3-Dichlorobenzene	13.55	146	196010	48.90	ug/L		100
80)	1,4-Dichlorobenzene	13.66	146	201054	49.18	ug/L		100
81)	1,2-Dichlorobenzene	14.11	146	197361	50.35	ug/L		99
82)	n-Butylbenzene	14.12	91	420250	49.79	ug/L		99
83)	1,2-Dibromo-3-chloropropan	15.07	75	51328	66.23	ug/L		98
84)	1,2,4-Trichlorobenzene	16.08	180	158318	51.51	ug/L		99
85)	Naphthalene	16.38	128	571165	63.51	ug/L		100
86)	1,2,3-Trichlorobenzene	16.67	180	157657	53.36	ug/L		100

(#) = qualifier out of range (m) = manual integration

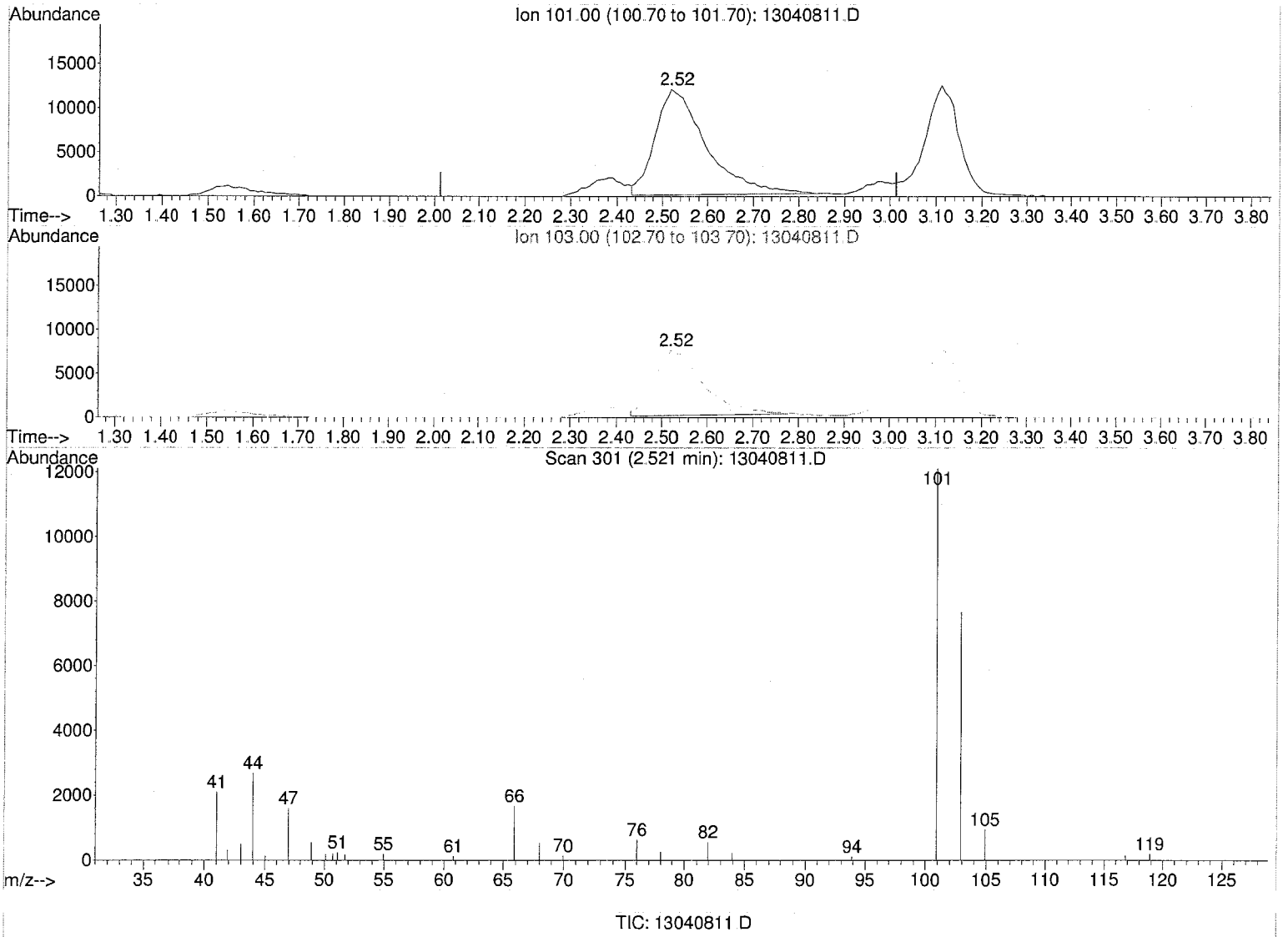
Data File : P:\VOC\1\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 2:27 pm Operator: AK
Sample : 13040516-004 6.21g t-core MS Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:18 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration



Data File : P:\VOC\1\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 2:27 pm Operator: AK
Sample : 13040516-004 6.21g t-core MS Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(7) Trichlorofluoromethane (T)

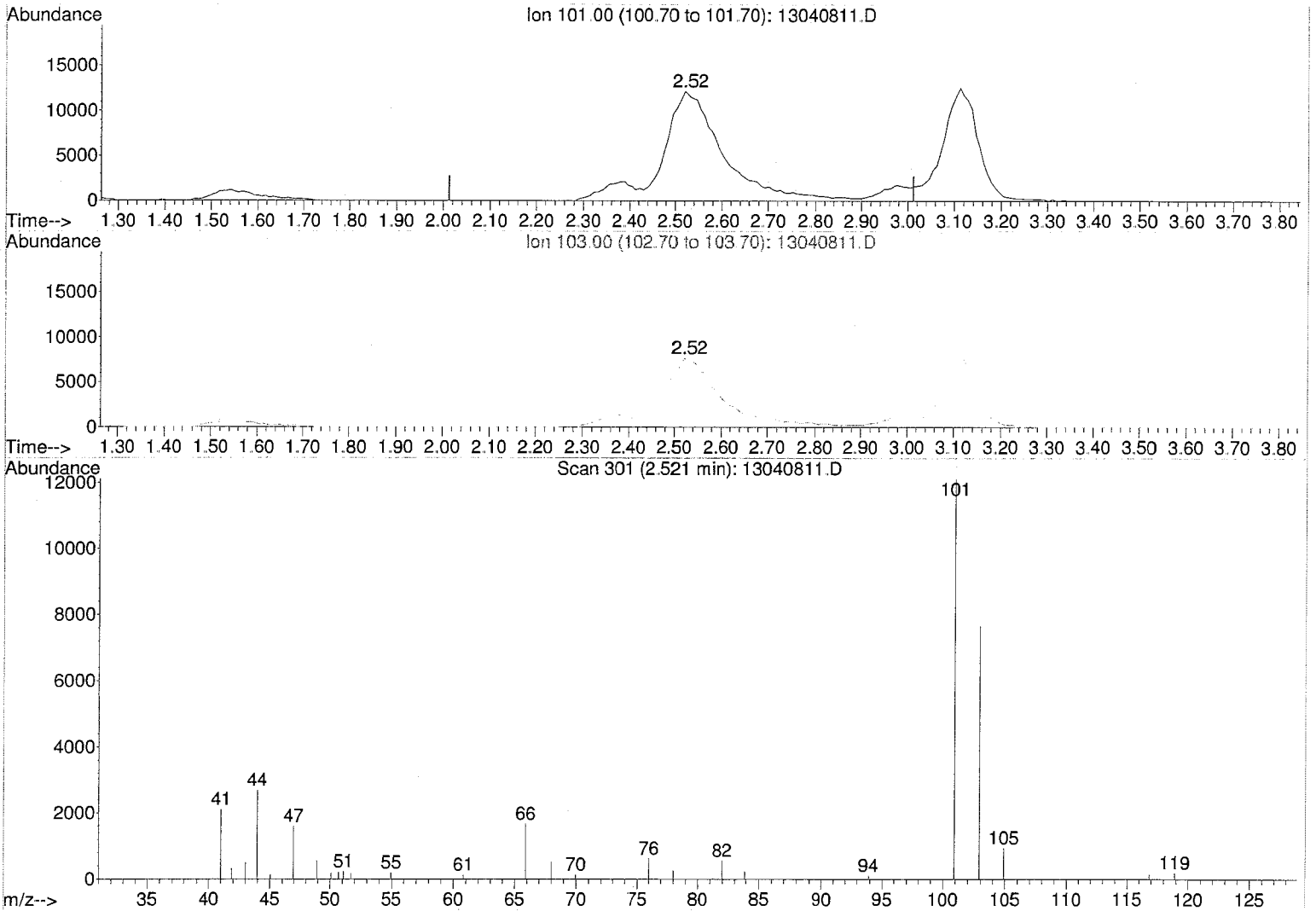
2.52min 45.34ug/L

response 93913

Ion	Exp%	Act%
101.00	100	100
103.00	62.70	57.97
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 2:27 pm Operator: AK
Sample : 13040516-004 6.21g t-core MS Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:18 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(7) Trichlorofluoromethane (T)

2.52min 53.86ug/L m

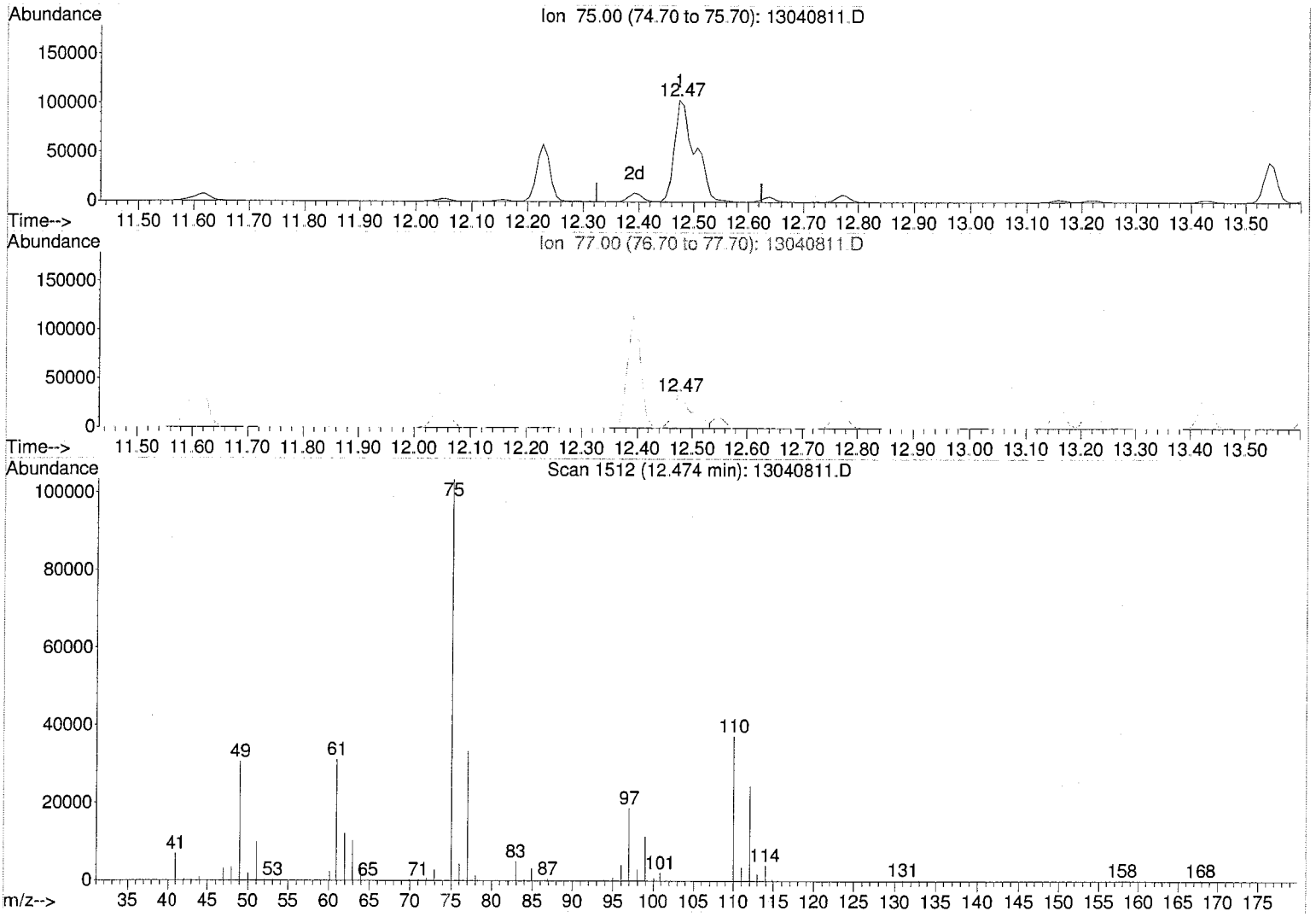
response 111559

Ion	Exp%	Act%
101.00	100	100
103.00	62.70	61.93
0.00	0.00	0.00
0.00	0.00	0.00

AE 4/9/13

Data File : P:\VOC\1\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 2:27 pm Operator: AK
Sample : 13040516-004 6.21g t-core MS Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:18 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(64) 1,2,3-Trichloropropane (T)

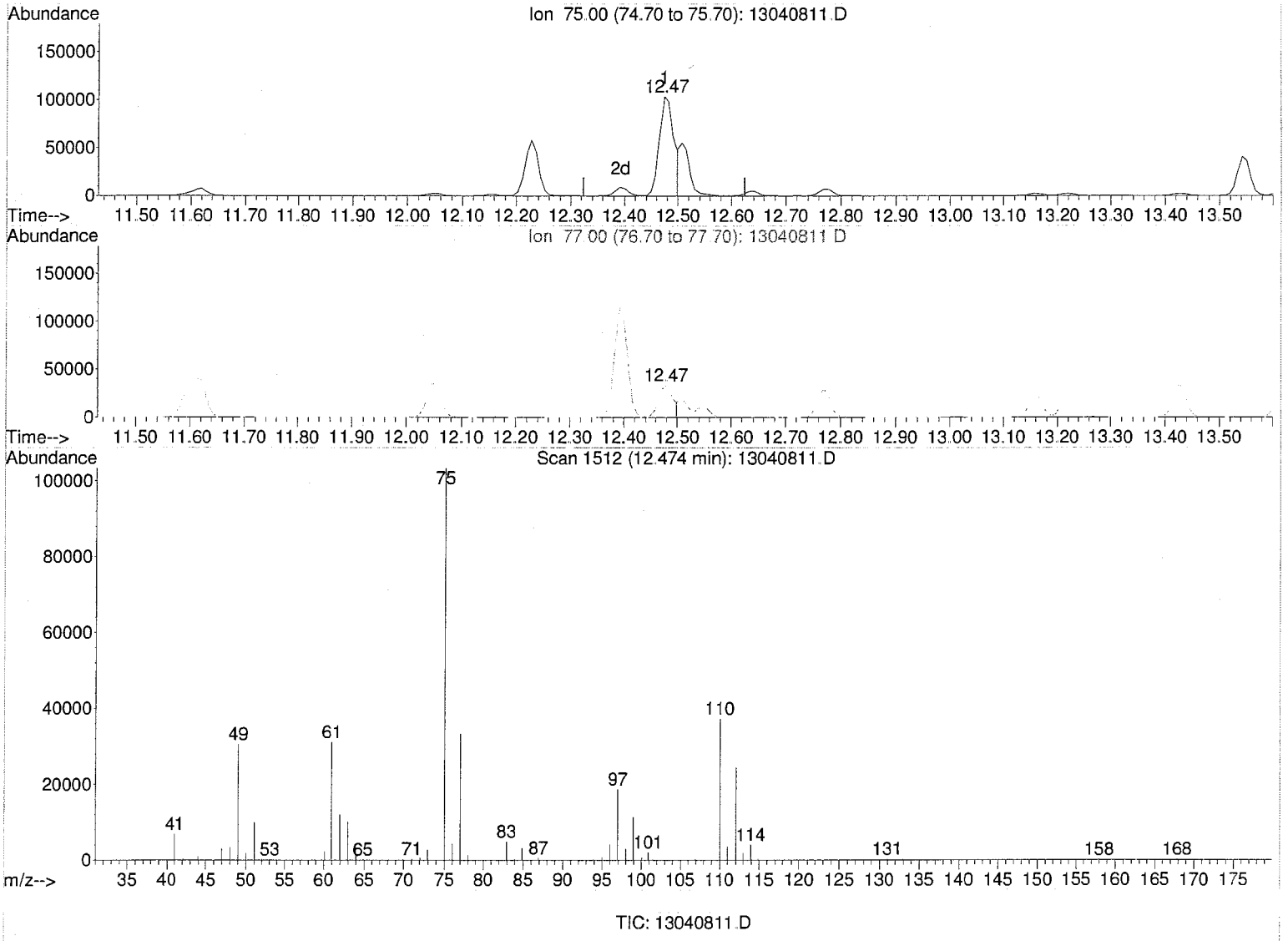
12.47min 94.54ug/L

response 267374

Ion	Exp%	Act%
75.00	100	100
77.00	33.20	32.68
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 2:27 pm Operator: AK
Sample : 13040516-004 6.21g t-core MS Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:18 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

AE 4/9/13

(64) 1,2,3-Trichloropropane (T)

12.47min 70.28ug/L m

response 198777

Ion	Exp%	Act%
75.00	100	100
77.00	33.20	32.29
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : 13040516-004 5.92g t-core MSD Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:14 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene ISTD	7.12	96	587329	50.00	ug/L		0.00
53) Chlorobenzene d-5 ISTD	10.80	117	362186	50.00	ug/L		0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	173235	50.00	ug/L		0.00
System Monitoring Compounds							
29) Dibromofluoromethane SS#1	6.28	113	151010	53.59	ug/L		0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 107.18%				
47) Toluene d-8 SS#2	9.08	98	471128	50.78	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 101.56%				
70) 4-Bromofluorobenzene SS#3	12.23	95	212628	43.44	ug/L		0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 86.88%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.54	85	89398	46.02	ug/L		99
3) Chloromethane	1.67	50	146119	46.10	ug/L		98
4) VINYL CHLORIDE	1.81	62	133436	53.05	ug/L		100
5) Bromomethane	2.11	94	69122	64.94	ug/L		97
6) Chloroethane	2.15	64	53997	43.10	ug/L		97
7) Trichlorofluoromethane	2.52	101	113226m	56.04	ug/L		
8) acrolein	2.92	56	30836	63.64	ug/L		87
9) Acetone	3.13	58	20181	81.60	ug/L		98
10) 1,1-DICHLOROETHENE	3.09	96	68107	49.32	ug/L		98
11) 1,1,2-Trichlorotrifluoroet	3.11	101	64680	45.22	ug/L		88
12) iodomethane	3.24	142	111807	42.01	ug/L		99
13) Carbon Disulfide	3.36	76	189738	40.56	ug/L		98
14) Methyl Acetate	3.57	74	22564	72.63	ug/L		96
15) Methylene chloride	3.74	84	85064	48.03	ug/L		95
16) tert-Butanol	4.01	59	38198	69.43	ug/L		100
17) acrylonitrile	4.12	53	70401	73.74	ug/L		99
18) trans-1,2-Dichloroethene	4.13	96	72007	46.15	ug/L		98
19) Methyl-t-Butyl Ether	4.14	73	265985	50.84	ug/L		100
20) 1,1-Dichloroethane	4.76	63	131214	40.53	ug/L		99
21) vinyl acetate	4.89	43	482720	53.62	ug/L		96
22) Diisopropyl ether	4.92	45	344838	43.00	ug/L		99
23) tert-Butyl ethyl ether	5.45	59	288180	35.92	ug/L		99
24) 2,2-Dichloropropane	5.59	77	114311	45.26	ug/L		99
25) cis-1,2-Dichloroethene	5.61	96	111806	48.81	ug/L		97
26) 2-Butanone (MEK)	5.68	72	25365	76.26	ug/L	#	84
27) Bromochloromethane	5.94	128	55200	56.83	ug/L		98
28) CHLOROFORM	6.08	83	168587	42.70	ug/L		99
30) 1,1,1-Trichloroethane	6.27	97	113828	40.28	ug/L		100
31) Cyclohexane	6.31	56	173085	40.61	ug/L		98
32) Carbon tetrachloride	6.47	117	99071	43.40	ug/L		99
33) 1,1-Dichloropropene	6.48	75	130602	51.13	ug/L		99
34) Benzene	6.75	78	359017	45.31	ug/L		99
35) 1,2-Dichloroethane	6.80	62	167905	47.67	ug/L		99
36) tert-Amyl alcohol	6.92	59	39089	62.27	ug/L	#	100
37) tert-Amyl methyl ether	6.95	73	350126	45.38	ug/L		100
38) Trichloroethene	7.58	95	90464	46.55	ug/L		99
39) 1,2-DICHLOROPROPANE	7.87	63	117905	49.75	ug/L		100
40) Methylcyclohexane	7.80	83	143229	44.16	ug/L		99
41) tert-Amyl ethyl ether	7.95	59	273204	39.07	ug/L		98
42) Dibromomethane	8.01	93	82909	57.81	ug/L		98
43) 1,4-Dioxane	8.07	88	70834	2075.96	ug/L		93
44) Bromodichloromethane	8.23	83	139698	43.57	ug/L		100
45) cis-1,3-Dichloropropene	8.77	75	191572	48.81	ug/L		100
46) 4-Methyl-2-Pentanone (MIBK	9.00	100	33459	88.72	ug/L	#	83
48) TOLUENE	9.15	92	217367	48.22	ug/L		100

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\1\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : 13040516-004 5.92g t-core MSD Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:14 2013 Quant Results File: VOC-S.RES

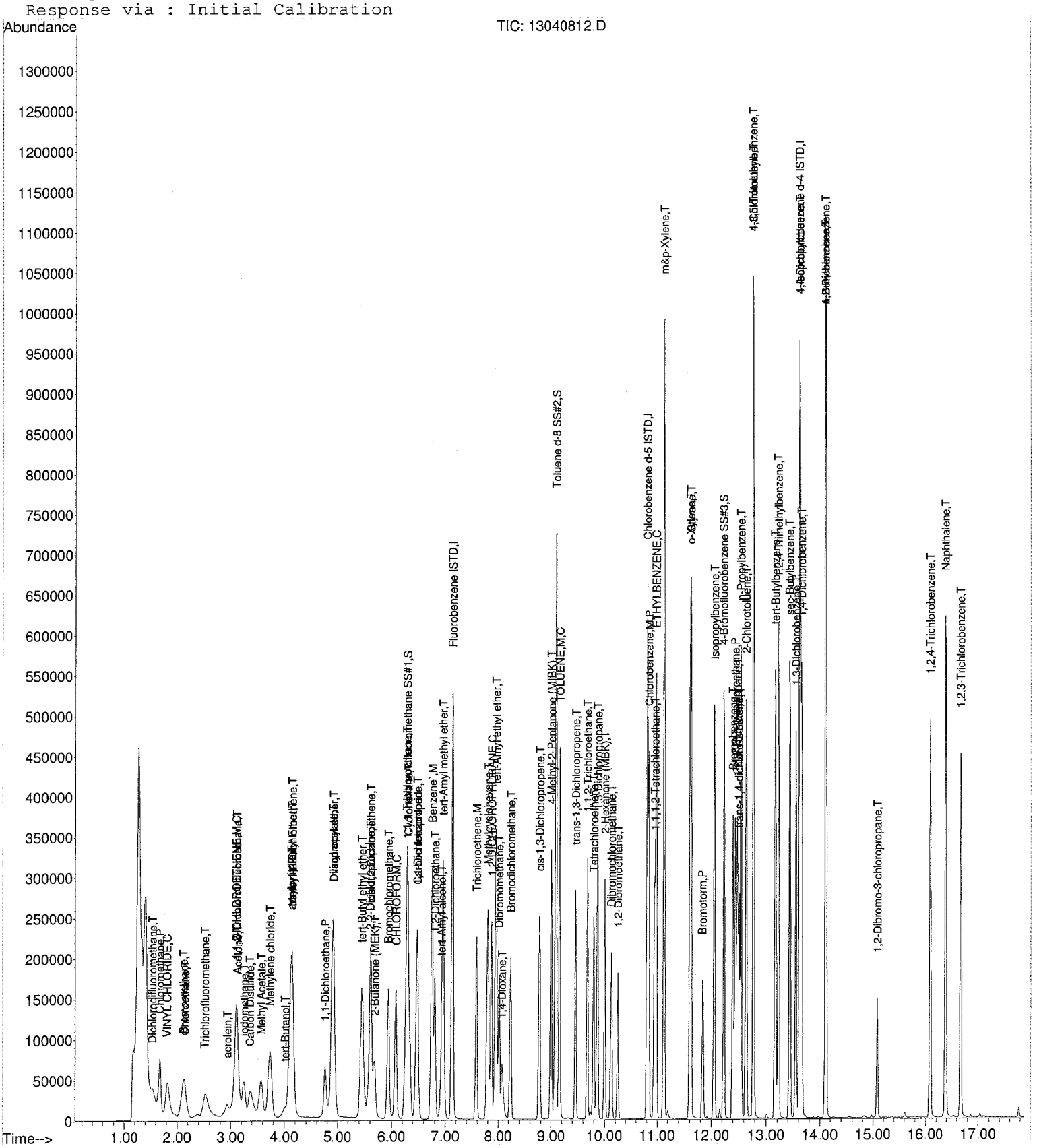
Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	trans-1,3-Dichloropropene	9.46	75	198141	52.54	ug/L		100
50)	1,1,2-Trichloroethane	9.67	83	89394	57.01	ug/L		99
51)	Tetrachloroethene	9.79	164	55475	51.45	ug/L		98
52)	2-Hexanone (MBK)	10.00	43	227514	74.34	ug/L		99
54)	1,3-Dichloropropane	9.87	76	212552	55.10	ug/L		100
55)	Dibromochloromethane	10.13	129	107026	50.84	ug/L		99
56)	1,2-Dibromoethane	10.25	107	126454	60.54	ug/L		100
57)	Chlorobenzene	10.84	112	239123	48.79	ug/L		99
58)	1,1,1,2-Tetrachloroethane	10.95	131	83352	45.51	ug/L		100
59)	ETHYLBENZENE	10.98	91	409059	44.94	ug/L		100
60)	m&p-Xylene	11.12	106	296765	95.28	ug/L		100
61)	o-Xylene	11.60	106	151853	45.85	ug/L		98
62)	Styrene	11.62	104	282674	46.34	ug/L		100
63)	Bromoform	11.84	173	79708	58.42	ug/L		99
64)	1,2,3-Trichloropropane	12.48	75	184055m	66.82	ug/L		
65)	Bromobenzene	12.40	156	97345	50.67	ug/L		99
66)	trans-1,4-dichloro-2-buten	12.51	53	81381	57.36	ug/L	#	99
67)	n-Propylbenzene	12.55	91	520547	46.65	ug/L		99
69)	Isopropylbenzene	12.05	105	376969	45.27	ug/L		100
71)	1,1,2,2-Tetrachloroethane	12.44	83	202283	63.12	ug/L		99
72)	2-Chlorotoluene	12.64	91	321286	44.01	ug/L		100
73)	4-Chlorotoluene	12.78	91	366027	45.28	ug/L		100
74)	1,3,5-Trimethylbenzene	12.77	105	337263	46.12	ug/L		100
75)	tert-Butylbenzene	13.16	119	282226	46.64	ug/L		100
76)	1,2,4-Trimethylbenzene	13.22	105	361074	46.23	ug/L		100
77)	sec-Butylbenzene	13.43	105	436835	46.42	ug/L		99
78)	4-Isopropyltoluene	13.62	119	370809	48.67	ug/L		99
79)	1,3-Dichlorobenzene	13.55	146	193443	49.23	ug/L		99
80)	1,4-Dichlorobenzene	13.66	146	199270	49.72	ug/L		99
81)	1,2-Dichlorobenzene	14.11	146	194357	50.58	ug/L		99
82)	n-Butylbenzene	14.12	91	424207	51.32	ug/L		99
83)	1,2-Dibromo-3-chloropropan	15.08	75	46730	61.51	ug/L		98
84)	1,2,4-Trichlorobenzene	16.08	180	155988	51.77	ug/L		100
85)	Naphthalene	16.38	128	503882	57.16	ug/L		100
86)	1,2,3-Trichlorobenzene	16.68	180	151144	52.19	ug/L		100

(#) = qualifier out of range (m) = manual integration

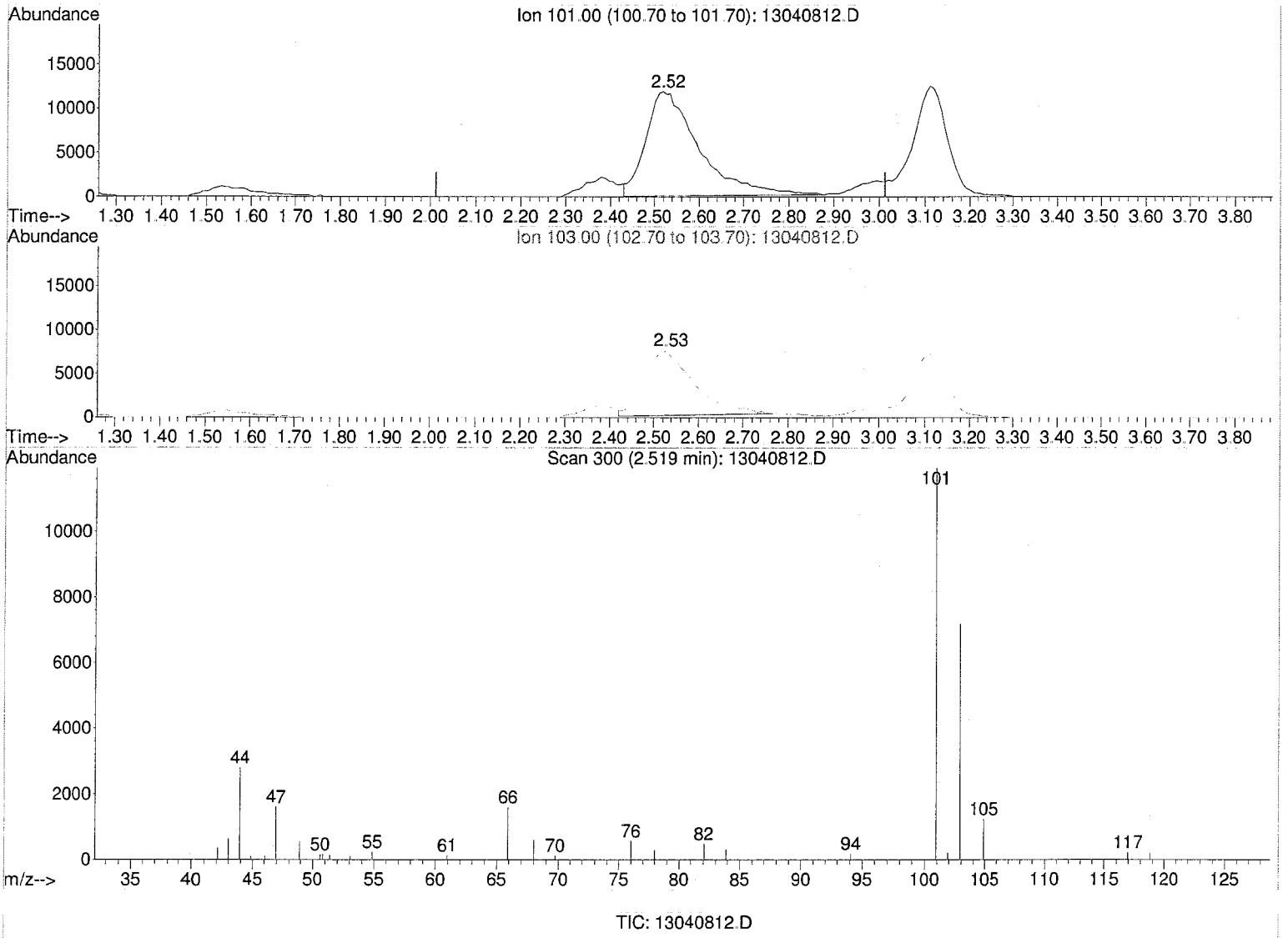
Data File : P:\VOC\1\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : 13040516-004 5.92g t-core MSD Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:19 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration



Data File : P:\VOC\1\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : 13040516-004 5.92g t-core MSD Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(7) Trichlorofluoromethane (T)

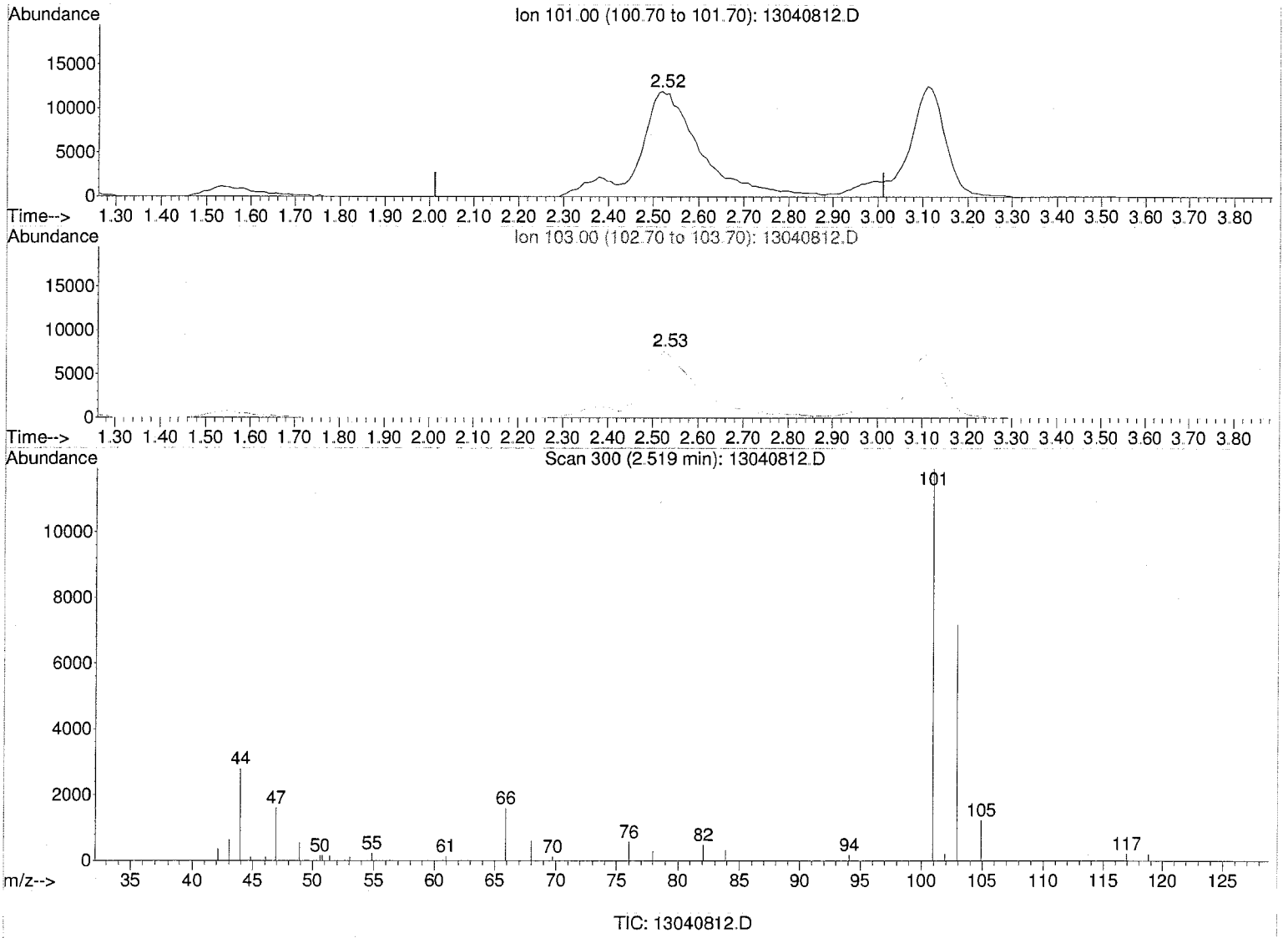
2.52min 48.53ug/L

response 98043

Ion	Exp%	Act%
101.00	100	100
103.00	62.70	57.05
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : 13040516-004 5.92g t-core MSD Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:19 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(7) Trichlorofluoromethane (T)

2.52min 56.04ug/L m

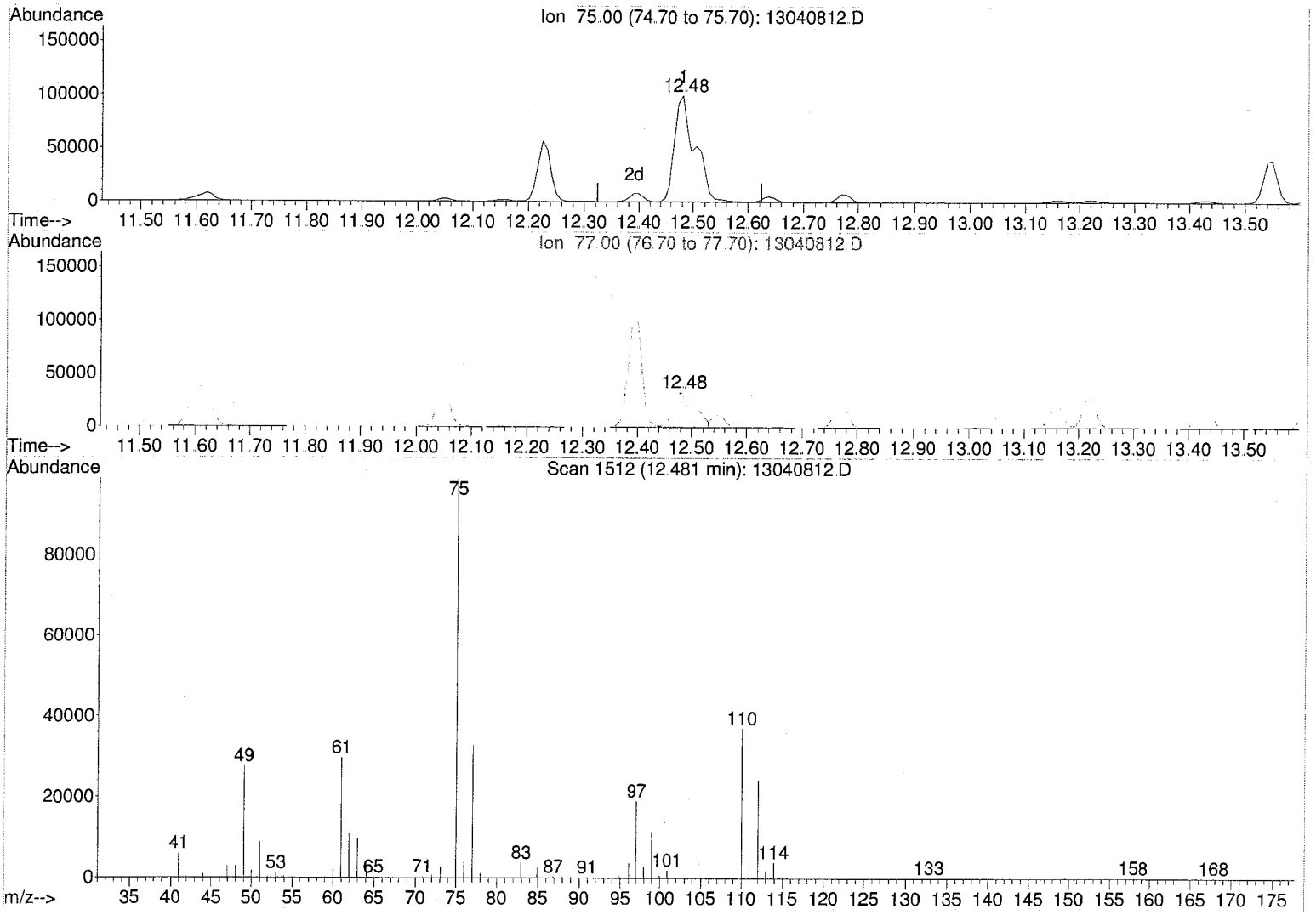
response 113226

Ion	Exp%	Act%
101.00	100	100
103.00	62.70	62.28
0.00	0.00	0.00
0.00	0.00	0.00

AL 4/9/13

Data File : P:\VOC\1\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : 13040516-004 5.92g t-core MSD Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:19 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(64) 1,2,3-Trichloropropane (T)

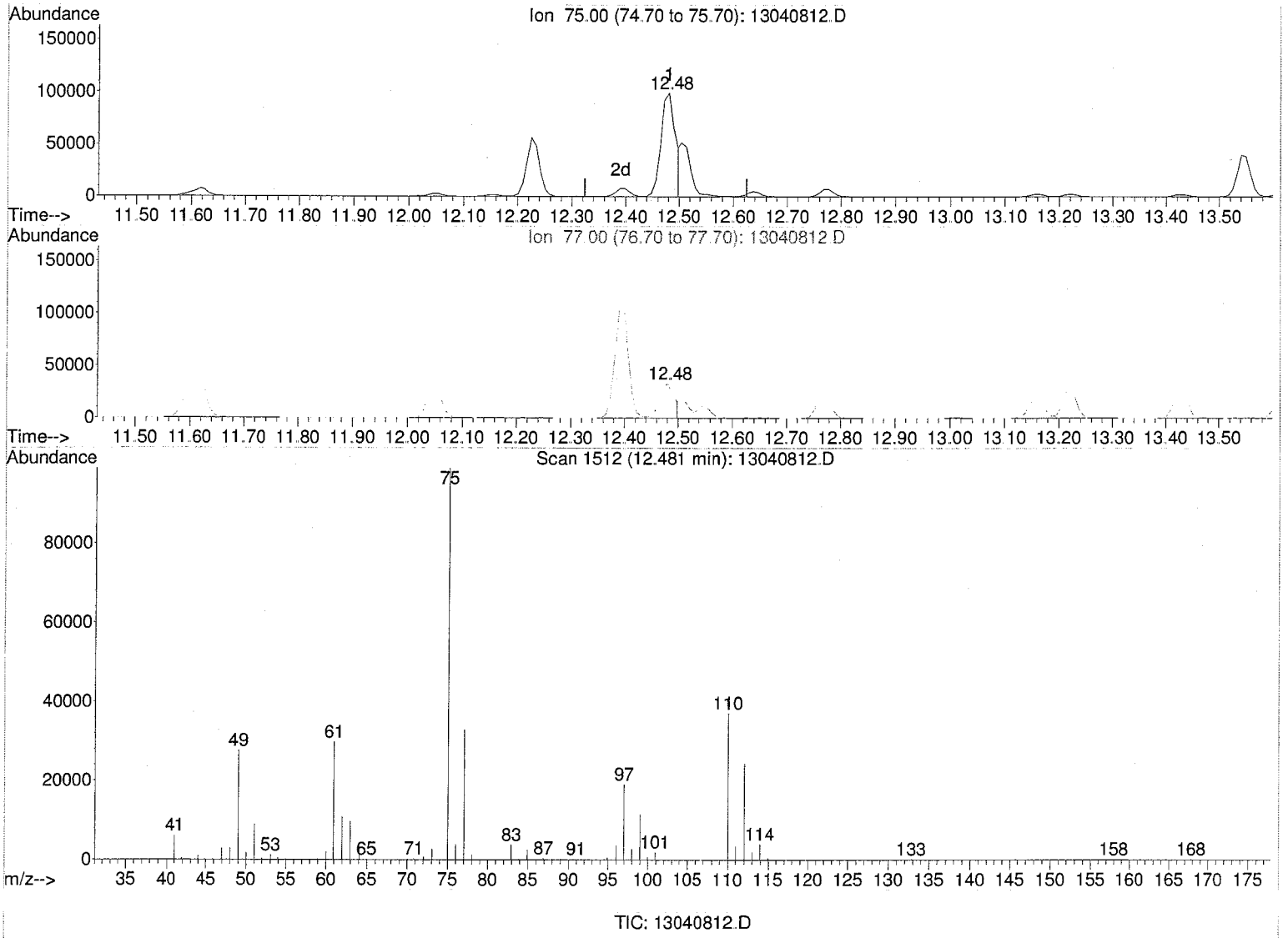
12.48min 91.92ug/L

response 253186

Ion	Exp%	Act%
75.00	100	100
77.00	33.20	32.96
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : 13040516-004 5.92g t-core MSD Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:19 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(64) 1,2,3-Trichloropropane (T)

12.48min 66.82ug/L m

response 184055

Ion	Exp%	Act%
75.00	100	100
77.00	33.20	32.77
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Quantitation Report (QT/LSC Reviewed)

Data File : P:\VOC\1\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 4:49 pm Operator: AK
Sample : 13040516-004 5.42g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:17 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	573470	50.00	ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	358605	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	176698	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.29	113	150332	54.64	ug/L	0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 109.28%			
47) Toluene d-8 SS#2	9.08	98	455225	50.25	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 100.50%			
70) 4-Bromofluorobenzene SS#3	12.23	95	207208	41.50	ug/L	0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 83.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.00	85	0	N.D.		
3) Chloromethane	1.70	50	53	N.D.		
4) VINYL CHLORIDE	0.00	62	0	N.D.		
5) Bromomethane	2.11	94	112	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Trichlorofluoromethane	0.00	101	0	N.D.		
8) acrolein	0.00	56	0	N.D.		
9) Acetone	3.12	58	2713	11.24	ug/L #	82
10) 1,1-DICHLOROETHENE	3.09	96	329	N.D.		
11) 1,1,2-Trichlorotrifluoroet	0.00	101	0	N.D.		
12) iodomethane	0.00	142	0	N.D.		
13) Carbon Disulfide	0.00	76	0	N.D.		
14) Methyl Acetate	0.00	74	0	N.D.		
15) Methylene chloride	3.70	84	52	N.D.		
16) tert-Butanol	3.99	59	267	N.D.		
17) acrylonitrile	0.00	53	0	N.D.		
18) trans-1,2-Dichloroethene	0.00	96	0	N.D.		
19) Methyl-t-Butyl Ether	0.00	73	0	N.D.		
20) 1,1-Dichloroethane	0.00	63	0	N.D.		
21) vinyl acetate	4.92	43	301	N.D.		
22) Diisopropyl ether	4.93	45	53	N.D.		
23) tert-Butyl ethyl ether	0.00	59	0	N.D.		
24) 2,2-Dichloropropane	0.00	77	0	N.D.		
25) cis-1,2-Dichloroethene	0.00	96	0	N.D.		
26) 2-Butanone (MEK)	5.71	72	50	N.D.		
27) Bromochloromethane	0.00	128	0	N.D.		
28) CHLOROFORM	0.00	83	0	N.D.		
30) 1,1,1-Trichloroethane	0.00	97	0	N.D.		
31) Cyclohexane	0.00	56	0	N.D.		
32) Carbon tetrachloride	0.00	117	0	N.D.		
33) 1,1-Dichloropropene	0.00	75	0	N.D.		
34) Benzene	6.74	78	172	N.D.		
35) 1,2-Dichloroethane	0.00	62	0	N.D.		
36) tert-Amyl alcohol	0.00	59	0	N.D.		
37) tert-Amyl methyl ether	7.13	73	6735	N.D.		
38) Trichloroethene	0.00	95	0	N.D.		
39) 1,2-DICHLOROPROPANE	0.00	63	0	N.D.		
40) Methylcyclohexane	0.00	83	0	N.D.		
41) tert-Amyl ethyl ether	0.00	59	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT/LSC Reviewed)

Data File : P:\VOC\1\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 4:49 pm Operator: AK
Sample : 13040516-004 5.42g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:17 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

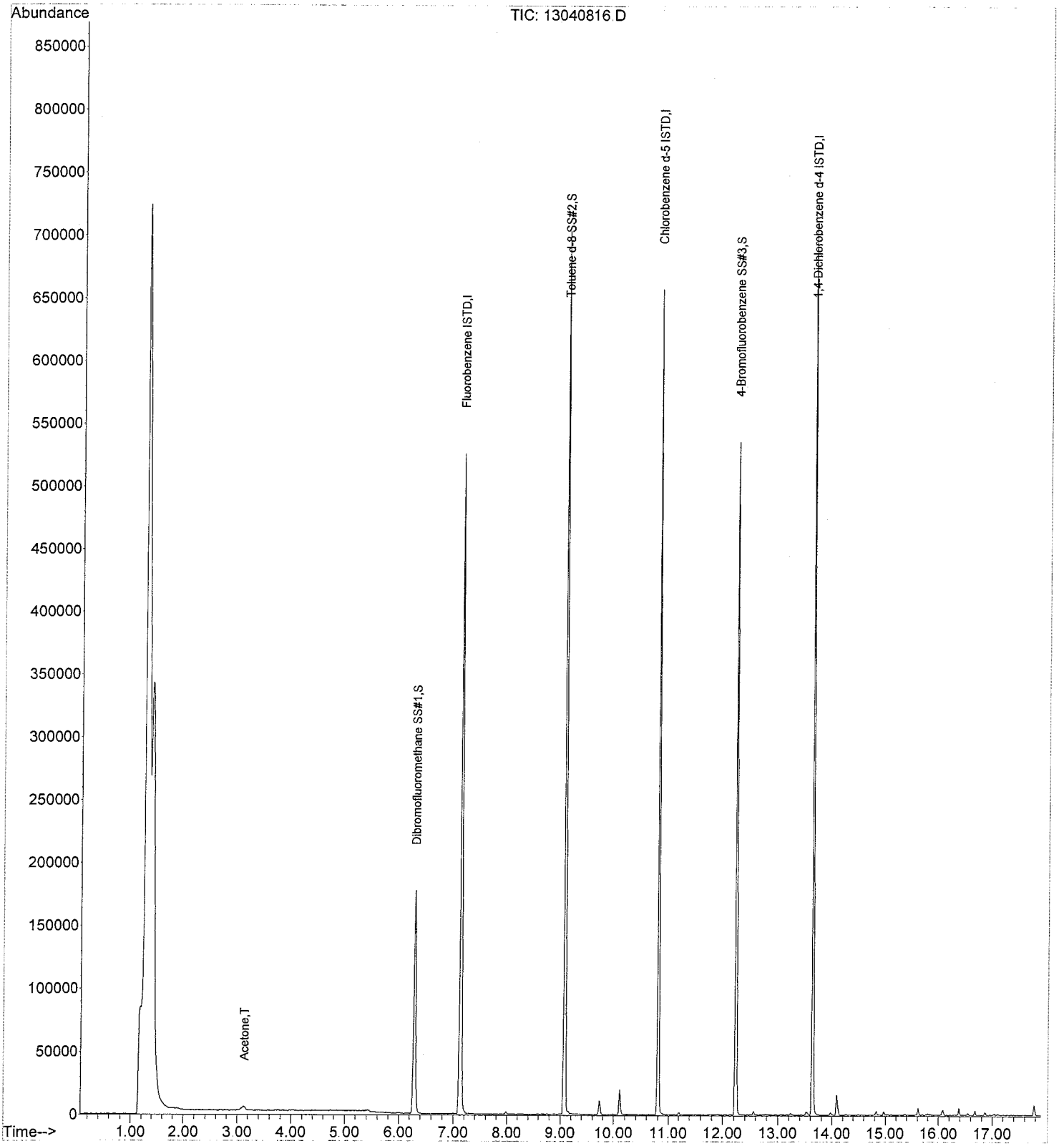
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Dibromomethane	0.00	93	0	N.D.	
43)	1,4-Dioxane	0.00	88	0	N.D.	
44)	Bromodichloromethane	0.00	83	0	N.D.	
45)	cis-1,3-Dichloropropene	0.00	75	0	N.D.	
46)	4-Methyl-2-Pentanone (MIBK	0.00	100	0	N.D.	
48)	TOLUENE	9.15	92	522	N.D.	
49)	trans-1,3-Dichloropropene	0.00	75	0	N.D.	
50)	1,1,2-Trichloroethane	0.00	83	0	N.D.	
51)	Tetrachloroethene	0.00	164	0	N.D.	
52)	2-Hexanone (MBK)	10.00	43	655	N.D.	
54)	1,3-Dichloropropane	0.00	76	0	N.D.	
55)	Dibromochloromethane	0.00	129	0	N.D.	
56)	1,2-Dibromoethane	0.00	107	0	N.D.	
57)	Chlorobenzene	10.84	112	124	N.D.	
58)	1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.	
59)	ETHYLBENZENE	10.98	91	156	N.D.	
60)	m&p-Xylene	11.12	106	133	N.D.	
61)	o-Xylene	0.00	106	0	N.D.	
62)	Styrene	11.62	104	221	N.D.	
63)	Bromoform	0.00	173	0	N.D.	
64)	1,2,3-Trichloropropane	12.48	75	111	N.D.	
65)	Bromobenzene	0.00	156	0	N.D.	
66)	trans-1,4-dichloro-2-buten	0.00	53	0	N.D.	
67)	n-Propylbenzene	12.55	91	519	N.D.	
69)	Isopropylbenzene	12.04	105	52	N.D.	
71)	1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
72)	2-Chlorotoluene	12.64	91	220	N.D.	
73)	4-Chlorotoluene	12.78	91	513	N.D.	
74)	1,3,5-Trimethylbenzene	12.77	105	282	N.D.	
75)	tert-Butylbenzene	13.16	119	157	N.D.	
76)	1,2,4-Trimethylbenzene	13.23	105	997	N.D.	
77)	sec-Butylbenzene	13.42	105	539	N.D.	
78)	4-Isopropyltoluene	13.62	119	786	N.D.	
79)	1,3-Dichlorobenzene	13.55	146	401	N.D.	
80)	1,4-Dichlorobenzene	13.66	146	498	N.D.	
81)	1,2-Dichlorobenzene	14.12	146	498	N.D.	
82)	n-Butylbenzene	14.12	91	1943	N.D.	
83)	1,2-Dibromo-3-chloropropan	14.82	75	76	N.D.	
84)	1,2,4-Trichlorobenzene	16.09	180	1217	N.D.	
85)	Naphthalene	16.38	128	4857	N.D.	
86)	1,2,3-Trichlorobenzene	16.68	180	1363	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT/LSC Reviewed)

Data File : P:\VOC\1\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 4:49 pm Operator: AK
Sample : 13040516-004 5.42g t-core Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration



3A

WATER VOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. : 45498-1-BKS

COMPOUND	SPIKE ADDED ug/L	BLANK CONCENTRATION ug/L	BKS CONCENTRATION ug/L	BKS % REC #	QC LIMITS REC.
Dichlorodifluoromethane	50.00	0	52.60	105	70-154
Chloromethane	50.00	0	51.49	103	74-121
1,1,2-Trichlorotrifluoroethane	50.00	0	53.12	106	74-129
Vinyl chloride	50.00	0	52.93	106	71-128
tert-Butanol	50.00	0	49.40	99	32-193
Bromomethane	50.00	0	53.98	108	86-131
Chloroethane	50.00	0	54.72	109	74-127
Acetone	50.00	0	50.35	101	35-153
Cyclohexane	50.00	0	58.18	116	53-151
Trichlorofluoromethane	50.00	0	55.54	111	71-150
1,1-Dichloroethene	50.00	0	52.85	106	81-118
Methylene chloride	50.00	0	53.71	107	80-117
trans-1,2-Dichloroethene	50.00	0	54.33	109	78-131
Methyl-t-Butyl Ether	50.00	0	54.28	109	78-132
1,1-Dichloroethane	50.00	0	54.96	110	87-119
2-Butanone (MEK)	50.00	0	52.37	105	46-143
cis-1,2-Dichloroethene	50.00	0	53.46	107	87-127
Bromochloromethane	50.00	0	55.29	111	86-129
Chloroform	50.00	0	55.33	111	86-130
1,1,1-Trichloroethane	50.00	0	60.18	120	80-157
1,2-Dichloroethane	50.00	0	56.21	112	85-134
Carbon tetrachloride	50.00	0	46.58	93	76-150
Benzene	50.00	0	53.48	107	84-123
1,2-Dichloropropane	50.00	0	55.59	111	86-122
Methyl Acetate	50.00	0	48.44	97	49-134
Methylcyclohexane	50.00	0	55.04	110	60-144
Trichloroethene	50.00	0	53.28	107	85-127
Carbon Disulfide	50.00	0	53.93	108	76-125
Bromodichloromethane	50.00	0	58.33	117	75-124
cis-1,3-Dichloropropene	50.00	0	56.61	113	75-117
4-Methyl-2-Pentanone (MIBK)	50.00	0	54.62	109	62-128
trans-1,3-Dichloropropene	50.00	0	49.53	99	70-117
1,1,2-Trichloroethane	50.00	0	54.90	110	84-124
Toluene	50.00	0	53.62	107	84-120
2-Hexanone (MBK)	50.00	0	55.42	111	59-132
1,2-Dibromoethane	50.00	0	54.93	110	83-130
Dibromochloromethane	50.00	0	47.28	95	65-130
tert-Amyl ethyl ether	50.00	0	56.70	113	78-136
tert-Butyl ethyl ether	50.00	0	55.59	111	80-131
Diisopropyl ether	50.00	0	53.76	108	84-116
tert-Amyl methyl ether	50.00	0	54.29	109	73-135
tert-Amyl alcohol	50.00	0	50.02	100	27-177

3A

WATER VOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. 45498-1-BKS

COMPOUND	SPIKE ADDED ug/L	BLANK CONCENTRATION ug/L	BKS CONCENTRATION ug/L	BKS % REC #	QC LIMITS REC.
Bromoform	50.00	0	44.73	89	48-138
Tetrachloroethene	50.00	0	53.07	106	83-126
Chlorobenzene	50.00	0	53.71	107	86-119
Ethylbenzene	50.00	0	54.10	108	88-122
m&p-Xylene	100.00	0	107.9	108	88-120
Styrene	50.00	0	55.80	112	90-125
1,1,2,2-Tetrachloroethane	50.00	0	53.61	107	76-126
o-Xylene	50.00	0	54.85	110	90-123
Isopropylbenzene	50.00	0	52.72	105	81-134
1,3-Dichlorobenzene	50.00	0	52.87	106	84-124
1,4-Dichlorobenzene	50.00	0	52.47	105	81-122
1,2-Dichlorobenzene	50.00	0	53.04	106	83-123
1,2-Dibromo-3-chloropropane	50.00	0	55.38	111	53-127
1,2,4-Trichlorobenzene	50.00	0	52.77	106	75-134
Naphthalene	50.00	0	54.88	110	65-152
1,2,3-Trichlorobenzene	50.00	0	53.46	107	67-147

Column to be used to flag recovery and RPD Values with an asterisk.
* Values outside of QC limits

RPD 0 Out of 0 outside limits

Spike Recovery : 0 Out of 58 outside limit

COMMENTS: _____

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45498-1-BKS

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 45498-1-BKS

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040831

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	52.60	
74-87-3	Chloromethane	51.49	
76-13-1	1,1,2-Trichlorotrifluoroethane	53.12	
75-01-4	Vinyl chloride	52.93	
75-65-0	tert-Butanol	49.40	
74-83-9	Bromomethane	53.98	
75-00-3	Chloroethane	54.72	
67-64-1	Acetone	50.35	
110-82-7	Cyclohexane	58.18	
75-69-4	Trichlorofluoromethane	55.54	
75-35-4	1,1-Dichloroethene	52.85	
75-09-2	Methylene chloride	53.71	
156-60-5	trans-1,2-Dichloroethene	54.33	
1634-04-4	Methyl-t-Butyl Ether	54.28	
75-34-3	1,1-Dichloroethane	54.96	
78-93-3	2-Butanone (MEK)	52.37	
156-59-2	cis-1,2-Dichloroethene	53.46	
74-97-5	Bromochloromethane	55.29	
67-66-3	Chloroform	55.33	
71-55-6	1,1,1-Trichloroethane	60.18	
107-06-2	1,2-Dichloroethane	56.21	
56-23-5	Carbon tetrachloride	46.58	
71-43-2	Benzene	53.48	
78-87-5	1,2-Dichloropropane	55.59	
79-20-9	Methyl Acetate	48.44	
108-87-2	Methylcyclohexane	55.04	

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
45498-1-BKS

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 45498-1-BKS

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040831

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	53.28	
75-15-0	Carbon Disulfide	53.93	
75-27-4	Bromodichloromethane	58.33	
10061-01-5	cis-1,3-Dichloropropene	56.61	
108-10-1	4-Methyl-2-Pentanone (MIBK)	54.62	
10061-02-6	trans-1,3-Dichloropropene	49.53	
79-00-5	1,1,2-Trichloroethane	54.90	
108-88-3	Toluene	53.62	
591-78-6	2-Hexanone (MBK)	55.42	
106-93-4	1,2-Dibromoethane	54.93	
124-48-1	Dibromochloromethane	47.28	
919-94-8	tert-Amyl ethyl ether	56.70	
637-92-3	tert-Butyl ethyl ether	55.59	
108-20-3	Diisopropyl ether	53.76	
994-05-8	tert-Amyl methyl ether	54.29	
75-85-4	tert-Amyl alcohol	50.02	
75-25-2	Bromoform	44.73	
127-18-4	Tetrachloroethene	53.07	
108-90-7	Chlorobenzene	53.71	
100-41-4	Ethylbenzene	54.10	
108-38-3	m&p-Xylene	107.9	
100-42-5	Styrene	55.80	
79-34-5	1,1,2,2-Tetrachloroethane	53.61	
95-47-6	o-Xylene	54.85	
98-82-8	Isopropylbenzene	52.72	
541-73-1	1,3-Dichlorobenzene	52.87	

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45498-1-BKS

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 45498-1-BKS

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040831

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	52.47	
95-50-1	1,2-Dichlorobenzene	53.04	
96-12-8	1,2-Dibromo-3-chloropropane	55.38	
120-82-1	1,2,4-Trichlorobenzene	52.77	
91-20-3	Naphthalene	54.88	
87-61-6	1,2,3-Trichlorobenzene	53.46	

SW8260B

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:51 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene ISTD	7.31	96	533171	50.00	ug/L		0.00
54) Chlorobenzene d-5 ISTD	11.00	117	370472	50.00	ug/L		0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	144519	50.00	ug/L		0.00
System Monitoring Compounds							
29) Dibromofluoromethane SS#1	6.45	113	122064	50.55	ug/L		0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 101.10%				
48) Toluene d-8 SS#2	9.27	98	474807	50.78	ug/L		0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 101.56%				
71) 4-Bromofluorobenzene SS#3	12.42	95	175568	49.36	ug/L		0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 98.72%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.52	85	130272	52.60	ug/L		94
3) Chloromethane	1.73	50	166287	51.49	ug/L		99
4) VINYL CHLORIDE	1.82	62	186997	52.93	ug/L		99
5) Bromomethane	2.17	94	114987	53.98	ug/L		99
6) Chloroethane	2.29	64	88372m	54.72	ug/L		
7) Trichlorofluoromethane	2.54	101	133358m	55.54	ug/L		
8) acrolein	3.04	56	13483	46.72	ug/L	#	75
9) Acetone	3.25	58	5817	50.35	ug/L	#	78
10) 1,1-DICHLOROETHENE	3.18	96	111100m	52.85	ug/L		
11) 1,1,2-Trichlorotrifluoroet	3.20	101	73674m	53.12	ug/L		
12) iodomethane	3.38	142	170427m	56.41	ug/L		
13) Carbon Disulfide	3.44	76	312176	53.93	ug/L		97
14) Methyl Acetate	3.73	74	12751	48.44	ug/L		94
15) Methylene chloride	3.91	84	114766m	53.71	ug/L		
16) tert-Butanol	4.16	59	3978	49.40	ug/L		100
17) acrylonitrile	4.27	53	29764	52.78	ug/L		96
18) trans-1,2-Dichloroethene	4.28	96	100197	54.33	ug/L		99
19) Methyl-t-Butyl Ether	4.33	73	248106	54.28	ug/L		100
20) 1,1-Dichloroethane	4.93	63	163007	54.96	ug/L		100
21) vinyl acetate	5.08	43	165301	50.34	ug/L		97
22) Diisopropyl ether	5.11	45	346967	53.76	ug/L		98
23) tert-Butyl ethyl ether	5.64	59	321524	55.59	ug/L		97
24) 2,2-Dichloropropane	5.76	77	56513	47.72	ug/L		98
25) cis-1,2-Dichloroethene	5.78	96	130333	53.46	ug/L		97
26) 2-Butanone (MEK)	5.85	72	8538	52.37	ug/L	#	91
27) Bromochloromethane	6.10	128	56223	55.29	ug/L		95
28) CHLOROFORM	6.24	83	174657	55.33	ug/L		99
30) 1,1,1-Trichloroethane	6.44	97	112571	60.18	ug/L		96
31) Cyclohexane	6.51	56	92155	58.18	ug/L		93
32) Carbon tetrachloride	6.66	117	82163	46.58	ug/L		98
33) 1,1-Dichloropropene	6.67	75	129686	54.26	ug/L		98
34) Benzene`	6.93	78	447741	53.48	ug/L		100
35) 1,2-Dichloroethane	6.97	62	116435	56.21	ug/L		97
36) tert-Amyl alcohol	7.08	59	3417m	50.02	ug/L		
37) tert-Amyl methyl ether	7.14	73	293198	54.29	ug/L		97
38) Trichloroethene	7.77	95	103723	53.28	ug/L		97
39) 1,2-DICHLOROPROPANE	8.05	63	111343	55.59	ug/L		100
40) Methylcyclohexane	8.00	83	88966	55.04	ug/L		97
41) tert-Amyl ethyl ether	8.14	59	270407	56.70	ug/L		95
42) Dibromomethane	8.19	93	67596	56.13	ug/L		96
43) 1,4-Dioxane	8.25	88	6622	800.38	ug/L		96
44) Bromodichloromethane	8.40	83	129182	58.33	ug/L		98
45) 2-Chloroethylvinyl Ether	8.80	63	56530	45.73	ug/L		98
46) cis-1,3-Dichloropropene	8.95	75	176515	56.61	ug/L		99
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	14563	54.62	ug/L	#	94

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:51 2013 Quant Results File: VOC-W.RES

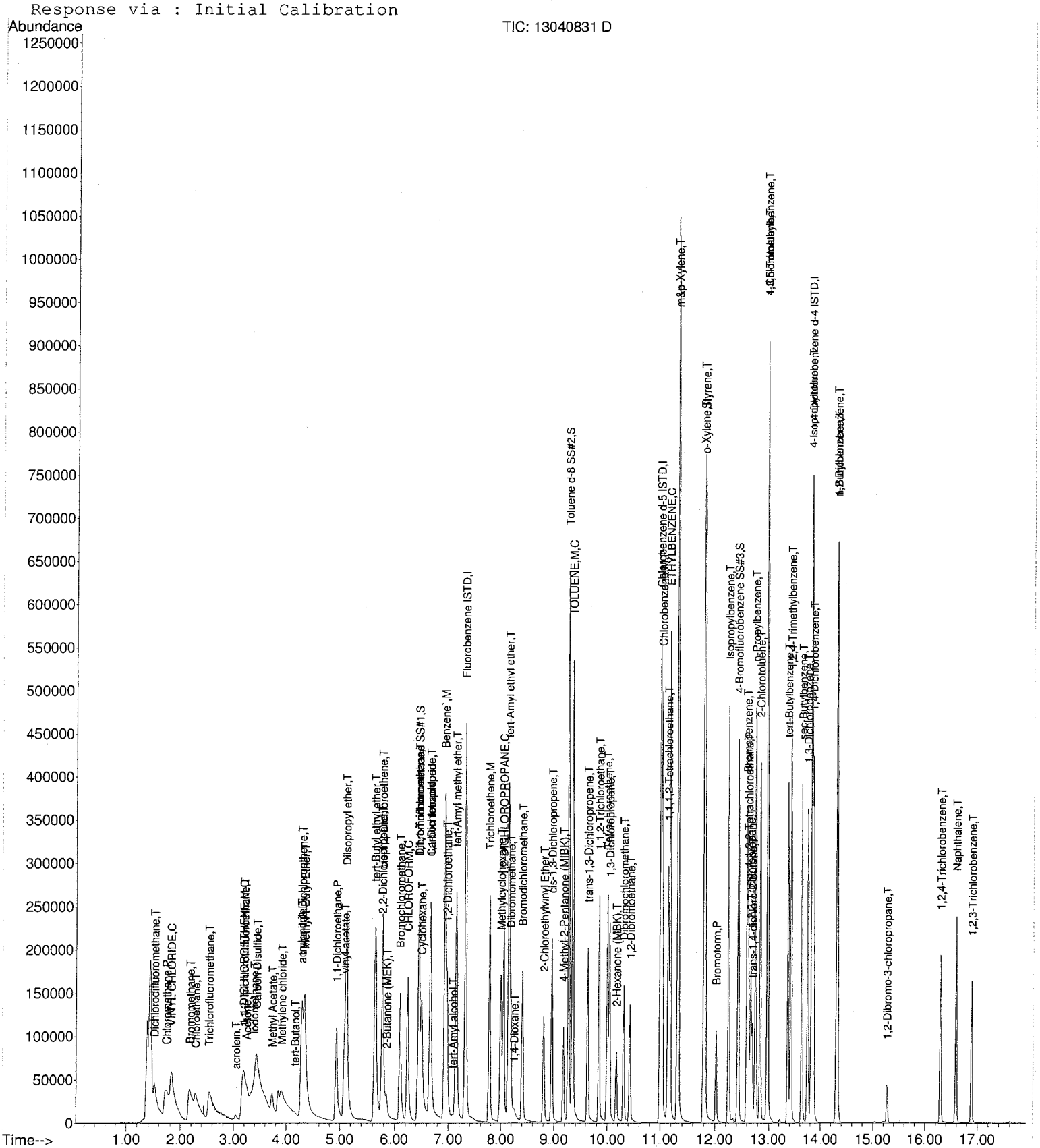
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	TOLUENE	9.35	92	276155	53.62	ug/L		99
50)	trans-1,3-Dichloropropene	9.63	75	147074	49.53	ug/L		99
51)	1,1,2-Trichloroethane	9.84	83	77716	54.90	ug/L		99
52)	Tetrachloroethene	10.00	164	67557	53.07	ug/L		99
53)	2-Hexanone (MBK)	10.17	43	63948	55.42	ug/L		97
55)	1,3-Dichloropropane	10.04	76	166338	53.73	ug/L		100
56)	Dibromochloromethane	10.31	129	89614	47.28	ug/L		99
57)	1,2-Dibromoethane	10.43	107	100075	54.93	ug/L		97
58)	Chlorobenzene	11.03	112	298800	53.71	ug/L		97
59)	1,1,1,2-Tetrachloroethane	11.14	131	89104	56.97	ug/L		100
60)	ETHYLBENZENE	11.18	91	449616	54.10	ug/L		100
61)	m&p-Xylene	11.32	106	362377	107.94	ug/L		97
62)	o-Xylene	11.79	106	183471	54.85	ug/L		100
63)	Styrene	11.81	104	341202	55.80	ug/L		99
64)	Bromoform	12.02	173	52349	44.73	ug/L		99
65)	1,2,3-Trichloropropane	12.66	75	81994m	52.30	ug/L		
66)	Bromobenzene	12.60	156	105642	54.16	ug/L		98
67)	trans-1,4-dichloro-2-buten	12.69	53	23207	45.57	ug/L	#	99
68)	n-Propylbenzene	12.75	91	416346	54.02	ug/L		97
70)	Isopropylbenzene	12.25	105	369004	52.72	ug/L		97
72)	1,1,2,2-Tetrachloroethane	12.62	83	117307	53.61	ug/L		99
73)	2-Chlorotoluene	12.84	91	266617	52.33	ug/L		100
74)	4-Chlorotoluene	12.98	91	312181	53.71	ug/L		98
75)	1,3,5-Trimethylbenzene	12.97	105	294528	54.30	ug/L		98
76)	tert-Butylbenzene	13.37	119	217218	54.28	ug/L		95
77)	1,2,4-Trimethylbenzene	13.43	105	302212	53.77	ug/L		95
78)	sec-Butylbenzene	13.64	105	327965	53.81	ug/L		100
79)	4-Isopropyltoluene	13.82	119	264049	52.91	ug/L		98
80)	1,3-Dichlorobenzene	13.75	146	166043	52.87	ug/L		98
81)	1,4-Dichlorobenzene	13.86	146	170518	52.47	ug/L		97
82)	1,2-Dichlorobenzene	14.31	146	157928	53.04	ug/L		97
83)	n-Butylbenzene	14.32	91	236216	53.03	ug/L		99
84)	1,2-Dibromo-3-chloropropan	15.27	75	12508	55.38	ug/L		95
85)	1,2,4-Trichlorobenzene	16.29	180	68737	52.77	ug/L		99
86)	Naphthalene	16.59	128	200322	54.88	ug/L		100
87)	1,2,3-Trichlorobenzene	16.89	180	58317	53.46	ug/L		99

(#) = qualifier out of range (m) = manual integration

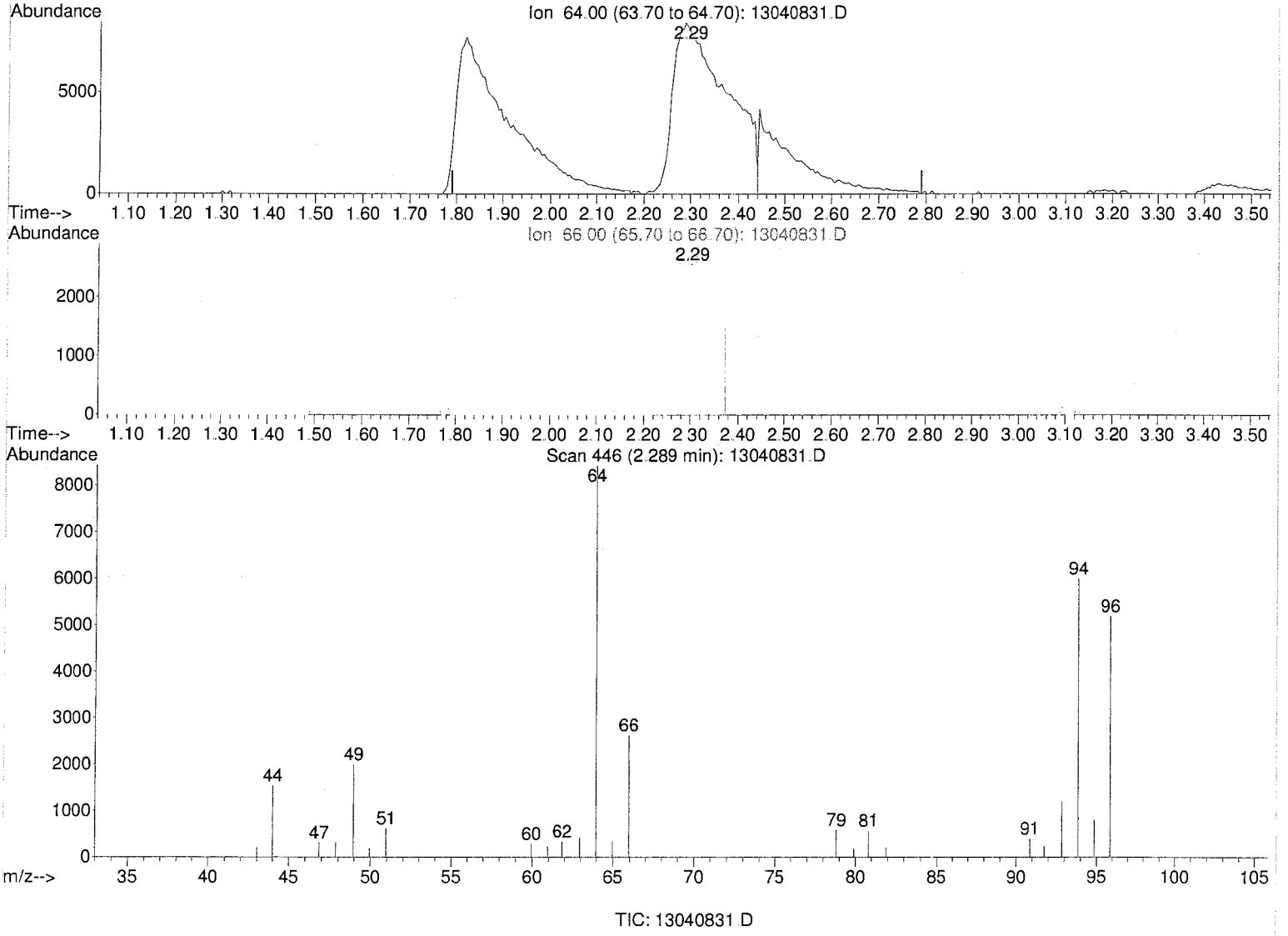
Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:00 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(6) Chloroethane (T)

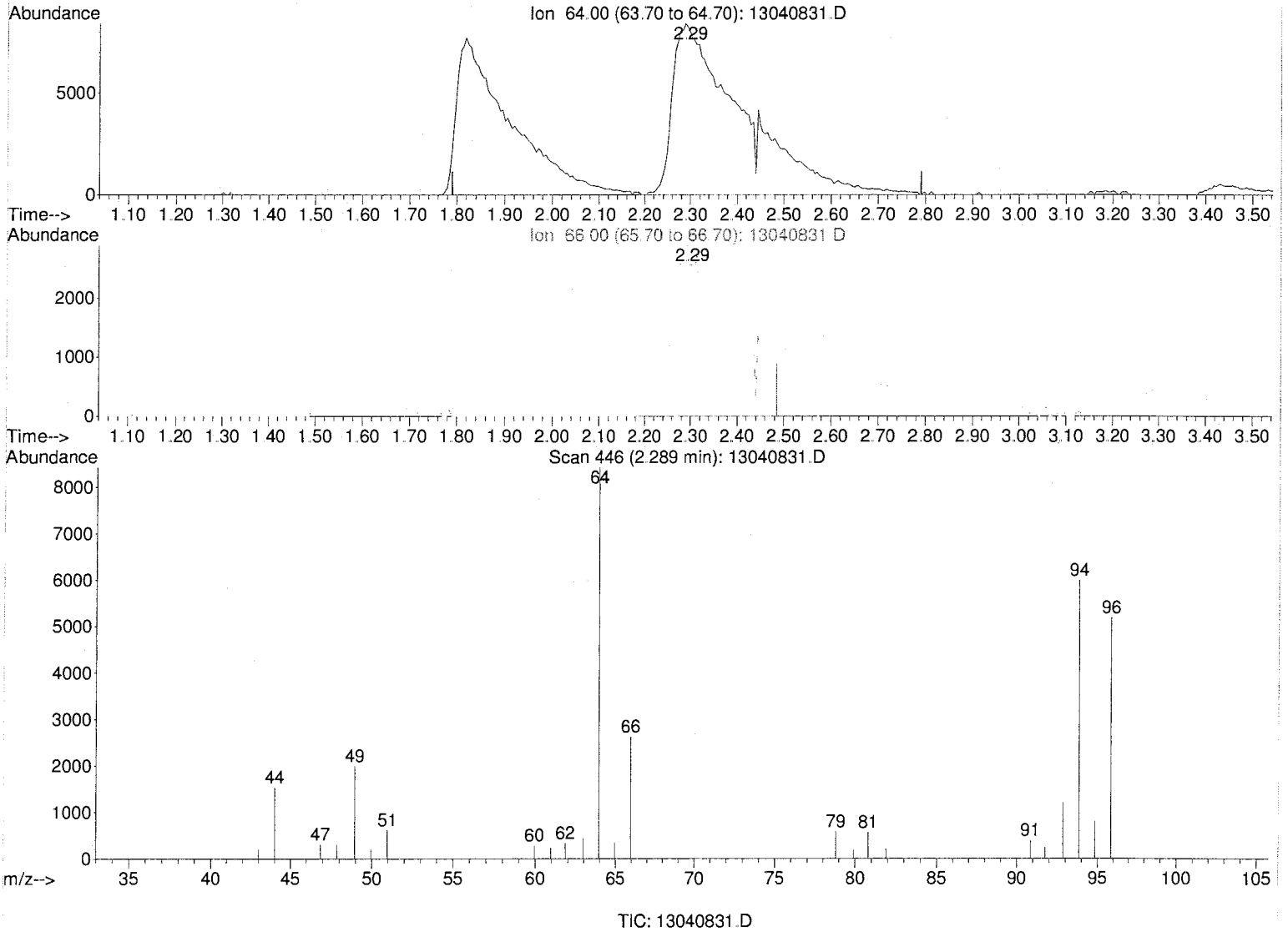
2.29min 41.38ug/L

response 66818

Ion	Exp%	Act%
64.00	100	100
66.00	28.80	24.66
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:58 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(6) Chloroethane (T)

2.29min 54.72ug/L m

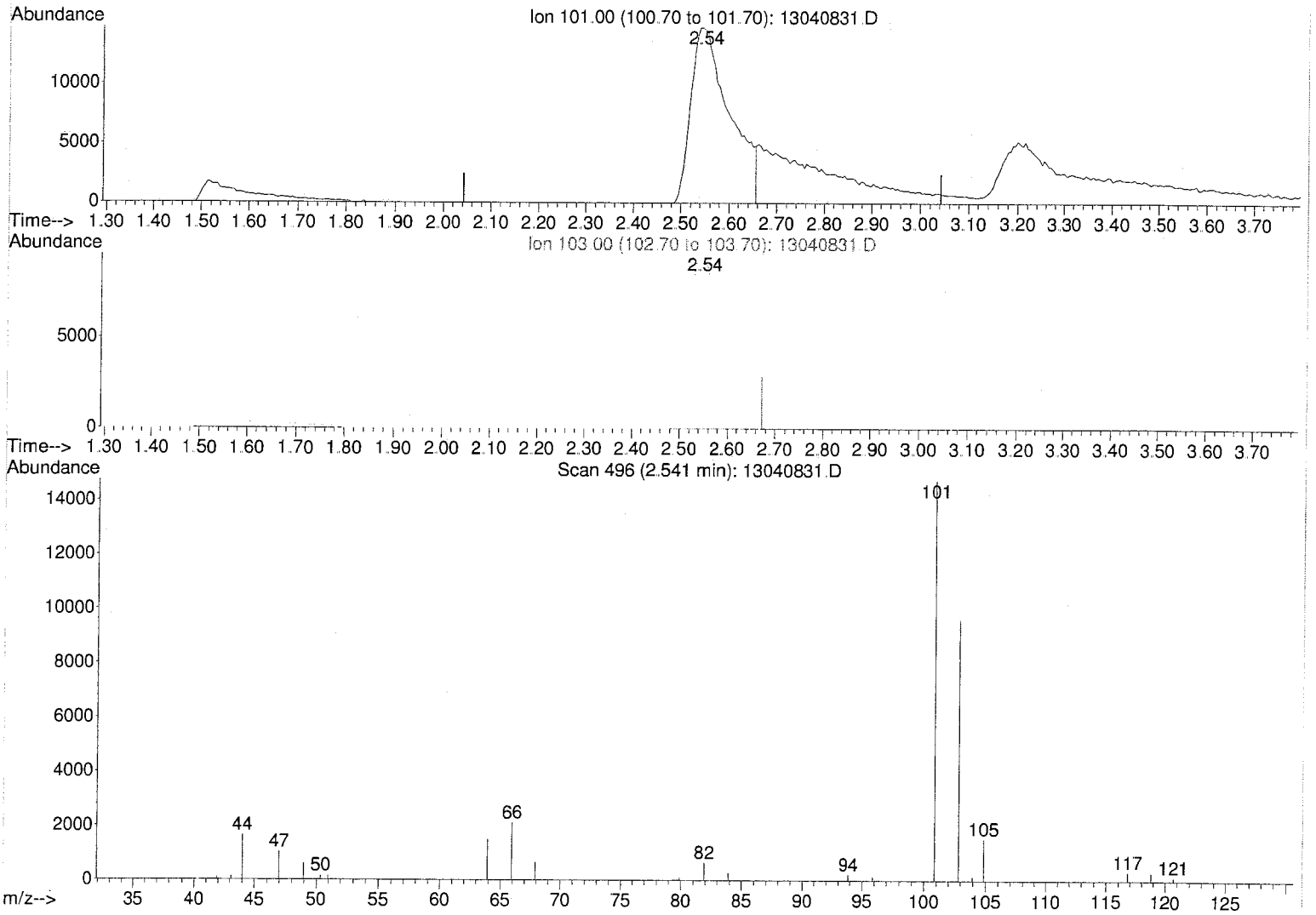
response 88372

Ion	Exp%	Act%
64.00	100	100
66.00	28.80	27.51
0.00	0.00	0.00
0.00	0.00	0.00

AC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:58 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(7) Trichlorofluoromethane (T)

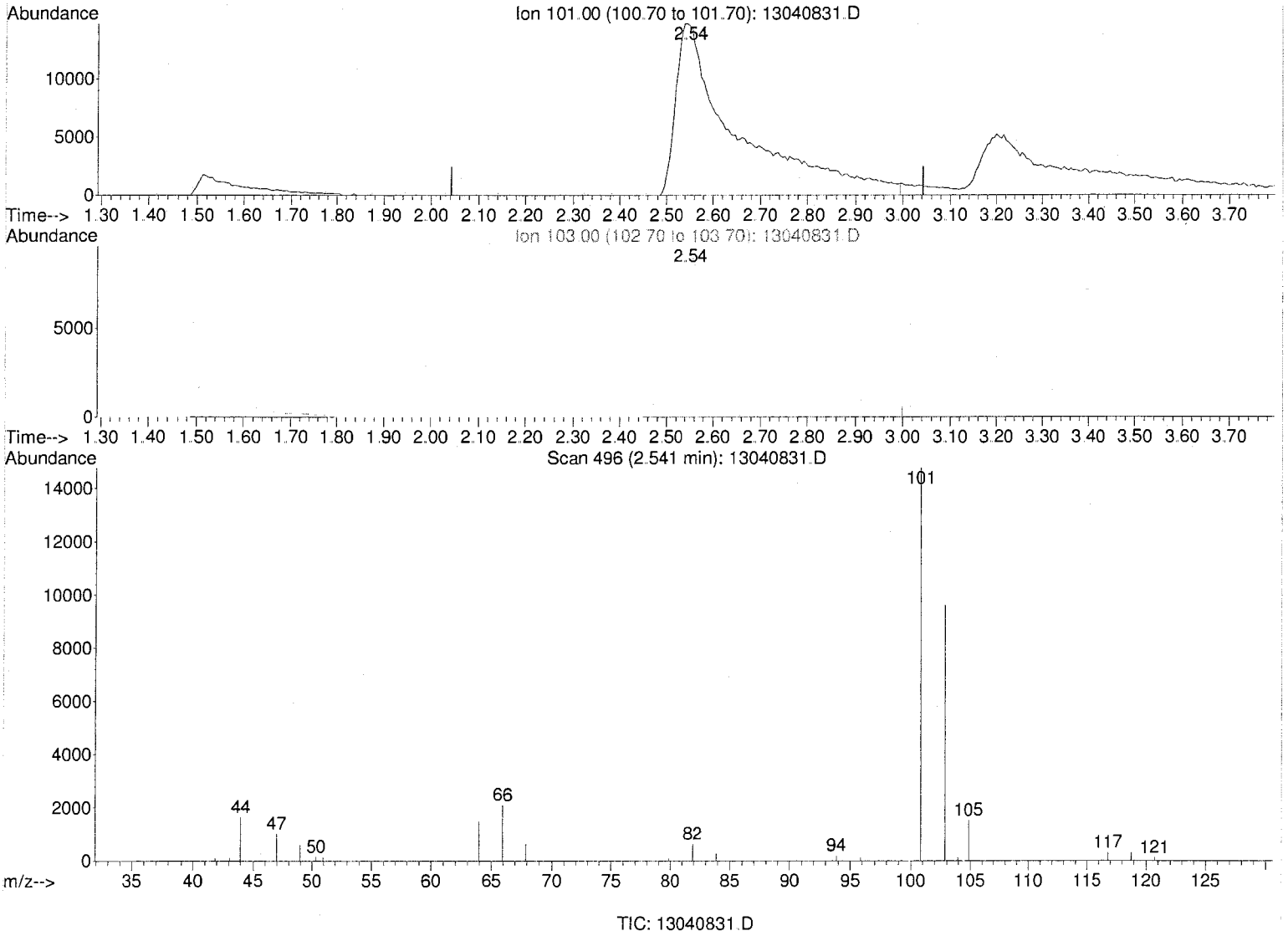
2.54min 34.64ug/L

response 83177

Ion	Exp%	Act%
101.00	100	100
103.00	65.30	68.08
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(7) Trichlorofluoromethane (T)

2.54min 55.54ug/L m

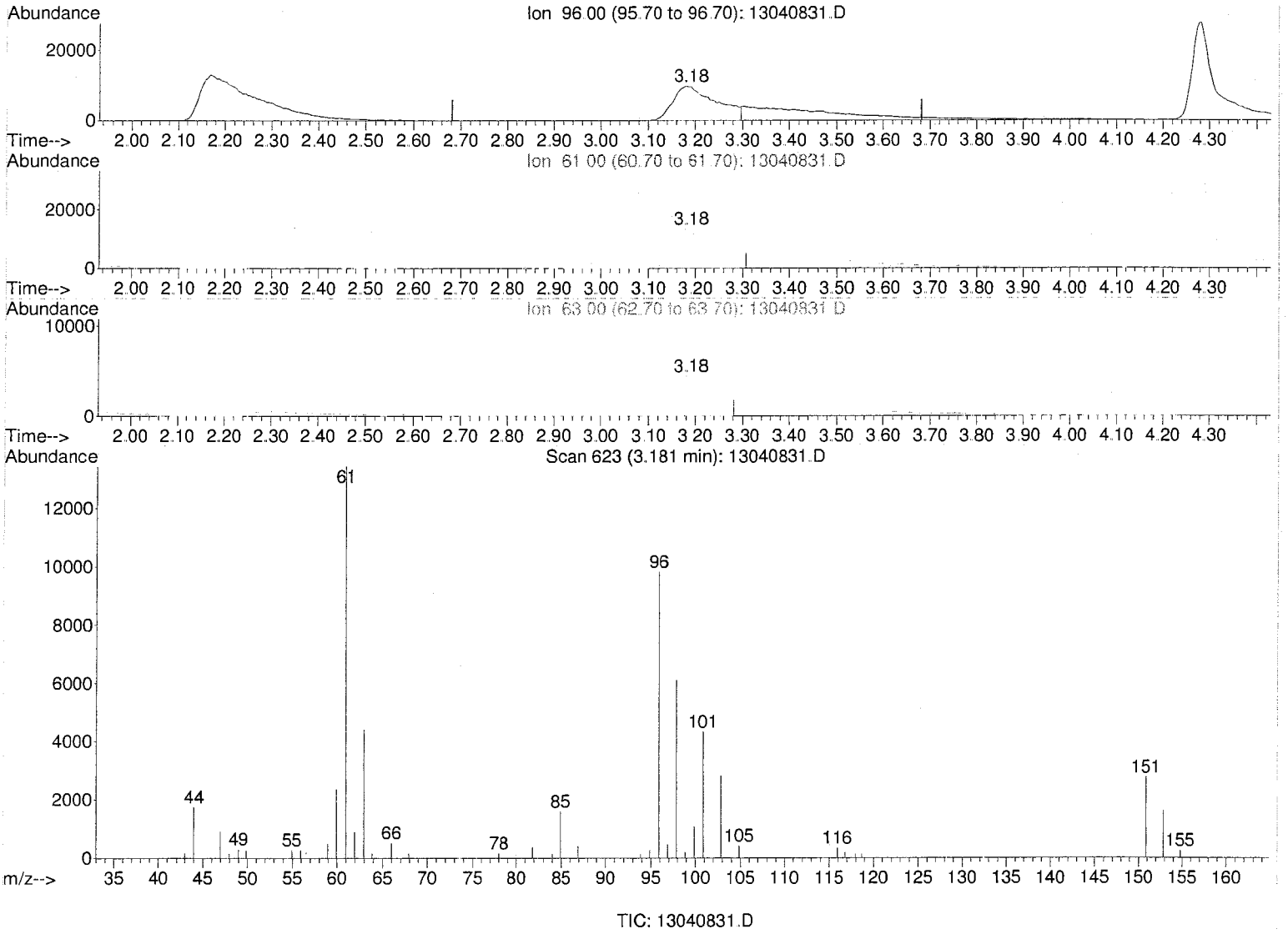
response 133358

Ion	Exp%	Act%
101.00	100	100
103.00	65.30	65.24
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(10) 1,1-DICHLOROETHENE (M,C)

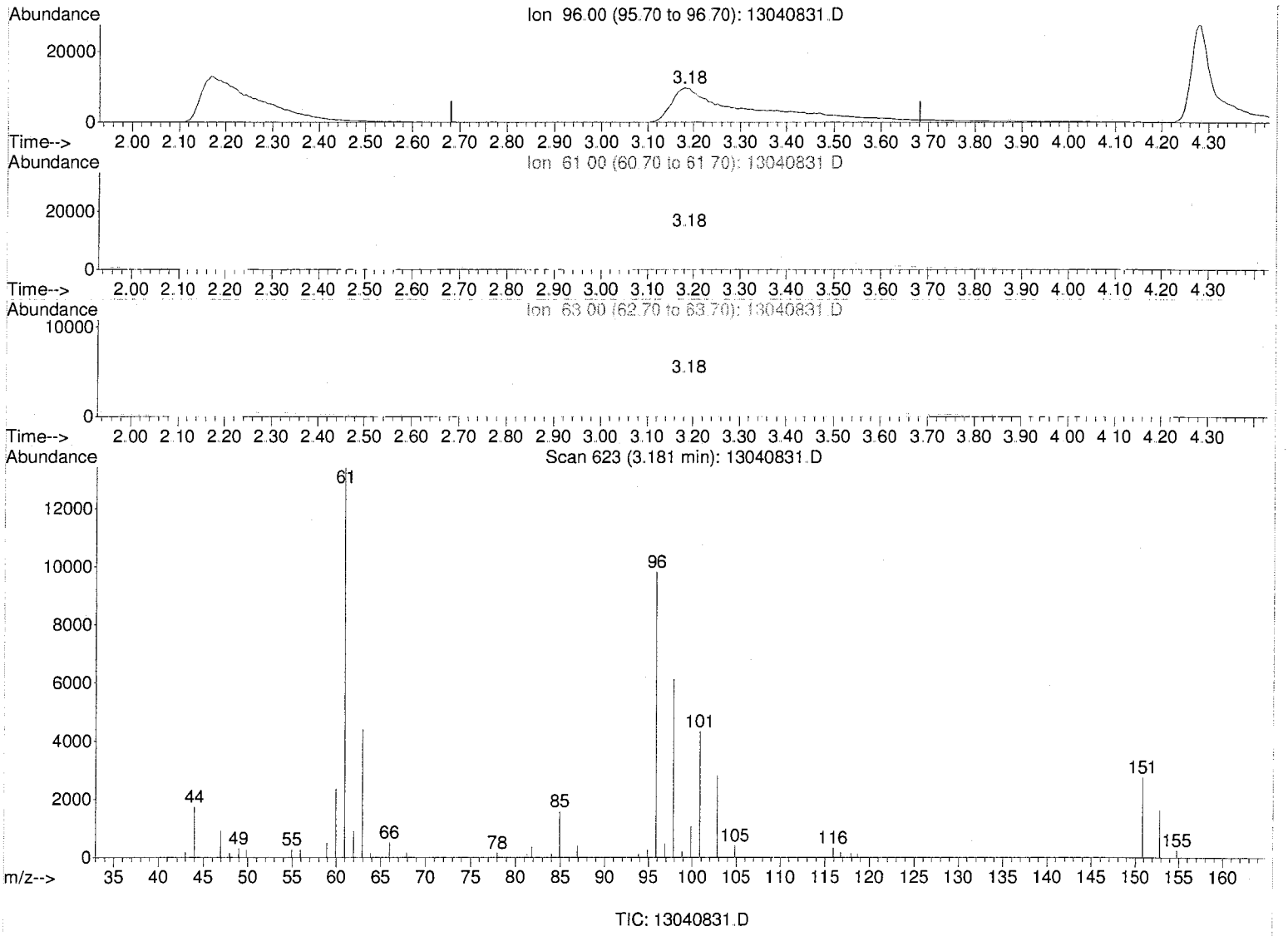
3.18min 29.45ug/L

response 61905

Ion	Exp%	Act%
96.00	100	100
61.00	136.90	144.26
63.00	44.90	42.45
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(10) 1,1-DICHLOROETHENE (M,C)

3.18min 52.85ug/L m

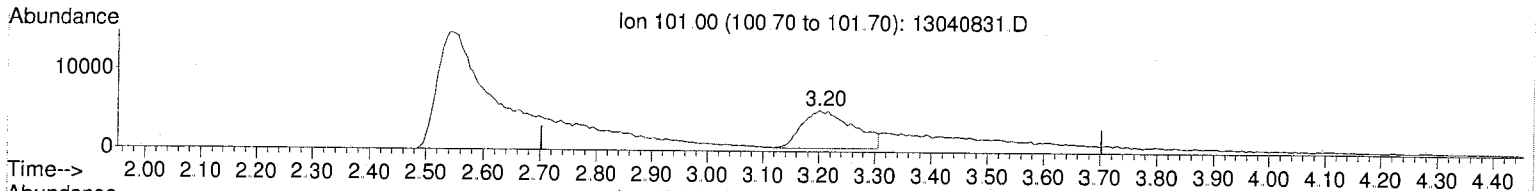
response 111100

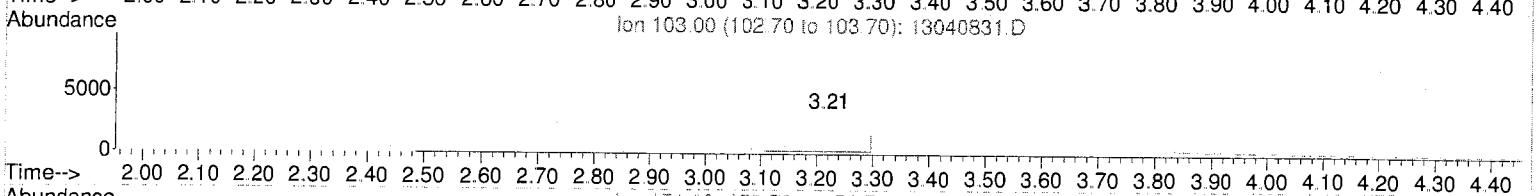
Ion	Exp%	Act%
96.00	100	100
61.00	136.90	138.47
63.00	44.90	45.55
0.00	0.00	0.00

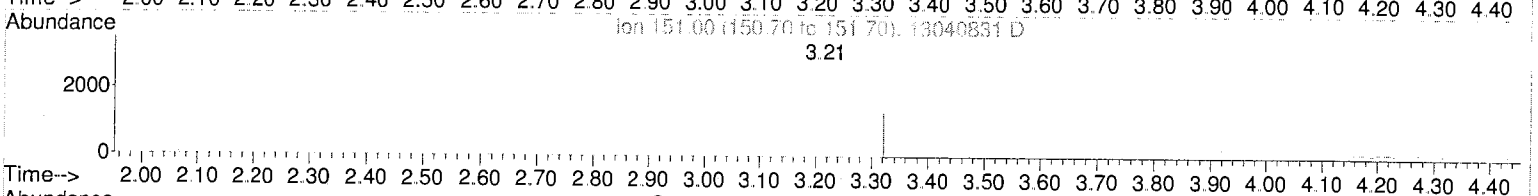
AK 4/9/13

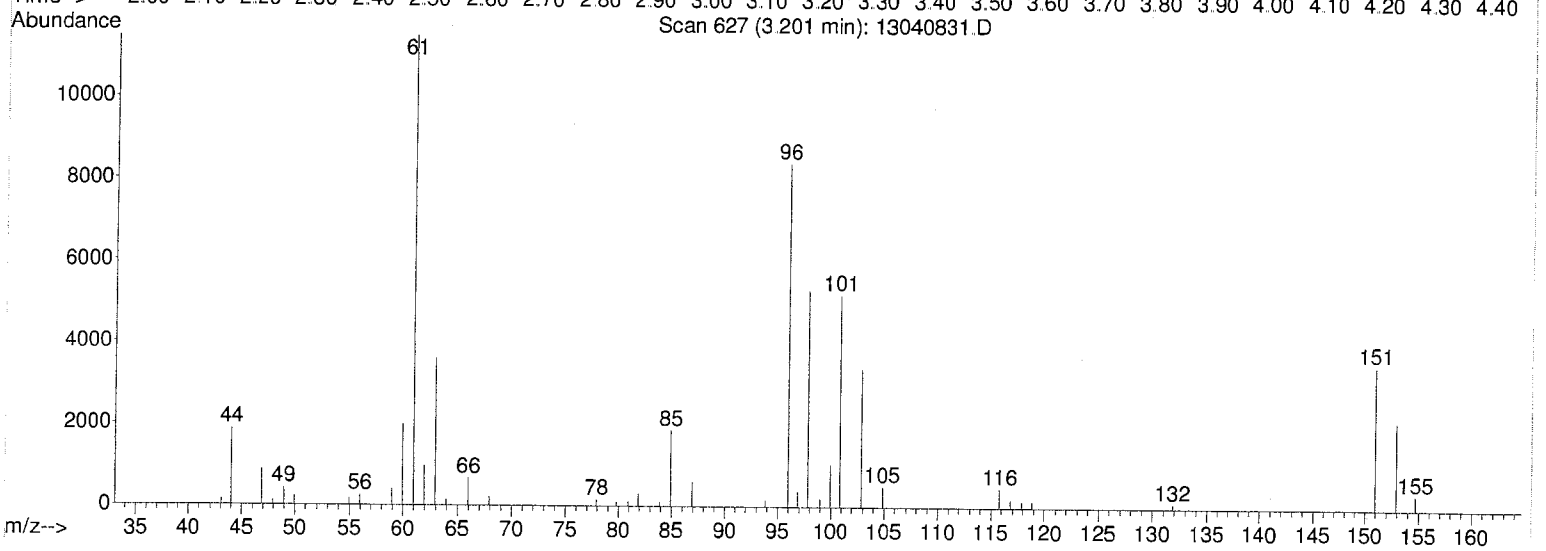
Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration









TIC: 13040831.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

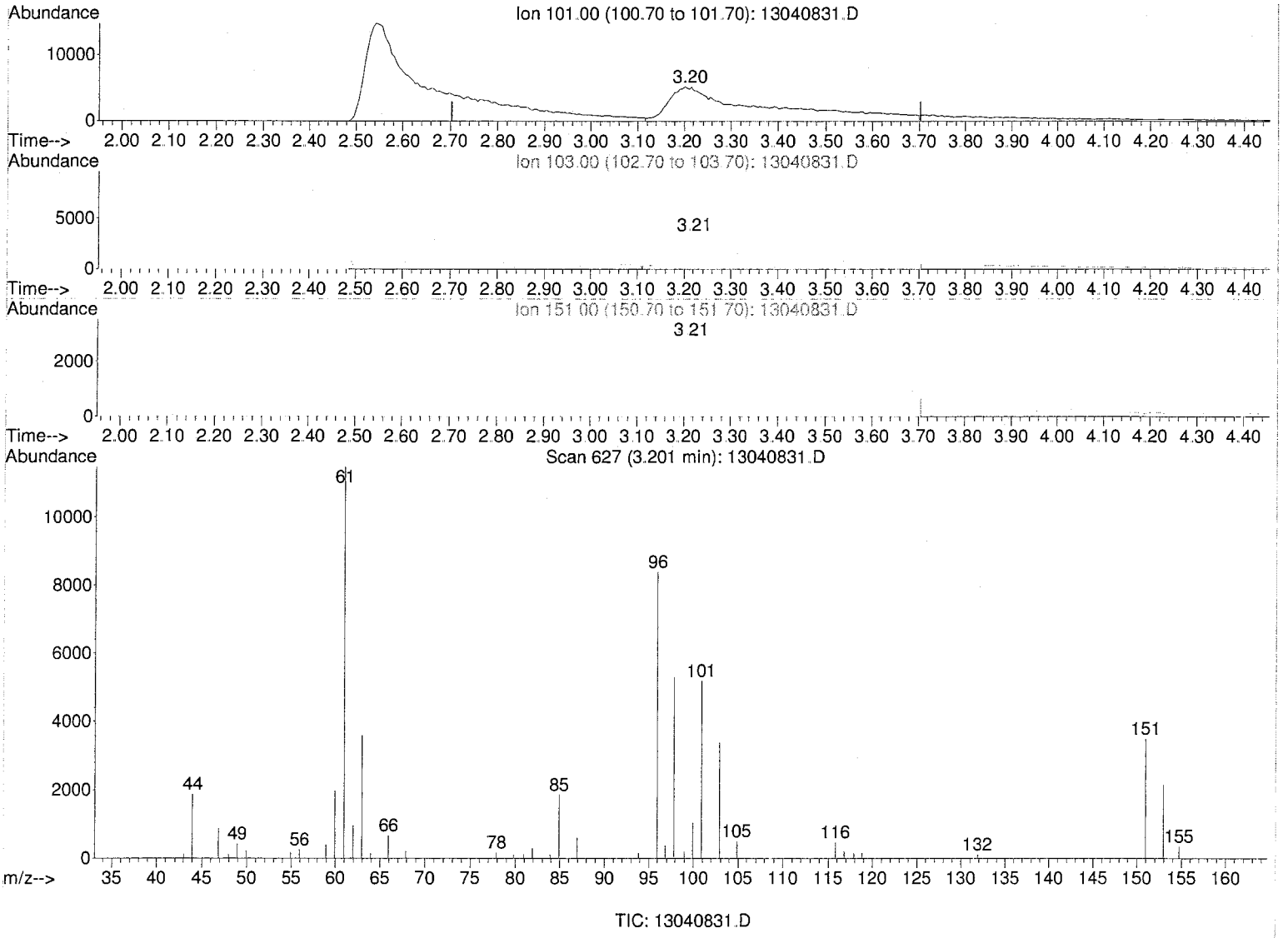
3.20min 22.12ug/L

response 30676

Ion	Exp%	Act%
101.00	100	100
103.00	64.40	63.80
151.00	64.40	76.68
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.20min 53.12ug/L m

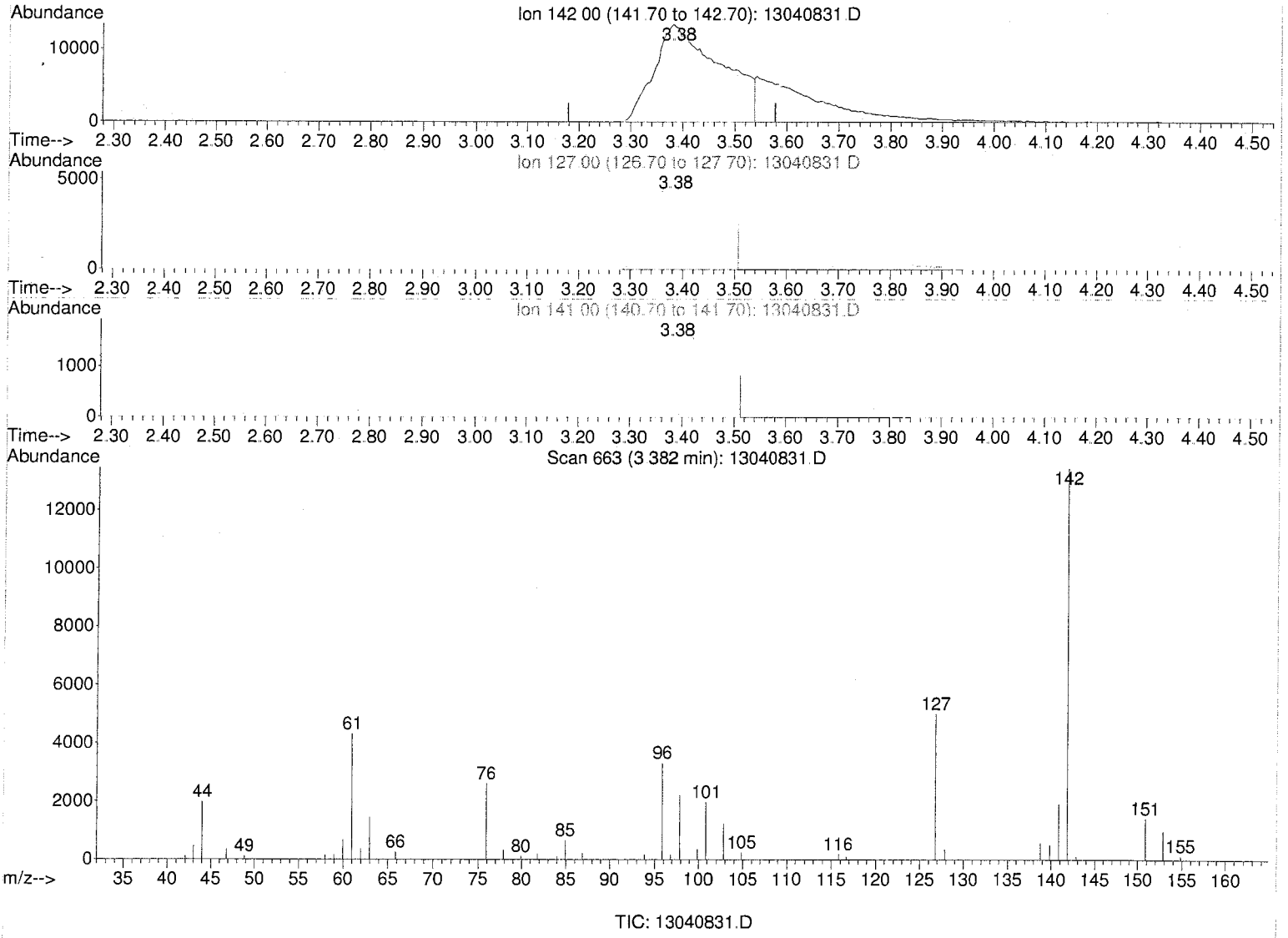
response 73674

Ion	Exp%	Act%
101.00	100	100
103.00	64.40	65.39
151.00	64.40	63.68
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(12) iodomethane (T)

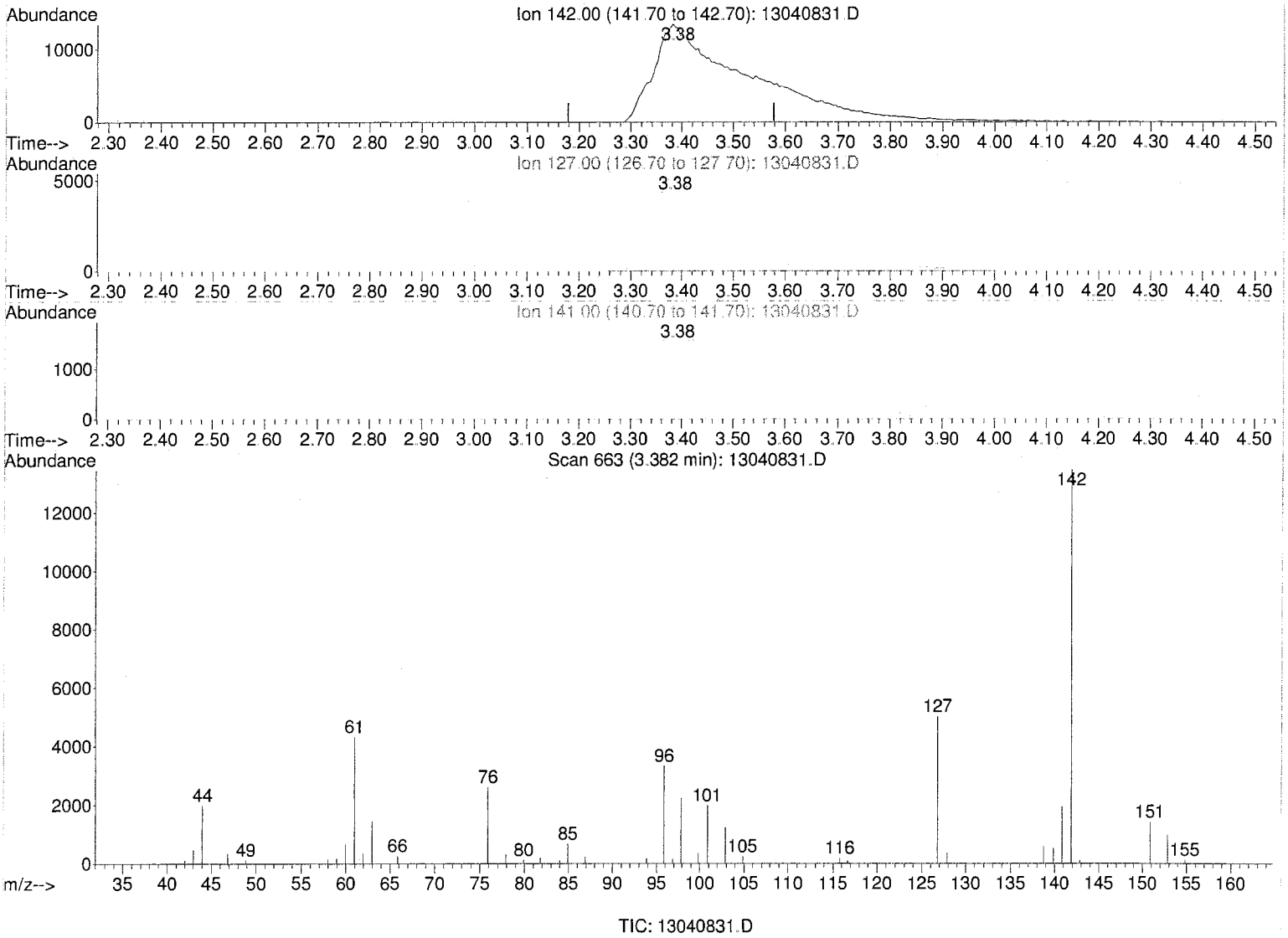
3.38min 39.40ug/L

response 119032

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	35.98
141.00	14.10	13.15
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

AK 4/9/13

(12) iodomethane (T)

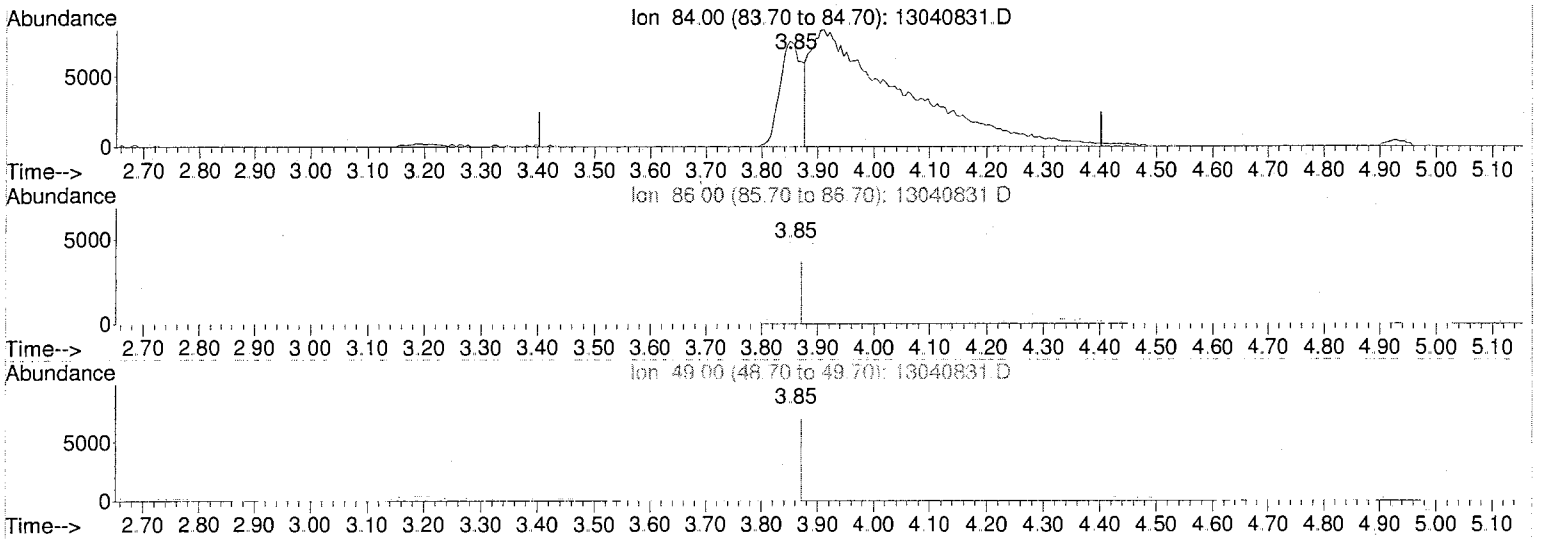
3.38min 56.41ug/L m

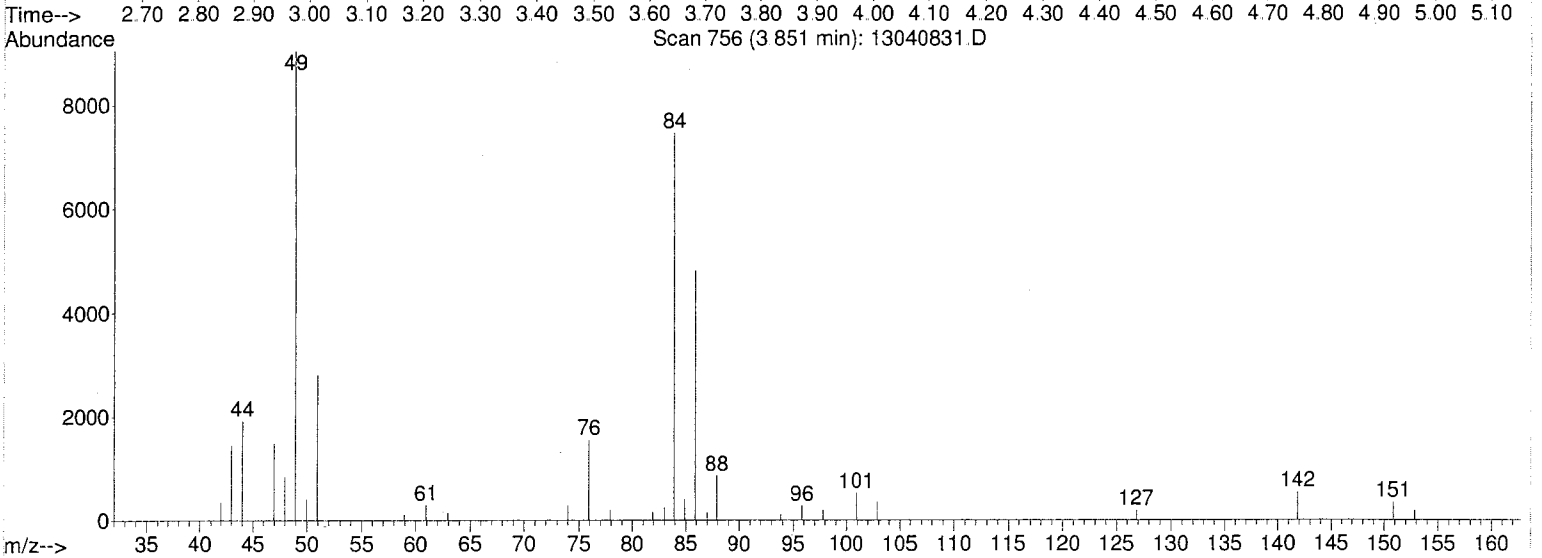
response 170427

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	39.78
141.00	14.10	14.11
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration





TIC: 13040831.D

(15) Methylene chloride (T)

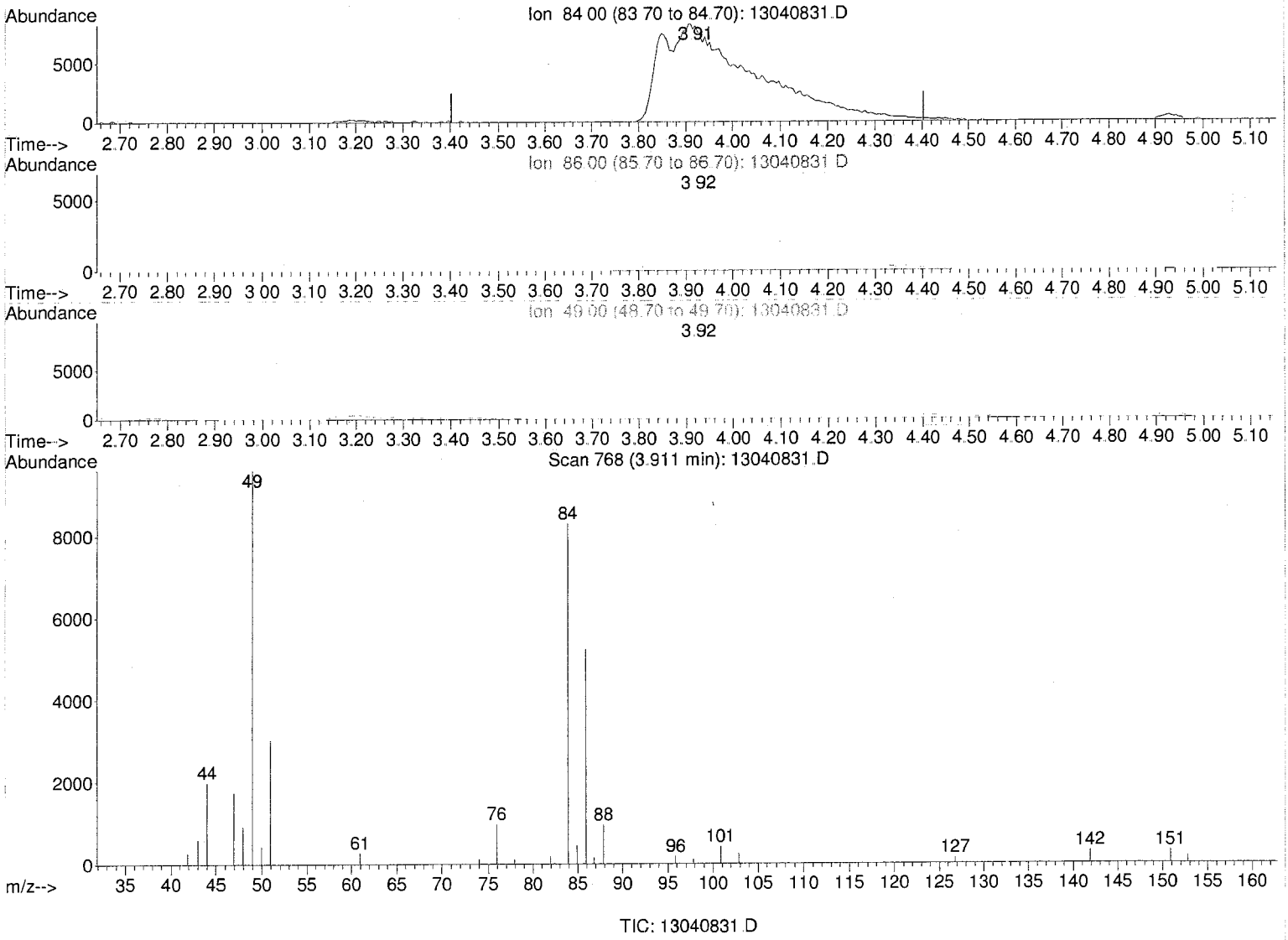
3.85min 9.54ug/L

response 20388

Ion	Exp%	Act%
84.00	100	100
86.00	65.10	58.35
49.00	120.70	110.47
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:00 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(15) Methylene chloride (T)

3.91min 53.71ug/L m

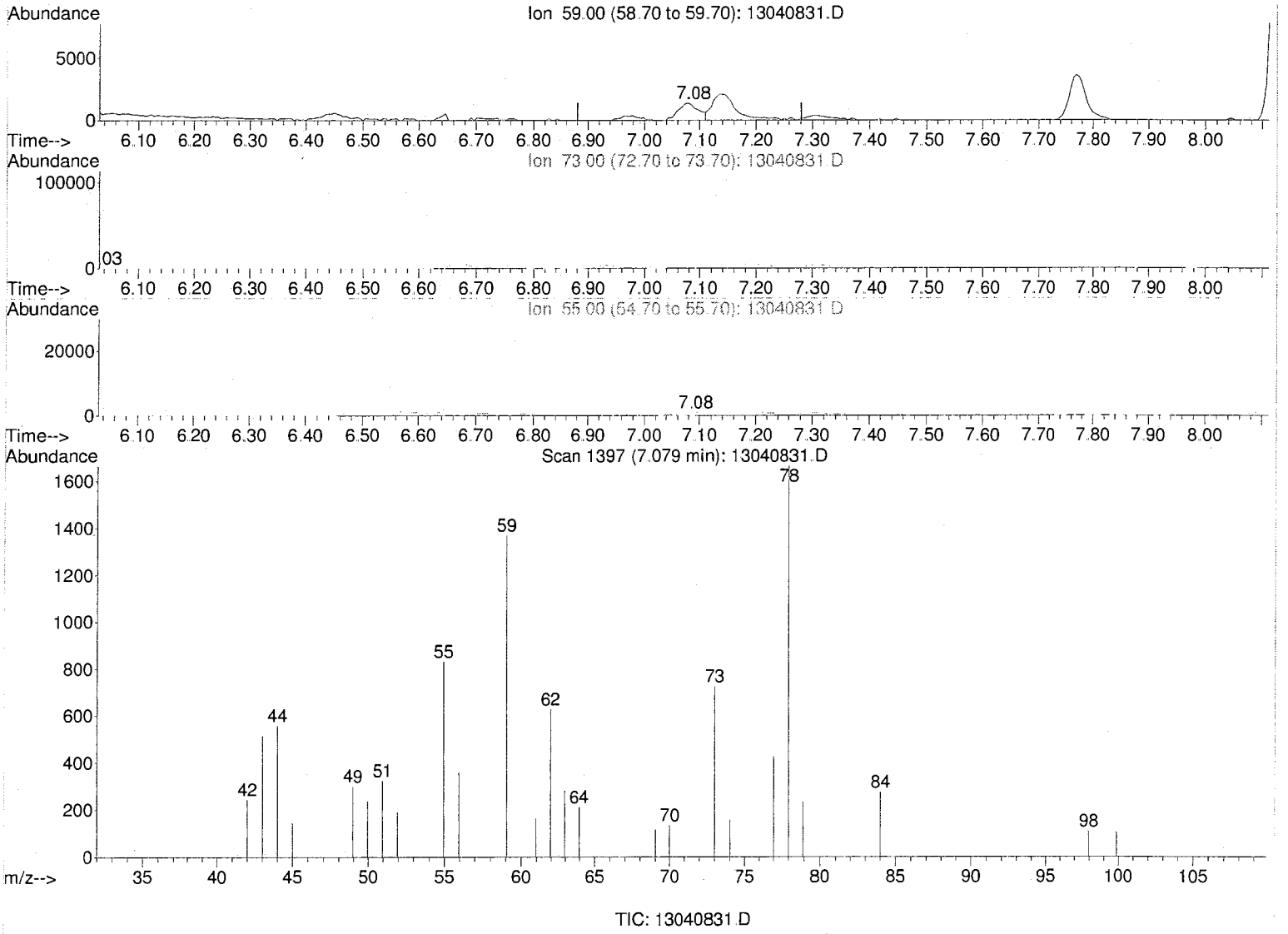
response 114766

Ion	Exp%	Act%
84.00	100	100
86.00	65.10	64.85
49.00	120.70	124.25
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:00 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(36) tert-Amyl alcohol (T)

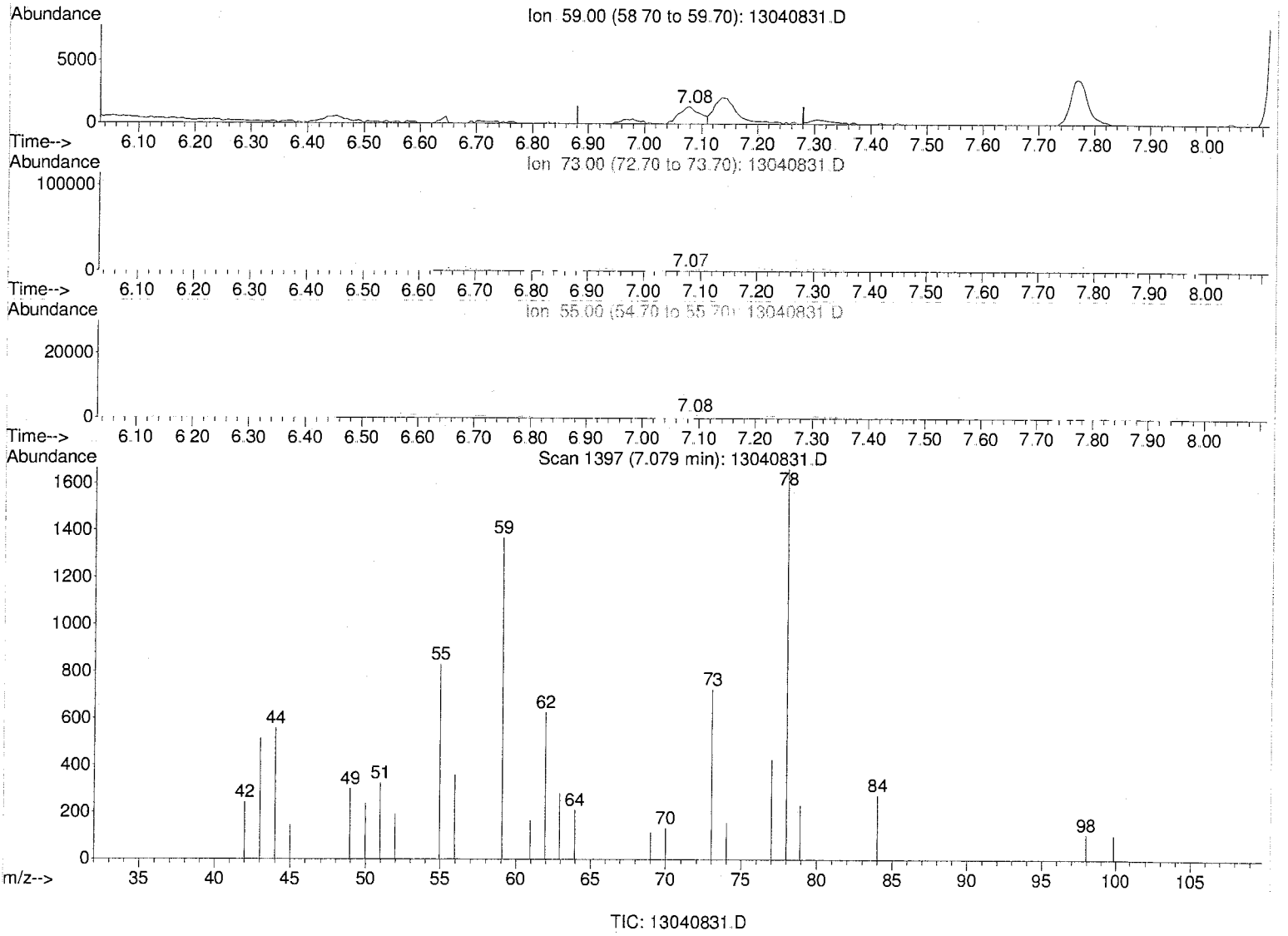
7.08min 50.02ug/L

response 3417

Ion	Exp%	Act%
59.00	100	100
73.00	52.80	0.00#
55.00	32.10	54.61#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:00 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(36) tert-Amyl alcohol (T)

7.08min 50.02ug/L m

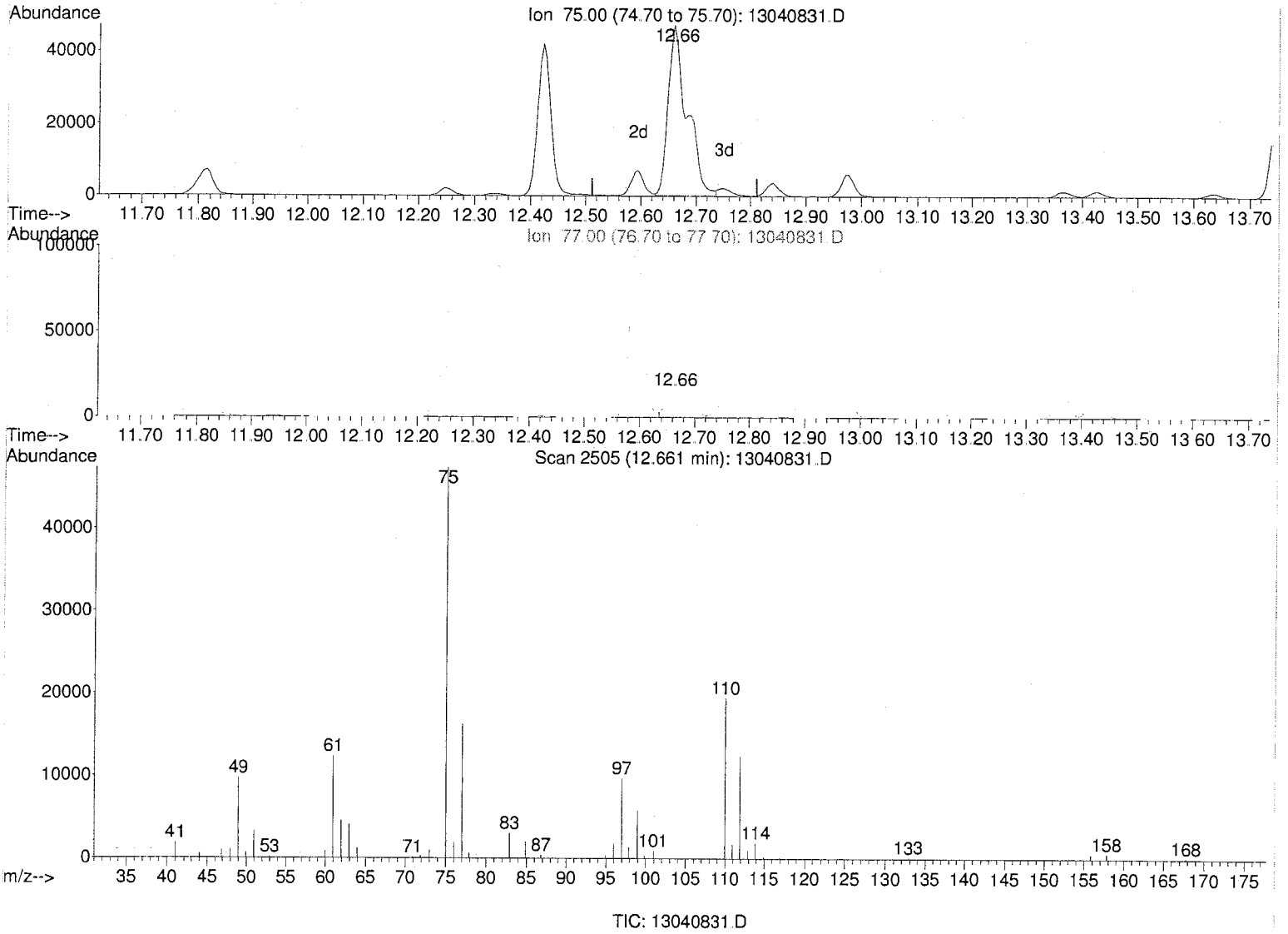
response 3417

Ion	Exp%	Act%
59.00	100	100
73.00	52.80	38.78
55.00	32.10	54.61#
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:00 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(65) 1,2,3-Trichloropropane (T)

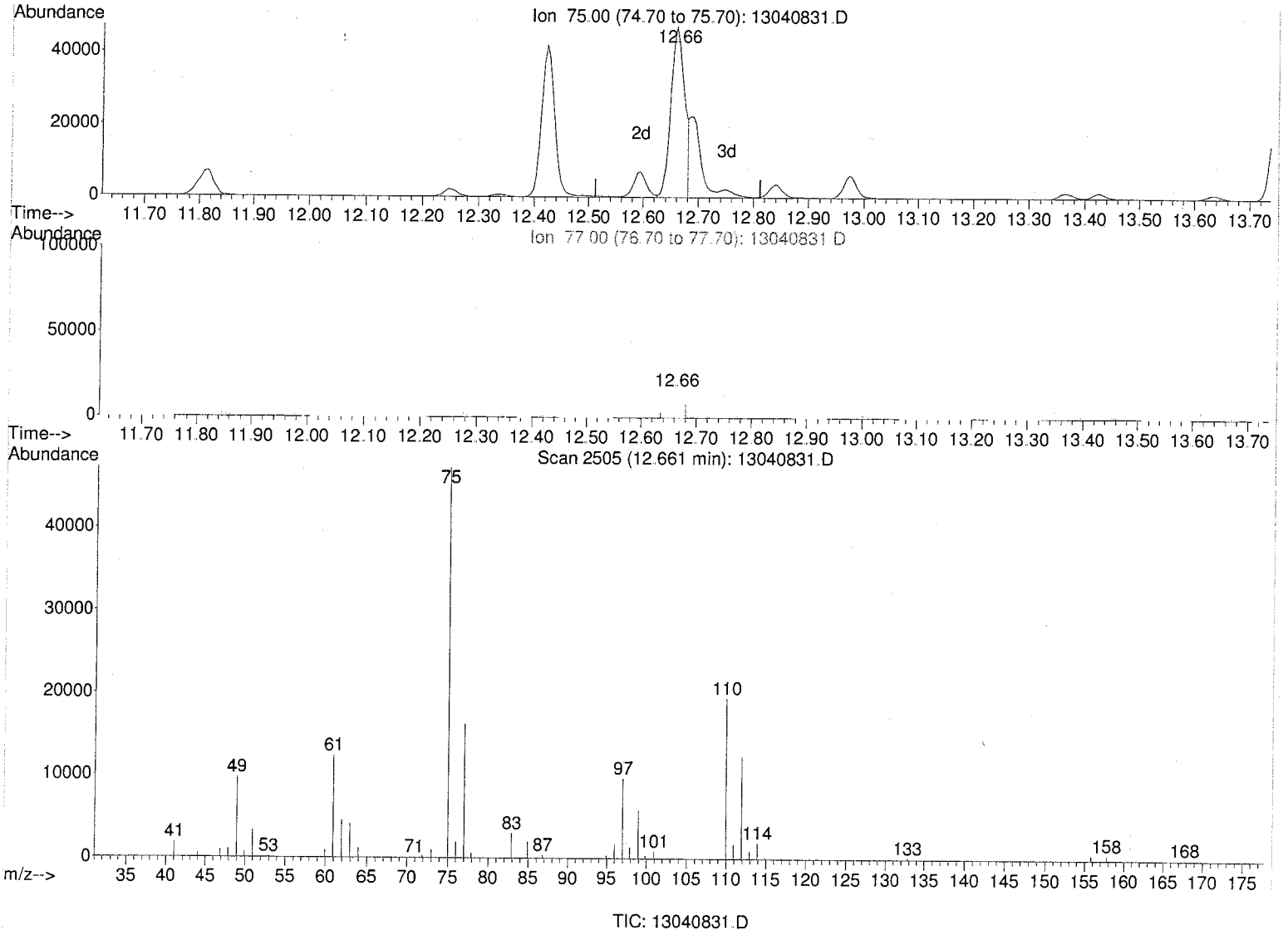
12.66min 71.33ug/L

response 111829

Ion	Exp%	Act%
75.00	100	100
77.00	36.30	34.78
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040831.D Vial: 31
Acq On : 9 Apr 2013 1:11 am Operator: AK
Sample : LCS 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 12:00 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Multiple Level Calibration



TIC: 13040831.D

(65) 1,2,3-Trichloropropane (T)

12.66min 52.30ug/L m

response 81994

Ion	Exp%	Act%
75.00	100	100
77.00	36.30	35.13
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

3B

SOIL VOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ SAS No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. 45496-1-BKS Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	BLANK CONCENTRATION ug/kg	BKS CONCENTRATION ug/kg	BKS % REC #	QC LIMITS REC.
Dichlorodifluoromethane	58.37	0	63.29	108	49-153
Chloromethane	58.37	0	59.81	102	57-162
1,1,2-Trichlorotrifluoroethane	58.37	0	67.09	115	51-144
Vinyl Chloride	58.37	0	71.19	122	53-146
tert-Butyl Alcohol	58.37	0	44.39	76	10-123
Bromomethane	58.37	0	82.67	142	49-170
Chloroethane	58.37	0	61.44	105	68-145
Acetone	58.37	0	41.96	72	48-138
Cyclohexane	58.37	0	54.58	94	44-127
Trichlorofluoromethane	58.37	0	76.69	131	39-152
1,1-Dichloroethene	58.37	0	65.69	113	58-140
Methylene chloride	58.37	0	68.90	118	63-132
trans-1,2-Dichloroethene	58.37	0	62.46	107	62-133
Methyl-t-Butyl Ether	58.37	0	49.12	84	45-124
1,1-Dichloroethane	58.37	0	53.59	92	62-124
2-Butanone (MEK)	58.37	0	46.21	79	59-130
cis-1,2-Dichloroethene	58.37	0	60.22	103	66-118
Bromochloromethane	58.37	0	59.42	102	61-111
Chloroform	58.37	0	54.19	93	55-121
1,1,1-Trichloroethane	58.37	0	56.78	97	43-120
1,2-Dichloroethane	58.37	0	48.35	83	42-129
Carbon tetrachloride	58.37	0	59.67	102	44-119
Benzene	58.37	0	56.27	96	67-121
1,2-Dichloropropane	58.37	0	61.18	105	65-118
Carbon Disulfide	58.37	0	48.54	83	52-118
Methylcyclohexane	58.37	0	56.16	96	49-123
Trichloroethene	58.37	0	59.80	102	56-112
Methyl Acetate	58.37	0	49.43	85	61-123
Bromodichloromethane	58.37	0	55.08	94	51-119
cis-1,3-Dichloropropene	58.37	0	60.57	104	53-123
4-Methyl-2-Pentanone (MIBK)	58.37	0	59.92	103	38-125
trans-1,3-Dichloropropene	58.37	0	61.34	105	44-126
1,1,2-Trichloroethane	58.37	0	60.49	104	54-122
Toluene	58.37	0	62.52	107	60-111
2-Hexanone (MBK)	58.37	0	46.96	80	35-138
1,2-Dibromoethane	58.37	0	60.86	104	59-106
Dibromochloromethane	58.37	0	60.40	103	62-104
tert-Butyl ethyl ether	58.37	0	54.45	93	43-121
tert-Amyl methyl ether	58.37	0	50.24	86	19-137

3B

SOIL VOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. :_____ SAS No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. :45496-1-BKS Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	BLANK CONCENTRATION ug/kg	BKS CONCENTRATION ug/kg	BKS % REC	#	QC LIMITS REC.
Diisopropyl ether	58.37	0	55.95	96		57-134
tert-Amyl ethyl ether	58.37	0	53.90	92		22-132
tert-Amyl alcohol	58.37	0	38.16	65		10-129
Bromoform	58.37	0	56.13	96		51-101
Tetrachloroethene	58.37	0	69.06	118		46-118
Chlorobenzene	58.37	0	67.88	116	*	61-106
Ethylbenzene	58.37	0	64.80	111		59-112
m&p-Xylene	116.70	0	134.7	115	*	60-111
Styrene	58.37	0	65.78	113	*	61-105
1,1,2,2-Tetrachloroethane	58.37	0	53.25	91		52-119
o-Xylene	58.37	0	66.62	114	*	58-108
Isopropylbenzene	58.37	0	70.56	121	*	51-116
1,3-Dichlorobenzene	58.37	0	65.97	113	*	46-112
1,4-Dichlorobenzene	58.37	0	63.66	109		45-113
1,2-Dichlorobenzene	58.37	0	61.89	106		45-113
1,2-Dibromo-3-chloropropane	58.37	0	41.48	71		47-110
1,2,4-Trichlorobenzene	58.37	0	57.98	99		24-105
Naphthalene	58.37	0	53.13	91		35-112
1,2,3-Trichlorobenzene	58.37	0	55.78	96		25-103

Column to be used to flag recovery and RPD Values with an asterisk.

* Values outside of QC limits

RPD 0 Out of 0 outside limits

Spike Recovery : 6 Out of 58 outside limit

COMMENTS:_____

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45496-1-BKS

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOLID Lab Sample ID: 45496-1-BKS

Sample wt/vol: 5.14 (g/mL) g Lab File ID: 13040808

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 0 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
75-71-8	Dichlorodifluoromethane	63.29	
74-87-3	Chloromethane	59.81	
76-13-1	1,1,2-Trichlorotrifluoroethane	67.09	
75-01-4	Vinyl Chloride	71.19	
75-65-0	tert-Butyl Alcohol	44.39	
74-83-9	Bromomethane	82.67	
75-00-3	Chloroethane	61.44	
67-64-1	Acetone	41.96	
110-82-7	Cyclohexane	54.58	
75-69-4	Trichlorofluoromethane	76.69	
75-35-4	1,1-Dichloroethene	65.69	
75-09-2	Methylene chloride	68.90	
156-60-5	trans-1,2-Dichloroethene	62.46	
1634-04-4	Methyl-t-Butyl Ether	49.12	
75-34-3	1,1-Dichloroethane	53.59	
78-93-3	2-Butanone (MEK)	46.21	
156-59-2	cis-1,2-Dichloroethene	60.22	
74-97-5	Bromochloromethane	59.42	
67-66-3	Chloroform	54.19	
71-55-6	1,1,1-Trichloroethane	56.78	
107-06-2	1,2-Dichloroethane	48.35	
56-23-5	Carbon tetrachloride	59.67	
71-43-2	Benzene	56.27	
78-87-5	1,2-Dichloropropane	61.18	
75-15-0	Carbon Disulfide	48.54	
108-87-2	Methylcyclohexane	56.16	

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
45496-1-BKS

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOLID Lab Sample ID: 45496-1-BKS

Sample wt/vol: 5.14 (g/mL) g Lab File ID: 13040808

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 0 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
79-01-6	Trichloroethene	59.80	
79-20-9	Methyl Acetate	49.43	
75-27-4	Bromodichloromethane	55.08	
10061-01-5	cis-1,3-Dichloropropene	60.57	
108-10-1	4-Methyl-2-Pentanone (MIBK)	59.92	
10061-02-6	trans-1,3-Dichloropropene	61.34	
79-00-5	1,1,2-Trichloroethane	60.49	
108-88-3	Toluene	62.52	
591-78-6	2-Hexanone (MBK)	46.96	
106-93-4	1,2-Dibromoethane	60.86	
124-48-1	Dibromochloromethane	60.40	
637-92-3	tert-Butyl ethyl ether	54.45	
994-05-8	tert-Amyl methyl ether	50.24	
108-20-3	Diisopropyl ether	55.95	
919-94-8	tert-Amyl ethyl ether	53.90	
75-85-4	tert-Amyl alcohol	38.16	J
75-25-2	Bromoform	56.13	
127-18-4	Tetrachloroethene	69.06	
108-90-7	Chlorobenzene	67.88	
100-41-4	Ethylbenzene	64.80	
108-38-3	m&p-Xylene	134.7	
100-42-5	Styrene	65.78	
79-34-5	1,1,2,2-Tetrachloroethane	53.25	
95-47-6	o-Xylene	66.62	
98-82-8	Isopropylbenzene	70.56	
541-73-1	1,3-Dichlorobenzene	65.97	

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45496-1-BKS

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: 105220 Mod. Ref. No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) SOLID Lab Sample ID: 45496-1-BKS

Sample wt/vol: 5.14 (g/mL) g Lab File ID: 13040808

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 0 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
106-46-7	1,4-Dichlorobenzene	63.66	
95-50-1	1,2-Dichlorobenzene	61.89	
96-12-8	1,2-Dibromo-3-chloropropane	41.48	
120-82-1	1,2,4-Trichlorobenzene	57.98	
91-20-3	Naphthalene	53.13	
87-61-6	1,2,3-Trichlorobenzene	55.78	

SW8260B

Data File : P:\VOC\1\DATA\130408\13040808.D Vial: 8
Acq On : 8 Apr 2013 12:40 pm Operator: AK
Sample : LCS 5.14g 1323 Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:11 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene ISTD	7.12	96	686641	50.00	ug/L		0.00
53) Chlorobenzene d-5 ISTD	10.81	117	409066	50.00	ug/L		0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	187443	50.00	ug/L		0.00
System Monitoring Compounds							
29) Dibromofluoromethane SS#1	6.29	113	169059	51.32	ug/L		0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 102.64%				
47) Toluene d-8 SS#2	9.07	98	544289	50.18	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 100.36%				
70) 4-Bromofluorobenzene SS#3	12.23	95	233907	44.16	ug/L		0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 88.32%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.53	85	147761	65.06	ug/L		96
3) Chloromethane	1.67	50	227819	61.48	ug/L		97
4) VINYL CHLORIDE	1.81	62	215181	73.18	ug/L		99
5) Bromomethane	2.11	94	105750	84.98	ug/L		95
6) Chloroethane	2.15	64	92521	63.16	ug/L		96
7) Trichlorofluoromethane	2.50	101	186228m	78.84	ug/L		
8) acrolein	2.92	56	28731	50.72	ug/L		94
9) Acetone	3.12	58	12469	43.13	ug/L	#	69
10) 1,1-DICHLOROETHENE	3.09	96	109023	67.53	ug/L		100
11) 1,1,2-Trichlorotrifluoroet	3.10	101	115332	68.97	ug/L		98
12) iodomethane	3.24	142	174102	55.95	ug/L		99
13) Carbon Disulfide	3.35	76	272915	49.90	ug/L		96
14) Methyl Acetate	3.56	74	18455	50.81	ug/L		99
15) Methylene chloride	3.74	84	146648	70.83	ug/L		99
16) tert-Butanol	4.01	59	29347	45.63	ug/L		100
17) acrylonitrile	4.12	53	57811	51.80	ug/L		99
18) trans-1,2-Dichloroethene	4.10	96	117120	64.21	ug/L		99
19) Methyl-t-Butyl Ether	4.12	73	308882	50.50	ug/L		100
20) 1,1-Dichloroethane	4.75	63	208485	55.09	ug/L		100
21) vinyl acetate	4.89	43	574745	54.61	ug/L		98
22) Diisopropyl ether	4.91	45	539283	57.52	ug/L		100
23) tert-Butyl ethyl ether	5.45	59	524894	55.97	ug/L		100
24) 2,2-Dichloropropane	5.59	77	187410	63.47	ug/L		99
25) cis-1,2-Dichloroethene	5.60	96	165792	61.91	ug/L		98
26) 2-Butanone (MEK)	5.68	72	18468	47.50	ug/L	#	92
27) Bromochloromethane	5.93	128	69369	61.08	ug/L		96
28) CHLOROFORM	6.07	83	257143	55.71	ug/L		100
30) 1,1,1-Trichloroethane	6.26	97	192828	58.37	ug/L		99
31) Cyclohexane	6.30	56	279600	56.11	ug/L		95
32) Carbon tetrachloride	6.47	117	163701	61.34	ug/L		100
33) 1,1-Dichloropropene	6.47	75	200461	67.13	ug/L		99
34) Benzene`	6.75	78	535892	57.85	ug/L		100
35) 1,2-Dichloroethane	6.80	62	204650	49.70	ug/L		99
36) tert-Amyl alcohol	6.93	59	28794	39.23	ug/L	#	100
37) tert-Amyl methyl ether	6.95	73	465937	51.65	ug/L		97
38) Trichloroethene	7.58	95	139668	61.47	ug/L		99
39) 1,2-DICHLOROPROPANE	7.86	63	174229	62.89	ug/L		100
40) Methylcyclohexane	7.79	83	218896	57.73	ug/L		100
41) tert-Amyl ethyl ether	7.95	59	452902	55.41	ug/L		99
42) Dibromomethane	8.01	93	96820	57.74	ug/L		100
43) 1,4-Dioxane	8.07	88	46794	1173.06	ug/L		93
44) Bromodichloromethane	8.23	83	212234	56.62	ug/L		99
45) cis-1,3-Dichloropropene	8.77	75	285728	62.27	ug/L		100
46) 4-Methyl-2-Pentanone (MIBK	9.00	100	27161	61.60	ug/L	#	86
48) TOLUENE	9.15	92	338698	64.27	ug/L		99

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\1\DATA\130408\13040808.D Vial: 8
Acq On : 8 Apr 2013 12:40 pm Operator: AK
Sample : LCS 5.14g 1323 Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:11 2013 Quant Results File: VOC-S.RES

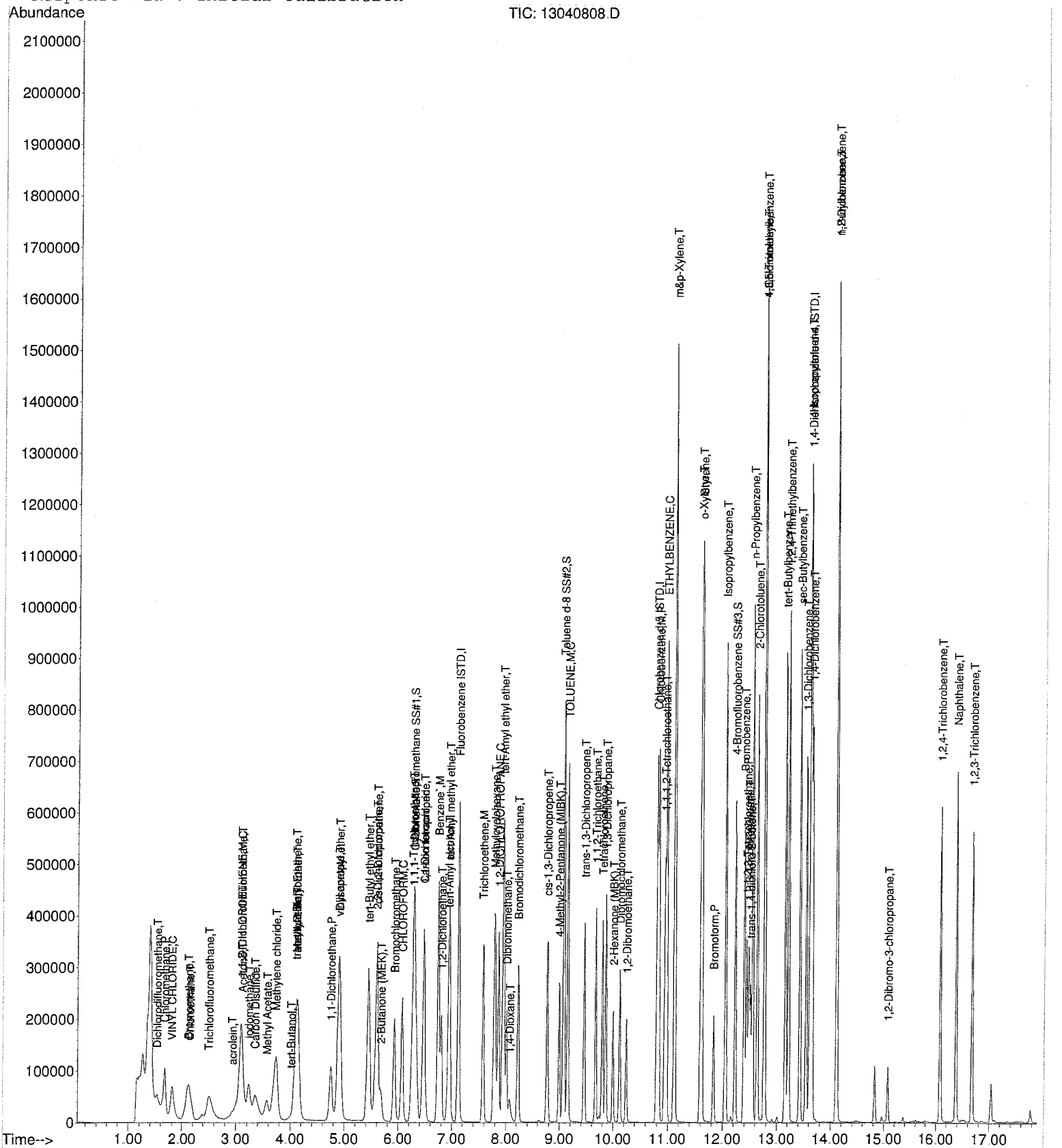
Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	trans-1,3-Dichloropropene	9.46	75	278025	63.06	ug/L		100
50)	1,1,2-Trichloroethane	9.67	83	113998	62.18	ug/L		99
51)	Tetrachloroethene	9.79	164	89478	70.99	ug/L		99
52)	2-Hexanone (MBK)	9.99	43	172740	48.28	ug/L		99
54)	1,3-Dichloropropane	9.86	76	273861	62.86	ug/L		99
55)	Dibromochloromethane	10.12	129	147612	62.09	ug/L		100
56)	1,2-Dibromoethane	10.25	107	147589	62.56	ug/L		100
57)	Chlorobenzene	10.84	112	386286	69.78	ug/L		99
58)	1,1,1,2-Tetrachloroethane	10.95	131	141037	68.19	ug/L		100
59)	ETHYLBENZENE	10.98	91	684718	66.61	ug/L		99
60)	m&p-Xylene	11.13	106	486979	138.43	ug/L		98
61)	o-Xylene	11.59	106	256219	68.49	ug/L		97
62)	Styrene	11.62	104	465896	67.62	ug/L		99
63)	Bromoform	11.83	173	88909	57.70	ug/L		99
64)	1,2,3-Trichloropropane	12.47	75	174667m	56.14	ug/L		
65)	Bromobenzene	12.40	156	147927	68.17	ug/L		99
66)	trans-1,4-dichloro-2-buten	12.51	53	75056	46.84	ug/L	#	99
67)	n-Propylbenzene	12.55	91	847602	67.25	ug/L		100
69)	Isopropylbenzene	12.05	105	653578	72.54	ug/L		99
71)	1,1,2,2-Tetrachloroethane	12.44	83	189808	54.74	ug/L		100
72)	2-Chlorotoluene	12.64	91	522723	66.18	ug/L		99
73)	4-Chlorotoluene	12.77	91	575256	65.77	ug/L		99
74)	1,3,5-Trimethylbenzene	12.77	105	575716	72.76	ug/L		99
75)	tert-Butylbenzene	13.16	119	474107	72.41	ug/L		99
76)	1,2,4-Trimethylbenzene	13.22	105	591469	69.99	ug/L		99
77)	sec-Butylbenzene	13.43	105	708881	69.61	ug/L		99
78)	4-Isopropyltoluene	13.62	119	581230	70.51	ug/L		99
79)	1,3-Dichlorobenzene	13.55	146	288355	67.82	ug/L		100
80)	1,4-Dichlorobenzene	13.66	146	283753	65.44	ug/L		99
81)	1,2-Dichlorobenzene	14.11	146	264521	63.62	ug/L		100
82)	n-Butylbenzene	14.11	91	600726	67.93	ug/L		99
83)	1,2-Dibromo-3-chloropropan	15.07	75	35052	42.64	ug/L		97
84)	1,2,4-Trichlorobenzene	16.08	180	194306	59.60	ug/L		99
85)	Naphthalene	16.38	128	521051	54.62	ug/L		100
86)	1,2,3-Trichlorobenzene	16.67	180	179679	57.34	ug/L		99

(#) = qualifier out of range (m) = manual integration

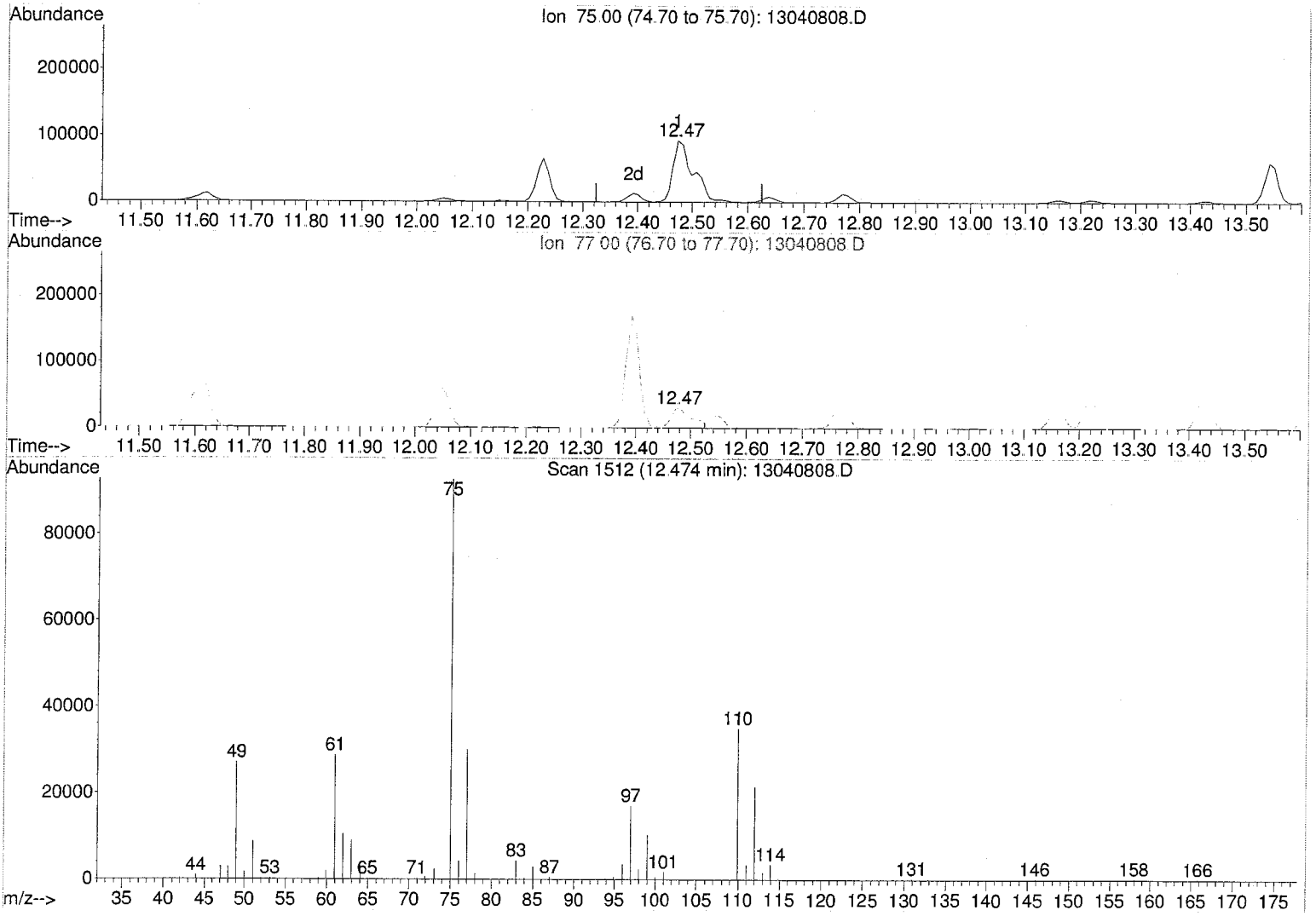
Data File : P:\VOC\1\DATA\130408\13040808.D Vial: 8
Acq On : 8 Apr 2013 12:40 pm Operator: AK
Sample : LCS 5.14g 1323 Inst : VOA1
Misc : soil 1uL A2338 1.5u1 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:29 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration



Data File : P:\VOC\1\DATA\130408\13040808.D Vial: 8
Acq On : 8 Apr 2013 12:40 pm Operator: AK
Sample : LCS 5.14g 1323 Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040808.D

(64) 1,2,3-Trichloropropane (T)

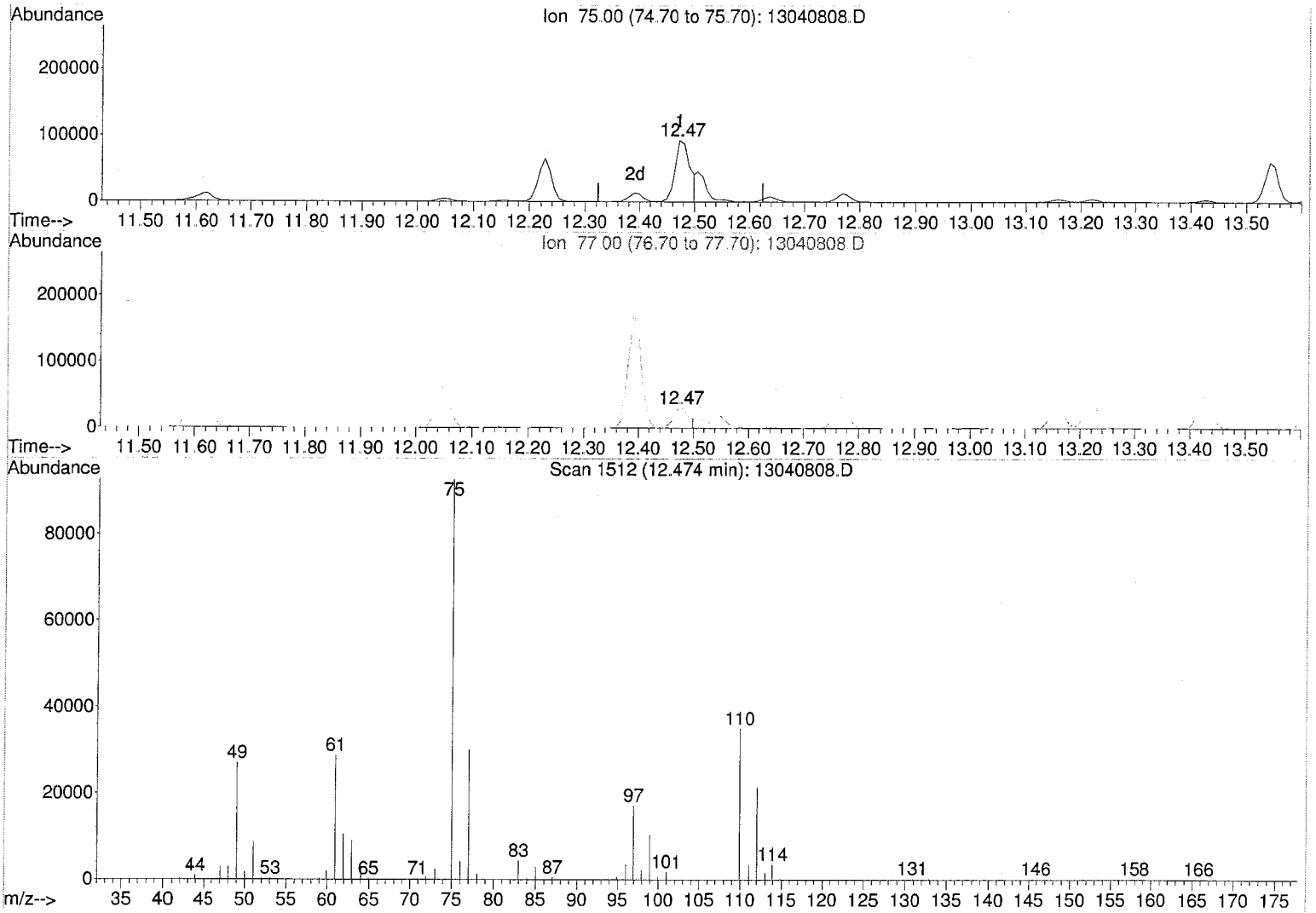
12.47min 74.49ug/L

response 231737

Ion	Exp%	Act%
75.00	100	100
77.00	33.20	31.89
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040808.D Vial: 8
Acq On : 8 Apr 2013 12:40 pm Operator: AK
Sample : LCS 5.14g 1323 Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:17 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040808.D

(64) 1,2,3-Trichloropropane (T)

12.47min 56.14ug/L m

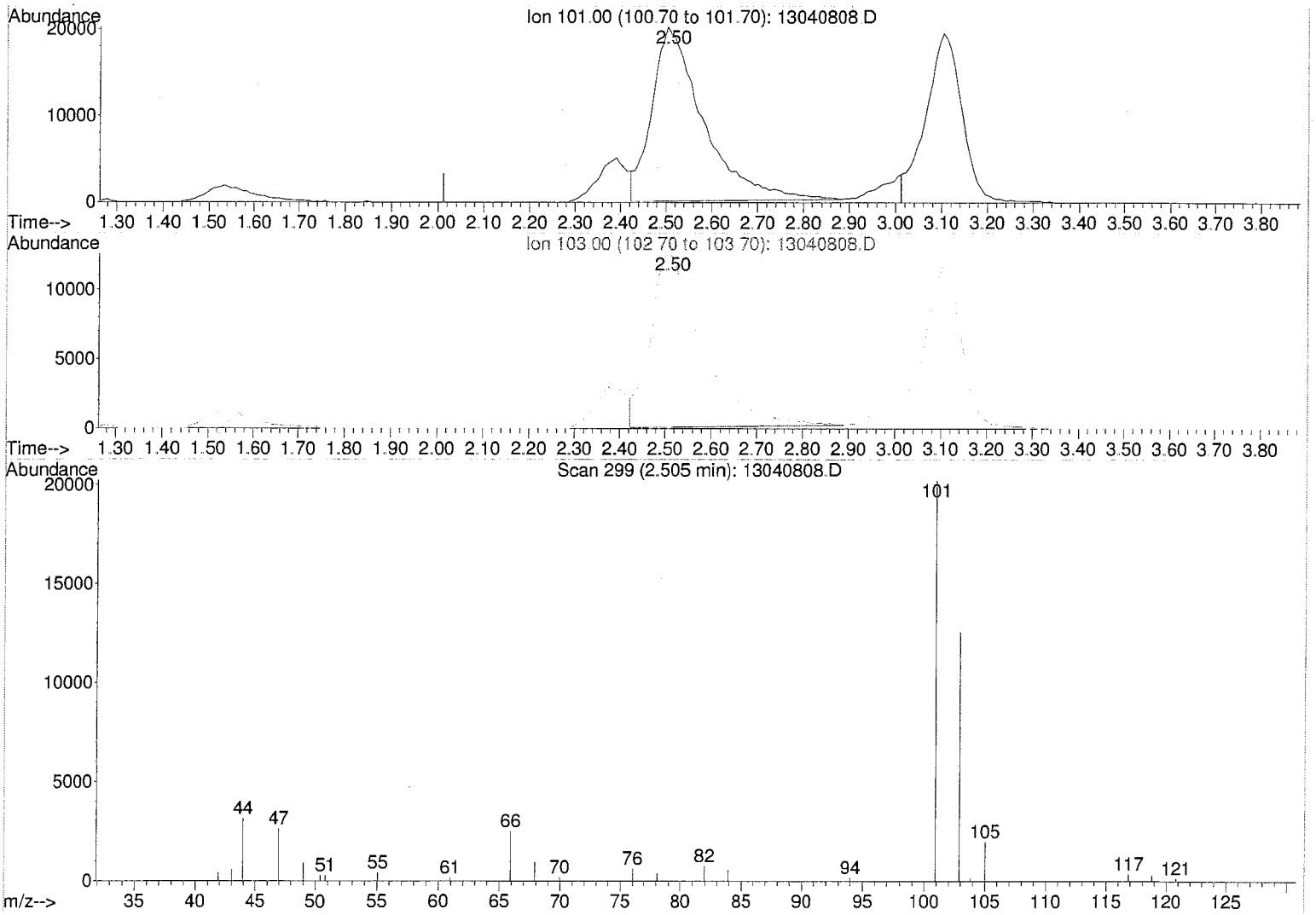
response 174667

Ion	Exp%	Act%
75.00	100	100
77.00	33.20	32.97
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\1\DATA\130408\13040808.D Vial: 8
Acq On : 8 Apr 2013 12:40 pm Operator: AK
Sample : LCS 5.14g 1323 Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:17 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040808.D

(7) Trichlorofluoromethane (T)

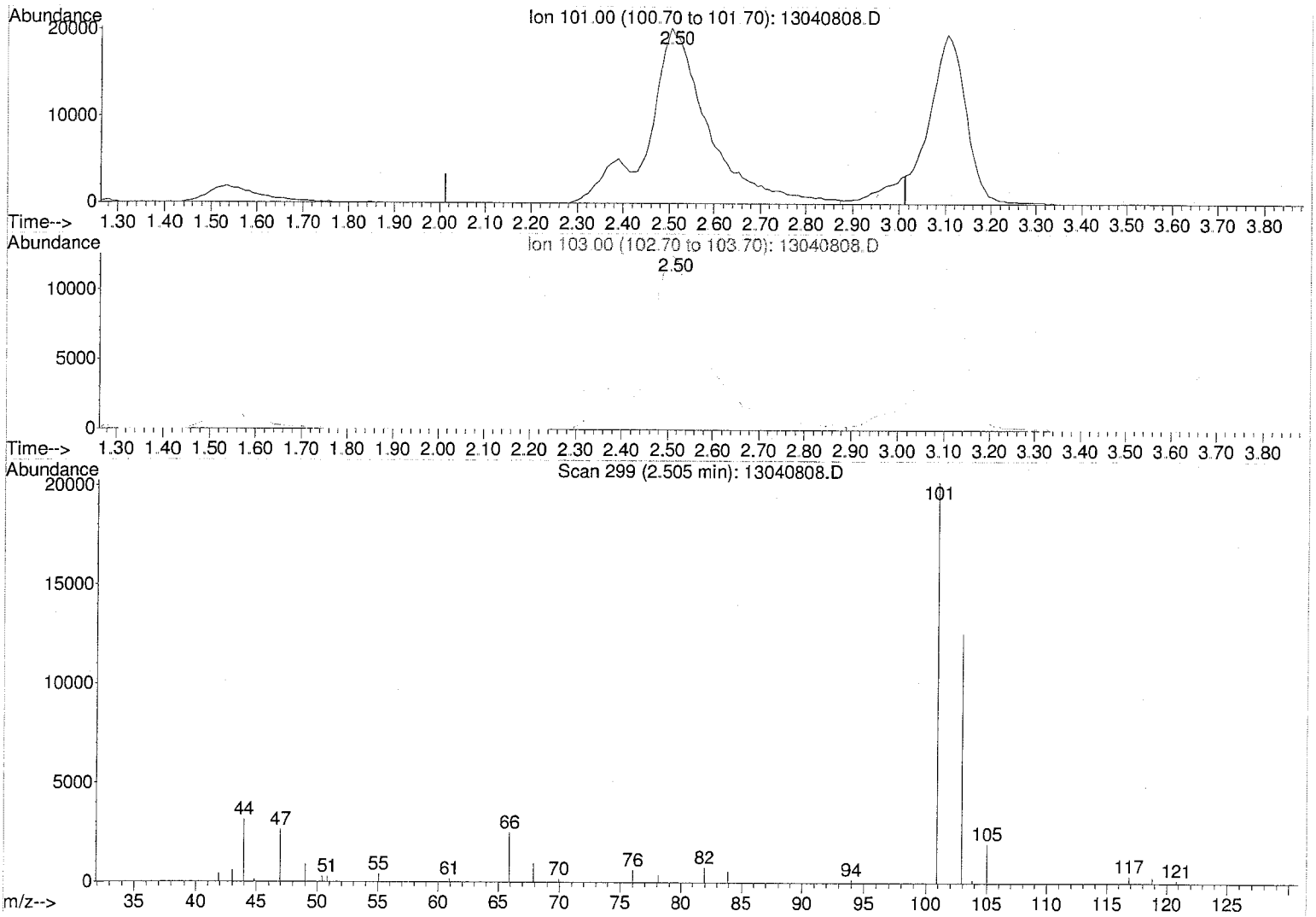
2.50min 66.51ug/L

response 157106

Ion	Exp%	Act%
101.00	100	100
103.00	62.70	63.13
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040808.D Vial: 8
Acq On : 8 Apr 2013 12:40 pm Operator: AK
Sample : LCS 5.14g 1323 Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-4 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:29 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Multiple Level Calibration



TIC: 13040808.D

(7) Trichlorofluoromethane (T)

2.50min 78.84ug/L m

response 186228

Ion	Exp%	Act%
101.00	100	100
103.00	62.70	63.35
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
45498-1-BLK

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID 13040837 Lab Sample ID : 45498-1-BLK

Instrument ID : VOC #2

Matrix: (SOIL/SED/WATER WATER Date Analyzed : 04/09/2013

Level : (TRACE or LOW/MED) LOW Time Analyzed : 04:06

GC Column : DB-624 ID : 0.20 (mm) Heated Purge (Y/N) : N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
17	45498-1-BKS	45498-1-BKS	13040831.D	01:11
18	TRIP BLANK	13040516-012	13040838.D	04:34
19	SB-03 (GW)	13040516-007	13040839.D	05:04
20	1644-SUMP	13040516-006	13040840.D	05:33
21	SB-040413 (GW)	13040516-008	13040841.D	06:01
22	SB-04 (GW)	13040516-009	13040842.D	06:30
23	1646-SUMP	13040516-010	13040843.D	06:59
24	SURFACE WATER	13040516-011	13040844.D	07:27
25	SB-03 (GW) S	13040516-007 S	13040847.D	08:54
26	SB-03 (GW) SD	13040516-007 SD	13040848.D	09:23

Comments _____

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
45498-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 45498-1-BLK

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040837

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.000	U
74-87-3	Chloromethane	1.000	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1.000	U
75-01-4	Vinyl chloride	1.000	U
75-65-0	tert-Butanol	20.00	U
74-83-9	Bromomethane	1.000	U
75-00-3	Chloroethane	1.000	U
67-64-1	Acetone	10.00	U
110-82-7	Cyclohexane	10.00	U
75-69-4	Trichlorofluoromethane	5.000	U
75-35-4	1,1-Dichloroethene	1.000	U
75-09-2	Methylene chloride	1.000	U
156-60-5	trans-1,2-Dichloroethene	1.000	U
1634-04-4	Methyl-t-Butyl Ether	1.000	U
75-34-3	1,1-Dichloroethane	1.000	U
78-93-3	2-Butanone (MEK)	10.00	U
156-59-2	cis-1,2-Dichloroethene	1.000	U
74-97-5	Bromochloromethane	1.000	U
67-66-3	Chloroform	1.000	U
71-55-6	1,1,1-Trichloroethane	1.000	U
107-06-2	1,2-Dichloroethane	1.000	U
56-23-5	Carbon tetrachloride	1.000	U
71-43-2	Benzene	1.000	U
78-87-5	1,2-Dichloropropane	1.000	U
79-20-9	Methyl Acetate	10.00	U
108-87-2	Methylcyclohexane	10.00	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45498-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 45498-1-BLK

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040837

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
79-01-6	Trichloroethene	1.000	U
75-15-0	Carbon Disulfide	10.00	U
75-27-4	Bromodichloromethane	1.000	U
10061-01-5	cis-1,3-Dichloropropene	1.000	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.000	U
10061-02-6	trans-1,3-Dichloropropene	1.000	U
79-00-5	1,1,2-Trichloroethane	1.000	U
108-88-3	Toluene	1.000	U
591-78-6	2-Hexanone (MBK)	10.00	U
106-93-4	1,2-Dibromoethane	1.000	U
124-48-1	Dibromochloromethane	1.000	U
919-94-8	tert-Amyl ethyl ether	10.00	U
637-92-3	tert-Butyl ethyl ether	10.00	U
108-20-3	Diisopropyl ether	10.00	U
994-05-8	tert-Amyl methyl ether	10.00	U
75-85-4	tert-Amyl alcohol	20.00	U
75-25-2	Bromoform	5.000	U
127-18-4	Tetrachloroethene	1.000	U
108-90-7	Chlorobenzene	1.000	U
100-41-4	Ethylbenzene	1.000	U
108-38-3	m&p-Xylene	2.000	U
100-42-5	Styrene	1.000	U
79-34-5	1,1,2,2-Tetrachloroethane	1.000	U
95-47-6	o-Xylene	1.000	U
98-82-8	Isopropylbenzene	1.000	U
541-73-1	1,3-Dichlorobenzene	1.000	U

SW8260B

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
45498-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105222 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 45498-1-BLK

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040837

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
106-46-7	1,4-Dichlorobenzene	1.000	U
95-50-1	1,2-Dichlorobenzene	1.000	U
96-12-8	1,2-Dibromo-3-chloropropane	10.00	U
120-82-1	1,2,4-Trichlorobenzene	1.000	U
91-20-3	Naphthalene	1.000	U
87-61-6	1,2,3-Trichlorobenzene	1.000	U

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
45498-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: 45498-1-BLK

Sample wt/vol: 5.00 (g/mL) ml Lab File ID: 13040837

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. _____ Date Analyzed: 04/09/2013

GC Column: DB-624 ID: 0.20 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (µ L): Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

Data File : P:\VOC\2\DATA\130408\13040837.D Vial: 37
Acq On : 9 Apr 2013 4:06 am Operator: AK
Sample : BLK 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:56:53 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	543005	50.00	ug/L	0.00
54) Chlorobenzene d-5 ISTD	10.99	117	368490	50.00	ug/L	0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	143087	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	119183	48.47	ug/L	0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 96.94%			
48) Toluene d-8 SS#2	9.27	98	465706	48.91	ug/L	0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 97.82%			
71) 4-Bromofluorobenzene SS#3	12.42	95	175580	49.86	ug/L	0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 99.72%			

Target Compounds Qvalue

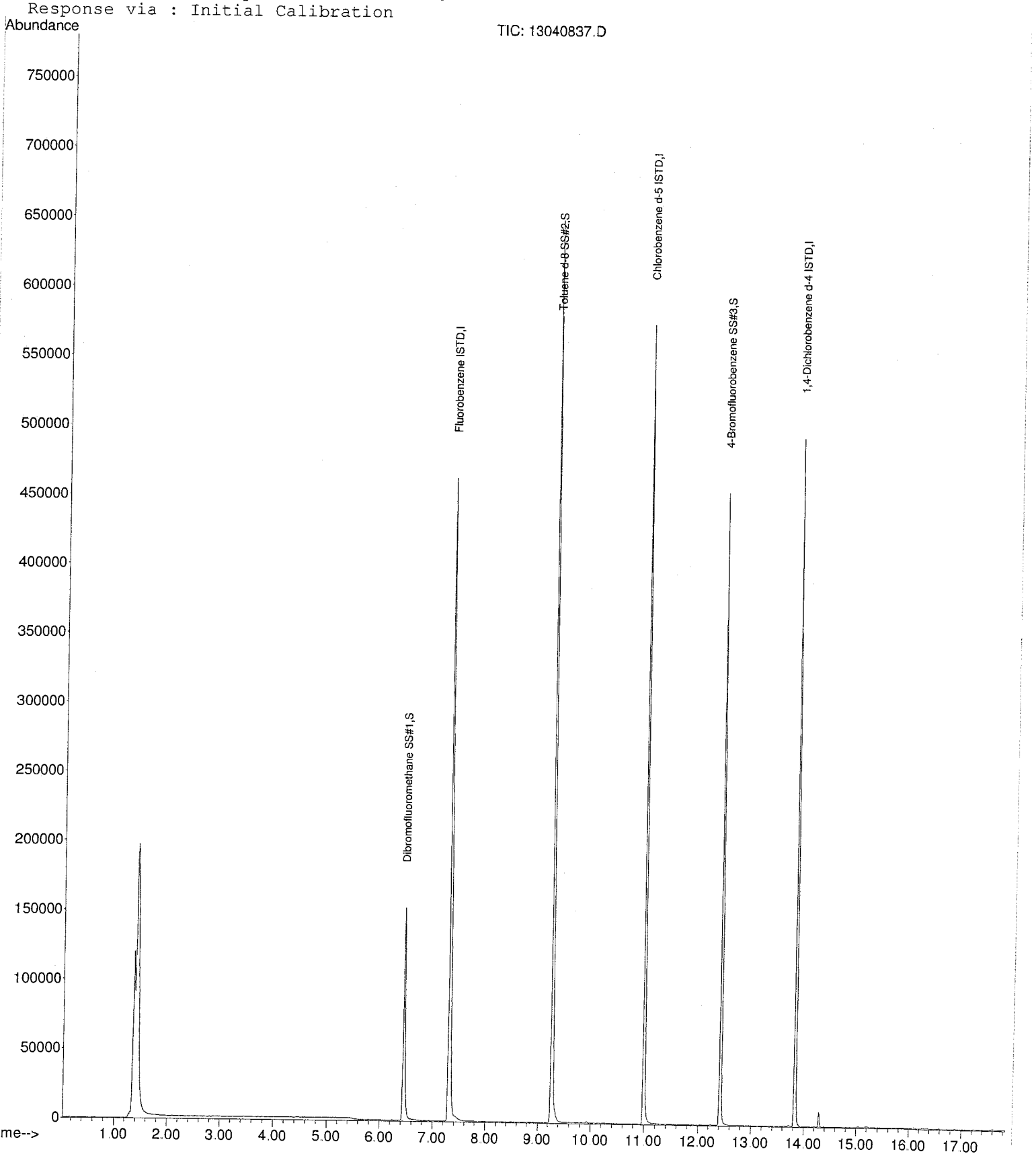
(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040837.D
Acq On : 9 Apr 2013 4:06 am
Sample : BLK 5mL
Misc : water 1uL A2338
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:56 2013

Vial: 37
Operator: AK
Inst : VOA2
Multiplr: 1.00

Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:56:27 2013
Response via : Initial Calibration



erator ID: AK Date Acquired: 9 Apr 2013 4:06 am
ta File: P:\VOC\2\DATA\130408\13040837.D
me: BLK 5mL
sc: water 1uL A2338
thod: P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

IIC	Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

Data File : P:\VOC\2\DATA\130408\13040837.D
Acq On : 9 Apr 2013 4:06 am
Sample : BLK 5mL
Misc : water 1uL A2338
MS Integration Params: LSCINT.P

Vial: 37
Operator: AK
Inst : VOA2
Multiplr: 1.00

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

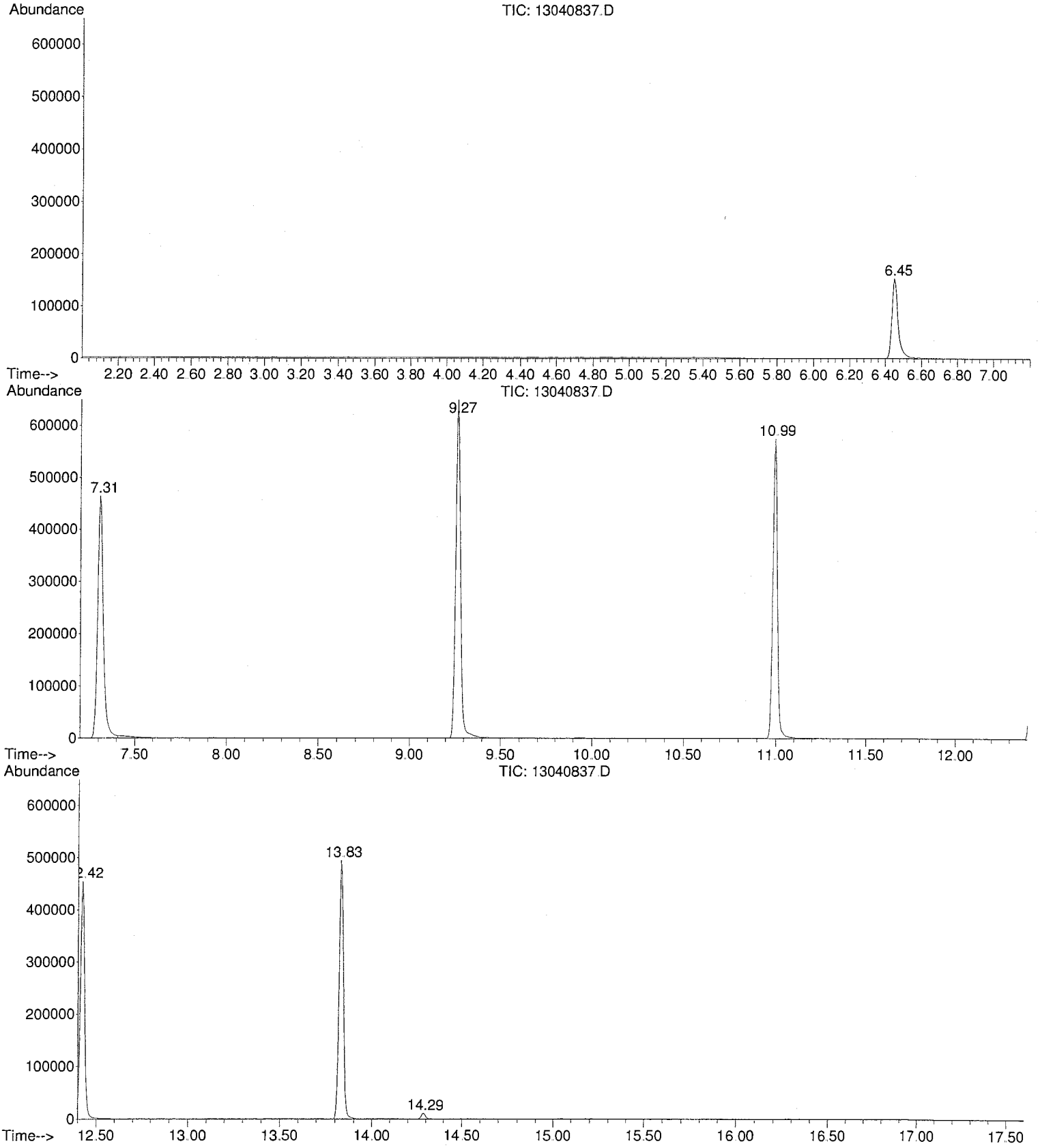
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

Peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.450	1261	1271	1296	rBV	152744	366484	30.41%	7.152%
2	7.307	1431	1441	1461	rBV	463383	993962	82.47%	19.396%
3	9.266	1821	1830	1861	rBV	649489	1205252	100.00%	23.520%
4	10.994	2164	2173	2201	rBV	575019	988483	82.01%	19.290%
5	12.425	2448	2457	2471	rBV	454504	741097	61.49%	14.462%
6	13.830	2728	2736	2754	rBV	494474	811938	67.37%	15.844%
7	14.288	2821	2827	2838	rBV	10474	17243	1.43%	0.336%

Sum of corrected areas: 5124459

File : P:\VOC\2\DATA\130408\13040837.D
Operator : AK
Acquired : 9 Apr 2013 4:06 am using AcqMethod VOC2
Instrument : VOA2
Sample Name: BLK 5mL
Misc Info : water 1uL A2338
Vial Number: 37
Quant File :VOC-W.RES (RTE Integrator)



4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
45496-1-BLK

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID 13040807 Lab Sample ID : 45496-1-BLK

Instrument ID : VOC #1

Matrix: (SOIL/SED/WATER SOLID Date Analyzed : 04/08/2013

Level : (TRACE or LOW/MED) LOW Time Analyzed : 11:45

GC Column : _____ ID : 1.0 (mm) Heated Purge (Y/N) : N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
9	45496-1-BKS	45496-1-BKS	13040808.D	12:40
10	SB-03 (2-2.5)	13040516-003	13040809.D	13:27
11	SB-02 (2-2.5)	13040516-001	13040810.D	13:55
12	SB-01 (2-2.5) S	13040516-004 S	13040811.D	14:27
13	SB-01 (2-2.5) SD	13040516-004 SD	13040812.D	14:55
14	SB-04 (2-2.5)	13040516-002	13040814.D	15:54
15	SB-040413 (2-2.5)	13040516-005	13040815.D	16:21
16	SB-01 (2-2.5)	13040516-004	13040816.D	16:49

Comments _____

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
45496-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOLID Lab Sample ID: 45496-1-BLK

Sample wt/vol: 5.10 (g/mL) g Lab File ID: 13040807

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 0 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
75-71-8	Dichlorodifluoromethane	4.902	U
74-87-3	Chloromethane	4.902	U
76-13-1	1,1,2-Trichlorotrifluoroethane	4.902	U
75-01-4	Vinyl Chloride	4.902	U
75-65-0	tert-Butyl Alcohol	39.22	U
74-83-9	Bromomethane	4.902	U
75-00-3	Chloroethane	4.902	U
67-64-1	Acetone	19.61	U
110-82-7	Cyclohexane	19.61	U
75-69-4	Trichlorofluoromethane	4.902	U
75-35-4	1,1-Dichloroethene	4.902	U
75-09-2	Methylene chloride	4.902	U
156-60-5	trans-1,2-Dichloroethene	4.902	U
1634-04-4	Methyl-t-Butyl Ether	4.902	U
75-34-3	1,1-Dichloroethane	4.902	U
78-93-3	2-Butanone (MEK)	19.61	U
156-59-2	cis-1,2-Dichloroethene	4.902	U
74-97-5	Bromochloromethane	4.902	U
67-66-3	Chloroform	4.902	U
71-55-6	1,1,1-Trichloroethane	4.902	U
107-06-2	1,2-Dichloroethane	4.902	U
56-23-5	Carbon tetrachloride	4.902	U
71-43-2	Benzene	4.902	U
78-87-5	1,2-Dichloropropane	4.902	U
75-15-0	Carbon Disulfide	9.804	U
108-87-2	Methylcyclohexane	19.61	U

SW8260B

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45496-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOLID Lab Sample ID: 45496-1-BLK

Sample wt/vol: 5.10 (g/mL) g Lab File ID: 13040807

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 0 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (μ L) Soil Aliquot Volume: _____ (μ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
79-01-6	Trichloroethene	4.902	U
79-20-9	Methyl Acetate	19.61	U
75-27-4	Bromodichloromethane	4.902	U
10061-01-5	cis-1,3-Dichloropropene	4.902	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	19.61	U
10061-02-6	trans-1,3-Dichloropropene	4.902	U
79-00-5	1,1,2-Trichloroethane	4.902	U
108-88-3	Toluene	4.902	U
591-78-6	2-Hexanone (MBK)	19.61	U
106-93-4	1,2-Dibromoethane	4.902	U
124-48-1	Dibromochloromethane	4.902	U
637-92-3	tert-Butyl ethyl ether	9.804	U
994-05-8	tert-Amyl methyl ether	39.22	U
108-20-3	Diisopropyl ether	9.804	U
919-94-8	tert-Amyl ethyl ether	39.22	U
75-85-4	tert-Amyl alcohol	39.22	U
75-25-2	Bromoform	4.902	U
127-18-4	Tetrachloroethene	4.902	U
108-90-7	Chlorobenzene	4.902	U
100-41-4	Ethylbenzene	4.902	U
108-38-3	m&p-Xylene	9.804	U
100-42-5	Styrene	4.902	U
79-34-5	1,1,2,2-Tetrachloroethane	4.902	U
95-47-6	o-Xylene	4.902	U
98-82-8	Isopropylbenzene	4.902	U
541-73-1	1,3-Dichlorobenzene	4.902	U

SW8260B

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45496-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : 105220 Mod. Ref. No.: _____ SDG No. : 13040516

Matrix: (SOIL/SED/WATER) SOLID Lab Sample ID: 45496-1-BLK

Sample wt/vol: 5.10 (g/mL) g Lab File ID: 13040807

Level: (TRACE/LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 0 Date Analyzed: 04/08/2013

GC Column: _____ ID: 1.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (µ L) Soil Aliquot Volume: _____ (µ L)

Purge Volume: 5.00 (m L)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
106-46-7	1,4-Dichlorobenzene	4.902	U
95-50-1	1,2-Dichlorobenzene	4.902	U
96-12-8	1,2-Dibromo-3-chloropropane	39.22	U
120-82-1	1,2,4-Trichlorobenzene	4.902	U
91-20-3	Naphthalene	4.902	U
87-61-6	1,2,3-Trichlorobenzene	4.902	U

SW8260B

1 J - FORM I VOA-TIC
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
45496-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix: (SOIL/SED/WATER) SOLID Lab Sample ID: 45496-1-BLK

Sample wt/vol: 5.10 (g/mL) g Lab File ID: 13040807

Level: (TRACE or LOW/MED) LOW Date Received: 04/05/2013

% Moisture: not dec. 0 Date Analyzed: 04/08/2013

GC Column: ID: 1.0 (mm) Dilution Factor: _____

Soil Extract Volume: _____ (µ L): Soil Aliquot Volume: 0 (µ L)

CONCENTRATION UNITS: (ug/L or ug/Kg) _____ Purge Volume: 5.00 (m L)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0					

(1) EPA-designated Registry Number

SW8260B

Data File : P:\VOC\1\DATA\130408\13040807.D Vial: 7
Acq On : 8 Apr 2013 11:45 am Operator: AK
Sample : BLK 5.10g 1323 Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:16:10 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

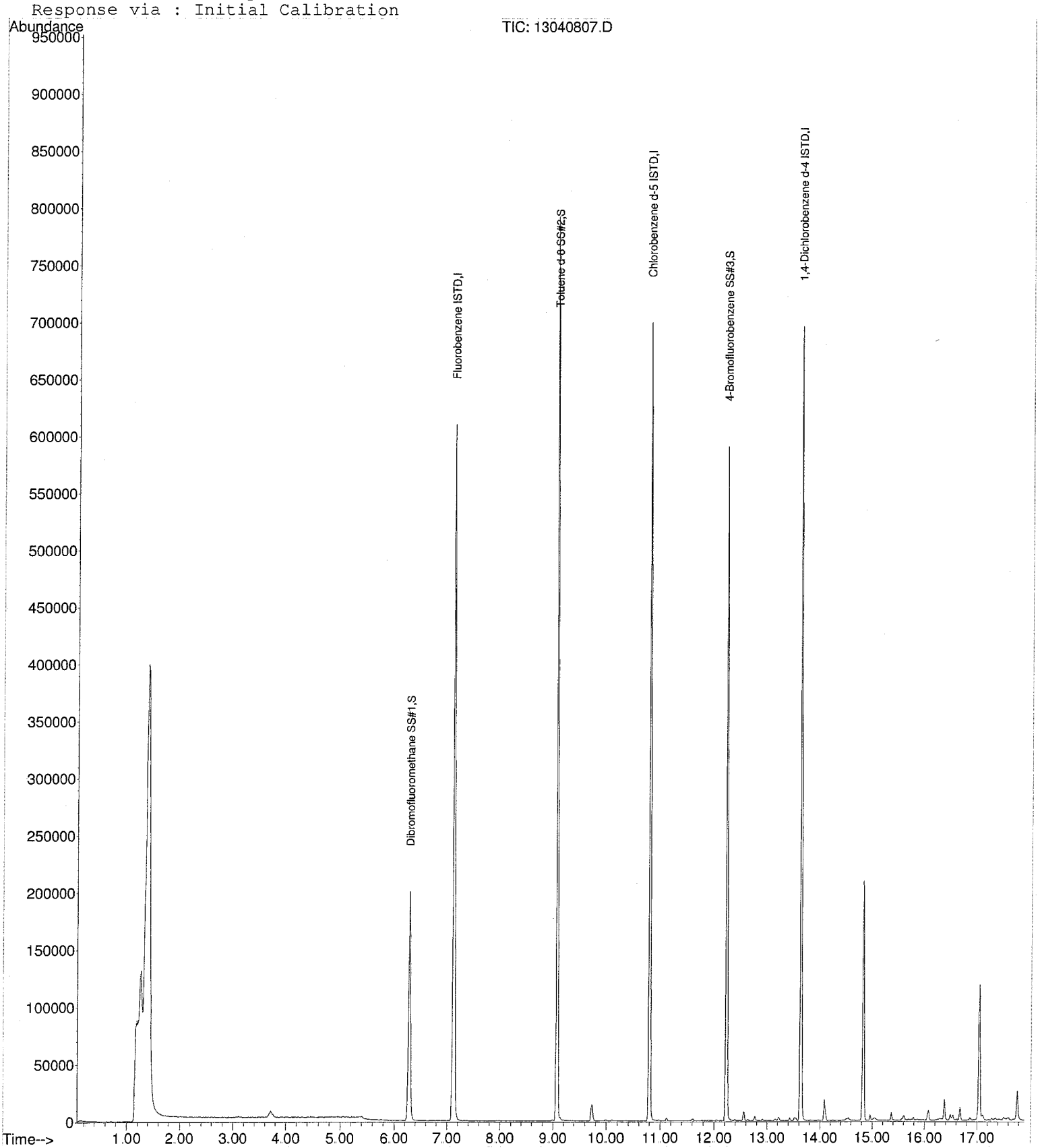
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.12	96	677388	50.00	ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	394330	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	184632	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.28	113	166987	51.39	ug/L	0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 102.78%			
47) Toluene d-8 SS#2	9.07	98	528467	49.38	ug/L	0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 98.76%			
70) 4-Bromofluorobenzene SS#3	12.23	95	225618	43.25	ug/L	0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 86.50%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\1\DATA\130408\13040807.D Vial: 7
Acq On : 8 Apr 2013 11:45 am Operator: AK
Sample : BLK 5.10g 1323 Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:16 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:50 2013
Response via : Initial Calibration



erator ID: AK Date Acquired: 8 Apr 2013 11:45 am
ta File: P:\VOC\1\DATA\130408\13040807.D
me: BLK 5.10g 1323
sc: soil 1uL A2338
thod: P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
tle: SW8260 Purgable Organics
brary Searched: C:\DATABASE\NIST98.L

						Internal Standard			
TIC	Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

Data File : P:\VOC\1\DATA\130408\13040807.D Vial: 7
Acq On : 8 Apr 2013 11:45 am Operator: AK
Sample : BLK 5.10g 1323 Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: LSCINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

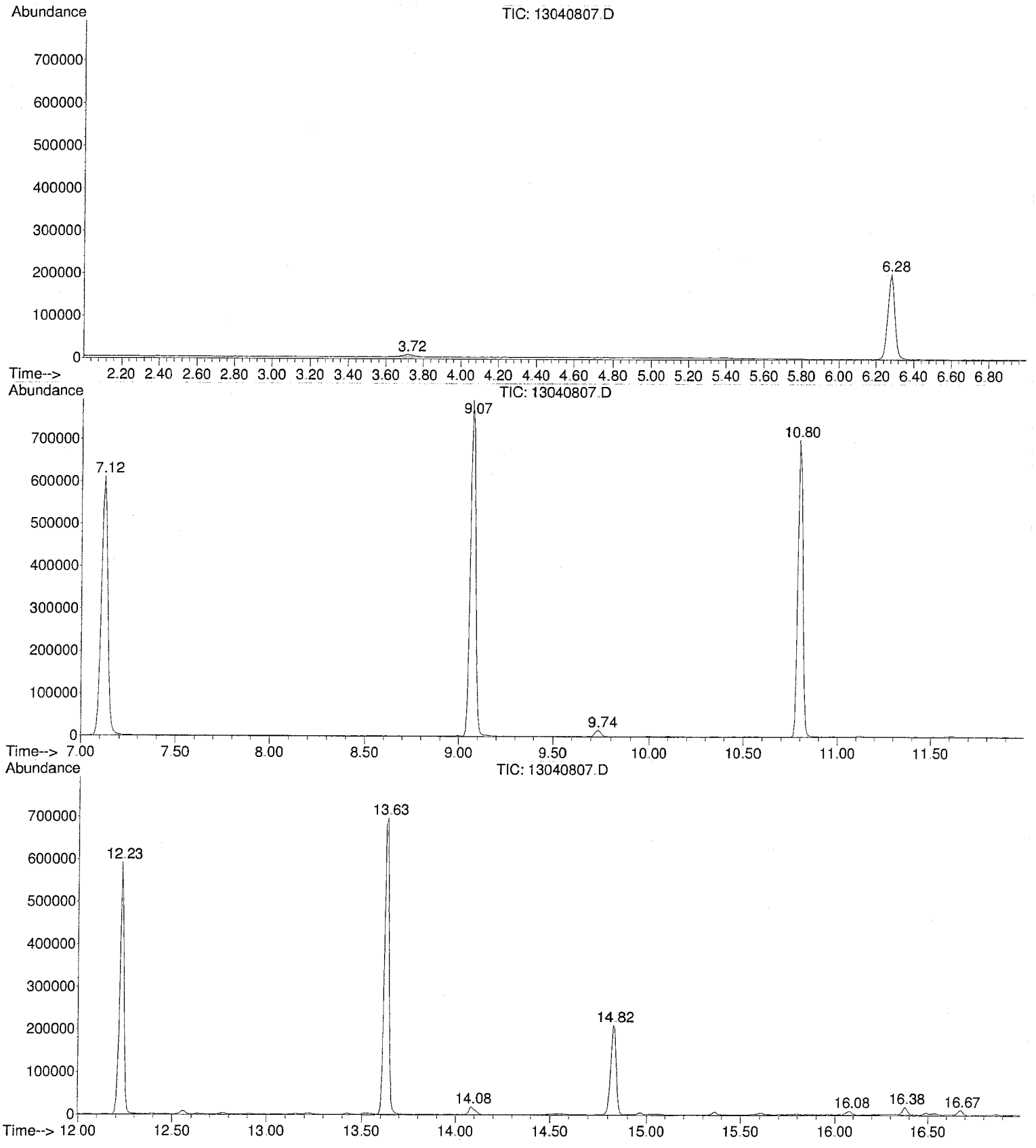
If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Signal : TIC

eak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.720	437	446	455	rVB3	5621	24042	1.55%	0.320%
2	6.284	749	758	773	rBV	200417	527662	34.11%	7.031%
3	7.122	852	860	878	rBV	609965	1412687	91.33%	18.823%
4	9.070	1091	1097	1105	rBV	792571	1546838	100.00%	20.610%
5	9.736	1173	1178	1185	rBV	14310	30373	1.96%	0.405%
6	10.796	1302	1307	1321	rBV	699879	1244134	80.43%	16.577%
7	12.226	1476	1481	1496	rBV	591292	981437	63.45%	13.077%
8	13.632	1646	1652	1666	rVB	696356	1211754	78.34%	16.145%
9	14.084	1703	1707	1714	rVB3	18510	40075	2.59%	0.534%
0	14.824	1788	1797	1804	rBV	209582	418391	27.05%	5.575%
1	16.081	1944	1950	1957	rVB4	8595	17690	1.14%	0.236%
2	16.377	1982	1986	1991	rVB	17582	29443	1.90%	0.392%
3	16.673	2019	2022	2029	rVB2	11448	20784	1.34%	0.277%

Sum of corrected areas: 7505310

File : P:\VOC\1\DATA\130408\13040807.D
Operator : AK
Acquired : 8 Apr 2013 11:45 am using AcqMethod VOC1
Instrument : VOA1
Sample Name: BLK 5.10g 1323
Misc Info : soil 1uL A2338
Vial Number: 7
Quant File :VOC-S.RES (RTE Integrator)



5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB-01

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID : 13021405

Instrument ID : VOC #1

BFB Injection Date : 02/14/2013

GC Column : _____ ID : 1.0 (mm)

BFB Injection Time : 10:36

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0- 40.0% of mass 95	26.4
75	30.0 - 60.0%of mass 95	45.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	greater than 50.0% of mass 95	52.6
175	5.0 - 9.0% of mass 174	4.5 (8.6)1
176	95.0 - 101.0% of mass 174	52.2 (99.4)1
177	5.0 - 9.0% of mass 176	3.5 (6.7)2

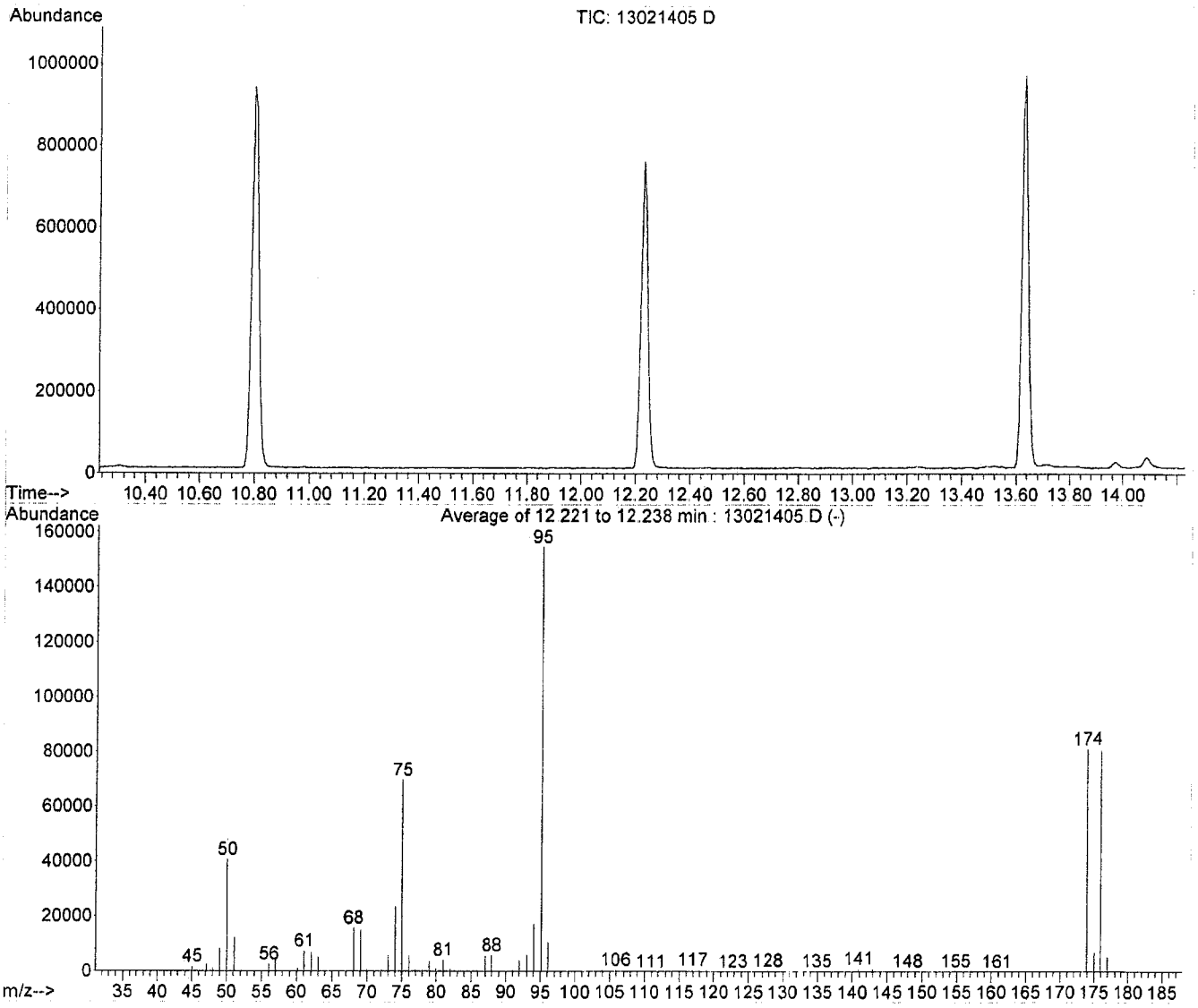
1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS :

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	CAL-01	CAL-01	13021406	02/14/2013	11:04
2	CAL-02	CAL-02	13021408	02/14/2013	12:06
3	CAL-03	CAL-03	13021409	02/14/2013	12:33
4	CAL-05	CAL-05	13021411	02/14/2013	13:28
5	CAL-04	CAL-04	13021412	02/14/2013	13:56
6	CAL-06	CAL-06	13021413	02/14/2013	14:23
7	CAL-07	CAL-07	13021415	02/14/2013	15:19
8	ICV-01	ICV-01	13021418	02/14/2013	16:41

BFB

Data File : P:\VOC\1\DATA\130214\13021405.D Vial: 5
Acq On : 14 Feb 2013 10:36 am Operator: AK
Sample : BFB TUNE 5mL Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics



AutoFind: Scans 1481, 1482, 1483; Background Corrected with Scan 1475

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.4	40746	PASS
75	95	30	60	45.1	69792	PASS
95	95	100	100	100.0	154589	PASS
96	95	5	9	6.9	10621	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	52.6	81245	PASS
175	174	5	9	8.6	6980	PASS
176	174	95	101	99.4	80725	PASS
177	176	5	9	6.7	5387	PASS

13021405.D VOC-S.M Fri Feb 15 09:47:13 2013

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID : 13040805

Instrument ID : VOC #1 BFB Injection Date : 04/08/2013

GC Column : _____ ID : 1.0 (mm) BFB Injection Time : 10:34

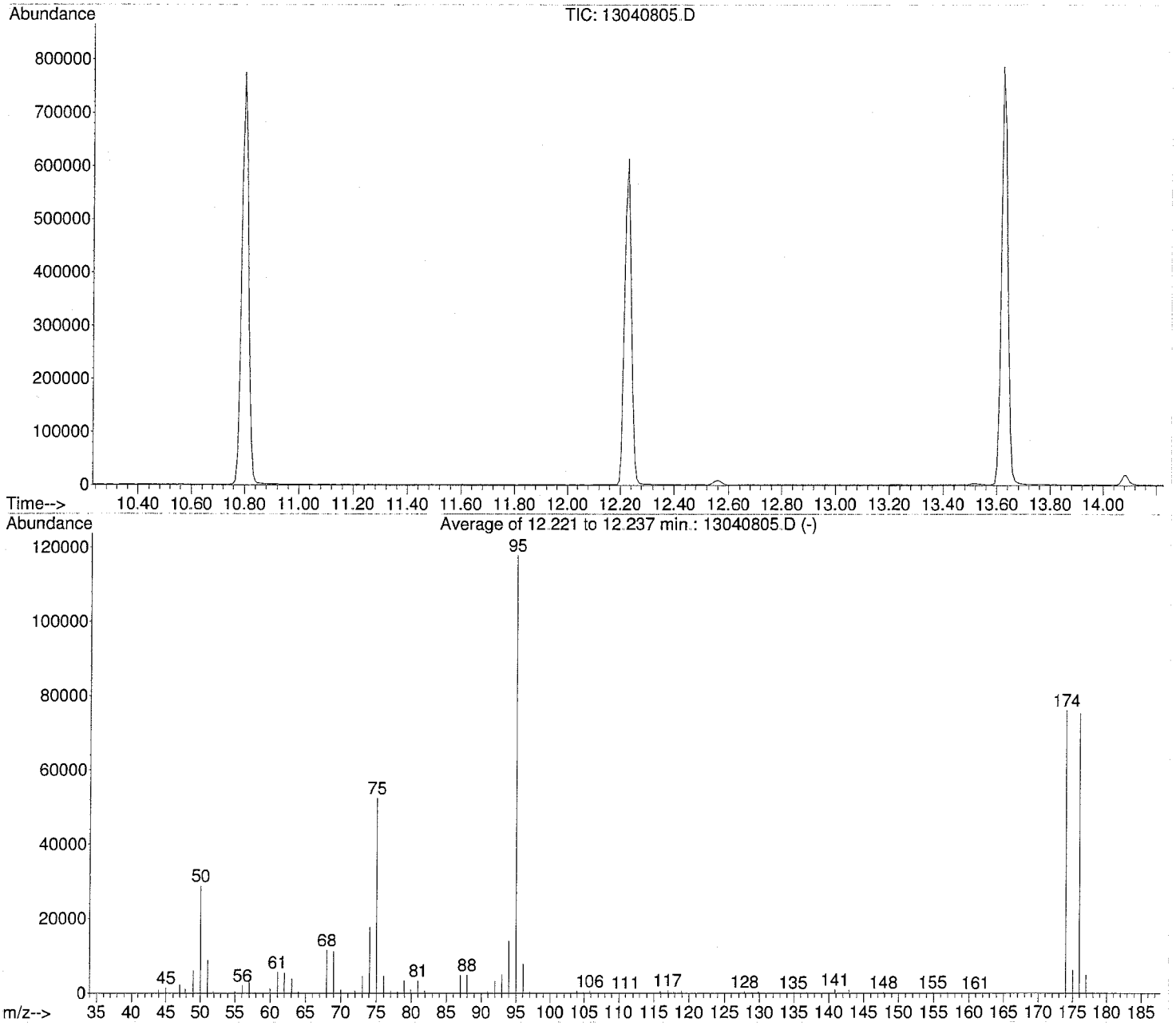
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0- 40.0% of mass 95	24.4
75	30.0 - 60.0%of mass 95	44.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	greater than 50.0% of mass 95	64.6
175	5.0 - 9.0% of mass 174	5.2 (8.1)1
176	95.0 - 101.0% of mass 174	64.0 (99.1)1
177	5.0 - 9.0% of mass 176	4.1 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS :

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	CCV-01	CCV-01	13040806	04/08/2013	11:01
2	45496-1-BLK	45496-1-BLK	13040807	04/08/2013	11:45
3	45496-1-BKS	45496-1-BKS	13040808	04/08/2013	12:40
4	SB-03 (2-2.5)	13040516-003	13040809	04/08/2013	13:27
5	SB-02 (2-2.5)	13040516-001	13040810	04/08/2013	13:55
6	SB-01 (2-2.5) S	13040516-004 S	13040811	04/08/2013	14:27
7	SB-01 (2-2.5) SD	13040516-004 SD	13040812	04/08/2013	14:55
8	SB-04 (2-2.5)	13040516-002	13040814	04/08/2013	15:54
9	SB-040413 (2-2.5)	13040516-005	13040815	04/08/2013	16:21
10	SB-01 (2-2.5)	13040516-004	13040816	04/08/2013	16:49

Data File : P:\VOC\1\DATA\130408\13040805.D Vial: 5
Acq On : 8 Apr 2013 10:34 am Operator: AK
Sample : BFB TUNE 5mL Inst : VOA1
Misc : soil 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics



AutoFind: Scans 1481, 1482, 1483; Background Corrected with Scan 1474

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.4	28813	PASS
75	95	30	60	44.5	52525	PASS
95	95	100	100	100.0	117922	PASS
96	95	5	9	6.6	7812	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	64.6	76154	PASS
175	174	5	9	8.1	6168	PASS
176	174	95	101	99.1	75466	PASS
177	176	5	9	6.5	4891	PASS

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB-01

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID : 13040809

BFB Injection Date : 04/08/2013

Instrument ID : VOC #2

BFB Injection Time : 14:24

GC Column : DB-624 ID : 0.20 (mm)

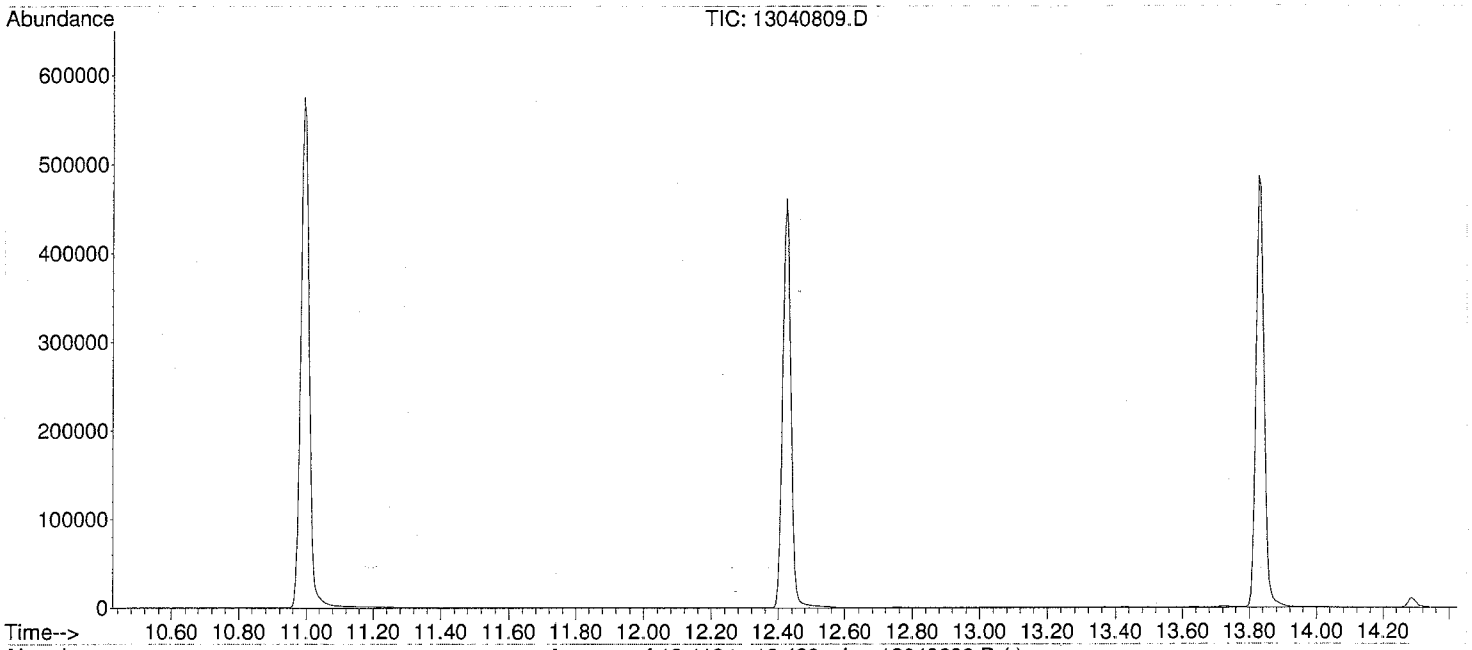
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0- 40.0% of mass 95	15.4
75	30.0 - 60.0%of mass 95	40.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	greater than 50.0% of mass 95	78.0
175	5.0 - 9.0% of mass 174	5.7 (7.3)1
176	95.0 - 101.0% of mass 174	75.3 (96.5)1
177	5.0 - 9.0% of mass 176	5.0 (6.6)2

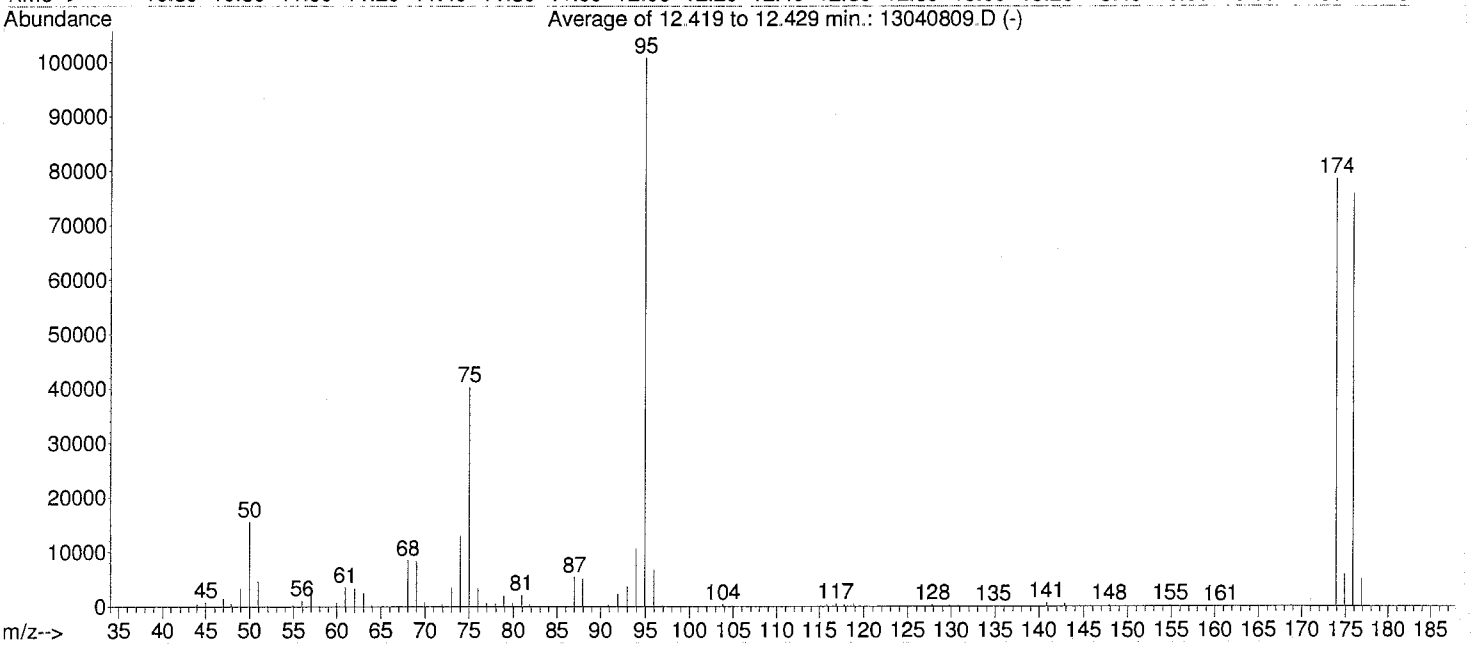
1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS :

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	CAL-01	CAL-01	13040810	04/08/2013	14:55
2	CAL-02	CAL-02	13040811	04/08/2013	15:24
3	CAL-03	CAL-03	13040812	04/08/2013	15:58
4	CAL-04	CAL-04	13040813	04/08/2013	16:27
5	CAL-05	CAL-05	13040814	04/08/2013	16:56
6	CAL-06	CAL-06	13040815	04/08/2013	17:26
7	CAL-07	CAL-07	13040816	04/08/2013	17:54
8	CAL-08	CAL-08	13040817	04/08/2013	18:24
9	ICV-01	ICV-01	13040821	04/08/2013	20:21

Data File : P:\VOC\2\DATA\130408\13040809.D Vial: 9
Acq On : 8 Apr 2013 2:24 pm Operator: AK
Sample : BFB TUNE 5mL Inst : VOA2
Misc : water 1uL A2338 Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics





AutoFind: Scans 2457, 2458, 2459; Background Corrected with Scan 2448

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	15496	PASS
75	95	30	60	40.0	40301	PASS
95	95	100	100	100.0	100717	PASS
96	95	5	9	6.7	6732	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	78.0	78560	PASS
175	174	5	9	7.3	5758	PASS
176	174	95	101	96.5	75818	PASS
177	176	5	9	6.6	5000	PASS

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID : 13040828

Instrument ID : VOC #2

GC Column : DB-624 ID : 0.20 (mm)

BFB Injection Date : 04/08/2013

BFB Injection Time : 23:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0- 40.0% of mass 95	15.6
75	30.0 - 60.0%of mass 95	39.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	greater than 50.0% of mass 95	75.9
175	5.0 - 9.0% of mass 174	5.6 (7.4)1
176	95.0 - 101.0% of mass 174	73.3 (96.6)1
177	5.0 - 9.0% of mass 176	4.7 (6.5)2

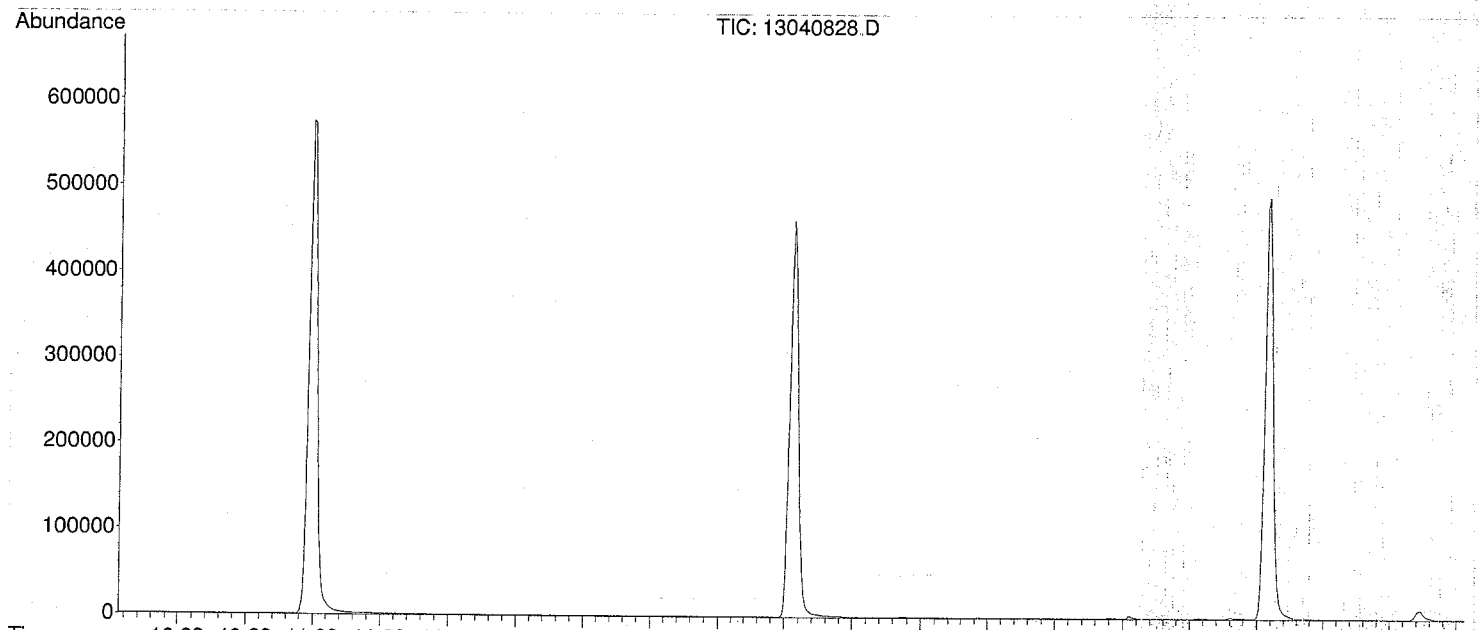
1-Value is % mass 174 2-Value is % mass 176

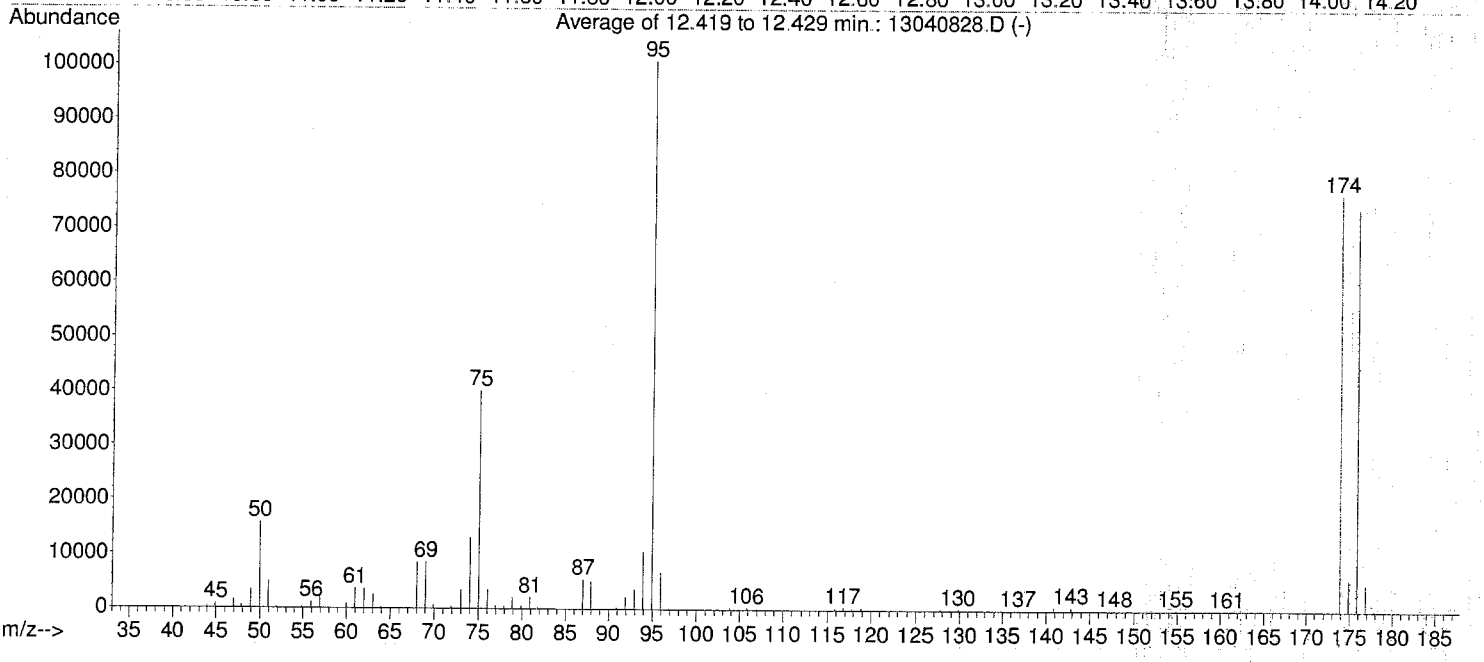
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS :

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	CCV-01	CCV-01	13040829	04/09/2013	00:13
2	45498-1-BKS	45498-1-BKS	13040831	04/09/2013	01:11
3	45498-1-BLK	45498-1-BLK	13040837	04/09/2013	04:06
4	TRIP BLANK	13040516-012	13040838	04/09/2013	04:34
5	SB-03 (GW)	13040516-007	13040839	04/09/2013	05:04
6	1644-SUMP	13040516-006	13040840	04/09/2013	05:33
7	SB-040413 (GW)	13040516-008	13040841	04/09/2013	06:01
8	SB-04 (GW)	13040516-009	13040842	04/09/2013	06:30
9	1646-SUMP	13040516-010	13040843	04/09/2013	06:59
10	SURFACE WATER	13040516-011	13040844	04/09/2013	07:27
11	SB-03 (GW) S	13040516-007 S	13040847	04/09/2013	08:54
12	SB-03 (GW) SD	13040516-007 SD	13040848	04/09/2013	09:23

Data File : P:\VOC\2\DATA\130408\13040828.D
Acq On : 8 Apr 2013 11:43 pm
Sample : BFB TUNE 5mL
Misc : water 1uL A2338
MS Integration Params: RTEINT.P
Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics

Vial: 28
Operator: AK
Inst : VOA2
Multiplr: 1.00





AutoFind: Scans 2457, 2458, 2459; Background Corrected with Scan 2448

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	15741	PASS
75	95	30	60	39.7	40096	PASS
95	95	100	100	100.0	100896	PASS
96	95	5	9	6.6	6709	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	75.9	76586	PASS
175	174	5	9	7.4	5692	PASS
176	174	95	101	96.6	73976	PASS
177	176	5	9	6.5	4788	PASS

Injection Log

Directory: P:\VOC\2\DATA\130408

pH<2 AK 4/9/13

45497
(05221

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13040801.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 08:45
2	2	13040802.D	1.	CCV 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 09:27
3	3	13040803.D	1.	CCV 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 10:04
4	4	13040804.D	1	CCV 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 10:41
5	5	13040805.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 11:26
6	6	13040806.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 12:15
7	7	13040807.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 12:59
8	8	13040808.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 13:47
9	9	13040809.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 14:24
10	10	13040810.D	1.	CAL1 1ppb 5mL	water 1uL A2338 2.5ul 1405-3, 1351-1	8 Apr 2013 14:55
11	11	13040811.D	1	CAL2 5ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 15:24
12	12	13040812.D	1.	CAL3 10ppb 5mL	water 1uL A2338 2.5ul 1405-3, 1351-1	8 Apr 2013 15:58
13	13	13040813.D	1.	CAL4 20ppb 5mL	water 1uL A2338 5ul 1405-3, 1351-1	8 Apr 2013 16:27
14	14	13040814.D	1.	CAL5 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 16:56
15	15	13040815.D	1.	CAL6 70ppb 5mL	water 1uL A2338 17.5ul 1405-3, 1351-1	8 Apr 2013 17:26
16	16	13040816.D	1.	CAL7 100ppb 5mL	water 1uL A2338 25ul 1405-3, 1351-1	8 Apr 2013 17:54
17	17	13040817.D	1.	CAL8 250ppb 5mL	water 1uL A2338 62.5ul 1405-3, 1351-1	8 Apr 2013 18:24
18	18	13040818.D	1.	blank 5mL	water 1uL A2338	8 Apr 2013 18:53
19	19	13040819.D	1.	blank 5mL	water 1uL A2338	8 Apr 2013 19:22
20	20	13040820.D	1.	ICV 50ppb 5mL	water 1uL A2338 12.5ul 1405-4, 1351-2	8 Apr 2013 19:51
21	21	13040821.D	1.	ICV 50ppb 5mL	water 1uL A2338 12.5ul 1405-4, 1351-2	8 Apr 2013 20:21
22	22	13040822.D	1.	blank	water 1uL A2338	8 Apr 2013 20:50
23	23	13040823.D	1	blank	water 1uL A2338	8 Apr 2013 21:19
24	24	13040824.D	1.	ICV 50ppb 5mL	water 1uL A2338 12.5ul 1405-4, 1351-2	8 Apr 2013 21:48
25	25	13040825.D	1	ICV 50ppb 5mL	water 1uL A2338 12.5ul 1405-4, 1351-2	8 Apr 2013 22:17
26	26	13040826.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 22:45
27	27	13040827.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 23:15
28	28	13040828.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 23:43
29	29	13040829.D	1.	CCV 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	9 Apr 2013 00:13

Injection Log

Directory: P:\VOC\2\DATA\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
30	30	13040830.D	1.	CCV 50ppb 5mL	water 1uL A2338	12.5ul 1405-3, 1351-1 9 Apr 2013 00:41
31	31	13040831.D	1.	LCS 5mL	water 1uL A2338	12.5ul 1405-4, 1351-2 9 Apr 2013 01:11
32	32	13040832.D	1.	BLK 5mL	water 1uL A2338	9 Apr 2013 01:40
33	33	13040833.D	1.	BLK 5mL	water 1uL A2338	9 Apr 2013 02:10
34	34	13040834.D	1.	BLK 5mL	water 1uL A2338	9 Apr 2013 02:39
35	35	13040835.D	1.	BLK 5mL	water 1uL A2338	9 Apr 2013 03:08
36	36	13040836.D	1.	BLK TCLP 100D 5mL	water 1uL A2338	9 Apr 2013 03:36
37	37	13040837.D	1.	BLK 5mL	water 1uL A2338	9 Apr 2013 04:06
38	38	13040838.D	1.	13040516-012 5mL – pH3	water 1uL A2338	9 Apr 2013 04:34
39	39	13040839.D	1.	13040516-007 5mL – pH5	water 1uL A2338	9 Apr 2013 05:04
40	40	13040840.D	1.	13040516-006 5mL – pH5	water 1uL A2338	9 Apr 2013 05:33
41	41	13040841.D	1.	13040516-008 5mL – pH5	water 1uL A2338	9 Apr 2013 06:01
42	42	13040842.D	1.	13040516-009 5mL – pH5	water 1uL A2338	9 Apr 2013 06:30
43	43	13040843.D	1.	13040516-010 5mL – pH5	water 1uL A2338	9 Apr 2013 06:59
44	44	13040844.D	1.	13040516-011 5mL – pH6	water 1uL A2338	9 Apr 2013 07:27
45	45	13040845.D	1.	13040811-001 5mL AK 4/9/13	water 1uL A2338	9 Apr 2013 07:57
46	46	13040846.D	1.	13040318-002 TCLP 100D	water 1uL A2338	9 Apr 2013 08:25
47	47	13040847.D	1.	13040516-007 MS > pH5	water 1uL A2338	10ul 1405-4, 1351-2 9 Apr 2013 08:54
48	48	13040848.D	1.	13040516-007 MSD	water 1uL A2338	10ul 1405-4, 1351-2 9 Apr 2013 09:23
49	49	13040849.D	1.	13040318-002 TCLP 100D MS	water 1uL A2338	10ul 1405-4, 1351-2 9 Apr 2013 09:52
50	50	13040850.D	1.	13040318-002 TCLP 100D MSD	water 1uL A2338	10ul 1405-4, 1351-2 9 Apr 2013 10:21

45498
105222

TCLP
45499
105224

Response Factor Report VOA2

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration

Calibration Files
1 =13040810.D 2 =13040811.D 3 =13040812.D
4 =13040813.D 5 =13040814.D 6 =13040815.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	I	Fluorobenzene ISTD	----------ISTD----------							
2)	T	Dichlorodifluor	0.187	0.246	0.223	0.249	0.240	0.245	0.232	8.90
3)	P	Chloromethane	0.345	0.331	0.277	0.291	0.295	0.296	0.303	7.59
4)	C	VINYL CHLORIDE	0.328	0.348	0.300	0.337	0.334	0.336	0.331	4.36
5)	T	Bromomethane	0.328	0.250	0.203	0.211	0.208	0.206	0.226	19.50
6)	T	Chloroethane	0.125	0.162	0.146	0.159	0.161	0.157	0.151	8.08
7)	T	Trichlorofluoro	0.155	0.245	0.208	0.234	0.246	0.243	0.225	13.65
8)	T	acrolein		0.018	0.022	0.024	0.021	0.027	0.024	15.43
9)	T	Acetone		0.004	0.007	0.010	0.008	0.012	0.009	29.33
10)	M,C	1,1-DICHLOROETH	0.122	0.206	0.183	0.202	0.208	0.203	0.190	15.07
11)	T	1,1,2-Trichloro	0.025	0.130	0.120	0.137	0.140	0.137	0.119	32.55
12)	T	iodomethane	0.214	0.288	0.253	0.291	0.308	0.308	0.283	11.79
13)	T	Carbon Disulfid	0.487	0.543	0.484	0.548	0.564	0.575	0.543	6.90
14)	T	Methyl Acetate		0.017	0.017	0.023	0.021	0.025	0.022	16.99
15)	T	Methylene chlor	0.374	0.249	0.204	0.214	0.212	0.209	0.234	25.13
16)	T	tert-Butanol			0.004	0.006	0.006	0.008	0.006	22.06
17)	T	acrylonitrile		0.045	0.047	0.054	0.049	0.061	0.053	10.90
18)	T	trans-1,2-Dichl	0.139	0.187	0.135	0.167	0.186	0.197	0.173	13.65
19)	T	Methyl-t-Butyl	0.377	0.437	0.373	0.428	0.455	0.461	0.429	8.10
20)	P	1,1-Dichloroeth	0.250	0.284	0.241	0.272	0.290	0.304	0.278	7.98
21)	T	vinyl acetate	0.320	0.293	0.228	0.290	0.295	0.338	0.308	13.17
22)	T	Diisopropyl eth	0.644	0.608	0.541	0.603	0.612	0.632	0.605	5.25
23)	T	tert-Butyl ethy		0.558	0.466	0.494	0.532	0.588	0.542	8.73
24)	T	2,2-Dichloropro	0.083	0.111	0.080	0.088	0.111	0.121	0.103	16.00
25)	T	cis-1,2-Dichlor	0.215	0.234	0.204	0.221	0.232	0.242	0.229	6.13
26)	T	2-Butanone (MEK		0.010	0.010	0.014	0.014	0.016	0.014	18.23
27)	T	Bromochlorometh	0.076	0.096	0.086	0.092	0.095	0.107	0.095	11.50
28)	C	CHLOROFORM	0.276	0.302	0.267	0.287	0.290	0.317	0.296	6.48
29)	S	Dibromofluorome	0.222	0.223	0.223	0.218	0.225	0.234	0.226	2.62
30)	T	1,1,1-Trichloro	0.145	0.167	0.146	0.166	0.176	0.205	0.175	13.85
31)	T	Cyclohexane	0.127	0.164	0.124	0.135	0.139	0.178	0.149	13.88
32)	T	Carbon tetrachl	0.104	0.134	0.111	0.138	0.137	0.155	0.139	16.80
33)	T	1,1-Dichloropro	0.204	0.231	0.201	0.232	0.216	0.238	0.224	6.87
34)	M	Benzene`	0.816	0.797	0.703	0.780	0.757	0.807	0.785	4.90
35)	T	1,2-Dichloroeth	0.175	0.198	0.168	0.201	0.181	0.213	0.194	8.83
36)	T	tert-Amyl alcoh		0.001	0.004	0.005	0.005	0.007	0.005	39.31
37)	T	tert-Amyl methy		0.492	0.432	0.512	0.482	0.545	0.506	8.17
38)	M	Trichloroethene	0.183	0.184	0.165	0.180	0.179	0.190	0.183	4.65
39)	C	1,2-DICHLOROPRO	0.179	0.188	0.168	0.176	0.179	0.207	0.188	7.73
40)	T	Methylcyclohexa	0.129	0.157	0.135	0.147	0.152	0.167	0.152	9.23
41)	T	tert-Amyl ethyl		0.446	0.374	0.410	0.440	0.479	0.447	9.88
42)	T	Dibromomethane	0.097	0.111	0.099	0.111	0.114	0.125	0.113	9.49
43)	T	1,4-Dioxane		0.000	0.000	0.001	0.000	0.001	0.001	51.15
44)	T	Bromodichlorome	0.173	0.191	0.177	0.203	0.211	0.232	0.208	12.71
45)	T	2-Chloroethylvi	0.073	0.091	0.083	0.096	0.106	0.111	0.099	15.87
46)	T	cis-1,3-Dichlor	0.239	0.271	0.246	0.279	0.306	0.330	0.292	13.43
47)	T	4-Methyl-2-Pent		0.020	0.021	0.024	0.025	0.029	0.025	13.89
48)	S	Toluene d-8 SS#	0.870	0.875	0.873	0.869	0.895	0.886	0.877	1.29
49)	M,C	TOLUENE	0.478	0.486	0.434	0.471	0.494	0.501	0.483	4.86
50)	T	trans-1,3-Dichl	0.173	0.210	0.199	0.223	0.260	0.278	0.238	17.62
51)	T	1,1,2-Trichloro	0.118	0.130	0.119	0.131	0.136	0.144	0.133	7.70
52)	T	Tetrachloroethe	0.118	0.117	0.105	0.120	0.120	0.125	0.119	5.55
53)	T	2-Hexanone (MBK		0.091	0.090	0.116	0.106	0.121	0.108	12.31
54)	I	Chlorobenzene d-5 IST	----------ISTD----------							
55)	T	1,3-Dichloropro	0.378	0.399	0.387	0.437	0.413	0.444	0.418	6.49
56)	T	Dibromochlorome	0.149	0.170	0.172	0.215	0.215	0.242	0.209	19.73
57)	T	1,2-Dibromoetha	0.198	0.238	0.222	0.253	0.249	0.269	0.246	10.40
58)	M,P	Chlorobenzene	0.748	0.761	0.696	0.740	0.709	0.778	0.751	4.57

#) = Out of Range ### Number of calibration levels exceeded format ###

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration

Calibration Files
1 =13040810.D 2 =13040811.D 3 =13040812.D
4 =13040813.D 5 =13040814.D 6 =13040815.D

		Compound	1	2	3	4	5	6	Avg	%RSD
59)	T	1,1,1,2-Tetrach	0.162	0.193	0.185	0.214	0.216	0.234	0.211	14.01
60)	C	ETHYLBENZENE	1.079	1.123	1.013	1.128	1.124	1.168	1.122	4.80
61)	T	m&p-Xylene	0.431	0.447	0.412	0.453	0.450	0.474	0.453	5.28
62)	T	o-Xylene	0.423	0.443	0.408	0.453	0.444	0.480	0.451	6.12
63)	T	Styrene	0.707	0.797	0.752	0.838	0.807	0.889	0.825	8.92
64)	P	Bromoform		0.093	0.093	0.119	0.130	0.145	0.127	21.24
65)	T	1,2,3-Trichloro	0.215	0.204	0.196	0.219	0.194	0.228	0.212	5.89
66)	T	Bromobenzene	0.231	0.253	0.240	0.260	0.271	0.281	0.263	7.94
67)	T	trans-1,4-dichl	0.025	0.042	0.044	0.059	0.058	0.068	0.054	29.24
68)	T	n-Propylbenzene	0.998	1.010	0.924	1.046	1.057	1.097	1.040	5.82
69)	I	1,4-Dichlorobenzene d	ISTD							
70)	T	Isopropylbenzen	2.378	2.312	2.230	2.380	2.587	2.473	2.422	4.86
71)	S	4-Bromofluorobe	1.258	1.228	1.265	1.216	1.302	1.184	1.231	3.34
72)	P	1,1,2,2-Tetrach	0.693	0.705	0.707	0.766	0.839	0.782	0.757	6.68
73)	T	2-Chlorotoluene	1.874	1.751	1.602	1.714	1.857	1.755	1.763	4.80
74)	T	4-Chlorotoluene	2.032	1.939	1.834	2.010	2.116	2.053	2.011	4.33
75)	T	1,3,5-Trimethyl	1.685	1.767	1.746	1.867	2.013	1.979	1.877	6.85
76)	T	tert-Butylbenze	1.408	1.292	1.286	1.394	1.344	1.449	1.385	5.03
77)	T	1,2,4-Trimethyl	1.915	1.845	1.790	1.927	2.073	2.006	1.945	4.84
78)	T	sec-Butylbenzen	2.059	2.072	1.956	2.124	2.058	2.232	2.109	4.26
79)	T	4-Isopropyltolu	1.733	1.680	1.524	1.704	1.847	1.788	1.727	5.61
80)	T	1,3-Dichloroben	1.104	1.053	0.988	1.075	1.110	1.114	1.086	4.34
81)	T	1,4-Dichloroben	1.136	1.096	1.036	1.108	1.180	1.144	1.124	3.97
82)	T	1,2-Dichloroben	1.009	0.994	0.929	1.012	1.093	1.066	1.030	5.34
83)	T	n-Butylbenzene	1.469	1.475	1.419	1.520	1.650	1.627	1.541	5.39
84)	T	1,2-Dibromo-3-c		0.067	0.059	0.078	0.084	0.088	0.078	13.90
85)	T	1,2,4-Trichloro	0.453	0.413	0.413	0.428	0.461	0.500	0.451	6.76
86)	T	Naphthalene	1.269	1.159	1.138	1.216	1.342	1.406	1.263	7.50
87)	T	1,2,3-Trichloro	0.394	0.343	0.342	0.371	0.383	0.420	0.377	7.06

#) = Out of Range ### Number of calibration levels exceeded format ###

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration

Calibration Files
1 =13040810 2 =13040811 3 =13040812 4 =13040813 5 =13040814
6 =13040815 7 =13040816 8 =13040817

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	I	Fluorobenzene ISTD	ISTD				
2)	T	Dichlorodifluorometh	Avg	-----	0.2323	-----	0.0890
3)	P	Chloromethane	Avg	-----	0.3029	-----	0.0759
4)	C	VINYL CHLORIDE	Avg	-----	0.3313	-----	0.0436
5)	T	Bromomethane	LinF	-----	0.1998	-----	0.9997
6)	T	Chloroethane	Avg	-----	0.1514	-----	0.0808
7)	T	Trichlorofluorometha	Avg	-----	0.2252	-----	0.1365
8)	T	acrolein	LinF	-----	0.0271	-----	0.9976
9)	T	Acetone	QuadF	-----	0.0110	-0.0002	0.9941
10)	M,C	1,1-DICHLOROETHENE	LinF	-----	0.1972	-----	0.9995
11)	T	1,1,2-Trichlorotrifl	LinF	-----	0.1301	-----	0.9985
12)	T	iodomethane	Avg	-----	0.2833	-----	0.1179
13)	T	Carbon Disulfide	Avg	-----	0.5429	-----	0.0690
14)	T	Methyl Acetate	LinF	-----	0.0247	-----	0.9990
15)	T	Methylene chloride	LinF	-----	0.2004	-----	0.9994
16)	T	tert-Butanol	QuadF	-----	0.0079	-0.0004	0.9920
17)	T	acrylonitrile	Avg	-----	0.0529	-----	0.1090
18)	T	trans-1,2-Dichloroet	Avg	-----	0.1729	-----	0.1365
19)	T	Methyl-t-Butyl Ether	Avg	-----	0.4287	-----	0.0810
20)	P	1,1-Dichloroethane	Avg	-----	0.2781	-----	0.0798
21)	T	vinyl acetate	Avg	-----	0.3080	-----	0.1317
22)	T	Diisopropyl ether	Avg	-----	0.6053	-----	0.0525
23)	T	tert-Butyl ethyl eth	Avg	-----	0.5424	-----	0.0873
24)	T	2,2-Dichloropropane	LinF	-----	0.1111	-----	0.9974
25)	T	cis-1,2-Dichloroethe	Avg	-----	0.2286	-----	0.0613
26)	T	2-Butanone (MEK)	LinF	-----	0.0153	-----	0.9986
27)	T	Bromochloromethane	Avg	-----	0.0954	-----	0.1150
28)	C	CHLOROFORM	Avg	-----	0.2960	-----	0.0648
29)	S	Dibromofluoromethane	Avg	-----	0.2264	-----	0.0262
30)	T	1,1,1-Trichloroethan	Avg	-----	0.1754	-----	0.1385
31)	T	Cyclohexane	Avg	-----	0.1485	-----	0.1388
32)	T	Carbon tetrachloride	LinF	-----	0.1654	-----	0.9987
33)	T	1,1-Dichloropropene	Avg	-----	0.2241	-----	0.0687
34)	M	Benzene`	Avg	-----	0.7852	-----	0.0490
35)	T	1,2-Dichloroethane	Avg	-----	0.1943	-----	0.0883
36)	T	tert-Amyl alcohol	QuadF	-----	0.0066	-0.0002	0.9905
37)	T	tert-Amyl methyl eth	Avg	-----	0.5065	-----	0.0817
38)	M	Trichloroethene	Avg	-----	0.1826	-----	0.0465
39)	C	1,2-DICHLOROPROPANE	Avg	-----	0.1878	-----	0.0773
40)	T	Methylcyclohexane	Avg	-----	0.1516	-----	0.0923
41)	T	tert-Amyl ethyl ethe	Avg	-----	0.4473	-----	0.0988
42)	T	Dibromomethane	Avg	-----	0.1129	-----	0.0949
43)	T	1,4-Dioxane	LinF	-----	0.0008	-----	0.9523
44)	T	Bromodichloromethane	Avg	-----	0.2077	-----	0.1271
45)	T	2-Chloroethylvinyl E	LinF	-----	0.1159	-----	0.9996
46)	T	cis-1,3-Dichloroprop	Avg	-----	0.2924	-----	0.1343
47)	T	4-Methyl-2-Pentanone	Avg	-----	0.0250	-----	0.1389
48)	S	Toluene d-8 SS#2	Avg	-----	0.8768	-----	0.0129
49)	M,C	TOLUENE	Avg	-----	0.4830	-----	0.0486
50)	T	trans-1,3-Dichloropr	LinF	-----	0.2785	-----	0.9997
51)	T	1,1,2-Trichloroethan	Avg	-----	0.1328	-----	0.0770
52)	T	Tetrachloroethene	Avg	-----	0.1194	-----	0.0555
53)	T	2-Hexanone (MBK)	Avg	-----	0.1082	-----	0.1231
54)	I	Chlorobenzene d-5 IS	ISTD				
55)	T	1,3-Dichloropropane	Avg	-----	0.4178	-----	0.0649
56)	T	Dibromochloromethane	LinF	-----	0.2558	-----	0.9989
57)	T	1,2-Dibromoethane	Avg	-----	0.2459	-----	0.1040
58)	M,P	Chlorobenzene	Avg	-----	0.7508	-----	0.0457
59)	T	1,1,1,2-Tetrachloroe	Avg	-----	0.2111	-----	0.1401

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration

Calibration Files
1 =13040810 2 =13040811 3 =13040812 4 =13040813 5 =13040814
6 =13040815 7 =13040816 8 =13040817

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
60)	C	ETHYLBENZENE	Avg	-----	1.1216	-----	0.0480
61)	T	m&p-Xylene	Avg	-----	0.4531	-----	0.0528
62)	T	o-Xylene	Avg	-----	0.4515	-----	0.0612
63)	T	Styrene	Avg	-----	0.8253	-----	0.0892
64)	P	Bromoform	LinF	-----	0.1579	-----	0.9985
65)	T	1,2,3-Trichloropropa	Avg	-----	0.2116	-----	0.0589
66)	T	Bromobenzene	Avg	-----	0.2632	-----	0.0794
67)	T	trans-1,4-dichloro-2	LinF	-----	0.0687	-----	0.9991
68)	T	n-Propylbenzene	Avg	-----	1.0401	-----	0.0582
69)	I	1,4-Dichlorobenzene		ISTD			
70)	T	Isopropylbenzene	Avg	-----	2.4216	-----	0.0486
71)	S	4-Bromofluorobenzene	Avg	-----	1.2306	-----	0.0334
72)	P	1,1,2,2-Tetrachloroe	Avg	-----	0.7570	-----	0.0668
73)	T	2-Chlorotoluene	Avg	-----	1.7626	-----	0.0480
74)	T	4-Chlorotoluene	Avg	-----	2.0109	-----	0.0433
75)	T	1,3,5-Trimethylbenze	Avg	-----	1.8767	-----	0.0685
76)	T	tert-Butylbenzene	Avg	-----	1.3846	-----	0.0503
77)	T	1,2,4-Trimethylbenze	Avg	-----	1.9447	-----	0.0484
78)	T	sec-Butylbenzene	Avg	-----	2.1088	-----	0.0426
79)	T	4-Isopropyltoluene	Avg	-----	1.7267	-----	0.0561
80)	T	1,3-Dichlorobenzene	Avg	-----	1.0865	-----	0.0434
81)	T	1,4-Dichlorobenzene	Avg	-----	1.1243	-----	0.0397
82)	T	1,2-Dichlorobenzene	Avg	-----	1.0302	-----	0.0534
83)	T	n-Butylbenzene	Avg	-----	1.5412	-----	0.0539
84)	T	1,2-Dibromo-3-chloro	Avg	-----	0.0781	-----	0.1390
85)	T	1,2,4-Trichlorobenze	Avg	-----	0.4507	-----	0.0676
86)	T	Naphthalene	Avg	-----	1.2630	-----	0.0750
87)	T	1,2,3-Trichlorobenze	Avg	-----	0.3774	-----	0.0706

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:39 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	568090	50.00	ug/L	0.02
54) Chlorobenzene d-5 ISTD	11.00	117	389154	50.00	ug/L	0.02
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	142993	50.00	ug/L	0.01
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	126234	0.00	ug/L	0.02
Spiked Amount 50.000	Range 94 - 107		Recovery =	0.00%#		
48) Toluene d-8 SS#2	9.26	98	494292	0.00	ug/L	0.01
Spiked Amount 50.000	Range 96 - 104		Recovery =	0.00%#		
71) 4-Bromofluorobenzene SS#3	12.42	95	179831	0.00	ug/L	0.01
Spiked Amount 50.000	Range 89 - 112		Recovery =	0.00%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.51	85	2124	No Calib		
3) Chloromethane	1.74	50	3916	No Calib		
4) VINYL CHLORIDE	1.83	62	3724	No Calib		
5) Bromomethane	2.16	94	3724	No Calib		
6) Chloroethane	2.28	64	1422	No Calib		
7) Trichlorofluoromethane	2.54	101	1766	No Calib		
8) acrolein	0.00	56	0	N.D.		
9) Acetone	0.00	58	0	N.D.		
10) 1,1-DICHLOROETHENE	3.19	96	1388	No Calib		
11) 1,1,2-Trichlorotrifluoroet	3.24	101	281	No Calib		
12) iodomethane	3.38	142	2431	No Calib		
13) Carbon Disulfide	3.44	76	5537	No Calib		
14) Methyl Acetate	0.00	74	0	N.D.		
15) Methylene chloride	3.89	84	4247	No Calib		
16) tert-Butanol	0.00	59	0	N.D.		
17) acrylonitrile	4.29	53	255	No Calib		#
18) trans-1,2-Dichloroethene	4.28	96	1582	No Calib		
19) Methyl-t-Butyl Ether	4.33	73	4282	No Calib		
20) 1,1-Dichloroethane	4.93	63	2846	No Calib		
21) vinyl acetate	5.07	43	3633	No Calib		
22) Diisopropyl ether	5.12	45	7321	No Calib		
23) tert-Butyl ethyl ether	5.64	59	5788	No Calib		
24) 2,2-Dichloropropane	5.75	77	938	No Calib		#
25) cis-1,2-Dichloroethene	5.78	96	2439	No Calib		
26) 2-Butanone (MEK)	0.00	72	0	N.D.		
27) Bromochloromethane	6.11	128	860	No Calib		#
28) CHLOROFORM	6.24	83	3139	No Calib		
30) 1,1,1-Trichloroethane	6.44	97	1644	No Calib		
31) Cyclohexane	6.50	56	1438	No Calib		#
32) Carbon tetrachloride	6.66	117	1182	No Calib		
33) 1,1-Dichloropropene	6.67	75	2313	No Calib		
34) Benzene	6.93	78	9270	No Calib		
35) 1,2-Dichloroethane	6.98	62	1991	No Calib		
36) tert-Amyl alcohol	0.00	59	0	N.D.		
37) tert-Amyl methyl ether	7.14	73	4939	No Calib		
38) Trichloroethene	7.77	95	2075	No Calib		
39) 1,2-DICHLOROPROPANE	8.05	63	2036	No Calib		#
40) Methylcyclohexane	7.99	83	1460	No Calib		
41) tert-Amyl ethyl ether	8.15	59	4438	No Calib		
42) Dibromomethane	8.18	93	1099	No Calib		
43) 1,4-Dioxane	8.14	88	31	No Calib		#
44) Bromodichloromethane	8.40	83	1970	No Calib		#
45) 2-Chloroethylvinyl Ether	8.81	63	832	No Calib		
46) cis-1,3-Dichloropropene	8.95	75	2712	No Calib		
47) 4-Methyl-2-Pentanone (MIBK	0.00	100	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:39 2013 Quant Results File: VOC-W.RES

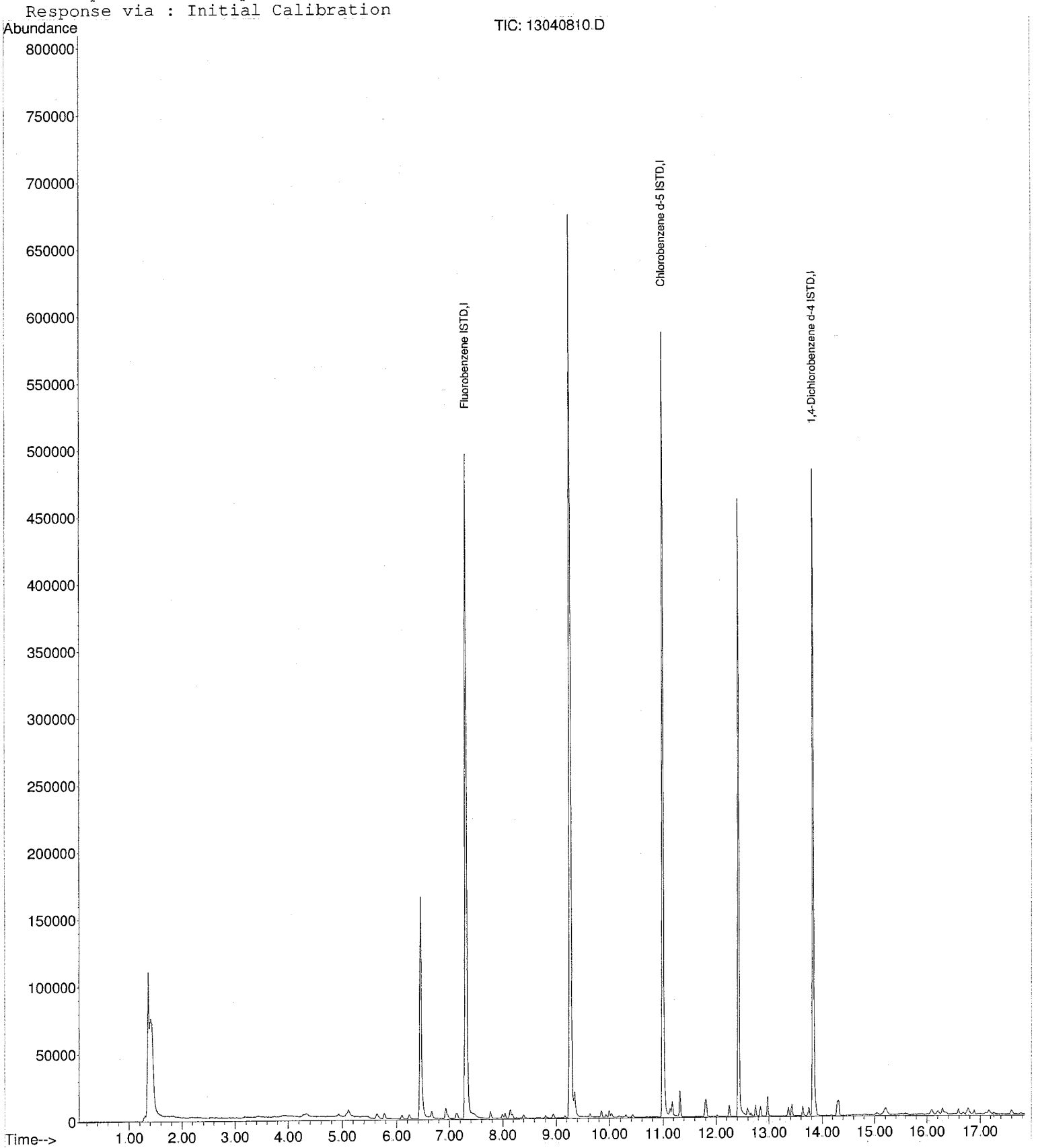
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
49)	TOLUENE	9.34	92	5431	No Calib	
50)	trans-1,3-Dichloropropene	9.63	75	1963	No Calib	
51)	1,1,2-Trichloroethane	9.84	83	1344	No Calib	
52)	Tetrachloroethene	10.00	164	1346	No Calib	
53)	2-Hexanone (MBK)	10.18	43	940	No Calib	#
55)	1,3-Dichloropropane	10.04	76	2943	No Calib	
56)	Dibromochloromethane	10.31	129	1156	No Calib	
57)	1,2-Dibromoethane	10.43	107	1542	No Calib	#
58)	Chlorobenzene	11.03	112	5821	No Calib	
59)	1,1,1,2-Tetrachloroethane	11.13	131	1257	No Calib	#
60)	ETHYLBENZENE	11.18	91	8401	No Calib	
61)	m&p-Xylene	11.32	106	6712	No Calib	
62)	o-Xylene	11.79	106	3295	No Calib	
63)	Styrene	11.81	104	5503	No Calib	
64)	Bromoform	12.02	173	553	No Calib	#
65)	1,2,3-Trichloropropane	12.66	75	1671	No Calib	
66)	Bromobenzene	12.60	156	1797	No Calib	#
67)	trans-1,4-dichloro-2-buten	12.70	53	195	No Calib	#
68)	n-Propylbenzene	12.75	91	7767	No Calib	
70)	Isopropylbenzene	12.25	105	6800	No Calib	
72)	1,1,2,2-Tetrachloroethane	12.62	83	1982	No Calib	
73)	2-Chlorotoluene	12.84	91	5358	No Calib	
74)	4-Chlorotoluene	12.98	91	5811	No Calib	
75)	1,3,5-Trimethylbenzene	12.97	105	4819	No Calib	
76)	tert-Butylbenzene	13.36	119	4028	No Calib	
77)	1,2,4-Trimethylbenzene	13.42	105	5476	No Calib	
78)	sec-Butylbenzene	13.64	105	5889	No Calib	
79)	4-Isopropyltoluene	13.82	119	4957	No Calib	
80)	1,3-Dichlorobenzene	13.75	146	3158	No Calib	
81)	1,4-Dichlorobenzene	13.86	146	3249	No Calib	#
82)	1,2-Dichlorobenzene	14.31	146	2886	No Calib	
83)	n-Butylbenzene	14.32	91	4201	No Calib	
84)	1,2-Dibromo-3-chloropropan	15.27	75	35	No Calib	#
85)	1,2,4-Trichlorobenzene	16.30	180	1296	No Calib	
86)	Naphthalene	16.59	128	3629	No Calib	
87)	1,2,3-Trichlorobenzene	16.89	180	1127	No Calib	

(#) = qualifier out of range (m) = manual integration

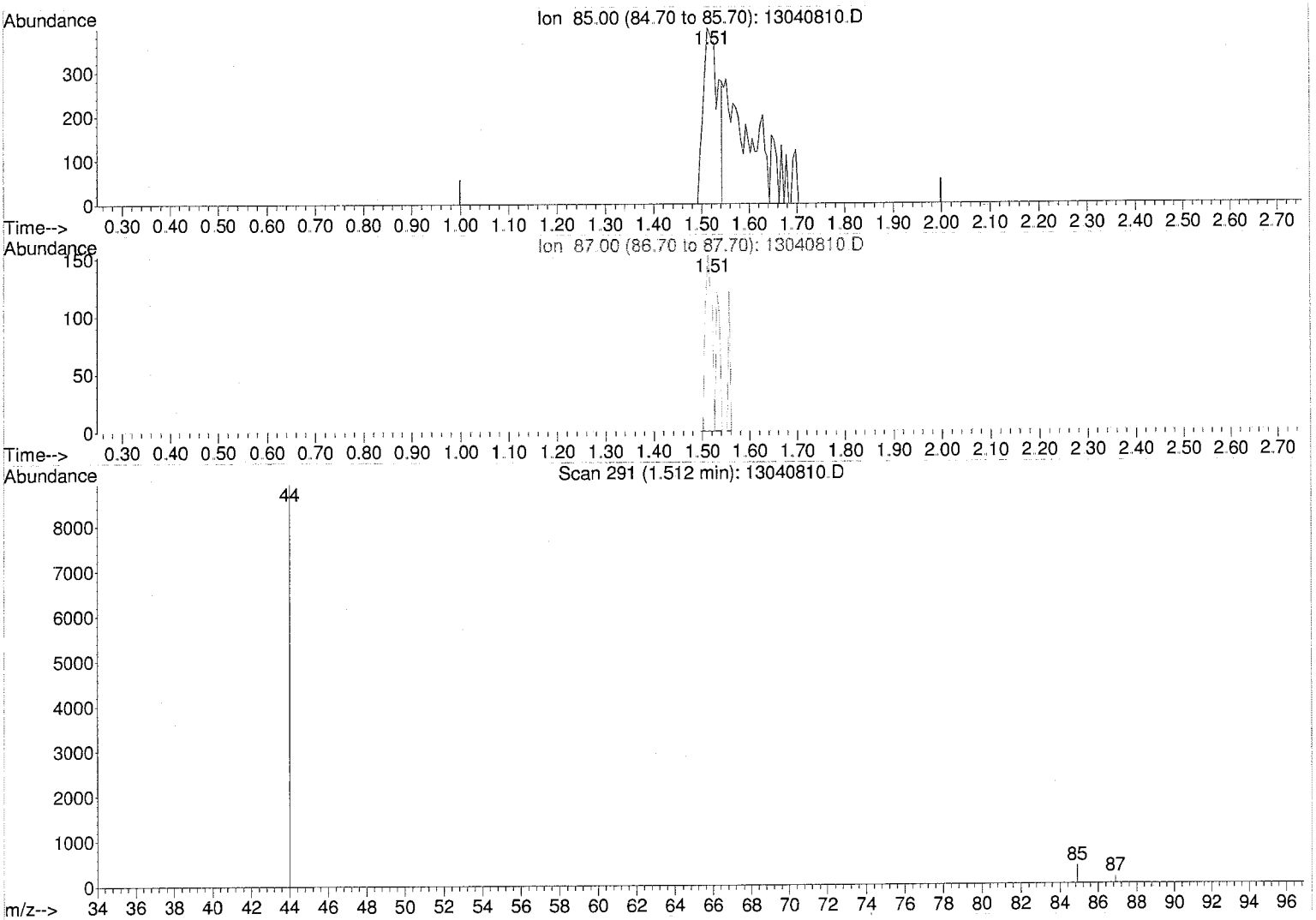
Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:44 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(2) Dichlorodifluoromethane (T)

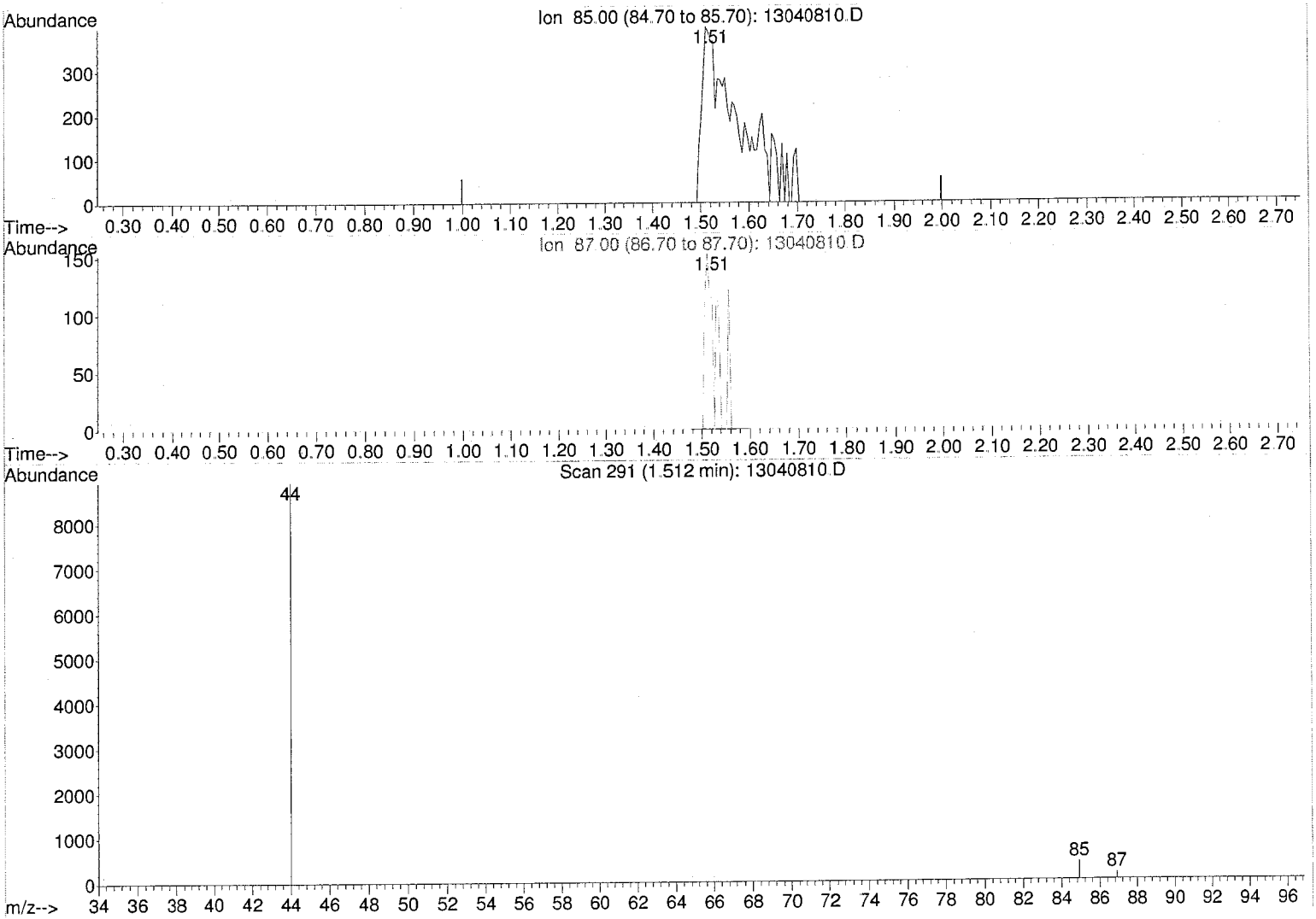
1.51min 0.00ug/L

response 872

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	16.86
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(2) Dichlorodifluoromethane (T)

1.51min 0.00ug/L m

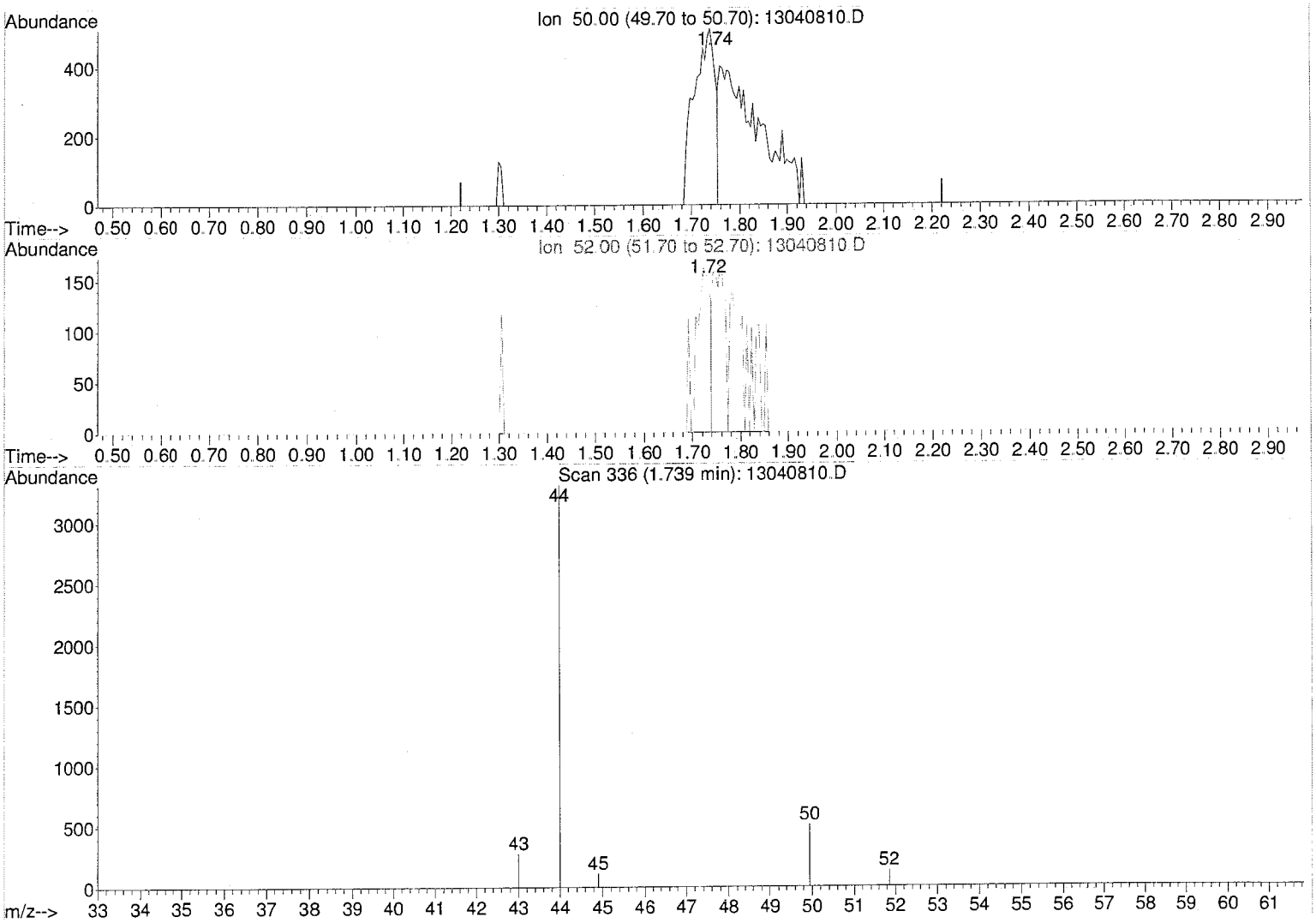
response 2124

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	11.77#
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(3) Chloromethane (P)

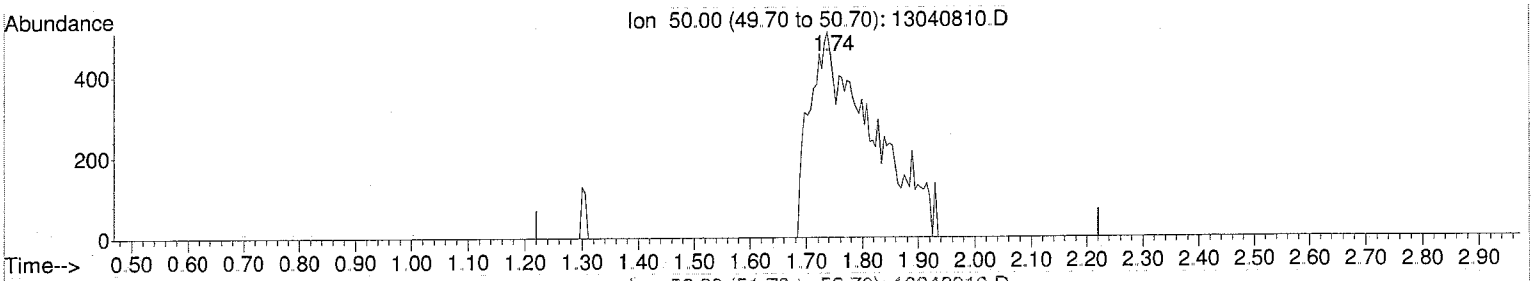
1.74min 0.00ug/L

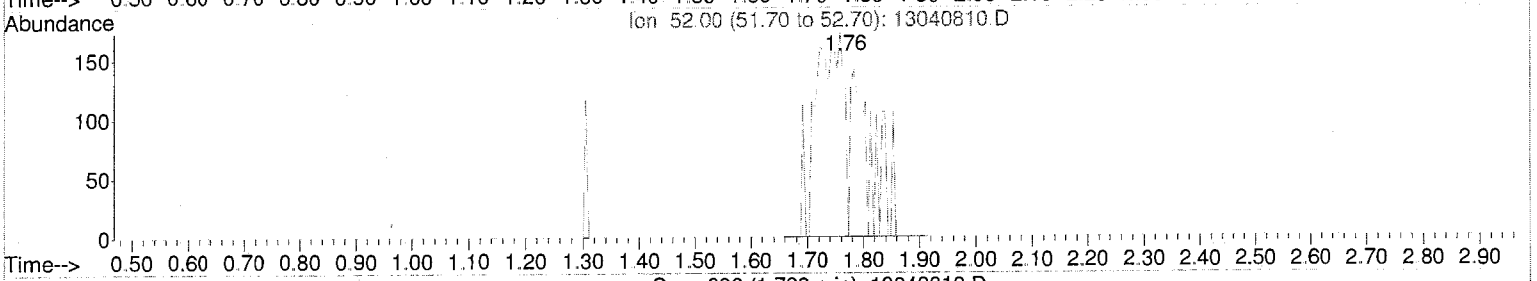
response 1541

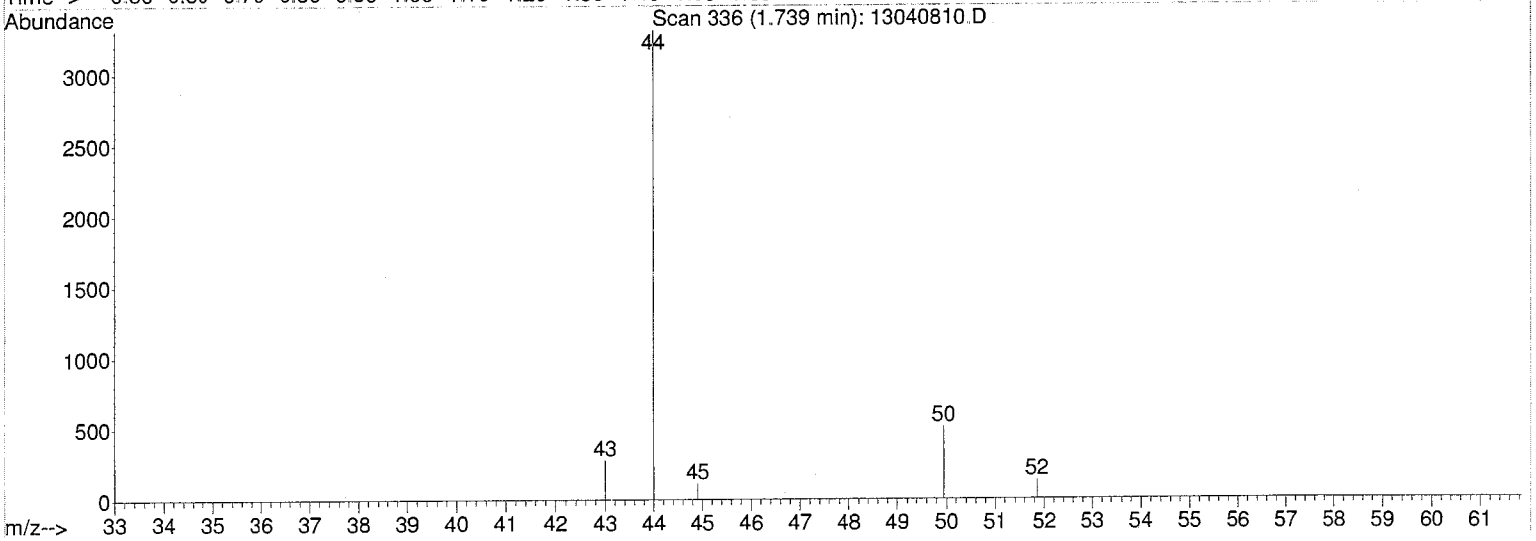
Ion	Exp%	Act%
50.00	100	100
52.00	33.40	18.56
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration







TIC: 13040810.D

(3) Chloromethane (P)

1.74min 0.00ug/L m

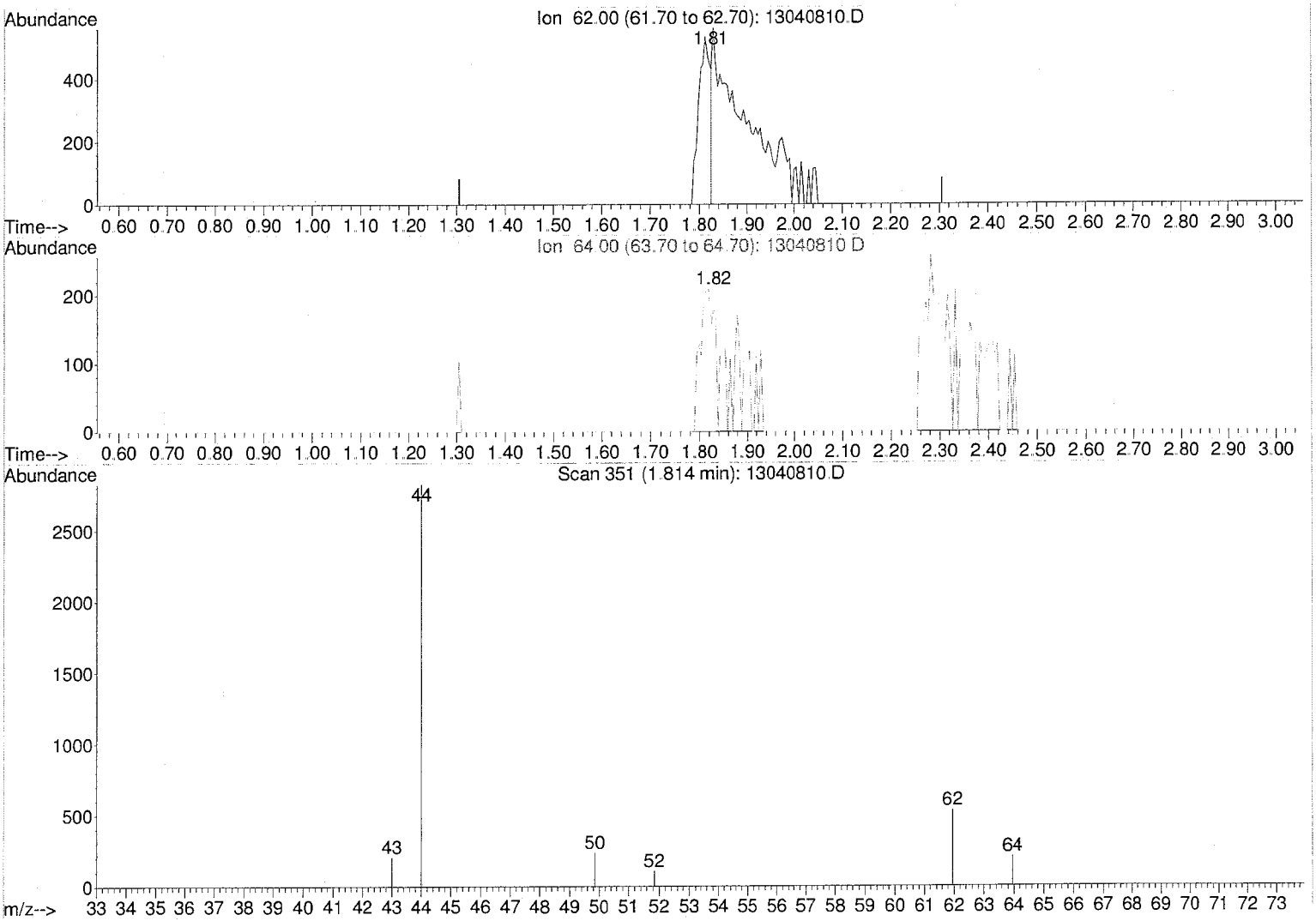
response 3916

Ion	Exp%	Act%
50.00	100	100
52.00	33.40	24.62
0.00	0.00	0.00
0.00	0.00	0.00

AIC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(4) VINYL CHLORIDE (C)

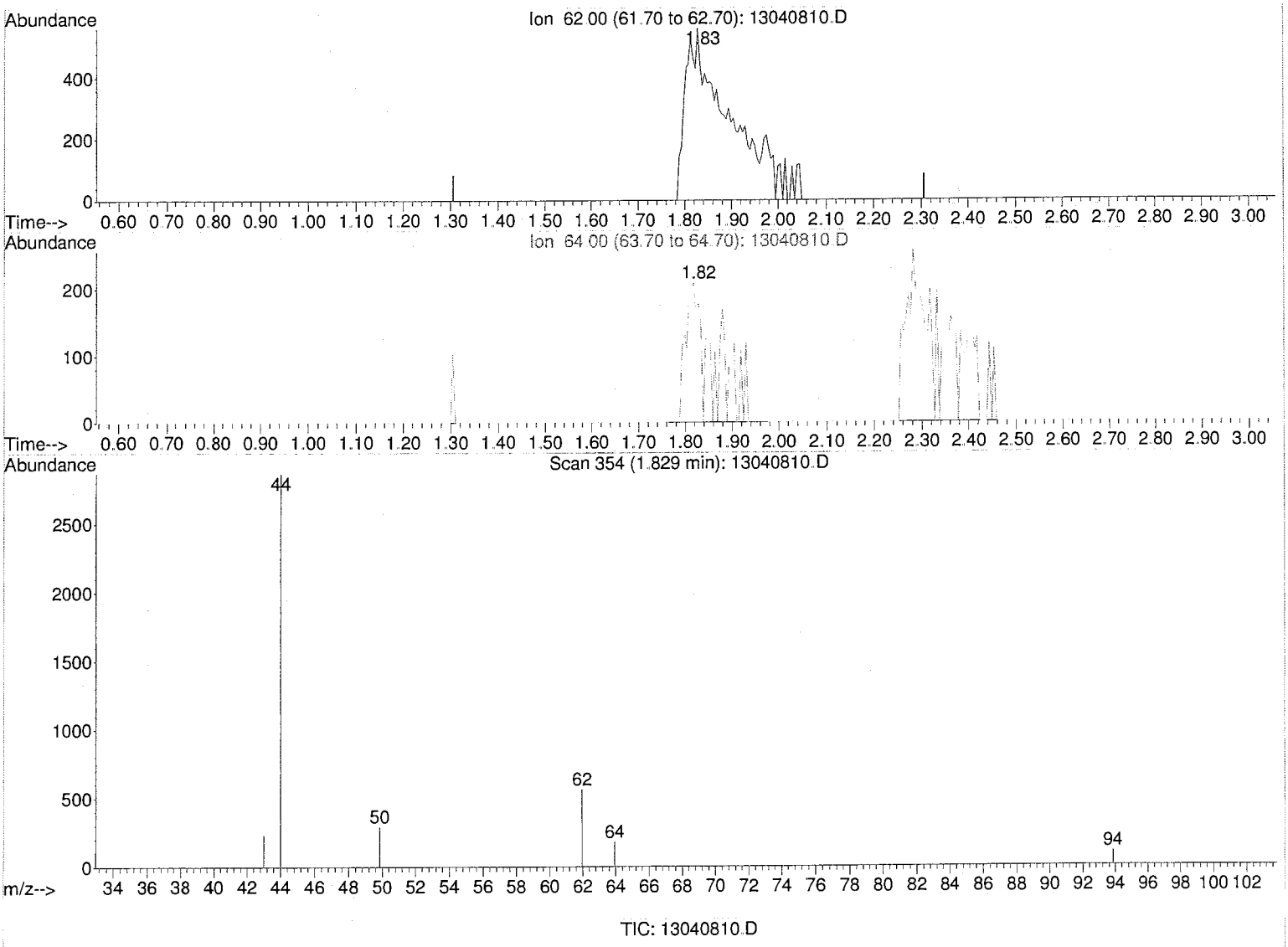
1.81min 0.00ug/L

response 892

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	48.88
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(4) VINYL CHLORIDE (C)

1.83min 0.00ug/L m

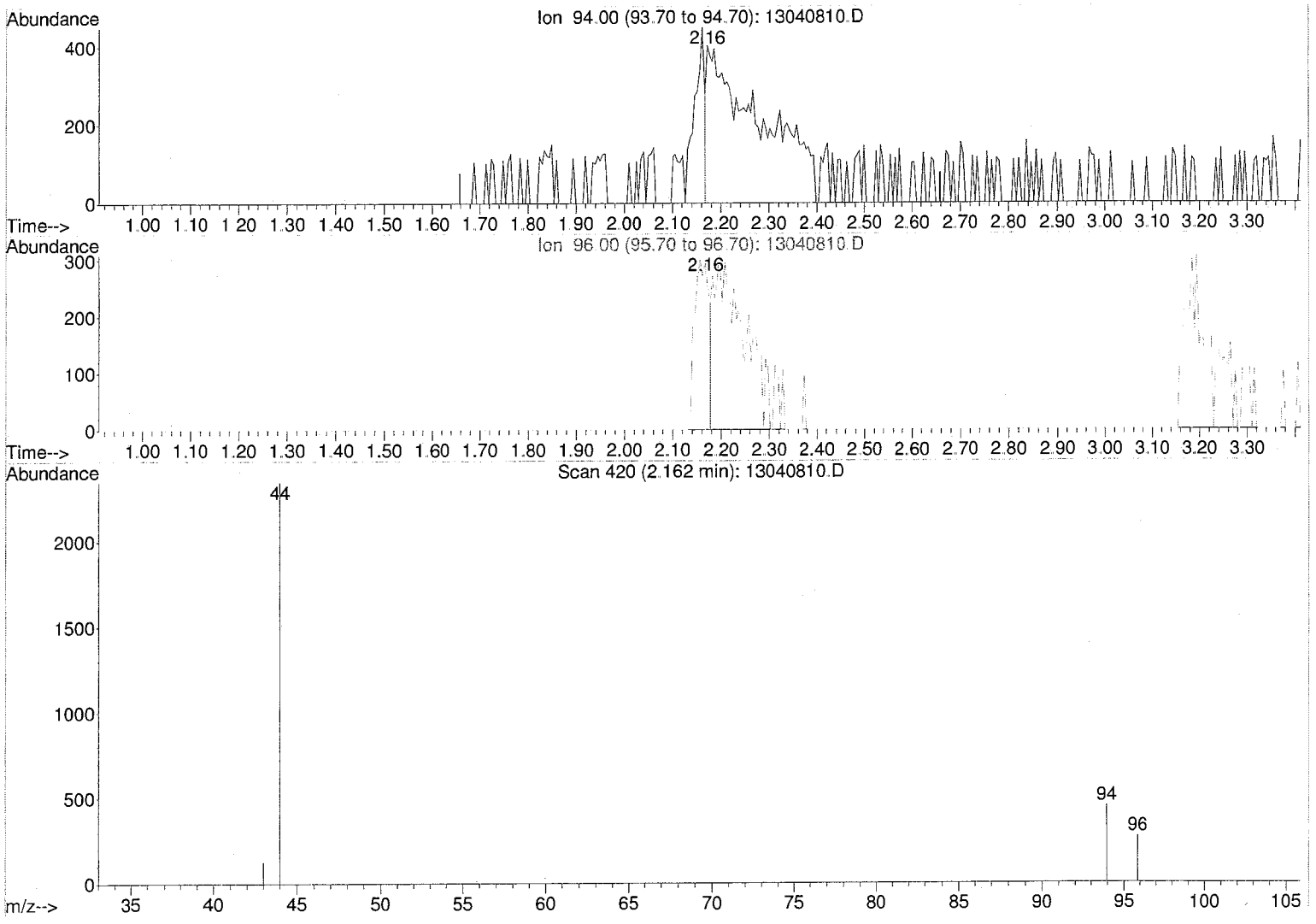
response 3724

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	23.44
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(5) Bromomethane (T)

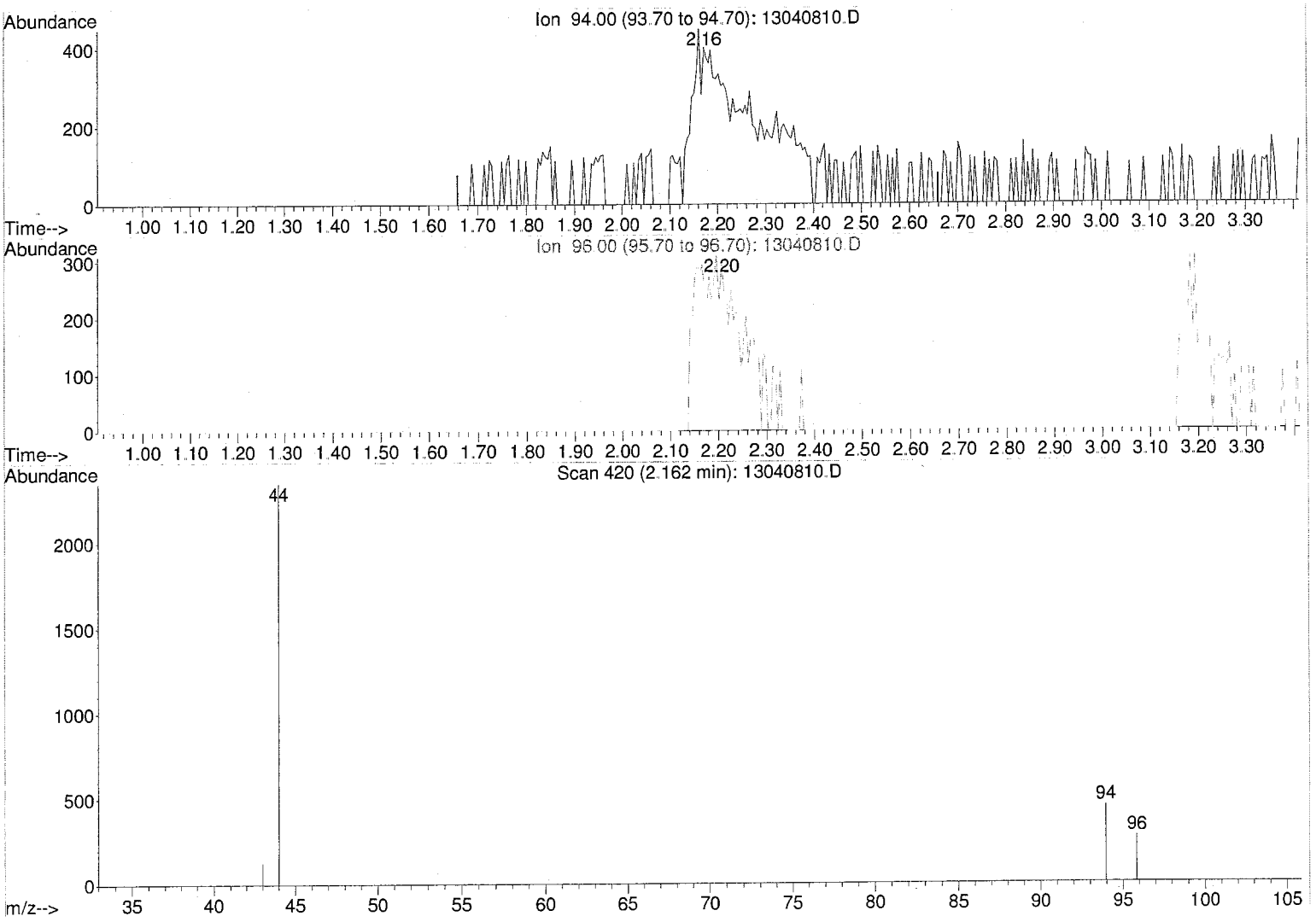
2.16min 0.00ug/L

response 638

Ion	Exp%	Act%
94.00	100	100
96.00	94.50	93.57
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:42 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(5) Bromomethane (T)

2.16min 0.00ug/L m

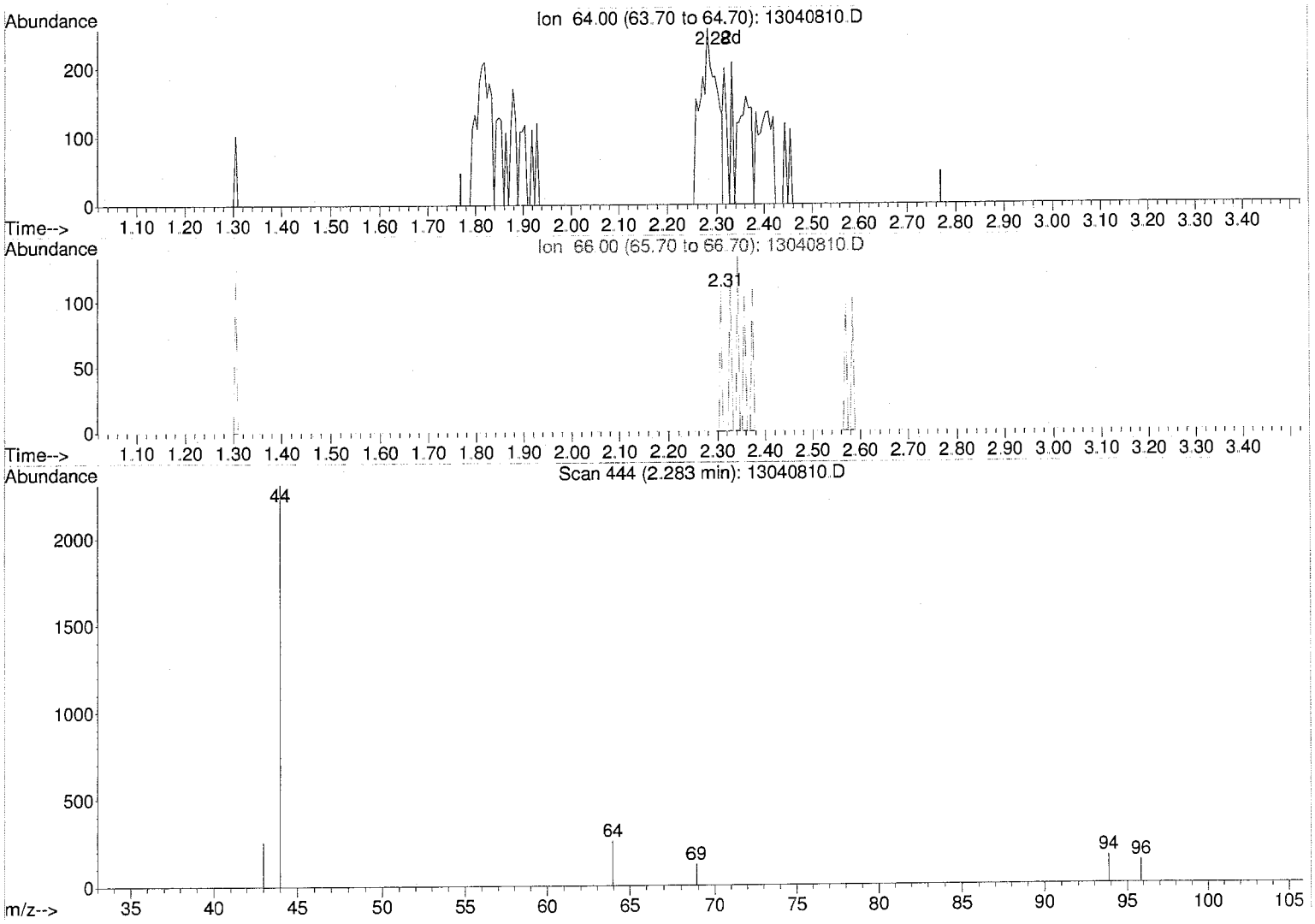
response 3724

Ion	Exp%	Act%
94.00	100	100
96.00	94.50	55.48#
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:42 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(6) Chloroethane (T)

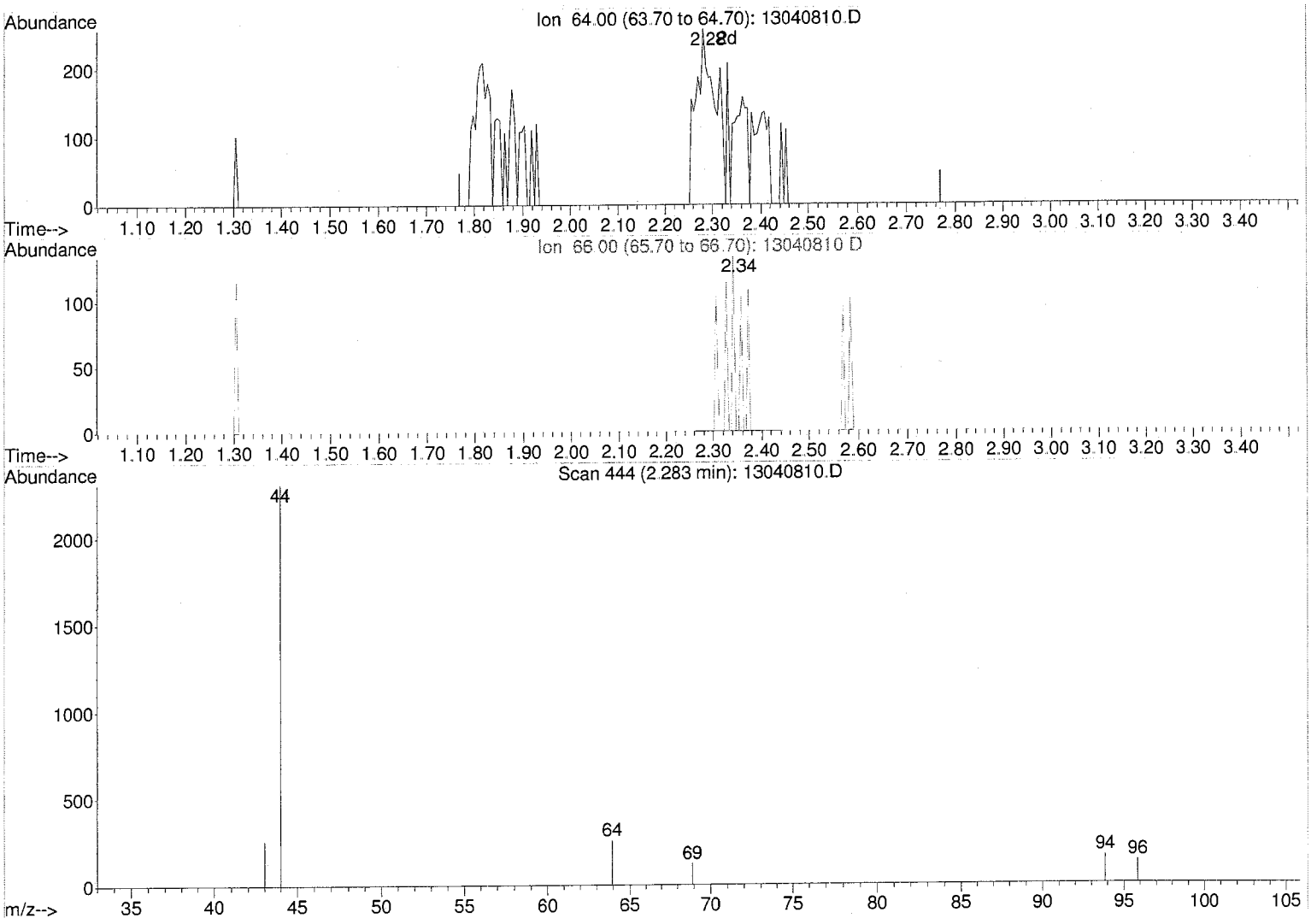
2.28min 0.00ug/L

response 622

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	5.14#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:42 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(6) Chloroethane (T)

2.28min 0.00ug/L m

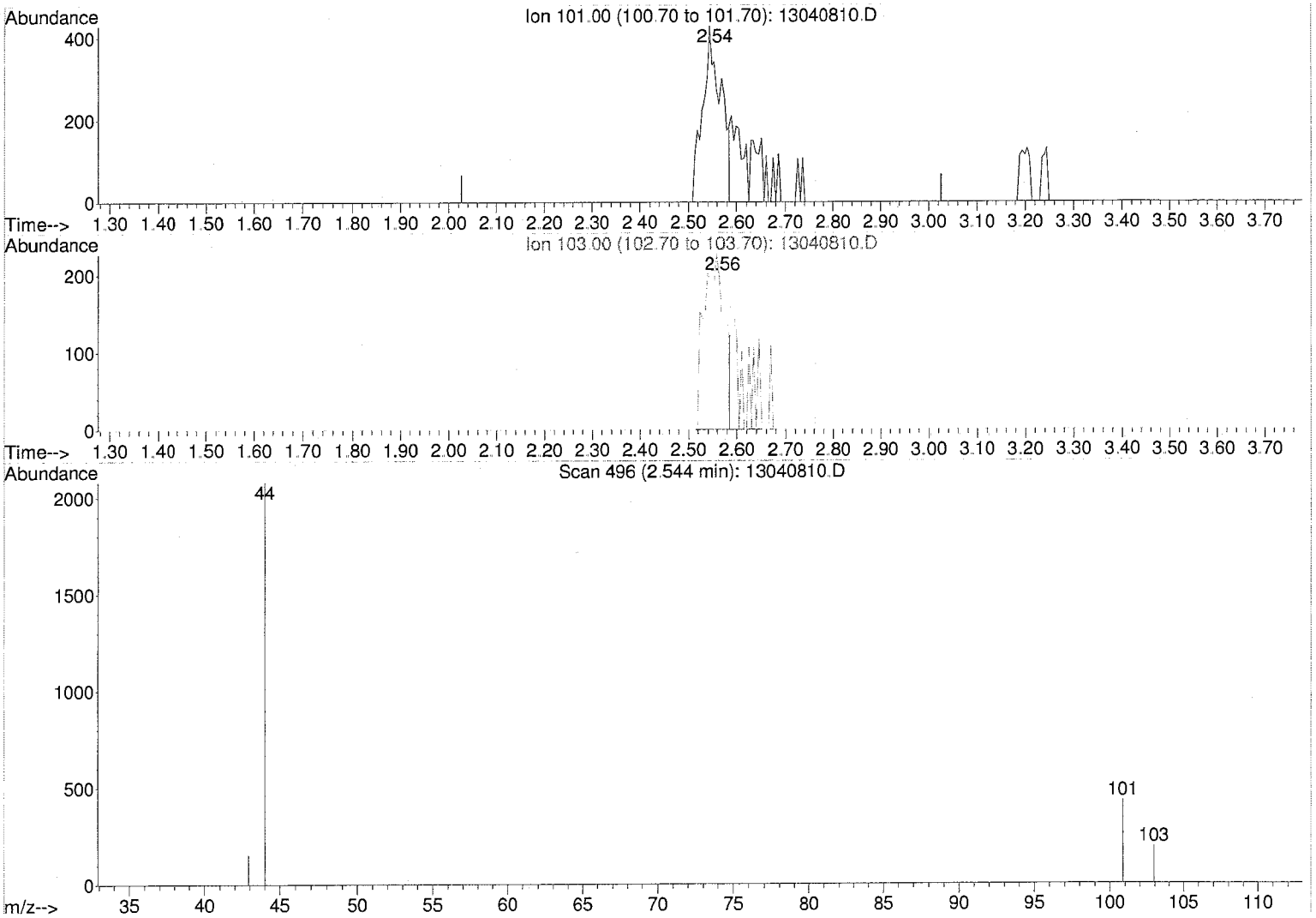
response 1422

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	12.03
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:42 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(7) Trichlorofluoromethane (T)

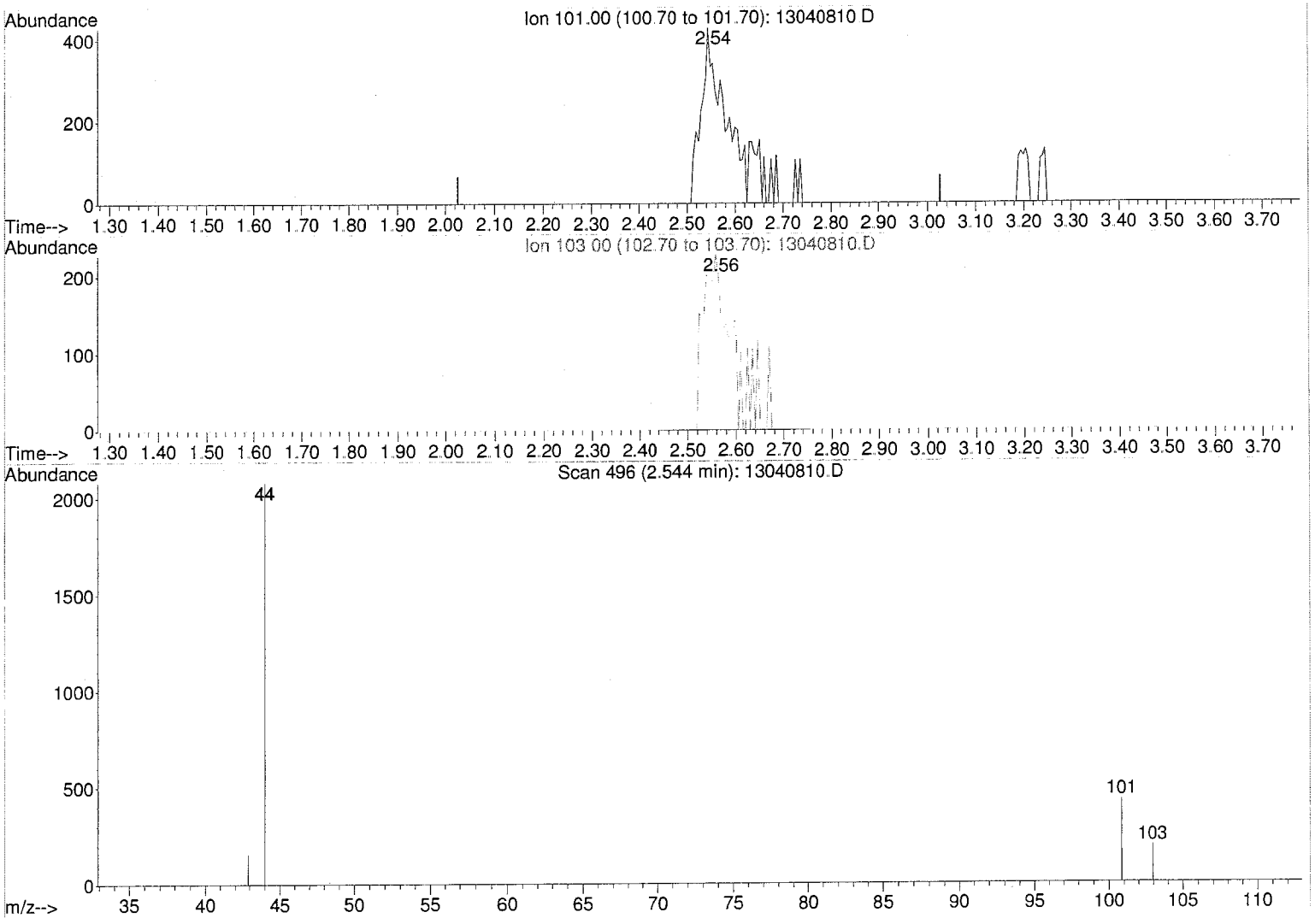
2.54min 0.00ug/L

response 1132

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	58.48
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:42 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(7) Trichlorofluoromethane (T)

2.54min 0.00ug/L m

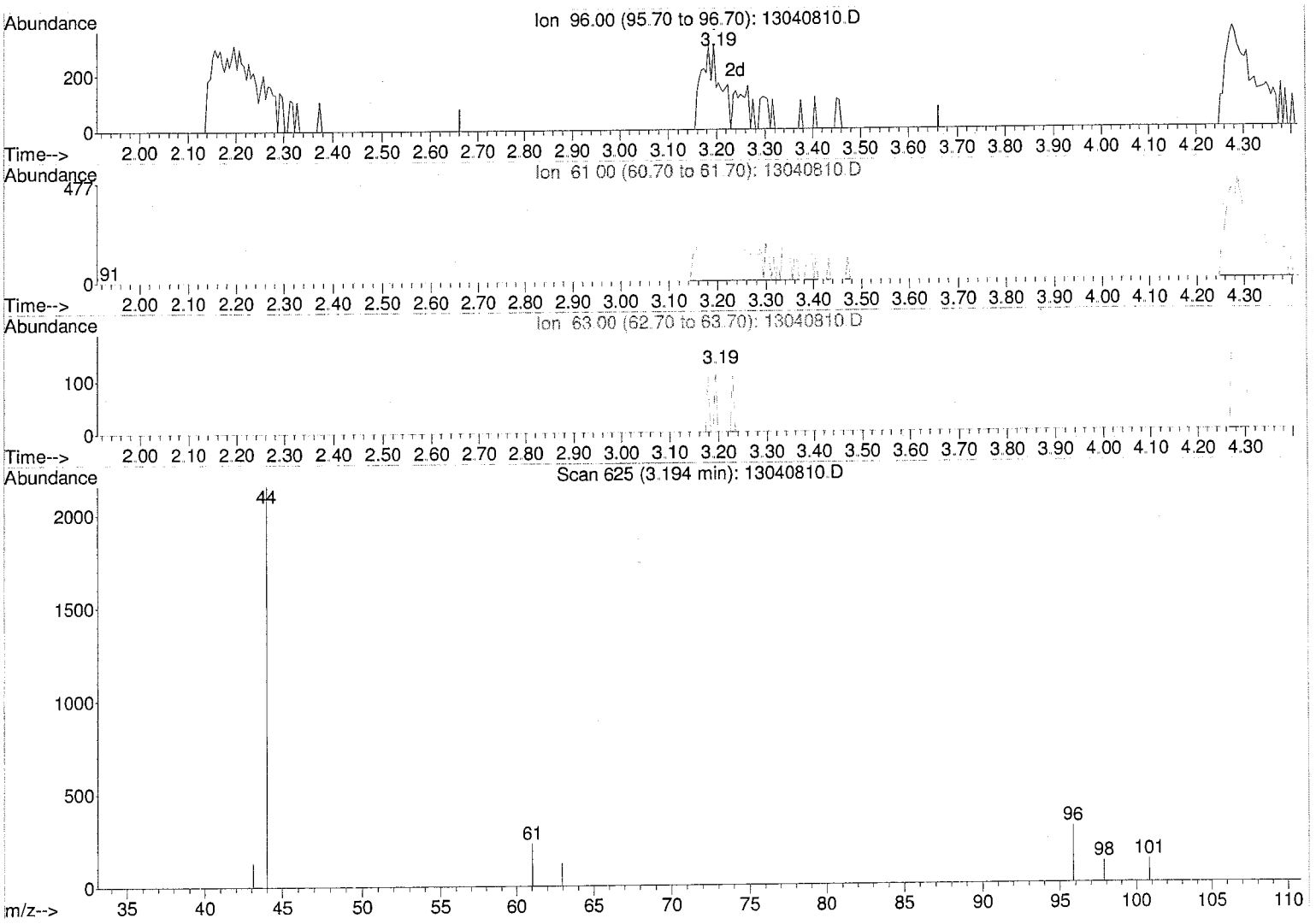
response 1766

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	53.51
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:42 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(10) 1,1-DICHLOROETHENE (M,C)

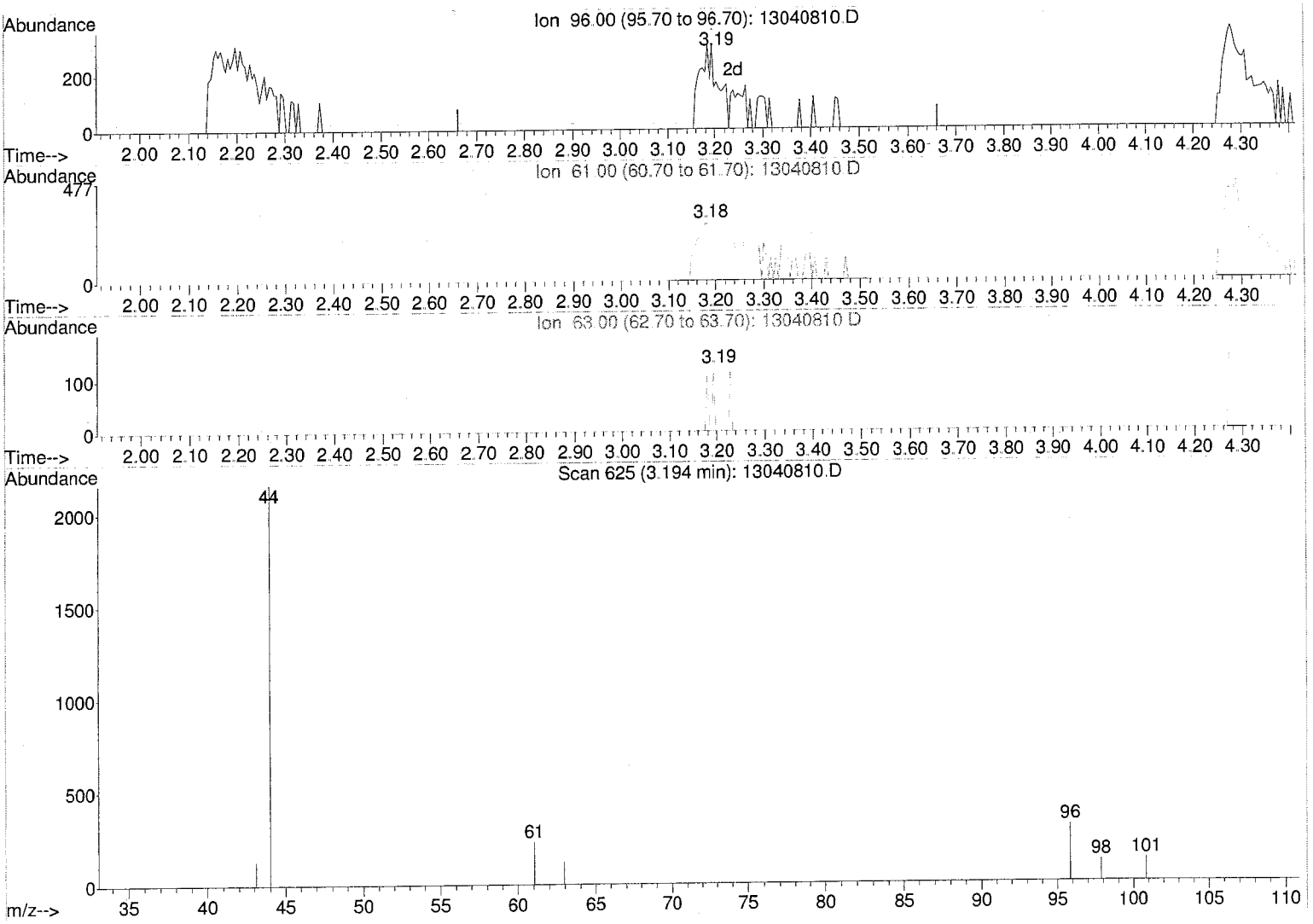
3.19min 0.00ug/L

response 797

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	0.00#
63.00	44.80	4.64#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:43 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(10) 1,1-DICHLOROETHENE (M,C)

3.19min 0.00ug/L m

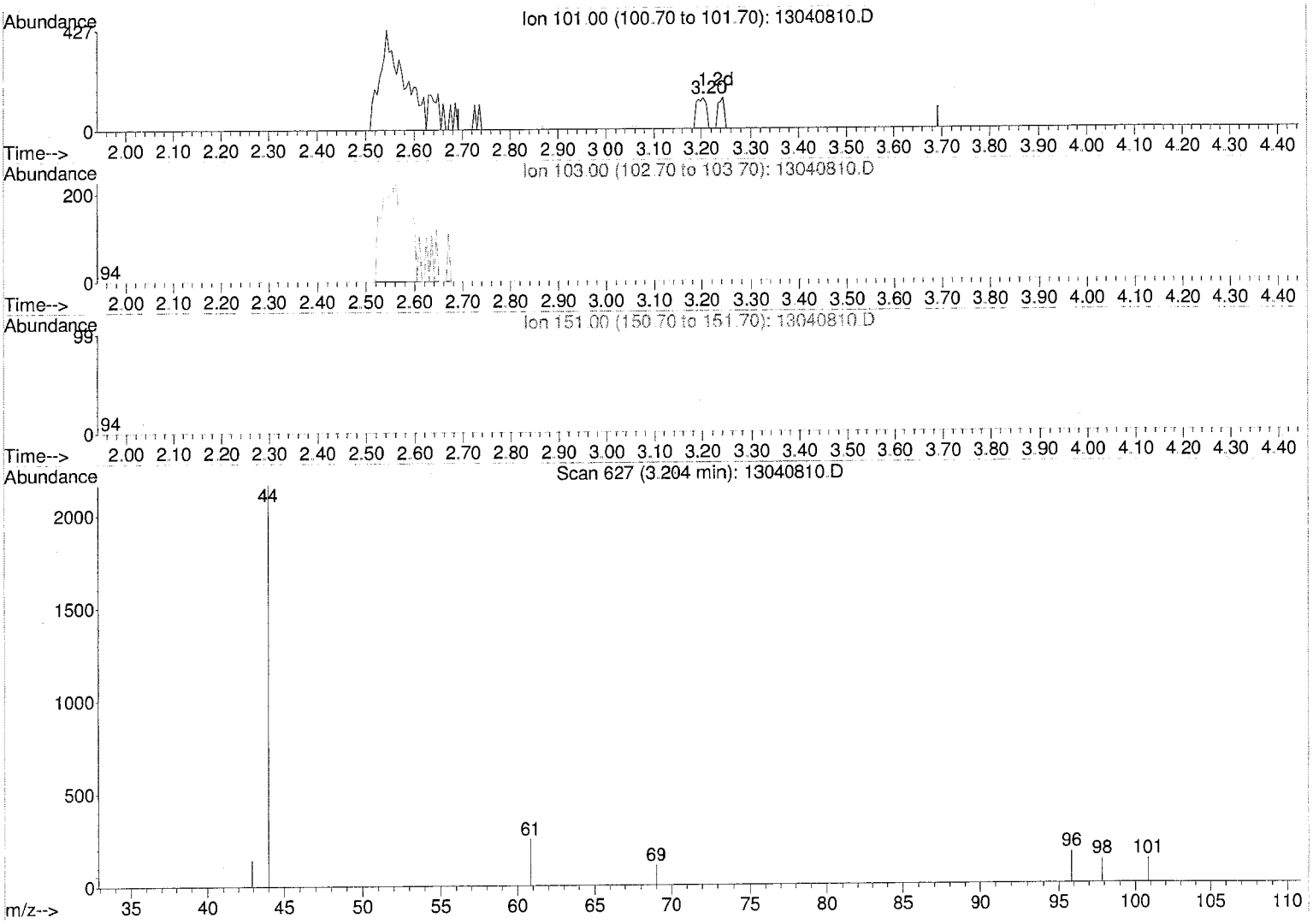
response 1388

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	156.20
63.00	44.80	7.35#
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:43 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

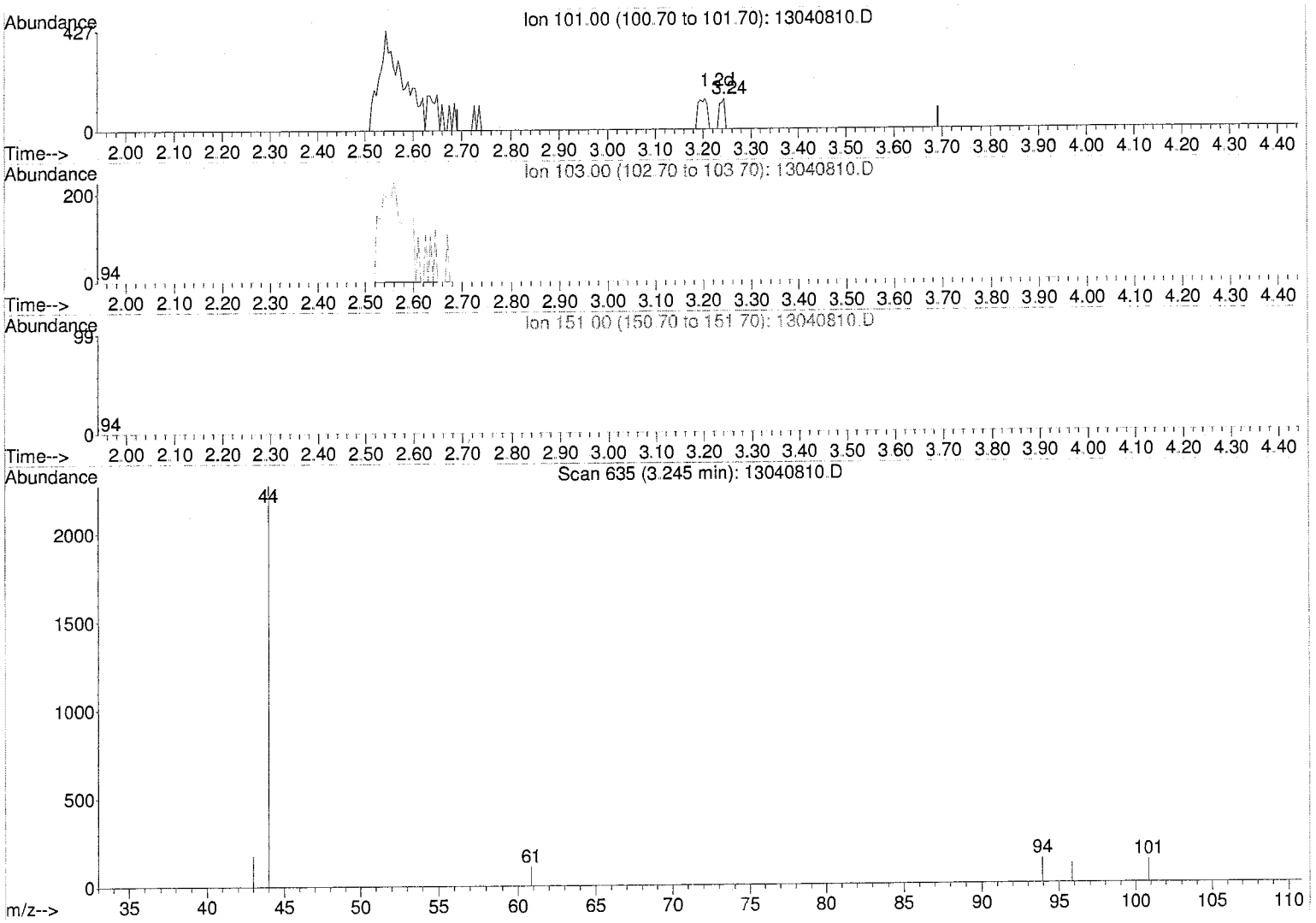
3.20min 0.00ug/L

response 176

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	0.00#
151.00	65.20	0.00#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:43 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.24min 0.00ug/L m

response 281

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	0.00#
151.00	65.20	0.00#
0.00	0.00	0.00

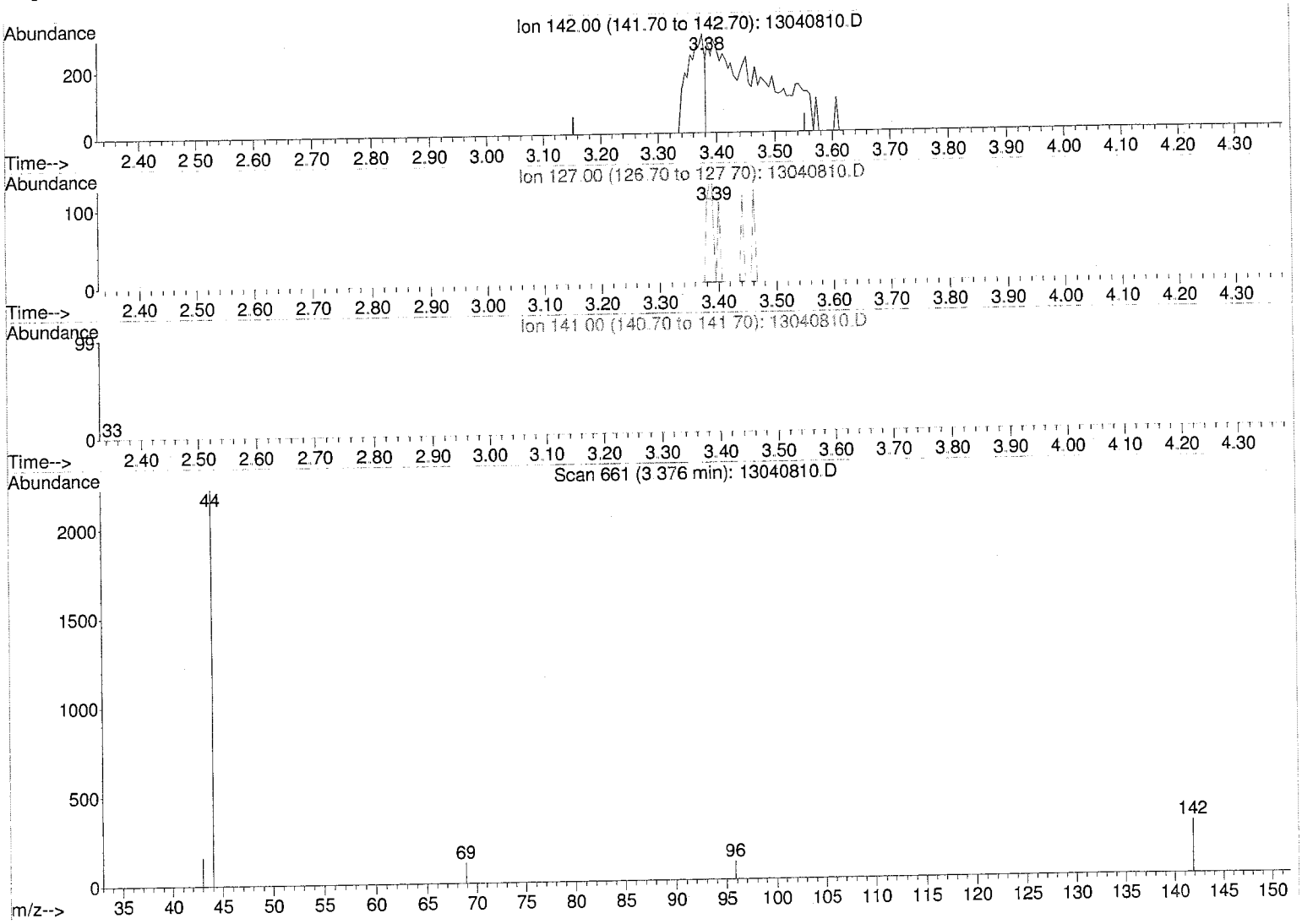
AC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D
Acq On : 8 Apr 2013 2:55 pm
Sample : CAL1 1ppb 5mL
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:43 2013

Vial: 10
Operator: AK
Inst : VOA2
Multiplr: 1.00

Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(12) iodomethane (T)

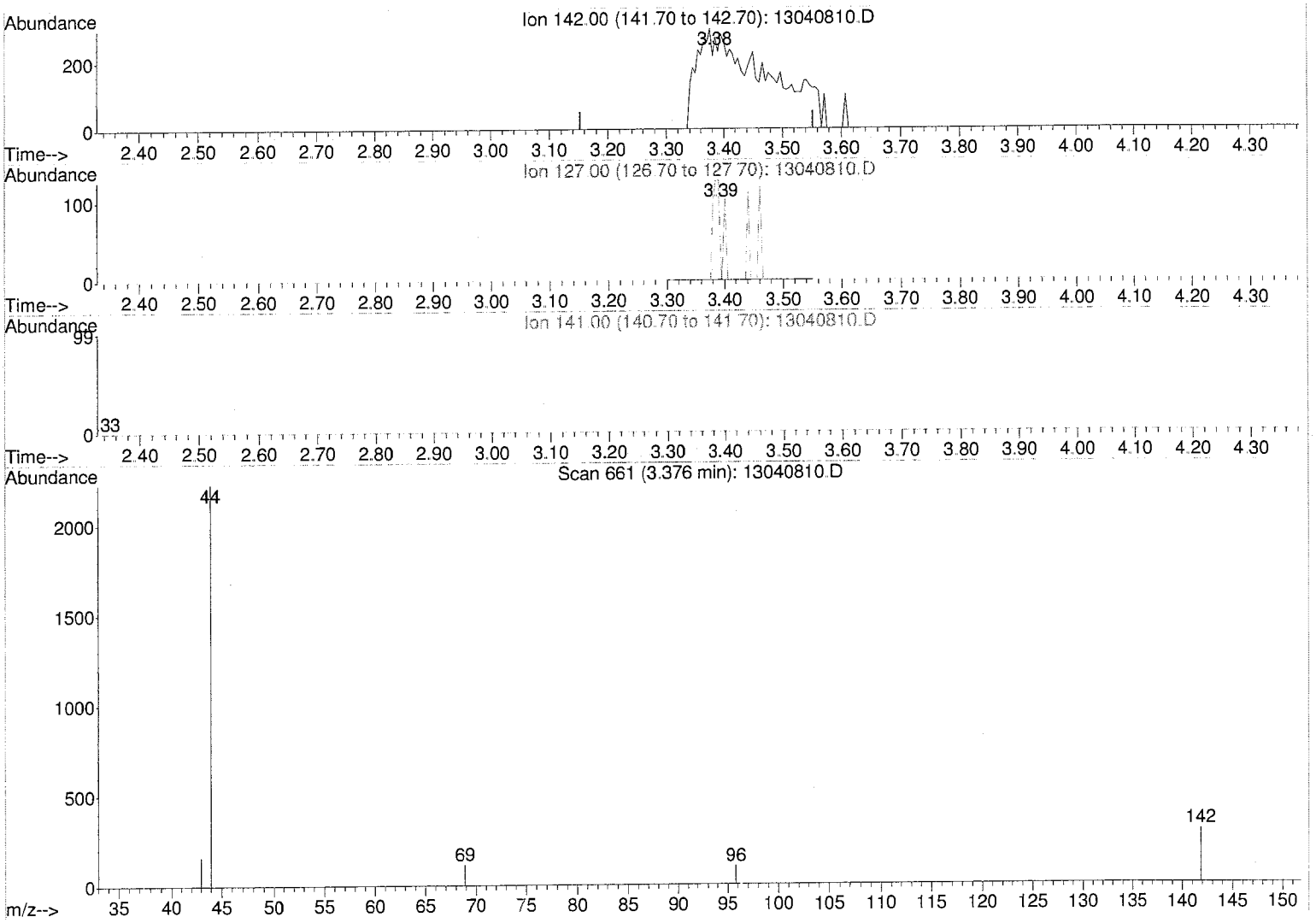
3.38min 0.00ug/L

response 592

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	23.31
141.00	14.80	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:43 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(12) iodomethane (T)

3.38min 0.00ug/L m

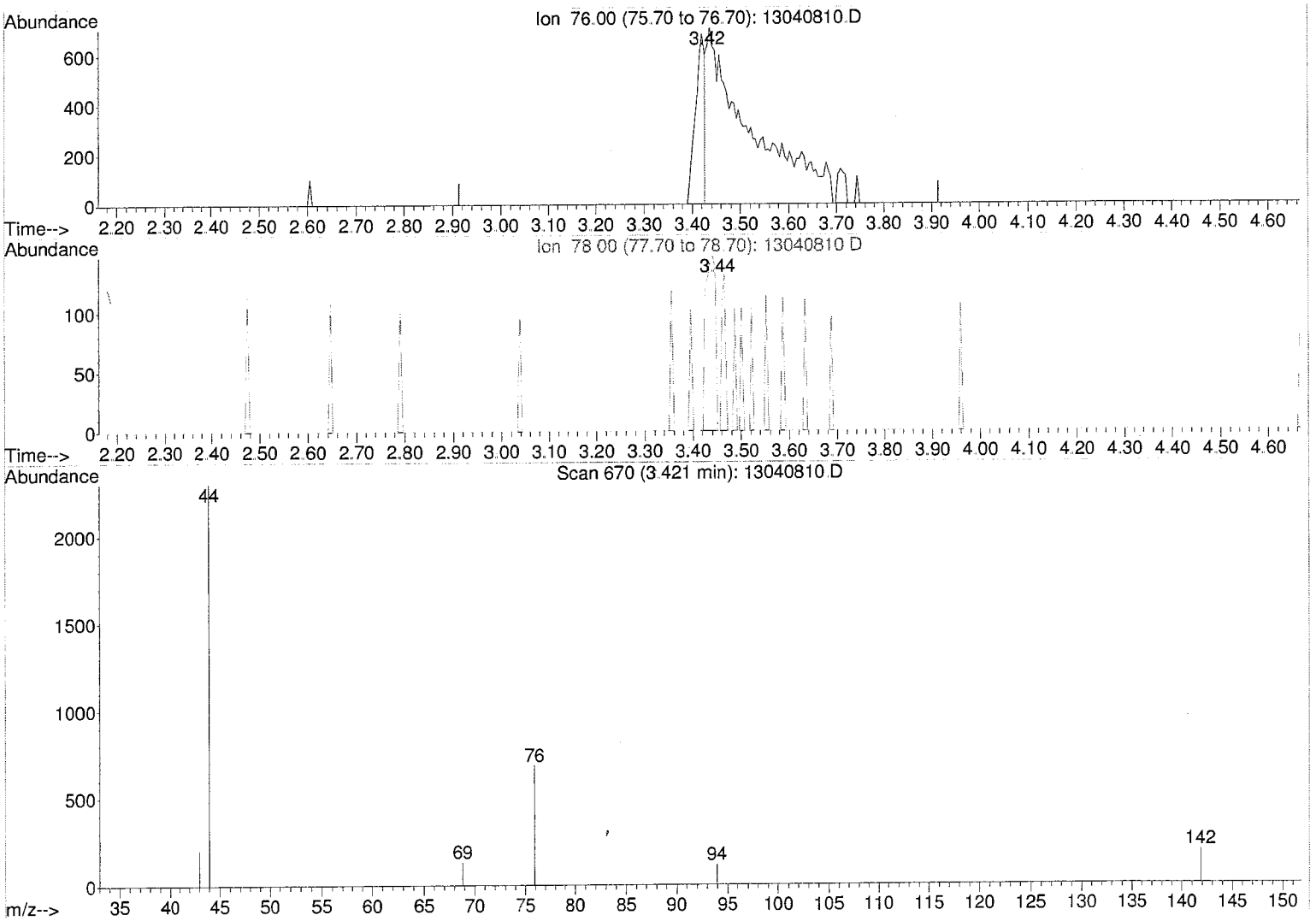
response 2431

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	8.52#
141.00	14.80	0.00
0.00	0.00	0.00

AL 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:43 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(13) Carbon Disulfide (T)

3.42min 0.00ug/L

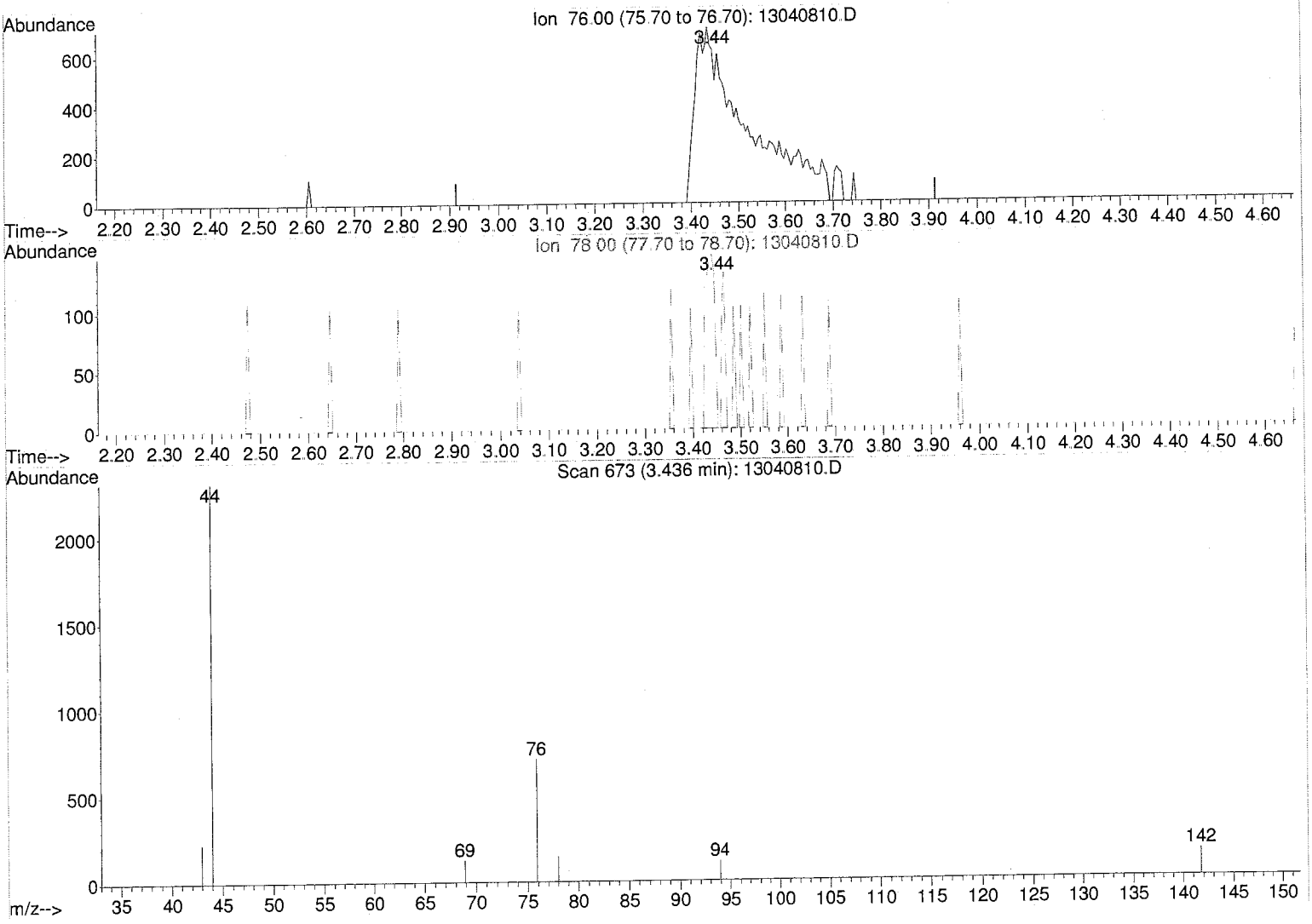
response 921

Ion	Exp%	Act%
76.00	100	100
78.00	5.60	22.15
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D
Acq On : 8 Apr 2013 2:55 pm
Sample : CAL1 1ppb 5mL
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:44 2013

Vial: 10
Operator: AK
Inst : VOA2
Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

AK 4/9/13

(13) Carbon Disulfide (T)

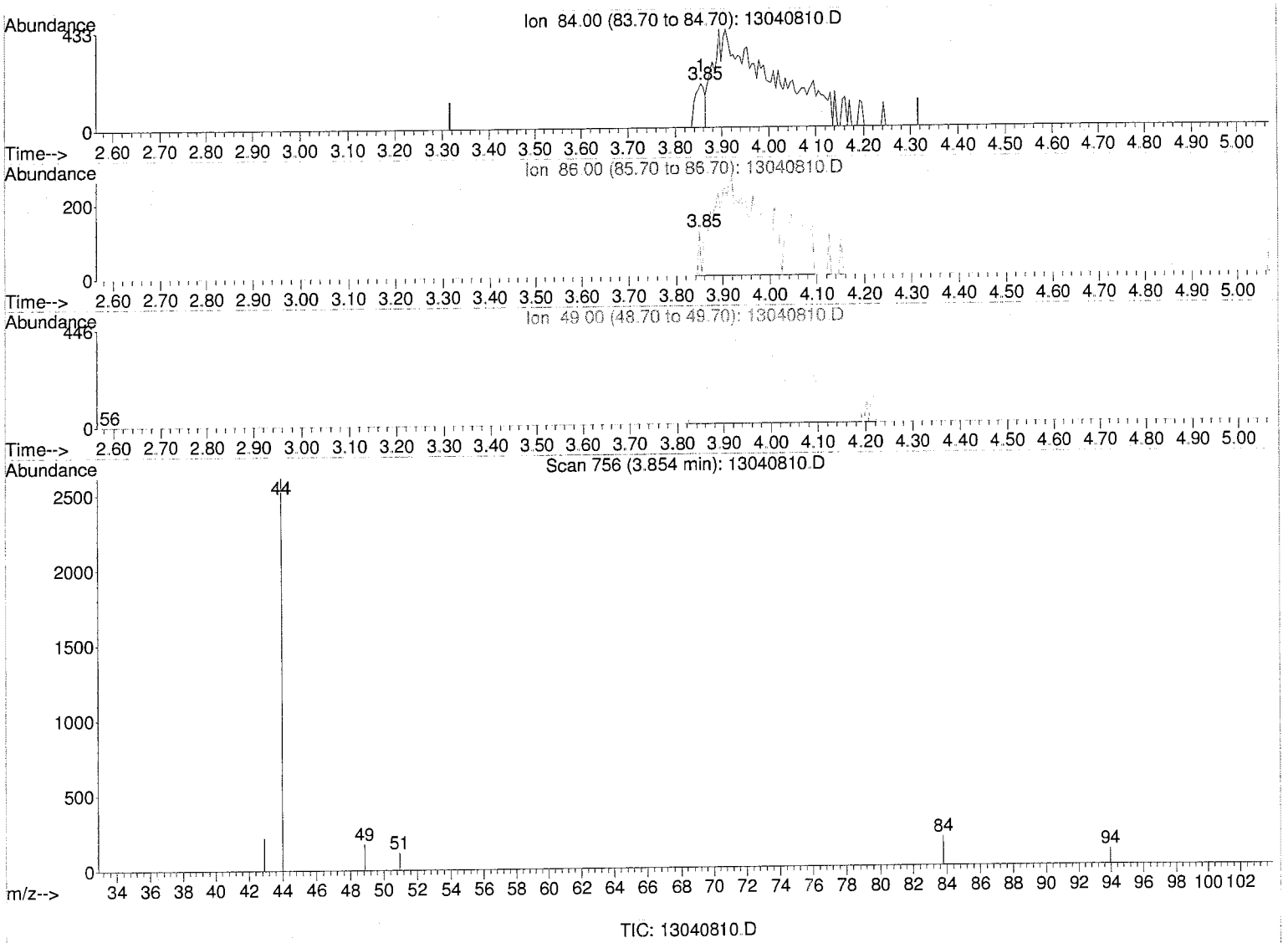
3.44min 0.00ug/L m

response 5537

Ion	Exp%	Act%
76.00	100	100
78.00	5.60	3.68
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:44 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(15) Methylene chloride (T)

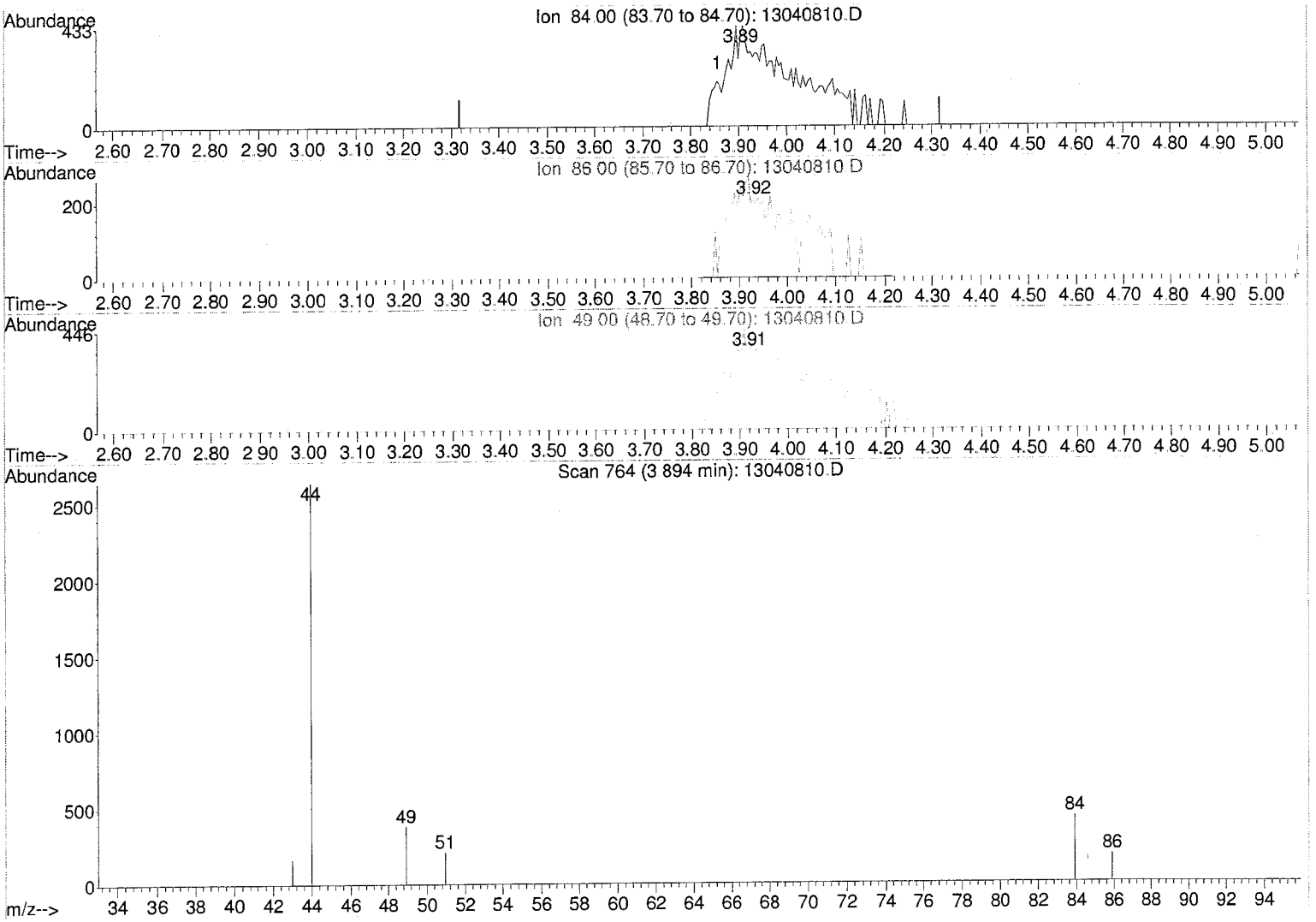
3.85min 0.00ug/L

response 285

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	12.63#
49.00	118.00	0.00#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:44 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(15) Methylene chloride (T)

3.89min 0.00ug/L m

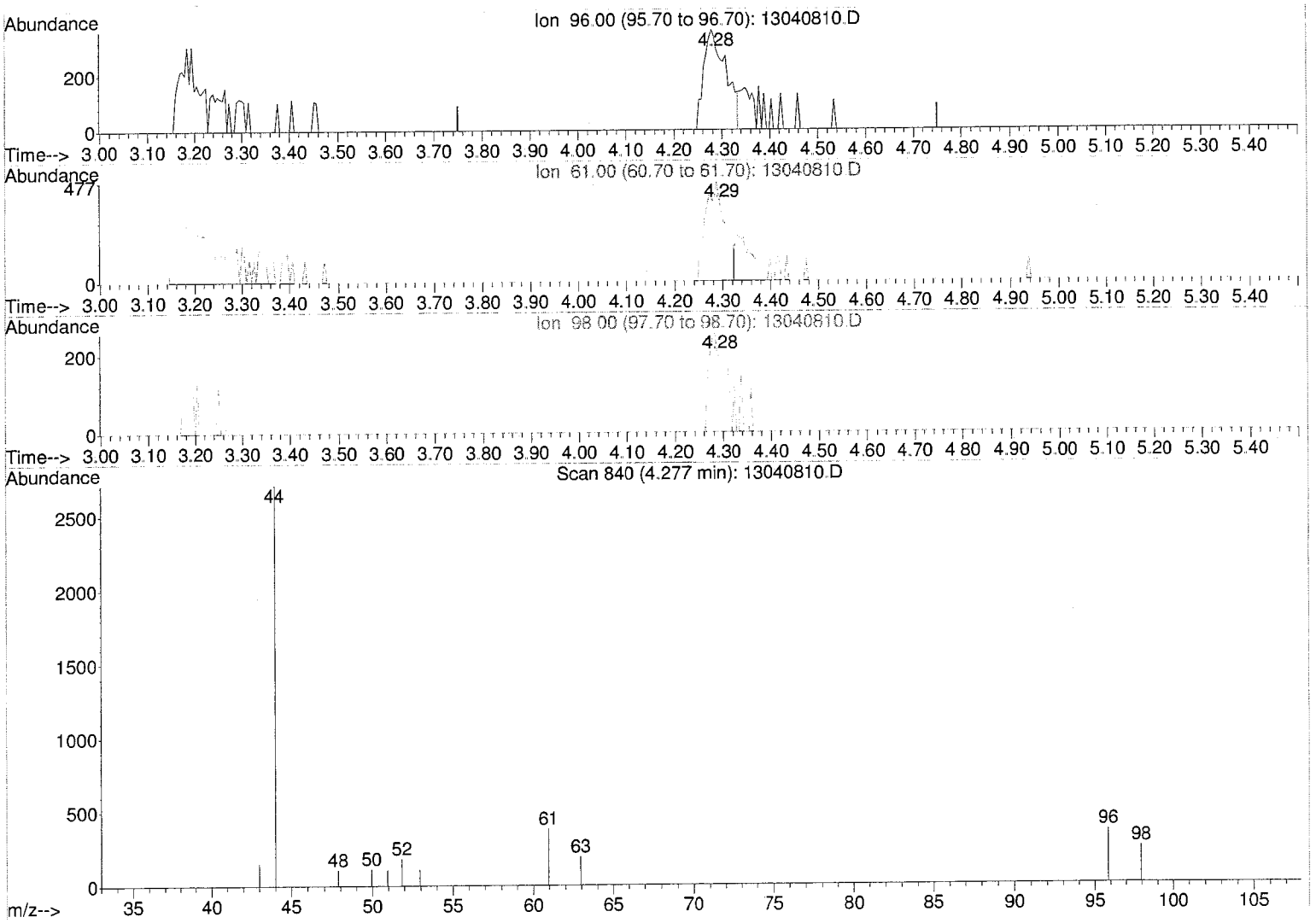
response 4247

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	54.58
49.00	118.00	120.49
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:44 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(18) trans-1,2-Dichloroethene (T)

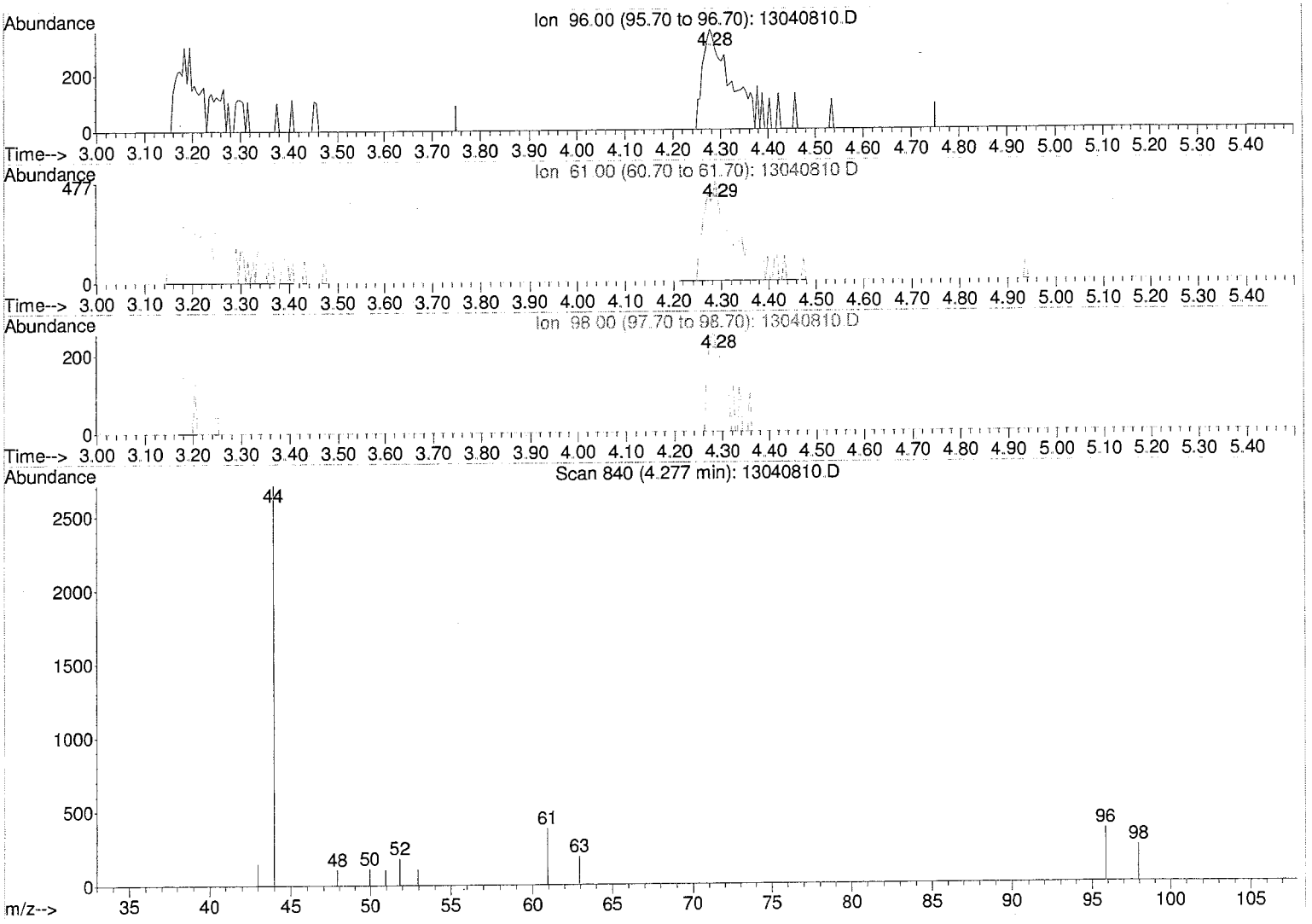
4.28min 0.00ug/L

response 1154

Ion	Exp%	Act%
96.00	100	100
61.00	125.70	118.72
98.00	65.10	52.60
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040810.D Vial: 10
Acq On : 8 Apr 2013 2:55 pm Operator: AK
Sample : CAL1 1ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 (Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:44 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040810.D

(18) trans-1,2-Dichloroethene (T)

4.28min 0.00ug/L m

response 1582

Ion	Exp%	Act%
96.00	100	100
61.00	125.70	131.67
98.00	65.10	43.11#
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:40 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	564100	50.00 ug/L	0.01
54) Chlorobenzene d-5 ISTD	10.99	117	389776	50.00 ug/L	0.01
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	150661	50.00 ug/L	0.00
System Monitoring Compounds					
29) Dibromofluoromethane SS#1	6.45	113	125752	0.00 ug/L	0.02
Spiked Amount 50.000	Range 94 - 107		Recovery =	0.00%#	
48) Toluene d-8 SS#2	9.27	98	493388	0.00 ug/L	0.01
Spiked Amount 50.000	Range 96 - 104		Recovery =	0.00%#	
71) 4-Bromofluorobenzene SS#3	12.42	95	184940	0.00 ug/L	0.01
Spiked Amount 50.000	Range 89 - 112		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.51	85	13883	No Calib	
3) Chloromethane	1.73	50	18676	No Calib	
4) VINYL CHLORIDE	1.82	62	19617	No Calib	
5) Bromomethane	2.18	94	14087	No Calib	
6) Chloroethane	2.30	64	9135	No Calib	
7) Trichlorofluoromethane	2.54	101	13796	No Calib	
8) acrolein	3.03	56	1037	No Calib	
9) Acetone	3.25	58	253	No Calib	
10) 1,1-DICHLOROETHENE	3.18	96	11607	No Calib	
11) 1,1,2-Trichlorotrifluoroet	3.22	101	7325	No Calib	
12) iodomethane	3.38	142	16264	No Calib	
13) Carbon Disulfide	3.43	76	30612	No Calib	
14) Methyl Acetate	3.74	74	965	No Calib	#
15) Methylene chloride	3.91	84	14028	No Calib	
16) tert-Butanol	0.00	59	0	N.D.	
17) acrylonitrile	4.27	53	2561	No Calib	
18) trans-1,2-Dichloroethene	4.27	96	10575	No Calib	
19) Methyl-t-Butyl Ether	4.32	73	24643	No Calib	
20) 1,1-Dichloroethane	4.93	63	16032	No Calib	
21) vinyl acetate	5.08	43	16546	No Calib	
22) Diisopropyl ether	5.12	45	34300	No Calib	
23) tert-Butyl ethyl ether	5.64	59	31485	No Calib	
24) 2,2-Dichloropropane	5.75	77	6282	No Calib	
25) cis-1,2-Dichloroethene	5.78	96	13201	No Calib	
26) 2-Butanone (MEK)	5.85	72	589	No Calib	#
27) Bromochloromethane	6.10	128	5431	No Calib	#
28) CHLOROFORM	6.24	83	17063	No Calib	
30) 1,1,1-Trichloroethane	6.45	97	9403	No Calib	
31) Cyclohexane	6.50	56	9225	No Calib	#
32) Carbon tetrachloride	6.66	117	7547	No Calib	
33) 1,1-Dichloropropene	6.67	75	13034	No Calib	
34) Benzene	6.93	78	44960	No Calib	
35) 1,2-Dichloroethane	6.97	62	11192	No Calib	
36) tert-Amyl alcohol	7.07	59	64	No Calib	#
37) tert-Amyl methyl ether	7.14	73	27761	No Calib	
38) Trichloroethene	7.77	95	10377	No Calib	
39) 1,2-DICHLOROPROPANE	8.05	63	10618	No Calib	
40) Methylcyclohexane	7.99	83	8852	No Calib	
41) tert-Amyl ethyl ether	8.14	59	25143	No Calib	
42) Dibromomethane	8.19	93	6267	No Calib	
43) 1,4-Dioxane	8.25	88	170	No Calib	#
44) Bromodichloromethane	8.40	83	10747	No Calib	
45) 2-Chloroethylvinyl Ether	8.81	63	5158	No Calib	
46) cis-1,3-Dichloropropene	8.95	75	15262	No Calib	
47) 4-Methyl-2-Pentanone (MIBK	9.18	100	1150	No Calib	#

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:40 2013 Quant Results File: VOC-W.RES

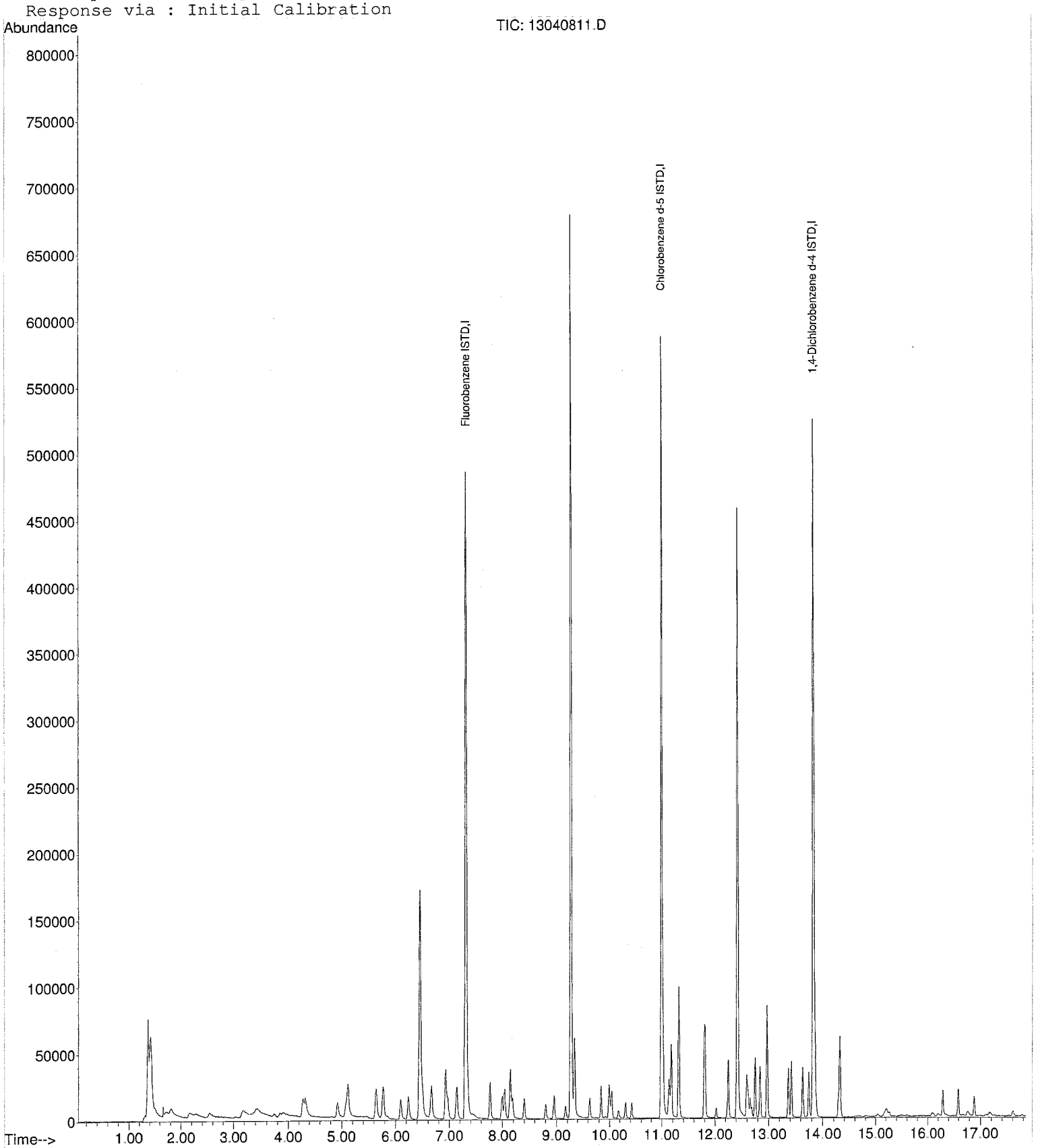
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
49)	TOLUENE	9.35	92	27398	No Calib	
50)	trans-1,3-Dichloropropene	9.63	75	11872	No Calib	
51)	1,1,2-Trichloroethane	9.84	83	7319	No Calib	
52)	Tetrachloroethene	10.00	164	6584	No Calib	
53)	2-Hexanone (MBK)	10.17	43	5143	No Calib	
55)	1,3-Dichloropropane	10.04	76	15547	No Calib	
56)	Dibromochloromethane	10.30	129	6612	No Calib	
57)	1,2-Dibromoethane	10.43	107	9259	No Calib	
58)	Chlorobenzene	11.03	112	29678	No Calib	
59)	1,1,1,2-Tetrachloroethane	11.14	131	7511	No Calib	
60)	ETHYLBENZENE	11.17	91	43776	No Calib	
61)	m&p-Xylene	11.32	106	34849	No Calib	
62)	o-Xylene	11.79	106	17249	No Calib	
63)	Styrene	11.81	104	31065	No Calib	
64)	Bromoform	12.02	173	3620	No Calib	
65)	1,2,3-Trichloropropane	12.66	75	7944	No Calib	
66)	Bromobenzene	12.60	156	9862	No Calib	#
67)	trans-1,4-dichloro-2-buten	12.69	53	1637	No Calib	#
68)	n-Propylbenzene	12.75	91	39367	No Calib	
70)	Isopropylbenzene	12.25	105	34832	No Calib	
72)	1,1,2,2-Tetrachloroethane	12.62	83	10622	No Calib	
73)	2-Chlorotoluene	12.84	91	26379	No Calib	
74)	4-Chlorotoluene	12.97	91	29217	No Calib	
75)	1,3,5-Trimethylbenzene	12.97	105	26622	No Calib	
76)	tert-Butylbenzene	13.37	119	19467	No Calib	
77)	1,2,4-Trimethylbenzene	13.43	105	27798	No Calib	
78)	sec-Butylbenzene	13.63	105	31217	No Calib	
79)	4-Isopropyltoluene	13.82	119	25310	No Calib	
80)	1,3-Dichlorobenzene	13.75	146	15872	No Calib	
81)	1,4-Dichlorobenzene	13.86	146	16507	No Calib	
82)	1,2-Dichlorobenzene	14.31	146	14973	No Calib	
83)	n-Butylbenzene	14.32	91	22226	No Calib	
84)	1,2-Dibromo-3-chloropropan	15.27	75	1015	No Calib	
85)	1,2,4-Trichlorobenzene	16.29	180	6217	No Calib	
86)	Naphthalene	16.59	128	17464	No Calib	
87)	1,2,3-Trichlorobenzene	16.89	180	5168	No Calib	

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:50 2013 Quant Results File: VOC-W.RES

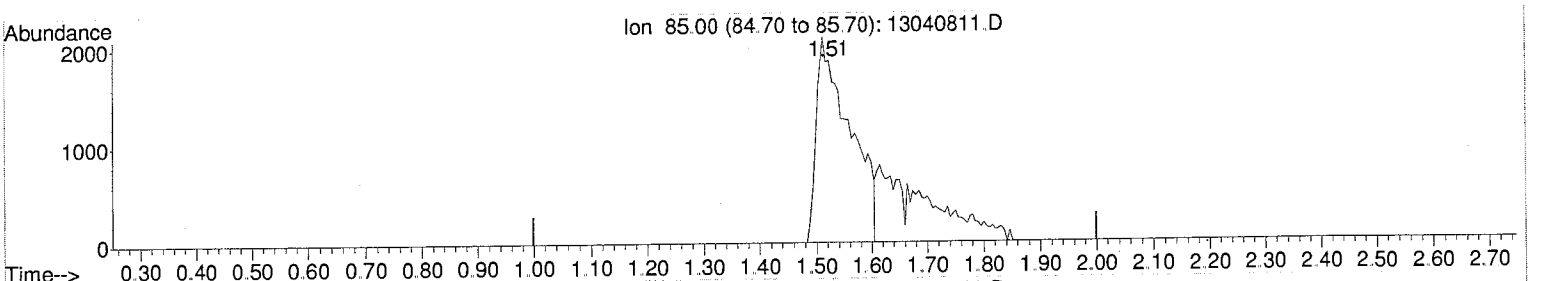
Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration

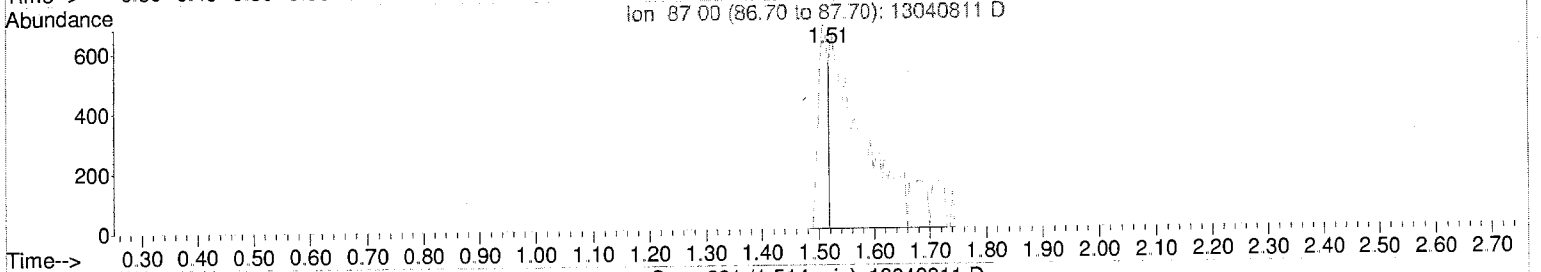


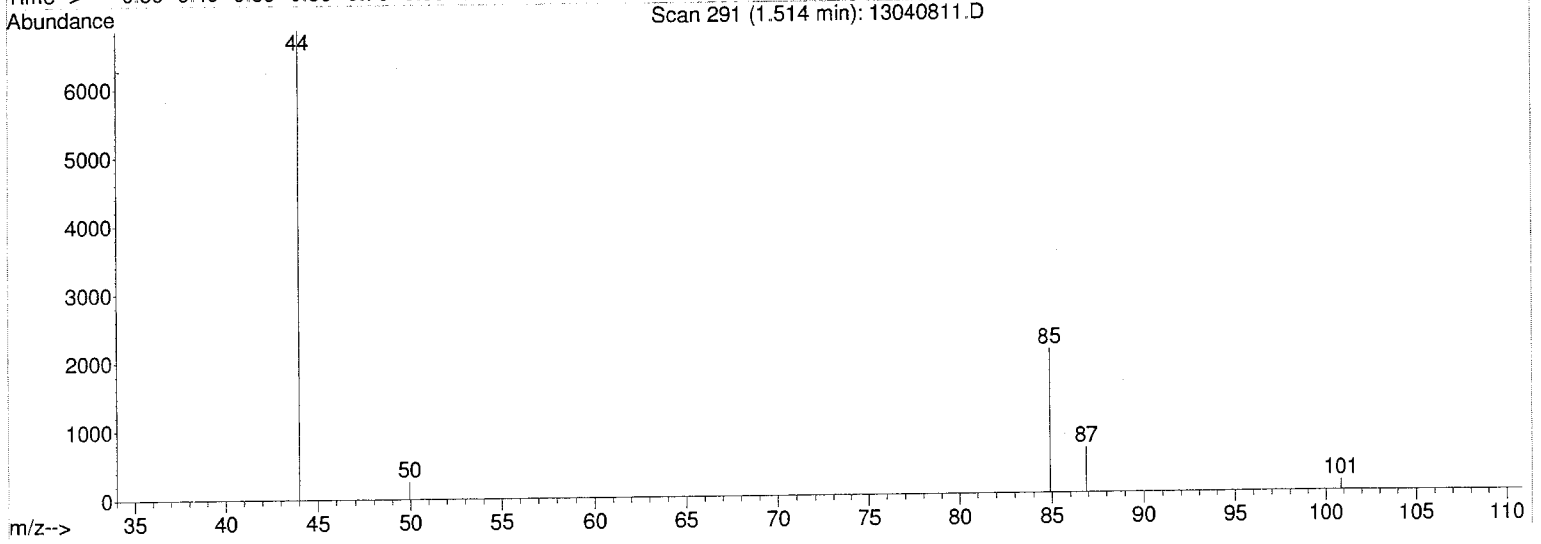
Data File : P:\VOC\2\DATA\130408\13040811.D
Acq On : 8 Apr 2013 3:24 pm
Sample : CAL2 5ppb 5mL
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:40 2013

Vial: 11
Operator: AK
Inst : VOA2
Multiplr: 1.00
Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration







TIC: 13040811.D

(2) Dichlorodifluoromethane (T)

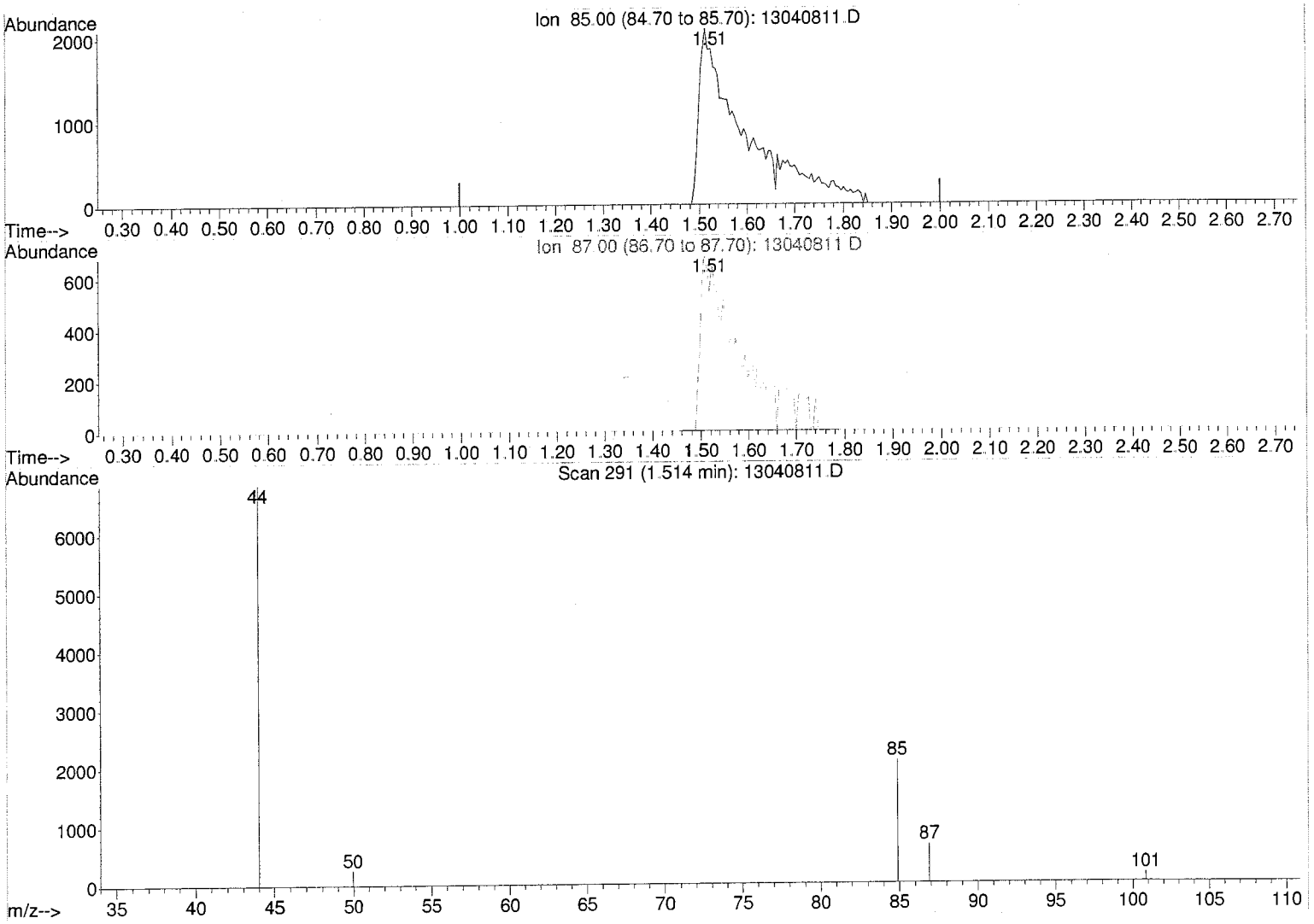
1.51min 0.00ug/L

response 8806

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	10.08#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:45 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

AK 4/9/13

(2) Dichlorodifluoromethane (T)

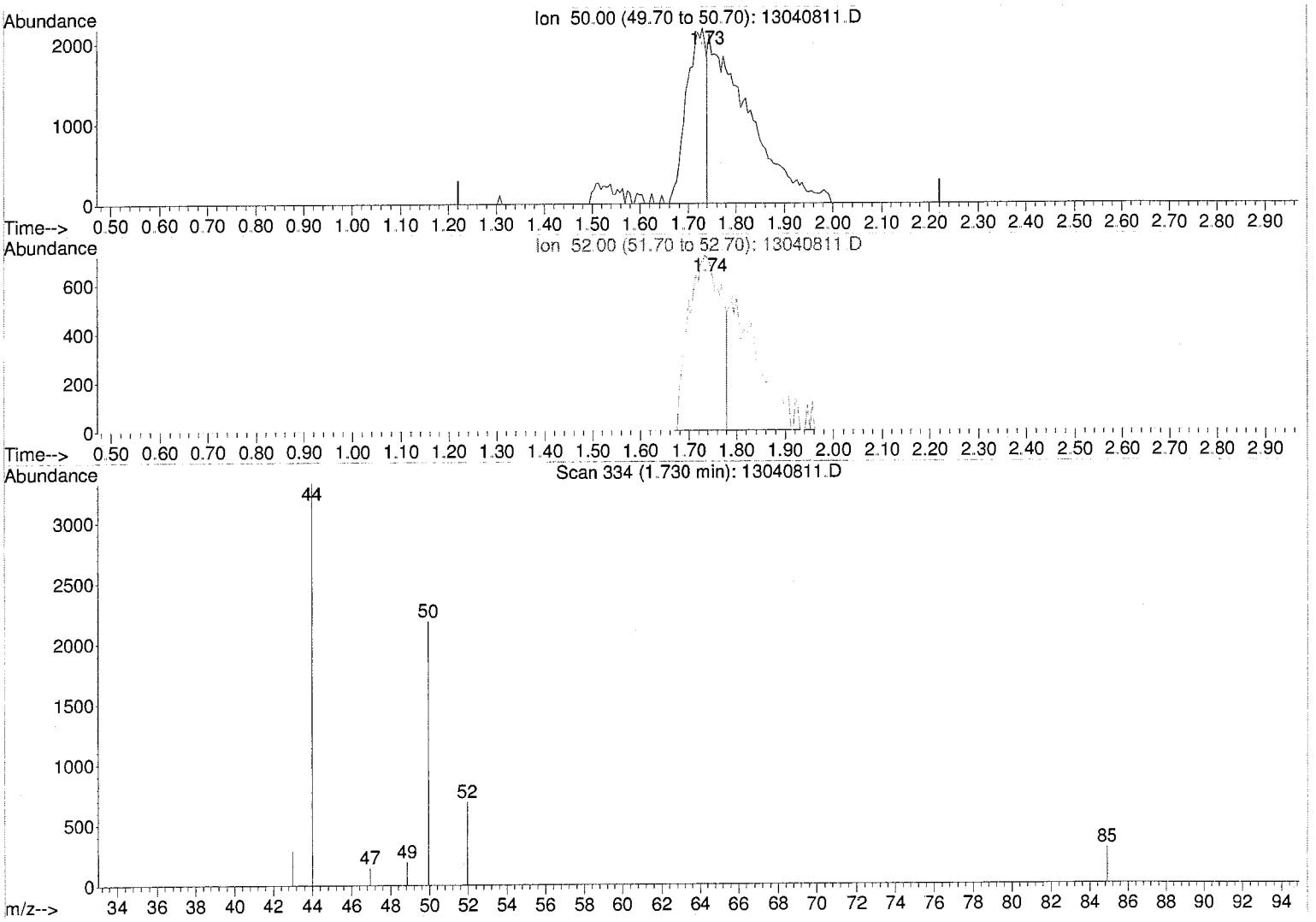
1.51min 0.00ug/L m

response 13883

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	28.67
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:45 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(3) Chloromethane (P)

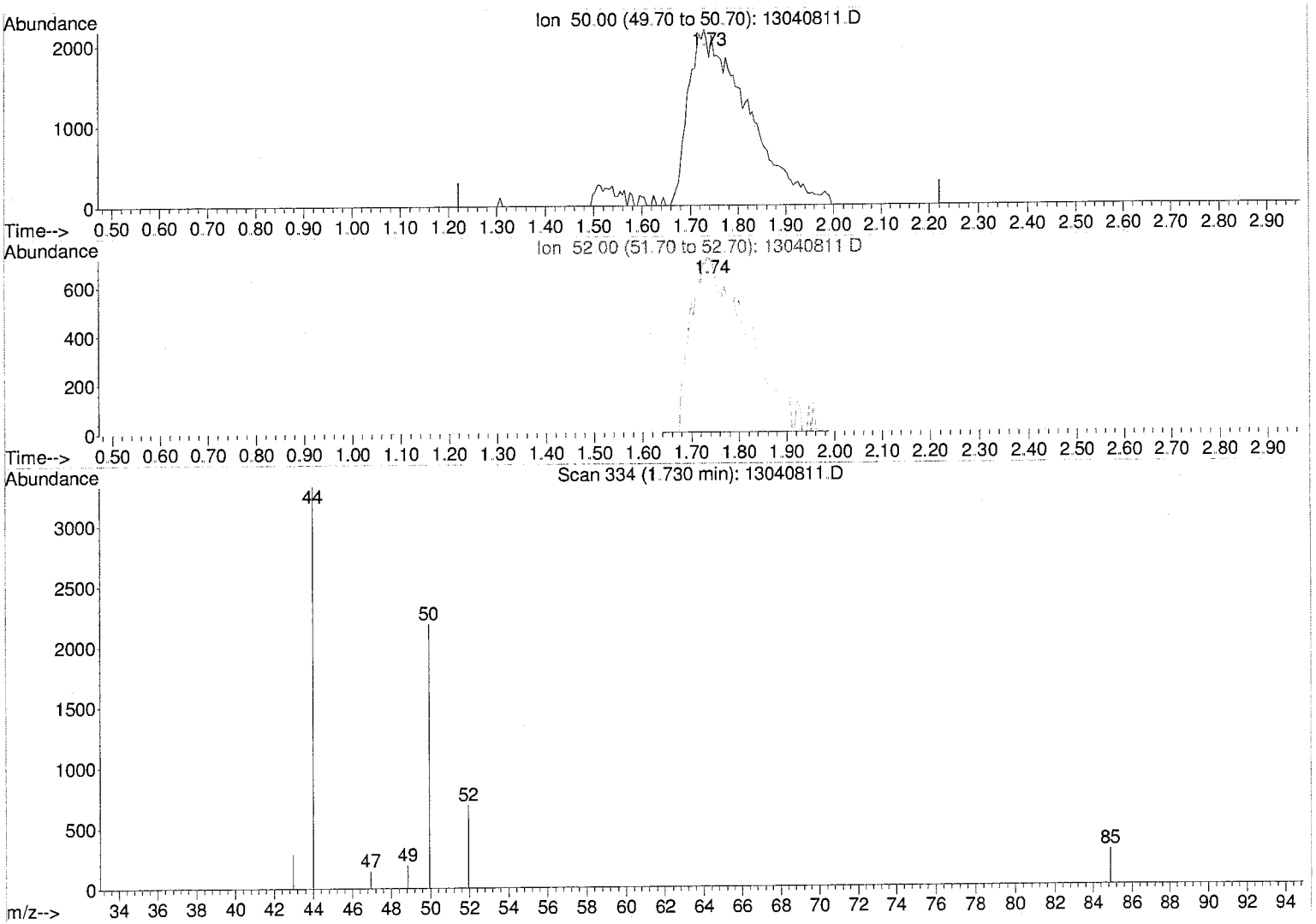
1.73min 0.00ug/L

response 6458

Ion	Exp%	Act%
50.00	100	100
52.00	33.40	53.44#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:46 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(3) Chloromethane (P)

1.73min 0.00ug/L m

response 18676

Ion	Exp%	Act%
50.00	100	100
52.00	33.40	31.34
0.00	0.00	0.00
0.00	0.00	0.00

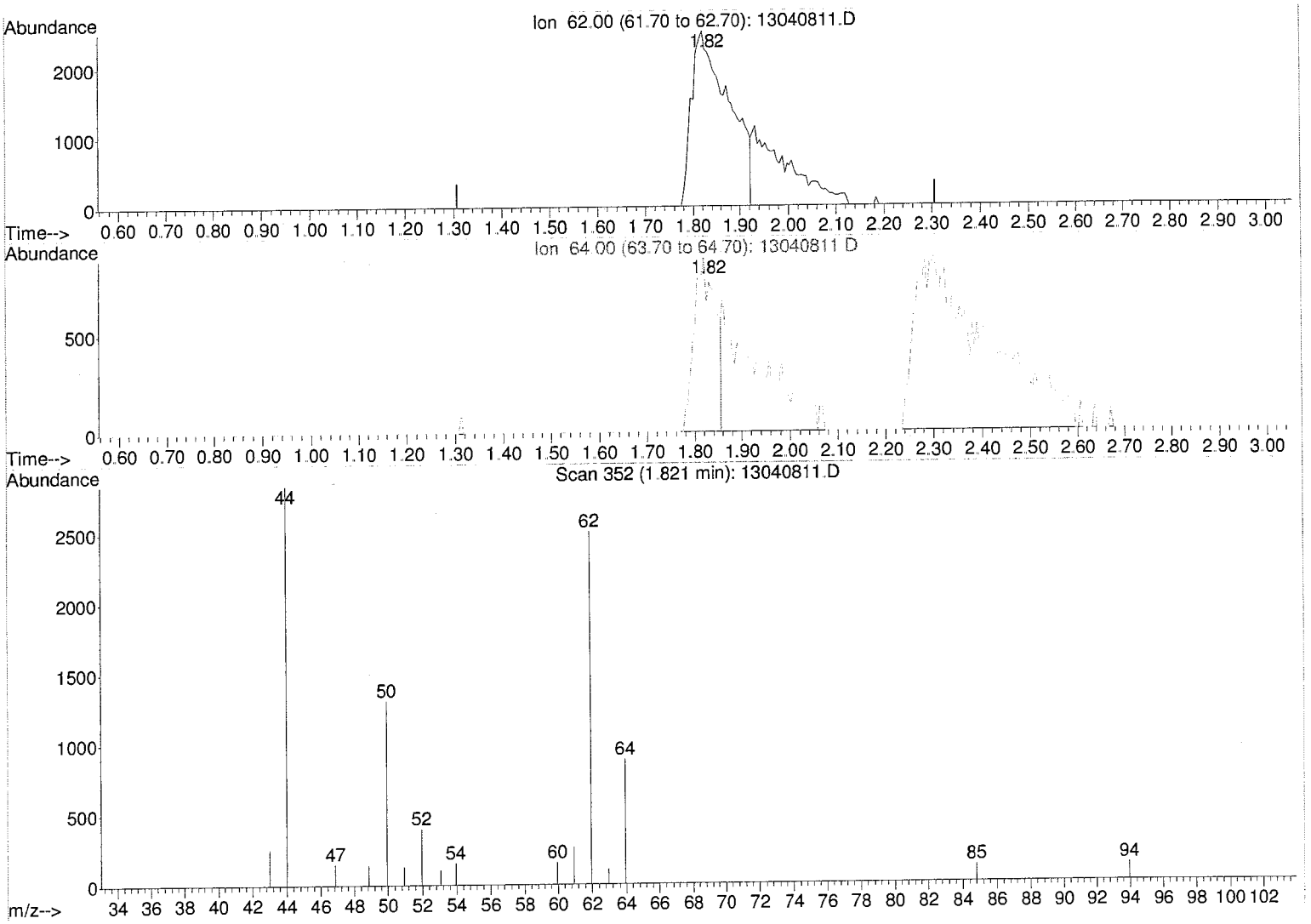
AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D
Acq On : 8 Apr 2013 3:24 pm
Sample : CAL2 5ppb 5mL
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:46 2013

Vial: 11
Operator: AK
Inst : VOA2
Multiplr: 1.00

Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(4) VINYL CHLORIDE (C)

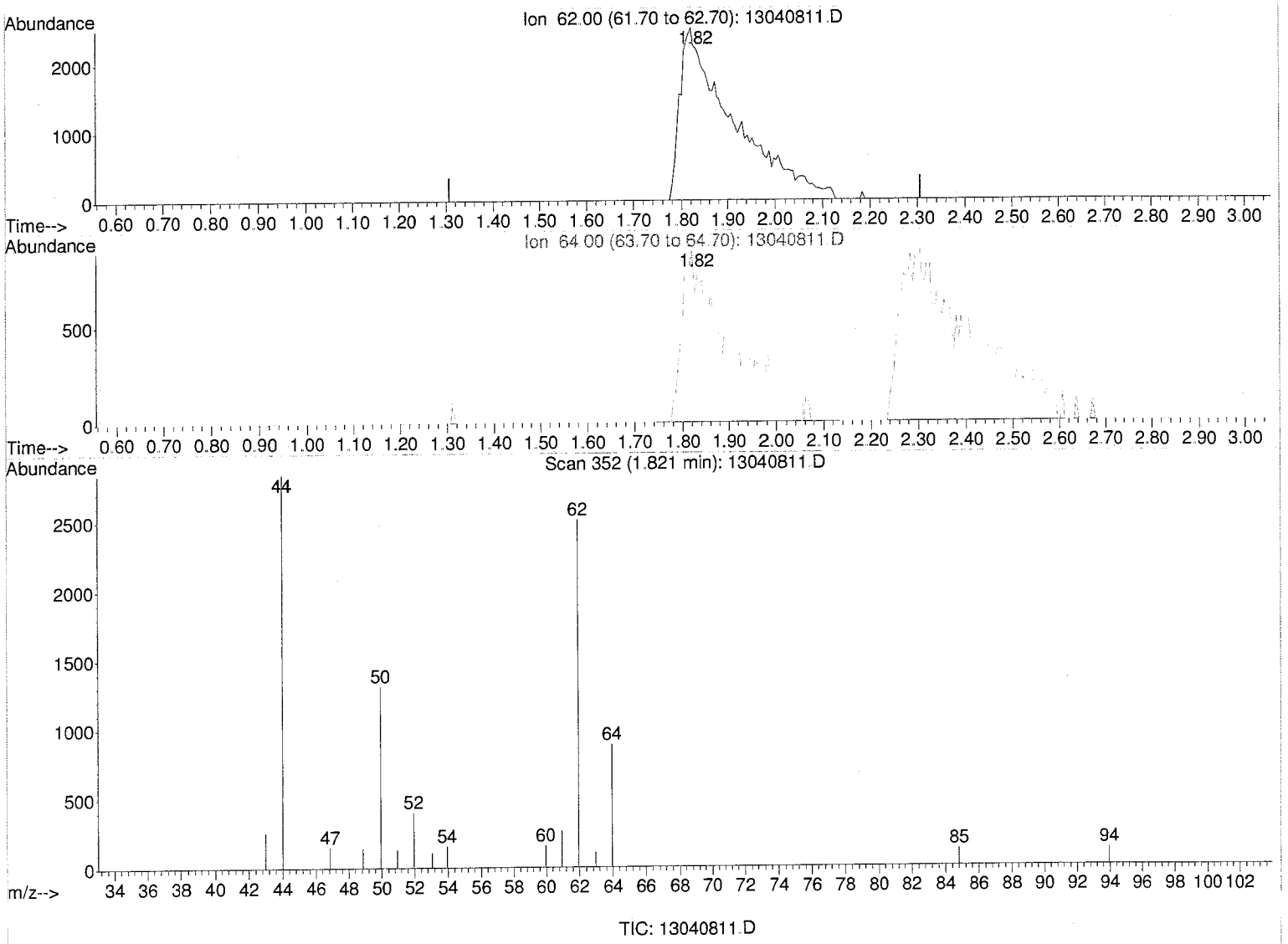
1.82min 0.00ug/L

response 13785

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	20.55
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(4) VINYL CHLORIDE (C)

1.82min 0.00ug/L m

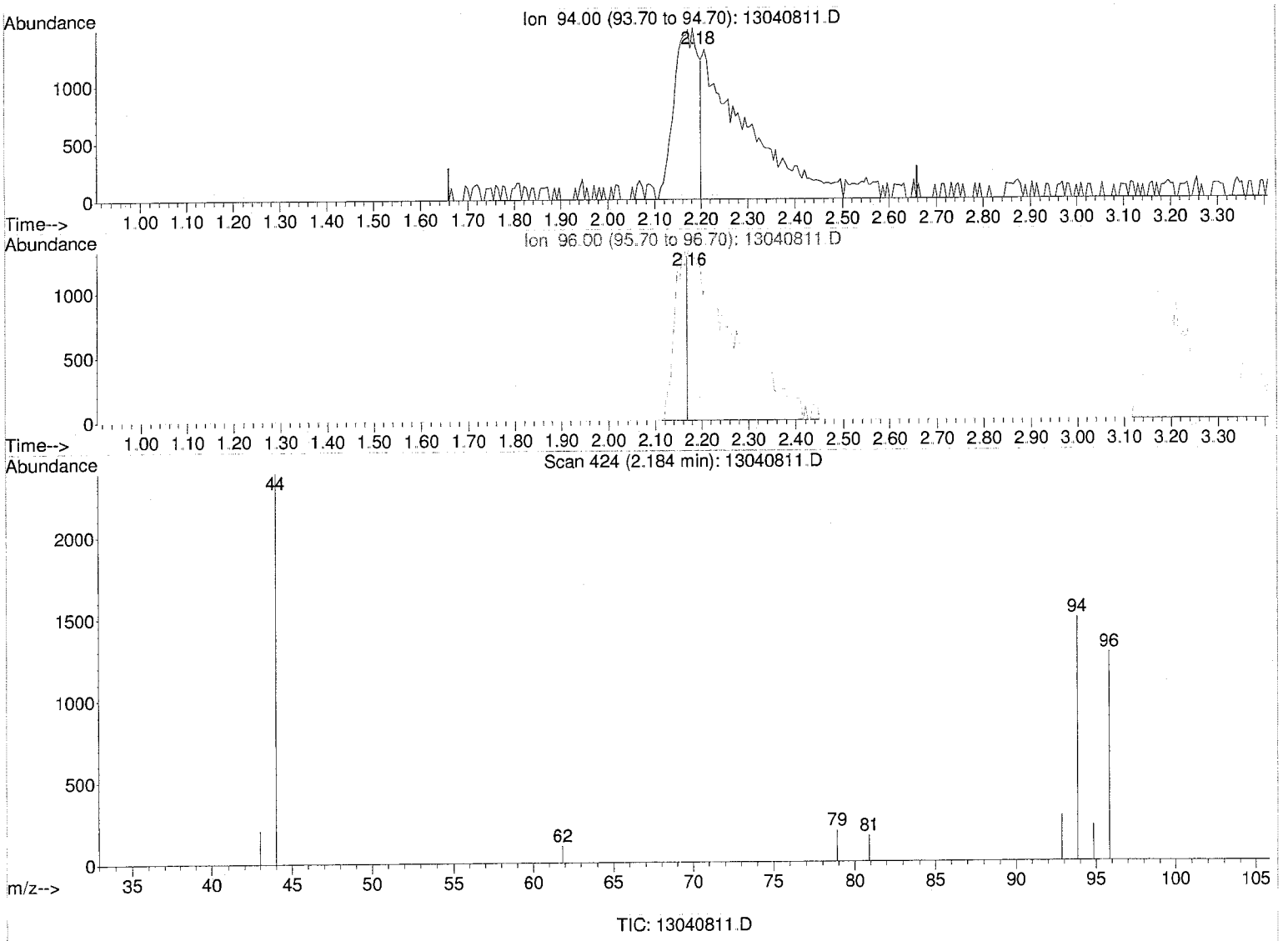
response 19617

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	32.48
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(5) Bromomethane (T)

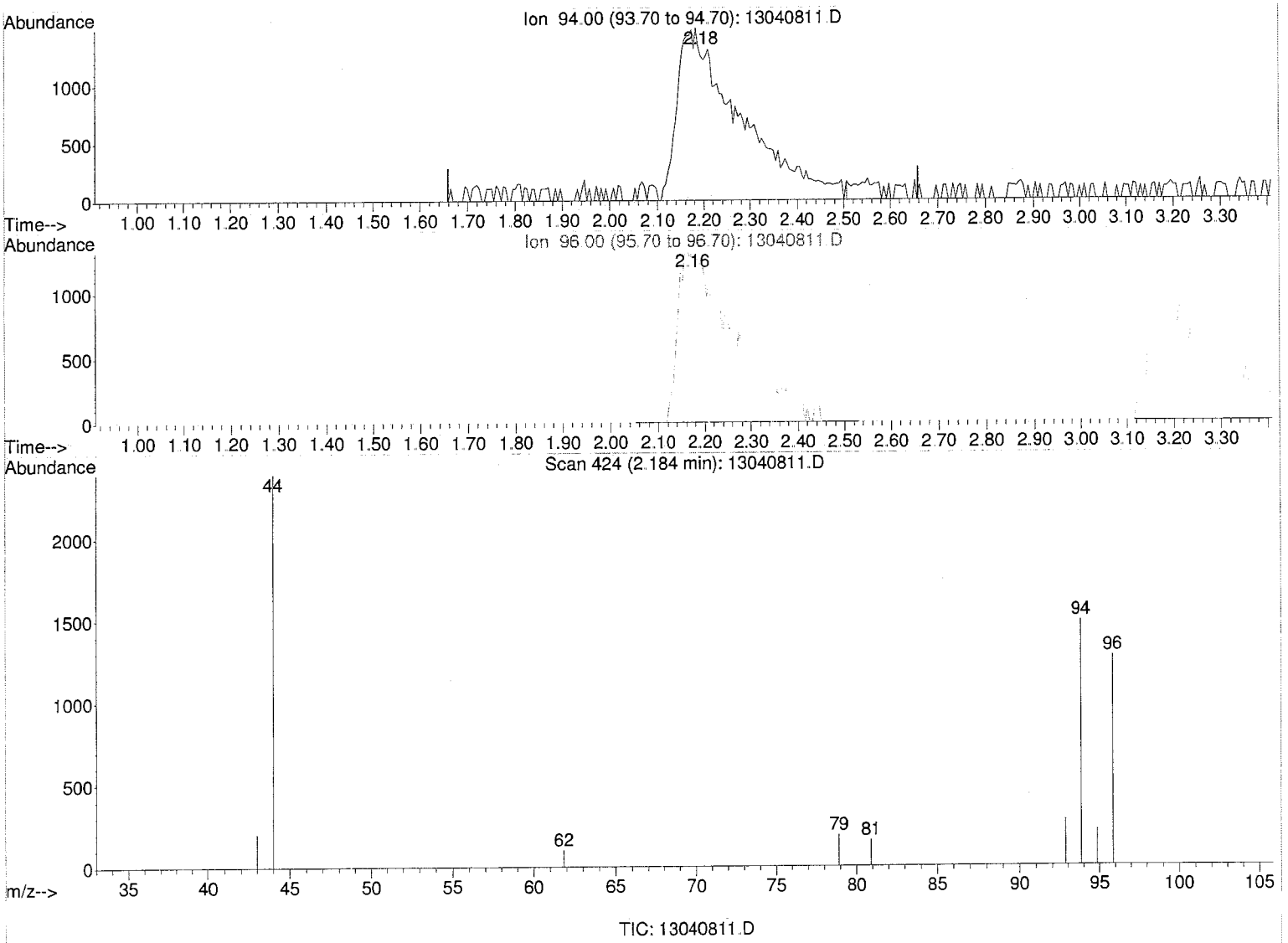
2.18min 0.00ug/L

response 5322

Ion	Exp%	Act%
94.00	100	100
96.00	94.50	46.88#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(5) Bromomethane (T)

2.18min 0.00ug/L m

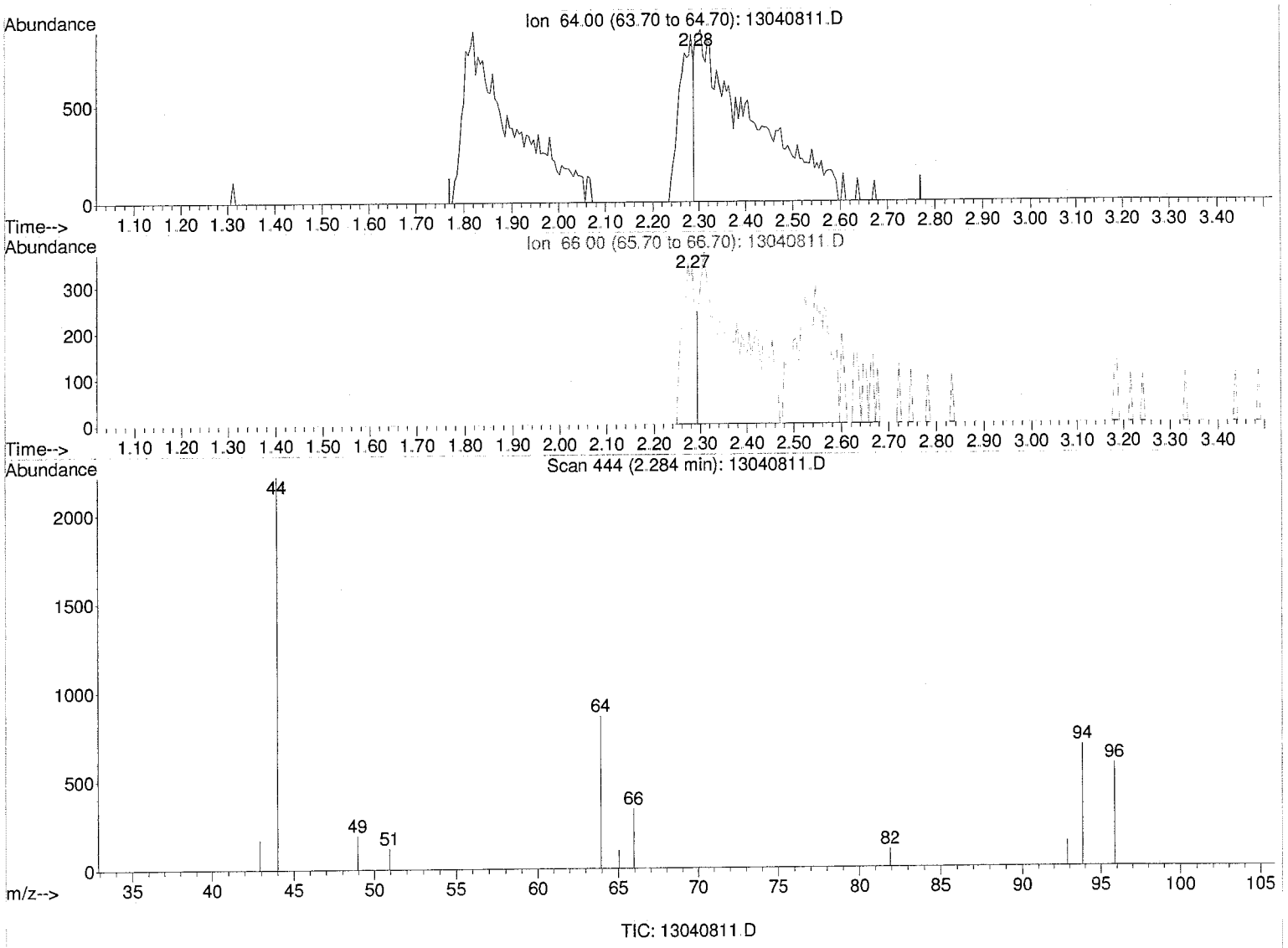
response 14087

Ion	Exp%	Act%
94.00	100	100
96.00	94.50	80.93
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(6) Chloroethane (T)

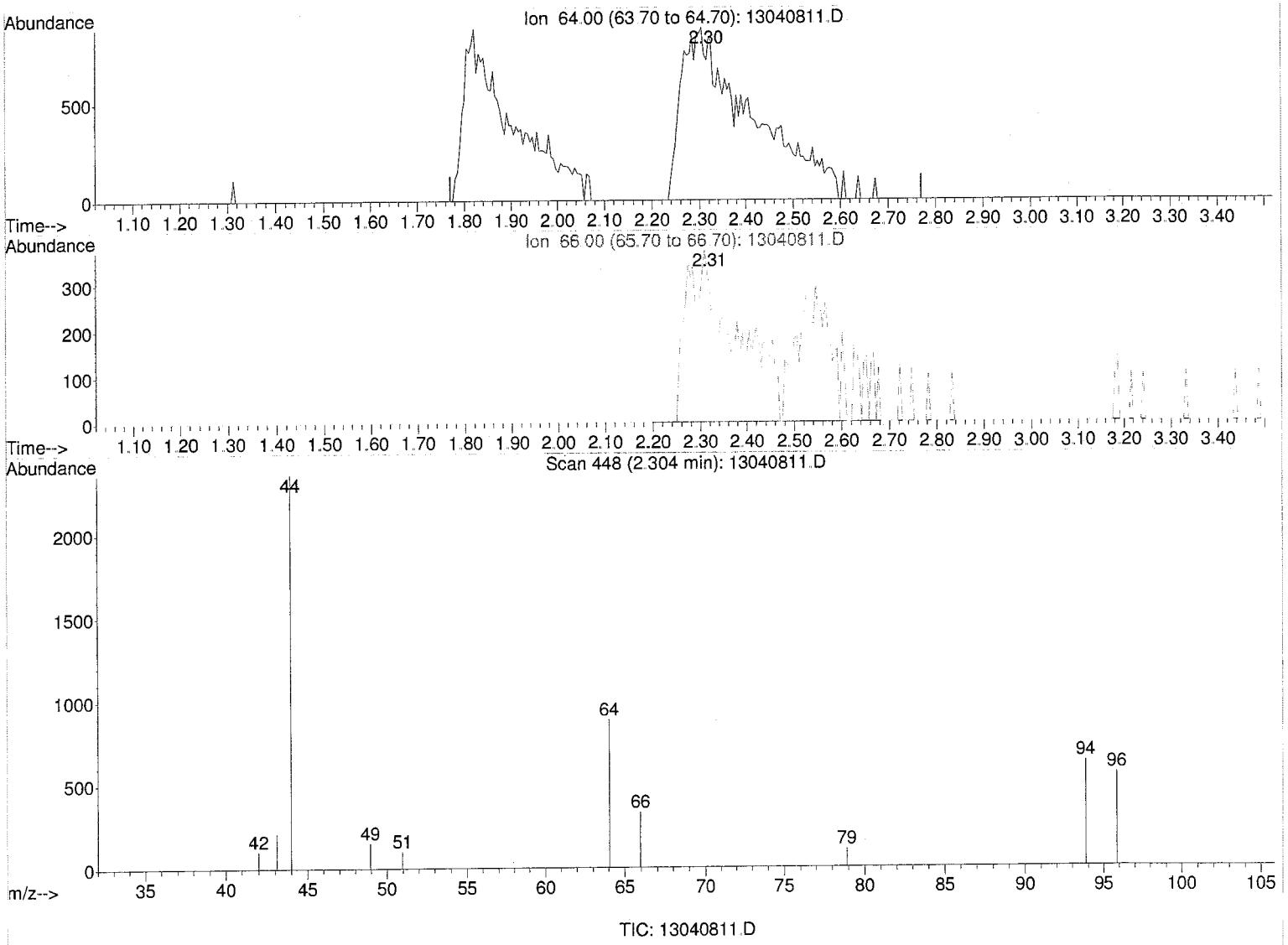
2.28min 0.00ug/L

response 1834

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	37.73
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(6) Chloroethane (T)

2.30min 0.00ug/L m

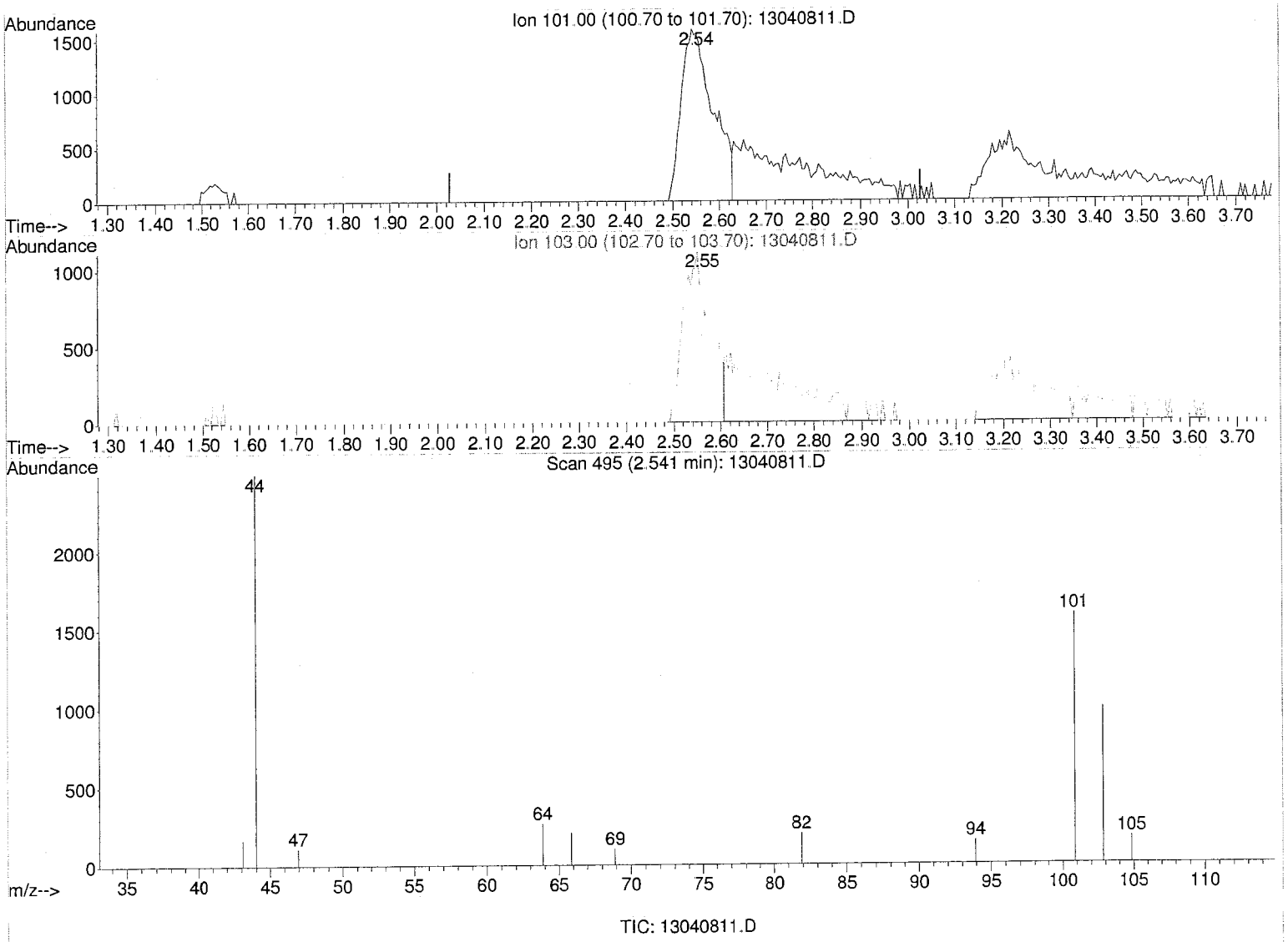
response 9135

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	29.62
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(7) Trichlorofluoromethane (T)

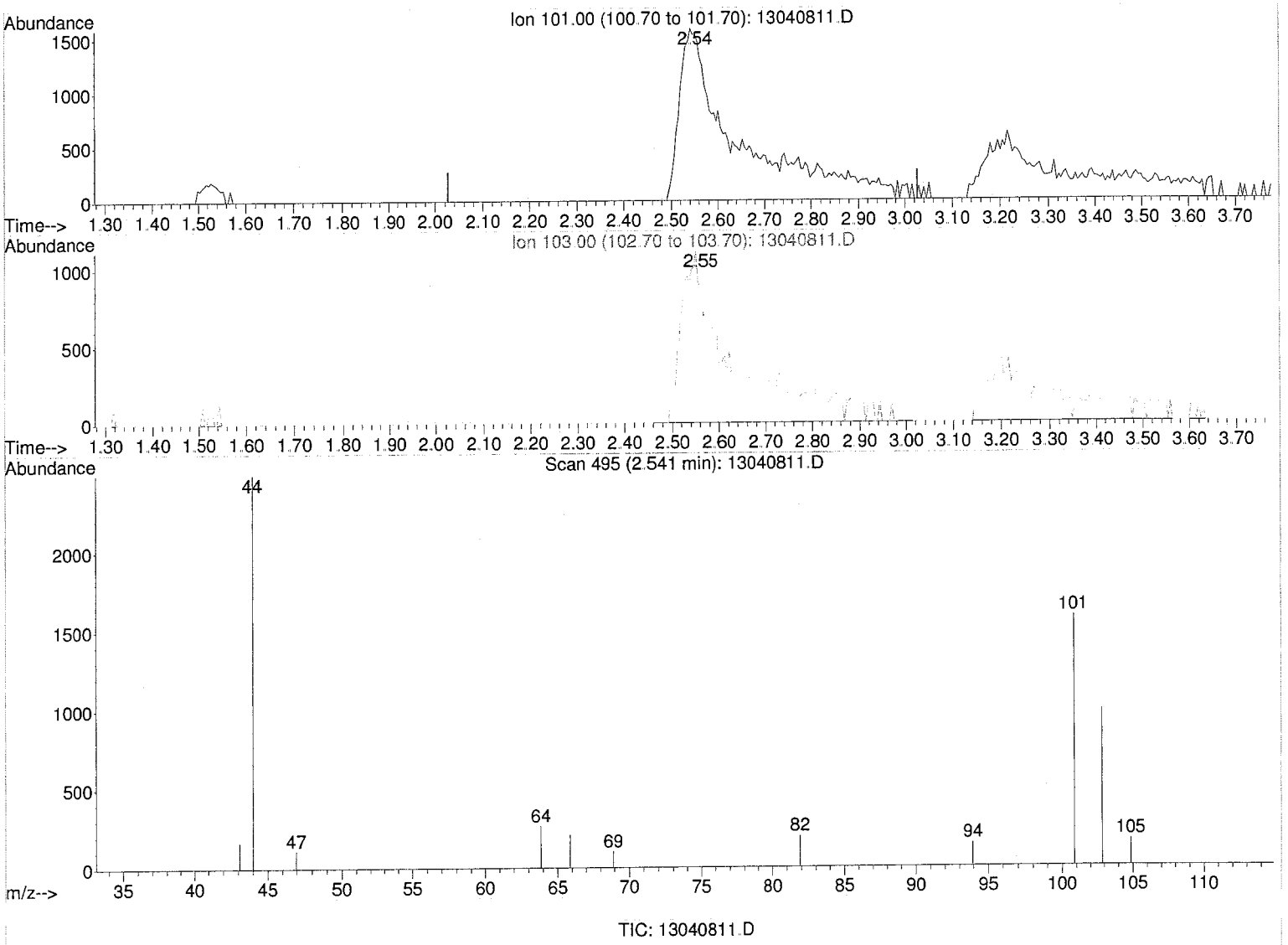
2.54min 0.00ug/L

response 7519

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	60.86
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

AK 4/9/13

(7) Trichlorofluoromethane (T)

2.54min 0.00ug/L m

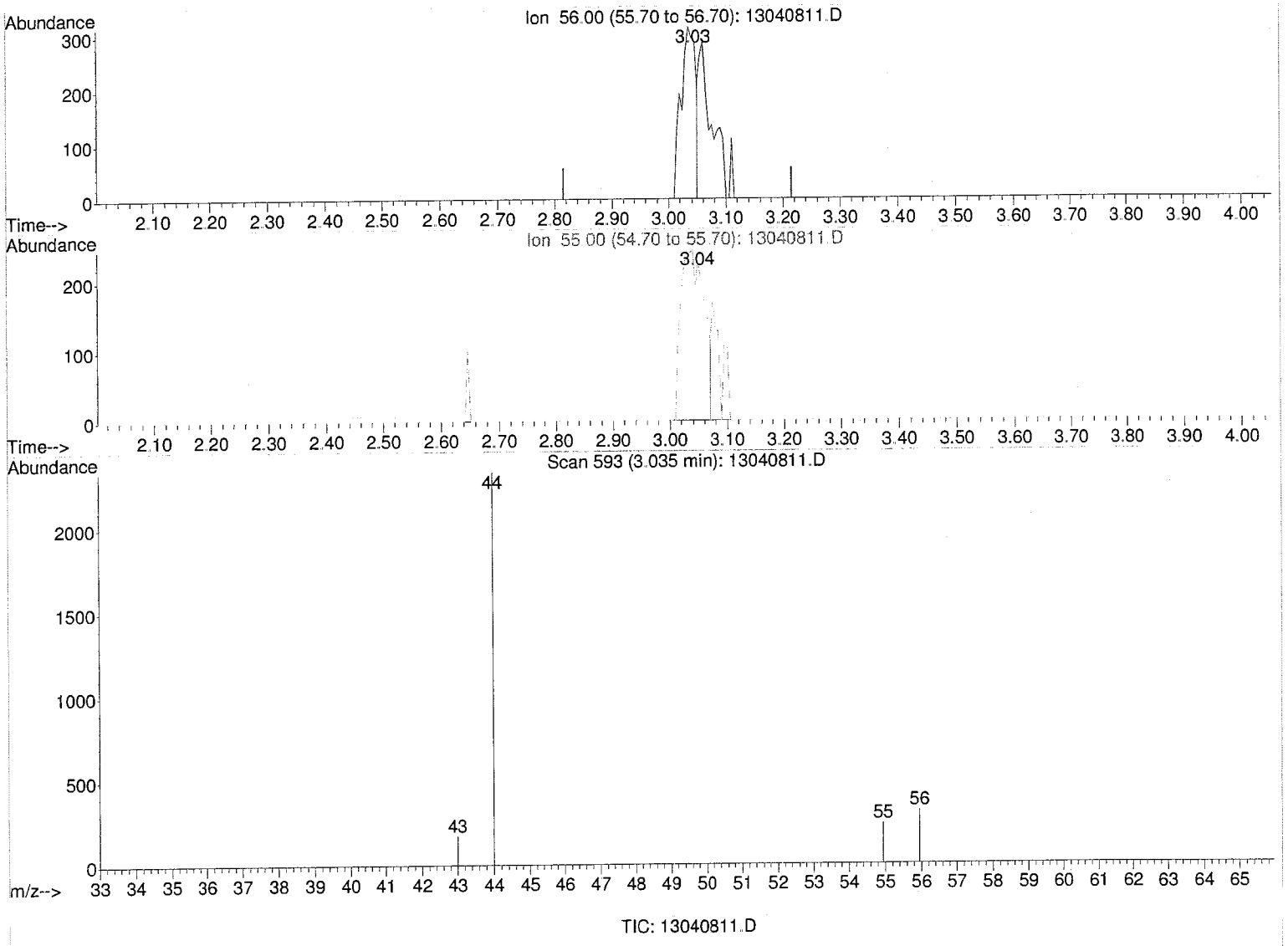
response 13796

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	62.89
0.00	0 00	0.00
0.00	0 00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D
Acq On : 8 Apr 2013 3:24 pm
Sample : CAL2 5ppb 5mL
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:47 2013

Vial: 11
Operator: AK
Inst : VOA2
Multiplr: 1.00
Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(8) acrolein (T)

3.03min 0.00ug/L

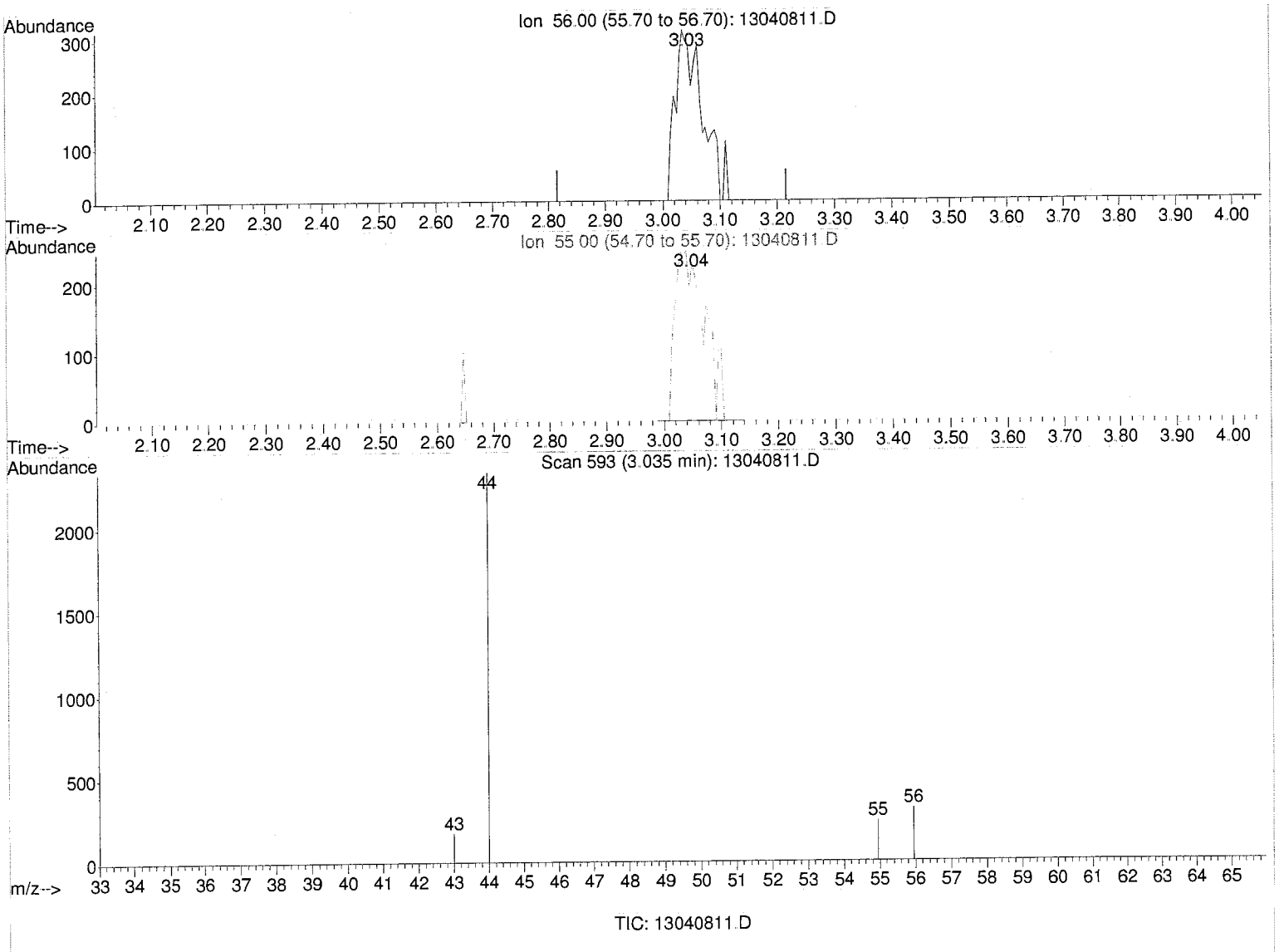
response 562

Ion	Exp%	Act%
56.00	100	100
55.00	68.20	122.24#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D
Acq On : 8 Apr 2013 3:24 pm
Sample : CAL2 5ppb 5mL
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:48 2013

Vial: 11
Operator: AK
Inst : VOA2
Multiplr: 1.00
Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(8) acrolein (T)

3.03min 0.00ug/L m

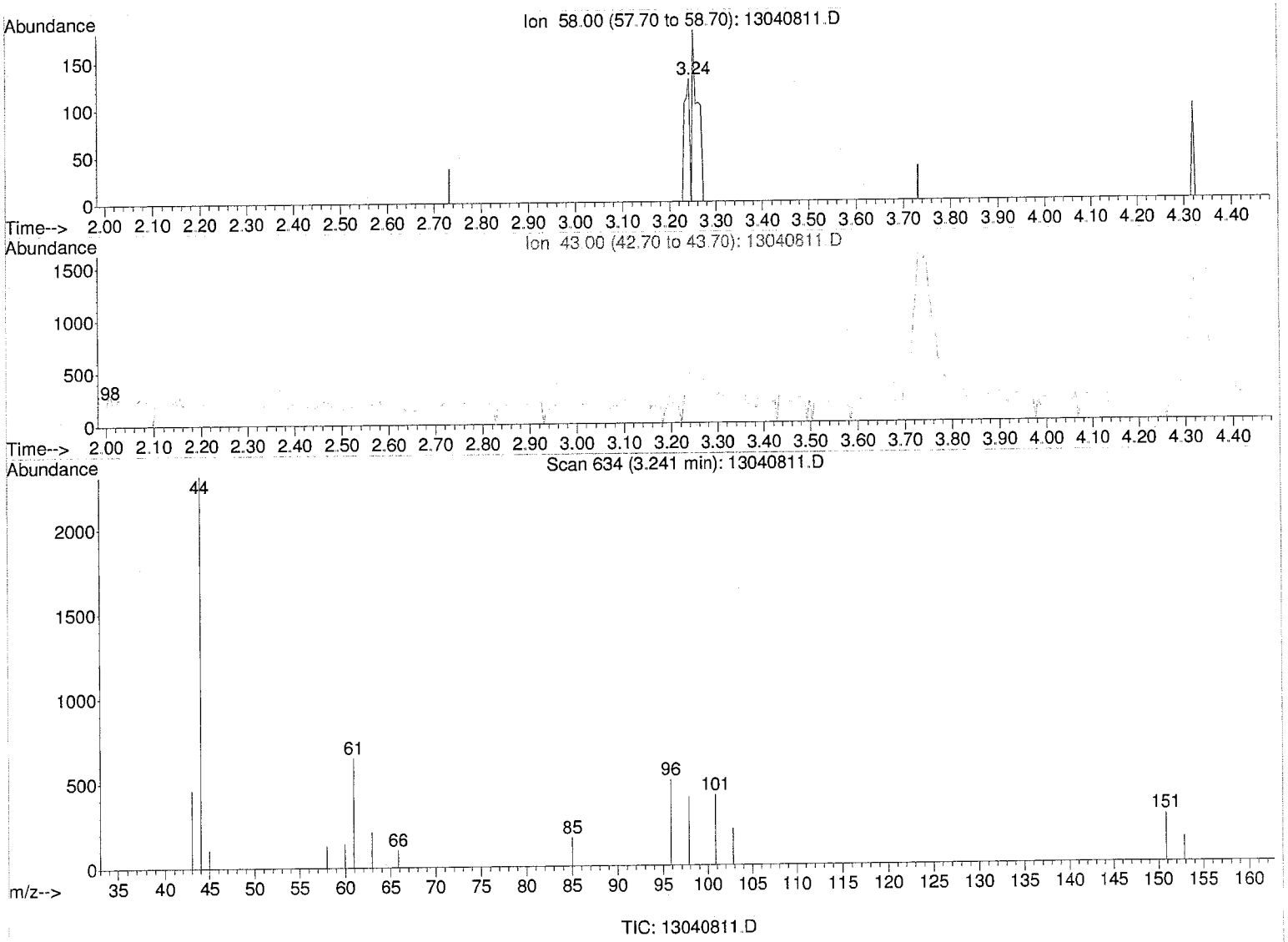
response 1037

Ion	Exp%	Act%
56.00	100	100
55.00	68.20	85.05
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:48 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(9) Acetone (T)

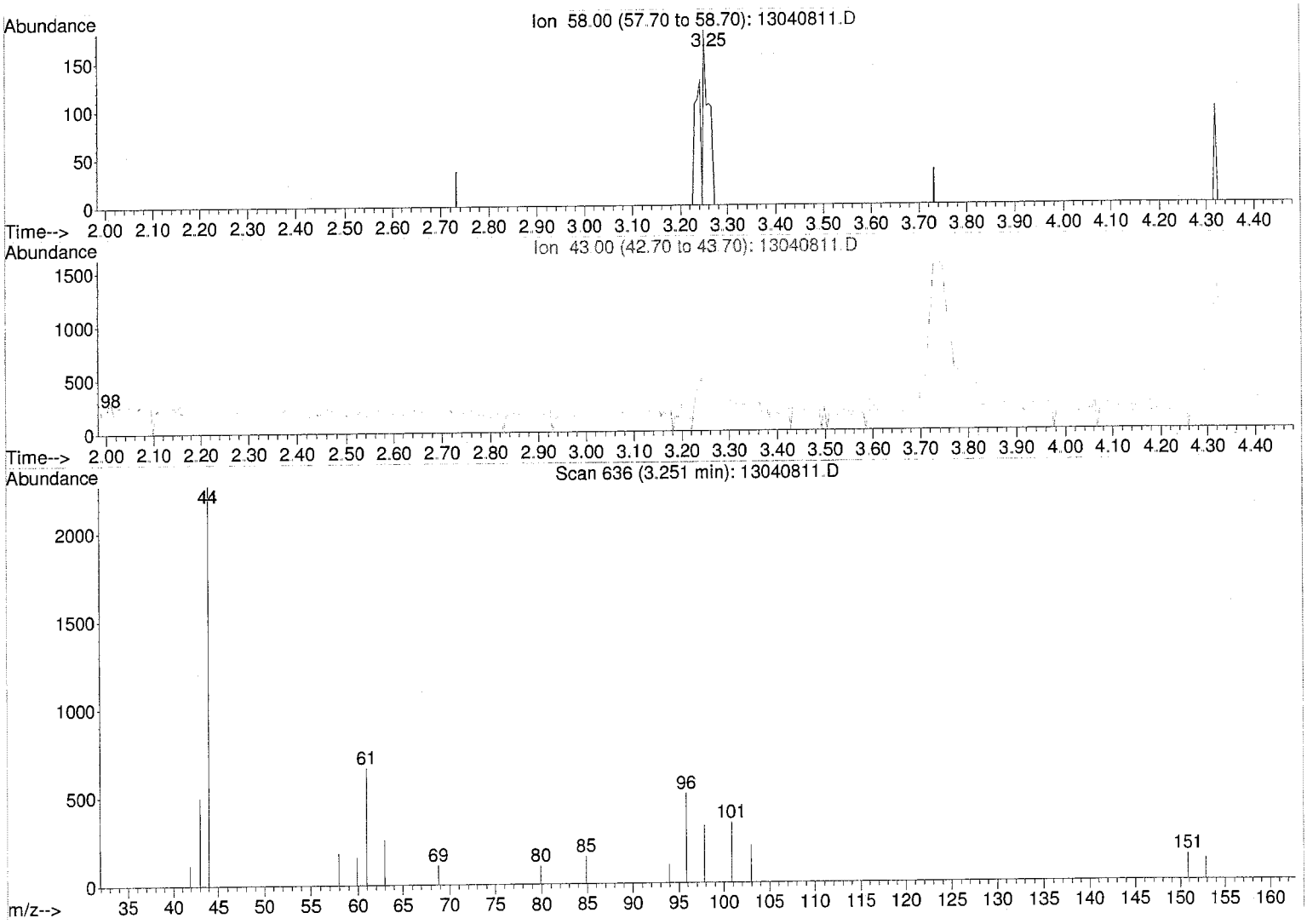
3.24min 0.00ug/L

response 104

Ion	Exp%	Act%
58.00	100	100
43.00	250.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:48 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

AK 4/9/13

(9) Acetone (T)

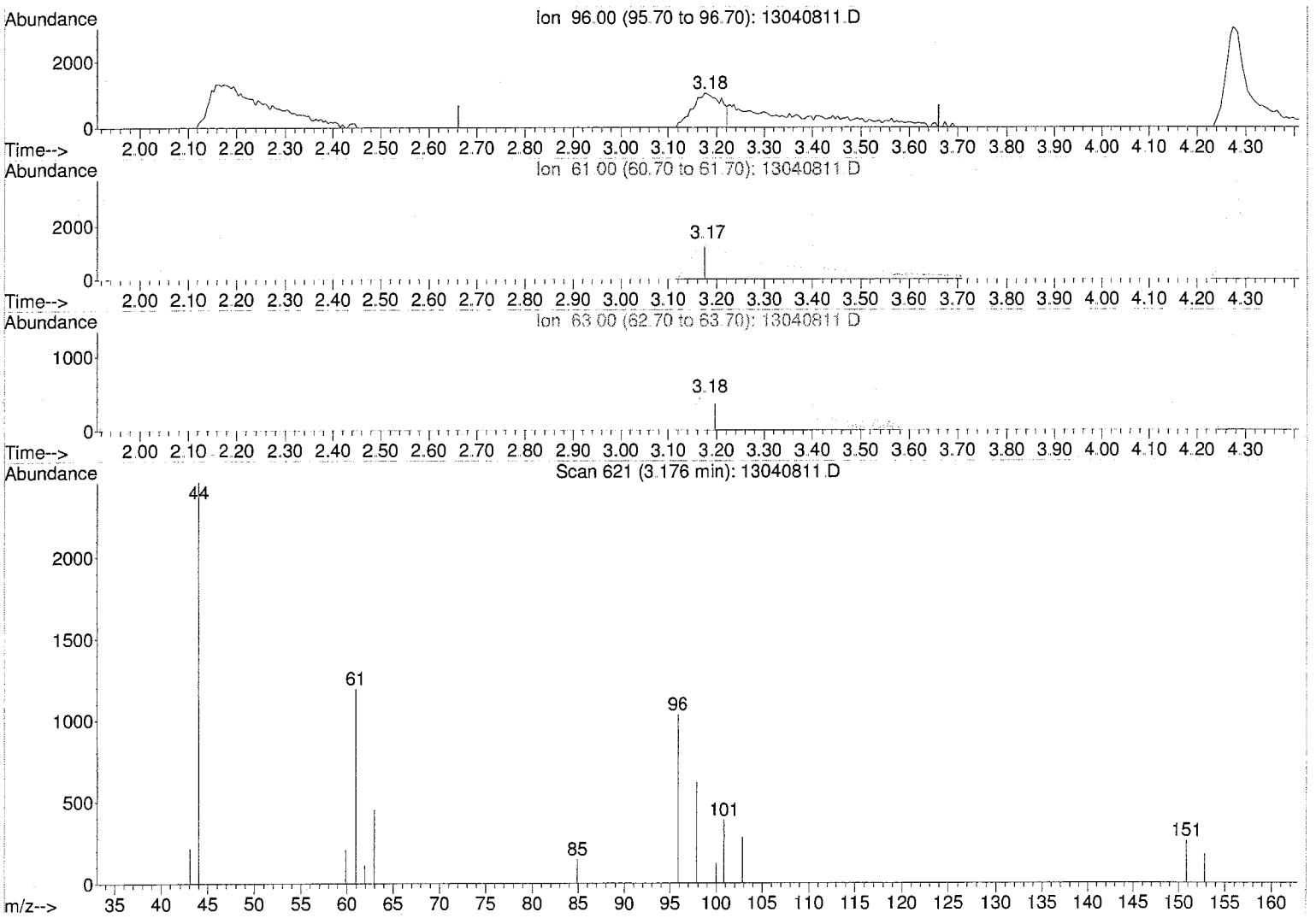
3.25min 0.00ug/L m

response 253

Ion	Exp%	Act%
58.00	100	100
43.00	250.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:48 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(10) 1,1-DICHLOROETHENE (M,C)

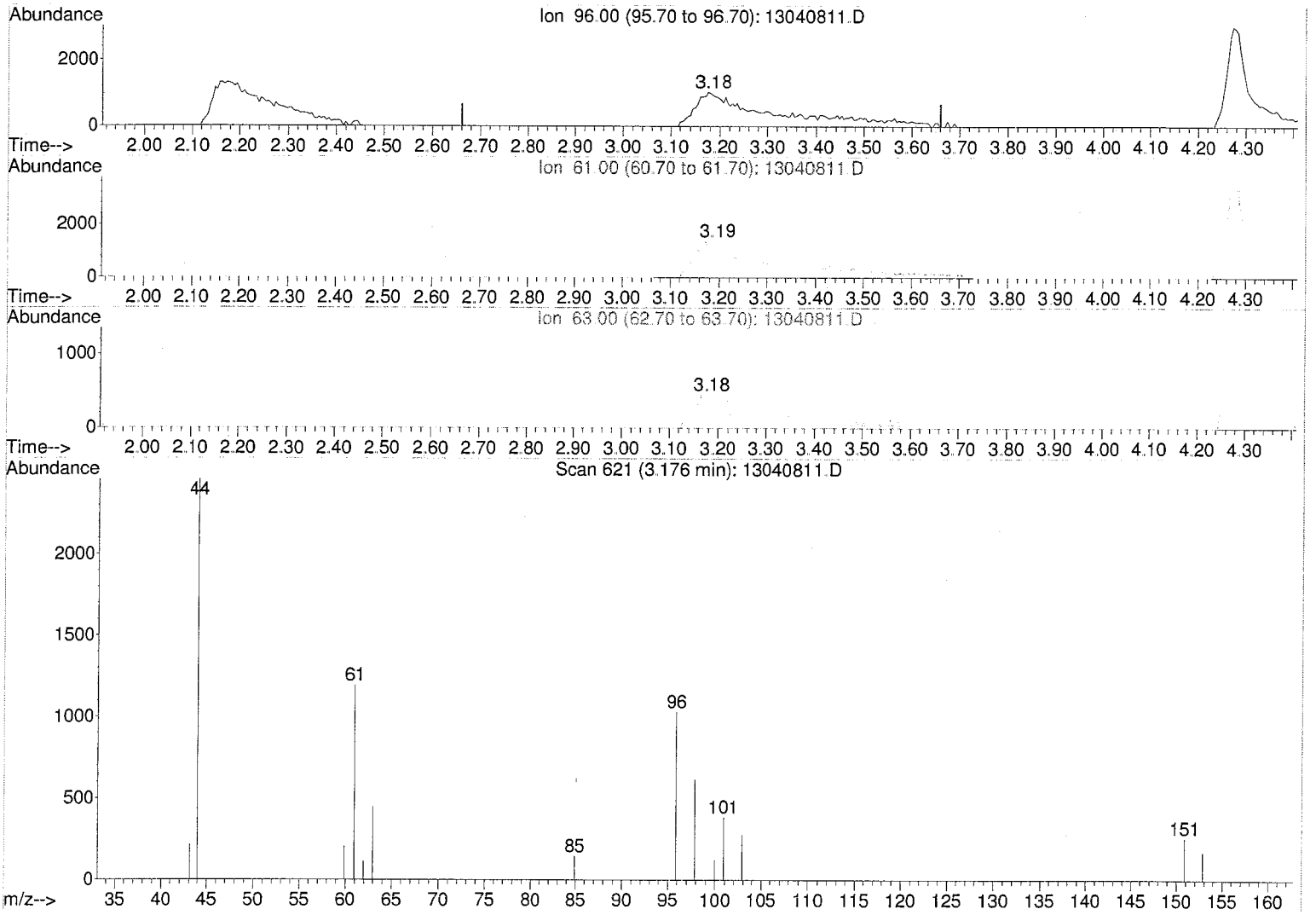
3.18min 0.00ug/L

response 4250

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	61.93#
63.00	44.80	32.40
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:48 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(10) 1,1-DICHLOROETHENE (M,C)

3.18min 0.00ug/L m

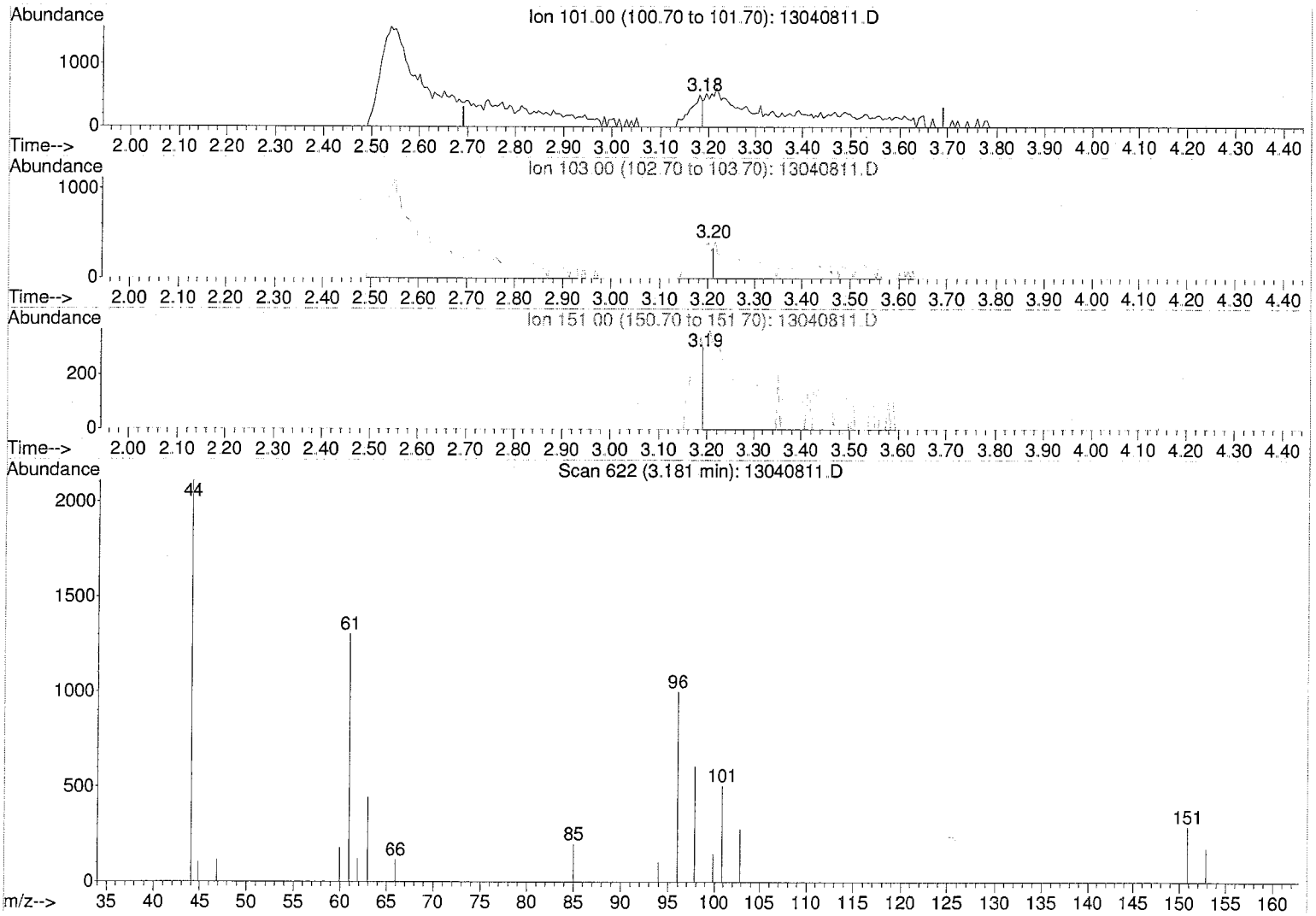
response 11607

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	132.96
63.00	44.80	42.13
0.00	0.00	0.00

AC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:48 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

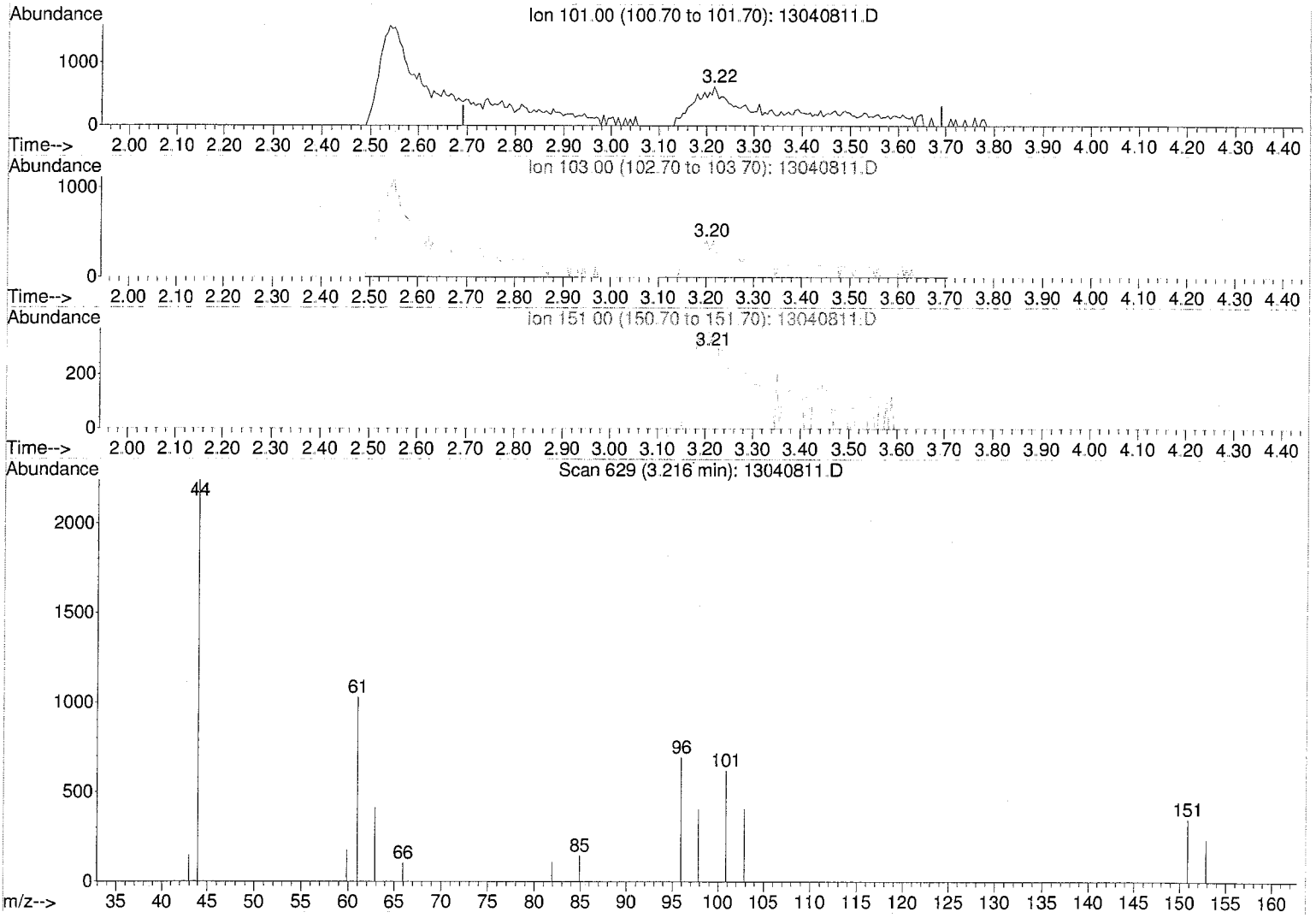
3.18min 0.00ug/L

response 915

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	120.98#
151.00	65.20	62.40
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.22min 0.00ug/L m

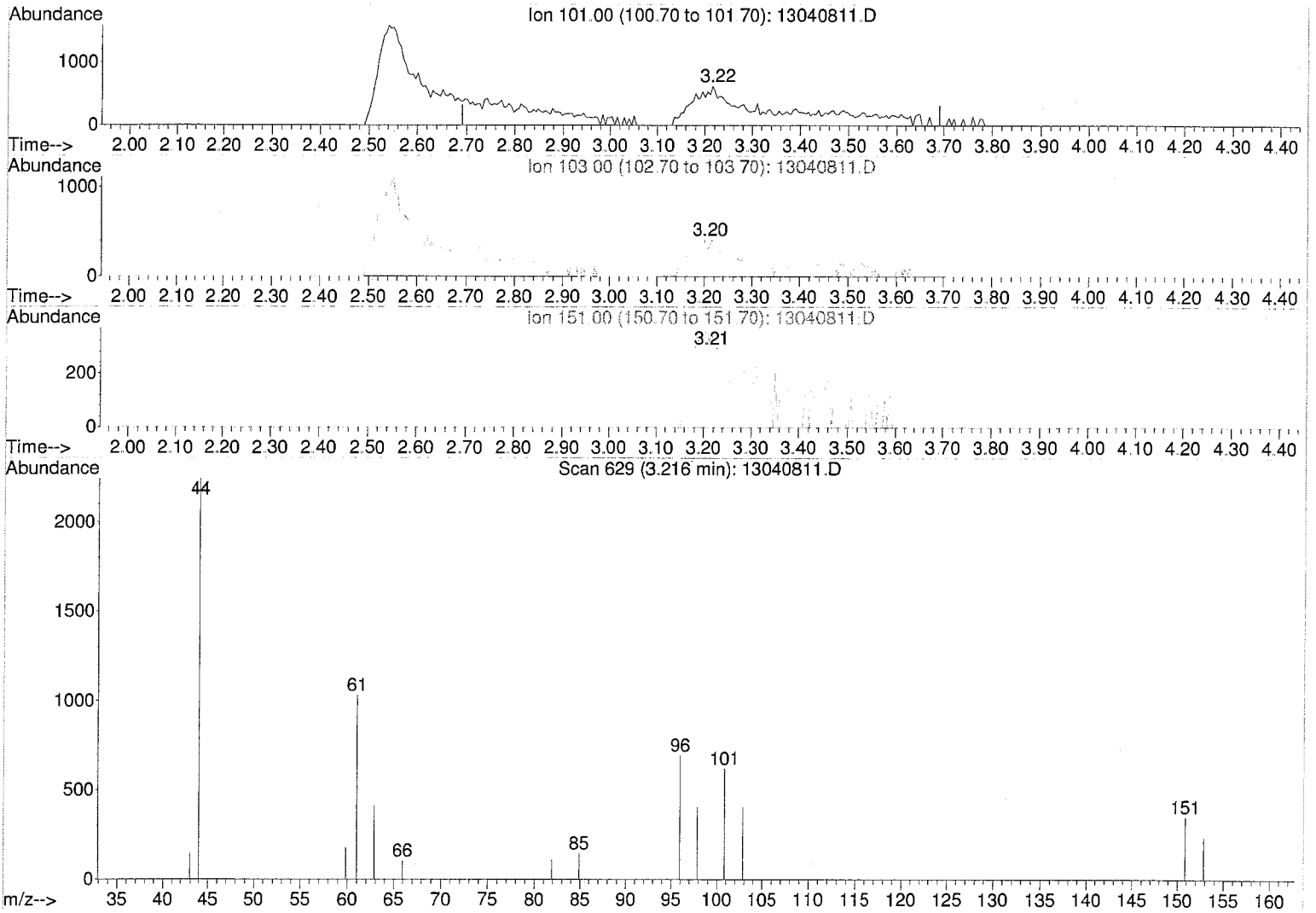
response 7325

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	58.43
151.00	65.20	52.53
0.00	0.00	0.00

4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.22min 0.00ug/L m

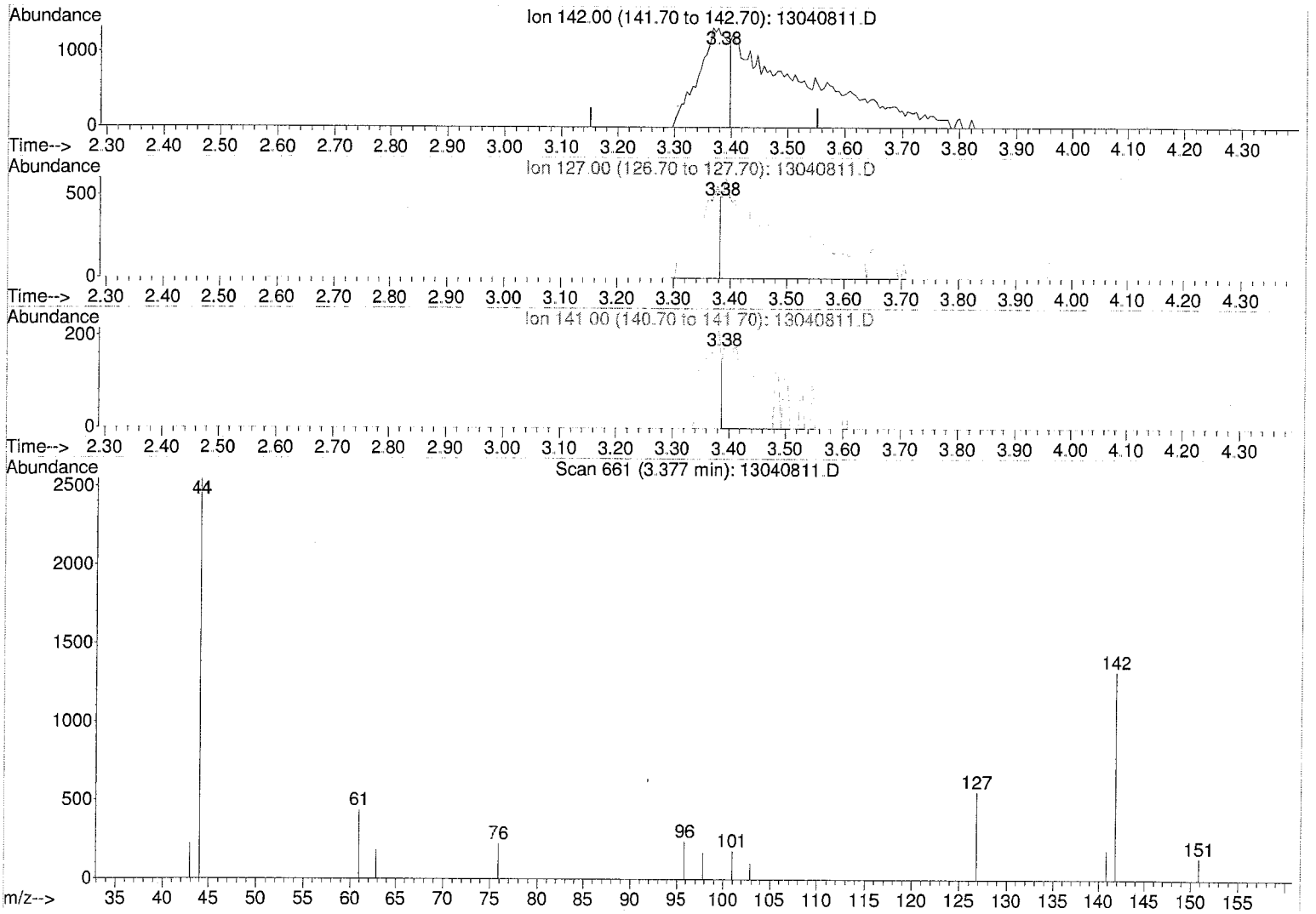
response 7325

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	58.43
151.00	65.20	52.53
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(12) iodomethane (T)

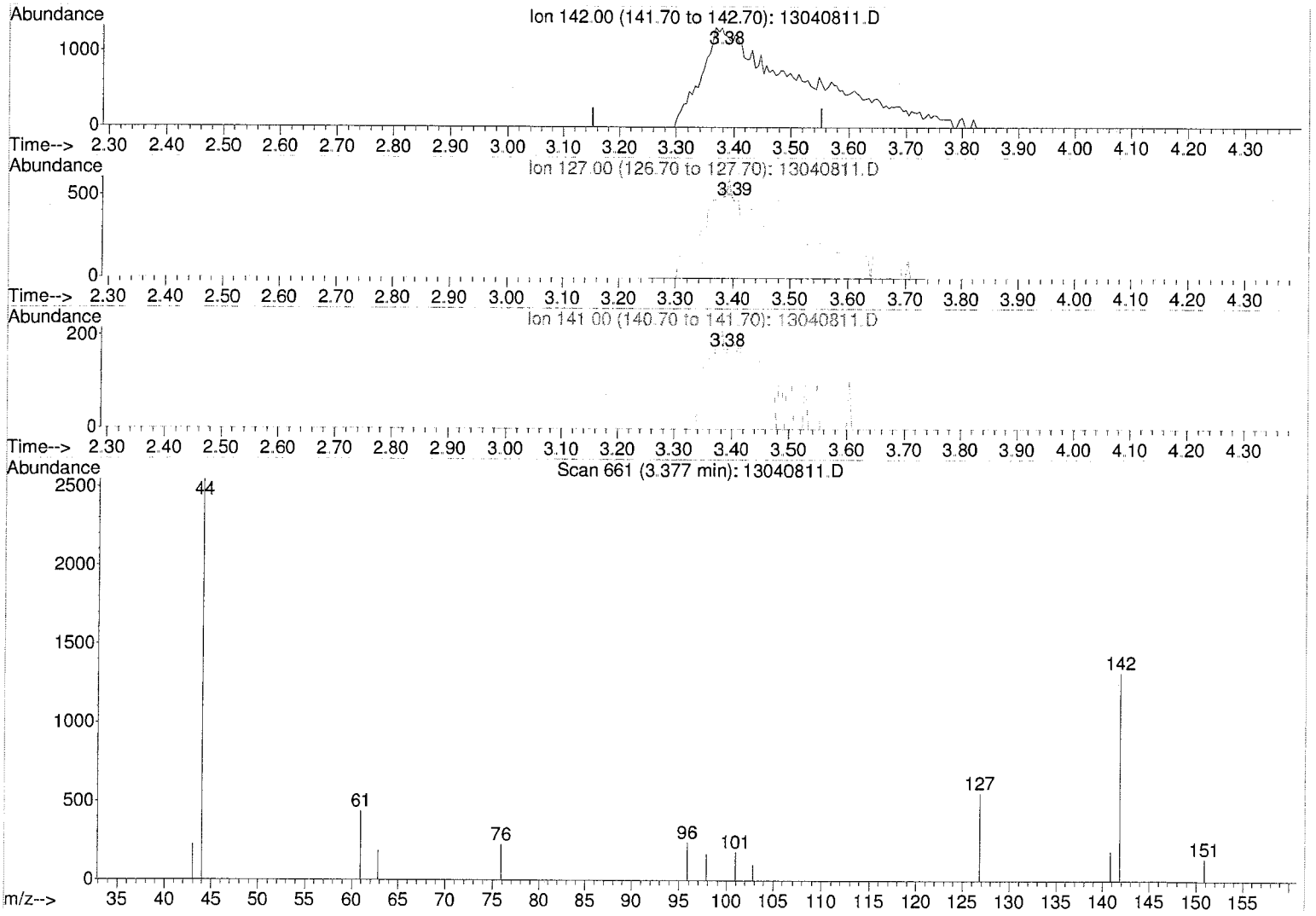
3.38min 0.00ug/L

response 4840

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	31.76
141.00	14.80	9.59
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5u1 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

AK 4/9/13

(12) iodomethane (T)

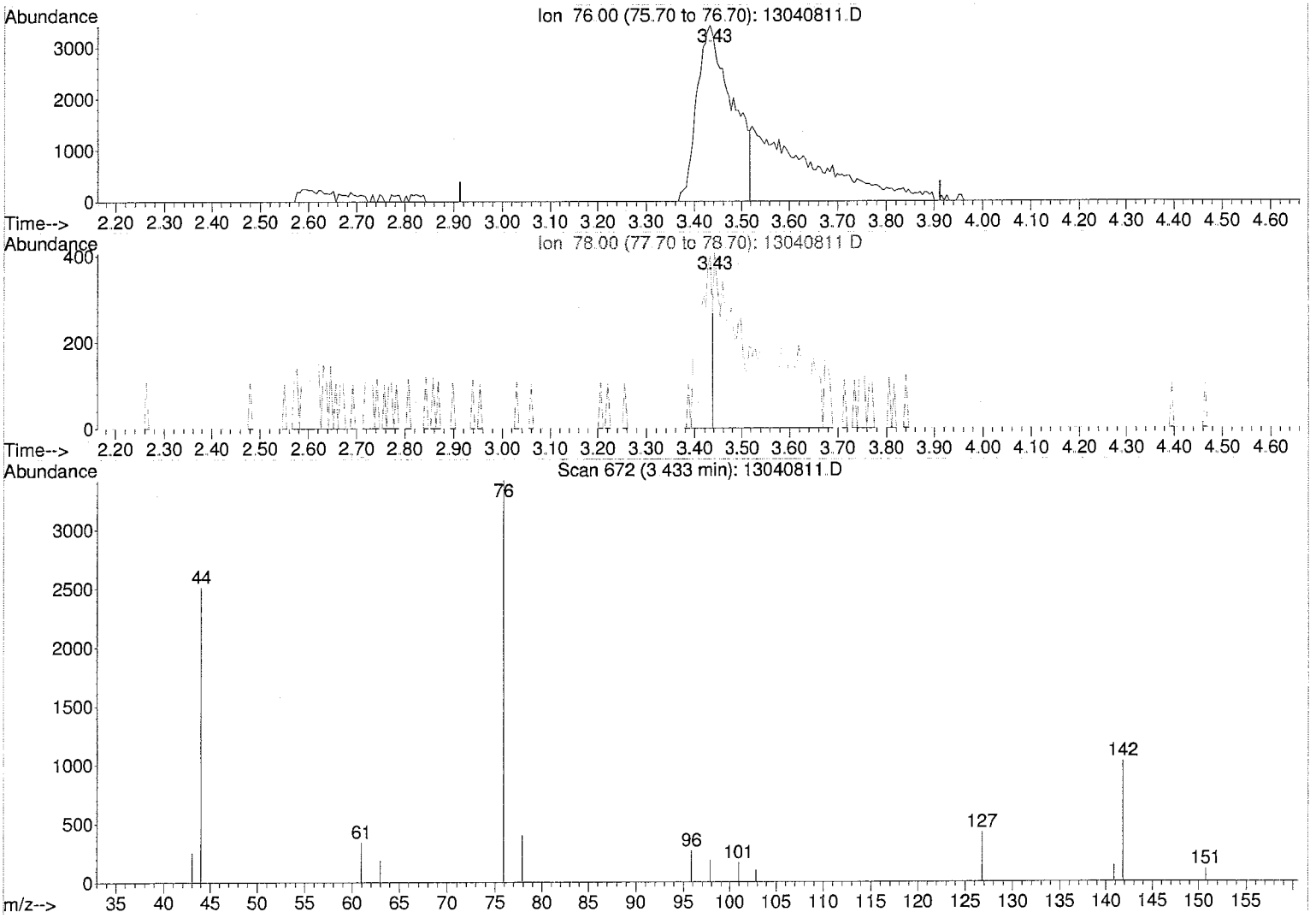
3.38min 0.00ug/L m

response 16264

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	37.67
141.00	14.80	8.81
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(13) Carbon Disulfide (T)

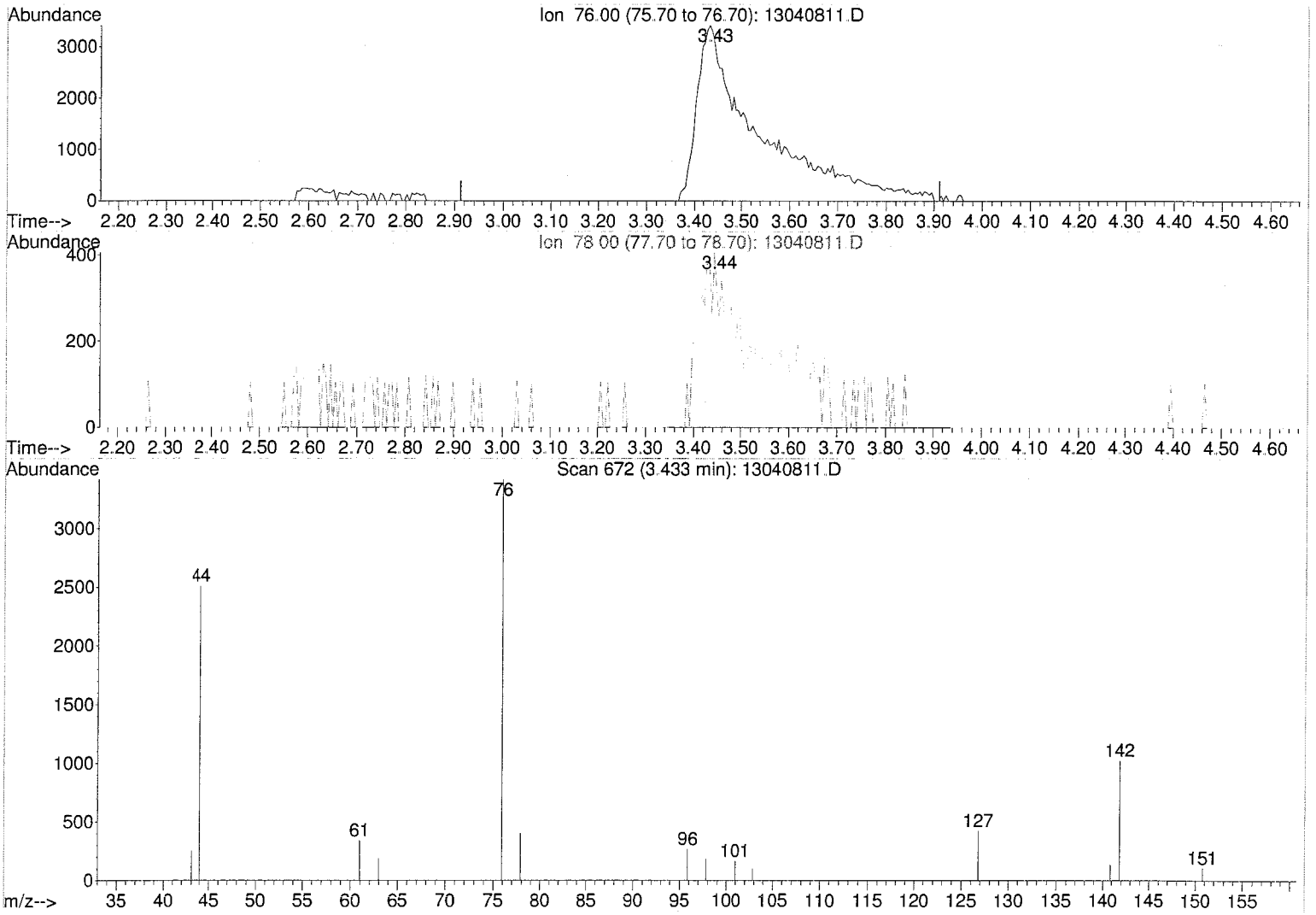
3.43min 0.00ug/L

response 17670

Ion	Exp%	Act%
76.00	100	100
78.00	5.60	4.56
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(13) Carbon Disulfide (T)

3.43min 0.00ug/L m

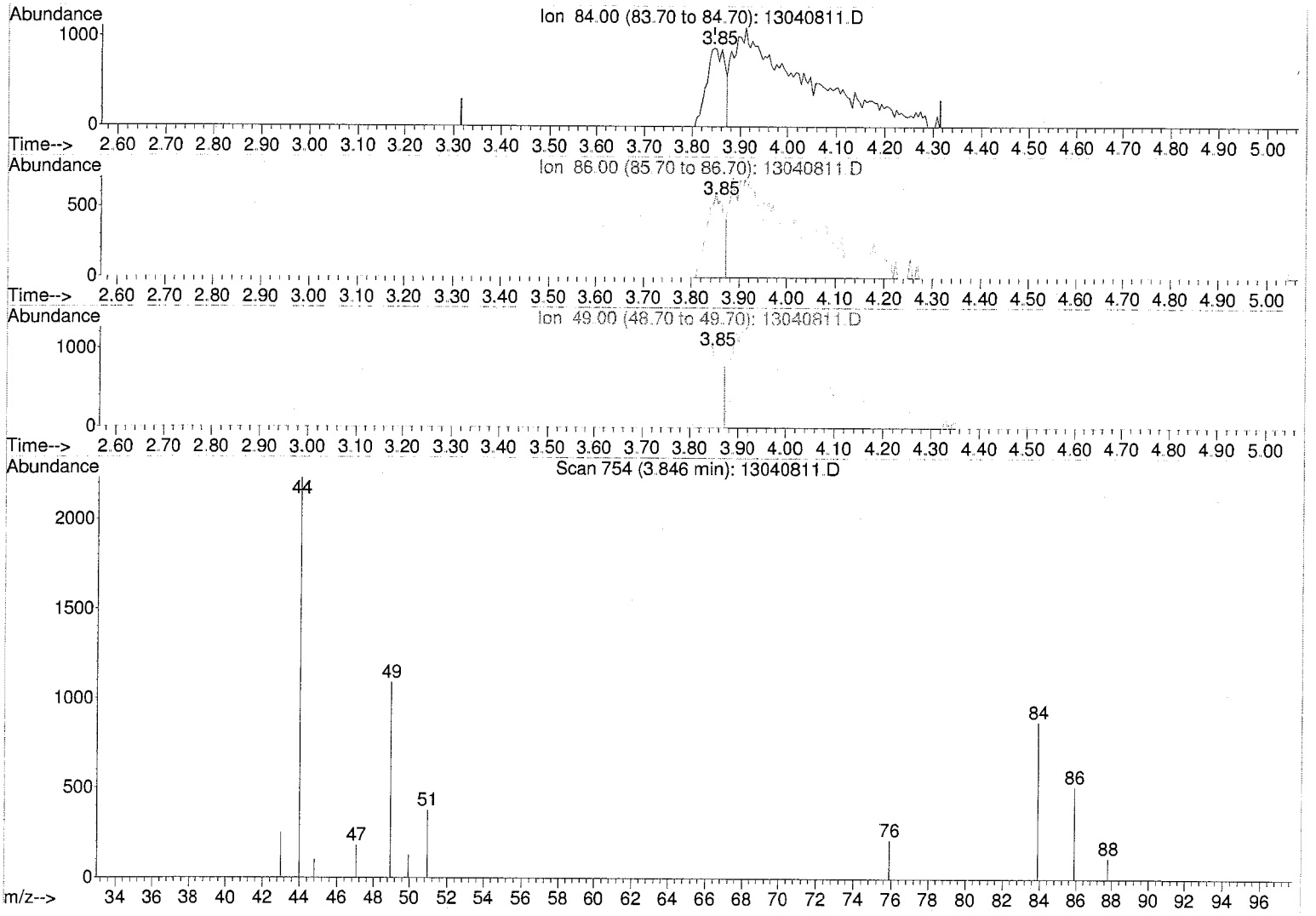
response 30612

Ion	Exp%	Act%
76.00	100	100
78.00	5.60	12.25
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(15) Methylene chloride (T)

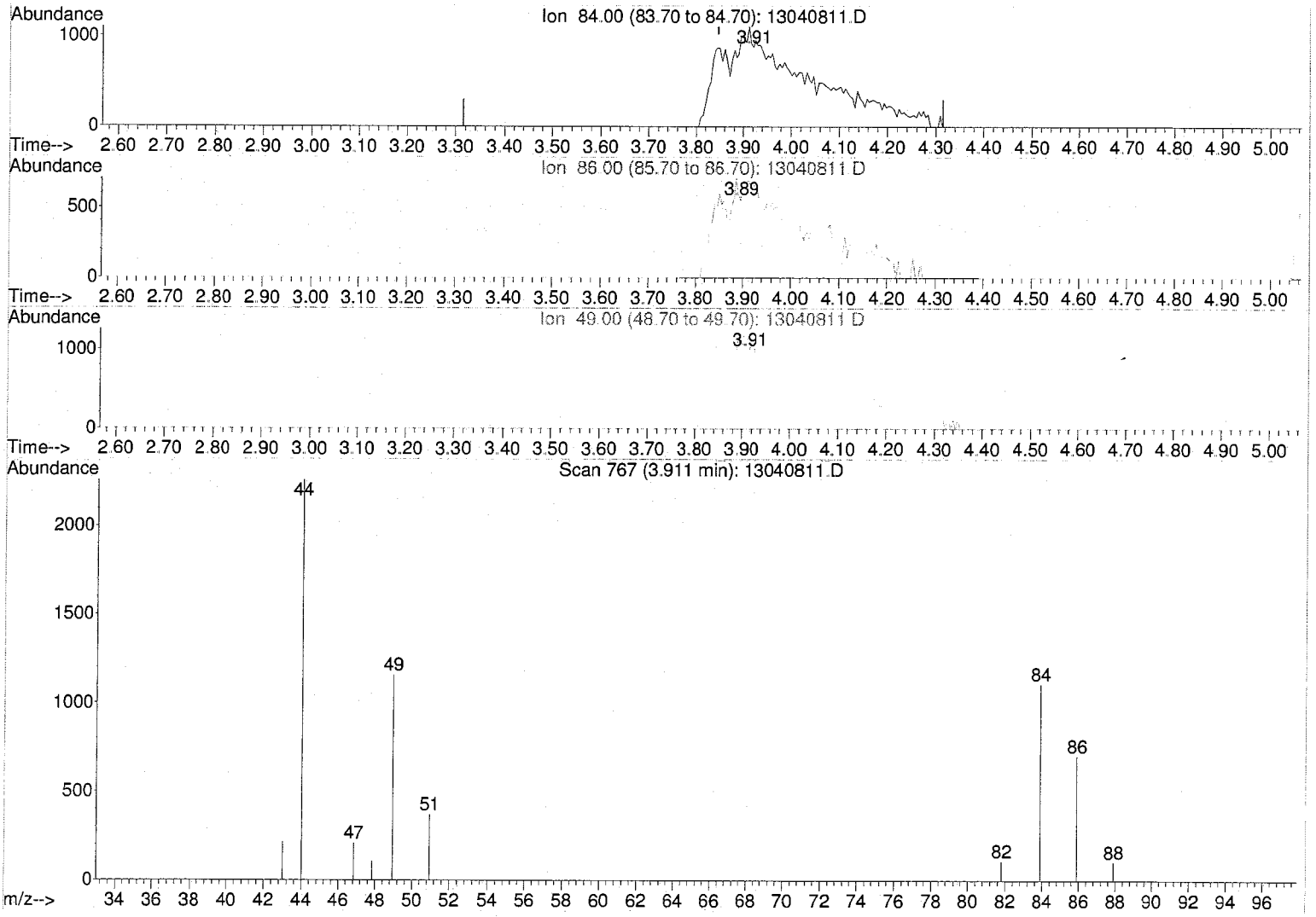
3.85min 0.00ug/L

response 2289

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	63.61
49.00	118.00	116.30
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:50 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(15) Methylene chloride (T)

3.91min 0.00ug/L m

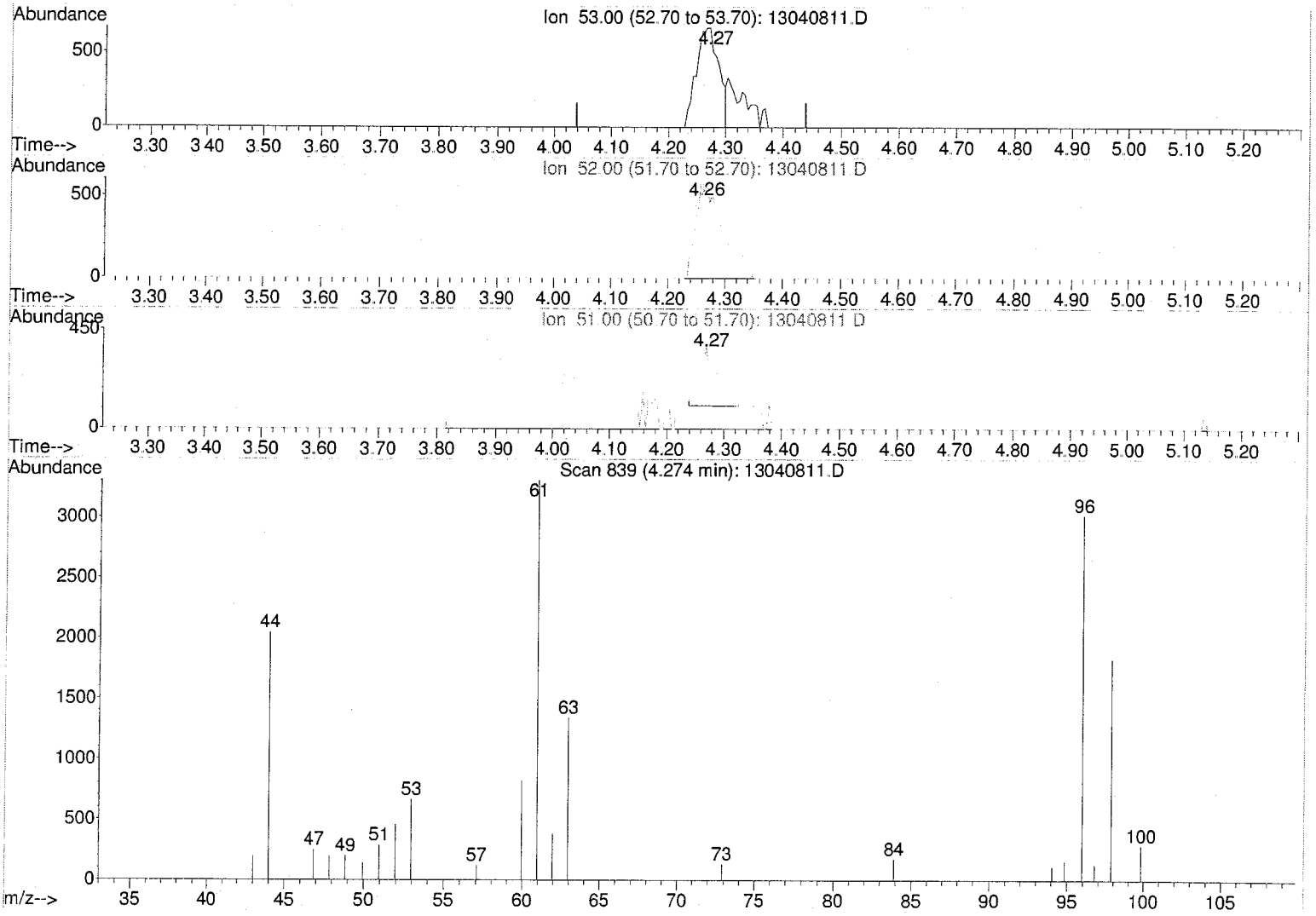
response 14028

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	63.67
49.00	118.00	118.47
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:50 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(17) acrylonitrile (T)

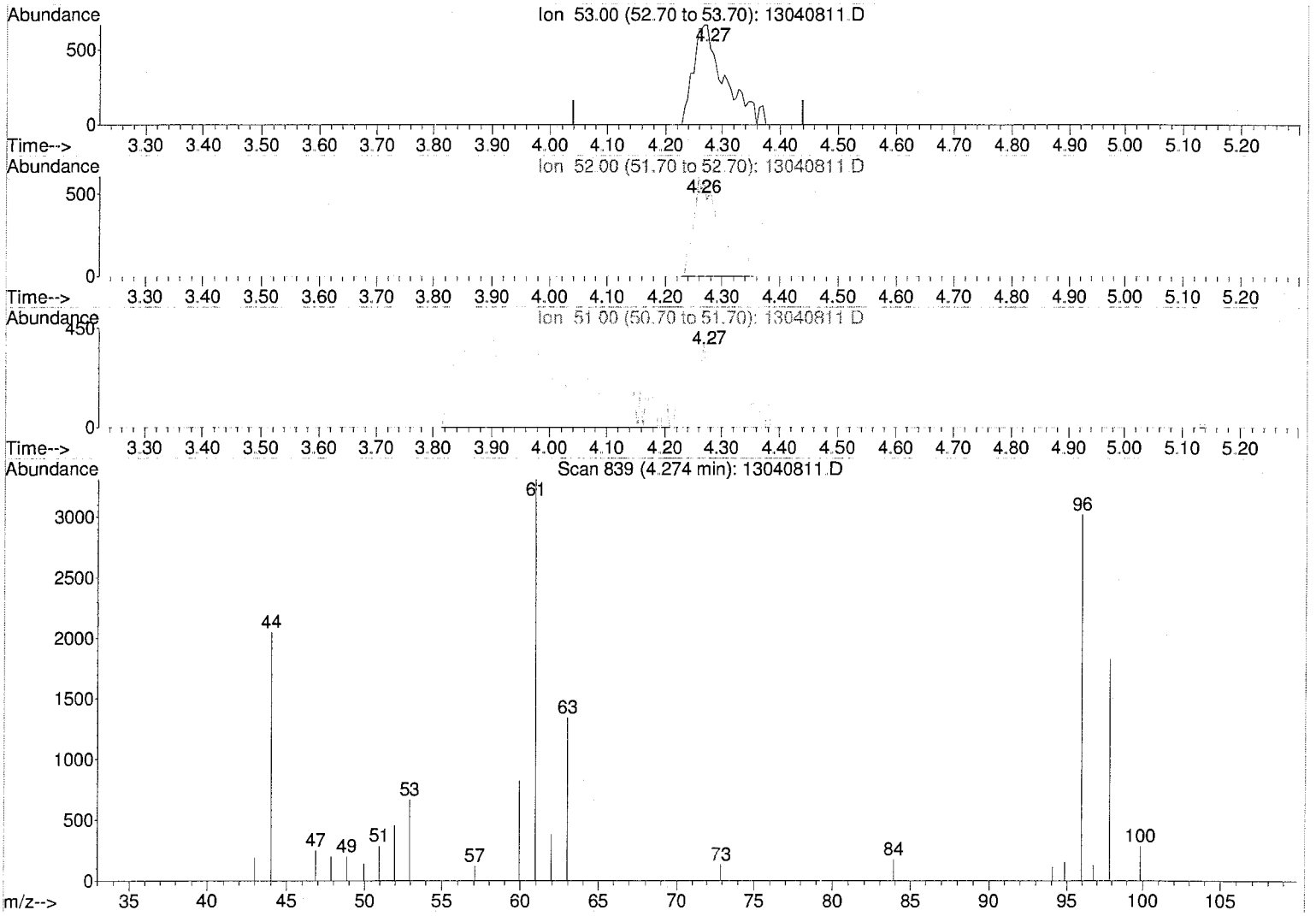
4.27min 0.00ug/L

response 1824

Ion	Exp%	Act%
53.00	100	100
52.00	75.70	108.72#
51.00	34.20	33.83
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:50 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

AK 4/9/13

(17) acrylonitrile (T)

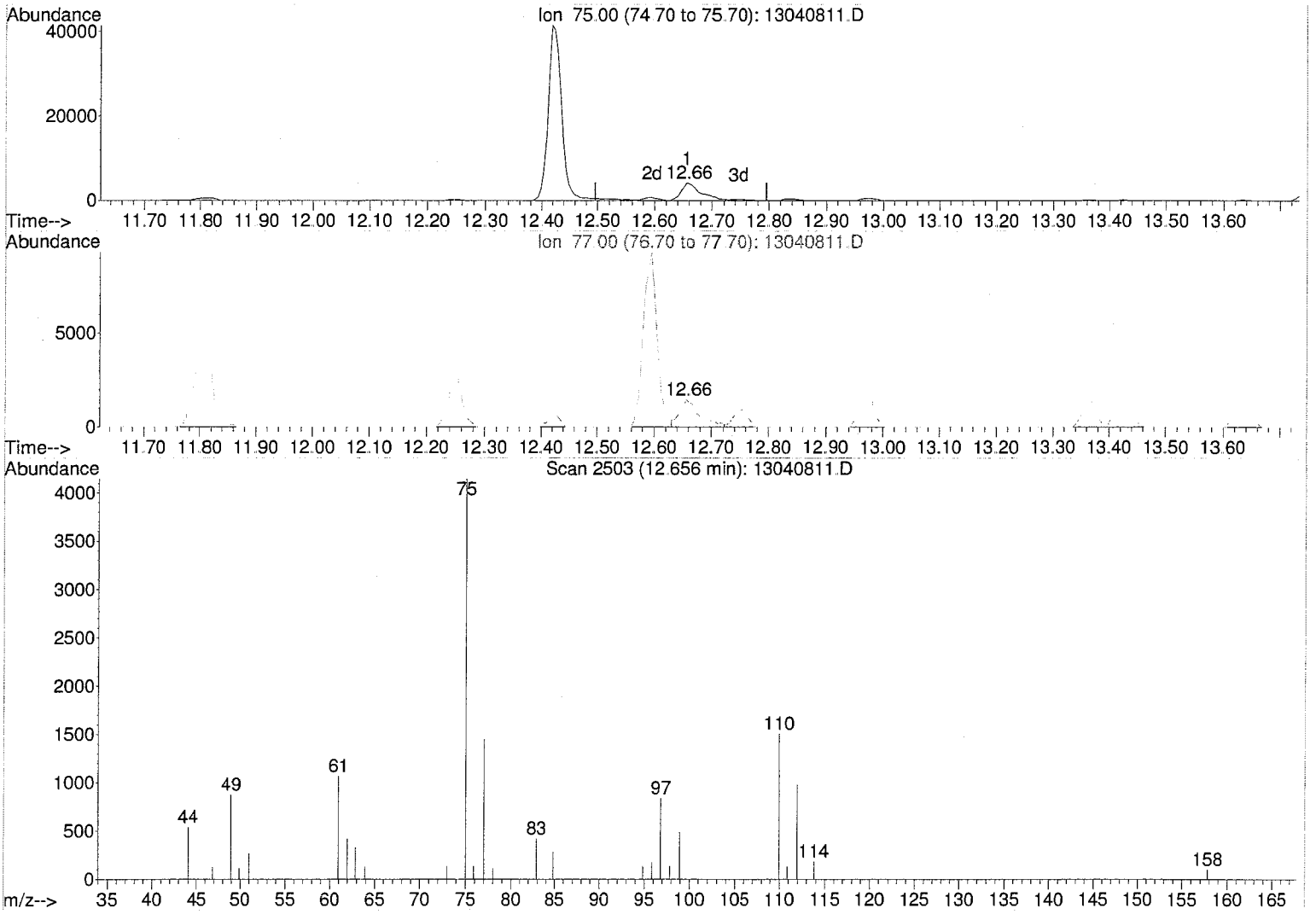
4.27min 0.00ug/L m

response 2561

Ion	Exp%	Act%
53.00	100	100
52.00	75.70	77.43
51.00	34.20	65.95#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:50 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(65) 1,2,3-Trichloropropane (T)

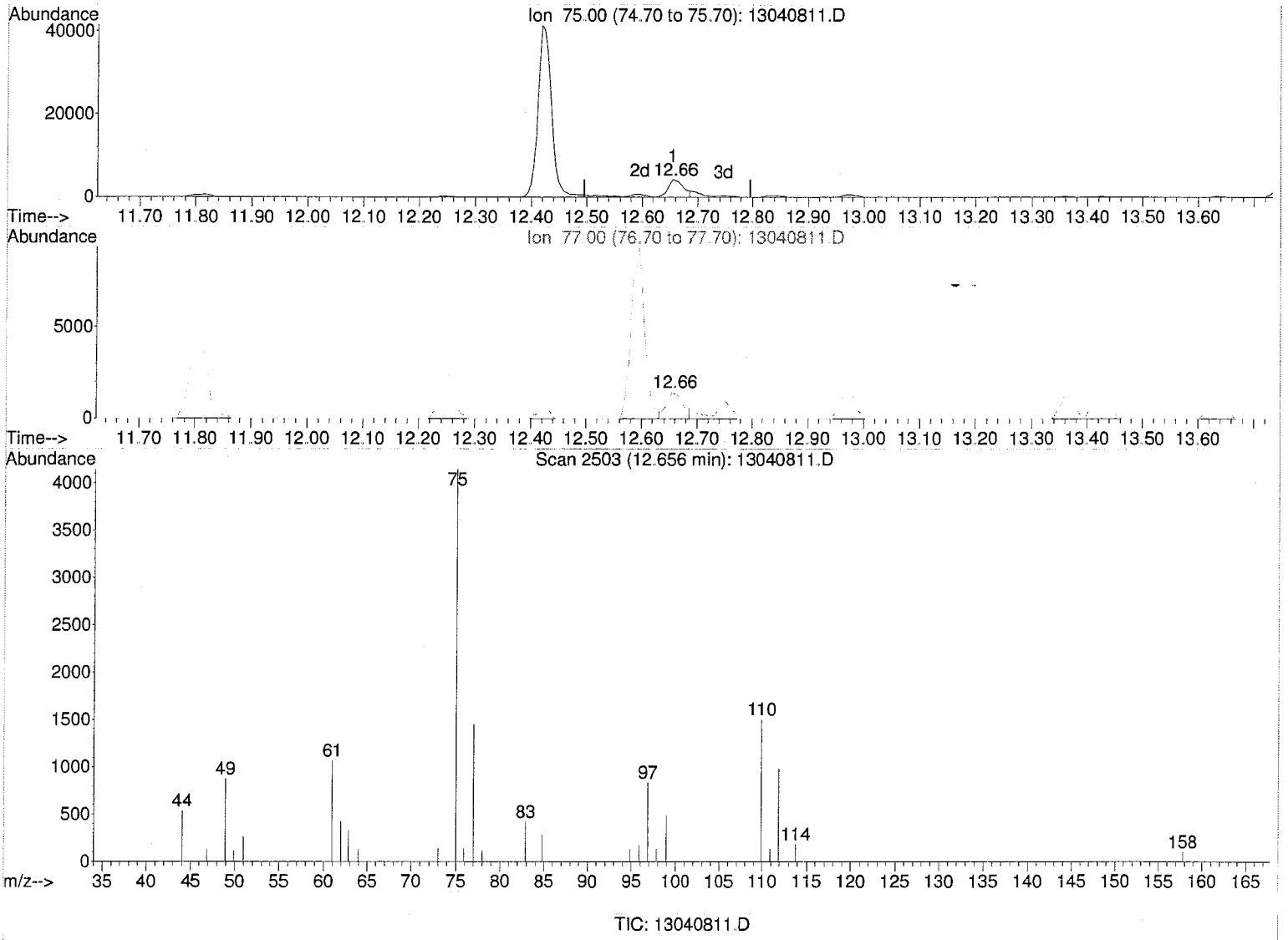
12.66min 0.00ug/L

response 9566

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	36.44
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040811.D Vial: 11
Acq On : 8 Apr 2013 3:24 pm Operator: AK
Sample : CAL2 5ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:50 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040811.D

(65) 1,2,3-Trichloropropane (T)

12.66min 0.00ug/L m

response 7944

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	36.35
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:41 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	561664	50.00	ug/L	0.02
54) Chlorobenzene d-5 ISTD	10.99	117	376692	50.00	ug/L	0.01
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	141962	50.00	ug/L	0.01
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.46	113	125296	0.00	ug/L	0.03
Spiked Amount 50.000	Range 94 - 107		Recovery = 0.00%#			
48) Toluene d-8 SS#2	9.27	98	490202	0.00	ug/L	0.01
Spiked Amount 50.000	Range 96 - 104		Recovery = 0.00%#			
71) 4-Bromofluorobenzene SS#3	12.42	95	179574	0.00	ug/L	0.01
Spiked Amount 50.000	Range 89 - 112		Recovery = 0.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.52	85	25011	No Calib		
3) Chloromethane	1.73	50	31151	No Calib		
4) VINYL CHLORIDE	1.82	62	33731	No Calib		
5) Bromomethane	2.16	94	22776	No Calib		
6) Chloroethane	2.30	64	16410	No Calib		
7) Trichlorofluoromethane	2.55	101	23340	No Calib		
8) acrolein	3.05	56	2470	No Calib		
9) Acetone	3.25	58	746	No Calib		
10) 1,1-DICHLOROETHENE	3.18	96	20515	No Calib		
11) 1,1,2-Trichlorotrifluoroet	3.20	101	13456	No Calib		
12) iodomethane	3.38	142	28466	No Calib		
13) Carbon Disulfide	3.43	76	54360	No Calib		
14) Methyl Acetate	3.74	74	1865	No Calib		
15) Methylene chloride	3.91	84	22929	No Calib		
16) tert-Butanol	4.17	59	451	No Calib		
17) acrylonitrile	4.27	53	5325	No Calib		
18) trans-1,2-Dichloroethene	4.28	96	15161	No Calib		
19) Methyl-t-Butyl Ether	4.33	73	41924	No Calib		
20) 1,1-Dichloroethane	4.93	63	27076	No Calib		
21) vinyl acetate	5.08	43	25650	No Calib		
22) Diisopropyl ether	5.12	45	60748	No Calib		
23) tert-Butyl ethyl ether	5.64	59	52390	No Calib		
24) 2,2-Dichloropropane	5.76	77	8994	No Calib		
25) cis-1,2-Dichloroethene	5.78	96	22950	No Calib		
26) 2-Butanone (MEK)	5.86	72	1126	No Calib	#	
27) Bromochloromethane	6.10	128	9616	No Calib	#	
28) CHLOROFORM	6.24	83	29979	No Calib		
30) 1,1,1-Trichloroethane	6.45	97	16398	No Calib		
31) Cyclohexane	6.51	56	13926	No Calib		
32) Carbon tetrachloride	6.66	117	12490	No Calib		
33) 1,1-Dichloropropene	6.67	75	22546	No Calib		
34) Benzene`	6.93	78	79000	No Calib		
35) 1,2-Dichloroethane	6.97	62	18844	No Calib		
36) tert-Amyl alcohol	7.09	59	469	No Calib	#	
37) tert-Amyl methyl ether	7.14	73	48551	No Calib		
38) Trichloroethene	7.77	95	18525	No Calib		
39) 1,2-DICHLOROPROPANE	8.05	63	18875	No Calib		
40) Methylcyclohexane	8.00	83	15156	No Calib		
41) tert-Amyl ethyl ether	8.14	59	42029	No Calib		
42) Dibromomethane	8.19	93	11156	No Calib		
43) 1,4-Dioxane	8.25	88	1079	No Calib	#	
44) Bromodichloromethane	8.40	83	19838	No Calib		
45) 2-Chloroethylvinyl Ether	8.81	63	9359	No Calib		
46) cis-1,3-Dichloropropene	8.95	75	27667	No Calib		
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	2339	No Calib	#	

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:41 2013 Quant Results File: VOC-W.RES

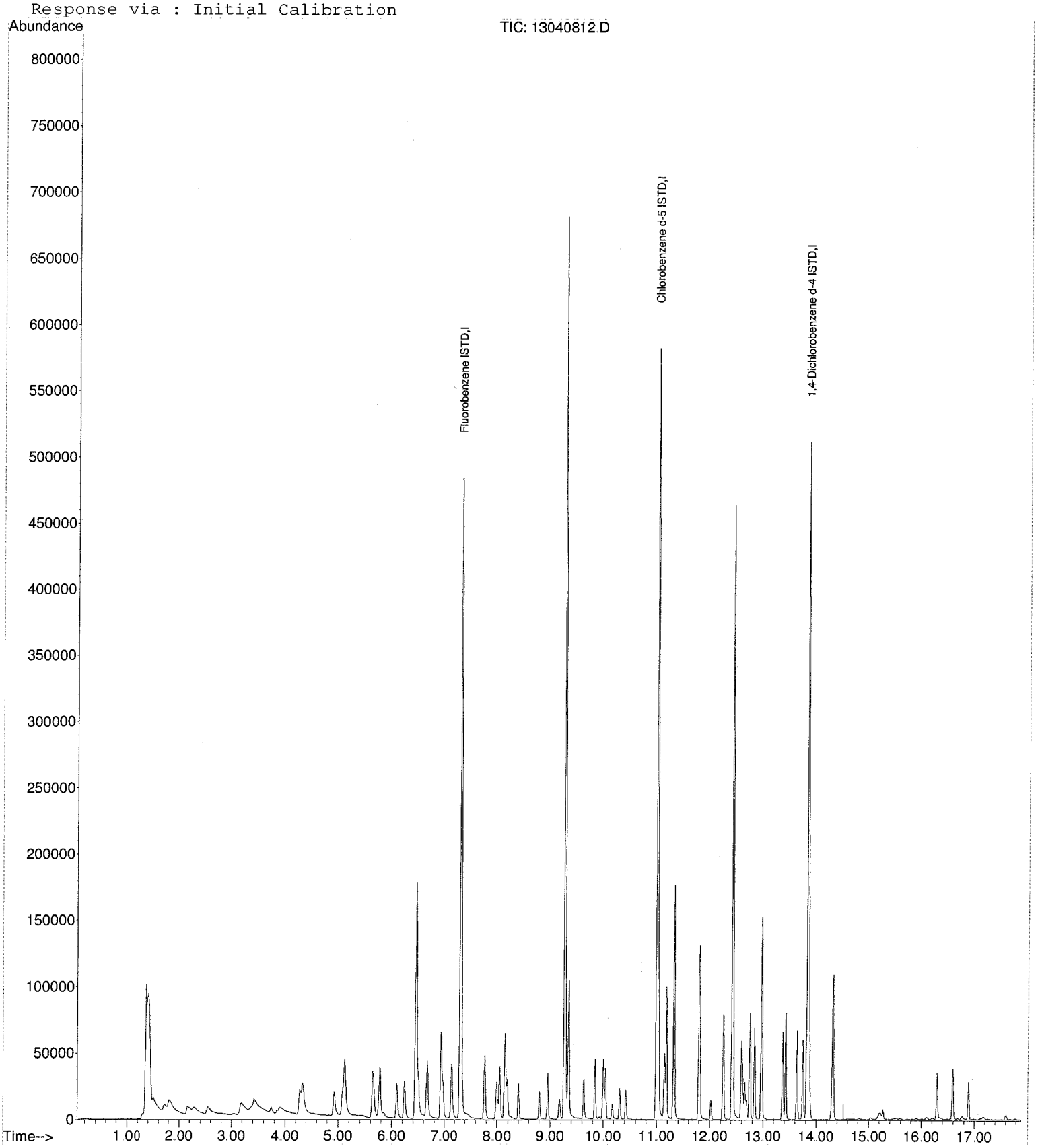
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
49)	TOLUENE	9.35	92	48706	No Calib	
50)	trans-1,3-Dichloropropene	9.63	75	22333	No Calib	
51)	1,1,2-Trichloroethane	9.85	83	13326	No Calib	
52)	Tetrachloroethene	10.00	164	11803	No Calib	
53)	2-Hexanone (MBK)	10.18	43	10081	No Calib	
55)	1,3-Dichloropropane	10.04	76	29147	No Calib	
56)	Dibromochloromethane	10.31	129	12942	No Calib	
57)	1,2-Dibromoethane	10.43	107	16762	No Calib	
58)	Chlorobenzene	11.03	112	52454	No Calib	
59)	1,1,1,2-Tetrachloroethane	11.13	131	13918	No Calib	
60)	ETHYLBENZENE	11.18	91	76302	No Calib	
61)	m&p-Xylene	11.32	106	62044	No Calib	
62)	o-Xylene	11.79	106	30711	No Calib	
63)	Styrene	11.81	104	56633	No Calib	
64)	Bromoform	12.02	173	7007	No Calib	
65)	1,2,3-Trichloropropane	12.66	75	14749	No Calib	
66)	Bromobenzene	12.60	156	18077	No Calib	
67)	trans-1,4-dichloro-2-buten	12.69	53	3284	No Calib	#
68)	n-Propylbenzene	12.75	91	69599	No Calib	
70)	Isopropylbenzene	12.25	105	63309	No Calib	
72)	1,1,2,2-Tetrachloroethane	12.62	83	20085	No Calib	
73)	2-Chlorotoluene	12.84	91	45495	No Calib	
74)	4-Chlorotoluene	12.97	91	52075	No Calib	
75)	1,3,5-Trimethylbenzene	12.97	105	49563	No Calib	
76)	tert-Butylbenzene	13.37	119	36499	No Calib	
77)	1,2,4-Trimethylbenzene	13.43	105	50816	No Calib	
78)	sec-Butylbenzene	13.63	105	55541	No Calib	
79)	4-Isopropyltoluene	13.82	119	43274	No Calib	
80)	1,3-Dichlorobenzene	13.75	146	28039	No Calib	
81)	1,4-Dichlorobenzene	13.86	146	29401	No Calib	
82)	1,2-Dichlorobenzene	14.31	146	26378	No Calib	
83)	n-Butylbenzene	14.32	91	40276	No Calib	
84)	1,2-Dibromo-3-chloropropan	15.27	75	1682	No Calib	
85)	1,2,4-Trichlorobenzene	16.29	180	11740	No Calib	
86)	Naphthalene	16.59	128	32321	No Calib	
87)	1,2,3-Trichlorobenzene	16.89	180	9708	No Calib	

(#) = qualifier out of range (m) = manual integration

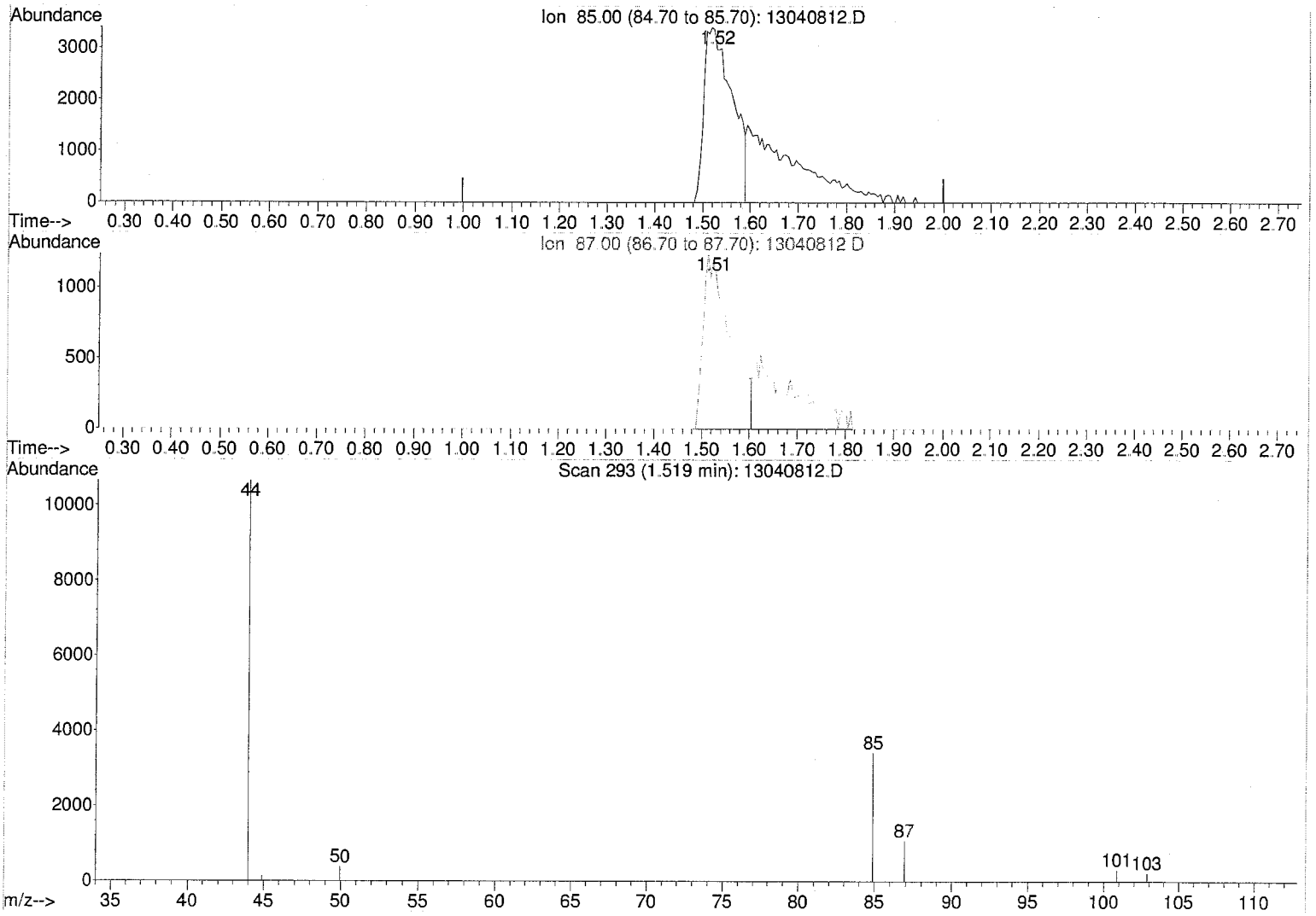
Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:56 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(2) Dichlorodifluoromethane (T)

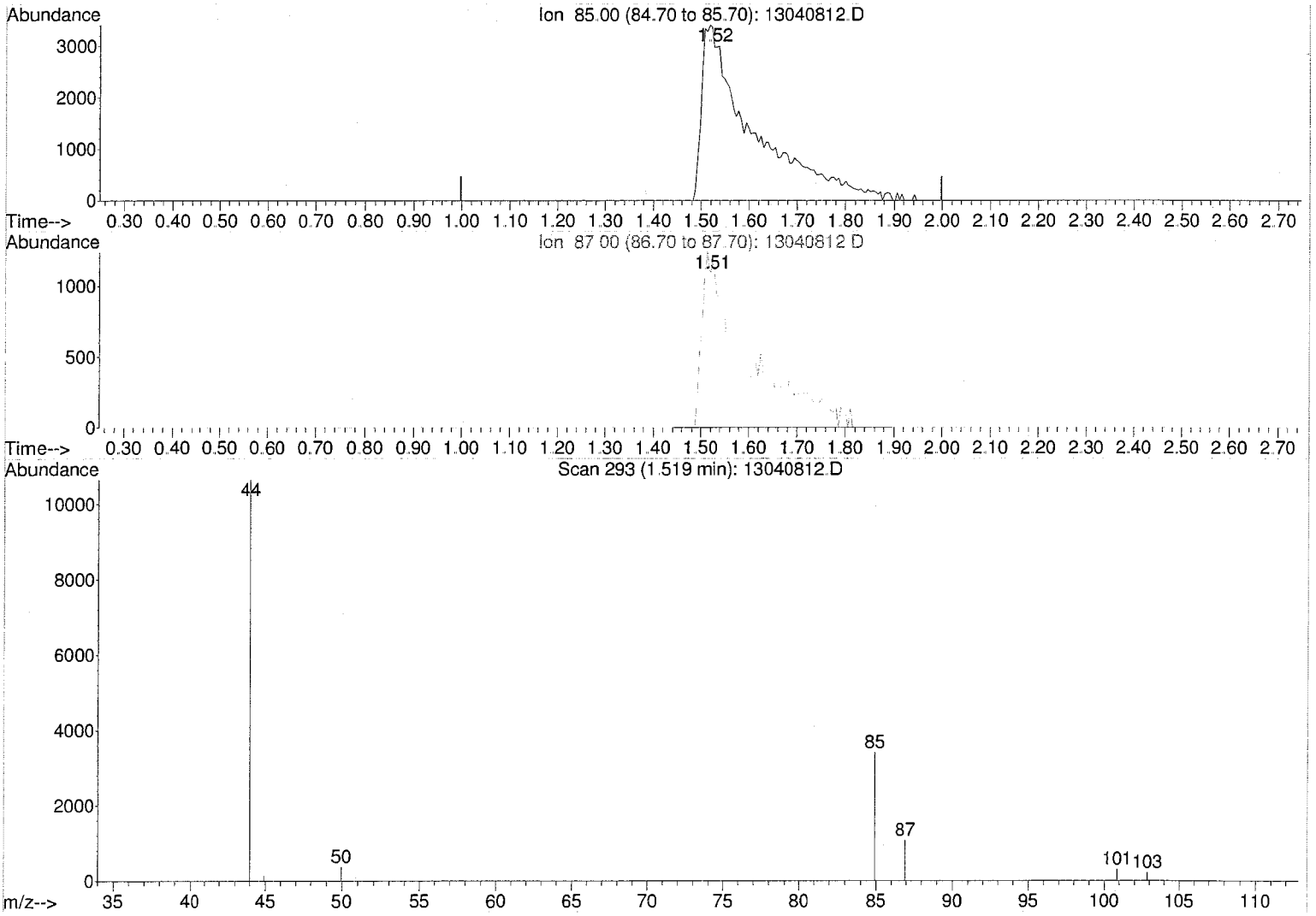
1.52min 0.00ug/L

response 14077

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	35.50
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:51 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(2) Dichlorodifluoromethane (T)

1.52min 0.00ug/L m

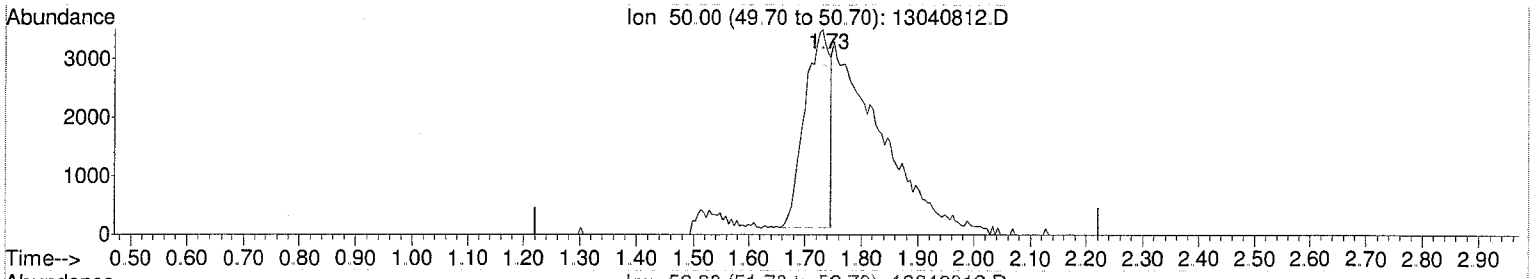
response 25011

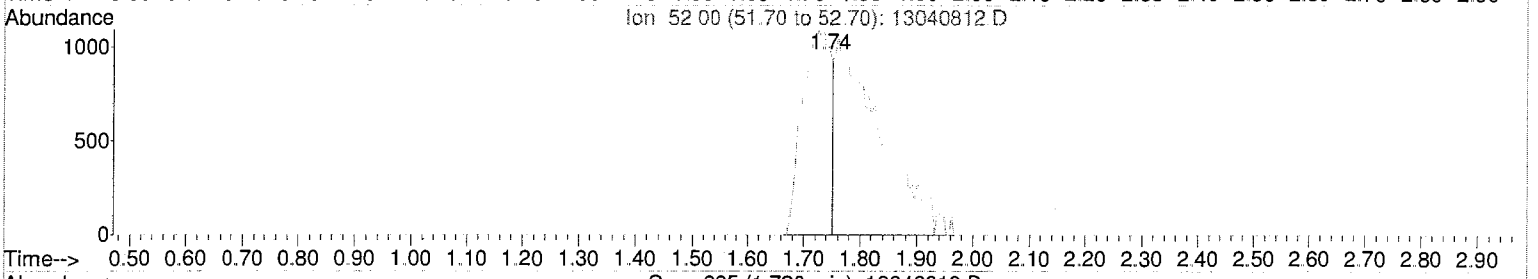
Ion	Exp%	Act%
85.00	100	100
87.00	32.00	31.78
0.00	0.00	0.00
0.00	0.00	0.00

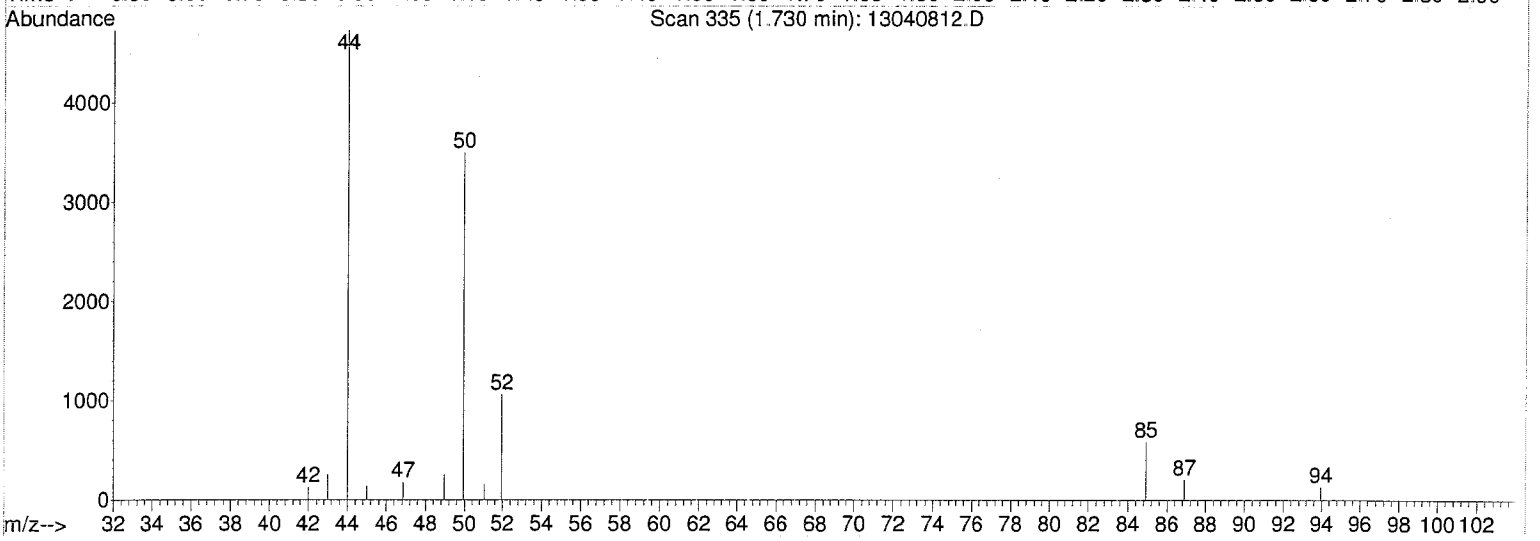
AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:51 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration







TIC: 13040812.D

(3) Chloromethane (P)

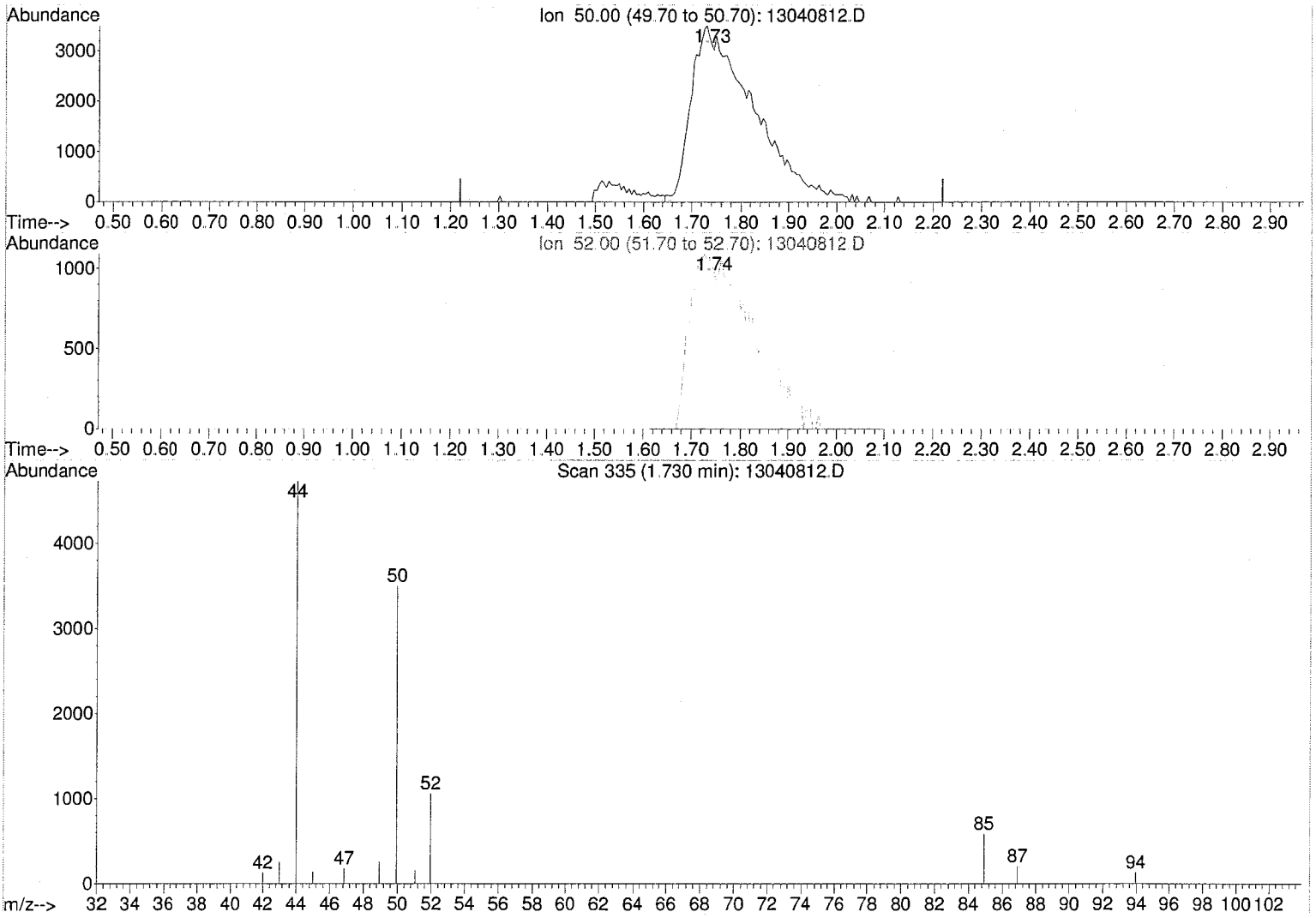
1.73min 0.00ug/L

response 10462

Ion	Exp%	Act%
50.00	100	100
52.00	33.40	37.05
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:52 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(3) Chloromethane (P)

1.73min 0.00ug/L m

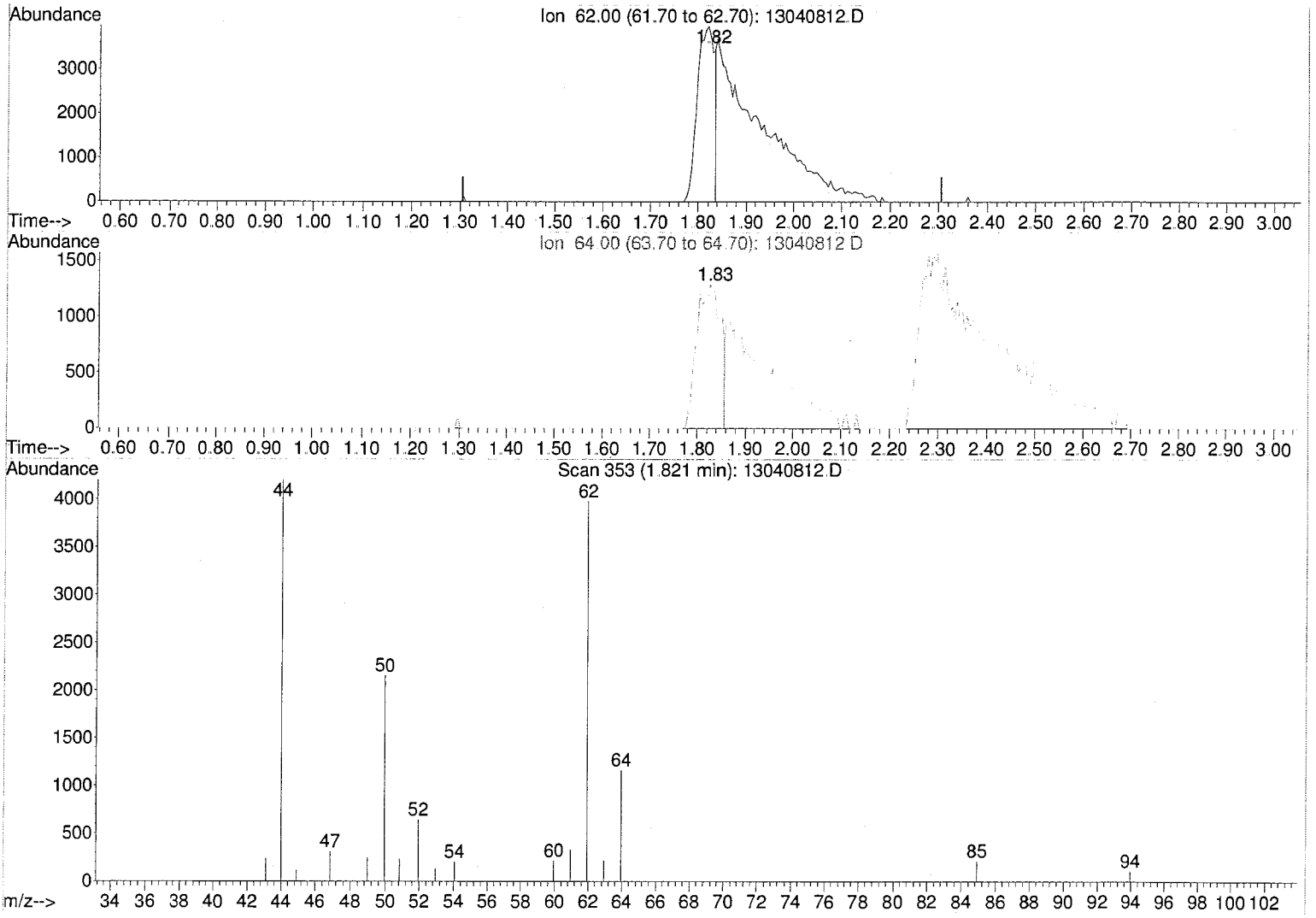
response 31151

Ion	Exp%	Act%
50.00	100	100
52.00	33.40	31.60
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:52 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(4) VINYL CHLORIDE (C)

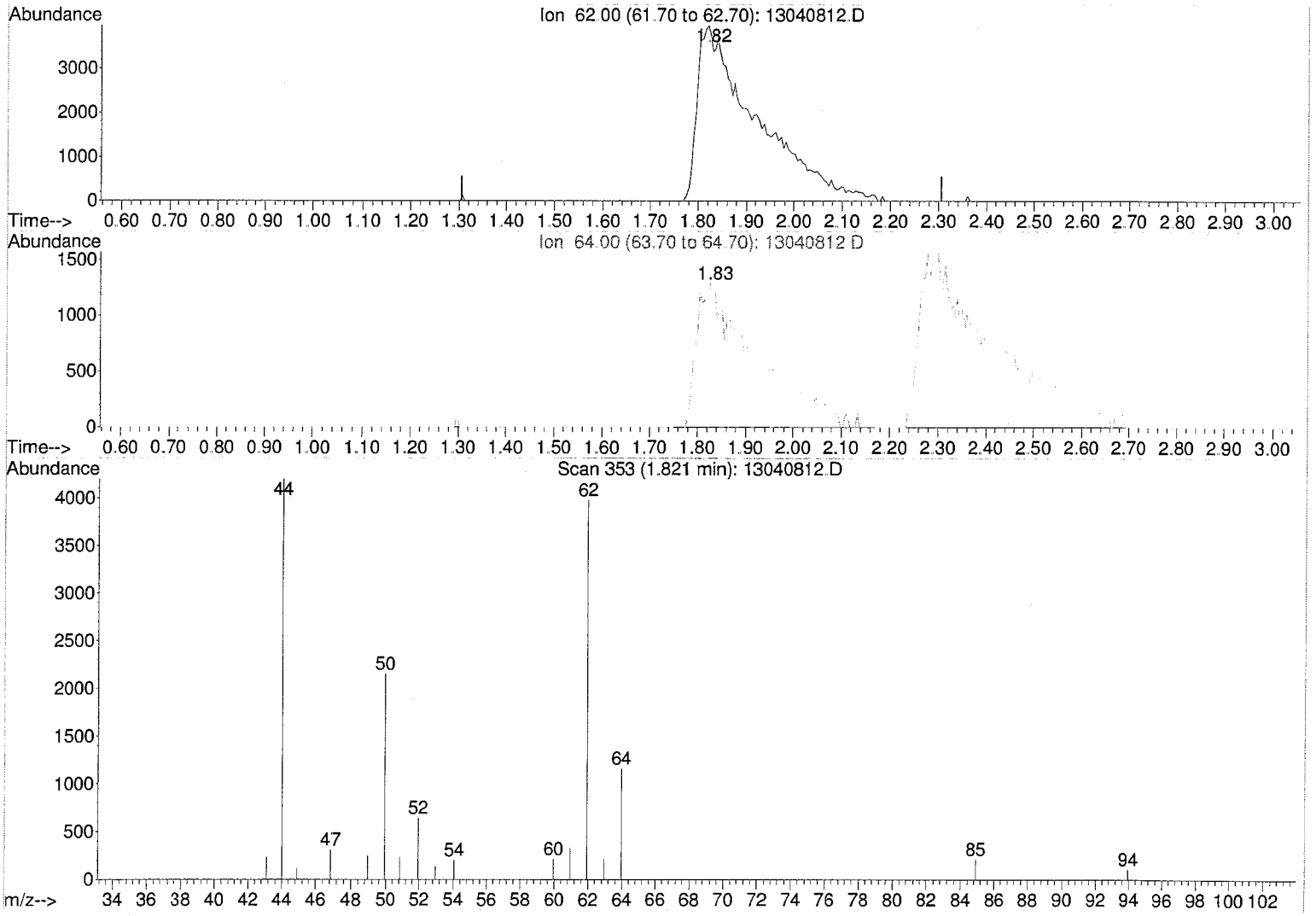
1.82min 0.00ug/L

response 10085

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	44.11
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:52 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(4) VINYL CHLORIDE (C)

1.82min 0.00ug/L m

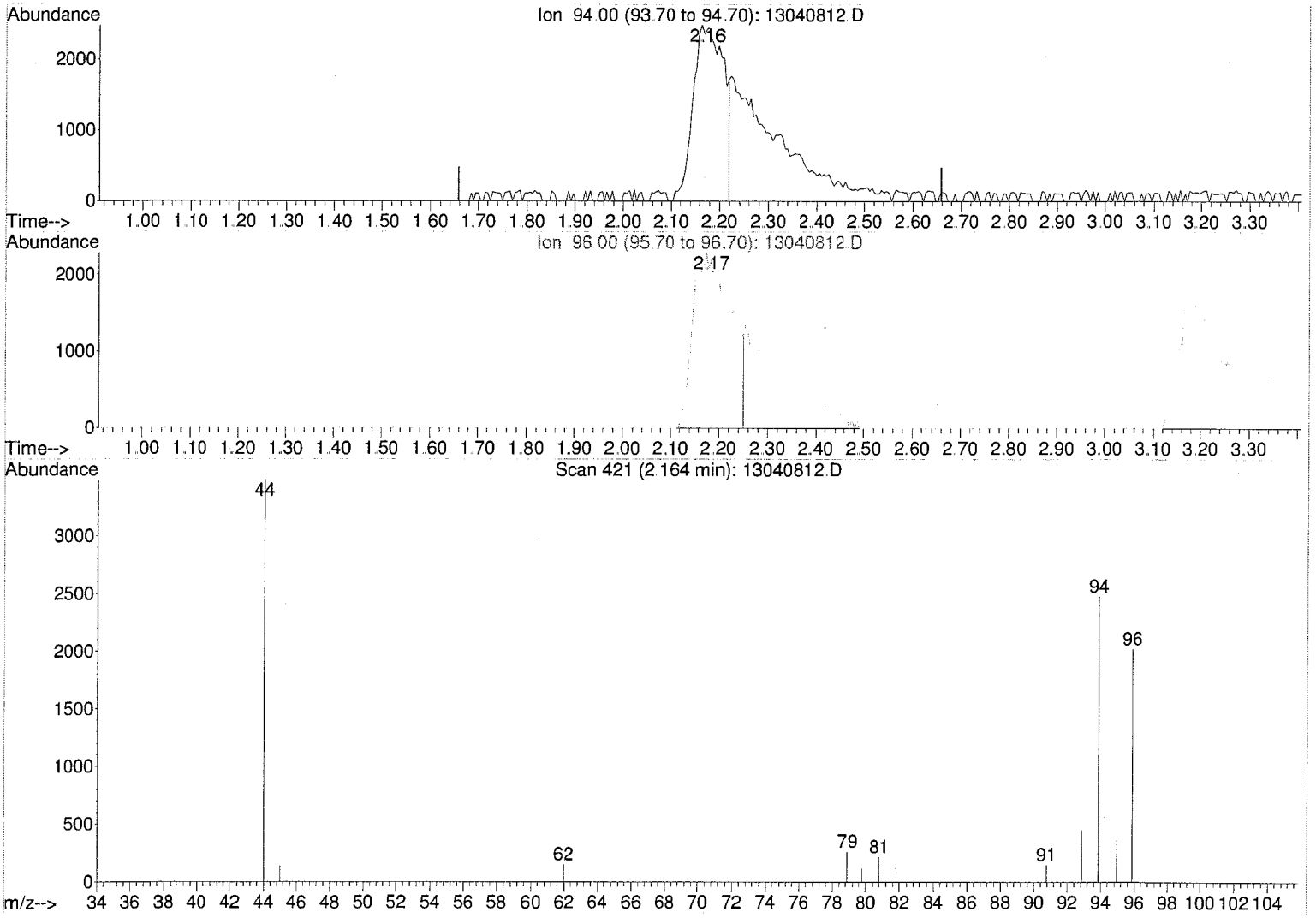
response 33731

Ion	Exp%	Act%
62.00	100	100
64.00	31.70	32.72
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:52 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(5) Bromomethane (T)

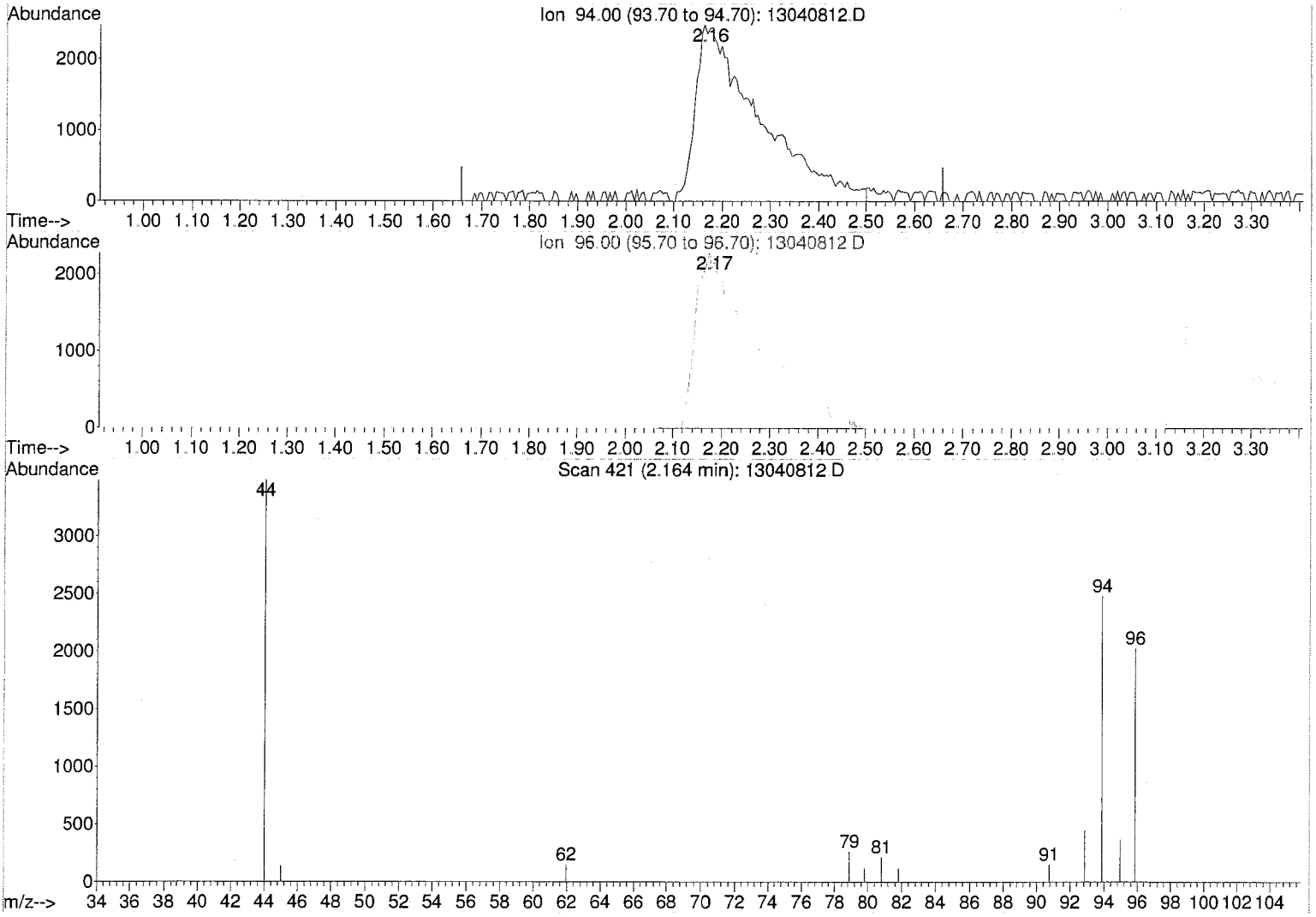
2.16min 0.00ug/L

response 10841

Ion	Exp%	Act%
94.00	100	100
96.00	94.50	112.32
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(5) Bromomethane (T)

2.16min 0.00ug/L m

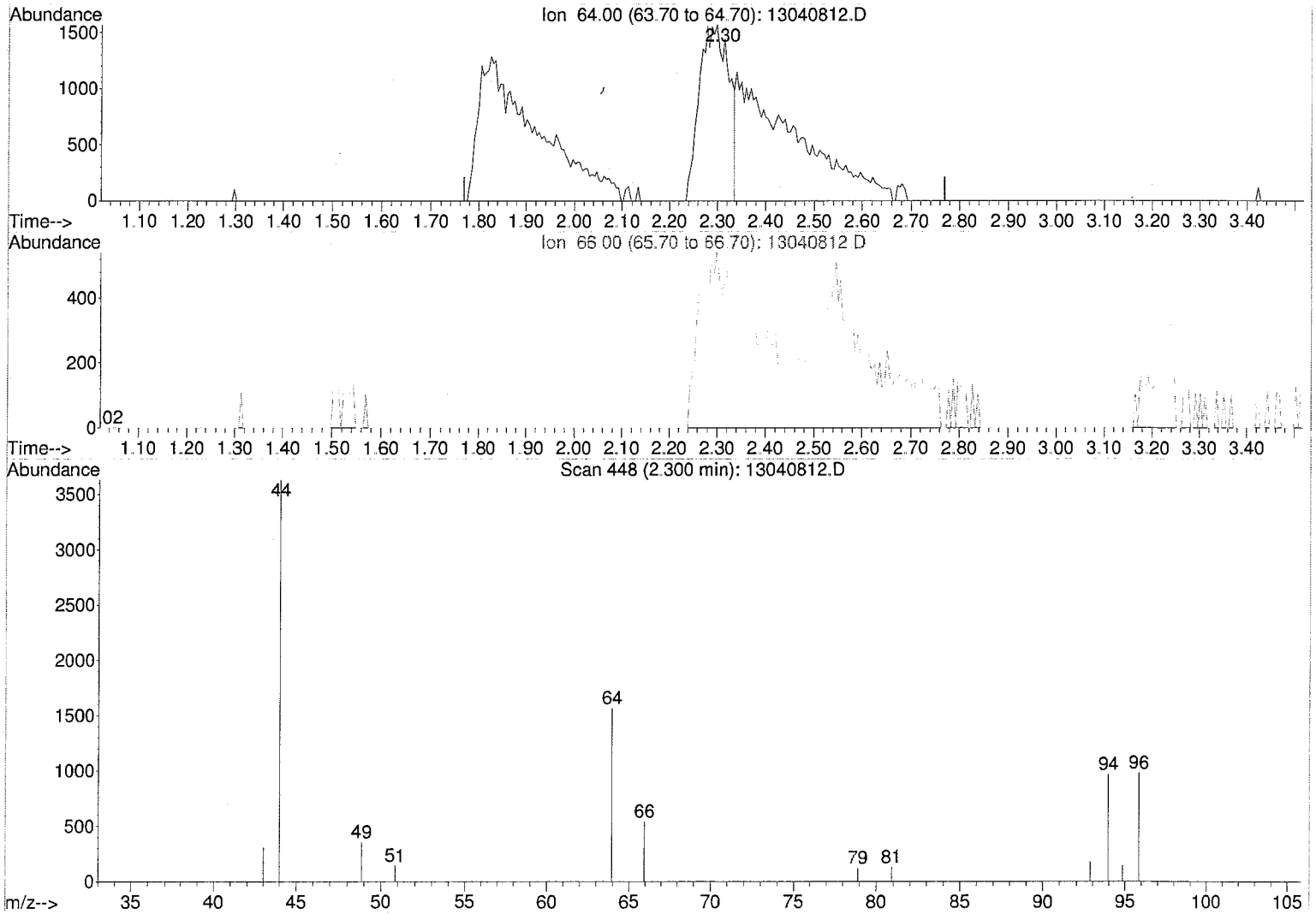
response 22776

Ion	Exp%	Act%
94.00	100	100
96.00	94.50	87.18
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(6) Chloroethane (T)

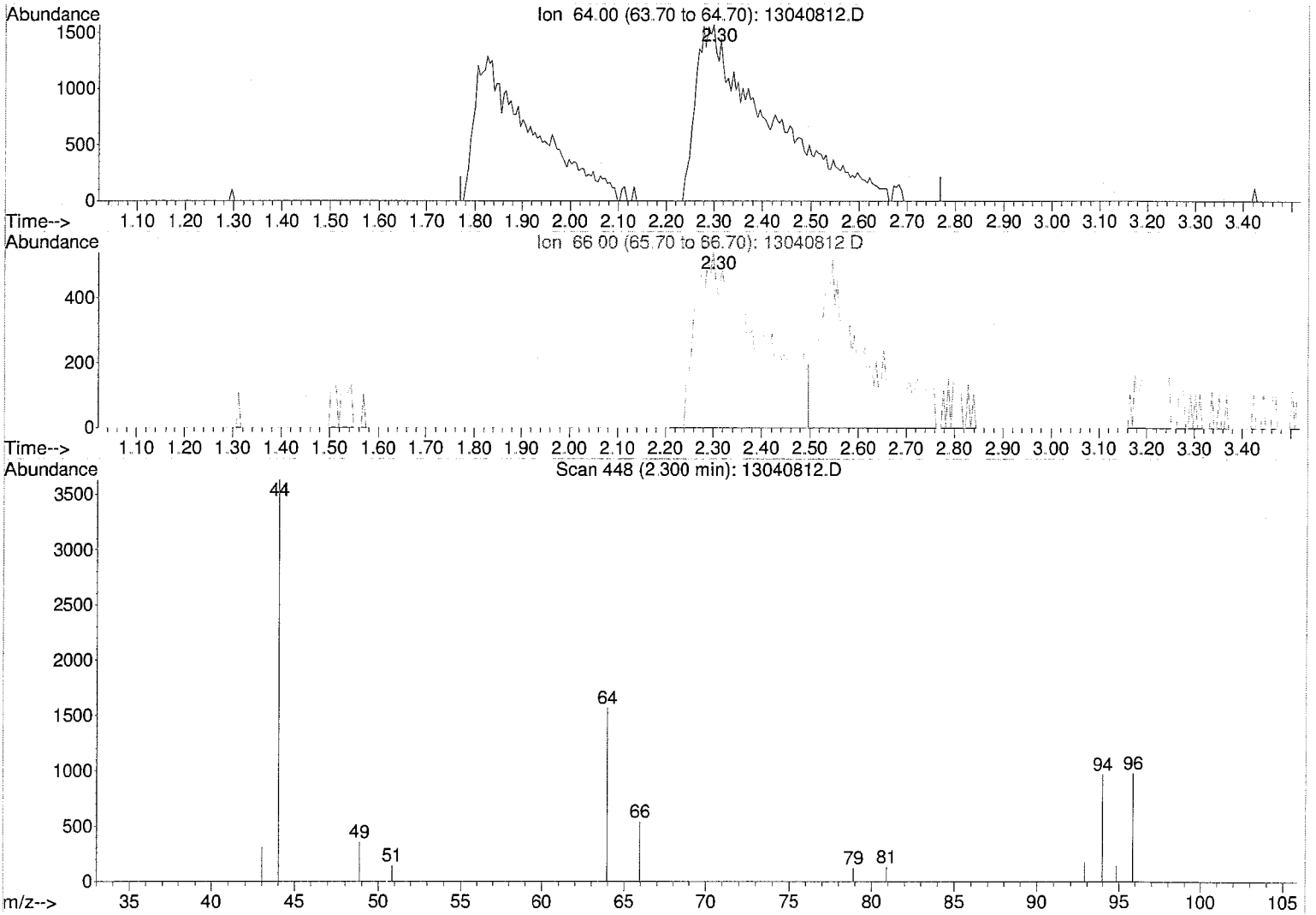
2.30min 0.00ug/L

response 6652

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(6) Chloroethane (T)

2.30min 0.00ug/L m

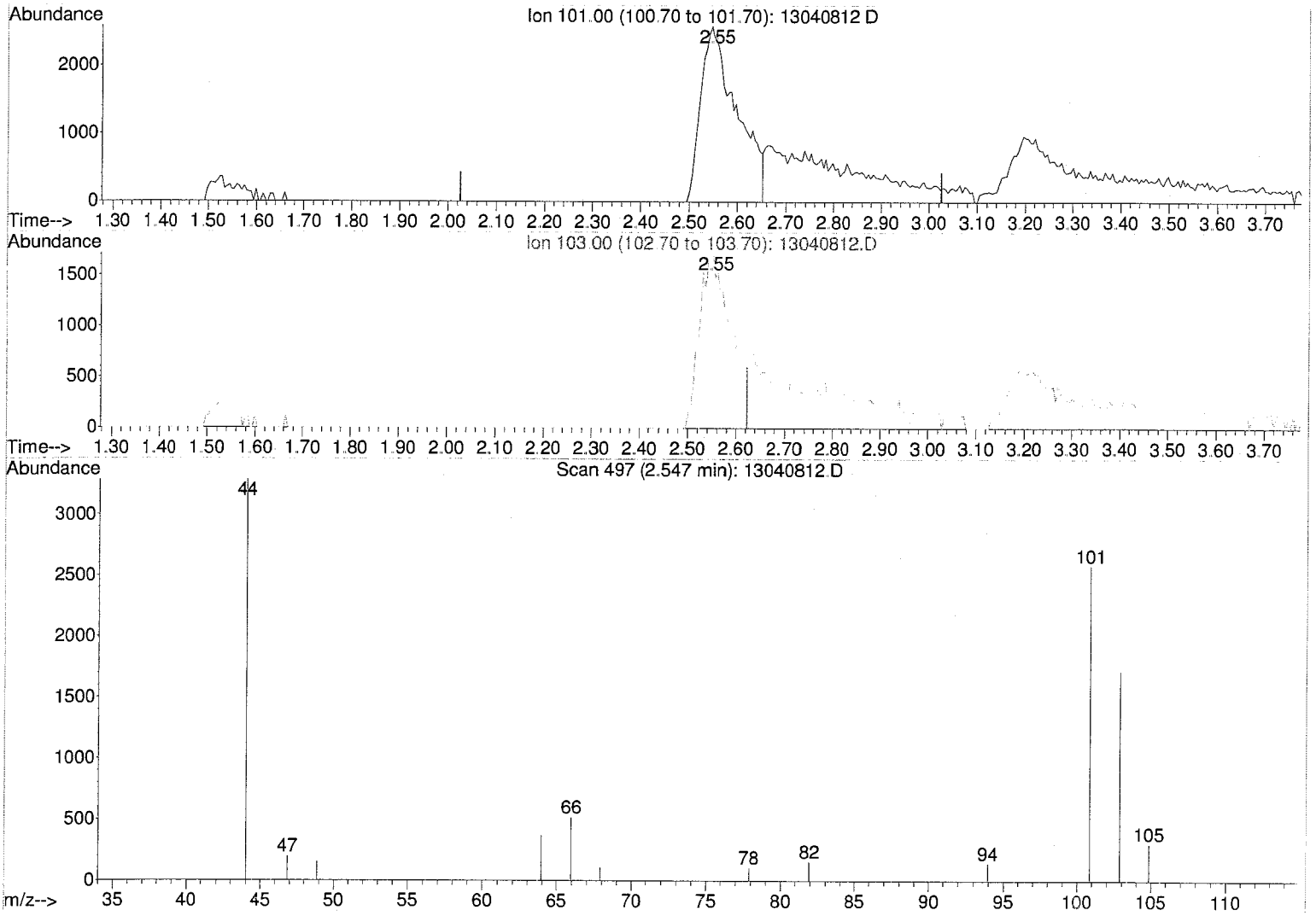
response 16410

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	29.44
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(7) Trichlorofluoromethane (T)

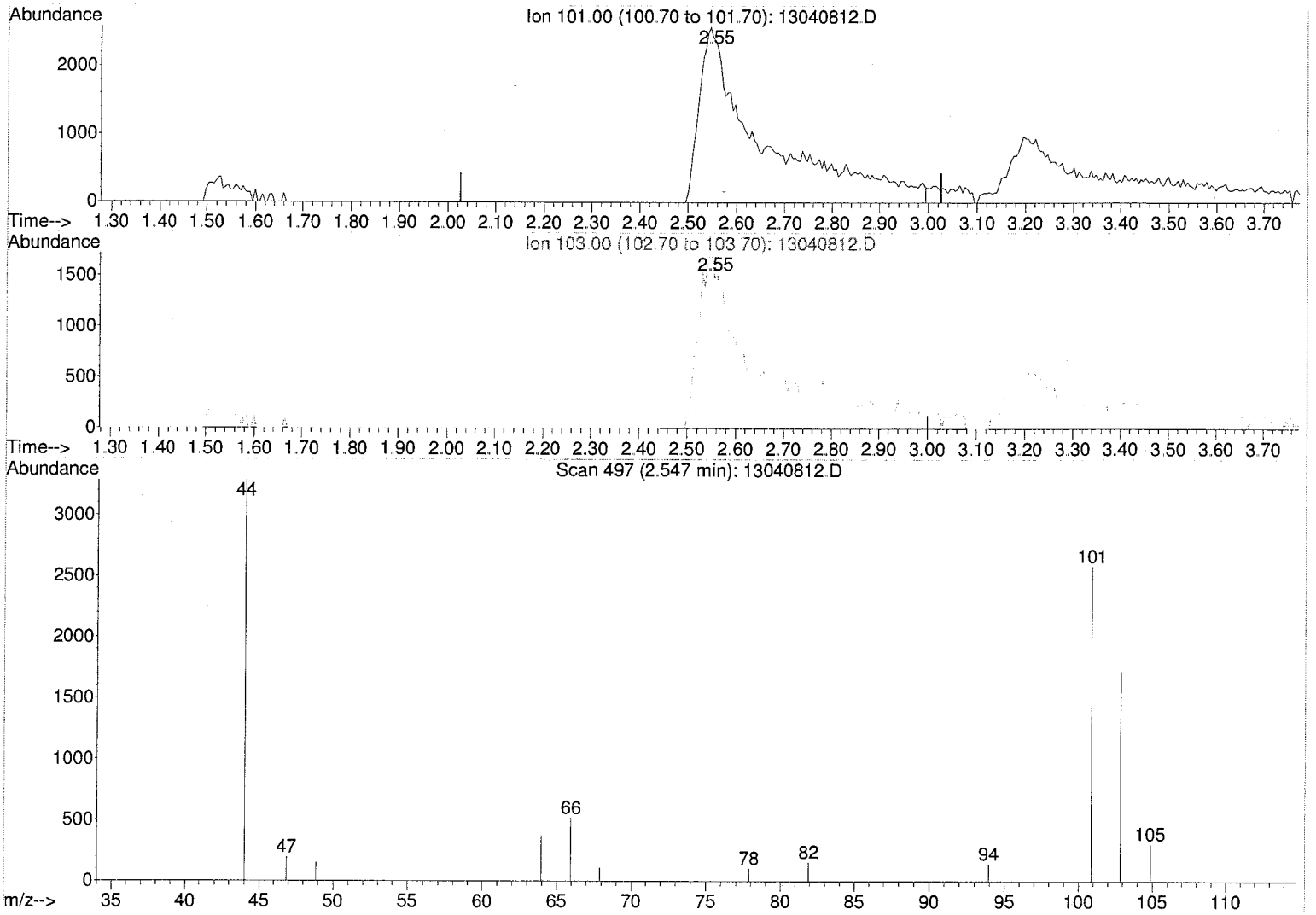
2.55min 0.00ug/L

response 13402

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	57.73
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

AK 4/9/13

(7) Trichlorofluoromethane (T)

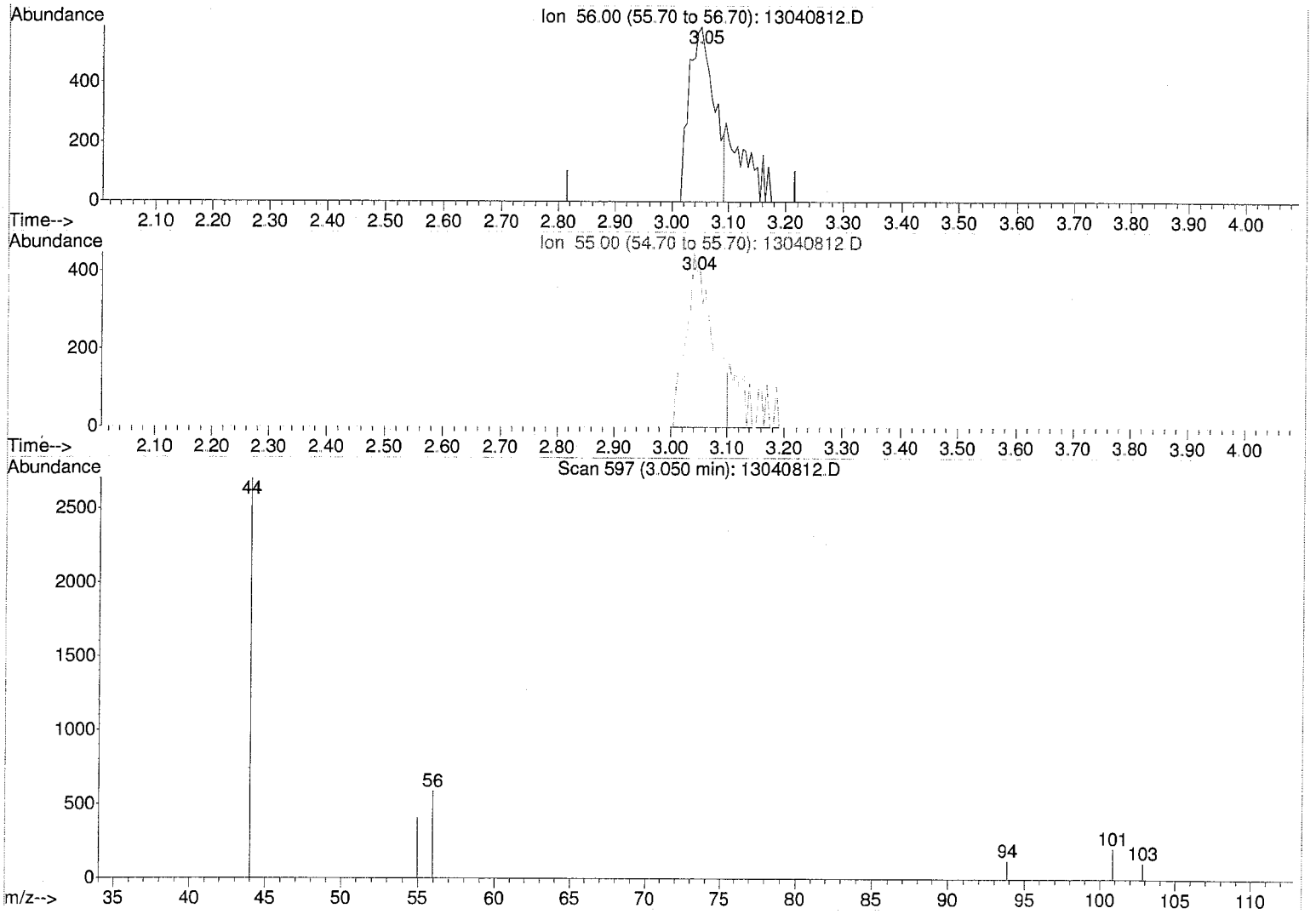
2.55min 0.00ug/L m

response 23340

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	65.33
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(8) acrolein (T)

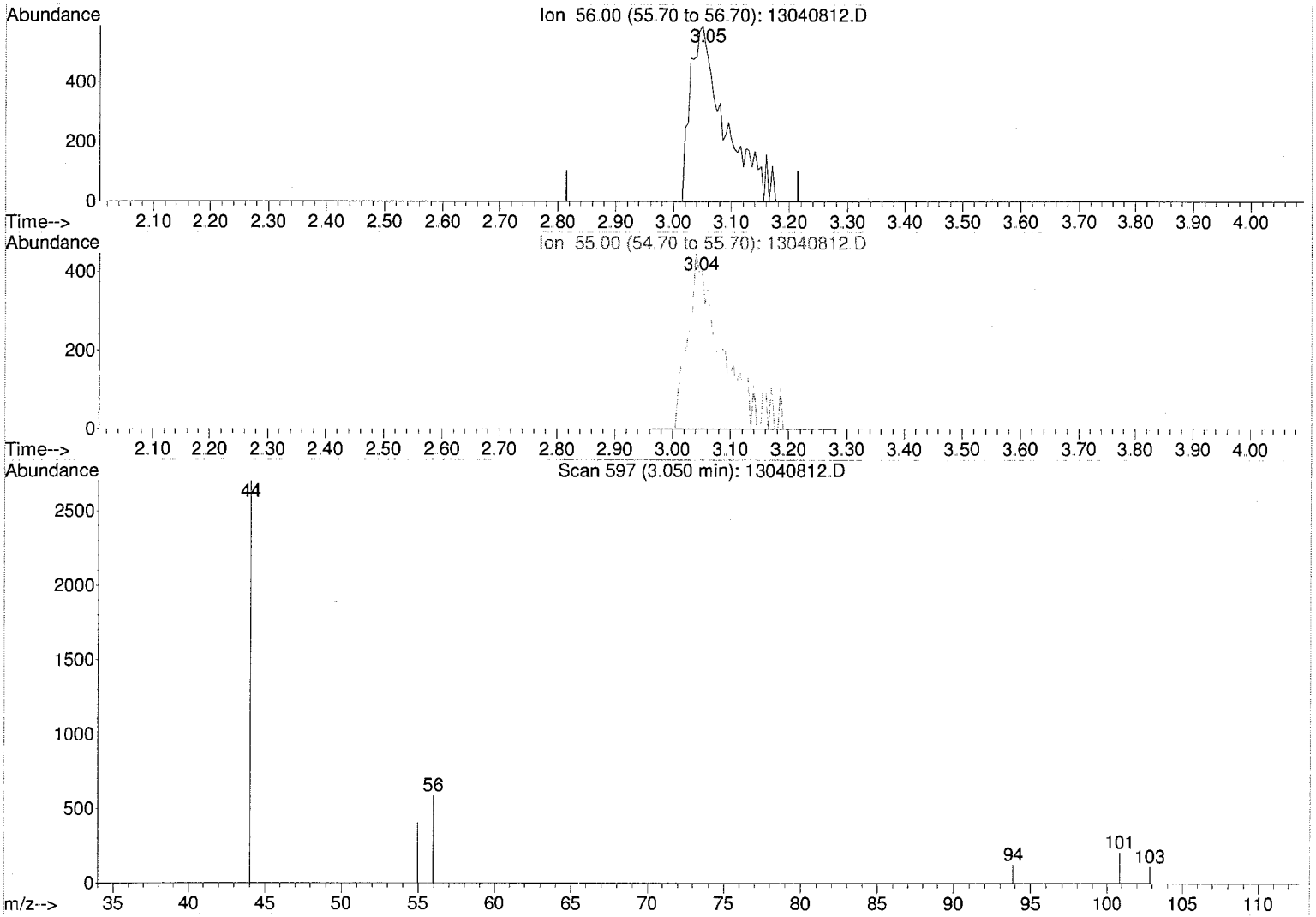
3.05min 0.00ug/L

response 1792

Ion	Exp%	Act%
56.00	100	100
55.00	68.20	80.58
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(8) acrolein (T)

3.05min 0.00ug/L m

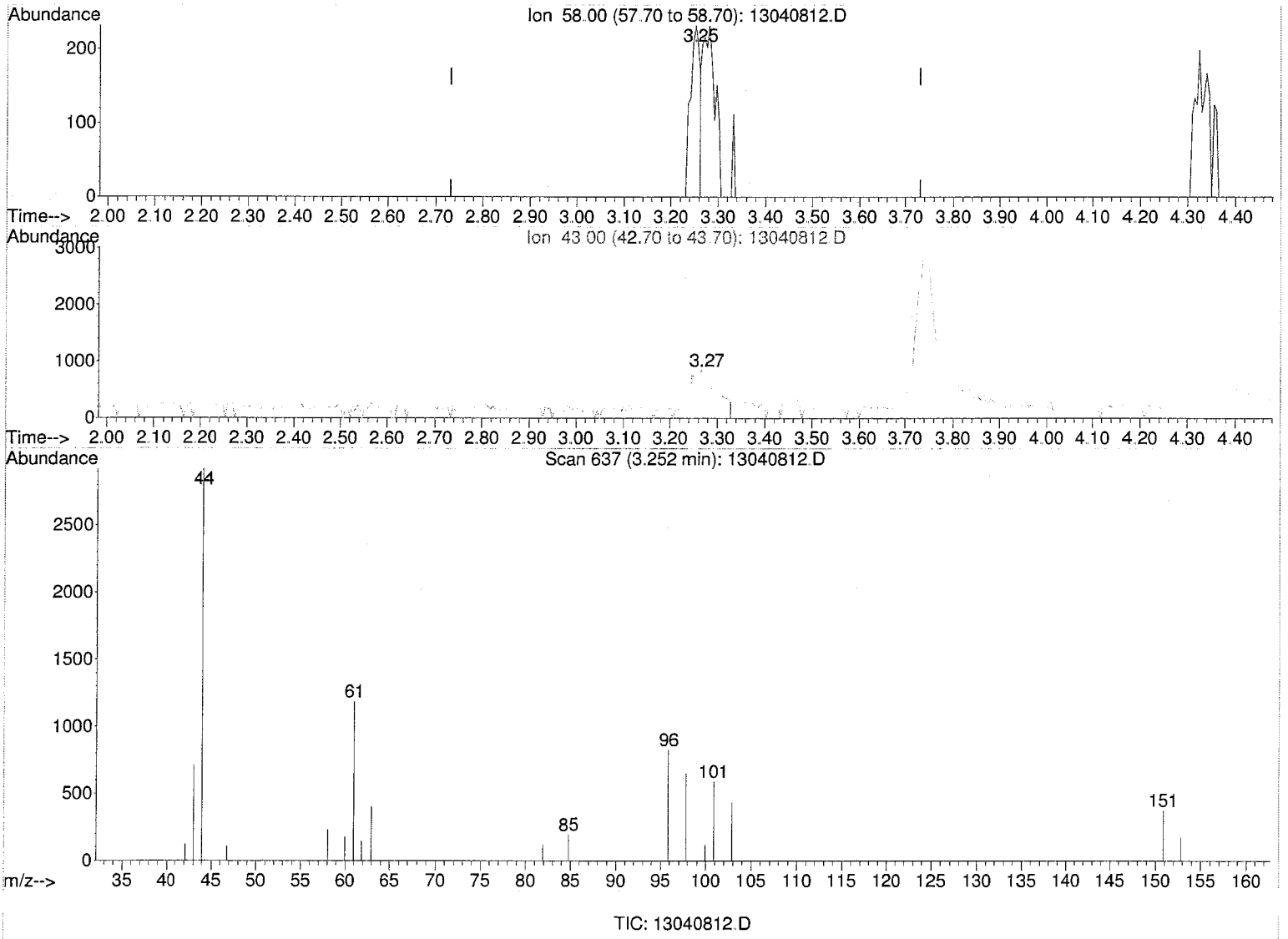
response 2470

Ion	Exp%	Act%
56.00	100	100
55.00	68.20	74.41
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(9) Acetone (T)

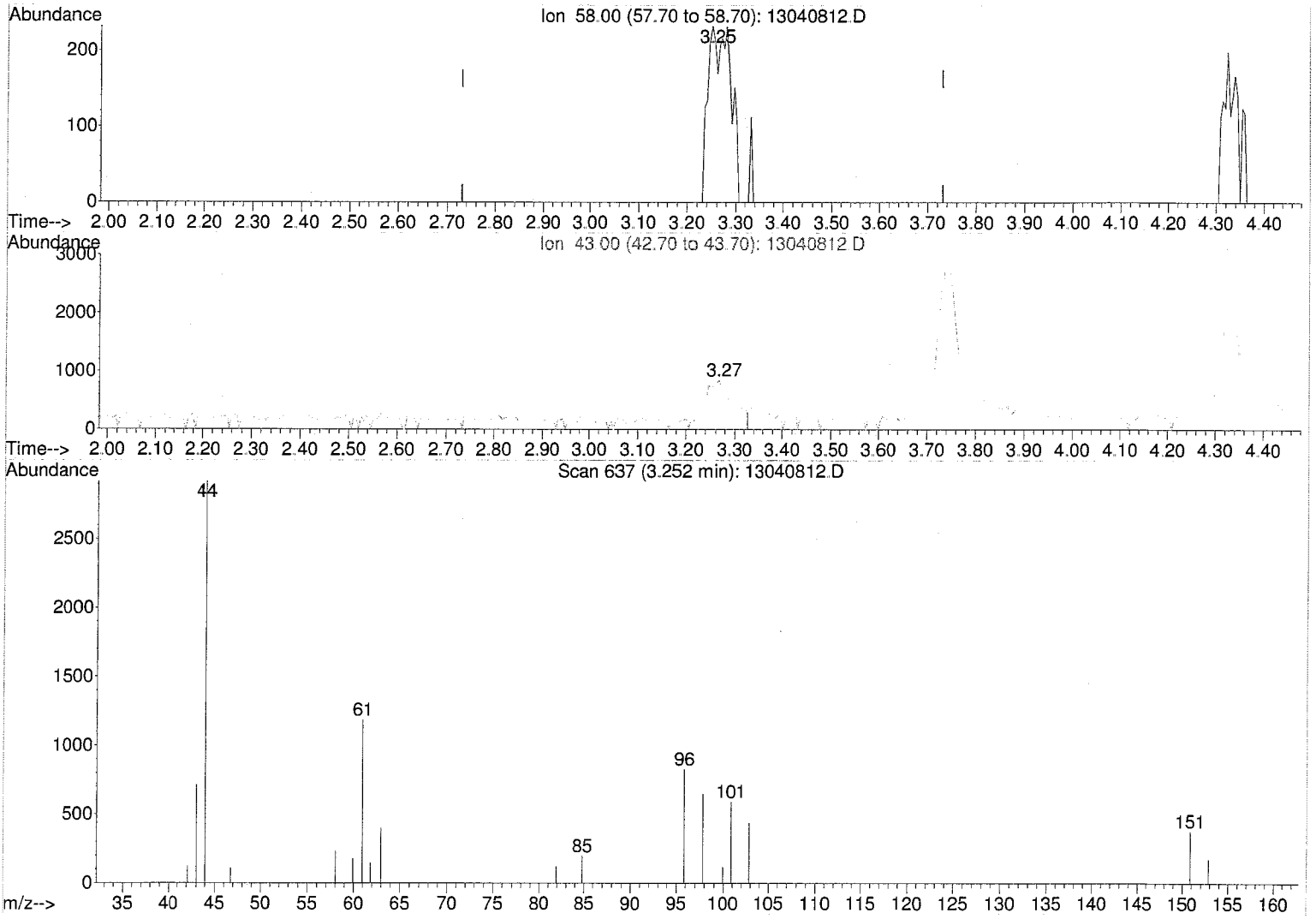
3.25min 0.00ug/L

response 326

Ion	Exp%	Act%
58.00	100	100
43.00	250.40	1081.90#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(9) Acetone (T)

3.25min 0.00ug/L m

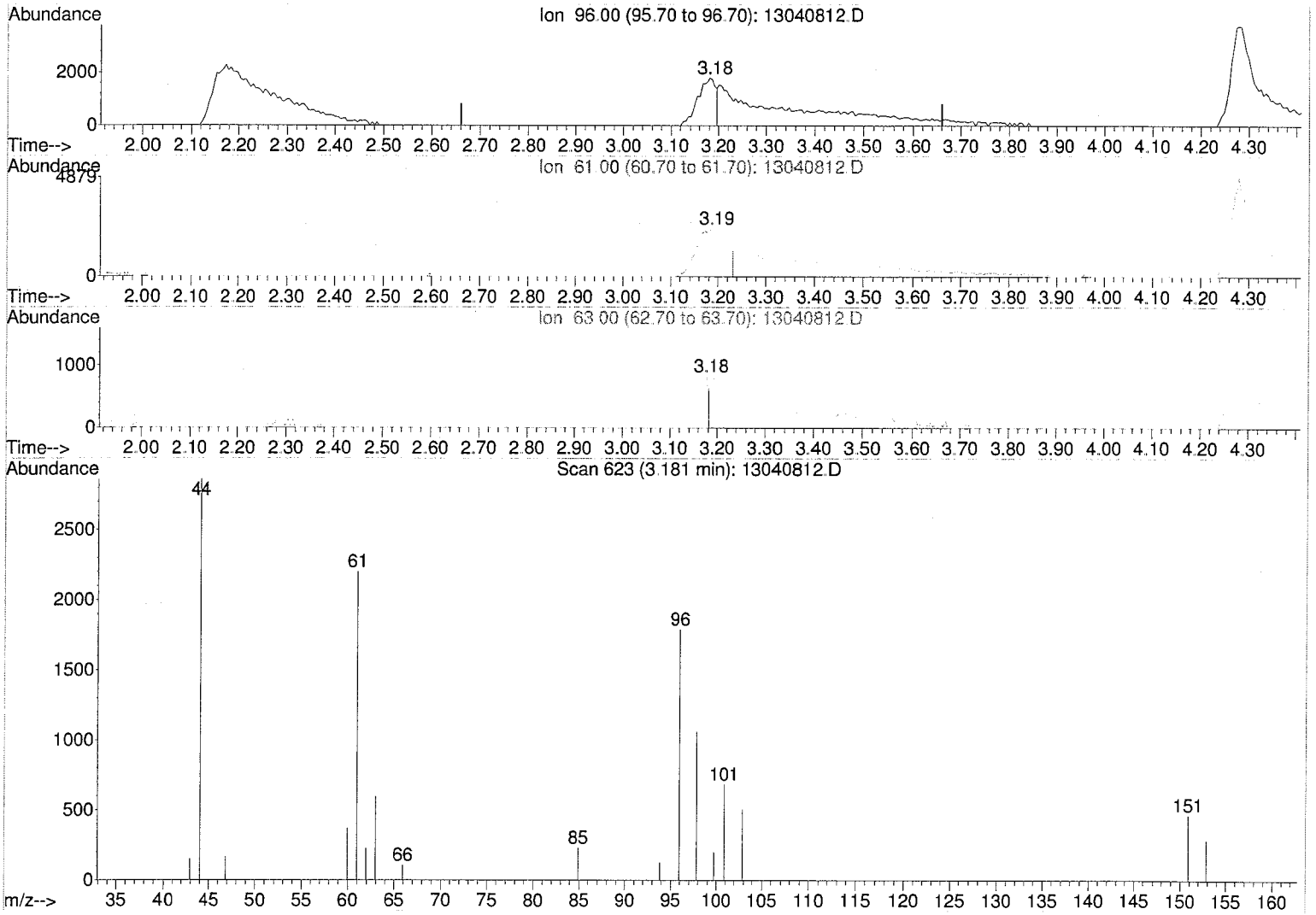
response 746

Ion	Exp%	Act%
58.00	100	100
43.00	250.40	472.79#
0.00	0.00	0.00
0.00	0.00	0.00

4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812 D

(10) 1,1-DICHLOROETHENE (M,C)

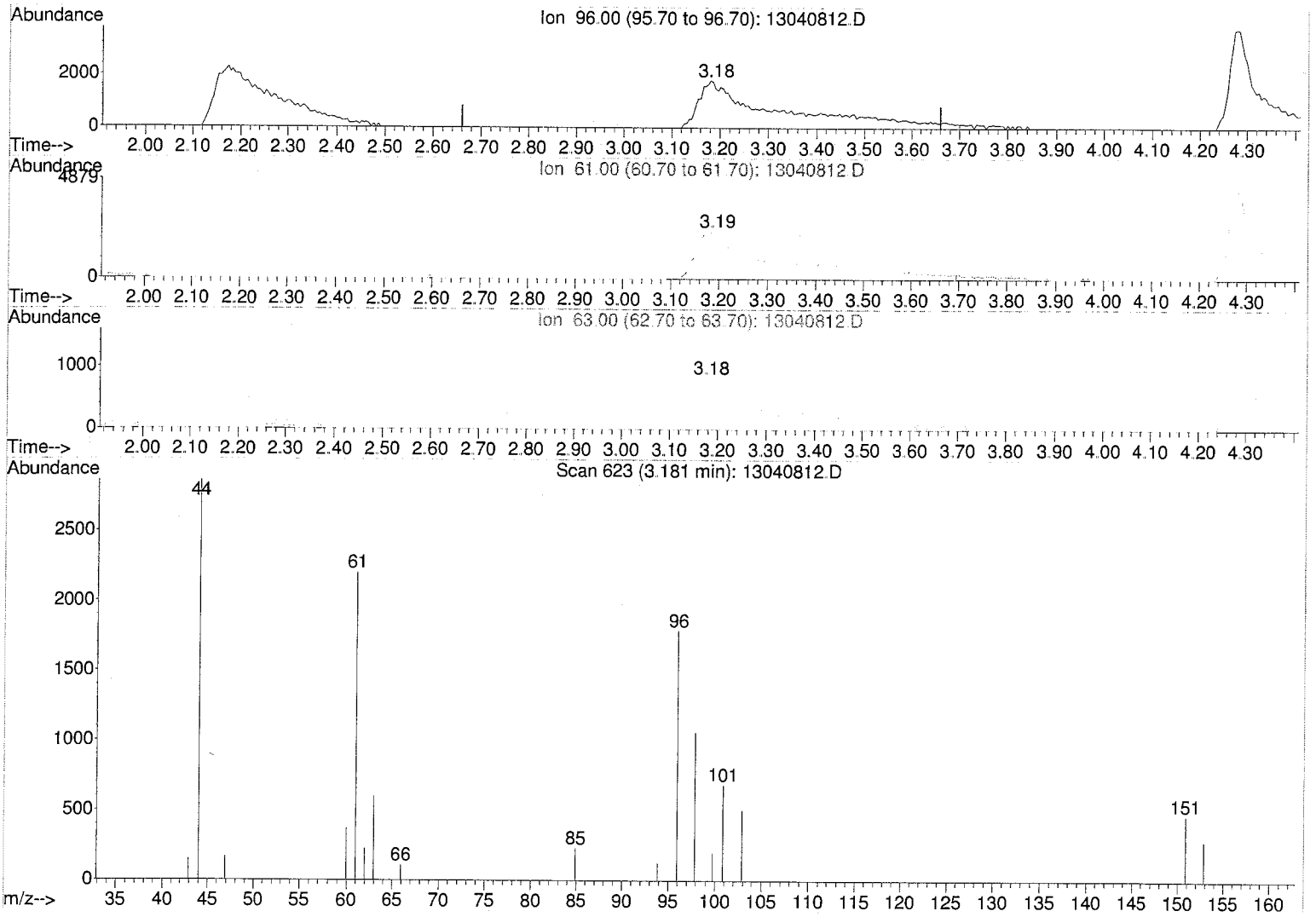
3.18min 0.00ug/L

response 4790

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	206.81#
63.00	44.80	30.29
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(10) 1,1-DICHLOROETHENE (M,C)

3.18min 0.00ug/L m

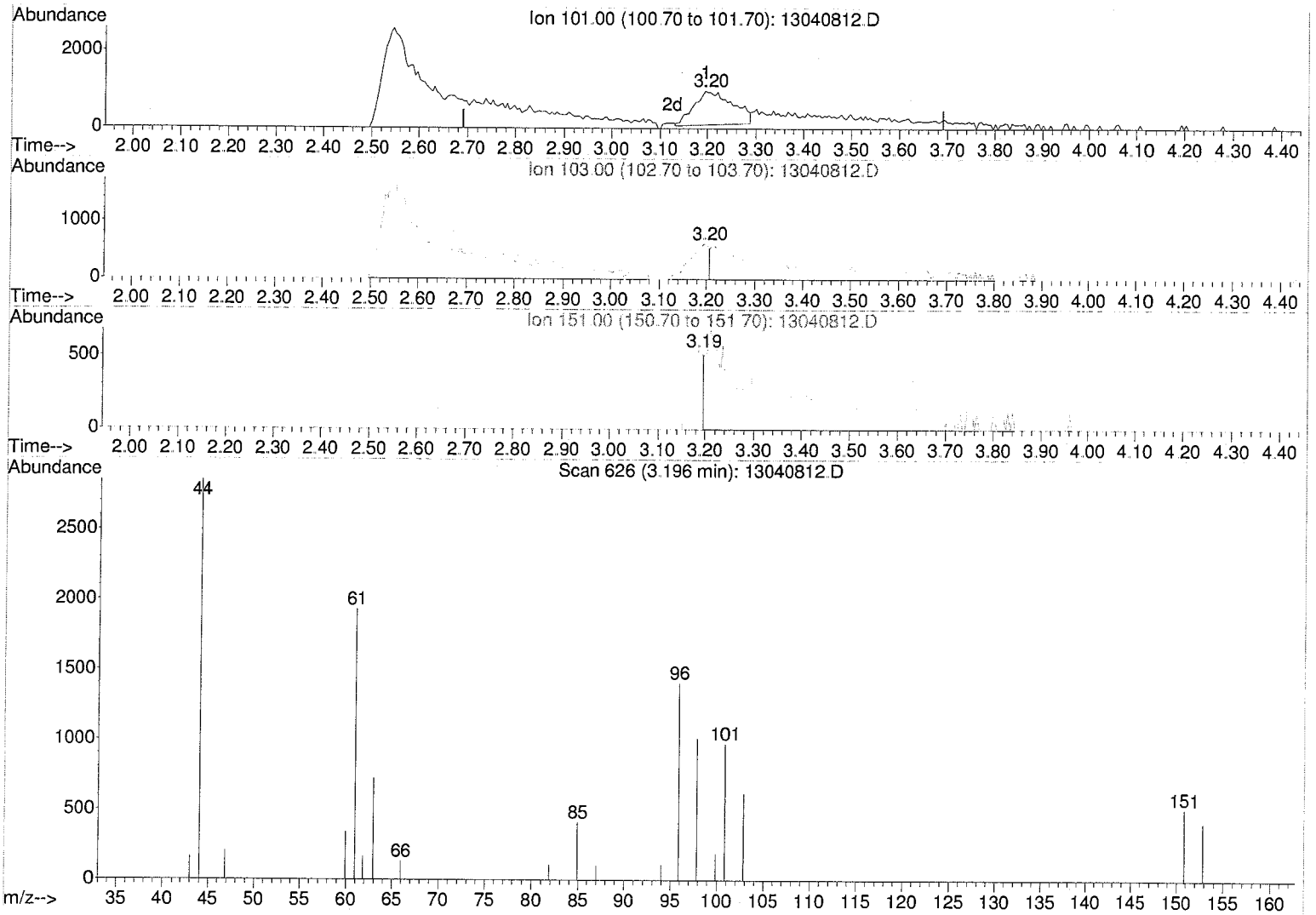
response 20515

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	131.39
63.00	44.80	43.49
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

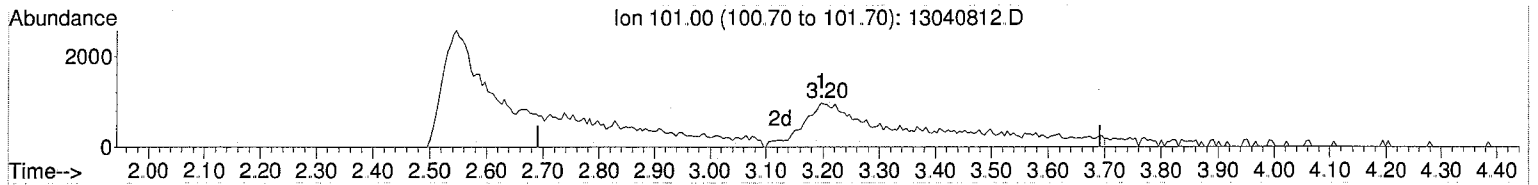
3.20min 0.00ug/L

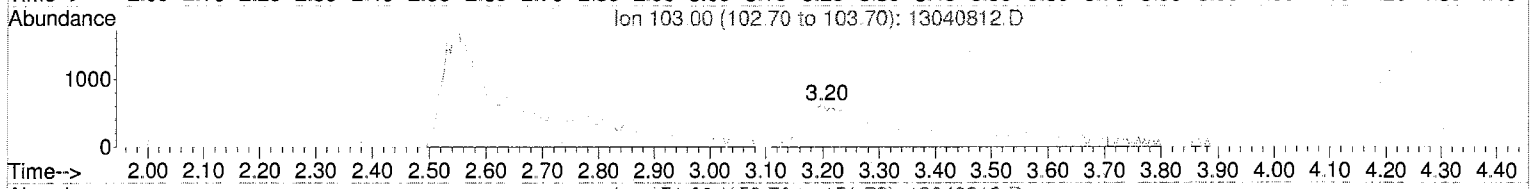
response 4930

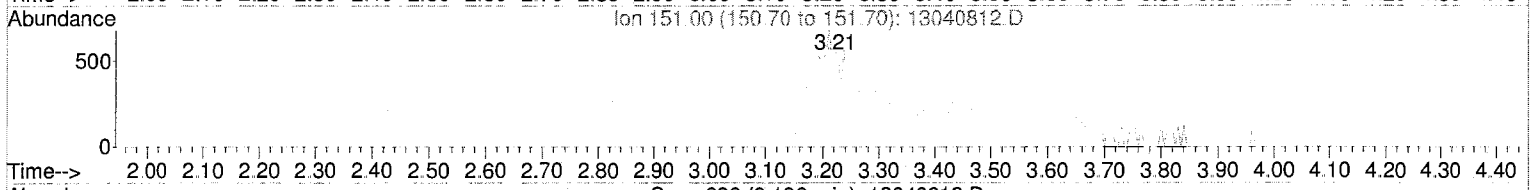
Ion	Exp%	Act%
101.00	100	100
103.00	64.50	35.29#
151.00	65.20	20.81#
0.00	0.00	0.00

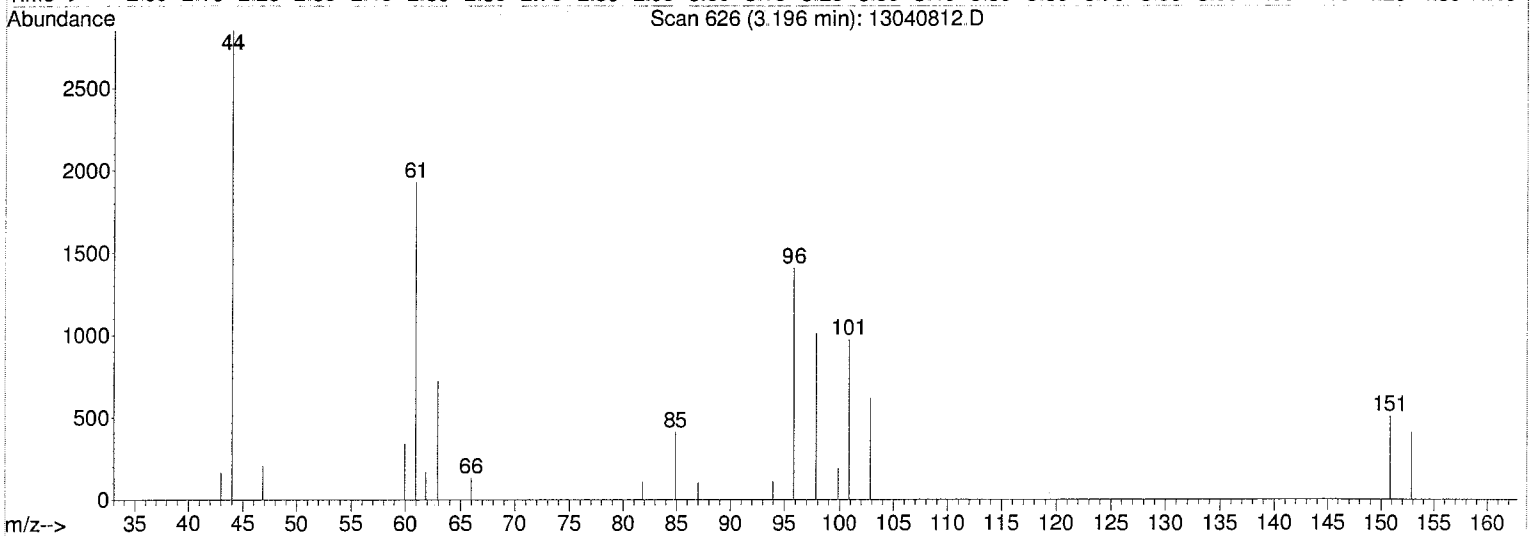
Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration









TIC: 13040812.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.20min 0.00ug/L m

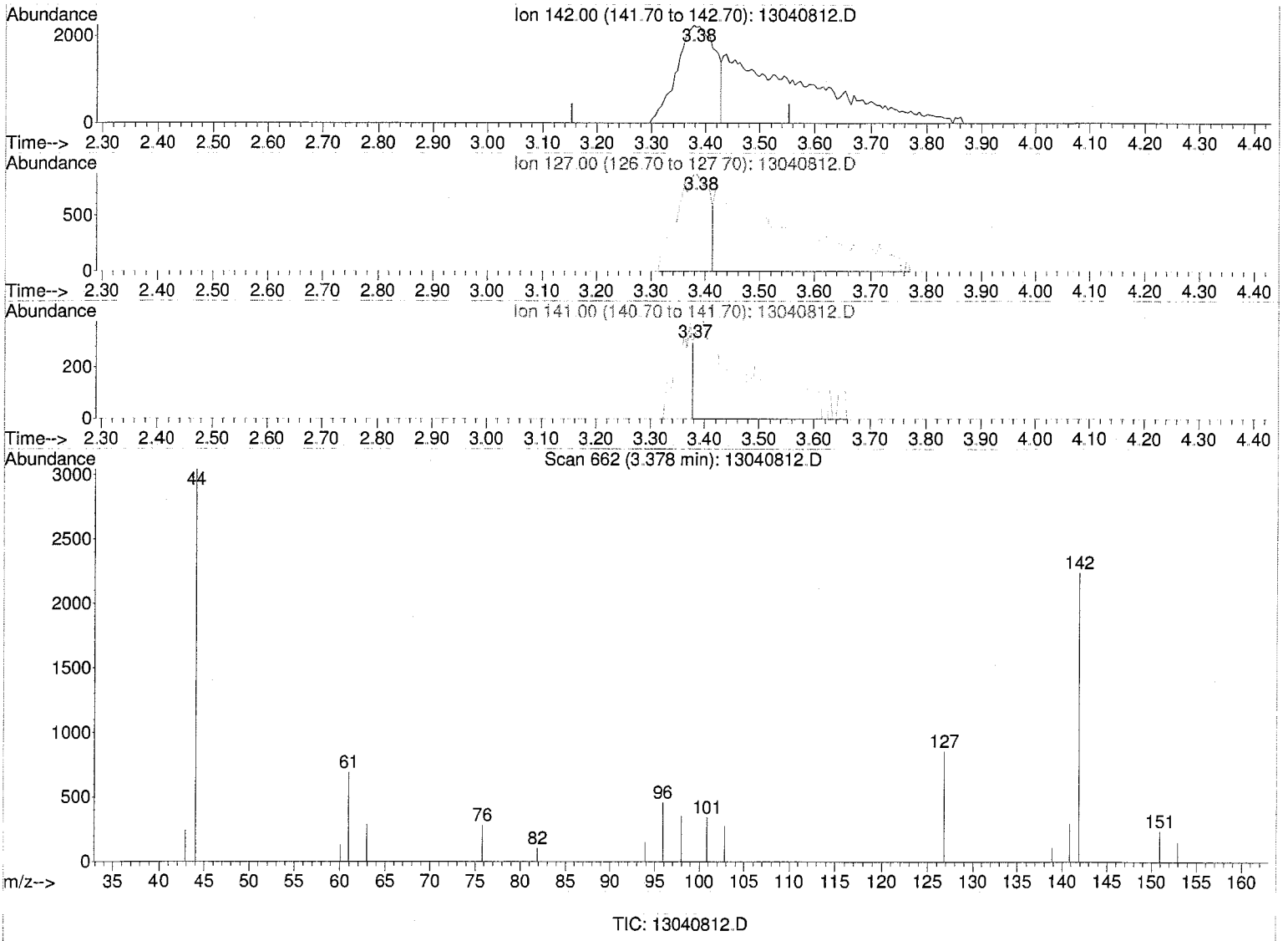
response 13456

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	64.18
151.00	65.20	58.98
0.00	0.00	0.00

AC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(12) iodomethane (T)

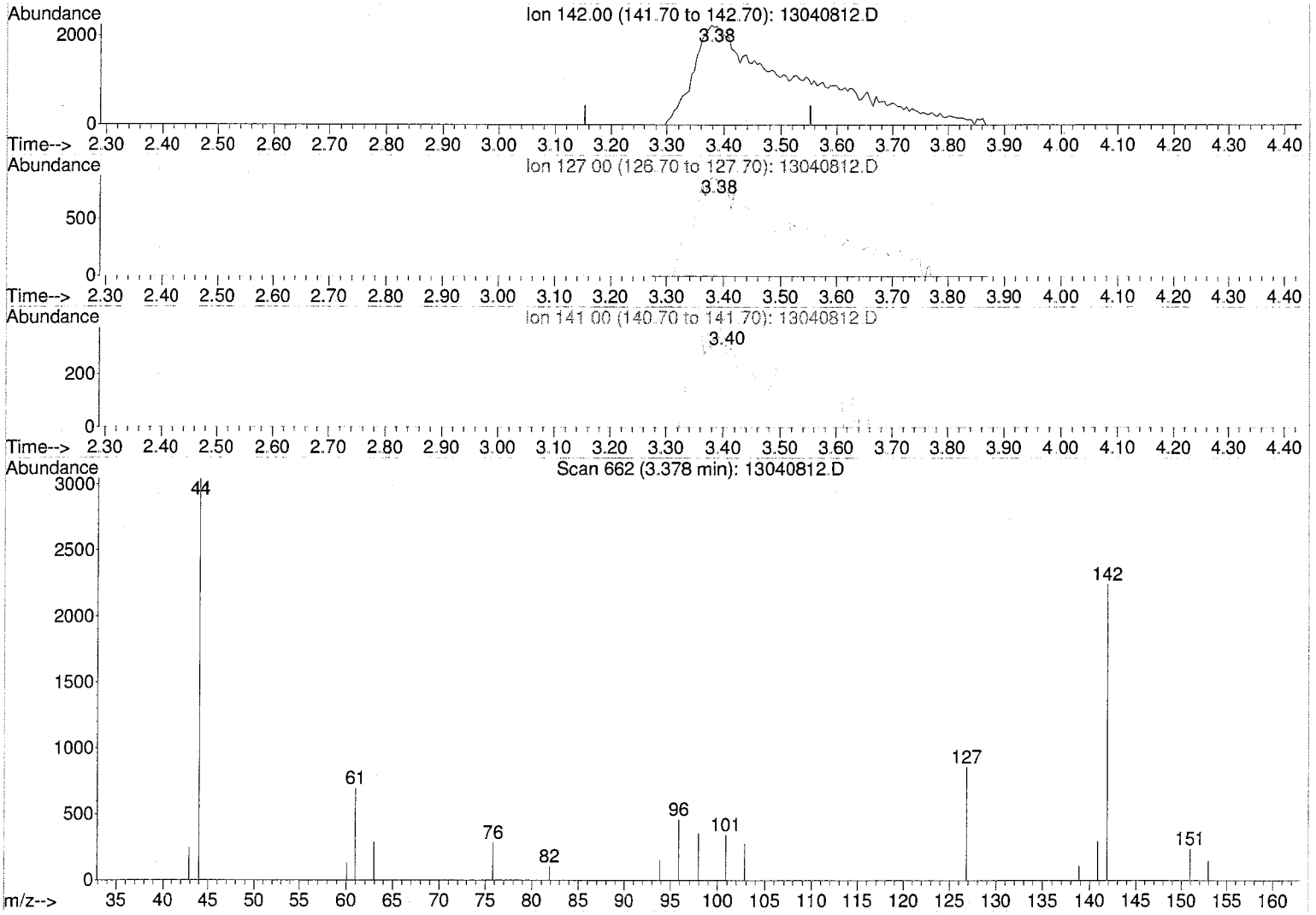
3.38min 0.00ug/L

response 10992

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	32.51
141.00	14.80	6.74
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(12) iodomethane (T)

3.38min 0.00ug/L m

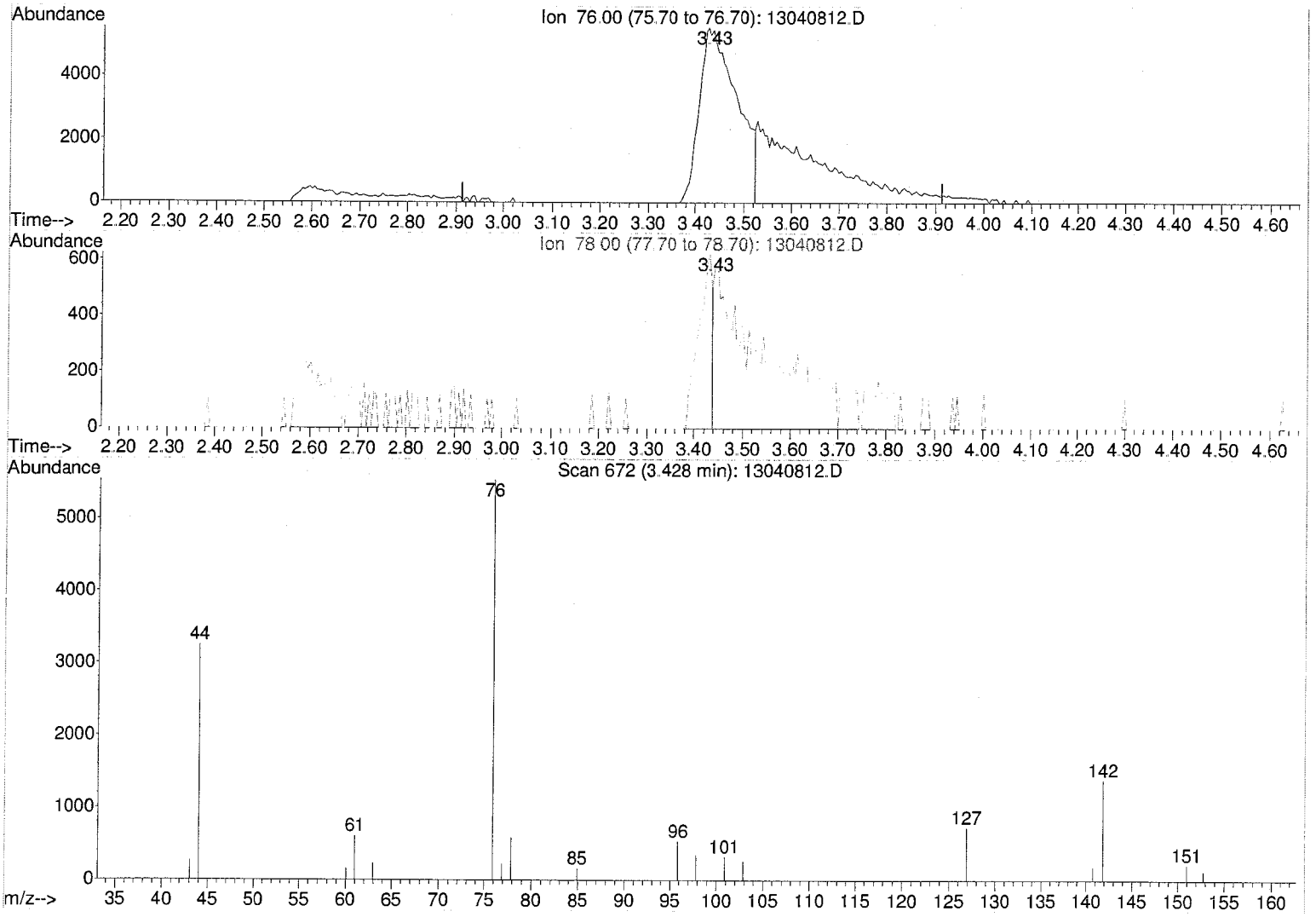
response 28466

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	37.52
141.00	14.80	12.42
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(13) Carbon Disulfide (T)

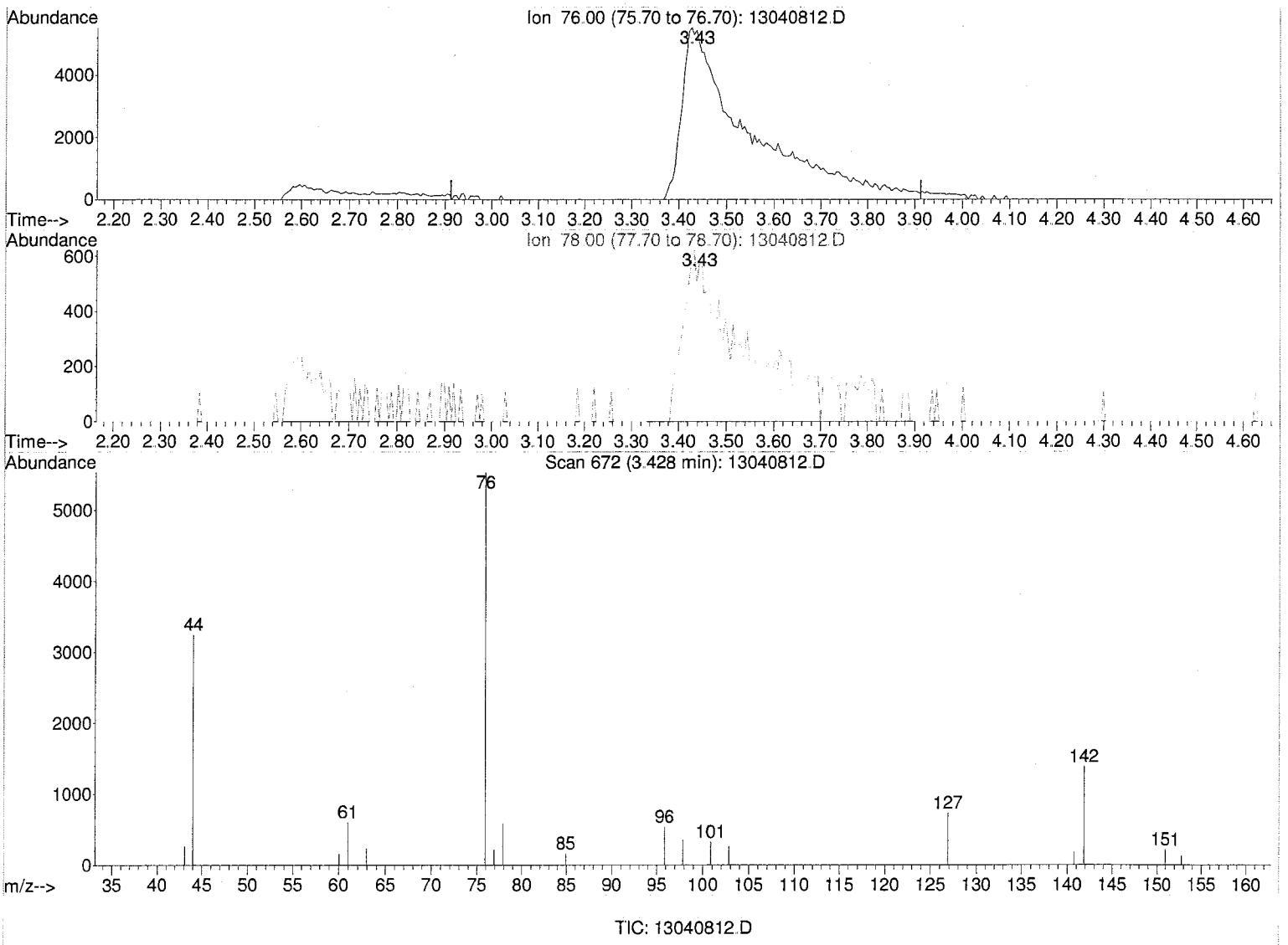
3.43min 0.00ug/L

response 30128

Ion	Exp%	Act%
76.00	100	100
78.00	5.60	4.18
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(13) Carbon Disulfide (T)

3.43min 0.00ug/L m

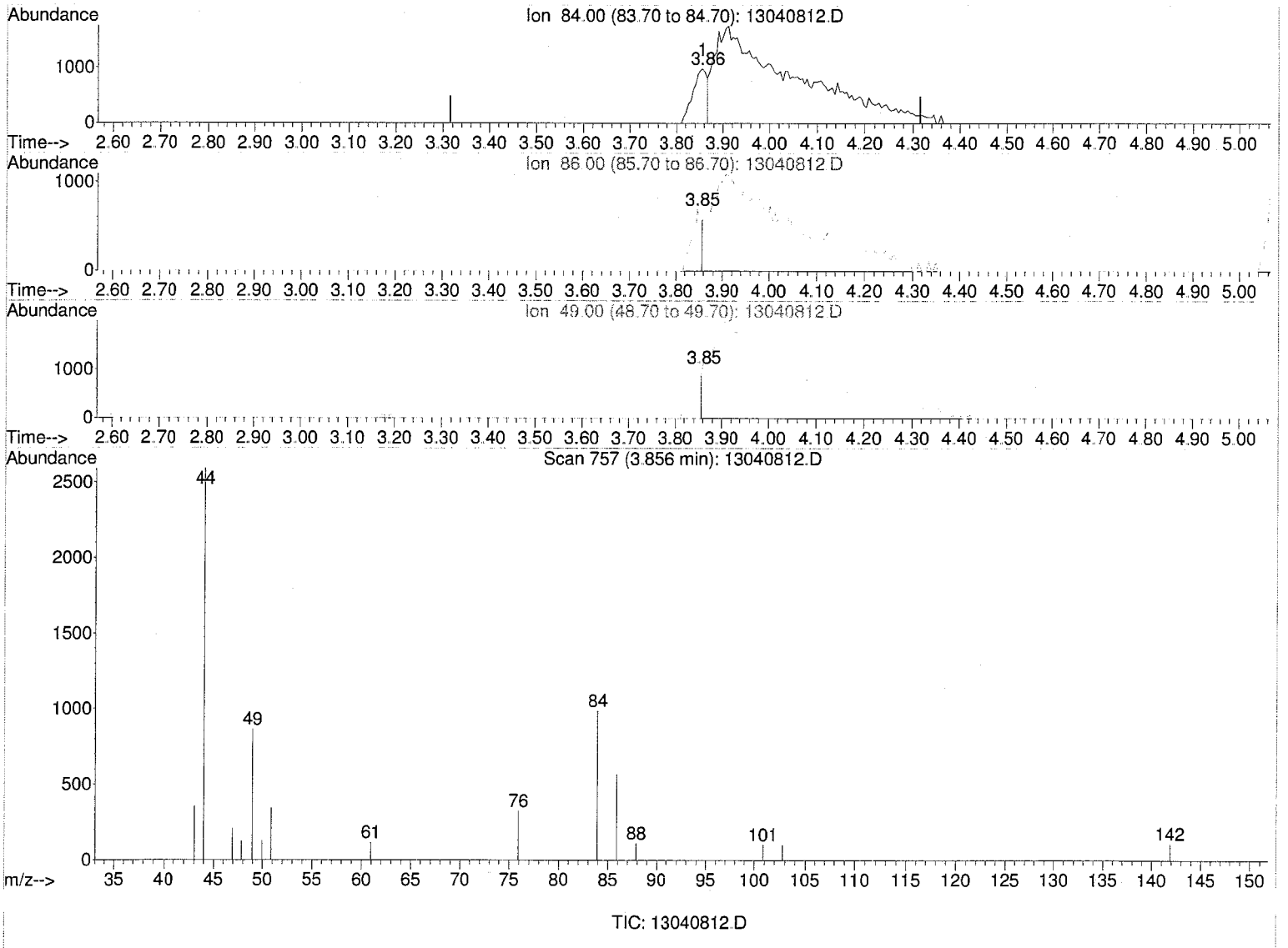
response 54360

Ion	Exp%	Act%
76.00	100	100
78.00	5.60	11.55
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(15) Methylene chloride (T)

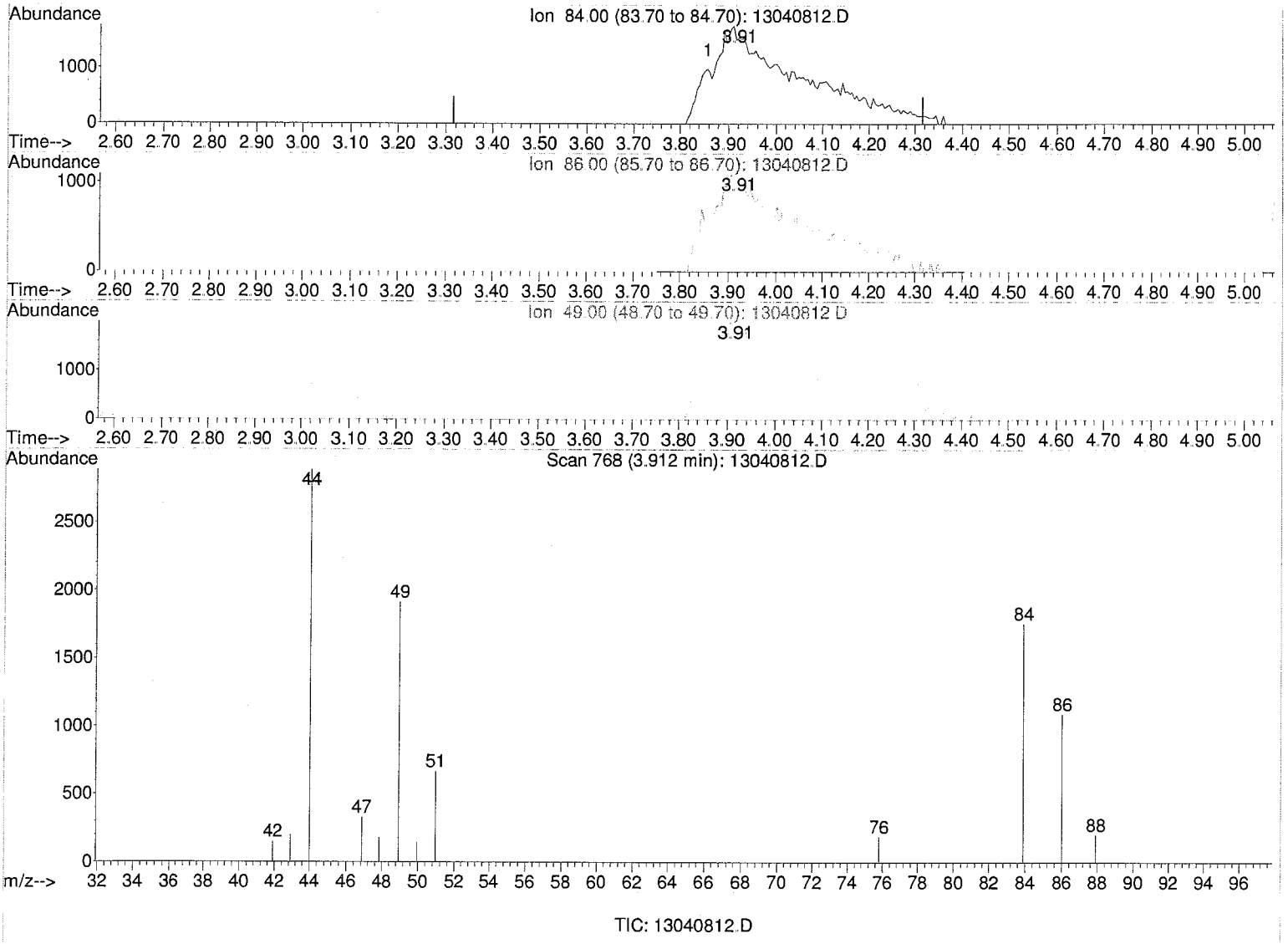
3.86min 0.00ug/L

response 2082

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	47.45
49.00	118.00	85.25#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(15) Methylene chloride (T)

3.91min 0.00ug/L m

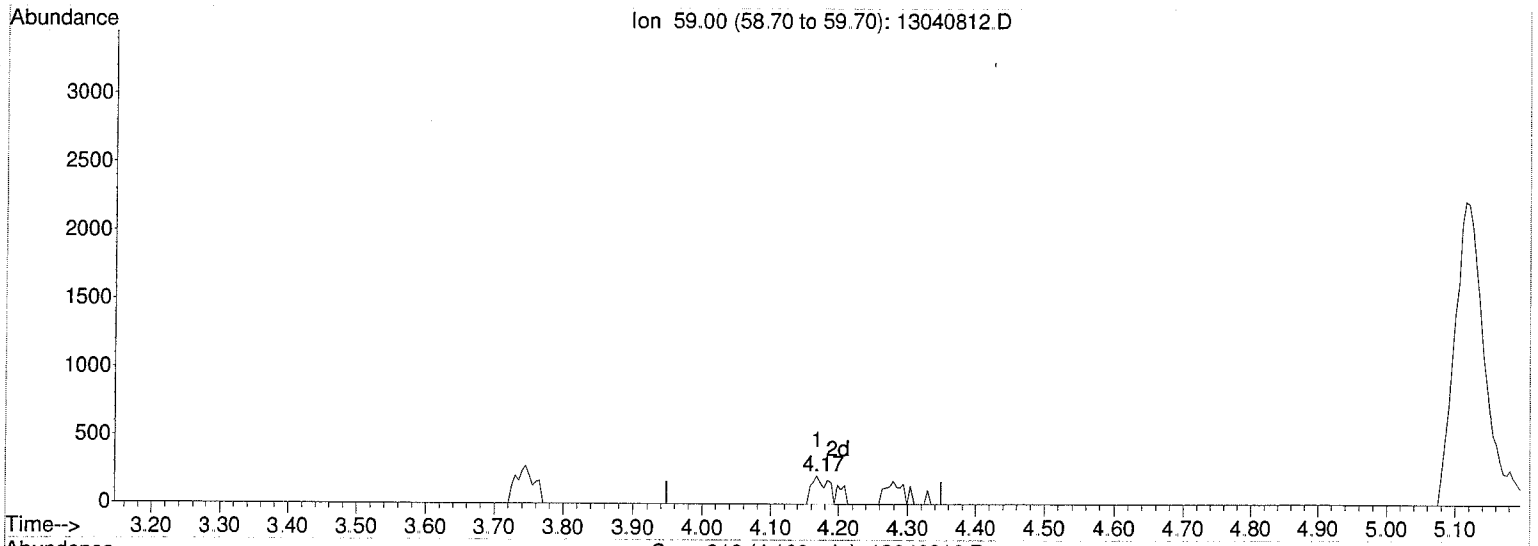
response 22929

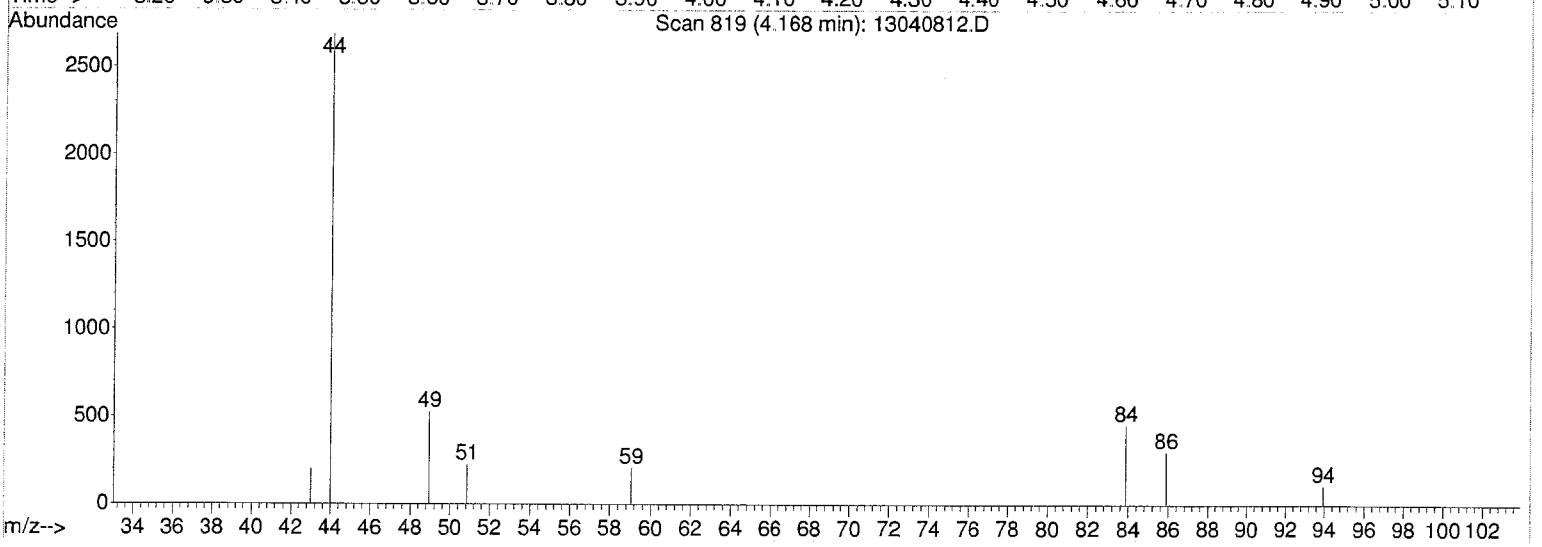
Ion	Exp%	Act%
84.00	100	100
86.00	63.70	63.25
49.00	118.00	119.79
0.00	0 00	0.00

4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration





TIC: 13040812.D

(16) tert-Butanol (T)

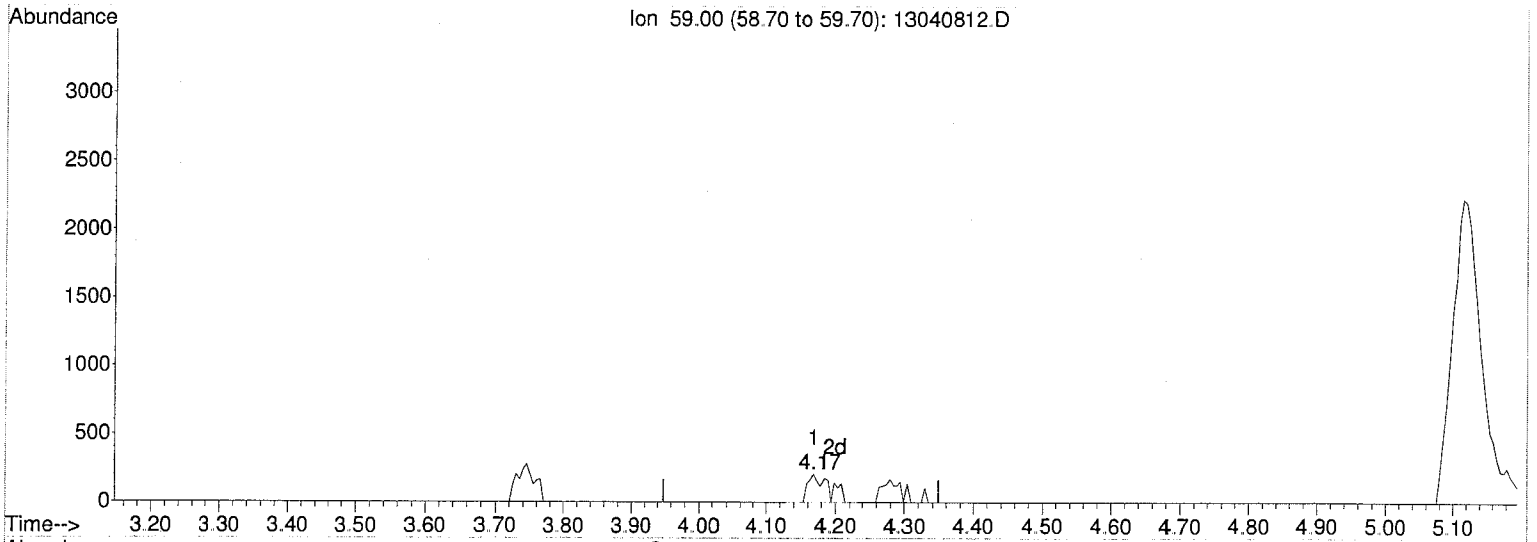
4.17min 0.00ug/L

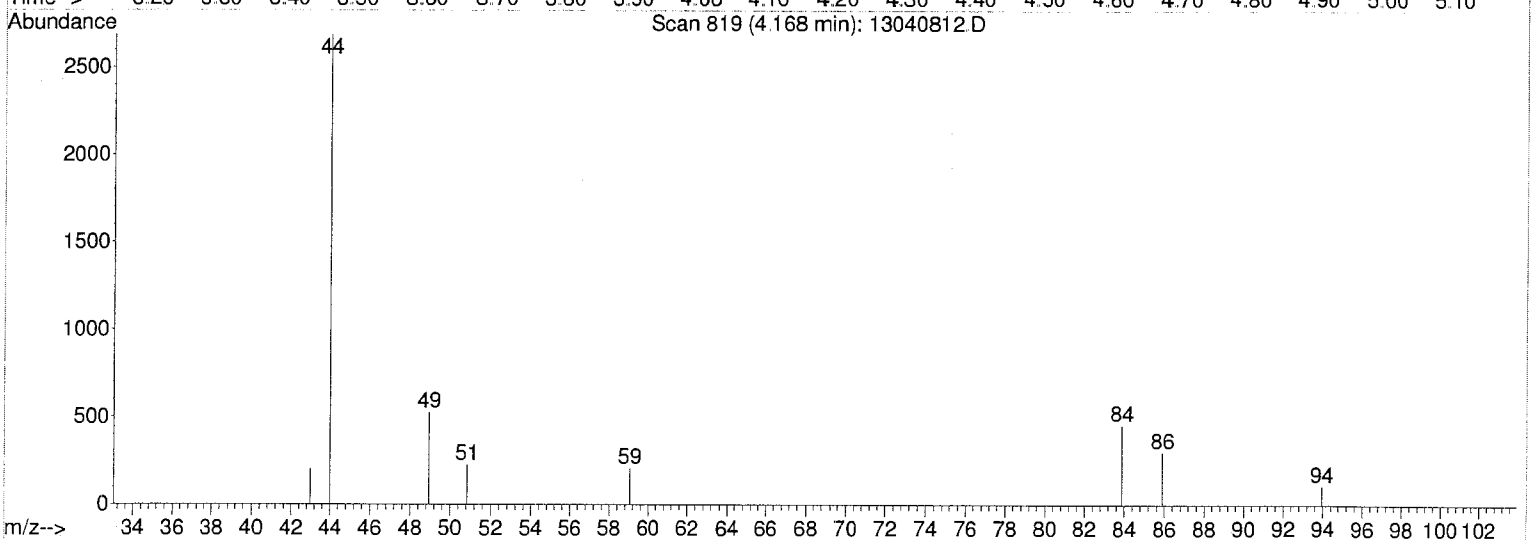
response 335

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration





TIC: 13040812.D

(16) tert-Butanol (T)

4.17min 0.00ug/L m

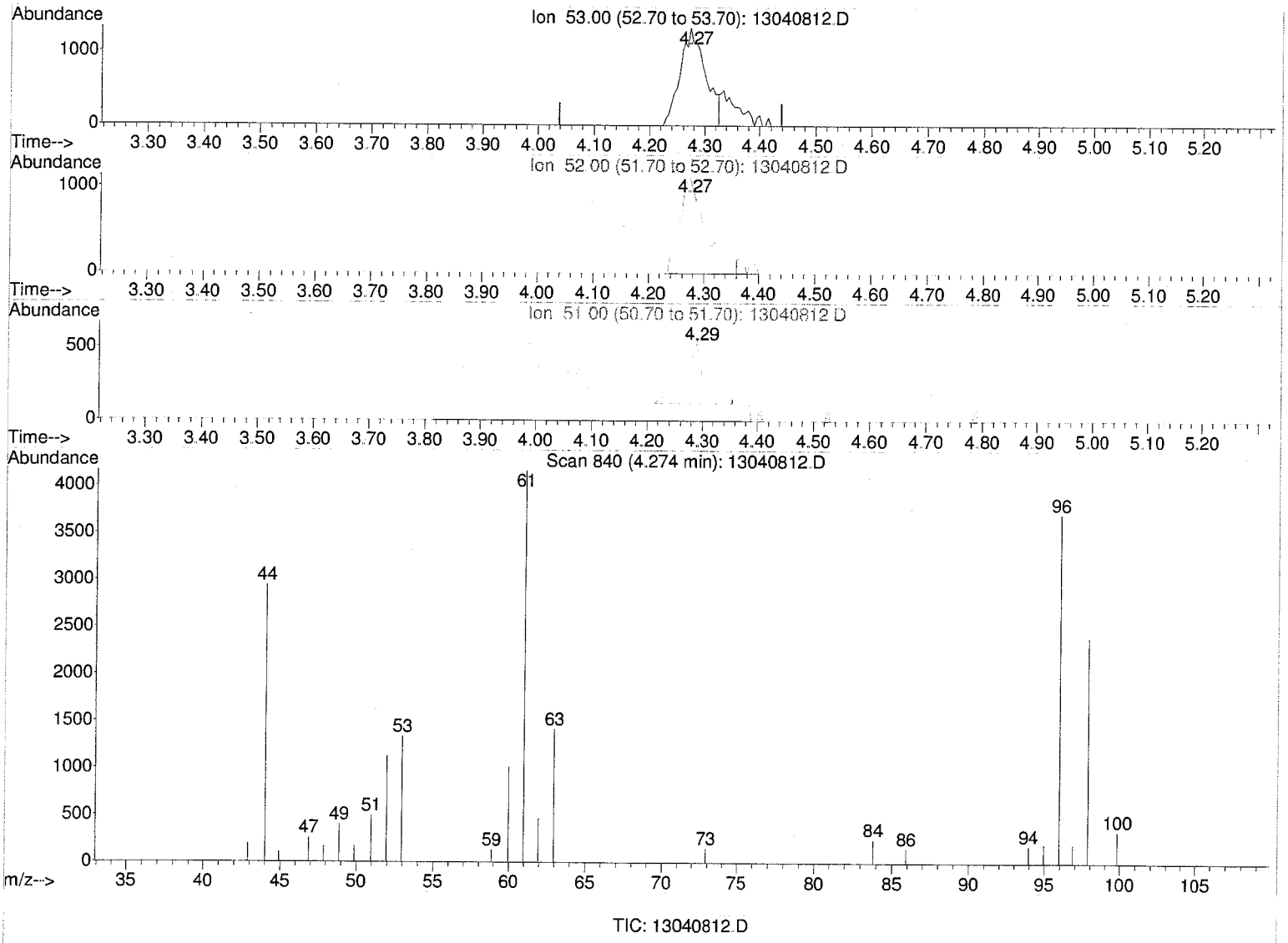
response 451

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(17) acrylonitrile (T)

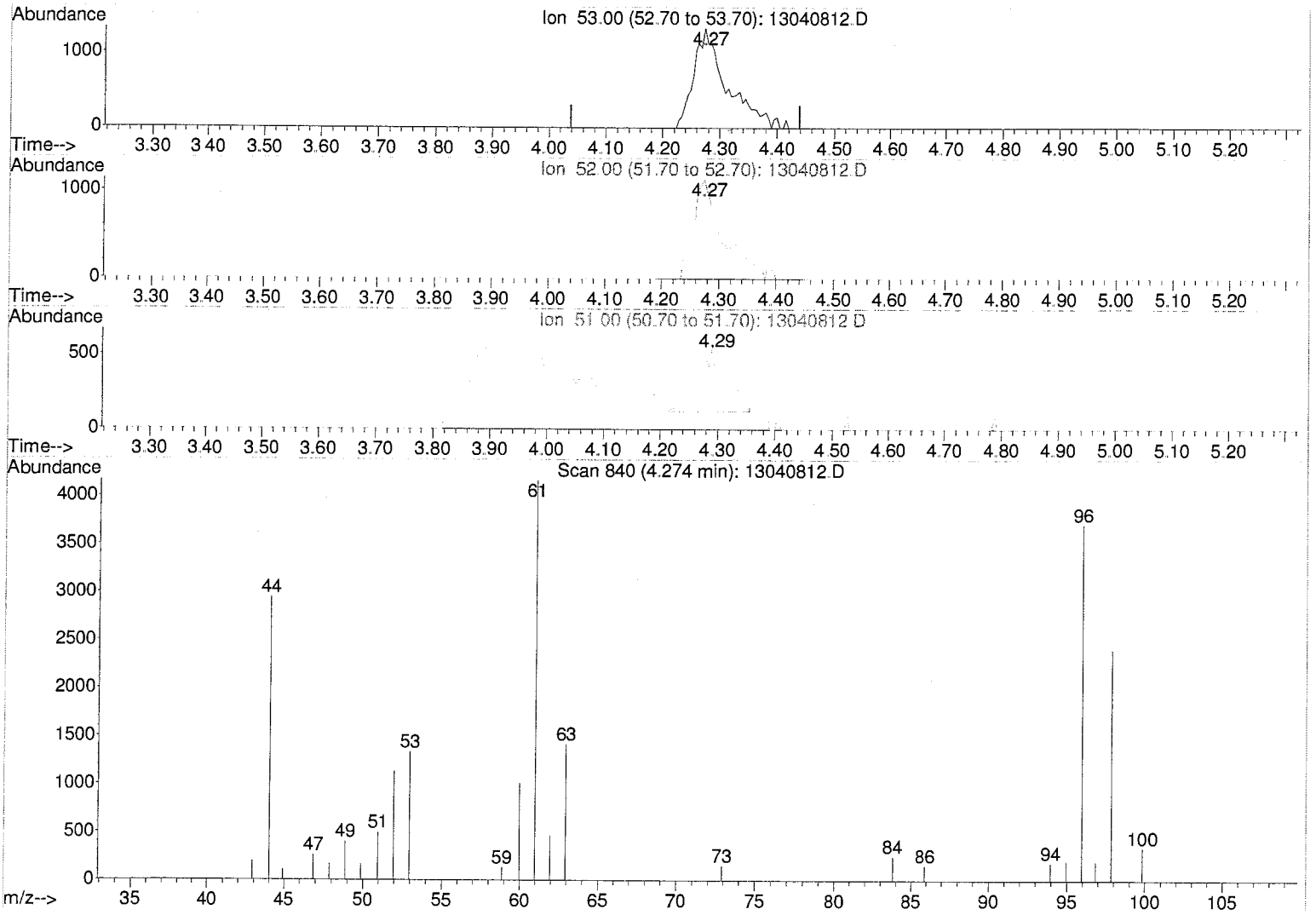
4.27min 0.00ug/L

response 4231

Ion	Exp%	Act%
53.00	100	100
52.00	75.70	90.69
51.00	34.20	36.80
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(17) acrylonitrile (T)

4.27min 0.00ug/L m

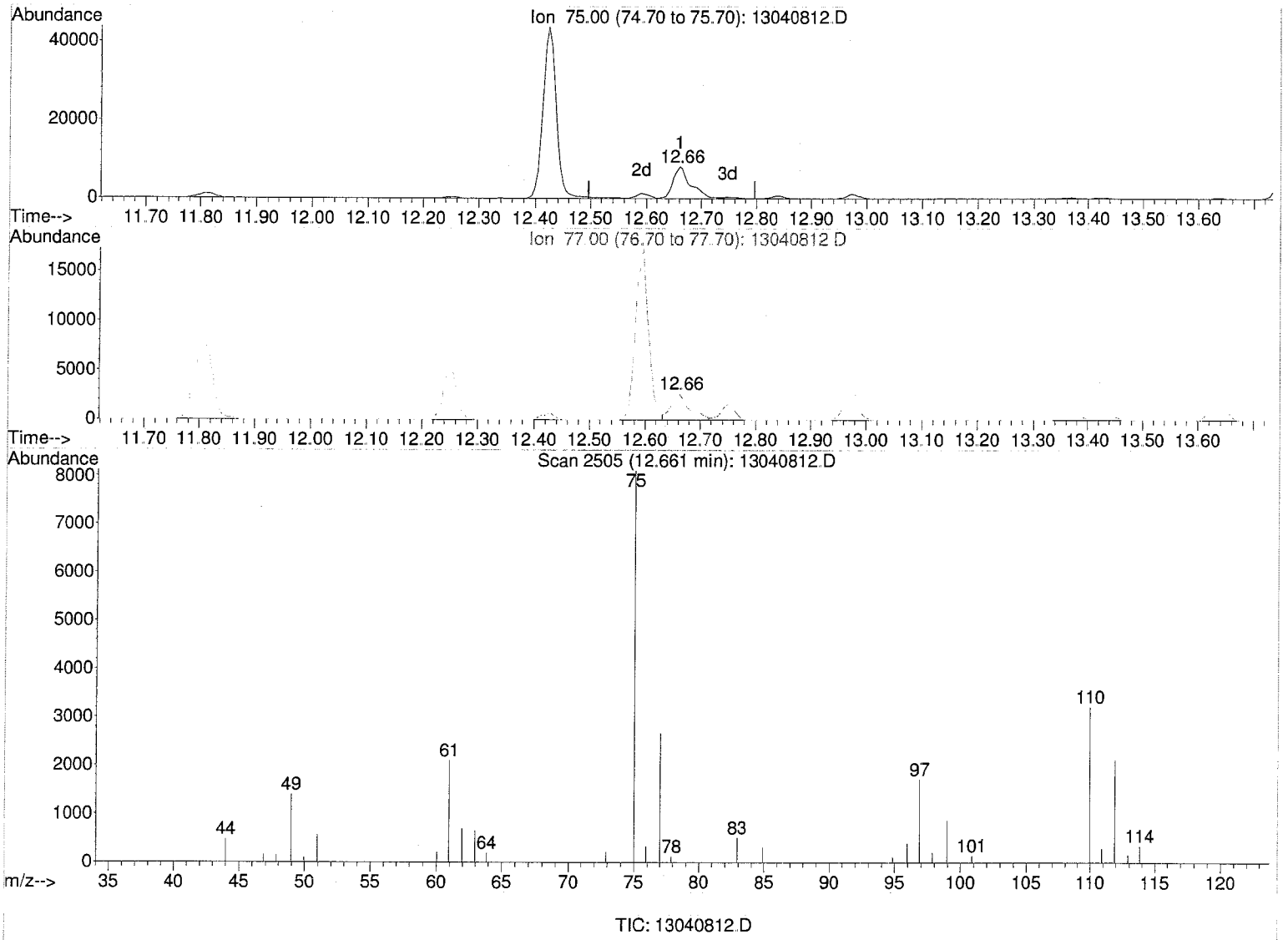
response 5325

Ion	Exp%	Act%
53.00	100	100
52.00	75.70	76.73
51.00	34.20	29.24
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(65) 1,2,3-Trichloropropane (T)

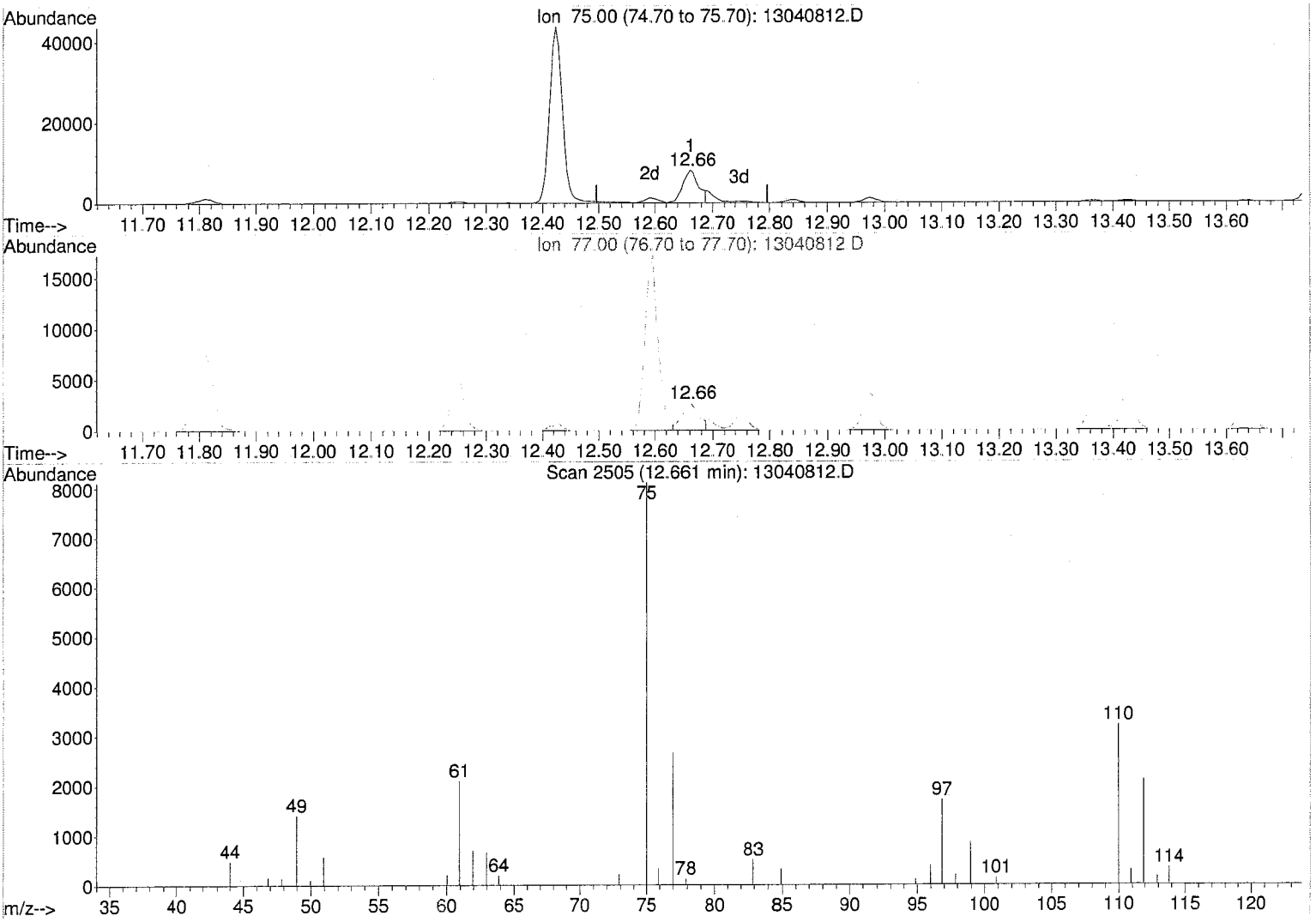
12.66min 0.00ug/L

response 17640

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	35.62
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040812.D Vial: 12
Acq On : 8 Apr 2013 3:58 pm Operator: AK
Sample : CAL3 10ppb 5mL Inst : VOA2
Misc : water 1uL A2338 2.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040812.D

(65) 1,2,3-Trichloropropane (T)

12.66min 0.00ug/L m

response 14749

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	35.29
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:42 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	554957	50.00 ug/L	0.02
54) Chlorobenzene d-5 ISTD	10.99	117	383422	50.00 ug/L	0.01
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	150243	50.00 ug/L	0.01
System Monitoring Compounds					
29) Dibromofluoromethane SS#1	6.45	113	121178	0.00 ug/L	0.02
Spiked Amount 50.000	Range 94 - 107		Recovery =	0.00%#	
48) Toluene d-8 SS#2	9.26	98	482281	0.00 ug/L	0.01
Spiked Amount 50.000	Range 96 - 104		Recovery =	0.00%#	
71) 4-Bromofluorobenzene SS#3	12.42	95	182711	0.00 ug/L	0.01
Spiked Amount 50.000	Range 89 - 112		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.52	85	55317	No Calib	
3) Chloromethane	1.73	50	64611	No Calib	
4) VINYL CHLORIDE	1.82	62	74818	No Calib	
5) Bromomethane	2.17	94	46788	No Calib	
6) Chloroethane	2.28	64	35382	No Calib	
7) Trichlorofluoromethane	2.55	101	52016	No Calib	
8) acrolein	3.05	56	5337	No Calib	
9) Acetone	3.26	58	2166	No Calib	#
10) 1,1-DICHLOROETHENE	3.18	96	44928	No Calib	
11) 1,1,2-Trichlorotrifluoroet	3.21	101	30494	No Calib	
12) iodomethane	3.38	142	64495	No Calib	
13) Carbon Disulfide	3.43	76	121735	No Calib	
14) Methyl Acetate	3.74	74	5089	No Calib	
15) Methylene chloride	3.90	84	47448	No Calib	
16) tert-Butanol	4.20	59	1395	No Calib	
17) acrylonitrile	4.27	53	11911	No Calib	
18) trans-1,2-Dichloroethene	4.28	96	37082	No Calib	
19) Methyl-t-Butyl Ether	4.33	73	94987	No Calib	
20) 1,1-Dichloroethane	4.93	63	60434	No Calib	
21) vinyl acetate	5.08	43	64467	No Calib	
22) Diisopropyl ether	5.11	45	133863	No Calib	
23) tert-Butyl ethyl ether	5.64	59	109616	No Calib	
24) 2,2-Dichloropropane	5.77	77	19614	No Calib	
25) cis-1,2-Dichloroethene	5.78	96	49064	No Calib	
26) 2-Butanone (MEK)	5.85	72	3152	No Calib	#
27) Bromochloromethane	6.10	128	20427	No Calib	
28) CHLOROFORM	6.24	83	63712	No Calib	
30) 1,1,1-Trichloroethane	6.44	97	36861	No Calib	
31) Cyclohexane	6.50	56	29897	No Calib	
32) Carbon tetrachloride	6.66	117	30645	No Calib	
33) 1,1-Dichloropropene	6.67	75	51460	No Calib	
34) Benzene`	6.93	78	173196	No Calib	
35) 1,2-Dichloroethane	6.97	62	44628	No Calib	
36) tert-Amyl alcohol	7.08	59	1219	No Calib	
37) tert-Amyl methyl ether	7.14	73	113696	No Calib	
38) Trichloroethene	7.77	95	40035	No Calib	
39) 1,2-DICHLOROPROPANE	8.05	63	39152	No Calib	
40) Methylcyclohexane	8.00	83	32629	No Calib	
41) tert-Amyl ethyl ether	8.14	59	90903	No Calib	
42) Dibromomethane	8.19	93	24693	No Calib	
43) 1,4-Dioxane	8.26	88	2514	No Calib	#
44) Bromodichloromethane	8.40	83	45007	No Calib	
45) 2-Chloroethylvinyl Ether	8.81	63	21412	No Calib	
46) cis-1,3-Dichloropropene	8.95	75	61946	No Calib	
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	5332	No Calib	#

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:42 2013 Quant Results File: VOC-W.RES

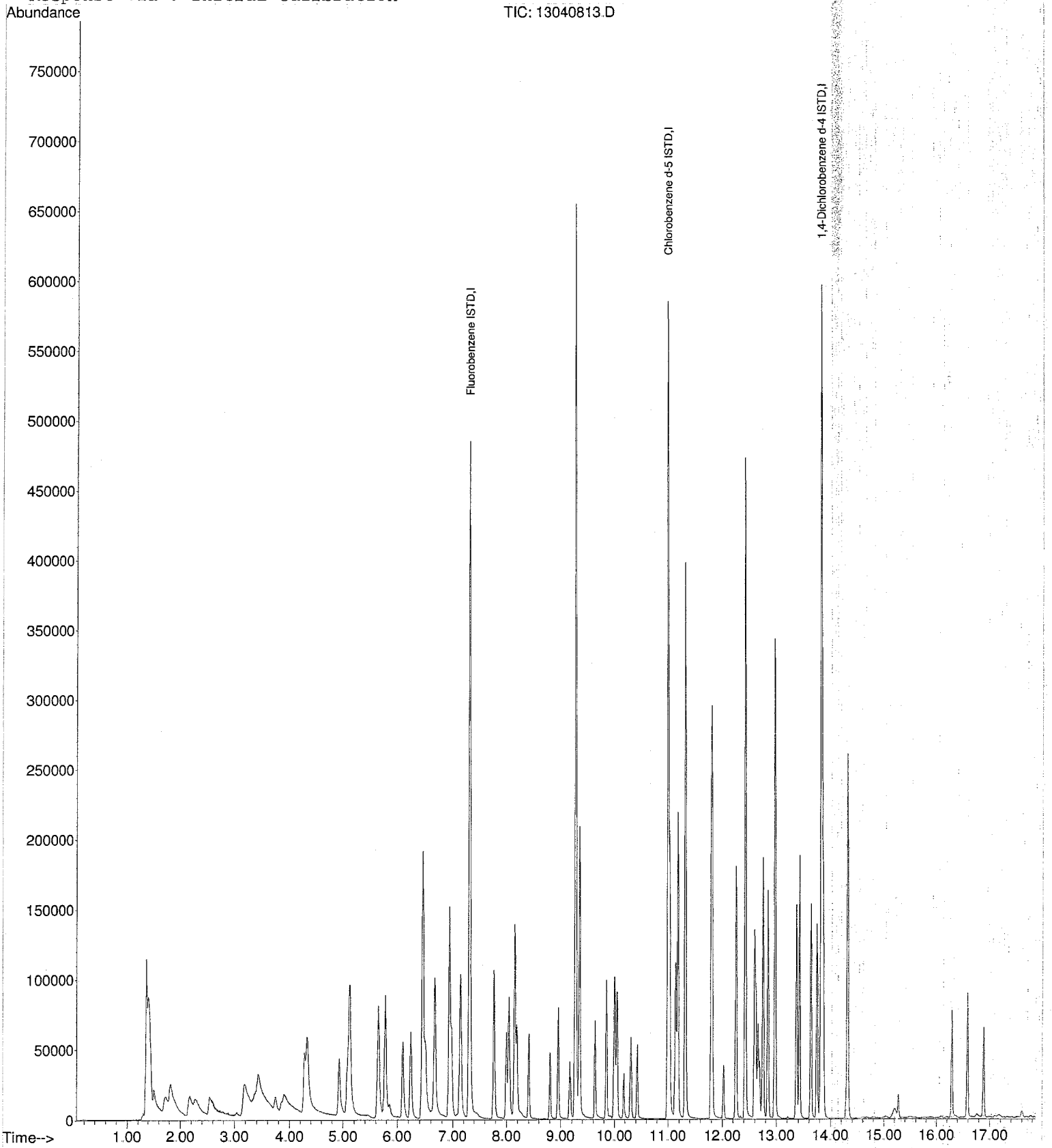
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
49)	TOLUENE	9.35	92	104449	No Calib	
50)	trans-1,3-Dichloropropene	9.63	75	49418	No Calib	
51)	1,1,2-Trichloroethane	9.84	83	29185	No Calib	
52)	Tetrachloroethene	10.00	164	26710	No Calib	
53)	2-Hexanone (MBK)	10.18	43	25665	No Calib	
55)	1,3-Dichloropropane	10.04	76	66962	No Calib	
56)	Dibromochloromethane	10.31	129	32953	No Calib	
57)	1,2-Dibromoethane	10.43	107	38814	No Calib	
58)	Chlorobenzene	11.03	112	113516	No Calib	
59)	1,1,1,2-Tetrachloroethane	11.13	131	32769	No Calib	
60)	ETHYLBENZENE	11.17	91	172950	No Calib	
61)	m&p-Xylene	11.32	106	139074	No Calib	
62)	o-Xylene	11.79	106	69481	No Calib	
63)	Styrene	11.81	104	128449	No Calib	
64)	Bromoform	12.02	173	18295	No Calib	
65)	1,2,3-Trichloropropane	12.66	75	33512	No Calib	
66)	Bromobenzene	12.59	156	39891	No Calib	#
67)	trans-1,4-dichloro-2-buten	12.69	53	9076	No Calib	#
68)	n-Propylbenzene	12.75	91	160475	No Calib	
70)	Isopropylbenzene	12.25	105	143054	No Calib	
72)	1,1,2,2-Tetrachloroethane	12.62	83	46022	No Calib	
73)	2-Chlorotoluene	12.84	91	102989	No Calib	
74)	4-Chlorotoluene	12.97	91	120806	No Calib	
75)	1,3,5-Trimethylbenzene	12.97	105	112195	No Calib	
76)	tert-Butylbenzene	13.37	119	83782	No Calib	
77)	1,2,4-Trimethylbenzene	13.43	105	115802	No Calib	
78)	sec-Butylbenzene	13.64	105	127656	No Calib	
79)	4-Isopropyltoluene	13.82	119	102387	No Calib	
80)	1,3-Dichlorobenzene	13.75	146	64631	No Calib	
81)	1,4-Dichlorobenzene	13.86	146	66593	No Calib	
82)	1,2-Dichlorobenzene	14.31	146	60829	No Calib	
83)	n-Butylbenzene	14.32	91	91372	No Calib	
84)	1,2-Dibromo-3-chloropropan	15.27	75	4689	No Calib	
85)	1,2,4-Trichlorobenzene	16.29	180	25751	No Calib	
86)	Naphthalene	16.59	128	73069	No Calib	
87)	1,2,3-Trichlorobenzene	16.89	180	22273	No Calib	

(#) = qualifier out of range (m) = manual integration

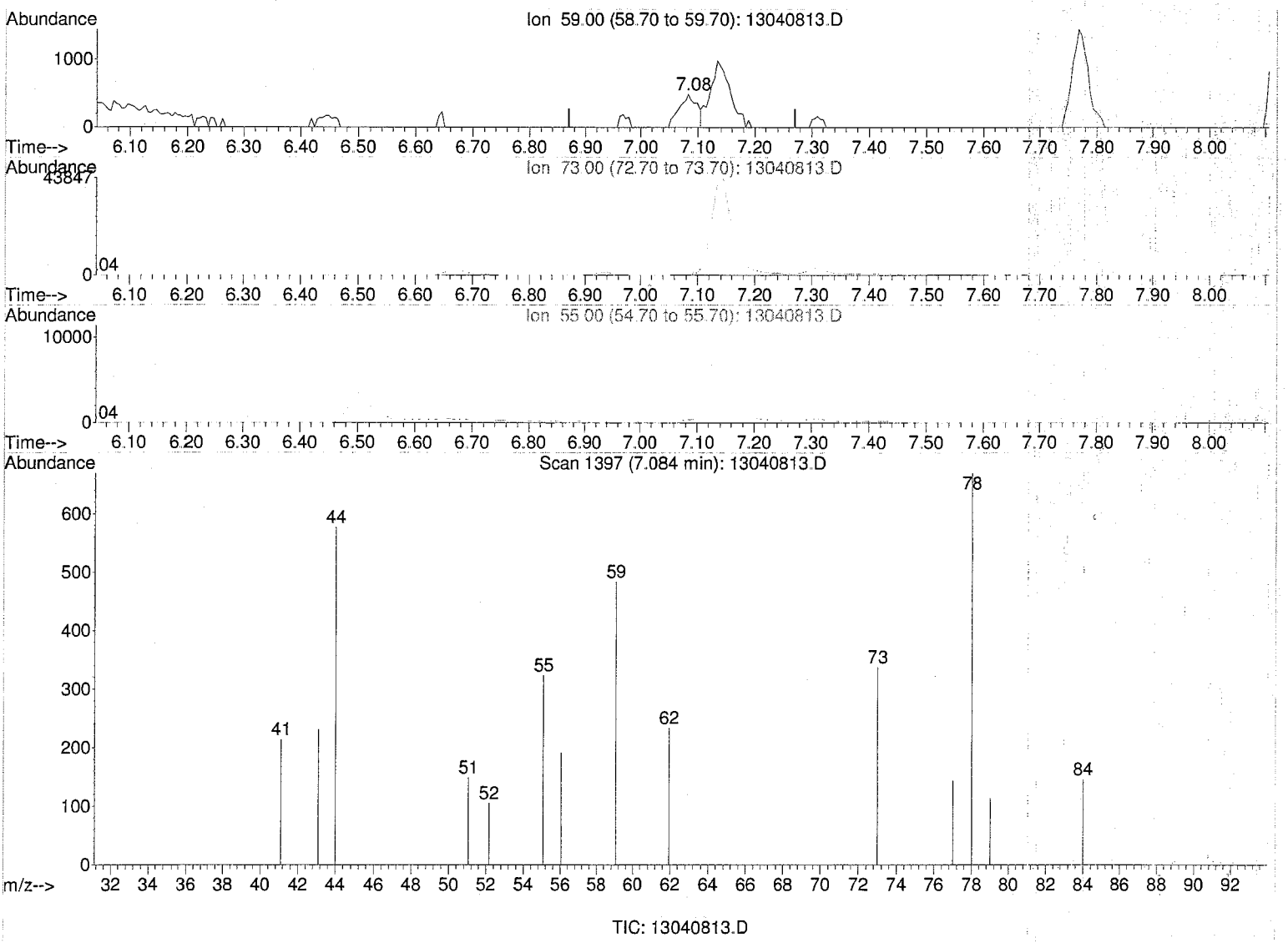
Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5u1 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:13 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:12:37 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:12:37 2013
Response via : Single Level Calibration



TIC: 13040813.D

(36) tert-Amyl alcohol (T)

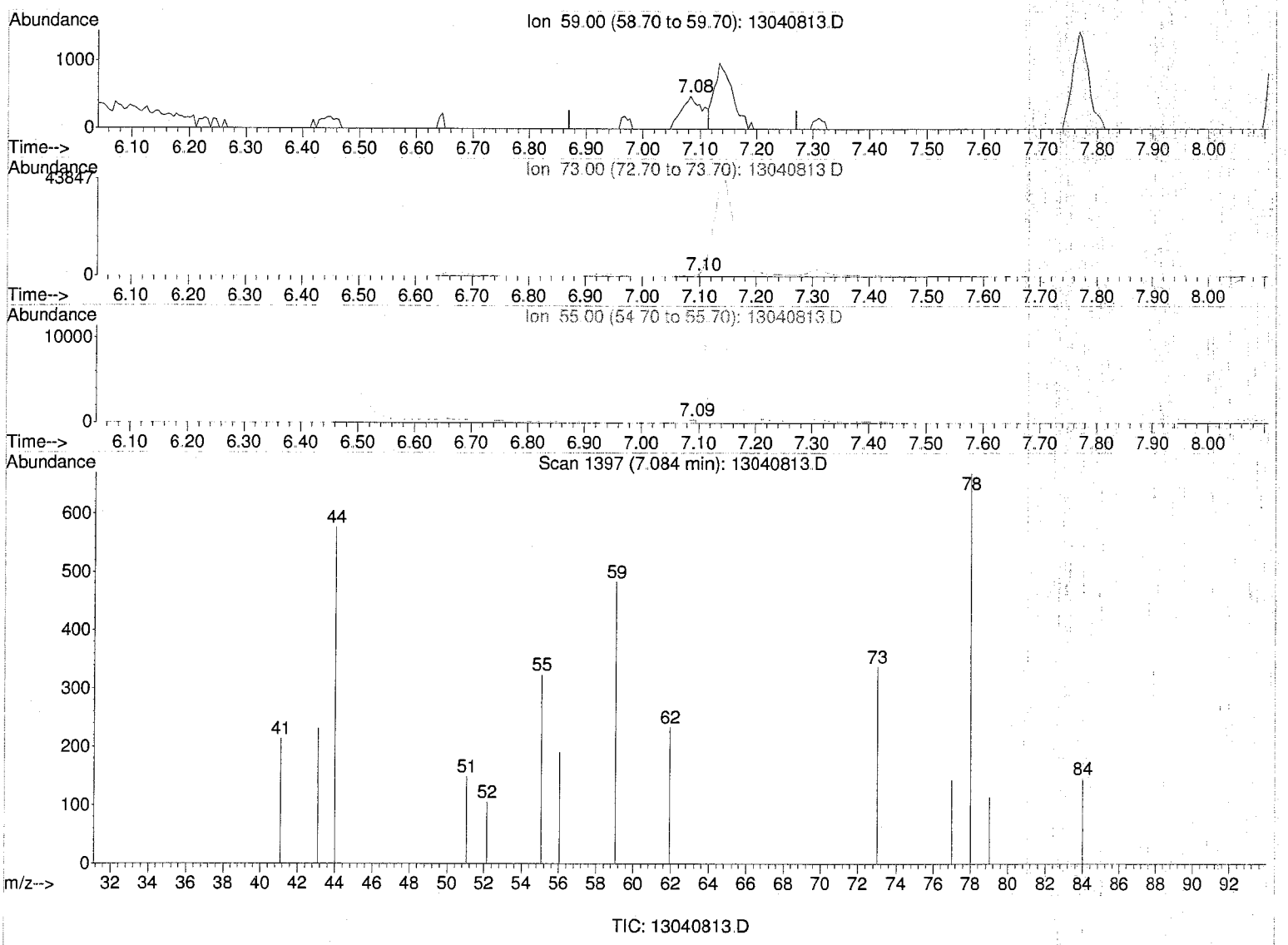
7.08min 0.00ug/L

response 1033

Ion	Exp%	Act%
59.00	100	100
73.00	44.80	0.00#
55.00	62.60	0.00#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:13 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:12:37 2013
Response via : Single Level Calibration



TIC: 13040813.D

(36) tert-Amyl alcohol (T)

7.08min 0.00ug/L m

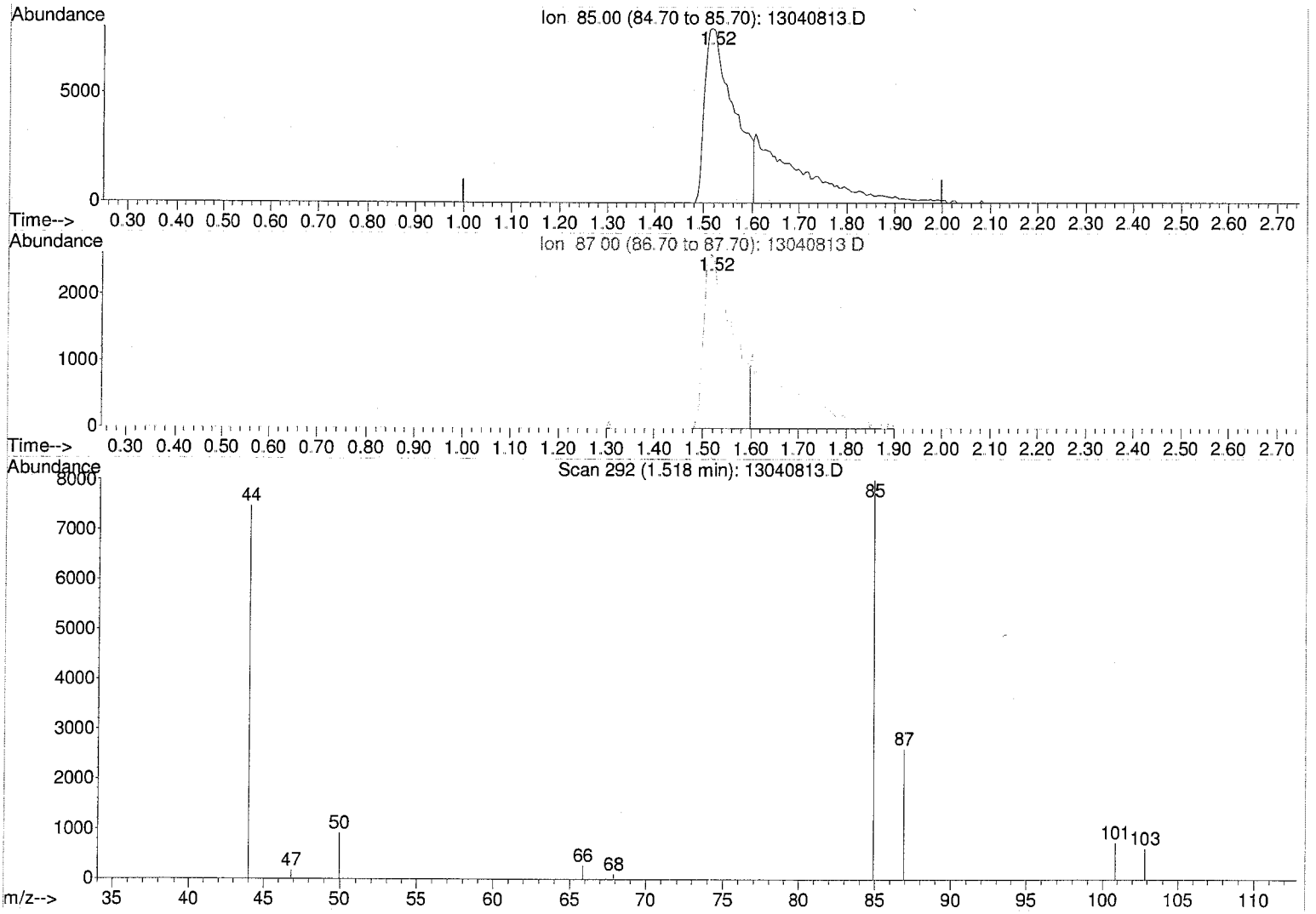
response 1219

Ion	Exp%	Act%
59.00	100	100
73.00	44.80	76.46#
55.00	62.60	50.37
0.00	0.00	0.00

AC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(2) Dichlorodifluoromethane (T)

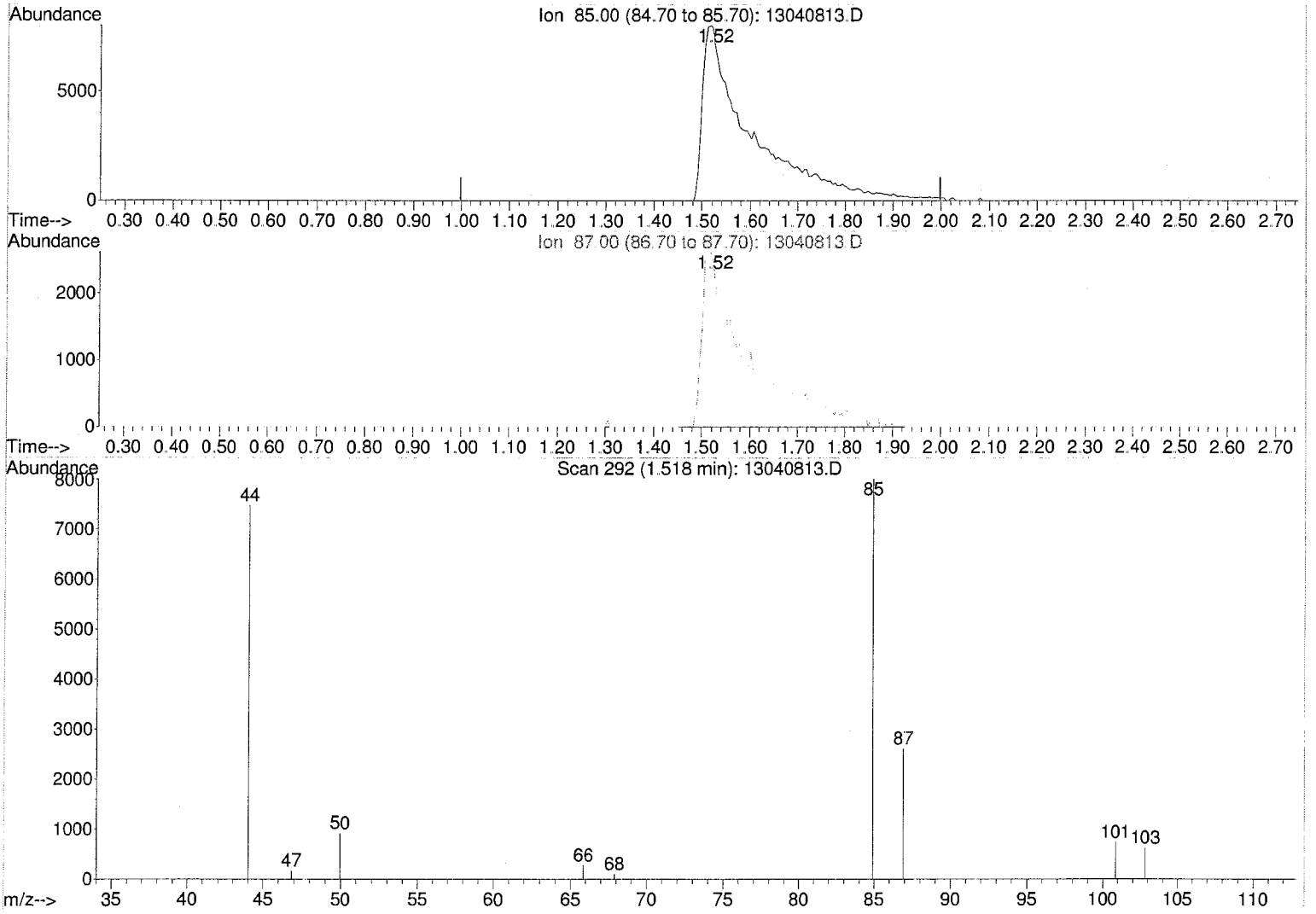
1.52min 0.00ug/L

response 33899

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	31.47
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(2) Dichlorodifluoromethane (T)

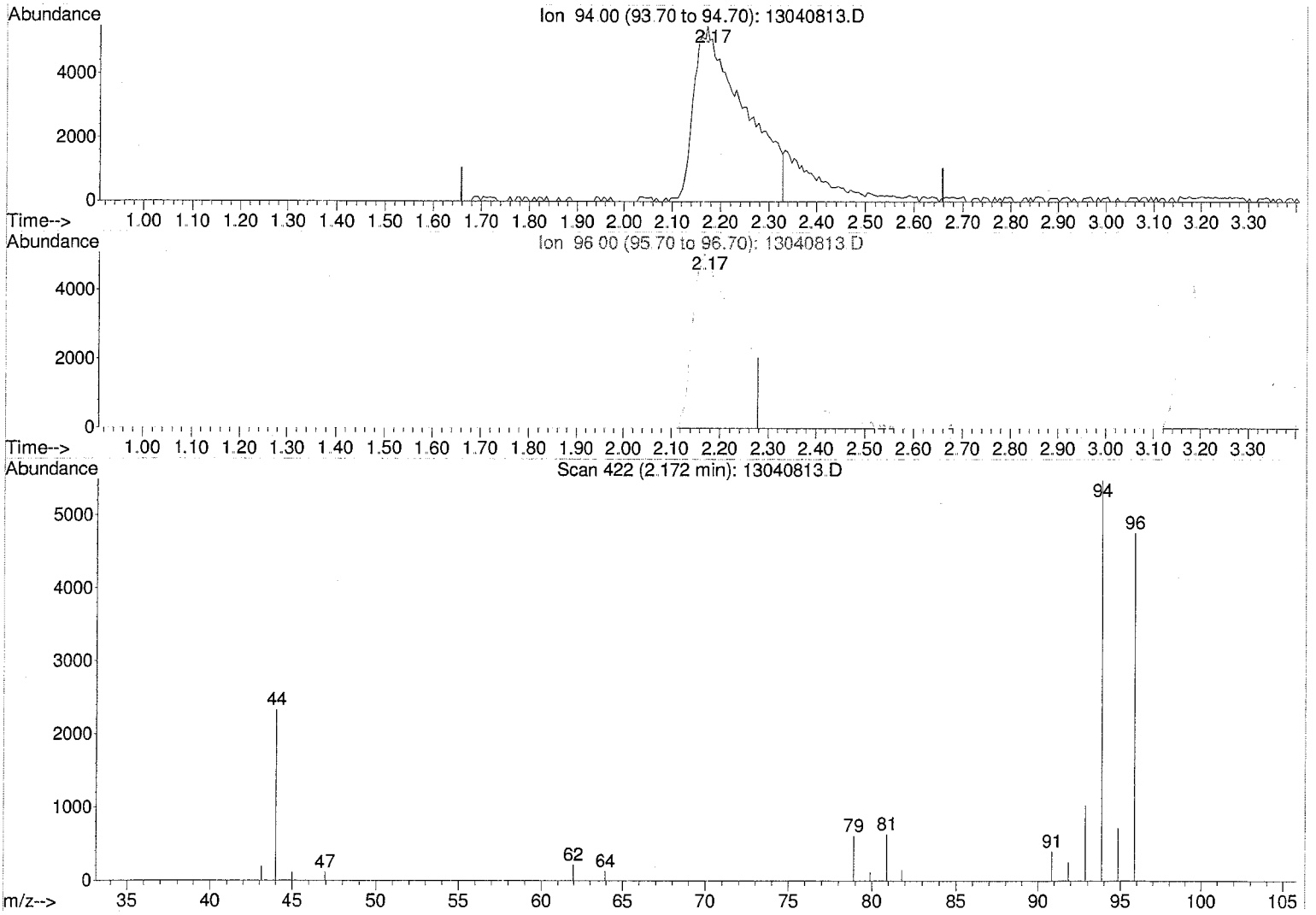
1.52min 0.00ug/L m

response 55317

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	31.54
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(5) Bromomethane (T)

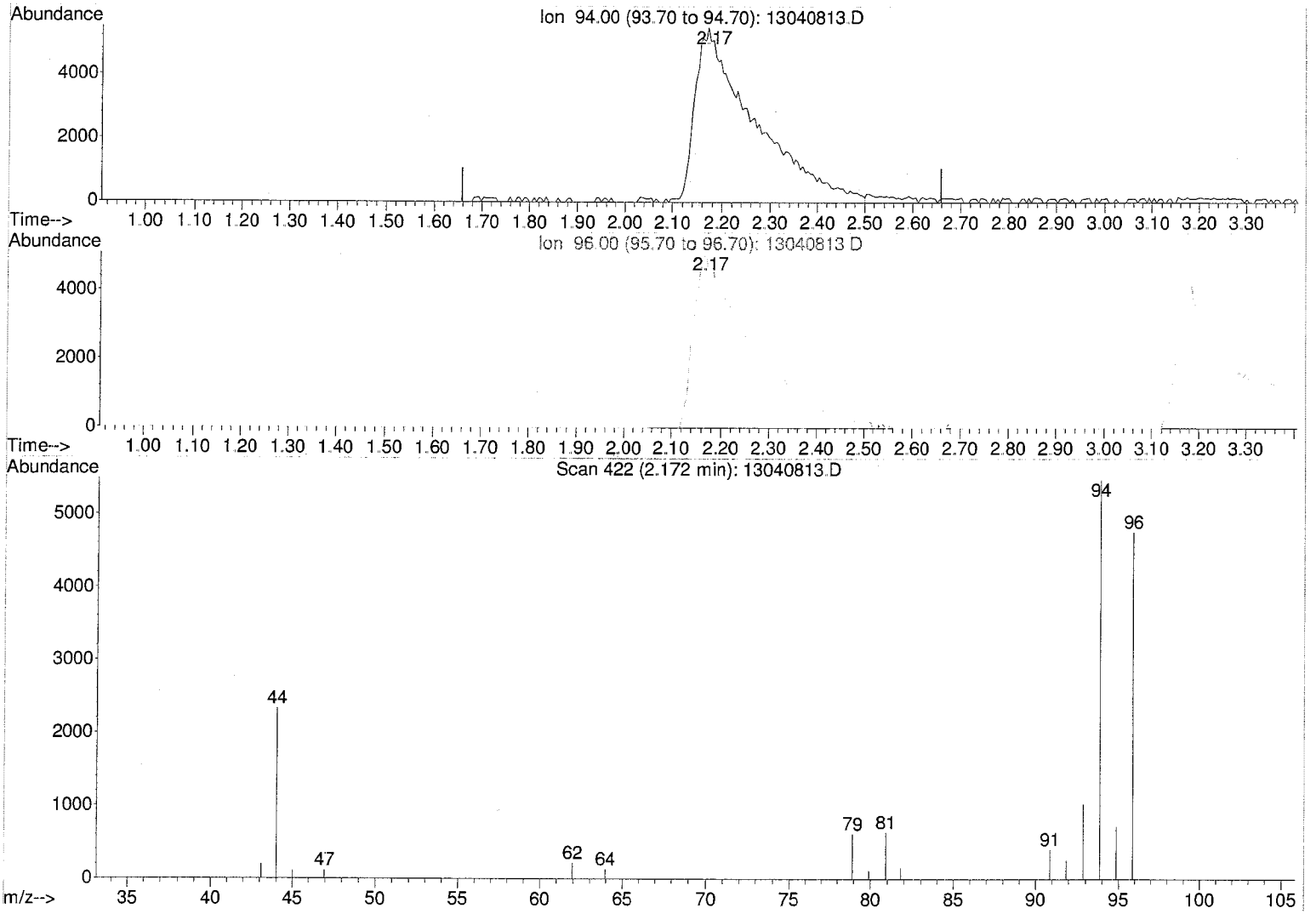
2.17min 0.00ug/L

response 39467

Ion	Exp%	Act%
94.00	100	100
96.00	94.50	77.67
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(5) Bromomethane (T)

2.17min 0.00ug/L m

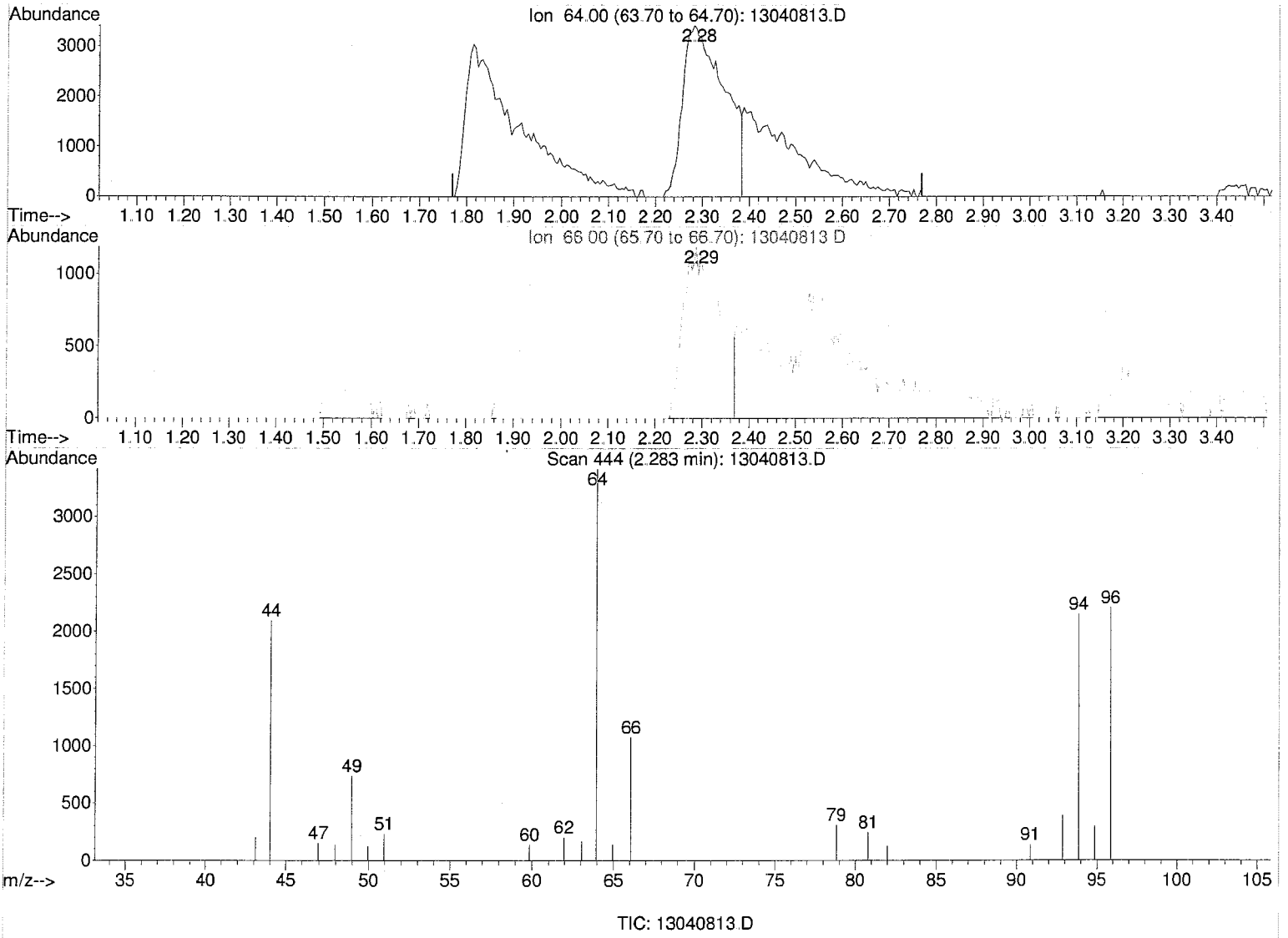
response 46788

Ion	Exp%	Act%
94.00	100	100
96.00	94.50	90.61
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(6) Chloroethane (T)

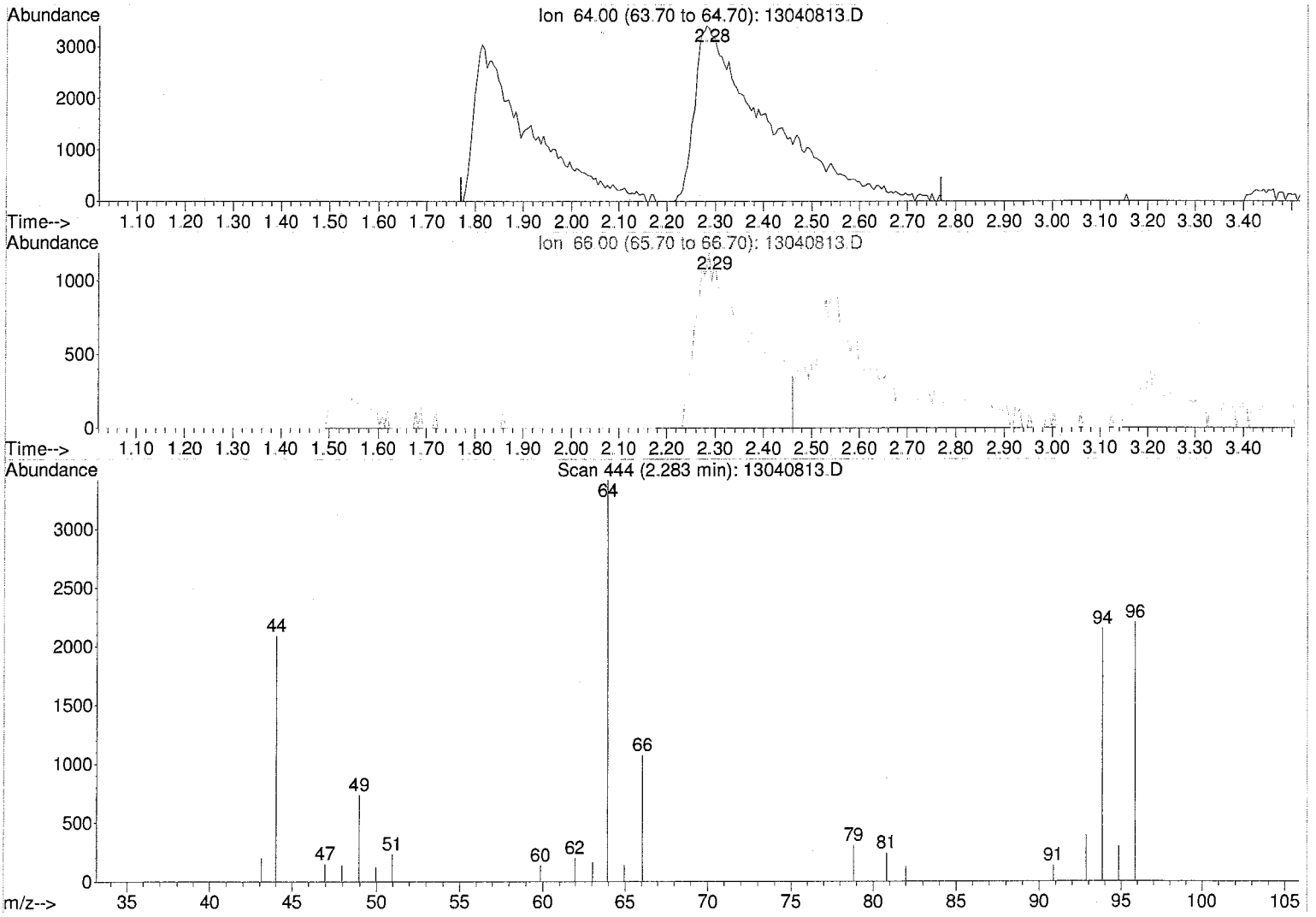
2.28min 0.00ug/L

response 21100

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	29.98
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(6) Chloroethane (T)

2.28min 0.00ug/L m

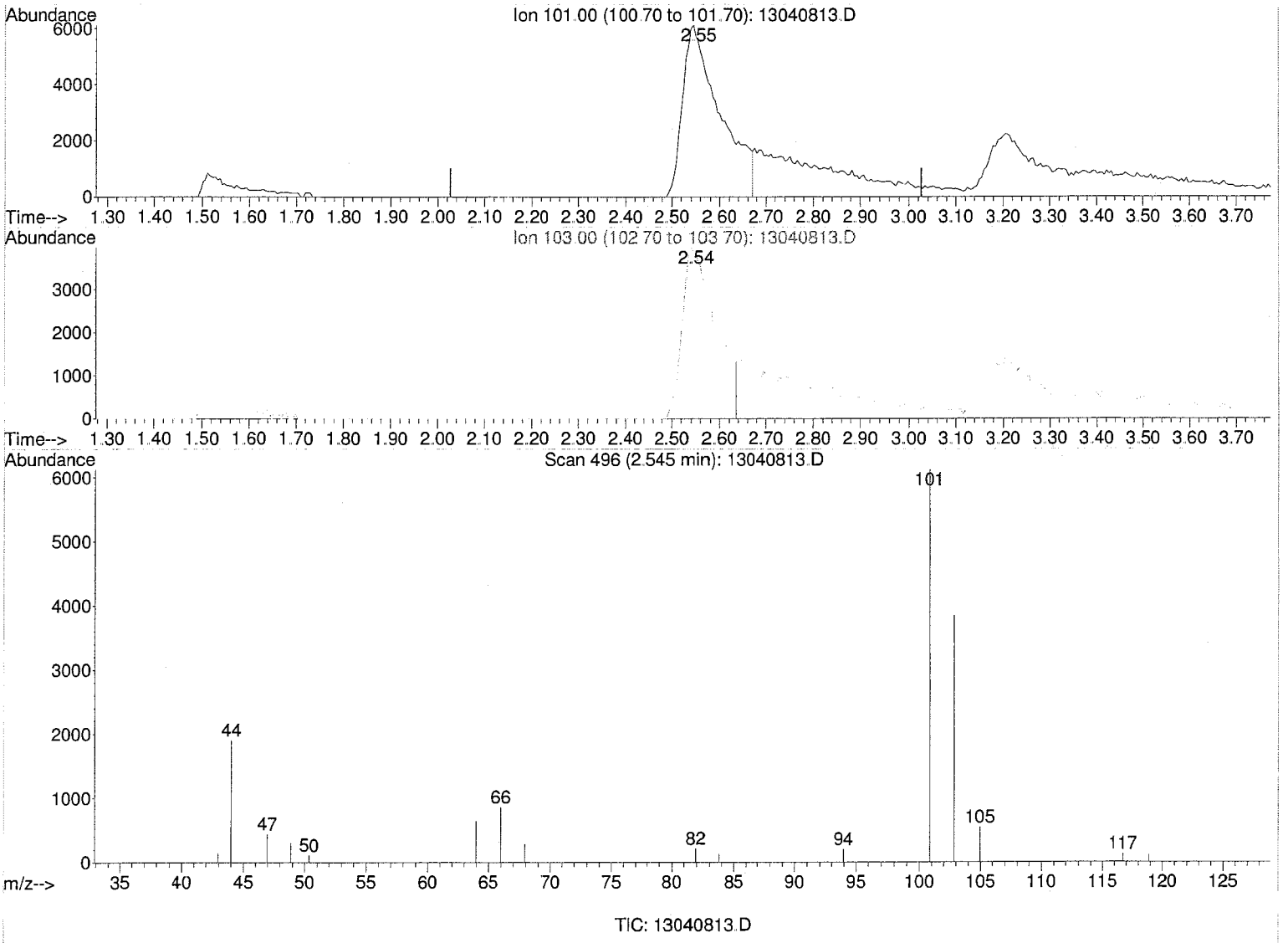
response 35382

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	25.58
0.00	0.00	0.00
0.00	0.00	0.00

AF 4/9/13

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(7) Trichlorofluoromethane (T)

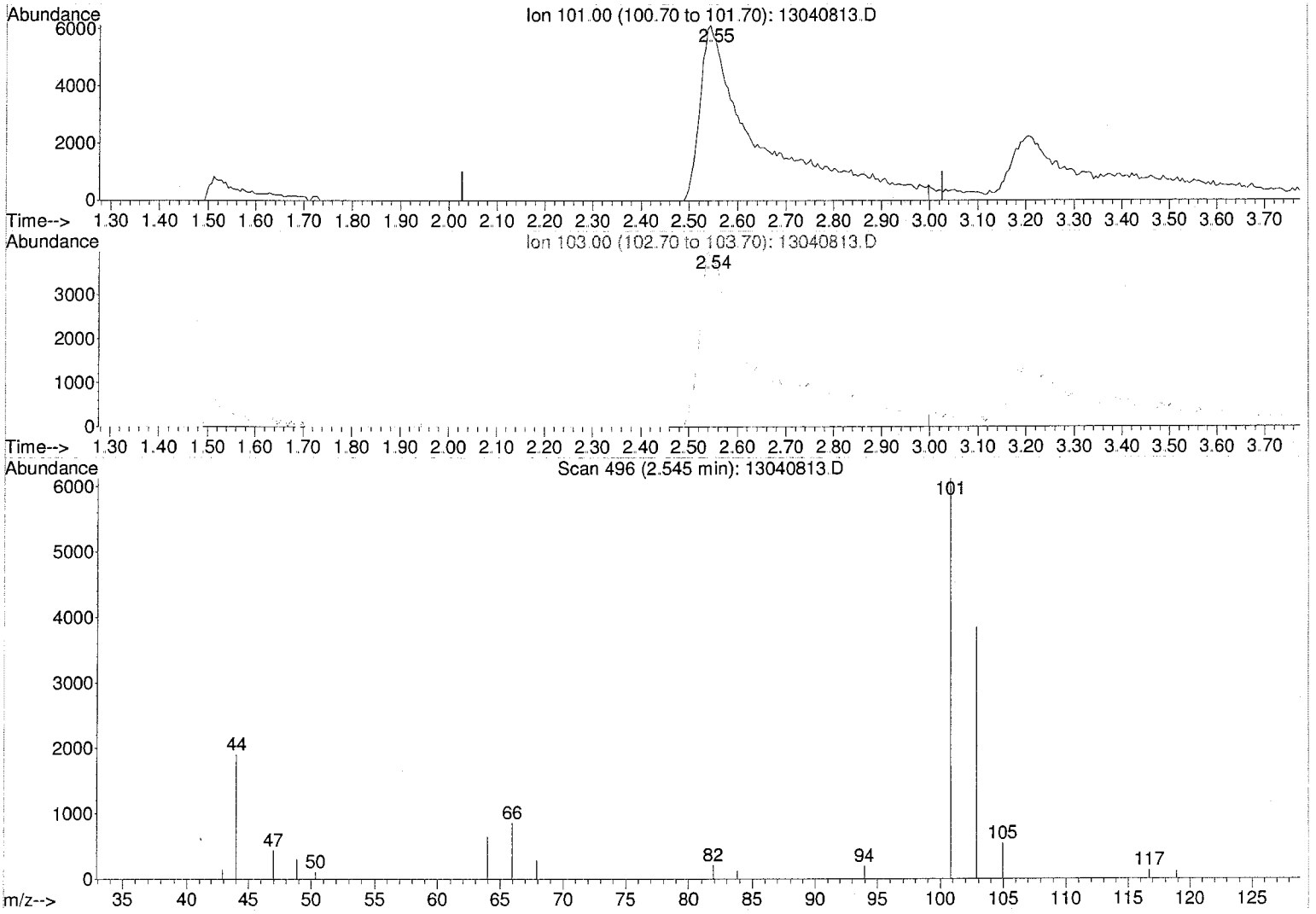
2.55min 0.00ug/L

response 33057

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	58.18
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(7) Trichlorofluoromethane (T)

2.55min 0.00ug/L m

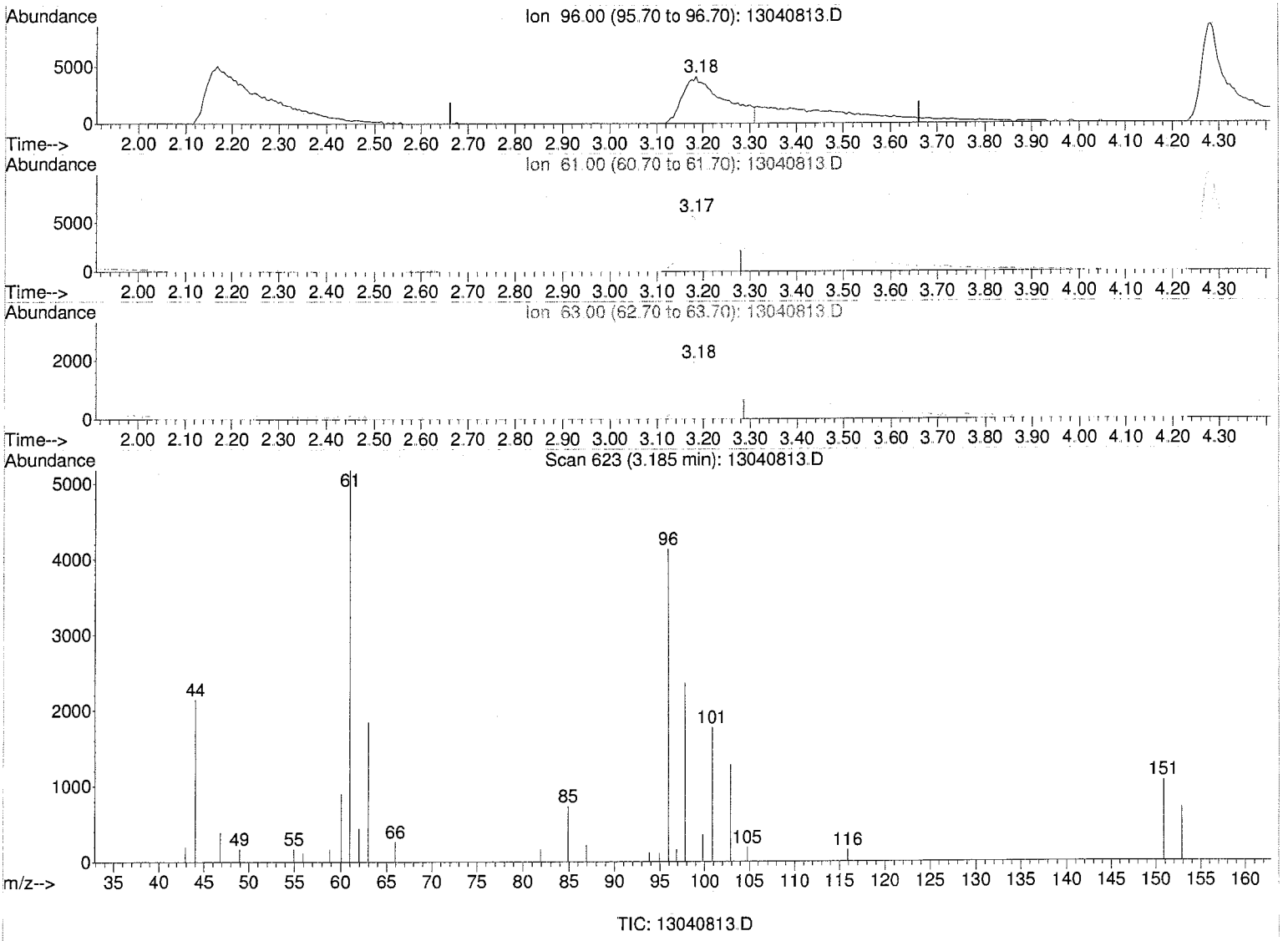
response 52016

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	66.20
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(10) 1,1-DICHLOROETHENE (M,C)

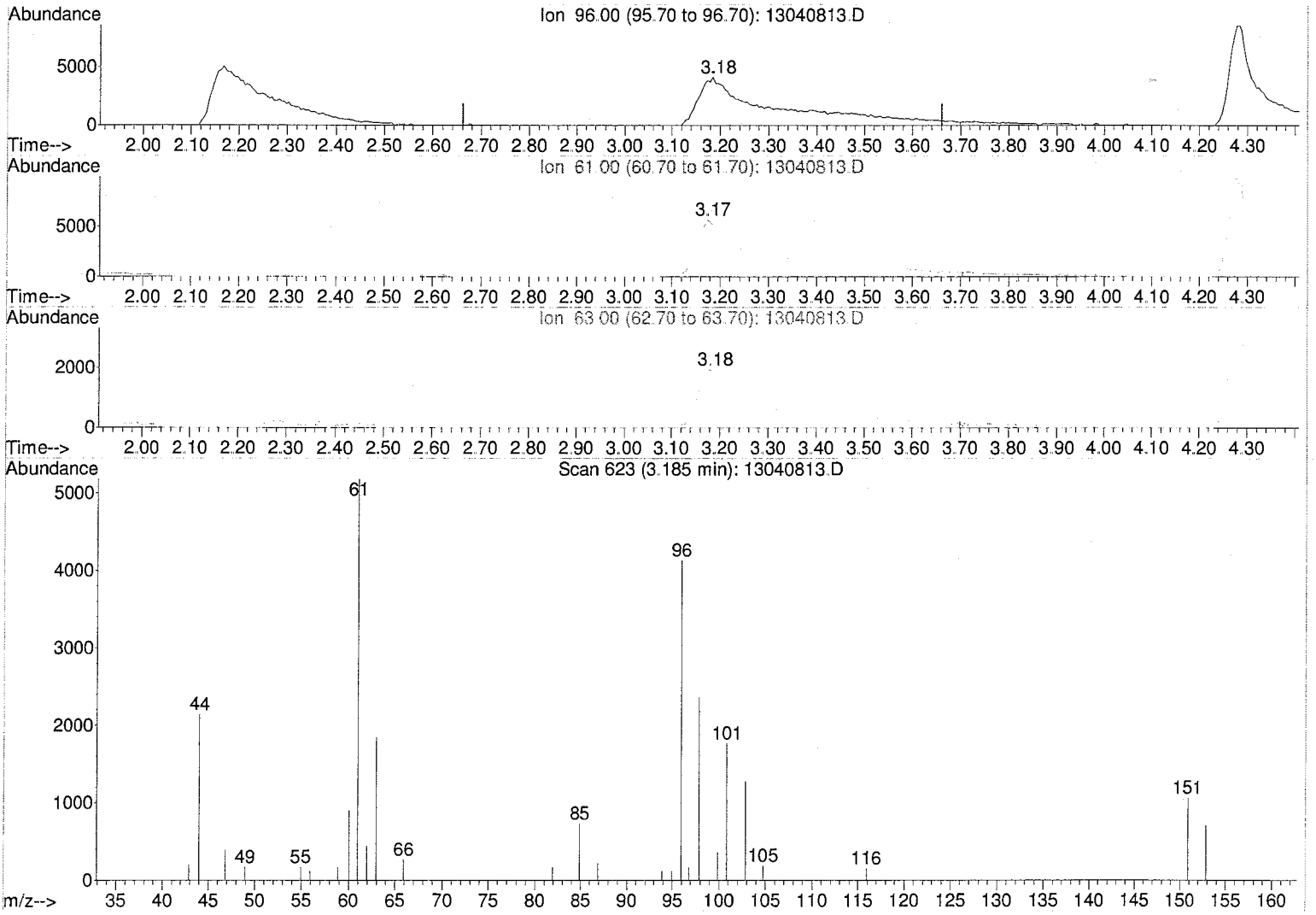
3.18min 0.00ug/L

response 25502

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	122.77
63.00	44.80	41.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

AK 4/9/13

(10) 1,1-DICHLOROETHENE (M,C)

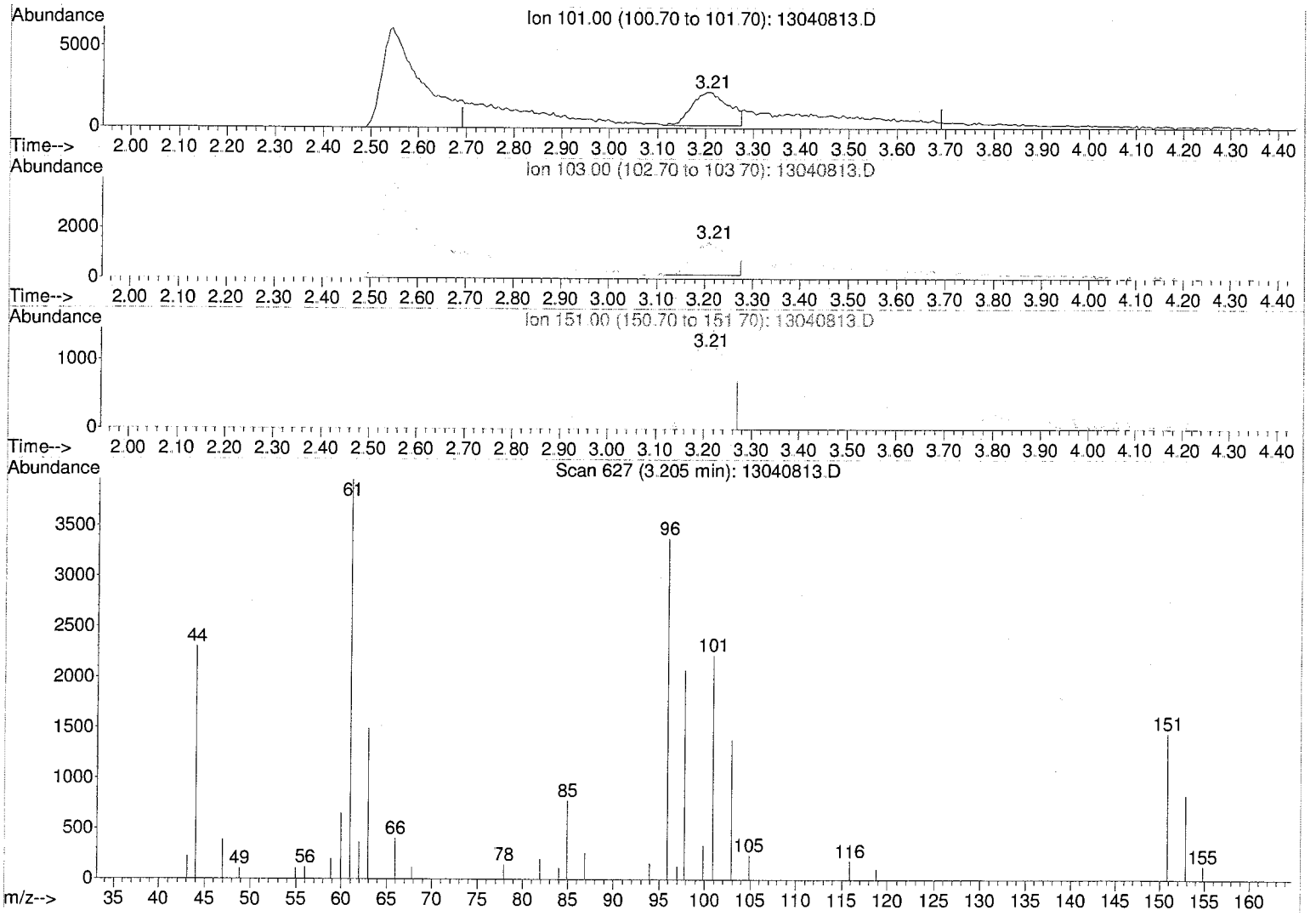
3.18min 0.00ug/L m

response 44928

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	136.49
63.00	44.80	45.12
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

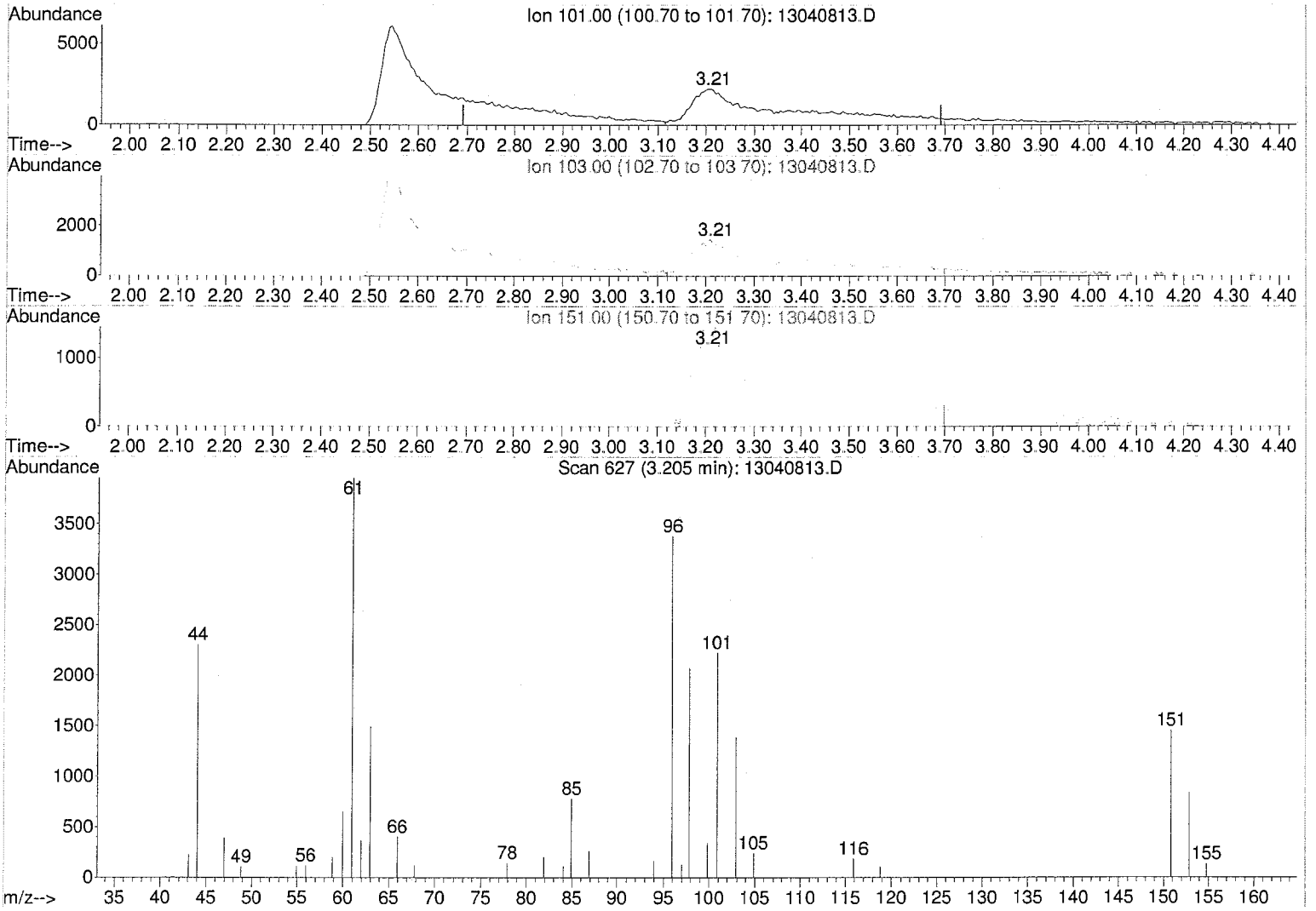
3.21min 0.00ug/L

response 10880

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	61.18
151.00	65.20	67.56
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.21min 0.00ug/L m

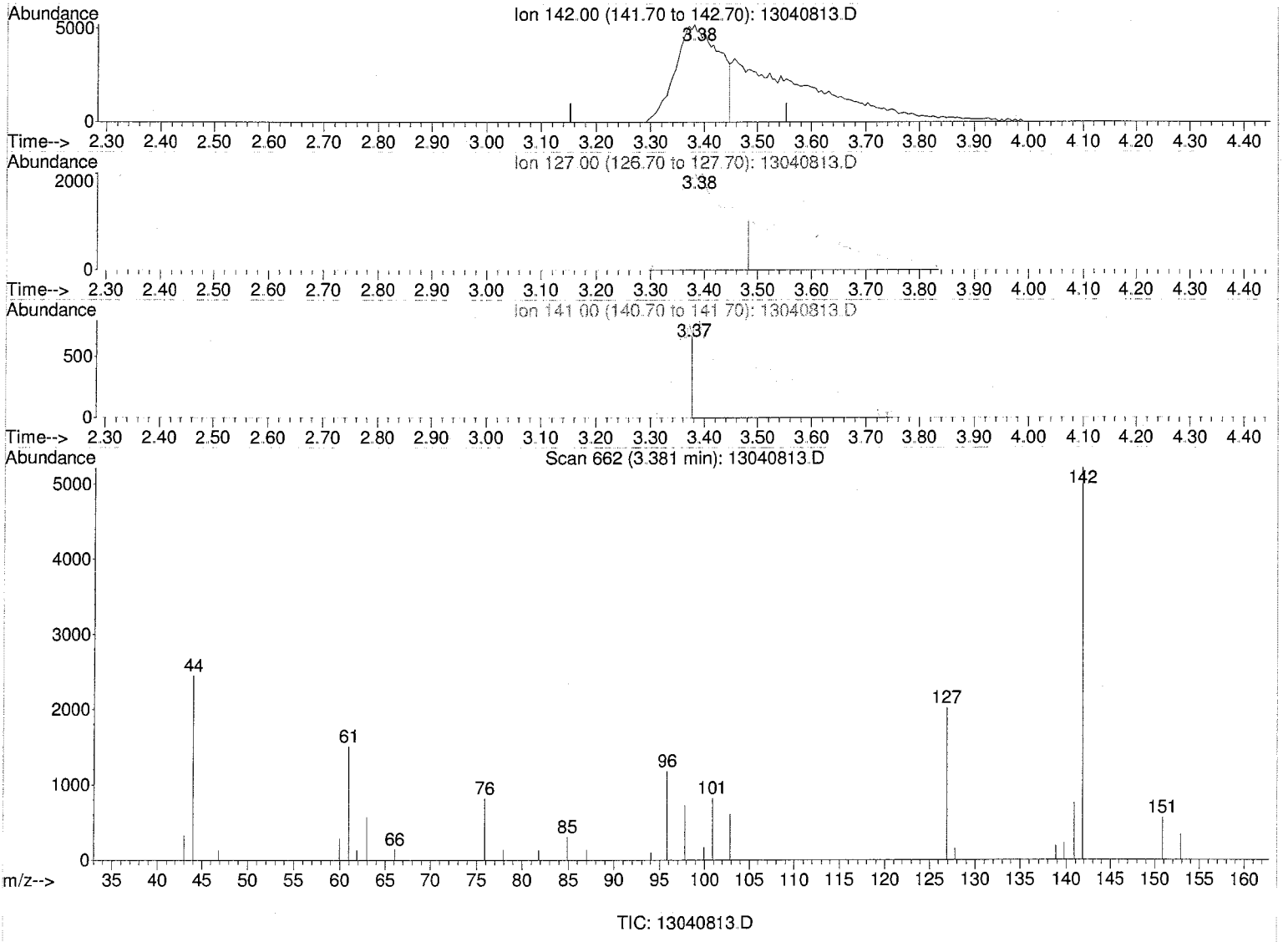
response 30494

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	64.28
151.00	65.20	61.10
0.00	0.00	0.00

4/9/13

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(12) iodomethane (T)

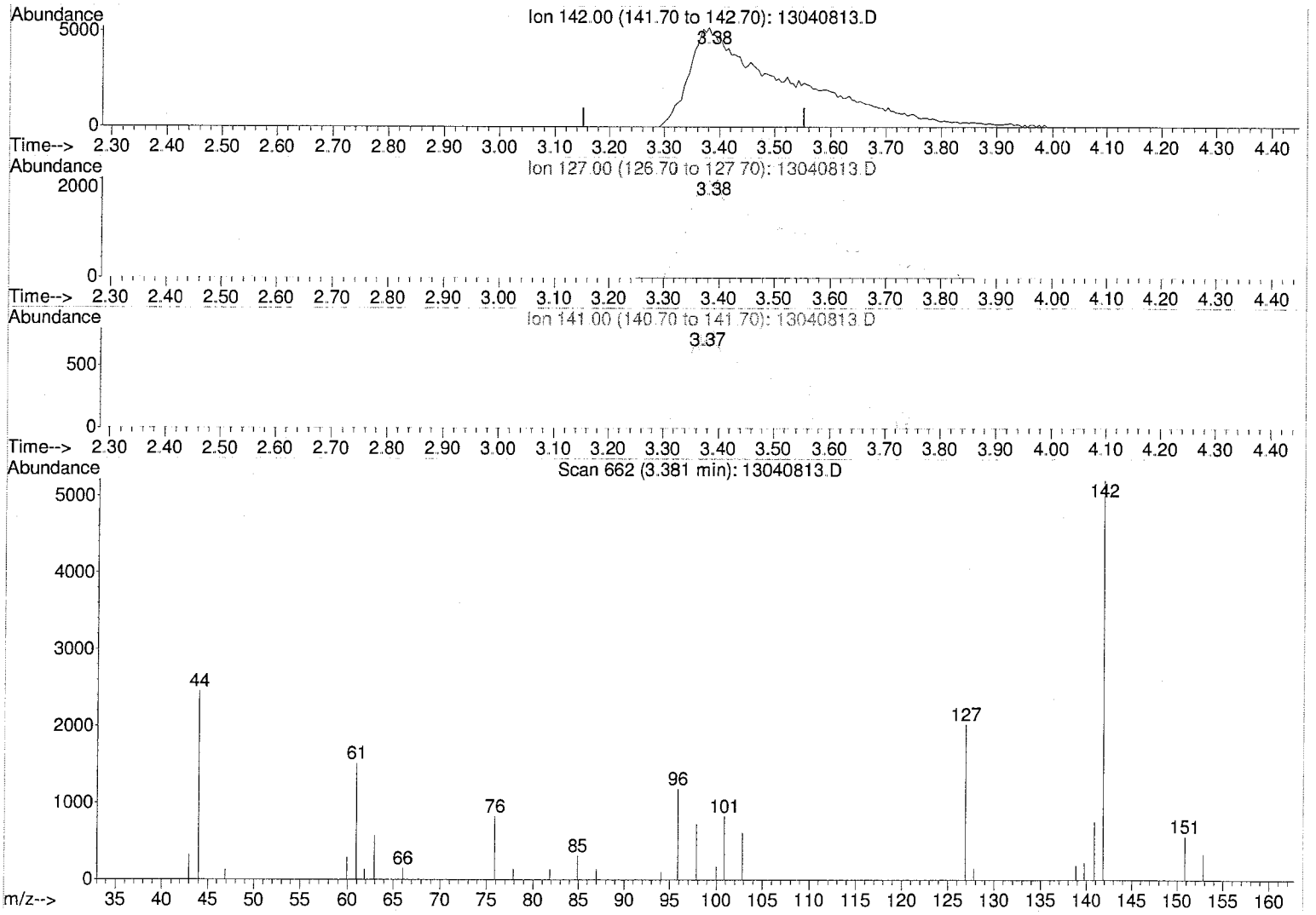
3.38min 0.00ug/L

response 29484

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	46.65
141.00	14.80	5.86
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(12) iodomethane (T)

3.38min 0.00ug/L m

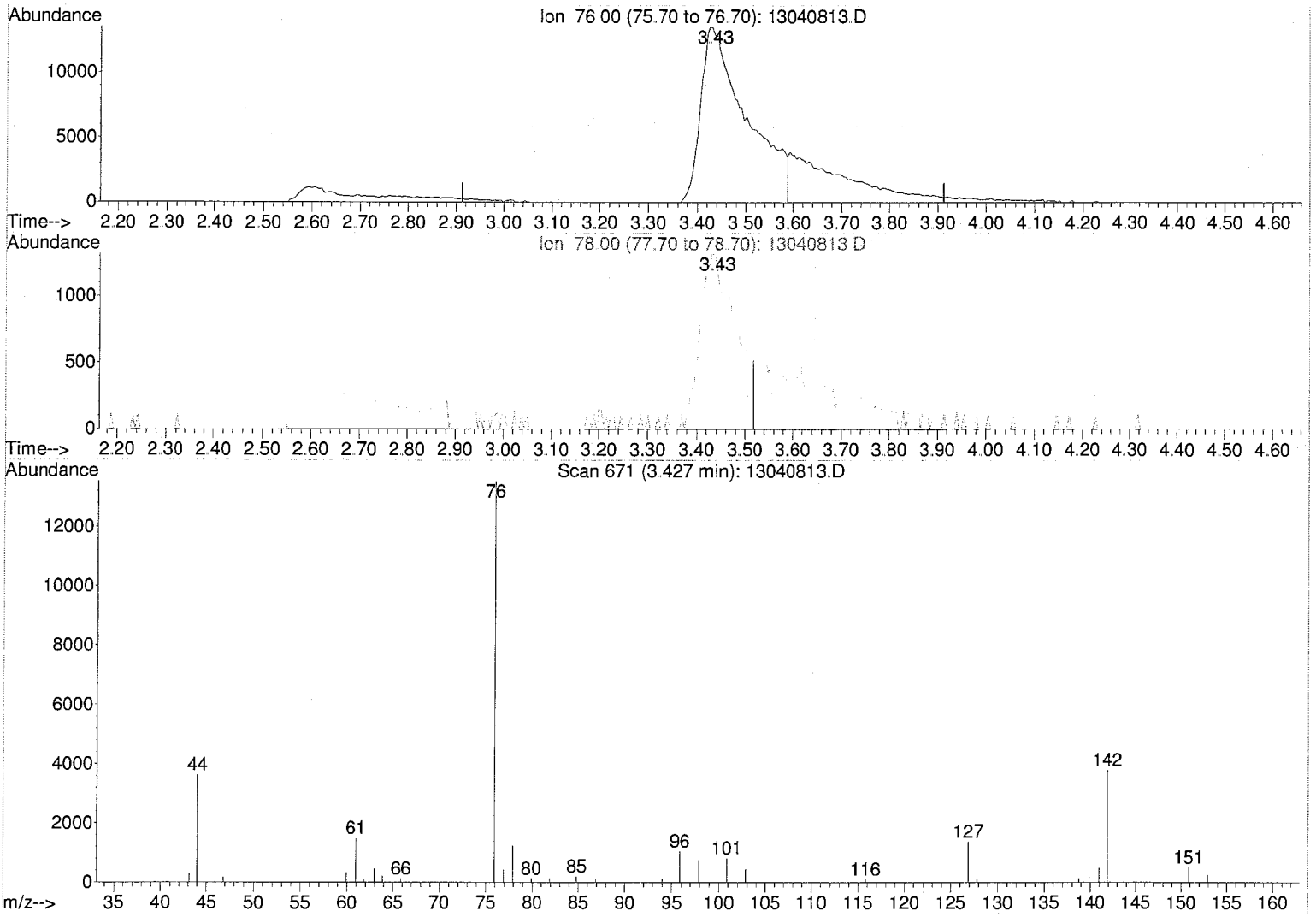
response 64495

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	38.29
141.00	14.80	13.64
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(13) Carbon Disulfide (T)

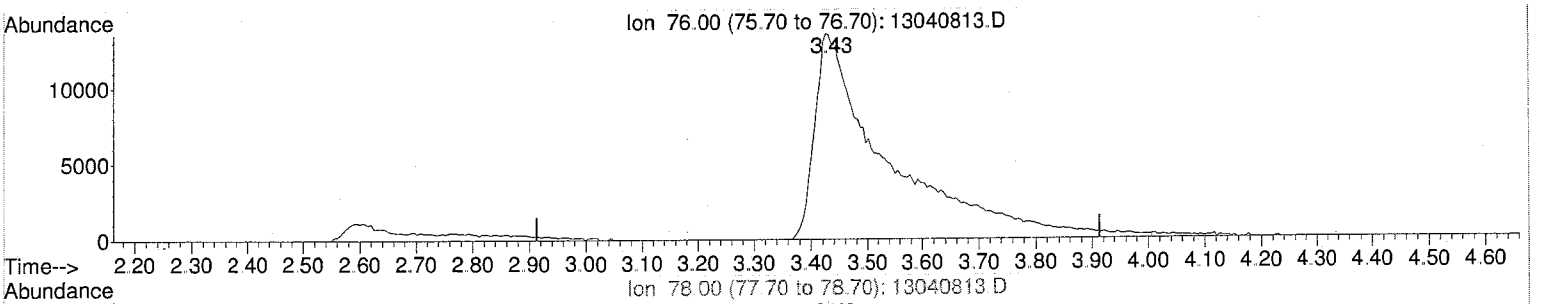
3.43min 0.00ug/L

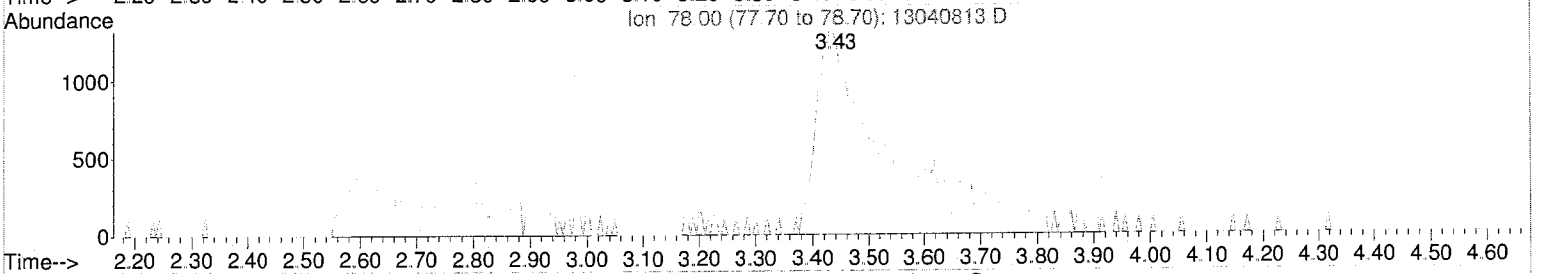
response 88557

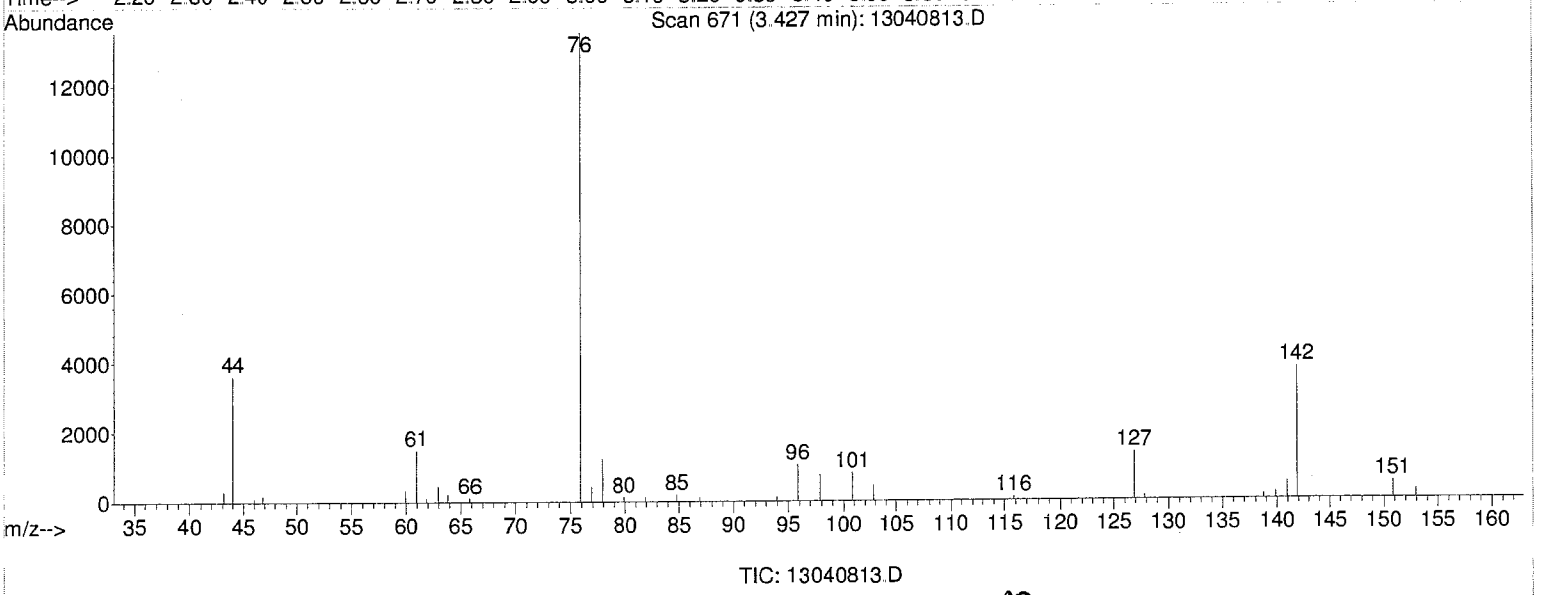
Ion	Exp%	Act%
76.00	100	100
78.00	5.60	7.69
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration







TIC: 13040813.D

(13) Carbon Disulfide (T)

3.43min 0.00ug/L m

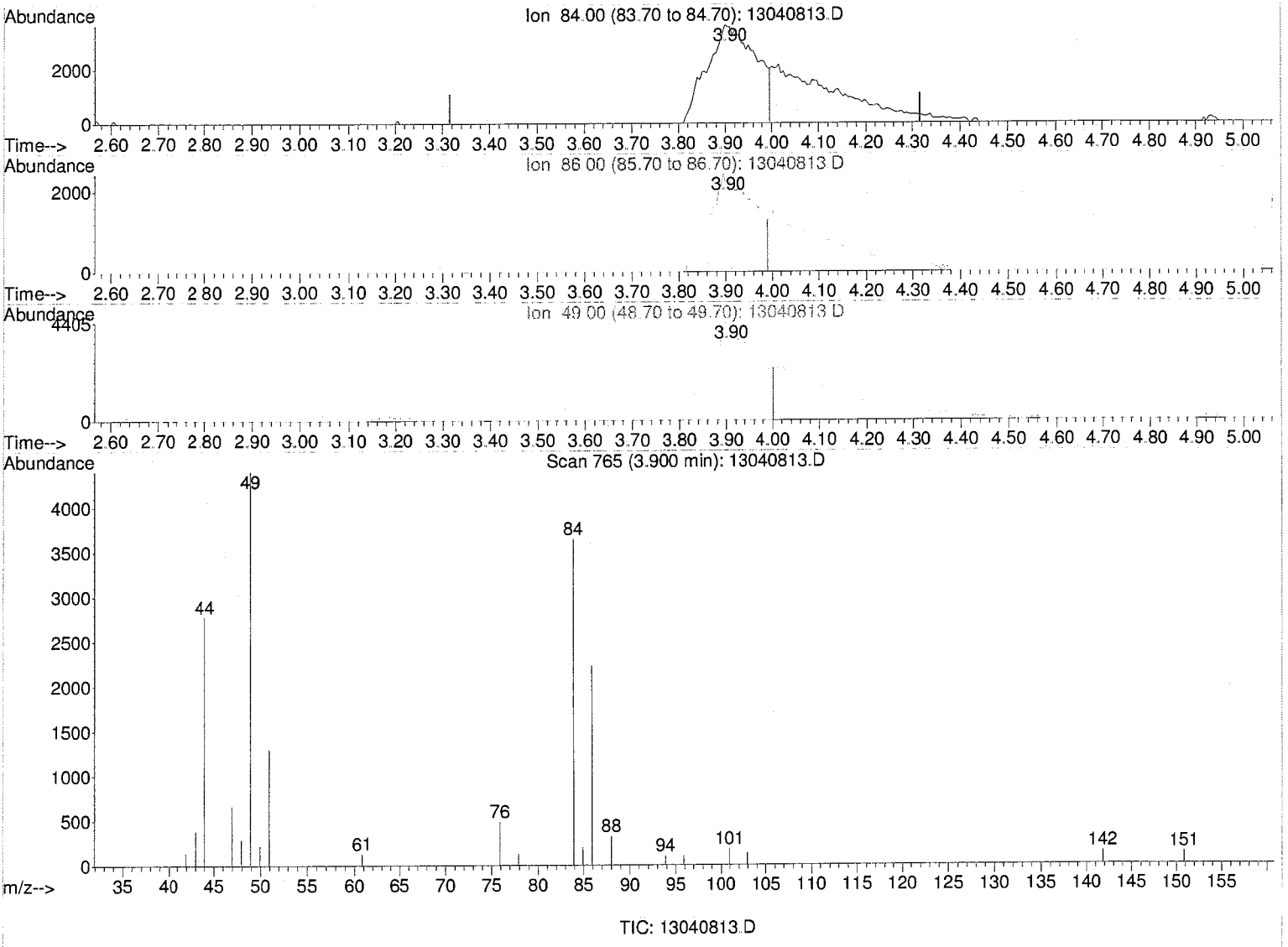
response 121735

Ion	Exp%	Act%
76.00	100	100
78.00	5.60	10.54
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(15) Methylene chloride (T)

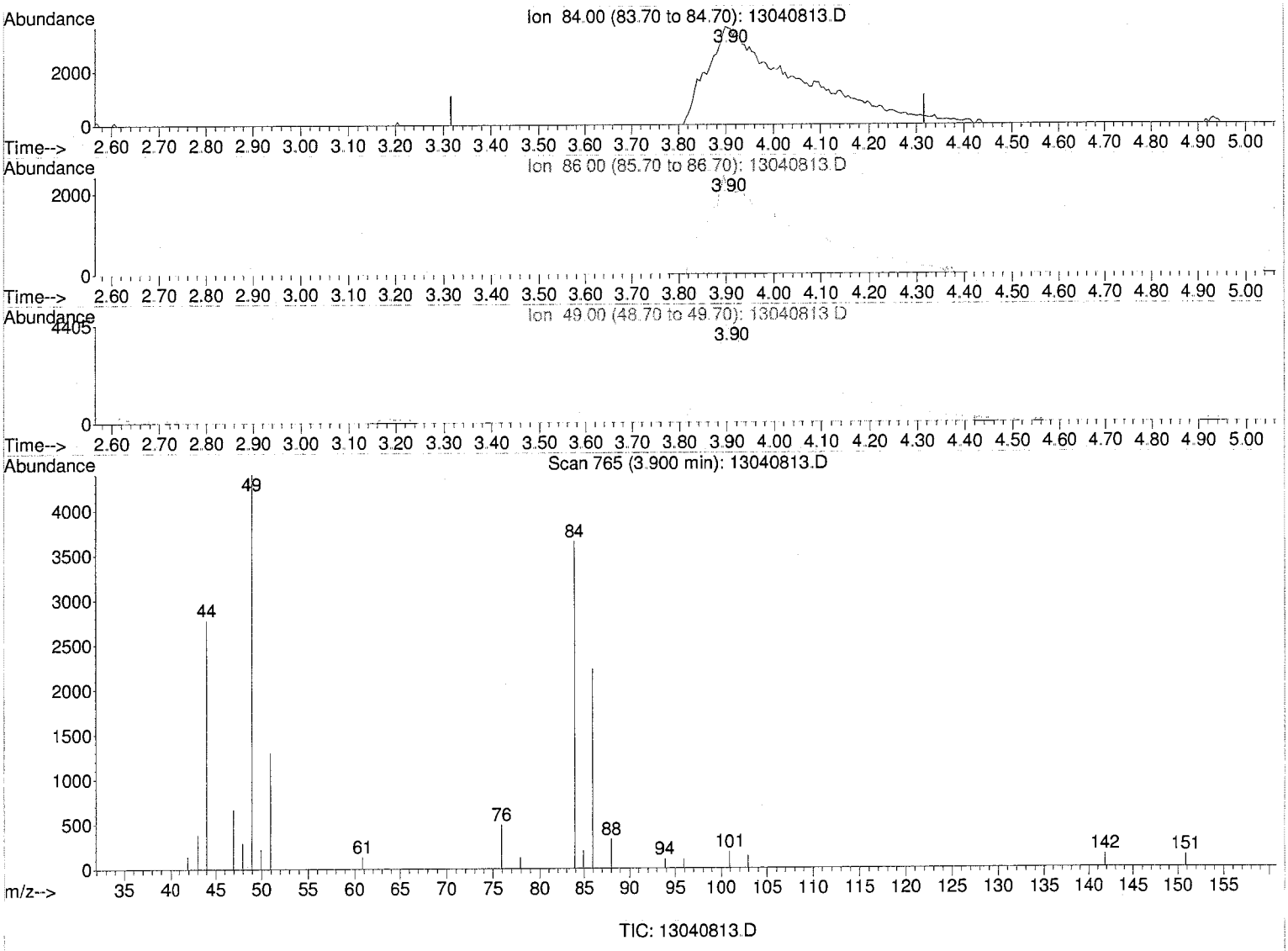
3.90min 0.00ug/L

response 26419

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	63.80
49.00	118.00	121.43
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:58 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(15) Methylene chloride (T)

3.90min 0.00ug/L m

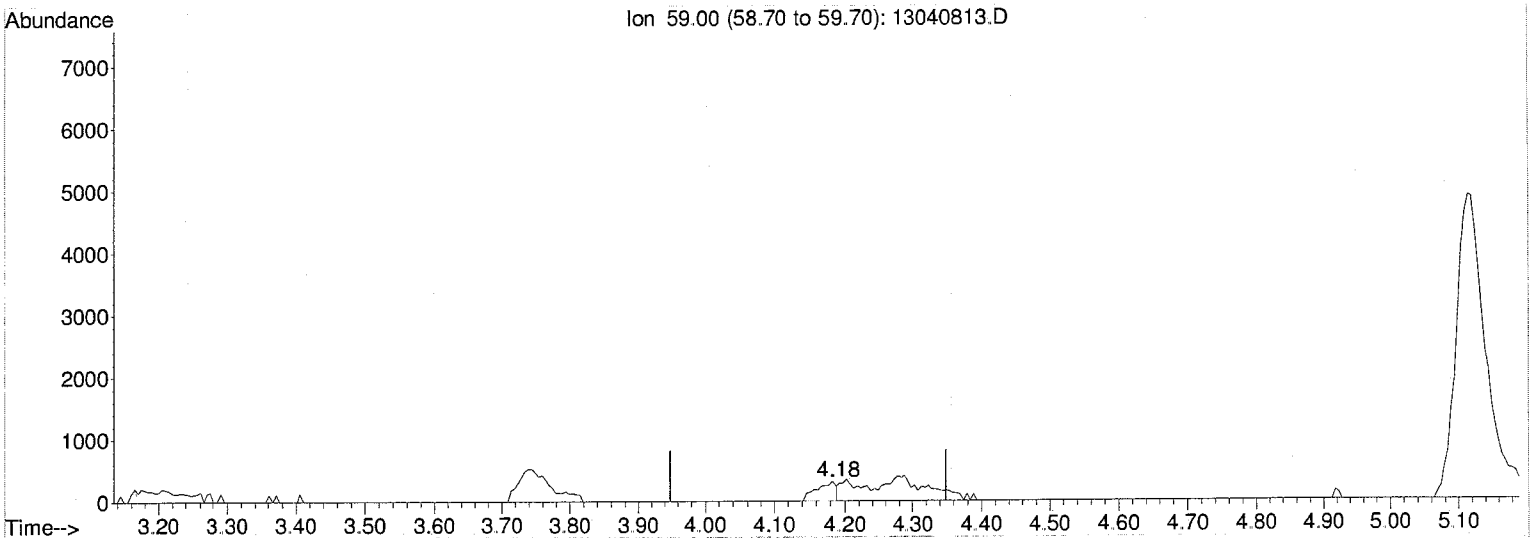
response 47448

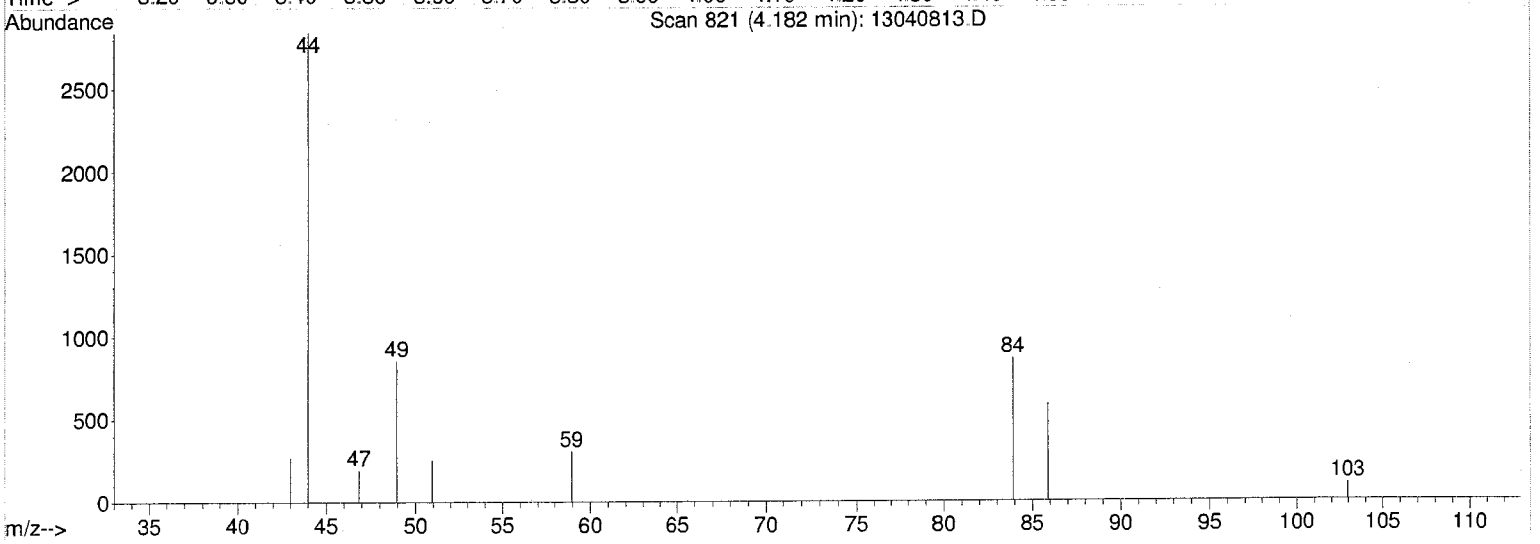
Ion	Exp%	Act%
84.00	100	100
86.00	63.70	64.12
49.00	118.00	120.50
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:58 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration





TIC: 13040813.D

(16) tert-Butanol (T)

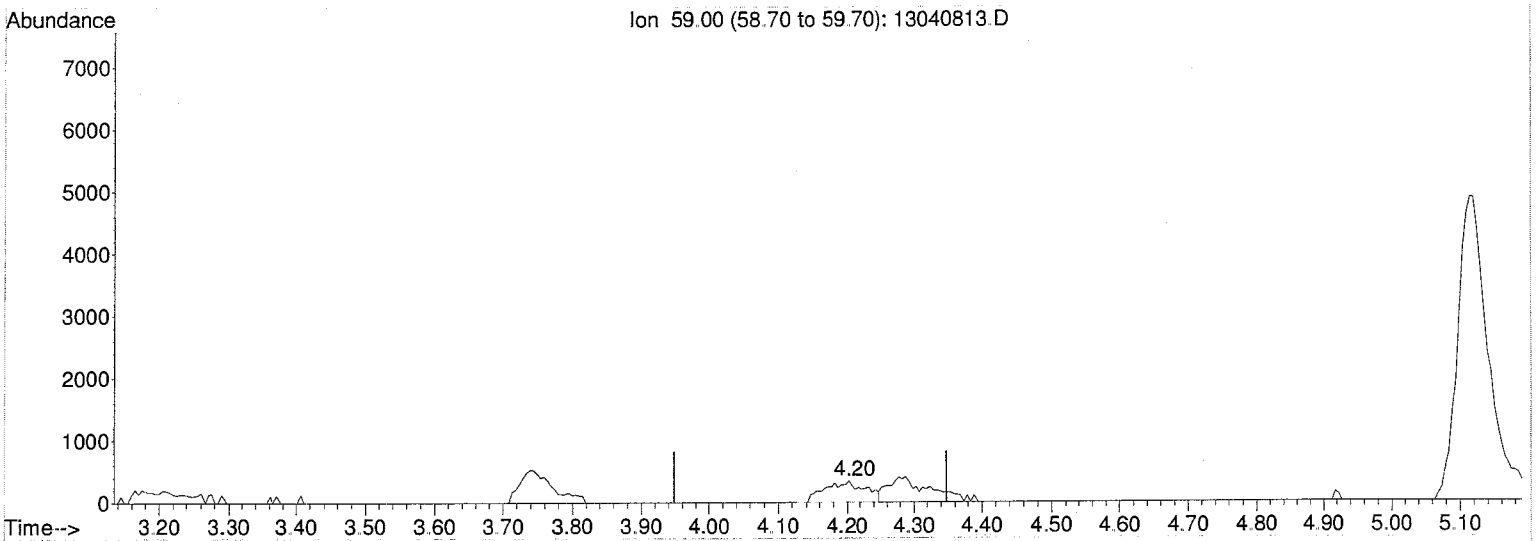
4.18min 0.00ug/L

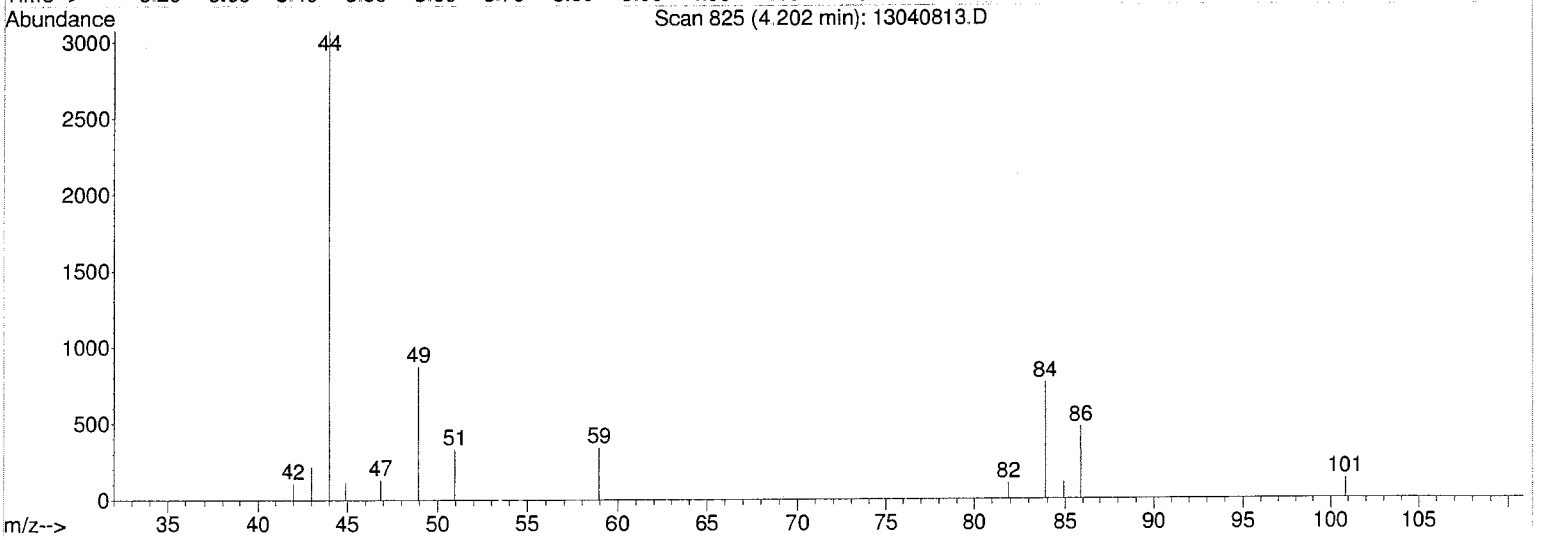
response 564

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:58 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration





TIC: 13040813.D

AK 4/9/13

(16) tert-Butanol (T)

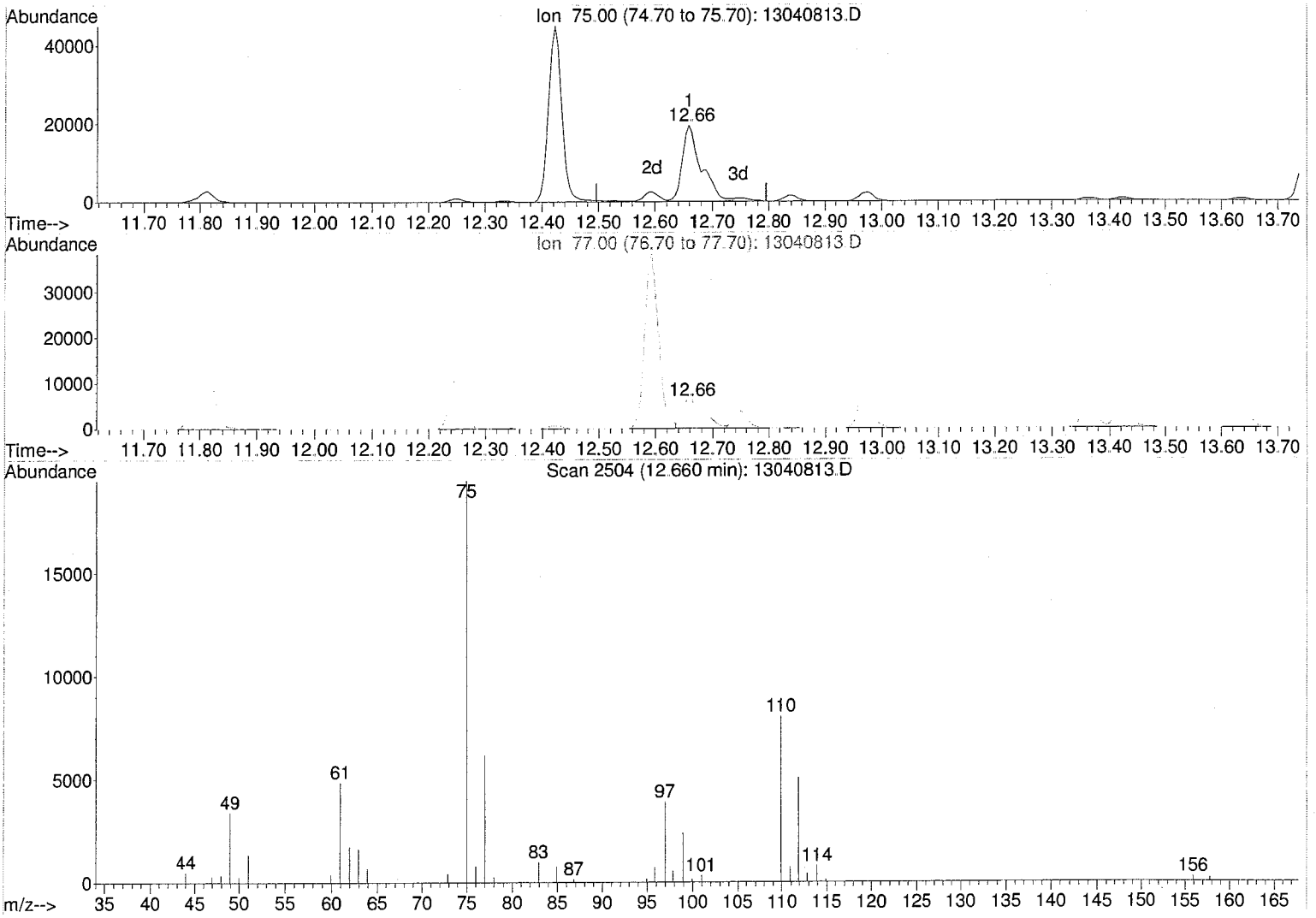
4.20min 0.00ug/L m

response 1395

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:58 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(65) 1,2,3-Trichloropropane (T)

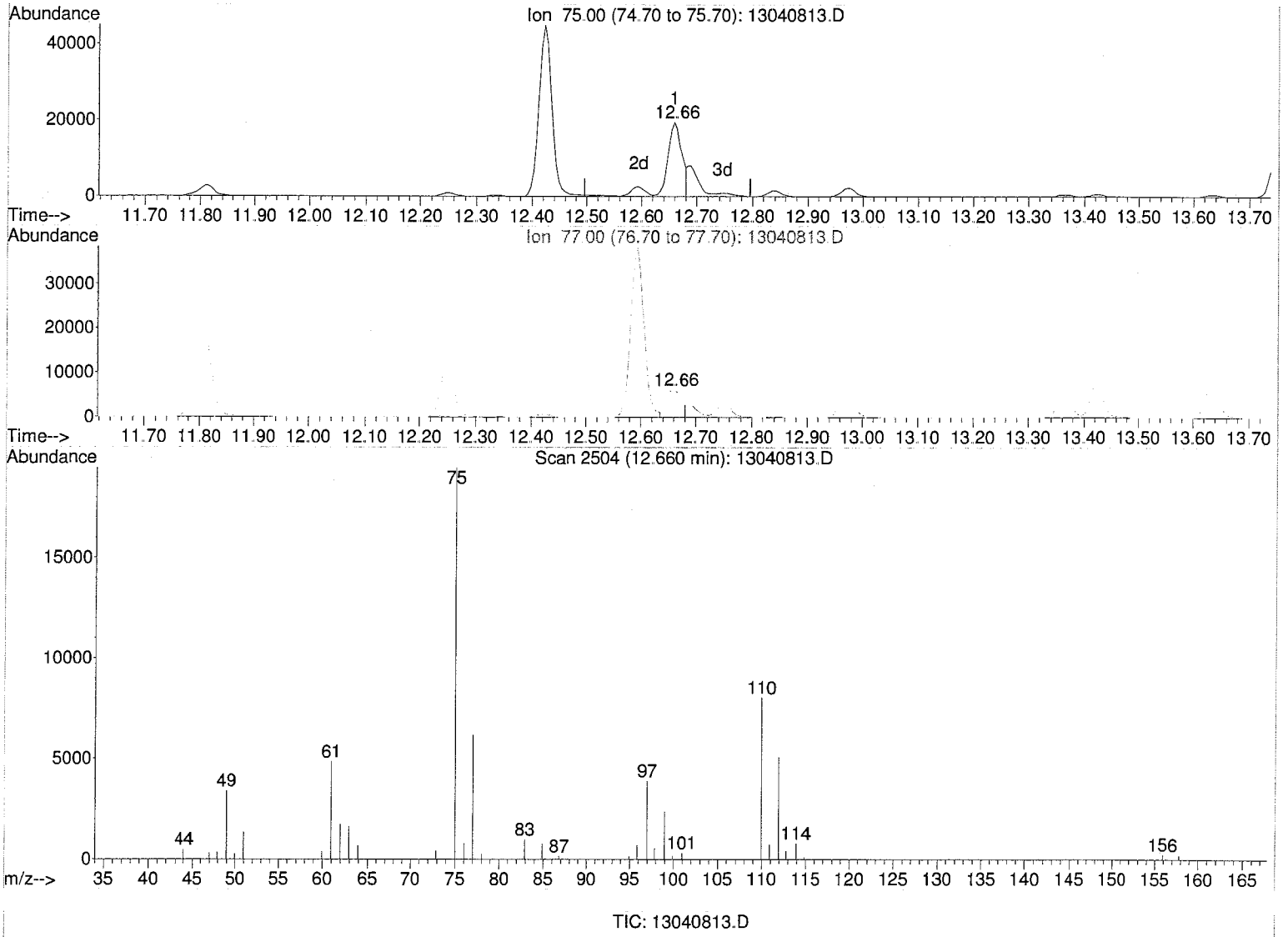
12.66min 0.00ug/L

response 43915

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	34.50
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040813.D Vial: 13
Acq On : 8 Apr 2013 4:27 pm Operator: AK
Sample : CAL4 20ppb 5mL Inst : VOA2
Misc : water 1uL A2338 5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 9:59 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040813.D

(65) 1,2,3-Trichloropropane (T)

12.66min 0.00ug/L m

response 33512

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	34.47
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:43 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	515575	50.00 ug/L	0.02
54) Chlorobenzene d-5 ISTD	11.00	117	363464	50.00 ug/L	0.02
69) 1,4-Dichlorobenzene d-4 IS	13.84	152	131103	50.00 ug/L	0.02
System Monitoring Compounds					
29) Dibromofluoromethane SS#1	6.45	113	116244	0.00 ug/L	0.02
Spiked Amount 50.000	Range 94 - 107		Recovery =	0.00%#	
48) Toluene d-8 SS#2	9.27	98	461398	0.00 ug/L	0.02
Spiked Amount 50.000	Range 96 - 104		Recovery =	0.00%#	
71) 4-Bromofluorobenzene SS#3	12.43	95	170700	0.00 ug/L	0.02
Spiked Amount 50.000	Range 89 - 112		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.52	85	123940	No Calib	
3) Chloromethane	1.73	50	152106	No Calib	
4) VINYL CHLORIDE	1.82	62	172234	No Calib	
5) Bromomethane	2.16	94	107334	No Calib	
6) Chloroethane	2.29	64	83235	No Calib	
7) Trichlorofluoromethane	2.54	101	126674	No Calib	
8) acrolein	3.05	56	10665	No Calib	
9) Acetone	3.25	58	4292	No Calib	
10) 1,1-DICHLOROETHENE	3.18	96	107064	No Calib	
11) 1,1,2-Trichlorotrifluoroet	3.20	101	72429	No Calib	
12) iodomethane	3.38	142	158564	No Calib	
13) Carbon Disulfide	3.43	76	290846	No Calib	
14) Methyl Acetate	3.74	74	11058	No Calib	
15) Methylene chloride	3.90	84	109067	No Calib	
16) tert-Butanol	4.17	59	3065	No Calib	
17) acrylonitrile	4.27	53	25391	No Calib	
18) trans-1,2-Dichloroethene	4.28	96	95920	No Calib	
19) Methyl-t-Butyl Ether	4.33	73	234464	No Calib	
20) 1,1-Dichloroethane	4.93	63	149591	No Calib	
21) vinyl acetate	5.07	43	152097	No Calib	
22) Diisopropyl ether	5.12	45	315438	No Calib	
23) tert-Butyl ethyl ether	5.64	59	274138	No Calib	
24) 2,2-Dichloropropane	5.76	77	57366	No Calib	
25) cis-1,2-Dichloroethene	5.77	96	119608	No Calib	
26) 2-Butanone (MEK)	5.85	72	7259	No Calib	#
27) Bromochloromethane	6.10	128	48975	No Calib	
28) CHLOROFORM	6.25	83	149605	No Calib	
30) 1,1,1-Trichloroethane	6.44	97	90577	No Calib	
31) Cyclohexane	6.51	56	71786	No Calib	
32) Carbon tetrachloride	6.66	117	70378	No Calib	
33) 1,1-Dichloropropene	6.67	75	111586	No Calib	
34) Benzene`	6.94	78	390466	No Calib	
35) 1,2-Dichloroethane	6.97	62	93570	No Calib	
36) tert-Amyl alcohol	7.08	59	2337	No Calib	
37) tert-Amyl methyl ether	7.14	73	248409	No Calib	
38) Trichloroethene	7.77	95	92393	No Calib	
39) 1,2-DICHLOROPROPANE	8.04	63	92294	No Calib	
40) Methylcyclohexane	7.99	83	78571	No Calib	
41) tert-Amyl ethyl ether	8.14	59	227096	No Calib	
42) Dibromomethane	8.19	93	58891	No Calib	
43) 1,4-Dioxane	8.25	88	3521	No Calib	#
44) Bromodichloromethane	8.40	83	108572	No Calib	
45) 2-Chloroethylvinyl Ether	8.80	63	54807	No Calib	
46) cis-1,3-Dichloropropene	8.96	75	157563	No Calib	
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	13014	No Calib	#

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:43 2013 Quant Results File: VOC-W.RES

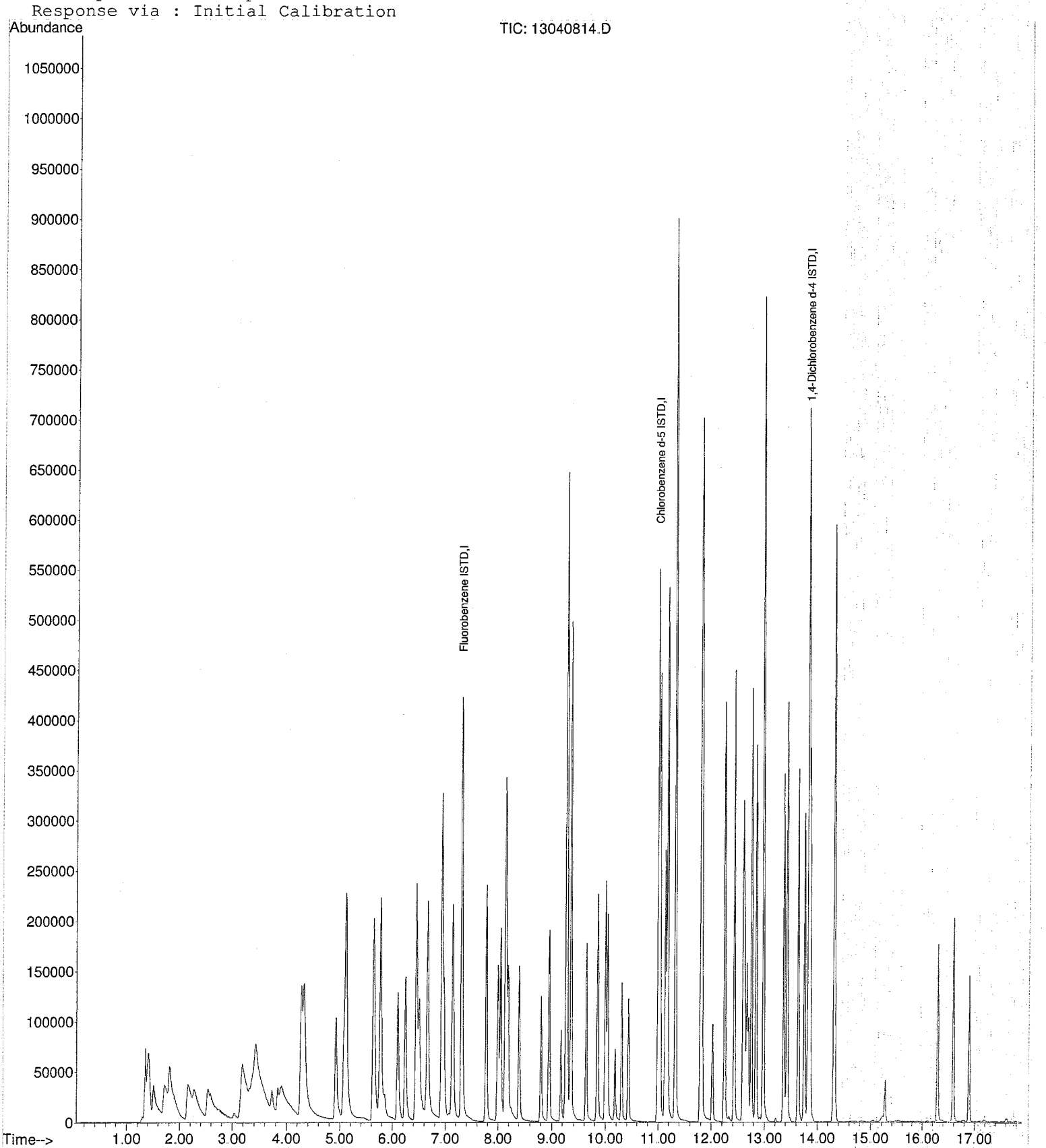
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
49)	TOLUENE	9.34	92	254928	No Calib	
50)	trans-1,3-Dichloropropene	9.64	75	134082	No Calib	
51)	1,1,2-Trichloroethane	9.85	83	70251	No Calib	
52)	Tetrachloroethene	10.00	164	61776	No Calib	
53)	2-Hexanone (MBK)	10.17	43	54434	No Calib	
55)	1,3-Dichloropropane	10.04	76	150203	No Calib	
56)	Dibromochloromethane	10.31	129	78136	No Calib	
57)	1,2-Dibromoethane	10.43	107	90370	No Calib	
58)	Chlorobenzene	11.03	112	257863	No Calib	
59)	1,1,1,2-Tetrachloroethane	11.14	131	78608	No Calib	
60)	ETHYLBENZENE	11.18	91	408622	No Calib	
61)	m&p-Xylene	11.32	106	326783	No Calib	
62)	o-Xylene	11.80	106	161488	No Calib	
63)	Styrene	11.81	104	293302	No Calib	
64)	Bromoform	12.02	173	47269	No Calib	
65)	1,2,3-Trichloropropane	12.66	75	70518	No Calib	
66)	Bromobenzene	12.60	156	98507	No Calib	
67)	trans-1,4-dichloro-2-buten	12.69	53	21032	No Calib	#
68)	n-Propylbenzene	12.75	91	384302	No Calib	
70)	Isopropylbenzene	12.25	105	339140	No Calib	
72)	1,1,2,2-Tetrachloroethane	12.62	83	109935	No Calib	
73)	2-Chlorotoluene	12.84	91	243508	No Calib	
74)	4-Chlorotoluene	12.97	91	277477	No Calib	
75)	1,3,5-Trimethylbenzene	12.97	105	263948	No Calib	
76)	tert-Butylbenzene	13.36	119	176228	No Calib	
77)	1,2,4-Trimethylbenzene	13.42	105	271831	No Calib	
78)	sec-Butylbenzene	13.63	105	269874	No Calib	
79)	4-Isopropyltoluene	13.82	119	242171	No Calib	
80)	1,3-Dichlorobenzene	13.76	146	145511	No Calib	
81)	1,4-Dichlorobenzene	13.87	146	154663	No Calib	
82)	1,2-Dichlorobenzene	14.31	146	143306	No Calib	
83)	n-Butylbenzene	14.32	91	216325	No Calib	
84)	1,2-Dibromo-3-chloropropan	15.27	75	11002	No Calib	
85)	1,2,4-Trichlorobenzene	16.29	180	60431	No Calib	
86)	Naphthalene	16.59	128	175965	No Calib	
87)	1,2,3-Trichlorobenzene	16.89	180	50267	No Calib	

(#) = qualifier out of range (m) = manual integration

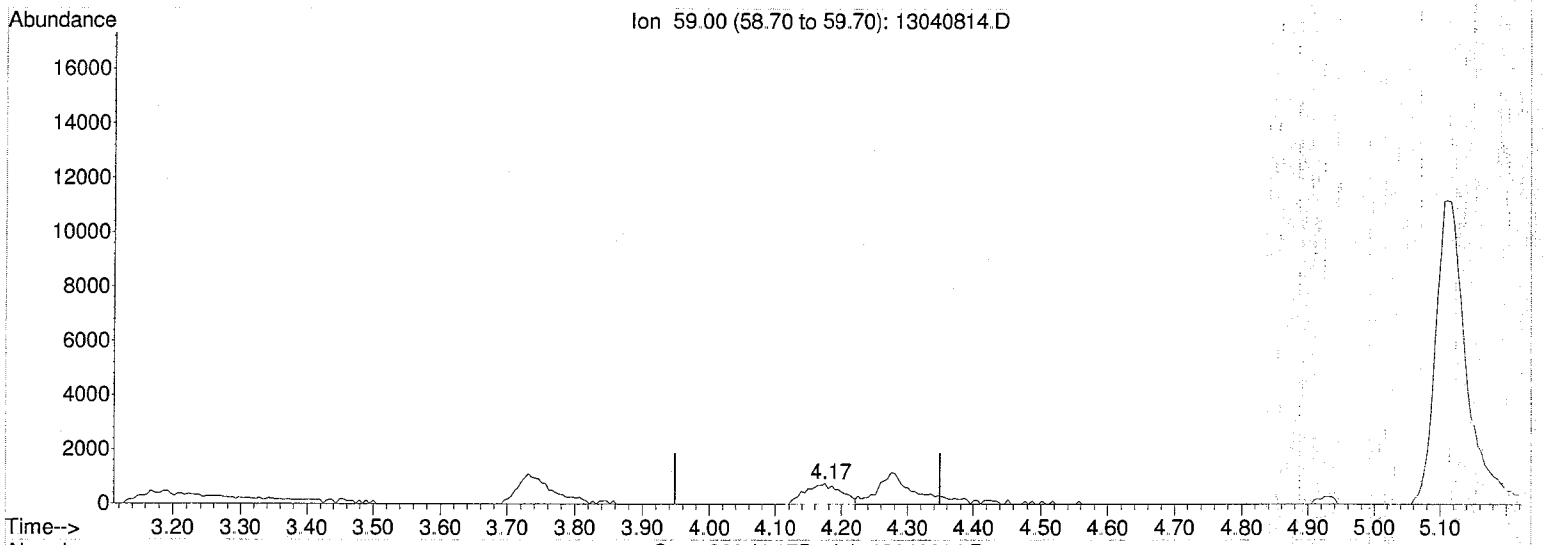
Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5u1 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:06 2013 Quant Results File: VOC-W.RES

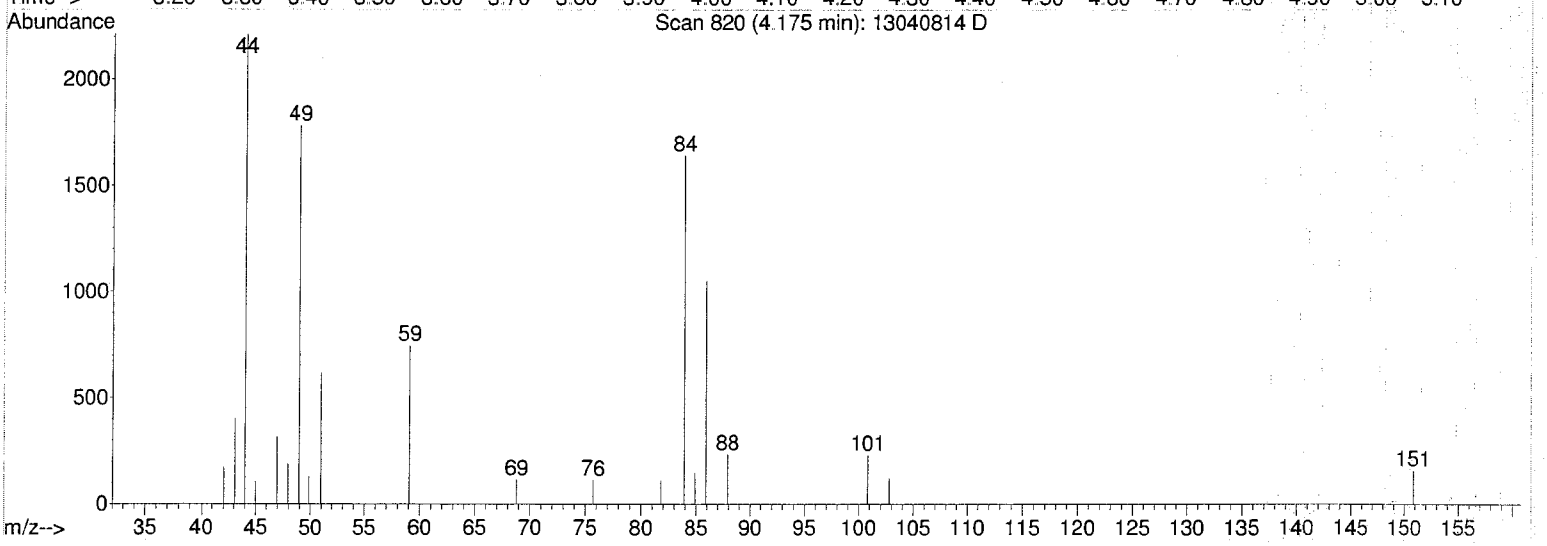
Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:04:45 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:03 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:04:45 2013
Response via : Multiple Level Calibration





TIC: 13040814.D

(16) tert-Butanol (T)

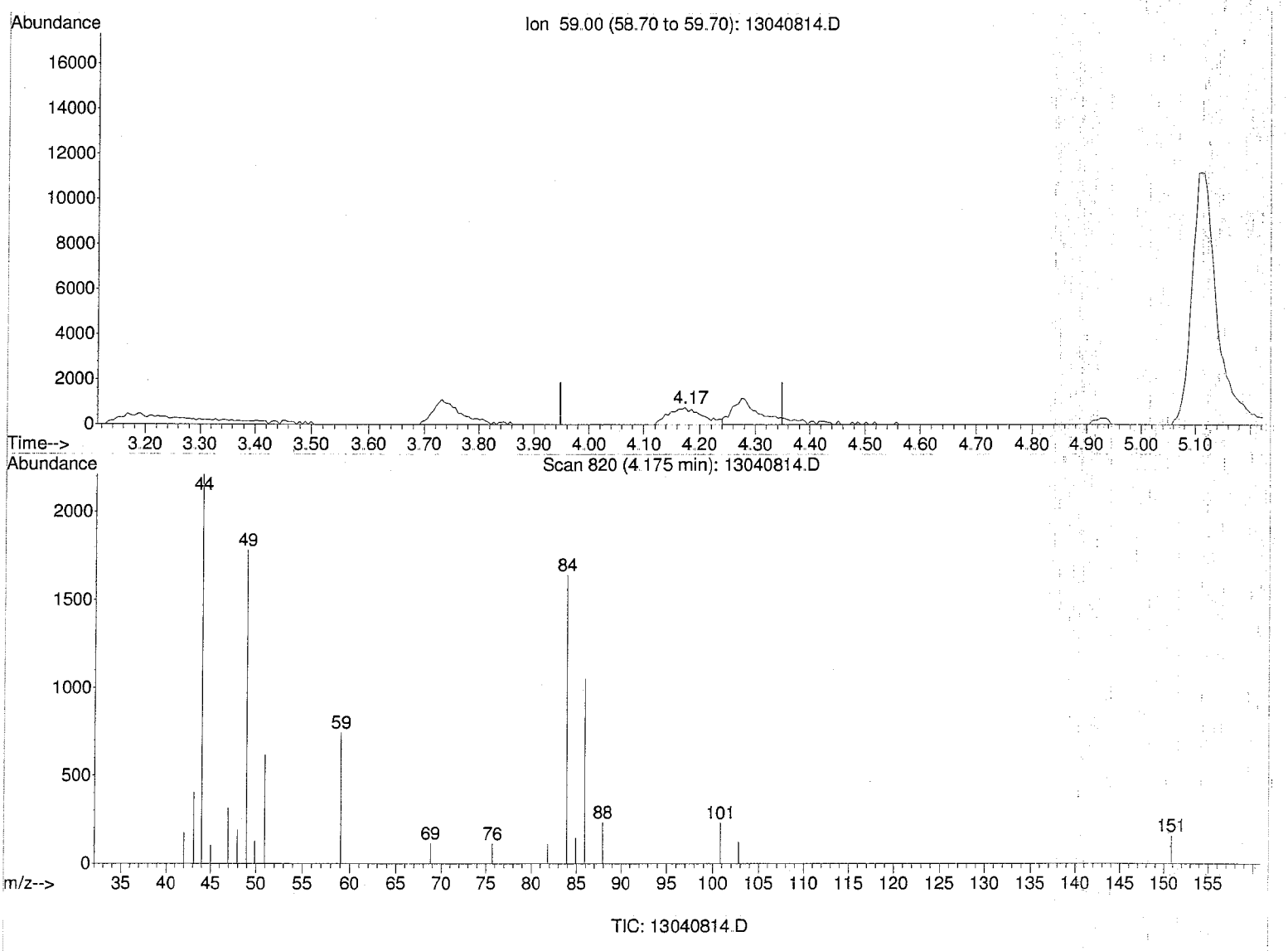
4.17min 0.00ug/L

response 2778

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:06 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:04:45 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(16) tert-Butanol (T)

4.17min 0.00ug/L m

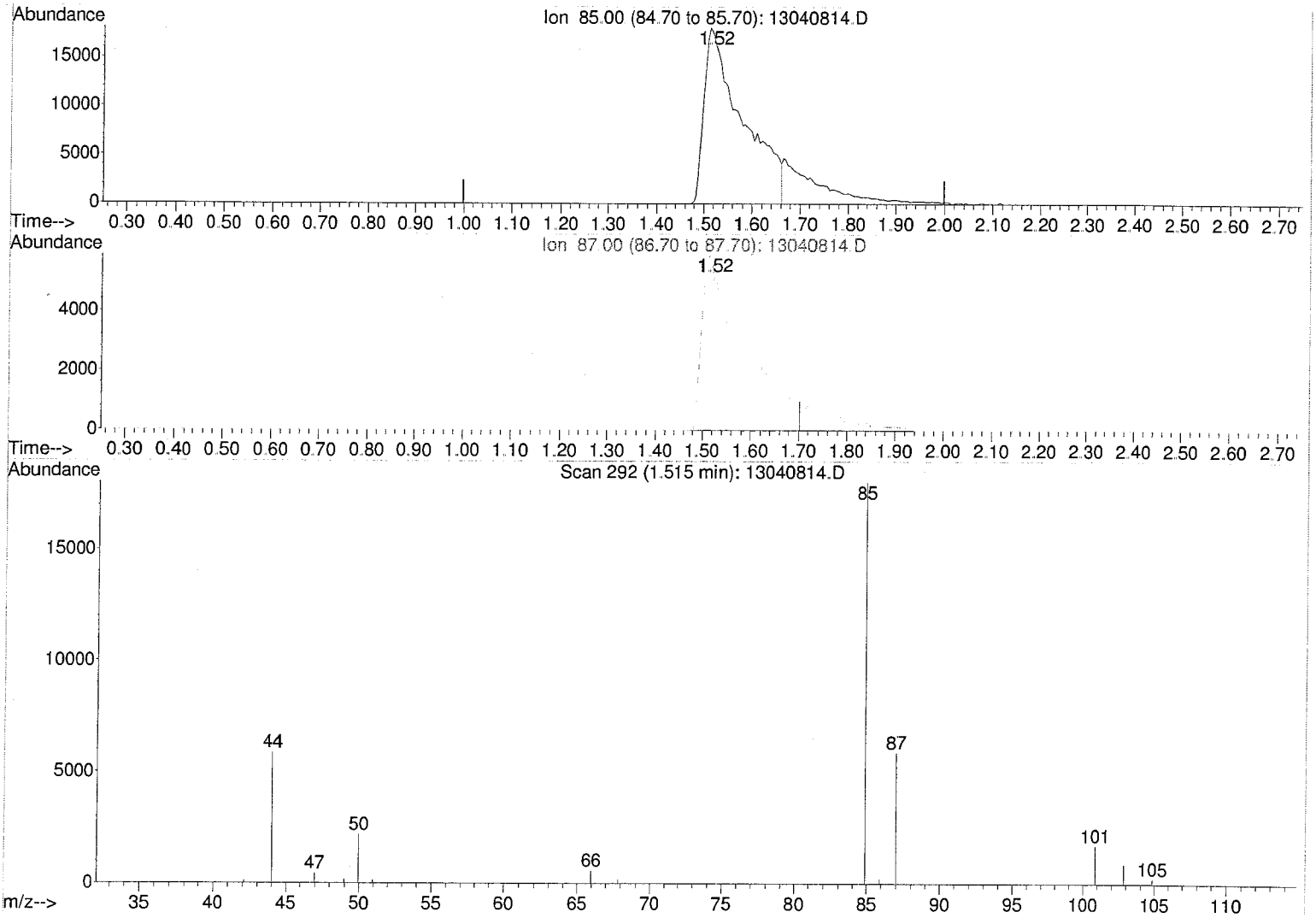
response 3065

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(2) Dichlorodifluoromethane (T)

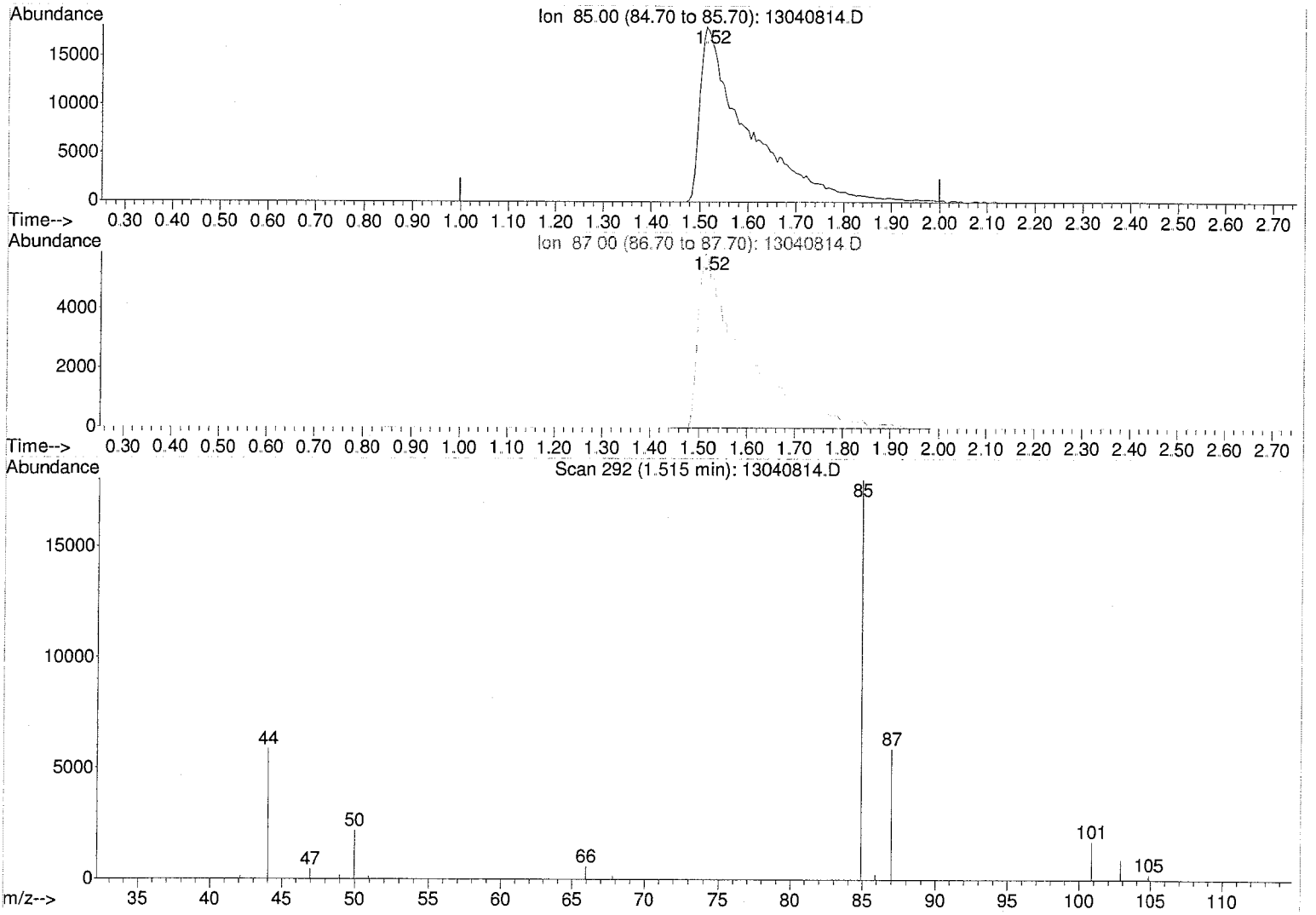
1.52min 0.00ug/L

response 99303

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	35.49
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:00 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(2) Dichlorodifluoromethane (T)

1.52min 0.00ug/L m

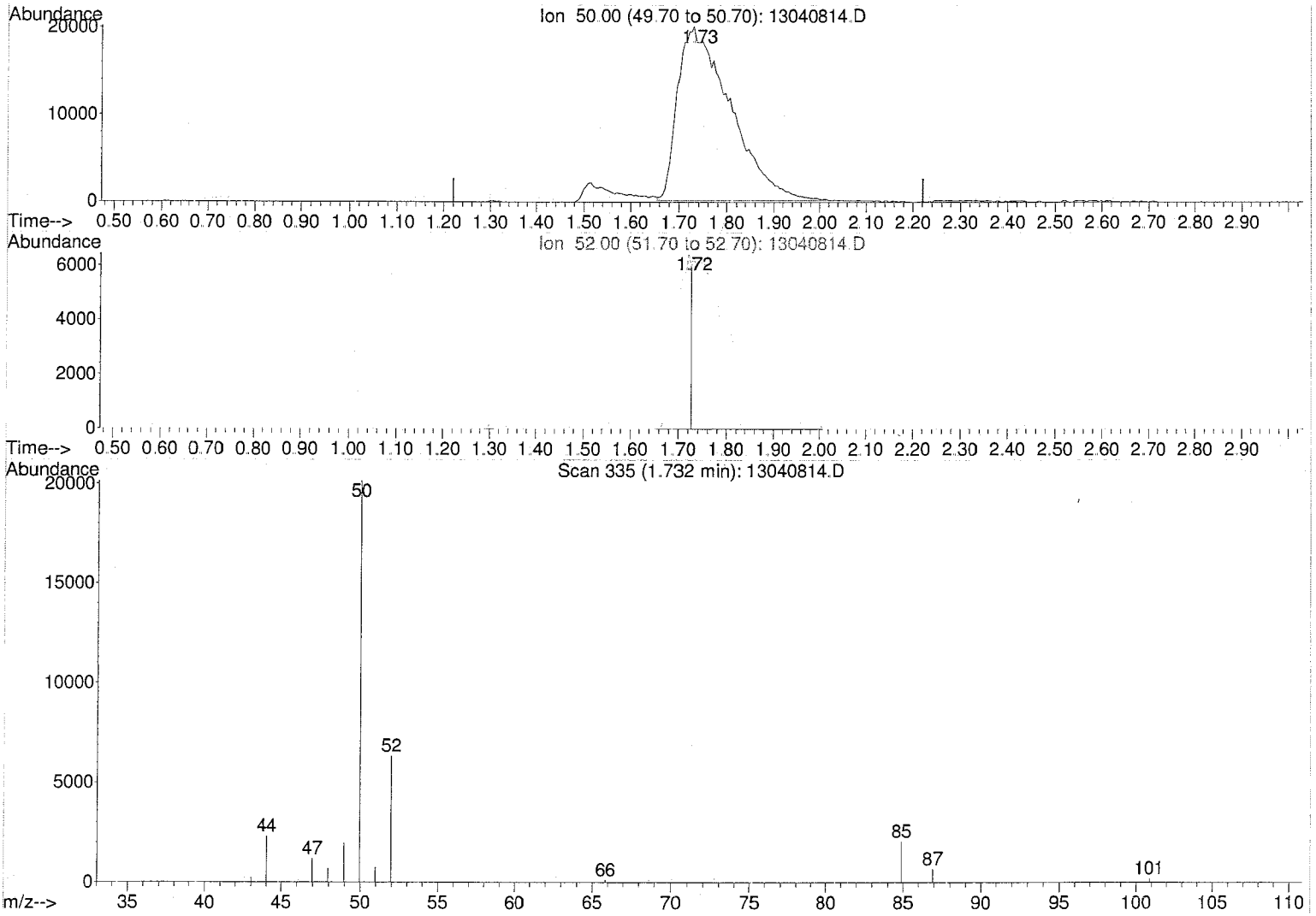
response 123940

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	32.31
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:00 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(3) Chloromethane (P)

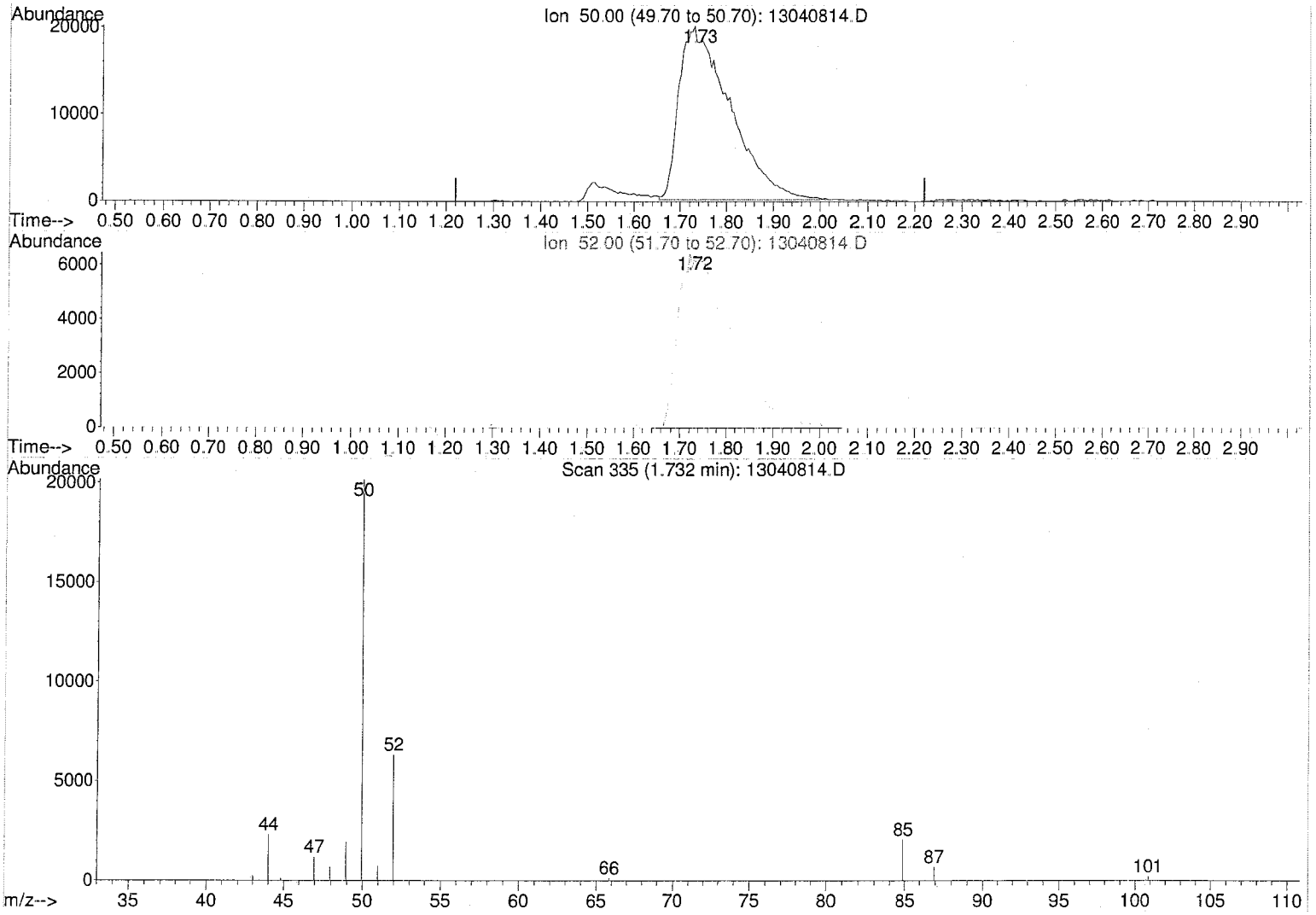
1.73min 0.00ug/L

response 152106

Ion	Exp%	Act%
50.00	100	100
52.00	33.40	9.32#
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:00 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(3) Chloromethane (P)

1.73min 0.00ug/L m

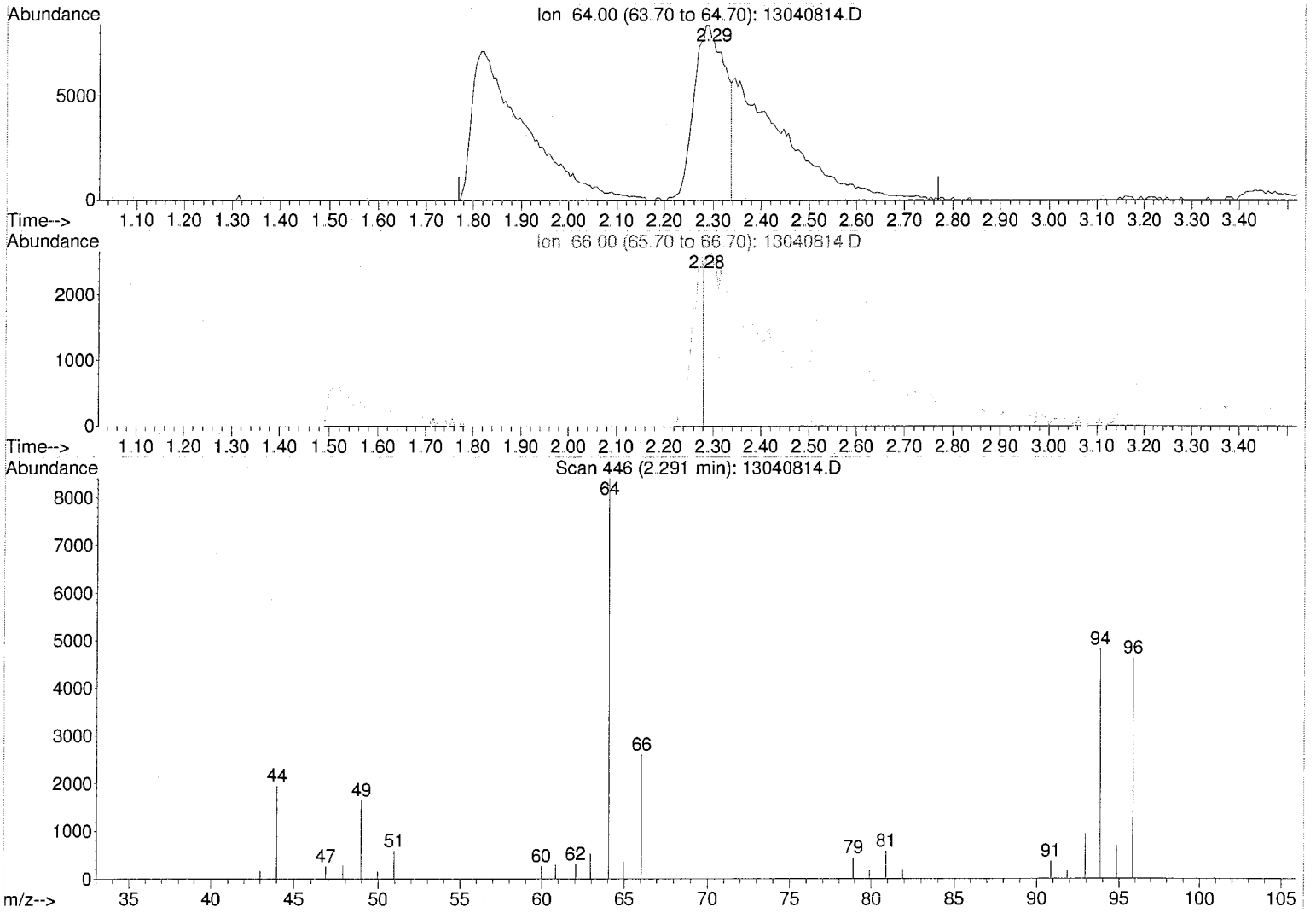
response 152106

Ion	Exp%	Act%
50.00	100	100
52.00	33.40	33.36
0.00	0.00	0.00
0.00	0.00	0.00

AL 4/9/13

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:00 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(6) Chloroethane (T)

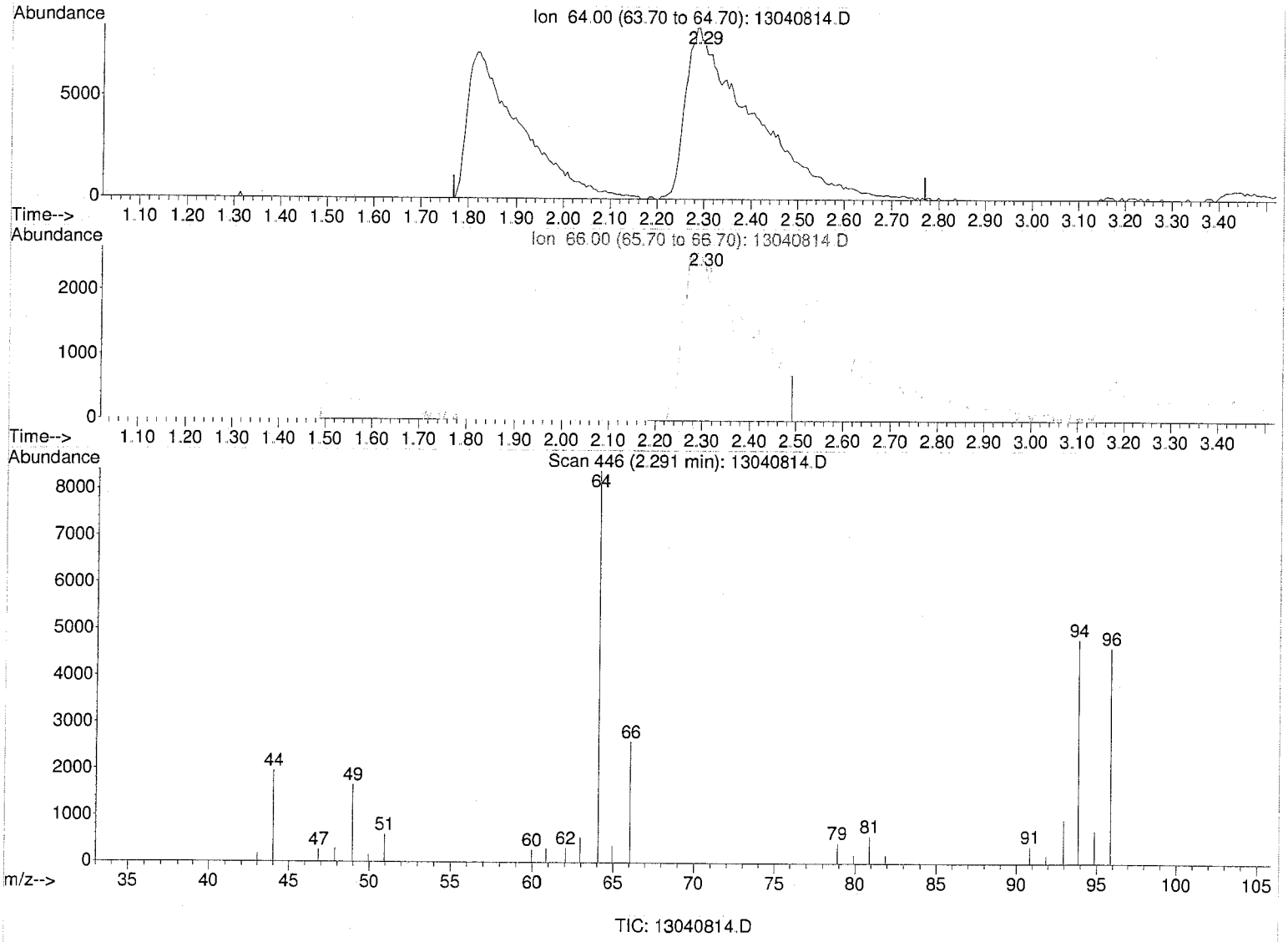
2.29min 0.00ug/L

response 37413

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	12.09
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:01 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(6) Chloroethane (T)

2.29min 0.00ug/L m

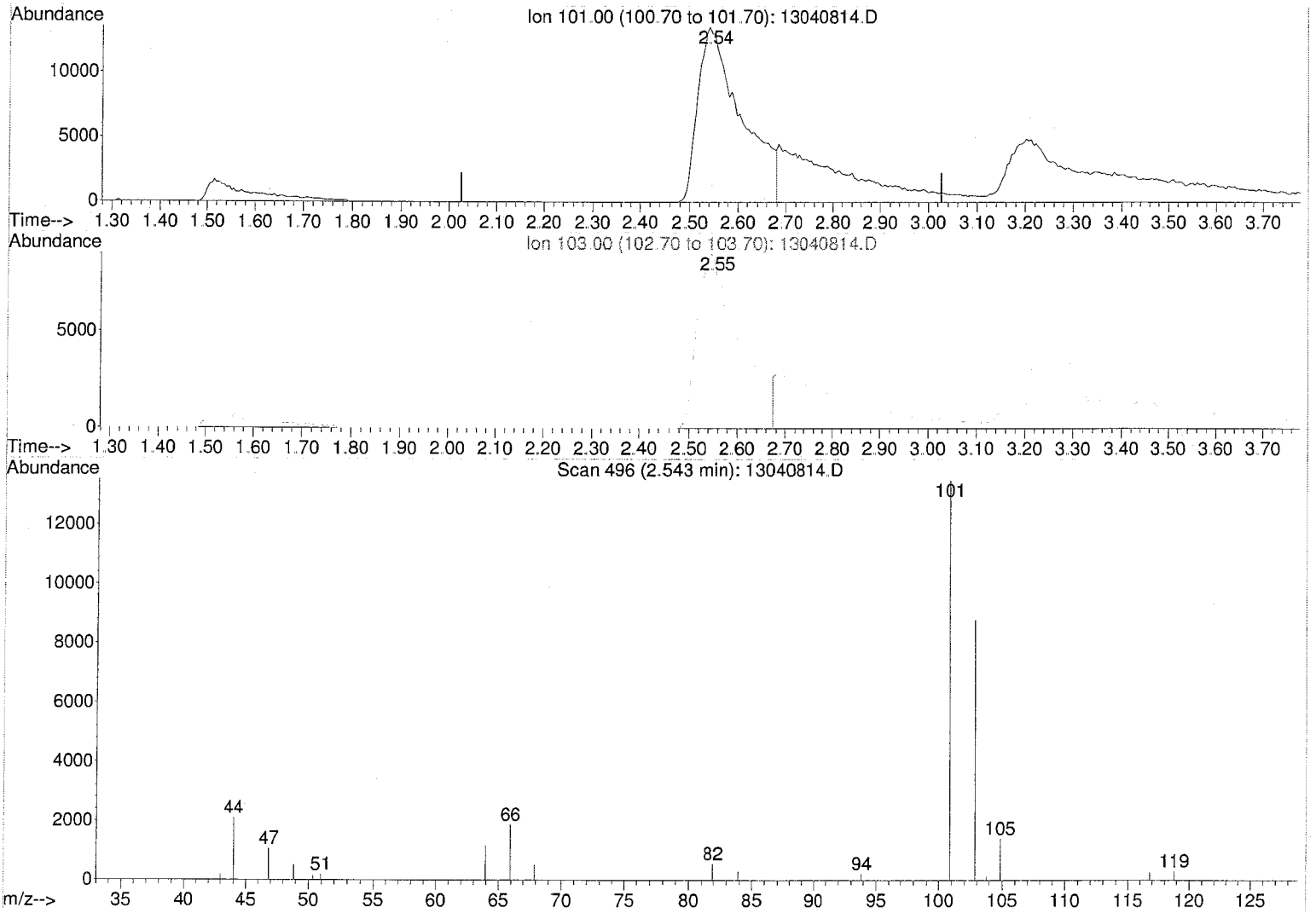
response 83235

Ion	Exp%	Act%
64.00	100	100
66.00	28.70	28.77
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:01 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(7) Trichlorofluoromethane (T)

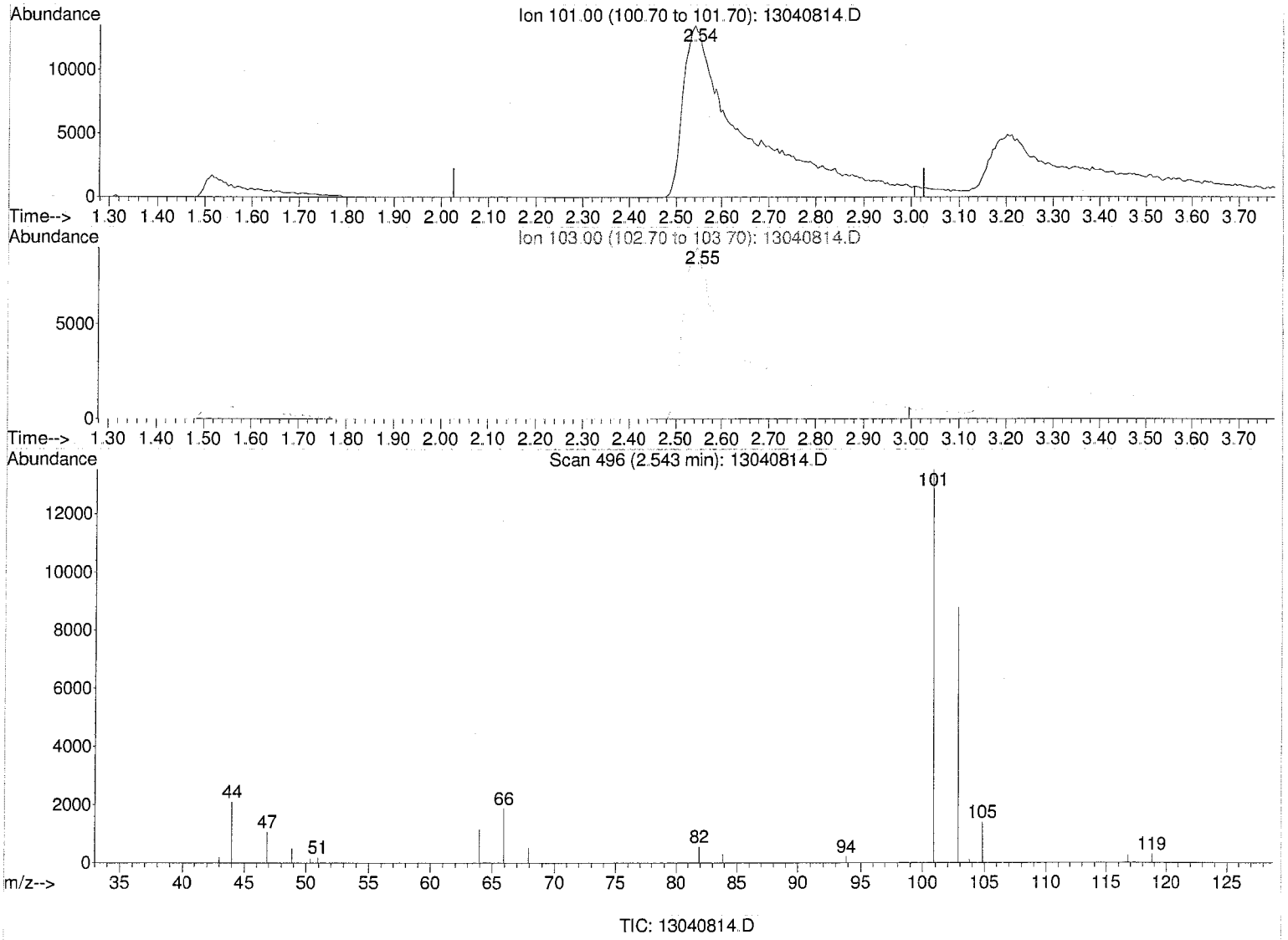
2.54min 0.00ug/L

response 84495

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	64.54
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:01 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

AK 4/9/13

(7) Trichlorofluoromethane (T)

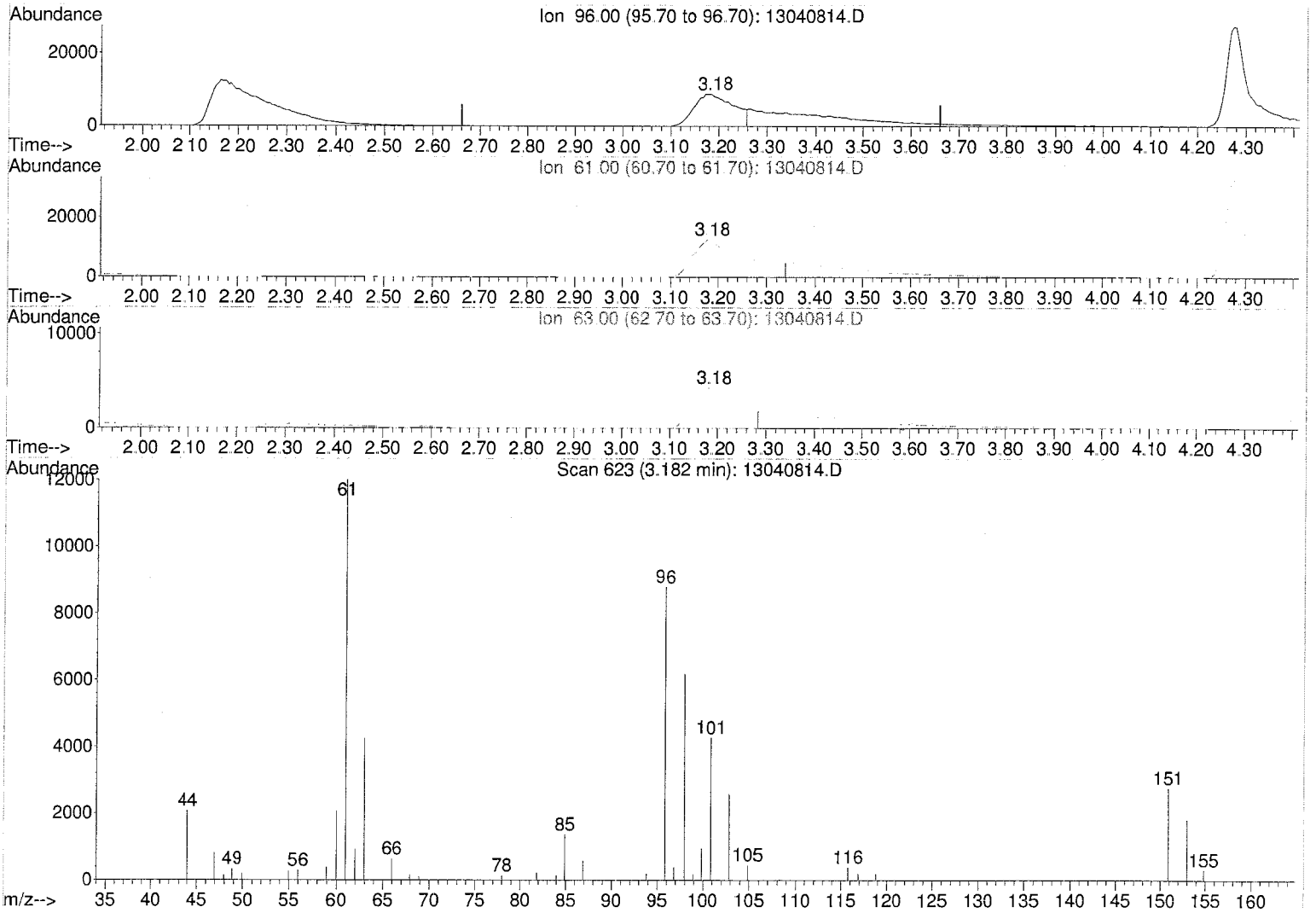
2.54min 0.00ug/L m

response 126674

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	65.33
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:01 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(10) 1,1-DICHLOROETHENE (M,C)

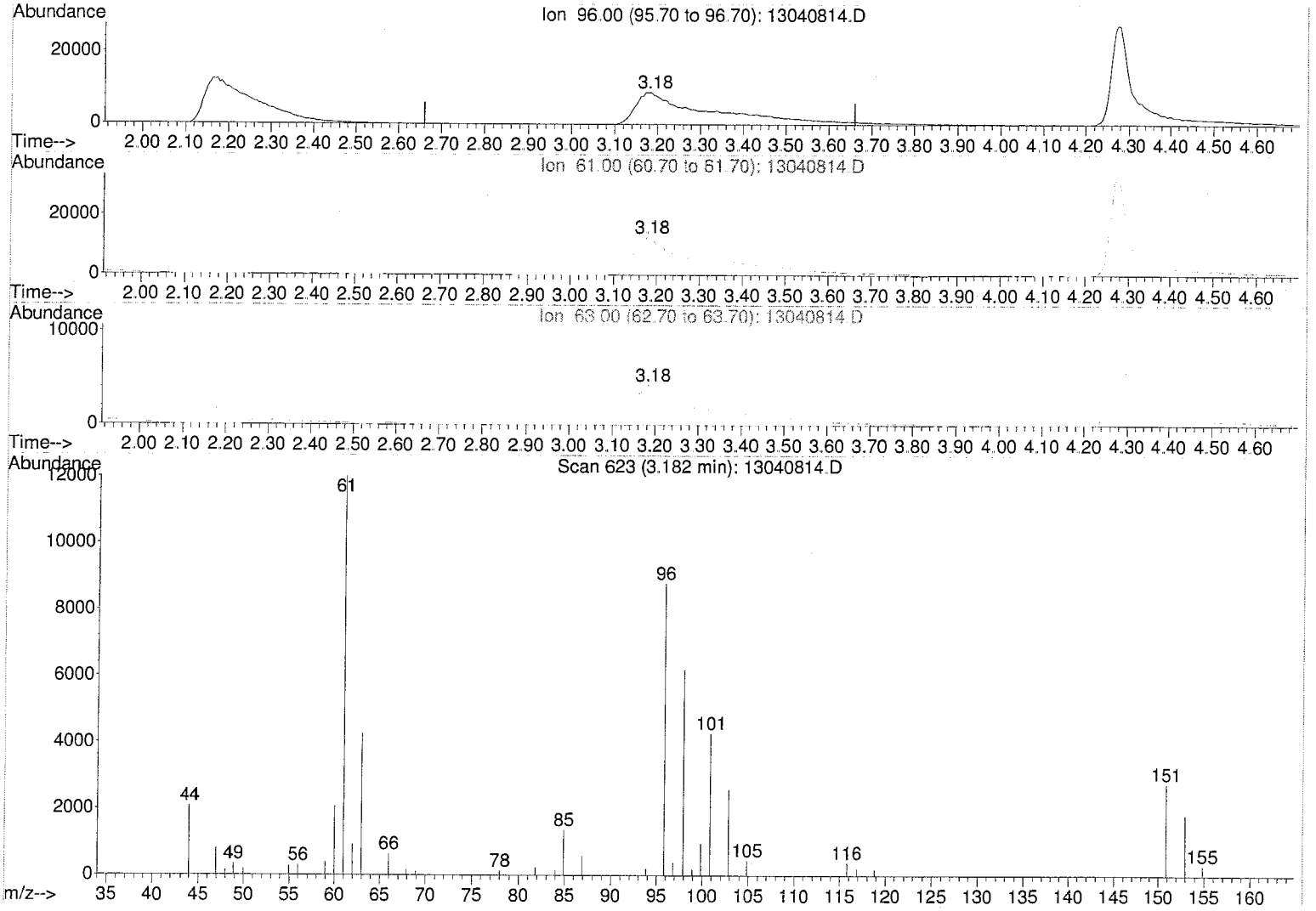
3.18min 0.00ug/L

response 50345

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	188.92#
63.00	44.80	50.53
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:01 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

AL 4/9/13

(10) 1,1-DICHLOROETHENE (M,C)

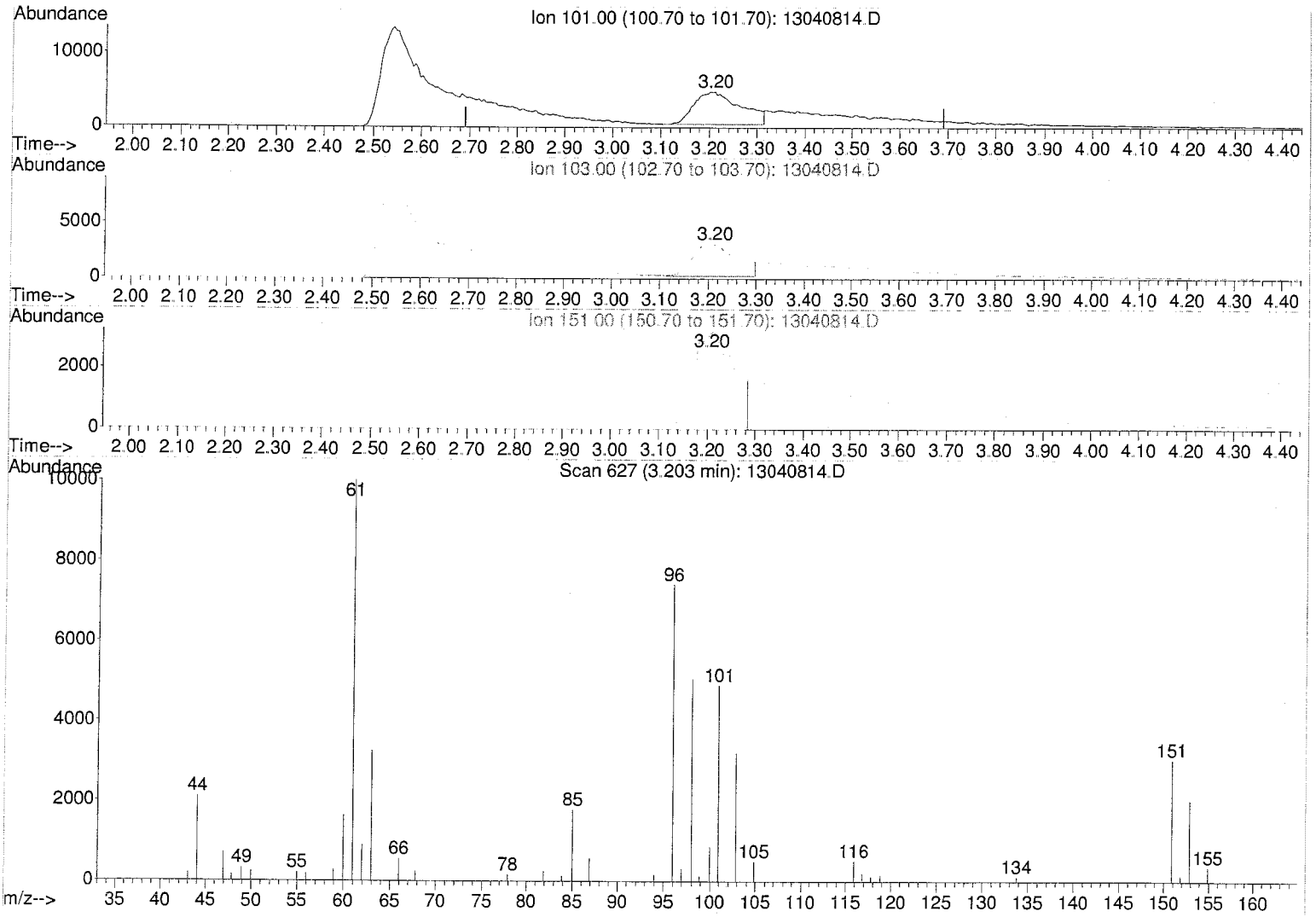
3.18min 0.00ug/L m

response 107064

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	136.93
63.00	44.80	44.86
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:01 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

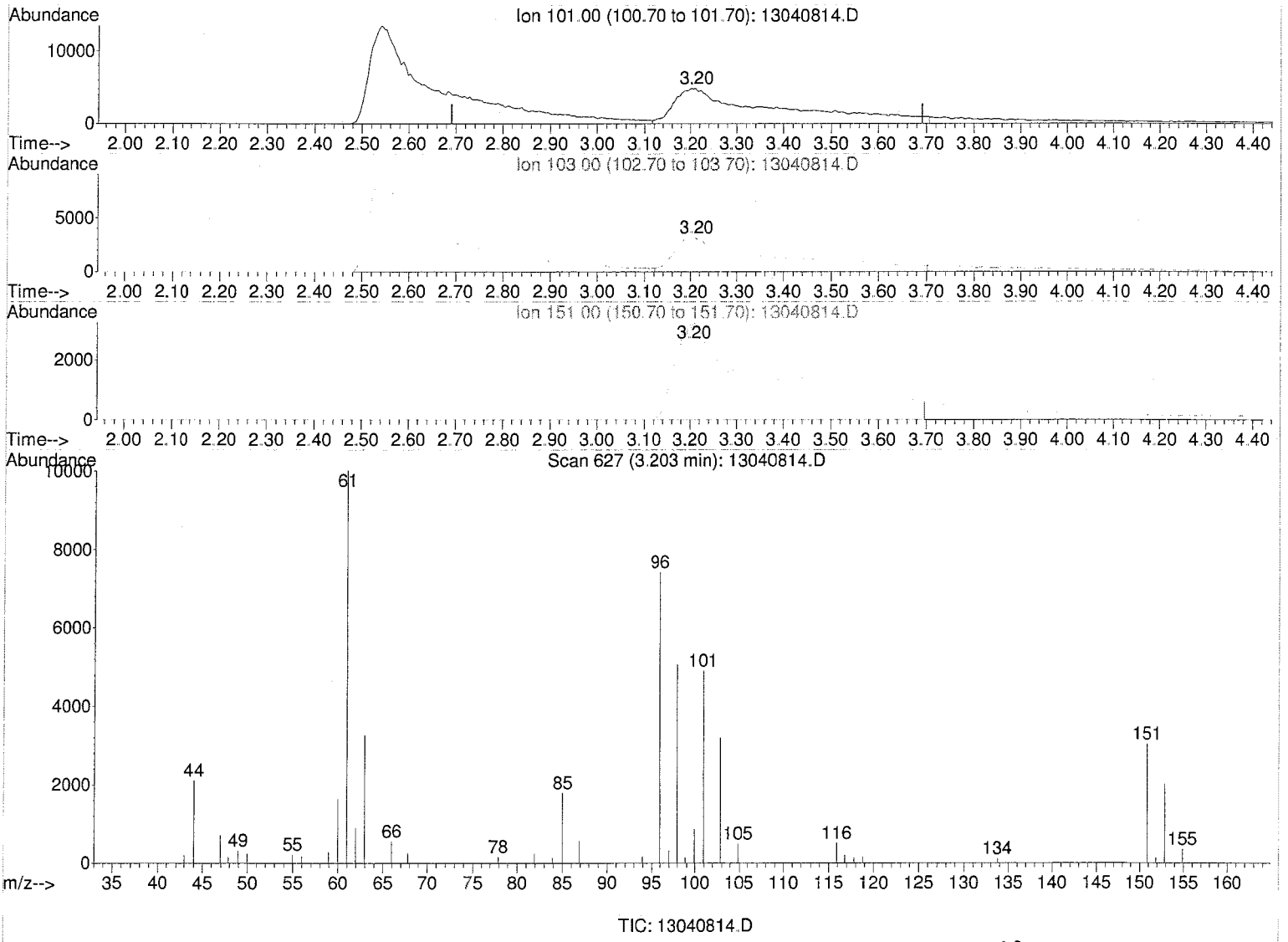
3.20min 0.00ug/L

response 29779

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	62.28
151.00	65.20	65.55
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:02 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.20min 0.00ug/L m

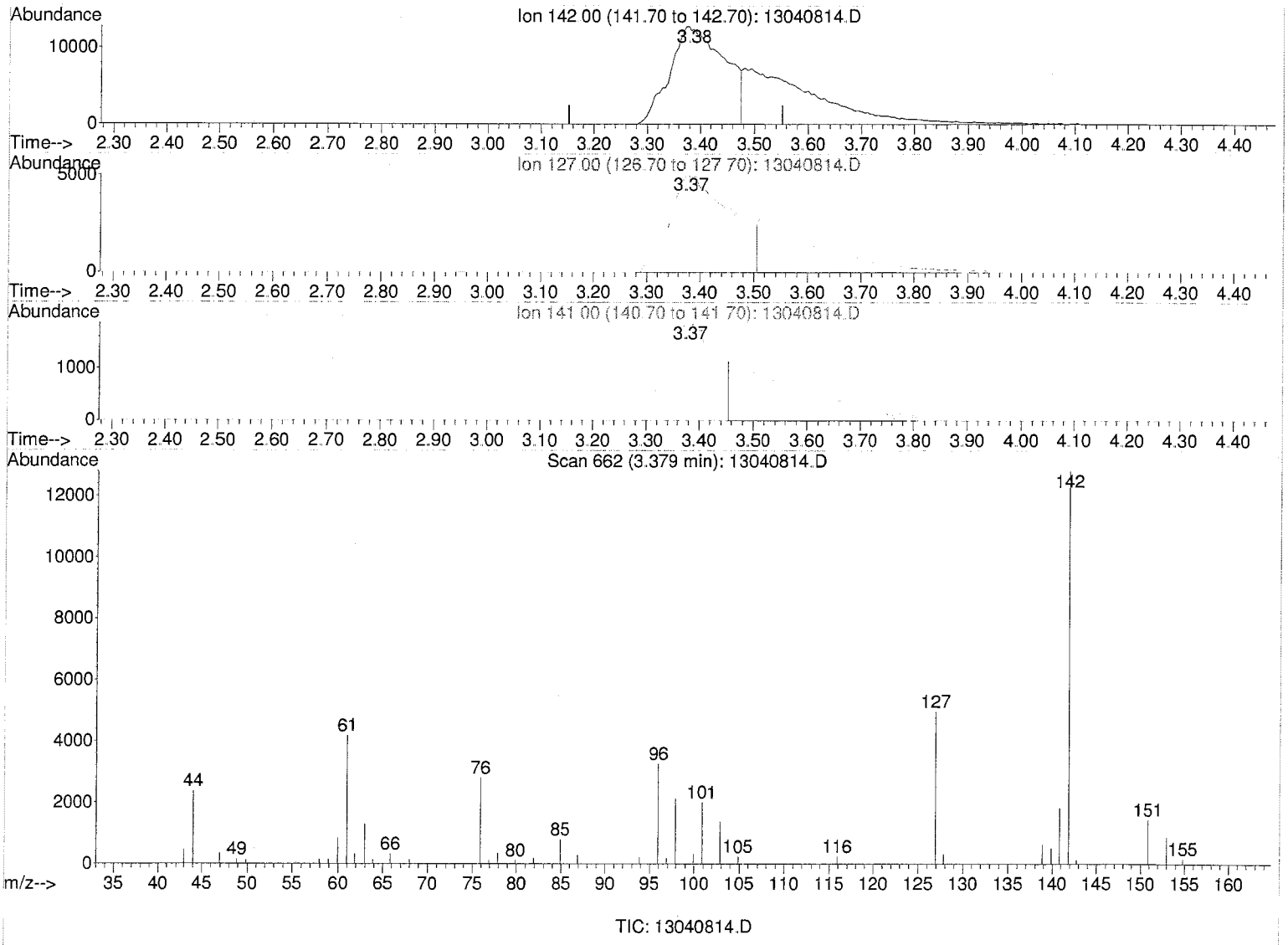
response 72429

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	64.42
151.00	65.20	64.44
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:02 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(12) iodomethane (T)

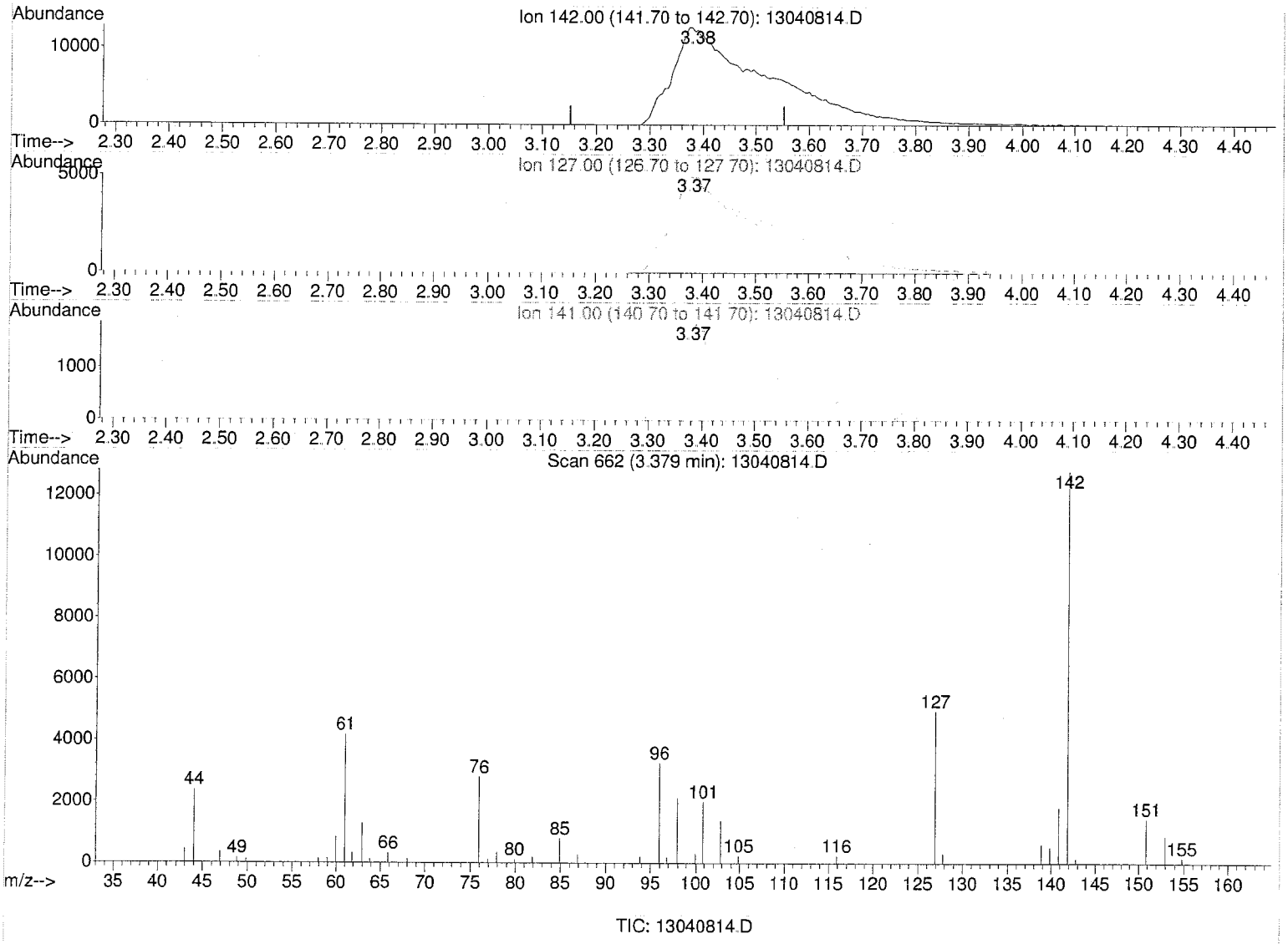
3.38min 0.00ug/L

response 90226

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	44.94
141.00	14.80	12.88
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:02 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(12) iodomethane (T)

3.38min 0.00ug/L m

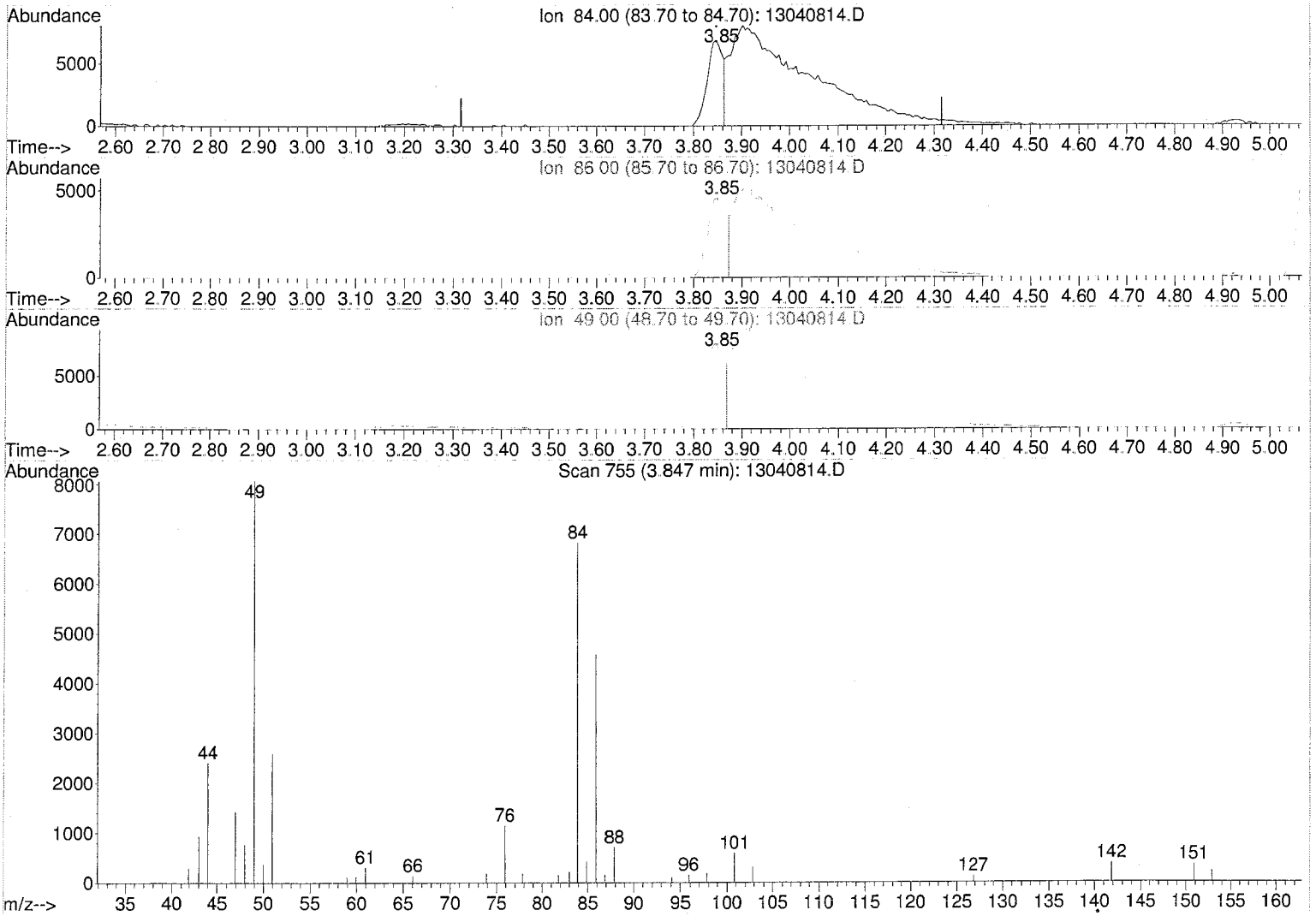
response 158564

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	39.10
141.00	14.80	14.12
0.00	0.00	0.00

AF 4/9/13

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:02 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(15) Methylene chloride (T)

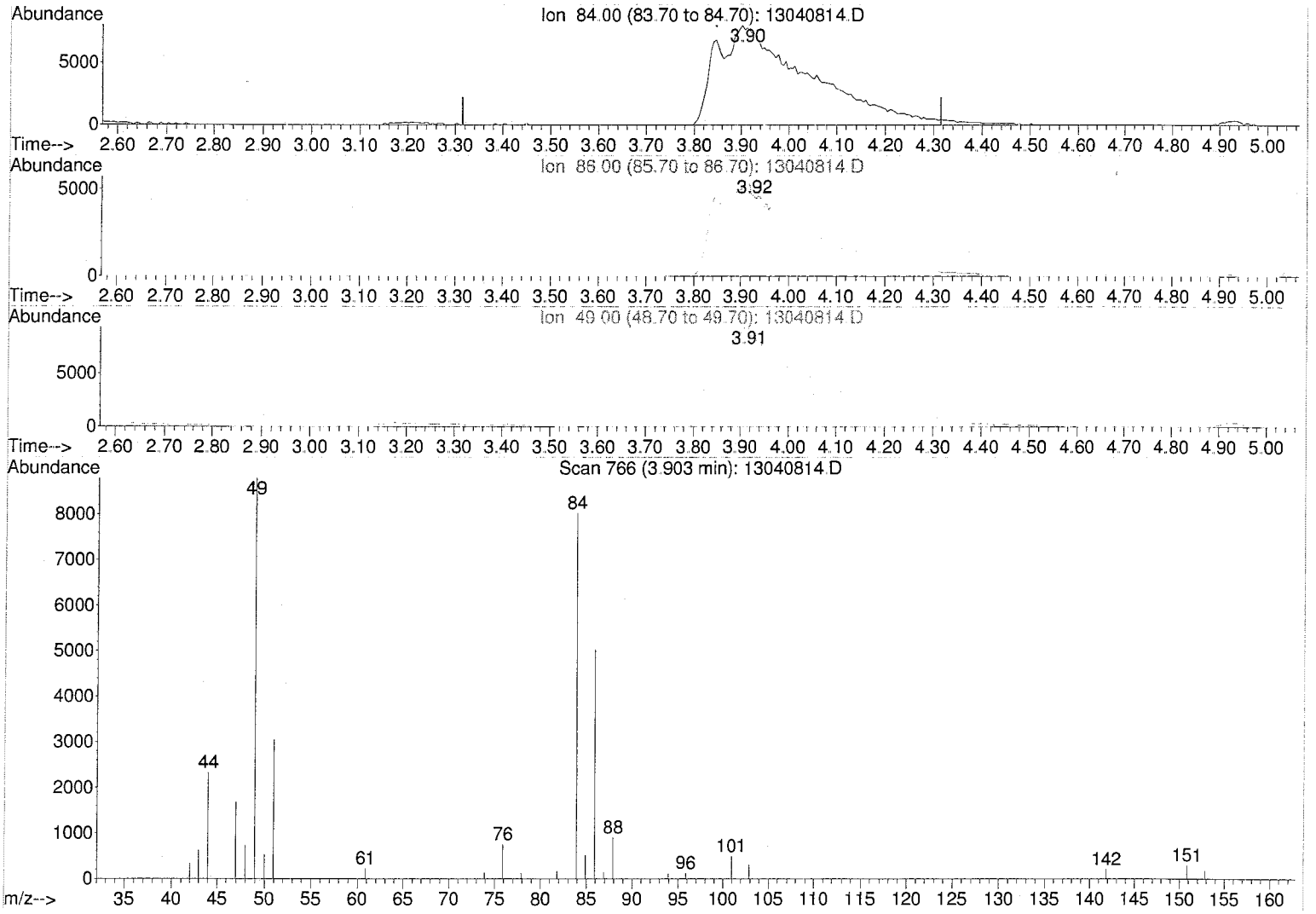
3.85min 0.00ug/L

response 15393

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	81.16
49.00	118.00	133.98
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:02 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

AK 4/9/13

(15) Methylene chloride (T)

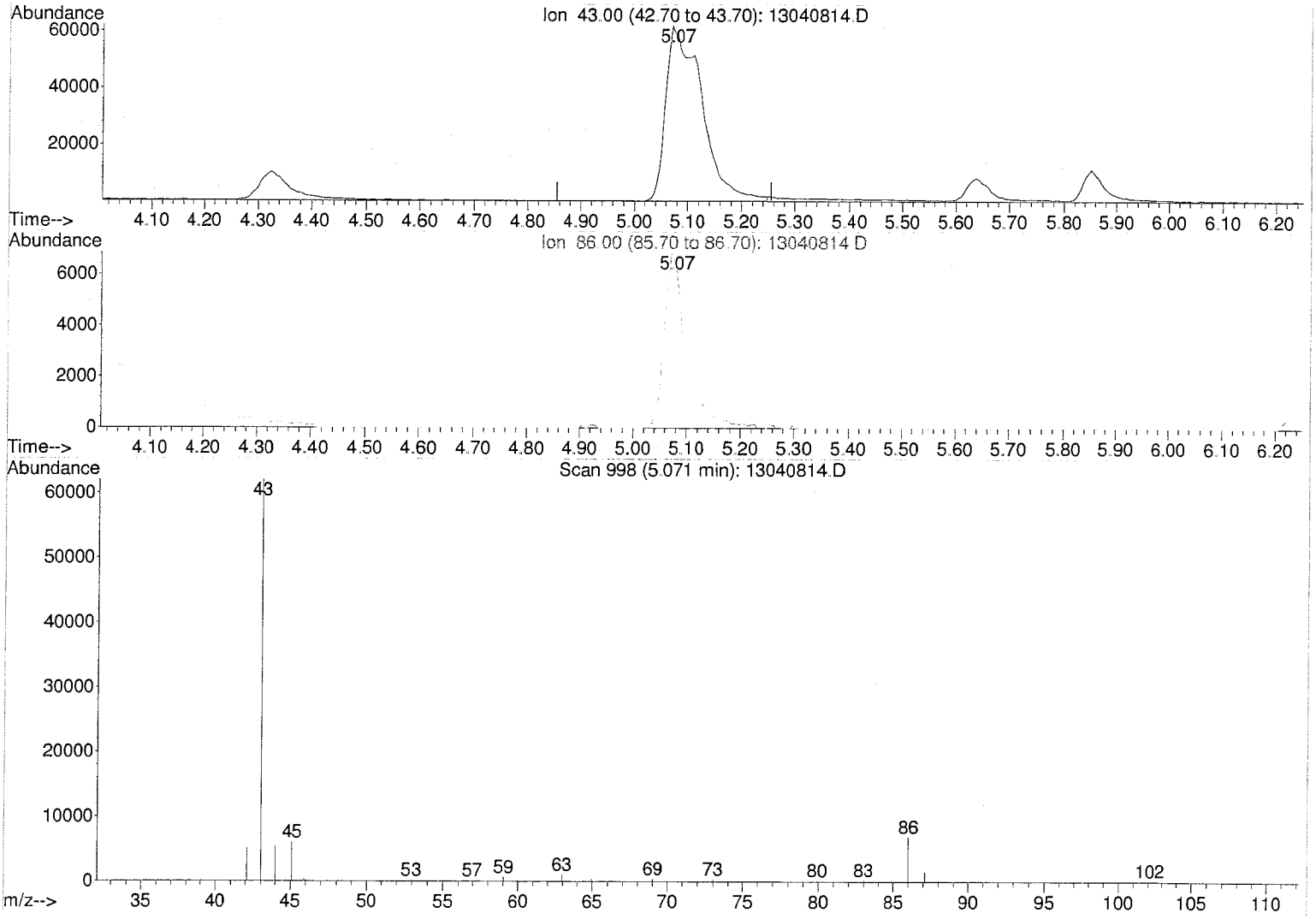
3.90min 0.00ug/L m

response 109067

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	65.09
49.00	118.00	120.66
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:02 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(21) vinyl acetate (T)

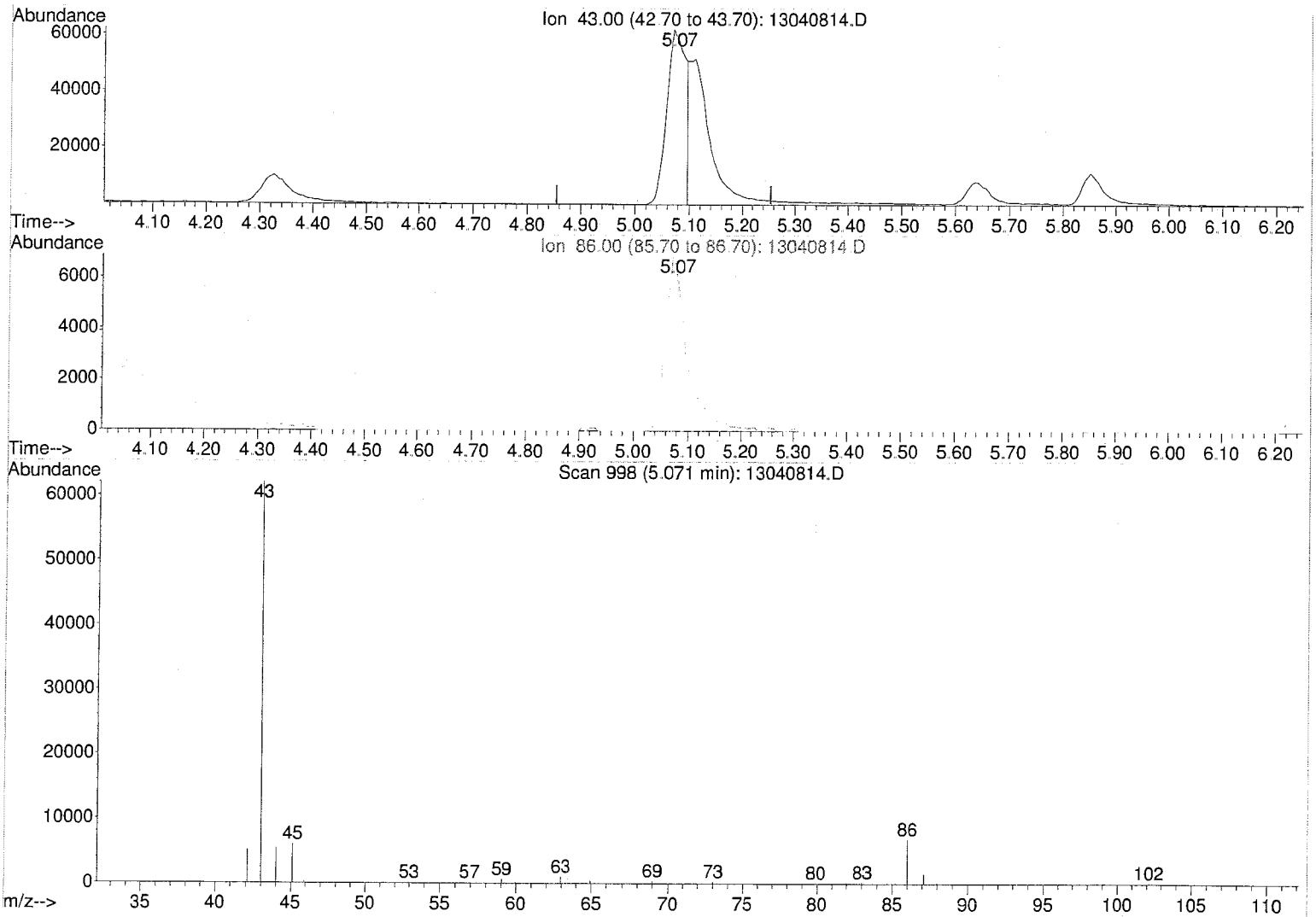
5.07min 0.00ug/L

response 287030

Ion	Exp%	Act%
43.00	100	100
86.00	10.20	6.81
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:03 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

AK 4/9/13

(21) vinyl acetate (T)

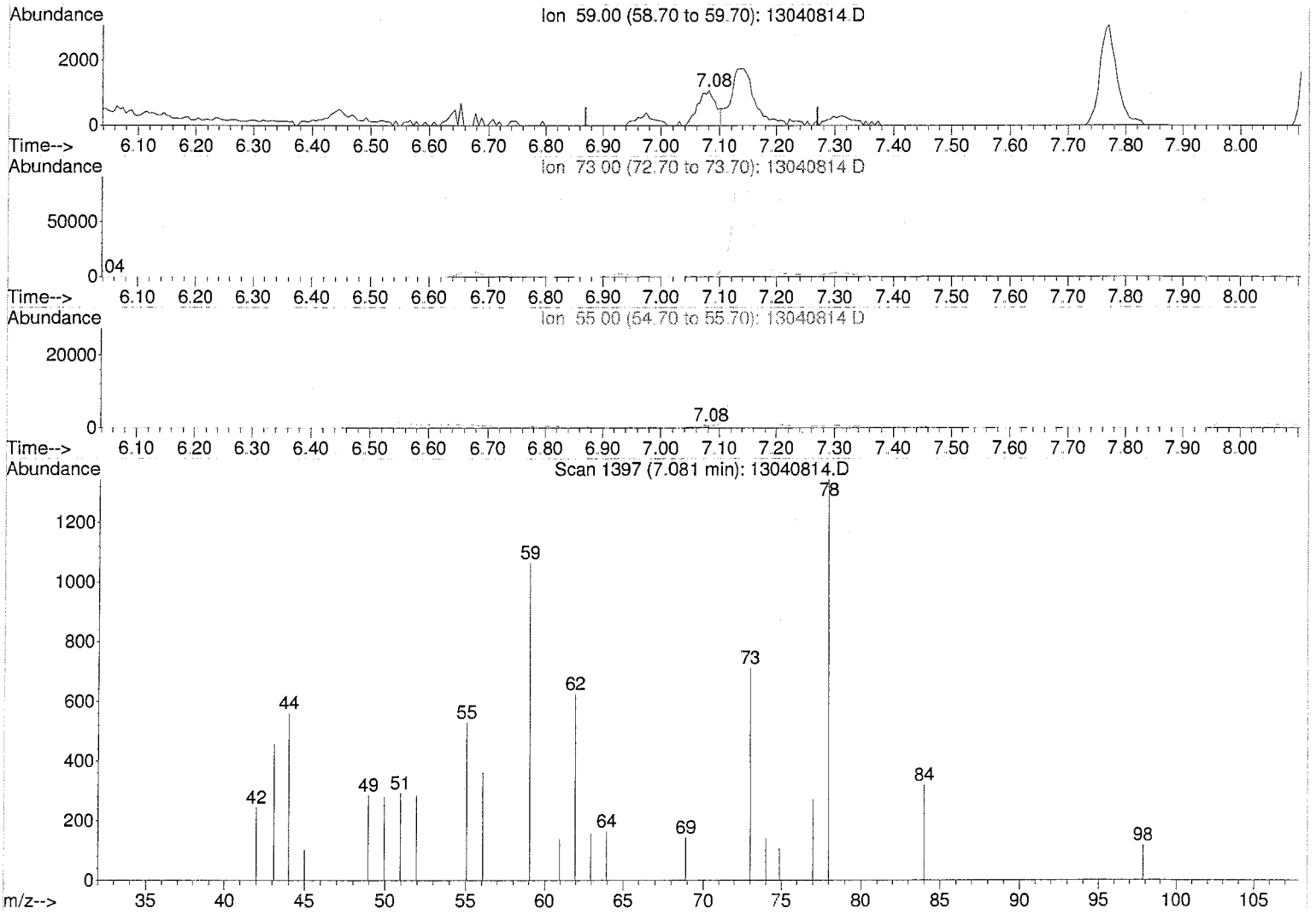
5.07min 0.00ug/L m

response 152097

Ion	Exp%	Act%
43.00	100	100
86.00	10.20	12.85
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:03 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Single Level Calibration



TIC: 13040814.D

(36) tert-Amyl alcohol (T)

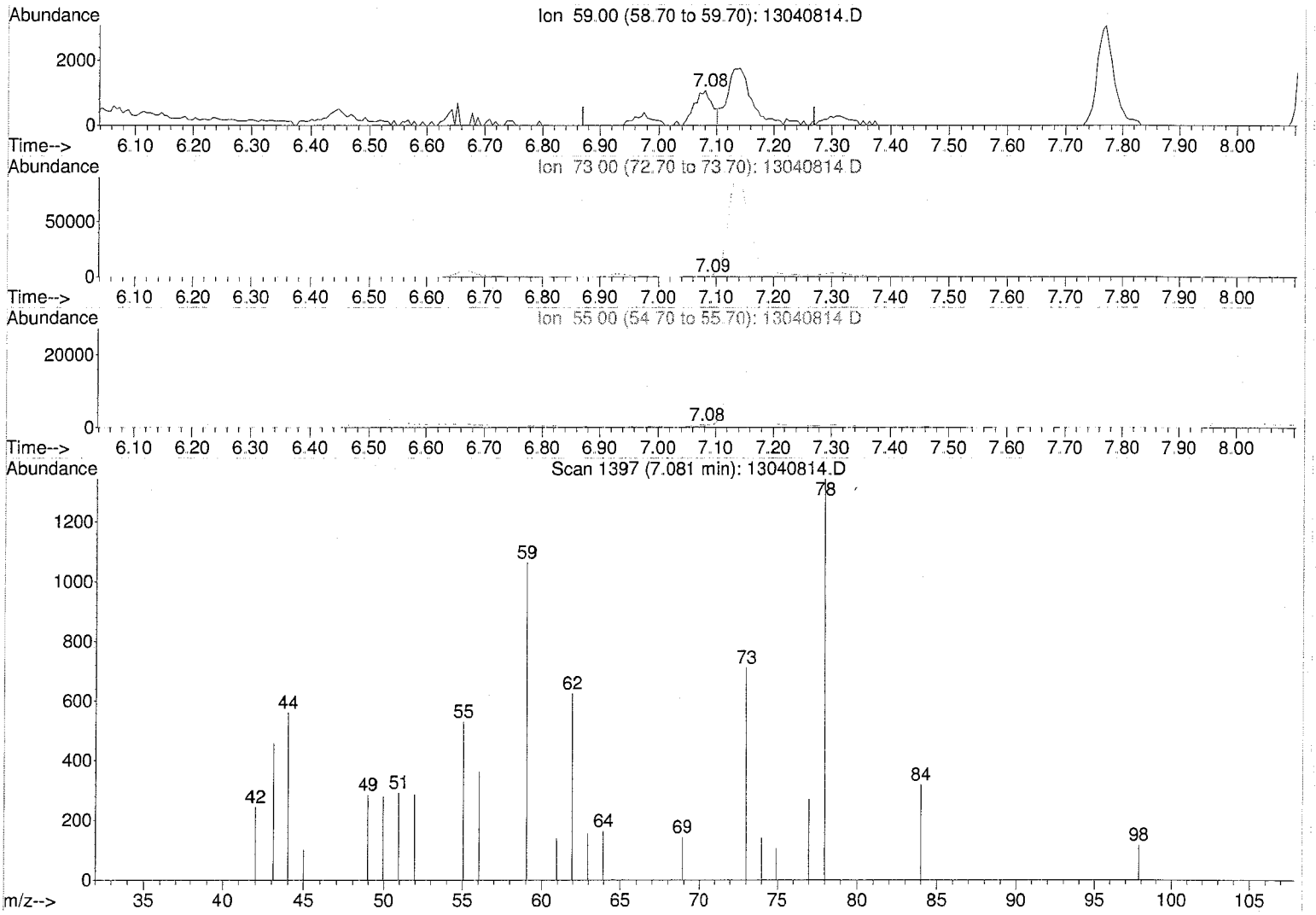
7.08min 0.00ug/L

response 2337

Ion	Exp%	Act%
59.00	100	100
73.00	44.80	0.00#
55.00	62.60	32.09#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:03 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Single Level Calibration



TIC: 13040814.D

(36) tert-Amyl alcohol (T)

7.08min 0.00ug/L m

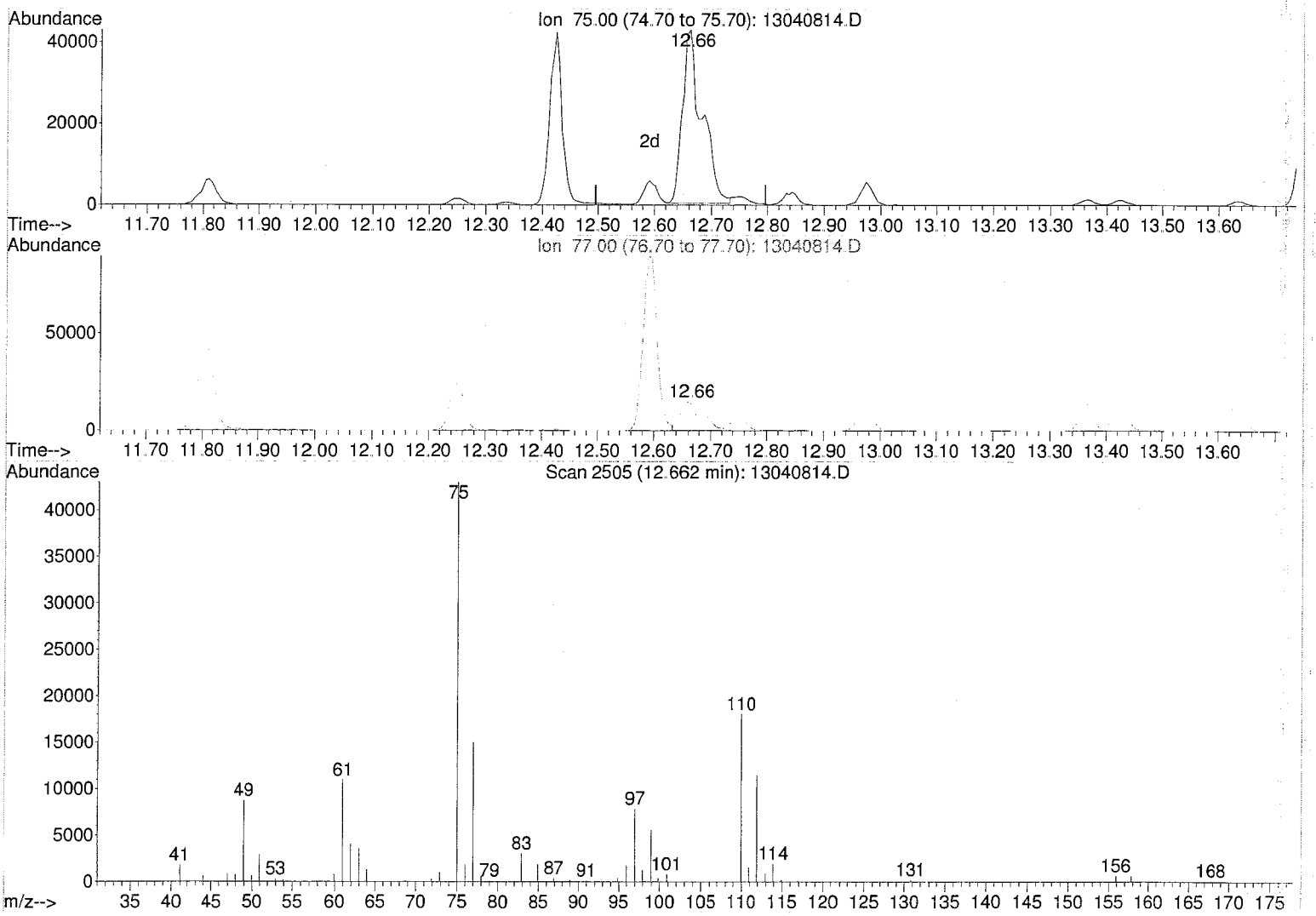
response 2337

Ion	Exp%	Act%
59.00	100	100
73.00	44.80	52.80
55.00	62.60	32.09#
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:03 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(65) 1,2,3-Trichloropropane (T)

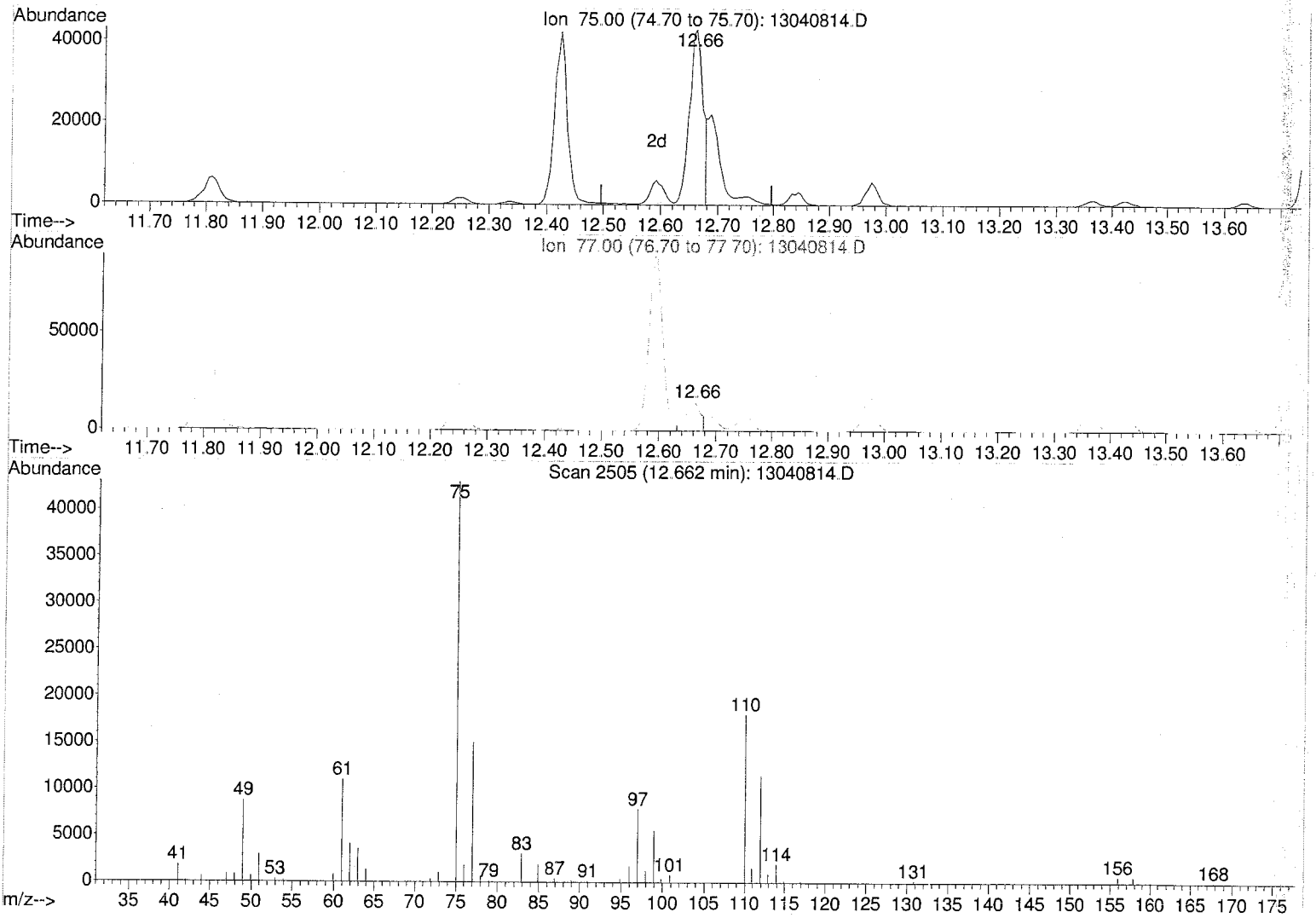
12.66min 0.00ug/L

response 100407

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	36.80
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040814.D Vial: 14
Acq On : 8 Apr 2013 4:56 pm Operator: AK
Sample : CAL5 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:03 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040814.D

(65) 1,2,3-Trichloropropane (T)

12.66min 0.00ug/L m

response 70518

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	36.26
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:43 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	561960	50.00	ug/L	0.02
54) Chlorobenzene d-5 ISTD	11.00	117	393843	50.00	ug/L	0.02
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	155792	50.00	ug/L	0.01
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	131506	0.00	ug/L	0.02
Spiked Amount 50.000	Range 94 - 107		Recovery = 0.00%#			
48) Toluene d-8 SS#2	9.27	98	497926	0.00	ug/L	0.01
Spiked Amount 50.000	Range 96 - 104		Recovery = 0.00%#			
71) 4-Bromofluorobenzene SS#3	12.42	95	184394	0.00	ug/L	0.01
Spiked Amount 50.000	Range 89 - 112		Recovery = 0.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.51	85	193121	No Calib		
3) Chloromethane	1.72	50	232708	No Calib		
4) VINYL CHLORIDE	1.82	62	264373	No Calib		
5) Bromomethane	2.17	94	161693	No Calib		
6) Chloroethane	2.28	64	123345	No Calib		
7) Trichlorofluoromethane	2.54	101	191092	No Calib		
8) acrolein	3.04	56	21600	No Calib		
9) Acetone	3.26	58	9446	No Calib		
10) 1,1-DICHLOROETHENE	3.18	96	160046	No Calib		
11) 1,1,2-Trichlorotrifluoroet	3.21	101	108040	No Calib		
12) iodomethane	3.38	142	242042	No Calib		
13) Carbon Disulfide	3.43	76	452615	No Calib		
14) Methyl Acetate	3.74	74	20007	No Calib		
15) Methylene chloride	3.92	84	164401	No Calib		
16) tert-Butanol	4.17	59	6237	No Calib		
17) acrylonitrile	4.27	53	48037	No Calib		
18) trans-1,2-Dichloroethene	4.28	96	154607	No Calib		
19) Methyl-t-Butyl Ether	4.33	73	362398	No Calib		
20) 1,1-Dichloroethane	4.93	63	238853	No Calib		
21) vinyl acetate	5.07	43	265629	No Calib		
22) Diisopropyl ether	5.11	45	497566	No Calib		
23) tert-Butyl ethyl ether	5.64	59	462794	No Calib		
24) 2,2-Dichloropropane	5.76	77	94870	No Calib		
25) cis-1,2-Dichloroethene	5.77	96	190734	No Calib		
26) 2-Butanone (MEK)	5.85	72	12649	No Calib	#	
27) Bromochloromethane	6.10	128	83990	No Calib		
28) CHLOROFORM	6.24	83	249569	No Calib		
30) 1,1,1-Trichloroethane	6.44	97	161163	No Calib		
31) Cyclohexane	6.50	56	140260	No Calib		
32) Carbon tetrachloride	6.66	117	122206	No Calib		
33) 1,1-Dichloropropene	6.67	75	187583	No Calib		
34) Benzene	6.93	78	635064	No Calib		
35) 1,2-Dichloroethane	6.97	62	167216	No Calib		
36) tert-Amyl alcohol	7.07	59	5324	No Calib		
37) tert-Amyl methyl ether	7.14	73	429036	No Calib		
38) Trichloroethene	7.77	95	149374	No Calib		
39) 1,2-DICHLOROPROPANE	8.05	63	163025	No Calib		
40) Methylcyclohexane	8.00	83	131776	No Calib		
41) tert-Amyl ethyl ether	8.14	59	376739	No Calib		
42) Dibromomethane	8.19	93	98072	No Calib		
43) 1,4-Dioxane	8.25	88	16103	No Calib		
44) Bromodichloromethane	8.40	83	182703	No Calib		
45) 2-Chloroethylvinyl Ether	8.80	63	87220	No Calib		
46) cis-1,3-Dichloropropene	8.95	75	259925	No Calib		
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	22987	No Calib	#	

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:43 2013 Quant Results File: VOC-W.RES

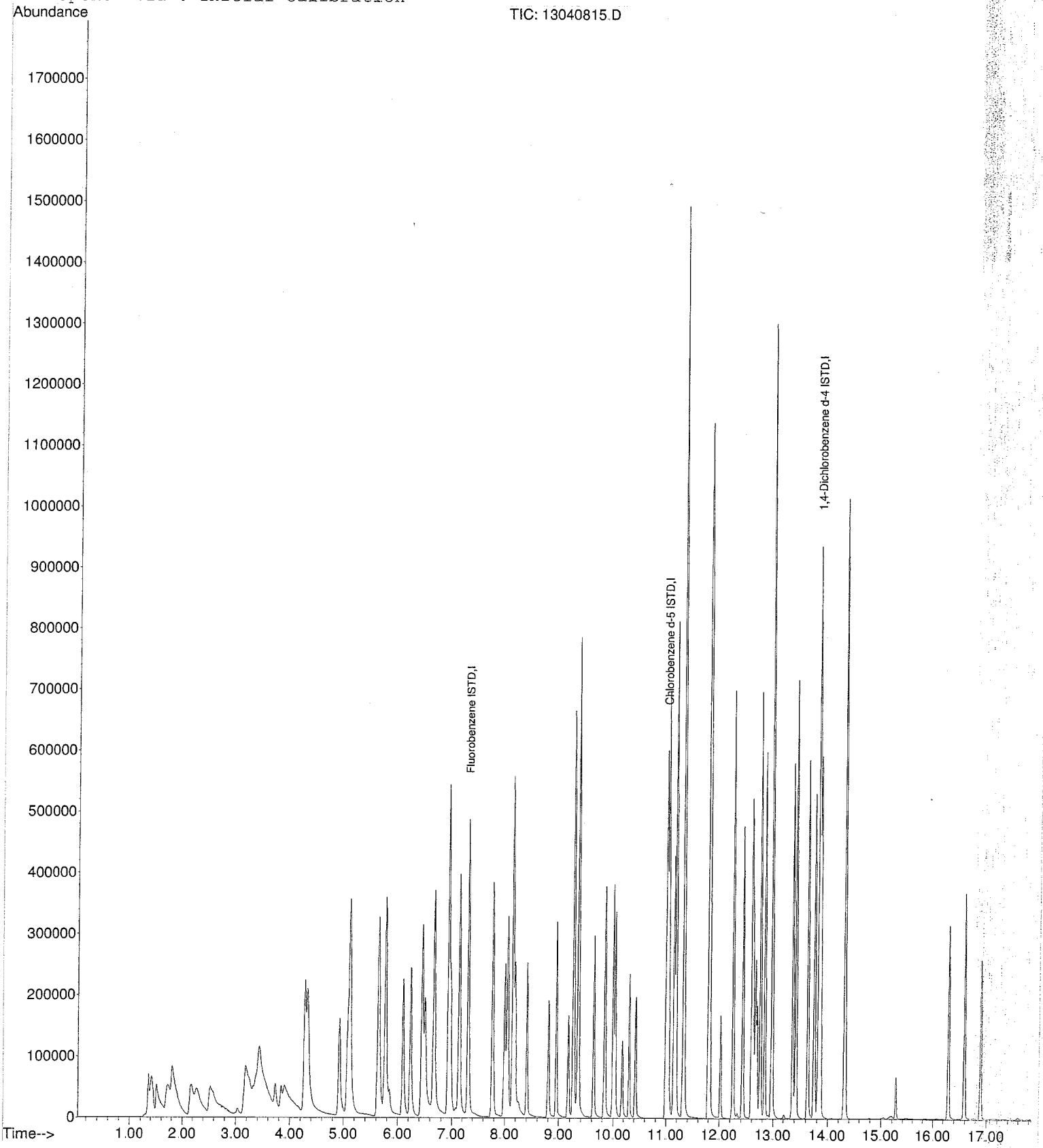
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
49) TOLUENE	9.35	92	393990	No Calib	
50) trans-1,3-Dichloropropene	9.63	75	218374	No Calib	
51) 1,1,2-Trichloroethane	9.84	83	113455	No Calib	
52) Tetrachloroethene	10.00	164	98142	No Calib	
53) 2-Hexanone (MBK)	10.17	43	95575	No Calib	
55) 1,3-Dichloropropane	10.04	76	244760	No Calib	
56) Dibromochloromethane	10.31	129	133289	No Calib	
57) 1,2-Dibromoethane	10.43	107	148233	No Calib	
58) Chlorobenzene	11.03	112	428844	No Calib	
59) 1,1,1,2-Tetrachloroethane	11.14	131	129169	No Calib	
60) ETHYLBENZENE	11.18	91	644089	No Calib	
61) m&p-Xylene	11.32	106	522346	No Calib	
62) o-Xylene	11.79	106	264410	No Calib	
63) Styrene	11.81	104	490027	No Calib	
64) Bromoform	12.02	173	80004	No Calib	
65) 1,2,3-Trichloropropane	12.66	75	125915	No Calib	
66) Bromobenzene	12.59	156	154678	No Calib	
67) trans-1,4-dichloro-2-buten	12.69	53	37490	No Calib	#
68) n-Propylbenzene	12.75	91	604592	No Calib	
70) Isopropylbenzene	12.25	105	539455	No Calib	
72) 1,1,2,2-Tetrachloroethane	12.62	83	170521	No Calib	
73) 2-Chlorotoluene	12.84	91	382790	No Calib	
74) 4-Chlorotoluene	12.98	91	447791	No Calib	
75) 1,3,5-Trimethylbenzene	12.97	105	431658	No Calib	
76) tert-Butylbenzene	13.37	119	316076	No Calib	
77) 1,2,4-Trimethylbenzene	13.43	105	437531	No Calib	
78) sec-Butylbenzene	13.64	105	486812	No Calib	
79) 4-Isopropyltoluene	13.82	119	389879	No Calib	
80) 1,3-Dichlorobenzene	13.75	146	242933	No Calib	
81) 1,4-Dichlorobenzene	13.86	146	249602	No Calib	
82) 1,2-Dichlorobenzene	14.31	146	232483	No Calib	
83) n-Butylbenzene	14.32	91	354898	No Calib	
84) 1,2-Dibromo-3-chloropropan	15.27	75	19215	No Calib	
85) 1,2,4-Trichlorobenzene	16.29	180	109074	No Calib	
86) Naphthalene	16.59	128	306595	No Calib	
87) 1,2,3-Trichlorobenzene	16.89	180	91499	No Calib	

(#) = qualifier out of range (m) = manual integration

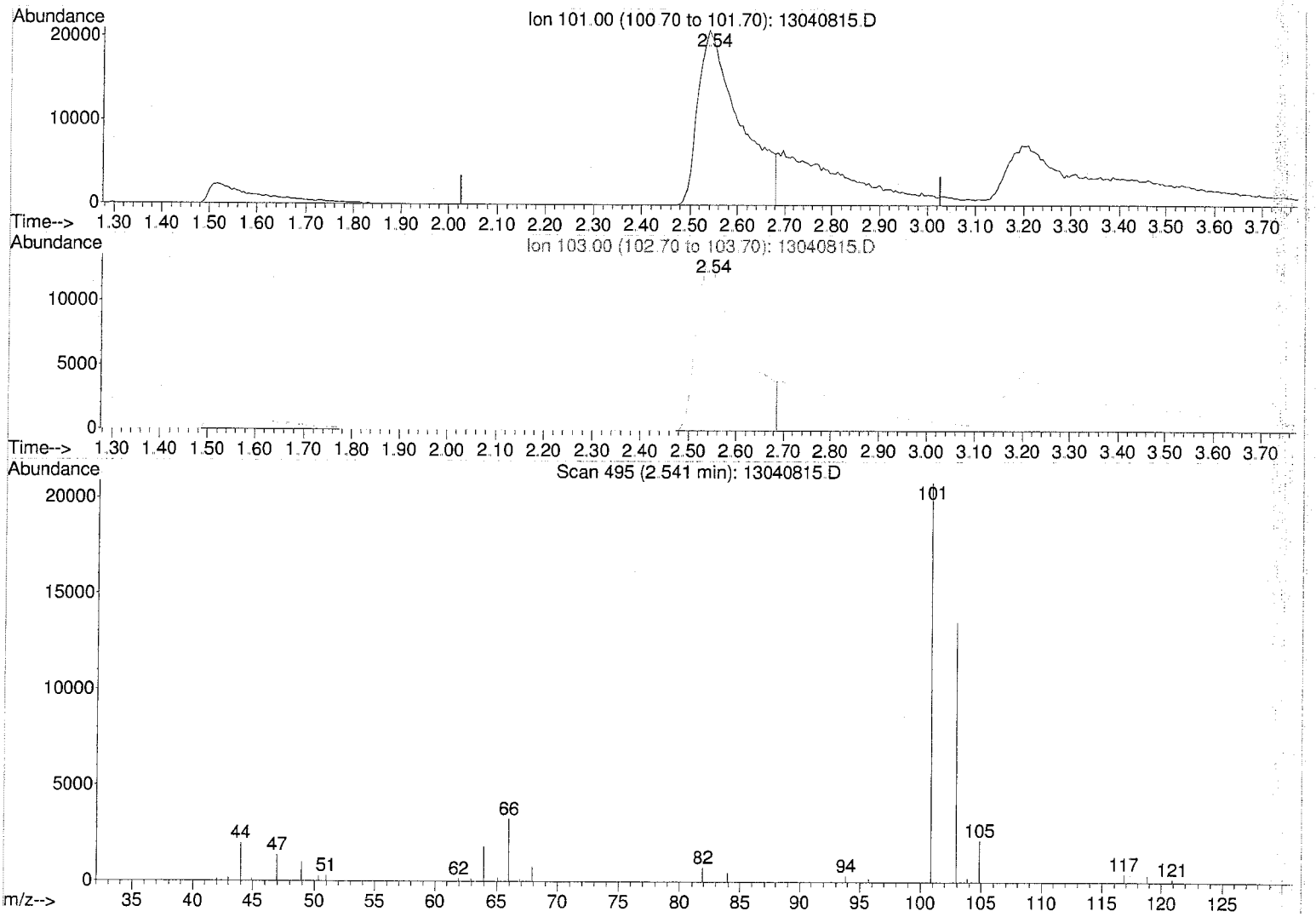
Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:42 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(7) Trichlorofluoromethane (T)

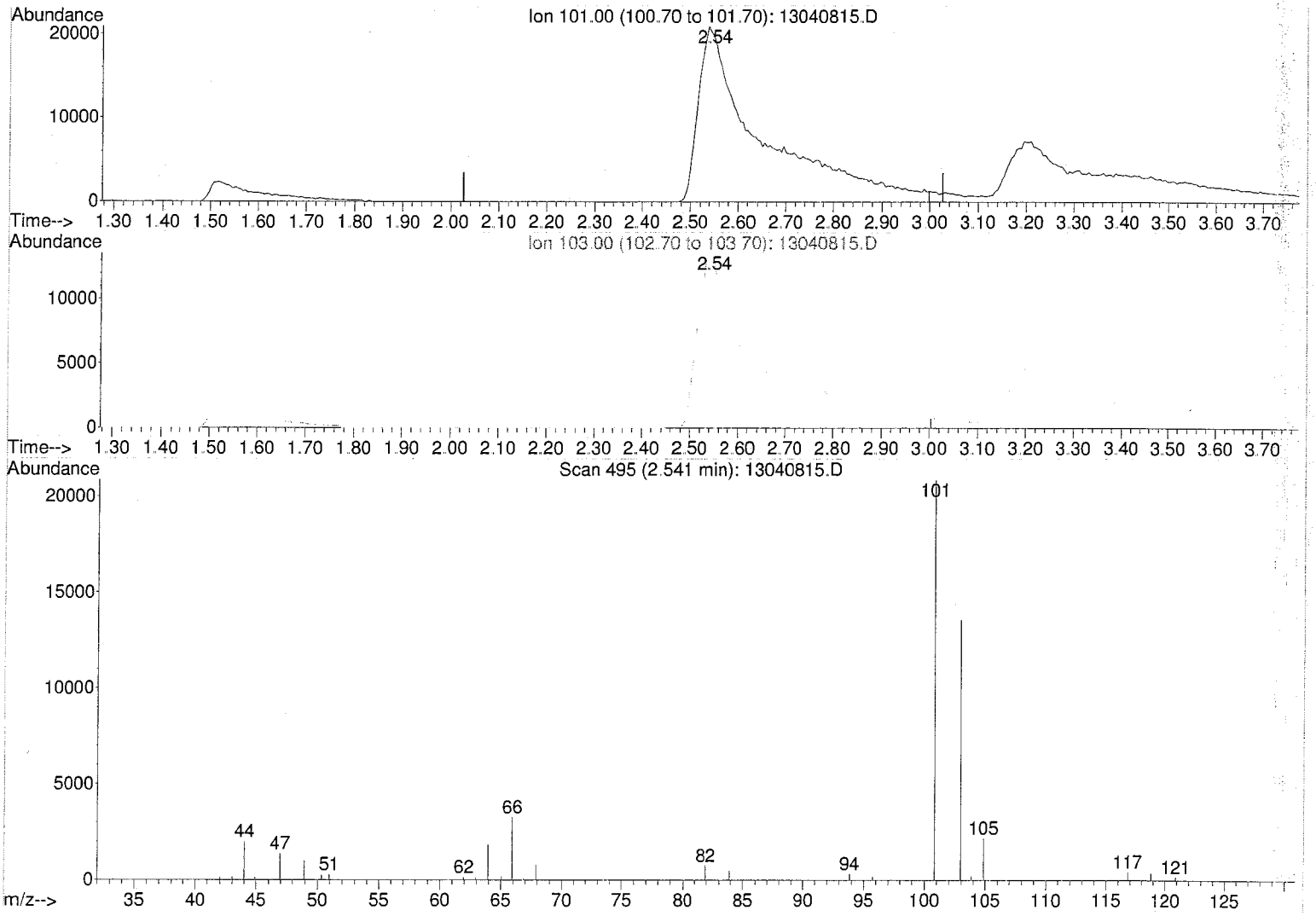
2.54min 0.00ug/L

response 128079

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	66.56
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:39 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(7) Trichlorofluoromethane (T)

2.54min 0.00ug/L m

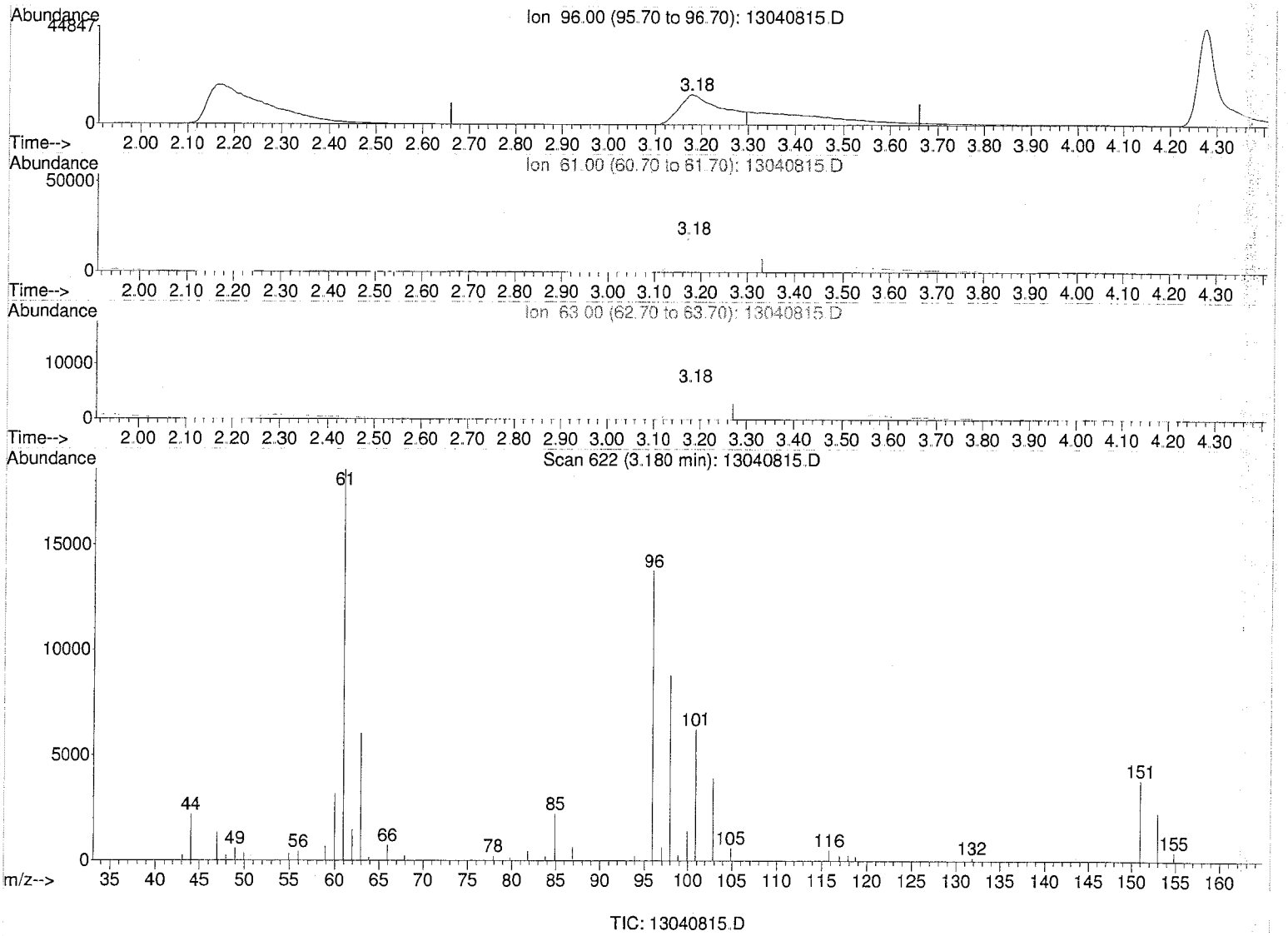
response 191092

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	65.46
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:39 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(10) 1,1-DICHLOROETHENE (M,C)

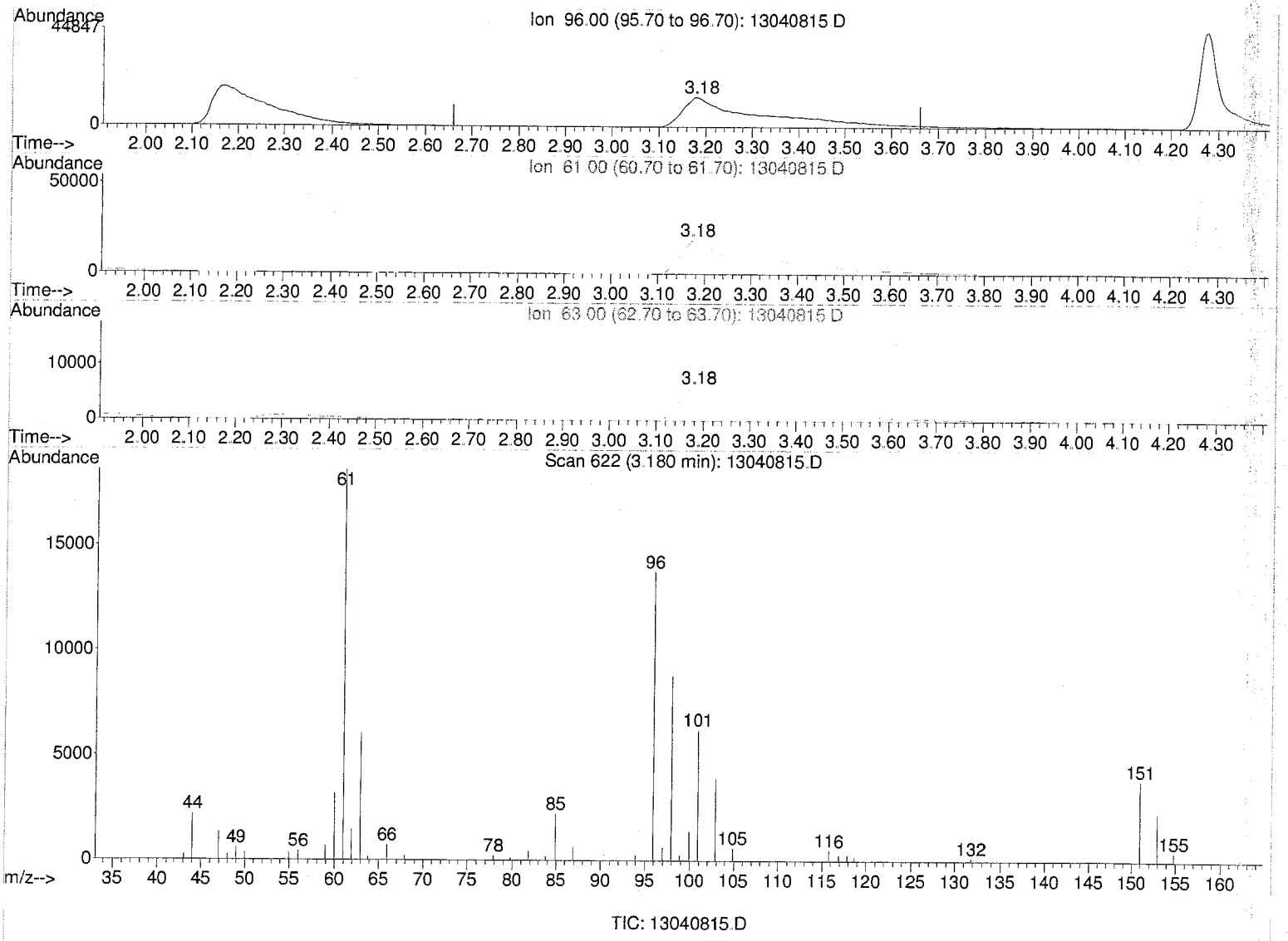
3.18min 0.00ug/L

response 88357

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	156.63
63.00	44.80	39.75
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(10) 1,1-DICHLOROETHENE (M,C)

3.18min 0.00ug/L m

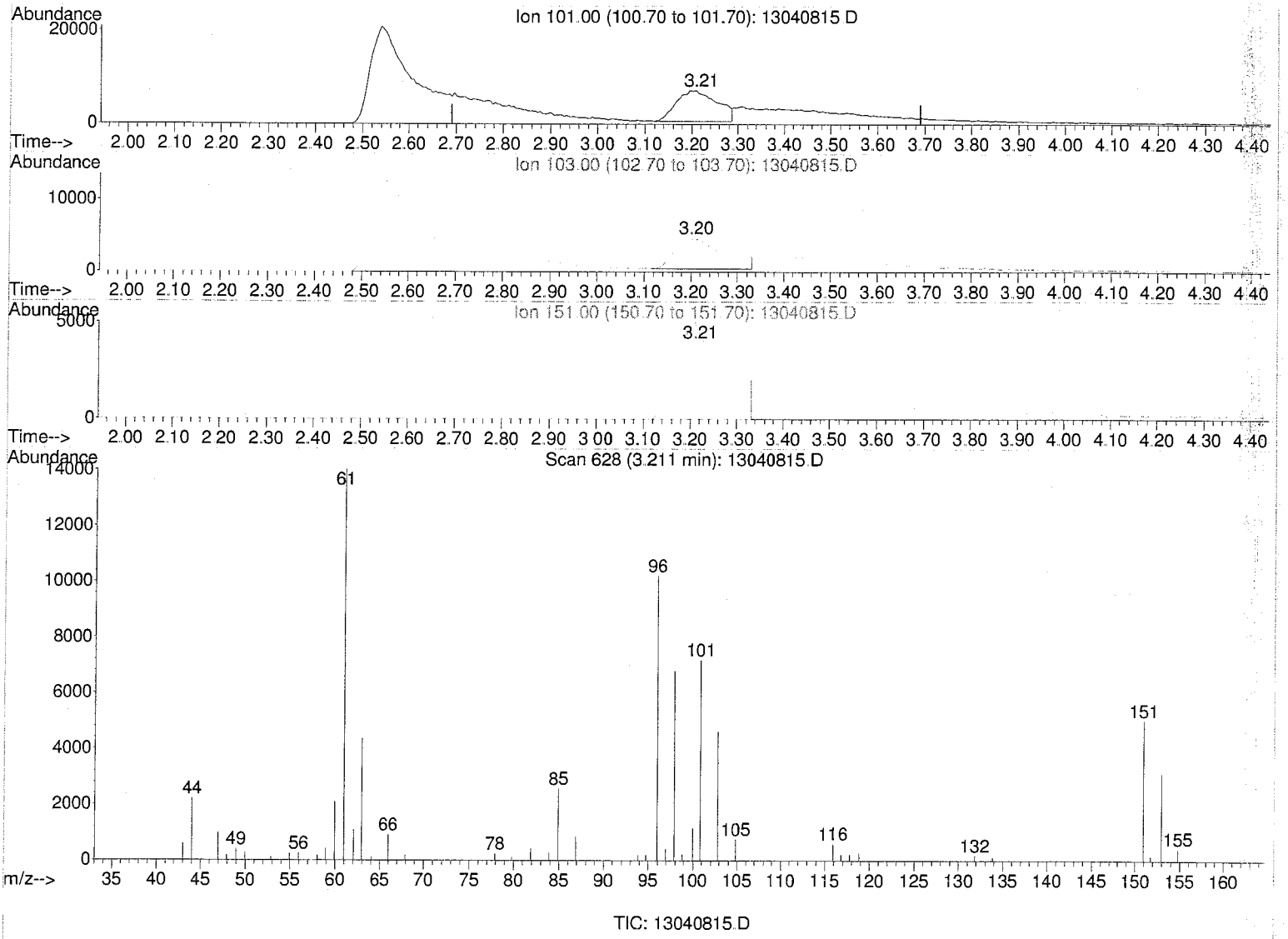
response 160046

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	138.36
63.00	44.80	44.93
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

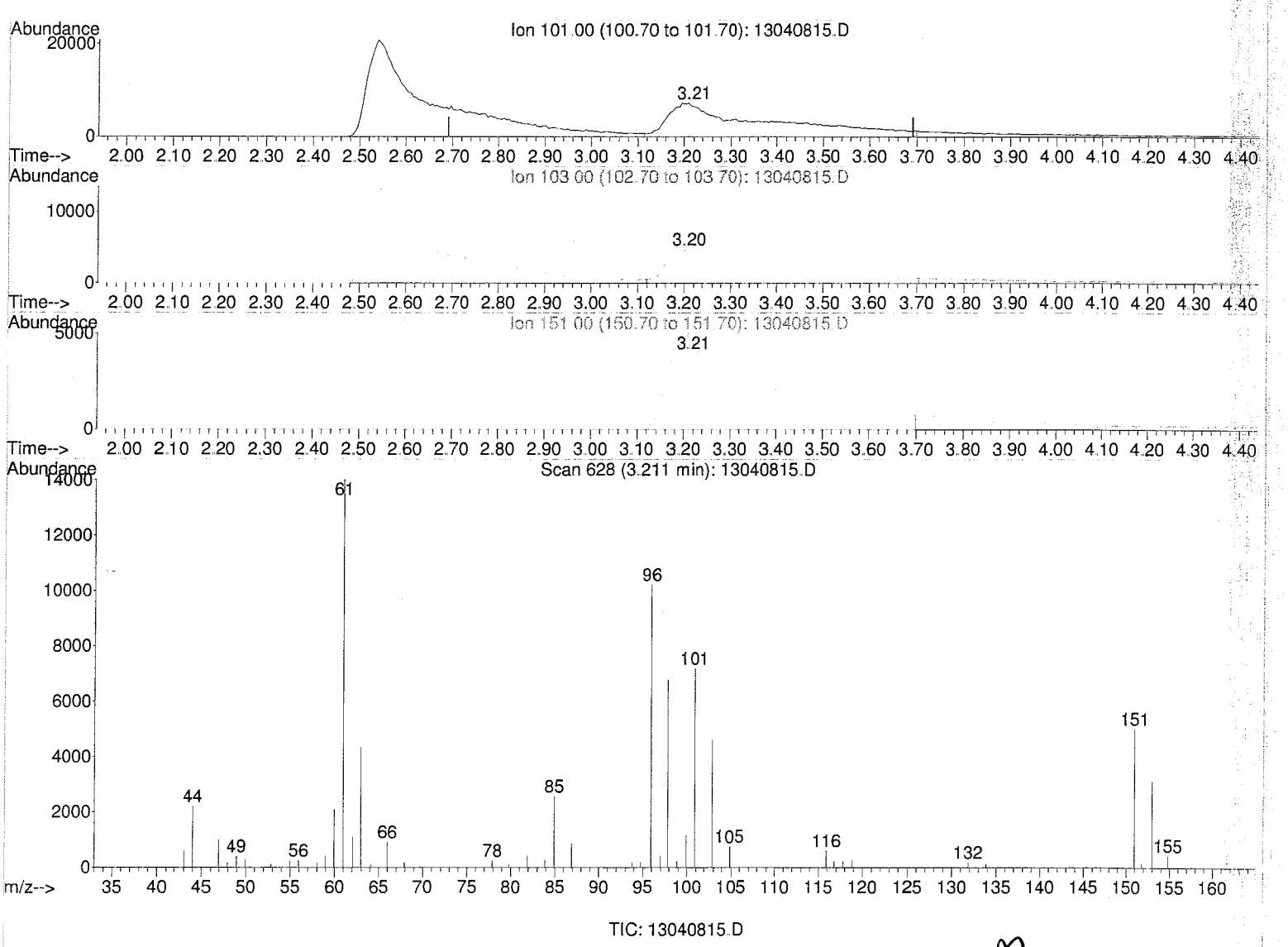
3.21min 0.00ug/L

response 40076

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	76.11
151.00	65.20	89.02#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.21min 0.00ug/L m

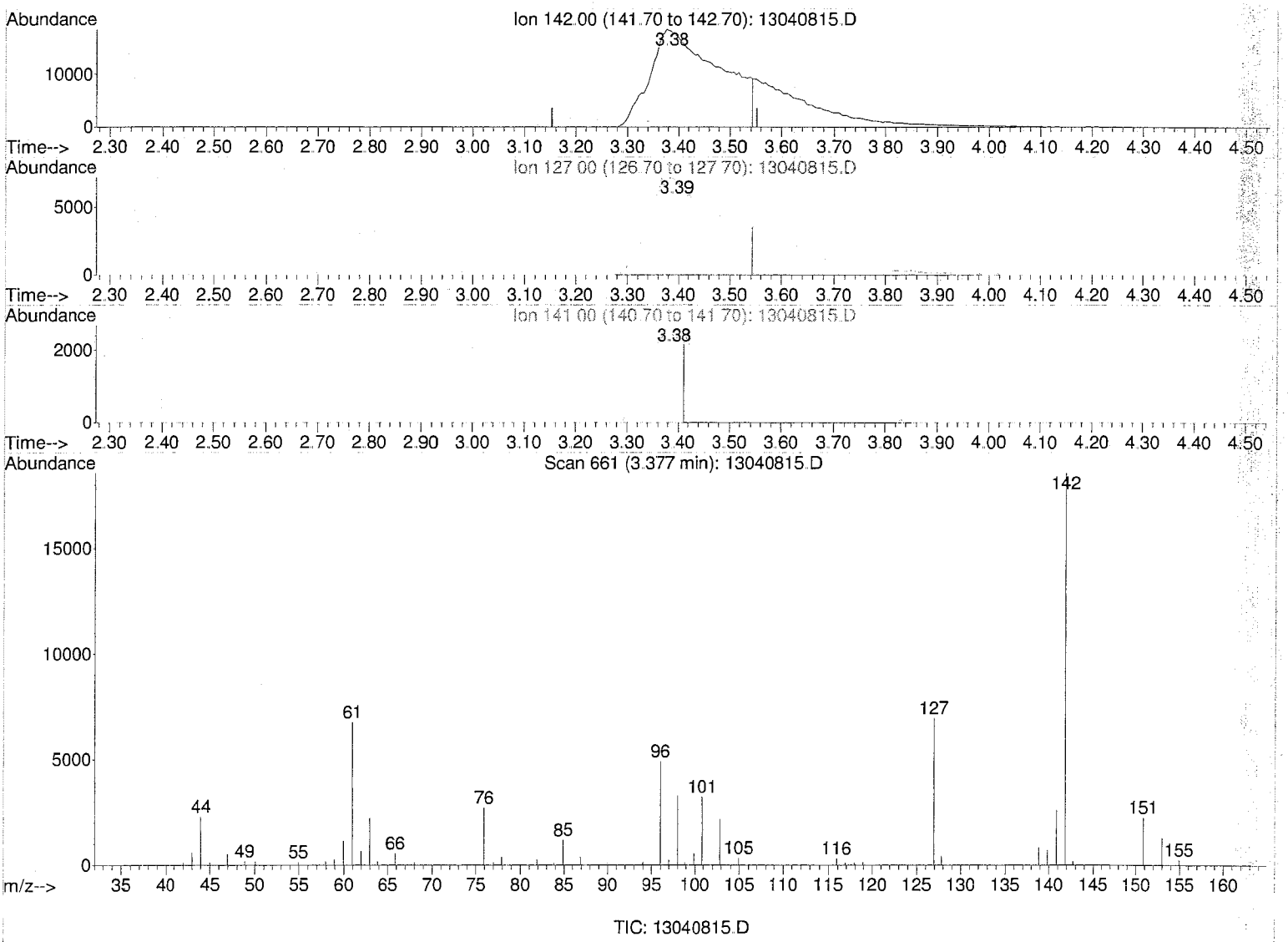
response 108040

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	65.04
151.00	65.20	64.88
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(12) iodomethane (T)

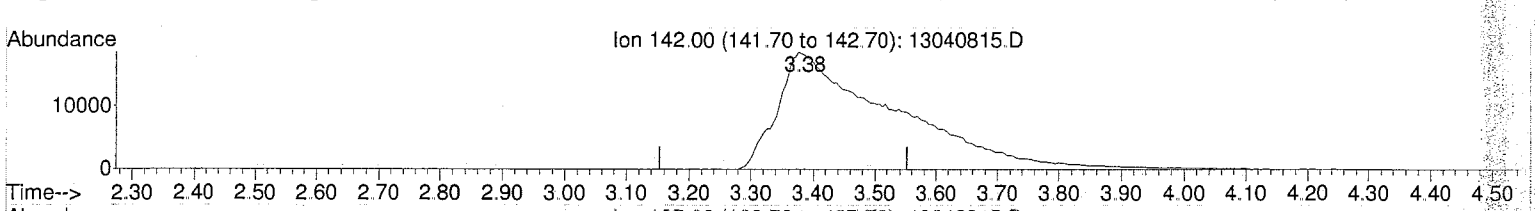
3.38min 0.00ug/L

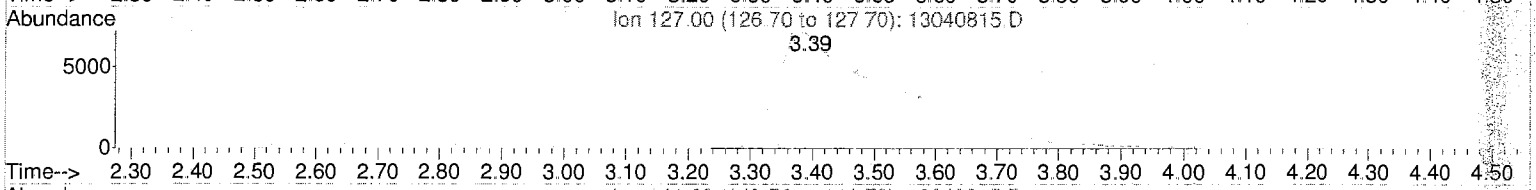
response 173696

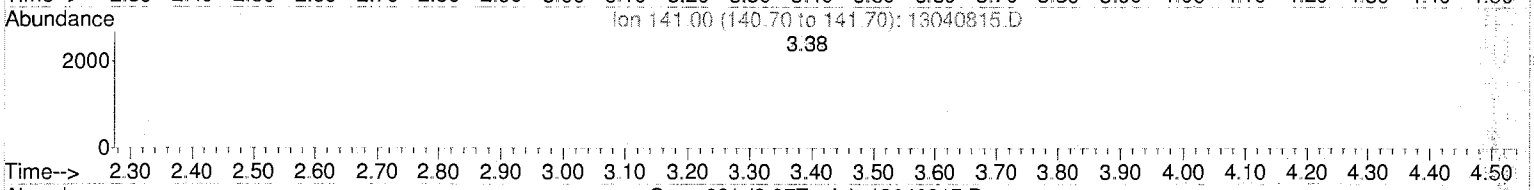
Ion	Exp%	Act%
142.00	100	100
127.00	38.50	39.48
141.00	14.80	6.77
0.00	0.00	0.00

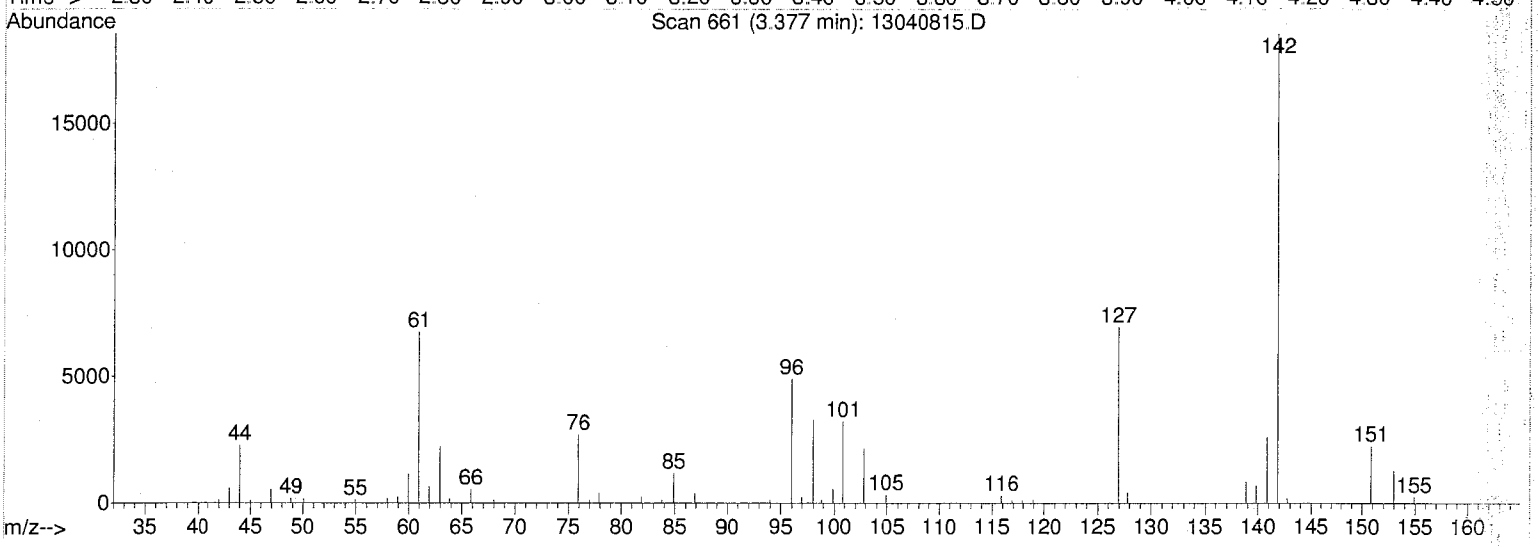
Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration









TIC: 13040815.D

(12) iodomethane (T)

3.38min 0.00ug/L m

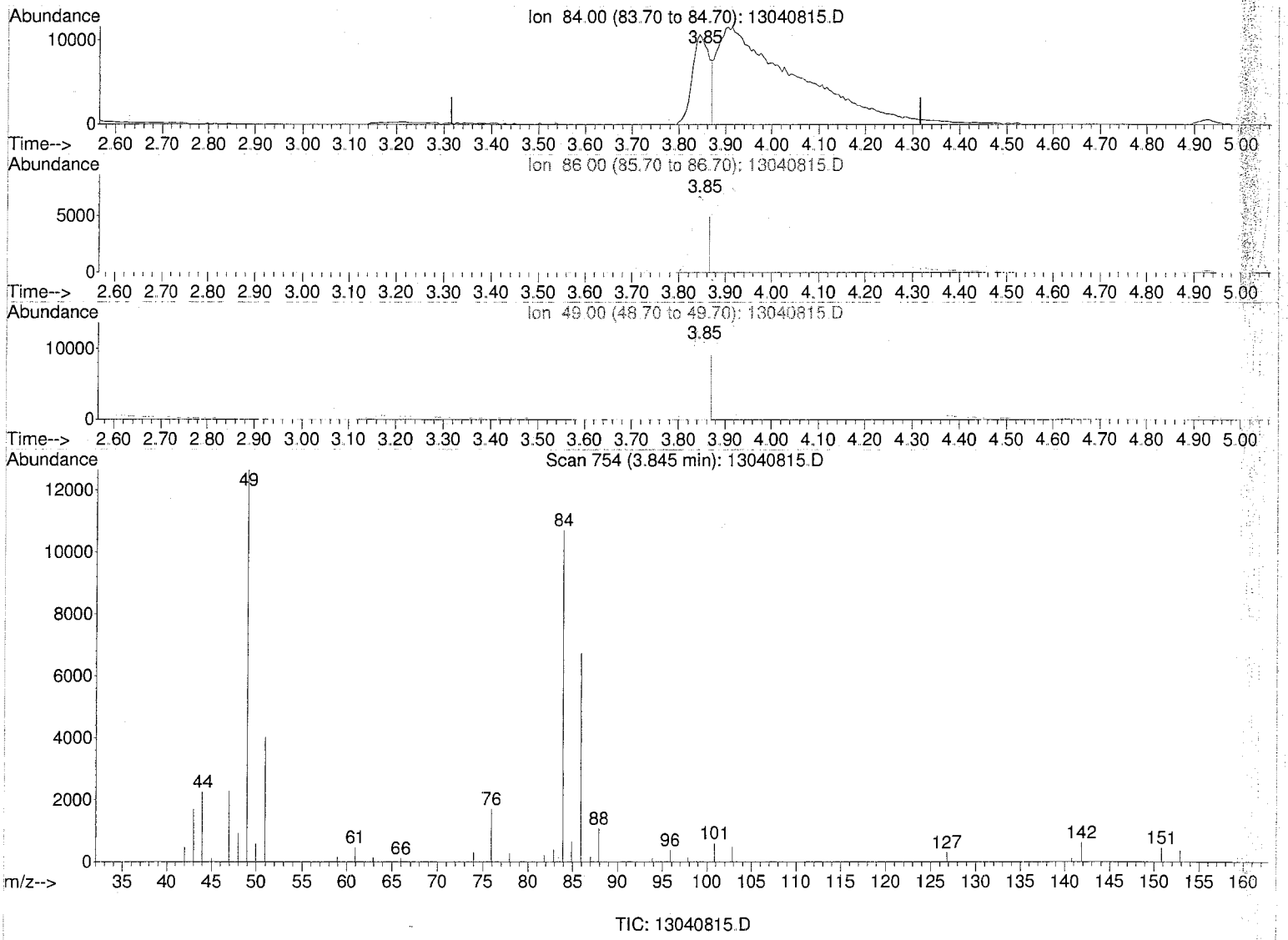
response 242042

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	39.36
141.00	14.80	14.07
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(15) Methylene chloride (T)

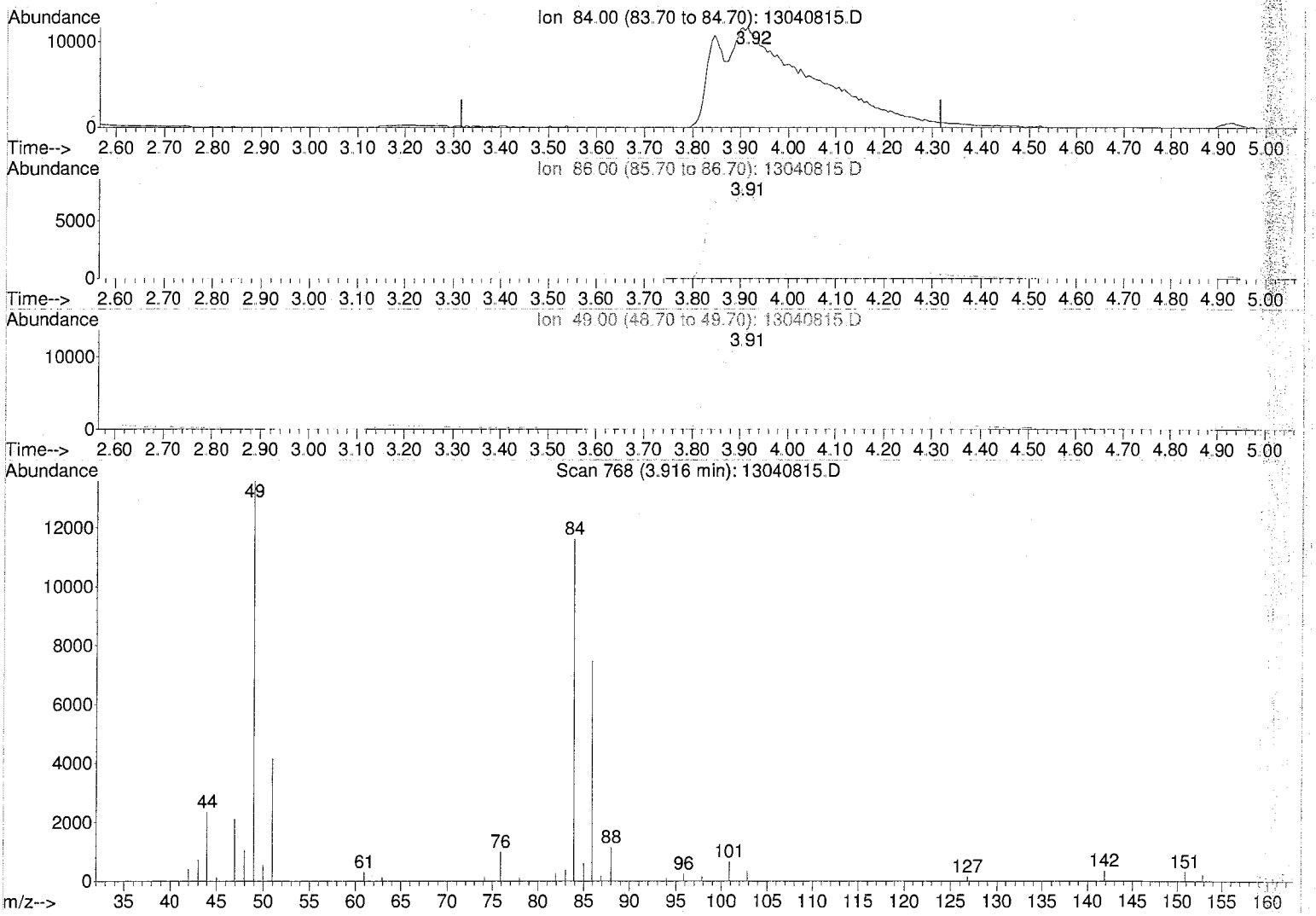
3.85min 0.00ug/L

response 27465

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	58.69
49.00	118.00	121.41
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(15) Methylene chloride (T)

3.92min 0.00ug/L m

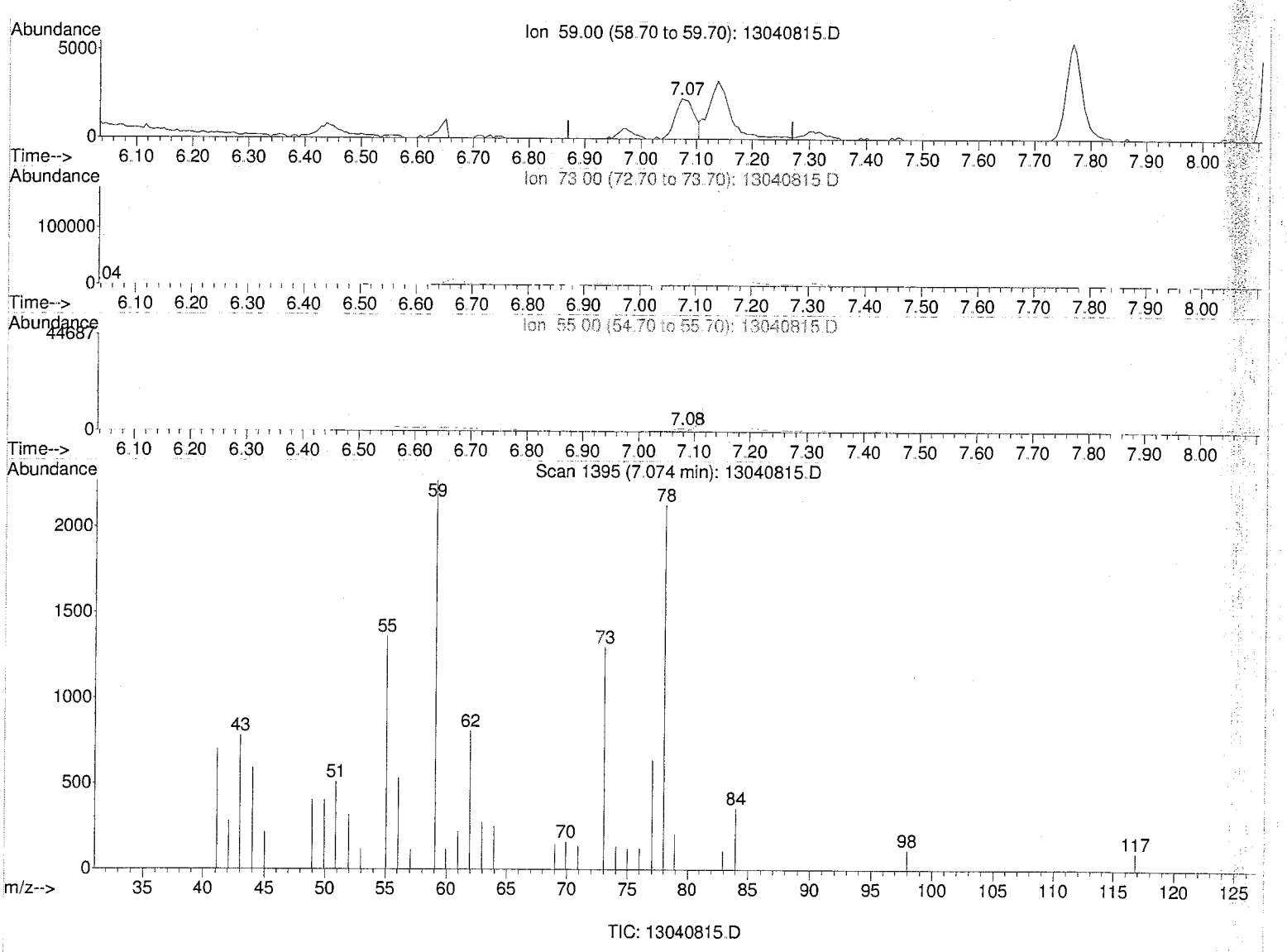
response 164401

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	65.06
49.00	118.00	122.79
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Single Level Calibration



TIC: 13040815.D

(36) tert-Amyl alcohol (T)

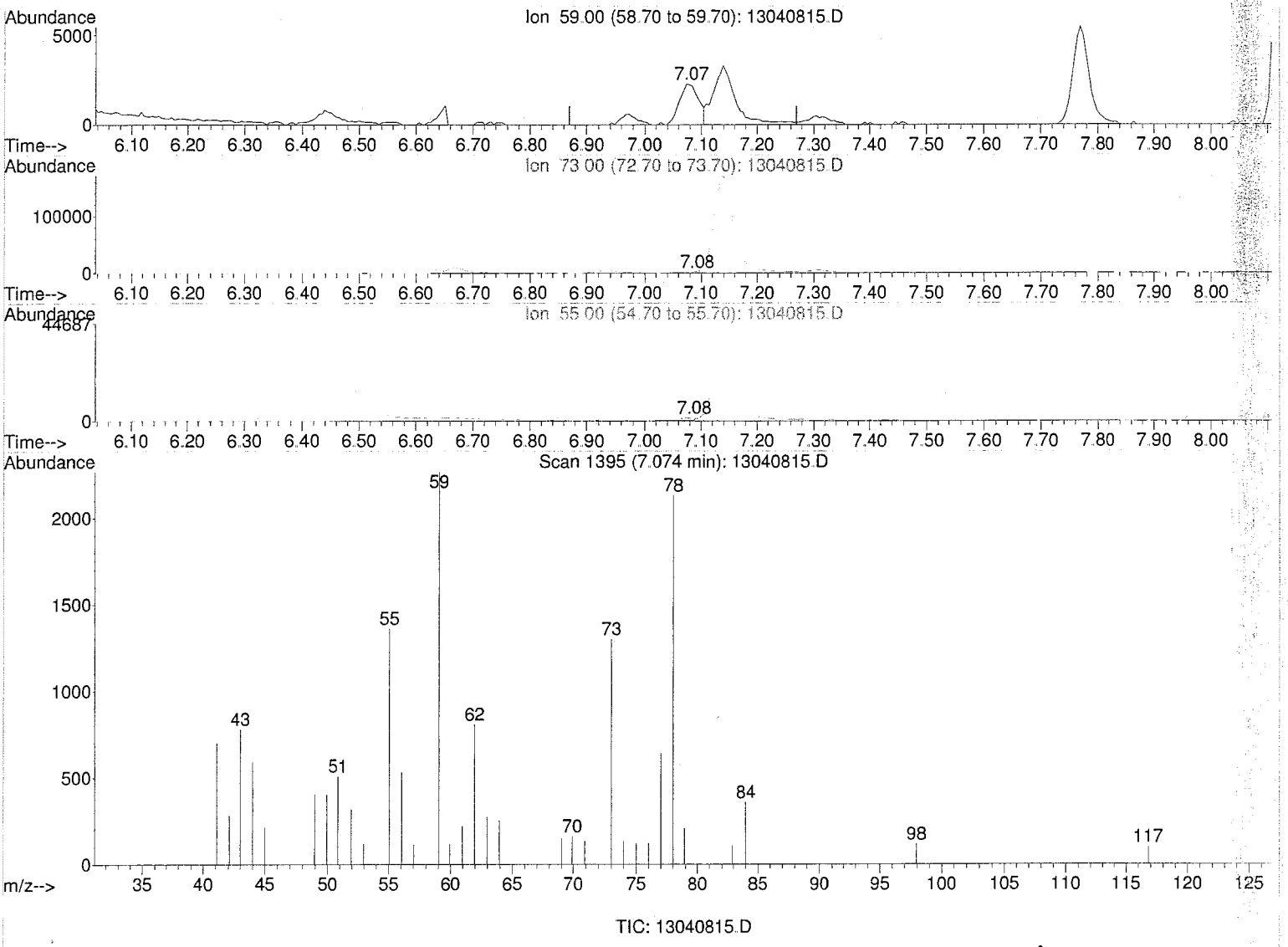
7.07min 0.00ug/L

response 5324

Ion	Exp%	Act%
59.00	100	100
73.00	44.80	0.00#
55.00	62.60	41.85#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Single Level Calibration



TIC: 13040815.D

(36) tert-Amyl alcohol (T)

7.07min 0.00ug/L m

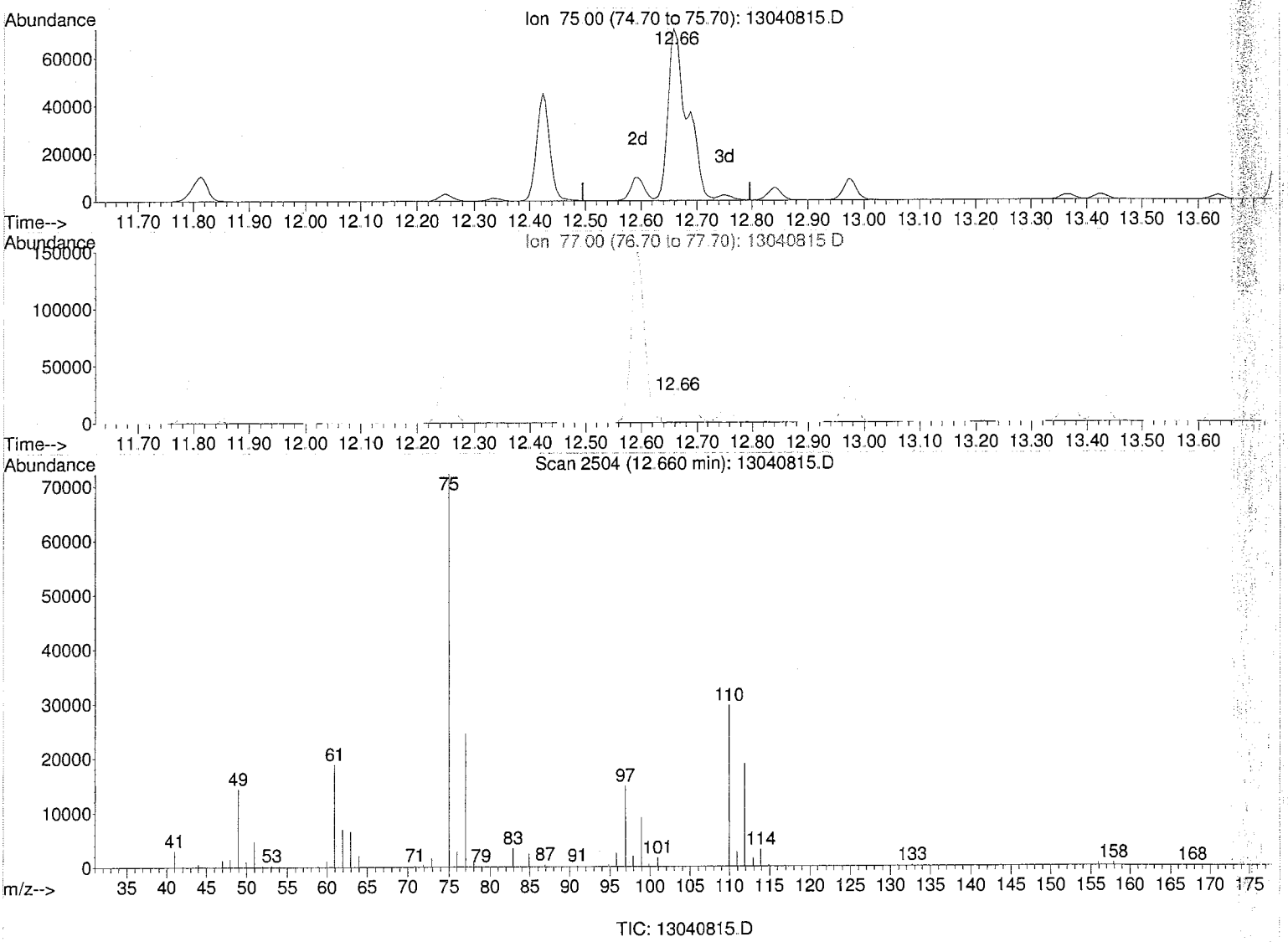
response 5324

Ion	Exp%	Act%
59.00	100	100
73.00	44.80	42.69
55.00	62.60	41.85#
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:41 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(65) 1,2,3-Trichloropropane (T)

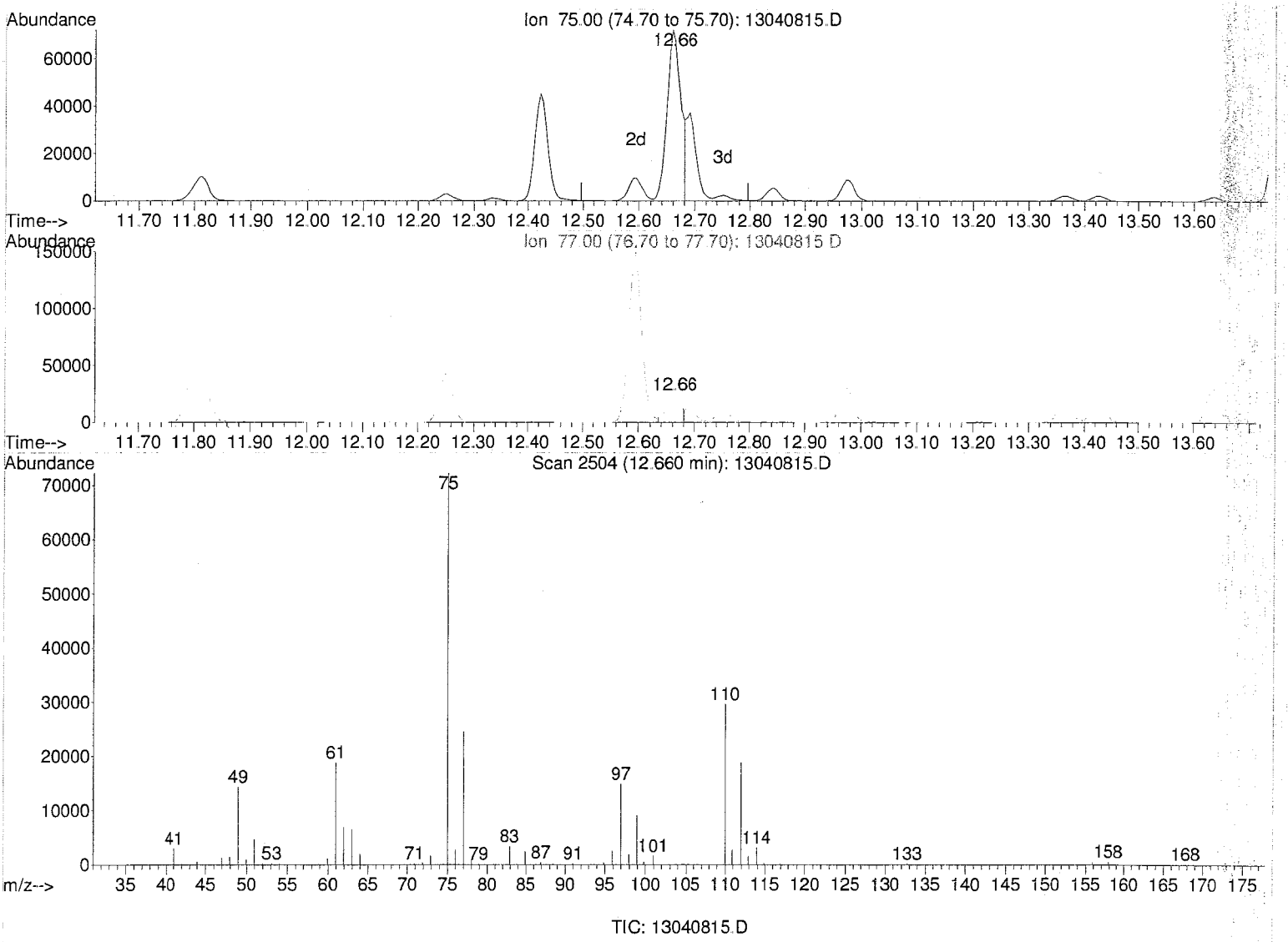
12.66min 0.00ug/L

response 172503

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	33.25
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040815.D Vial: 15
Acq On : 8 Apr 2013 5:26 pm Operator: AK
Sample : CAL6 70ppb 5mL Inst : VOA2
Misc : water 1uL A2338 17.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:42 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040815.D

(65) 1,2,3-Trichloropropane (T)

12.66min 0.00ug/L m

response 125915

Ion	Exp%	Act%
75.00	100	100
77.00	24.00	33.57
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:44 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	548267	50.00	ug/L	0.02
54) Chlorobenzene d-5 ISTD	11.00	117	382504	50.00	ug/L	0.02
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	151221	50.00	ug/L	0.01
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.46	113	128253	0.00	ug/L	0.03
Spiked Amount 50.000	Range 94 - 107		Recovery =	0.00%#		
48) Toluene d-8 SS#2	9.27	98	486035	0.00	ug/L	0.01
Spiked Amount 50.000	Range 96 - 104		Recovery =	0.00%#		
71) 4-Bromofluorobenzene SS#3	12.42	95	180238	0.00	ug/L	0.01
Spiked Amount 50.000	Range 89 - 112		Recovery =	0.00%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.52	85	264846	No Calib		
3) Chloromethane	1.73	50	329772	No Calib		
4) VINYL CHLORIDE	1.82	62	375257	No Calib		
5) Bromomethane	2.18	94	226136	No Calib		
6) Chloroethane	2.28	64	168723	No Calib		
7) Trichlorofluoromethane	2.54	101	263066	No Calib		
8) acrolein	3.05	56	30220	No Calib		
9) Acetone	3.25	58	11976	No Calib		
10) 1,1-DICHLOROETHENE	3.19	96	223267	No Calib		
11) 1,1,2-Trichlorotrifluoroet	3.20	101	151233	No Calib		
12) iodomethane	3.39	142	339814	No Calib		
13) Carbon Disulfide	3.44	76	636555	No Calib		
14) Methyl Acetate	3.74	74	27572	No Calib		
15) Methylene chloride	3.85	84	229871	No Calib		
16) tert-Butanol	4.17	59	8271	No Calib		
17) acrylonitrile	4.27	53	63596	No Calib		
18) trans-1,2-Dichloroethene	4.28	96	205266	No Calib		
19) Methyl-t-Butyl Ether	4.33	73	497883	No Calib		
20) 1,1-Dichloroethane	4.93	63	326495	No Calib		
21) vinyl acetate	5.08	43	384681	No Calib		
22) Diisopropyl ether	5.12	45	676829	No Calib		
23) tert-Butyl ethyl ether	5.64	59	644109	No Calib		
24) 2,2-Dichloropropane	5.76	77	130172	No Calib		
25) cis-1,2-Dichloroethene	5.78	96	267787	No Calib		
26) 2-Butanone (MEK)	5.85	72	17493	No Calib		#
27) Bromochloromethane	6.10	128	116286	No Calib		
28) CHLOROFORM	6.24	83	351520	No Calib		
30) 1,1,1-Trichloroethane	6.45	97	227159	No Calib		
31) Cyclohexane	6.51	56	187256	No Calib		
32) Carbon tetrachloride	6.66	117	181382	No Calib		
33) 1,1-Dichloropropene	6.67	75	264168	No Calib		
34) Benzene`	6.93	78	893322	No Calib		
35) 1,2-Dichloroethane	6.97	62	231776	No Calib		
36) tert-Amyl alcohol	7.08	59	7341	No Calib		
37) tert-Amyl methyl ether	7.14	73	597625	No Calib		
38) Trichloroethene	7.77	95	211228	No Calib		
39) 1,2-DICHLOROPROPANE	8.05	63	223685	No Calib		
40) Methylcyclohexane	8.00	83	180622	No Calib		
41) tert-Amyl ethyl ether	8.14	59	544231	No Calib		
42) Dibromomethane	8.19	93	136023	No Calib		
43) 1,4-Dioxane	8.25	88	19200	No Calib		#
44) Bromodichloromethane	8.40	83	261269	No Calib		
45) 2-Chloroethylvinyl Ether	8.80	63	125353	No Calib		
46) cis-1,3-Dichloropropene	8.95	75	367594	No Calib		
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	30947	No Calib		#

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:44 2013 Quant Results File: VOC-W.RES

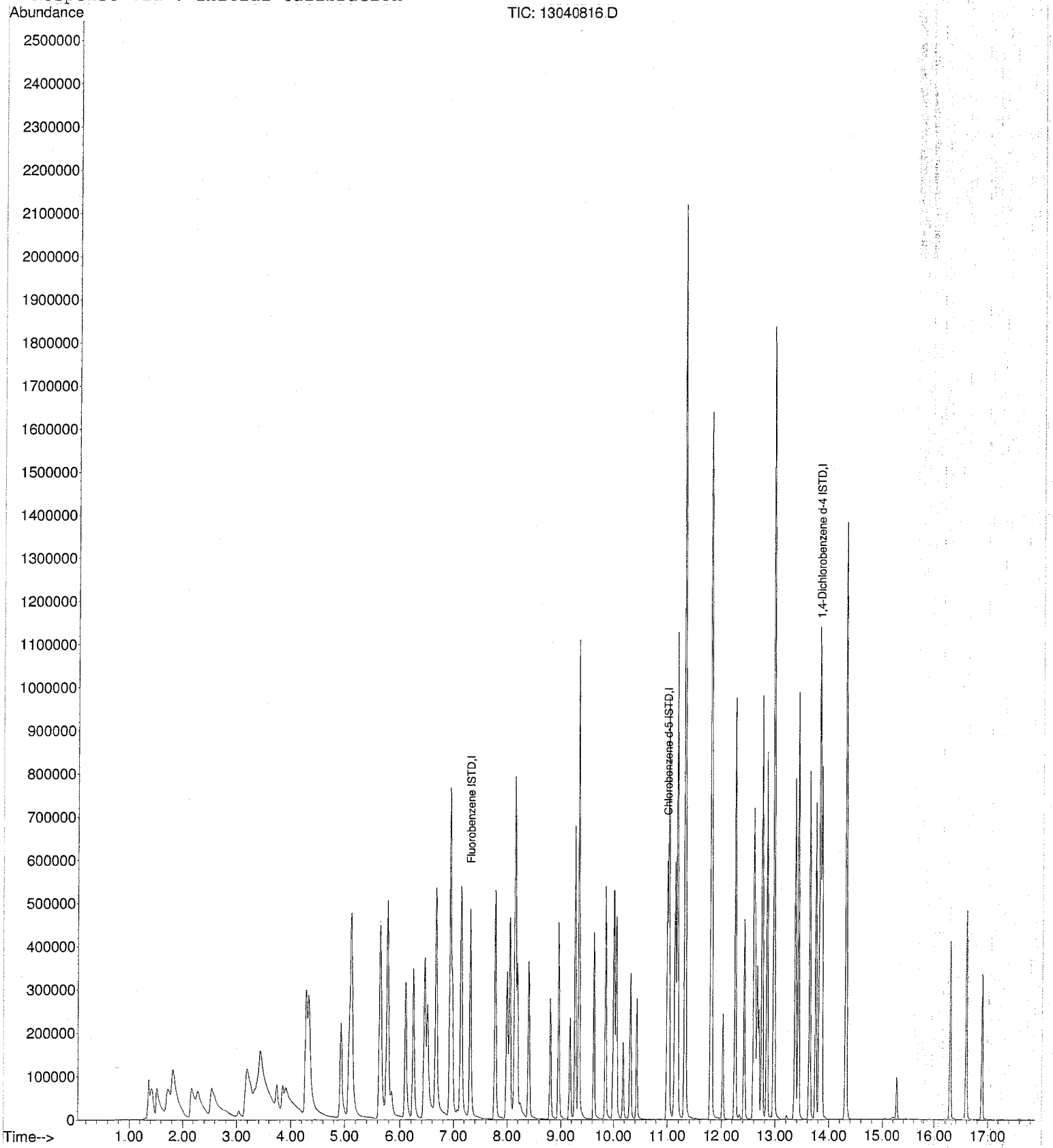
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
49)	TOLUENE	9.35	92	558832	No Calib	
50)	trans-1,3-Dichloropropene	9.63	75	306231	No Calib	
51)	1,1,2-Trichloroethane	9.85	83	157555	No Calib	
52)	Tetrachloroethene	10.00	164	138003	No Calib	
53)	2-Hexanone (MBK)	10.18	43	133282	No Calib	
55)	1,3-Dichloropropane	10.04	76	338586	No Calib	
56)	Dibromochloromethane	10.31	129	189691	No Calib	
57)	1,2-Dibromoethane	10.43	107	204692	No Calib	
58)	Chlorobenzene	11.03	112	599884	No Calib	
59)	1,1,1,2-Tetrachloroethane	11.14	131	181837	No Calib	
60)	ETHYLBENZENE	11.18	91	891090	No Calib	
61)	m&p-Xylene	11.32	106	733910	No Calib	
62)	o-Xylene	11.80	106	367485	No Calib	
63)	Styrene	11.81	104	690859	No Calib	
64)	Bromoform	12.02	173	113042	No Calib	
65)	1,2,3-Trichloropropane	12.66	75	170184	No Calib	#
66)	Bromobenzene	12.60	156	215161	No Calib	
67)	trans-1,4-dichloro-2-buten	12.69	53	51602	No Calib	#
68)	n-Propylbenzene	12.75	91	840932	No Calib	
70)	Isopropylbenzene	12.25	105	754214	No Calib	
72)	1,1,2,2-Tetrachloroethane	12.62	83	235845	No Calib	
73)	2-Chlorotoluene	12.84	91	532653	No Calib	
74)	4-Chlorotoluene	12.97	91	622460	No Calib	
75)	1,3,5-Trimethylbenzene	12.97	105	598164	No Calib	
76)	tert-Butylbenzene	13.37	119	436850	No Calib	
77)	1,2,4-Trimethylbenzene	13.43	105	602611	No Calib	
78)	sec-Butylbenzene	13.64	105	661239	No Calib	
79)	4-Isopropyltoluene	13.82	119	533698	No Calib	
80)	1,3-Dichlorobenzene	13.75	146	336893	No Calib	
81)	1,4-Dichlorobenzene	13.86	146	343397	No Calib	
82)	1,2-Dichlorobenzene	14.31	146	318229	No Calib	
83)	n-Butylbenzene	14.32	91	482795	No Calib	
84)	1,2-Dibromo-3-chloropropan	15.27	75	26186	No Calib	
85)	1,2,4-Trichlorobenzene	16.29	180	142065	No Calib	
86)	Naphthalene	16.59	128	406265	No Calib	
87)	1,2,3-Trichlorobenzene	16.89	180	119819	No Calib	

(#) = qualifier out of range (m) = manual integration

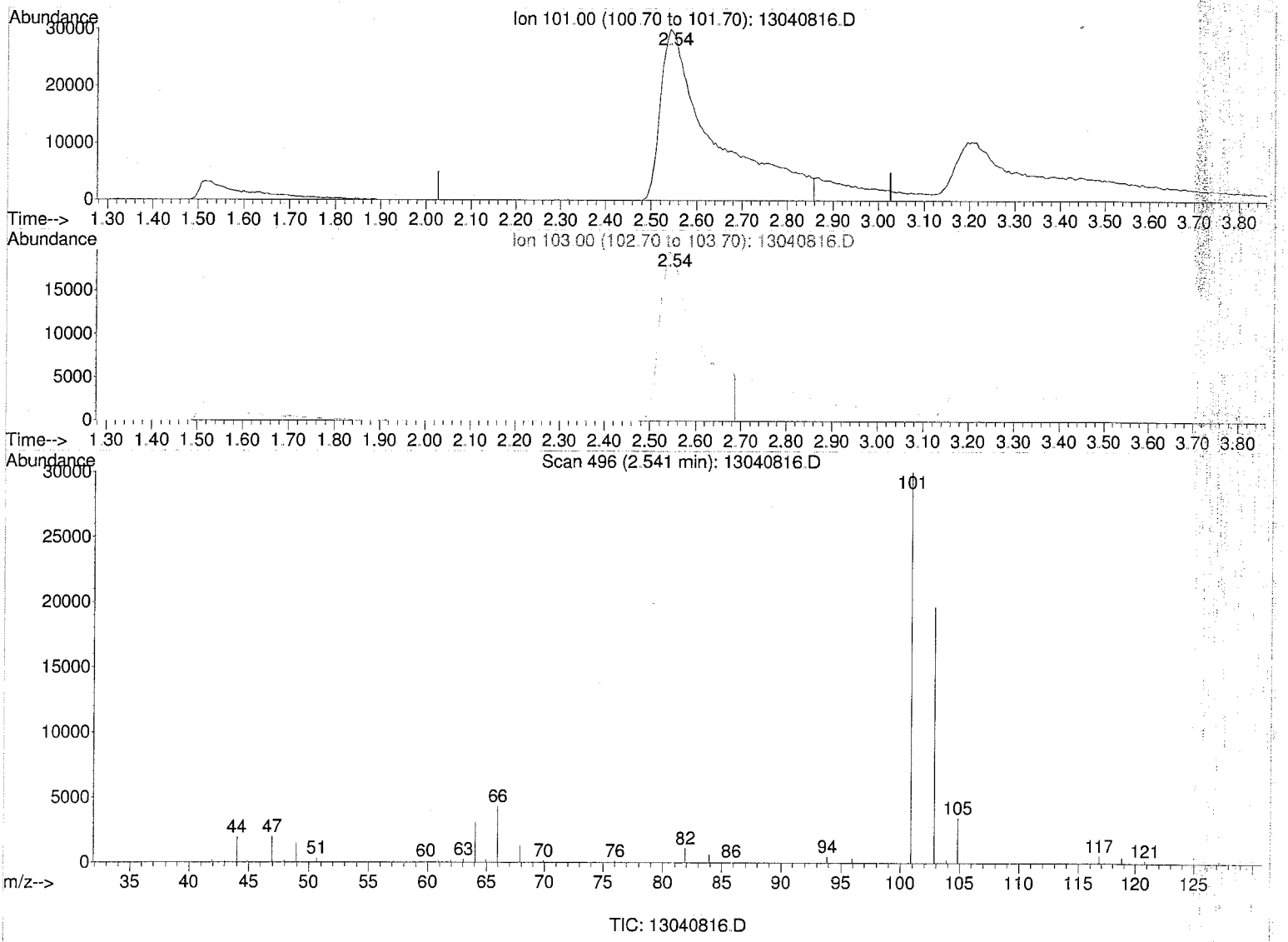
Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:48 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040816.D

(7) Trichlorofluoromethane (T)

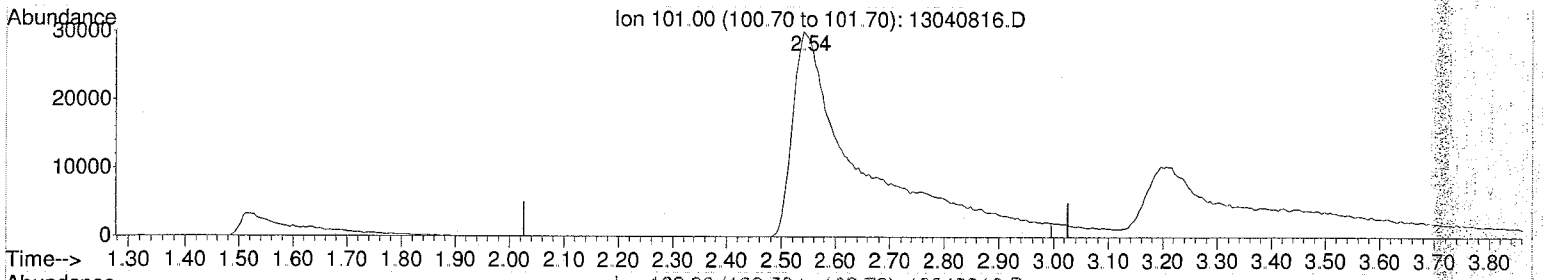
2.54min 0.00ug/L

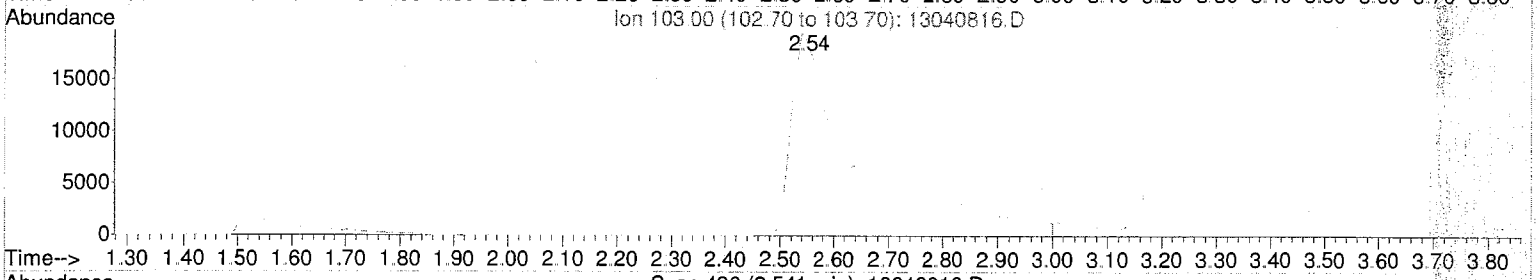
response 240085

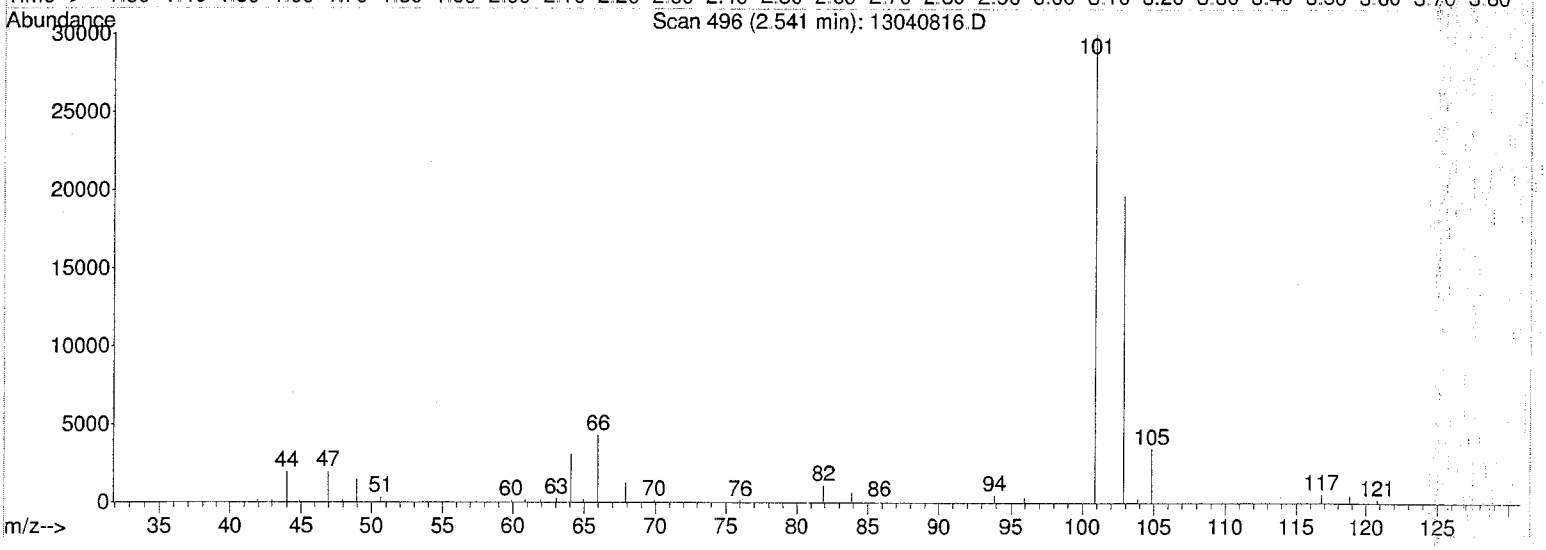
Ion	Exp%	Act%
101.00	100	100
103.00	65.00	48.53
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:46 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration







TIC: 13040816.D

(7) Trichlorofluoromethane (T)

2.54min 0.00ug/L m

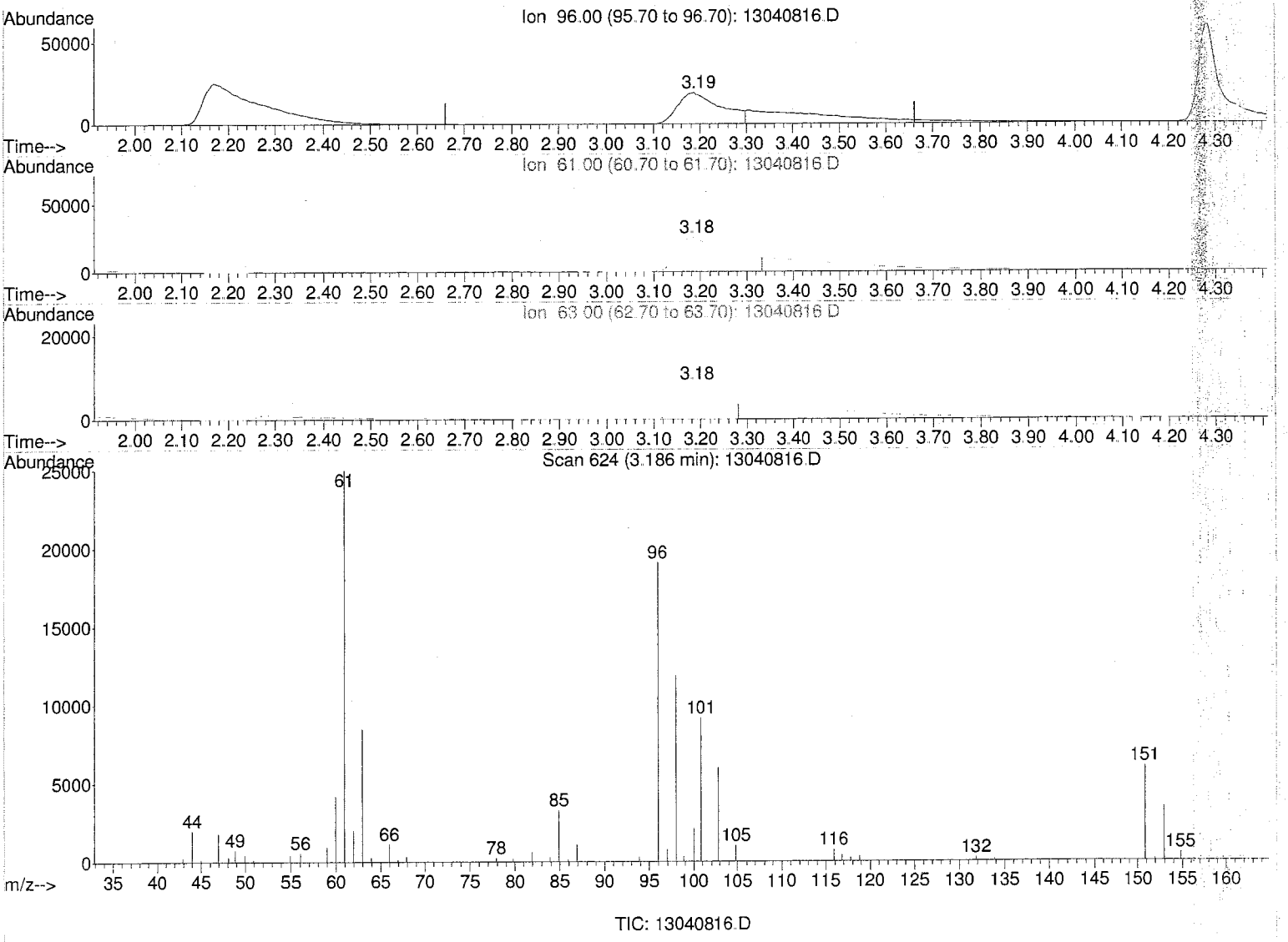
response 263066

Ion	Exp%	Act%
101.00	100	100
103.00	65.00	65.58
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:46 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040816.D

(10) 1,1-DICHLOROETHENE (M,C)

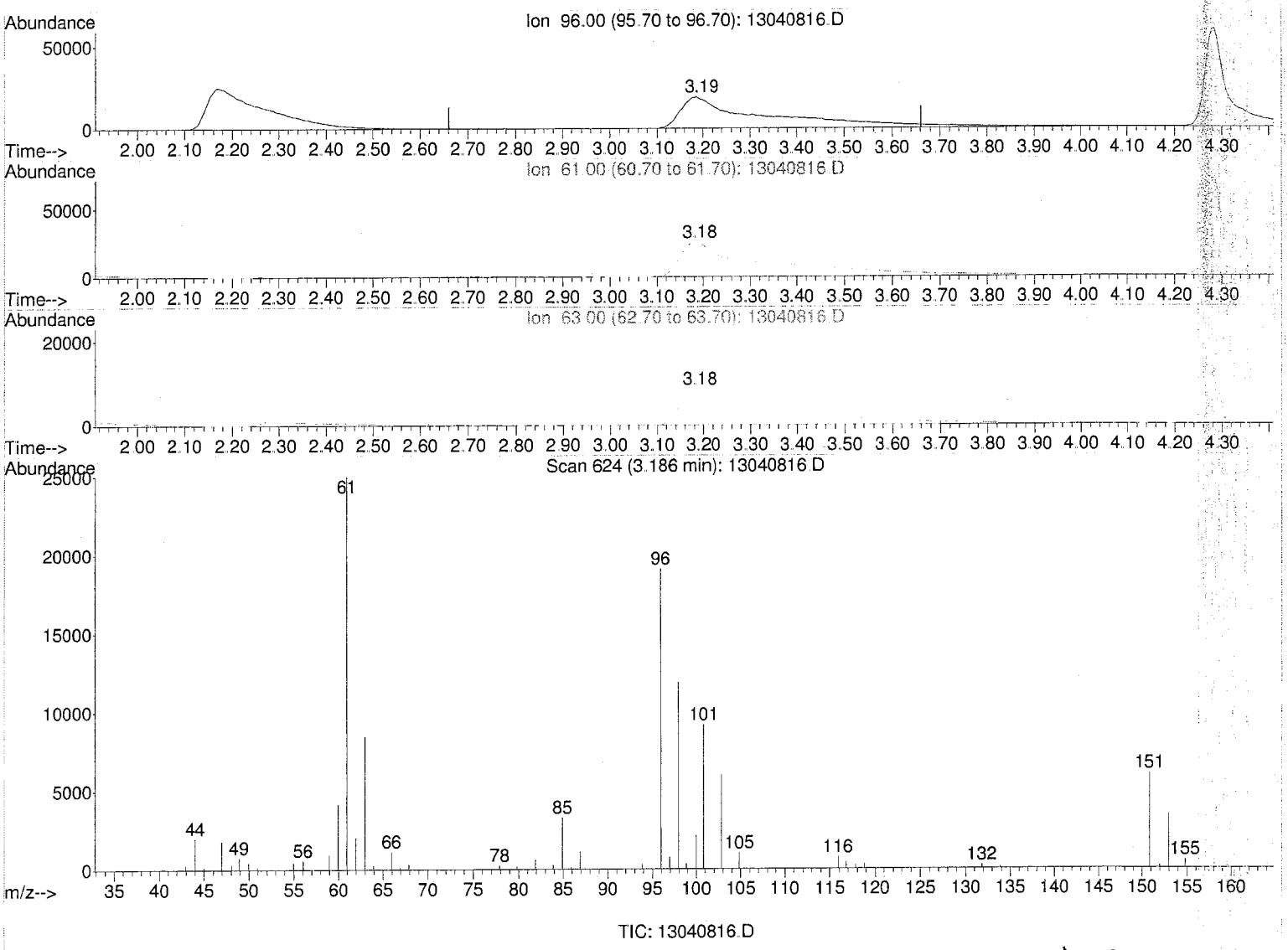
3.19min 0.00ug/L

response 121456

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	155.31
63.00	44.80	41.96
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:46 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040816.D

AK 4/9/13

(10) 1,1-DICHLOROETHENE (M,C)

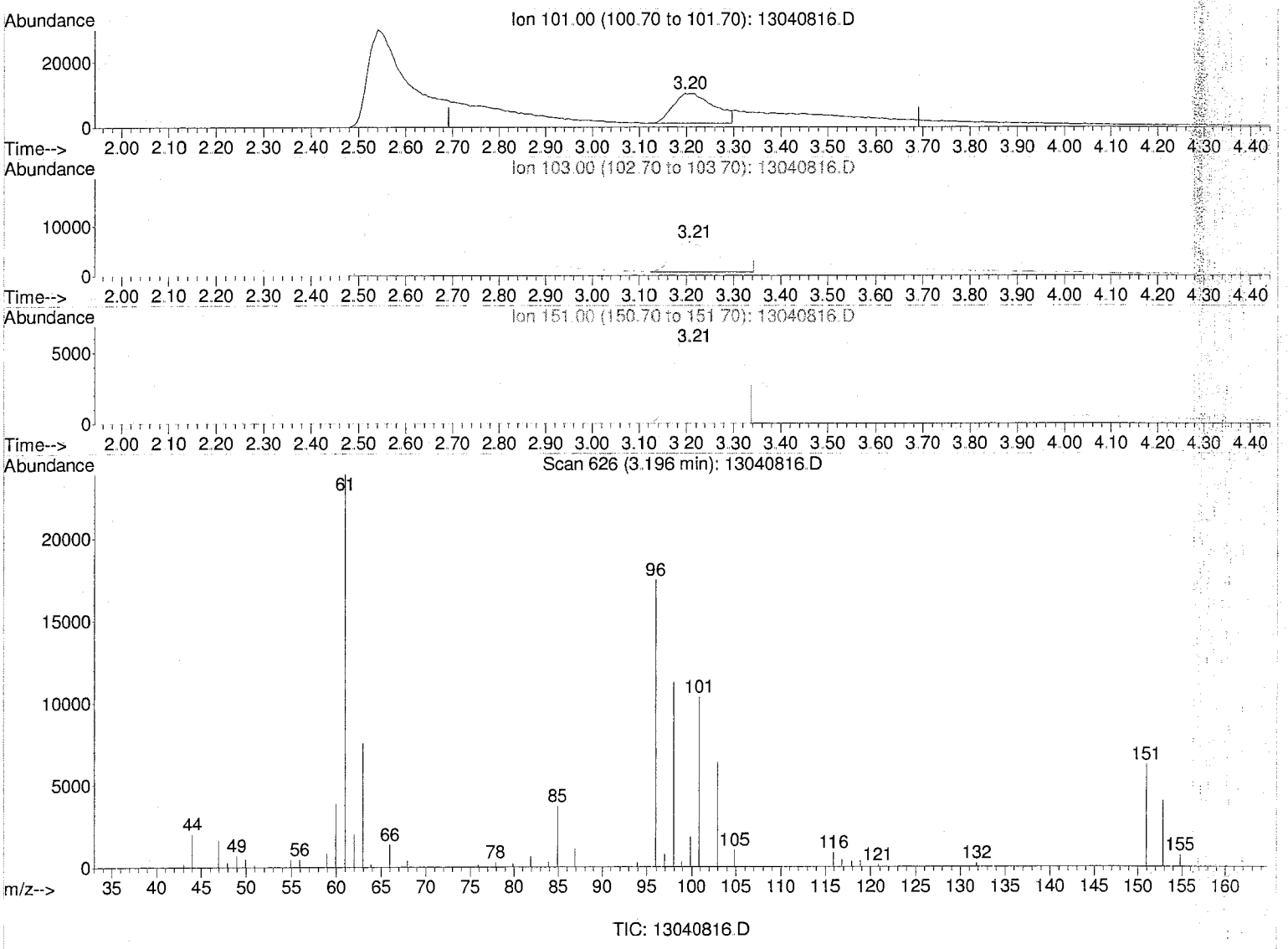
3.19min 0.00ug/L m

response 223267

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	137.01
63.00	44.80	44.84
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:46 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040816.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

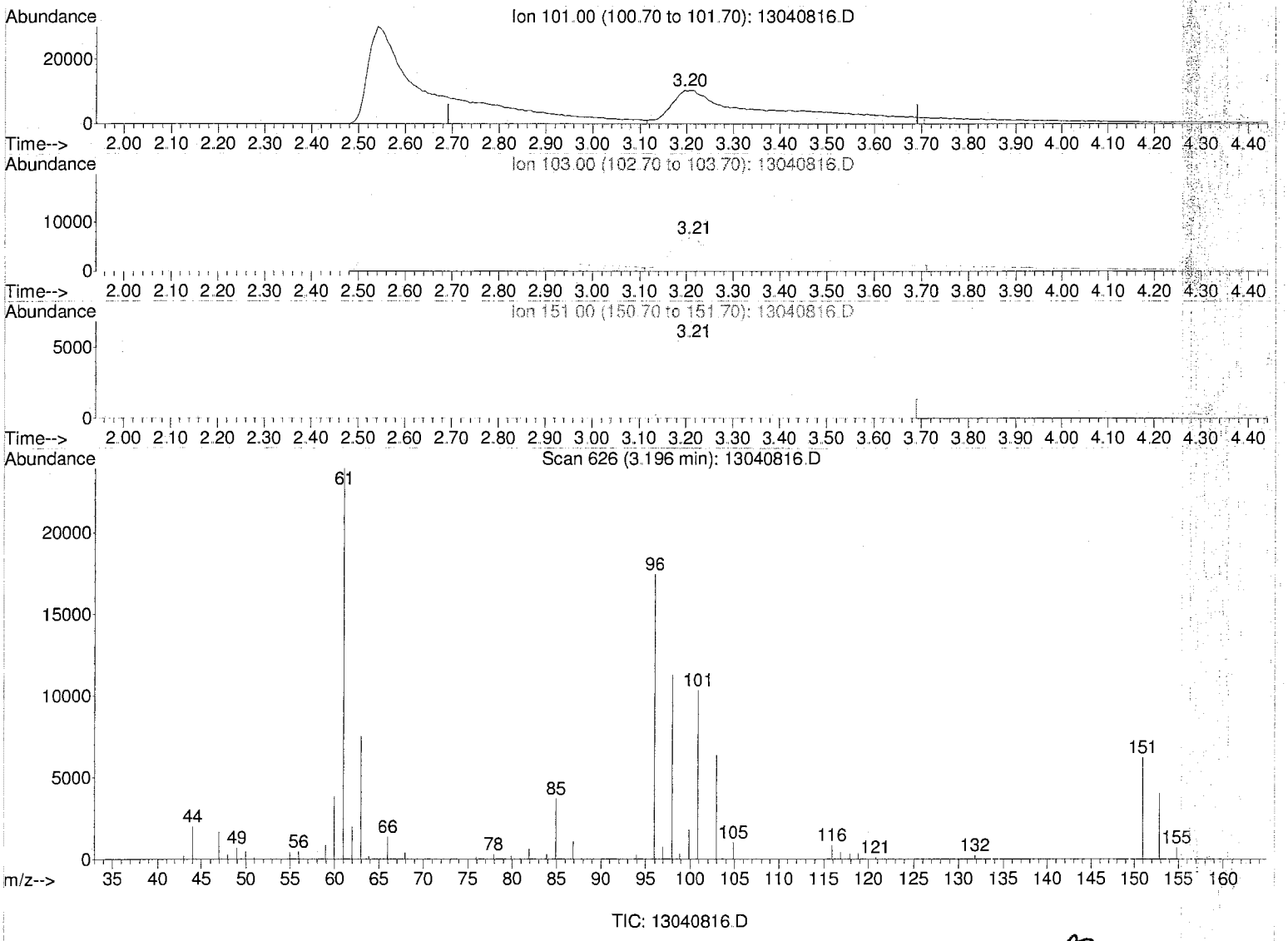
3.20min 0.00ug/L

response 56417

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	76.36
151.00	65.20	86.87#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040816.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.20min 0.00ug/L m

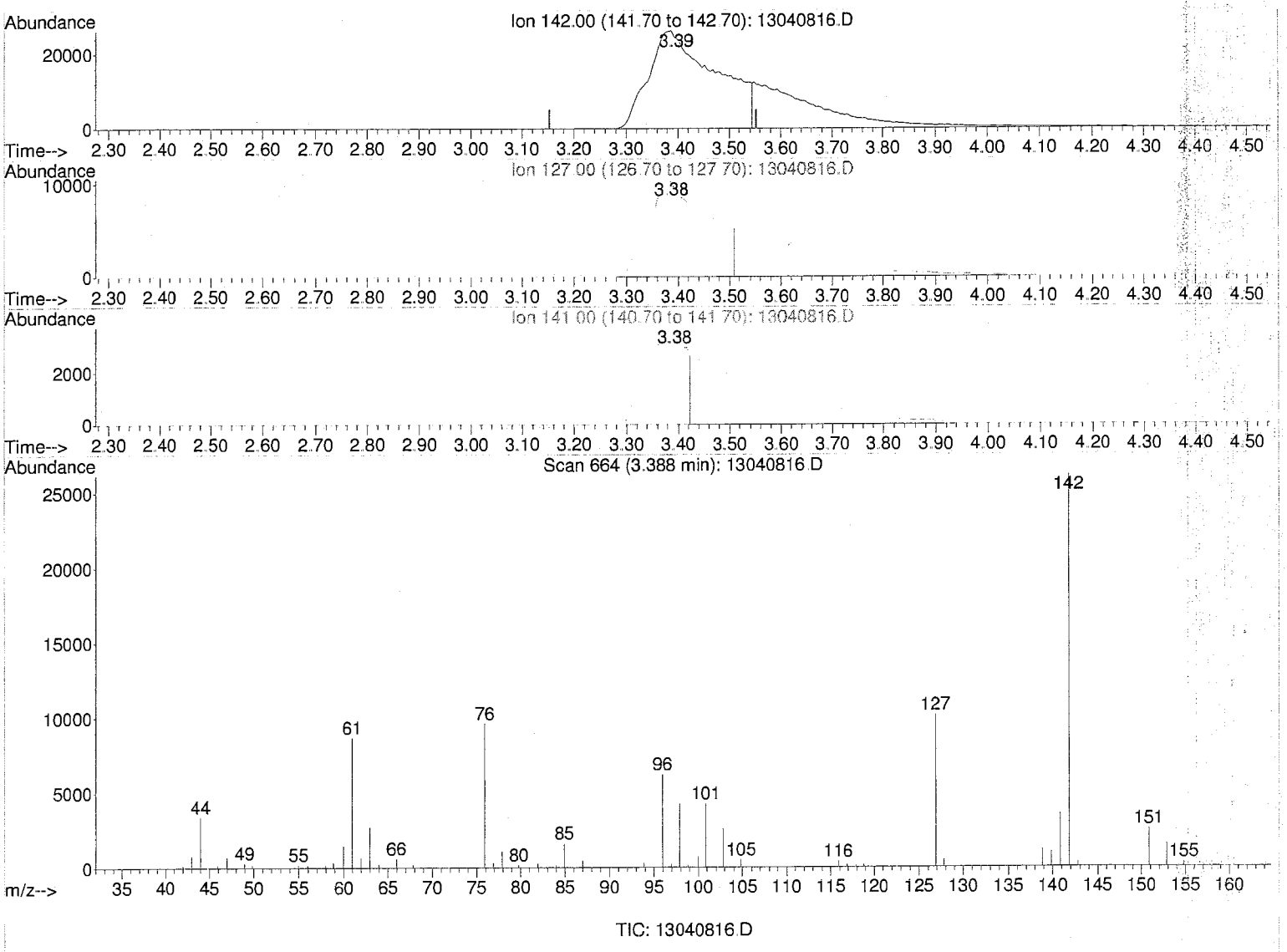
response 151233

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	65.03
151.00	65.20	62.18
0.00	0.00	0.00

AHL 4/9/13

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040816.D

(12) Iodomethane (T)

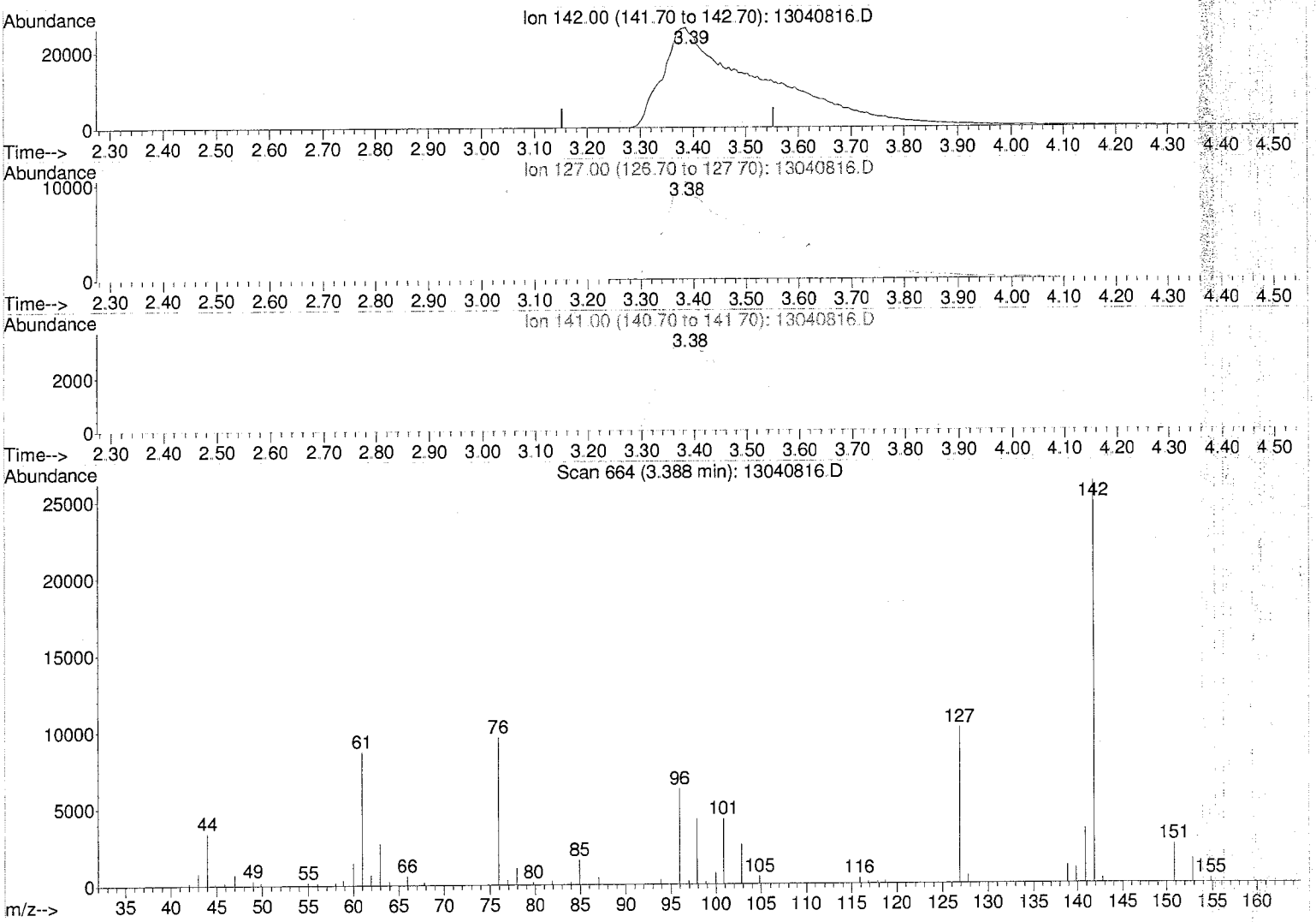
3.39min 0.00ug/L

response 235998

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	34.89
141.00	14.80	7.85
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040816.D

(12) iodomethane (T)

3.39min 0.00ug/L m

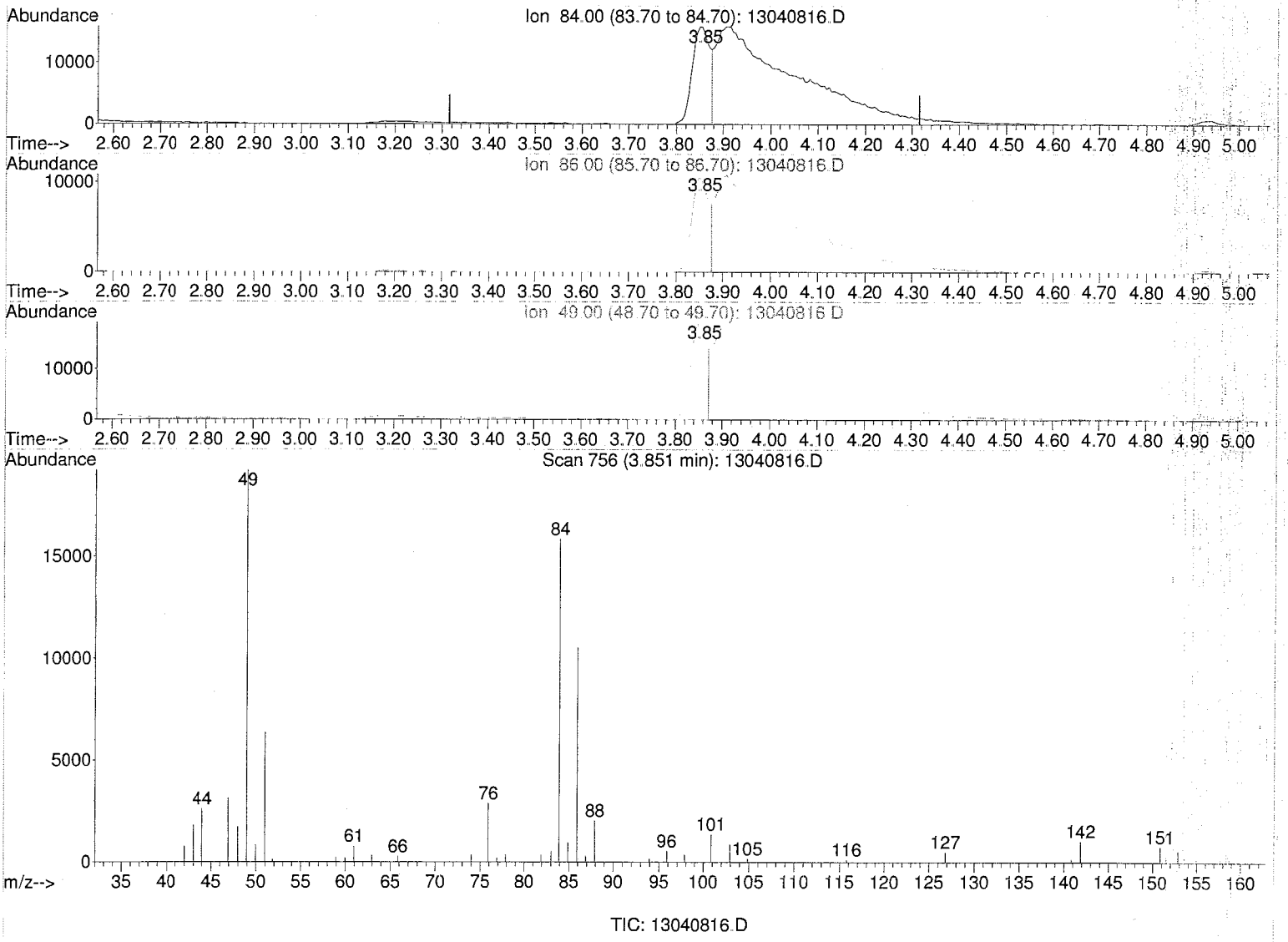
response 339814

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	39.13
141.00	14.80	14.24
0.00	0.00	0.00

4/9/13

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040816.D

(15) Methylene chloride (T)

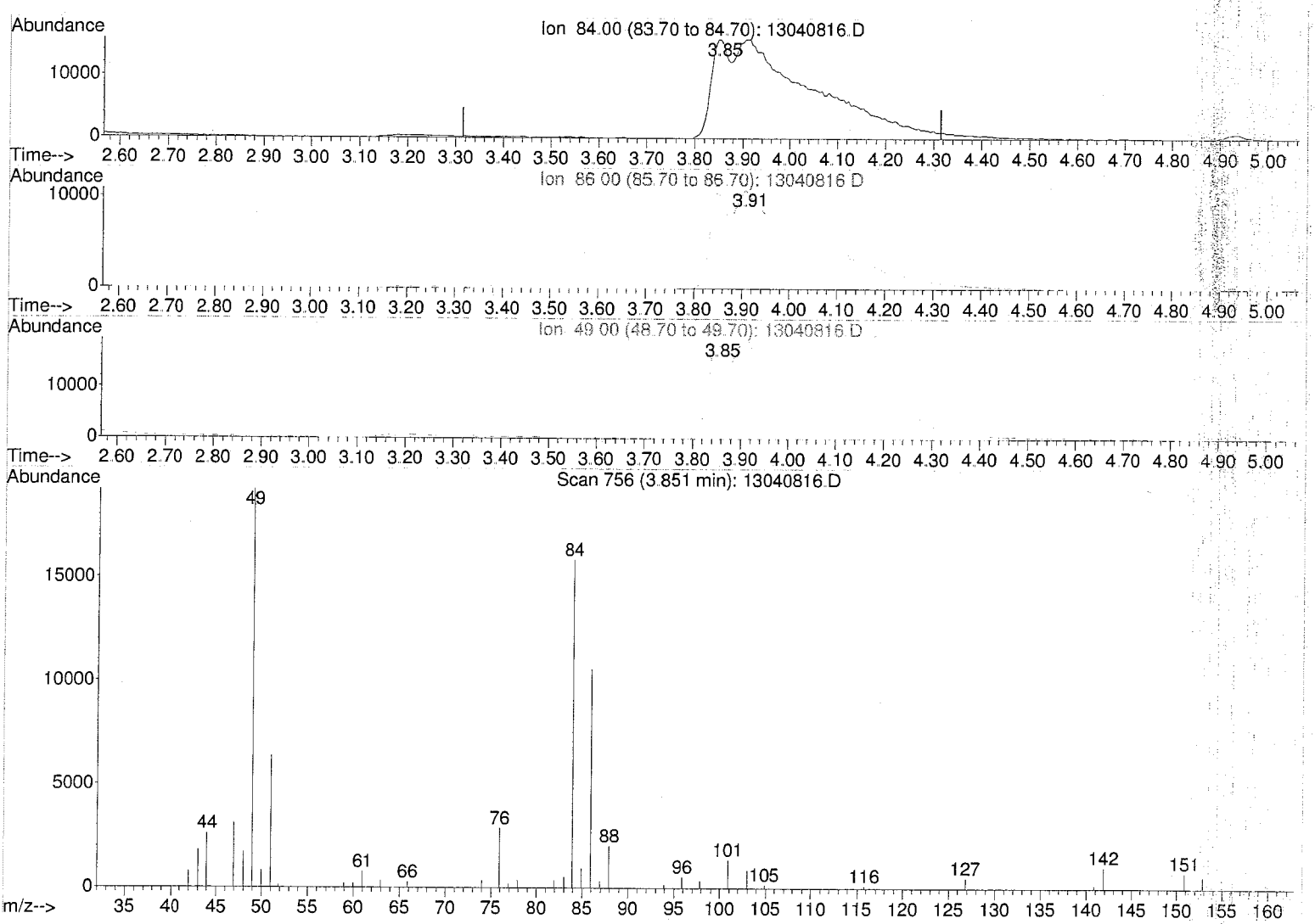
3.85min 0.00ug/L

response 42758

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	64.50
49.00	118.00	110.06
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040816.D

(15) Methylene chloride (T)

3.85min 0.00ug/L m

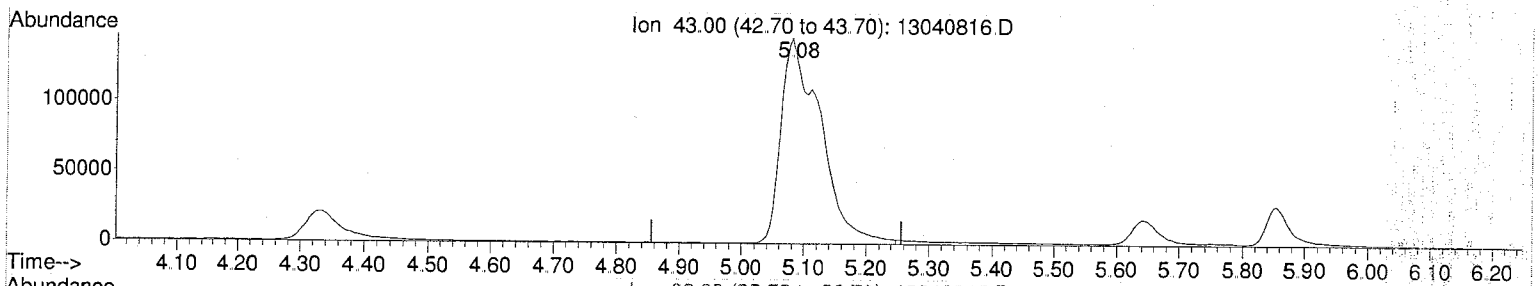
response 229871

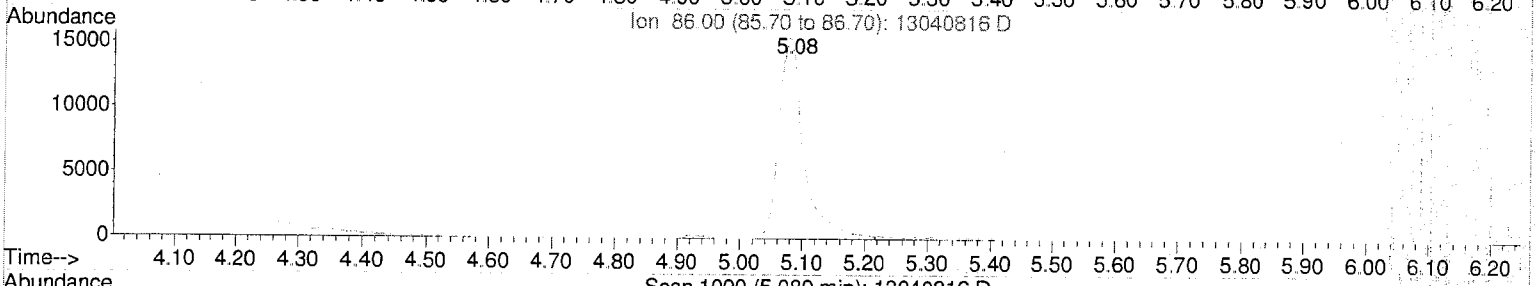
Ion	Exp%	Act%
84.00	100	100
86.00	63.70	64.85
49.00	118.00	122.11
0.00	0.00	0.00

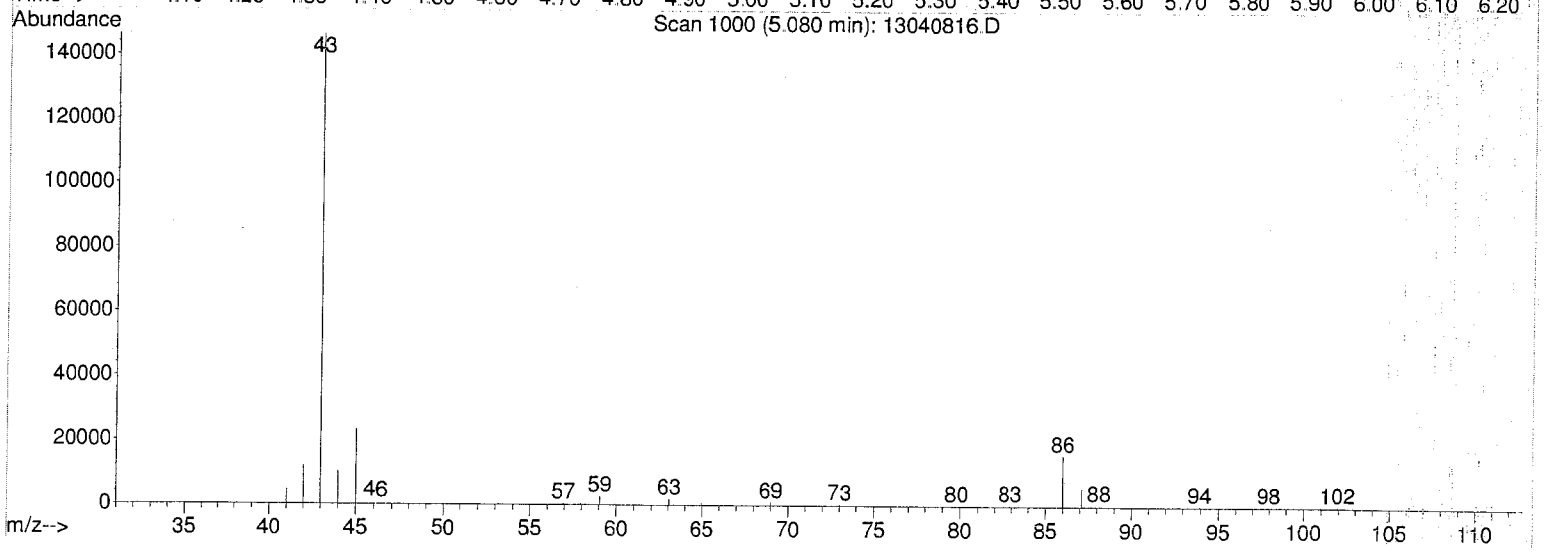
AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration







TIC: 13040816.D

(21) vinyl acetate (T)

5.08min 0.00ug/L

response 641217

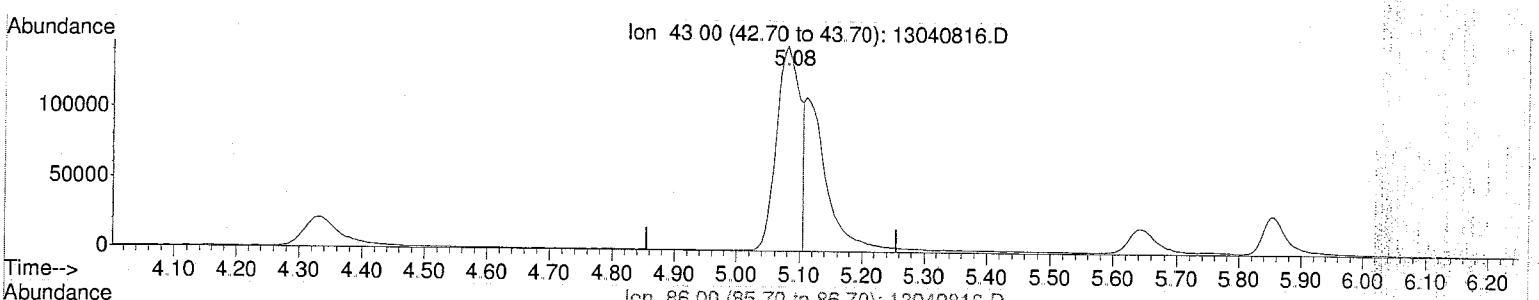
Ion	Exp%	Act%
43.00	100	100
86.00	10.20	6.71
0.00	0.00	0.00
0.00	0.00	0.00

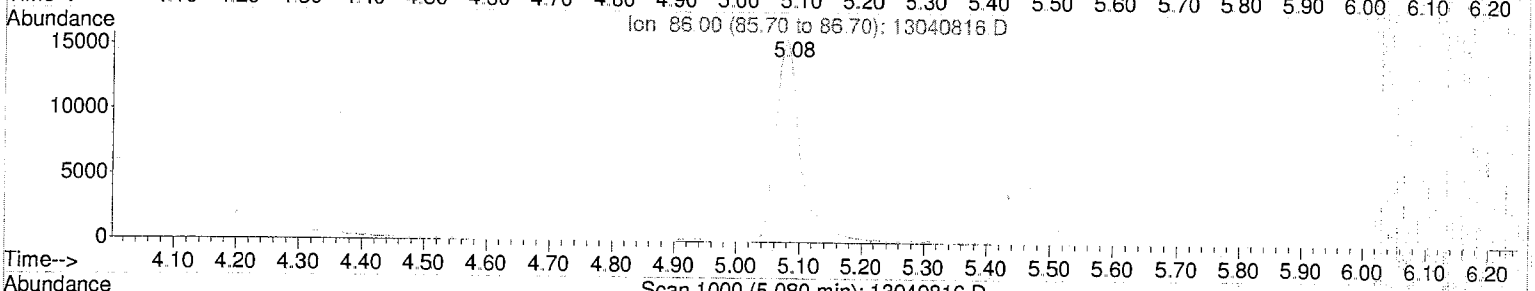
Data File : P:\VOC\2\DATA\130408\13040816.D
Acq On : 8 Apr 2013 5:54 pm
Sample : CAL7 100ppb 5mL
Misc : water 1uL A2338 25ul 1405-3, 1351-1
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:47 2013

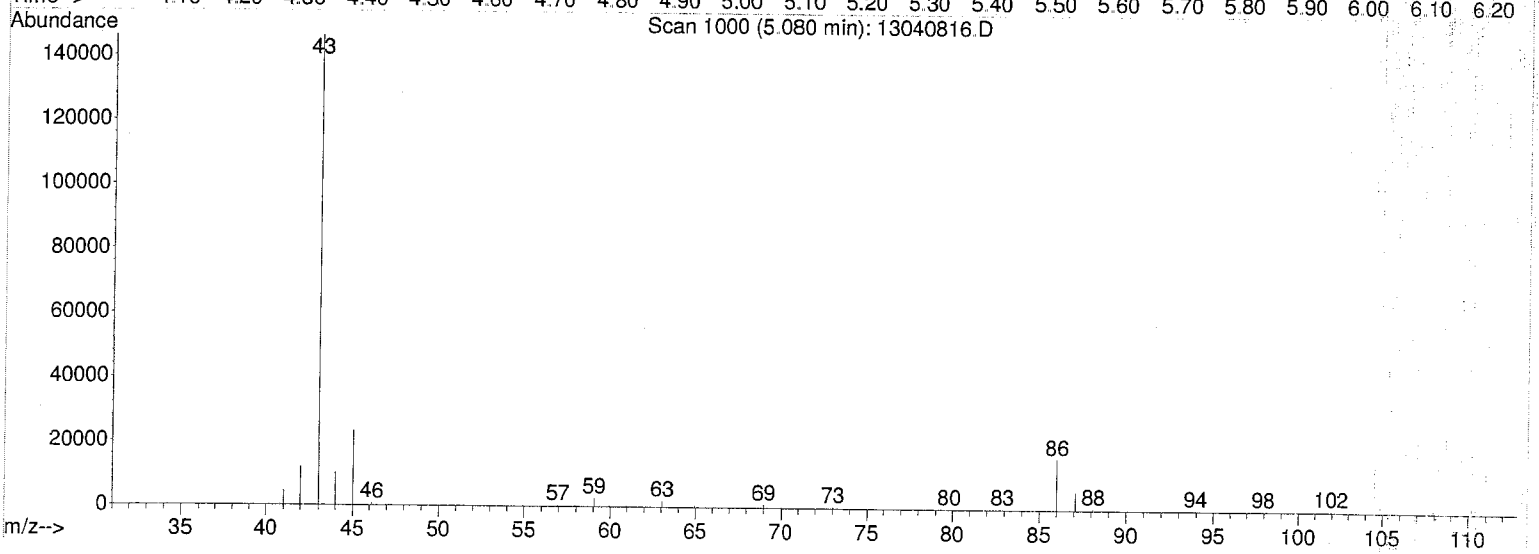
Vial: 16
Operator: AK
Inst : VOA2
Multiplr: 1.00

Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration







TIC: 13040816.D

(21) vinyl acetate (T)

5.08min 0.00ug/L m

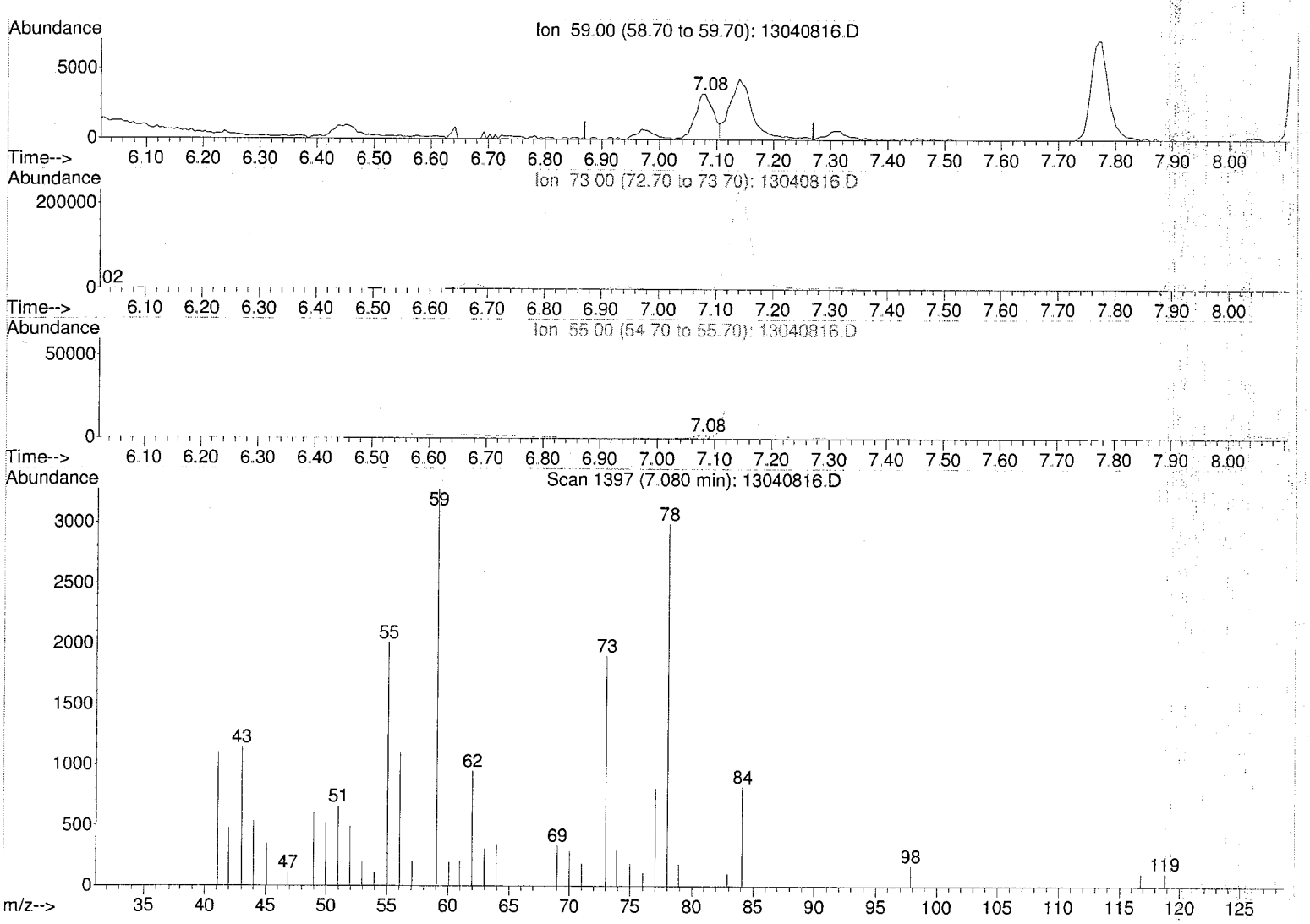
response 384681

Ion	Exp%	Act%
43.00	100	100
86.00	10.20	11.18
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:47 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Single Level Calibration



TIC: 13040816.D

(36) tert-Amyl alcohol (T)

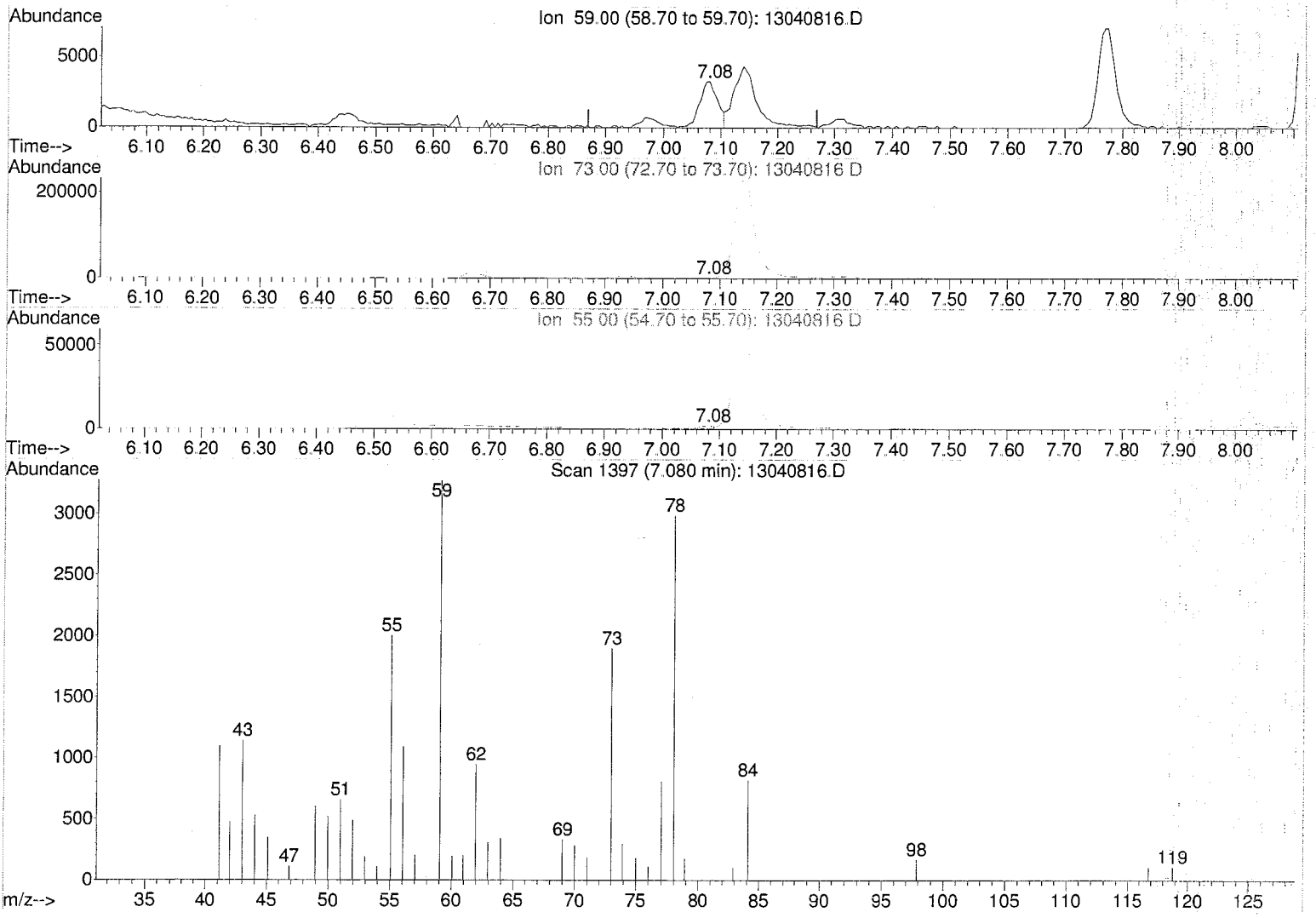
7.08min 0.00ug/L

response 7341

Ion	Exp%	Act%
59.00	100	100
73.00	44.80	0.00#
55.00	62.60	40.28#
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040816.D Vial: 16
Acq On : 8 Apr 2013 5:54 pm Operator: AK
Sample : CAL7 100ppb 5mL Inst : VOA2
Misc : water 1uL A2338 25ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:48 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Single Level Calibration



TIC: 13040816.D

(36) tert-Amyl alcohol (T)

7.08min 0.00ug/L m

response 7341

Ion	Exp%	Act%
59.00	100	100
73.00	44.80	43.58
55.00	62.60	40.28#
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:45 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.31	96	566033	50.00	ug/L	0.02
54) Chlorobenzene d-5 ISTD	11.00	117	386016	50.00	ug/L	0.02
69) 1,4-Dichlorobenzene d-4 IS	13.84	152	150093	50.00	ug/L	0.02
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.45	113	131012	0.00	ug/L	0.02
Spiked Amount 50.000	Range 94 - 107		Recovery = 0.00%#			
48) Toluene d-8 SS#2	9.27	98	487072	0.00	ug/L	0.02
Spiked Amount 50.000	Range 96 - 104		Recovery = 0.00%#			
71) 4-Bromofluorobenzene SS#3	12.43	95	180279	0.00	ug/L	0.02
Spiked Amount 50.000	Range 89 - 112		Recovery = 0.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.51	85	639342	No Calib		
3) Chloromethane	1.74	50	812660	No Calib		
4) VINYL CHLORIDE	1.82	62	921211	No Calib		
5) Bromomethane	2.17	94	559903	No Calib		
6) Chloroethane	2.29	64	415644	No Calib		
7) Trichlorofluoromethane	2.55	101	652984	No Calib		
8) acrolein	3.04	56	77089	No Calib		
9) Acetone	3.25	58	28483	No Calib		#
10) 1,1-DICHLOROETHENE	3.19	96	552450	No Calib		
11) 1,1,2-Trichlorotrifluoroet	3.21	101	361717	No Calib		
12) iodomethane	3.38	142	836016	No Calib		
13) Carbon Disulfide	3.43	76	1587340	No Calib		
14) Methyl Acetate	3.74	74	69932	No Calib		
15) Methylene chloride	3.91	84	559478	No Calib		
16) tert-Butanol	4.17	59	17022	No Calib		
17) acrylonitrile	4.26	53	156813	No Calib		
18) trans-1,2-Dichloroethene	4.28	96	523919	No Calib		
19) Methyl-t-Butyl Ether	4.33	73	1259940	No Calib		
20) 1,1-Dichloroethane	4.92	63	808573	No Calib		
21) vinyl acetate	5.08	43	985902	No Calib		
22) Diisopropyl ether	5.12	45	1653934	No Calib		
23) tert-Butyl ethyl ether	5.64	59	1617143	No Calib		
24) 2,2-Dichloropropane	5.76	77	309299	No Calib		
25) cis-1,2-Dichloroethene	5.78	96	668727	No Calib		
26) 2-Butanone (MEK)	5.85	72	42981	No Calib		#
27) Bromochloromethane	6.10	128	298695	No Calib		
28) CHLOROFORM	6.24	83	870018	No Calib		
30) 1,1,1-Trichloroethane	6.45	97	544286	No Calib		
31) Cyclohexane	6.50	56	428058	No Calib		
32) Carbon tetrachloride	6.66	117	474436	No Calib		
33) 1,1-Dichloropropene	6.67	75	650977	No Calib		
34) Benzene`	6.93	78	2280058	No Calib		
35) 1,2-Dichloroethane	6.97	62	583569	No Calib		
36) tert-Amyl alcohol	7.08	59	15780	No Calib		#
37) tert-Amyl methyl ether	7.14	73	1519018	No Calib		
38) Trichloroethene	7.77	95	529155	No Calib		
39) 1,2-DICHLOROPROPANE	8.05	63	567797	No Calib		
40) Methylcyclohexane	8.00	83	454968	No Calib		
41) tert-Amyl ethyl ether	8.14	59	1374939	No Calib		
42) Dibromomethane	8.19	93	345955	No Calib		
43) 1,4-Dioxane	8.25	88	34009	No Calib		#
44) Bromodichloromethane	8.41	83	671253	No Calib		
45) 2-Chloroethylvinyl Ether	8.80	63	331604	No Calib		
46) cis-1,3-Dichloropropene	8.95	75	943589	No Calib		
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	76712	No Calib		#

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:40:45 2013 Quant Results File: VOC-W.RES

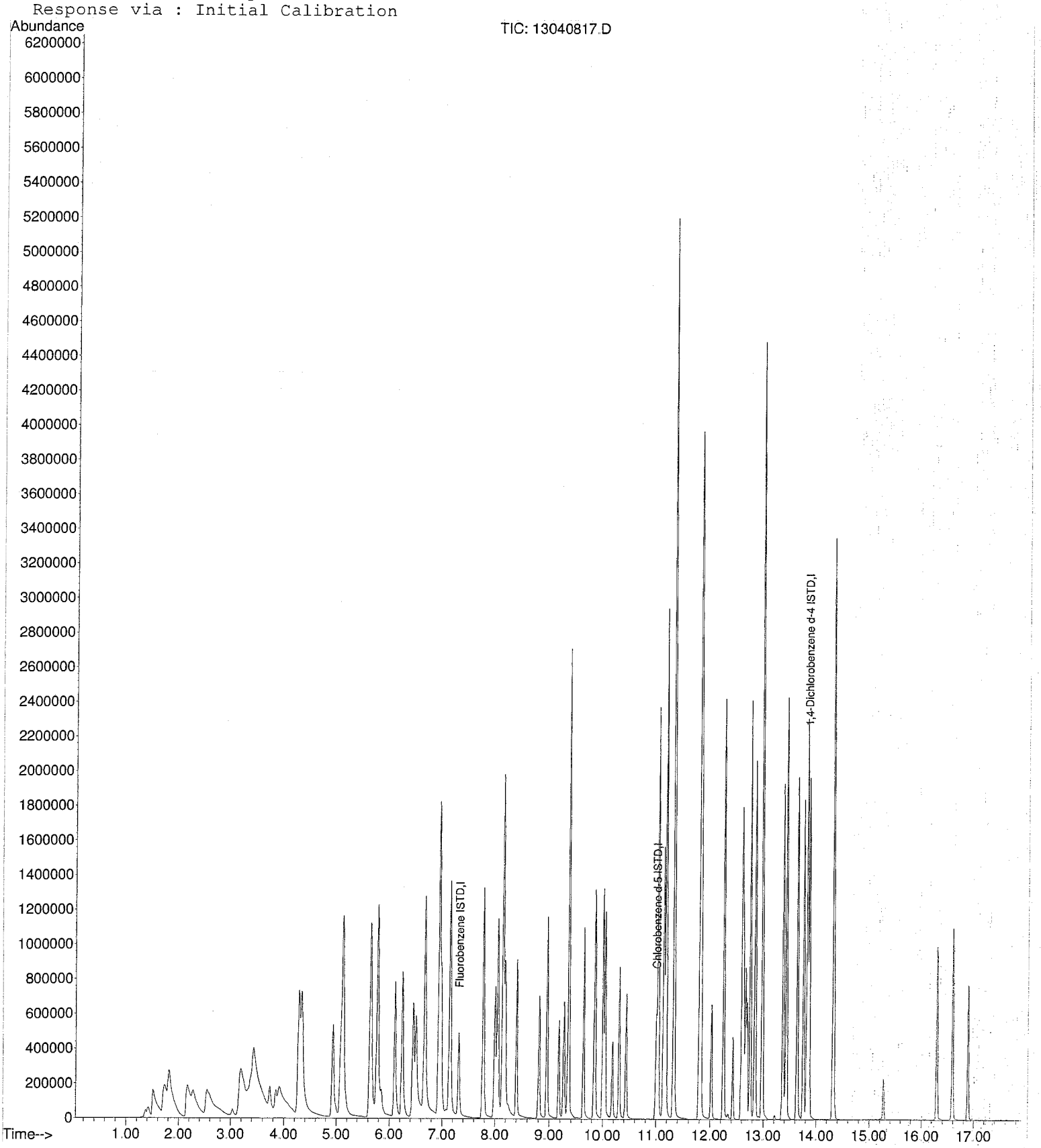
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
49)	TOLUENE	9.35	92	1390822	No Calib	
50)	trans-1,3-Dichloropropene	9.63	75	791458	No Calib	
51)	1,1,2-Trichloroethane	9.85	83	395503	No Calib	
52)	Tetrachloroethene	10.00	164	351248	No Calib	
53)	2-Hexanone (MBK)	10.18	43	317810	No Calib	
55)	1,3-Dichloropropane	10.04	76	853141	No Calib	
56)	Dibromochloromethane	10.31	129	502279	No Calib	
57)	1,2-Dibromoethane	10.43	107	522871	No Calib	
58)	Chlorobenzene	11.03	112	1523614	No Calib	
59)	1,1,1,2-Tetrachloroethane	11.14	131	478482	No Calib	
60)	ETHYLBENZENE	11.18	91	2263508	No Calib	
61)	m&p-Xylene	11.33	106	1846662	No Calib	
62)	o-Xylene	11.80	106	928577	No Calib	
63)	Styrene	11.82	104	1756456	No Calib	
64)	Bromoform	12.02	173	312805	No Calib	
65)	1,2,3-Trichloropropane	12.66	75	415173	No Calib	
66)	Bromobenzene	12.60	156	558066	No Calib	
67)	trans-1,4-dichloro-2-buten	12.69	53	134230	No Calib	#
68)	n-Propylbenzene	12.76	91	2103146	No Calib	
70)	Isopropylbenzene	12.25	105	1890210	No Calib	
72)	1,1,2,2-Tetrachloroethane	12.62	83	588820	No Calib	
73)	2-Chlorotoluene	12.84	91	1341163	No Calib	
74)	4-Chlorotoluene	12.98	91	1533881	No Calib	
75)	1,3,5-Trimethylbenzene	12.98	105	1484947	No Calib	
76)	tert-Butylbenzene	13.37	119	1094671	No Calib	
77)	1,2,4-Trimethylbenzene	13.43	105	1507903	No Calib	
78)	sec-Butylbenzene	13.64	105	1637278	No Calib	
79)	4-Isopropyltoluene	13.83	119	1330638	No Calib	
80)	1,3-Dichlorobenzene	13.75	146	850593	No Calib	
81)	1,4-Dichlorobenzene	13.87	146	870051	No Calib	
82)	1,2-Dichlorobenzene	14.31	146	815033	No Calib	
83)	n-Butylbenzene	14.32	91	1180243	No Calib	
84)	1,2-Dibromo-3-chloropropan	15.27	75	62831	No Calib	
85)	1,2,4-Trichlorobenzene	16.29	180	350492	No Calib	
86)	Naphthalene	16.59	128	923268	No Calib	
87)	1,2,3-Trichlorobenzene	16.89	180	278281	No Calib	

(#) = qualifier out of range (m) = manual integration

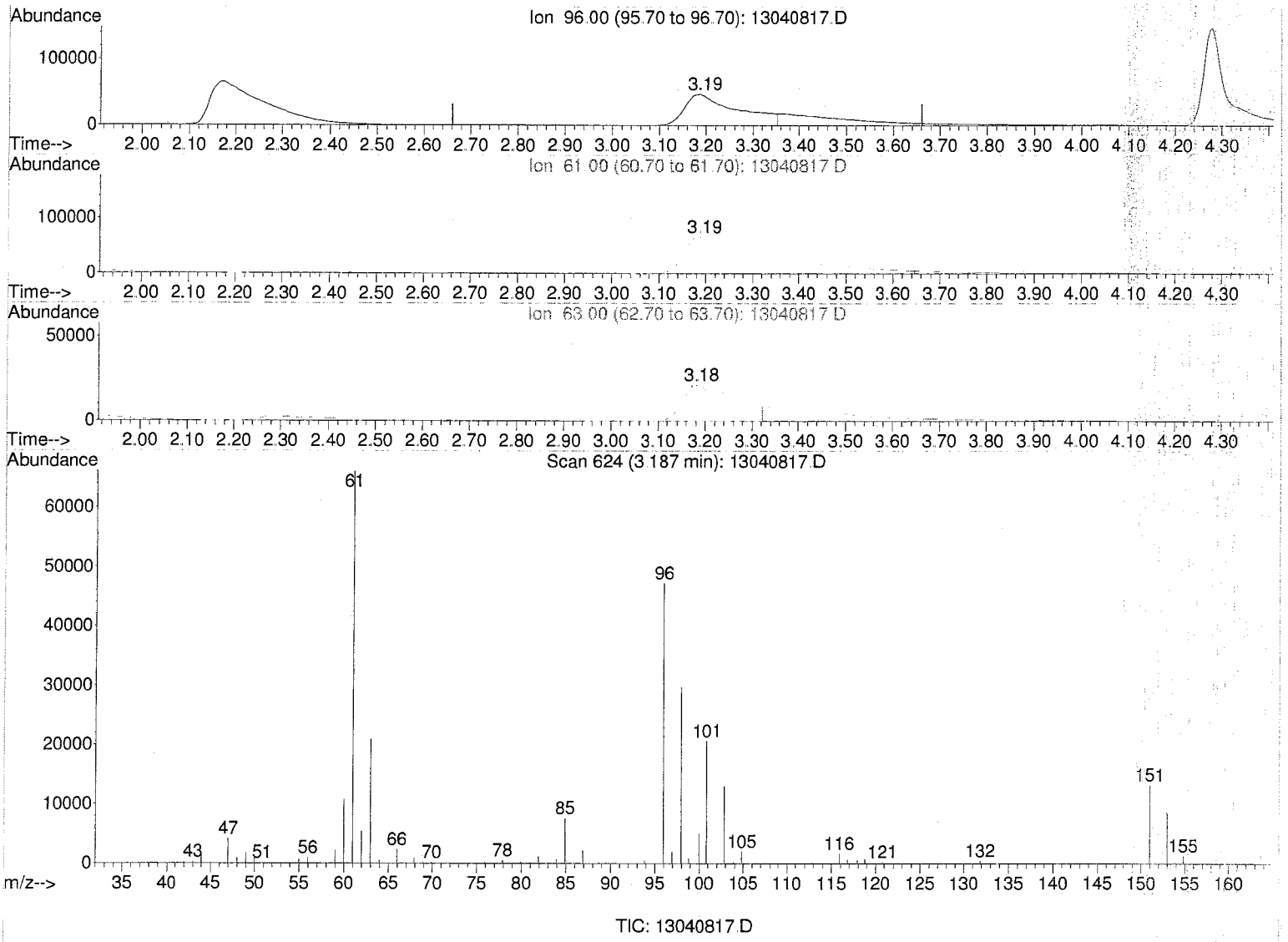
Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5u1 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:50 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Initial Calibration



Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:40 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

(10) 1,1-DICHLOROETHENE (M,C)

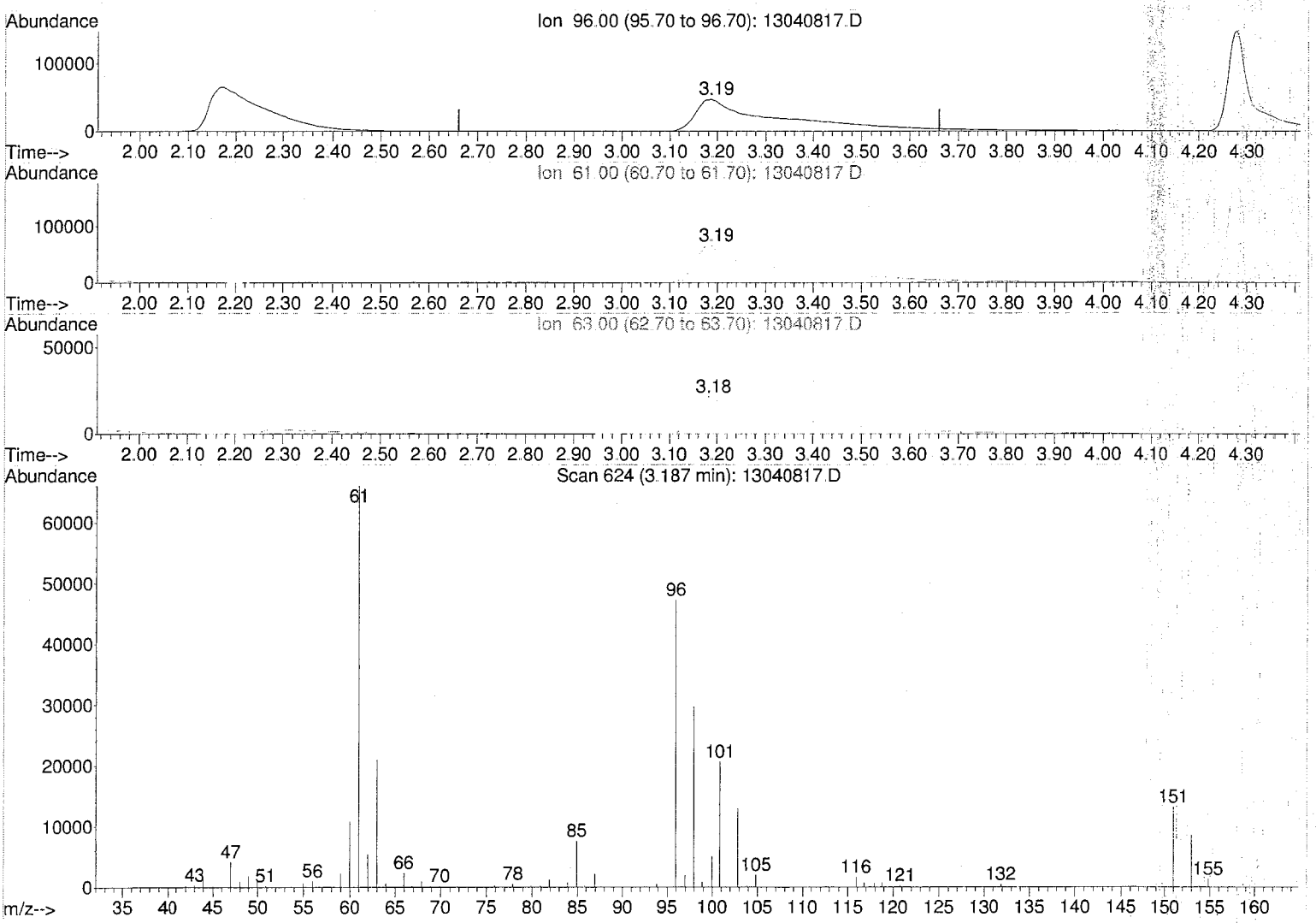
3.19min 0.00ug/L

response 370407

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	202.26#
63.00	44.80	41.12
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

(10) 1,1-DICHLOROETHENE (M,C)

3.19min 0.00ug/L m

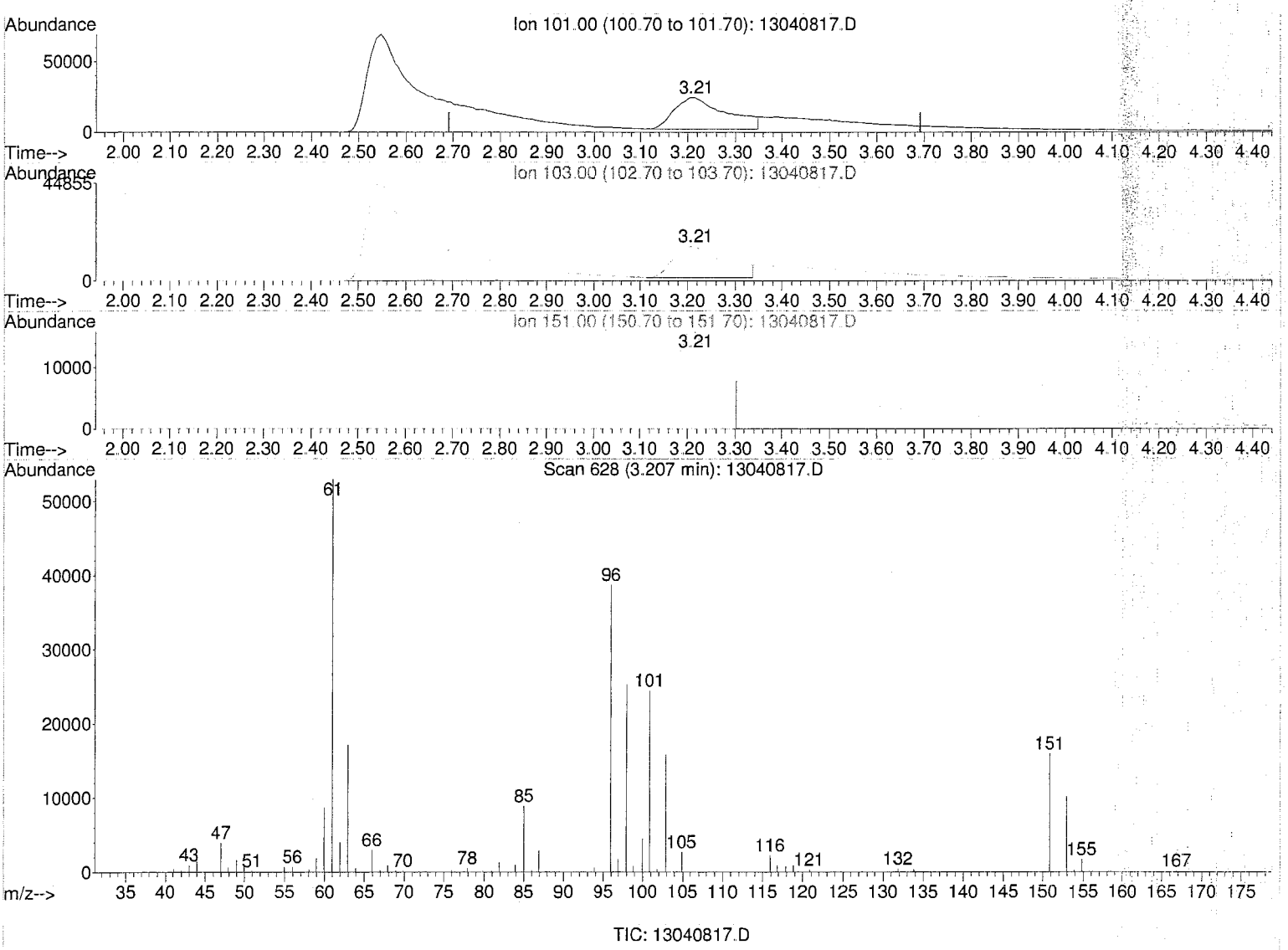
response 552450

Ion	Exp%	Act%
96.00	100	100
61.00	140.70	138.24
63.00	44.80	45.13
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

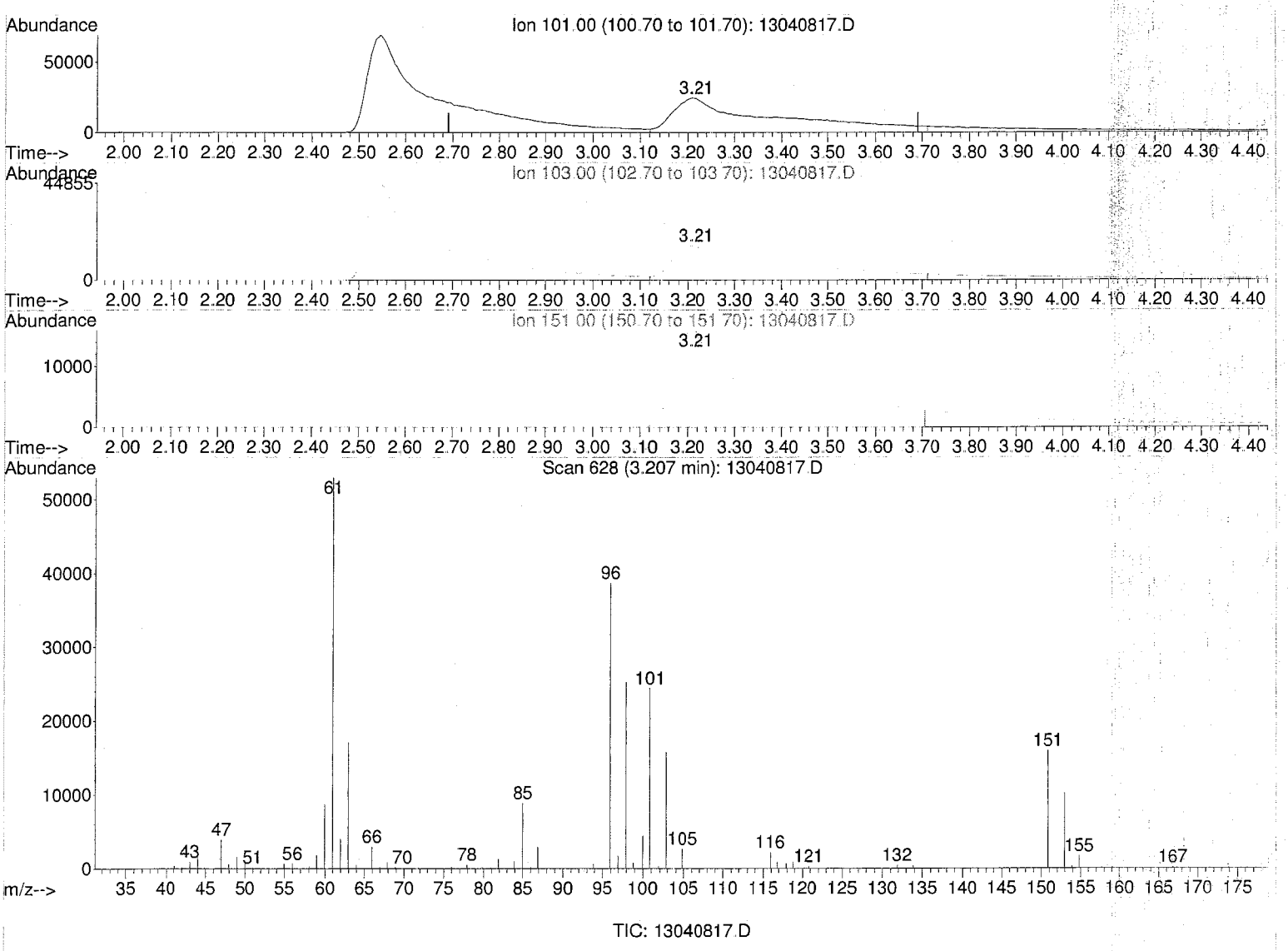
3.21min 0.00ug/L

response 170181

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	62.08
151.00	65.20	62.31
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.21min 0.00ug/L m

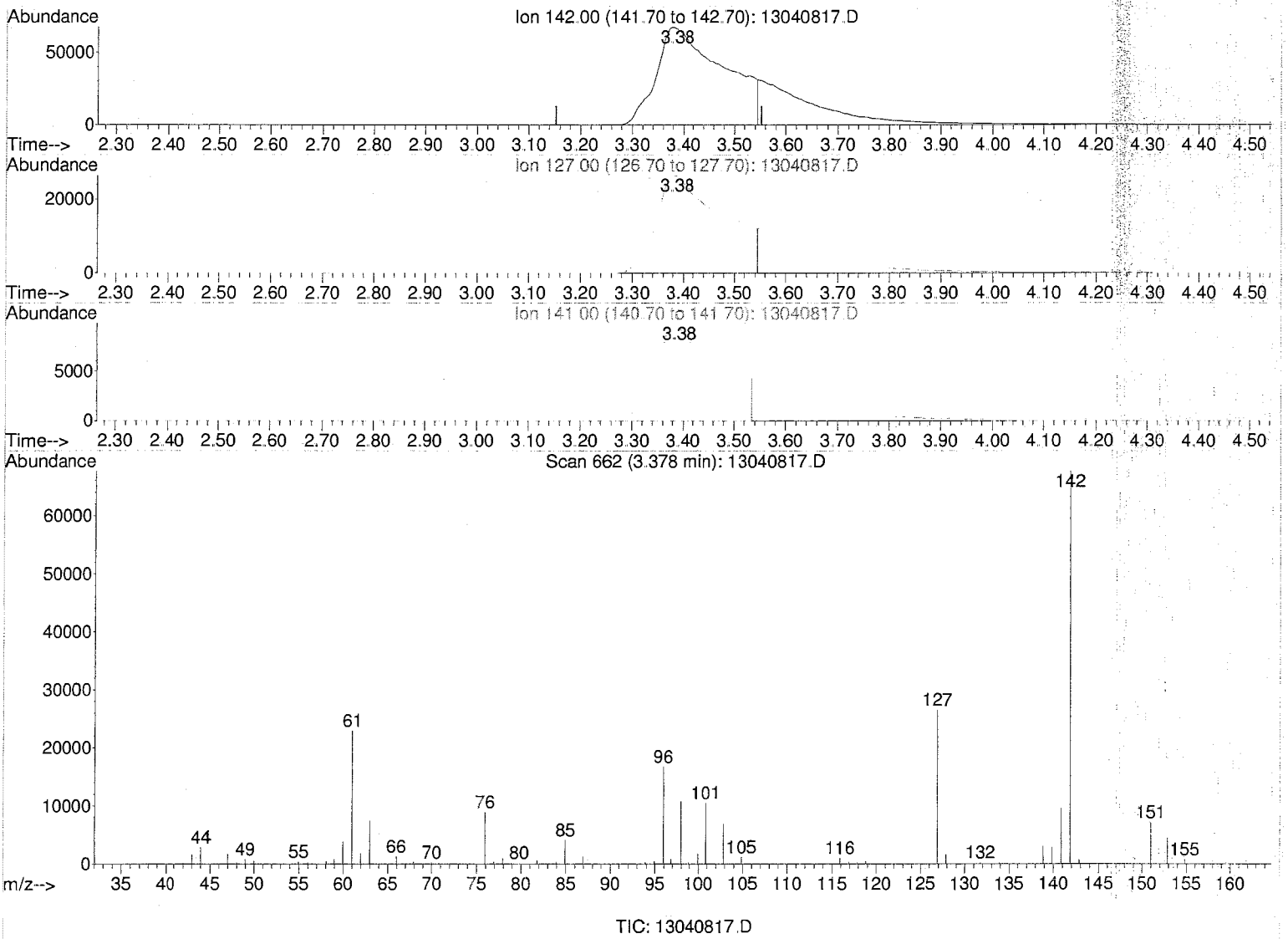
response 361717

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	64.59
151.00	65.20	64.43
0.00	0.00	0.00

AC 4/9/13

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

(12) iodomethane (T)

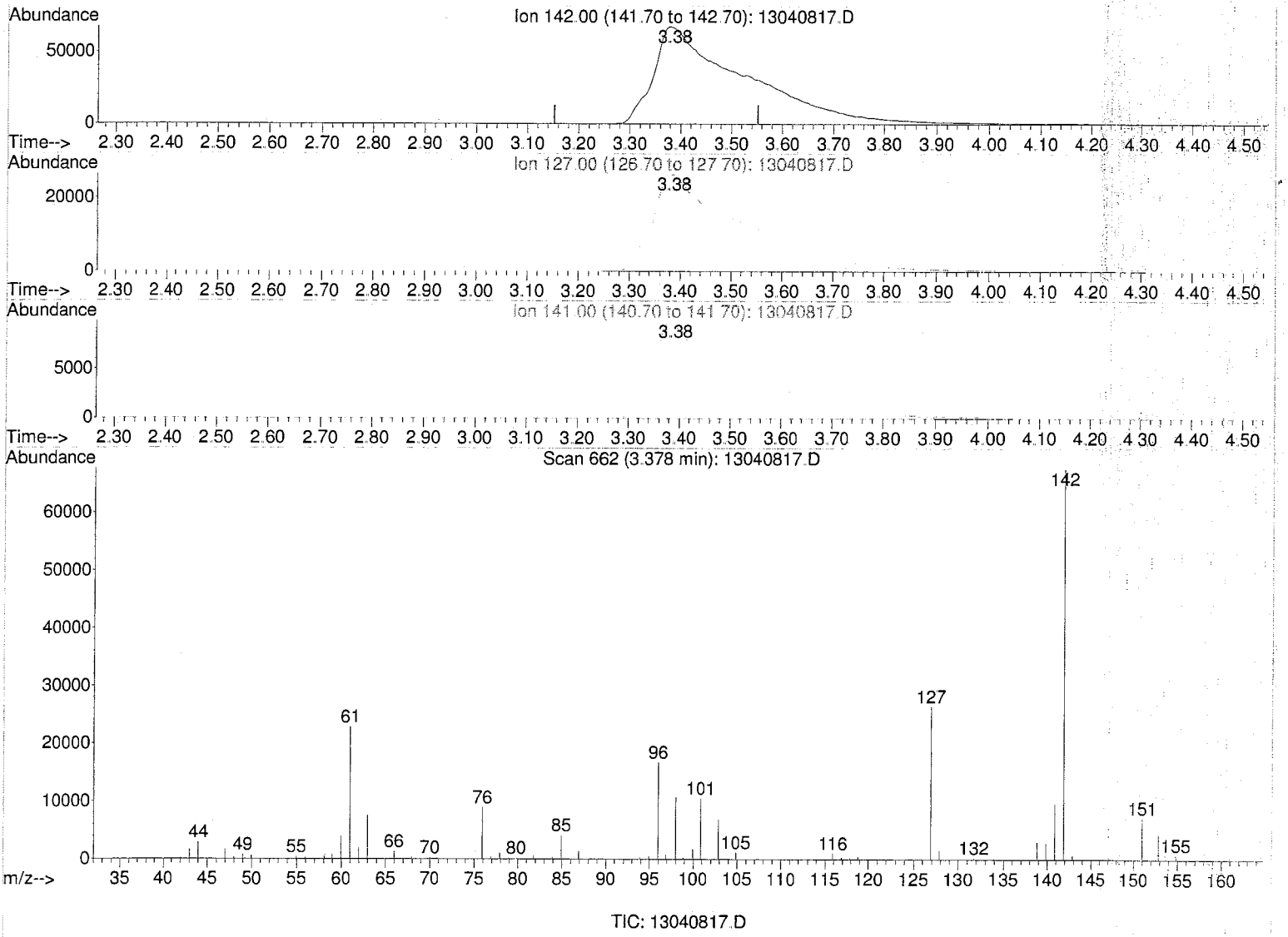
3.38min 0.00ug/L

response 614436

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	39.39
141.00	14.80	13.75
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

(12) iodomethane (T)

3.38min 0.00ug/L m

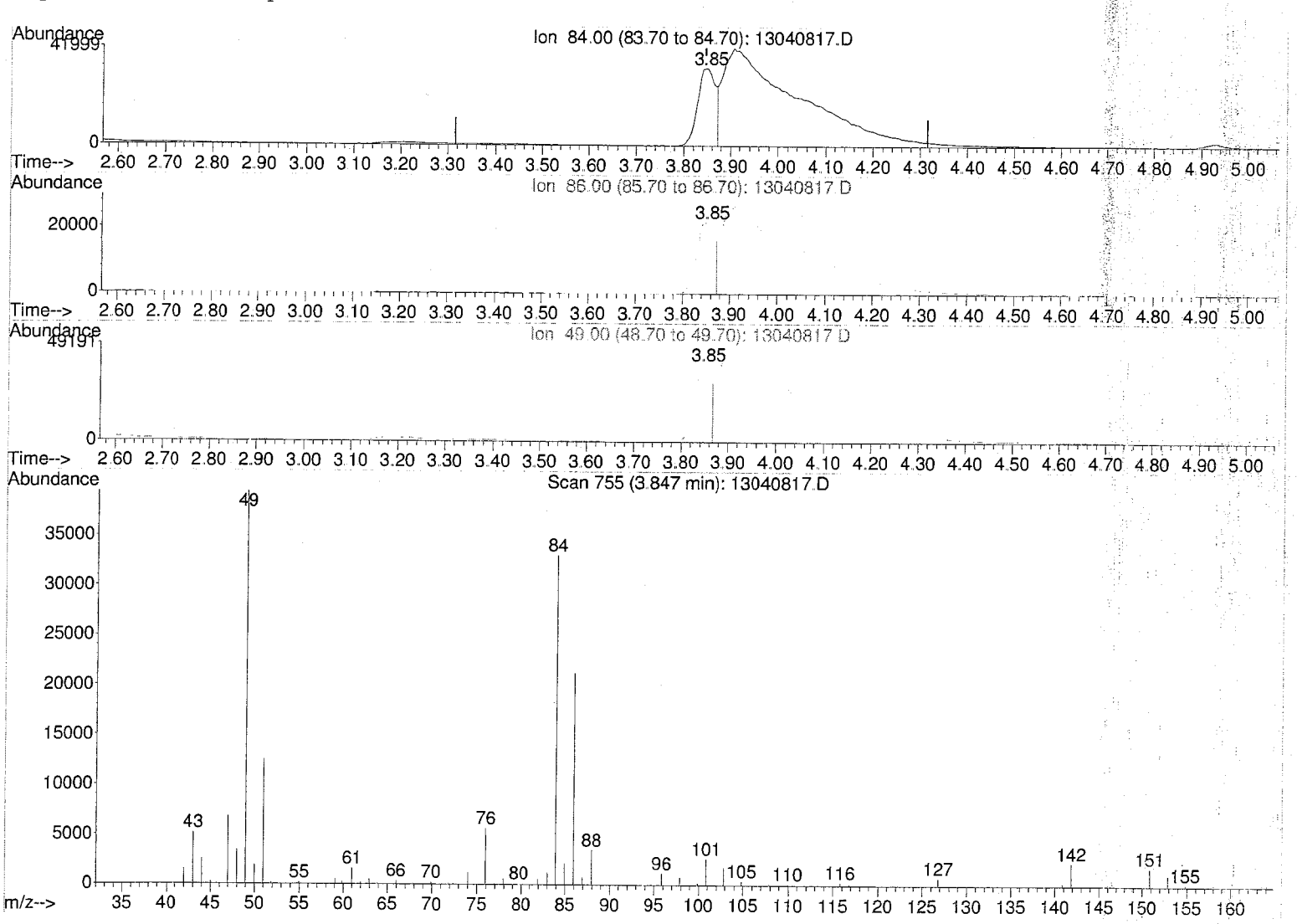
response 836016

Ion	Exp%	Act%
142.00	100	100
127.00	38.50	39.42
141.00	14.80	14.17
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

(15) Methylene chloride (T)

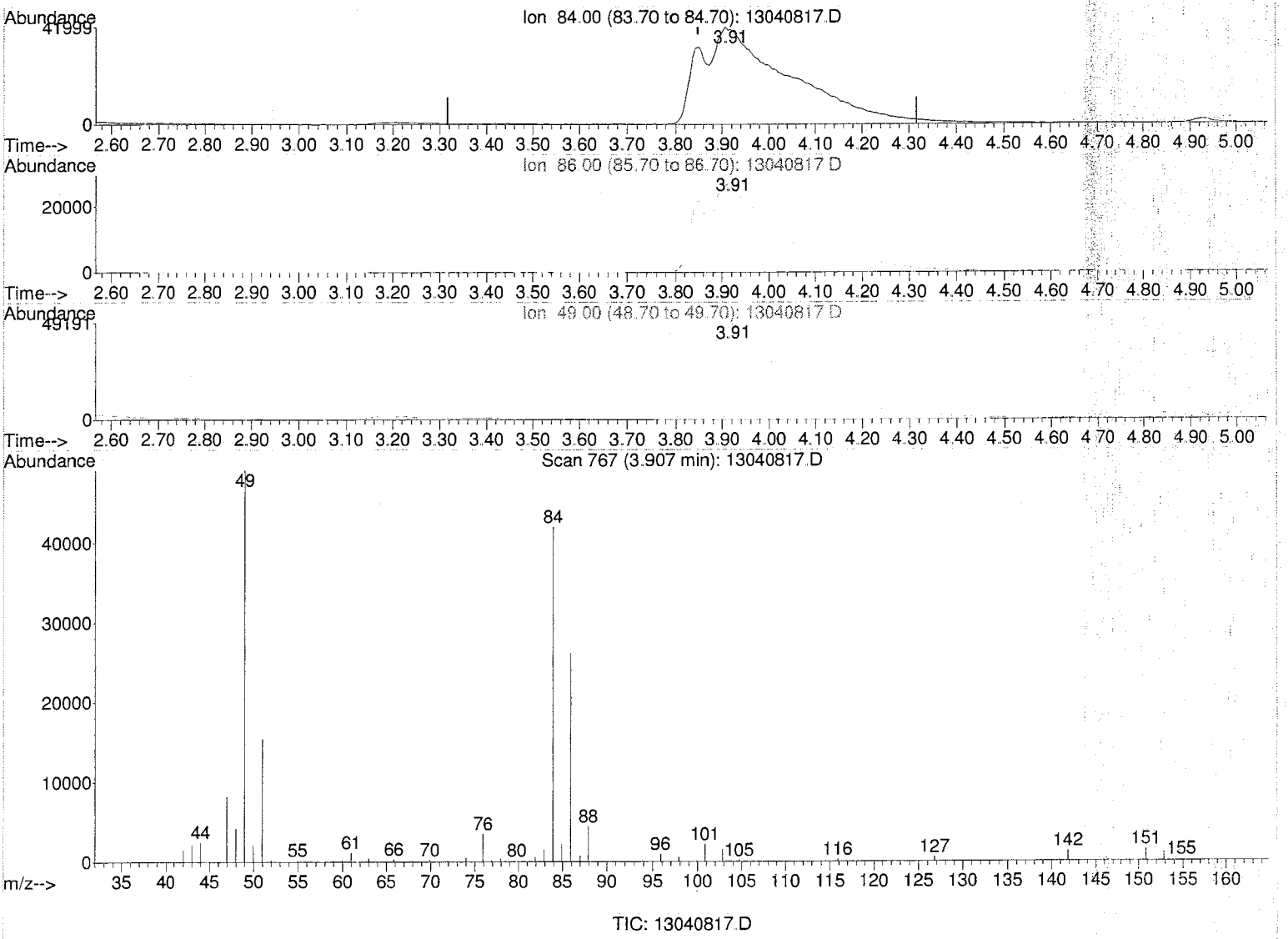
3.85min 0.00ug/L

response 89866

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	63.54
49.00	118.00	108.52
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

(15) Methylene chloride (T)

3.91min 0.00ug/L m

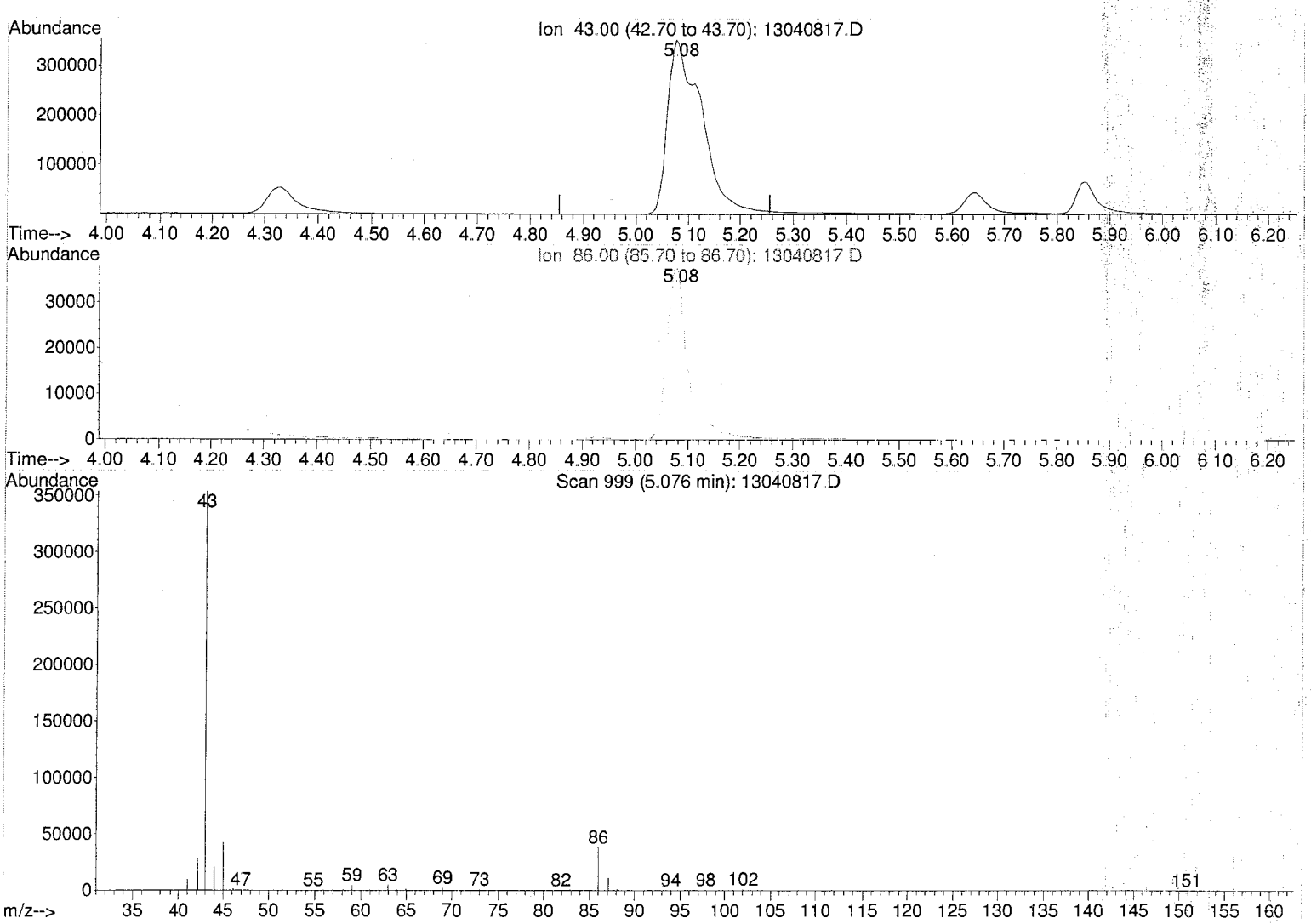
response 559478

Ion	Exp%	Act%
84.00	100	100
86.00	63.70	64.50
49.00	118.00	122.69
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:49 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

(21) vinyl acetate (T)

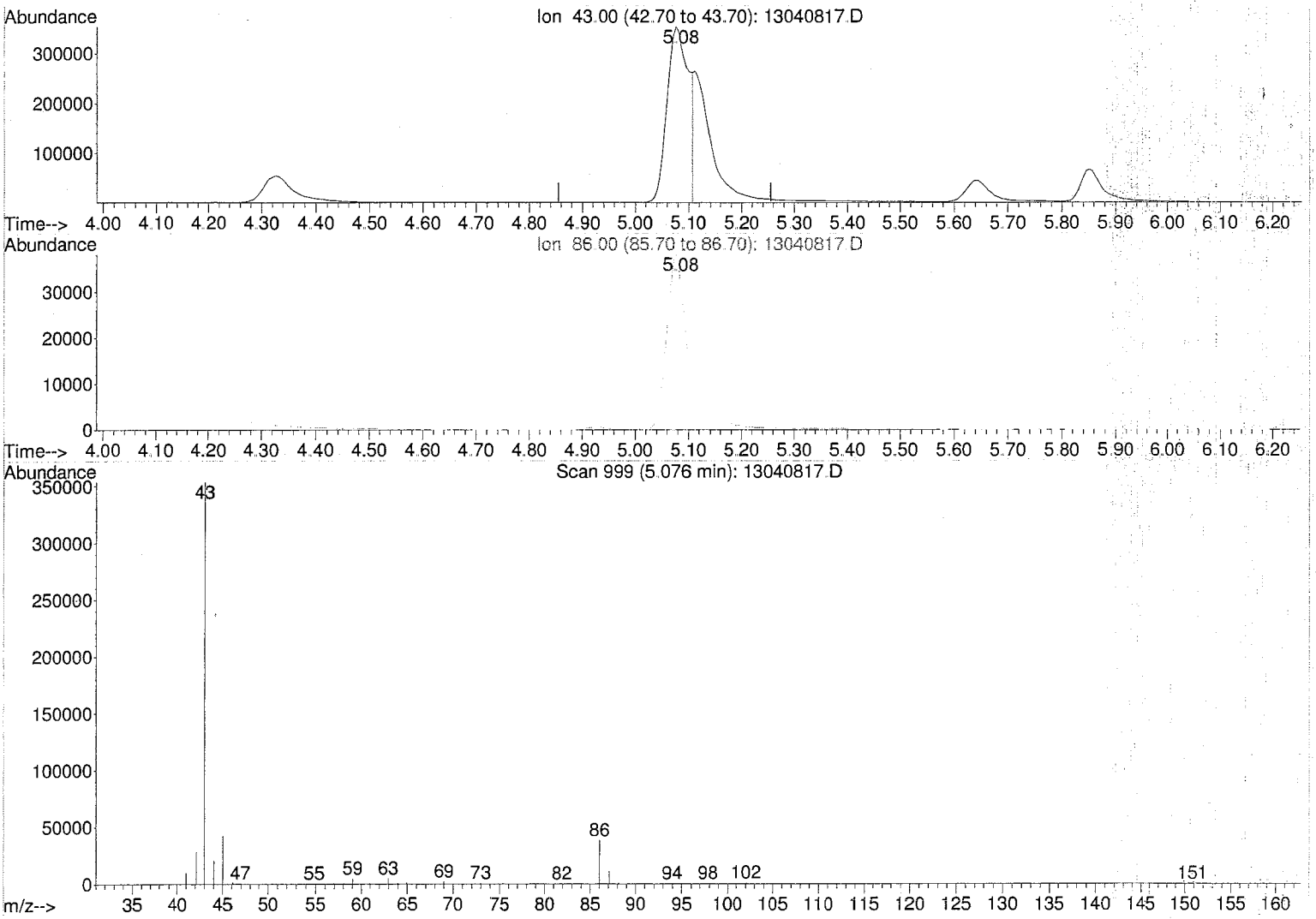
5.08min 0.00ug/L

response 1591818

Ion	Exp%	Act%
43.00	100	100
86.00	10.20	6.76
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040817.D Vial: 17
Acq On : 8 Apr 2013 6:24 pm Operator: AK
Sample : CAL8 250ppb 5mL Inst : VOA2
Misc : water 1uL A2338 62.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 10:50 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:40:19 2013
Response via : Multiple Level Calibration



TIC: 13040817.D

AK 4/9/13

(21) vinyl acetate (T)

5.08min 0.00ug/L m

response 985902

Ion	Exp%	Act%
43.00	100	100
86.00	10.20	10.91
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene ISTD	1.000	1.000	0.0	112	0.00
2	T	Dichlorodifluoromethane	0.232	0.204	12.1	95	0.00
3	P	Chloromethane	0.303	0.266	12.2	101	0.00
4	C	VINYL CHLORIDE	0.331	0.302	8.8	102	0.00
5	T	Bromomethane	0.226	0.181	19.9	98	0.01
6	T	Chloroethane	0.151	0.140	7.3	97	0.00
7	T	Trichlorofluoromethane	0.225	0.207	8.0	95	0.00
8	T	acrolein	0.024	0.022	8.3	119	0.00
9	T	Acetone	0.009	0.009	0.0	125	0.00
0	M,C	1,1-DICHLOROETHENE	0.190	0.177	6.8	96	0.00
1	T	1,1,2-Trichlorotrifluoroeth	0.119	0.114	4.2	91	0.00
2	T	iodomethane	0.283	0.276	2.5	101	0.00
3	T	Carbon Disulfide	0.543	0.506	6.8	101	0.01
4	T	Methyl Acetate	0.022	0.022	0.0	113	0.00
5	T	Methylene chloride	0.234	0.189	19.2	100	0.01
6	T	tert-Butanol	0.006	0.006	0.0	116	0.00
7	T	acrylonitrile	0.053	0.048	9.4	111	0.00
8	T	trans-1,2-Dichloroethene	0.173	0.163	5.8	98	0.00
9	T	Methyl-t-Butyl Ether	0.429	0.408	4.9	101	0.00
0	P	1,1-Dichloroethane	0.278	0.268	3.6	104	0.00
1	T	vinyl acetate	0.308	0.315	-2.3	120	0.00
2	T	Diisopropyl ether	0.605	0.562	7.1	103	0.00
3	T	tert-Butyl ethyl ether	0.542	0.524	3.3	111	0.00
4	T	2,2-Dichloropropane	0.103	0.099	3.9	100	0.00
5	T	cis-1,2-Dichloroethene	0.229	0.212	7.4	103	0.00
6	T	2-Butanone (MEK)	0.014	0.014	0.0	113	0.00
7	T	Bromochloromethane	0.095	0.092	3.2	109	0.00
8	C	CHLOROFORM	0.296	0.281	5.1	109	0.00
9	S	Dibromofluoromethane SS#1	0.226	0.228	-0.9	113	0.00
0	T	1,1,1-Trichloroethane	0.175	0.170	2.9	109	0.00
1	T	Cyclohexane	0.149	0.145	2.7	117	0.00
2	T	Carbon tetrachloride	0.139	0.134	3.6	110	0.00
3	T	1,1-Dichloropropene	0.224	0.210	6.3	109	0.00
4	M	Benzene	0.785	0.737	6.1	109	0.00
5	T	1,2-Dichloroethane	0.194	0.189	2.6	117	0.00
6	T	tert-Amyl alcohol	0.005	0.005	0.0	132	0.00
7	T	tert-Amyl methyl ether	0.506	0.486	4.0	113	0.00
8	M	Trichloroethene	0.183	0.167	8.7	105	0.00
9	C	1,2-DICHLOROPROPANE	0.188	0.180	4.3	113	0.00
0	T	Methylcyclohexane	0.152	0.142	6.6	105	0.00
1	T	tert-Amyl ethyl ether	0.447	0.427	4.5	109	0.00
2	T	Dibromomethane	0.113	0.106	6.2	105	0.00
3	T	1,4-Dioxane	0.001	0.001	0.0	206#	0.00
4	T	Bromodichloromethane	0.208	0.205	1.4	109	0.00
5	T	2-Chloroethylvinyl Ether	0.099	0.107	-8.1	113	0.00
6	T	cis-1,3-Dichloropropene	0.292	0.288	1.4	106	0.00
7	T	4-Methyl-2-Pentanone (MIBK)	0.025	0.024	4.0	105	0.00
8	S	Toluene d-8 SS#2	0.877	0.878	-0.1	110	0.00
9	M,C	TOLUENE	0.483	0.450	6.8	102	0.00
0	T	trans-1,3-Dichloropropene	0.238	0.240	-0.8	103	0.00
1	T	1,1,2-Trichloroethane	0.133	0.125	6.0	103	0.00
2	T	Tetrachloroethene	0.119	0.110	7.6	103	0.00
3	T	2-Hexanone (MBK)	0.108	0.103	4.6	109	0.00
4	I	Chlorobenzene d-5 ISTD	1.000	1.000	0.0	110	0.00
5	T	1,3-Dichloropropane	0.418	0.393	6.0	105	0.00
6	T	Dibromochloromethane	0.209	0.210	-0.5	108	0.00

(#) = Out of Range

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
7	T	1,2-Dibromoethane	0.246	0.235	4.5	104	0.00
8	M,P	Chlorobenzene	0.751	0.699	6.9	108	0.00
9	T	1,1,1,2-Tetrachloroethane	0.211	0.209	0.9	106	0.00
0	C	ETHYLBENZENE	1.122	1.052	6.2	103	0.00
1	T	m&p-Xylene	0.453	0.424	6.4	104	0.00
2	T	o-Xylene	0.451	0.428	5.1	106	0.00
3	T	Styrene	0.825	0.796	3.5	108	0.00
4	P	Bromoform	0.127	0.121	4.7	103	0.00
5	T	1,2,3-Trichloropropane	0.212	0.200	5.7	113	0.00
6	T	Bromobenzene	0.263	0.251	4.6	102	0.00
7	T	trans-1,4-dichloro-2-butene	0.054	0.055	-1.9	105	0.00
8	T	n-Propylbenzene	1.040	0.980	5.8	102	0.00
9	I	1,4-Dichlorobenzene d-4 IST	1.000	1.000	0.0	117	0.00
0	T	Isopropylbenzene	2.422	2.273	6.2	103	0.00
1	S	4-Bromofluorobenzene SS#3	1.231	1.218	1.1	109	0.00
2	P	1,1,2,2-Tetrachloroethane	0.757	0.720	4.9	100	0.00
3	T	2-Chlorotoluene	1.763	1.633	7.4	103	0.00
4	T	4-Chlorotoluene	2.011	1.920	4.5	106	0.00
5	T	1,3,5-Trimethylbenzene	1.877	1.800	4.1	104	0.00
6	T	tert-Butylbenzene	1.385	1.320	4.7	115	0.00
7	T	1,2,4-Trimethylbenzene	1.945	1.854	4.7	104	0.00
8	T	sec-Butylbenzene	2.109	2.034	3.6	115	0.00
9	T	4-Isopropyltoluene	1.727	1.631	5.6	103	0.00
0	T	1,3-Dichlorobenzene	1.086	1.026	5.5	108	0.00
1	T	1,4-Dichlorobenzene	1.124	1.063	5.4	105	0.00
2	T	1,2-Dichlorobenzene	1.030	0.981	4.8	105	0.00
3	T	n-Butylbenzene	1.541	1.468	4.7	104	0.00
4	T	1,2-Dibromo-3-chloropropane	0.078	0.077	1.3	107	0.00
5	T	1,2,4-Trichlorobenzene	0.451	0.438	2.9	111	0.00
6	T	Naphthalene	1.263	1.268	-0.4	110	0.00
7	T	1,2,3-Trichlorobenzene	0.377	0.380	-0.8	116	0.00

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene ISTD	50.000	50.000	0.0	112	0.00
2	T	Dichlorodifluoromethane	50.000	43.868	12.3	95	0.00
3	P	Chloromethane	50.000	43.989	12.0	101	0.00
4	C	VINYL CHLORIDE	50.000	45.594	8.8	102	0.00
5	T	Bromomethane	50.000	45.243	9.5	98	0.01
6	T	Chloroethane	50.000	46.241	7.5	97	0.00
7	T	Trichlorofluoromethane	50.000	46.055	7.9	95	0.00
8	T	acrolein	50.000	40.526	18.9	119	0.00
9	T	Acetone	50.000	42.791	14.4	125	0.00
0	M,C	1,1-DICHLOROETHENE	50.000	44.843	10.3	96	0.00
1	T	1,1,2-Trichlorotrifluoroeth	50.000	43.874	12.3	91	0.00
2	T	iodomethane	50.000	48.750	2.5	101	0.00
3	T	Carbon Disulfide	50.000	46.612	6.8	101	0.01
4	T	Methyl Acetate	50.000	43.748	12.5	113	0.00
5	T	Methylene chloride	50.000	47.093	5.8	100	0.01
6	T	tert-Butanol	50.000	40.229	19.5	116	0.00
7	T	acrylonitrile	50.000	45.810	8.4	111	0.00
8	T	trans-1,2-Dichloroethene	50.000	47.110	5.8	98	0.00
9	T	Methyl-t-Butyl Ether	50.000	47.540	4.9	101	0.00
0	P	1,1-Dichloroethane	50.000	48.231	3.5	104	0.00
1	T	vinyl acetate	50.000	51.138	-2.3	120	0.00
2	T	Diisopropyl ether	50.000	46.395	7.2	103	0.00
3	T	tert-Butyl ethyl ether	50.000	48.284	3.4	111	0.00
4	T	2,2-Dichloropropane	50.000	44.421	11.2	100	0.00
5	T	cis-1,2-Dichloroethene	50.000	46.447	7.1	103	0.00
6	T	2-Butanone (MEK)	50.000	46.240	7.5	113	0.00
7	T	Bromochloromethane	50.000	48.345	3.3	109	0.00
8	C	CHLOROFORM	50.000	47.535	4.9	109	0.00
9	S	Dibromofluoromethane SS#1	50.000	50.246	-0.5	113	0.00
0	T	1,1,1-Trichloroethane	50.000	48.378	3.2	109	0.00
1	T	Cyclohexane	50.000	48.909	2.2	117	0.00
2	T	Carbon tetrachloride	50.000	40.396	19.2	110	0.00
3	T	1,1-Dichloropropene	50.000	46.766	6.5	109	0.00
4	M	Benzene`	50.000	46.907	6.2	109	0.00
5	T	1,2-Dichloroethane	50.000	48.642	2.7	117	0.00
6	T	tert-Amyl alcohol	50.000	41.359	17.3	132	0.00
7	T	tert-Amyl methyl ether	50.000	47.929	4.1	113	0.00
8	M	Trichloroethene	50.000	45.808	8.4	105	0.00
9	C	1,2-DICHLOROPROPANE	50.000	47.968	4.1	113	0.00
0	T	Methylcyclohexane	50.000	46.973	6.1	105	0.00
1	T	tert-Amyl ethyl ether	50.000	47.788	4.4	109	0.00
2	T	Dibromomethane	50.000	47.129	5.7	105	0.00
3	T	1,4-Dioxane	1000.000	807.137	19.3	206	0.00
4	T	Bromodichloromethane	50.000	49.268	1.5	109	0.00
5	T	2-Chloroethylvinyl Ether	50.000	46.081	7.8	113	0.00
6	T	cis-1,3-Dichloropropene	50.000	49.196	1.6	106	0.00
7	T	4-Methyl-2-Pentanone (MIBK)	50.000	47.277	5.4	105	0.00
8	S	Toluene d-8 SS#2	50.000	50.076	-0.2	110	0.00
9	M,C	TOLUENE	50.000	46.583	6.8	102	0.00
0	T	trans-1,3-Dichloropropene	50.000	43.019	14.0	103	0.00
1	T	1,1,2-Trichloroethane	50.000	47.160	5.7	103	0.00
2	T	Tetrachloroethene	50.000	46.044	7.9	103	0.00
3	T	2-Hexanone (MBK)	50.000	47.517	5.0	109	0.00
4	I	Chlorobenzene d-5 ISTD	50.000	50.000	0.0	110	0.00
5	T	1,3-Dichloropropane	50.000	47.067	5.9	105	0.00
6	T	Dibromochloromethane	50.000	41.103	17.8	108	0.00

(#) = Out of Range

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
7	T	1,2-Dibromoethane	50.000	47.790	4.4	104	0.00
8	M,P	Chlorobenzene	50.000	46.567	6.9	108	0.00
9	T	1,1,1,2-Tetrachloroethane	50.000	49.574	0.9	106	0.00
0	C	ETHYLBENZENE	50.000	46.911	6.2	103	0.00
1	T	m&p-Xylene	100.000	93.549	6.5	104	0.00
2	T	o-Xylene	50.000	47.345	5.3	106	0.00
3	T	Styrene	50.000	48.217	3.6	108	0.00
4	P	Bromoform	50.000	38.427	23.1#	103	0.00
5	T	1,2,3-Trichloropropane	50.000	47.169	5.7	113	0.00
6	T	Bromobenzene	50.000	47.613	4.8	102	0.00
7	T	trans-1,4-dichloro-2-butene	50.000	40.283	19.4	105	0.00
8	T	n-Propylbenzene	50.000	47.127	5.7	102	0.00
9	I	1,4-Dichlorobenzene d-4 IST	50.000	50.000	0.0	117	0.00
0	T	Isopropylbenzene	50.000	46.932	6.1	103	0.00
1	S	4-Bromofluorobenzene SS#3	50.000	49.486	1.0	109	0.00
2	P	1,1,2,2-Tetrachloroethane	50.000	47.580	4.8	100	0.00
3	T	2-Chlorotoluene	50.000	46.318	7.4	103	0.00
4	T	4-Chlorotoluene	50.000	47.741	4.5	106	0.00
5	T	1,3,5-Trimethylbenzene	50.000	47.955	4.1	104	0.00
6	T	tert-Butylbenzene	50.000	47.662	4.7	115	0.00
7	T	1,2,4-Trimethylbenzene	50.000	47.675	4.7	104	0.00
8	T	sec-Butylbenzene	50.000	48.231	3.5	115	0.00
9	T	4-Isopropyltoluene	50.000	47.227	5.5	103	0.00
0	T	1,3-Dichlorobenzene	50.000	47.237	5.5	108	0.00
1	T	1,4-Dichlorobenzene	50.000	47.265	5.5	105	0.00
2	T	1,2-Dichlorobenzene	50.000	47.625	4.8	105	0.00
3	T	n-Butylbenzene	50.000	47.642	4.7	104	0.00
4	T	1,2-Dibromo-3-chloropropane	50.000	49.429	1.1	107	0.00
5	T	1,2,4-Trichlorobenzene	50.000	48.560	2.9	111	0.00
6	T	Naphthalene	50.000	50.192	-0.4	110	0.00
7	T	1,2,3-Trichlorobenzene	50.000	50.396	-0.8	116	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:24:50 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene ISTD	7.31	96	579168	50.00	ug/L		0.00
54) Chlorobenzene d-5 ISTD	11.00	117	399604	50.00	ug/L		0.00
69) 1,4-Dichlorobenzene d-4 IS	13.83	152	153035	50.00	ug/L		0.00
System Monitoring Compounds							
29) Dibromofluoromethane SS#1	6.45	113	131784	50.25	ug/L		0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 100.50%				
48) Toluene d-8 SS#2	9.27	98	508591	50.08	ug/L		0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 100.16%				
71) 4-Bromofluorobenzene SS#3	12.43	95	186390	49.49	ug/L		0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 98.98%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.52	85	118028m	43.87	ug/L		
3) Chloromethane	1.74	50	154313	43.99	ug/L		99
4) VINYL CHLORIDE	1.82	62	174987	45.59	ug/L		99
5) Bromomethane	2.18	94	104686	45.24	ug/L		97
6) Chloroethane	2.29	64	81116	46.24	ug/L		77
7) Trichlorofluoromethane	2.55	101	120118m	46.05	ug/L		
8) acrolein	3.04	56	12704	40.53	ug/L		90
9) Acetone	3.25	58	5384	42.79	ug/L		93
10) 1,1-DICHLOROETHENE	3.18	96	102409m	44.84	ug/L		
11) 1,1,2-Trichlorotrifluoroet	3.21	101	66106m	43.87	ug/L		
12) iodomethane	3.38	142	160000m	48.75	ug/L		
13) Carbon Disulfide	3.44	76	293120	46.61	ug/L		99
14) Methyl Acetate	3.74	74	12509	43.75	ug/L		95
15) Methylene chloride	3.91	84	109313m	47.09	ug/L		
16) tert-Butanol	4.17	59	3551	40.23	ug/L		100
17) acrylonitrile	4.27	53	28061	45.81	ug/L		96
18) trans-1,2-Dichloroethene	4.28	96	94377	47.11	ug/L		98
19) Methyl-t-Butyl Ether	4.33	73	236066	47.54	ug/L		100
20) 1,1-Dichloroethane	4.93	63	155395	48.23	ug/L		99
21) vinyl acetate	5.08	43	182415	51.14	ug/L		94
22) Diisopropyl ether	5.12	45	325274	46.39	ug/L		99
23) tert-Butyl ethyl ether	5.64	59	303381	48.28	ug/L		97
24) 2,2-Dichloropropane	5.76	77	57150	44.42	ug/L		99
25) cis-1,2-Dichloroethene	5.78	96	122999	46.45	ug/L		97
26) 2-Butanone (MEK)	5.86	72	8189	46.24	ug/L	#	87
27) Bromochloromethane	6.10	128	53405	48.35	ug/L		97
28) CHLOROFORM	6.24	83	162984	47.54	ug/L		99
30) 1,1,1-Trichloroethane	6.45	97	98307	48.38	ug/L		97
31) Cyclohexane	6.51	56	84150	48.91	ug/L		92
32) Carbon tetrachloride	6.66	117	77401	40.40	ug/L		100
33) 1,1-Dichloropropene	6.67	75	121406	46.77	ug/L		99
34) Benzene`	6.94	78	426605	46.91	ug/L		100
35) 1,2-Dichloroethane	6.98	62	109450	48.64	ug/L		97
36) tert-Amyl alcohol	7.08	59	3086	41.36	ug/L	#	51
37) tert-Amyl methyl ether	7.14	73	281189	47.93	ug/L		98
38) Trichloroethene	7.77	95	96870	45.81	ug/L		99
39) 1,2-DICHLOROPROPANE	8.04	63	104367	47.97	ug/L		100
40) Methylcyclohexane	7.99	83	82480	46.97	ug/L		98
41) tert-Amyl ethyl ether	8.14	59	247578	47.79	ug/L		97
42) Dibromomethane	8.18	93	61657	47.13	ug/L		97
43) 1,4-Dioxane	8.25	88	7254	807.14	ug/L	#	81
44) Bromodichloromethane	8.40	83	118526	49.27	ug/L		97
45) 2-Chloroethylvinyl Ether	8.80	63	61885	46.08	ug/L		99
46) cis-1,3-Dichloropropene	8.96	75	166629	49.20	ug/L		99
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	13692	47.28	ug/L	#	93

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:24:50 2013 Quant Results File: VOC-W.RES

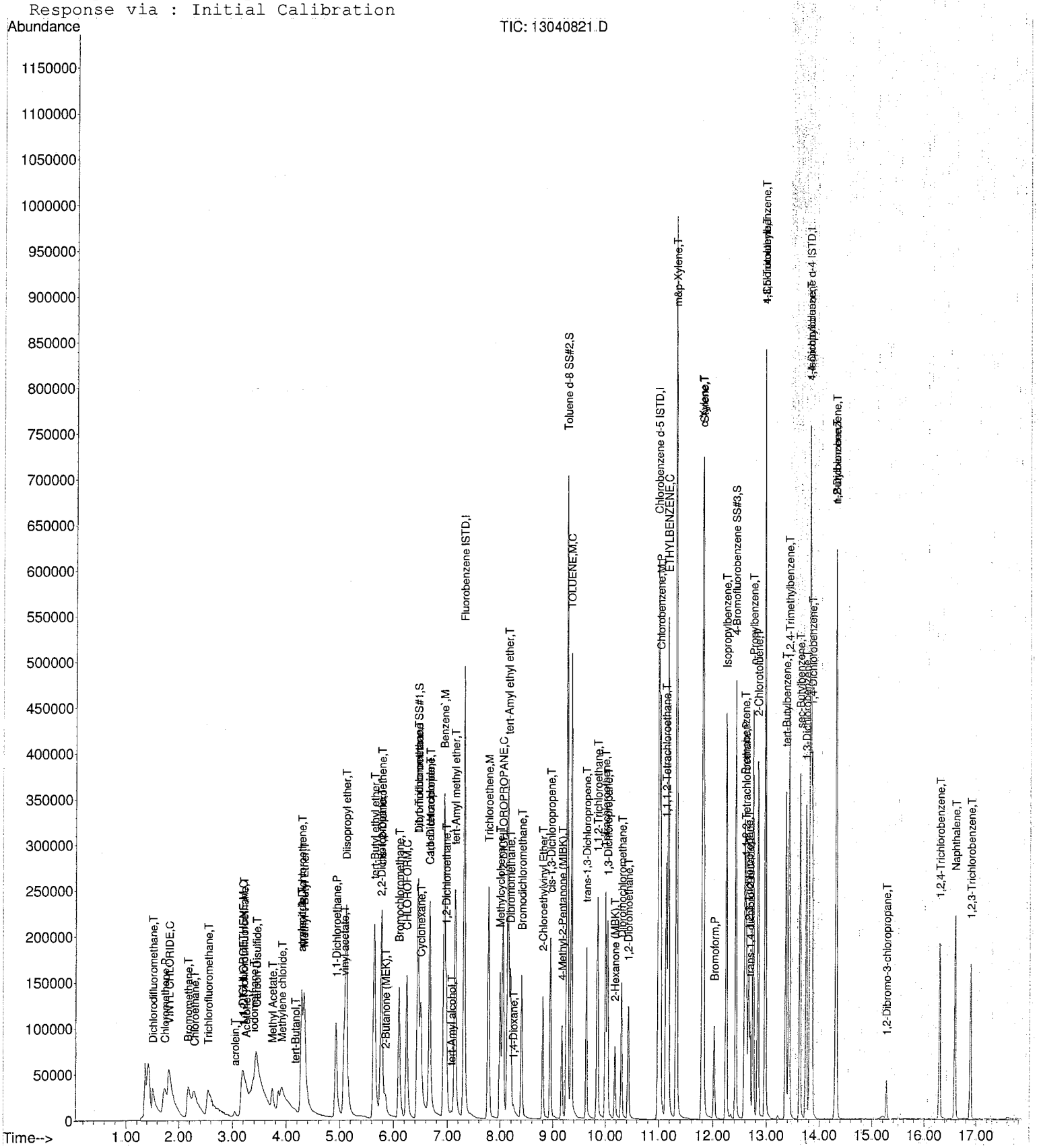
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	TOLUENE	9.35	92	260627	46.58	ug/L		99
50)	trans-1,3-Dichloropropene	9.64	75	138759	43.02	ug/L		100
51)	1,1,2-Trichloroethane	9.85	83	72520	47.16	ug/L		100
52)	Tetrachloroethene	10.00	164	63675	46.04	ug/L		99
53)	2-Hexanone (MBK)	10.17	43	59557	47.52	ug/L		99
55)	1,3-Dichloropropane	10.04	76	157156	47.07	ug/L		100
56)	Dibromochloromethane	10.31	129	84034	41.10	ug/L		99
57)	1,2-Dibromoethane	10.43	107	93918	47.79	ug/L		97
58)	Chlorobenzene	11.03	112	279428	46.57	ug/L		97
59)	1,1,1,2-Tetrachloroethane	11.14	131	83635	49.57	ug/L		99
60)	ETHYLBENZENE	11.18	91	420508	46.91	ug/L		99
61)	m&p-Xylene	11.32	106	338747	93.55	ug/L		98
62)	o-Xylene	11.80	106	170834	47.34	ug/L		100
63)	Styrene	11.82	104	318016	48.22	ug/L		99
64)	Bromoform	12.02	173	48506	38.43	ug/L		99
65)	1,2,3-Trichloropropane	12.66	75	79766m	47.17	ug/L		
66)	Bromobenzene	12.60	156	100168	47.61	ug/L		99
67)	trans-1,4-dichloro-2-buten	12.69	53	22129	40.28	ug/L	#	100
68)	n-Propylbenzene	12.75	91	391744	47.13	ug/L		96
70)	Isopropylbenzene	12.25	105	347841	46.93	ug/L		98
72)	1,1,2,2-Tetrachloroethane	12.62	83	110241	47.58	ug/L		99
73)	2-Chlorotoluene	12.84	91	249881	46.32	ug/L		100
74)	4-Chlorotoluene	12.98	91	293832	47.74	ug/L		99
75)	1,3,5-Trimethylbenzene	12.98	105	275452	47.96	ug/L		98
76)	tert-Butylbenzene	13.37	119	201983	47.66	ug/L		95
77)	1,2,4-Trimethylbenzene	13.42	105	283773	47.68	ug/L		95
78)	sec-Butylbenzene	13.64	105	311298	48.23	ug/L		99
79)	4-Isopropyltoluene	13.82	119	249588	47.23	ug/L		97
80)	1,3-Dichlorobenzene	13.75	146	157080	47.24	ug/L		98
81)	1,4-Dichlorobenzene	13.86	146	162641	47.26	ug/L		98
82)	1,2-Dichlorobenzene	14.31	146	150163	47.62	ug/L		98
83)	n-Butylbenzene	14.32	91	224729	47.64	ug/L		99
84)	1,2-Dibromo-3-chloropropan	15.27	75	11821	49.43	ug/L		95
85)	1,2,4-Trichlorobenzene	16.29	180	66986	48.56	ug/L		100
86)	Naphthalene	16.59	128	194019	50.19	ug/L		100
87)	1,2,3-Trichlorobenzene	16.89	180	58219	50.40	ug/L		99

(#) = qualifier out of range (m) = manual integration

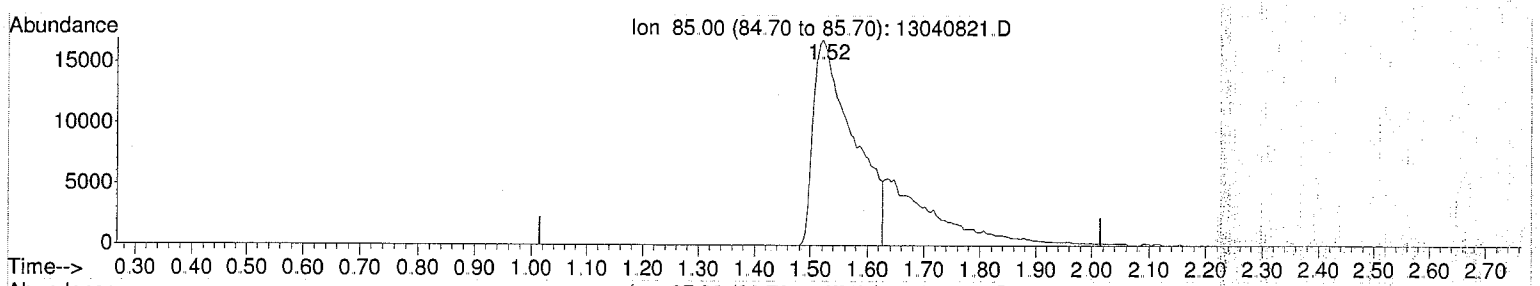
Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:27 2013 Quant Results File: VOC-W.RES

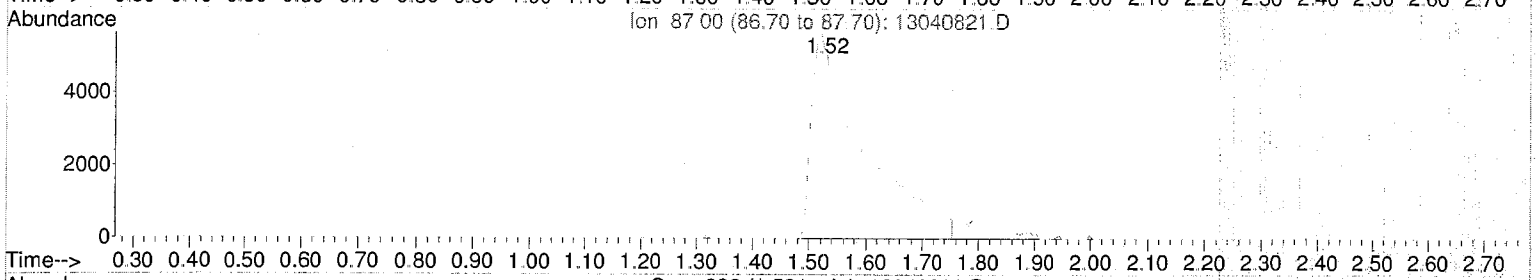
Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration

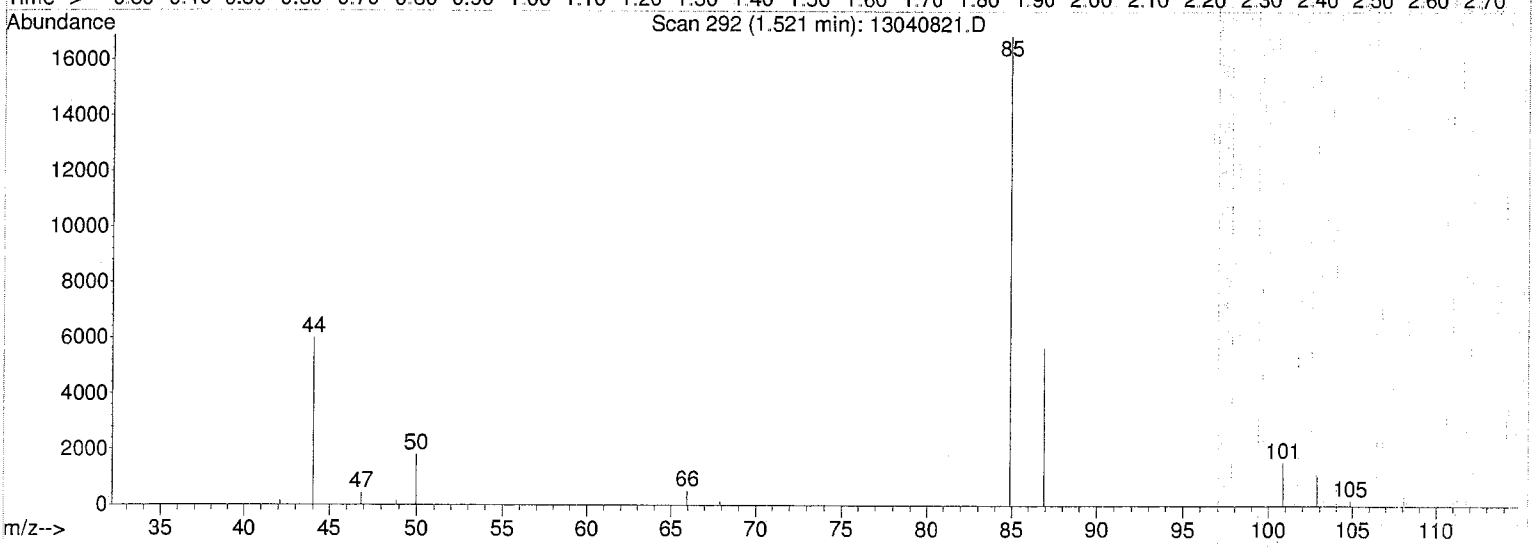


Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:24 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration







TIC: 13040821.D

(2) Dichlorodifluoromethane (T)

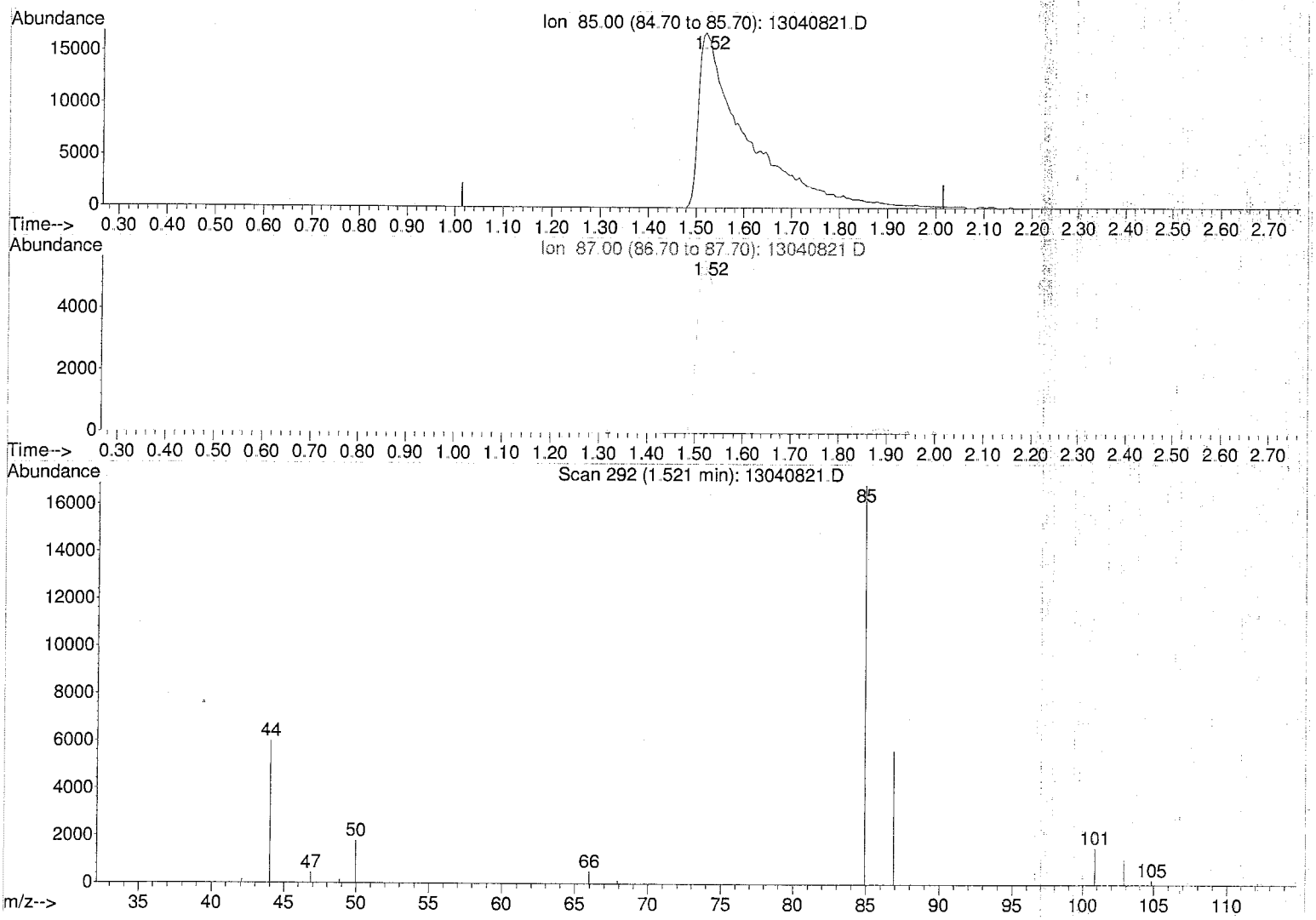
1.52min 30.55ug/L

response 82191

Ion	Exp%	Act%
85.00	100	100
87.00	32.30	43.63
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:25 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821.D

(2) Dichlorodifluoromethane (T)

1.52min 43.87ug/L m

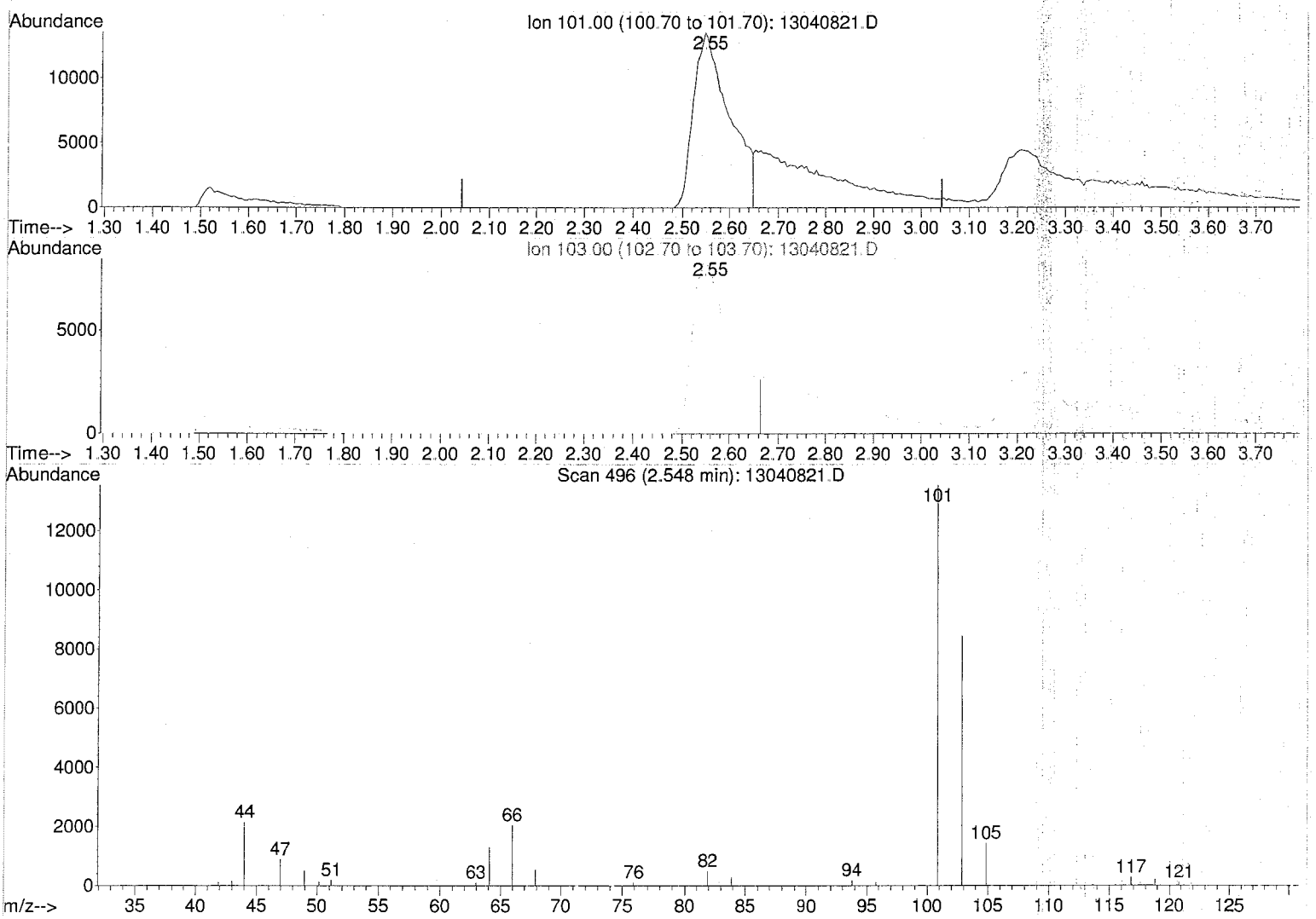
response 118028

Ion	Exp%	Act%
85.00	100	100
87.00	32.30	32.58
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:25 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821.D

(7) Trichlorofluoromethane (T)

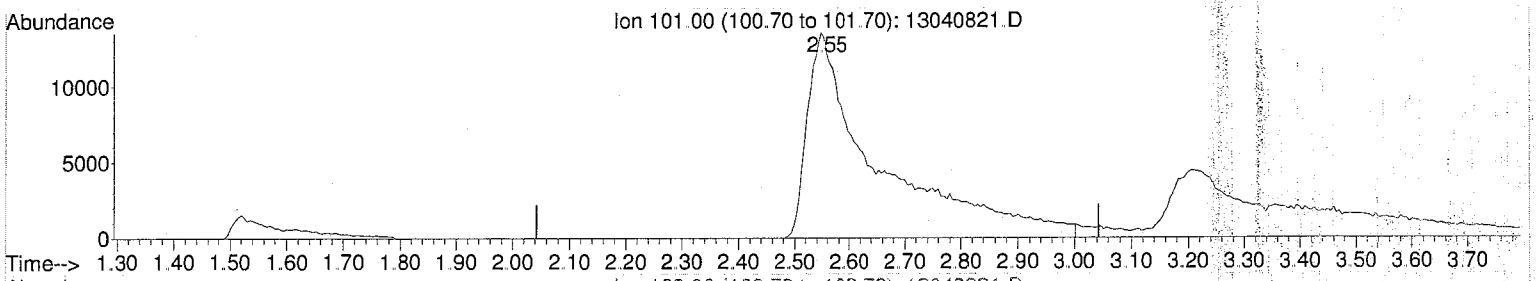
2.55min 27.50ug/L

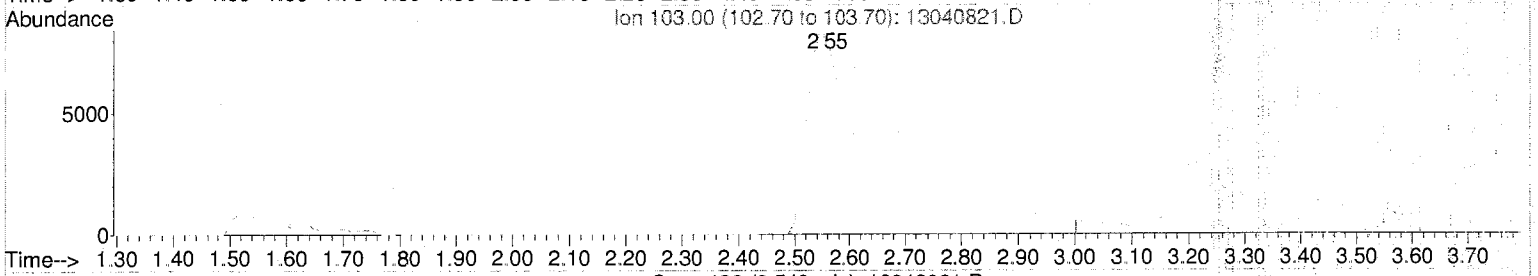
response 71722

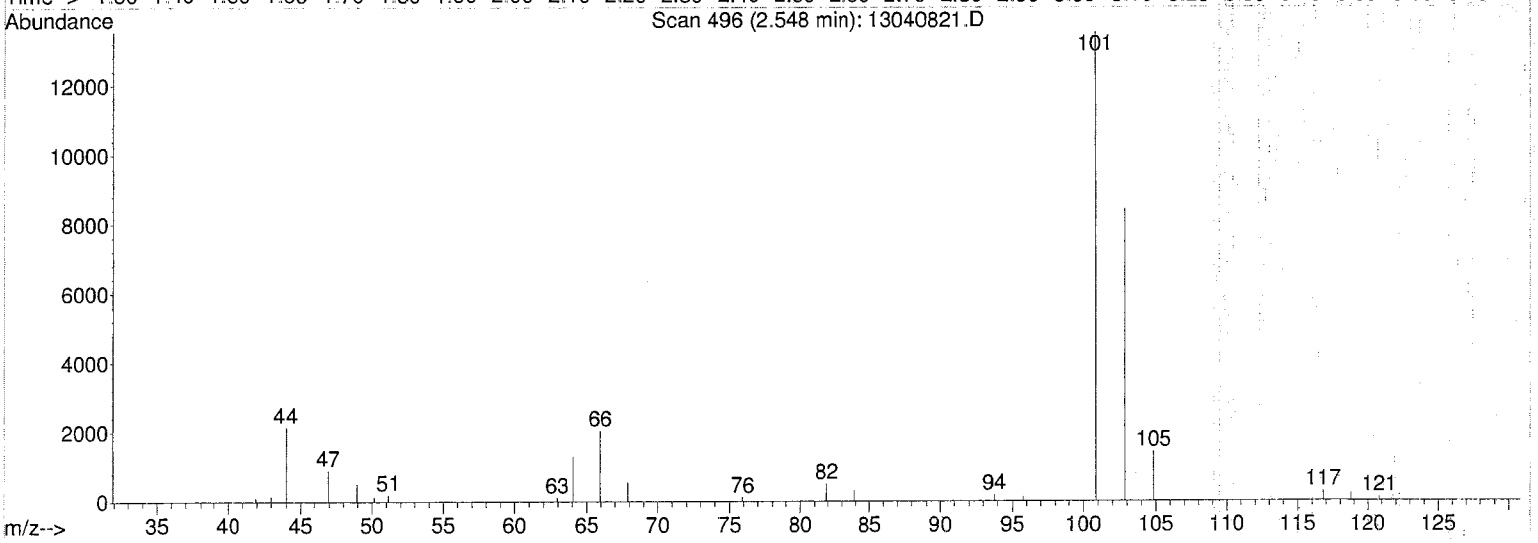
Ion	Exp%	Act%
101.00	100	100
103.00	65.30	67.46
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:25 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration







TIC: 13040821.D

(7) Trichlorofluoromethane (T)

2.55min 46.05ug/L m

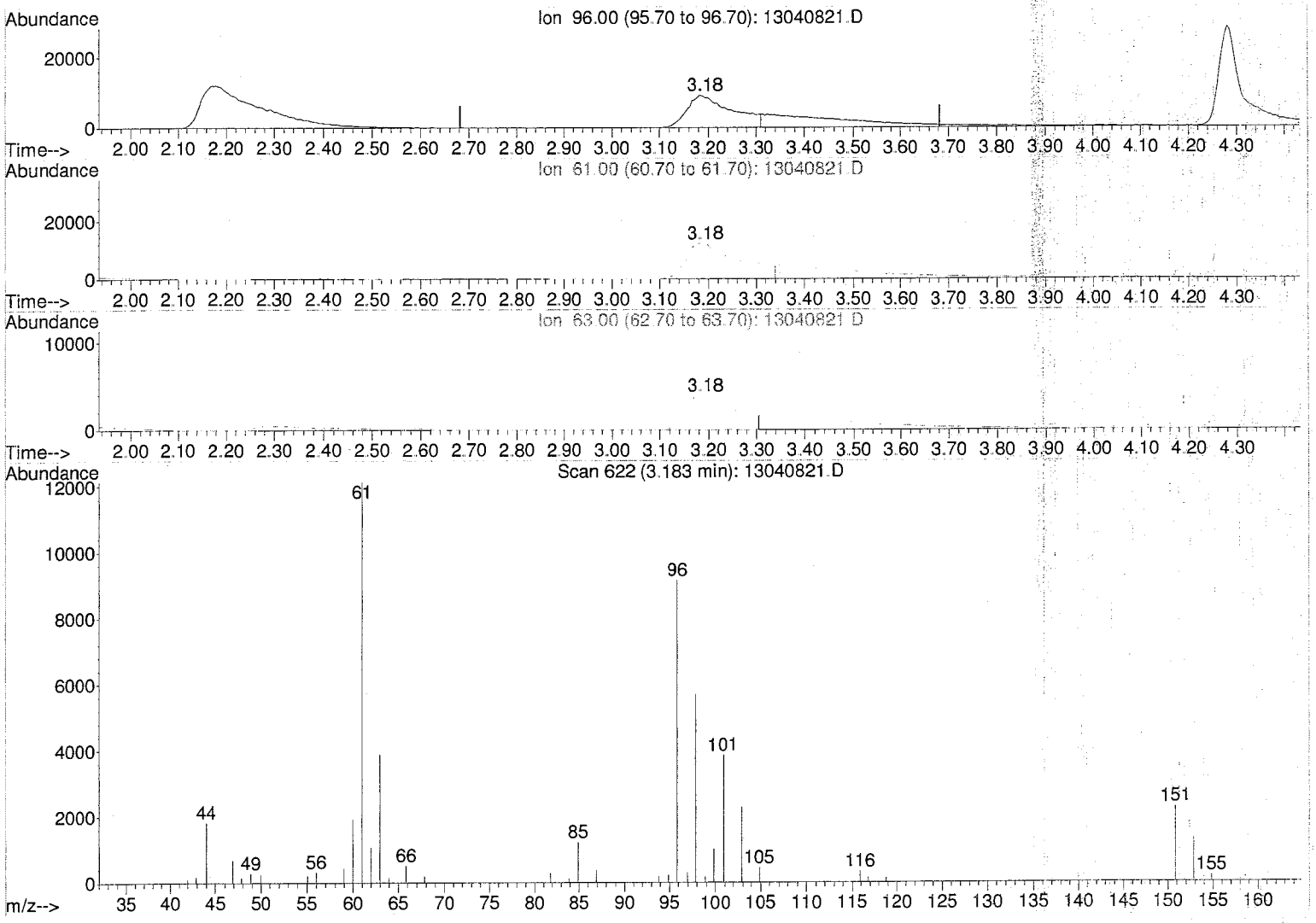
response 120118

Ion	Exp%	Act%
101.00	100	100
103.00	65.30	64.68
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:25 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821.D

(10) 1,1-DICHLOROETHENE (M,C)

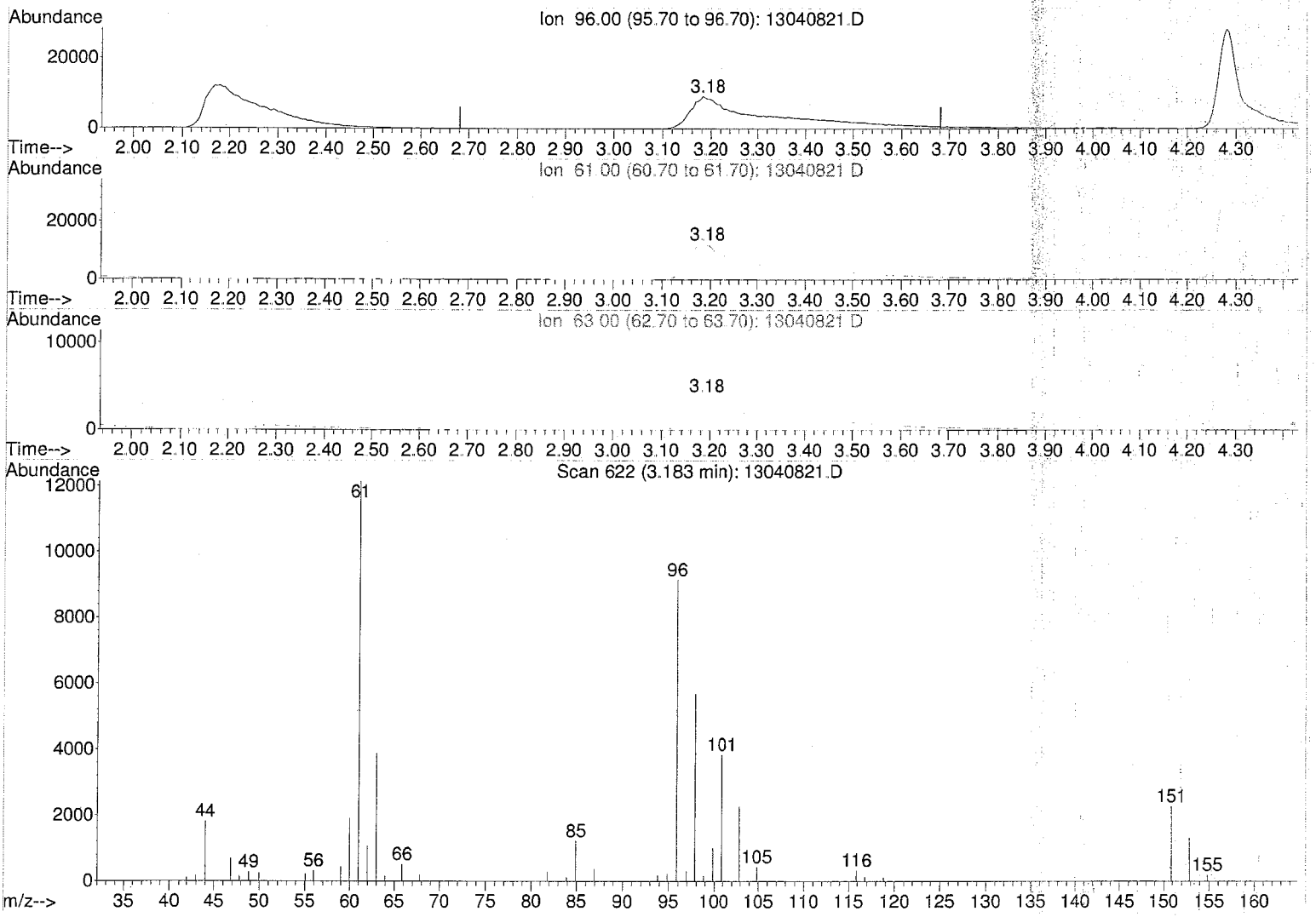
3.18min 25.66ug/L

response 58605

Ion	Exp%	Act%
96.00	100	100
61.00	136.90	154.60
63.00	44.90	43.97
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:25 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821.D

(10) 1,1-DICHLOROETHENE (M,C)

3.18min 44.84ug/L m

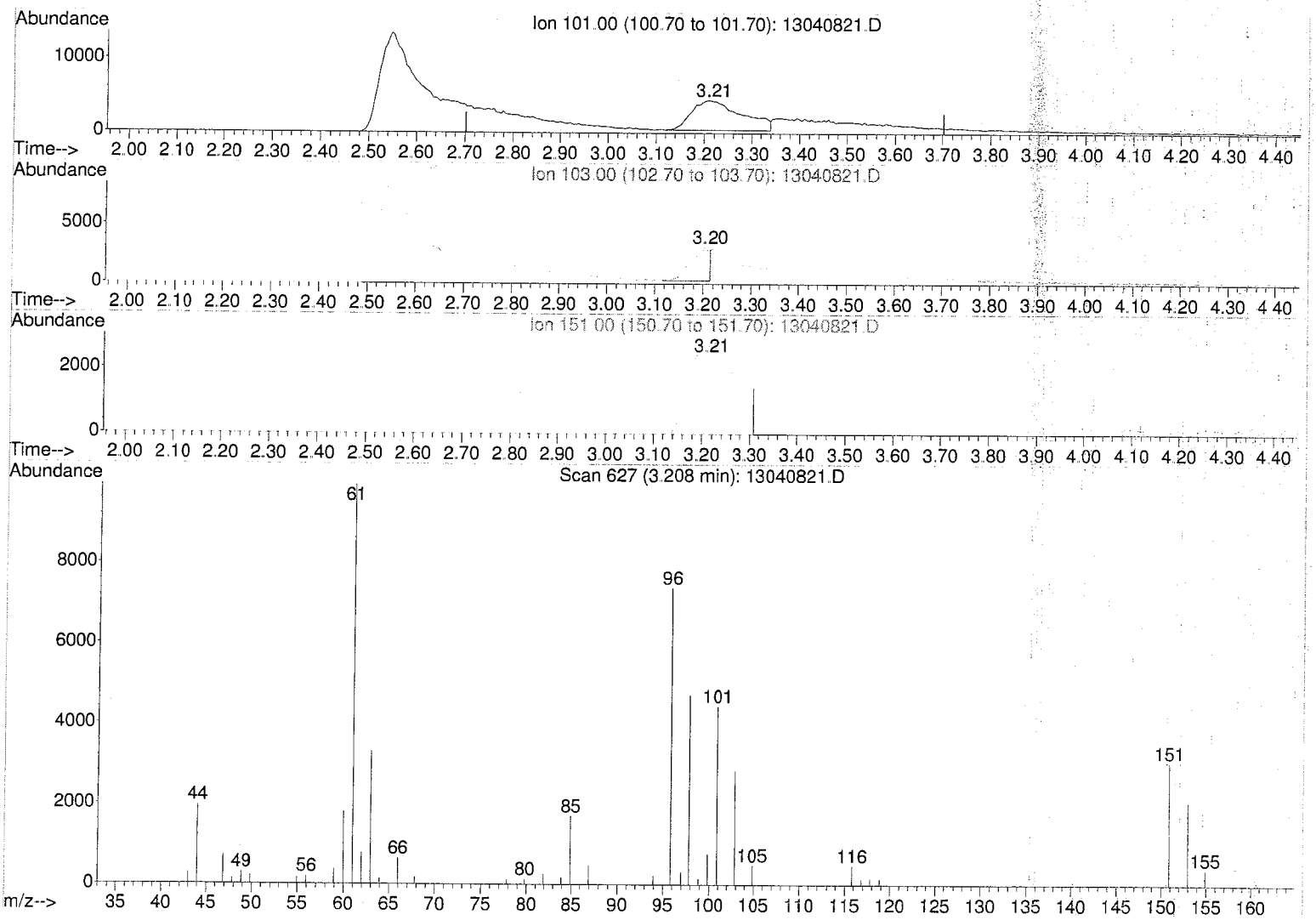
response 102409

Ion	Exp%	Act%
96.00	100	100
61.00	136.90	139.07
63.00	44.90	45.10
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:25 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

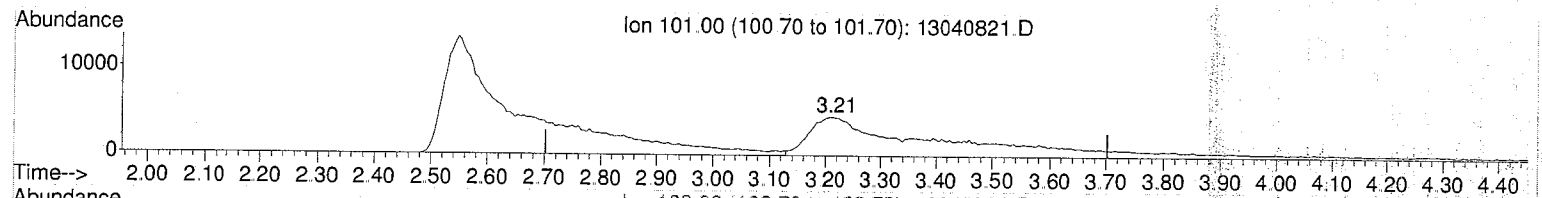
3.21min 19.75ug/L

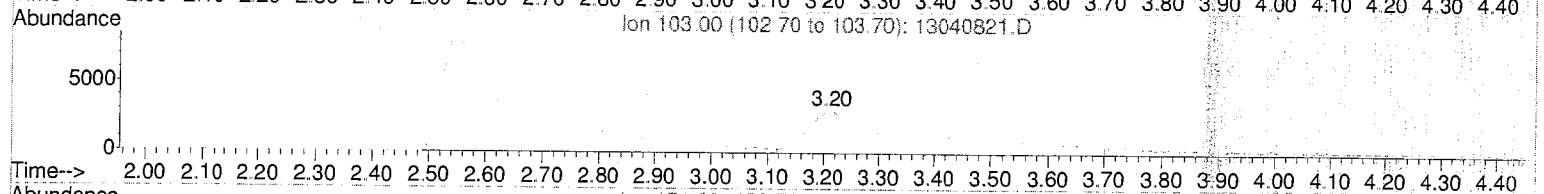
response 29765

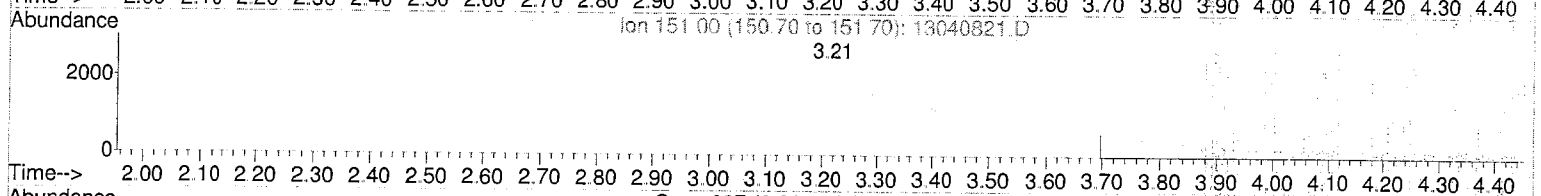
Ion	Exp%	Act%
101.00	100	100
103.00	64.40	24.68#
151.00	64.40	64.18
0.00	0.00	0.00

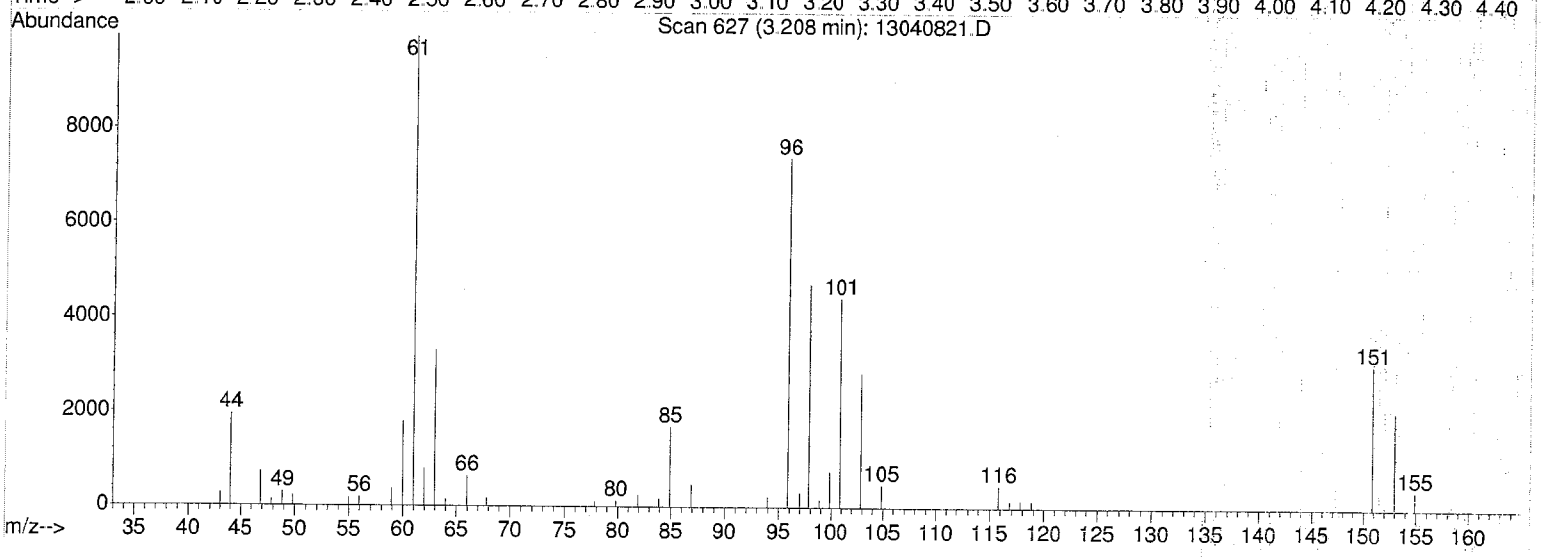
Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:26 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration









TIC: 13040821.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.21min 43.87ug/L m

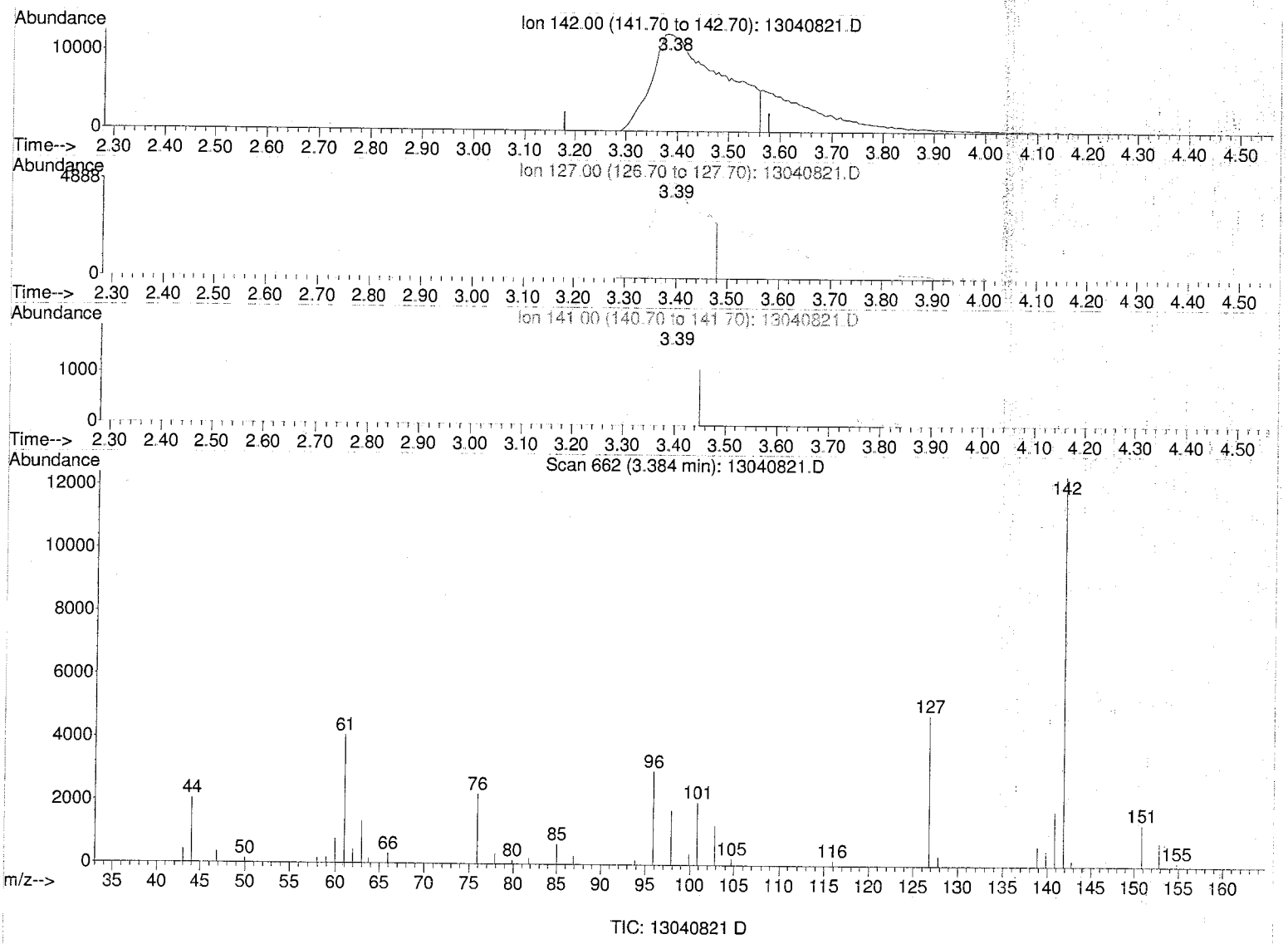
response 66106

Ion	Exp%	Act%
101.00	100	100
103.00	64.40	65.78
151.00	64.40	62.58
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:26 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821 D

(12) iodomethane (T)

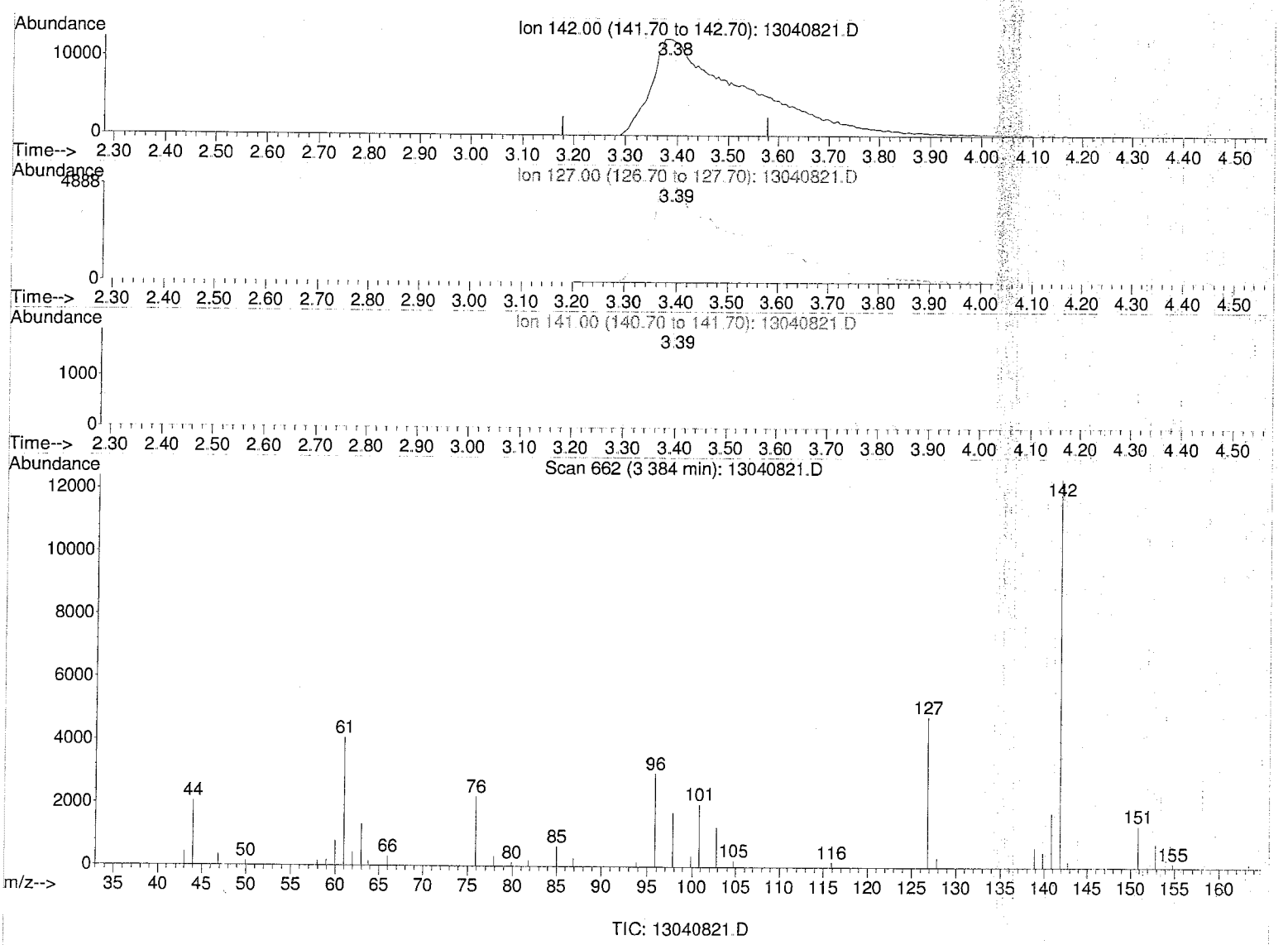
3.38min 35.89ug/L

response 117805

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	29.27
141.00	14.10	8.88
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:26 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821.D

(12) iodomethane (T)

3.38min 48.75ug/L m

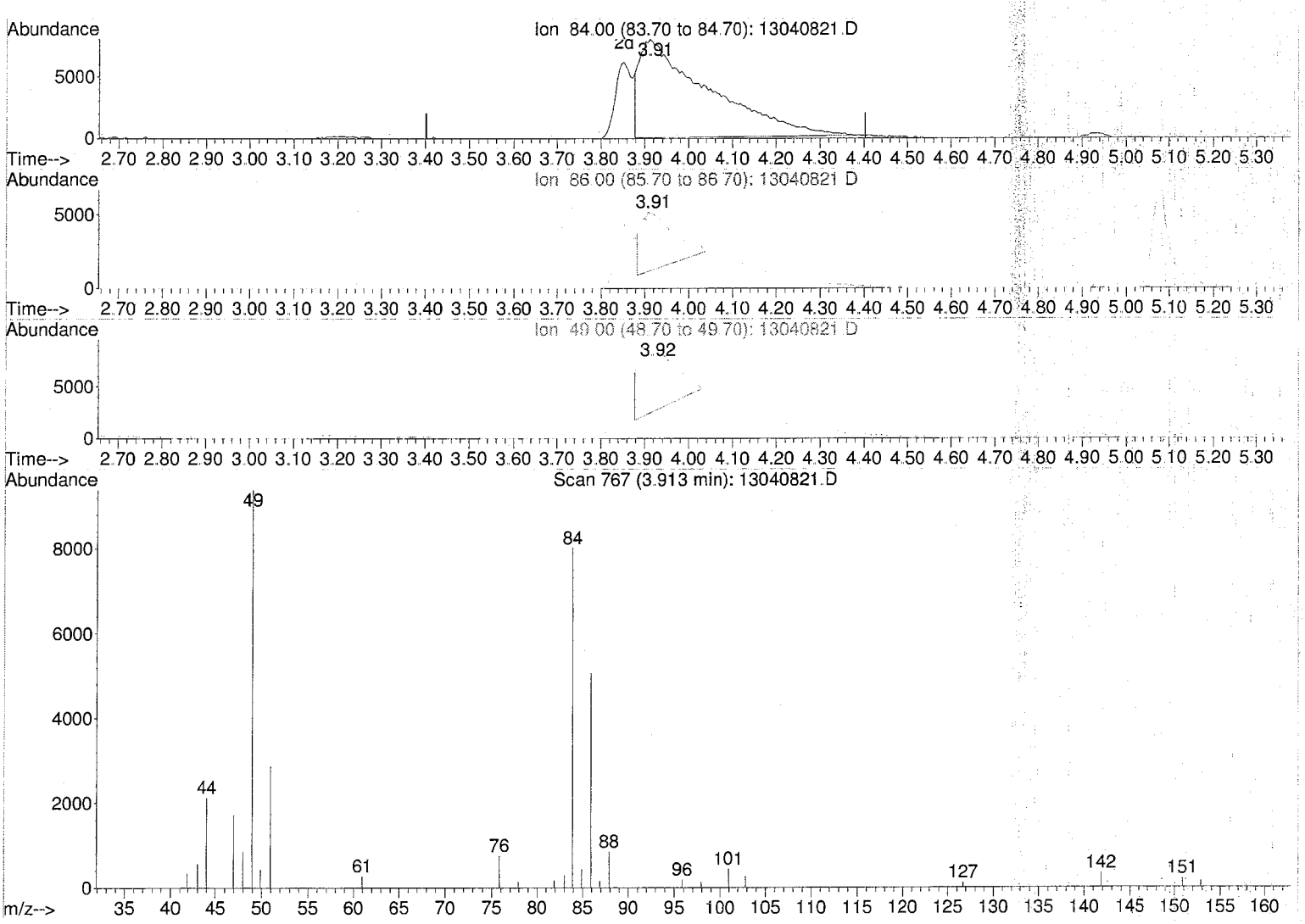
response 160000

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	39.07
141.00	14.10	14.12
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:26 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821.D

(15) Methylene chloride (T)

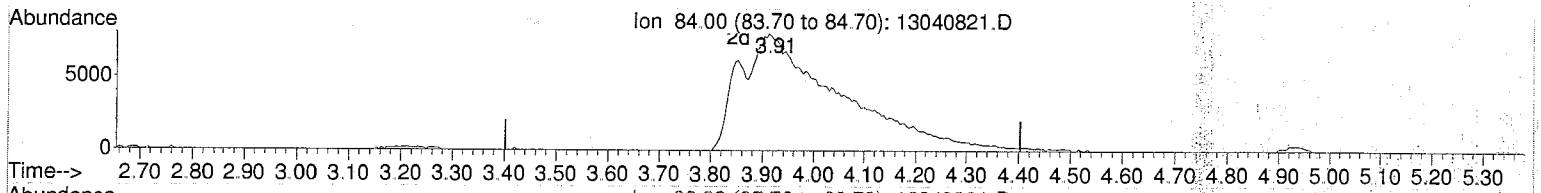
3.91min 37.53ug/L

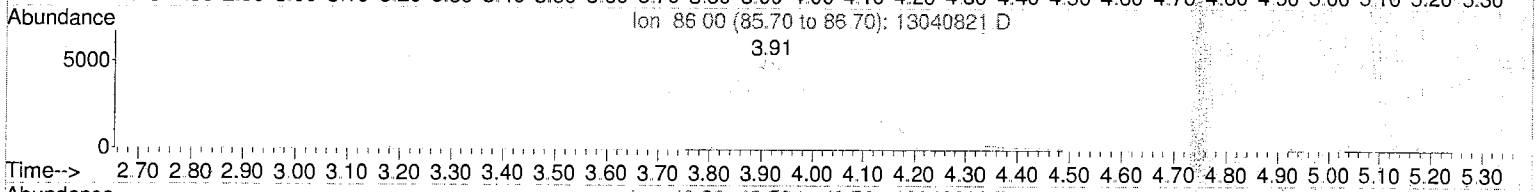
response 87111

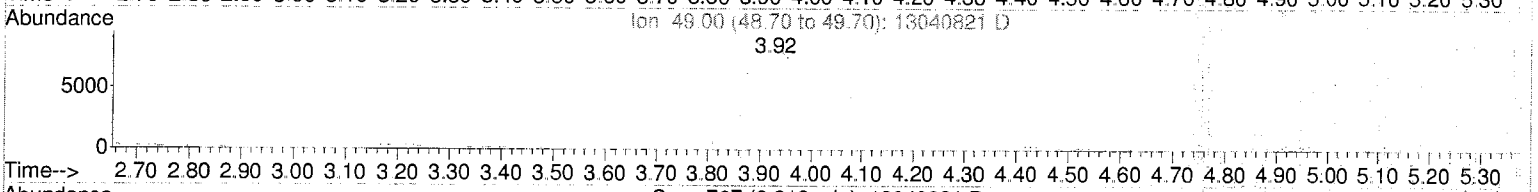
Ion	Exp%	Act%
84.00	100	100
86.00	65.10	23.12#
49.00	120.70	41.17#
0.00	0.00	0.00

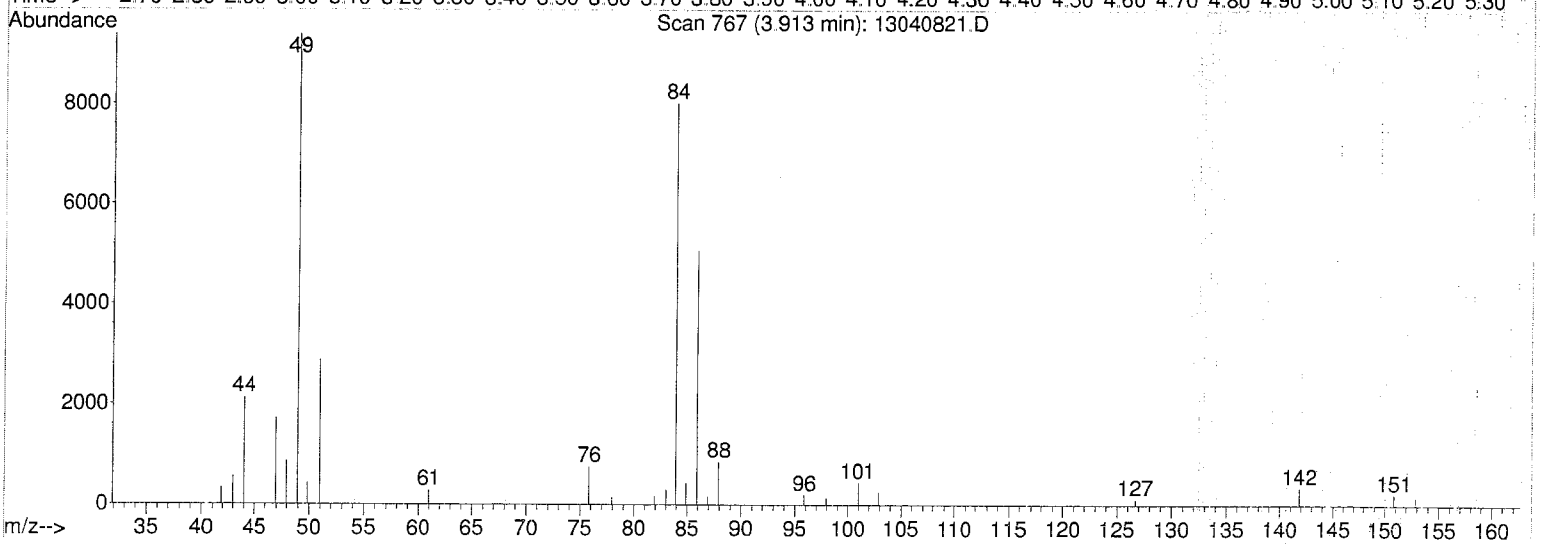
Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:27 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration









TIC: 13040821.D

(15) Methylene chloride (T)

3.91min 47.09ug/L m

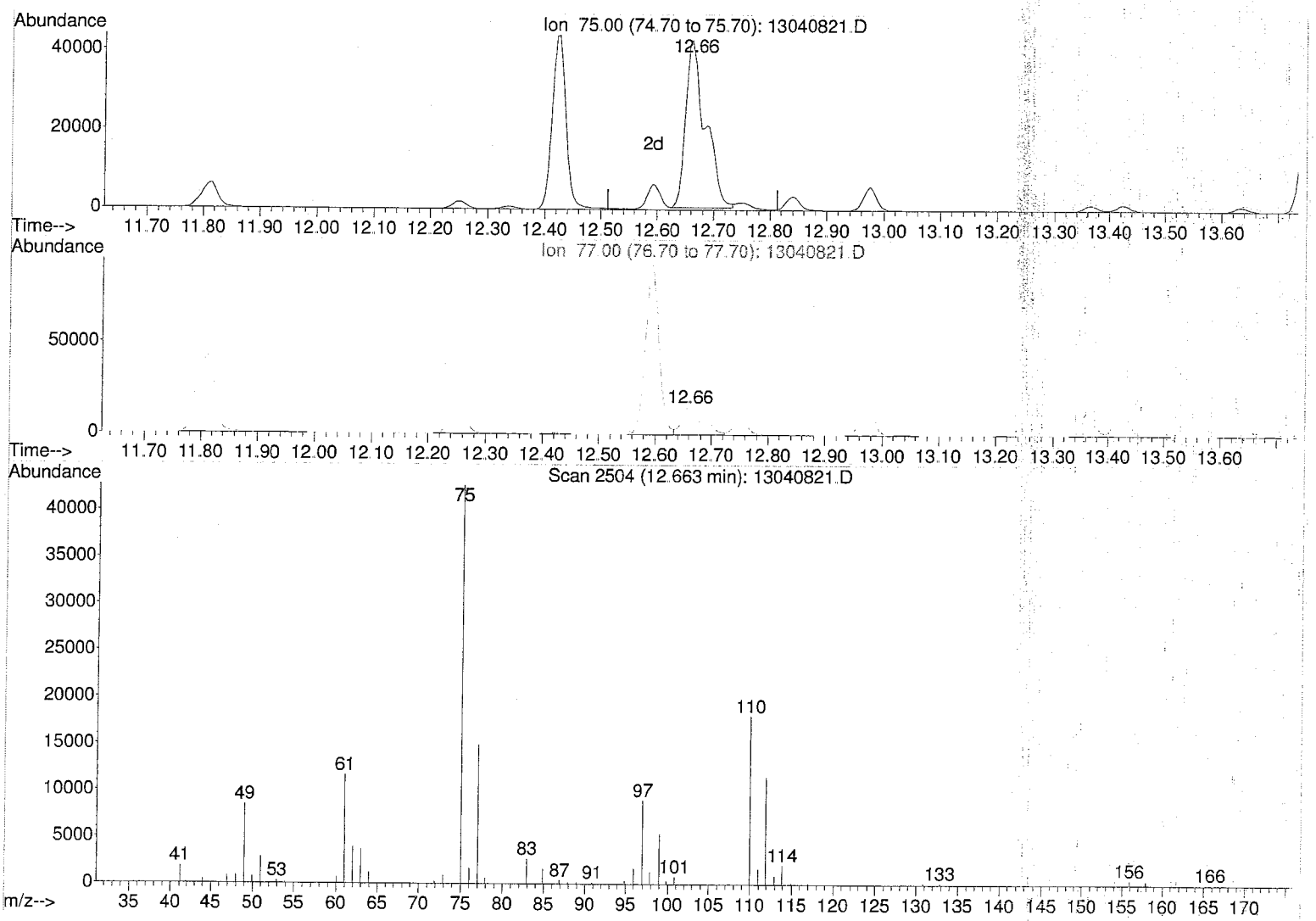
response 109313

Ion	Exp%	Act%
84.00	100	100
86.00	65.10	64.67
49.00	120.70	123.06
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040821.D Vial: 21
Acq On : 8 Apr 2013 8:21 pm Operator: AK
Sample : ICV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:27 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821.D

(65) 1,2,3-Trichloropropane (T)

12.66min 60.87ug/L

response 102933

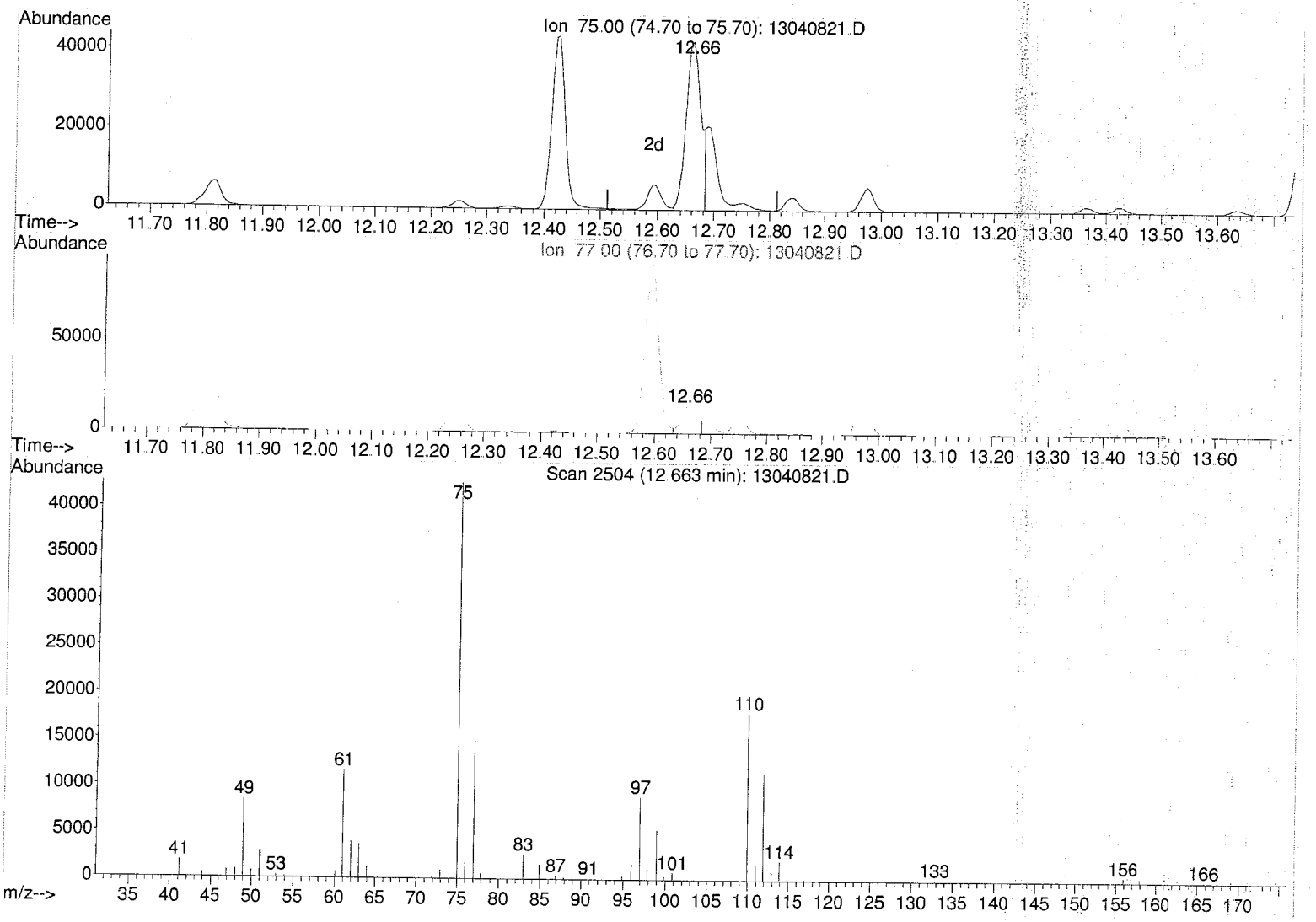
Ion	Exp%	Act%
75.00	100	100
77.00	36.30	35.88
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040821.D
Acq On : 8 Apr 2013 8:21 pm
Sample : ICV 50ppb 5mL
Misc : water 1uL A2338 12.5ul 1405-4, 1351-2
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:27 2013

Vial: 21
Operator: AK
Inst : VOA2
Multiplr: 1.00

Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040821.D

(65) 1,2,3-Trichloropropane (T)

12.66min 47 17ug/L m

response 79766

Ion	Exp%	Act%
75.00	100	100
77.00	36.30	35.38
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Injection Log

Directory: P:\VOC\1\data\130214

* Sample Concentrator error AK 2/15/13

Line	Vial	FileName	Multiplier		SampleName	Misc Info	Injected
1	1	13021401.D	1.		BFB TUNE 5mL	soil 1uL A2338	14 Feb 2013 08:46
2	2	13021402.D	1.		BFB TUNE 5mL	soil 1uL A2338	14 Feb 2013 09:14
3	3	13021403.D	1		BFB TUNE 5mL	soil 1uL A2338	14 Feb 2013 09:41
4	4	13021404.D	1.		BFB TUNE 5mL	soil 1uL A2338	14 Feb 2013 10:09
5	5	13021405.D	1.		BFB TUNE 5mL	soil 1uL A2338	14 Feb 2013 10:36
6	6	13021406.D	1.		CAL1 5ppb 5mL	soil 1uL A2338 2.5ul A2442	14 Feb 2013 11:04
7	7	13021407.D	1.	*	CAL1 5ppb 5mL	soil 1uL A2338 2.5ul A2442	14 Feb 2013 11:38
8	8	13021408.D	1.		CAL2 10ppb 5mL	soil 1uL A2338 5ul A2442	14 Feb 2013 12:06
9	9	13021409.D	1.		CAL3 20ppb 5mL	soil 1uL A2338 10ul A2442	14 Feb 2013 12:33
10	10	13021410.D	1.		CAL4 40ppb 5mL	soil 1uL A2338 1ul 1365-1	14 Feb 2013 13:01
11	11	13021411.D	1.		CAL5 60ppb 5mL	soil 1uL A2338 1.5ul 1365-1	14 Feb 2013 13:28
12	12	13021412.D	1.	*	CAL4 40ppb 5mL	soil 1uL A2338 1ul 1365-1	14 Feb 2013 13:56
13	13	13021413.D	1.		CAL6 200ppb 5mL	soil 1uL A2338 5ul 1365-1	14 Feb 2013 14:23
14	14	13021414.D	1.	*	CAL7 400ppb 5mL	soil 1uL A2338 10ul 1365-1	14 Feb 2013 14:51
15	15	13021415.D	1		CAL7 400ppb 5mL	soil 1uL A2338 10ul 1365-1	14 Feb 2013 15:19
16	16	13021416.D	1		ICV 60ppb 5mL	soil 1uL A2338 1.5ul 1365-2	14 Feb 2013 15:46
17	17	13021417.D	1.		ICV 60ppb 5mL	soil 1uL A2338 1.5ul 1365-2	14 Feb 2013 16:13
18	18	13021418.D	1.		ICV 60ppb 5mL	soil 1uL A2338 1.5ul 1365-2	14 Feb 2013 16:41
19	19	13021419.D	1.		BFB TUNE 5mL	soil 1uL A2338	14 Feb 2013 17:08
20	20	13021420.D	1.		CCV 60ppb 5mL	soil 1uL A2338 1.5ul 1365-1	14 Feb 2013 17:36
21	21	13021421.D	1.		CCV 60ppb 5mL	soil 1uL A2338 1.5ul 1365-1	14 Feb 2013 18:03
22	22	13021422.D	1.		BLK 4.84g 1323	soil 1uL A2338	14 Feb 2013 18:31
23	23	13021423.D	1.		BLK 5.04g 1323	soil 1uL A2338	14 Feb 2013 18:58
24	24	13021424.D	1.		LCS 4.93g 1323	soil 1uL A2338 1.5ul 1365-2	14 Feb 2013 19:26
25	25	13021425.D	1		LCS 4.88g 1323	soil 1uL A2338 1.5ul 1365-2	14 Feb 2013 19:53
26	26	13021426.D	1.		13020814-001 4.91g	soil 1uL A2338	14 Feb 2013 20:21
27	27	13021427.D	1.		13020814-001 4.83g MS	soil 1uL A2338 1.5ul 1365-2	14 Feb 2013 20:48
28	28	13021428.D	1.		13020814-001 5.00g MSD	soil 1uL A2338 1.5ul 1365-2	14 Feb 2013 21:16
29	29	13021429.D	1		13020627-002 6.67g 50D t-core	soil 1uL A2338	14 Feb 2013 21:43
30	30	13021430.D	1.		13020627-004 5.96g 50D t-core	soil 1uL A2338	14 Feb 2013 22:11
31	31	13021431.D	1		13020627-004 6.34g t-core	soil 1uL A2338	14 Feb 2013 22:38
32	32	13021432.D	1.		blank 5mL	soil 1uL A2338	14 Feb 2013 23:06
33	33	13021433.D	1.		13020818-023 4.06g t-core	soil 1uL A2338	14 Feb 2013 23:33
34	34	13021434.D	1.		13020819-009 6.70g t-core	soil 1uL A2338	15 Feb 2013 00:00
35	35	13021435.D	1.		13020819-010 5.15g t-core	soil 1uL A2338	15 Feb 2013 00:28
36	36	13021436.D	1.		13020819-019 4.80g t-core	soil 1uL A2338	15 Feb 2013 00:55
37	37	13021437.D	1.		13020821-001 4.96g	soil 1uL A2338	15 Feb 2013 01:23

44764
103990

44765
103991

Injection Log

Directory: P:\VOC\1\data\130214

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
38	38	13021438.D	1.	13020821-002 4.96g	soil 1uL A2338	15 Feb 2013 01:50
39	39	13021439.D	1.	13021210-001 4.94g	soil 1uL A2338	15 Feb 2013 02:18
40	40	13021440.D	1.	13021211-004 4.87g	soil 1uL A2338	15 Feb 2013 02:45
41	41	13021441.D	1.	13021211-006 5.06g	soil 1uL A2338	15 Feb 2013 03:12
42	42	13021442.D	1.	13021218-004 5.02g	soil 1uL A2338	15 Feb 2013 03:40
43	43	13021443.D	1.	13021211-005 1000D	soil 1uL A2338	15 Feb 2013 04:07

Response Factor Report VOA1

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Initial Calibration

Calibration Files
1 =13021406.D 2 =13021408.D 3 =13021409.D
4 =13021412.D 5 =13021411.D 6 =13021413.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	I	Fluorobenzene ISTD	----------ISTD----------							
2)	T	Dichlorodifluor	0.174	0.172	0.165	0.149	0.145	0.167	0.165	8.52
3)	P	Chloromethane	0.271	0.278	0.271	0.248	0.252	0.277	0.270	5.64
4)	C	VINYL CHLORIDE	0.222	0.223	0.225	0.197	0.190	0.213	0.214	7.11
5)	T	Bromomethane	0.097	0.090	0.071	0.106	0.099	0.093	0.091	13.39
6)	T	Chloroethane	0.116	0.113	0.096	0.115	0.103	0.106	0.107	7.83
7)	T	Trichlorofluoro	0.172	0.174	0.176	0.167	0.153	0.175	0.172	5.97
8)	T	acrolein	0.040	0.046	0.042	0.038	0.038	0.042	0.041	6.96
9)	T	Acetone	0.018	0.022	0.027	0.019	0.019	0.020	0.021	15.31
10)	M,C	1,1-DICHLOROETH	0.118	0.125	0.126	0.112	0.105	0.116	0.118	6.38
11)	T	1,1,2-Trichloro	0.125	0.130	0.131	0.115	0.106	0.117	0.122	7.59
12)	T	iodomethane	0.214	0.237	0.232	0.214	0.209	0.237	0.227	6.01
13)	T	Carbon Disulfid	0.406	0.411	0.414	0.371	0.343	0.405	0.398	7.88
14)	T	Methyl Acetate	0.026	0.029	0.028	0.025	0.024	0.027	0.026	7.22
15)	T	Methylene chlor	0.160	0.160	0.151	0.160	0.132	0.146	0.151	6.85
16)	T	tert-Butanol	0.048	0.060	0.051	0.042	0.040	0.042	0.047	14.39
17)	T	acrylonitrile	0.081	0.084	0.086	0.077	0.075	0.084	0.081	4.79
18)	T	trans-1,2-Dichl	0.144	0.140	0.140	0.126	0.117	0.131	0.133	6.96
19)	T	Methyl-t-Butyl	0.435	0.475	0.464	0.422	0.411	0.461	0.445	5.23
20)	P	1,1-Dichloroeth	0.272	0.285	0.287	0.260	0.250	0.284	0.276	5.63
21)	T	vinyl acetate	0.730	0.821	0.801	0.739	0.716	0.786	0.766	5.14
22)	T	Diisopropyl eth	0.661	0.713	0.709	0.657	0.633	0.707	0.683	4.68
23)	T	tert-Butyl ethy	0.597	0.640	0.619	0.737	0.735	0.684	0.683	9.65
24)	T	2,2-Dichloropro	0.226	0.238	0.166	0.222	0.209	0.216	0.215	10.85
25)	T	cis-1,2-Dichlor	0.211	0.216	0.159	0.190	0.188	0.203	0.195	9.76
26)	T	2-Butanone (MEK	0.028	0.031	0.030	0.028	0.025	0.028	0.028	7.60
27)	T	Bromochlorometh	0.080	0.087	0.084	0.077	0.078	0.087	0.083	5.06
28)	C	CHLOROFORM	0.342	0.355	0.350	0.323	0.314	0.342	0.336	4.52
29)	S	Dibromofluorome	0.242	0.242	0.244	0.245	0.243	0.235	0.240	2.46
30)	T	1,1,1-Trichloro	0.244	0.254	0.251	0.223	0.216	0.242	0.241	6.26
31)	T	Cyclohexane	0.378	0.391	0.394	0.334	0.316	0.354	0.363	8.09
32)	T	Carbon tetrachl	0.199	0.209	0.204	0.179	0.173	0.191	0.194	7.02
33)	T	1,1-Dichloropro	0.229	0.237	0.235	0.207	0.198	0.209	0.217	7.34
34)	M	Benzene`	0.690	0.724	0.715	0.644	0.631	0.671	0.675	5.41
35)	T	1,2-Dichloroeth	0.292	0.316	0.311	0.285	0.283	0.314	0.300	4.64
36)	T	tert-Amyl alcoh	0.058	0.061	0.055	0.049	0.047	0.051	0.053	9.03
37)	T	tert-Amyl methy	0.663	0.709	0.684	0.629	0.621	0.668	0.657	5.13
38)	M	Trichloroethene	0.173	0.175	0.175	0.156	0.152	0.164	0.165	5.64
39)	C	1,2-DICHLOROPRO	0.198	0.215	0.209	0.192	0.189	0.209	0.202	4.80
40)	T	Methylcyclohexa	0.294	0.305	0.299	0.257	0.241	0.262	0.276	8.78
41)	T	tert-Amyl ethyl	0.605	0.635	0.622	0.566	0.563	0.606	0.595	4.86
42)	T	Dibromomethane	0.121	0.130	0.128	0.114	0.116	0.126	0.122	4.86
43)	T	1,4-Dioxane	2.788	3.105	3.047	2.676	2.636	2.912	2.905	7.29
44)	T	Bromodichlorome	0.272	0.293	0.286	0.261	0.256	0.280	0.273	5.17
45)	T	cis-1,3-Dichlor	0.334	0.356	0.350	0.325	0.316	0.340	0.334	4.63
46)	T	4-Methyl-2-Pent	0.032	0.035	0.033	0.029	0.030	0.033	0.032	6.14
47)	S	Toluene d-8 SS#	0.779	0.782	0.786	0.792	0.795	0.791	0.790	1.06
48)	M,C	TOLUENE	0.390	0.411	0.404	0.362	0.351	0.387	0.384	5.57
49)	T	trans-1,3-Dichl	0.317	0.347	0.337	0.310	0.306	0.330	0.321	5.26
50)	T	1,1,2-Trichloro	0.137	0.144	0.140	0.128	0.125	0.136	0.133	5.54
51)	T	Tetrachloroethe	0.096	0.098	0.095	0.084	0.081	0.091	0.092	7.29
52)	T	2-Hexanone (MBK	0.255	0.280	0.264	0.245	0.238	0.270	0.261	5.91
53)	I	Chlorobenzene d-5 IST	----------ISTD----------							

(#) = Out of Range ### Number of calibration levels exceeded format ###

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Initial Calibration

Calibration Files
1 =13021406.D 2 =13021408.D 3 =13021409.D
4 =13021412.D 5 =13021411.D 6 =13021413.D

		Compound	1	2	3	4	5	6	Avg	%RSD
54)	T	1,3-Dichloropro	0.536	0.589	0.555	0.513	0.498	0.541	0.533	6.23
55)	T	Dibromochlorome	0.279	0.303	0.300	0.271	0.271	0.309	0.291	5.66
56)	T	1,2-Dibromoetha	0.284	0.306	0.302	0.270	0.266	0.301	0.288	5.54
57)	M,P	Chlorobenzene	0.700	0.712	0.712	0.630	0.620	0.688	0.677	5.58
58)	T	1,1,1,2-Tetrach	0.253	0.269	0.259	0.235	0.233	0.262	0.253	5.34
59)	C	ETHYLBENZENE	1.386	1.379	1.361	1.202	1.145	1.210	1.256	9.29
60)	T	m&p-Xylene	0.458	0.465	0.453	0.407	0.388	0.430	0.430	6.94
61)	T	o-Xylene	0.480	0.488	0.479	0.425	0.410	0.461	0.457	6.40
62)	T	Styrene	0.864	0.892	0.880	0.805	0.779	0.861	0.842	5.08
63)	P	Bromoform	0.175	0.196	0.192	0.175	0.176	0.203	0.188	6.83
64)	T	1,2,3-Trichloro	0.373	0.407	0.418	0.377	0.345	0.395	0.380	7.34
65)	T	Bromobenzene	0.268	0.275	0.270	0.249	0.246	0.275	0.265	4.66
66)	T	trans-1,4-dichl	0.215	0.212	0.199	0.183	0.176	0.195	0.196	7.25
67)	T	n-Propylbenzene	1.720	1.710	1.659	1.492	1.396	1.440	1.540	9.86
68)	I	1,4-Dichlorobenzene d	----------	----------	ISTD	----------	----------	----------	----------	
69)	T	Isopropylbenzen	2.575	2.575	2.551	2.248	2.136	2.397	2.403	7.21
70)	S	4-Bromofluorobe	1.400	1.391	1.402	1.387	1.391	1.460	1.413	2.26
71)	P	1,1,2,2-Tetrach	0.936	1.013	0.982	0.892	0.854	0.945	0.925	6.67
72)	T	2-Chlorotoluene	2.273	2.323	2.234	2.014	1.907	2.080	2.107	8.11
73)	T	4-Chlorotoluene	2.658	2.722	2.572	2.318	2.130	2.161	2.333	14.65
74)	T	1,3,5-Trimethyl	2.324	2.370	2.281	2.027	1.906	2.077	2.111	10.50
75)	T	tert-Butylbenze	1.820	1.854	1.852	1.614	1.546	1.772	1.747	6.91
76)	T	1,2,4-Trimethyl	2.414	2.470	2.395	2.127	2.034	2.233	2.254	7.65
77)	T	sec-Butylbenzen	2.931	2.924	2.925	2.550	2.414	2.670	2.716	7.77
78)	T	4-Isopropyltolu	2.323	2.348	2.306	2.048	1.945	2.225	2.199	6.87
79)	T	1,3-Dichloroben	1.142	1.206	1.168	1.071	1.030	1.168	1.134	5.43
80)	T	1,4-Dichloroben	1.195	1.210	1.194	1.093	1.052	1.185	1.157	5.19
81)	T	1,2-Dichloroben	1.129	1.202	1.163	1.046	1.023	1.152	1.109	6.26
82)	T	n-Butylbenzene	2.957	2.923	2.797	2.443	2.223	2.157	2.475	17.52
83)	T	1,2-Dibromo-3-c	0.217	0.240	0.232	0.208	0.199	0.229	0.219	6.81
84)	T	1,2,4-Trichloro	0.945	0.967	0.902	0.830	0.793	0.837	0.870	7.83
85)	T	Naphthalene	2.627	2.795	2.674	2.481	2.339	2.491	2.544	6.33
86)	T	1,2,3-Trichloro	0.887	0.935	0.880	0.814	0.783	0.803	0.836	7.91

(#) = Out of Range ### Number of calibration levels exceeded format ###

Calibration Report VOA1

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Initial Calibration

Calibration Files
1 =13021406 2 =13021408 3 =13021409 4 =13021412 5 =13021411
6 =13021413 7 =13021415

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	I	Fluorobenzene ISTD	ISTD				
2)	T	Dichlorodifluorometh	Avg	-----	0.1654	-----	0.0852
3)	P	Chloromethane	Avg	-----	0.2699	-----	0.0564
4)	C	VINYL CHLORIDE	Avg	-----	0.2141	-----	0.0711
5)	T	Bromomethane	Avg	-----	0.0906	-----	0.1339
6)	T	Chloroethane	Avg	-----	0.1067	-----	0.0783
7)	T	Trichlorofluorometha	Avg	-----	0.1720	-----	0.0597
8)	T	acrolein	Avg	-----	0.0412	-----	0.0696
9)	T	Acetone	LinF	-----	0.0211	-----	0.9981
10)	M,C	1,1-DICHLOROETHENE	Avg	-----	0.1176	-----	0.0638
11)	T	1,1,2-Trichlorotrifl	Avg	-----	0.1218	-----	0.0759
12)	T	iodomethane	Avg	-----	0.2266	-----	0.0601
13)	T	Carbon Disulfide	Avg	-----	0.3983	-----	0.0788
14)	T	Methyl Acetate	Avg	-----	0.0264	-----	0.0722
15)	T	Methylene chloride	Avg	-----	0.1508	-----	0.0685
16)	T	tert-Butanol	Avg	-----	0.0468	-----	0.1439
17)	T	acrylonitrile	Avg	-----	0.0813	-----	0.0479
18)	T	trans-1,2-Dichloroet	Avg	-----	0.1328	-----	0.0696
19)	T	Methyl-t-Butyl Ether	Avg	-----	0.4454	-----	0.0523
20)	P	1,1-Dichloroethane	Avg	-----	0.2756	-----	0.0563
21)	T	vinyl acetate	Avg	-----	0.7664	-----	0.0514
22)	T	Diisopropyl ether	Avg	-----	0.6827	-----	0.0468
23)	T	tert-Butyl ethyl eth	Avg	-----	0.6829	-----	0.0965
24)	T	2,2-Dichloropropane	Avg	-----	0.2150	-----	0.1085
25)	T	cis-1,2-Dichloroethe	Avg	-----	0.1950	-----	0.0976
26)	T	2-Butanone (MEK)	Avg	-----	0.0283	-----	0.0760
27)	T	Bromochloromethane	Avg	-----	0.0827	-----	0.0506
28)	C	CHLOROFORM	Avg	-----	0.3361	-----	0.0452
29)	S	Dibromofluoromethane	Avg	-----	0.2399	-----	0.0246
30)	T	1,1,1-Trichloroethan	Avg	-----	0.2406	-----	0.0626
31)	T	Cyclohexane	Avg	-----	0.3628	-----	0.0809
32)	T	Carbon tetrachloride	Avg	-----	0.1943	-----	0.0702
33)	T	1,1-Dichloropropene	Avg	-----	0.2175	-----	0.0734
34)	M	Benzene`	Avg	-----	0.6746	-----	0.0541
35)	T	1,2-Dichloroethane	Avg	-----	0.2998	-----	0.0464
36)	T	tert-Amyl alcohol	Avg	-----	0.0534	-----	0.0903
37)	T	tert-Amyl methyl eth	Avg	-----	0.6568	-----	0.0513
38)	M	Trichloroethene	Avg	-----	0.1654	-----	0.0564
39)	C	1,2-DICHLOROPROPANE	Avg	-----	0.2017	-----	0.0480
40)	T	Methylcyclohexane	Avg	-----	0.2761	-----	0.0878
41)	T	tert-Amyl ethyl ethe	Avg	-----	0.5952	-----	0.0486
42)	T	Dibromomethane	Avg	-----	0.1221	-----	0.0486
43)	T	1,4-Dioxane	Avg	-----	2.9048	-----	0.0729
44)	T	Bromodichloromethane	Avg	-----	0.2729	-----	0.0517
45)	T	cis-1,3-Dichloroprop	Avg	-----	0.3341	-----	0.0463
46)	T	4-Methyl-2-Pentanone	Avg	-----	0.0321	-----	0.0614
47)	S	Toluene d-8 SS#2	Avg	-----	0.7899	-----	0.0106
48)	M,C	TOLUENE	Avg	-----	0.3838	-----	0.0557
49)	T	trans-1,3-Dichloropr	Avg	-----	0.3211	-----	0.0526
50)	T	1,1,2-Trichloroethan	Avg	-----	0.1335	-----	0.0554
51)	T	Tetrachloroethene	Avg	-----	0.0918	-----	0.0729
52)	T	2-Hexanone (MBK)	Avg	-----	0.2605	-----	0.0591
53)	I	Chlorobenzene d-5 IS	ISTD				

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Initial Calibration

Calibration Files
1 =13021406 2 =13021408 3 =13021409 4 =13021412 5 =13021411
6 =13021413 7 =13021415

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
54)	T	1,3-Dichloropropane	Avg	-----	0.5325	-----	0.0623
55)	T	Dibromochloromethane	Avg	-----	0.2906	-----	0.0566
56)	T	1,2-Dibromoethane	Avg	-----	0.2883	-----	0.0554
57)	M,P	Chlorobenzene	Avg	-----	0.6766	-----	0.0558
58)	T	1,1,1,2-Tetrachloroe	Avg	-----	0.2528	-----	0.0534
59)	C	ETHYLBENZENE	Avg	-----	1.2564	-----	0.0929
60)	T	m&p-Xylene	Avg	-----	0.4300	-----	0.0694
61)	T	o-Xylene	Avg	-----	0.4573	-----	0.0640
62)	T	Styrene	Avg	-----	0.8421	-----	0.0508
63)	P	Bromoform	Avg	-----	0.1884	-----	0.0683
64)	T	1,2,3-Trichloropropa	Avg	-----	0.3803	-----	0.0734
65)	T	Bromobenzene	Avg	-----	0.2652	-----	0.0466
66)	T	trans-1,4-dichloro-2	Avg	-----	0.1959	-----	0.0725
67)	T	n-Propylbenzene	Avg	-----	1.5405	-----	0.0986
68)	I	1,4-Dichlorobenzene	----------	----------	ISTD	----------	----------
69)	T	Isopropylbenzene	Avg	-----	2.4033	-----	0.0721
70)	S	4-Bromofluorobenzene	Avg	-----	1.4128	-----	0.0226
71)	P	1,1,2,2-Tetrachloroe	Avg	-----	0.9249	-----	0.0667
72)	T	2-Chlorotoluene	Avg	-----	2.1070	-----	0.0811
73)	T	4-Chlorotoluene	Avg	-----	2.3332	-----	0.1465
74)	T	1,3,5-Trimethylbenze	Avg	-----	2.1107	-----	0.1050
75)	T	tert-Butylbenzene	Avg	-----	1.7466	-----	0.0691
76)	T	1,2,4-Trimethylbenze	Avg	-----	2.2543	-----	0.0765
77)	T	sec-Butylbenzene	Avg	-----	2.7163	-----	0.0777
78)	T	4-Isopropyltoluene	Avg	-----	2.1989	-----	0.0687
79)	T	1,3-Dichlorobenzene	Avg	-----	1.1341	-----	0.0543
80)	T	1,4-Dichlorobenzene	Avg	-----	1.1567	-----	0.0519
81)	T	1,2-Dichlorobenzene	Avg	-----	1.1090	-----	0.0626
82)	T	n-Butylbenzene	QuadF	-----	2.4682	-0.0805	0.9996
83)	T	1,2-Dibromo-3-chloro	Avg	-----	0.2193	-----	0.0681
84)	T	1,2,4-Trichlorobenze	Avg	-----	0.8696	-----	0.0783
85)	T	Naphthalene	Avg	-----	2.5444	-----	0.0633
86)	T	1,2,3-Trichlorobenze	Avg	-----	0.8359	-----	0.0791

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021406.D Vial: 6
Acq On : 14 Feb 2013 11:04 am Operator: AK
Sample : CAL1 5ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 2.5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:57:50 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	854426	50.00	ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.81	117	467026	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	220982	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.29	113	207065	0.00	ug/L	0.00
Spiked Amount 50.000	Range 89 - 116		Recovery = 0.00%#			
47) Toluene d-8 SS#2	9.08	98	665480	0.00	ug/L	0.00
Spiked Amount 50.000	Range 89 - 106		Recovery = 0.00%#			
70) 4-Bromofluorobenzene SS#3	12.23	95	309444	0.00	ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 0.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.51	85	14829	No Calib		
3) Chloromethane	1.65	50	23159	No Calib		
4) VINYL CHLORIDE	1.79	62	18985	No Calib		
5) Bromomethane	2.06	94	8315	No Calib		
6) Chloroethane	2.14	64	9932	No Calib		
7) Trichlorofluoromethane	2.50	101	14706	No Calib		
8) acrolein	2.93	56	3428	No Calib		
9) Acetone	3.12	58	1532	No Calib	#	
10) 1,1-DICHLOROETHENE	3.06	96	10099	No Calib	#	
11) 1,1,2-Trichlorotrifluoroet	3.09	101	10684	No Calib		
12) iodomethane	3.22	142	18277	No Calib		
13) Carbon Disulfide	3.35	76	34697	No Calib		
14) Methyl Acetate	3.59	74	2247	No Calib		
15) Methylene chloride	3.72	84	13678	No Calib	#	
16) tert-Butanol	4.02	59	4121	No Calib		
17) acrylonitrile	4.13	53	6895	No Calib		
18) trans-1,2-Dichloroethene	4.11	96	12262	No Calib	#	
19) Methyl-t-Butyl Ether	4.13	73	37154	No Calib		
20) 1,1-Dichloroethane	4.76	63	23234	No Calib		
21) vinyl acetate	4.91	43	62363	No Calib		
22) Diisopropyl ether	4.92	45	56438	No Calib		
23) tert-Butyl ethyl ether	5.46	59	51030	No Calib		
24) 2,2-Dichloropropane	5.60	77	19274	No Calib		
25) cis-1,2-Dichloroethene	5.61	96	18051	No Calib	#	
26) 2-Butanone (MEK)	5.70	72	2418	No Calib	#	
27) Bromochloromethane	5.94	128	6799	No Calib	#	
28) CHLOROFORM	6.08	83	29259	No Calib		
30) 1,1,1-Trichloroethane	6.27	97	20852	No Calib		
31) Cyclohexane	6.32	56	32331	No Calib		
32) Carbon tetrachloride	6.48	117	17003	No Calib		
33) 1,1-Dichloropropene	6.48	75	19600	No Calib		
34) Benzene	6.76	78	58949	No Calib		
35) 1,2-Dichloroethane	6.81	62	24991	No Calib		
36) tert-Amyl alcohol	6.94	59	4913	No Calib	#	
37) tert-Amyl methyl ether	6.96	73	56615	No Calib	#	
38) Trichloroethene	7.59	95	14785	No Calib		
39) 1,2-DICHLOROPROPANE	7.87	63	16921	No Calib		
40) Methylcyclohexane	7.80	83	25132	No Calib	#	
41) tert-Amyl ethyl ether	7.95	59	51706	No Calib		

(#) = qualifier out of range (m) = manual integration
13021406.D VOC-S.M Fri Feb 15 09:59:20 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021406.D Vial: 6
Acq On : 14 Feb 2013 11:04 am Operator: AK
Sample : CAL1 5ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 2.5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:57:50 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

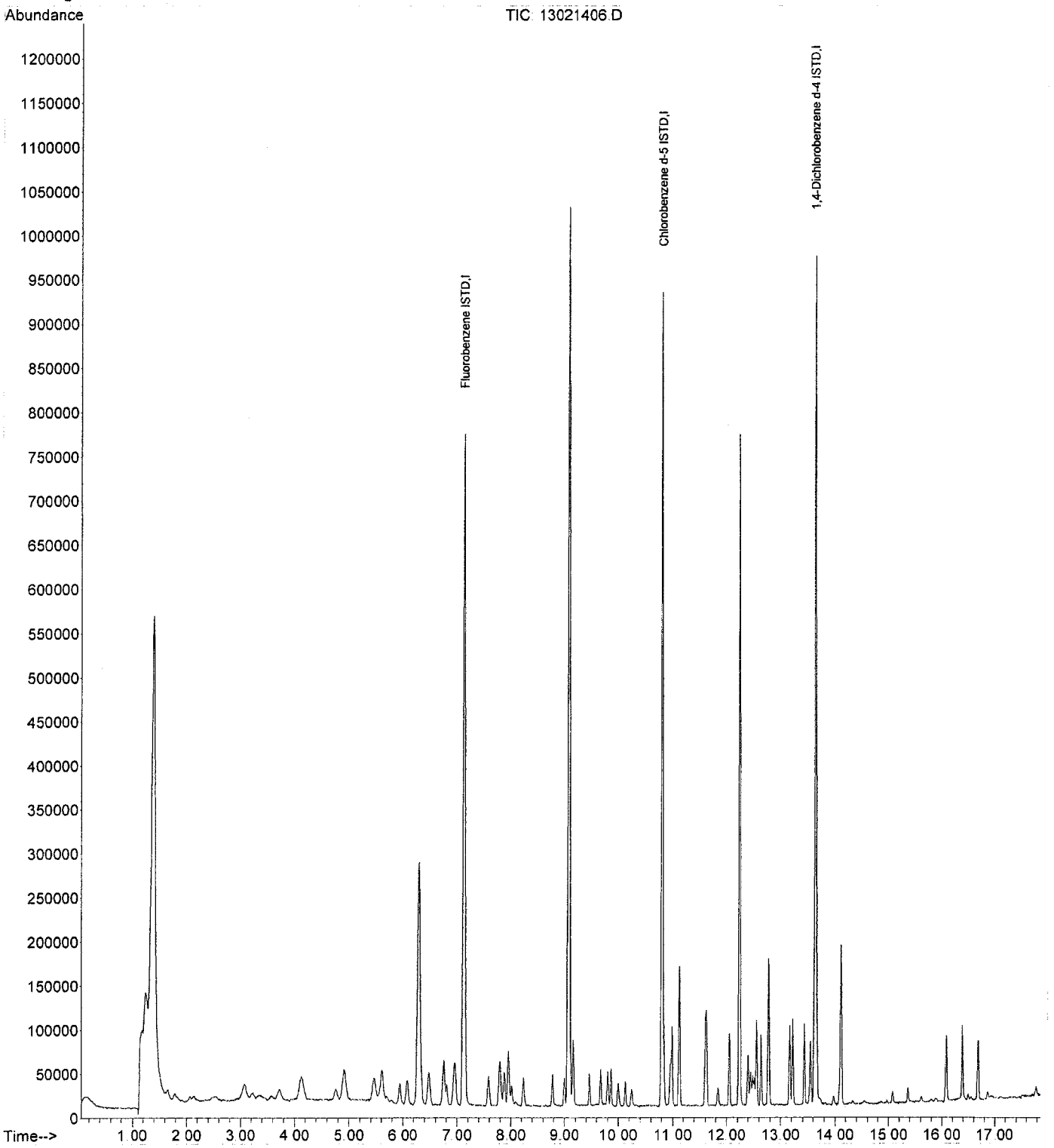
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Dibromomethane	8.01	93	10312	No Calib	
43)	1,4-Dioxane	8.08	88	4765	No Calib	#
44)	Bromodichloromethane	8.23	83	23263	No Calib	
45)	cis-1,3-Dichloropropene	8.78	75	28531	No Calib	
46)	4-Methyl-2-Pentanone (MIBK	9.00	100	2775	No Calib	#
48)	TOLUENE	9.15	92	33341	No Calib	
49)	trans-1,3-Dichloropropene	9.46	75	27084	No Calib	
50)	1,1,2-Trichloroethane	9.67	83	11693	No Calib	
51)	Tetrachloroethene	9.80	164	8167	No Calib	
52)	2-Hexanone (MBK)	10.00	43	21779	No Calib	
54)	1,3-Dichloropropane	9.86	76	25041	No Calib	
55)	Dibromochloromethane	10.12	129	13027	No Calib	
56)	1,2-Dibromoethane	10.25	107	13283	No Calib	
57)	Chlorobenzene	10.84	112	32678	No Calib	
58)	1,1,1,2-Tetrachloroethane	10.95	131	11836	No Calib	
59)	ETHYLBENZENE	10.98	91	64743	No Calib	
60)	m&p-Xylene	11.13	106	42768	No Calib	
61)	o-Xylene	11.60	106	22432	No Calib	
62)	Styrene	11.62	104	40368	No Calib	
63)	Bromoform	11.84	173	8189	No Calib	
64)	1,2,3-Trichloropropane	12.48	75	17428	No Calib	
65)	Bromobenzene	12.40	156	12496	No Calib	#
66)	trans-1,4-dichloro-2-buten	12.51	53	10029	No Calib	#
67)	n-Propylbenzene	12.55	91	80308	No Calib	
69)	Isopropylbenzene	12.06	105	56899	No Calib	
71)	1,1,2,2-Tetrachloroethane	12.44	83	20687	No Calib	
72)	2-Chlorotoluene	12.64	91	50234	No Calib	
73)	4-Chlorotoluene	12.78	91	58741	No Calib	
74)	1,3,5-Trimethylbenzene	12.77	105	51353	No Calib	
75)	tert-Butylbenzene	13.17	119	40219	No Calib	
76)	1,2,4-Trimethylbenzene	13.22	105	53342	No Calib	
77)	sec-Butylbenzene	13.43	105	64765	No Calib	
78)	4-Isopropyltoluene	13.62	119	51327	No Calib	
79)	1,3-Dichlorobenzene	13.55	146	25239	No Calib	
80)	1,4-Dichlorobenzene	13.66	146	26405	No Calib	#
81)	1,2-Dichlorobenzene	14.11	146	24954	No Calib	
82)	n-Butylbenzene	14.12	91	65350	No Calib	
83)	1,2-Dibromo-3-chloropropan	15.07	75	4805	No Calib	
84)	1,2,4-Trichlorobenzene	16.08	180	20872	No Calib	
85)	Naphthalene	16.38	128	58062	No Calib	
86)	1,2,3-Trichlorobenzene	16.68	180	19600	No Calib	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021406.D Vial: 6
Acq On : 14 Feb 2013 11:04 am Operator: AK
Sample : CAL1 5ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 2.5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:59 2013 Quant Results File: VOC-S.RES

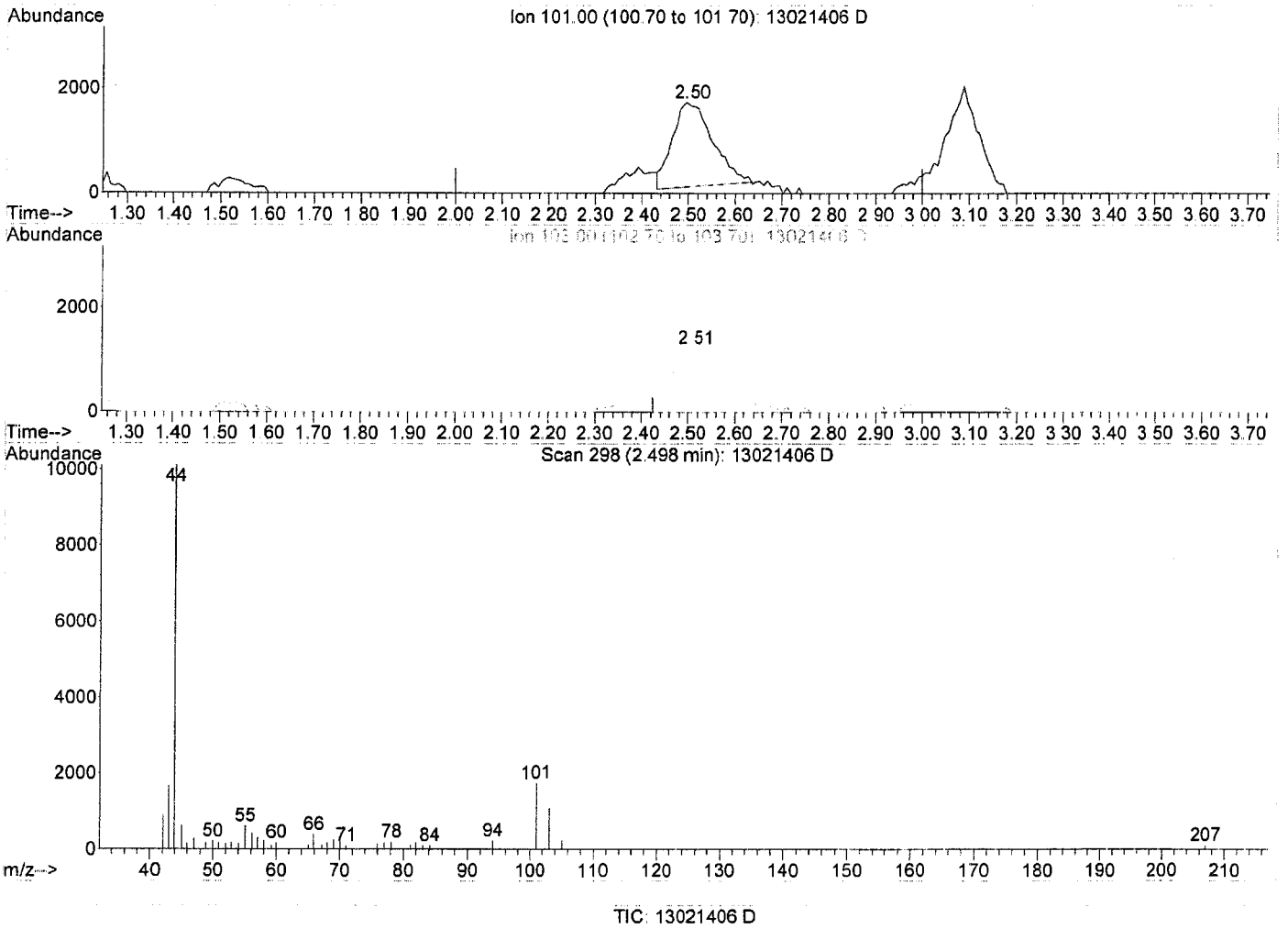
Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021406.D Vial: 6
Acq On : 14 Feb 2013 11:04 am Operator: AK
Sample : CAL1 5ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 2.5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L

response 9776

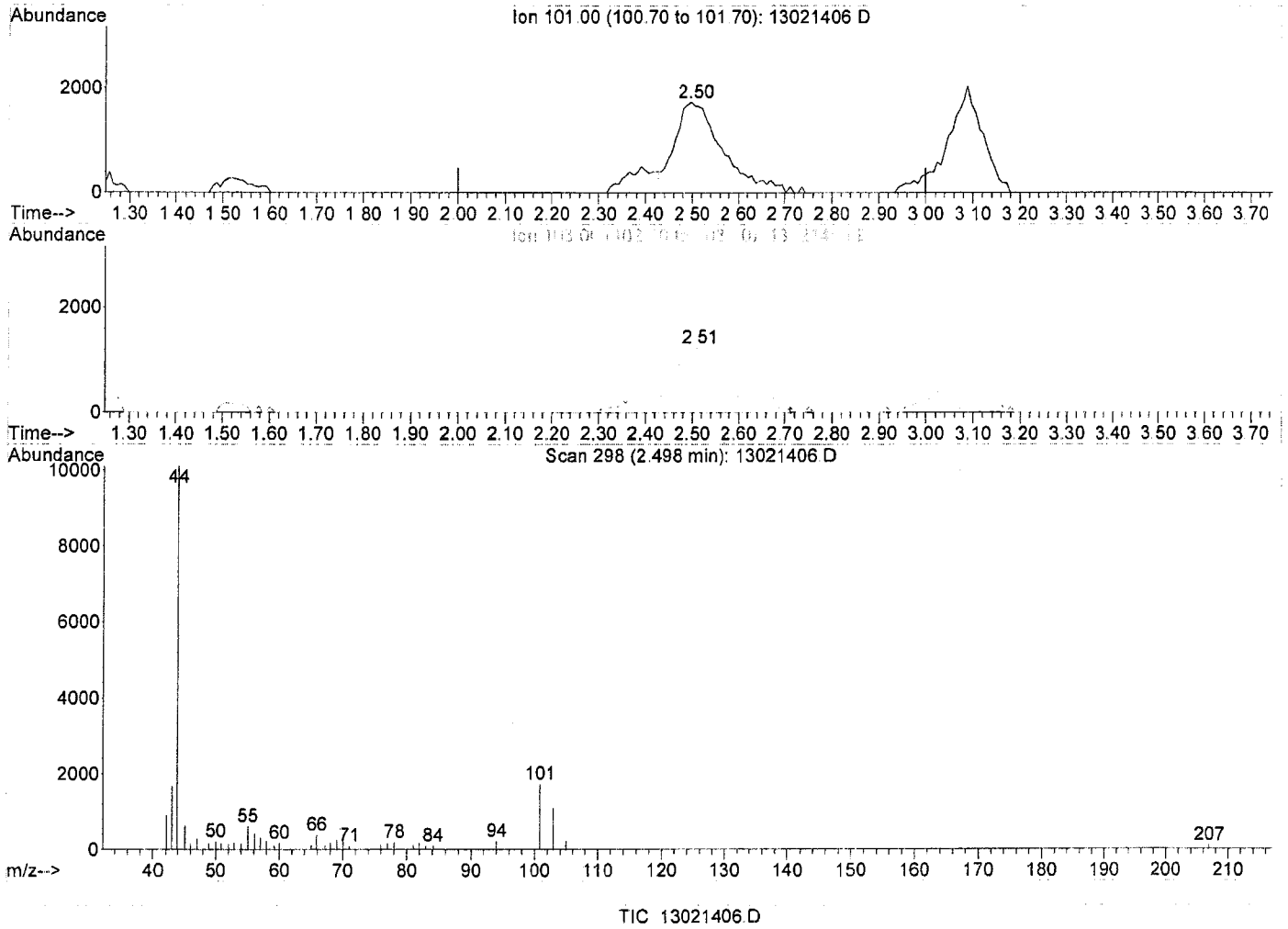
Ion	Exp%	Act%
101.00	100	100
103.00	62.40	88.47#
0.00	0.00	0.00
0.00	0.00	0.00

13021406.D VOC-S.M Fri Feb 15 09:58:14 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021406.D Vial: 6
Acq On : 14 Feb 2013 11:04 am Operator: AK
Sample : CAL1 5ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 2.5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:58 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC 13021406.D

(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L m

response 14706

Ion	Exp%	Act%
101.00	100	100
103.00	62.40	69.27
0.00	0.00	0.00
0.00	0.00	0.00

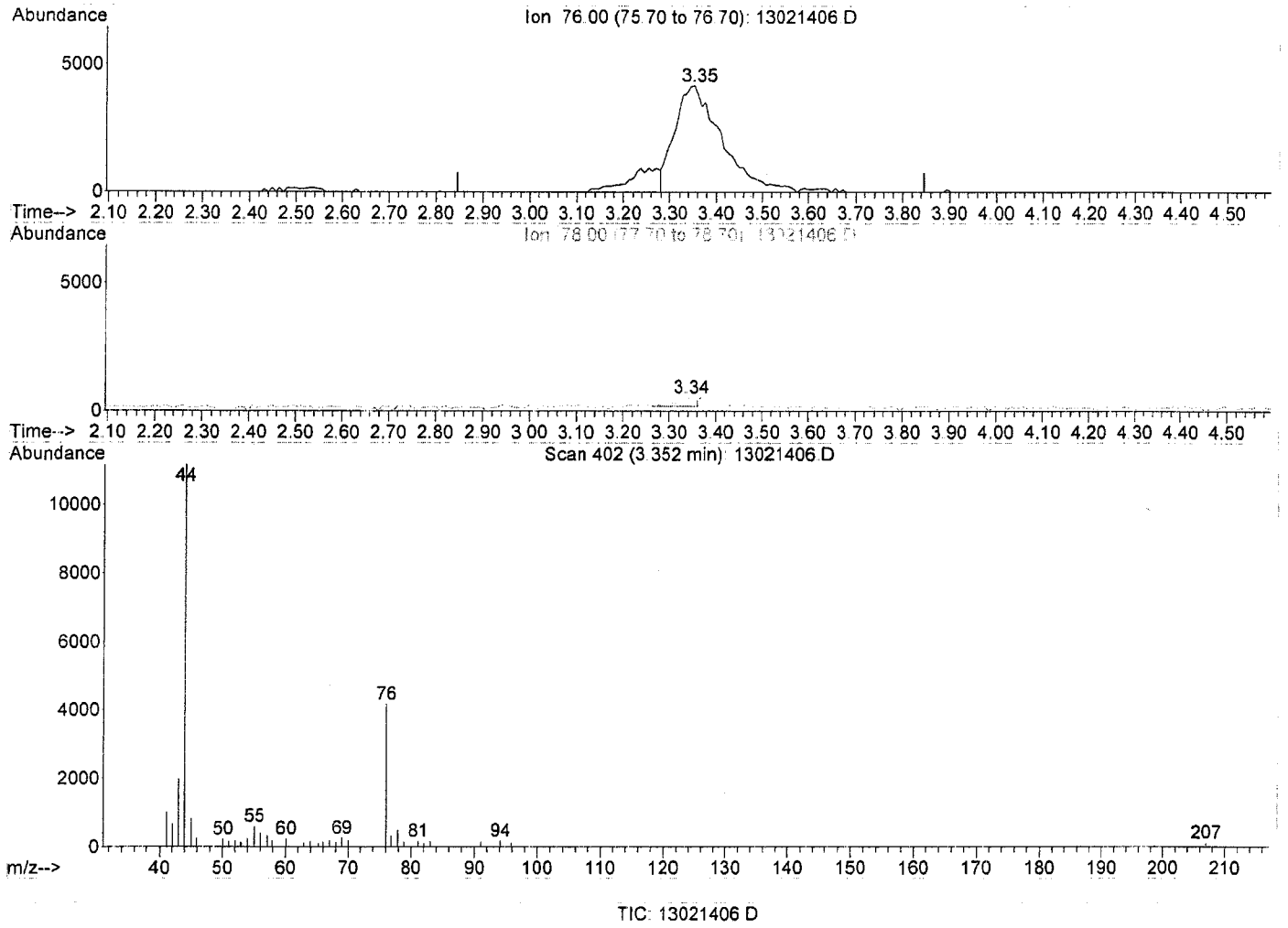
AK 2/15/13

13021406.D VOC-S.M Fri Feb 15 09:58:19 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021406.D Vial: 6
Acq On : 14 Feb 2013 11:04 am Operator: AK
Sample : CAL1 5ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 2.5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:58 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021406.D

(13) Carbon Disulfide (T)

3.35min 0.00ug/L

response 29556

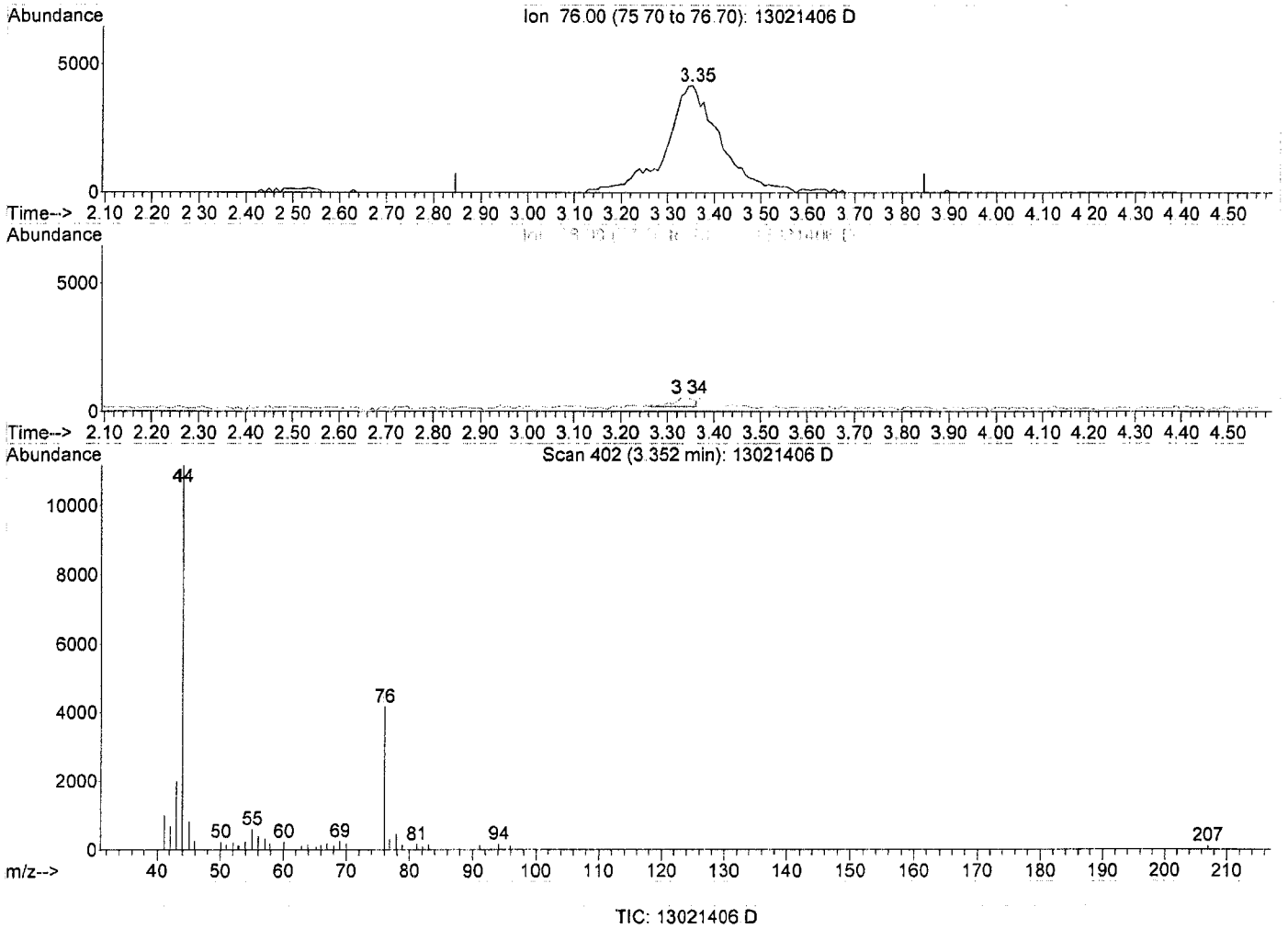
Ion	Exp%	Act%
76.00	100	100
78.00	9.40	3.93
0.00	0.00	0.00
0.00	0.00	0.00

13021406.D VOC-S.M Fri Feb 15 09:58:27 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021406.D Vial: 6
Acq On : 14 Feb 2013 11:04 am Operator: AK
Sample : CAL1 5ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 2.5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:58 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021406 D

(13) Carbon Disulfide (T)

3.35min 0.00ug/L m

response 34697

Ion	Exp%	Act%
76.00	100	100
78.00	9.40	3.35
0.00	0.00	0.00
0.00	0.00	0.00

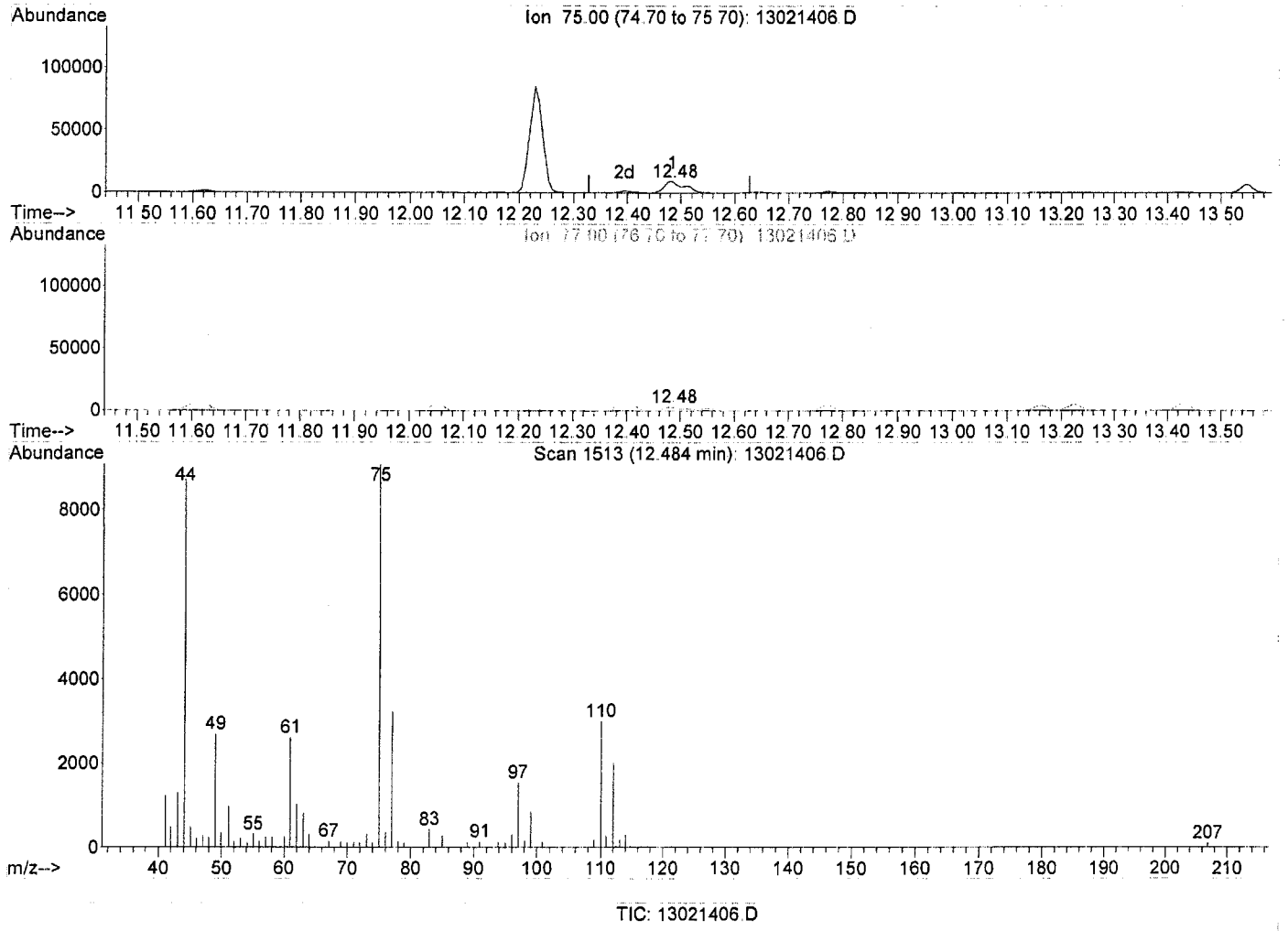
2/15/13

13021406.D VOC-S.M Fri Feb 15 09:58:31 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021406.D Vial: 6
Acq On : 14 Feb 2013 11:04 am Operator: AK
Sample : CAL1 5ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 2.5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:58 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021406.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L

response 24954

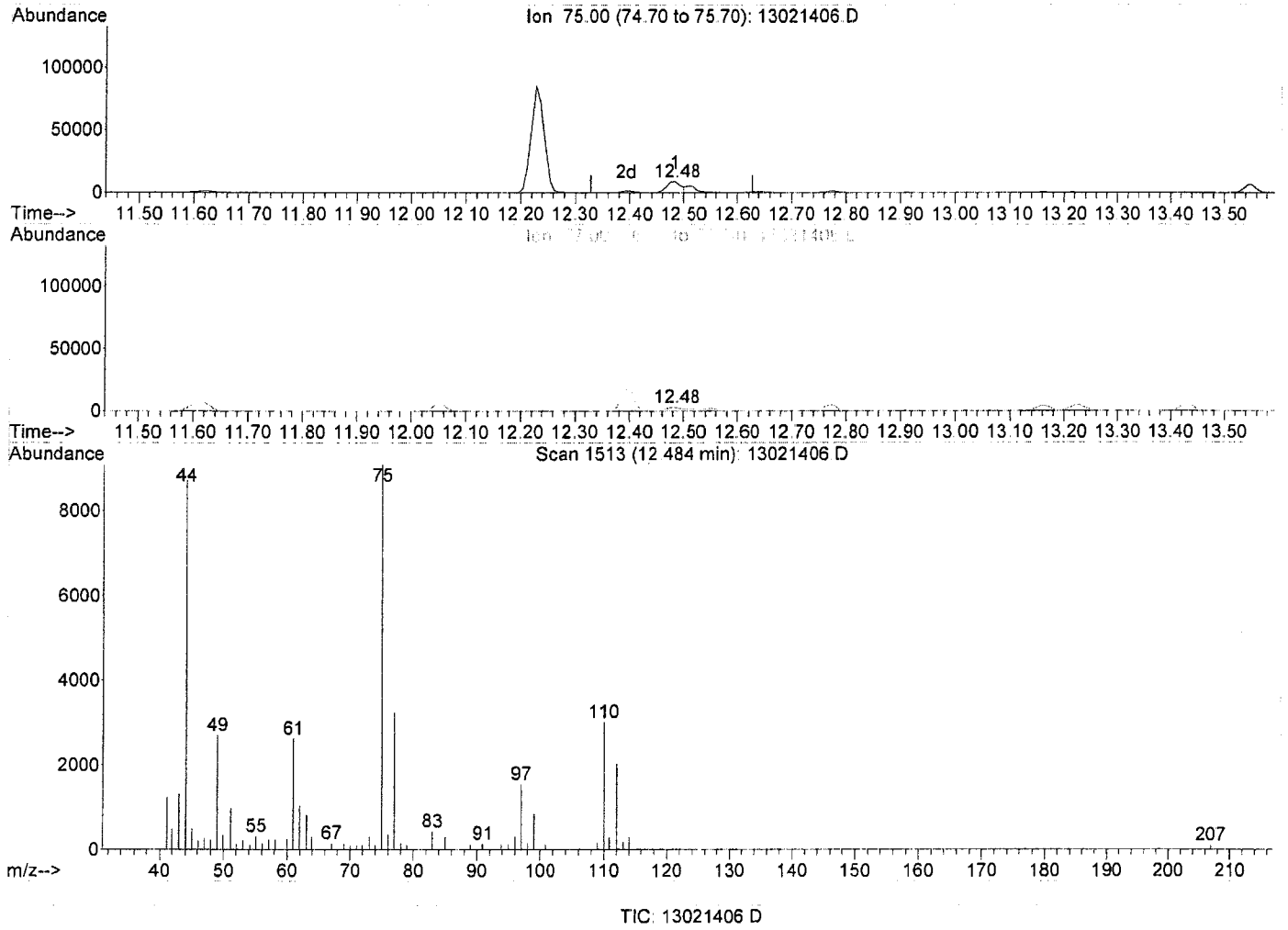
Ion	Exp%	Act%
75.00	100	100
77.00	31.60	33.49
0.00	0.00	0.00
0.00	0.00	0.00

13021406.D VOC-S.M Fri Feb 15 09:59:05 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021406.D Vial: 6
Acq On : 14 Feb 2013 11:04 am Operator: AK
Sample : CAL1 5ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 2.5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:59 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021406.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L m

response 17428

Ion	Exp%	Act%
75.00	100	100
77.00	31.60	38.28
0.00	0.00	0.00
0.00	0.00	0.00

AK 2/15/13

13021406.D VOC-S.M Fri Feb 15 09:59:13 2013

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021408.D Vial: 8
Acq On : 14 Feb 2013 12:06 pm Operator: AK
Sample : CAL2 10ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:55 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	819113	50.00 ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	453687	50.00 ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.64	152	214762	50.00 ug/L	0.00
System Monitoring Compounds					
29) Dibromofluoromethane SS#1	6.29	113	198254	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 116		Recovery =	0.00%#	
47) Toluene d-8 SS#2	9.07	98	640850	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 106		Recovery =	0.00%#	
70) 4-Bromofluorobenzene SS#3	12.23	95	298741	0.00 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.52	85	28255	No Calib	
3) Chloromethane	1.64	50	45620	No Calib	
4) VINYL CHLORIDE	1.78	62	36495	No Calib	
5) Bromomethane	2.06	94	14682	No Calib	
6) Chloroethane	2.13	64	18485	No Calib	
7) Trichlorofluoromethane	2.51	101	28574	No Calib	
8) acrolein	2.92	56	7471	No Calib	#
9) Acetone	3.12	58	3626	No Calib	#
10) 1,1-DICHLOROETHENE	3.06	96	20469	No Calib	#
11) 1,1,2-Trichlorotrifluoroet	3.08	101	21222	No Calib	
12) iodomethane	3.21	142	38890	No Calib	
13) Carbon Disulfide	3.35	76	67389	No Calib	
14) Methyl Acetate	3.57	74	4769	No Calib	#
15) Methylene chloride	3.71	84	26197	No Calib	#
16) tert-Butanol	4.02	59	9762	No Calib	
17) acrylonitrile	4.12	53	13757	No Calib	
18) trans-1,2-Dichloroethene	4.11	96	22862	No Calib	#
19) Methyl-t-Butyl Ether	4.13	73	77746	No Calib	
20) 1,1-Dichloroethane	4.75	63	46626	No Calib	
21) vinyl acetate	4.90	43	134467	No Calib	
22) Diisopropyl ether	4.91	45	116801	No Calib	
23) tert-Butyl ethyl ether	5.45	59	104849	No Calib	
24) 2,2-Dichloropropane	5.59	77	39002	No Calib	
25) cis-1,2-Dichloroethene	5.61	96	35431	No Calib	#
26) 2-Butanone (MEK)	5.69	72	5129	No Calib	#
27) Bromochloromethane	5.93	128	14196	No Calib	#
28) CHLOROFORM	6.07	83	58182	No Calib	
30) 1,1,1-Trichloroethane	6.26	97	41631	No Calib	
31) Cyclohexane	6.30	56	64134	No Calib	#
32) Carbon tetrachloride	6.48	117	34287	No Calib	
33) 1,1-Dichloropropene	6.48	75	38872	No Calib	
34) Benzene	6.75	78	118669	No Calib	
35) 1,2-Dichloroethane	6.81	62	51730	No Calib	
36) tert-Amyl alcohol	6.94	59	9995	No Calib	#
37) tert-Amyl methyl ether	6.95	73	116179	No Calib	#
38) Trichloroethene	7.59	95	28716	No Calib	
39) 1,2-DICHLOROPROPANE	7.87	63	35204	No Calib	
40) Methylcyclohexane	7.79	83	50011	No Calib	#
41) tert-Amyl ethyl ether	7.96	59	103963	No Calib	

(#) = qualifier out of range (m) = manual integration
13021408.D VOC-S.M Fri Feb 15 10:00:30 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021408.D Vial: 8
Acq On : 14 Feb 2013 12:06 pm Operator: AK
Sample : CAL2 10ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:55 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

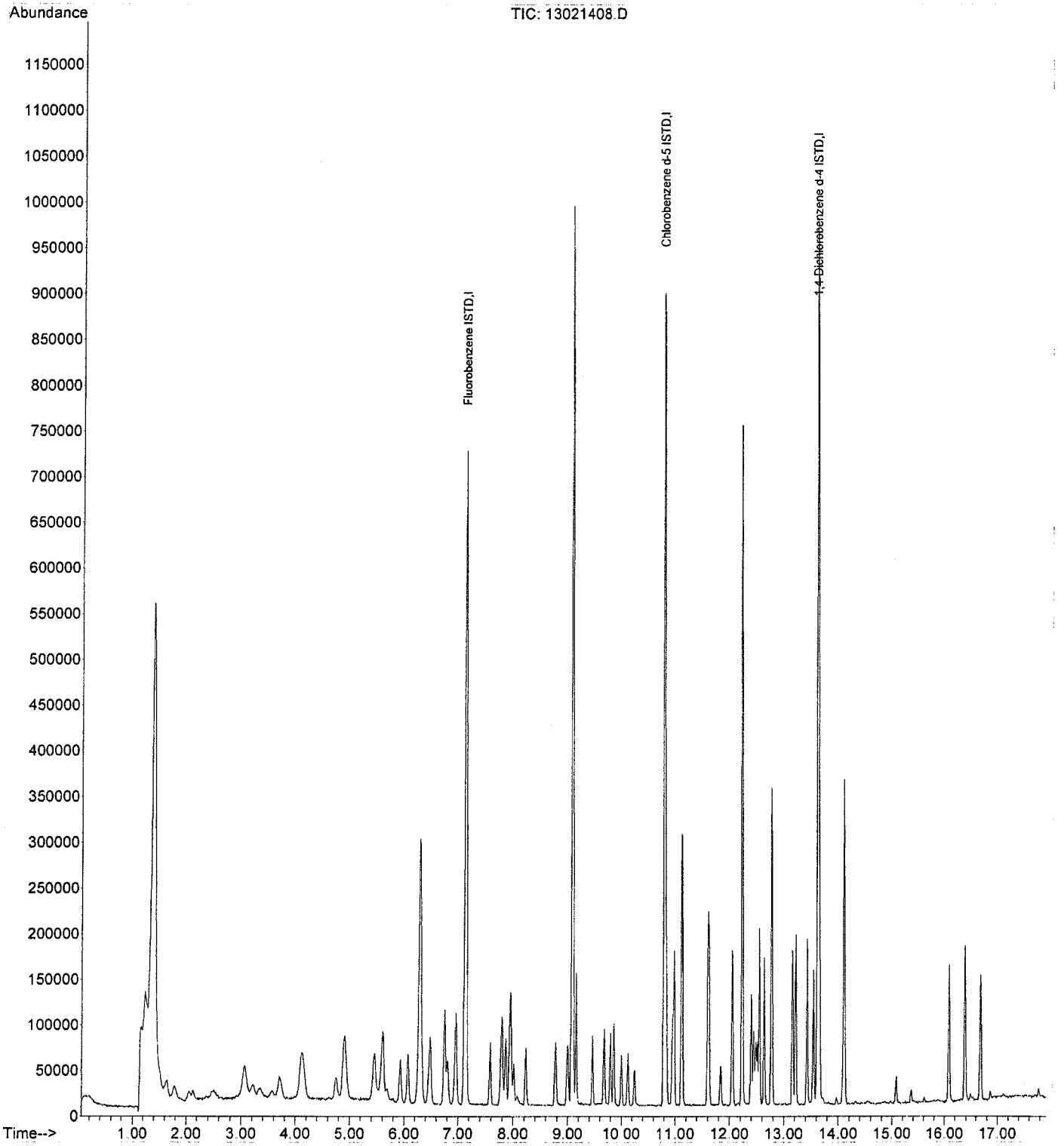
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Dibromomethane	8.01	93	21340	No Calib	
43)	1,4-Dioxane	8.08	88	10172	No Calib	
44)	Bromodichloromethane	8.24	83	48065	No Calib	
45)	cis-1,3-Dichloropropene	8.78	75	58250	No Calib	
46)	4-Methyl-2-Pentanone (MIBK	9.00	100	5689	No Calib	#
48)	TOLUENE	9.16	92	67291	No Calib	
49)	trans-1,3-Dichloropropene	9.46	75	56770	No Calib	
50)	1,1,2-Trichloroethane	9.67	83	23562	No Calib	
51)	Tetrachloroethene	9.80	164	15999	No Calib	
52)	2-Hexanone (MBK)	10.00	43	45882	No Calib	
54)	1,3-Dichloropropane	9.86	76	53401	No Calib	
55)	Dibromochloromethane	10.13	129	27471	No Calib	
56)	1,2-Dibromoethane	10.25	107	27793	No Calib	
57)	Chlorobenzene	10.83	112	64623	No Calib	
58)	1,1,1,2-Tetrachloroethane	10.95	131	24415	No Calib	
59)	ETHYLBENZENE	10.98	91	125168	No Calib	
60)	m&p-Xylene	11.13	106	84448	No Calib	
61)	o-Xylene	11.60	106	44263	No Calib	
62)	Styrene	11.62	104	80922	No Calib	
63)	Bromoform	11.84	173	17794	No Calib	
64)	1,2,3-Trichloropropane	12.48	75	36894	No Calib	
65)	Bromobenzene	12.40	156	24931	No Calib	#
66)	trans-1,4-dichloro-2-buten	12.51	53	19207	No Calib	#
67)	n-Propylbenzene	12.55	91	155167	No Calib	
69)	Isopropylbenzene	12.05	105	110592	No Calib	
71)	1,1,2,2-Tetrachloroethane	12.44	83	43504	No Calib	
72)	2-Chlorotoluene	12.64	91	99760	No Calib	
73)	4-Chlorotoluene	12.77	91	116917	No Calib	
74)	1,3,5-Trimethylbenzene	12.77	105	101776	No Calib	
75)	tert-Butylbenzene	13.17	119	79655	No Calib	
76)	1,2,4-Trimethylbenzene	13.22	105	106093	No Calib	
77)	sec-Butylbenzene	13.43	105	125607	No Calib	
78)	4-Isopropyltoluene	13.62	119	100868	No Calib	
79)	1,3-Dichlorobenzene	13.54	146	51793	No Calib	
80)	1,4-Dichlorobenzene	13.66	146	51989	No Calib	
81)	1,2-Dichlorobenzene	14.11	146	51644	No Calib	
82)	n-Butylbenzene	14.11	91	125546	No Calib	
83)	1,2-Dibromo-3-chloropropan	15.07	75	10319	No Calib	
84)	1,2,4-Trichlorobenzene	16.08	180	41554	No Calib	
85)	Naphthalene	16.38	128	120062	No Calib	
86)	1,2,3-Trichlorobenzene	16.68	180	40162	No Calib	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021408.D Vial: 8
Acq On : 14 Feb 2013 12:06 pm Operator: AK
Sample : CAL2 10ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:00 2013 Quant Results File: VOC-S.RES

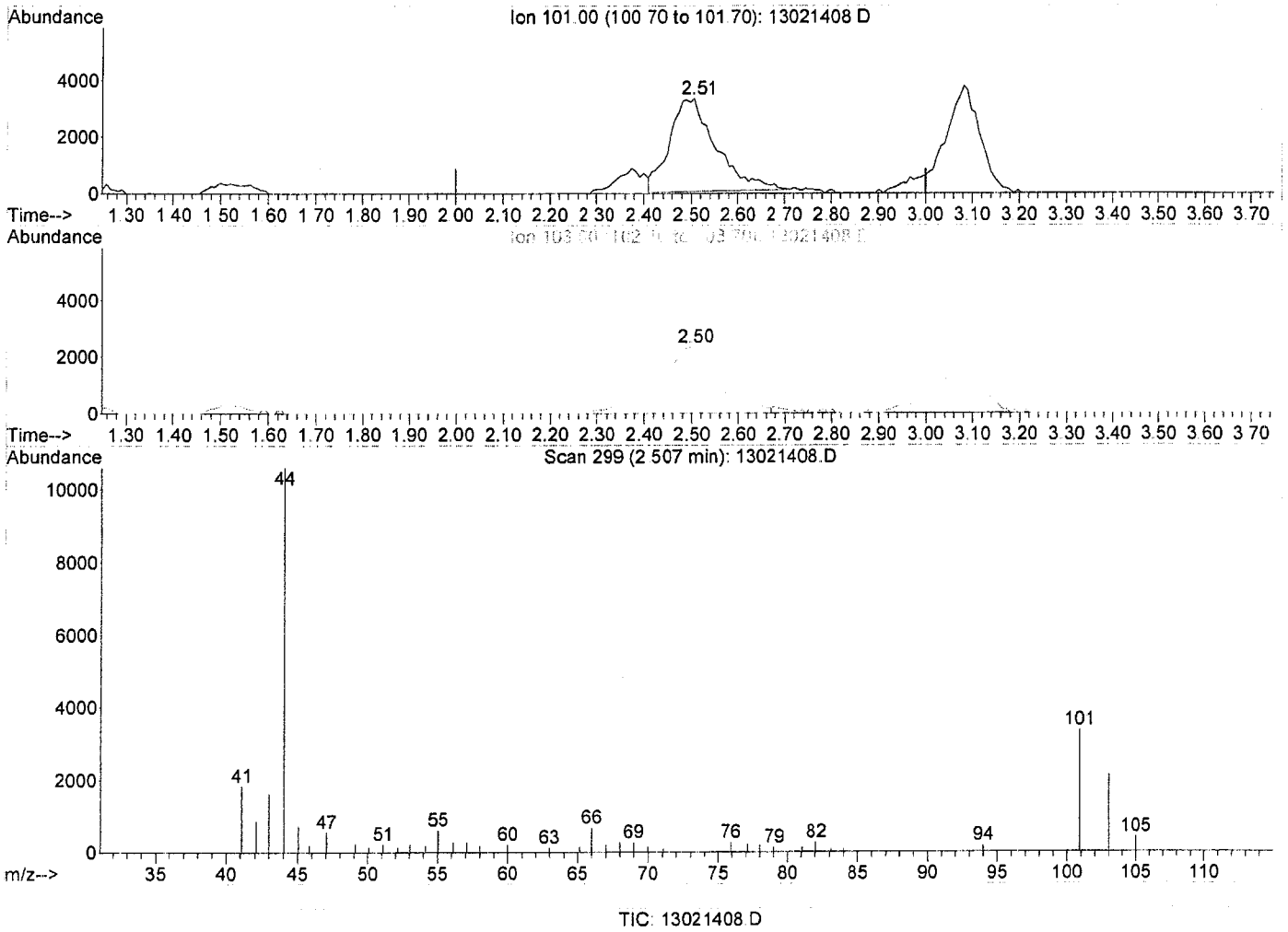
Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021408.D Vial: 8
Acq On : 14 Feb 2013 12:06 pm Operator: AK
Sample : CAL2 10ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021408.D

(7) Trichlorofluoromethane (T)

2.51min 0.00ug/L

response 22591

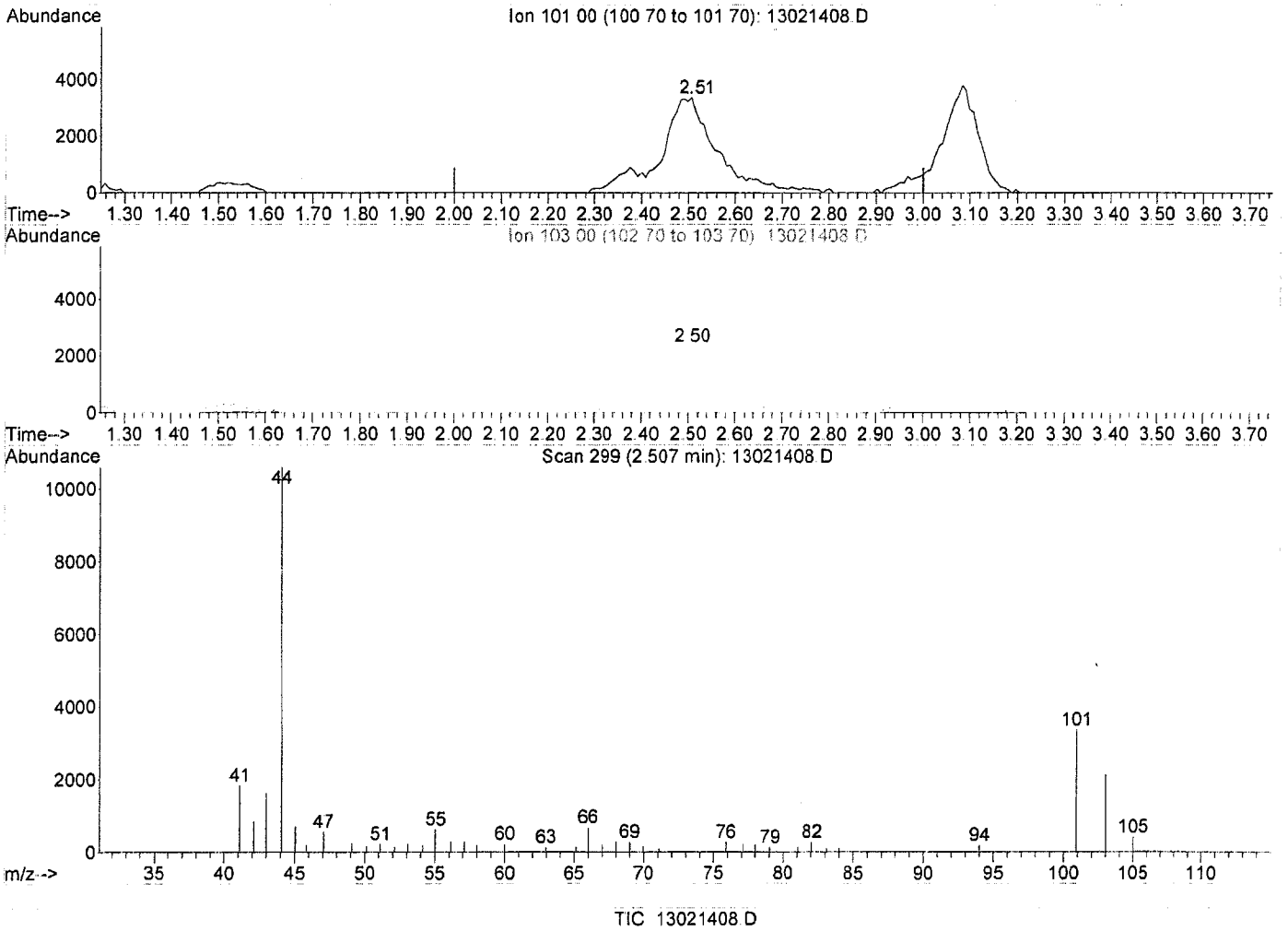
Ion	Exp%	Act%
101.00	100	100
103.00	62.40	81.98
0.00	0.00	0.00
0.00	0.00	0.00

13021408.D VOC-S.M Fri Feb 15 09:59:39 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021408.D Vial: 8
Acq On : 14 Feb 2013 12:06 pm Operator: AK
Sample : CAL2 10ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:59 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



(7) Trichlorofluoromethane (T)

2.51min 0.00ug/L m

response 28574

Ion	Exp%	Act%
101.00	100	100
103.00	62.40	67.46
0.00	0.00	0.00
0.00	0.00	0.00

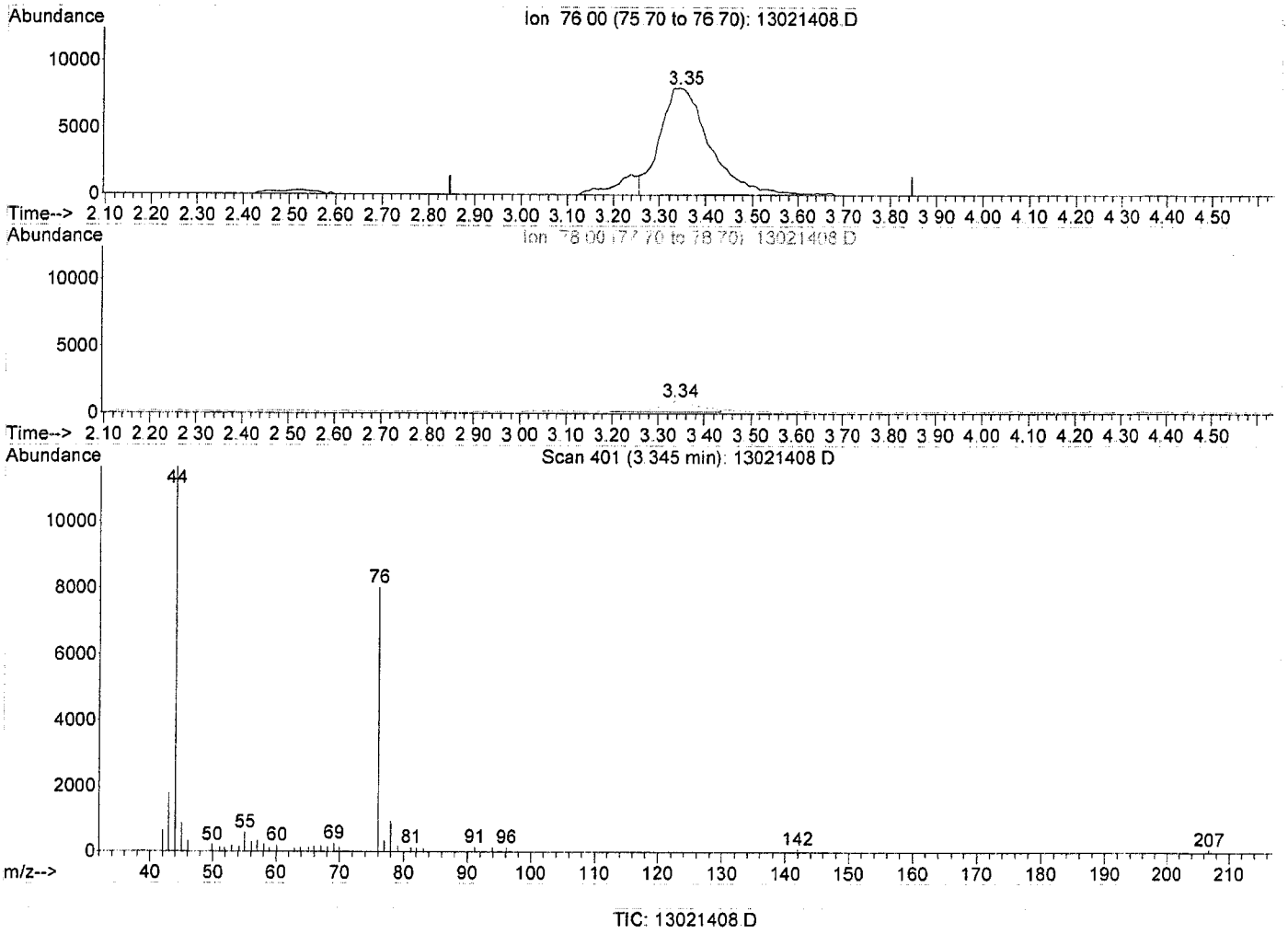
2/15/13

13021408.D VOC-S.M Fri Feb 15 09:59:44 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021408.D Vial: 8
Acq On : 14 Feb 2013 12:06 pm Operator: AK
Sample : CAL2 10ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:59 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021408.D

(13) Carbon Disulfide (T)

3.35min 0.00ug/L

response 59392

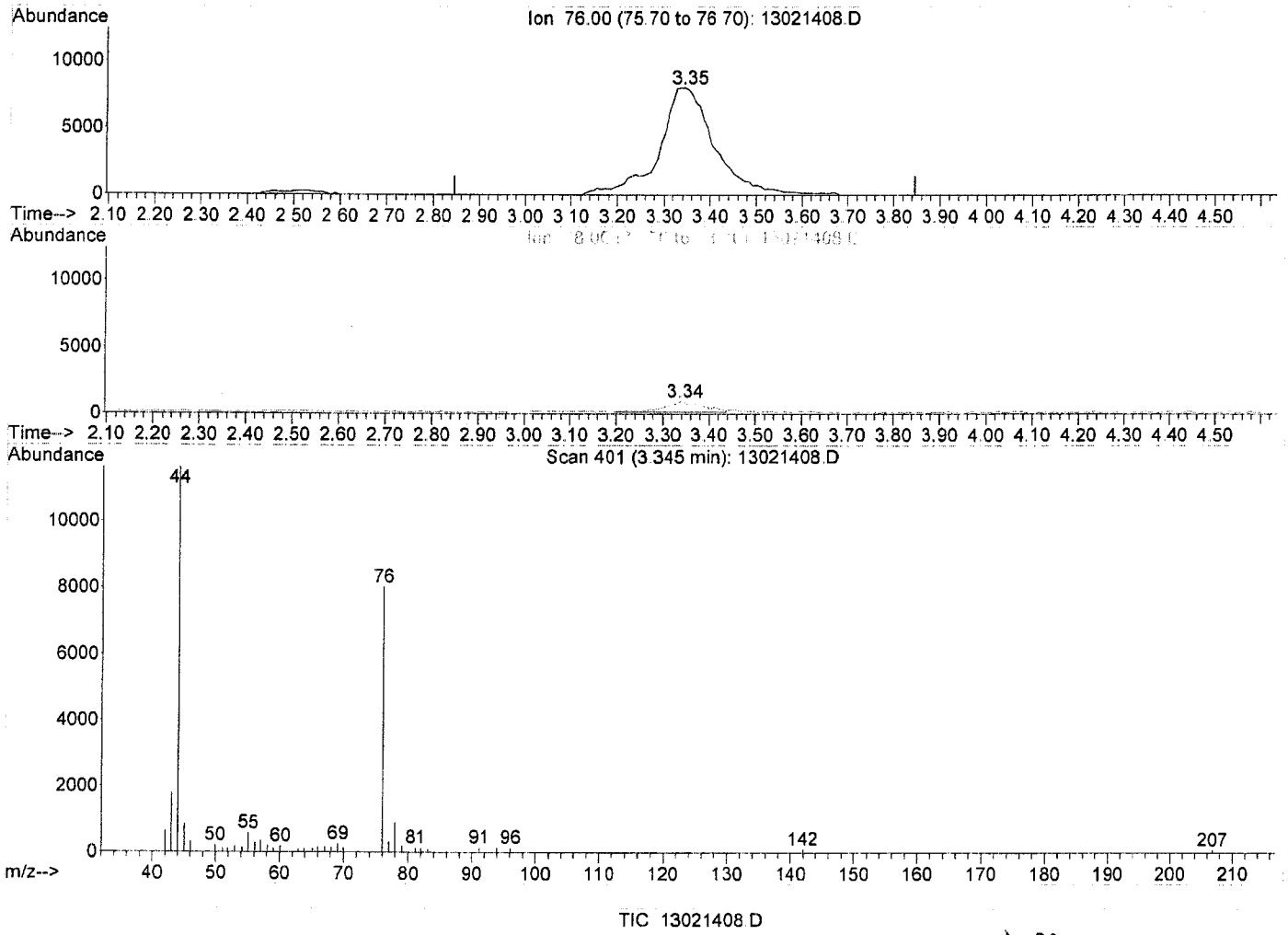
Ion	Exp%	Act%
76.00	100	100
78.00	9.40	8.31
0.00	0.00	0.00
0.00	0.00	0.00

13021408.D VOC-S.M Fri Feb 15 09:59:52 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021408.D Vial: 8
Acq On : 14 Feb 2013 12:06 pm Operator: AK
Sample : CAL2 10ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:59 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC 13021408.D

2/15/13

(13) Carbon Disulfide (T)

3.35min 0.00ug/L m

response 67389

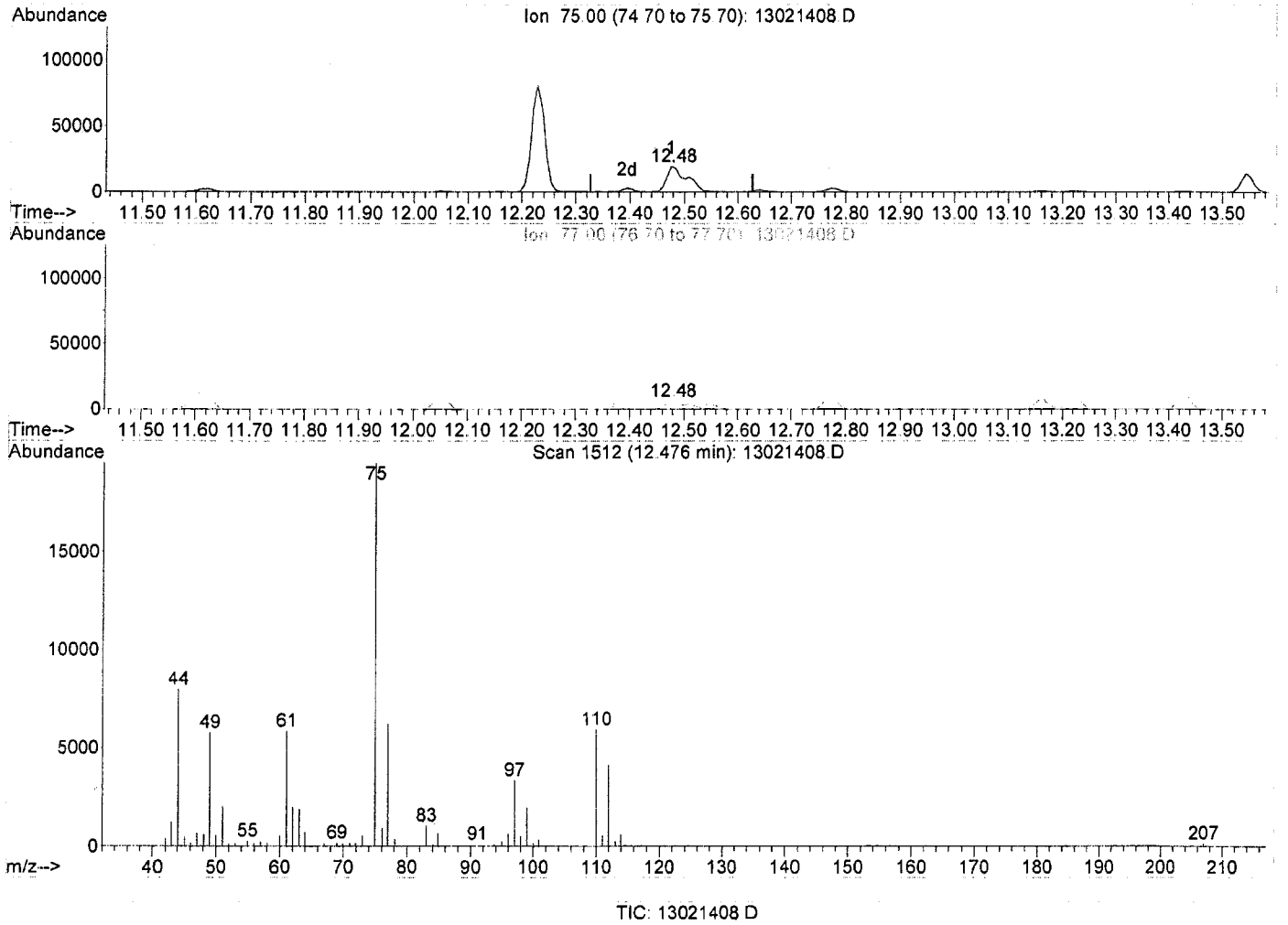
Ion	Exp%	Act%
76.00	100	100
78.00	9.40	7.33
0.00	0.00	0.00
0.00	0.00	0.00

13021408.D VOC-S.M Fri Feb 15 09:59:55 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021408.D Vial: 8
Acq On : 14 Feb 2013 12:06 pm Operator: AK
Sample : CAL2 10ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:59 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021408.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L

response 51256

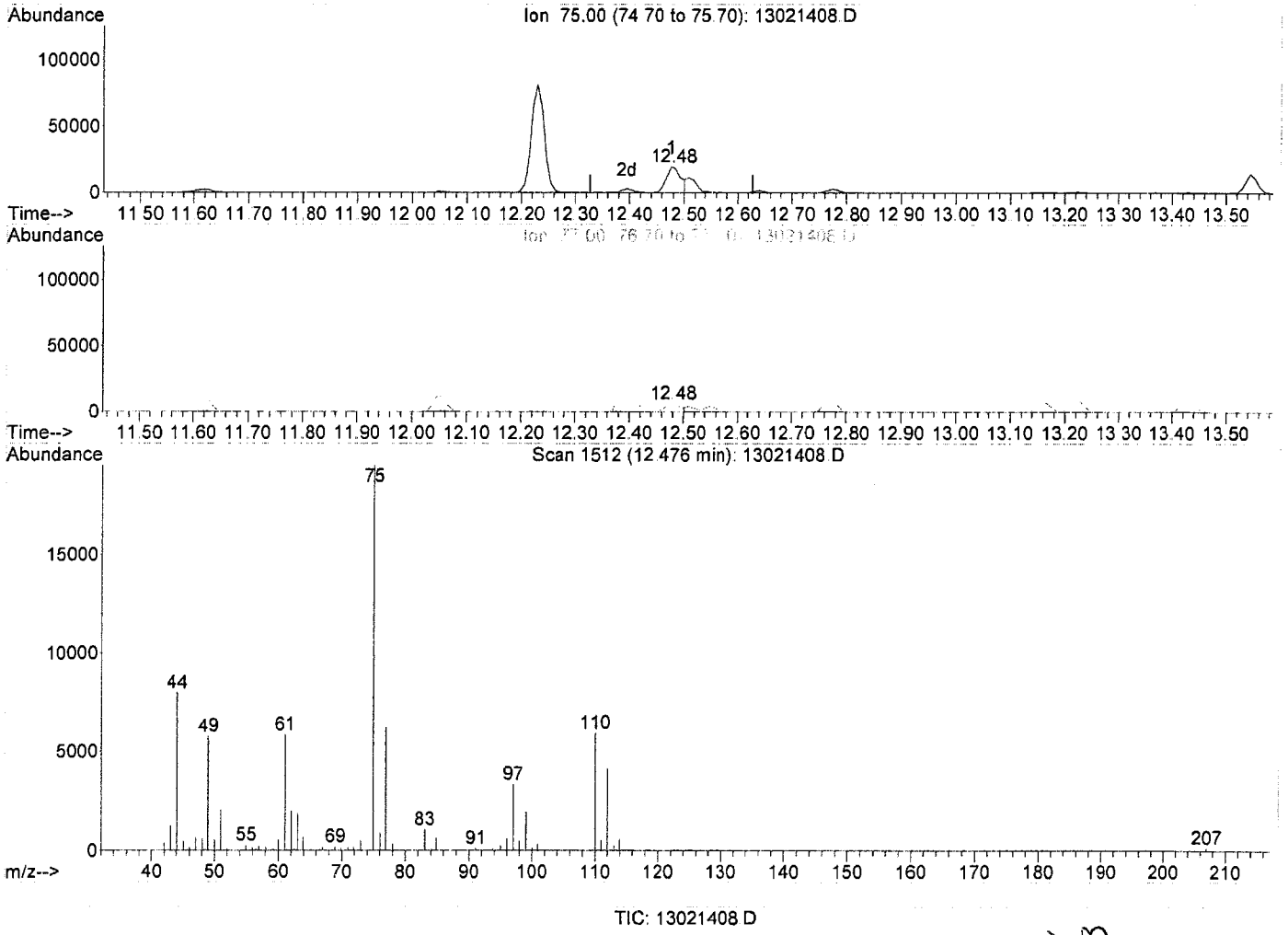
Ion	Exp%	Act%
75.00	100	100
77.00	31.60	32.39
0.00	0.00	0.00
0.00	0.00	0.00

13021408.D VOC-S.M Fri Feb 15 10:00:14 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021408.D Vial: 8
Acq On : 14 Feb 2013 12:06 pm Operator: AK
Sample : CAL2 10ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:00 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021408.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L m

response 36894

Ion	Exp%	Act%
75.00	100	100
77.00	31.60	33.37
0.00	0.00	0.00
0.00	0.00	0.00

AK 2/15/13

13021408.D VOC-S.M Fri Feb 15 10:00:24 2013

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:56 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	841534	50.00 ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	469668	50.00 ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	221557	50.00 ug/L	0.00
System Monitoring Compounds					
29) Dibromofluoromethane SS#1	6.28	113	204942	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 116		Recovery =	0.00%#	
47) Toluene d-8 SS#2	9.08	98	661353	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 106		Recovery =	0.00%#	
70) 4-Bromofluorobenzene SS#3	12.23	95	310599	0.00 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.52	85	55573	No Calib	
3) Chloromethane	1.65	50	91283	No Calib	
4) VINYL CHLORIDE	1.79	62	75832	No Calib	
5) Bromomethane	2.07	94	23941	No Calib	
6) Chloroethane	2.13	64	32148	No Calib	
7) Trichlorofluoromethane	2.50	101	59236	No Calib	
8) acrolein	2.91	56	14259	No Calib	#
9) Acetone	3.13	58	9179	No Calib	
10) 1,1-DICHLOROETHENE	3.06	96	42393	No Calib	#
11) 1,1,2-Trichlorotrifluoroet	3.08	101	43985	No Calib	
12) iodomethane	3.22	142	78095	No Calib	
13) Carbon Disulfide	3.34	76	139219	No Calib	
14) Methyl Acetate	3.57	74	9481	No Calib	#
15) Methylene chloride	3.72	84	50688	No Calib	#
16) tert-Butanol	4.02	59	17148	No Calib	
17) acrylonitrile	4.12	53	29042	No Calib	
18) trans-1,2-Dichloroethene	4.10	96	46967	No Calib	#
19) Methyl-t-Butyl Ether	4.14	73	156097	No Calib	
20) 1,1-Dichloroethane	4.75	63	96462	No Calib	
21) vinyl acetate	4.89	43	269708	No Calib	
22) Diisopropyl ether	4.92	45	238799	No Calib	
23) tert-Butyl ethyl ether	5.45	59	208453	No Calib	
24) 2,2-Dichloropropane	5.58	77	56030	No Calib	
25) cis-1,2-Dichloroethene	5.61	96	53453	No Calib	#
26) 2-Butanone (MEK)	5.68	72	10223	No Calib	#
27) Bromochloromethane	5.94	128	28404	No Calib	#
28) CHLOROFORM	6.07	83	117752	No Calib	
30) 1,1,1-Trichloroethane	6.26	97	84549	No Calib	
31) Cyclohexane	6.31	56	132566	No Calib	#
32) Carbon tetrachloride	6.47	117	68642	No Calib	
33) 1,1-Dichloropropene	6.48	75	79148	No Calib	
34) Benzene	6.75	78	240767	No Calib	
35) 1,2-Dichloroethane	6.81	62	104799	No Calib	
36) tert-Amyl alcohol	6.92	59	18591	No Calib	#
37) tert-Amyl methyl ether	6.96	73	230371	No Calib	#
38) Trichloroethene	7.58	95	58787	No Calib	
39) 1,2-DICHLOROPROPANE	7.87	63	70470	No Calib	
40) Methylcyclohexane	7.79	83	100754	No Calib	#
41) tert-Amyl ethyl ether	7.95	59	209426	No Calib	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:56 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

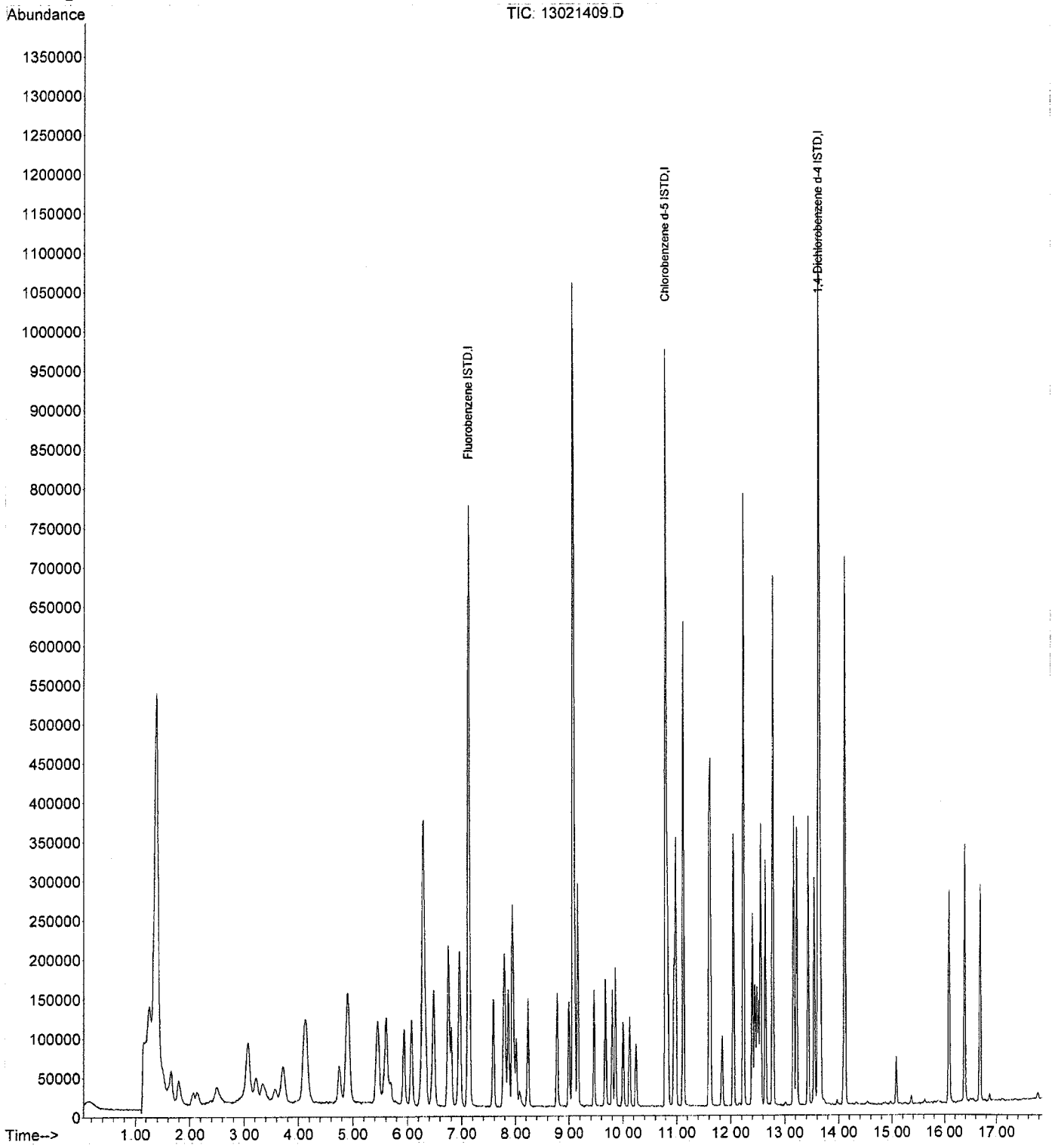
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Dibromomethane	8.02	93	42931	No Calib	
43)	1,4-Dioxane	8.07	88	20515	No Calib	
44)	Bromodichloromethane	8.23	83	96188	No Calib	
45)	cis-1,3-Dichloropropene	8.77	75	117892	No Calib	
46)	4-Methyl-2-Pentanone (MIBK	9.00	100	11110	No Calib	#
48)	TOLUENE	9.16	92	136076	No Calib	
49)	trans-1,3-Dichloropropene	9.45	75	113291	No Calib	
50)	1,1,2-Trichloroethane	9.67	83	46972	No Calib	
51)	Tetrachloroethene	9.80	164	32131	No Calib	#
52)	2-Hexanone (MBK)	10.00	43	88929	No Calib	
54)	1,3-Dichloropropane	9.87	76	104224	No Calib	
55)	Dibromochloromethane	10.13	129	56287	No Calib	
56)	1,2-Dibromoethane	10.24	107	56655	No Calib	
57)	Chlorobenzene	10.84	112	133742	No Calib	
58)	1,1,1,2-Tetrachloroethane	10.95	131	48597	No Calib	
59)	ETHYLBENZENE	10.98	91	255766	No Calib	
60)	m&p-Xylene	11.12	106	170305	No Calib	
61)	o-Xylene	11.60	106	89897	No Calib	
62)	Styrene	11.62	104	165384	No Calib	
63)	Bromoform	11.84	173	36073	No Calib	
64)	1,2,3-Trichloropropane	12.48	75	78435	No Calib	
65)	Bromobenzene	12.40	156	50791	No Calib	#
66)	trans-1,4-dichloro-2-buten	12.51	53	37430	No Calib	#
67)	n-Propylbenzene	12.55	91	311756	No Calib	
69)	Isopropylbenzene	12.05	105	226116	No Calib	
71)	1,1,2,2-Tetrachloroethane	12.44	83	87008	No Calib	
72)	2-Chlorotoluene	12.64	91	197975	No Calib	
73)	4-Chlorotoluene	12.78	91	227951	No Calib	
74)	1,3,5-Trimethylbenzene	12.78	105	202182	No Calib	
75)	tert-Butylbenzene	13.16	119	164120	No Calib	
76)	1,2,4-Trimethylbenzene	13.23	105	212216	No Calib	
77)	sec-Butylbenzene	13.43	105	259196	No Calib	
78)	4-Isopropyltoluene	13.62	119	204389	No Calib	
79)	1,3-Dichlorobenzene	13.55	146	103531	No Calib	
80)	1,4-Dichlorobenzene	13.66	146	105794	No Calib	
81)	1,2-Dichlorobenzene	14.11	146	103059	No Calib	
82)	n-Butylbenzene	14.11	91	247879	No Calib	
83)	1,2-Dibromo-3-chloropropan	15.08	75	20591	No Calib	
84)	1,2,4-Trichlorobenzene	16.09	180	79917	No Calib	
85)	Naphthalene	16.38	128	237016	No Calib	
86)	1,2,3-Trichlorobenzene	16.68	180	78001	No Calib	

(#) = qualifier out of range (m) = manual integration
13021409.D VOC-S.M Fri Feb 15 10:06:09 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:06 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration

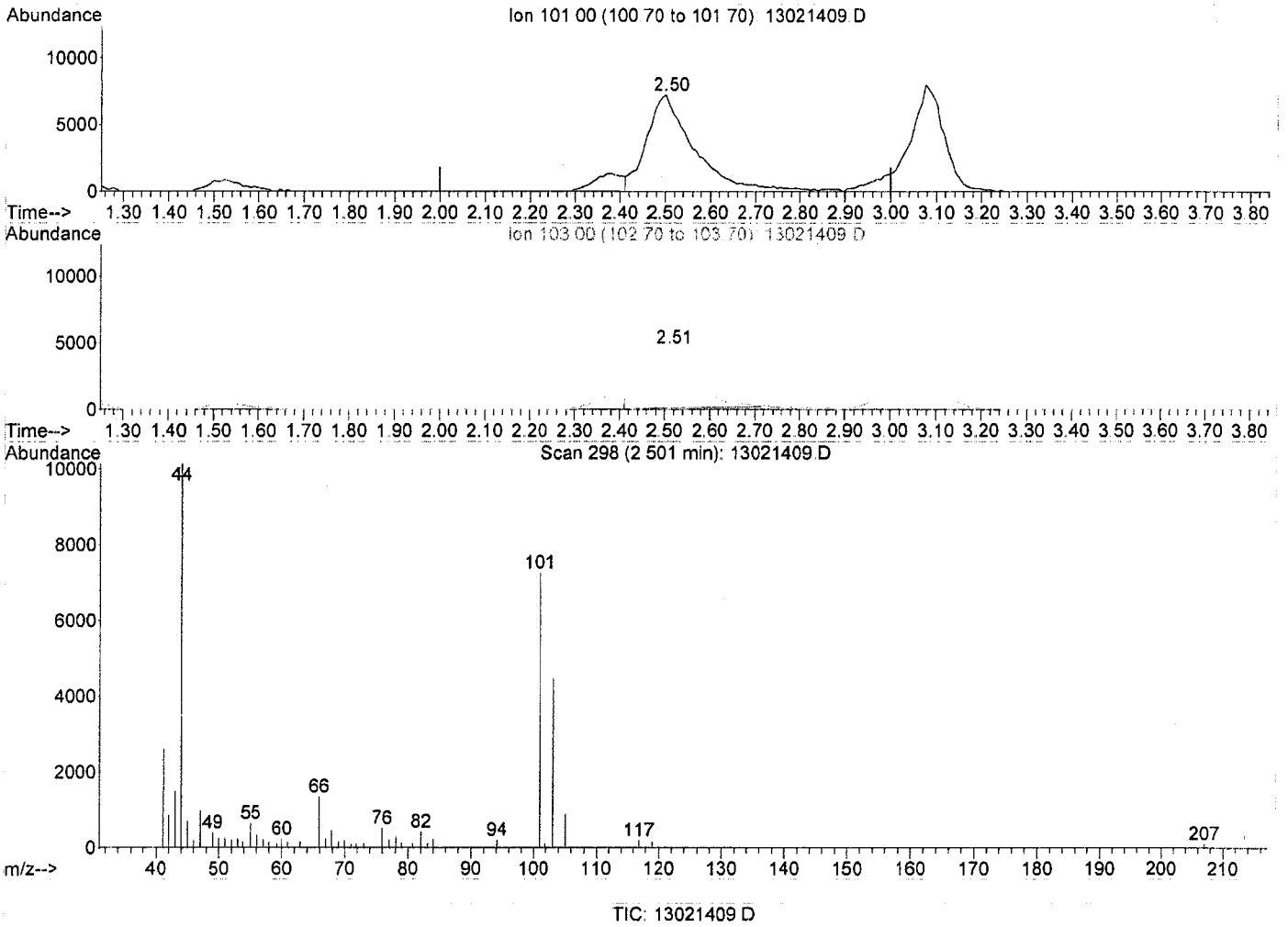


13021409.D VOC-S.M Fri Feb 15 10:06:09 2013 Page 3

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021409.D

(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L

response 52830

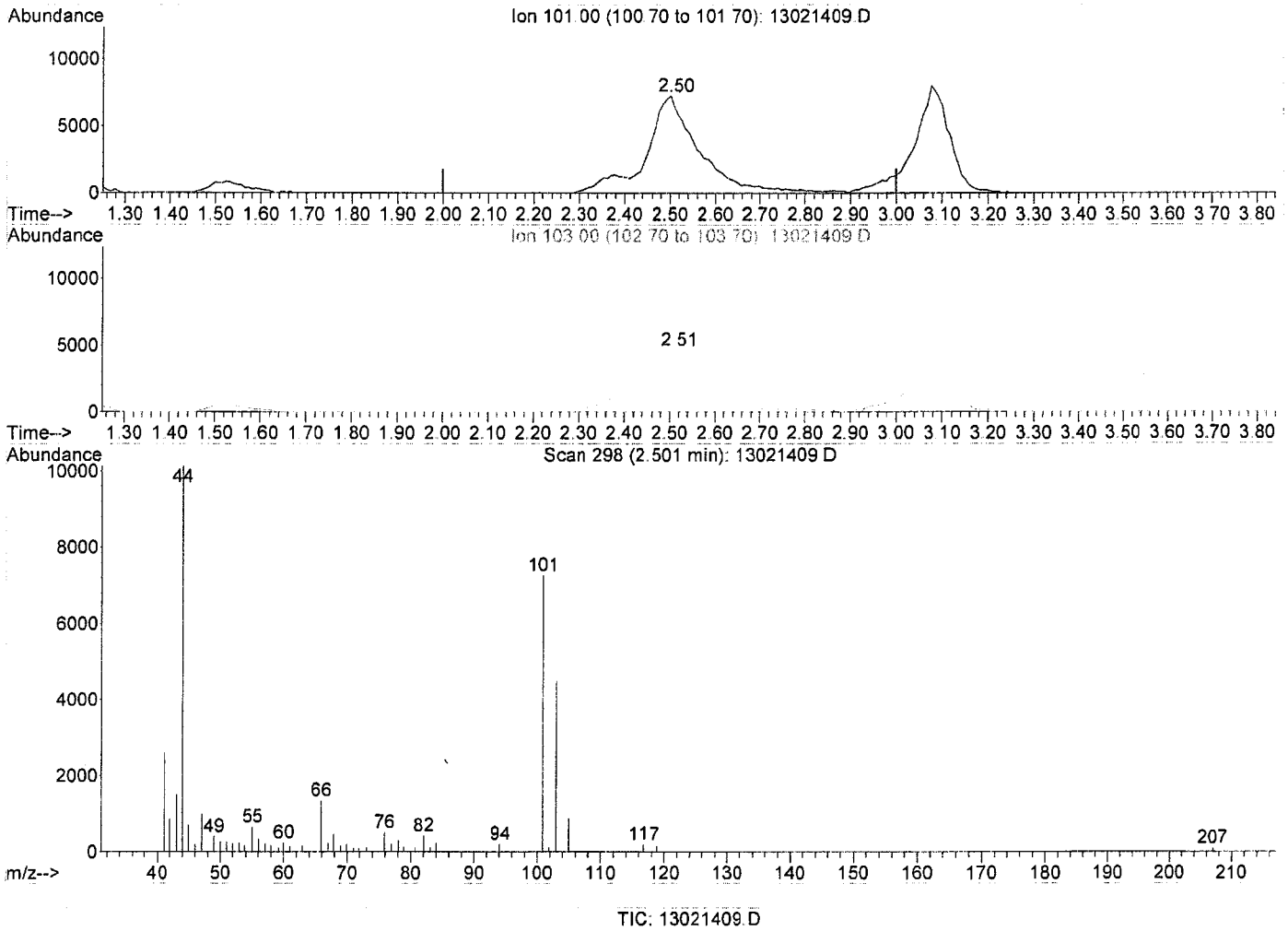
Ion	Exp%	Act%
101.00	100	100
103.00	62.40	58.28
0.00	0.00	0.00
0.00	0.00	0.00

13021409.D VOC-S.M Fri Feb 15 10:05:20 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:05 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021409.D

(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L m

response 59236

Ion	Exp%	Act%
101.00	100	100
103.00	62.40	66.36
0.00	0.00	0.00
0.00	0.00	0.00

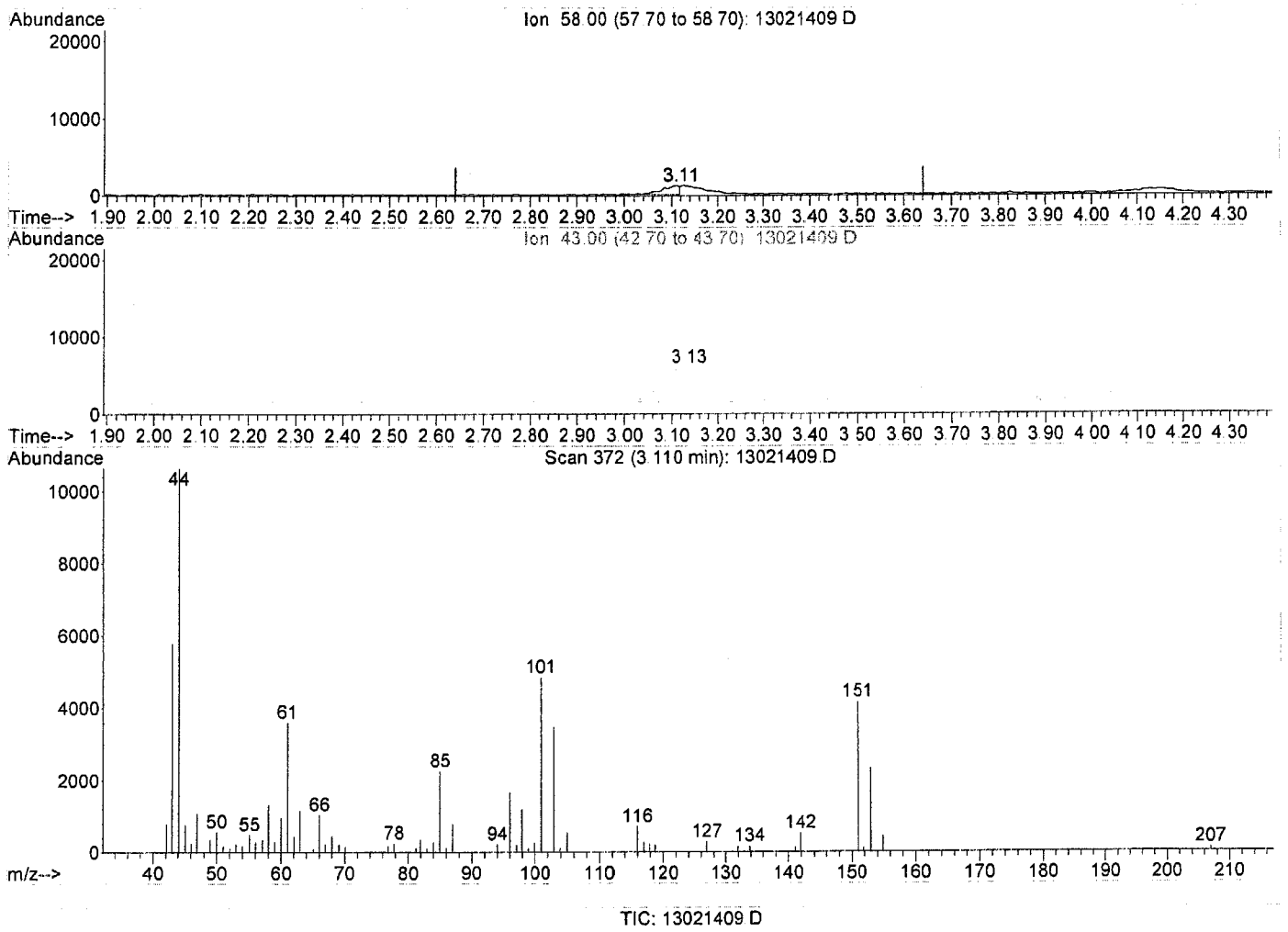
AK 2/15/13

13021409.D VOC-S.M Fri Feb 15 10:05:26 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:05 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021409.D

(9) Acetone (T)

3.11min 0.00ug/L

response 3074

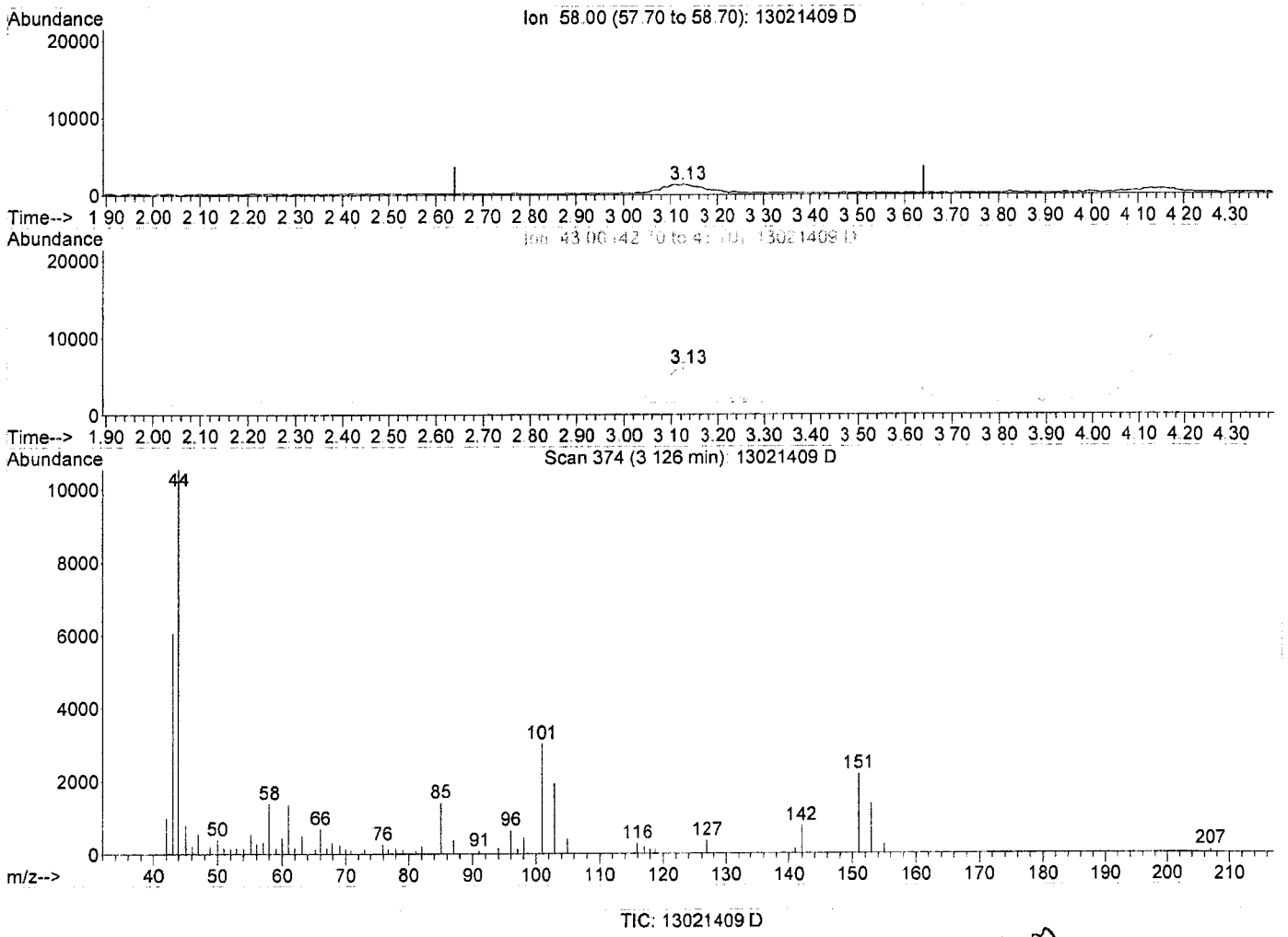
Ion	Exp%	Act%
58.00	100	100
43.00	389.40	930.45#
0.00	0.00	0.00
0.00	0.00	0.00

13021409.D VOC-S.M Fri Feb 15 10:05:32 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:05 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021409.D

(9) Acetone (T)

3.13min 0.00ug/L m

response 9179

Ion	Exp%	Act%
58.00	100	100
43.00	389.40	311.60#
0.00	0.00	0.00
0.00	0.00	0.00

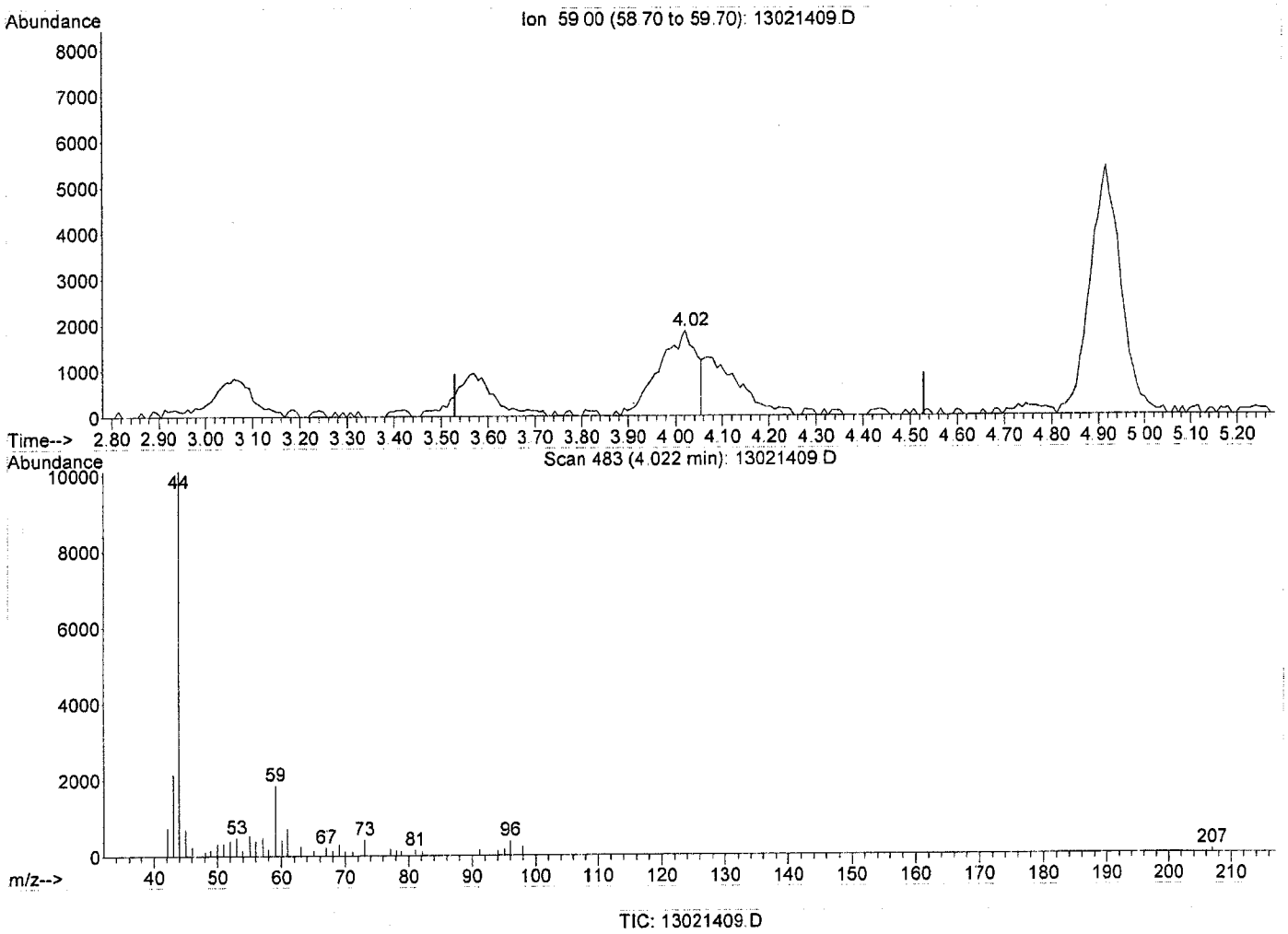
AK 2/15/13

13021409.D VOC-S.M Fri Feb 15 10:05:36 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:05 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021409.D

(16) tert-Butanol (T)

4.02min 0.00ug/L

response 10425

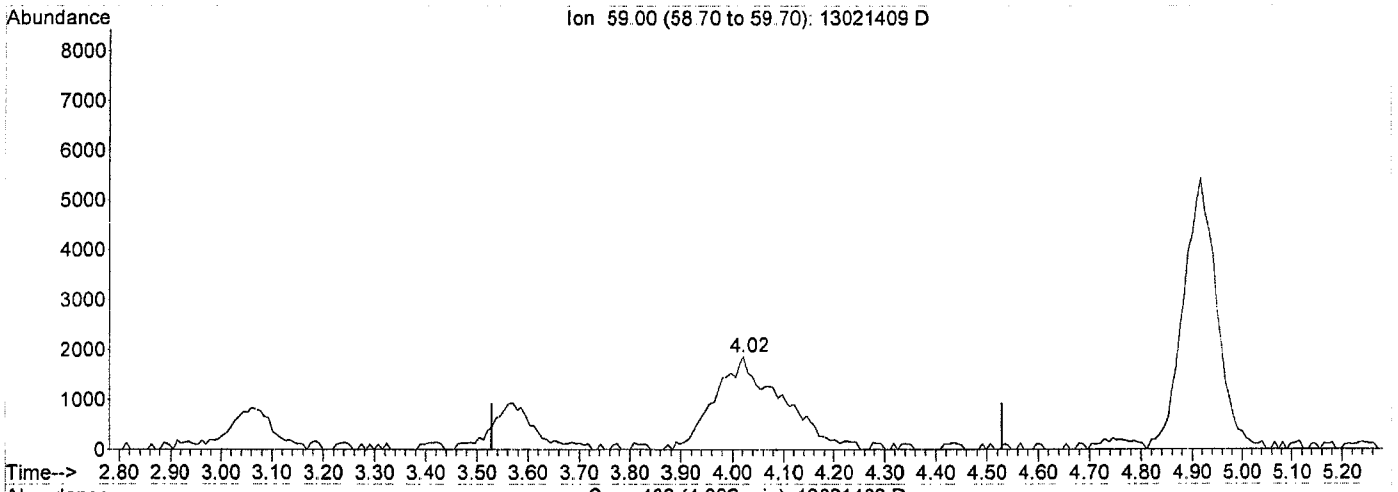
Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

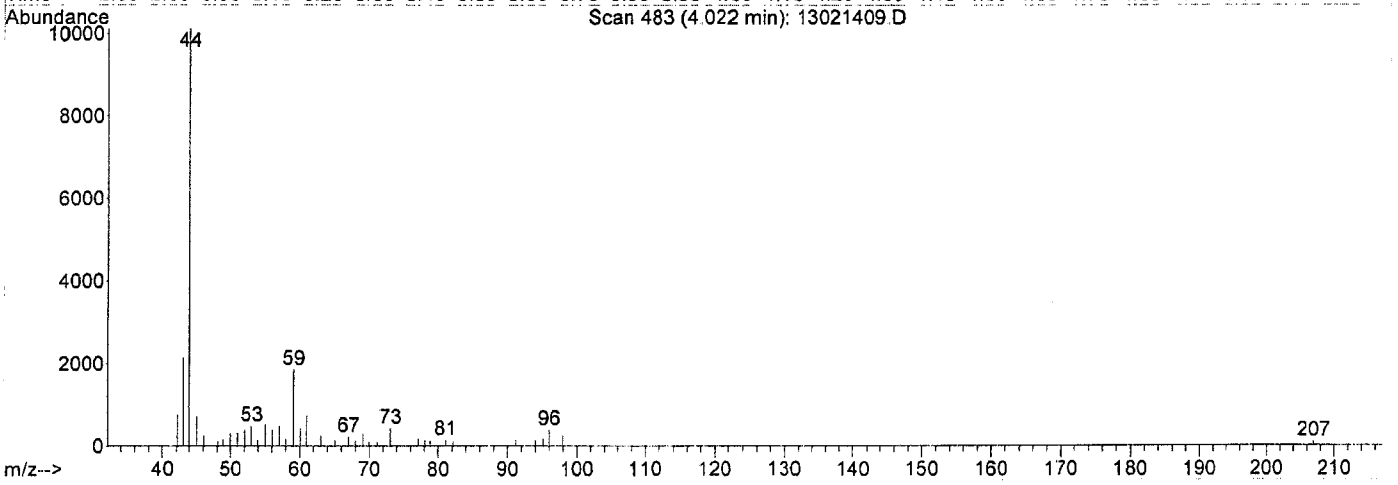
13021409.D VOC-S.M Fri Feb 15 10:05:43 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:05 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration





TIC 13021409.D

(16) tert-Butanol (T)

4.02min 0.00ug/L m

response 17148

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

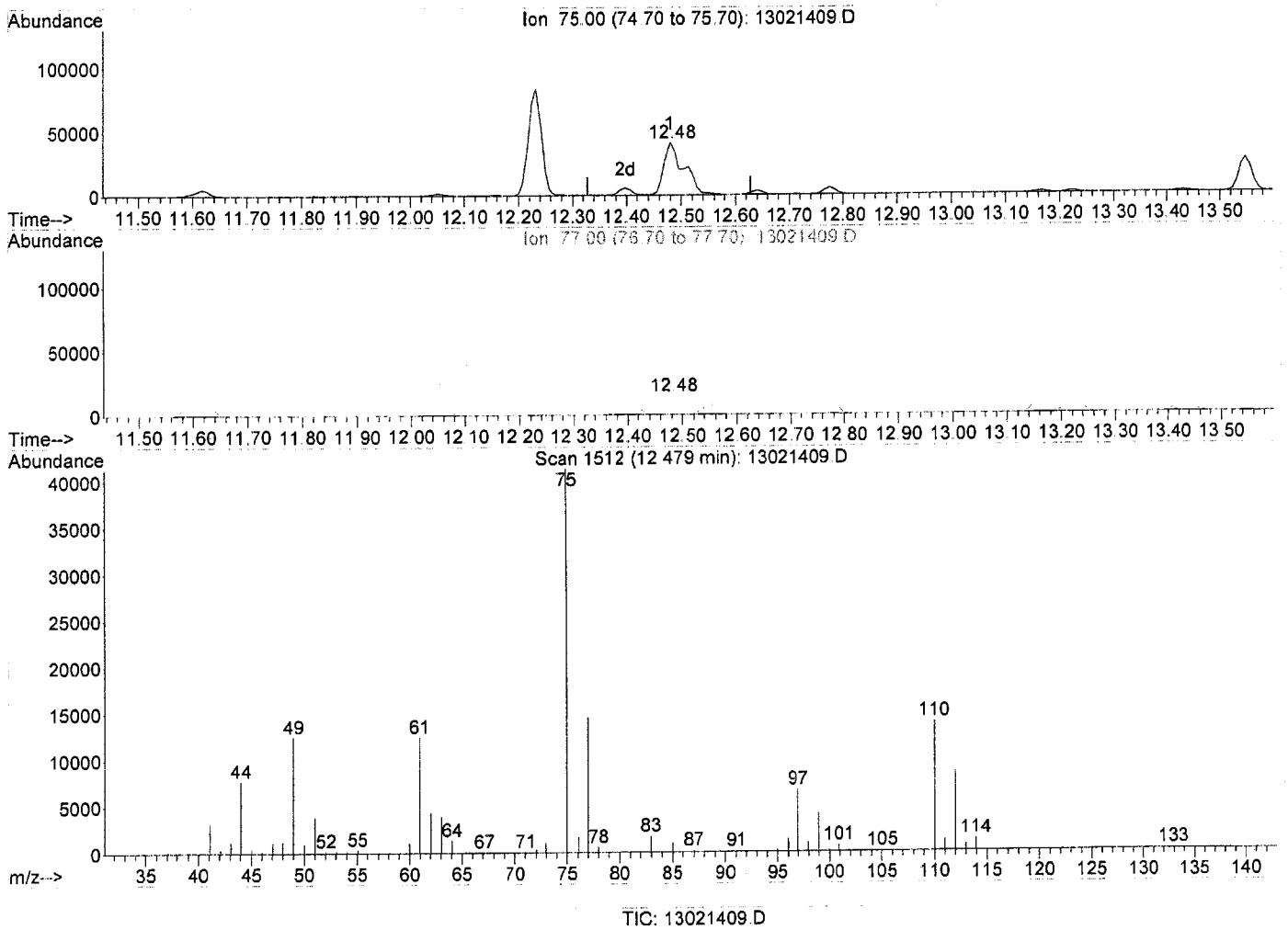
AK 2/15/13

13021409.D VOC-S.M Fri Feb 15 10:05:47 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:05 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021409.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L

response 102154

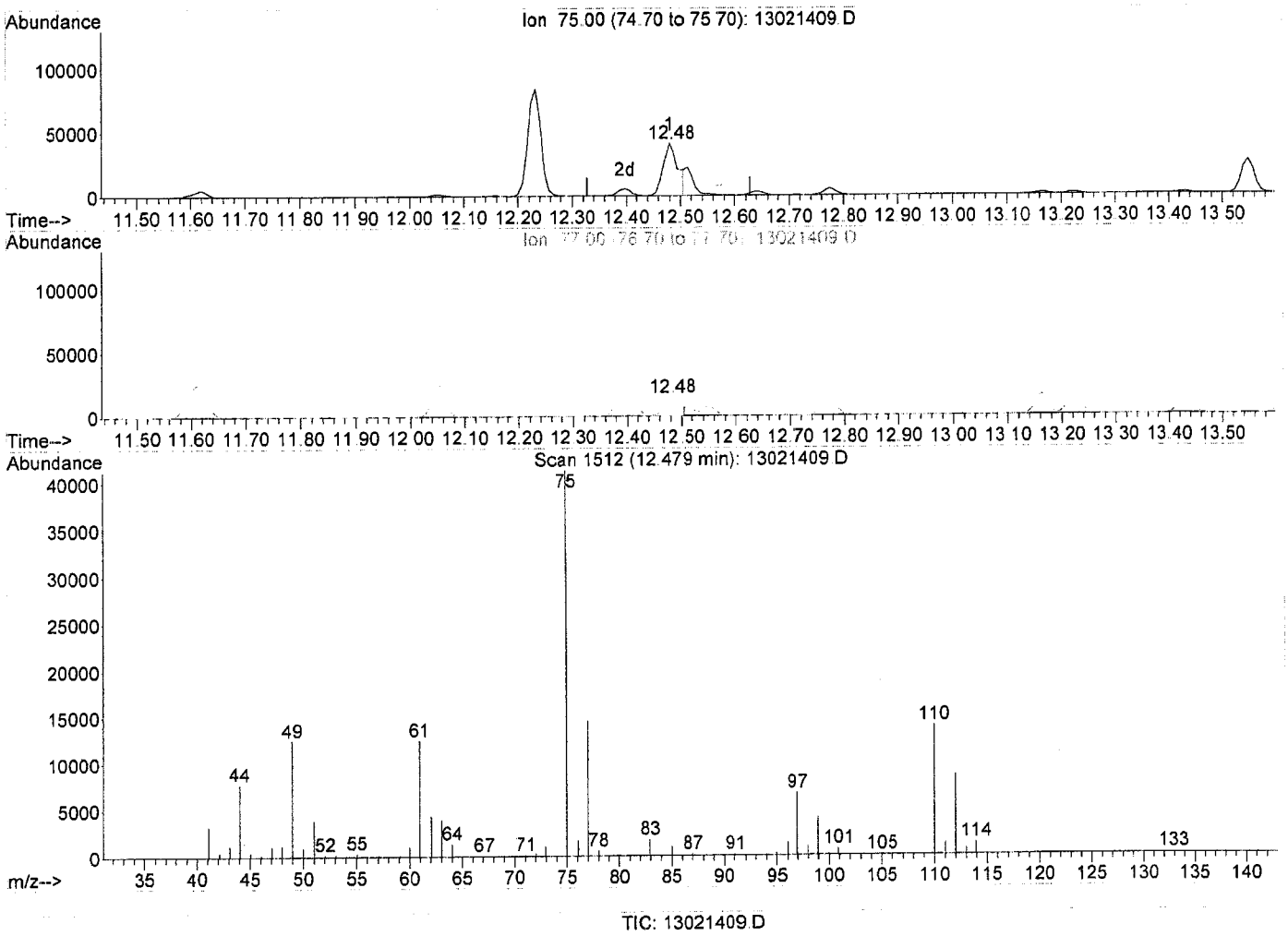
Ion	Exp%	Act%
75.00	100	100
77.00	31.60	31.87
0.00	0.00	0.00
0.00	0.00	0.00

13021409.D VOC-S.M Fri Feb 15 10:05:56 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021409.D Vial: 9
Acq On : 14 Feb 2013 12:33 pm Operator: AK
Sample : CAL3 20ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul A2442 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:06 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021409.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L m

response 78435

Ion	Exp%	Act%
75.00	100	100
77.00	31.60	32.94
0.00	0.00	0.00
0.00	0.00	0.00

AHC 2/15/13

13021409.D VOC-S.M Fri Feb 15 10:06:02 2013

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021412.D Vial: 12
Acq On : 14 Feb 2013 1:56 pm Operator: AK
Sample : CAL4 40ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:57 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	802560	50.00 ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	452200	50.00 ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.64	152	213668	50.00 ug/L	0.00
System Monitoring Compounds					
29) Dibromofluoromethane SS#1	6.28	113	196263	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 116		Recovery =	0.00%#	
47) Toluene d-8 SS#2	9.08	98	635626	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 106		Recovery =	0.00%#	
70) 4-Bromofluorobenzene SS#3	12.23	95	296448	0.00 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.52	85	95626	No Calib	
3) Chloromethane	1.65	50	159249	No Calib	
4) VINYL CHLORIDE	1.79	62	126464	No Calib	
5) Bromomethane	2.07	94	68023	No Calib	
6) Chloroethane	2.13	64	74000	No Calib	
7) Trichlorofluoromethane	2.49	101	107174	No Calib	
8) acrolein	2.91	56	24349	No Calib	
9) Acetone	3.13	58	12117	No Calib	#
10) 1,1-DICHLOROETHENE	3.06	96	72016	No Calib	#
11) 1,1,2-Trichlorotrifluoroet	3.08	101	73813	No Calib	
12) iodomethane	3.22	142	137530	No Calib	
13) Carbon Disulfide	3.35	76	238407	No Calib	
14) Methyl Acetate	3.57	74	15850	No Calib	
15) Methylene chloride	3.72	84	102658	No Calib	#
16) tert-Butanol	3.99	59	27127	No Calib	
17) acrylonitrile	4.10	53	49605	No Calib	
18) trans-1,2-Dichloroethene	4.10	96	81135	No Calib	#
19) Methyl-t-Butyl Ether	4.14	73	271221	No Calib	
20) 1,1-Dichloroethane	4.75	63	166994	No Calib	
21) vinyl acetate	4.89	43	474208	No Calib	
22) Diisopropyl ether	4.92	45	421713	No Calib	
23) tert-Butyl ethyl ether	5.44	59	473181	No Calib	
24) 2,2-Dichloropropane	5.58	77	142846	No Calib	
25) cis-1,2-Dichloroethene	5.61	96	122209	No Calib	#
26) 2-Butanone (MEK)	5.68	72	18142	No Calib	#
27) Bromochloromethane	5.93	128	49605	No Calib	#
28) CHLOROFORM	6.07	83	207373	No Calib	
30) 1,1,1-Trichloroethane	6.27	97	143336	No Calib	
31) Cyclohexane	6.31	56	214575	No Calib	#
32) Carbon tetrachloride	6.47	117	115122	No Calib	
33) 1,1-Dichloropropene	6.48	75	132768	No Calib	
34) Benzene	6.75	78	413695	No Calib	
35) 1,2-Dichloroethane	6.81	62	182726	No Calib	
36) tert-Amyl alcohol	6.92	59	31373	No Calib	#
37) tert-Amyl methyl ether	6.96	73	404134	No Calib	#
38) Trichloroethene	7.58	95	99867	No Calib	
39) 1,2-DICHLOROPROPANE	7.87	63	123171	No Calib	
40) Methylcyclohexane	7.79	83	164959	No Calib	#
41) tert-Amyl ethyl ether	7.95	59	363635	No Calib	

(#) = qualifier out of range (m) = manual integration
13021412.D VOC-S.M Fri Feb 15 10:07:11 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021412.D Vial: 12
Acq On : 14 Feb 2013 1:56 pm Operator: AK
Sample : CAL4 40ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:57 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

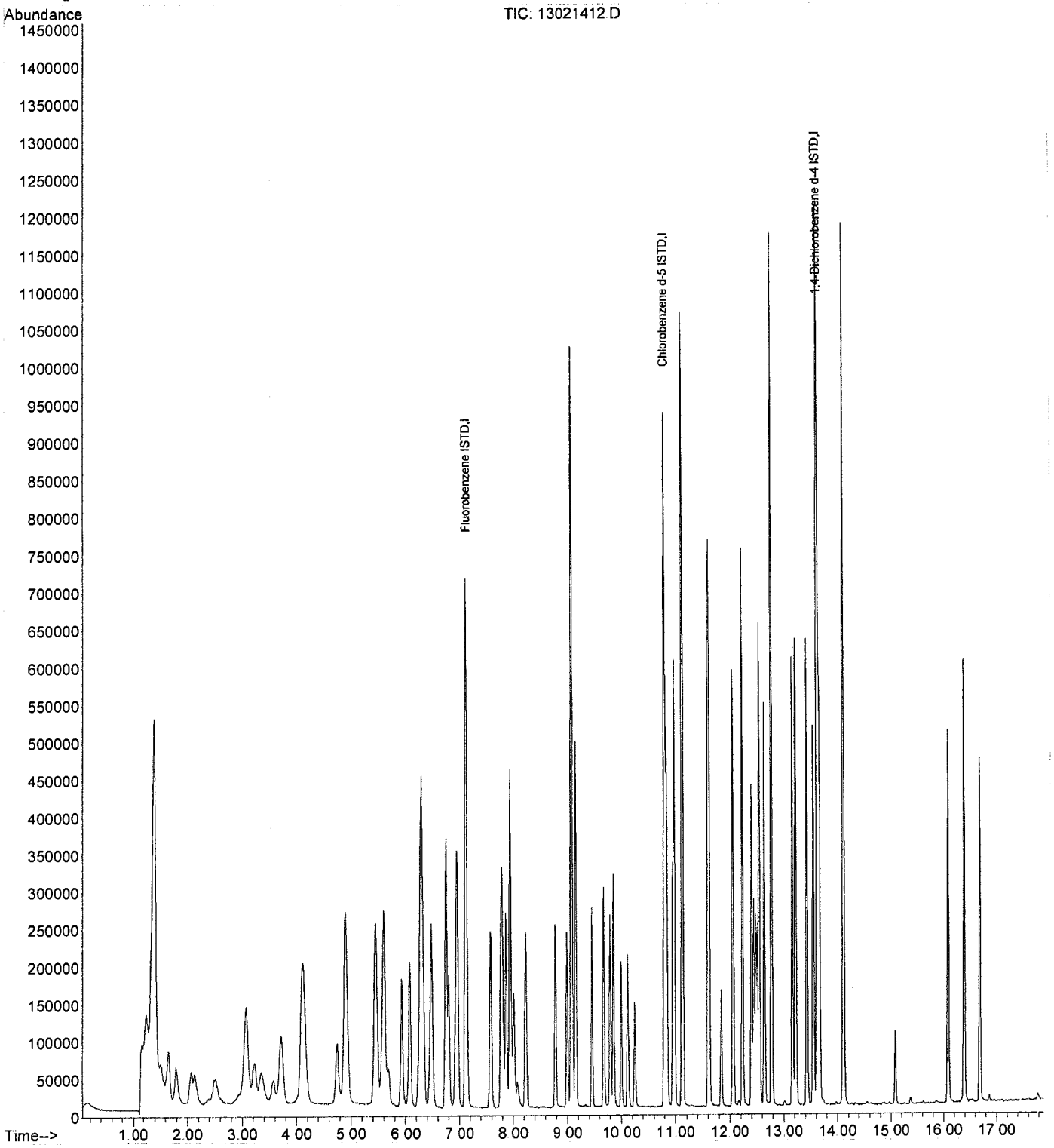
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Dibromomethane	8.02	93	73488	No Calib	
43)	1,4-Dioxane	8.07	88	34364	No Calib	
44)	Bromodichloromethane	8.23	83	167443	No Calib	
45)	cis-1,3-Dichloropropene	8.77	75	208674	No Calib	
46)	4-Methyl-2-Pentanone (MIBK	8.99	100	18755	No Calib	#
48)	TOLUENE	9.16	92	232561	No Calib	
49)	trans-1,3-Dichloropropene	9.46	75	198890	No Calib	
50)	1,1,2-Trichloroethane	9.68	83	82200	No Calib	
51)	Tetrachloroethene	9.80	164	54043	No Calib	
52)	2-Hexanone (MBK)	10.00	43	157001	No Calib	
54)	1,3-Dichloropropane	9.86	76	185673	No Calib	
55)	Dibromochloromethane	10.13	129	97973	No Calib	
56)	1,2-Dibromoethane	10.24	107	97669	No Calib	
57)	Chlorobenzene	10.83	112	227904	No Calib	
58)	1,1,1,2-Tetrachloroethane	10.95	131	85146	No Calib	
59)	ETHYLBENZENE	10.98	91	434957	No Calib	
60)	m&p-Xylene	11.12	106	294224	No Calib	
61)	o-Xylene	11.60	106	153884	No Calib	
62)	Styrene	11.62	104	291082	No Calib	
63)	Bromoform	11.84	173	63144	No Calib	
64)	1,2,3-Trichloropropane	12.48	75	136224	No Calib	
65)	Bromobenzene	12.40	156	90009	No Calib	#
66)	trans-1,4-dichloro-2-buten	12.51	53	66141	No Calib	#
67)	n-Propylbenzene	12.55	91	539633	No Calib	
69)	Isopropylbenzene	12.05	105	384298	No Calib	
71)	1,1,2,2-Tetrachloroethane	12.45	83	152486	No Calib	
72)	2-Chlorotoluene	12.64	91	344257	No Calib	
73)	4-Chlorotoluene	12.77	91	396211	No Calib	
74)	1,3,5-Trimethylbenzene	12.77	105	346472	No Calib	
75)	tert-Butylbenzene	13.16	119	275828	No Calib	
76)	1,2,4-Trimethylbenzene	13.23	105	363524	No Calib	
77)	sec-Butylbenzene	13.43	105	435917	No Calib	
78)	4-Isopropyltoluene	13.62	119	350027	No Calib	
79)	1,3-Dichlorobenzene	13.55	146	183133	No Calib	
80)	1,4-Dichlorobenzene	13.66	146	186807	No Calib	
81)	1,2-Dichlorobenzene	14.11	146	178847	No Calib	
82)	n-Butylbenzene	14.11	91	417526	No Calib	
83)	1,2-Dibromo-3-chloropropan	15.08	75	35502	No Calib	
84)	1,2,4-Trichlorobenzene	16.09	180	141929	No Calib	
85)	Naphthalene	16.38	128	424084	No Calib	
86)	1,2,3-Trichlorobenzene	16.69	180	139130	No Calib	

(#) = qualifier out of range (m) = manual integration
13021412.D VOC-S.M Fri Feb 15 10:07:11 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021412.D Vial: 12
Acq On : 14 Feb 2013 1:56 pm Operator: AK
Sample : CAL4 40ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:07 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration

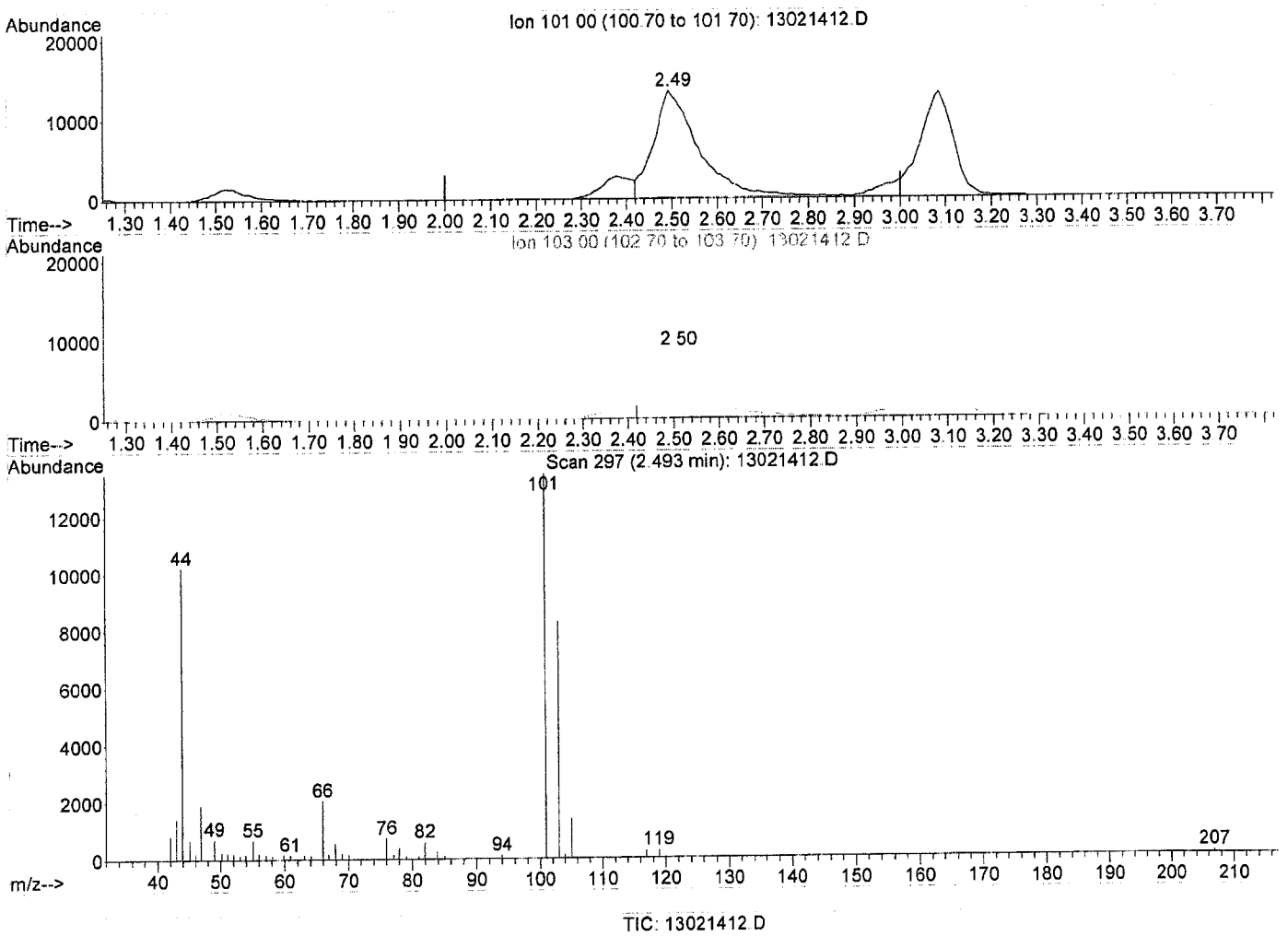


13021412.D VOC-S.M Fri Feb 15 10:07:12 2013 Page 3

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021412.D Vial: 12
Acq On : 14 Feb 2013 1:56 pm Operator: AK
Sample : CAL4 40ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021412.D

(7) Trichlorofluoromethane (T)

2.49min 0.00ug/L

response 90504

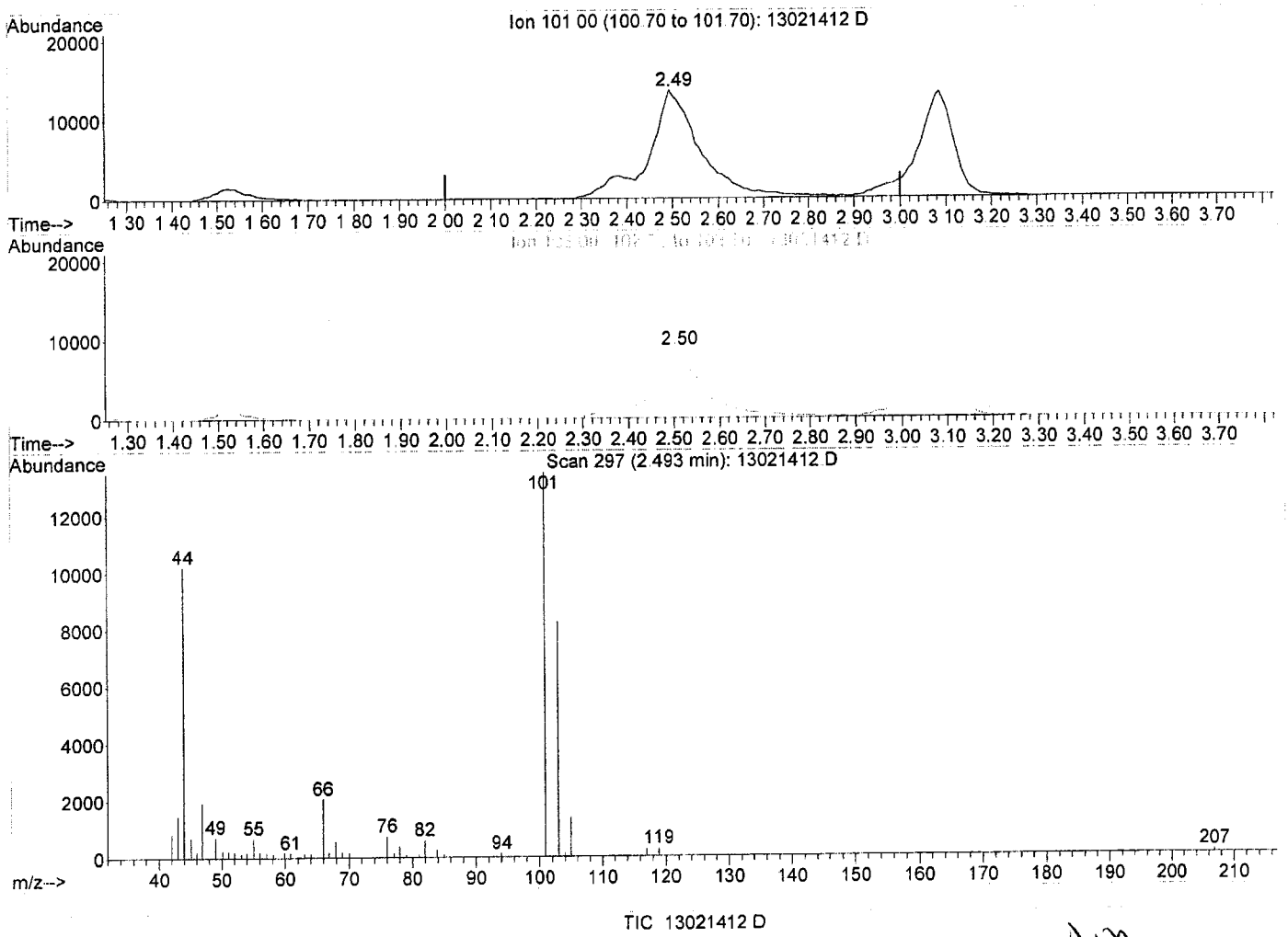
Ion	Exp%	Act%
101.00	100	100
103.00	62.40	66.23
0.00	0.00	0.00
0.00	0.00	0.00

13021412.D VOC-S.M Fri Feb 15 10:06:40 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021412.D Vial: 12
Acq On : 14 Feb 2013 1:56 pm Operator: AK
Sample : CAL4 40ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:06 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC 13021412.D

AK 2/15/13

(7) Trichlorofluoromethane (T)

2.49min 0.00ug/L m

response 107174

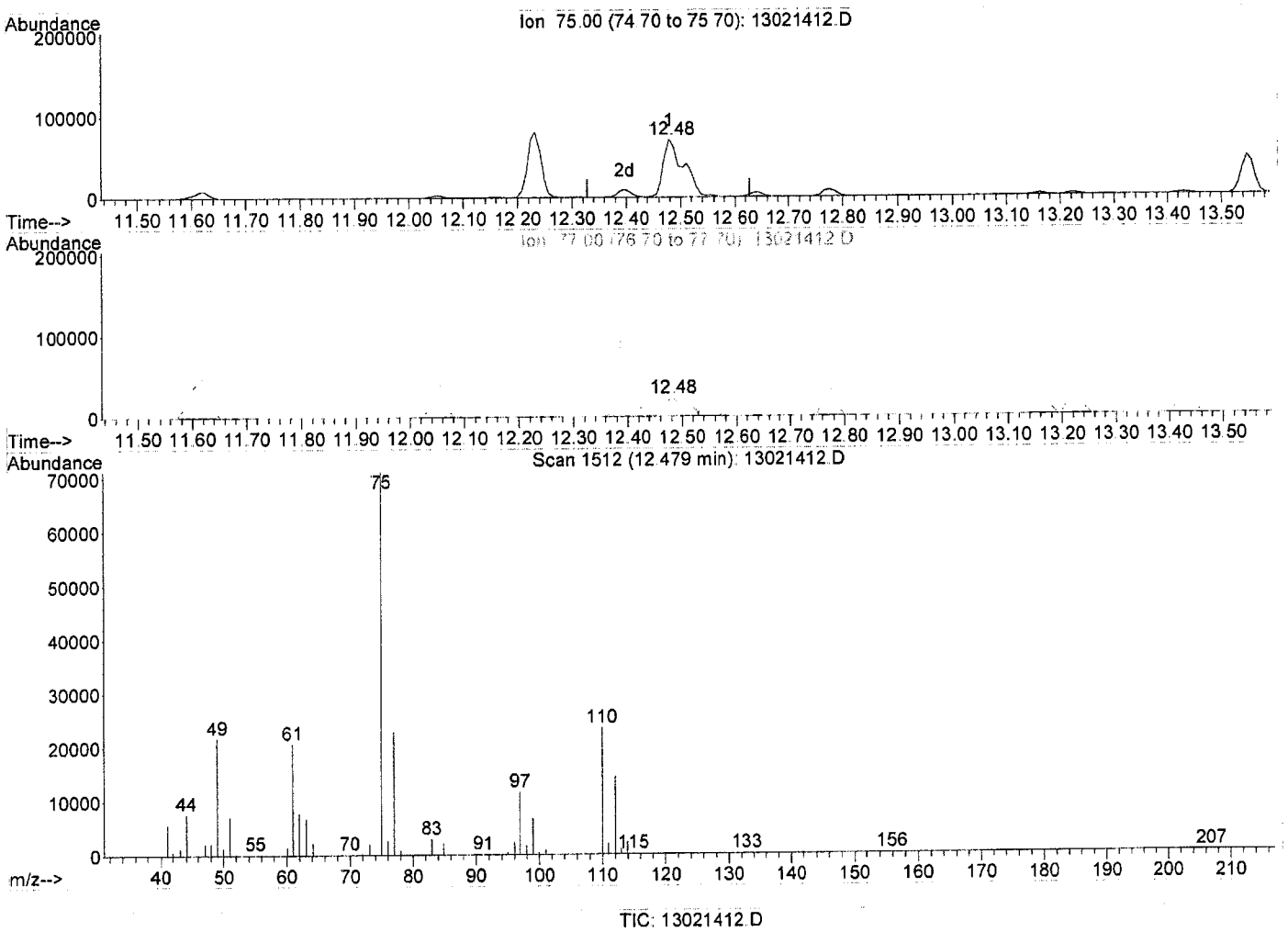
Ion	Exp%	Act%
101.00	100	100
103.00	62.40	66.53
0.00	0.00	0.00
0.00	0.00	0.00

13021412.D VOC-S.M Fri Feb 15 10:06:44 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021412.D Vial: 12
Acq On : 14 Feb 2013 1:56 pm Operator: AK
Sample : CAL4 40ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:06 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021412.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L

response 181533

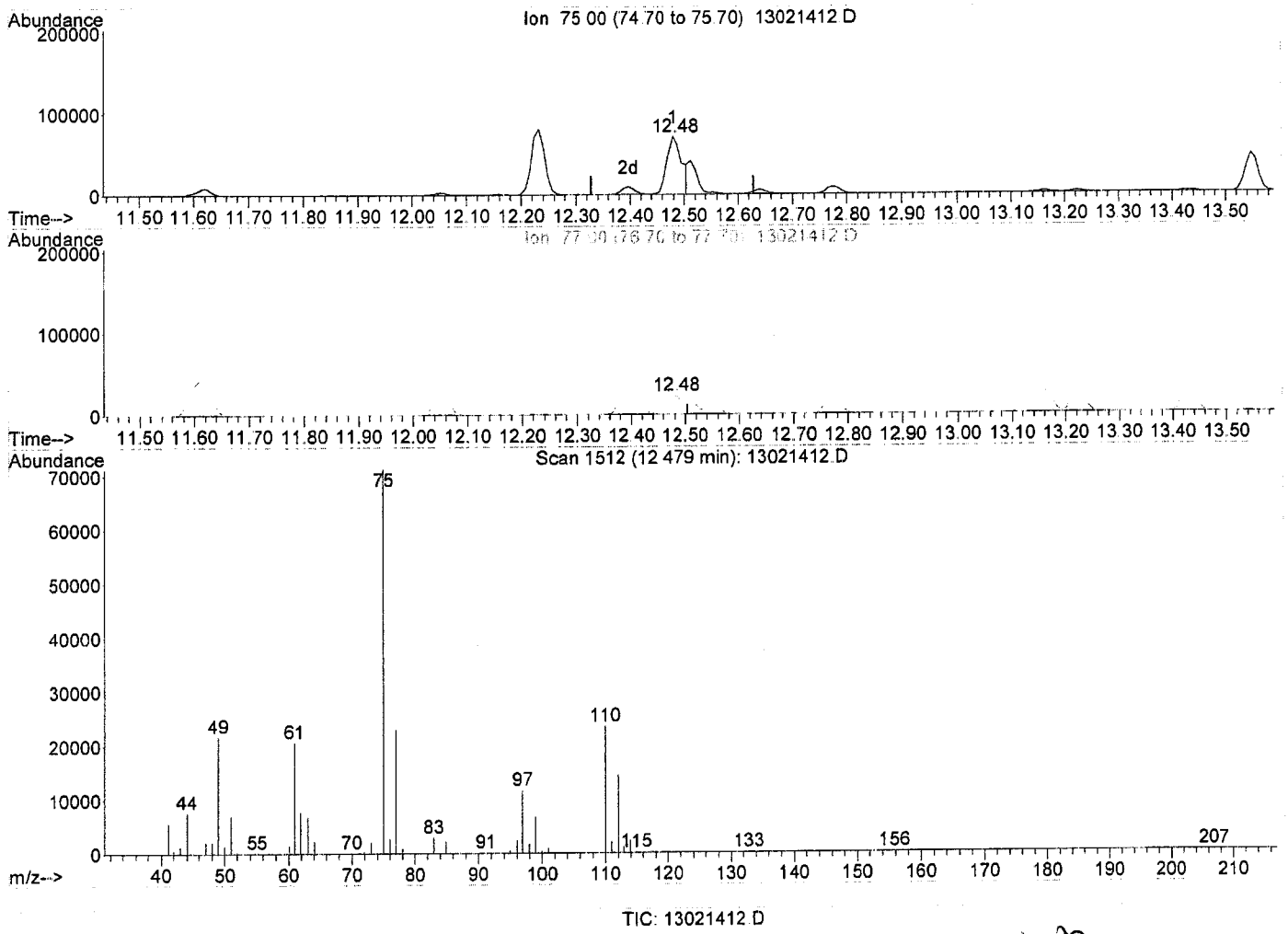
Ion	Exp%	Act%
75.00	100	100
77.00	31.60	32.12
0.00	0.00	0.00
0.00	0.00	0.00

13021412.D VOC-S.M Fri Feb 15 10:06:55 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021412.D Vial: 12
Acq On : 14 Feb 2013 1:56 pm Operator: AK
Sample : CAL4 40ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:07 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021412.D

AK 2/15/13

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L m

response 136224

Ion	Exp%	Act%
75.00	100	100
77.00	31.60	32.57
0.00	0.00	0.00
0.00	0.00	0.00

13021412.D VOC-S.M Fri Feb 15 10:07:02 2013

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021411.D Vial: 11
Acq On : 14 Feb 2013 1:28 pm Operator: AK
Sample : CAL5 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:57 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	810271	50.00 ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.80	117	462262	50.00 ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.64	152	218440	50.00 ug/L	0.00
System Monitoring Compounds					
29) Dibromofluoromethane SS#1	6.29	113	197031	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 116		Recovery =	0.00%#	
47) Toluene d-8 SS#2	9.08	98	643869	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 106		Recovery =	0.00%#	
70) 4-Bromofluorobenzene SS#3	12.23	95	303902	0.00 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.52	85	141280	No Calib	
3) Chloromethane	1.65	50	244751	No Calib	
4) VINYL CHLORIDE	1.80	62	184318	No Calib	
5) Bromomethane	2.07	94	96440	No Calib	
6) Chloroethane	2.14	64	99871	No Calib	
7) Trichlorofluoromethane	2.50	101	148763	No Calib	
8) acrolein	2.92	56	36680	No Calib	
9) Acetone	3.14	58	18142	No Calib	
10) 1,1-DICHLOROETHENE	3.07	96	101651	No Calib	#
11) 1,1,2-Trichlorotrifluoroet	3.08	101	103357	No Calib	
12) iodomethane	3.22	142	203530	No Calib	
13) Carbon Disulfide	3.35	76	333231	No Calib	
14) Methyl Acetate	3.58	74	22864	No Calib	
15) Methylene chloride	3.73	84	128512	No Calib	#
16) tert-Butanol	4.03	59	39133	No Calib	
17) acrylonitrile	4.12	53	73219	No Calib	
18) trans-1,2-Dichloroethene	4.11	96	113416	No Calib	#
19) Methyl-t-Butyl Ether	4.14	73	399878	No Calib	
20) 1,1-Dichloroethane	4.76	63	243167	No Calib	
21) vinyl acetate	4.90	43	695716	No Calib	
22) Diisopropyl ether	4.92	45	615447	No Calib	
23) tert-Butyl ethyl ether	5.46	59	715144	No Calib	
24) 2,2-Dichloropropane	5.58	77	202828	No Calib	
25) cis-1,2-Dichloroethene	5.61	96	182634	No Calib	#
26) 2-Butanone (MEK)	5.70	72	23924	No Calib	#
27) Bromochloromethane	5.94	128	76206	No Calib	#
28) CHLOROFORM	6.08	83	305388	No Calib	
30) 1,1,1-Trichloroethane	6.26	97	210140	No Calib	
31) Cyclohexane	6.31	56	307531	No Calib	#
32) Carbon tetrachloride	6.47	117	168362	No Calib	
33) 1,1-Dichloropropene	6.49	75	192373	No Calib	
34) Benzene	6.75	78	613494	No Calib	
35) 1,2-Dichloroethane	6.81	62	274812	No Calib	
36) tert-Amyl alcohol	6.93	59	46048	No Calib	#
37) tert-Amyl methyl ether	6.95	73	603772	No Calib	#
38) Trichloroethene	7.59	95	147862	No Calib	
39) 1,2-DICHLOROPROPANE	7.87	63	183985	No Calib	
40) Methylcyclohexane	7.80	83	234122	No Calib	#
41) tert-Amyl ethyl ether	7.96	59	547215	No Calib	

(#) = qualifier out of range (m) = manual integration
13021411.D VOC-S.M Fri Feb 15 10:07:57 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021411.D Vial: 11
Acq On : 14 Feb 2013 1:28 pm Operator: AK
Sample : CAL5 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:57 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

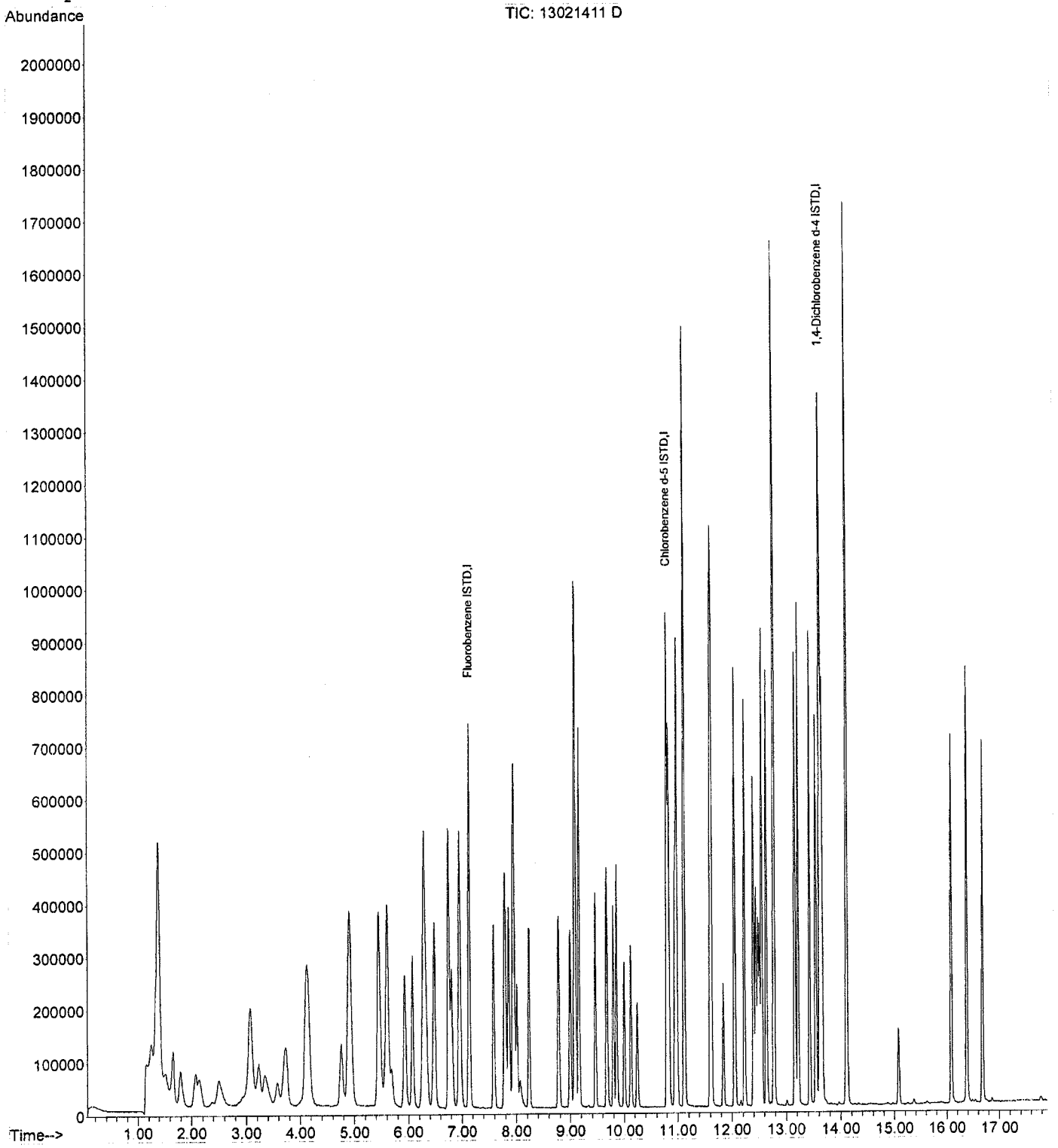
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Dibromomethane	8.02	93	112673	No Calib	
43)	1,4-Dioxane	8.07	88	51253	No Calib	#
44)	Bromodichloromethane	8.24	83	249087	No Calib	
45)	cis-1,3-Dichloropropene	8.78	75	307415	No Calib	
46)	4-Methyl-2-Pentanone (MIBK	9.00	100	28839	No Calib	#
48)	TOLUENE	9.16	92	341478	No Calib	
49)	trans-1,3-Dichloropropene	9.46	75	297722	No Calib	
50)	1,1,2-Trichloroethane	9.68	83	121769	No Calib	
51)	Tetrachloroethene	9.80	164	78698	No Calib	
52)	2-Hexanone (MBK)	10.00	43	231342	No Calib	
54)	1,3-Dichloropropane	9.86	76	276104	No Calib	
55)	Dibromochloromethane	10.13	129	150197	No Calib	
56)	1,2-Dibromoethane	10.25	107	147343	No Calib	
57)	Chlorobenzene	10.84	112	344039	No Calib	
58)	1,1,1,2-Tetrachloroethane	10.95	131	129419	No Calib	
59)	ETHYLBENZENE	10.98	91	635083	No Calib	
60)	m&p-Xylene	11.13	106	430328	No Calib	
61)	o-Xylene	11.60	106	227640	No Calib	
62)	Styrene	11.62	104	432274	No Calib	
63)	Bromoform	11.84	173	97405	No Calib	
64)	1,2,3-Trichloropropane	12.48	75	191327	No Calib	
65)	Bromobenzene	12.40	156	136647	No Calib	#
66)	trans-1,4-dichloro-2-buten	12.51	53	97495	No Calib	#
67)	n-Propylbenzene	12.55	91	774155	No Calib	
69)	Isopropylbenzene	12.05	105	559863	No Calib	
71)	1,1,2,2-Tetrachloroethane	12.45	83	223770	No Calib	
72)	2-Chlorotoluene	12.64	91	499884	No Calib	
73)	4-Chlorotoluene	12.77	91	558239	No Calib	
74)	1,3,5-Trimethylbenzene	12.77	105	499673	No Calib	
75)	tert-Butylbenzene	13.16	119	405141	No Calib	
76)	1,2,4-Trimethylbenzene	13.23	105	533287	No Calib	
77)	sec-Butylbenzene	13.43	105	632759	No Calib	
78)	4-Isopropyltoluene	13.62	119	509946	No Calib	
79)	1,3-Dichlorobenzene	13.55	146	269923	No Calib	
80)	1,4-Dichlorobenzene	13.66	146	275794	No Calib	
81)	1,2-Dichlorobenzene	14.11	146	268195	No Calib	
82)	n-Butylbenzene	14.11	91	582609	No Calib	
83)	1,2-Dibromo-3-chloropropan	15.08	75	52219	No Calib	
84)	1,2,4-Trichlorobenzene	16.09	180	207821	No Calib	
85)	Naphthalene	16.38	128	613069	No Calib	
86)	1,2,3-Trichlorobenzene	16.68	180	205211	No Calib	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021411.D Vial: 11
Acq On : 14 Feb 2013 1:28 pm Operator: AK
Sample : CAL5 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:07 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration

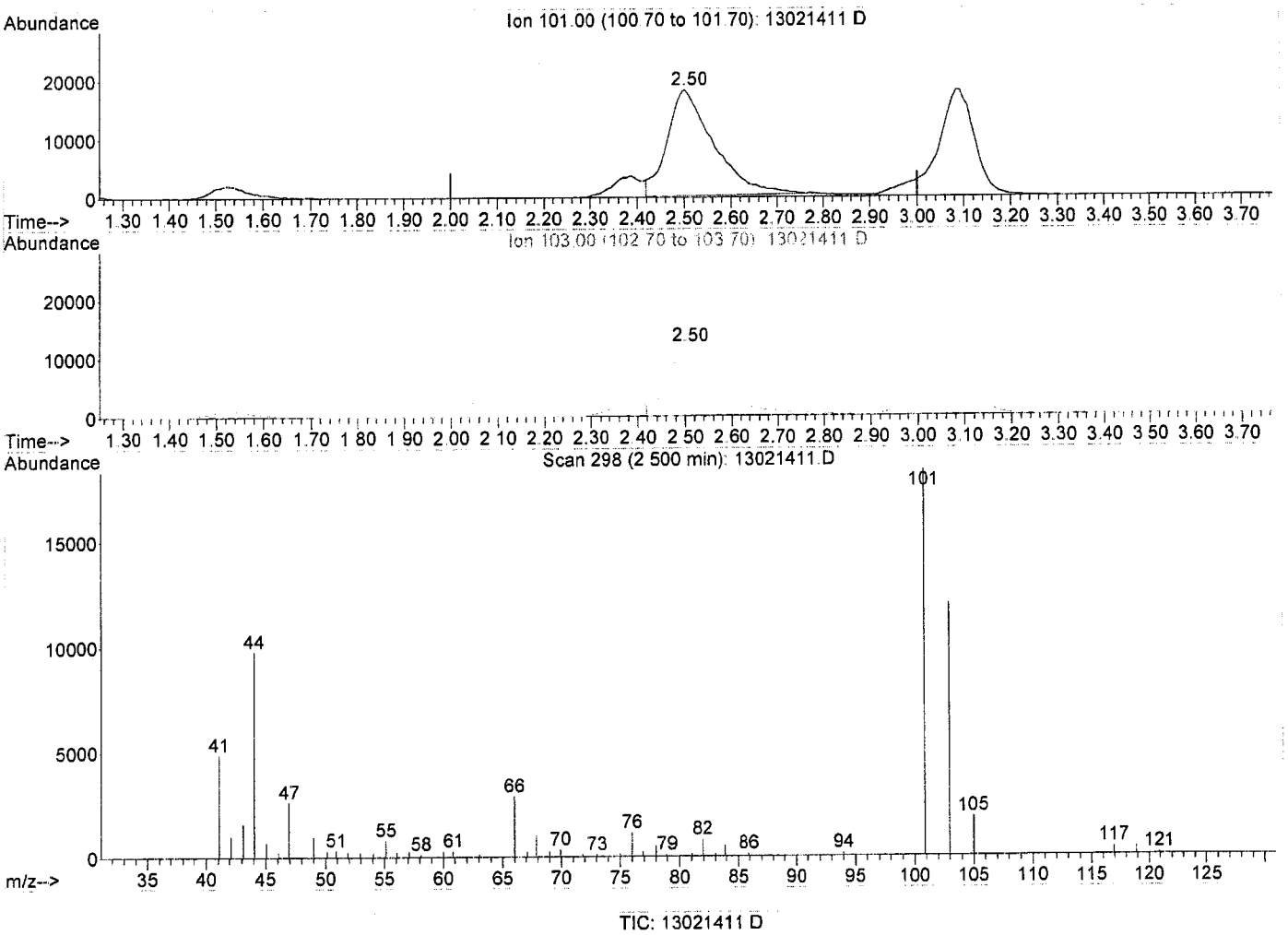


13021411.D VOC-S.M Fri Feb 15 10:07:58 2013 Page 3

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021411.D Vial: 11
Acq On : 14 Feb 2013 1:28 pm Operator: AK
Sample : CAL5 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021411.D

(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L

response 123971

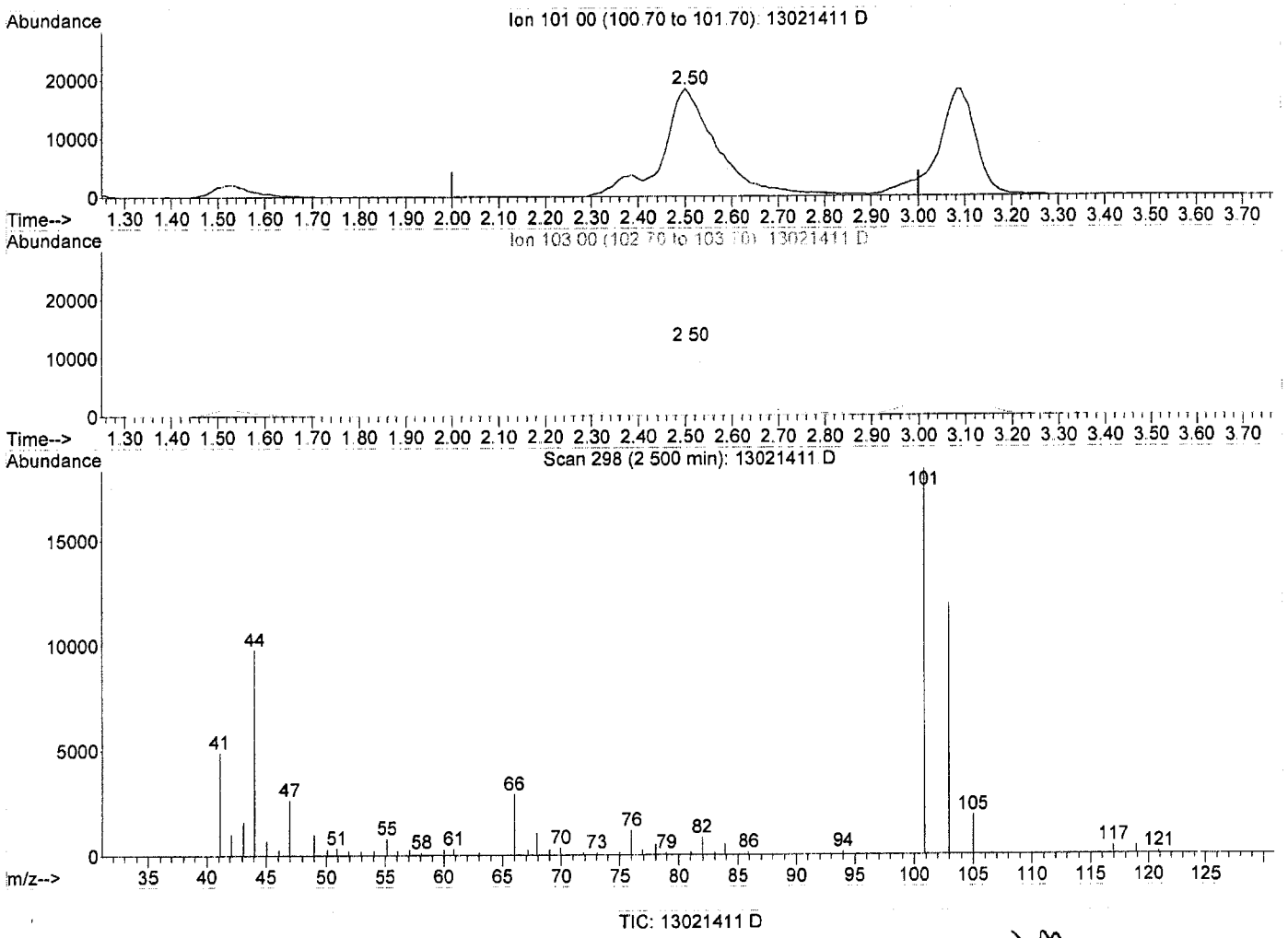
Ion	Exp%	Act%
101.00	100	100
103.00	62.40	68.31
0.00	0.00	0.00
0.00	0.00	0.00

13021411.D VOC-S.M Fri Feb 15 10:07:27 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021411.D Vial: 11
Acq On : 14 Feb 2013 1:28 pm Operator: AK
Sample : CAL5 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:07 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021411.D

(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L m

response 148763

Ion	Exp%	Act%
101.00	100	100
103.00	62.40	66.16
0.00	0.00	0.00
0.00	0.00	0.00

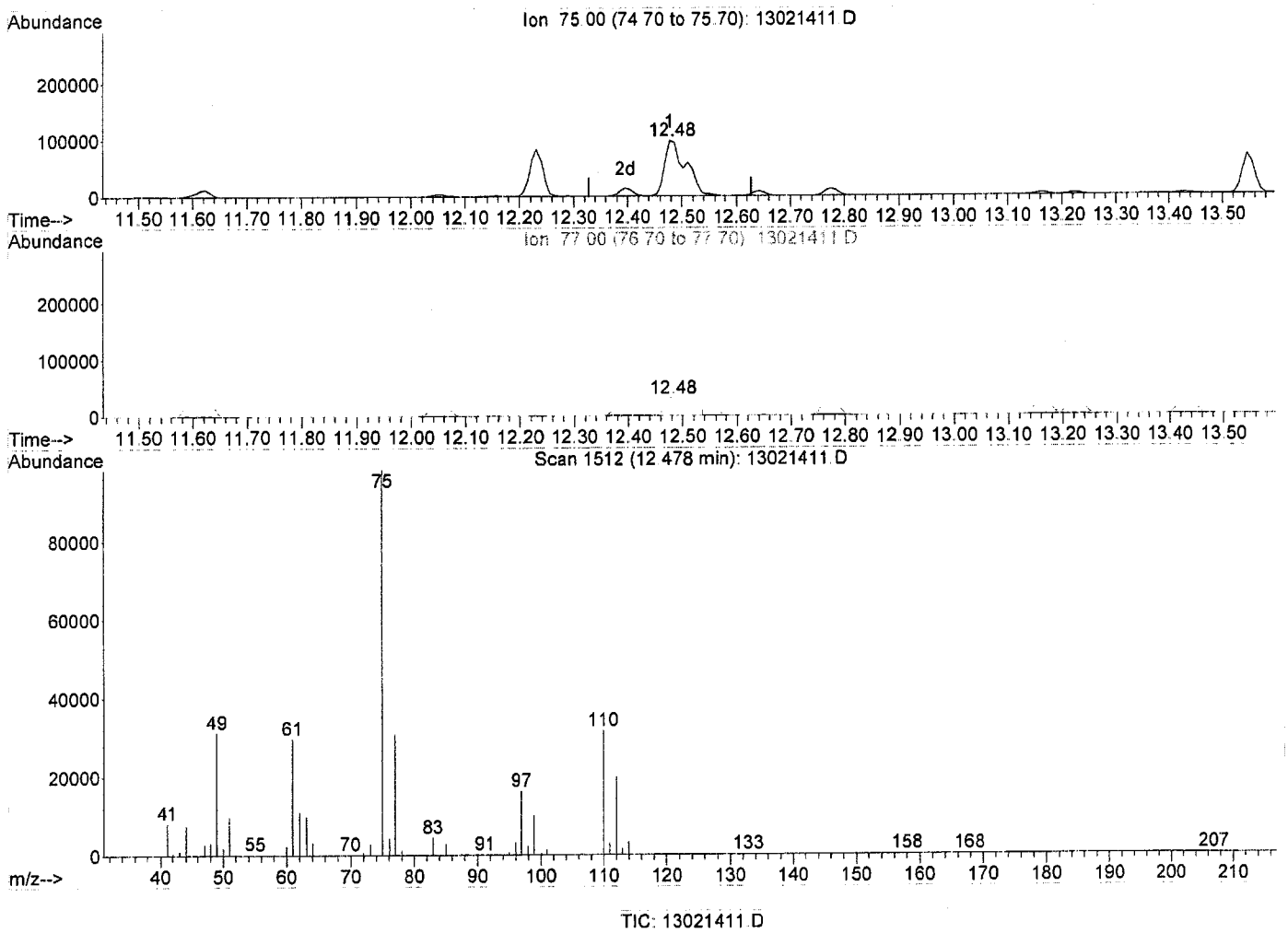
AK 2/15/13

13021411.D VOC-S.M Fri Feb 15 10:07:31 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021411.D Vial: 11
Acq On : 14 Feb 2013 1:28 pm Operator: AK
Sample : CAL5 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:07 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021411.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L

response 261948

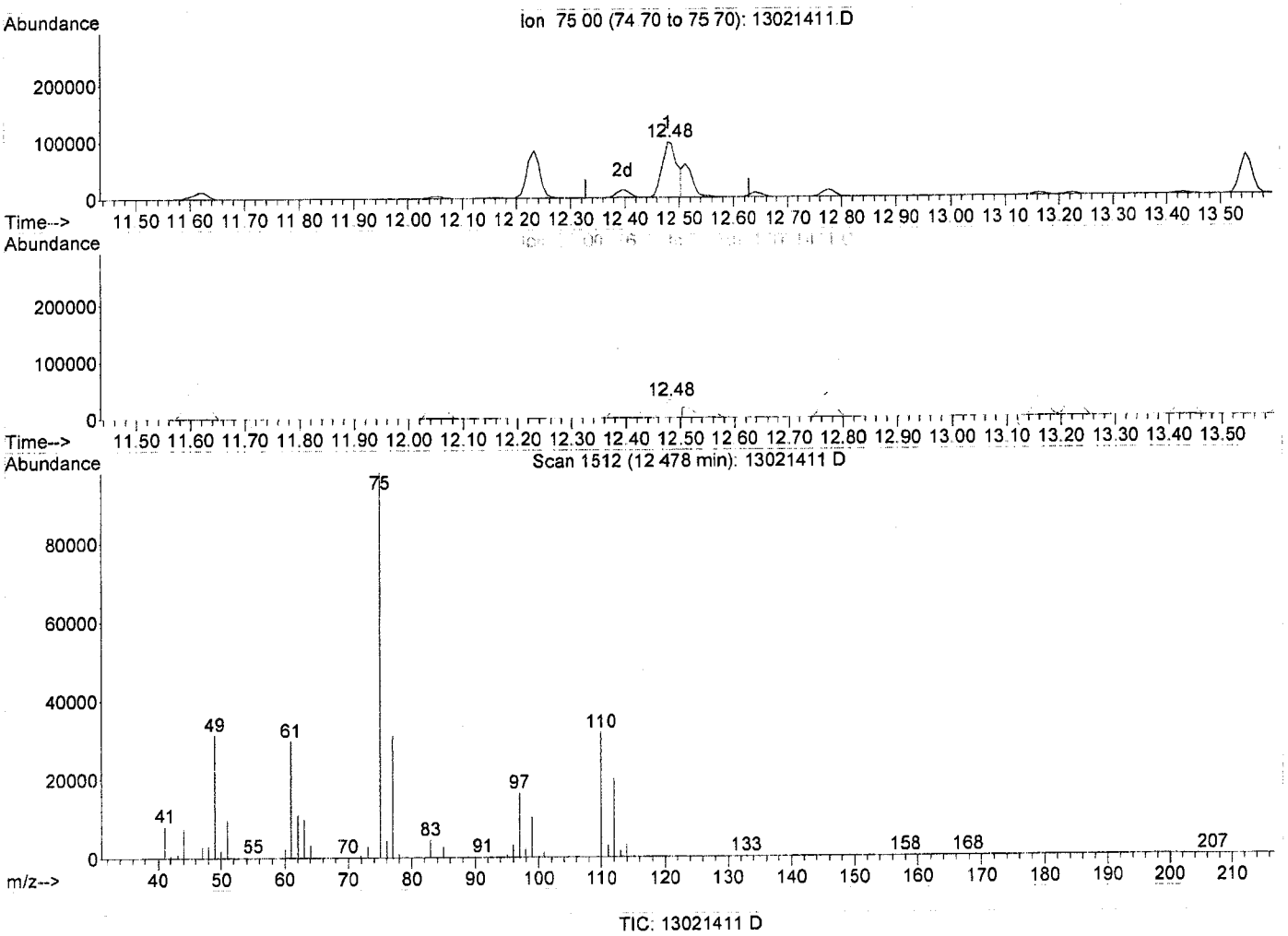
Ion	Exp%	Act%
75.00	100	100
77.00	31.60	32.97
0.00	0.00	0.00
0.00	0.00	0.00

13021411.D VOC-S.M Fri Feb 15 10:07:44 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021411.D Vial: 11
Acq On : 14 Feb 2013 1:28 pm Operator: AK
Sample : CAL5 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:07 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021411.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L m

response 191327

Ion	Exp%	Act%
75.00	100	100
77.00	31.60	32.41
0.00	0.00	0.00
0.00	0.00	0.00

AK 2/15/13

13021411.D VOC-S.M Fri Feb 15 10:07:51 2013

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021413.D Vial: 13
Acq On : 14 Feb 2013 2:23 pm Operator: AK
Sample : CAL6 200ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:58 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	815170	50.00 ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.81	117	463292	50.00 ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.64	152	213379	50.00 ug/L	0.00
System Monitoring Compounds					
29) Dibromofluoromethane SS#1	6.29	113	191454	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 116		Recovery =	0.00%#	
47) Toluene d-8 SS#2	9.08	98	645130	0.00 ug/L	0.00
Spiked Amount 50.000	Range 89 - 106		Recovery =	0.00%#	
70) 4-Bromofluorobenzene SS#3	12.24	95	311491	0.00 ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	1.52	85	544225	No Calib	
3) Chloromethane	1.67	50	904533	No Calib	
4) VINYL CHLORIDE	1.81	62	694011	No Calib	
5) Bromomethane	2.09	94	301821	No Calib	
6) Chloroethane	2.17	64	345767	No Calib	
7) Trichlorofluoromethane	2.50	101	570077	No Calib	
8) acrolein	2.92	56	135811	No Calib	
9) Acetone	3.13	58	64821	No Calib	#
10) 1,1-DICHLOROETHENE	3.07	96	378673	No Calib	#
11) 1,1,2-Trichlorotrifluoroet	3.09	101	380926	No Calib	
12) iodomethane	3.24	142	772806	No Calib	
13) Carbon Disulfide	3.35	76	1319761	No Calib	
14) Methyl Acetate	3.57	74	86664	No Calib	
15) Methylene chloride	3.73	84	475518	No Calib	#
16) tert-Butanol	4.02	59	138292	No Calib	
17) acrylonitrile	4.12	53	273138	No Calib	
18) trans-1,2-Dichloroethene	4.10	96	425998	No Calib	#
19) Methyl-t-Butyl Ether	4.14	73	1503996	No Calib	
20) 1,1-Dichloroethane	4.76	63	924838	No Calib	
21) vinyl acetate	4.90	43	2563806	No Calib	
22) Diisopropyl ether	4.92	45	2305642	No Calib	
23) tert-Butyl ethyl ether	5.46	59	2230431	No Calib	
24) 2,2-Dichloropropane	5.58	77	704227	No Calib	
25) cis-1,2-Dichloroethene	5.61	96	663051	No Calib	#
26) 2-Butanone (MEK)	5.69	72	90579	No Calib	#
27) Bromochloromethane	5.93	128	285061	No Calib	#
28) CHLOROFORM	6.07	83	1115943	No Calib	
30) 1,1,1-Trichloroethane	6.26	97	789853	No Calib	
31) Cyclohexane	6.32	56	1154008	No Calib	#
32) Carbon tetrachloride	6.47	117	624308	No Calib	
33) 1,1-Dichloropropene	6.48	75	680365	No Calib	
34) Benzene`	6.75	78	2187732	No Calib	
35) 1,2-Dichloroethane	6.81	62	1022543	No Calib	
36) tert-Amyl alcohol	6.93	59	167608	No Calib	#
37) tert-Amyl methyl ether	6.96	73	2178247	No Calib	#
38) Trichloroethene	7.58	95	535399	No Calib	
39) 1,2-DICHLOROPROPANE	7.87	63	682818	No Calib	
40) Methylcyclohexane	7.80	83	855140	No Calib	#
41) tert-Amyl ethyl ether	7.95	59	1975699	No Calib	

(#) = qualifier out of range (m) = manual integration
13021413.D VOC-S.M Fri Feb 15 10:08:40 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021413.D Vial: 13
Acq On : 14 Feb 2013 2:23 pm Operator: AK
Sample : CAL6 200ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:58 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

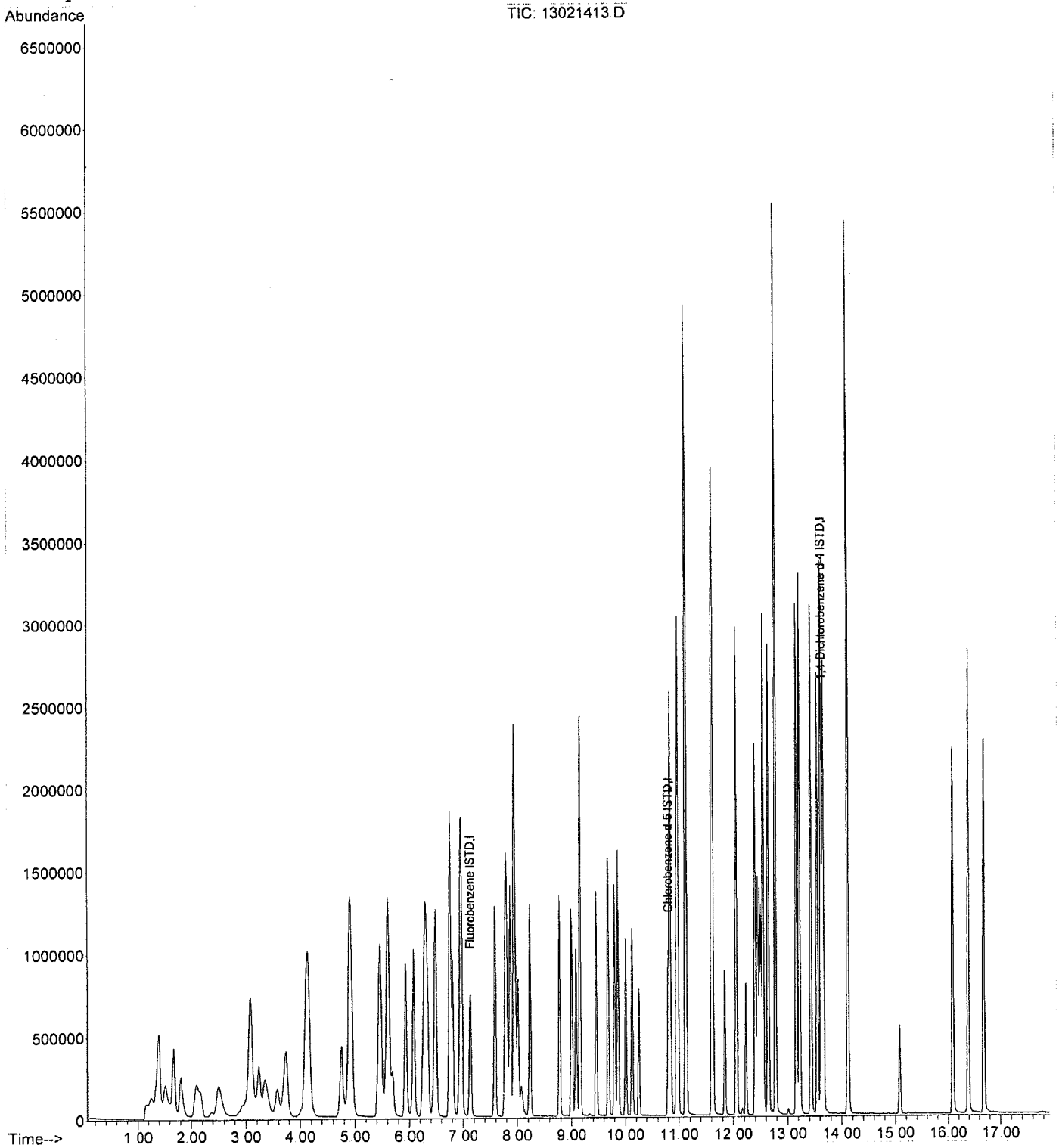
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Dibromomethane	8.02	93	409629	No Calib	
43)	1,4-Dioxane	8.08	88	189872	No Calib	#
44)	Bromodichloromethane	8.23	83	914591	No Calib	
45)	cis-1,3-Dichloropropene	8.78	75	1109707	No Calib	
46)	4-Methyl-2-Pentanone (MIBK	9.00	100	107762	No Calib	#
48)	TOLUENE	9.16	92	1262541	No Calib	
49)	trans-1,3-Dichloropropene	9.47	75	1075234	No Calib	
50)	1,1,2-Trichloroethane	9.67	83	442875	No Calib	
51)	Tetrachloroethene	9.80	164	298034	No Calib	
52)	2-Hexanone (MBK)	10.00	43	879550	No Calib	
54)	1,3-Dichloropropane	9.87	76	1002507	No Calib	
55)	Dibromochloromethane	10.13	129	572855	No Calib	
56)	1,2-Dibromoethane	10.25	107	558120	No Calib	
57)	Chlorobenzene	10.84	112	1275780	No Calib	
58)	1,1,1,2-Tetrachloroethane	10.95	131	485079	No Calib	
59)	ETHYLBENZENE	10.99	91	2242937	No Calib	
60)	m&p-Xylene	11.13	106	1594272	No Calib	#
61)	o-Xylene	11.60	106	853710	No Calib	#
62)	Styrene	11.63	104	1596230	No Calib	
63)	Bromoform	11.84	173	376065	No Calib	
64)	1,2,3-Trichloropropane	12.48	75	732526	No Calib	
65)	Bromobenzene	12.40	156	510229	No Calib	#
66)	trans-1,4-dichloro-2-buten	12.52	53	361802	No Calib	#
67)	n-Propylbenzene	12.56	91	2668099	No Calib	
69)	Isopropylbenzene	12.06	105	2045737	No Calib	
71)	1,1,2,2-Tetrachloroethane	12.45	83	806422	No Calib	
72)	2-Chlorotoluene	12.65	91	1775337	No Calib	
73)	4-Chlorotoluene	12.78	91	1844422	No Calib	
74)	1,3,5-Trimethylbenzene	12.78	105	1772728	No Calib	
75)	tert-Butylbenzene	13.17	119	1512203	No Calib	
76)	1,2,4-Trimethylbenzene	13.23	105	1906296	No Calib	
77)	sec-Butylbenzene	13.44	105	2279133	No Calib	
78)	4-Isopropyltoluene	13.62	119	1899407	No Calib	
79)	1,3-Dichlorobenzene	13.55	146	996708	No Calib	
80)	1,4-Dichlorobenzene	13.67	146	1011269	No Calib	
81)	1,2-Dichlorobenzene	14.12	146	983031	No Calib	
82)	n-Butylbenzene	14.12	91	1840663	No Calib	
83)	1,2-Dibromo-3-chloropropan	15.08	75	195152	No Calib	
84)	1,2,4-Trichlorobenzene	16.09	180	714342	No Calib	
85)	Naphthalene	16.39	128	2126509	No Calib	
86)	1,2,3-Trichlorobenzene	16.68	180	685361	No Calib	

(#) = qualifier out of range (m) = manual integration
13021413.D VOC-S.M Fri Feb 15 10:08:40 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021413.D Vial: 13
Acq On : 14 Feb 2013 2:23 pm Operator: AK
Sample : CAL6 200ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:08 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration

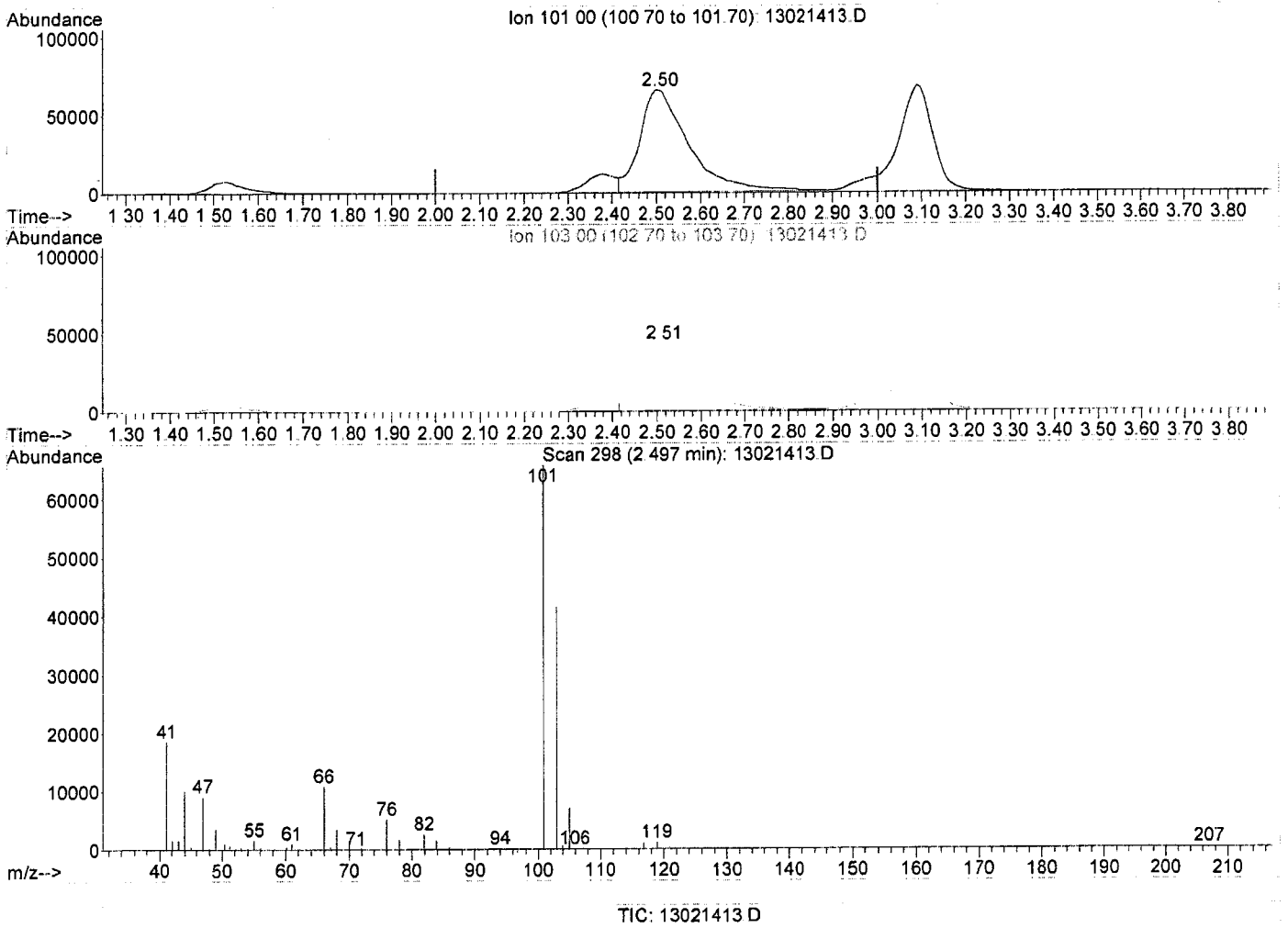


13021413.D VOC-S.M Fri Feb 15 10:08:41 2013 Page 3

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021413.D Vial: 13
Acq On : 14 Feb 2013 2:23 pm Operator: AK
Sample : CAL6 200ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:56 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021413.D

(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L

response 494921

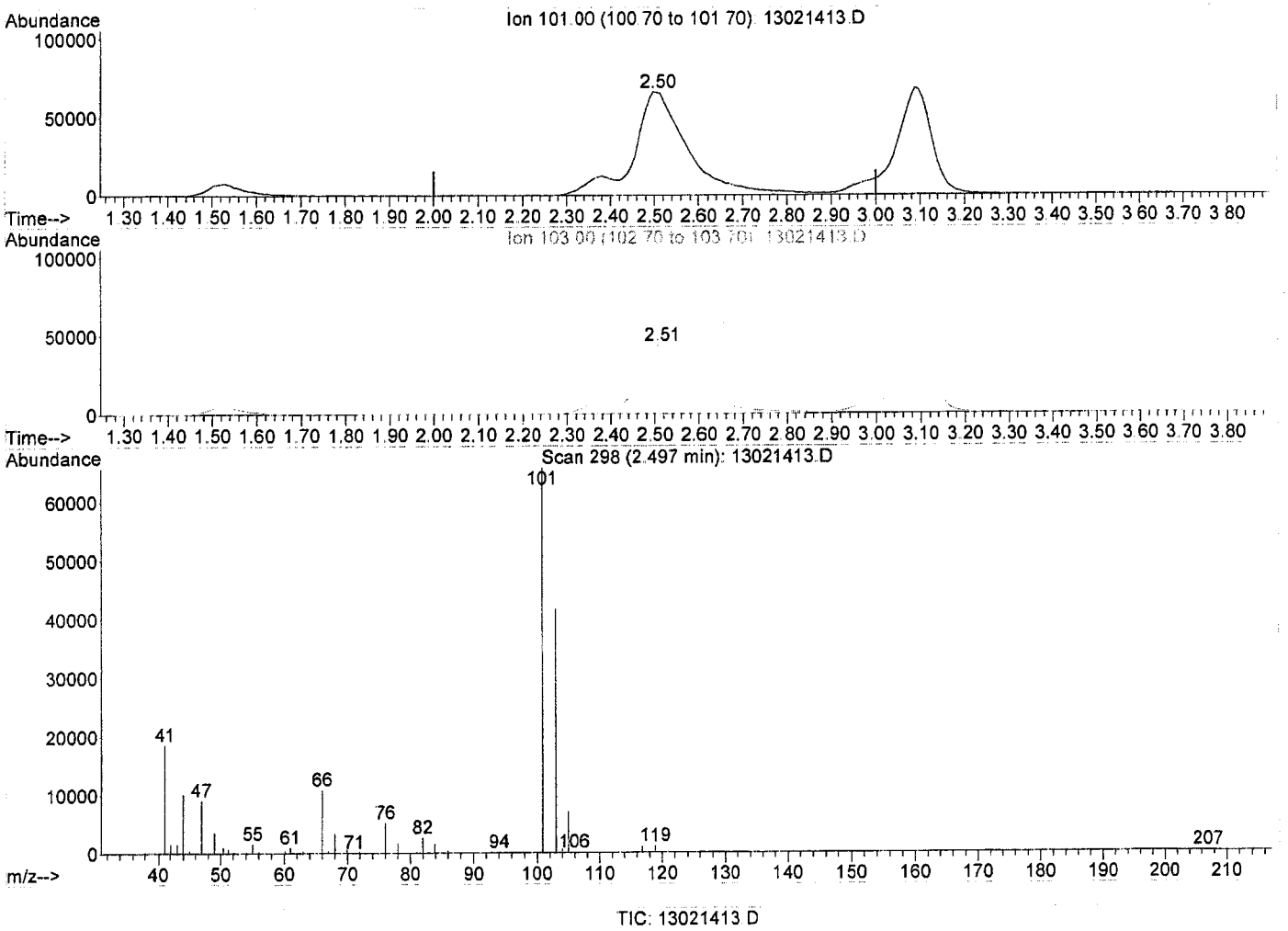
Ion	Exp%	Act%
101.00	100	100
103.00	62.40	65.04
0.00	0.00	0.00
0.00	0.00	0.00

13021413.D VOC-S.M Fri Feb 15 10:08:13 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021413.D Vial: 13
Acq On : 14 Feb 2013 2:23 pm Operator: AK
Sample : CAL6 200ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:08 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021413.D

(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L m

response 570077

Ion	Exp%	Act%
101.00	100	100
103.00	62.40	65.24
0.00	0.00	0.00
0.00	0.00	0.00

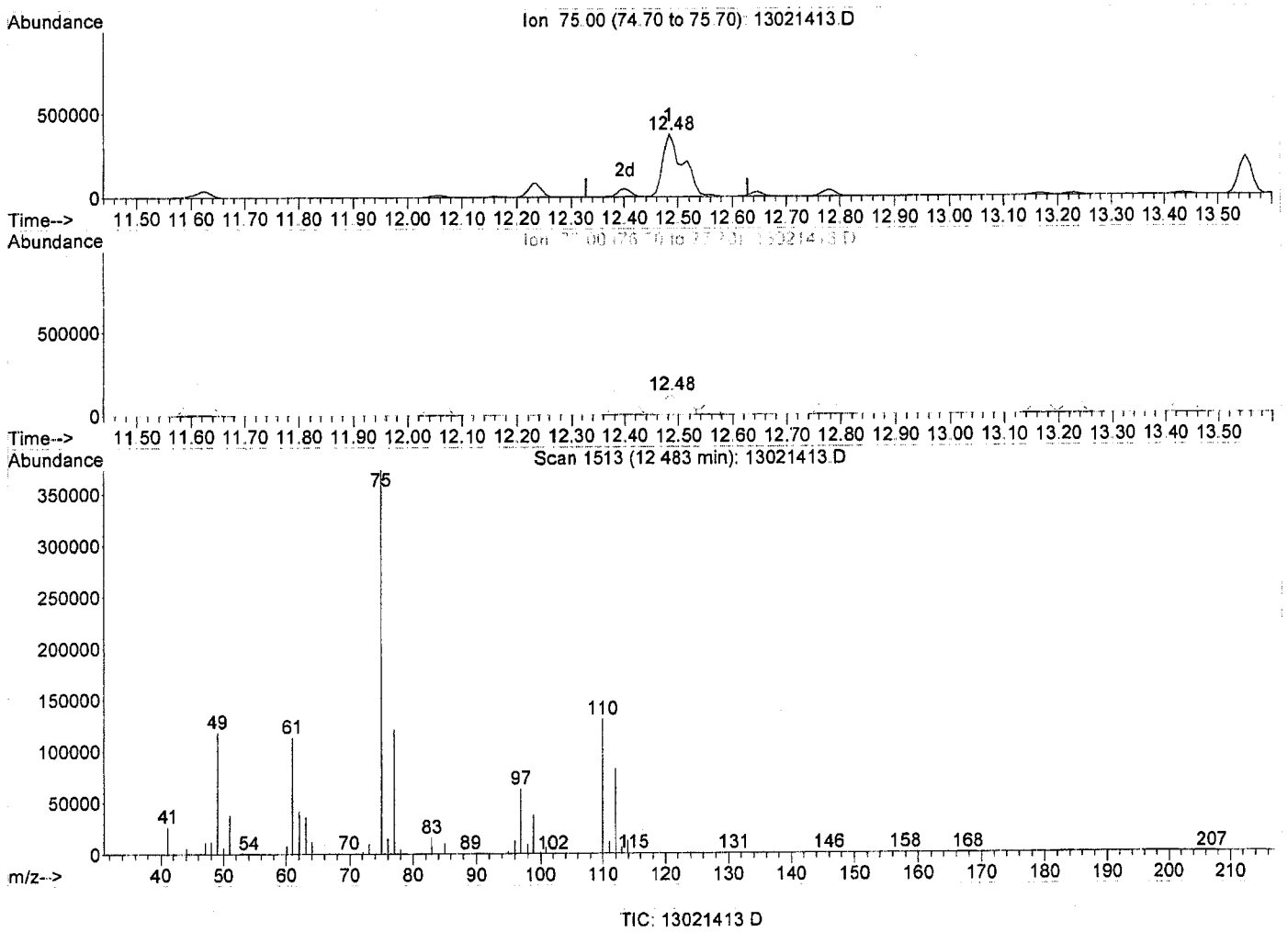
AK 2/15/13

13021413.D VOC-S.M Fri Feb 15 10:08:18 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021413.D Vial: 13
Acq On : 14 Feb 2013 2:23 pm Operator: AK
Sample : CAL6 200ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:08 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021413.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L

response 976380

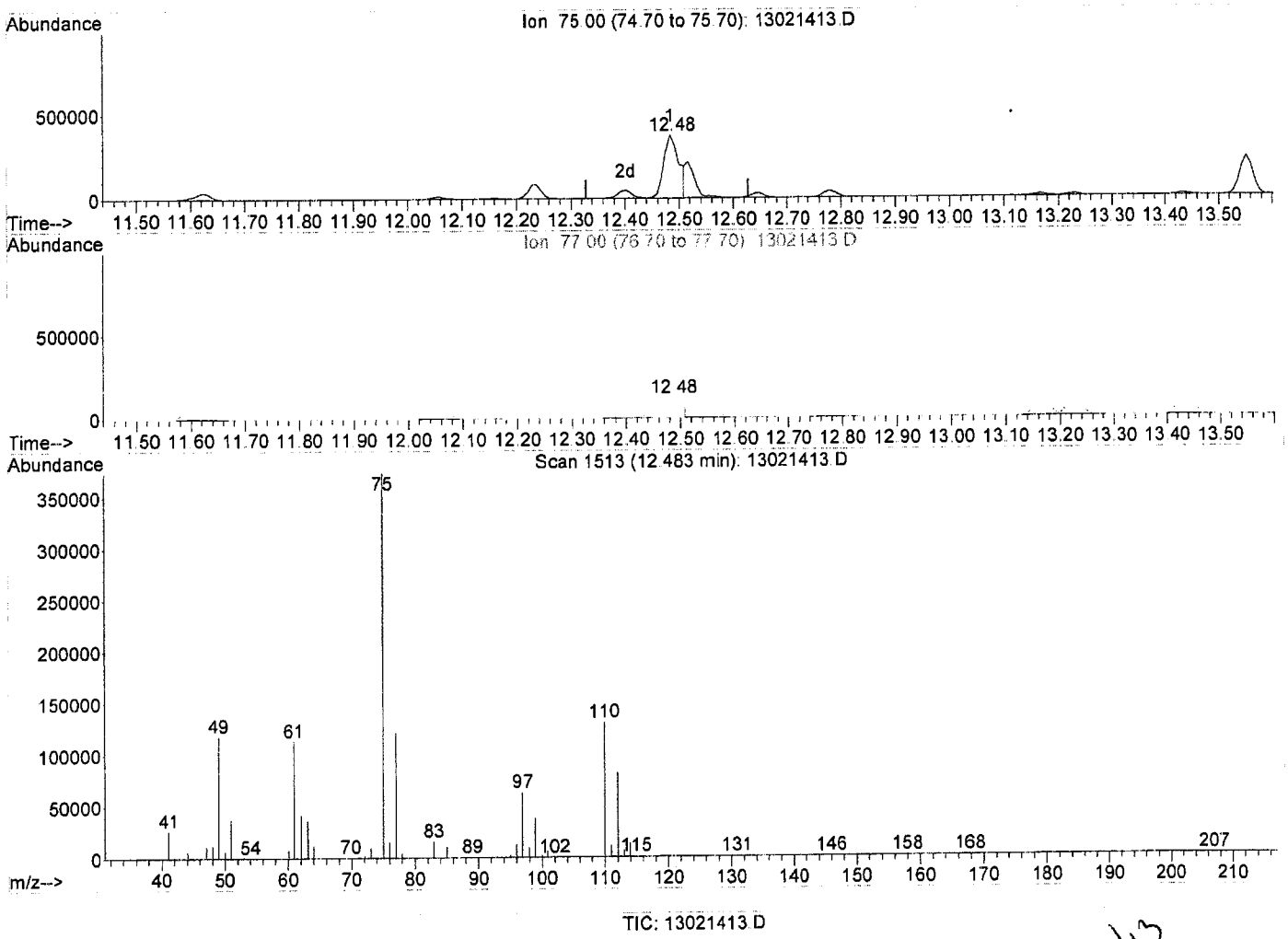
Ion	Exp%	Act%
75.00	100	100
77.00	31.60	31.85
0.00	0.00	0.00
0.00	0.00	0.00

13021413.D VOC-S.M Fri Feb 15 10:08:27 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021413.D Vial: 13
Acq On : 14 Feb 2013 2:23 pm Operator: AK
Sample : CAL6 200ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 5ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:08 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021413.D

AK 2/15/13

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L m

response 732526

Ion	Exp%	Act%
75.00	100	100
77.00	31.60	32.56
0.00	0.00	0.00
0.00	0.00	0.00

13021413.D VOC-S.M Fri Feb 15 10:08:34 2013

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021415.D Vial: 15
Acq On : 14 Feb 2013 3:19 pm Operator: AK
Sample : CAL7 400ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:59 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene ISTD	7.13	96	826440	50.00	ug/L	0.00
53) Chlorobenzene d-5 ISTD	10.81	117	475732	50.00	ug/L	0.00
68) 1,4-Dichlorobenzene d-4 IS	13.64	152	222219	50.00	ug/L	0.00
System Monitoring Compounds						
29) Dibromofluoromethane SS#1	6.29	113	188923	0.00	ug/L	0.00
Spiked Amount 50.000	Range 89 - 116		Recovery = 0.00%#			
47) Toluene d-8 SS#2	9.08	98	664466	0.00	ug/L	0.00
Spiked Amount 50.000	Range 89 - 106		Recovery = 0.00%#			
70) 4-Bromofluorobenzene SS#3	12.24	95	323961	0.00	ug/L	0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 0.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.52	85	1225567	No Calib		
3) Chloromethane	1.67	50	1924820	No Calib		
4) VINYL CHLORIDE	1.81	62	1515516	No Calib		
5) Bromomethane	2.09	94	519318	No Calib		
6) Chloroethane	2.17	64	648268	No Calib		
7) Trichlorofluoromethane	2.50	101	1234544	No Calib		
8) acrolein	2.92	56	286563	No Calib		
9) Acetone	3.12	58	141534	No Calib		#
10) 1,1-DICHLOROETHENE	3.07	96	799838	No Calib		#
11) 1,1,2-Trichlorotrifluoroet	3.09	101	853058	No Calib		
12) iodomethane	3.24	142	1601638	No Calib		
13) Carbon Disulfide	3.34	76	2897126	No Calib		
14) Methyl Acetate	3.57	74	177007	No Calib		
15) Methylene chloride	3.74	84	971020	No Calib		#
16) tert-Butanol	4.01	59	291974	No Calib		
17) acrylonitrile	4.12	53	539791	No Calib		
18) trans-1,2-Dichloroethene	4.10	96	882577	No Calib		#
19) Methyl-t-Butyl Ether	4.14	73	2973521	No Calib		
20) 1,1-Dichloroethane	4.75	63	1931762	No Calib		
21) vinyl acetate	4.90	43	5106119	No Calib		
22) Diisopropyl ether	4.92	45	4623267	No Calib		
23) tert-Butyl ethyl ether	5.46	59	5073008	No Calib		
24) 2,2-Dichloropropane	5.58	77	1507088	No Calib		
25) cis-1,2-Dichloroethene	5.60	96	1303636	No Calib		#
26) 2-Butanone (MEK)	5.69	72	182373	No Calib		#
27) Bromochloromethane	5.93	128	563251	No Calib		#
28) CHLOROFORM	6.07	83	2156403	No Calib		
30) 1,1,1-Trichloroethane	6.27	97	1672331	No Calib		
31) Cyclohexane	6.32	56	2458377	No Calib		#
32) Carbon tetrachloride	6.47	117	1349773	No Calib		
33) 1,1-Dichloropropene	6.48	75	1369300	No Calib		
34) Benzene	6.75	78	4272661	No Calib		
35) 1,2-Dichloroethane	6.81	62	1973409	No Calib		
36) tert-Amyl alcohol	6.93	59	348649	No Calib		#
37) tert-Amyl methyl ether	6.96	73	4121102	No Calib		#
38) Trichloroethene	7.59	95	1079764	No Calib		
39) 1,2-DICHLOROPROPANE	7.87	63	1318597	No Calib		
40) Methylcyclohexane	7.80	83	1812387	No Calib		#
41) tert-Amyl ethyl ether	7.95	59	3766023	No Calib		

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021415.D Vial: 15
Acq On : 14 Feb 2013 3:19 pm Operator: AK
Sample : CAL7 400ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 09:56:59 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

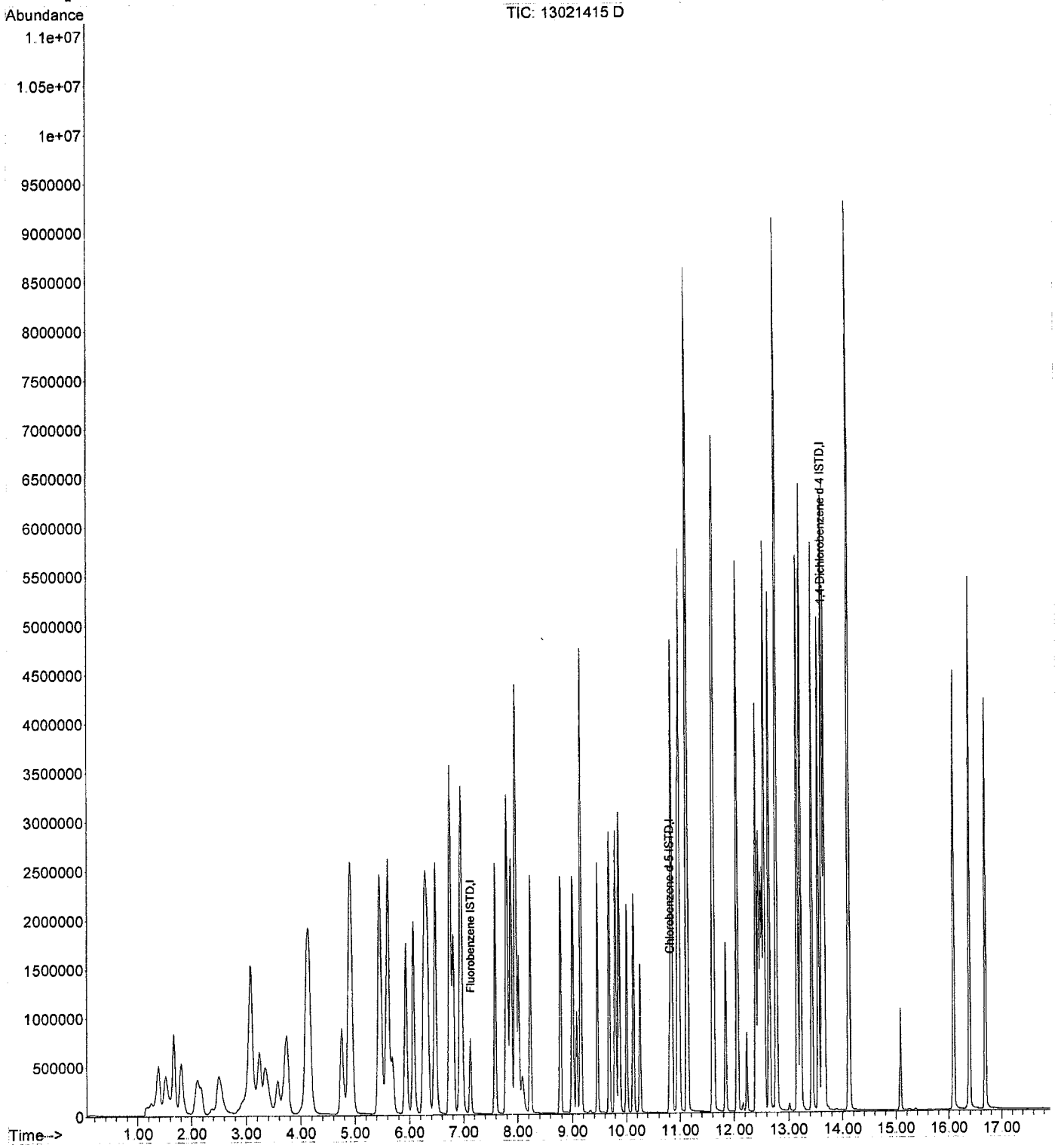
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
42)	Dibromomethane	8.02	93	794808	No Calib	
43)	1,4-Dioxane	8.08	88	419150	No Calib	
44)	Bromodichloromethane	8.23	83	1730627	No Calib	
45)	cis-1,3-Dichloropropene	8.78	75	2099530	No Calib	
46)	4-Methyl-2-Pentanone (MIBK	9.01	100	215570	No Calib	#
48)	TOLUENE	9.16	92	2515327	No Calib	
49)	trans-1,3-Dichloropropene	9.47	75	1994051	No Calib	
50)	1,1,2-Trichloroethane	9.68	83	827457	No Calib	
51)	Tetrachloroethene	9.80	164	643307	No Calib	
52)	2-Hexanone (MBK)	10.00	43	1801591	No Calib	
54)	1,3-Dichloropropane	9.87	76	1888814	No Calib	
55)	Dibromochloromethane	10.13	129	1149854	No Calib	
56)	1,2-Dibromoethane	10.25	107	1101212	No Calib	
57)	Chlorobenzene	10.84	112	2564416	No Calib	
58)	1,1,1,2-Tetrachloroethane	10.95	131	982430	No Calib	
59)	ETHYLBENZENE	10.99	91	4226095	No Calib	
60)	m&p-Xylene	11.14	106	3111049	No Calib	#
61)	o-Xylene	11.60	106	1742018	No Calib	#
62)	Styrene	11.63	104	3095041	No Calib	
63)	Bromoform	11.84	173	768671	No Calib	
64)	1,2,3-Trichloropropane	12.48	75	1323593	No Calib	
65)	Bromobenzene	12.40	156	1040516	No Calib	
66)	trans-1,4-dichloro-2-buten	12.52	53	728990	No Calib	#
67)	n-Propylbenzene	12.56	91	5204060	No Calib	
69)	Isopropylbenzene	12.06	105	4162036	No Calib	
71)	1,1,2,2-Tetrachloroethane	12.45	83	1516370	No Calib	
72)	2-Chlorotoluene	12.65	91	3410495	No Calib	
73)	4-Chlorotoluene	12.79	91	3149321	No Calib	
74)	1,3,5-Trimethylbenzene	12.78	105	3181999	No Calib	
75)	tert-Butylbenzene	13.17	119	3144396	No Calib	
76)	1,2,4-Trimethylbenzene	13.23	105	3745852	No Calib	
77)	sec-Butylbenzene	13.44	105	4621454	No Calib	
78)	4-Isopropyltoluene	13.63	119	3904561	No Calib	
79)	1,3-Dichlorobenzene	13.56	146	2050872	No Calib	
80)	1,4-Dichlorobenzene	13.67	146	2076068	No Calib	
81)	1,2-Dichlorobenzene	14.12	146	1862023	No Calib	
82)	n-Butylbenzene	14.13	91	3241754	No Calib	
83)	1,2-Dibromo-3-chloropropan	15.08	75	372219	No Calib	
84)	1,2,4-Trichlorobenzene	16.09	180	1446490	No Calib	
85)	Naphthalene	16.39	128	4271509	No Calib	
86)	1,2,3-Trichlorobenzene	16.69	180	1332275	No Calib	

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021415.D Vial: 15
Acq On : 14 Feb 2013 3:19 pm Operator: AK
Sample : CAL7 400ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:09 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Initial Calibration

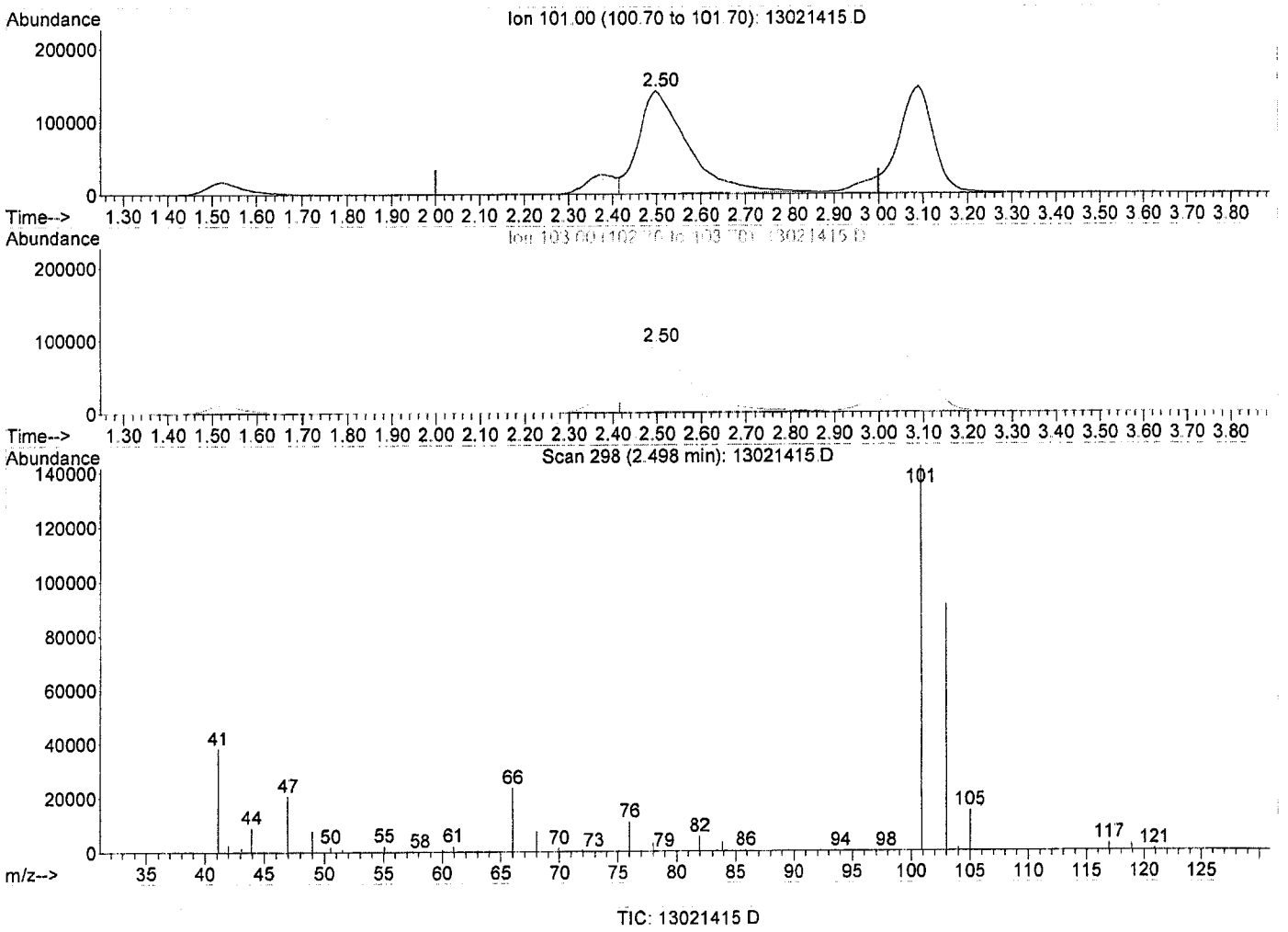


13021415.D VOC-S.M Fri Feb 15 10:09:41 2013 Page 3

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021415.D Vial: 15
Acq On : 14 Feb 2013 3:19 pm Operator: AK
Sample : CAL7 400ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 9:57 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021415.D

(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L

response 1067103

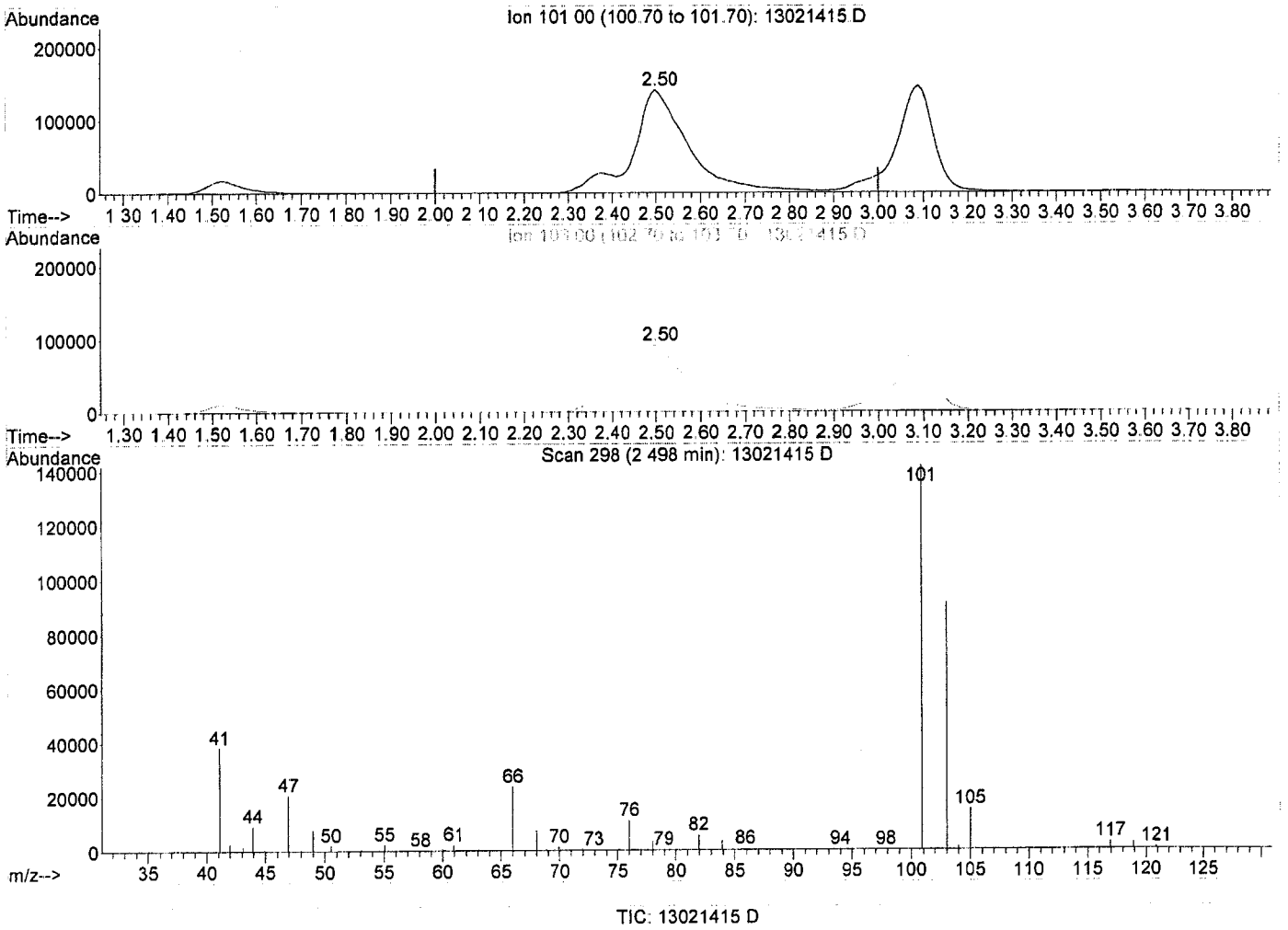
Ion	Exp%	Act%
101.00	100	100
103.00	62.40	64.58
0.00	0.00	0.00
0.00	0.00	0.00

13021415.D VOC-S.M Fri Feb 15 10:09:13 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021415.D Vial: 15
Acq On : 14 Feb 2013 3:19 pm Operator: AK
Sample : CAL7 400ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:09 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021415.D

(7) Trichlorofluoromethane (T)

2.50min 0.00ug/L m

response 1234544

Ion	Exp%	Act%
101.00	100	100
103.00	62.40	65.33
0.00	0.00	0.00
0.00	0.00	0.00

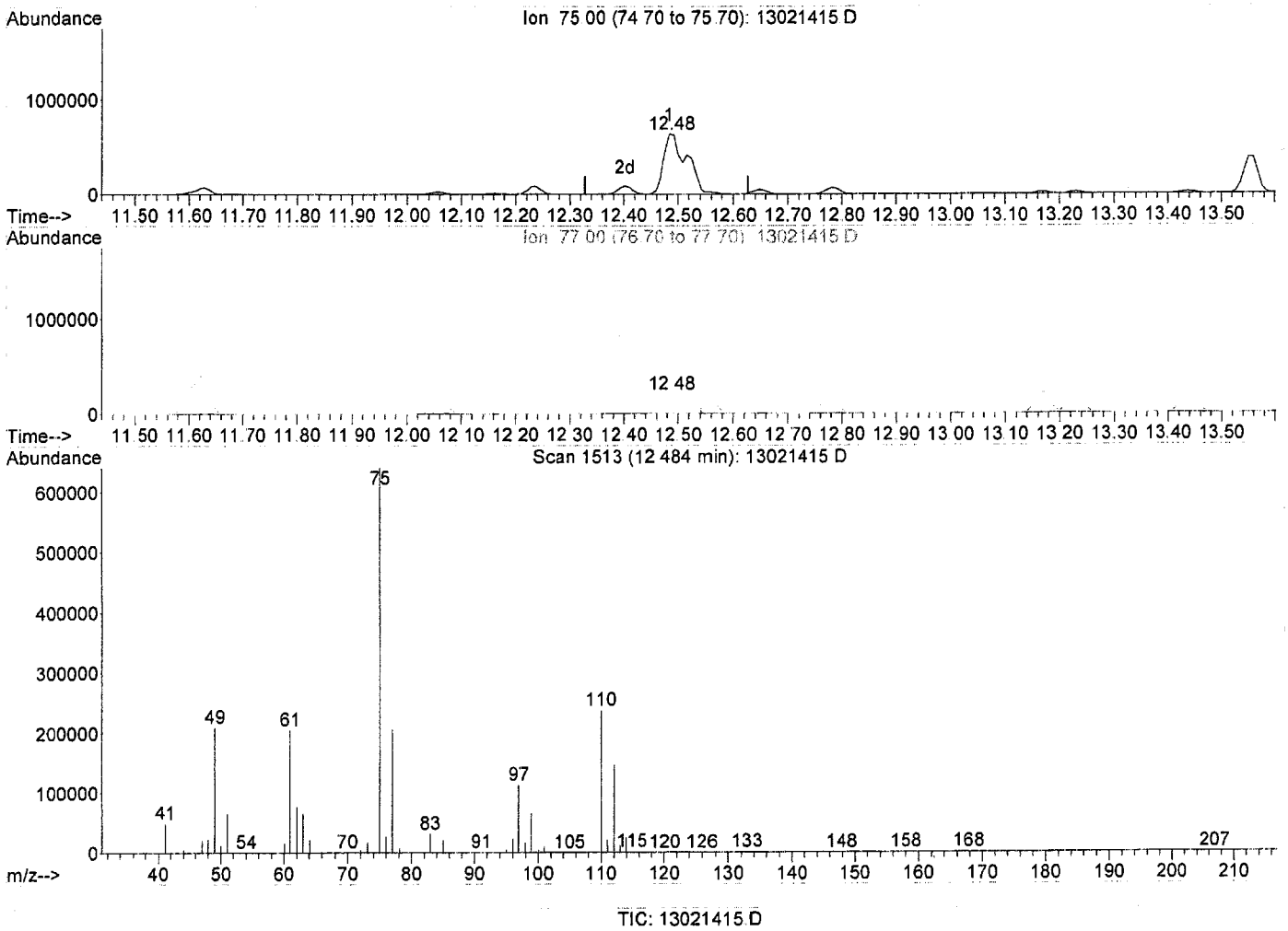
AK 2/15/13

13021415.D VOC-S.M Fri Feb 15 10:09:18 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021415.D Vial: 15
Acq On : 14 Feb 2013 3:19 pm Operator: AK
Sample : CAL7 400ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:09 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021415.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L

response 1871685

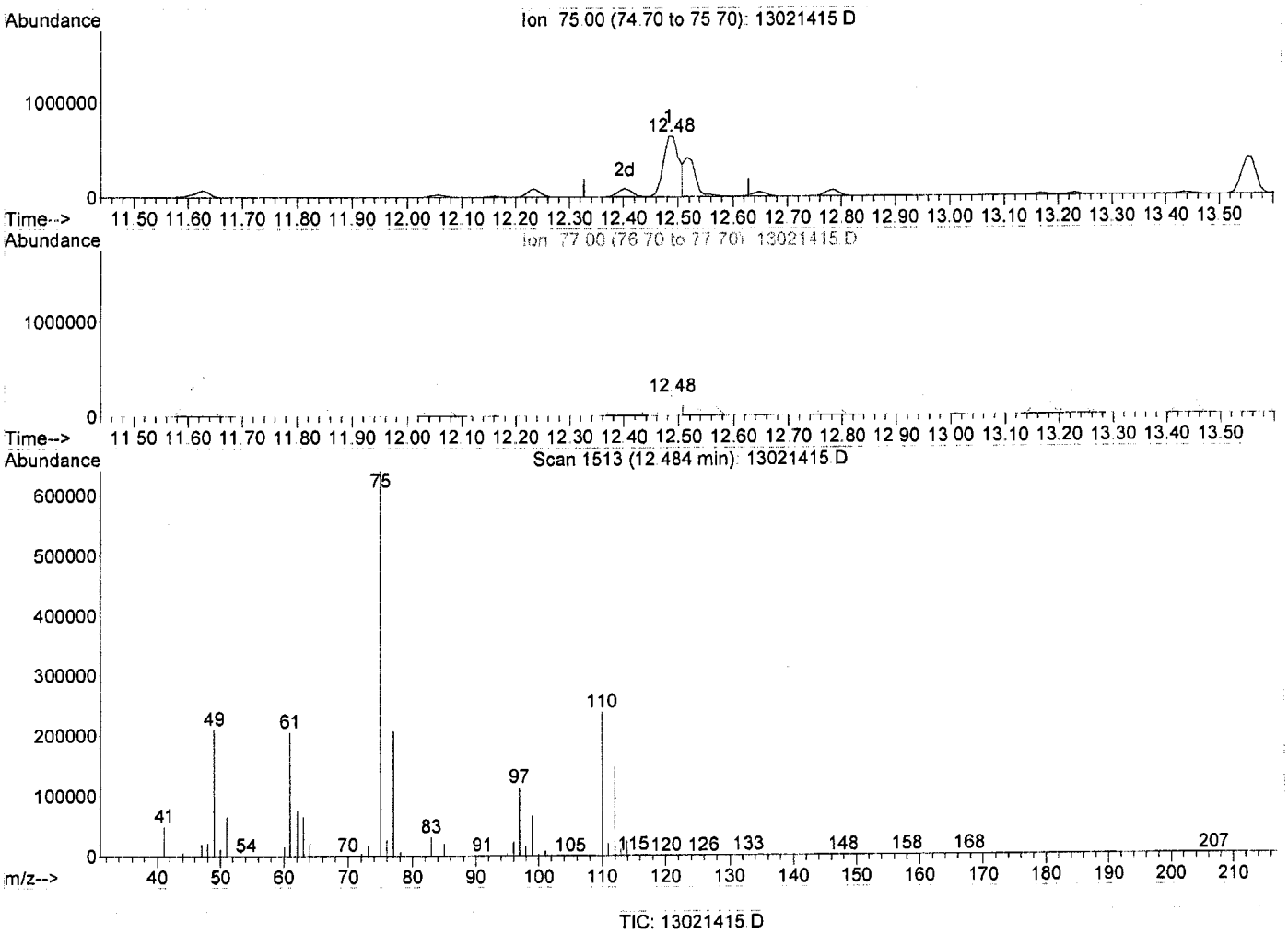
Ion	Exp%	Act%
75.00	100	100
77.00	31.60	32.81
0.00	0.00	0.00
0.00	0.00	0.00

13021415.D VOC-S.M Fri Feb 15 10:09:27 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021415.D Vial: 15
Acq On : 14 Feb 2013 3:19 pm Operator: AK
Sample : CAL7 400ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 10ul 1365-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:09 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 09:56:17 2013
Response via : Multiple Level Calibration



TIC: 13021415.D

(64) 1,2,3-Trichloropropane (T)

12.48min 0.00ug/L m

response 1323593

Ion	Exp%	Act%
75.00	100	100
77.00	31.60	32.44
0.00	0.00	0.00
0.00	0.00	0.00

AK 2/15/13

13021415.D VOC-S.M Fri Feb 15 10:09:33 2013

8260 ICV RESULTS

Data File Analyst	13021418.D AK	ICV Recovery (75%-125%)	
COMPOUNDS			
Fluorobenzene ISTD	50	100%	
Dichlorodifluoromethane	56.9992	95.00%	
Chloromethane	56.3028	93.84%	
VINYL CHLORIDE	56.7836	94.64%	
Bromomethane	65.4607	109.10%	
Chloroethane	63.3747	105.62%	
Trichlorofluoromethane	60.4029	100.67%	
acrolein	60.2904	100.48%	
Acetone	58.6075	97.68%	
1,1-DICHLOROETHENE	56.9509	94.92%	
1,1,2-Trichlorotrifluoroethane	56.3984	94.00%	
iodomethane	56.3333	93.89%	
Carbon Disulfide	50.9707	84.95%	
Methyl Acetate	56.2548	93.76%	
Methylene chloride	54.7961	91.33%	
tert-Butanol	54.5842	90.97%	
acrylonitrile	60.3311	100.55%	
trans-1,2-Dichloroethene	57.7104	96.18%	
Methyl-t-Butyl Ether	59.5275	99.21%	
1,1-Dichloroethane	58.7426	97.90%	
vinyl acetate	62.7306	104.55%	
Diisopropyl ether	61.8977	103.16%	
tert-Butyl ethyl ether	52.764	87.94%	
2,2-Dichloropropane	59.6358	99.39%	
cis-1,2-Dichloroethene	58.4081	97.35%	
2-Butanone (MEK)	57.1873	95.31%	
Bromochloromethane	58.8975	98.16%	
CHLOROFORM	60.4191	100.70%	
Dibromofluoromethane SS#1	49.8941	99.79%	
1,1,1-Trichloroethane	58.4933	97.49%	
Cyclohexane	56.4171	94.03%	

Carbon tetrachloride	57.617	**96.03%**	
1,1-Dichloropropene	60.847	**101.41%**	
Benzene`	60.2258	**100.38%**	
1,2-Dichloroethane	61.9424	**103.24%**	
tert-Amyl alcohol	57.6853	**96.14%**	
tert-Amyl methyl ether	60.0014	**100.00%**	
Trichloroethene	59.7931	**99.66%**	
1,2-DICHLOROPROPANE	62.1814	**103.64%**	
Methylcyclohexane	57.2799	**95.47%**	
tert-Amyl ethyl ether	60.5559	**100.93%**	
Dibromomethane	60.8878	**101.48%**	
1,4-Dioxane	1 1584	**96.53%**	
Bromodichloromethane	61 821	**103.04%**	
cis-1,3-Dichloropropene	63.9698	**106.62%**	
4-Methyl-2-Pentanone (MIBK)	61.9026	**103.17%**	
Toluene d-8 SS#2	51.1589	**102.32%**	
TOLUENE	61.7576	**102.93%**	
trans-1,3-Dichloropropene	64.4978	**107.50%**	
1,1,2-Trichloroethane	62.8904	**104.82%**	
Tetrachloroethene	59.6026	**99.34%**	
2-Hexanone (MBK)	64.535	**107.56%**	
Chlorobenzene d-5 ISTD	50	**100.00%**	
1,3-Dichloropropane	61.8492	**103.08%**	
Dibromochloromethane	59.7132	**99.52%**	
1,2-Dibromoethane	59.9447	**99.91%**	
Chlorobenzene	59.7541	**99.59%**	
1,1,1,2-Tetrachloroethane	57 5285	**95.88%**	
ETHYLBENZENE	61 1414	**101.90%**	
m&p-Xylene	119.1307	**99.28%**	
o-Xylene	57.8365	**96.39%**	
Styrene	60.0517	**100.09%**	
Bromoform	60.0522	**100.09%**	
1,2,3-Trichloropropane	59.6215	**99.37%**	
Bromobenzene	60.2386	**100.40%**	
trans-1,4-dichloro-2-butene	60.2791	**100.47%**	
n-Propylbenzene	60 445	**100.74%**	

1,4-Dichlorobenzene d-4 ISTD	50	100.00%	
Isopropylbenzene	60.1273	100.21%	
4-Bromofluorobenzene SS#3	51.0001	102.00%	
1,1,2,2-Tetrachloroethane	61.7697	102.95%	
2-Chlorotoluene	61.354	102.26%	
4-Chlorotoluene	62.2415	103.74%	
1,3,5-Trimethylbenzene	59.6345	99.39%	
tert-Butylbenzene	57.6171	96.03%	
1,2,4-Trimethylbenzene	59.5608	99.27%	
sec-Butylbenzene	58.3568	97.26%	
4-Isopropyltoluene	58.428	97.38%	
1,3-Dichlorobenzene	59.7709	99.62%	
1,4-Dichlorobenzene	59.6223	99.37%	
1,2-Dichlorobenzene	58.4045	97.34%	
n-Butylbenzene	63.9805	106.63%	
1,2-Dibromo-3-chloropropane	56.0417	93.40%	
1,2,4-Trichlorobenzene	56.3566	93.93%	
Naphthalene	56.8772	94.80%	
1,2,3-Trichlorobenzene	56.7029	94.50%	

Evaluate Continuing Calibration Report

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene ISTD	1.000	1.000	0.0	108	0.00
2	T	Dichlorodifluoromethane	0.165	0.157	4.8	116	0.00
3	P	Chloromethane	0.270	0.253	6.3	108	0.02
4	C	VINYL CHLORIDE	0.214	0.203	5.1	115	0.00
5	T	Bromomethane	0.091	0.099	-8.8	107	0.02
6	T	Chloroethane	0.107	0.113	-5.6	118	0.03
7	T	Trichlorofluoromethane	0.172	0.173	-0.6	122	0.00
8	T	acrolein	0.041	0.041	0.0	118	0.03
9	T	Acetone	0.021	0.021	0.0	119	0.01
10	M,C	1,1-DICHLOROETHENE	0.118	0.112	5.1	115	0.02
11	T	1,1,2-Trichlorotrifluoroeth	0.122	0.114	6.6	116	0.02
12	T	iodomethane	0.227	0.213	6.2	109	0.02
13	T	Carbon Disulfide	0.398	0.338	15.1	106	0.02
14	T	Methyl Acetate	0.026	0.025	3.8	114	0.03
15	T	Methylene chloride	0.151	0.138	8.6	112	0.02
16	T	tert-Butanol	0.047	0.043	8.5	114	0.02
17	T	acrylonitrile	0.081	0.082	-1.2	117	0.03
18	T	trans-1,2-Dichloroethene	0.133	0.128	3.8	118	0.02
19	T	Methyl-t-Butyl Ether	0.445	0.442	0.7	116	0.02
20	P	1,1-Dichloroethane	0.276	0.270	2.2	116	0.02
21	T	vinyl acetate	0.766	0.801	-4.6	121	0.03
22	T	Diisopropyl ether	0.683	0.704	-3.1	120	0.02
23	T	tert-Butyl ethyl ether	0.683	0.601	12.0	88	0.00
24	T	2,2-Dichloropropane	0.215	0.214	0.5	110	0.02
25	T	cis-1,2-Dichloroethene	0.195	0.190	2.6	109	0.02
26	T	2-Butanone (MEK)	0.028	0.027	3.6	118	0.00
27	T	Bromochloromethane	0.083	0.081	2.4	112	0.02
28	C	CHLOROFORM	0.336	0.338	-0.6	116	0.02
29	S	Dibromofluoromethane SS#1	0.240	0.239	0.4	106	0.02
30	T	1,1,1-Trichloroethane	0.241	0.235	2.5	117	0.02
31	T	Cyclohexane	0.363	0.341	6.1	116	0.01
32	T	Carbon tetrachloride	0.194	0.187	3.6	116	0.00
33	T	1,1-Dichloropropene	0.217	0.221	-1.8	120	0.00
34	M	Benzene	0.675	0.677	-0.3	116	0.02
35	T	1,2-Dichloroethane	0.300	0.310	-3.3	118	0.02
36	T	tert-Amyl alcohol	0.053	0.051	3.8	117	0.00
37	T	tert-Amyl methyl ether	0.657	0.657	0.0	114	0.00
38	M	Trichloroethene	0.165	0.165	0.0	117	0.00
39	C	1,2-DICHLOROPROPANE	0.202	0.209	-3.5	119	0.00
40	T	Methylcyclohexane	0.276	0.264	4.3	118	0.00
41	T	tert-Amyl ethyl ether	0.595	0.601	-1.0	115	0.00
42	T	Dibromomethane	0.122	0.124	-1.6	115	0.00
43	T	1,4-Dioxane	2.905	2.804	3.5	115	0.02
44	T	Bromodichloromethane	0.273	0.281	-2.9	118	0.00
45	T	cis-1,3-Dichloropropene	0.334	0.356	-6.6	121	0.00
46	T	4-Methyl-2-Pentanone (MIBK)	0.032	0.033	-3.1	120	0.00
47	S	Toluene d-8 SS#2	0.790	0.808	-2.3	109	0.00
48	M,C	TOLUENE	0.384	0.395	-2.9	121	0.00
49	T	trans-1,3-Dichloropropene	0.321	0.345	-7.5	121	0.00
50	T	1,1,2-Trichloroethane	0.133	0.140	-5.3	120	0.00
51	T	Tetrachloroethene	0.092	0.091	1.1	121	0.00

(#) = Out of Range
13021418.D VOC-S.M Fri Feb 15 10:30:21 2013 Page 1

Evaluate Continuing Calibration Report

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52	T	2-Hexanone (MBK)	0.261	0.280	-7.3	127	0.00
53	I	Chlorobenzene d-5 ISTD	1.000	1.000	0.0	110	0.00
54	T	1,3-Dichloropropane	0.533	0.549	-3.0	121	0.00
55	T	Dibromochloromethane	0.291	0.289	0.7	117	0.00
56	T	1,2-Dibromoethane	0.288	0.288	0.0	119	0.00
57	M,P	Chlorobenzene	0.677	0.674	0.4	119	0.00
58	T	1,1,1,2-Tetrachloroethane	0.253	0.242	4.3	114	0.00
59	C	ETHYLBENZENE	1.256	1.280	-1.9	123	0.00
60	T	m&p-Xylene	0.430	0.427	0.7	121	0.00
61	T	o-Xylene	0.457	0.441	3.5	118	0.00
62	T	Styrene	0.842	0.843	-0.1	119	0.00
63	P	Bromoform	0.188	0.189	-0.5	118	0.00
64	T	1,2,3-Trichloropropane	0.380	0.378	0.5	120	0.00
65	T	Bromobenzene	0.265	0.266	-0.4	118	0.00
66	T	trans-1,4-dichloro-2-butene	0.196	0.197	-0.5	123	0.00
67	T	n-Propylbenzene	1.540	1.552	-0.8	122	0.00
68	I	1,4-Dichlorobenzene d-4 IST	1.000	1.000	0.0	106	0.00
69	T	Isopropylbenzene	2.403	2.408	-0.2	120	0.00
70	S	4-Bromofluorobenzene SS#3	1.413	1.441	-2.0	110	0.00
71	P	1,1,2,2-Tetrachloroethane	0.925	0.952	-2.9	118	0.00
72	T	2-Chlorotoluene	2.107	2.155	-2.3	120	0.00
73	T	4-Chlorotoluene	2.333	2.420	-3.7	121	0.00
74	T	1,3,5-Trimethylbenzene	2.111	2.098	0.6	117	0.00
75	T	tert-Butylbenzene	1.747	1.677	4.0	115	0.00
76	T	1,2,4-Trimethylbenzene	2.254	2.238	0.7	117	0.00
77	T	sec-Butylbenzene	2.716	2.642	2.7	116	0.00
78	T	4-Isopropyltoluene	2.199	2.141	2.6	117	0.00
79	T	1,3-Dichlorobenzene	1.134	1.130	0.4	116	0.00
80	T	1,4-Dichlorobenzene	1.157	1.149	0.7	116	0.00
81	T	1,2-Dichlorobenzene	1.109	1.080	2.6	112	0.00
82	T	n-Butylbenzene	2.475	2.522	-1.9	120	0.00
83	T	1,2-Dibromo-3-chloropropane	0.219	0.205	6.4	109	0.00
84	T	1,2,4-Trichlorobenzene	0.870	0.817	6.1	109	0.00
85	T	Naphthalene	2.544	2.412	5.2	109	0.00
86	T	1,2,3-Trichlorobenzene	0.836	0.790	5.5	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13021418.D VOC-S.M Fri Feb 15 10:30:21 2013 Page 2

Evaluate Continuing Calibration Report

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene ISTD	50.000	50.000	0.0	108	0.00
2	T	Dichlorodifluoromethane	60.000	56.999	5.0	116	0.00
3	P	Chloromethane	60.000	56.303	6.2	108	0.02
4	C	VINYL CHLORIDE	60.000	56.784	5.4	115	0.00
5	T	Bromomethane	60.000	65.461	-9.1	107	0.02
6	T	Chloroethane	60.000	63.375	-5.6	118	0.03
7	T	Trichlorofluoromethane	60.000	60.403	-0.7	122	0.00
8	T	acrolein	60.000	60.290	-0.5	118	0.03
9	T	Acetone	60.000	58.608	2.3	119	0.01
10	M,C	1,1-DICHLOROETHENE	60.000	56.951	5.1	115	0.02
11	T	1,1,2-Trichlorotrifluoroeth	60.000	56.398	6.0	116	0.02
12	T	iodomethane	60.000	56.333	6.1	109	0.02
13	T	Carbon Disulfide	60.000	50.971	15.0	106	0.02
14	T	Methyl Acetate	60.000	56.255	6.2	114	0.03
15	T	Methylene chloride	60.000	54.796	8.7	112	0.02
16	T	tert-Butanol	60.000	54.584	9.0	114	0.02
17	T	acrylonitrile	60.000	60.331	-0.6	117	0.03
18	T	trans-1,2-Dichloroethene	60.000	57.710	3.8	118	0.02
19	T	Methyl-t-Butyl Ether	60.000	59.528	0.8	116	0.02
20	P	1,1-Dichloroethane	60.000	58.743	2.1	116	0.02
21	T	vinyl acetate	60.000	62.731	-4.6	121	0.03
22	T	Diisopropyl ether	60.000	61.898	-3.2	120	0.02
23	T	tert-Butyl ethyl ether	60.000	52.764	12.1	88	0.00
24	T	2,2-Dichloropropane	60.000	59.636	0.6	110	0.02
25	T	cis-1,2-Dichloroethene	60.000	58.408	2.7	109	0.02
26	T	2-Butanone (MEK)	60.000	57.187	4.7	118	0.00
27	T	Bromochloromethane	60.000	58.898	1.8	112	0.02
28	C	CHLOROFORM	60.000	60.419	-0.7	116	0.02
29	S	Dibromofluoromethane SS#1	50.000	49.894	0.2	106	0.02
30	T	1,1,1-Trichloroethane	60.000	58.493	2.5	117	0.02
31	T	Cyclohexane	60.000	56.417	6.0	116	0.01
32	T	Carbon tetrachloride	60.000	57.617	4.0	116	0.00
33	T	1,1-Dichloropropene	60.000	60.847	-1.4	120	0.00
34	M	Benzene	60.000	60.226	-0.4	116	0.02
35	T	1,2-Dichloroethane	60.000	61.942	-3.2	118	0.02
36	T	tert-Amyl alcohol	60.000	57.685	3.9	117	0.00
37	T	tert-Amyl methyl ether	60.000	60.001	-0.0	114	0.00
38	M	Trichloroethene	60.000	59.793	0.3	117	0.00
39	C	1,2-DICHLOROPROPANE	60.000	62.181	-3.6	119	0.00
40	T	Methylcyclohexane	60.000	57.280	4.5	118	0.00
41	T	tert-Amyl ethyl ether	60.000	60.556	-0.9	115	0.00
42	T	Dibromomethane	60.000	60.888	-1.5	115	0.00
43	T	1,4-Dioxane	1.200	1.158	3.5	115	0.02
44	T	Bromodichloromethane	60.000	61.821	-3.0	118	0.00
45	T	cis-1,3-Dichloropropene	60.000	63.970	-6.6	121	0.00
46	T	4-Methyl-2-Pentanone (MIBK)	60.000	61.903	-3.2	120	0.00
47	S	Toluene d-8 SS#2	50.000	51.159	-2.3	109	0.00
48	M,C	TOLUENE	60.000	61.758	-2.9	121	0.00
49	T	trans-1,3-Dichloropropene	60.000	64.498	-7.5	121	0.00
50	T	1,1,2-Trichloroethane	60.000	62.890	-4.8	120	0.00
51	T	Tetrachloroethene	60.000	59.603	0.7	121	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52	T	2-Hexanone (MBK)	60.000	64.535	-7.6	127	0.00
53	I	Chlorobenzene d-5 ISTD	50.000	50.000	0.0	110	0.00
54	T	1,3-Dichloropropane	60.000	61.849	-3.1	121	0.00
55	T	Dibromochloromethane	60.000	59.713	0.5	117	0.00
56	T	1,2-Dibromoethane	60.000	59.945	0.1	119	0.00
57	M,P	Chlorobenzene	60.000	59.754	0.4	119	0.00
58	T	1,1,1,2-Tetrachloroethane	60.000	57.529	4.1	114	0.00
59	C	ETHYLBENZENE	60.000	61.141	-1.9	123	0.00
60	T	m&p-Xylene	120.000	119.131	0.7	121	0.00
61	T	o-Xylene	60.000	57.836	3.6	118	0.00
62	T	Styrene	60.000	60.052	-0.1	119	0.00
63	P	Bromoform	60.000	60.052	-0.1	118	0.00
64	T	1,2,3-Trichloropropane	60.000	59.622	0.6	120	0.00
65	T	Bromobenzene	60.000	60.239	-0.4	118	0.00
66	T	trans-1,4-dichloro-2-butene	60.000	60.279	-0.5	123	0.00
67	T	n-Propylbenzene	60.000	60.445	-0.7	122	0.00
68	I	1,4-Dichlorobenzene d-4 IST	50.000	50.000	0.0	106	0.00
69	T	Isopropylbenzene	60.000	60.127	-0.2	120	0.00
70	S	4-Bromofluorobenzene SS#3	50.000	51.000	-2.0	110	0.00
71	P	1,1,2,2-Tetrachloroethane	60.000	61.770	-3.0	118	0.00
72	T	2-Chlorotoluene	60.000	61.354	-2.3	120	0.00
73	T	4-Chlorotoluene	60.000	62.241	-3.7	121	0.00
74	T	1,3,5-Trimethylbenzene	60.000	59.635	0.6	117	0.00
75	T	tert-Butylbenzene	60.000	57.617	4.0	115	0.00
76	T	1,2,4-Trimethylbenzene	60.000	59.561	0.7	117	0.00
77	T	sec-Butylbenzene	60.000	58.357	2.7	116	0.00
78	T	4-Isopropyltoluene	60.000	58.428	2.6	117	0.00
79	T	1,3-Dichlorobenzene	60.000	59.771	0.4	116	0.00
80	T	1,4-Dichlorobenzene	60.000	59.622	0.6	116	0.00
81	T	1,2-Dichlorobenzene	60.000	58.405	2.7	112	0.00
82	T	n-Butylbenzene	60.000	63.981	-6.6	120	0.00
83	T	1,2-Dibromo-3-chloropropane	60.000	56.042	6.6	109	0.00
84	T	1,2,4-Trichlorobenzene	60.000	56.357	6.1	109	0.00
85	T	Naphthalene	60.000	56.877	5.2	109	0.00
86	T	1,2,3-Trichlorobenzene	60.000	56.703	5.5	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
13021418.D VOC-S.M Fri Feb 15 10:30:24 2013 Page 2

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:28:28 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene ISTD	7.14	96	872353	50.00	ug/L		0.00
53) Chlorobenzene d-5 ISTD	10.81	117	506688	50.00	ug/L		0.00
68) 1,4-Dichlorobenzene d-4 IS	13.64	152	231610	50.00	ug/L		0.00
System Monitoring Compounds							
29) Dibromofluoromethane SS#1	6.31	113	208808	49.89	ug/L		0.02
Spiked Amount 50.000	Range 89 - 116		Recovery = 99.78%				
47) Toluene d-8 SS#2	9.09	98	705027	51.16	ug/L		0.00
Spiked Amount 50.000	Range 89 - 106		Recovery = 102.32%				
70) 4-Bromofluorobenzene SS#3	12.23	95	333762	51.00	ug/L		0.00
Spiked Amount 50.000	Range 76 - 114		Recovery = 102.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.53	85	164462	57.00	ug/L		97
3) Chloromethane	1.67	50	265084	56.30	ug/L		96
4) VINYL CHLORIDE	1.81	62	212131	56.78	ug/L		99
5) Bromomethane	2.09	94	103491	65.46	ug/L		96
6) Chloroethane	2.17	64	117938	63.37	ug/L		96
7) Trichlorofluoromethane	2.51	101	181262m	60.40	ug/L		
8) acrolein	2.95	56	43387	60.29	ug/L		94
9) Acetone	3.15	58	21528	58.61	ug/L		96
10) 1,1-DICHLOROETHENE	3.09	96	116808	56.95	ug/L		98
11) 1,1,2-Trichlorotrifluoroet	3.10	101	119817	56.40	ug/L		99
12) iodomethane	3.24	142	222698	56.33	ug/L		100
13) Carbon Disulfide	3.36	76	354192	50.97	ug/L		98
14) Methyl Acetate	3.60	74	25957	56.25	ug/L		98
15) Methylene chloride	3.75	84	144134	54.80	ug/L		97
16) tert-Butanol	4.05	59	44601m	54.58	ug/L		
17) acrylonitrile	4.15	53	85550	60.33	ug/L		96
18) trans-1,2-Dichloroethene	4.13	96	133734	57.71	ug/L		98
19) Methyl-t-Butyl Ether	4.16	73	462589	59.53	ug/L		99
20) 1,1-Dichloroethane	4.78	63	282444	58.74	ug/L		99
21) vinyl acetate	4.93	43	838770	62.73	ug/L		100
22) Diisopropyl ether	4.94	45	737300	61.90	ug/L		100
23) tert-Butyl ethyl ether	5.47	59	628668	52.76	ug/L		98
24) 2,2-Dichloropropane	5.60	77	223718	59.64	ug/L		98
25) cis-1,2-Dichloroethene	5.63	96	198720	58.41	ug/L		97
26) 2-Butanone (MEK)	5.71	72	28251	57.19	ug/L		94
27) Bromochloromethane	5.95	128	84976	58.90	ug/L		99
28) CHLOROFORM	6.09	83	354321	60.42	ug/L		98
30) 1,1,1-Trichloroethane	6.28	97	245496	58.49	ug/L		99
31) Cyclohexane	6.32	56	357156	56.42	ug/L		99
32) Carbon tetrachloride	6.48	117	195347	57.62	ug/L		100
33) 1,1-Dichloropropene	6.50	75	230854	60.85	ug/L		99
34) Benzene	6.77	78	708821	60.23	ug/L		99
35) 1,2-Dichloroethane	6.83	62	324044	61.94	ug/L		99
36) tert-Amyl alcohol	6.94	59	53787	57.69	ug/L	#	95
37) tert-Amyl methyl ether	6.96	73	687618	60.00	ug/L		100
38) Trichloroethene	7.60	95	172592	59.79	ug/L		100
39) 1,2-DICHLOROPROPANE	7.88	63	218866	62.18	ug/L		99
40) Methylcyclohexane	7.80	83	275943	57.28	ug/L		99
41) tert-Amyl ethyl ether	7.96	59	628873	60.56	ug/L		99

(#) = qualifier out of range (m) = manual integration
13021418.D VOC-S.M Fri Feb 15 10:30:29 2013 Page 1

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:28:28 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

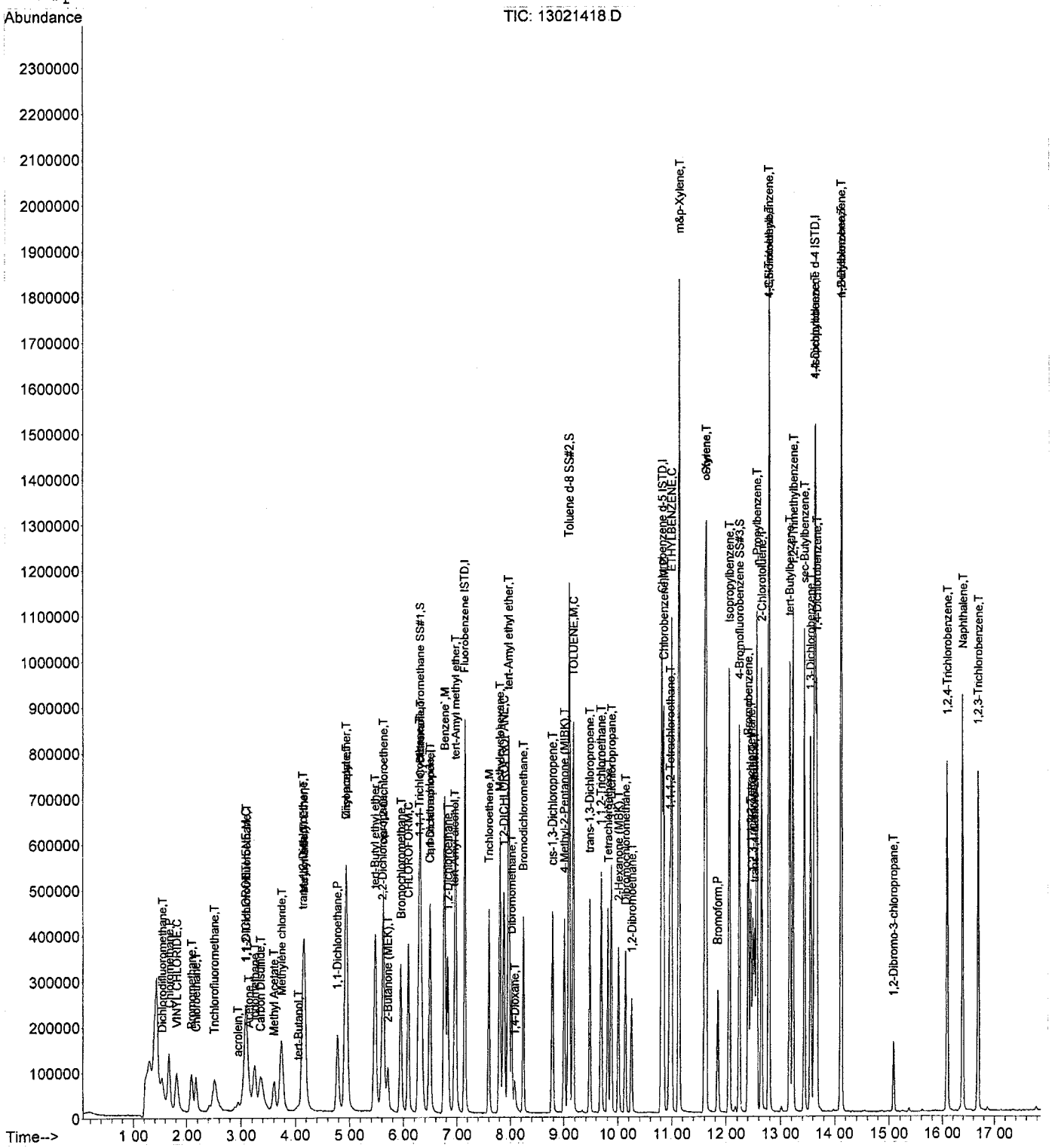
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
42)	Dibromomethane	8.03	93	129704	60.89	ug/L		100
43)	1,4-Dioxane	8.09	88	58708	1.16	mg/L		97
44)	Bromodichloromethane	8.24	83	294400	61.82	ug/L		99
45)	cis-1,3-Dichloropropene	8.78	75	372897	63.97	ug/L		100
46)	4-Methyl-2-Pentanone (MIBK	9.01	100	34674	61.90	ug/L		98
48)	TOLUENE	9.17	92	413491	61.76	ug/L		100
49)	trans-1,3-Dichloropropene	9.46	75	361286	64.50	ug/L		99
50)	1,1,2-Trichloroethane	9.68	83	146477	62.89	ug/L		99
51)	Tetrachloroethene	9.81	164	95449	59.60	ug/L		100
52)	2-Hexanone (MBK)	10.01	43	293365	64.53	ug/L		99
54)	1,3-Dichloropropane	9.87	76	333773	61.85	ug/L		100
55)	Dibromochloromethane	10.14	129	175842	59.71	ug/L		100
56)	1,2-Dibromoethane	10.25	107	175159	59.94	ug/L		100
57)	Chlorobenzene	10.84	112	409707	59.75	ug/L		98
58)	1,1,1,2-Tetrachloroethane	10.96	131	147390	57.53	ug/L		100
59)	ETHYLBENZENE	10.98	91	778484	61.14	ug/L		99
60)	m&p-Xylene	11.13	106	519094	119.13	ug/L		99
61)	o-Xylene	11.61	106	267998	57.84	ug/L		99
62)	Styrene	11.62	104	512485	60.05	ug/L		98
63)	Bromoform	11.85	173	114626	60.05	ug/L		99
64)	1,2,3-Trichloropropane	12.48	75	229748m	59.62	ug/L		
65)	Bromobenzene	12.41	156	161903	60.24	ug/L		99
66)	trans-1,4-dichloro-2-buten	12.51	53	119642	60.28	ug/L	#	100
67)	n-Propylbenzene	12.55	91	943609	60.44	ug/L		99
69)	Isopropylbenzene	12.05	105	669371	60.13	ug/L		100
71)	1,1,2,2-Tetrachloroethane	12.45	83	264641	61.77	ug/L		99
72)	2-Chlorotoluene	12.64	91	598824	61.35	ug/L		99
73)	4-Chlorotoluene	12.78	91	672696	62.24	ug/L		100
74)	1,3,5-Trimethylbenzene	12.78	105	583052	59.63	ug/L		99
75)	tert-Butylbenzene	13.17	119	466154	57.62	ug/L		99
76)	1,2,4-Trimethylbenzene	13.23	105	621958	59.56	ug/L		99
77)	sec-Butylbenzene	13.43	105	734262	58.36	ug/L		100
78)	4-Isopropyltoluene	13.62	119	595129	58.43	ug/L		99
79)	1,3-Dichlorobenzene	13.56	146	313998	59.77	ug/L		100
80)	1,4-Dichlorobenzene	13.66	146	319451	59.62	ug/L		100
81)	1,2-Dichlorobenzene	14.12	146	300033	58.40	ug/L		99
82)	n-Butylbenzene	14.12	91	700994	63.98	ug/L		99
83)	1,2-Dibromo-3-chloropropan	15.08	75	56924	56.04	ug/L		99
84)	1,2,4-Trichlorobenzene	16.09	180	227023	56.36	ug/L		99
85)	Naphthalene	16.38	128	670377	56.88	ug/L		100
86)	1,2,3-Trichlorobenzene	16.68	180	219558	56.70	ug/L		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:29 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Initial Calibration

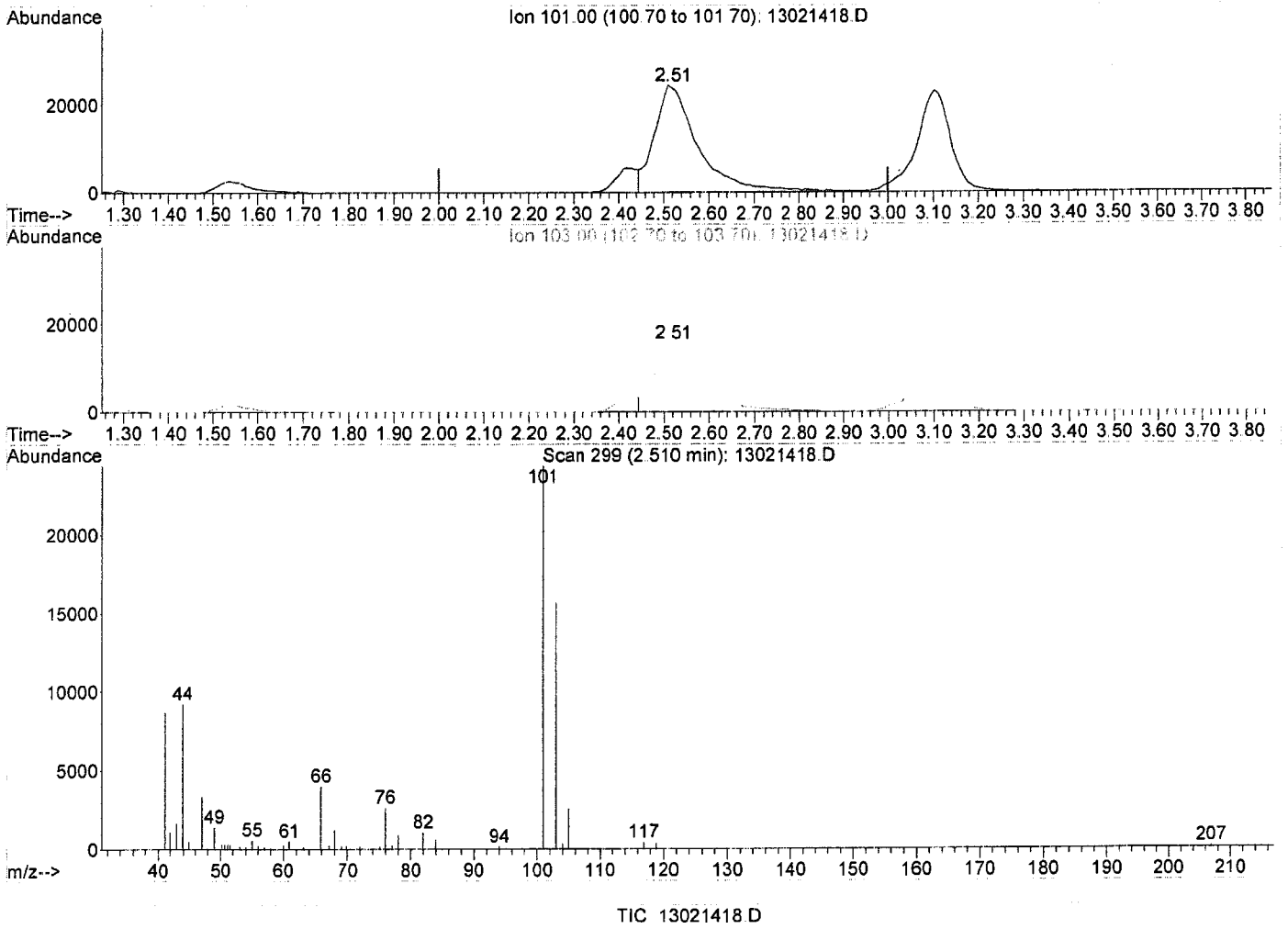


13021418.D VOC-S.M Fri Feb 15 10:30:30 2013 Page 3

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:28 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration



TIC 13021418.D

(7) Trichlorofluoromethane (T)

2.51min 52.19ug/L

response 156627

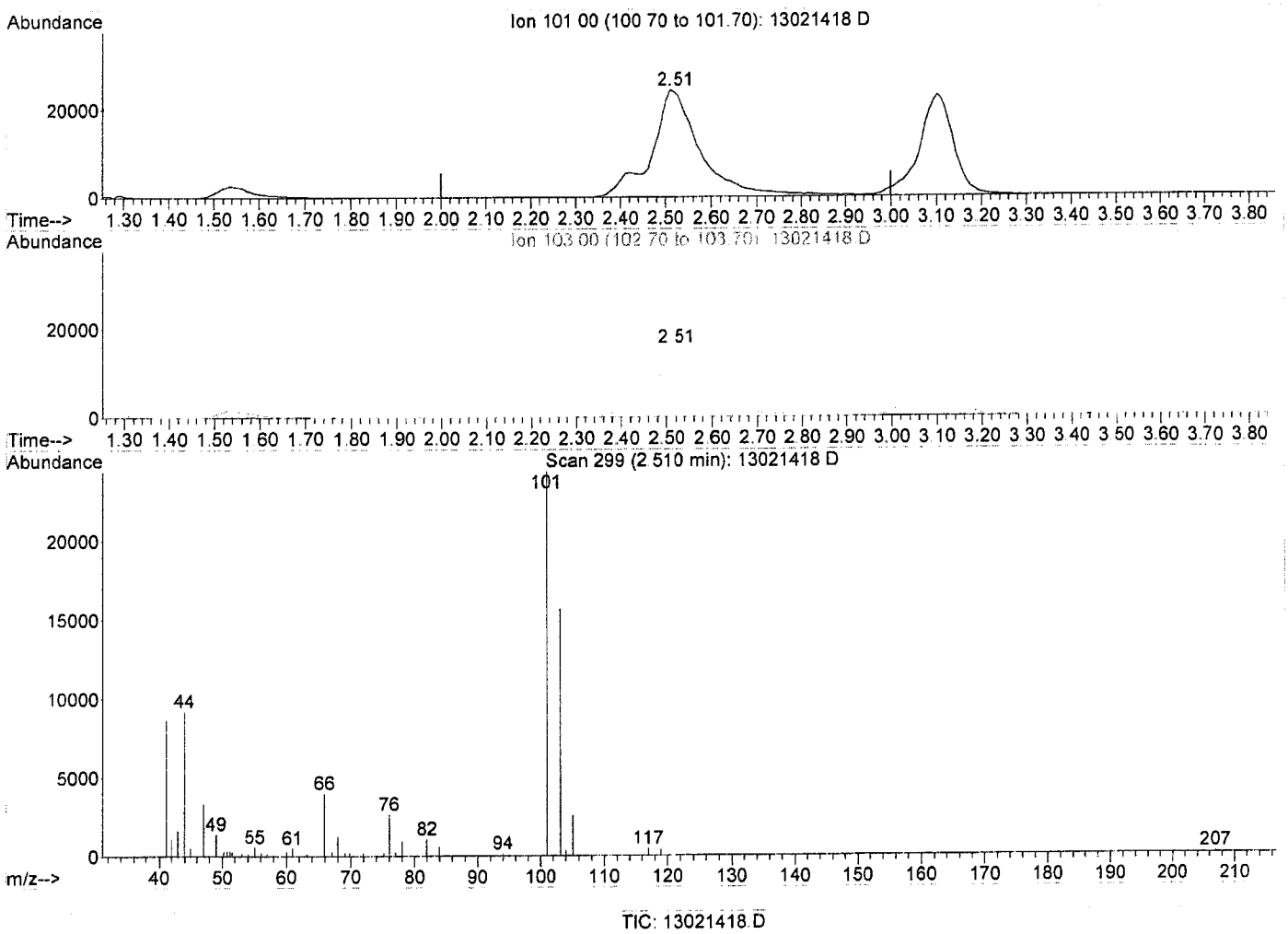
Ion	Exp%	Act%
101.00	100	100
103.00	66.20	64.11
0.00	0.00	0.00
0.00	0.00	0.00

13021418.D VOC-S.M Fri Feb 15 10:28:50 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:28 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration



TIC: 13021418.D

(7) Trichlorofluoromethane (T)

2.51min 60.40ug/L m

response 181262

Ion	Exp%	Act%
101.00	100	100
103.00	66.20	65.33
0.00	0.00	0.00
0.00	0.00	0.00

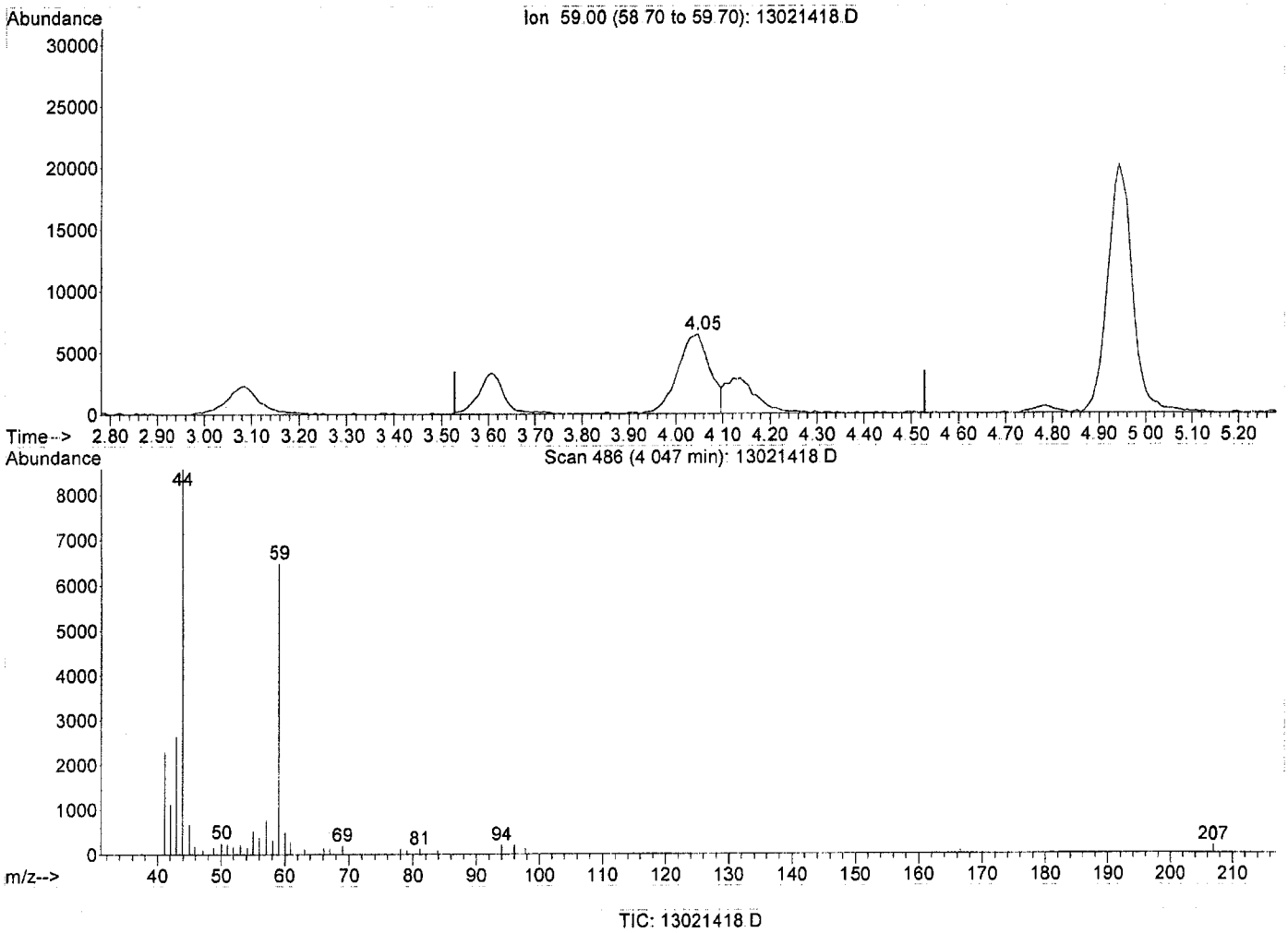
AK 2/15/13

13021418.D VOC-S.M Fri Feb 15 10:28:57 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:28 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration



(16) tert-Butanol (T)

4.05min 38.25ug/L

response 31253

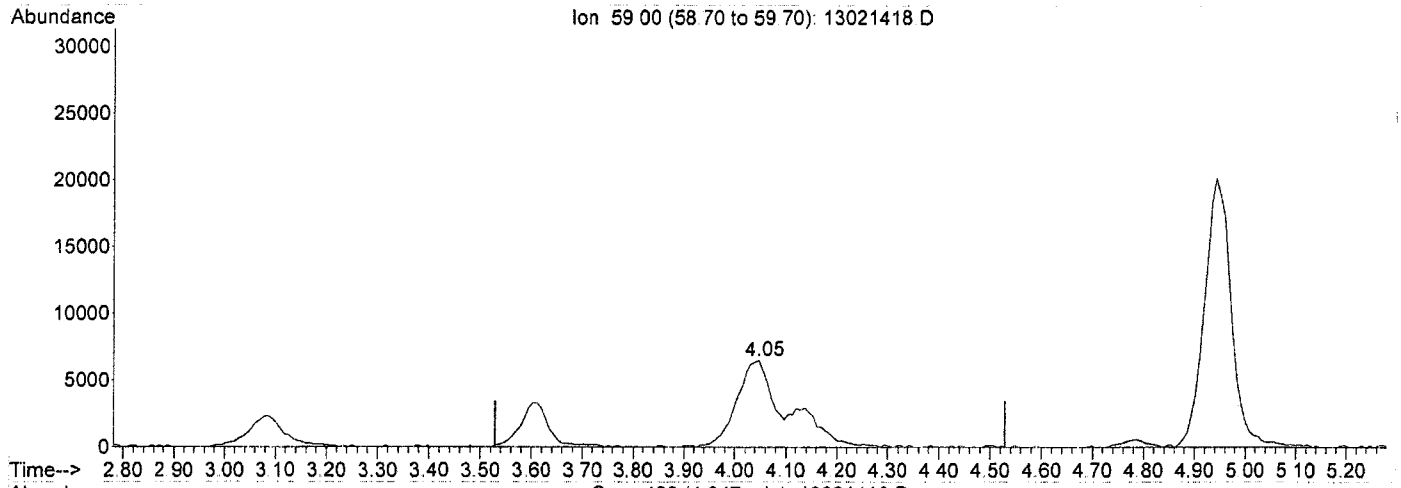
Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

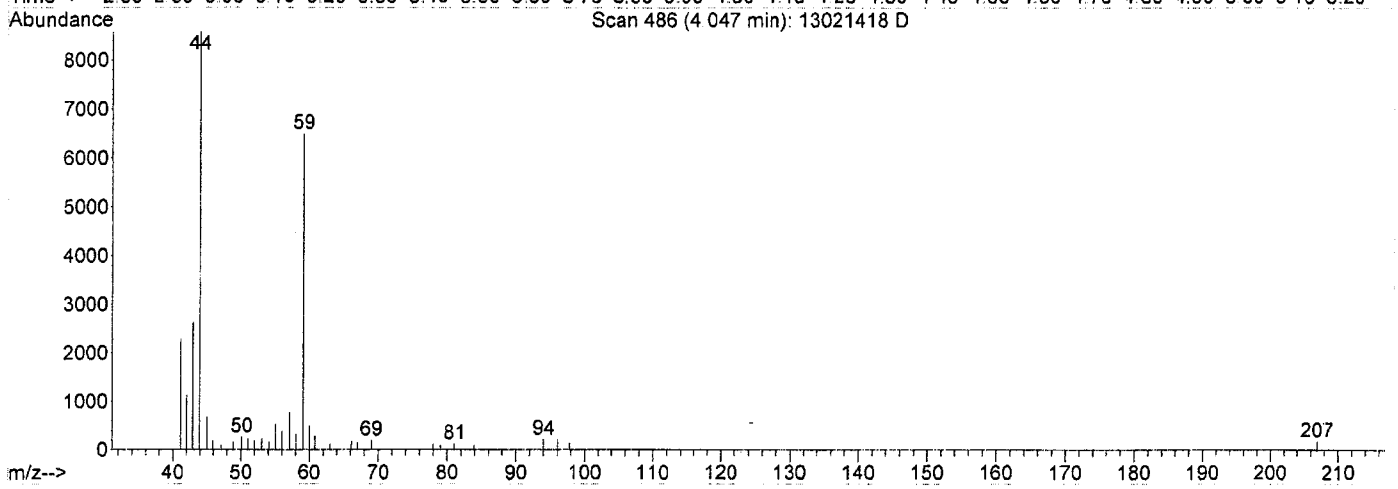
13021418.D VOC-S.M Fri Feb 15 10:29:05 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:29 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration





TIC: 13021418.D

(16) tert-Butanol (T)

4.05min 54.58ug/L m

response 44601

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

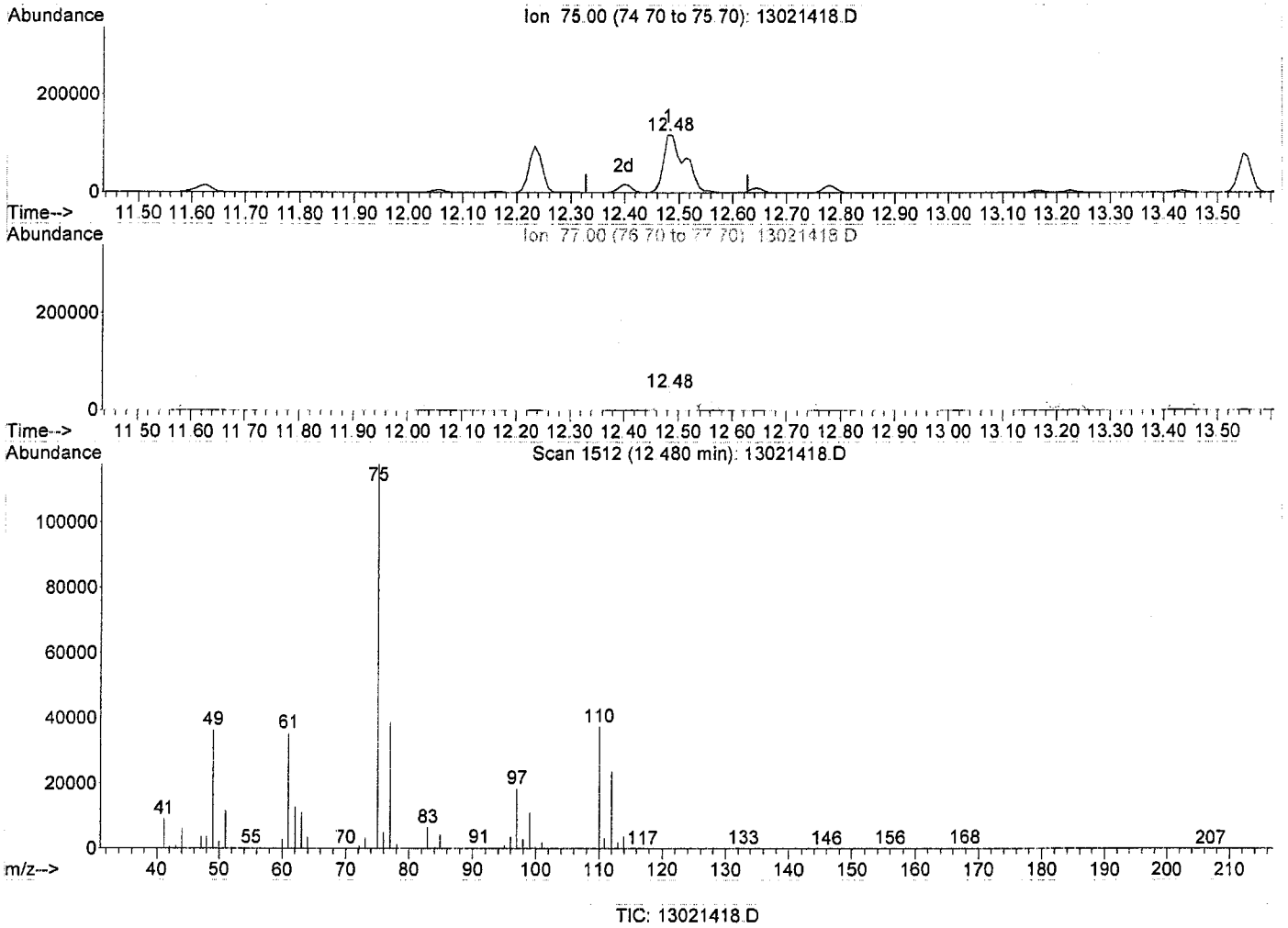
AK 2/15/13

13021418.D VOC-S.M Fri Feb 15 10:29:10 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:29 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration



TIC: 13021418.D

(64) 1,2,3-Trichloropropane (T)

12.48min 84.18ug/L

response 324376

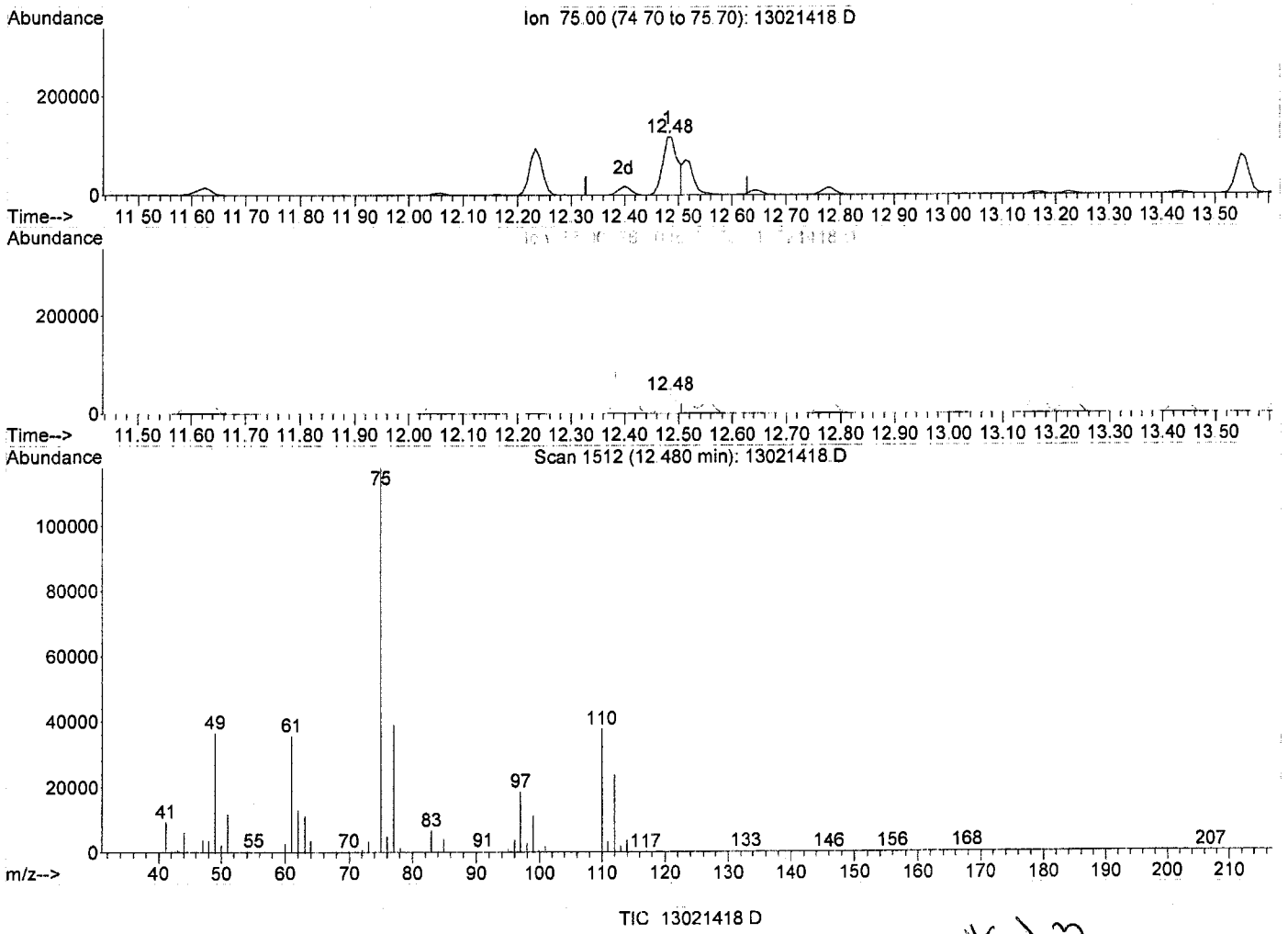
Ion	Exp%	Act%
75.00	100	100
77.00	32.40	32.90
0.00	0.00	0.00
0.00	0.00	0.00

13021418.D VOC-S.M Fri Feb 15 10:29:14 2013

Quantitation Report (Qedit)

Data File : P:\VOC\1\DATA\130214\13021418.D Vial: 18
Acq On : 14 Feb 2013 4:41 pm Operator: AK
Sample : ICV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1365-2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Feb 15 10:29 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130214\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Fri Feb 15 10:24:38 2013
Response via : Multiple Level Calibration



TIC 13021418.D

AJK 2/15/13

(64) 1,2,3-Trichloropropane (T)

12.48min 59.62ug/L m

response 229748

Ion	Exp%	Act%
75.00	100	100
77.00	32.40	32.83
0.00	0.00	0.00
0.00	0.00	0.00

13021418.D VOC-S.M Fri Feb 15 10:29:21 2013

Injection Log

Directory P:\VOC\2\DATA\130408

pH<2 AK 4/9/13

45497
105221

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13040801.D	1.	BFB TUNE 5mL	water 1uL A2338	
2	2	13040802.D	1.	CCV 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 08:45
3	3	13040803.D	1.	CCV 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 09:27
4	4	13040804.D	1.	CCV 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 10:04
5	5	13040805.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 10:41
6	6	13040806.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 11:26
7	7	13040807.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 12:15
8	8	13040808.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 12:59
9	9	13040809.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 13:47
10	10	13040810.D	1	CAL1 1ppb 5mL	water 1uL A2338 2.5ul 1405-3, 1351-1	8 Apr 2013 14:24
11	11	13040811.D	1	CAL2 5ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 14:55
12	12	13040812.D	1.	CAL3 10ppb 5mL	water 1uL A2338 2.5ul 1405-3, 1351-1	8 Apr 2013 15:24
13	13	13040813.D	1.	CAL4 20ppb 5mL	water 1uL A2338 5ul 1405-3, 1351-1	8 Apr 2013 15:58
14	14	13040814.D	1.	CAL5 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 16:27
15	15	13040815.D	1.	CAL6 70ppb 5mL	water 1uL A2338 17.5ul 1405-3, 1351-1	8 Apr 2013 16:56
16	16	13040816.D	1.	CAL7 100ppb 5mL	water 1uL A2338 25ul 1405-3, 1351-1	8 Apr 2013 17:26
17	17	13040817.D	1.	CAL8 250ppb 5mL	water 1uL A2338 62.5ul 1405-3, 1351-1	8 Apr 2013 17:54
18	18	13040818.D	1.	blank 5mL	water 1uL A2338	8 Apr 2013 18:24
19	19	13040819.D	1.	blank 5mL	water 1uL A2338	8 Apr 2013 18:53
20	20	13040820.D	1.	ICV 50ppb 5mL	water 1uL A2338 12.5ul 1405-4, 1351-2	8 Apr 2013 19:22
21	21	13040821.D	1.	ICV 50ppb 5mL	water 1uL A2338 12.5ul 1405-4, 1351-2	8 Apr 2013 19:51
22	22	13040822.D	1.	blank	water 1uL A2338	8 Apr 2013 20:21
23	23	13040823.D	1.	blank	water 1uL A2338	8 Apr 2013 20:50
24	24	13040824.D	1.	ICV 50ppb 5mL	water 1uL A2338 12.5ul 1405-4, 1351-2	8 Apr 2013 21:19
25	25	13040825.D	1.	ICV 50ppb 5mL	water 1uL A2338 12.5ul 1405-4, 1351-2	8 Apr 2013 21:48
26	26	13040826.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 22:17
27	27	13040827.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 22:45
28	28	13040828.D	1.	BFB TUNE 5mL	water 1uL A2338	8 Apr 2013 23:15
29	29	13040829.D	1.	CCV 50ppb 5mL	water 1uL A2338 12.5ul 1405-3, 1351-1	8 Apr 2013 23:43
						9 Apr 2013 00:13

Injection Log

Directory: P:\VOC\2\DATA\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
30	30	13040830.D	1	CCV 50ppb 5mL	water 1uL A2338	12.5ul 1405-3, 1351-1 9 Apr 2013 00:41
31	31	13040831.D	1	LCS 5mL	water 1uL A2338	12.5ul 1405-4, 1351-2 9 Apr 2013 01:11
32	32	13040832.D	1	BLK 5mL	water 1uL A2338	9 Apr 2013 01:40
33	33	13040833.D	1	BLK 5mL	water 1uL A2338	9 Apr 2013 02:10
34	34	13040834.D	1	BLK 5mL	water 1uL A2338	9 Apr 2013 02:39
35	35	13040835.D	1	BLK 5mL	water 1uL A2338	9 Apr 2013 03:08
36	36	13040836.D	1	BLK TCLP 100D 5mL	water 1uL A2338	9 Apr 2013 03:36
37	37	13040837.D	1	BLK 5mL	water 1uL A2338	9 Apr 2013 04:06
38	38	13040838.D	1	13040516-012 5mL – pH3	water 1uL A2338	9 Apr 2013 04:34
39	39	13040839.D	1	13040516-007 5mL – pH5	water 1uL A2338	9 Apr 2013 05:04
40	40	13040840.D	1	13040516-006 5mL – pH5	water 1uL A2338	9 Apr 2013 05:33
41	41	13040841.D	1	13040516-008 5mL – pH5	water 1uL A2338	9 Apr 2013 06:01
42	42	13040842.D	1	13040516-009 5mL – pH5	water 1uL A2338	9 Apr 2013 06:30
43	43	13040843.D	1	13040516-010 5mL – pH5	water 1uL A2338	9 Apr 2013 06:59
44	44	13040844.D	1	13040516-011 5mL – pH6	water 1uL A2338	9 Apr 2013 07:27
45	45	13040845.D	1	13040811-001 5mL AK 4/9/13	water 1uL A2338	9 Apr 2013 07:57
46	46	13040846.D	1	13040318-002 TCLP 100D	water 1uL A2338	9 Apr 2013 08:25
47	47	13040847.D	1	13040516-007 MS > pH5	water 1uL A2338	10ul 1405-4, 1351-2 9 Apr 2013 08:54
48	48	13040848.D	1	13040516-007 MSD	water 1uL A2338	10ul 1405-4, 1351-2 9 Apr 2013 09:23
49	49	13040849.D	1	13040318-002 TCLP 100D MS	water 1uL A2338	10ul 1405-4, 1351-2 9 Apr 2013 09:52
50	50	13040850.D	1	13040318-002 TCLP 100D MSD	water 1uL A2338	10ul 1405-4, 1351-2 9 Apr 2013 10:21

45498
105222

TCLP
45499
105224

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene ISTD	1.000	1.000	0.0	109	0.00
2	T	Dichlorodifluoromethane	0.232	0.223	3.9	101	0.00
3	P	Chloromethane	0.303	0.278	8.3	103	0.00
4	C	VINYL CHLORIDE	0.331	0.318	3.9	104	0.00
5	T	Bromomethane	0.226	0.194	14.2	101	0.02
6	T	Chloroethane	0.151	0.150	0.7	101	0.00
7	T	Trichlorofluoromethane	0.225	0.232	-3.1	103	0.00
8	T	acrolein	0.024	0.025	-4.2	129	0.00
9	T	Acetone	0.009	0.010	-11.1	130	0.00
0	M,C	1,1-DICHLOROETHENE	0.190	0.191	-0.5	100	0.00
1	T	1,1,2-Trichlorotrifluoroeth	0.119	0.126	-5.9	98	0.00
2	T	iodomethane	0.283	0.286	-1.1	101	0.00
3	T	Carbon Disulfide	0.543	0.526	3.1	102	0.00
4	T	Methyl Acetate	0.022	0.023	-4.5	117	0.00
5	T	Methylene chloride	0.234	0.196	16.2	101	-0.06
6	T	tert-Butanol	0.006	0.005	16.7	97	0.00
7	T	acrylonitrile	0.053	0.055	-3.8	121	0.00
8	T	trans-1,2-Dichloroethene	0.173	0.175	-1.2	102	0.00
9	T	Methyl-t-Butyl Ether	0.429	0.427	0.5	102	0.00
0	P	1,1-Dichloroethane	0.278	0.277	0.4	104	0.00
1	T	vinyl acetate	0.308	0.308	0.0	114	0.00
2	T	Diisopropyl ether	0.605	0.591	2.3	105	0.00
3	T	tert-Butyl ethyl ether	0.542	0.547	-0.9	112	0.00
4	T	2,2-Dichloropropane	0.103	0.101	1.9	98	0.00
5	T	cis-1,2-Dichloroethene	0.229	0.224	2.2	105	0.00
6	T	2-Butanone (MEK)	0.014	0.014	0.0	112	0.00
7	T	Bromochloromethane	0.095	0.095	0.0	108	0.00
8	C	CHLOROFORM	0.296	0.295	0.3	111	0.00
9	S	Dibromofluoromethane SS#1	0.226	0.229	-1.3	111	0.00
0	T	1,1,1-Trichloroethane	0.175	0.190	-8.6	118	0.00
1	T	Cyclohexane	0.149	0.157	-5.4	123	0.00
2	T	Carbon tetrachloride	0.139	0.141	-1.4	113	0.00
3	T	1,1-Dichloropropene	0.224	0.221	1.3	111	0.00
4	M	Benzene`	0.785	0.754	3.9	108	0.00
5	T	1,2-Dichloroethane	0.194	0.198	-2.1	119	0.00
6	T	tert-Amyl alcohol	0.005	0.004	20.0	107	0.00
7	T	tert-Amyl methyl ether	0.506	0.503	0.6	114	0.00
8	M	Trichloroethene	0.183	0.173	5.5	105	0.00
9	C	1,2-DICHLOROPROPANE	0.188	0.187	0.5	114	0.00
0	T	Methylcyclohexane	0.152	0.150	1.3	107	0.00
1	T	tert-Amyl ethyl ether	0.447	0.441	1.3	109	0.00
2	T	Dibromomethane	0.113	0.111	1.8	106	0.00
3	T	1,4-Dioxane	0.001	0.000	100.0#	103	0.00
4	T	Bromodichloromethane	0.208	0.216	-3.8	112	0.00
5	T	2-Chloroethylvinyl Ether	0.099	0.106	-7.1	109	0.00
6	T	cis-1,3-Dichloropropene	0.292	0.295	-1.0	105	0.00
7	T	4-Methyl-2-Pentanone (MIBK)	0.025	0.025	0.0	109	0.00
8	S	Toluene d-8 SS#2	0.877	0.876	0.1	107	0.00
9	M,C	TOLUENE	0.483	0.464	3.9	102	0.00
0	T	trans-1,3-Dichloropropene	0.238	0.244	-2.5	102	0.00
1	T	1,1,2-Trichloroethane	0.133	0.133	0.0	106	0.00
2	T	Tetrachloroethene	0.119	0.113	5.0	103	0.00
3	T	2-Hexanone (MBK)	0.108	0.108	0.0	111	0.00
4	I	Chlorobenzene d-5 ISTD	1.000	1.000	0.0	106	0.00
5	T	1,3-Dichloropropane	0.418	0.417	0.2	107	0.00
6	T	Dibromochloromethane	0.209	0.217	-3.8	107	0.00

(#) = Out of Range

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
7	T	1,2-Dibromoethane	0.246	0.246	0.0	105	0.00
8	M,P	Chlorobenzene	0.751	0.726	3.3	109	0.00
9	T	1,1,1,2-Tetrachloroethane	0.211	0.215	-1.9	106	0.00
0	C	ETHYLBENZENE	1.122	1.100	2.0	104	0.00
1	T	m&p-Xylene	0.453	0.441	2.6	104	0.00
2	T	o-Xylene	0.451	0.449	0.4	107	0.00
3	T	Styrene	0.825	0.832	-0.8	109	0.00
4	P	Bromoform	0.127	0.126	0.8	103	0.00
5	T	1,2,3-Trichloropropane	0.212	0.209	1.4	114	0.00
6	T	Bromobenzene	0.263	0.258	1.9	101	0.00
7	T	trans-1,4-dichloro-2-butene	0.054	0.058	-7.4	106	0.00
8	T	n-Propylbenzene	1.040	1.023	1.6	103	0.00
9	I	1,4-Dichlorobenzene d-4 IST	1.000	1.000	0.0	117	0.00
0	T	Isopropylbenzene	2.422	2.302	5.0	104	0.00
1	S	4-Bromofluorobenzene SS#3	1.231	1.217	1.1	109	0.00
2	P	1,1,2,2-Tetrachloroethane	0.757	0.721	4.8	101	0.00
3	T	2-Chlorotoluene	1.763	1.630	7.5	103	0.00
4	T	4-Chlorotoluene	2.011	1.911	5.0	106	0.00
5	T	1,3,5-Trimethylbenzene	1.877	1.814	3.4	105	0.00
6	T	tert-Butylbenzene	1.385	1.348	2.7	117	0.00
7	T	1,2,4-Trimethylbenzene	1.945	1.847	5.0	104	0.00
8	T	sec-Butylbenzene	2.109	2.011	4.6	114	0.00
9	T	4-Isopropyltoluene	1.727	1.615	6.5	102	0.00
0	T	1,3-Dichlorobenzene	1.086	1.016	6.4	107	0.00
1	T	1,4-Dichlorobenzene	1.124	1.039	7.6	103	0.00
2	T	1,2-Dichlorobenzene	1.030	0.963	6.5	103	0.00
3	T	n-Butylbenzene	1.541	1.441	6.5	102	0.00
4	T	1,2-Dibromo-3-chloropropane	0.078	0.073	6.4	102	0.00
5	T	1,2,4-Trichlorobenzene	0.451	0.391	13.3	99	0.00
6	T	Naphthalene	1.263	1.099	13.0	96	0.00
7	T	1,2,3-Trichlorobenzene	0.377	0.317	15.9	97	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene ISTD	50.000	50.000	0.0	109	0.00
2	T	Dichlorodifluoromethane	50.000	48.060	3.9	101	0.00
3	P	Chloromethane	50.000	45.896	8.2	103	0.00
4	C	VINYL CHLORIDE	50.000	48.043	3.9	104	0.00
5	T	Bromomethane	50.000	48.510	3.0	101	0.02
6	T	Chloroethane	50.000	49.536	0.9	101	0.00
7	T	Trichlorofluoromethane	50.000	51.489	-3.0	103	0.00
8	T	acrolein	50.000	45.406	9.2	129	0.00
9	T	Acetone	50.000	45.679	8.6	130	0.00
0	M,C	1,1-DICHLOROETHENE	50.000	48.359	3.3	100	0.00
1	T	1,1,2-Trichlorotrifluoroeth	50.000	48.598	2.8	98	0.00
2	T	iodomethane	50.000	50.408	-0.8	101	0.00
3	T	Carbon Disulfide	50.000	48.480	3.0	102	0.00
4	T	Methyl Acetate	50.000	46.720	6.6	117	0.00
5	T	Methylene chloride	50.000	48.953	2.1	101	-0.06
6	T	tert-Butanol	50.000	34.543	30.9#	97	0.00
7	T	acrylonitrile	50.000	51.704	-3.4	121	0.00
8	T	trans-1,2-Dichloroethene	50.000	50.621	-1.2	102	0.00
9	T	Methyl-t-Butyl Ether	50.000	49.810	0.4	102	0.00
0	P	1,1-Dichloroethane	50.000	49.853	0.3	104	0.00
1	T	vinyl acetate	50.000	49.952	0.1	114	0.00
2	T	Diisopropyl ether	50.000	48.849	2.3	105	0.00
3	T	tert-Butyl ethyl ether	50.000	50.454	-0.9	112	0.00
4	T	2,2-Dichloropropane	50.000	45.261	9.5	98	0.00
5	T	cis-1,2-Dichloroethene	50.000	48.920	2.2	105	0.00
6	T	2-Butanone (MEK)	50.000	47.224	5.6	112	0.00
7	T	Bromochloromethane	50.000	49.612	0.8	108	0.00
8	C	CHLOROFORM	50.000	49.889	0.2	111	0.00
9	S	Dibromofluoromethane SS#1	50.000	50.613	-1.2	111	0.00
0	T	1,1,1-Trichloroethane	50.000	54.152	-8.3	118	0.00
1	T	Cyclohexane	50.000	52.833	-5.7	123	0.00
2	T	Carbon tetrachloride	50.000	42.769	14.5	113	0.00
3	T	1,1-Dichloropropene	50.000	49.411	1.2	111	0.00
4	M	Benzene	50.000	48.001	4.0	108	0.00
5	T	1,2-Dichloroethane	50.000	51.074	-2.1	119	0.00
6	T	tert-Amyl alcohol	50.000	34.335	31.3#	107	0.00
7	T	tert-Amyl methyl ether	50.000	49.608	0.8	114	0.00
8	M	Trichloroethene	50.000	47.438	5.1	105	0.00
9	C	1,2-DICHLOROPROPANE	50.000	49.905	0.2	114	0.00
0	T	Methylcyclohexane	50.000	49.412	1.2	107	0.00
1	T	tert-Amyl ethyl ether	50.000	49.265	1.5	109	0.00
2	T	Dibromomethane	50.000	49.170	1.7	106	0.00
3	T	1,4-Dioxane	1000.000	414.653	58.5#	103	0.00
4	T	Bromodichloromethane	50.000	52.047	-4.1	112	0.00
5	T	2-Chloroethylvinyl Ether	50.000	45.833	8.3	109	0.00
6	T	cis-1,3-Dichloropropene	50.000	50.476	-1.0	105	0.00
7	T	4-Methyl-2-Pentanone (MIBK)	50.000	50.477	-1.0	109	0.00
8	S	Toluene d-8 SS#2	50.000	49.928	0.1	107	0.00
9	M,C	TOLUENE	50.000	48.042	3.9	102	0.00
0	T	trans-1,3-Dichloropropene	50.000	43.792	12.4	102	0.00
1	T	1,1,2-Trichloroethane	50.000	49.957	0.1	106	0.00
2	T	Tetrachloroethene	50.000	47.361	5.3	103	0.00
3	T	2-Hexanone (MBK)	50.000	49.733	0.5	111	0.00
4	I	Chlorobenzene d-5 ISTD	50.000	50.000	0.0	106	0.00
5	T	1,3-Dichloropropane	50.000	49.877	0.2	107	0.00
6	T	Dibromochloromethane	50.000	42.400	15.2	107	0.00

(#) = Out of Range

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
7	T	1,2-Dibromoethane	50.000	50.025	-0.0	105	0.00
8	M,P	Chlorobenzene	50.000	48.315	3.4	109	0.00
9	T	1,1,1,2-Tetrachloroethane	50.000	50.947	-1.9	106	0.00
0	C	ETHYLBENZENE	50.000	49.035	1.9	104	0.00
1	T	m&p-Xylene	100.000	97.321	2.7	104	0.00
2	T	o-Xylene	50.000	49.686	0.6	107	0.00
3	T	Styrene	50.000	50.408	-0.8	109	0.00
4	P	Bromoform	50.000	39.897	20.2#	103	0.00
5	T	1,2,3-Trichloropropane	50.000	49.399	1.2	114	0.00
6	T	Bromobenzene	50.000	48.952	2.1	101	0.00
7	T	trans-1,4-dichloro-2-butene	50.000	42.189	15.6	106	0.00
8	T	n-Propylbenzene	50.000	49.170	1.7	103	0.00
9	I	1,4-Dichlorobenzene d-4 IST	50.000	50.000	0.0	117	0.00
0	T	Isopropylbenzene	50.000	47.536	4.9	104	0.00
1	S	4-Bromofluorobenzene SS#3	50.000	49.464	1.1	109	0.00
2	P	1,1,2,2-Tetrachloroethane	50.000	47.589	4.8	101	0.00
3	T	2-Chlorotoluene	50.000	46.243	7.5	103	0.00
4	T	4-Chlorotoluene	50.000	47.510	5.0	106	0.00
5	T	1,3,5-Trimethylbenzene	50.000	48.319	3.4	105	0.00
6	T	tert-Butylbenzene	50.000	48.697	2.6	117	0.00
7	T	1,2,4-Trimethylbenzene	50.000	47.494	5.0	104	0.00
8	T	sec-Butylbenzene	50.000	47.675	4.7	114	0.00
9	T	4-Isopropyltoluene	50.000	46.755	6.5	102	0.00
0	T	1,3-Dichlorobenzene	50.000	46.747	6.5	107	0.00
1	T	1,4-Dichlorobenzene	50.000	46.205	7.6	103	0.00
2	T	1,2-Dichlorobenzene	50.000	46.759	6.5	103	0.00
3	T	n-Butylbenzene	50.000	46.734	6.5	102	0.00
4	T	1,2-Dibromo-3-chloropropane	50.000	46.999	6.0	102	0.00
5	T	1,2,4-Trichlorobenzene	50.000	43.362	13.3	99	0.00
6	T	Naphthalene	50.000	43.506	13.0	96	0.00
7	T	1,2,3-Trichlorobenzene	50.000	41.986	16.0	97	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:39:31 2013 Quant Results File: VOC-W.RES

Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene ISTD	7.31	96	561354	50.00	ug/L		0.00
54) Chlorobenzene d-5 ISTD	11.00	117	385880	50.00	ug/L		0.00
69) 1,4-Dichlorobenzene d-4 IS	13.84	152	153418	50.00	ug/L		0.00
System Monitoring Compounds							
29) Dibromofluoromethane SS#1	6.45	113	128666	50.61	ug/L		0.00
Spiked Amount 50.000	Range 94 - 107		Recovery = 101.22%				
48) Toluene d-8 SS#2	9.27	98	491498	49.93	ug/L		0.00
Spiked Amount 50.000	Range 96 - 104		Recovery = 99.86%				
71) 4-Bromofluorobenzene SS#3	12.42	95	186774	49.46	ug/L		0.00
Spiked Amount 50.000	Range 89 - 112		Recovery = 98.92%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.52	85	125329	48.06	ug/L		89
3) Chloromethane	1.74	50	156053	45.90	ug/L		99
4) VINYL CHLORIDE	1.82	62	178715	48.04	ug/L		100
5) Bromomethane	2.18	94	108793	48.51	ug/L		100
6) Chloroethane	2.30	64	84222m	49.54	ug/L		
7) Trichlorofluoromethane	2.55	101	130161m	51.49	ug/L		
8) acrolein	3.04	56	13796	45.41	ug/L		98
9) Acetone	3.25	58	5565	45.68	ug/L	#	87
10) 1,1-DICHLOROETHENE	3.19	96	107042m	48.36	ug/L		
11) 1,1,2-Trichlorotrifluoroet	3.21	101	70971m	48.60	ug/L		
12) iodomethane	3.38	142	160351m	50.41	ug/L		
13) Carbon Disulfide	3.43	76	295491	48.48	ug/L		93
14) Methyl Acetate	3.74	74	12948	46.72	ug/L		92
15) Methylene chloride	3.85	84	110136m	48.95	ug/L		
16) tert-Butanol	4.17	59	2972m	34.54	ug/L		
17) acrylonitrile	4.26	53	30697	51.70	ug/L		96
18) trans-1,2-Dichloroethene	4.28	96	98292	50.62	ug/L		98
19) Methyl-t-Butyl Ether	4.33	73	239730	49.81	ug/L		99
20) 1,1-Dichloroethane	4.93	63	155678	49.85	ug/L		100
21) vinyl acetate	5.08	43	172706m	49.95	ug/L		
22) Diisopropyl ether	5.12	45	331949	48.85	ug/L		98
23) tert-Butyl ethyl ether	5.64	59	307264	50.45	ug/L		97
24) 2,2-Dichloropropane	5.76	77	56439	45.26	ug/L		100
25) cis-1,2-Dichloroethene	5.78	96	125562	48.92	ug/L		97
26) 2-Butanone (MEK)	5.85	72	8106	47.22	ug/L		97
27) Bromochloromethane	6.10	128	53119	49.61	ug/L		94
28) CHLOROFORM	6.24	83	165793	49.89	ug/L		99
30) 1,1,1-Trichloroethane	6.45	97	106654	54.15	ug/L		95
31) Cyclohexane	6.51	56	88106	52.83	ug/L		91
32) Carbon tetrachloride	6.66	117	79427	42.77	ug/L		100
33) 1,1-Dichloropropene	6.67	75	124329	49.41	ug/L		98
34) Benzene`	6.93	78	423134	48.00	ug/L		100
35) 1,2-Dichloroethane	6.97	62	111387	51.07	ug/L		96
36) tert-Amyl alcohol	7.08	59	2494m	34.33	ug/L		
37) tert-Amyl methyl ether	7.14	73	282090	49.61	ug/L		97
38) Trichloroethene	7.77	95	97233	47.44	ug/L		98
39) 1,2-DICHLOROPROPANE	8.04	63	105241	49.91	ug/L		100
40) Methylcyclohexane	7.99	83	84093	49.41	ug/L		97
41) tert-Amyl ethyl ether	8.14	59	247384	49.27	ug/L		96
42) Dibromomethane	8.18	93	62349	49.17	ug/L		97
43) 1,4-Dioxane	8.25	88	3612	414.65	ug/L		98
44) Bromodichloromethane	8.41	83	121360	52.05	ug/L		98
45) 2-Chloroethylvinyl Ether	8.80	63	59658	45.83	ug/L		100
46) cis-1,3-Dichloropropene	8.95	75	165705	50.48	ug/L		99
47) 4-Methyl-2-Pentanone (MIBK	9.17	100	14169	50.48	ug/L	#	93

(#) = qualifier out of range (m) = manual integration
13040829.D VOC-W.M Tue Apr 09 11:56:20 2013

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 11:39:31 2013 Quant Results File: VOC-W.RES

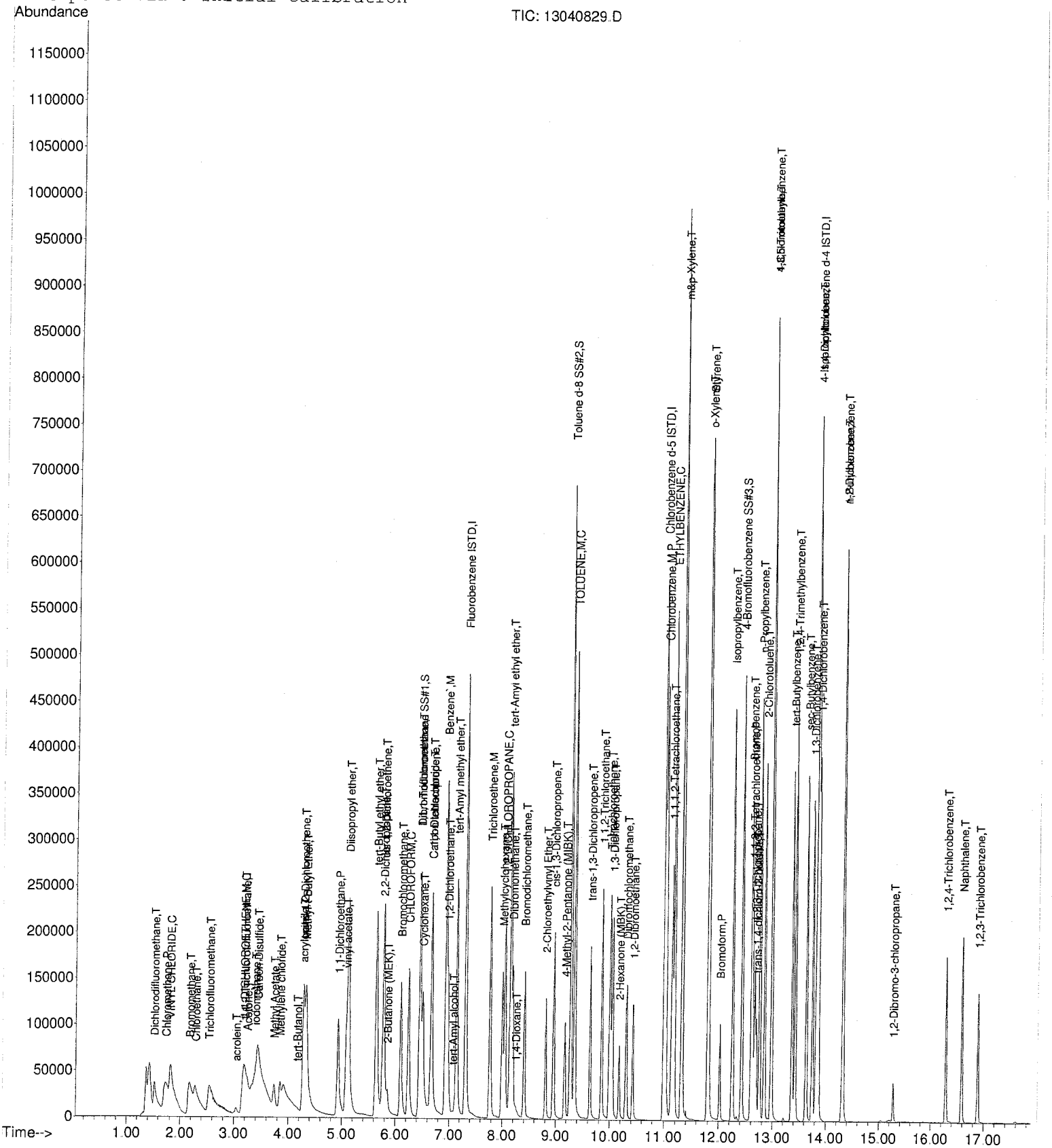
Quant Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration
DataAcq Meth : VOC2

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	TOLUENE	9.35	92	260523	48.04	ug/L		99
50)	trans-1,3-Dichloropropene	9.63	75	136906	43.79	ug/L		100
51)	1,1,2-Trichloroethane	9.85	83	74459	49.96	ug/L		98
52)	Tetrachloroethene	10.00	164	63482	47.36	ug/L		98
53)	2-Hexanone (MBK)	10.17	43	60417	49.73	ug/L		99
55)	1,3-Dichloropropane	10.04	76	160816	49.88	ug/L		99
56)	Dibromochloromethane	10.31	129	83708	42.40	ug/L		99
57)	1,2-Dibromoethane	10.43	107	94935	50.03	ug/L		98
58)	Chlorobenzene	11.03	112	279959	48.31	ug/L		98
59)	1,1,1,2-Tetrachloroethane	11.14	131	82999	50.95	ug/L		99
60)	ETHYLBENZENE	11.18	91	424453	49.03	ug/L		100
61)	m&p-Xylene	11.32	106	340304	97.32	ug/L		98
62)	o-Xylene	11.80	106	173125	49.69	ug/L		100
63)	Styrene	11.82	104	321047	50.41	ug/L		100
64)	Bromoform	12.02	173	48631	39.90	ug/L		99
65)	1,2,3-Trichloropropane	12.66	75	80668m	49.40	ug/L		
66)	Bromobenzene	12.60	156	99448	48.95	ug/L		97
67)	trans-1,4-dichloro-2-buten	12.69	53	22380	42.19	ug/L	#	99
68)	n-Propylbenzene	12.75	91	394696	49.17	ug/L		96
70)	Isopropylbenzene	12.25	105	353201	47.54	ug/L		98
72)	1,1,2,2-Tetrachloroethane	12.62	83	110538	47.59	ug/L		100
73)	2-Chlorotoluene	12.84	91	250104	46.24	ug/L		100
74)	4-Chlorotoluene	12.97	91	293141	47.51	ug/L		99
75)	1,3,5-Trimethylbenzene	12.97	105	278239	48.32	ug/L		98
76)	tert-Butylbenzene	13.37	119	206882	48.70	ug/L		95
77)	1,2,4-Trimethylbenzene	13.43	105	283403	47.49	ug/L		95
78)	sec-Butylbenzene	13.63	105	308475	47.67	ug/L		99
79)	4-Isopropyltoluene	13.82	119	247712	46.75	ug/L		98
80)	1,3-Dichlorobenzene	13.75	146	155841	46.75	ug/L		98
81)	1,4-Dichlorobenzene	13.86	146	159392	46.20	ug/L		97
82)	1,2-Dichlorobenzene	14.31	146	147804	46.76	ug/L		98
83)	n-Butylbenzene	14.32	91	221000	46.73	ug/L		98
84)	1,2-Dibromo-3-chloropropan	15.27	75	11268	47.00	ug/L		96
85)	1,2,4-Trichlorobenzene	16.29	180	59966	43.36	ug/L		100
86)	Naphthalene	16.59	128	168598	43.51	ug/L		100
87)	1,2,3-Trichlorobenzene	16.89	180	48625	41.99	ug/L		99

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:55 2013 Quant Results File: VOC-W.RES

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Initial Calibration

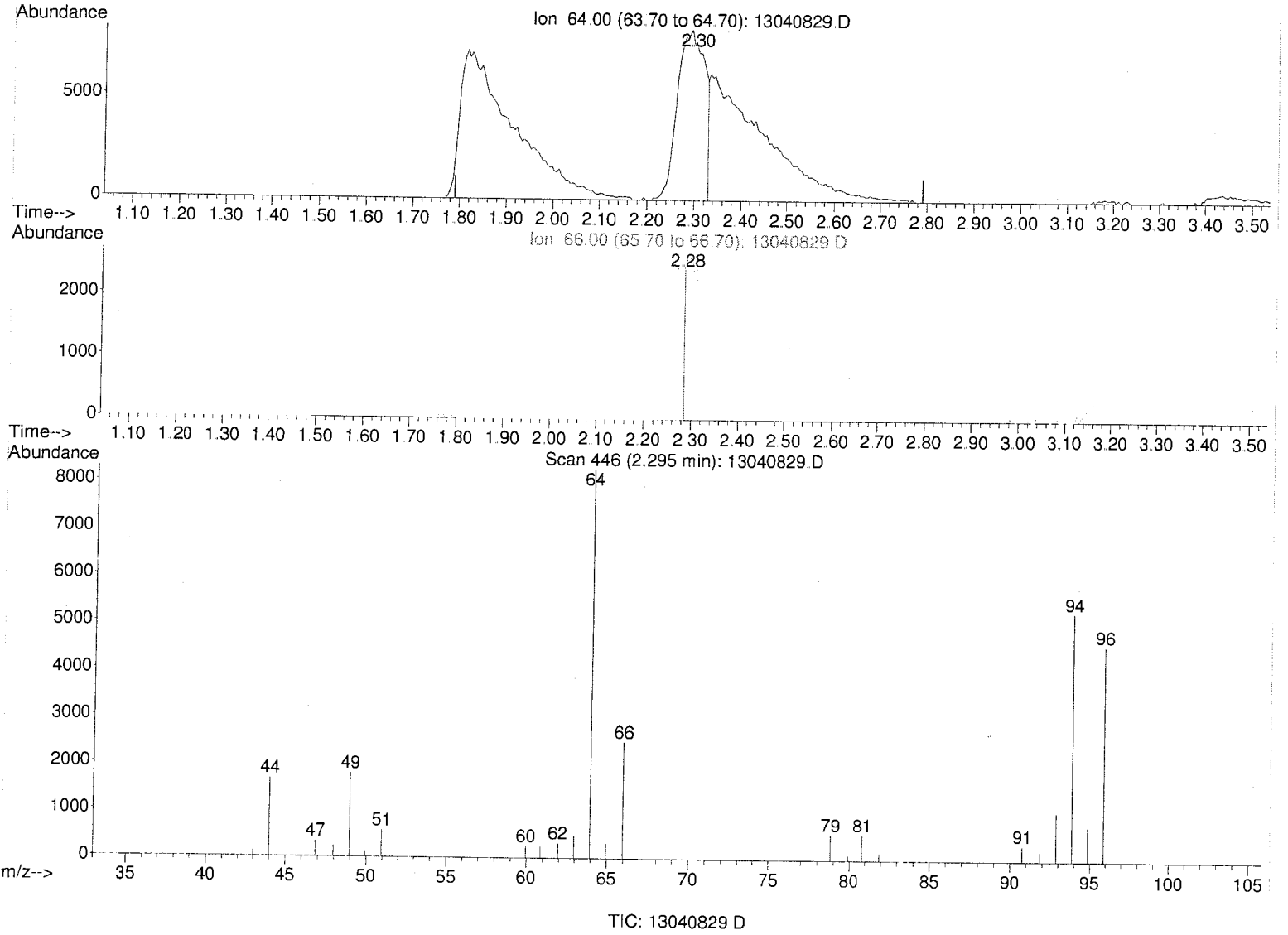


Data File : P:\VOC\2\DATA\130408\13040829.D
Acq On : 9 Apr 2013 12:13 am
Sample : CCV 50ppb 5mL
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:39 2013

Vial: 29
Operator: AK
Inst : VOA2
Multiplr: 1.00

Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(6) Chloroethane (T)

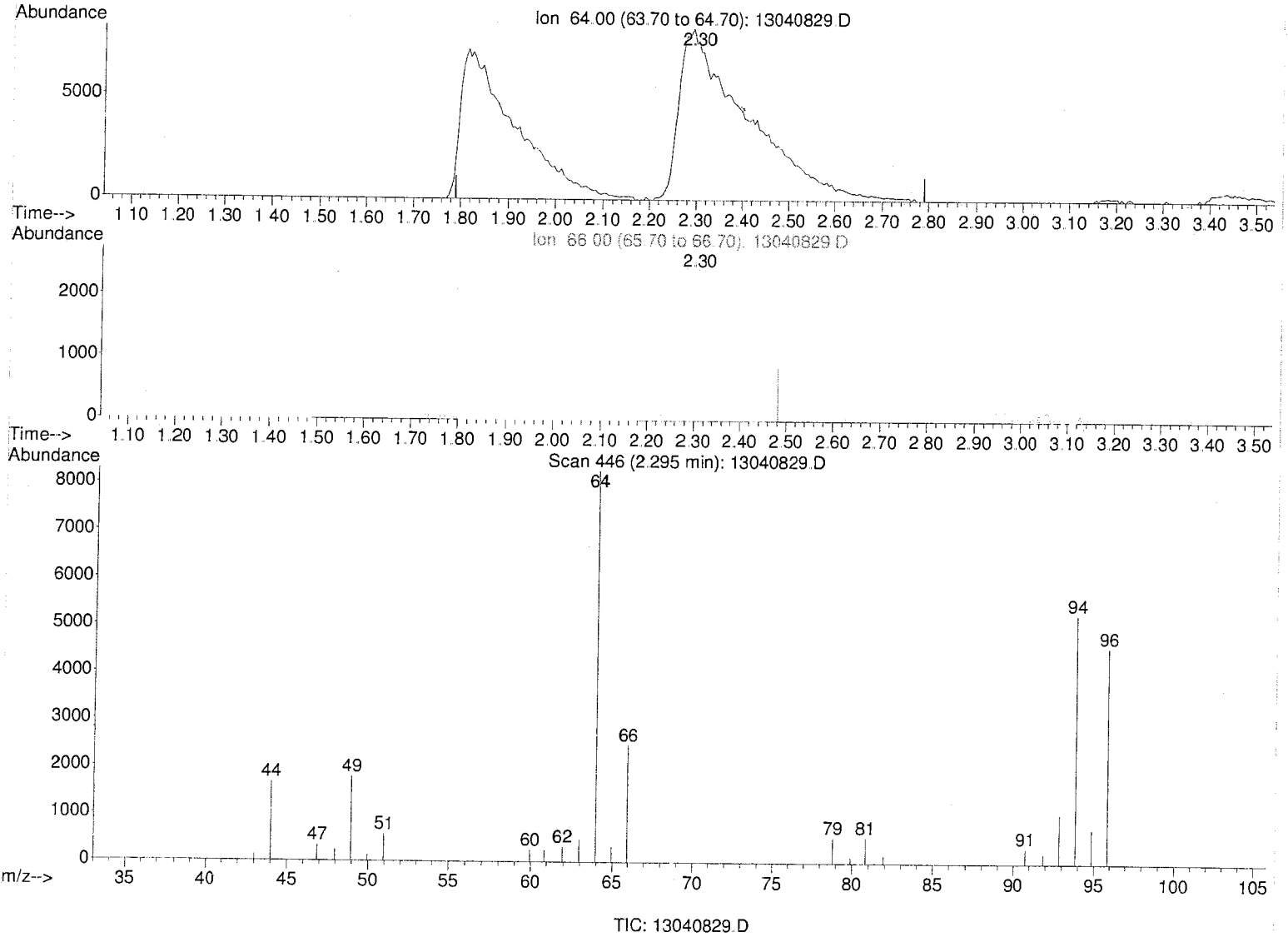
2.30min 20.13ug/L

response 34222

Ion	Exp%	Act%
64.00	100	100
66.00	28.80	14.06
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5u1 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(6) Chloroethane (T)

2.30min 49.54ug/L m

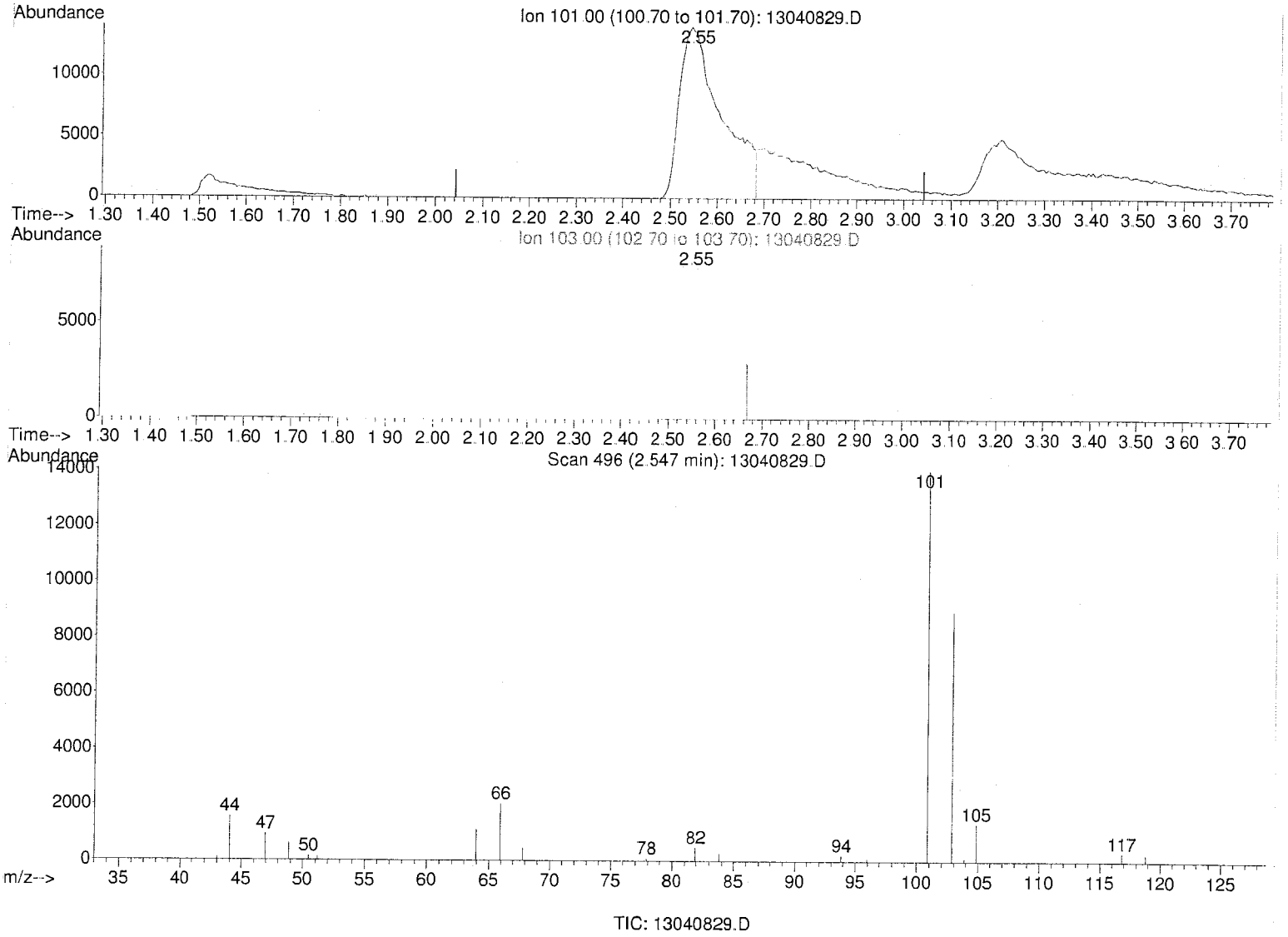
response 84222

Ion	Exp%	Act%
64.00	100	100
66.00	28.80	28.21
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(7) Trichlorofluoromethane (T)

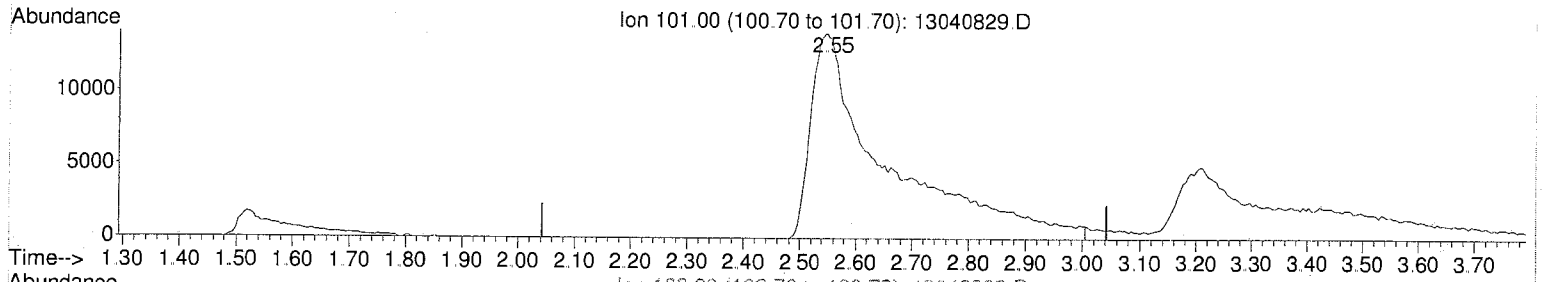
2.55min 34.48ug/L

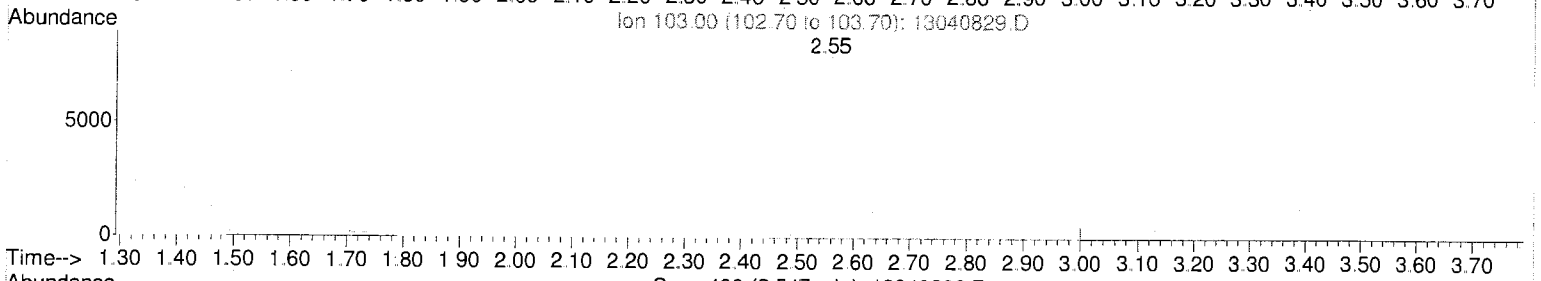
response 87152

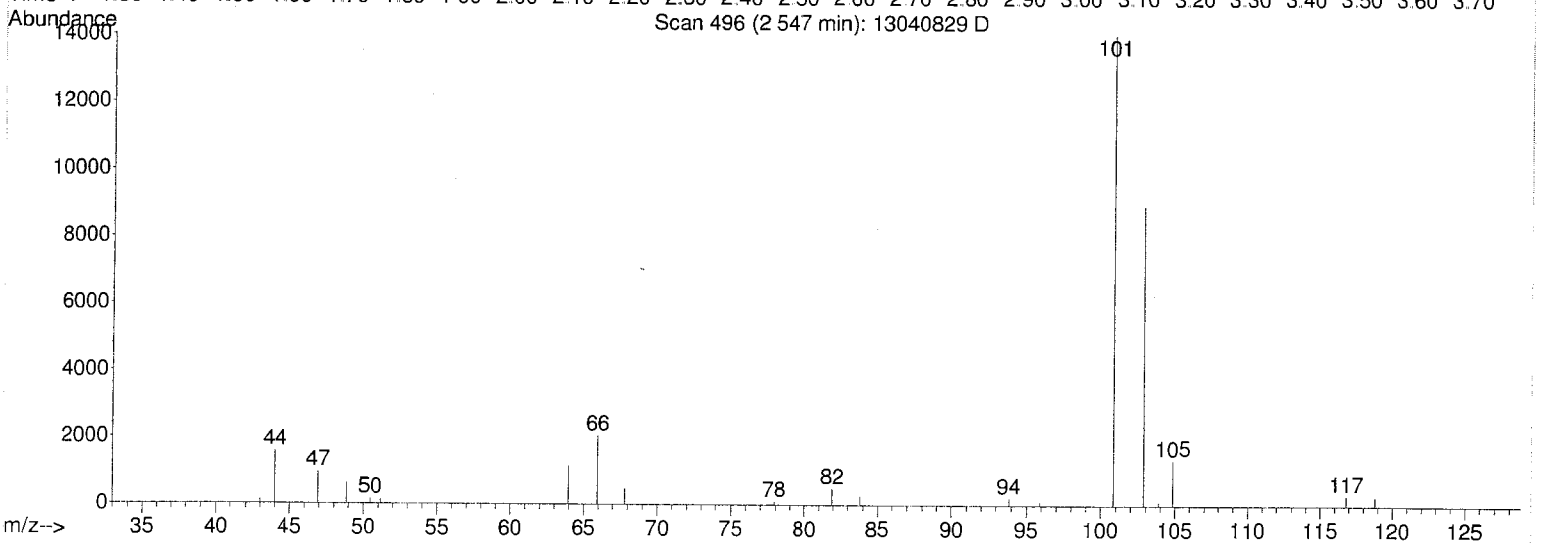
Ion	Exp%	Act%
101.00	100	100
103.00	65.30	61.50
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration







TIC: 13040829.D

(7) Trichlorofluoromethane (T)

2.55min 51.49ug/L m

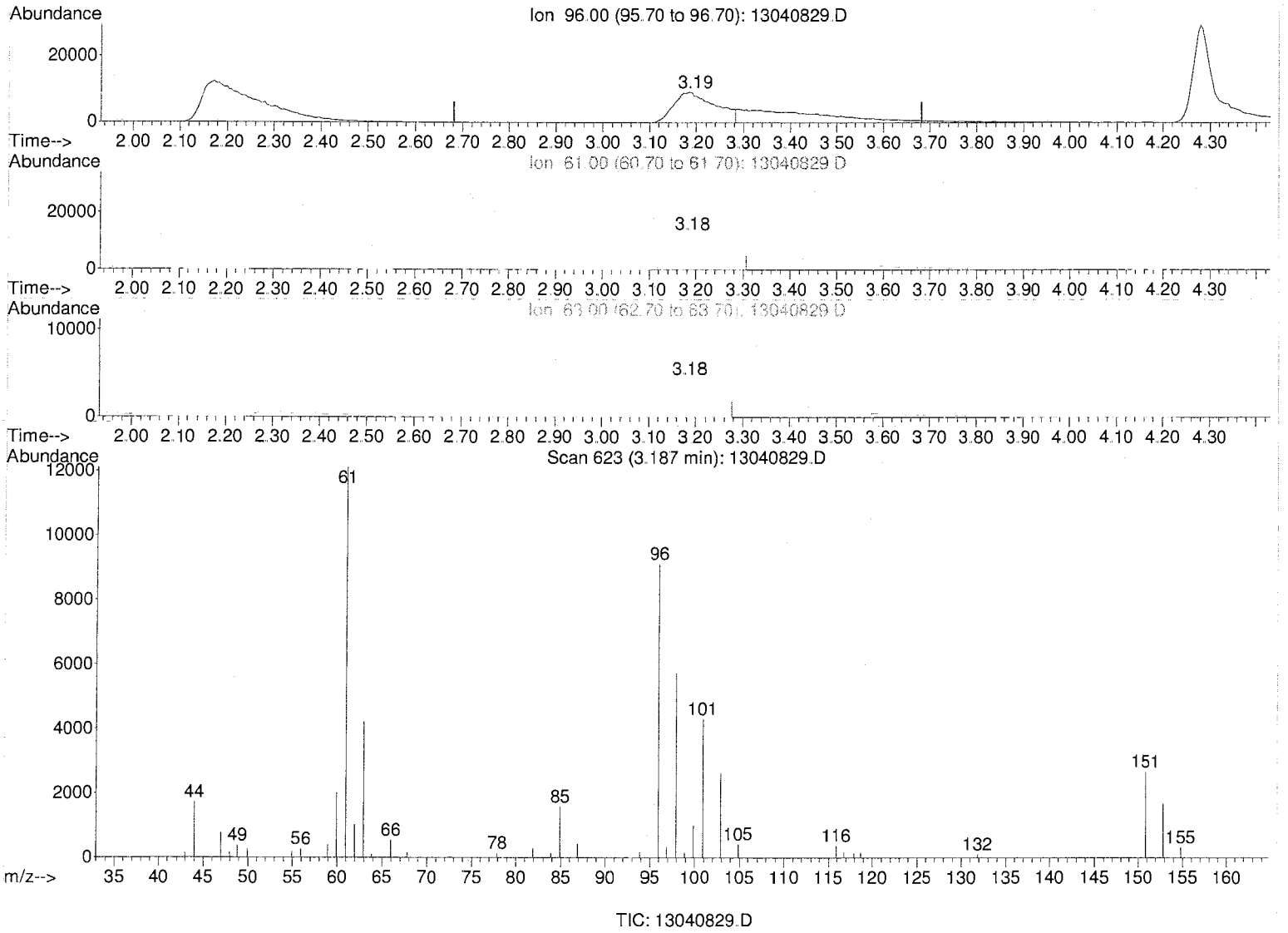
response 130161

Ion	Exp%	Act%
101.00	100	100
103.00	65.30	64.81
0.00	0.00	0.00
0.00	0.00	0.00

AF 4/9/13

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(10) 1,1-DICHLOROETHENE (M,C)

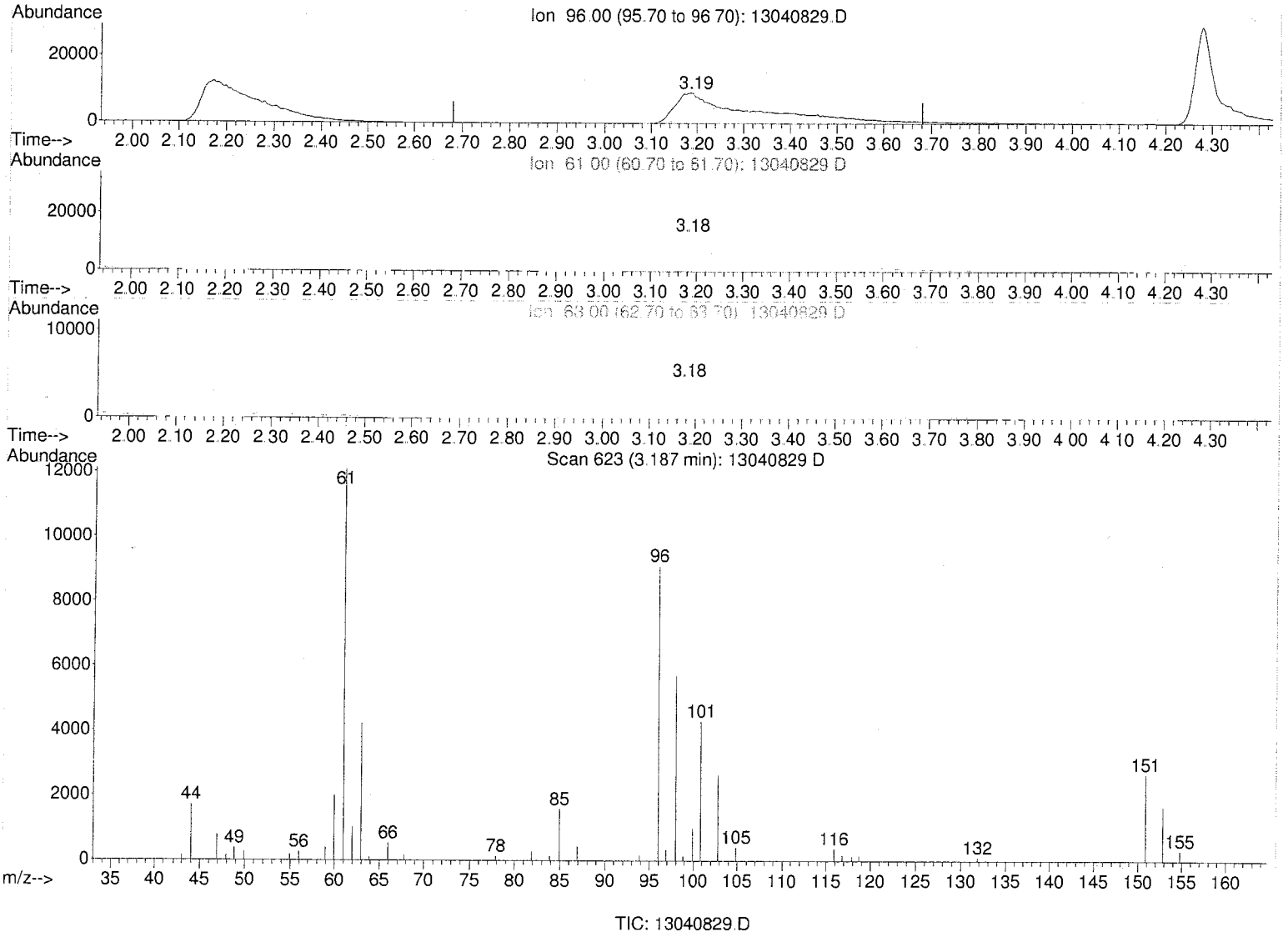
3.19min 25.29ug/L

response 55972

Ion	Exp%	Act%
96.00	100	100
61.00	136.90	154.46
63.00	44.90	44.23
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(10) 1,1-DICHLOROETHENE (M,C)

3.19min 48.36ug/L m

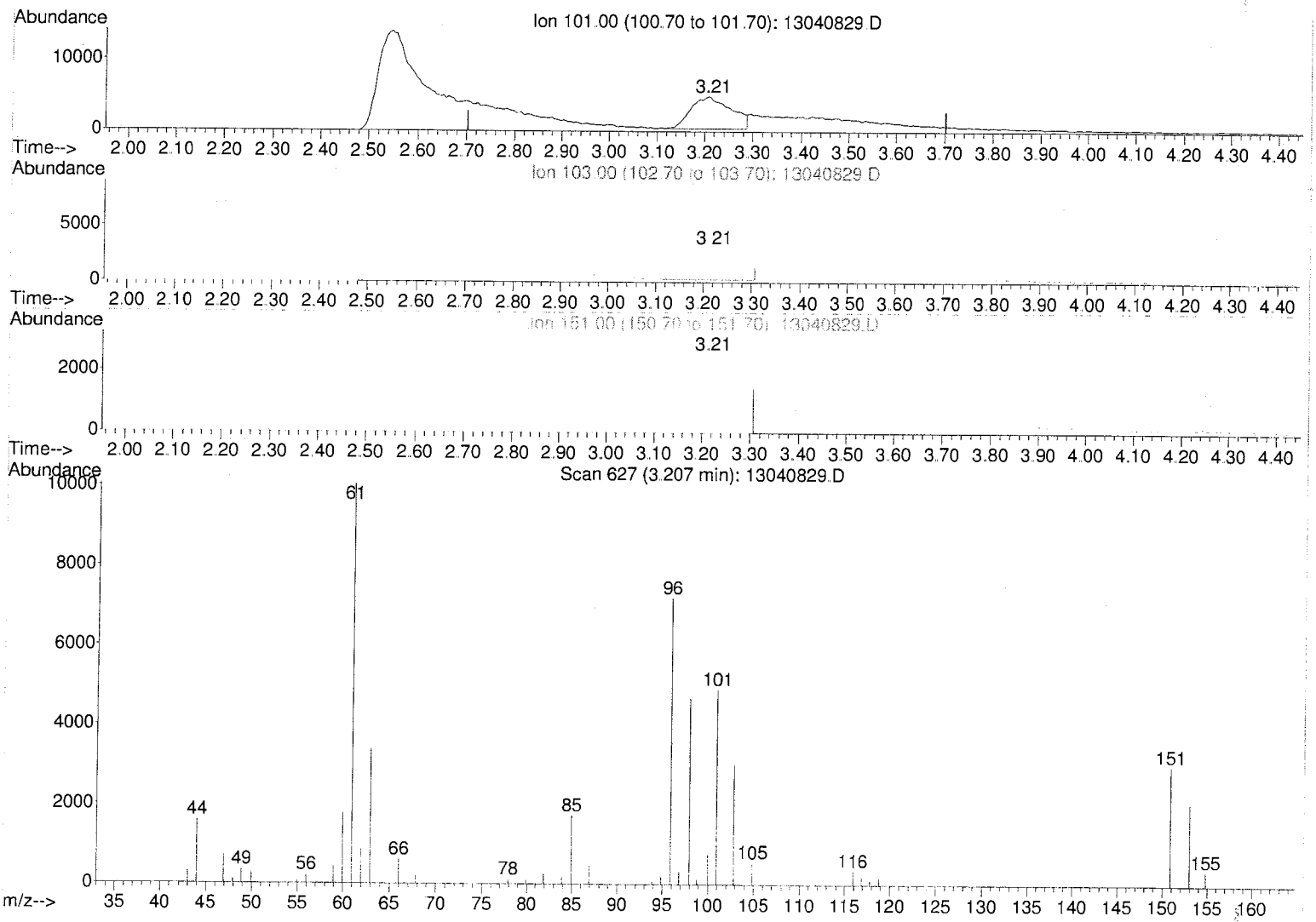
response 107042

Ion	Exp%	Act%
96.00	100	100
61.00	136.90	138.76
63.00	44.90	44.99
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

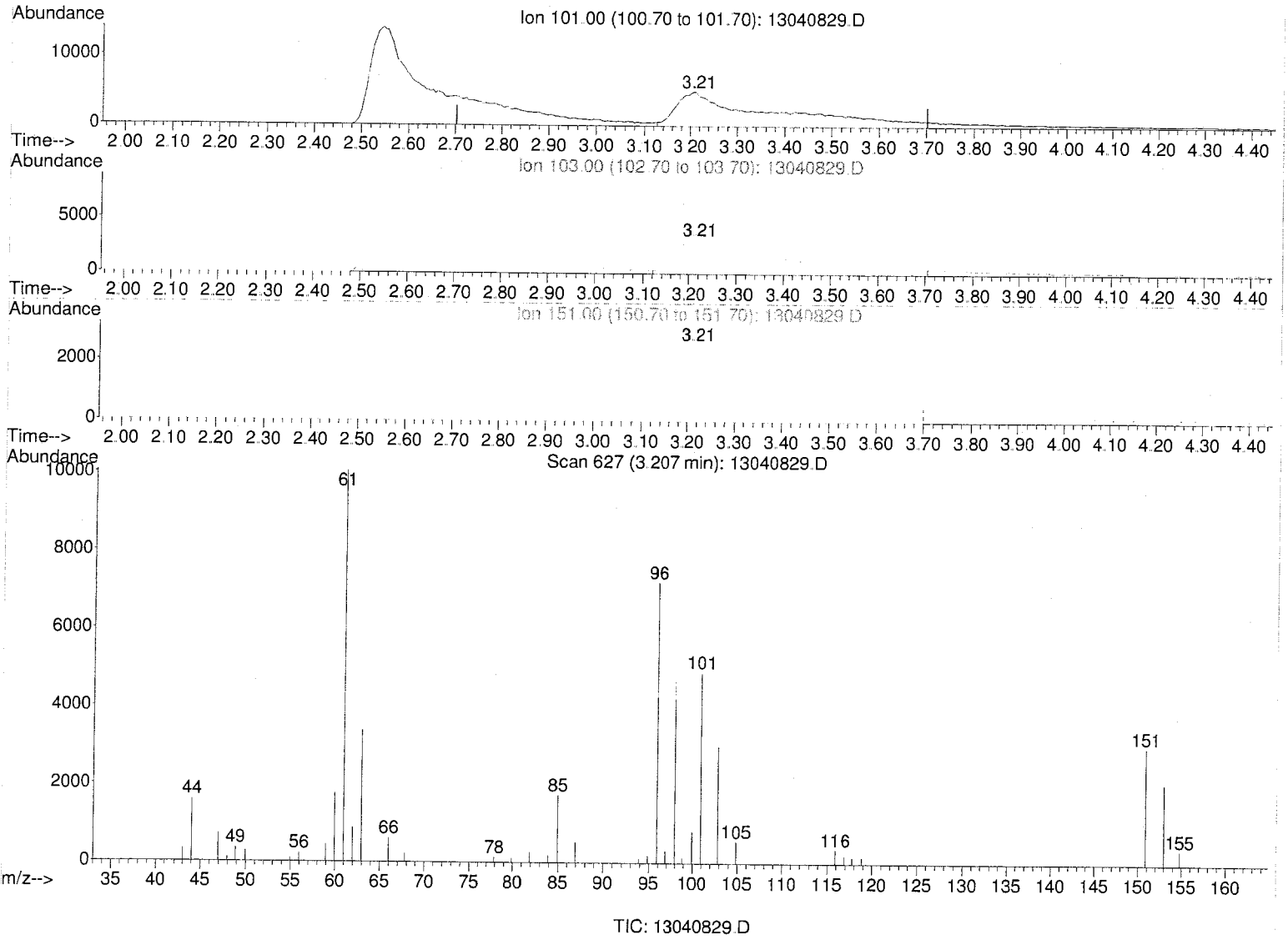
3.21min 18.23ug/L

response 26618

Ion	Exp%	Act%
101.00	100	100
103.00	64.40	69.28
151.00	64.40	78.64
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(11) 1,1,2-Trichlorotrifluoroethane (T)

3.21min 48.60ug/L m

response 70971

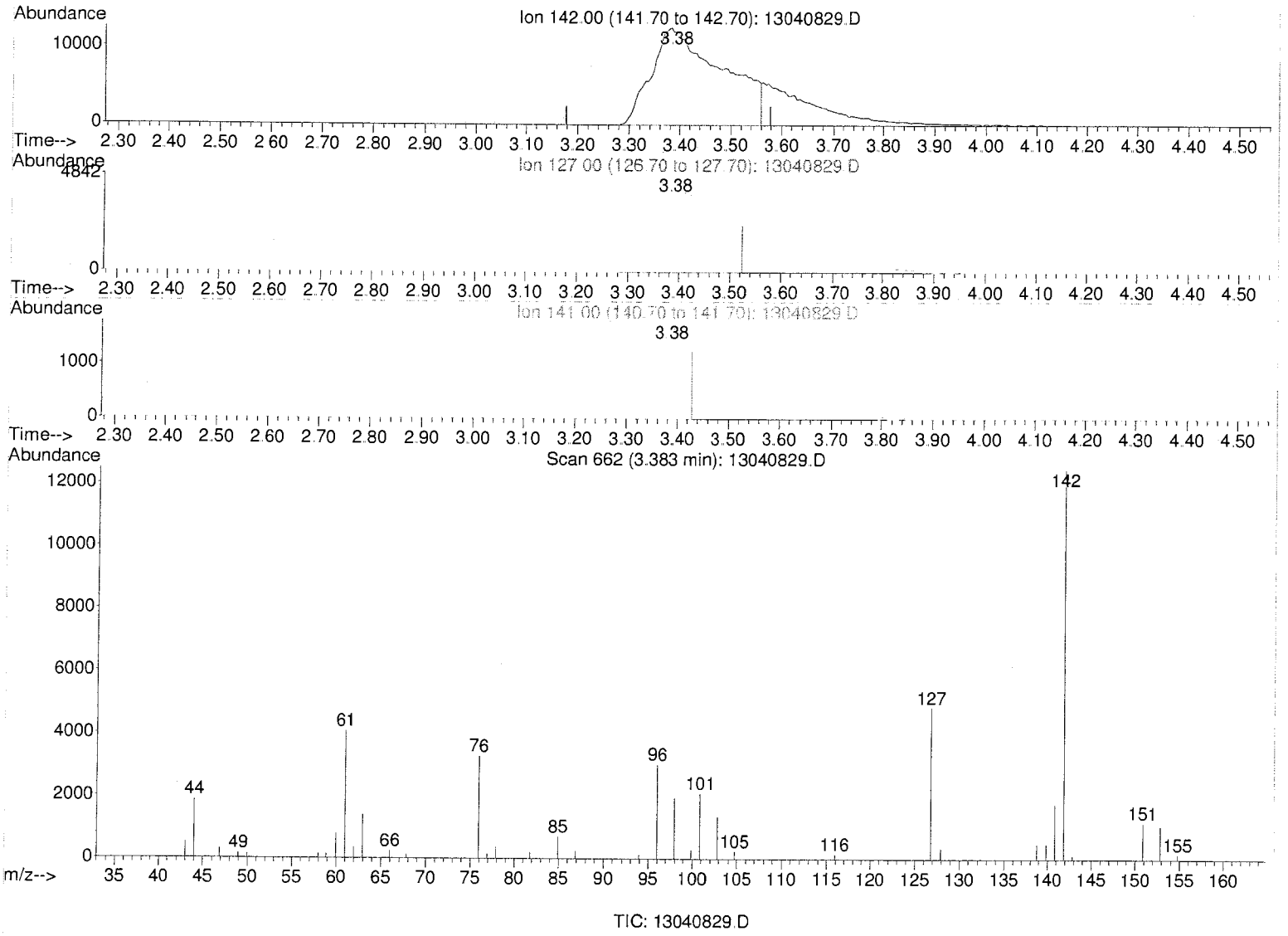
Ion	Exp%	Act%
101.00	100	100
103.00	64.40	64.68
151.00	64.40	63.75
0.00	0.00	0.00

AK 4/9/13

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:53 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(12) iodomethane (T)

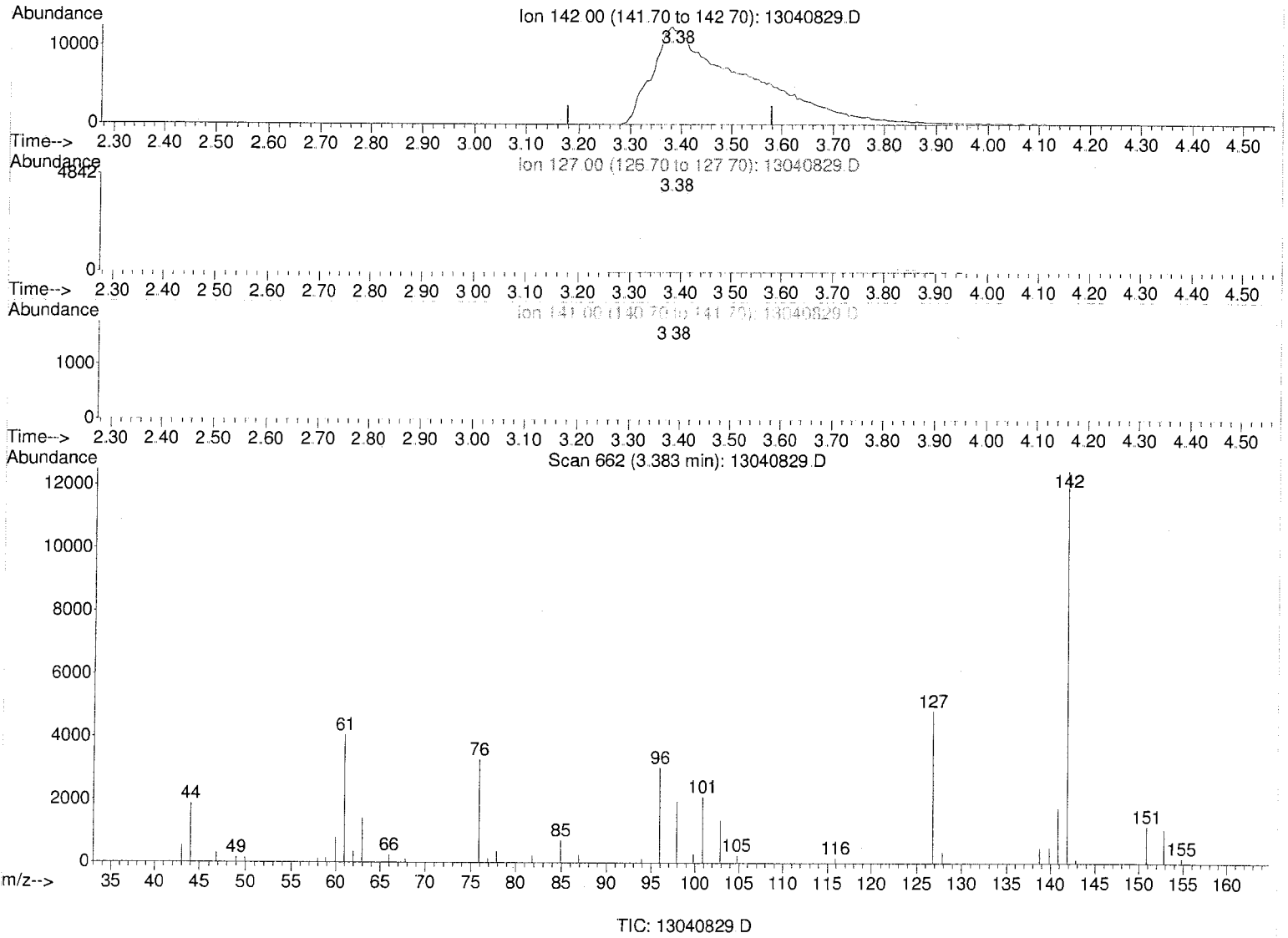
3.38min 38.17ug/L

response 121424

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	34.98
141.00	14.10	7.64
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(12) iodomethane (T)

3.38min 50.41ug/L m

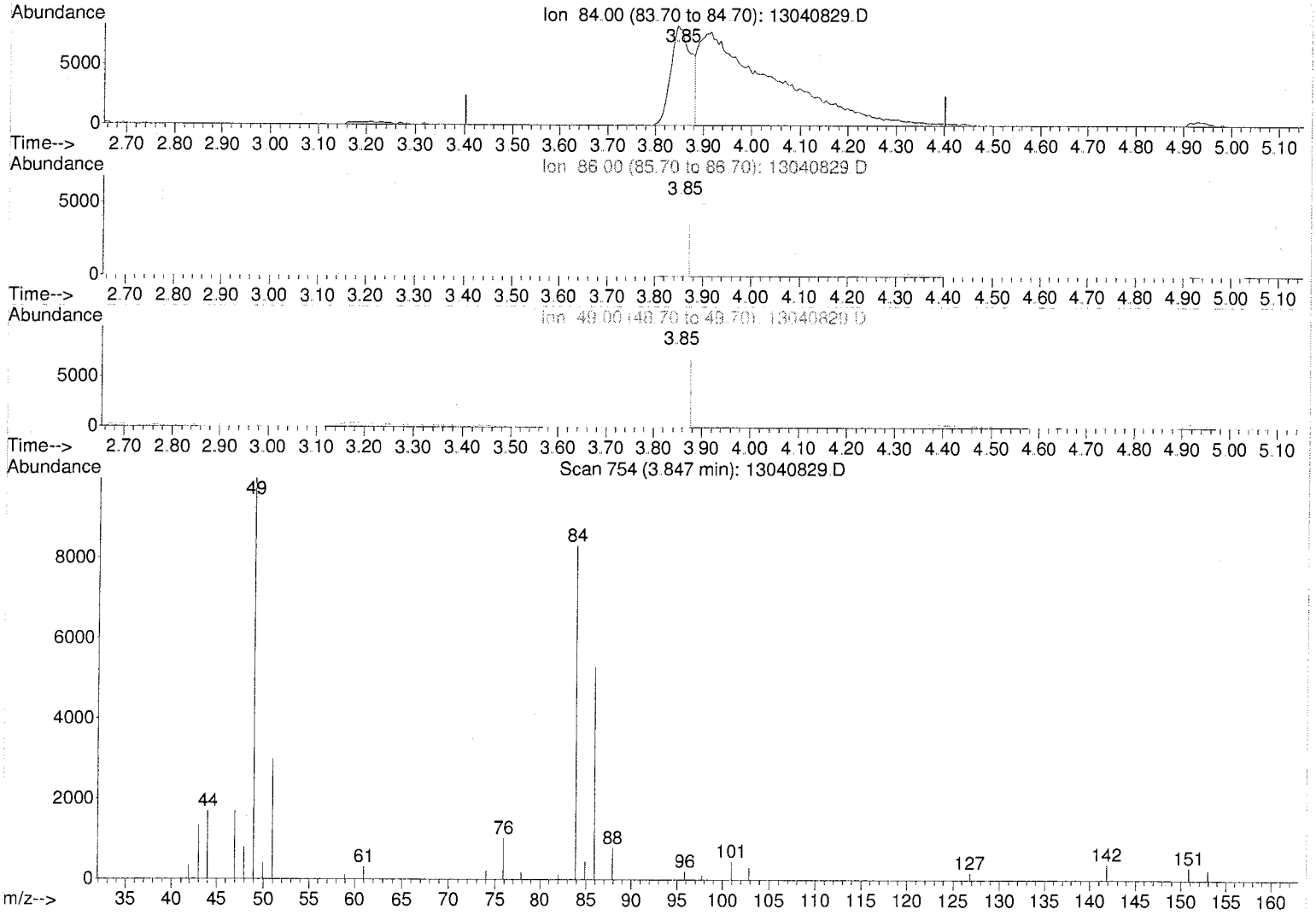
response 160351

Ion	Exp%	Act%
142.00	100	100
127.00	39.10	38.84
141.00	14.10	13.93
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(15) Methylene chloride (T)

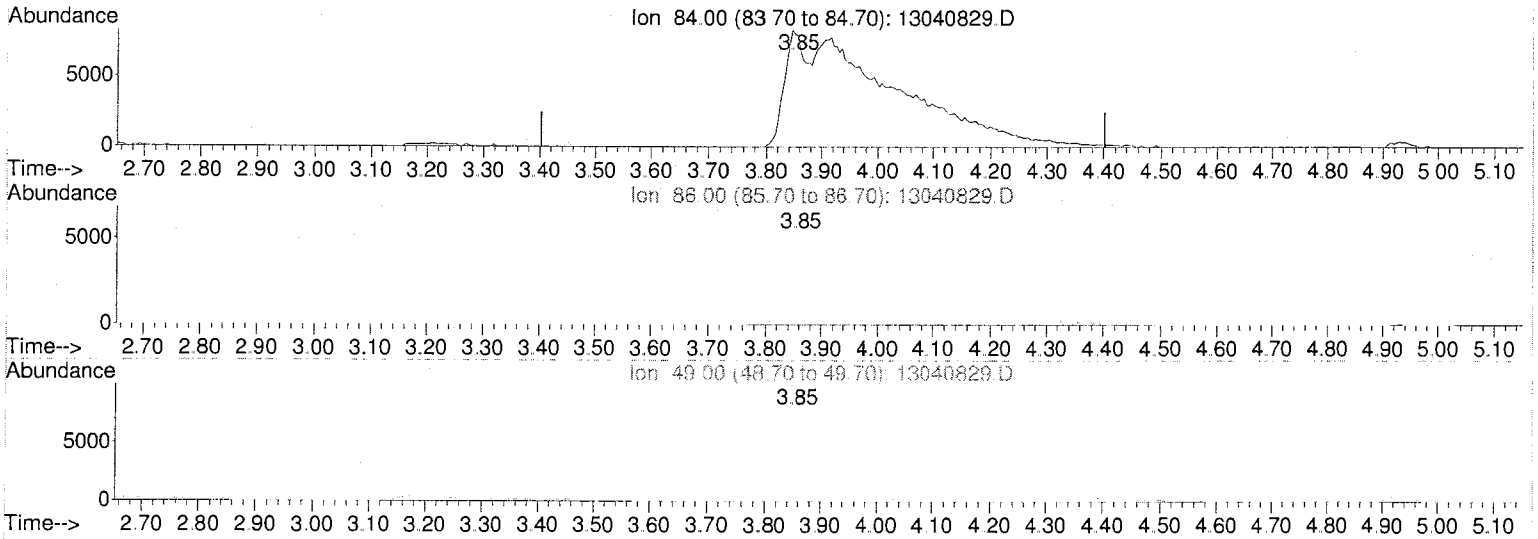
3.85min 10.81ug/L

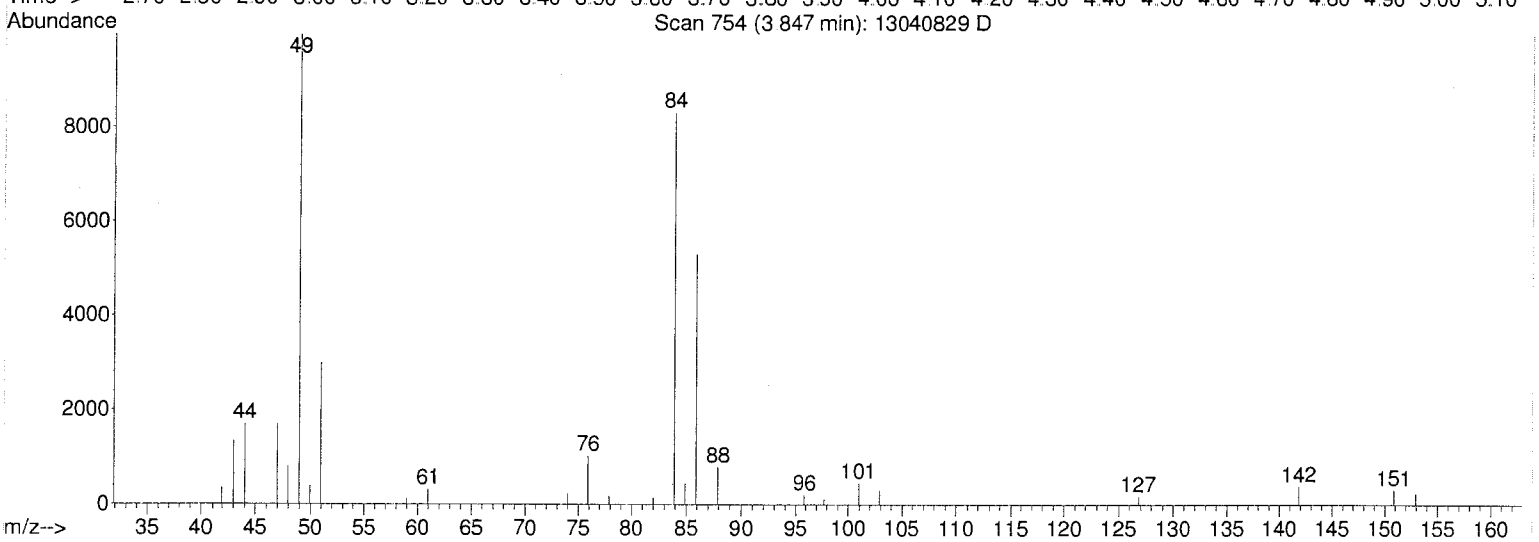
response 24310

Ion	Exp%	Act%
84.00	100	100
86.00	65.10	54.06
49.00	120.70	109.95
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration





TIC: 13040829.D

(15) Methylene chloride (T)

3.85min 48.95ug/L m

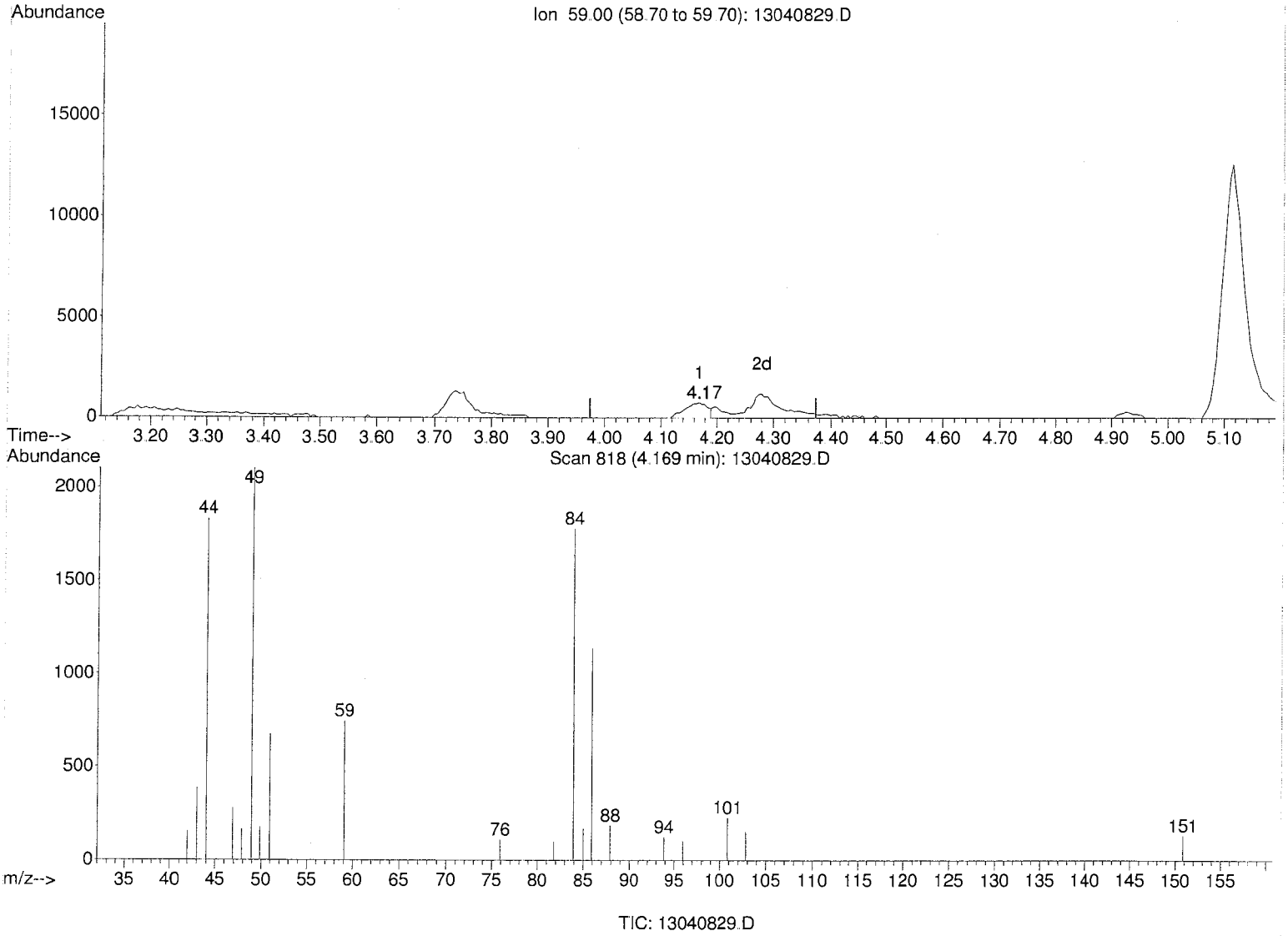
response 110136

Ion	Exp%	Act%
84.00	100	100
86.00	65.10	64.77
49.00	120.70	124.25
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(16) tert-Butanol (T)

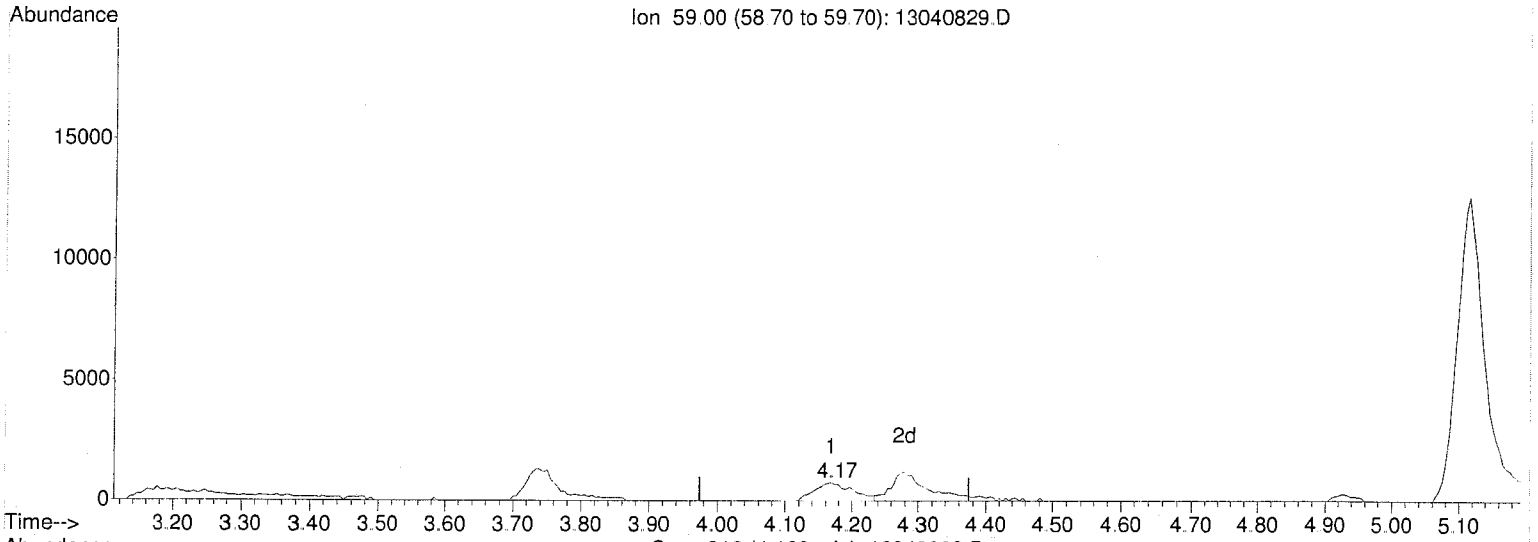
4.17min 23.98ug/L

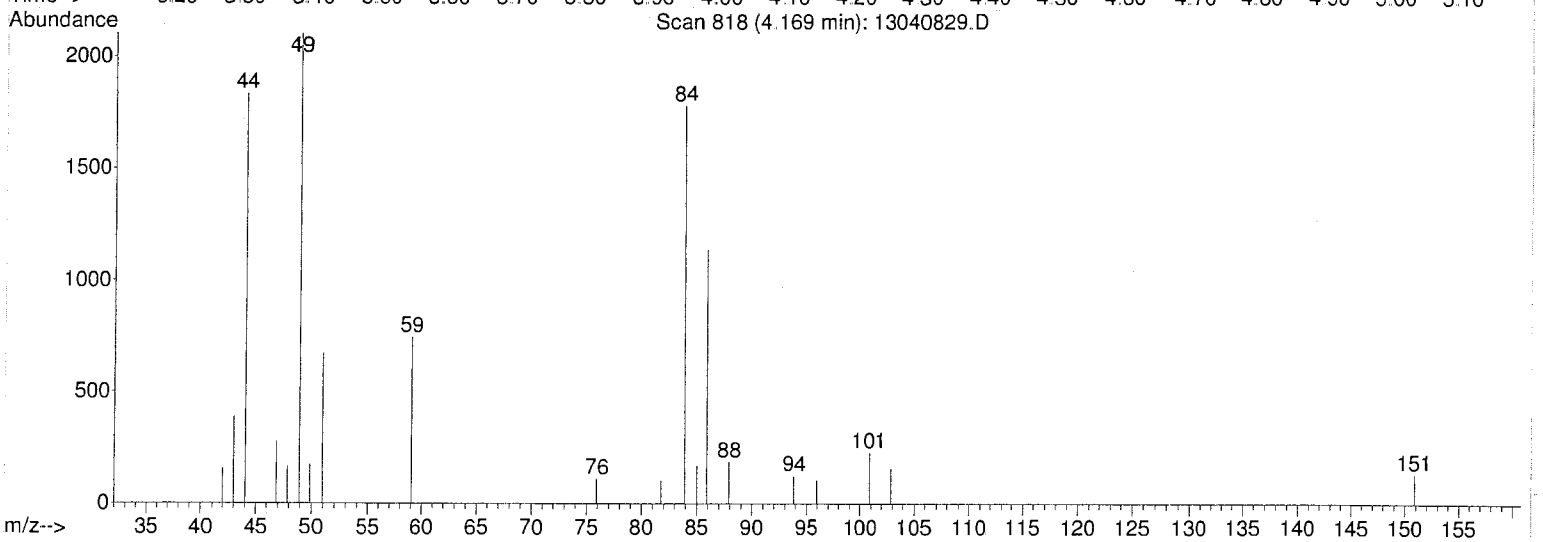
response 2085

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration





TIC: 13040829.D

(16) tert-Butanol (T)

4.17min 34.54ug/L m

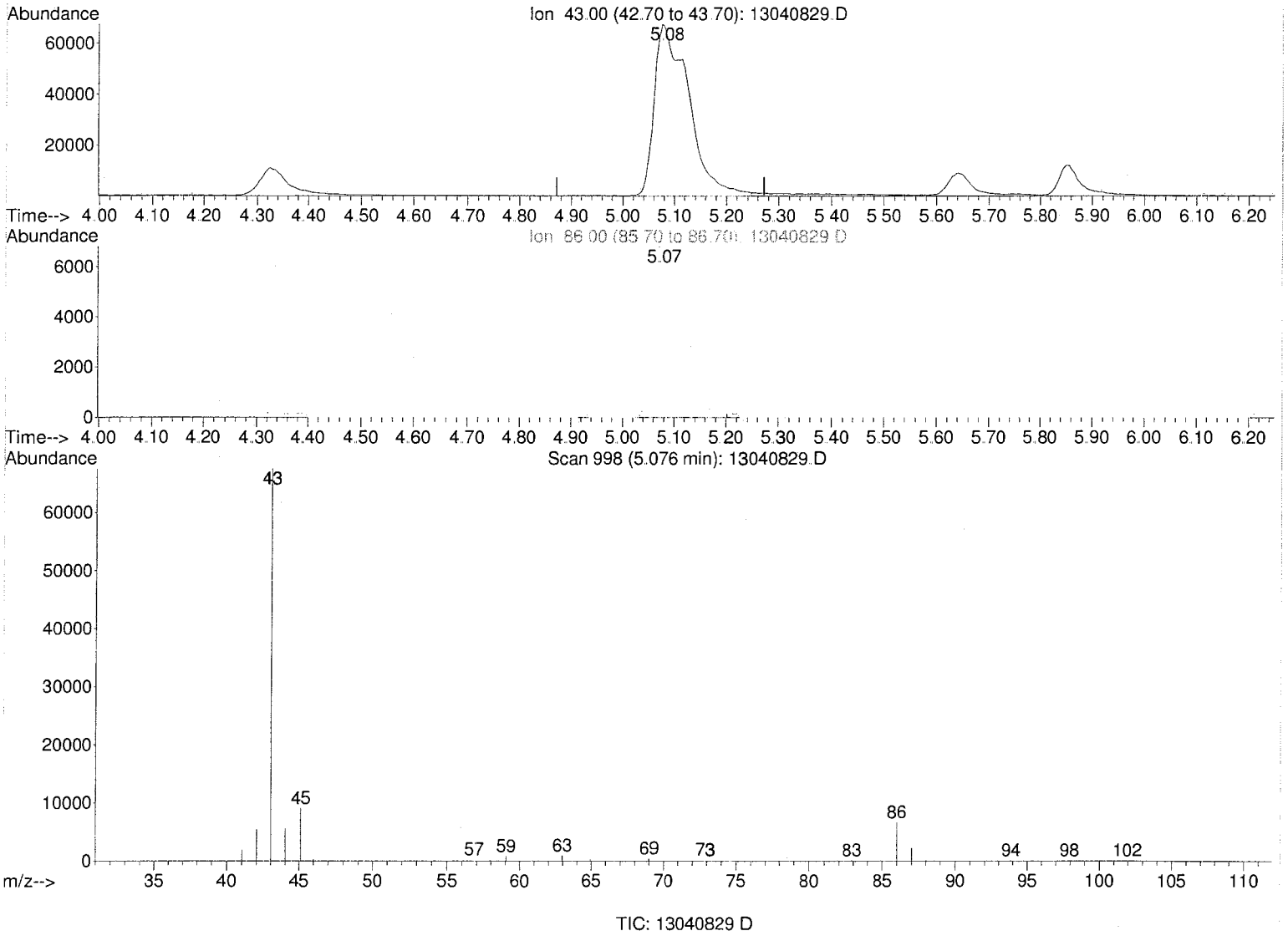
response 2972

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:54 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(21) vinyl acetate (T)

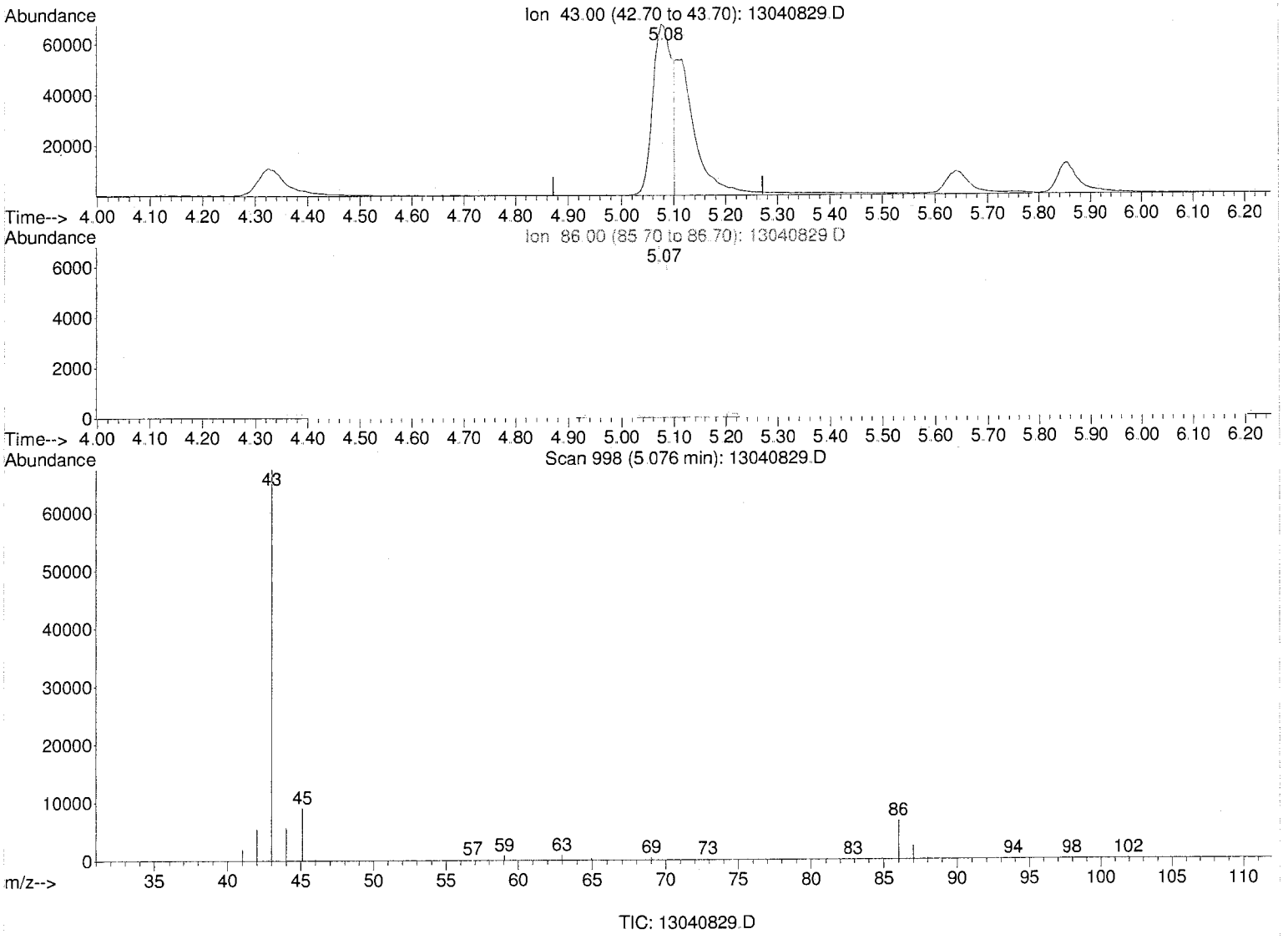
5.08min 89.91ug/L

response 310845

Ion	Exp%	Act%
43.00	100	100
86.00	12.90	6.29
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(21) vinyl acetate (T)

5.08min 49.95ug/L m

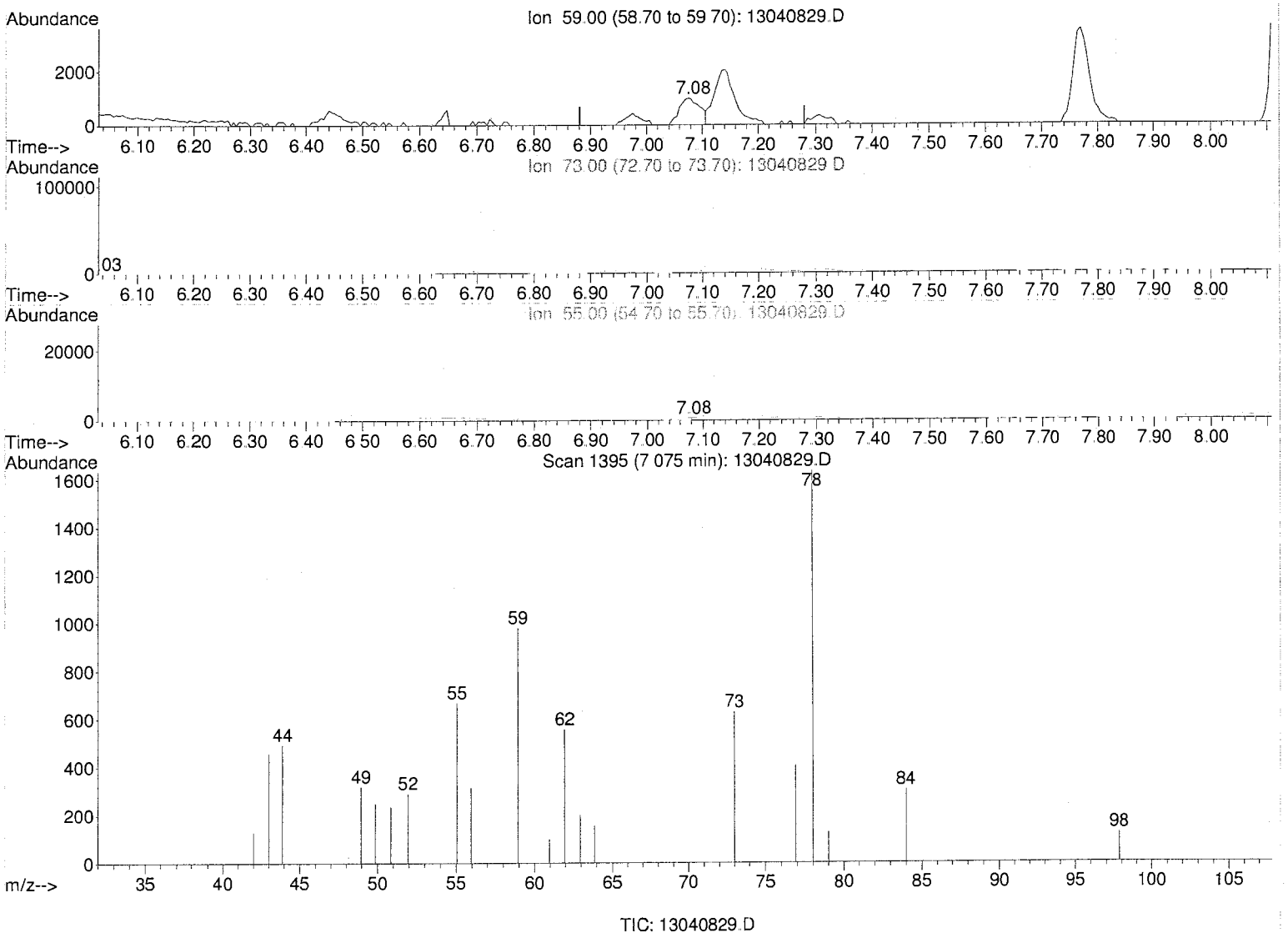
response 172706

Ion	Exp%	Act%
43.00	100	100
86.00	12.90	11.32
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(36) tert-Amyl alcohol (T)

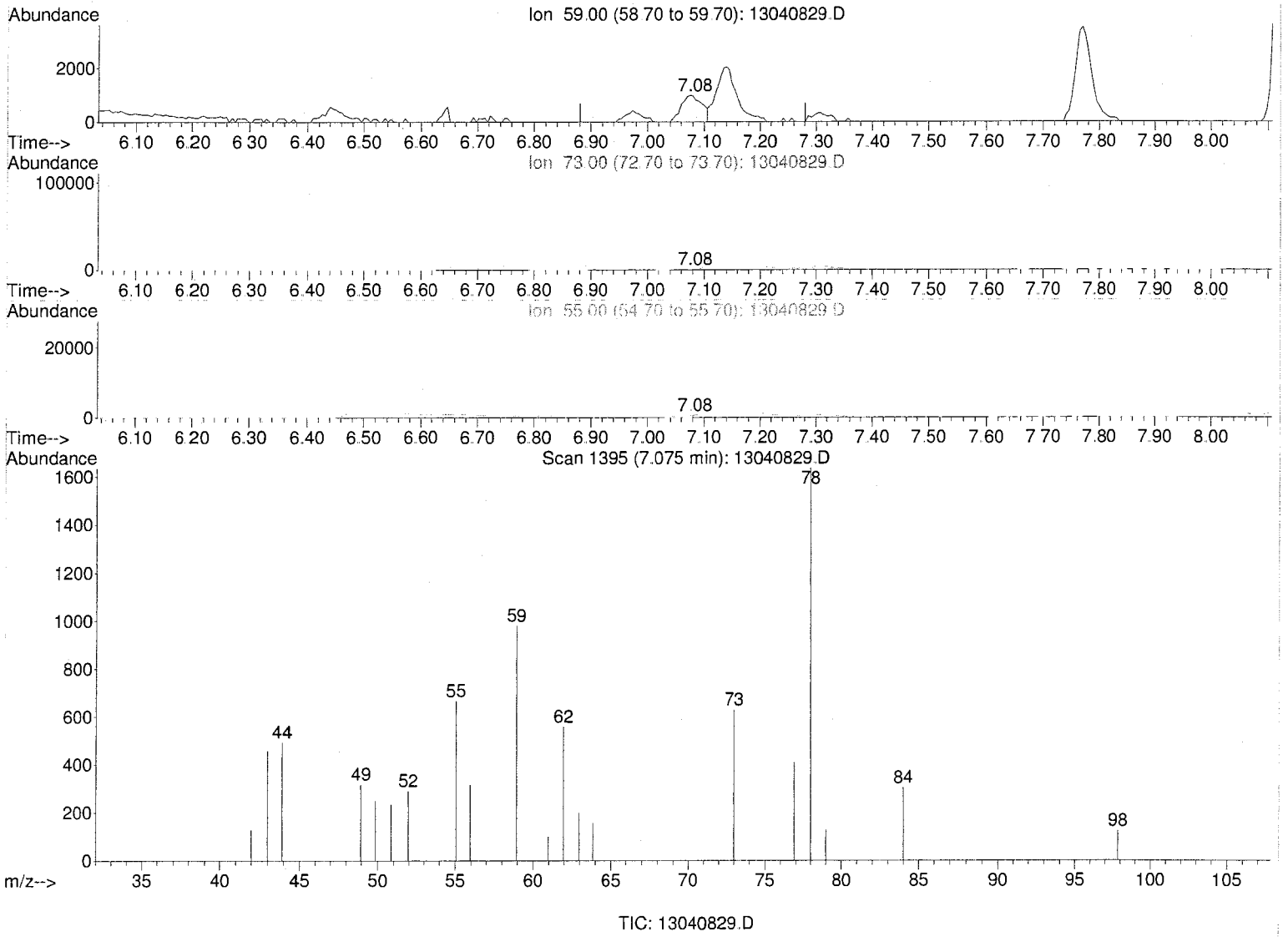
7.08min 34.33ug/L

response 2494

Ion	Exp%	Act%
59.00	100	100
73.00	52.80	0.00#
55.00	32.10	46.39
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(36) tert-Amyl alcohol (T)

7.08min 34.33ug/L m

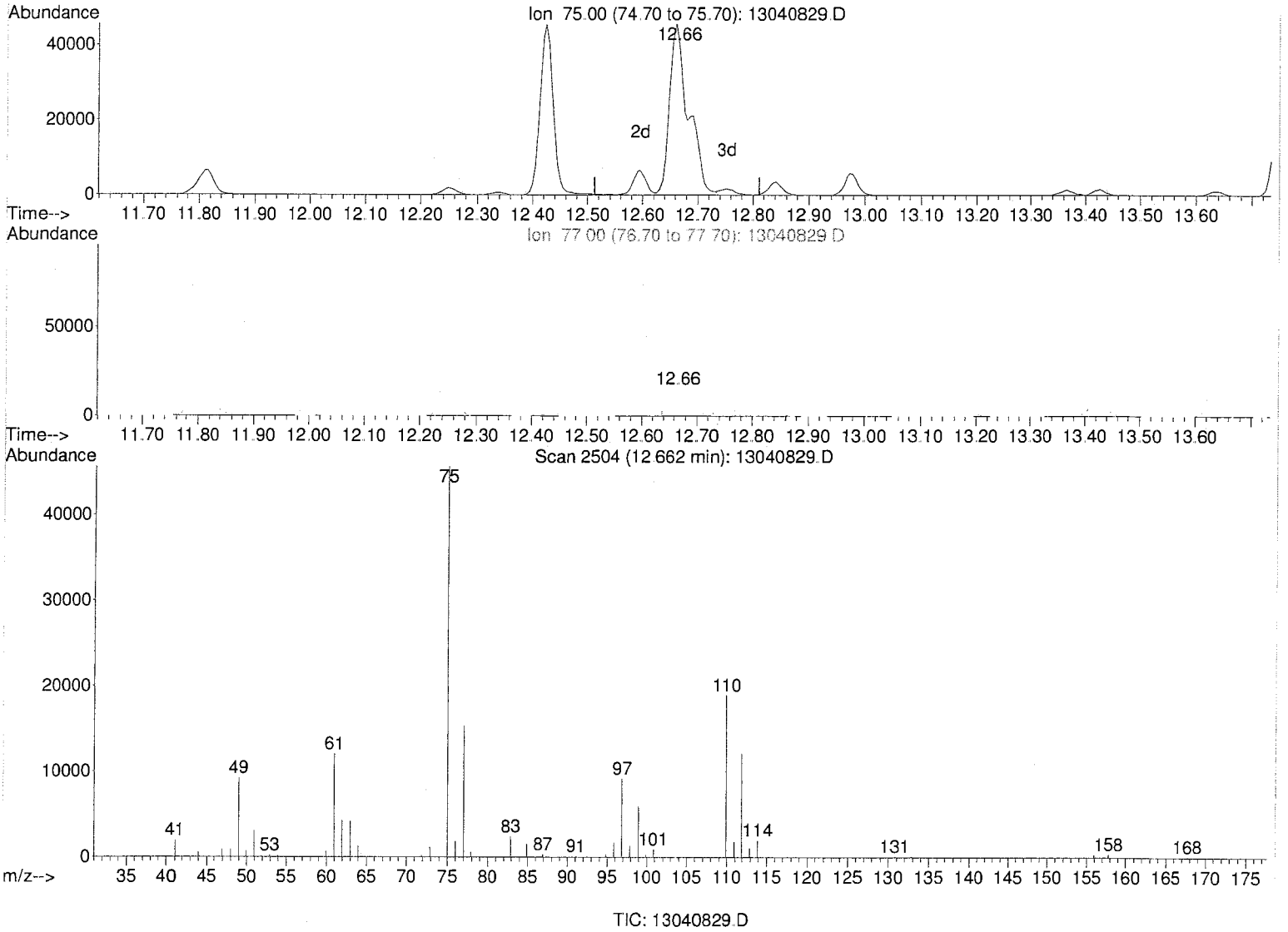
response 2494

Ion	Exp%	Act%
59.00	100	100
73.00	52.80	43.79
55.00	32.10	46.39
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(65) 1,2,3-Trichloropropane (T)

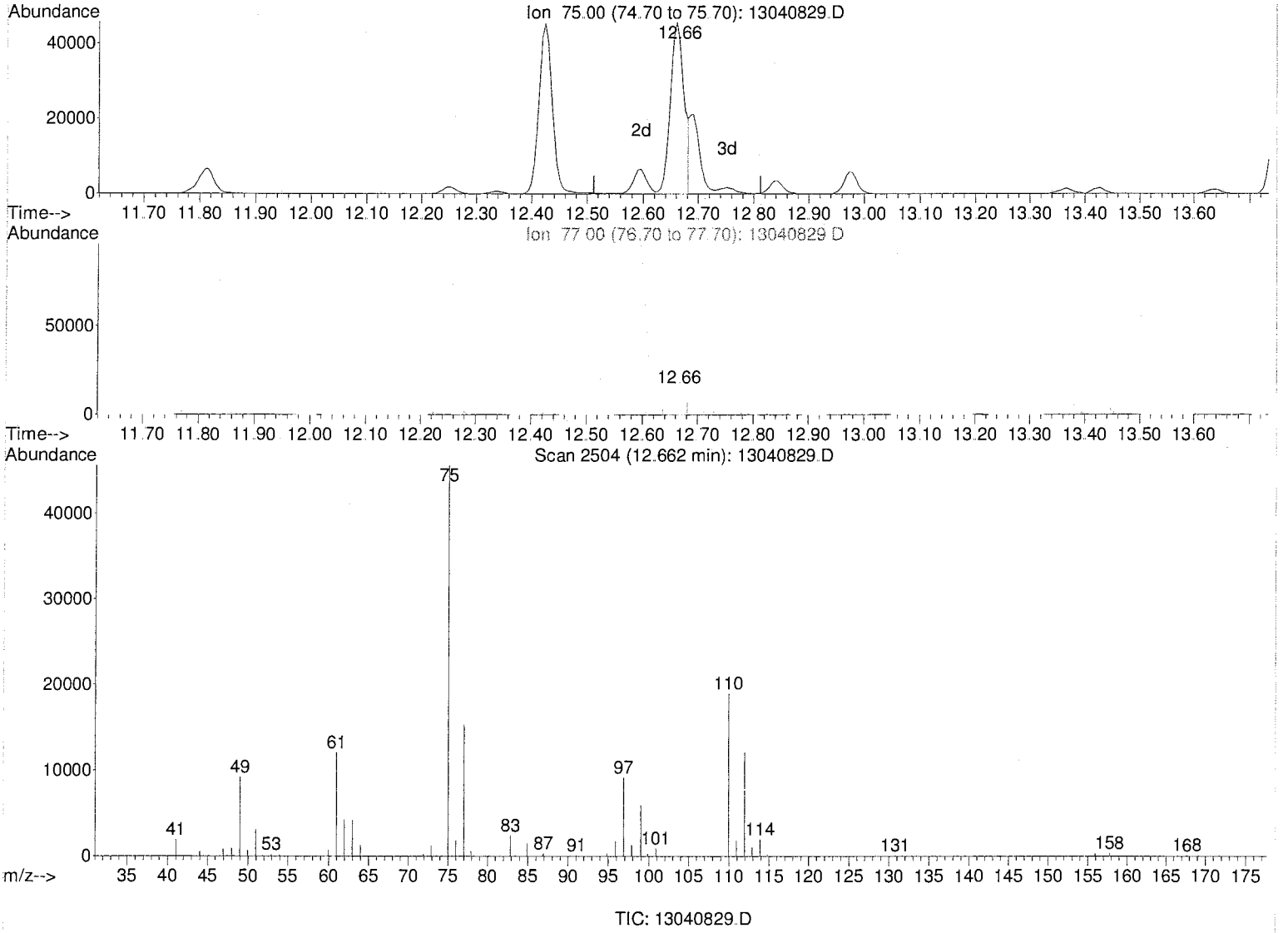
12.66min 65.27ug/L

response 106586

Ion	Exp%	Act%
75.00	100	100
77.00	36.30	33.92
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\2\DATA\130408\13040829.D Vial: 29
Acq On : 9 Apr 2013 12:13 am Operator: AK
Sample : CCV 50ppb 5mL Inst : VOA2
Misc : water 1uL A2338 12.5ul 1405-3, 1351-1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 11:55 2013 Quant Results File: temp.res

Method : P:\VOC\2\DATA\130408\VOC-W.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 11:20:14 2013
Response via : Multiple Level Calibration



TIC: 13040829.D

(65) 1,2,3-Trichloropropane (T)

12.66min 49.40ug/L m

response 80668

Ion	Exp%	Act%
75.00	100	100
77.00	36.30	34.04
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Injection Log

Directory: p:\VOC\1\data\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13040801.D	1.	BFB TUNE 5mL	soil 1uL A2338	8 Apr 2013 08:44
2	2	13040802.D	1.	BFB TUNE 5mL	soil 1uL A2338	8 Apr 2013 09:11
3	3	13040803.D	1.	BFB TUNE 5mL	soil 1uL A2338	8 Apr 2013 09:39
4	4	13040804.D	1.	BFB TUNE 5mL	soil 1uL A2338	8 Apr 2013 10:06
5	5	13040805.D	1.	BFB TUNE 5mL	soil 1uL A2338	8 Apr 2013 10:34
6	6	13040806.D	1.	CCV 60ppb 5mL	soil 1uL A2338 1.5ul 1405-3	8 Apr 2013 11:01
7	7	13040807.D	1.	BLK 5.10g 1323	soil 1uL A2338	8 Apr 2013 11:45
8	8	13040808.D	1.	LCS 5.14g 1323	soil 1uL A2338 1.5ul 1405-4	8 Apr 2013 12:40
9	9	13040809.D	1.	13040516-003 6.38g t-core	soil 1uL A2338	8 Apr 2013 13:27
10	10	13040810.D	1.	13040516-001 6.22g t-core	soil 1uL A2338	8 Apr 2013 13:55
11	11	13040811.D	1.	13040516-004 6.21g t-core MS	soil 1uL A2338 1.5ul 1405-4	8 Apr 2013 14:27
12	12	13040812.D	1.	13040516-004 5.92g t-core MSD	soil 1uL A2338 1.5ul 1405-4	8 Apr 2013 14:55
13	13	13040813.D	1.	13040516-004 6.10g t-core	soil 1uL A2338	8 Apr 2013 15:27
14	14	13040814.D	1.	13040516-002 6.05g t-core	soil 1uL A2338	8 Apr 2013 15:54
15	15	13040815.D	1.	13040516-005 5.97g t-core	soil 1uL A2338	8 Apr 2013 16:21
16	16	13040816.D	1.	13040516-004 5.42g t-core	soil 1uL A2338	8 Apr 2013 16:49
17	17	13040817.D	1.	13040801-001 6.52g t-core	soil 1uL A2338	8 Apr 2013 17:16
18	18	13040818.D	1.	13040801-002 7.33g t-core	soil 1uL A2338	8 Apr 2013 17:44
19	19	13040819.D	1.	13040801-003 7.26g t-core	soil 1uL A2338	8 Apr 2013 18:11
20	20	13040820.D	1.	13040801-004 6.42g t-core	soil 1uL A2338	8 Apr 2013 18:39
21	21	13040821.D	1.	13040527-001 5.04g	soil 1uL A2338	8 Apr 2013 19:06
22	22	13040822.D	1.	13040809-001 4.89g	soil 1uL A2338	8 Apr 2013 19:34
23	23	13040823.D	1.	13040806-001 5mL t-core	soil 1uL A2338	8 Apr 2013 20:01
24	24	13040824.D	1.	13040806-002 5mL t-core	soil 1uL A2338	8 Apr 2013 20:29
25	25	13040825.D	1.	13040812-001 0.25g	soil 1uL A2338	8 Apr 2013 20:56
26	26	13040826.D	1.	13040812-001 0.50g	soil 1uL A2338	8 Apr 2013 21:23

45496
105220
AK 4/9/13

Response Factor Report VOA1

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:30 2013
Response via : Initial Calibration

Calibration Files
1 =13021406.D 2 =13021408.D 3 =13021409.D
4 =13021412.D 5 =13040806.D 6 =13021413.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	I	Fluorobenzene ISTD	ISTD							
2)	T	Dichlorodifluor	0.174	0.172	0.165	0.149	0.145	0.167	0.165	8.52
3)	P	Chloromethane	0.271	0.278	0.271	0.248	0.252	0.277	0.270	5.64
4)	C	VINYL CHLORIDE	0.222	0.223	0.225	0.197	0.190	0.213	0.214	7.11
5)	T	Bromomethane	0.097	0.090	0.071	0.106	0.099	0.093	0.091	13.39
6)	T	Chloroethane	0.116	0.113	0.096	0.115	0.103	0.106	0.107	7.83
7)	T	Trichlorofluoro	0.172	0.174	0.176	0.167	0.153	0.175	0.172	5.97
8)	T	acrolein	0.040	0.046	0.042	0.038	0.038	0.042	0.041	6.96
9)	T	Acetone	0.018	0.022	0.027	0.019	0.019	0.020	0.021	15.31
10)	M,C	1,1-DICHLOROETH	0.118	0.125	0.126	0.112	0.105	0.116	0.118	6.38
11)	T	1,1,2-Trichloro	0.125	0.130	0.131	0.115	0.106	0.117	0.122	7.59
12)	T	iodomethane	0.214	0.237	0.232	0.214	0.209	0.237	0.227	6.01
13)	T	Carbon Disulfid	0.406	0.411	0.414	0.371	0.343	0.405	0.398	7.88
14)	T	Methyl Acetate	0.026	0.029	0.028	0.025	0.024	0.027	0.026	7.22
15)	T	Methylene chlor	0.160	0.160	0.151	0.160	0.132	0.146	0.151	6.85
16)	T	tert-Butanol	0.048	0.060	0.051	0.042	0.040	0.042	0.047	14.39
17)	T	acrylonitrile	0.081	0.084	0.086	0.077	0.075	0.084	0.081	4.79
18)	T	trans-1,2-Dichl	0.144	0.140	0.140	0.126	0.117	0.131	0.133	6.96
19)	T	Methyl-t-Butyl	0.435	0.475	0.464	0.422	0.411	0.461	0.445	5.23
20)	P	1,1-Dichloroeth	0.272	0.285	0.287	0.260	0.250	0.284	0.276	5.63
21)	T	vinyl acetate	0.730	0.821	0.801	0.739	0.716	0.786	0.766	5.14
22)	T	Diisopropyl eth	0.661	0.713	0.709	0.657	0.633	0.707	0.683	4.68
23)	T	tert-Butyl ethy	0.597	0.640	0.619	0.737	0.735	0.684	0.683	9.65
24)	T	2,2-Dichloropro	0.226	0.238	0.166	0.222	0.209	0.216	0.215	10.85
25)	T	cis-1,2-Dichlor	0.211	0.216	0.159	0.190	0.188	0.203	0.195	9.76
26)	T	2-Butanone (MEK	0.028	0.031	0.030	0.028	0.025	0.028	0.028	7.60
27)	T	Bromochlorometh	0.080	0.087	0.084	0.077	0.078	0.087	0.083	5.06
28)	C	CHLOROFORM	0.342	0.355	0.350	0.323	0.314	0.342	0.336	4.52
29)	S	Dibromofluorome	0.242	0.242	0.244	0.245	0.243	0.235	0.240	2.46
30)	T	1,1,1-Trichloro	0.244	0.254	0.251	0.223	0.216	0.242	0.241	6.26
31)	T	Cyclohexane	0.378	0.391	0.394	0.334	0.316	0.354	0.363	8.09
32)	T	Carbon tetrachl	0.199	0.209	0.204	0.179	0.173	0.191	0.194	7.02
33)	T	1,1-Dichloropro	0.229	0.237	0.235	0.207	0.198	0.209	0.217	7.34
34)	M	Benzene`	0.690	0.724	0.715	0.644	0.631	0.671	0.675	5.41
35)	T	1,2-Dichloroeth	0.292	0.316	0.311	0.285	0.283	0.314	0.300	4.64
36)	T	tert-Amyl alcoh	0.058	0.061	0.055	0.049	0.047	0.051	0.053	9.03
37)	T	tert-Amyl methy	0.663	0.709	0.684	0.629	0.621	0.668	0.657	5.13
38)	M	Trichloroethene	0.173	0.175	0.175	0.156	0.152	0.164	0.165	5.64
39)	C	1,2-DICHLOROPRO	0.198	0.215	0.209	0.192	0.189	0.209	0.202	4.80
40)	T	Methylcyclohexa	0.294	0.305	0.299	0.257	0.241	0.262	0.276	8.78
41)	T	tert-Amyl ethyl	0.605	0.635	0.622	0.566	0.563	0.606	0.595	4.86
42)	T	Dibromomethane	0.121	0.130	0.128	0.114	0.116	0.126	0.122	4.86
43)	T	1,4-Dioxane	0.003	0.003	0.003	0.003	0.003	0.003	0.003	7.29
44)	T	Bromodichlorome	0.272	0.293	0.286	0.261	0.256	0.280	0.273	5.17
45)	T	cis-1,3-Dichlor	0.334	0.356	0.350	0.325	0.316	0.340	0.334	4.63
46)	T	4-Methyl-2-Pent	0.032	0.035	0.033	0.029	0.030	0.033	0.032	6.14
47)	S	Toluene d-8 SS#	0.779	0.782	0.786	0.792	0.795	0.791	0.790	1.06
48)	M,C	TOLUENE	0.390	0.411	0.404	0.362	0.351	0.387	0.384	5.57
49)	T	trans-1,3-Dichl	0.317	0.347	0.337	0.310	0.306	0.330	0.321	5.26
50)	T	1,1,2-Trichloro	0.137	0.144	0.140	0.128	0.125	0.136	0.133	5.54
51)	T	Tetrachloroethe	0.096	0.098	0.095	0.084	0.081	0.091	0.092	7.29
52)	T	2-Hexanone (MBK	0.255	0.280	0.264	0.245	0.238	0.270	0.261	5.91
53)	I	Chlorobenzene d-5 IST	ISTD							
54)	T	1,3-Dichloropro	0.536	0.589	0.555	0.513	0.498	0.541	0.533	6.23
55)	T	Dibromochlorome	0.279	0.303	0.300	0.271	0.271	0.309	0.291	5.66
56)	T	1,2-Dibromoetha	0.284	0.306	0.302	0.270	0.266	0.301	0.288	5.54
57)	M,P	Chlorobenzene	0.700	0.712	0.712	0.630	0.620	0.688	0.677	5.58
58)	T	1,1,1,2-Tetrach	0.253	0.269	0.259	0.235	0.233	0.262	0.253	5.34

#) = Out of Range ### Number of calibration levels exceeded format ###

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:30 2013
Response via : Initial Calibration

Calibration Files
1 =13021406.D 2 =13021408.D 3 =13021409.D
4 =13021412.D 5 =13040806.D 6 =13021413.D

		Compound	1	2	3	4	5	6	Avg	%RSD
59)	C	ETHYLBENZENE	1.386	1.379	1.361	1.202	1.145	1.210	1.256	9.29
60)	T	m&p-Xylene	0.458	0.465	0.453	0.407	0.388	0.430	0.430	6.94
61)	T	o-Xylene	0.480	0.488	0.479	0.425	0.410	0.461	0.457	6.40
62)	T	Styrene	0.864	0.892	0.880	0.805	0.779	0.861	0.842	5.08
63)	P	Bromoform	0.175	0.196	0.192	0.175	0.176	0.203	0.188	6.83
64)	T	1,2,3-Trichloro	0.373	0.407	0.418	0.377	0.345	0.395	0.380	7.34
65)	T	Bromobenzene	0.268	0.275	0.270	0.249	0.246	0.275	0.265	4.66
66)	T	trans-1,4-dichl	0.215	0.212	0.199	0.183	0.176	0.195	0.196	7.25
67)	T	n-Propylbenzene	1.720	1.710	1.659	1.492	1.396	1.440	1.540	9.86
68)	I	1,4-Dichlorobenzene d	ISTD							
69)	T	Isopropylbenzen	2.575	2.575	2.551	2.248	2.136	2.397	2.403	7.21
70)	S	4-Bromofluorobe	1.400	1.391	1.402	1.387	1.391	1.460	1.413	2.26
71)	P	1,1,2,2-Tetrach	0.936	1.013	0.982	0.892	0.854	0.945	0.925	6.67
72)	T	2-Chlorotoluene	2.273	2.323	2.234	2.014	1.907	2.080	2.107	8.11
73)	T	4-Chlorotoluene	2.658	2.722	2.572	2.318	2.130	2.161	2.333	14.65
74)	T	1,3,5-Trimethyl	2.324	2.370	2.281	2.027	1.906	2.077	2.111	10.50
75)	T	tert-Butylbenze	1.820	1.854	1.852	1.614	1.546	1.772	1.747	6.91
76)	T	1,2,4-Trimethyl	2.414	2.470	2.395	2.127	2.034	2.233	2.254	7.65
77)	T	sec-Butylbenzen	2.931	2.924	2.925	2.550	2.414	2.670	2.716	7.77
78)	T	4-Isopropyltolu	2.323	2.348	2.306	2.048	1.945	2.225	2.199	6.87
79)	T	1,3-Dichloroben	1.142	1.206	1.168	1.071	1.030	1.168	1.134	5.43
80)	T	1,4-Dichloroben	1.195	1.210	1.194	1.093	1.052	1.185	1.157	5.19
81)	T	1,2-Dichloroben	1.129	1.202	1.163	1.046	1.023	1.152	1.109	6.26
82)	T	n-Butylbenzene	2.957	2.923	2.797	2.443	2.223	2.157	2.475	17.52
83)	T	1,2-Dibromo-3-c	0.217	0.240	0.232	0.208	0.199	0.229	0.219	6.81
84)	T	1,2,4-Trichloro	0.945	0.967	0.902	0.830	0.793	0.837	0.870	7.83
85)	T	Naphthalene	2.627	2.795	2.674	2.481	2.339	2.491	2.544	6.33
86)	T	1,2,3-Trichloro	0.887	0.935	0.880	0.814	0.783	0.803	0.836	7.91

#) = Out of Range ### Number of calibration levels exceeded format ###

Calibration Report VOA1

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:30 2013
Response via : Initial Calibration

Calibration Files
1 =13021406 2 =13021408 3 =13021409 4 =13021412 5 =13040806
6 =13021413 7 =13021415

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	I	Fluorobenzene ISTD			ISTD		
2)	T	Dichlorodifluorometh	Avg	-----	0.1654	-----	0.0852
3)	P	Chloromethane	Avg	-----	0.2699	-----	0.0564
4)	C	VINYL CHLORIDE	Avg	-----	0.2141	-----	0.0711
5)	T	Bromomethane	Avg	-----	0.0906	-----	0.1339
6)	T	Chloroethane	Avg	-----	0.1067	-----	0.0783
7)	T	Trichlorofluorometha	Avg	-----	0.1720	-----	0.0597
8)	T	acrolein	Avg	-----	0.0412	-----	0.0696
9)	T	Acetone	LinF	-----	0.0211	-----	0.9981
10)	M,C	1,1-DICHLOROETHENE	Avg	-----	0.1176	-----	0.0638
11)	T	1,1,2-Trichlorotrifl	Avg	-----	0.1218	-----	0.0759
12)	T	iodomethane	Avg	-----	0.2266	-----	0.0601
13)	T	Carbon Disulfide	Avg	-----	0.3983	-----	0.0788
14)	T	Methyl Acetate	Avg	-----	0.0264	-----	0.0722
15)	T	Methylene chloride	Avg	-----	0.1508	-----	0.0685
16)	T	tert-Butanol	Avg	-----	0.0468	-----	0.1439
17)	T	acrylonitrile	Avg	-----	0.0813	-----	0.0479
18)	T	trans-1,2-Dichloroet	Avg	-----	0.1328	-----	0.0696
19)	T	Methyl-t-Butyl Ether	Avg	-----	0.4454	-----	0.0523
20)	P	1,1-Dichloroethane	Avg	-----	0.2756	-----	0.0563
21)	T	vinyl acetate	Avg	-----	0.7664	-----	0.0514
22)	T	Diisopropyl ether	Avg	-----	0.6827	-----	0.0468
23)	T	tert-Butyl ethyl eth	Avg	-----	0.6829	-----	0.0965
24)	T	2,2-Dichloropropane	Avg	-----	0.2150	-----	0.1085
25)	T	cis-1,2-Dichloroethe	Avg	-----	0.1950	-----	0.0976
26)	T	2-Butanone (MEK)	Avg	-----	0.0283	-----	0.0760
27)	T	Bromochloromethane	Avg	-----	0.0827	-----	0.0506
28)	C	CHLOROFORM	Avg	-----	0.3361	-----	0.0452
29)	S	Dibromofluoromethane	Avg	-----	0.2399	-----	0.0246
30)	T	1,1,1-Trichloroethan	Avg	-----	0.2406	-----	0.0626
31)	T	Cyclohexane	Avg	-----	0.3628	-----	0.0809
32)	T	Carbon tetrachloride	Avg	-----	0.1943	-----	0.0702
33)	T	1,1-Dichloropropene	Avg	-----	0.2175	-----	0.0734
34)	M	Benzene	Avg	-----	0.6746	-----	0.0541
35)	T	1,2-Dichloroethane	Avg	-----	0.2998	-----	0.0464
36)	T	tert-Amyl alcohol	Avg	-----	0.0534	-----	0.0903
37)	T	tert-Amyl methyl eth	Avg	-----	0.6568	-----	0.0513
38)	M	Trichloroethene	Avg	-----	0.1654	-----	0.0564
39)	C	1,2-DICHLOROPROPANE	Avg	-----	0.2017	-----	0.0480
40)	T	Methylcyclohexane	Avg	-----	0.2761	-----	0.0878
41)	T	tert-Amyl ethyl ethe	Avg	-----	0.5952	-----	0.0486
42)	T	Dibromomethane	Avg	-----	0.1221	-----	0.0486
43)	T	1,4-Dioxane	Avg	-----	0.0029	-----	0.0729
44)	T	Bromodichloromethane	Avg	-----	0.2729	-----	0.0517
45)	T	cis-1,3-Dichloroprop	Avg	-----	0.3341	-----	0.0463
46)	T	4-Methyl-2-Pentanone	Avg	-----	0.0321	-----	0.0614
47)	S	Toluene d-8 SS#2	Avg	-----	0.7899	-----	0.0106
48)	M,C	TOLUENE	Avg	-----	0.3838	-----	0.0557
49)	T	trans-1,3-Dichloropr	Avg	-----	0.3211	-----	0.0526
50)	T	1,1,2-Trichloroethan	Avg	-----	0.1335	-----	0.0554
51)	T	Tetrachloroethene	Avg	-----	0.0918	-----	0.0729
52)	T	2-Hexanone (MBK)	Avg	-----	0.2605	-----	0.0591
53)	I	Chlorobenzene d-5 IS			ISTD		
54)	T	1,3-Dichloropropane	Avg	-----	0.5325	-----	0.0623
55)	T	Dibromochloromethane	Avg	-----	0.2906	-----	0.0566
56)	T	1,2-Dibromoethane	Avg	-----	0.2883	-----	0.0554
57)	M,P	Chlorobenzene	Avg	-----	0.6766	-----	0.0558
58)	T	1,1,1,2-Tetrachloroe	Avg	-----	0.2528	-----	0.0534
59)	C	ETHYLBENZENE	Avg	-----	1.2564	-----	0.0929

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Tue Apr 09 08:15:30 2013
Response via : Initial Calibration

Calibration Files
1 =13021406 2 =13021408 3 =13021409 4 =13021412 5 =13040806
6 =13021413 7 =13021415

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
60)	T	m&p-Xylene	Avg	-----	0.4300	-----	0.0694
61)	T	o-Xylene	Avg	-----	0.4573	-----	0.0640
62)	T	Styrene	Avg	-----	0.8421	-----	0.0508
63)	P	Bromoform	Avg	-----	0.1884	-----	0.0683
64)	T	1,2,3-Trichloropropa	Avg	-----	0.3803	-----	0.0734
65)	T	Bromobenzene	Avg	-----	0.2652	-----	0.0466
66)	T	trans-1,4-dichloro-2	Avg	-----	0.1959	-----	0.0725
67)	T	n-Propylbenzene	Avg	-----	1.5405	-----	0.0986
68)	I	1,4-Dichlorobenzene	----------	ISTD	----------		
69)	T	Isopropylbenzene	Avg	-----	2.4033	-----	0.0721
70)	S	4-Bromofluorobenzene	Avg	-----	1.4128	-----	0.0226
71)	P	1,1,2,2-Tetrachloroe	Avg	-----	0.9249	-----	0.0667
72)	T	2-Chlorotoluene	Avg	-----	2.1070	-----	0.0811
73)	T	4-Chlorotoluene	Avg	-----	2.3332	-----	0.1465
74)	T	1,3,5-Trimethylbenze	Avg	-----	2.1107	-----	0.1050
75)	T	tert-Butylbenzene	Avg	-----	1.7466	-----	0.0691
76)	T	1,2,4-Trimethylbenze	Avg	-----	2.2543	-----	0.0765
77)	T	sec-Butylbenzene	Avg	-----	2.7163	-----	0.0777
78)	T	4-Isopropyltoluene	Avg	-----	2.1989	-----	0.0687
79)	T	1,3-Dichlorobenzene	Avg	-----	1.1341	-----	0.0543
80)	T	1,4-Dichlorobenzene	Avg	-----	1.1567	-----	0.0519
81)	T	1,2-Dichlorobenzene	Avg	-----	1.1090	-----	0.0626
82)	T	n-Butylbenzene	QuadF	-----	2.4682	-0.0805	0.9996
83)	T	1,2-Dibromo-3-chloro	Avg	-----	0.2193	-----	0.0681
84)	T	1,2,4-Trichlorobenze	Avg	-----	0.8696	-----	0.0783
85)	T	Naphthalene	Avg	-----	2.5444	-----	0.0633
86)	T	1,2,3-Trichlorobenze	Avg	-----	0.8359	-----	0.0791

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene ISTD	1.000	1.000	0.0	83	0.00
2	T	Dichlorodifluoromethane	0.165	0.148	10.3	85	0.02
3	P	Chloromethane	0.270	0.243	10.0	80	0.01
4	C	VINYL CHLORIDE	0.214	0.240	-12.1	105	0.00
5	T	Bromomethane	0.091	0.127	-39.6#	106	0.01
6	T	Chloroethane	0.107	0.104	2.8	84	0.00
7	T	Trichlorofluoromethane	0.172	0.208	-20.9#	113	0.01
8	T	acrolein	0.041	0.025	39.0#	56	0.01
9	T	Acetone	0.021	0.029	-38.1#	130	0.00
0	M,C	1,1-DICHLOROETHENE	0.118	0.128	-8.5	102	0.01
1	T	1,1,2-Trichlorotrifluoroeth	0.122	0.140	-14.8	109	0.00
2	T	iodomethane	0.227	0.200	11.9	80	0.00
3	T	Carbon Disulfide	0.398	0.331	16.8	80	0.02
4	T	Methyl Acetate	0.026	0.024	7.7	84	0.00
5	T	Methylene chloride	0.151	0.133	11.9	84	0.00
6	T	tert-Butanol	0.047	0.034	27.7#	71	0.01
7	T	acrylonitrile	0.081	0.068	16.0	75	0.00
8	T	trans-1,2-Dichloroethene	0.133	0.133	0.0	95	0.01
9	T	Methyl-t-Butyl Ether	0.445	0.359	19.3	73	0.01
0	P	1,1-Dichloroethane	0.276	0.241	12.7	80	0.00
1	T	vinyl acetate	0.766	0.593	22.6#	69	0.01
2	T	Diisopropyl ether	0.683	0.619	9.4	81	0.01
3	T	tert-Butyl ethyl ether	0.683	0.600	12.2	68	0.00
4	T	2,2-Dichloropropane	0.215	0.218	-1.4	87	0.00
5	T	cis-1,2-Dichloroethene	0.195	0.183	6.2	81	0.00
6	T	2-Butanone (MEK)	0.028	0.027	3.6	92	0.00
7	T	Bromochloromethane	0.083	0.079	4.8	83	0.00
8	C	CHLOROFORM	0.336	0.286	14.9	76	0.00
9	S	Dibromofluoromethane SS#1	0.240	0.239	0.4	82	0.00
0	T	1,1,1-Trichloroethane	0.241	0.222	7.9	86	0.00
1	T	Cyclohexane	0.363	0.339	6.6	89	0.00
2	T	Carbon tetrachloride	0.194	0.186	4.1	89	0.00
3	T	1,1-Dichloropropene	0.217	0.197	9.2	83	0.00
4	M	Benzene`	0.675	0.602	10.8	79	0.00
5	T	1,2-Dichloroethane	0.300	0.233	22.3#	68	0.00
6	T	tert-Amyl alcohol	0.053	0.033	37.7#	57	-0.01
7	T	tert-Amyl methyl ether	0.657	0.503	23.4#	67	0.00
8	M	Trichloroethene	0.165	0.156	5.5	85	0.00
9	C	1,2-DICHLOROPROPANE	0.202	0.176	12.9	77	0.00
0	T	Methylcyclohexane	0.276	0.272	1.4	94	0.00
1	T	tert-Amyl ethyl ether	0.595	0.484	18.7	71	0.00
2	T	Dibromomethane	0.122	0.104	14.8	74	0.00
3	T	1,4-Dioxane	0.003	0.002	33.3#	77	0.00
4	T	Bromodichloromethane	0.273	0.219	19.8	71	0.00
5	T	cis-1,3-Dichloropropene	0.334	0.273	18.3	72	0.00
6	T	4-Methyl-2-Pentanone (MIBK)	0.032	0.027	15.6	75	0.00
7	S	Toluene d-8 SS#2	0.790	0.819	-3.7	86	0.00
8	M,C	TOLUENE	0.384	0.375	2.3	89	0.00
9	T	trans-1,3-Dichloropropene	0.321	0.253	21.2#	69	0.00
0	T	1,1,2-Trichloroethane	0.133	0.117	12.0	78	0.00
1	T	Tetrachloroethene	0.092	0.102	-10.9	105	0.00
2	T	2-Hexanone (MBK)	0.261	0.234	10.3	82	0.00
3	I	Chlorobenzene d-5 ISTD	1.000	1.000	0.0	89	0.00
4	T	1,3-Dichloropropane	0.533	0.413	22.5#	74	0.00
5	T	Dibromochloromethane	0.291	0.241	17.2	80	0.00
6	T	1,2-Dibromoethane	0.288	0.247	14.2	83	0.00

(#) = Out of Range

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
7	M,P	Chlorobenzene	0.677	0.649	4.1	94	0.00
8	T	1,1,1,2-Tetrachloroethane	0.253	0.227	10.3	87	0.00
9	C	ETHYLBENZENE	1.256	1.180	6.1	92	0.00
0	T	m&p-Xylene	0.430	0.424	1.4	98	0.00
1	T	o-Xylene	0.457	0.433	5.3	94	0.00
2	T	Styrene	0.842	0.790	6.2	91	0.00
3	P	Bromoform	0.188	0.158	16.0	81	0.00
4	T	1,2,3-Trichloropropane	0.380	0.287	24.5#	75	0.00
5	T	Bromobenzene	0.265	0.254	4.2	92	0.00
6	T	trans-1,4-dichloro-2-butene	0.196	0.140	28.6#	71	0.00
7	T	n-Propylbenzene	1.540	1.496	2.9	96	0.00
8	I	1,4-Dichlorobenzene d-4 IST	1.000	1.000	0.0	91	0.00
9	T	Isopropylbenzene	2.403	2.337	2.7	100	0.00
0	S	4-Bromofluorobenzene SS#3	1.413	1.213	14.2	79	0.00
1	P	1,1,2,2-Tetrachloroethane	0.925	0.754	18.5	80	0.00
2	T	2-Chlorotoluene	2.107	1.875	11.0	89	0.00
3	T	4-Chlorotoluene	2.333	2.105	9.8	90	0.00
4	T	1,3,5-Trimethylbenzene	2.111	2.017	4.5	96	0.00
5	T	tert-Butylbenzene	1.747	1.734	0.7	102	0.00
6	T	1,2,4-Trimethylbenzene	2.254	2.101	6.8	94	0.00
7	T	sec-Butylbenzene	2.716	2.711	0.2	102	0.00
8	T	4-Isopropyltoluene	2.199	2.230	-1.4	104	0.00
9	T	1,3-Dichlorobenzene	1.134	1.087	4.1	96	0.00
0	T	1,4-Dichlorobenzene	1.157	1.103	4.7	95	0.00
1	T	1,2-Dichlorobenzene	1.109	1.043	6.0	93	0.00
2	T	n-Butylbenzene	2.475	2.417	2.3	99	0.00
3	T	1,2-Dibromo-3-chloropropane	0.219	0.144	34.2#	66	0.00
4	T	1,2,4-Trichlorobenzene	0.870	0.833	4.3	96	0.00
5	T	Naphthalene	2.544	2.135	16.1	83	0.00
6	T	1,2,3-Trichlorobenzene	0.836	0.763	8.7	89	0.00

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene ISTD	50.000	50.000	0.0	83	0.00
2	T	Dichlorodifluoromethane	60.000	53.586	10.7	85	0.02
3	P	Chloromethane	60.000	54.097	9.8	80	0.01
4	C	VINYL CHLORIDE	60.000	67.271	-12.1	105	0.00
5	T	Bromomethane	60.000	83.815	-39.7#	106	0.01
6	T	Chloroethane	60.000	58.342	2.8	84	0.00
7	T	Trichlorofluoromethane	60.000	72.414	-20.7#	113	0.01
8	T	acrolein	60.000	36.769	38.7#	56	0.01
9	T	Acetone	60.000	83.229	-38.7#	130	0.00
0	M,C	1,1-DICHLOROETHENE	60.000	65.420	-9.0	102	0.01
1	T	1,1,2-Trichlorotrifluoroeth	60.000	68.902	-14.8	109	0.00
2	T	iodomethane	60.000	53.062	11.6	80	0.00
3	T	Carbon Disulfide	60.000	49.828	17.0	80	0.02
4	T	Methyl Acetate	60.000	53.611	10.6	84	0.00
5	T	Methylene chloride	60.000	52.843	11.9	84	0.00
6	T	tert-Butanol	60.000	43.738	27.1#	71	0.01
7	T	acrylonitrile	60.000	49.974	16.7	75	0.00
8	T	trans-1,2-Dichloroethene	60.000	60.185	-0.3	95	0.01
9	T	Methyl-t-Butyl Ether	60.000	48.423	19.3	73	0.01
0	P	1,1-Dichloroethane	60.000	52.401	12.7	80	0.00
1	T	vinyl acetate	60.000	46.436	22.6#	69	0.01
2	T	Diisopropyl ether	60.000	54.406	9.3	81	0.01
3	T	tert-Butyl ethyl ether	60.000	52.724	12.1	68	0.00
4	T	2,2-Dichloropropane	60.000	60.831	-1.4	87	0.00
5	T	cis-1,2-Dichloroethene	60.000	56.398	6.0	81	0.00
6	T	2-Butanone (MEK)	60.000	57.402	4.3	92	0.00
7	T	Bromochloromethane	60.000	57.054	4.9	83	0.00
8	C	CHLOROFORM	60.000	51.137	14.8	76	0.00
9	S	Dibromofluoromethane SS#1	50.000	49.776	0.4	82	0.00
0	T	1,1,1-Trichloroethane	60.000	55.480	7.5	86	0.00
1	T	Cyclohexane	60.000	56.025	6.6	89	0.00
2	T	Carbon tetrachloride	60.000	57.454	4.2	89	0.00
3	T	1,1-Dichloropropene	60.000	54.452	9.2	83	0.00
4	M	Benzene`	60.000	53.557	10.7	79	0.00
5	T	1,2-Dichloroethane	60.000	46.572	22.4#	68	0.00
6	T	tert-Amyl alcohol	60.000	36.560	39.1#	57	-0.01
7	T	tert-Amyl methyl ether	60.000	45.917	23.5#	67	0.00
8	M	Trichloroethene	60.000	56.401	6.0	85	0.00
9	C	1,2-DICHLOROPROPANE	60.000	52.203	13.0	77	0.00
0	T	Methylcyclohexane	60.000	59.032	1.6	94	0.00
1	T	tert-Amyl ethyl ether	60.000	48.743	18.8	71	0.00
2	T	Dibromomethane	60.000	50.982	15.0	74	0.00
3	T	1,4-Dioxane	1200.000	1003.478	16.4	77	0.00
4	T	Bromodichloromethane	60.000	48.038	19.9	71	0.00
5	T	cis-1,3-Dichloropropene	60.000	49.110	18.2	72	0.00
6	T	4-Methyl-2-Pentanone (MIBK)	60.000	50.040	16.6	75	0.00
7	S	Toluene d-8 SS#2	50.000	51.839	-3.7	86	0.00
8	M,C	TOLUENE	60.000	58.560	2.4	89	0.00
9	T	trans-1,3-Dichloropropene	60.000	47.279	21.2#	69	0.00
0	T	1,1,2-Trichloroethane	60.000	52.496	12.5	78	0.00
1	T	Tetrachloroethene	60.000	66.732	-11.2	105	0.00
2	T	2-Hexanone (MBK)	60.000	53.817	10.3	82	0.00
3	I	Chlorobenzene d-5 ISTD	50.000	50.000	0.0	89	0.00
4	T	1,3-Dichloropropane	60.000	46.517	22.5#	74	0.00
5	T	Dibromochloromethane	60.000	49.823	17.0	80	0.00
6	T	1,2-Dibromoethane	60.000	51.442	14.3	83	0.00

(#) = Out of Range

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
7	M,P	Chlorobenzene	60.000	57.564	4.1	94	0.00
8	T	1,1,1,2-Tetrachloroethane	60.000	53.799	10.3	87	0.00
9	C	ETHYLBENZENE	60.000	56.336	6.1	92	0.00
0	T	m&p-Xylene	120.000	118.282	1.4	98	0.00
1	T	o-Xylene	60.000	56.880	5.2	94	0.00
2	T	Styrene	60.000	56.288	6.2	91	0.00
3	P	Bromoform	60.000	50.466	15.9	81	0.00
4	T	1,2,3-Trichloropropane	60.000	45.329	24.5#	75	0.00
5	T	Bromobenzene	60.000	57.499	4.2	92	0.00
6	T	trans-1,4-dichloro-2-butene	60.000	42.779	28.7#	71	0.00
7	T	n-Propylbenzene	60.000	58.273	2.9	96	0.00
8	I	1,4-Dichlorobenzene d-4 IST	50.000	50.000	0.0	91	0.00
9	T	Isopropylbenzene	60.000	58.345	2.8	100	0.00
0	S	4-Bromofluorobenzene SS#3	50.000	42.938	14.1	79	0.00
1	P	1,1,2,2-Tetrachloroethane	60.000	48.918	18.5	80	0.00
2	T	2-Chlorotoluene	60.000	53.392	11.0	89	0.00
3	T	4-Chlorotoluene	60.000	54.119	9.8	90	0.00
4	T	1,3,5-Trimethylbenzene	60.000	57.349	4.4	96	0.00
5	T	tert-Butylbenzene	60.000	59.553	0.7	102	0.00
6	T	1,2,4-Trimethylbenzene	60.000	55.907	6.8	94	0.00
7	T	sec-Butylbenzene	60.000	59.878	0.2	102	0.00
8	T	4-Isopropyltoluene	60.000	60.837	-1.4	104	0.00
9	T	1,3-Dichlorobenzene	60.000	57.498	4.2	96	0.00
0	T	1,4-Dichlorobenzene	60.000	57.195	4.7	95	0.00
1	T	1,2-Dichlorobenzene	60.000	56.406	6.0	93	0.00
2	T	n-Butylbenzene	60.000	61.205	-2.0	99	0.00
3	T	1,2-Dibromo-3-chloropropane	60.000	39.384	34.4#	66	0.00
4	T	1,2,4-Trichlorobenzene	60.000	57.486	4.2	96	0.00
5	T	Naphthalene	60.000	50.353	16.1	83	0.00
6	T	1,2,3-Trichlorobenzene	60.000	54.779	8.7	89	0.00

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:13:43 2013 Quant Results File: VOC-S.RES

Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene ISTD	7.12	96	673838	50.00	ug/L		0.00
53) Chlorobenzene d-5 ISTD	10.80	117	413503	50.00	ug/L		0.00
68) 1,4-Dichlorobenzene d-4 IS	13.63	152	198659	50.00	ug/L		0.00
System Monitoring Compounds							
29) Dibromofluoromethane SS#1	6.29	113	160909	49.78	ug/L		0.00
Spiked Amount 50.000	Range 75 - 128		Recovery = 99.56%				
47) Toluene d-8 SS#2	9.07	98	551830	51.84	ug/L		0.00
Spiked Amount 50.000	Range 77 - 120		Recovery = 103.68%				
70) 4-Bromofluorobenzene SS#3	12.23	95	241023	42.94	ug/L		0.00
Spiked Amount 50.000	Range 73 - 111		Recovery = 85.88%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.55	85	119430	53.59	ug/L		99
3) Chloromethane	1.67	50	196740	54.10	ug/L		98
4) VINYL CHLORIDE	1.81	62	194122	67.27	ug/L		100
5) Bromomethane	2.11	94	102354	83.81	ug/L		96
6) Chloroethane	2.15	64	83865	58.34	ug/L		98
7) Trichlorofluoromethane	2.51	101	167854m	72.41	ug/L		
8) acrolein	2.92	56	20439	36.77	ug/L		97
9) Acetone	3.12	58	23615	83.23	ug/L	#	85
10) 1,1-DICHLOROETHENE	3.09	96	103645	65.42	ug/L		98
11) 1,1,2-Trichlorotrifluoroet	3.10	101	113069	68.90	ug/L		99
12) iodomethane	3.24	142	162030	53.06	ug/L		100
13) Carbon Disulfide	3.37	76	267456	49.83	ug/L		99
14) Methyl Acetate	3.57	74	19108	53.61	ug/L		100
15) Methylene chloride	3.73	84	107366	52.84	ug/L		98
16) tert-Butanol	4.00	59	27606m	43.74	ug/L		
17) acrylonitrile	4.12	53	54738	49.97	ug/L		96
18) trans-1,2-Dichloroethene	4.11	96	107730	60.18	ug/L		98
19) Methyl-t-Butyl Ether	4.13	73	290664	48.42	ug/L		100
20) 1,1-Dichloroethane	4.76	63	194618	52.40	ug/L		100
21) vinyl acetate	4.90	43	479604	46.44	ug/L		99
22) Diisopropyl ether	4.92	45	500584	54.41	ug/L		100
23) tert-Butyl ethyl ether	5.45	59	485234	52.72	ug/L		99
24) 2,2-Dichloropropane	5.59	77	176271	60.83	ug/L		98
25) cis-1,2-Dichloroethene	5.60	96	148215	56.40	ug/L		95
26) 2-Butanone (MEK)	5.69	72	21904	57.40	ug/L	#	73
27) Bromochloromethane	5.93	128	63584	57.05	ug/L		93
28) CHLOROFORM	6.07	83	231643	51.14	ug/L		100
30) 1,1,1-Trichloroethane	6.26	97	179861	55.48	ug/L		100
31) Cyclohexane	6.30	56	273963	56.02	ug/L		93
32) Carbon tetrachloride	6.47	117	150466	57.45	ug/L		100
33) 1,1-Dichloropropene	6.48	75	159579	54.45	ug/L		98
34) Benzene`	6.75	78	486892	53.56	ug/L		100
35) 1,2-Dichloroethane	6.80	62	188192	46.57	ug/L		99
36) tert-Amyl alcohol	6.92	59	26332	36.56	ug/L	#	1
37) tert-Amyl methyl ether	6.95	73	406467	45.92	ug/L		99
38) Trichloroethene	7.58	95	125754	56.40	ug/L		98
39) 1,2-DICHLOROPROPANE	7.86	63	141932	52.20	ug/L		99
40) Methylcyclohexane	7.79	83	219669	59.03	ug/L		99
41) tert-Amyl ethyl ether	7.95	59	391008	48.74	ug/L		98
42) Dibromomethane	8.01	93	83889	50.98	ug/L		99
43) 1,4-Dioxane	8.07	88	39283	1003.48	ug/L		96
44) Bromodichloromethane	8.22	83	176705	48.04	ug/L		99
45) cis-1,3-Dichloropropene	8.78	75	221129	49.11	ug/L		99
46) 4-Methyl-2-Pentanone (MIBK	9.00	100	21651	50.04	ug/L	#	77
48) TOLUENE	9.15	92	302860	58.56	ug/L		99

(#) = qualifier out of range (m) = manual integration

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 09 08:13:43 2013 Quant Results File: VOC-S.RES

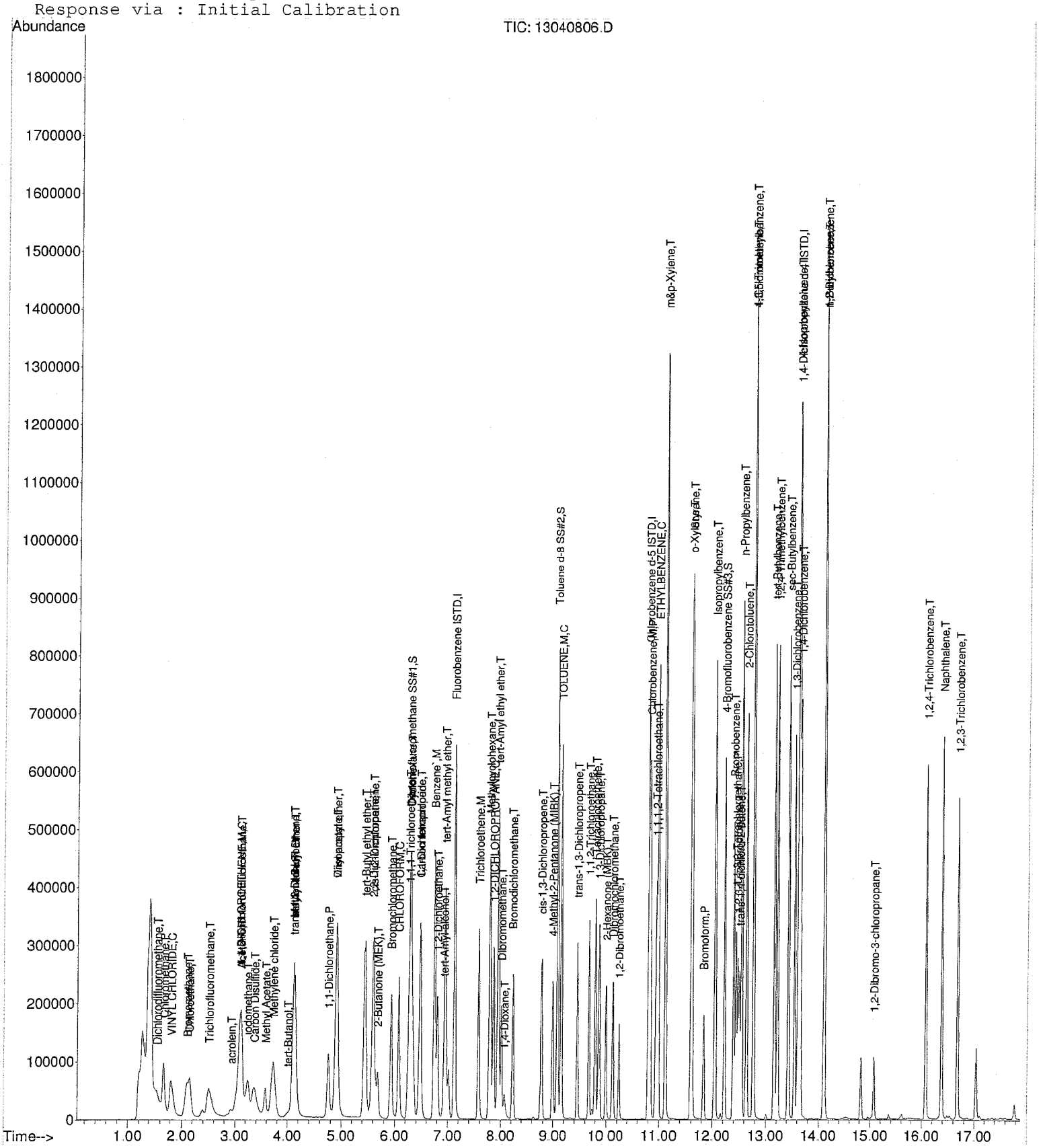
Quant Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Initial Calibration
DataAcq Meth : VOC1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	trans-1,3-Dichloropropene	9.46	75	204567	47.28	ug/L		100
50)	1,1,2-Trichloroethane	9.67	83	94444	52.50	ug/L		98
51)	Tetrachloroethene	9.79	164	82547	66.73	ug/L		99
52)	2-Hexanone (MBK)	9.99	43	188970	53.82	ug/L		98
54)	1,3-Dichloropropane	9.86	76	204865	46.52	ug/L		99
55)	Dibromochloromethane	10.12	129	119736	49.82	ug/L		99
56)	1,2-Dibromoethane	10.24	107	122670	51.44	ug/L		98
57)	Chlorobenzene	10.84	112	322102	57.56	ug/L		98
58)	1,1,1,2-Tetrachloroethane	10.95	131	112486	53.80	ug/L		100
59)	ETHYLBENZENE	10.98	91	585377	56.34	ug/L		99
60)	m&p-Xylene	11.13	106	420608	118.28	ug/L		98
61)	o-Xylene	11.59	106	215093	56.88	ug/L		97
62)	Styrene	11.62	104	392025	56.29	ug/L		98
63)	Bromoform	11.83	173	78613	50.47	ug/L		99
64)	1,2,3-Trichloropropane	12.47	75	142550m	45.33	ug/L		
65)	Bromobenzene	12.39	156	126118	57.50	ug/L		98
66)	trans-1,4-dichloro-2-buten	12.51	53	69292	42.78	ug/L	#	100
67)	n-Propylbenzene	12.55	91	742395	58.27	ug/L		100
69)	Isopropylbenzene	12.05	105	557123	58.35	ug/L		99
71)	1,1,2,2-Tetrachloroethane	12.44	83	179762	48.92	ug/L		99
72)	2-Chlorotoluene	12.64	91	446977	53.39	ug/L		99
73)	4-Chlorotoluene	12.77	91	501697	54.12	ug/L		99
74)	1,3,5-Trimethylbenzene	12.77	105	480935	57.35	ug/L		100
75)	tert-Butylbenzene	13.16	119	413271	59.55	ug/L		98
76)	1,2,4-Trimethylbenzene	13.22	105	500748	55.91	ug/L		99
77)	sec-Butylbenzene	13.43	105	646212	59.88	ug/L		100
78)	4-Isopropyltoluene	13.62	119	531509	60.84	ug/L		99
79)	1,3-Dichlorobenzene	13.54	146	259085	57.50	ug/L		99
80)	1,4-Dichlorobenzene	13.66	146	262848	57.20	ug/L		100
81)	1,2-Dichlorobenzene	14.11	146	248540	56.41	ug/L		100
82)	n-Butylbenzene	14.11	91	576267	61.20	ug/L		100
83)	1,2-Dibromo-3-chloropropan	15.07	75	34313	39.38	ug/L		97
84)	1,2,4-Trichlorobenzene	16.08	180	198628	57.49	ug/L		99
85)	Naphthalene	16.38	128	509046	50.35	ug/L		100
86)	1,2,3-Trichlorobenzene	16.67	180	181932	54.78	ug/L		98

(#) = qualifier out of range (m) = manual integration

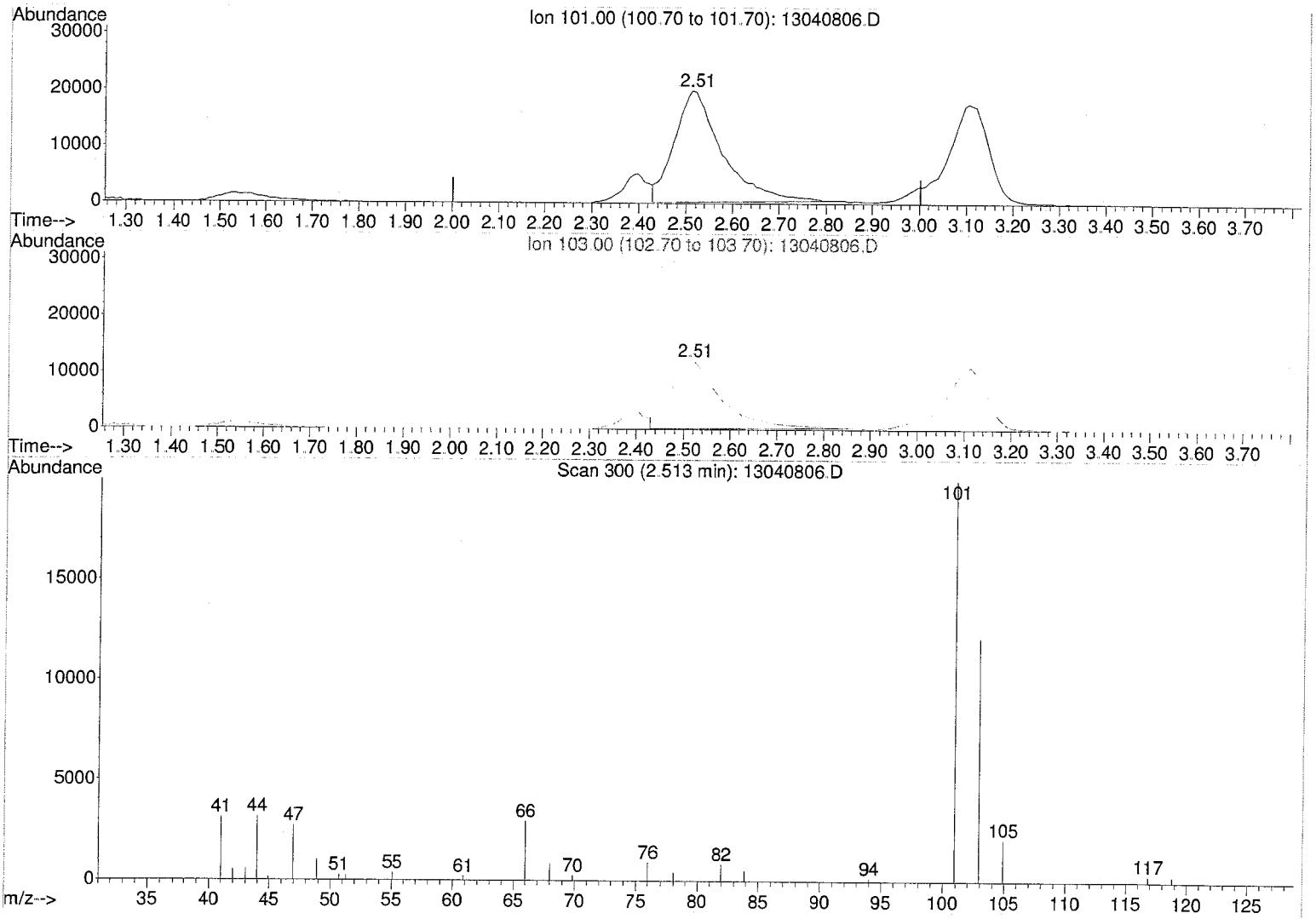
Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:14 2013 Quant Results File: VOC-S.RES

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Initial Calibration



Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:13 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration



TIC: 13040806.D

(7) Trichlorofluoromethane (T)

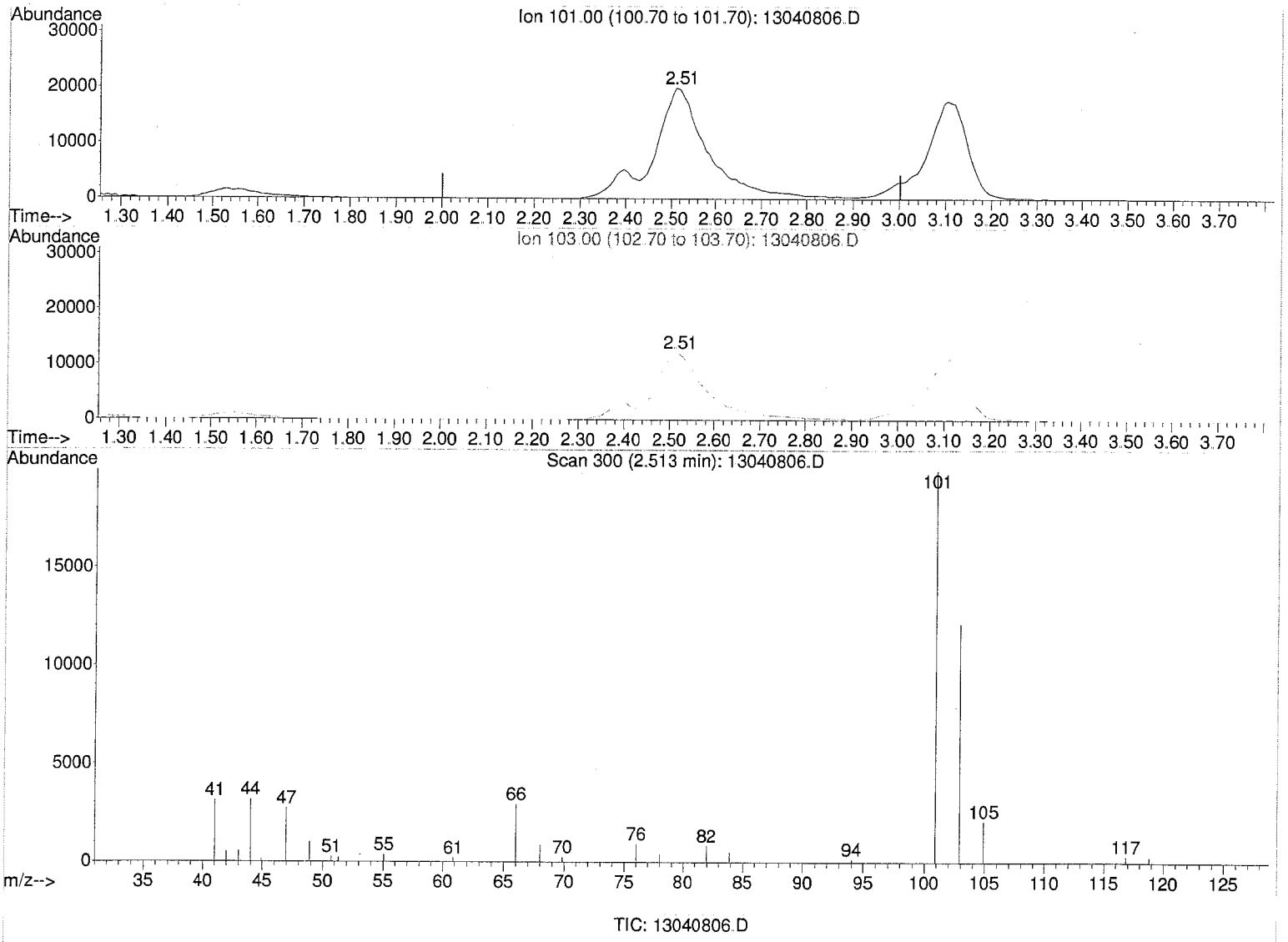
2.51min 60.63ug/L

response 140533

Ion	Exp%	Act%
101.00	100	100
103.00	62.70	63.60
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:14 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration



TIC: 13040806.D

(7) Trichlorofluoromethane (T)

2.51min 72.41ug/L m

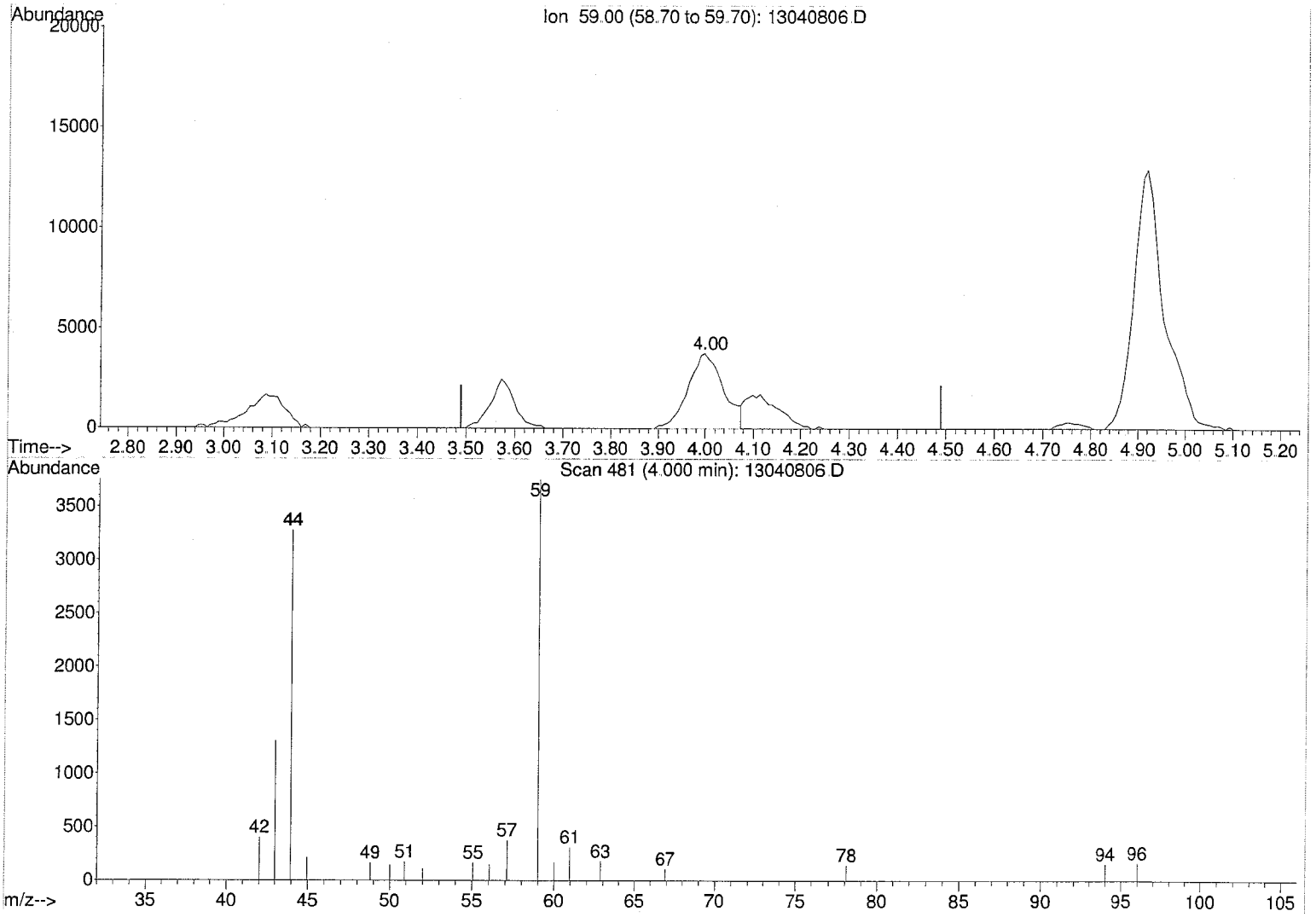
response 167854

Ion	Exp%	Act%
101.00	100	100
103.00	62.70	62.71
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:14 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration



TIC: 13040806.D

(16) tert-Butanol (T)

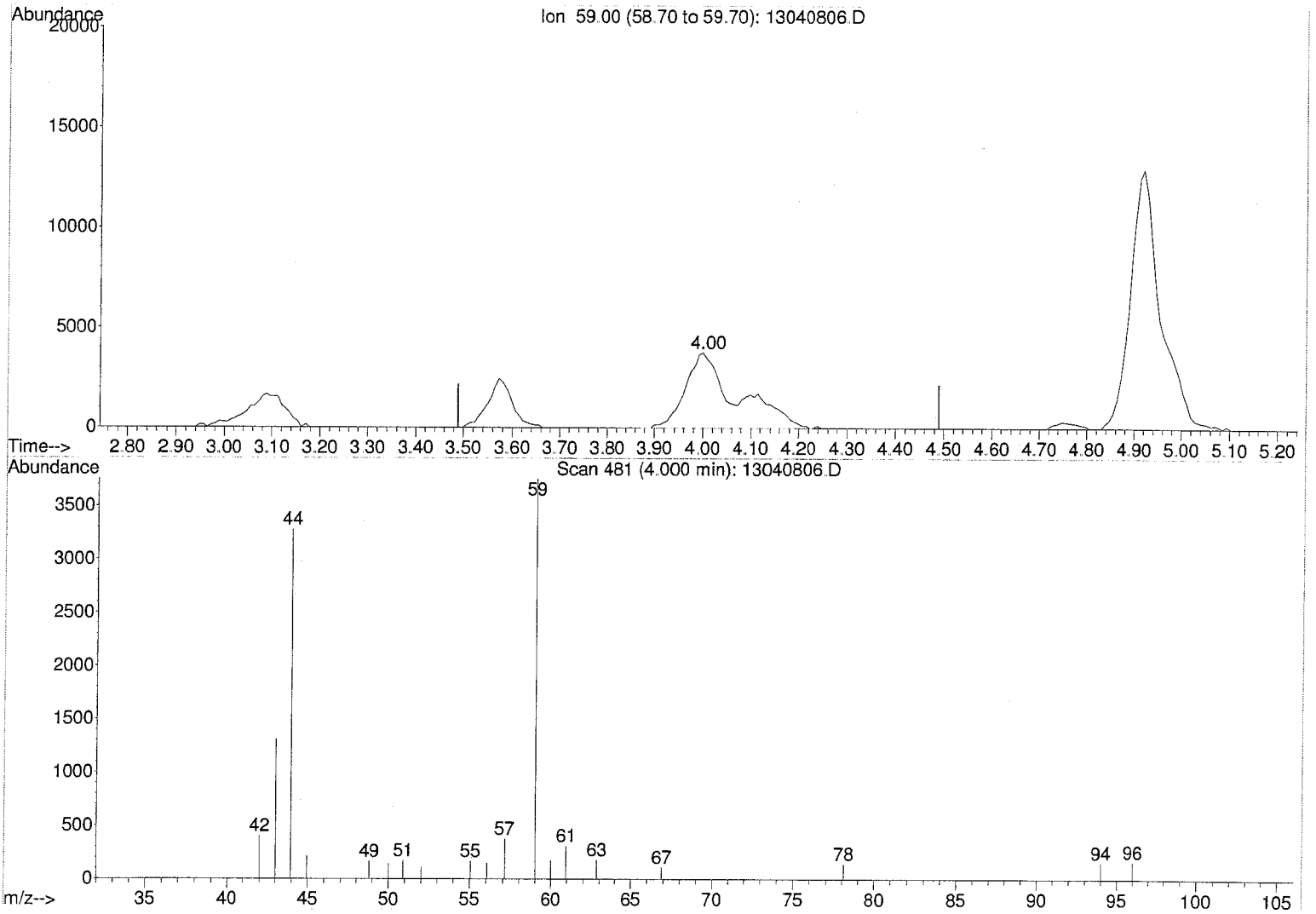
4.00min 30.91ug/L

response 19508

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:14 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration



TIC: 13040806.D

(16) tert-Butanol (T)

4.00min 43.74ug/L m

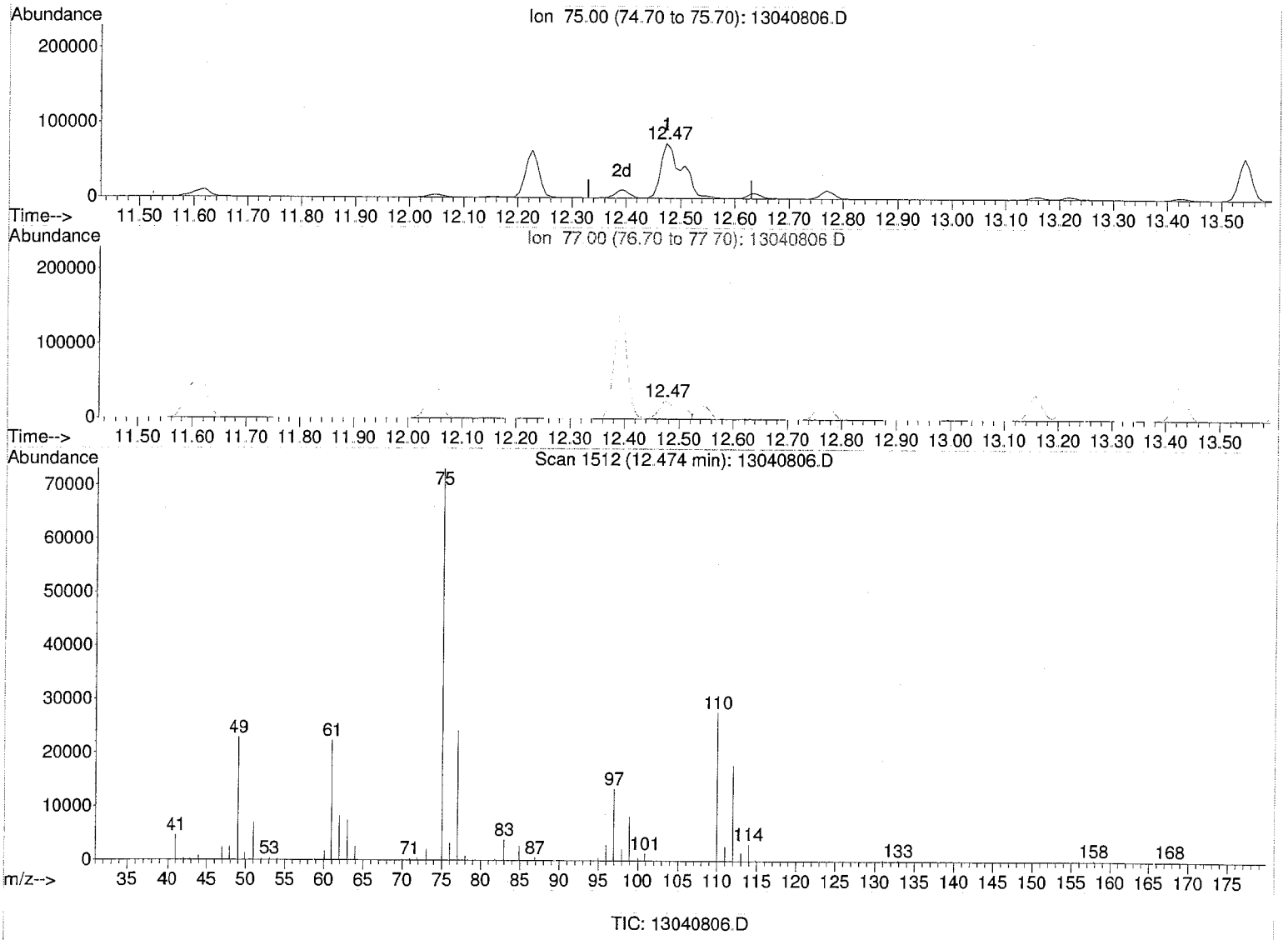
response 27606

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:14 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration



TIC: 13040806.D

(64) 1,2,3-Trichloropropane (T)

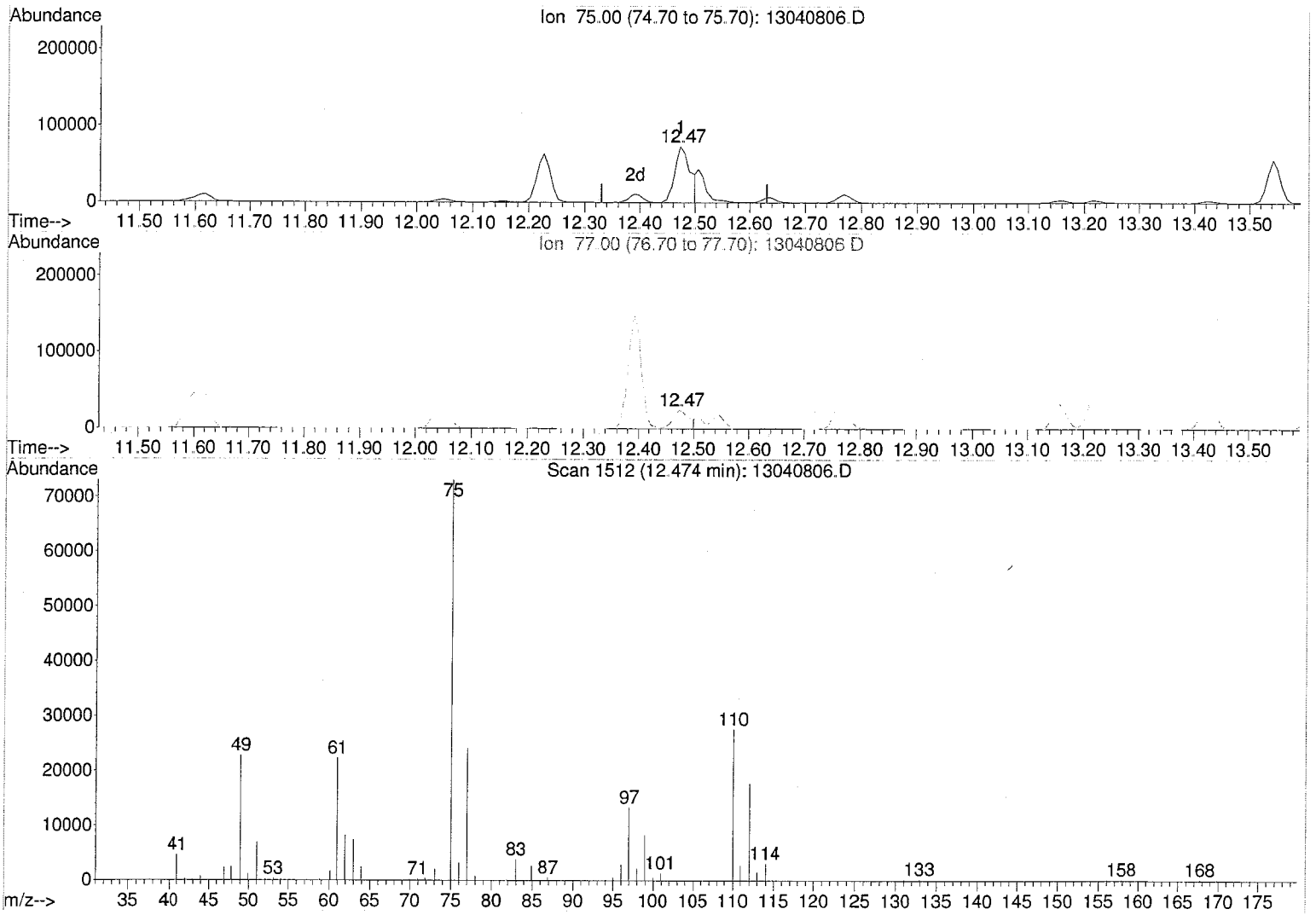
12.47min 61.45ug/L

response 193250

Ion	Exp%	Act%
75.00	100	100
77.00	32.60	32.35
0.00	0.00	0.00
0.00	0.00	0.00

Data File : P:\VOC\1\DATA\130408\13040806.D Vial: 6
Acq On : 8 Apr 2013 11:01 am Operator: AK
Sample : CCV 60ppb 5mL Inst : VOA1
Misc : soil 1uL A2338 1.5ul 1405-3 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 9 8:14 2013 Quant Results File: temp.res

Method : P:\VOC\1\DATA\130408\VOC-S.M (RTE Integrator)
Title : SW8260 Purgable Organics
Last Update : Sat Apr 06 09:59:57 2013
Response via : Multiple Level Calibration



TIC: 13040806.D

(64) 1,2,3-Trichloropropane (T)

12.47min 45.33ug/L m

response 142550

Ion	Exp%	Act%
75.00	100	100
77.00	32.60	33.22
0.00	0.00	0.00
0.00	0.00	0.00

AK 4/9/13

8A - FORM VIII VOA
VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

GC Column: _____ ID: _____ (mm)

EPA Sample No. (VSTD#####) CCV-01 Date Analyzed: 04/08/13

Lab File ID: 13040806 Time Analyzed : 11:01

Instrument ID: VOC #1 Heated Purge (Y/N) : N

		IS1 (Fluorobenzene AREA	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	673838	7.12	413503	10.80	198659	13.63
	UPPER LIMIT	1347676	7.62	827006	11.30	397318	14.13
	LOWER LIMIT	336919	6.62	206751 5	10.30	99329.5	13.13
	Lab Sample ID Client ID						
1	45496-1-BLK 45496-1-BLK	677388	7.12	394330	10.80	184632	13.63
2	45496-1-BKS 45496-1-BKS	686641	7.12	409066	10.81	187443	13.63
3	13040516-003 SB-03 (2-2.5)	632647	7.12	383386	10.80	184034	13.63
4	13040516-001 SB-02 (2-2.5)	604788	7.12	365914	10.80	165523	13.63
5	13040516-004 S SB-01 (2-2.5) S	602119	7.12	371892	10.81	176719	13.63
6	13040516-004 SD SB-01 (2-2.5) SD	587329	7.12	362186	10.80	173235	13.63
7	13040516-002 SB-04 (2-2.5)	568710	7.13	366347	10.80	179980	13.63
8	13040516-005 SB-040413 (2-2.5)	629160	7.14	395260	10.81	188860	13.63
9	13040516-004 SB-01 (2-2.5)	573470	7.13	358605	10.80	176698	13.63

IS1 (Fluorobenzene) = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area.
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = + 0.50 (Low-Medium Volatiles) and + 0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = - 0.50 (Low-Medium Volatiles) and - 0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

8A - FORM VIII VOA
VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

GC Column: DB-624 ID: 25m (mm)

EPA Sample No. (VSTD#####) CCV-01 Date Analyzed: 04/09/13

Lab File ID: 13040829 Time Analyzed : 00:13

Instrument ID: VOC #2 Heated Purge (Y/N) : N

			IS1 (Fluorobenzene) AREA	RT	#	IS2 (CBZ) AREA	#	RT	#	IS3 (DCB) AREA	#	RT	#
	12 HOUR STD		561354	7.31		385880		11.00		153418		13.84	
	UPPER LIMIT		1122708	7.81		771760		11.50		306836		14.34	
	LOWER LIMIT		280677	6.81		192940		10.50		76709		13.34	
	Lab Sample ID	Client ID											
1	45498-1-BKS	45498-1-BKS	533171	7.31		370472		11.00		144519		13.83	
2	45498-1-BLK	45498-1-BLK	543005	7.31		368490		10.99		143087		13.83	
3	13040516-012	TRIP BLANK	543154	7.31		375119		10.99		143482		13.83	
4	13040516-007	SB-03 (GW)	555500	7.31		378199		11.00		141444		13.83	
5	13040516-006	1644-SUMP	547423	7.31		371181		10.99		143270		13.83	
6	13040516-008	SB-040413 (GW)	533772	7.31		363668		10.99		140048		13.83	
7	13040516-009	SB-04 (GW)	509924	7.31		353342		10.99		133426		13.83	
8	13040516-010	1646-SUMP	532301	7.31		358347		10.99		137864		13.83	
9	13040516-011	SURFACE WATER	547905	7.31		371744		10.99		143881		13.83	
10	13040516-007 S	SB-03 (GW) S	525032	7.31		356596		10.99		141886		13.83	
11	13040516-007 SD	SB-03 (GW) SD	512495	7.30		341467		10.99		134017		13.83	

IS1 (Fluorobenzene) = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area.
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = + 0.50 (Low-Medium Volatiles) and + 0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = - 0.50 (Low-Medium Volatiles) and - 0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-02 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-001

Sample wt/vol: 30.29 (g/mL): g Lab File ID: 13040914.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	200	U
208-96-8	Acenaphthylene	200	U
120-12-7	Anthracene	200	U
56-55-3	Benzo(a)anthracene	200	U
50-32-8	Benzo(a)pyrene	28	U
205-99-2	Benzo(b)fluoranthene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
218-01-9	Chrysene	200	U
53-70-3	Dibenz(a,h)Anthracene	28	U
206-44-0	Fluoranthene	200	U
86-73-7	Fluorene	200	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	200	U
91-57-6	2-Methylnaphthalene	200	U
91-20-3	Naphthalene	200	U
85-01-8	Phenanthrene	200	U
129-00-0	Pyrene	200	U

SW8270C

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-04 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-002

Sample wt/vol: 30.36 (g/mL): g Lab File ID: 13040915.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 18 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	200	U
208-96-8	Acenaphthylene	200	U
120-12-7	Anthracene	200	U
56-55-3	Benzo(a)anthracene	200	U
50-32-8	Benzo(a)pyrene	28	U
205-99-2	Benzo(b)fluoranthene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
218-01-9	Chrysene	200	U
53-70-3	Dibenz(a,h)Anthracene	28	U
206-44-0	Fluoranthene	200	U
86-73-7	Fluorene	200	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	200	U
91-57-6	2-Methylnaphthalene	200	U
91-20-3	Naphthalene	200	U
85-01-8	Phenanthrene	200	U
129-00-0	Pyrene	200	U

(1) Cannot be separated from Diphenylamine

SW8270C

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-03 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-003

Sample wt/vol: 29.63 (g/mL): g Lab File ID: 13040916.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 15 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	200	U
208-96-8	Acenaphthylene	200	U
120-12-7	Anthracene	200	U
56-55-3	Benzo(a)anthracene	200	U
50-32-8	Benzo(a)pyrene	28	U
205-99-2	Benzo(b)fluoranthene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
218-01-9	Chrysene	200	U
53-70-3	Dibenz(a,h)Anthracene	28	U
206-44-0	Fluoranthene	200	U
86-73-7	Fluorene	200	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	200	U
91-57-6	2-Methylnaphthalene	200	U
91-20-3	Naphthalene	200	U
85-01-8	Phenanthrene	200	U
129-00-0	Pyrene	200	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-004

Sample wt/vol: 30.45 (g/mL): g Lab File ID: 13040913.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 14 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	190	U
208-96-8	Acenaphthylene	190	U
120-12-7	Anthracene	190	U
56-55-3	Benzo(a)anthracene	190	U
50-32-8	Benzo(a)pyrene	27	U
205-99-2	Benzo(b)fluoranthene	190	U
191-24-2	Benzo(g,h,i)perylene	190	U
207-08-9	Benzo(k)fluoranthene	190	U
218-01-9	Chrysene	190	U
53-70-3	Dibenz(a,h)Anthracene	27	U
206-44-0	Fluoranthene	190	U
86-73-7	Fluorene	190	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	190	U
91-57-6	2-Methylnaphthalene	190	U
91-20-3	Naphthalene	190	U
85-01-8	Phenanthrene	190	U
129-00-0	Pyrene	190	U

(1) Cannot be separated from Diphenylamine

SW8270C

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-004

Sample wt/vol: 30.45 (g/mL): g Lab File ID: 13040913.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 14 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	190	U
208-96-8	Acenaphthylene	190	U
120-12-7	Anthracene	190	U
56-55-3	Benzo(a)anthracene	190	U
50-32-8	Benzo(a)pyrene	27	U
205-99-2	Benzo(b)fluoranthene	190	U
191-24-2	Benzo(g,h,i)perylene	190	U
207-08-9	Benzo(k)fluoranthene	190	U
218-01-9	Chrysene	190	U
53-70-3	Dibenz(a,h)Anthracene	27	U
206-44-0	Fluoranthene	190	U
86-73-7	Fluorene	190	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	190	U
91-57-6	2-Methylnaphthalene	190	U
91-20-3	Naphthalene	190	U
85-01-8	Phenanthrene	190	U
129-00-0	Pyrene	190	U

(1) Cannot be separated from Diphenylamine

SW8270C

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-040413 (2-2.5)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-005

Sample wt/vol: 30.09 (g/mL): g Lab File ID: 13040917.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	190	U
208-96-8	Acenaphthylene	190	U
120-12-7	Anthracene	190	U
56-55-3	Benzo(a)anthracene	190	U
50-32-8	Benzo(a)pyrene	26	U
205-99-2	Benzo(b)fluoranthene	190	U
191-24-2	Benzo(g,h,i)perylene	190	U
207-08-9	Benzo(k)fluoranthene	190	U
218-01-9	Chrysene	190	U
53-70-3	Dibenz(a,h)Anthracene	26	U
206-44-0	Fluoranthene	190	U
86-73-7	Fluorene	190	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	190	U
91-57-6	2-Methylnaphthalene	190	U
91-20-3	Naphthalene	190	U
85-01-8	Phenanthrene	190	U
129-00-0	Pyrene	190	U

SW8270C

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

1644-SUMP

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105216 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-006

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040816.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
83-32-9	Acenaphthene	5.0	U
208-96-8	Acenaphthylene	5.0	U
120-12-7	Anthracene	5.0	U
56-55-3	Benzo(a)anthracene	0.50	U
50-32-8	Benzo(a)pyrene	0.50	U
205-99-2	Benzo(b)fluoranthene	0.50	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
207-08-9	Benzo(k)fluoranthene	0.50	U
218-01-9	Chrysene	2.0	U
53-70-3	Dibenz(a,h)Anthracene	0.50	U
206-44-0	Fluoranthene	5.0	U
86-73-7	Fluorene	5.0	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.50	U
91-57-6	2-Methylnaphthalene	2.0	U
91-20-3	Naphthalene	0.50	U
85-01-8	Phenanthrene	5.0	U
129-00-0	Pyrene	5.0	U

(1) Cannot be separated from Diphenylamine

SW8270C

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-03 (GW)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105216 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-007

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040817.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
83-32-9	Acenaphthene	5.0	U
208-96-8	Acenaphthylene	5.0	U
120-12-7	Anthracene	5.0	U
56-55-3	Benzo(a)anthracene	0.50	U
50-32-8	Benzo(a)pyrene	0.50	U
205-99-2	Benzo(b)fluoranthene	0.50	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
207-08-9	Benzo(k)fluoranthene	0.50	U
218-01-9	Chrysene	2.0	U
53-70-3	Dibenz(a,h)Anthracene	0.50	U
206-44-0	Fluoranthene	5.0	U
86-73-7	Fluorene	5.0	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.50	U
91-57-6	2-Methylnaphthalene	2.0	U
91-20-3	Naphthalene	0.50	U
85-01-8	Phenanthrene	5.0	U
129-00-0	Pyrene	5.0	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-040413 (GW)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105216 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-008

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040818.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
83-32-9	Acenaphthene	5.0	U
208-96-8	Acenaphthylene	5.0	U
120-12-7	Anthracene	5.0	U
56-55-3	Benzo(a)anthracene	0.50	U
50-32-8	Benzo(a)pyrene	0.50	U
205-99-2	Benzo(b)fluoranthene	0.50	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
207-08-9	Benzo(k)fluoranthene	0.50	U
218-01-9	Chrysene	2.0	U
53-70-3	Dibenz(a,h)Anthracene	0.50	U
206-44-0	Fluoranthene	5.0	U
86-73-7	Fluorene	5.0	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.50	U
91-57-6	2-Methylnaphthalene	2.0	U
91-20-3	Naphthalene	0.50	U
85-01-8	Phenanthrene	5.0	U
129-00-0	Pyrene	5.0	U

(1) Cannot be separated from Diphenylamine

SW8270C

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-04 (GW)

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105216 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-009

Sample wt/vol: 900 (g/mL): ml Lab File ID: 13040819.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
83-32-9	Acenaphthene	5.6	U
208-96-8	Acenaphthylene	5.6	U
120-12-7	Anthracene	5.6	U
56-55-3	Benzo(a)anthracene	0.56	U
50-32-8	Benzo(a)pyrene	0.56	U
205-99-2	Benzo(b)fluoranthene	0.56	U
191-24-2	Benzo(g,h,i)perylene	5.6	U
207-08-9	Benzo(k)fluoranthene	0.56	U
218-01-9	Chrysene	2.2	U
53-70-3	Dibenz(a,h)Anthracene	0.56	U
206-44-0	Fluoranthene	5.6	U
86-73-7	Fluorene	5.6	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.56	U
91-57-6	2-Methylnaphthalene	2.2	U
91-20-3	Naphthalene	0.56	U
85-01-8	Phenanthrene	5.6	U
129-00-0	Pyrene	5.6	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

1646-SUMP

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105216 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-010

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040820.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
83-32-9	Acenaphthene	5.0	U
208-96-8	Acenaphthylene	5.0	U
120-12-7	Anthracene	5.0	U
56-55-3	Benzo(a)anthracene	0.50	U
50-32-8	Benzo(a)pyrene	0.50	U
205-99-2	Benzo(b)fluoranthene	0.50	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
207-08-9	Benzo(k)fluoranthene	0.50	U
218-01-9	Chrysene	2.0	U
53-70-3	Dibenz(a,h)Anthracene	0.50	U
206-44-0	Fluoranthene	5.0	U
86-73-7	Fluorene	5.0	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.50	U
91-57-6	2-Methylnaphthalene	2.0	U
91-20-3	Naphthalene	0.50	U
85-01-8	Phenanthrene	5.0	U
129-00-0	Pyrene	5.0	U

(1) Cannot be separated from Diphenylamine

SW8270C

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SURFACE WATER

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105216 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 13040516-011

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040821.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
83-32-9	Acenaphthene	5.0	U
208-96-8	Acenaphthylene	5.0	U
120-12-7	Anthracene	5.0	U
56-55-3	Benzo(a)anthracene	0.67	
50-32-8	Benzo(a)pyrene	0.96	
205-99-2	Benzo(b)fluoranthene	0.50	U
191-24-2	Benzo(g,h,i)perylene	5.0	U
207-08-9	Benzo(k)fluoranthene	0.78	
218-01-9	Chrysene	2.0	U
53-70-3	Dibenz(a,h)Anthracene	0.50	U
206-44-0	Fluoranthene	5.0	U
86-73-7	Fluorene	5.0	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.51	
91-57-6	2-Methylnaphthalene	2.0	U
91-20-3	Naphthalene	0.50	U
85-01-8	Phenanthrene	5.0	U
129-00-0	Pyrene	5.0	U

SW8270C

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040914.D
Acq On : 9 Apr 2013 6:23 pm
Operator : BW
Sample : 13040516-001
Misc : Batch 45492 30.29g
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 10 09:01:02 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

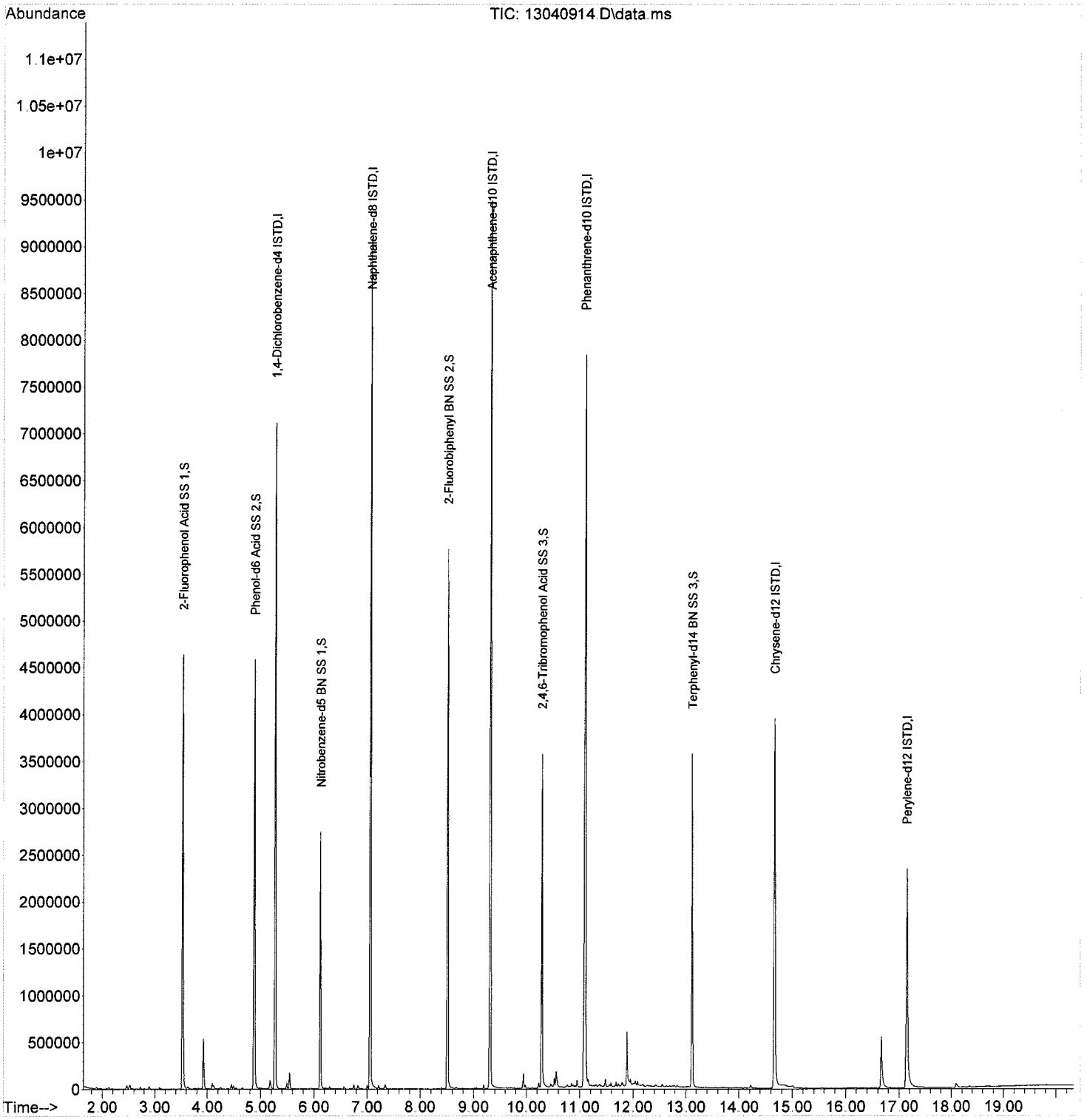
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.272	152	1781041	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	6384530	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3372718	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4641837	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.672	240	2516368	40.00	mg/L	-0.01
84) Perylene-d12 ISTD	17.157	264	1722354	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2084664	32.15	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 80.38%			
5) Phenol-d6 Acid SS 2	4.882	99	2705008	34.72	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 86.80%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1089999	16.73	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 83.65%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2335112	17.91	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 89.55%			
60) 2,4,6-Tribromophenol A...	10.290	141	197800	36.64	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 91.60%			
77) Terphenyl-d14 BN SS 3	13.126	244	1660078	19.43	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 97.15%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040914.D
Acq On : 9 Apr 2013 6:23 pm
Operator : BW
Sample : 13040516-001
Misc : Batch 45492 30.29g
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 10 09:01:02 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040915.D
Acq On : 9 Apr 2013 6:51 pm
Operator : BW
Sample : 13040516-002
Misc : Batch 45492 30.36g
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 10 09:01:10 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

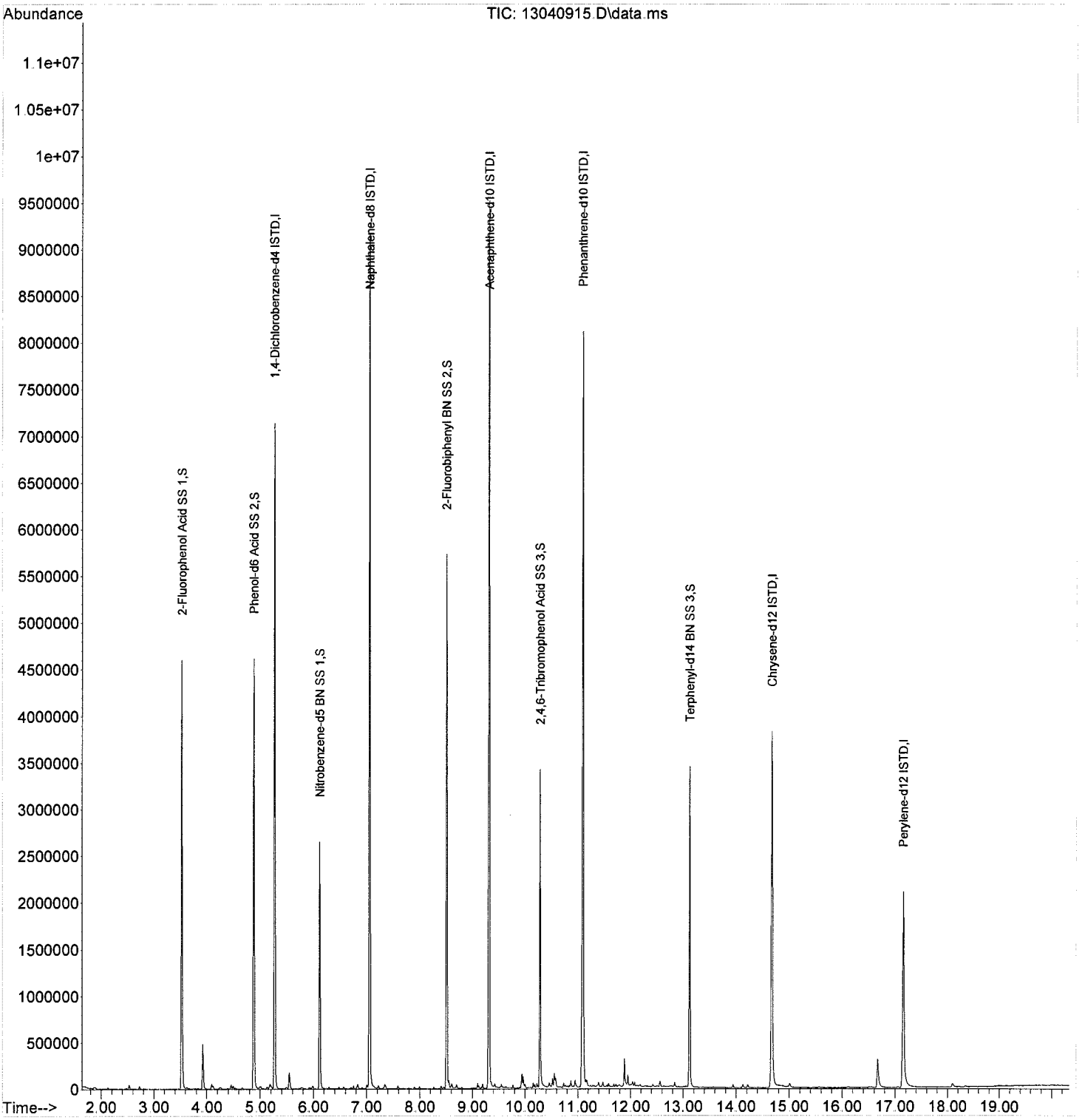
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.267	152	1815875	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	6486777	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3473825	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4718075	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.677	240	2499725	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.156	264	1639010	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2060080	31.16	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 77.90%			
5) Phenol-d6 Acid SS 2	4.882	99	2662557	33.44	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 83.60%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1080414	16.32	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 81.60%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2332800	17.33	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 86.65%			
60) 2,4,6-Tribromophenol A...	10.290	141	190667	34.12	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 85.30%			
77) Terphenyl-d14 BN SS 3	13.126	244	1548644	18.25	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 91.25%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040915.D
Acq On : 9 Apr 2013 6:51 pm
Operator : BW
Sample : 13040516-002
Misc : Batch 45492 30.36g
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 10 09:01:10 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040916.D
Acq On : 9 Apr 2013 7:19 pm
Operator : BW
Sample : 13040516-003
Misc : Batch 45492 29.63g
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 10 09:01:18 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

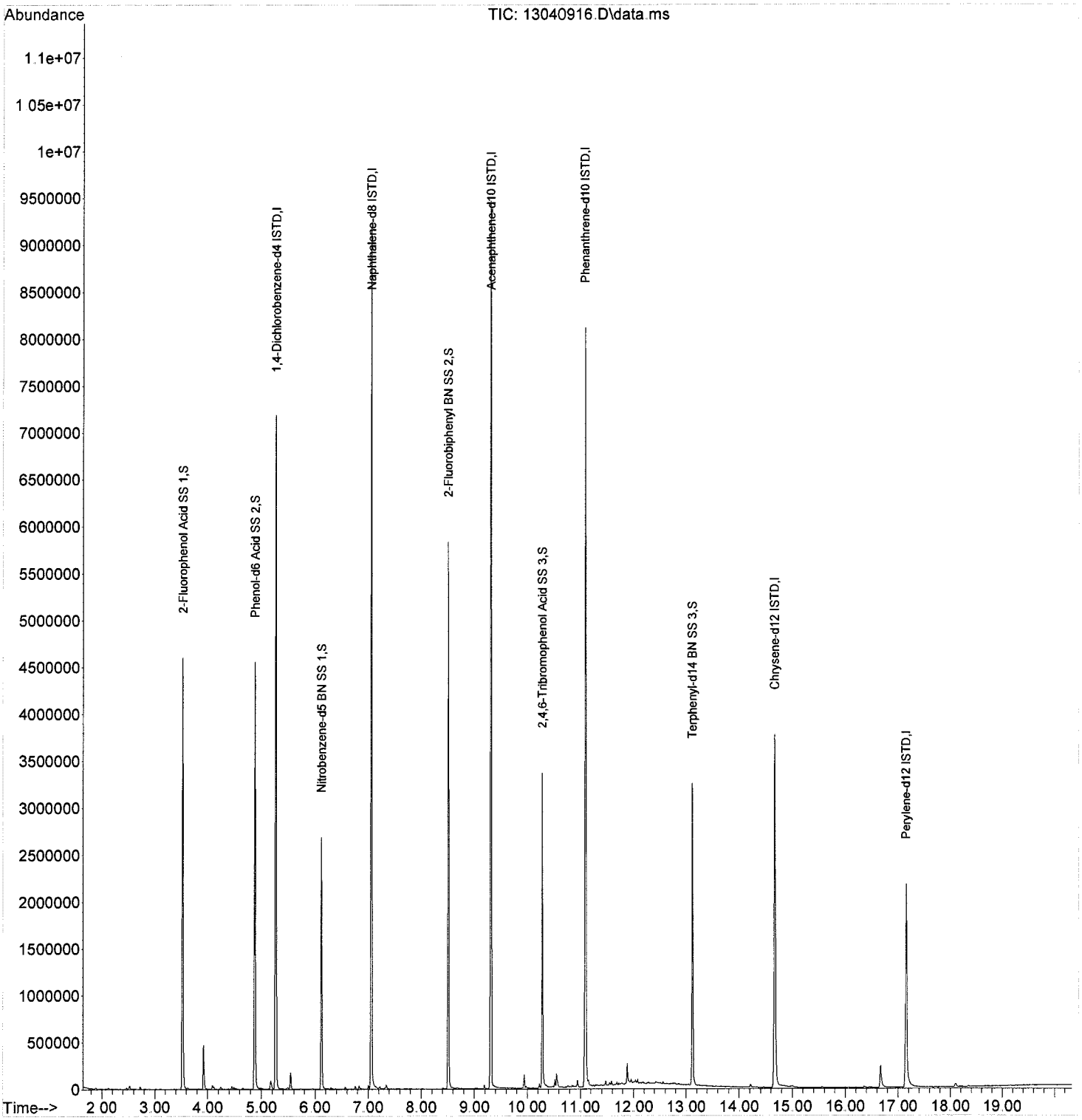
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.272	152	1838570	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	6496068	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3355400	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4559612	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.672	240	2431109	40.00	mg/L	-0.01
84) Perylene-d12 ISTD	17.156	264	1636311	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.529	112	2004777	29.95	mg/L	-0.01
Spiked Amount 40.000	Range 29 - 111		Recovery = 74.88%			
5) Phenol-d6 Acid SS 2	4.882	99	2655608	32.91	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 82.27%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1077613	16.25	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 81.25%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2311827	17.82	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 89.10%			
60) 2,4,6-Tribromophenol A...	10.290	141	180948	33.48	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 83.70%			
77) Terphenyl-d14 BN SS 3	13.121	244	1480317	17.94	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 89.70%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040916.D
Acq On : 9 Apr 2013 7:19 pm
Operator : BW
Sample : 13040516-003
Misc : Batch 45492 29.63g
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 10 09:01:18 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040913.D
Acq On : 9 Apr 2013 5:54 pm
Operator : BW
Sample : 13040516-004
Misc : Batch 45492 30.45g
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 10 09:00:49 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

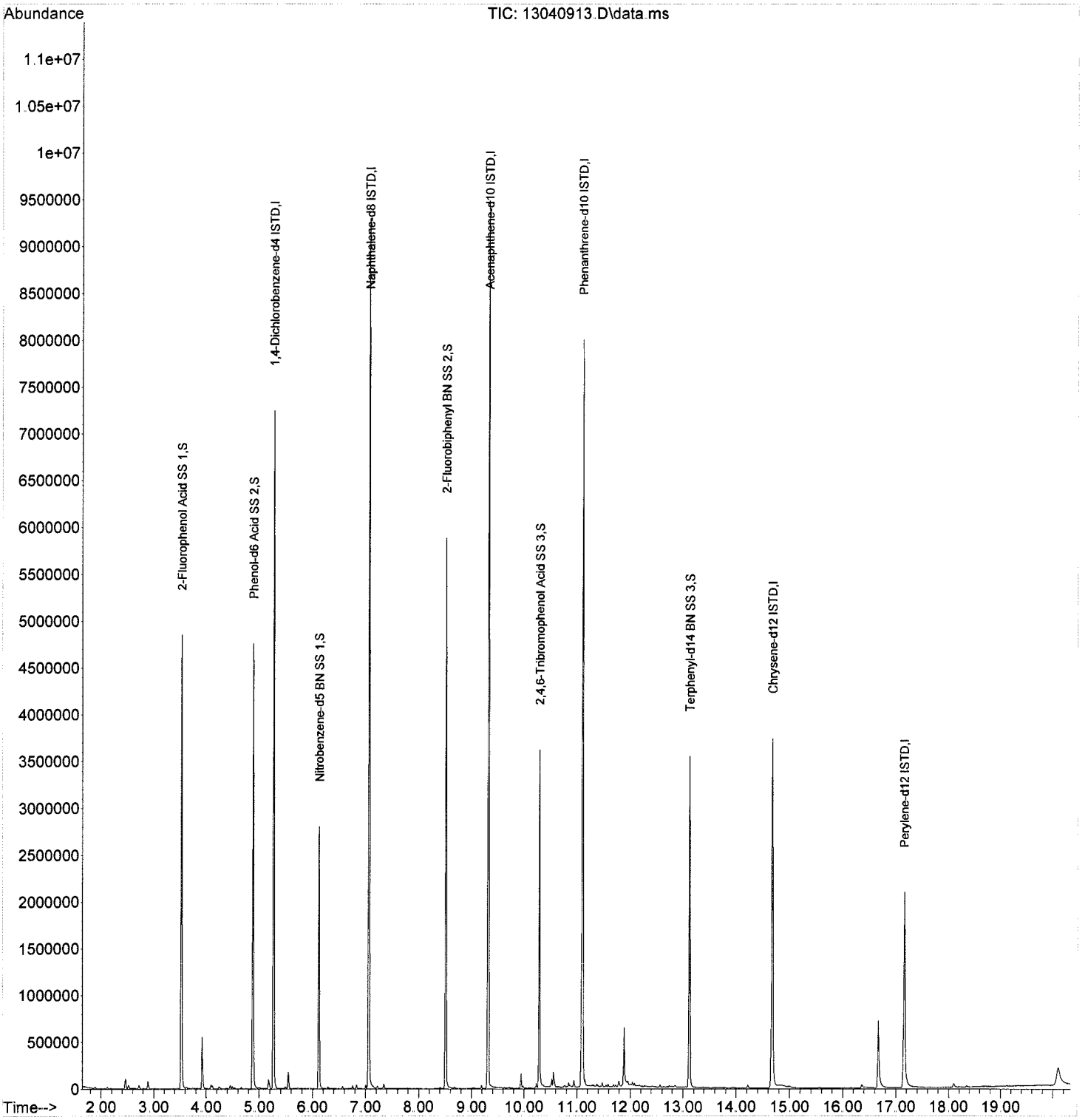
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.268	152	1815141	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	6498111	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3418838	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4694399	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.677	240	2445710	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.157	264	1616125	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.529	112	2142156	32.41	mg/L	-0.01
Spiked Amount 40.000	Range 29 - 111		Recovery = 81.02%			
5) Phenol-d6 Acid SS 2	4.882	99	2808833	35.42	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 88.55%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1158896	17.47	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 87.35%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2409326	18.26	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 91.30%			
60) 2,4,6-Tribromophenol A...	10.290	141	205431	37.62	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 94.05%			
77) Terphenyl-d14 BN SS 3	13.121	244	1634037	19.68	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 98.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040913.D
Acq On : 9 Apr 2013 5:54 pm
Operator : BW
Sample : 13040516-004
Misc : Batch 45492 30.45g
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 10 09:00:49 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040917.D
Acq On : 9 Apr 2013 7:48 pm
Operator : BW
Sample : 13040516-005
Misc : Batch 45492 30.09g
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 10 09:01:27 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

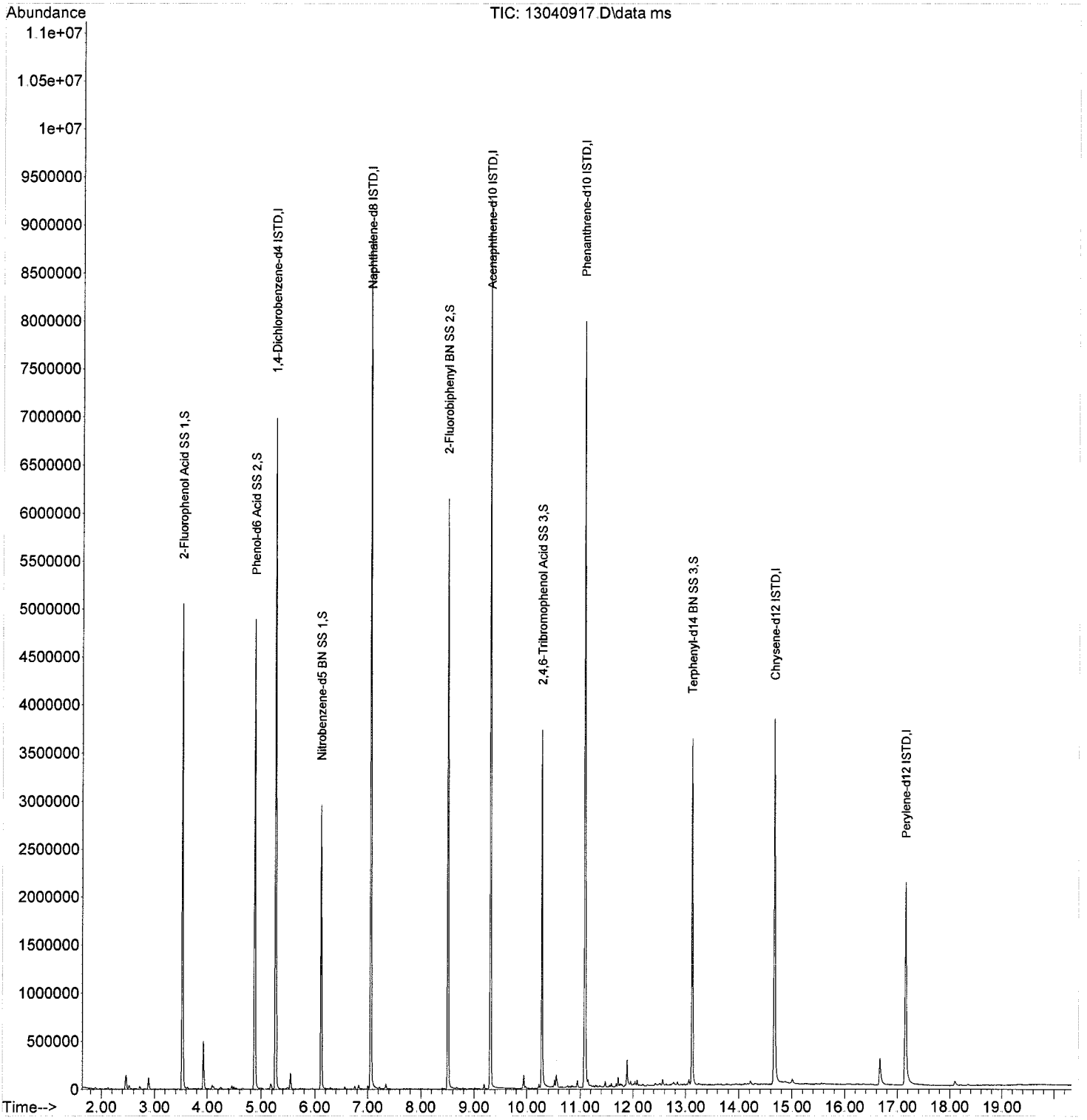
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.268	152	1729546	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	6190526	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3256681	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4466750	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.677	240	2443039	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.157	264	1648529	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.529	112	2282193	36.24	mg/L	-0.01
Spiked Amount 40.000	Range 29 - 111		Recovery = 90.60%			
5) Phenol-d6 Acid SS 2	4.887	99	2942355	39.22	mg/L	-0.03
Spiked Amount 40.000	Range 31 - 109		Recovery = 98.05%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1207274	19.11	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 95.55%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2554797	20.51	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 102.55%			
60) 2,4,6-Tribromophenol A...	10.290	141	203868	39.33	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 98.32%			
77) Terphenyl-d14 BN SS 3	13.126	244	1728013	20.84	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 104.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040917.D
Acq On : 9 Apr 2013 7:48 pm
Operator : BW
Sample : 13040516-005
Misc : Batch 45492 30.09g
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 10 09:01:27 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040816.D
Acq On : 8 Apr 2013 7:31 pm
Operator : BW
Sample : 13040516-006
Misc : Batch 45474 1000mL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 09 09:21:55 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

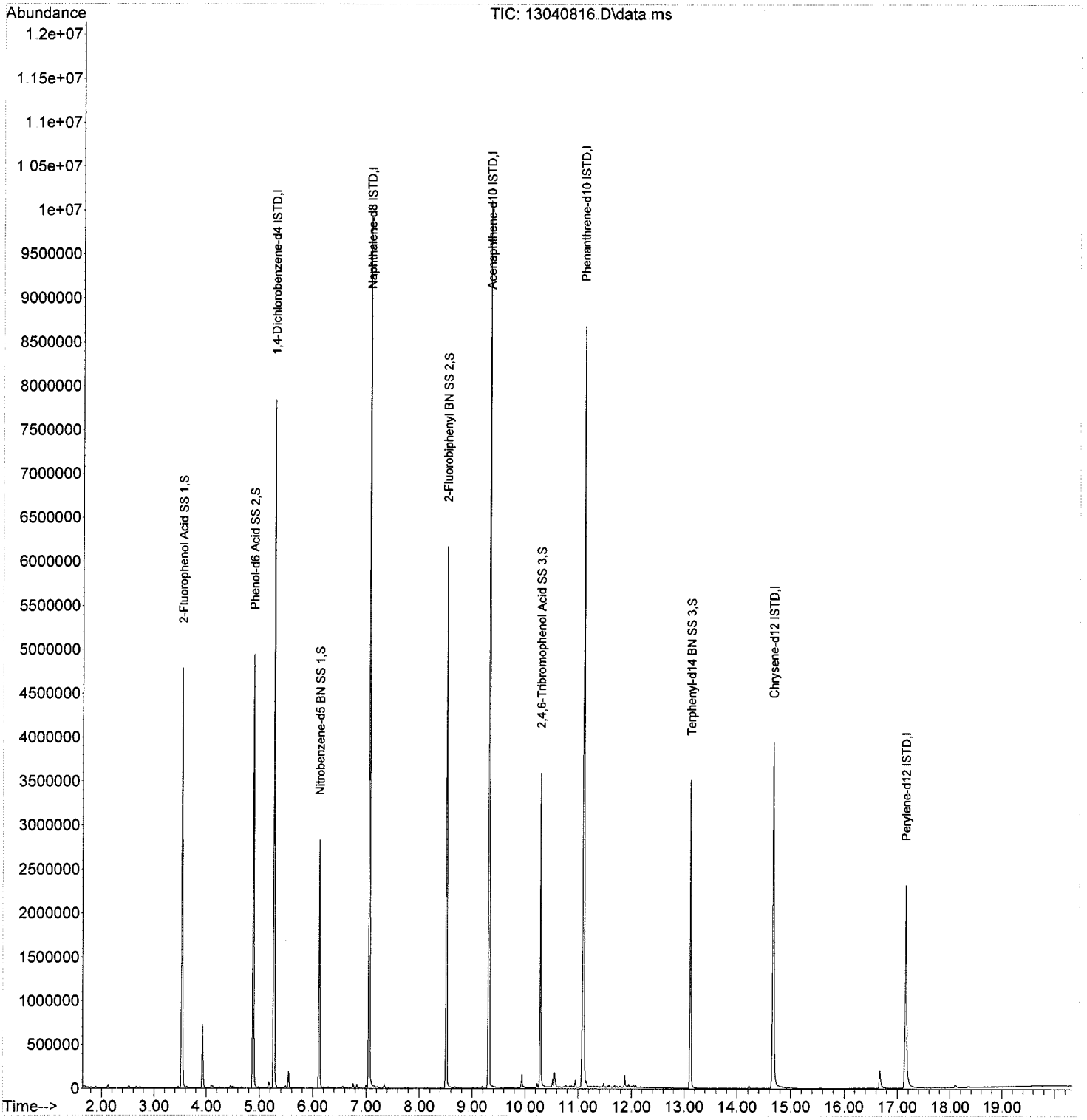
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.272	152	1977997	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	7010271	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3681881	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4957883	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.672	240	2582202	40.00	mg/L	-0.01
84) Perylene-d12 ISTD	17.156	264	1725192	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2149395	29.84	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 74.60%			
5) Phenol-d6 Acid SS 2	4.882	99	2833071	32.61	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 81.53%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1137778	15.90	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 79.50%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2486037	17.43	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 87.15%			
60) 2,4,6-Tribromophenol A...	10.290	141	191241	32.16	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 80.40%			
77) Terphenyl-d14 BN SS 3	13.126	244	1673435	19.09	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 95.45%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040816.D
Acq On : 8 Apr 2013 7:31 pm
Operator : BW
Sample : 13040516-006
Misc : Batch 45474 1000mL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 09 09:21:55 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040817.D
Acq On : 8 Apr 2013 7:59 pm
Operator : BW
Sample : 13040516-007
Misc : Batch 45474 1000mL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 09 09:22:04 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

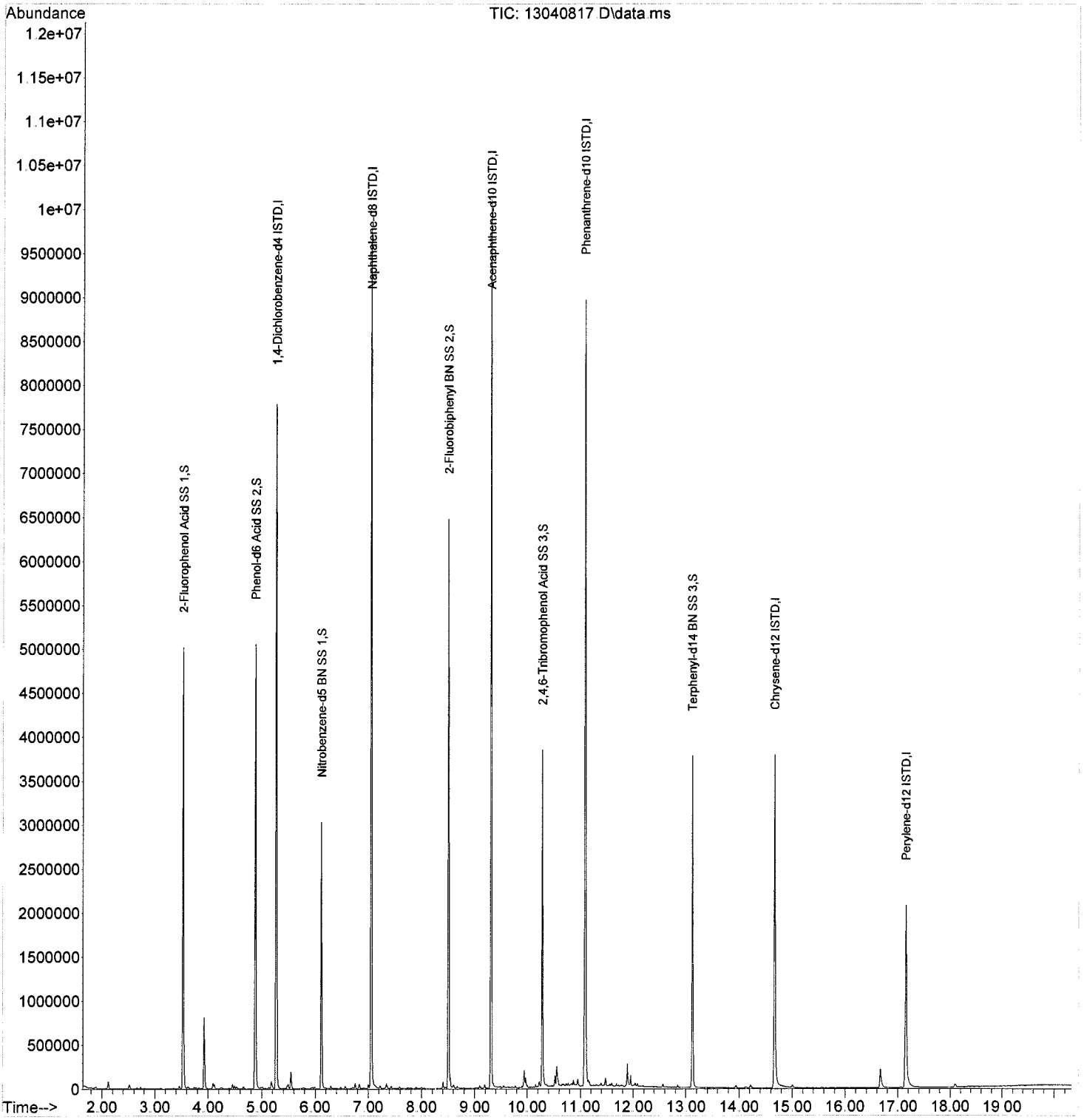
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.273	152	1961379	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	6924003	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3667442	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4979038	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.672	240	2438326	40.00	mg/L	-0.01
84) Perylene-d12 ISTD	17.157	264	1554075	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2237220	31.33	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 78.33%			
5) Phenol-d6 Acid SS 2	4.882	99	2939230	34.22	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 85.55%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1189966	16.84	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 84.20%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2564957	18.11	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 90.55%			
60) 2,4,6-Tribromophenol A...	10.290	141	207632	35.27	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 88.17%			
77) Terphenyl-d14 BN SS 3	13.121	244	1695462	20.48	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 102.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040817.D
Acq On : 8 Apr 2013 7:59 pm
Operator : BW
Sample : 13040516-007
Misc : Batch 45474 1000mL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 09 09:22:04 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040818.D
Acq On : 8 Apr 2013 8:28 pm
Operator : BW
Sample : 13040516-008
Misc : Batch 45474 1000mL
ALS Vial : 15 Sample Multiplier: 1

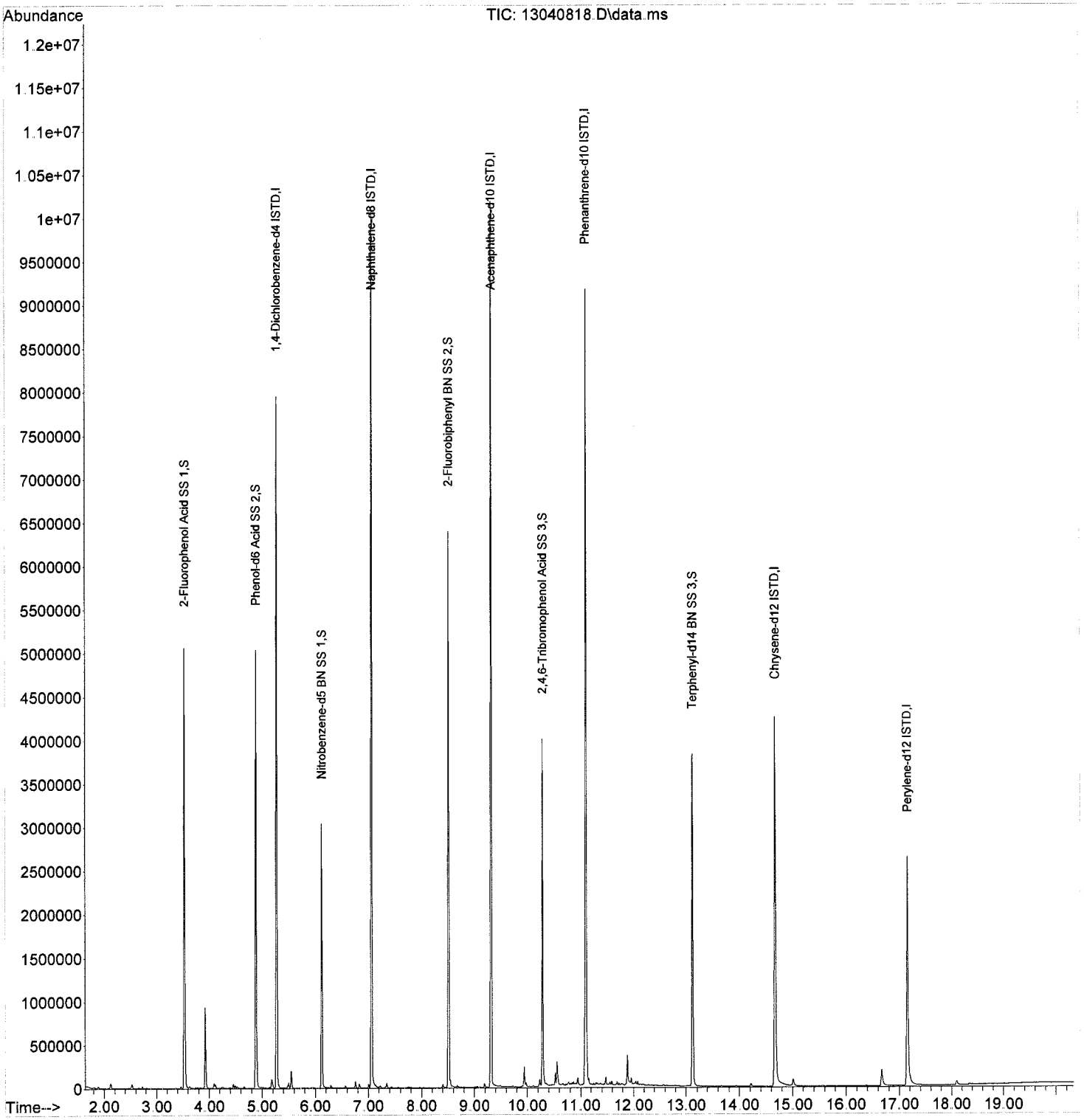
Quant Time: Apr 09 09:22:12 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.268	152	2020534	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	7183100	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3759147	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	5152948	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.677	240	2761805	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.157	264	1890467	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2279776	30.99	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 77.47%			
5) Phenol-d6 Acid SS 2	4.882	99	3014903	34.07	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 85.17%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1216392	16.59	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 82.95%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2652596	18.28	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 91.40%			
60) 2,4,6-Tribromophenol A...	10.290	141	216371	35.91	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 89.77%			
77) Terphenyl-d14 BN SS 3	13.126	244	1789309	19.08	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 95.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : P:\SVOC\2\data\130408\
Data File : 13040818.D
Acq On : 8 Apr 2013 8:28 pm
Operator : BW
Sample : 13040516-008
Misc : Batch 45474 1000mL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 09 09:22:12 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040819.D
Acq On : 8 Apr 2013 8:56 pm
Operator : BW
Sample : 13040516-009
Misc : Batch 45474 900mL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 09 09:22:18 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

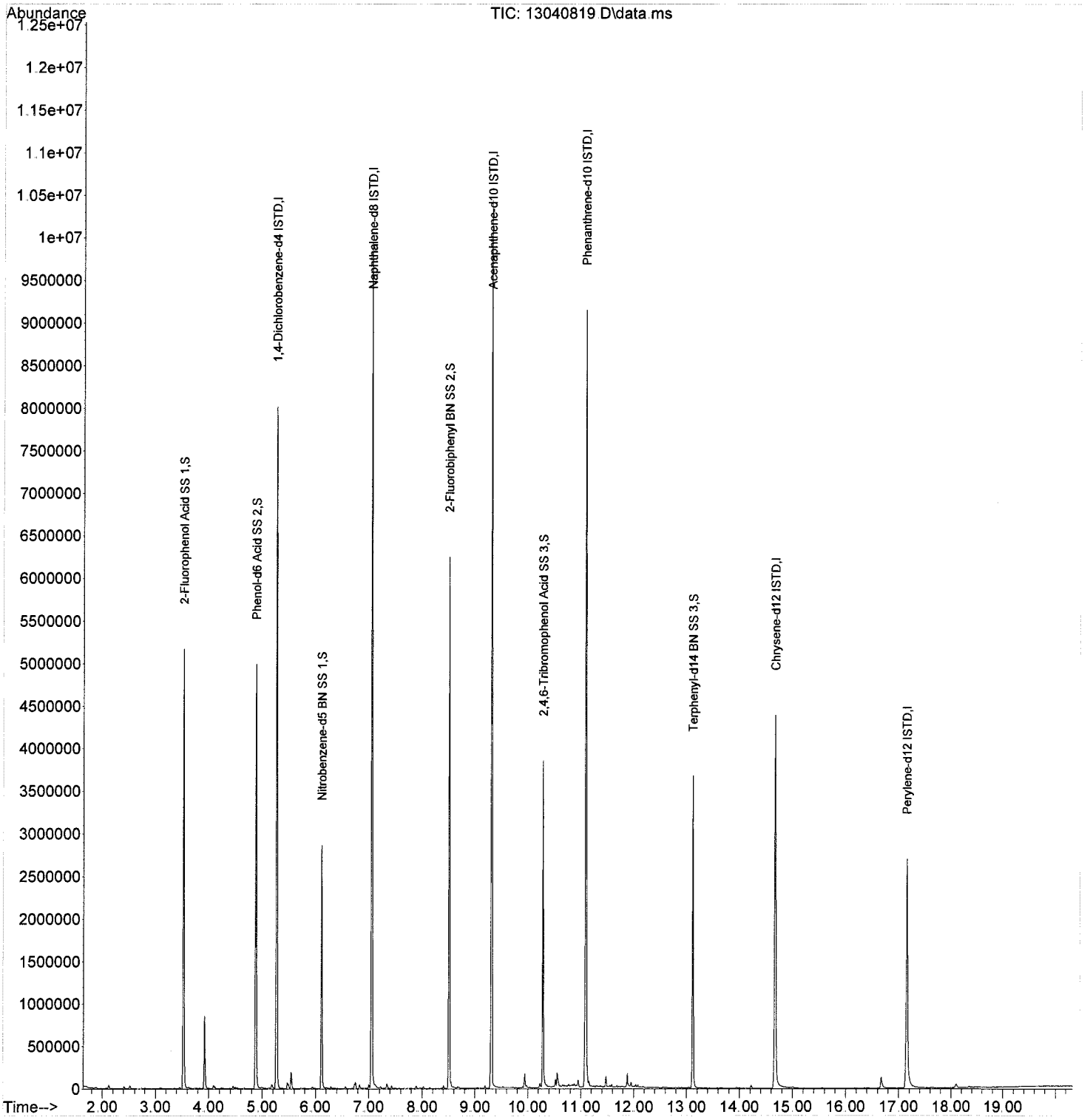
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.267	152	2004394	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	7121171	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3748607	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	5159989	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.677	240	2870212	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.156	264	1992947	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.529	112	2207018	30.24	mg/L	-0.01
Spiked Amount 40.000	Range 29 - 111		Recovery = 75.60%			
5) Phenol-d6 Acid SS 2	4.882	99	2876032	32.68	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 81.70%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1160807	15.97	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 79.85%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2565852	17.69	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 88.45%			
60) 2,4,6-Tribromophenol A...	10.290	141	206788	34.30	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 85.75%			
77) Terphenyl-d14 BN SS 3	13.126	244	1743510	17.89	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 89.45%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040819.D
Acq On : 8 Apr 2013 8:56 pm
Operator : BW
Sample : 13040516-009
Misc : Batch 45474 900mL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 09 09:22:18 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040820.D
Acq On : 8 Apr 2013 9:24 pm
Operator : BW
Sample : 13040516-010
Misc : Batch 45474 1000mL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 09 09:22:25 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

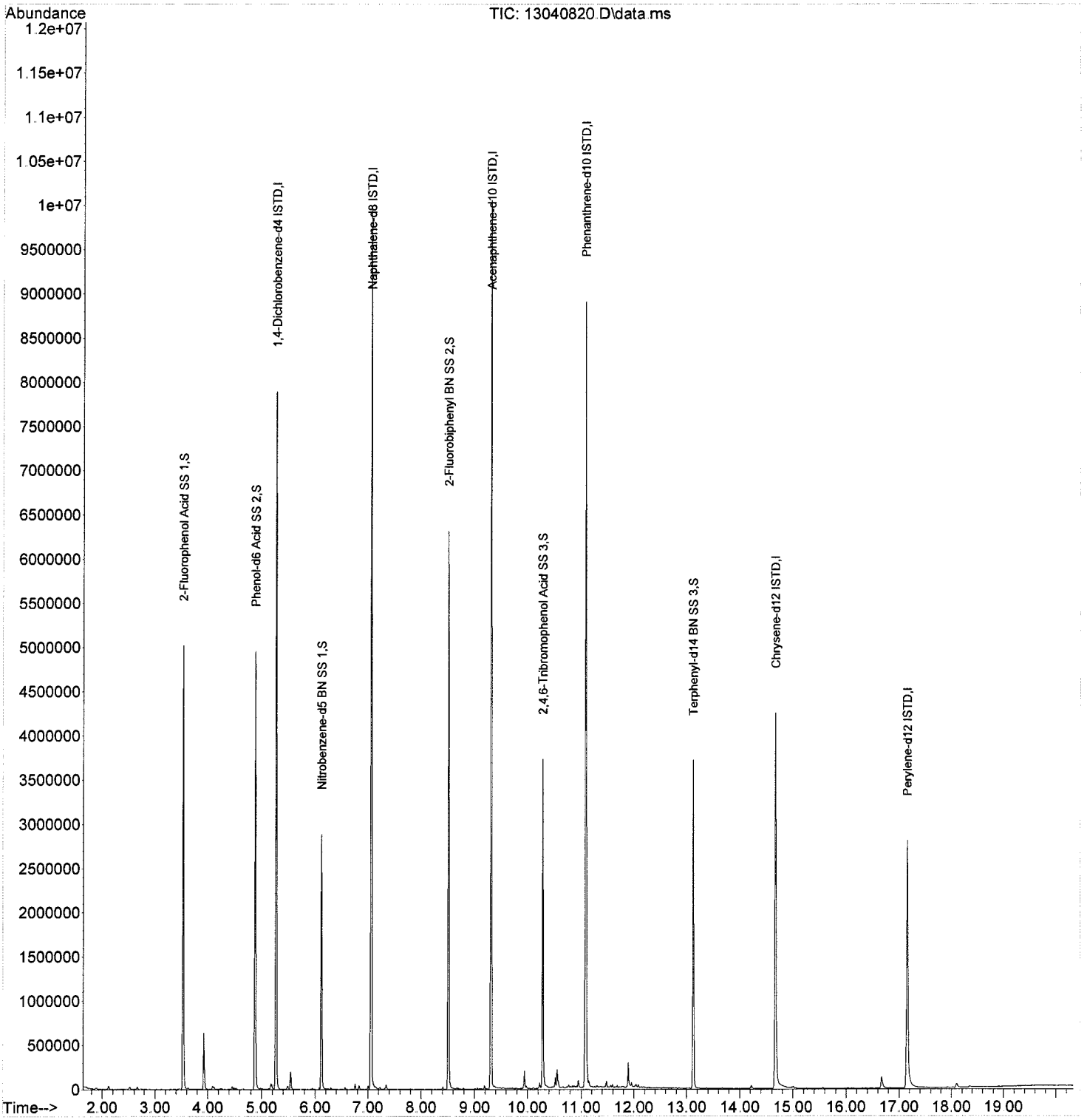
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.272	152	1989052	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	7013461	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3726380	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	5176392	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.677	240	2893675	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.161	264	2048254	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.529	112	2212174	30.55	mg/L	-0.01
Spiked Amount 40.000	Range 29 - 111		Recovery = 76.38%			
5) Phenol-d6 Acid SS 2	4.882	99	2879258	32.98	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 82.45%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1155752	16.14	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 80.70%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2547943	17.67	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 88.35%			
60) 2,4,6-Tribromophenol A...	10.290	141	203117	33.86	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 84.65%			
77) Terphenyl-d14 BN SS 3	13.126	244	1756091	17.88	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 89.40%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040820.D
Acq On : 8 Apr 2013 9:24 pm
Operator : BW
Sample : 13040516-010
Misc : Batch 45474 1000mL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 09 09:22:25 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040821.D
Acq On : 8 Apr 2013 9:52 pm
Operator : BW
Sample : 13040516-011
Misc : Batch 45474 1000mL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 10 09:16:41 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

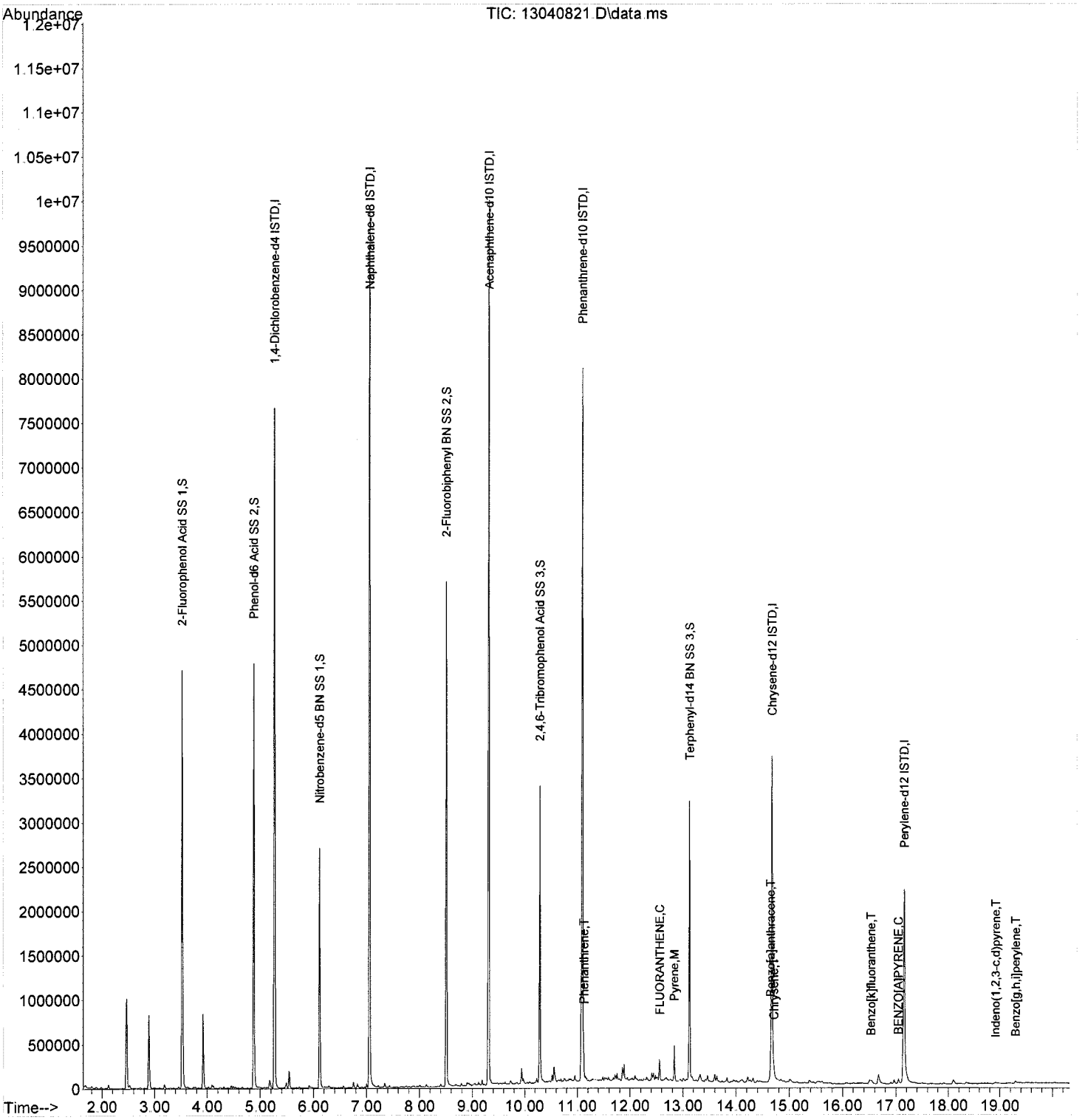
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.272	152	1966775	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	6914773	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3529855	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4430827	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.677	240	2344654	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.161	264	1719760	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.529	112	2063244	28.81	mg/L	-0.01
Spiked Amount 40.000	Range 29 - 111		Recovery = 72.02%			
5) Phenol-d6 Acid SS 2	4.882	99	2697209	31.14	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 77.85%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1062160	15.05	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 75.25%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2316758	16.91	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 84.55%			
60) 2,4,6-Tribromophenol A...	10.290	141	184473	32.37	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 80.92%			
77) Terphenyl-d14 BN SS 3	13.126	244	1457645	18.31	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 91.55%			
Target Compounds						Qvalue
69) Phenanthrene	11.123	178	80175	0.60	mg/L	94
73) FLUORANTHENE	12.563	202	117407	1.06	mg/L	100
75) Pyrene	12.837	202	207892	1.75	mg/L	99
82) Benzo[a]anthracene	14.648	228	45032	0.67	mg/L	96
83) Chrysene	14.710	228	59255	0.99	mg/L	98
87) Benzo[k]fluoranthene	16.530	252	40236m	0.78	mg/L	
88) BENZO[A]PYRENE	17.046	252	43772	0.96	mg/L	91
89) Indeno(1,2,3-c,d)pyrene	18.914	276	14251	0.51	mg/L	88
91) Benzo[g,h,i]perylene	19.299	276	19321	0.56	mg/L	92

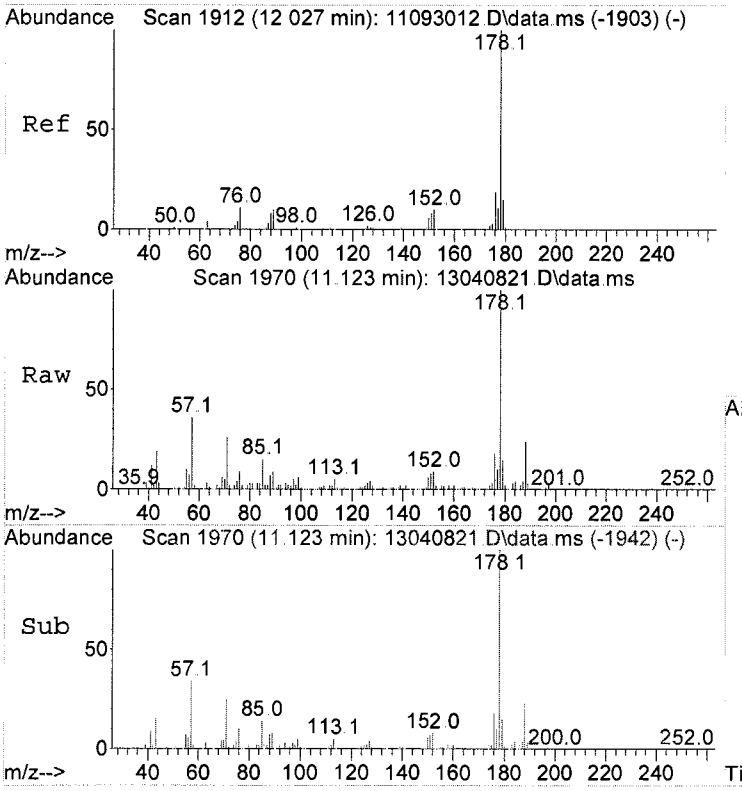
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040821.D
Acq On : 8 Apr 2013 9:52 pm
Operator : BW
Sample : 13040516-011
Misc : Batch 45474 1000mL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 10 09:16:41 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

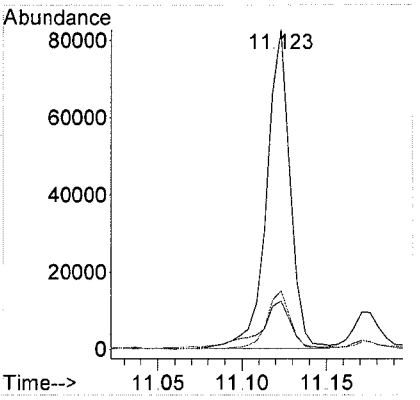


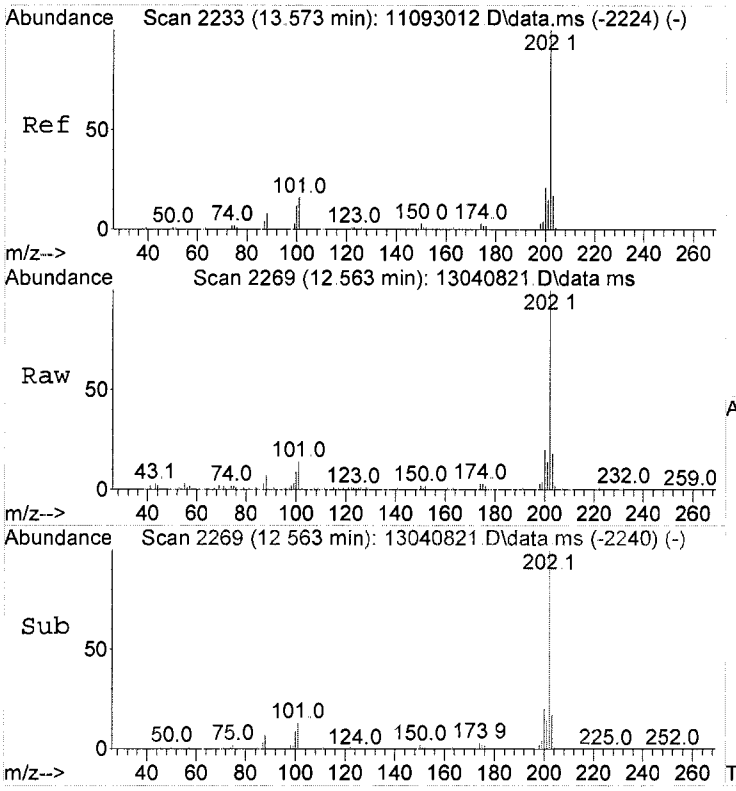


#69
Phenanthrene
Concen: 0.60 mg/L
RT: 11.123 min Scan# 1970
Delta R.T. -0.014 min
Lab File: 13040821.D
Acq: 8 Apr 2013 9:52 pm

Tgt Ion:178 Resp: 80175

Ion	Ratio	Lower	Upper
178	100		
179	19.8	0.0	35.7
176	19.3	0.0	38.3

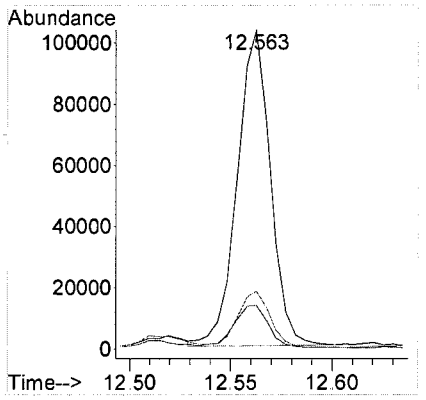


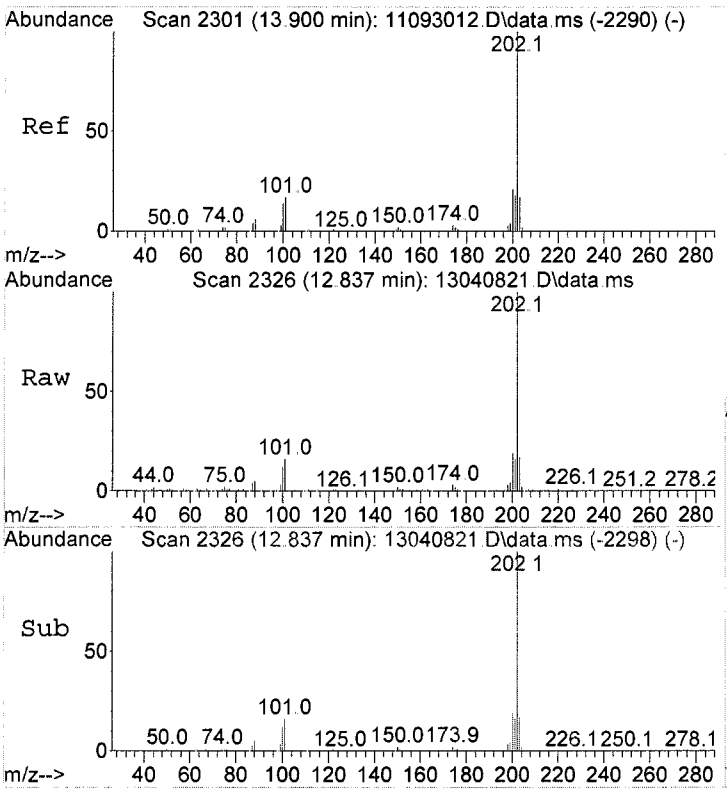


#73
FLUORANTHENE
Concen: 1.06 mg/L
RT: 12.563 min Scan# 2269
Delta R.T. -0.010 min
Lab File: 13040821.D
Acq: 8 Apr 2013 9:52 pm

Tgt Ion:202 Resp: 117407

Ion	Ratio	Lower	Upper
202	100		
101	14.6	0.0	34.7
203	17.5	0.0	37.8

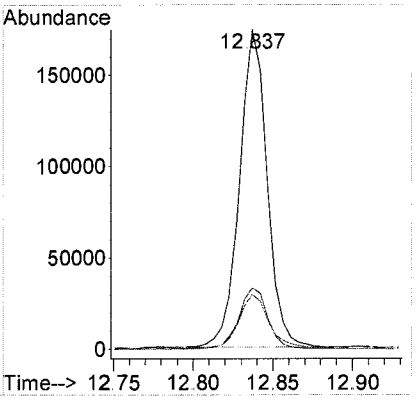


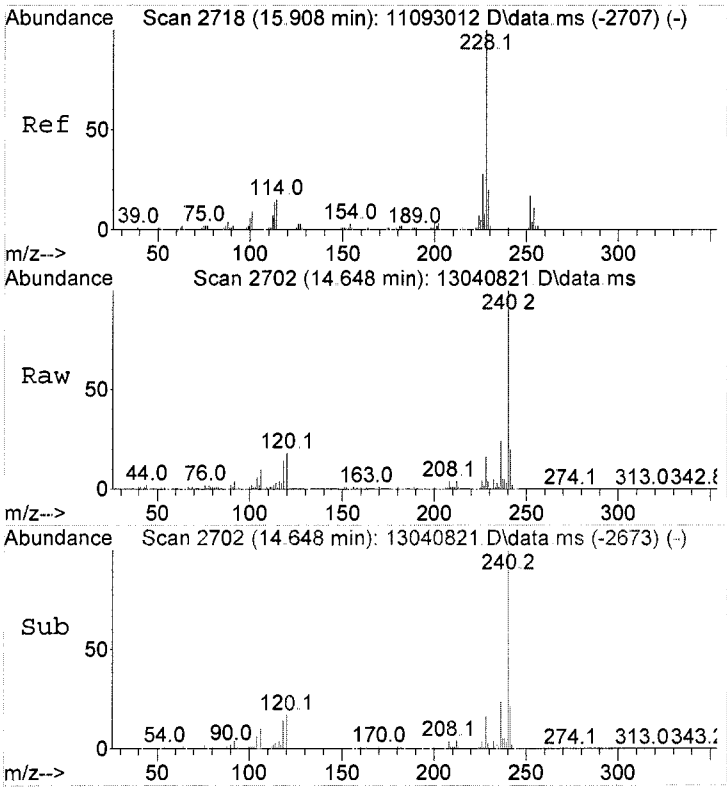


#75
Pyrene
Concen: 1.75 mg/L
RT: 12.837 min Scan# 2326
Delta R.T. -0.014 min
Lab File: 13040821.D
Acq: 8 Apr 2013 9:52 pm

Tgt Ion:202 Resp: 207892

Ion	Ratio	Lower	Upper
202	100		
200	20.0	0.0	39.9
203	18.3	0.0	37.8

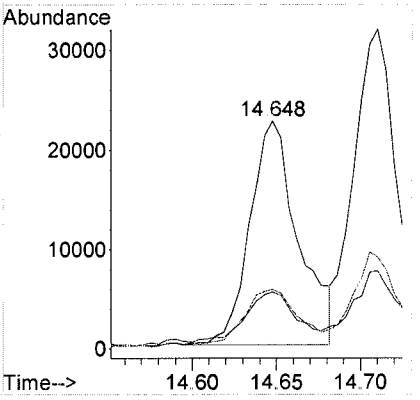


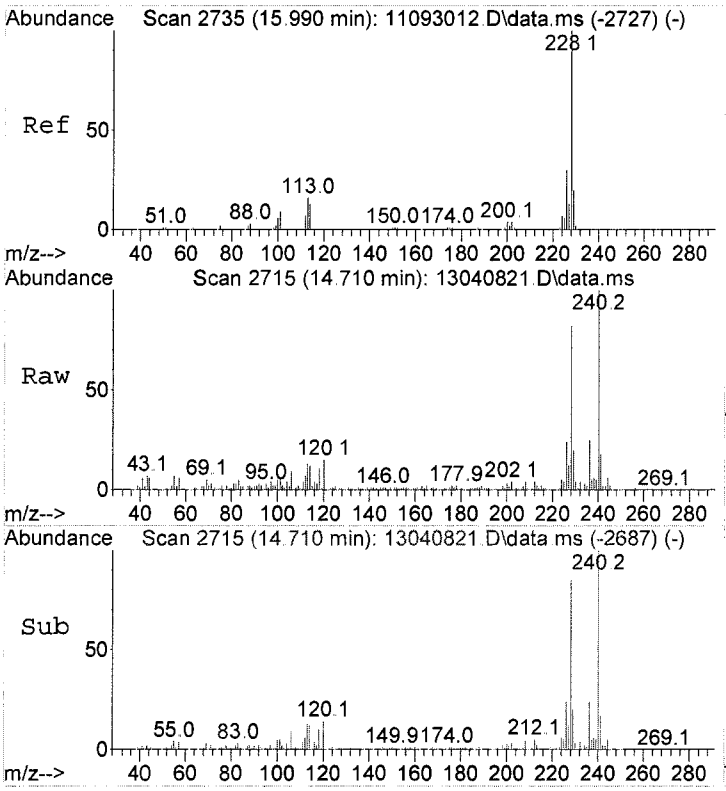


#82
Benzo[a]anthracene
Concen: 0.67 mg/L
RT: 14.648 min Scan# 2702
Delta R.T. -0.010 min
Lab File: 13040821.D
Acq: 8 Apr 2013 9:52 pm

Tgt Ion:228 Resp: 45032

Ion	Ratio	Lower	Upper
228	100		
229	23.2	0.0	39.9
226	27.0	6.0	46.0

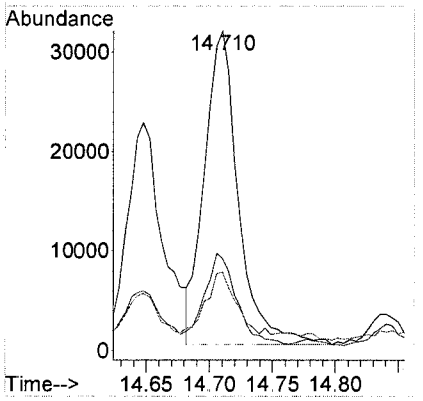


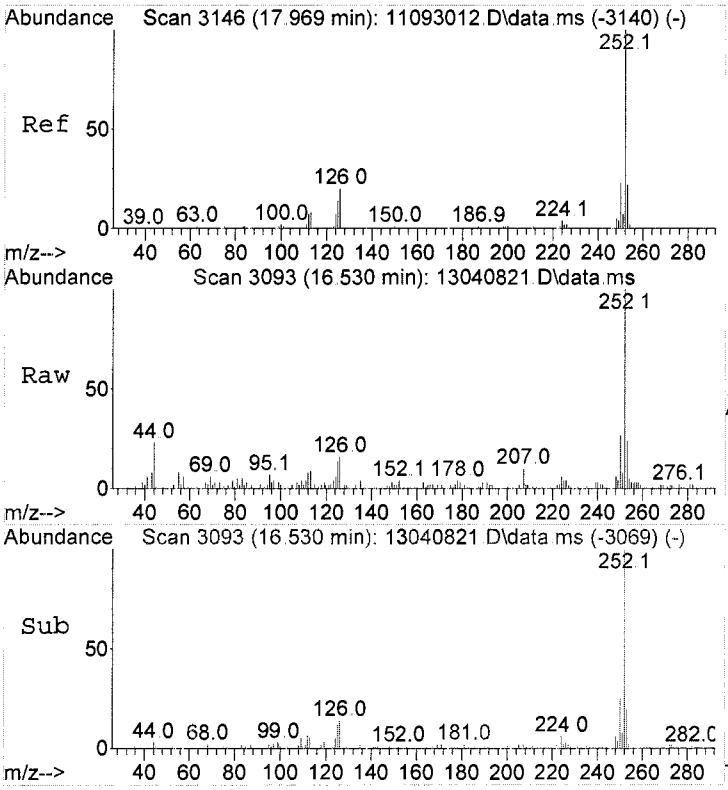


#83
Chrysene
Concen: 0.99 mg/L
RT: 14.710 min Scan# 2715
Delta R.T. -0.014 min
Lab File: 13040821.D
Acq: 8 Apr 2013 9:52 pm

Tgt Ion:228 Resp: 59255

Ion	Ratio	Lower	Upper
228	100		
226	27.4	8.7	48.7
229	18.5	0.0	39.6

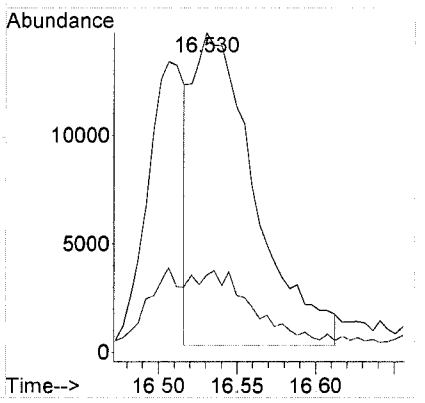


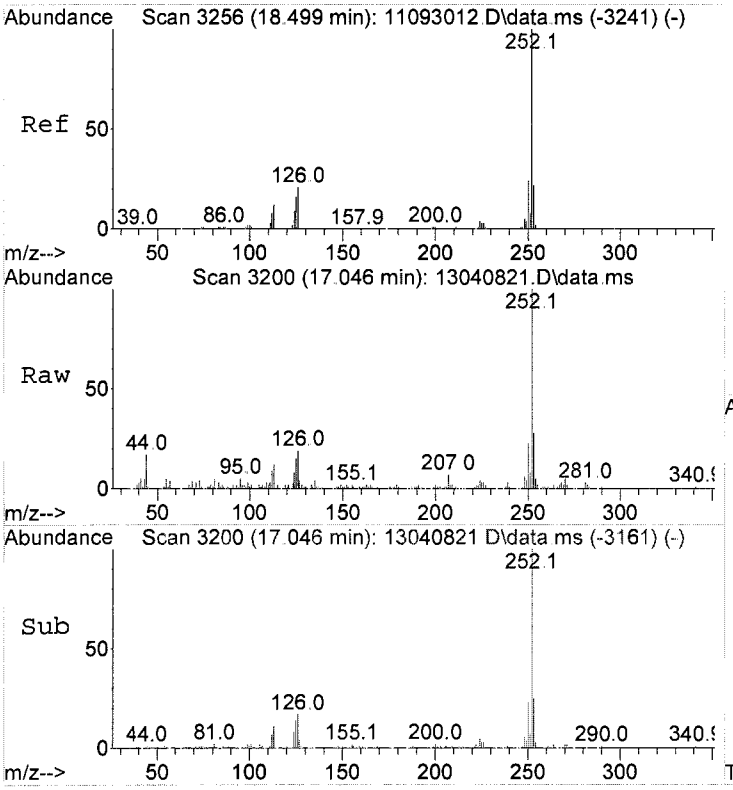


#87
Benzo[k]fluoranthene
Concen: 0.78 mg/L m
RT: 16.530 min Scan# 3093
Delta R.T. -0.034 min
Lab File: 13040821.D
Acq: 8 Apr 2013 9:52 pm

Tgt Ion:252 Resp: 40236

Ion	Ratio	Lower	Upper
252	100		
253	13.3	17.4	26.2#

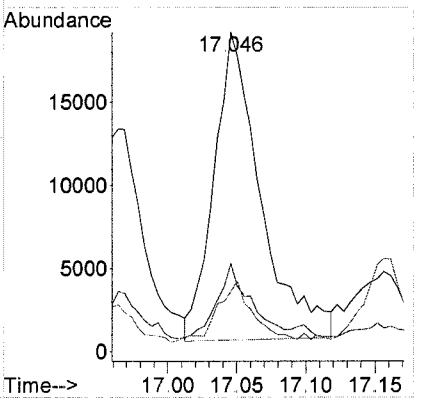


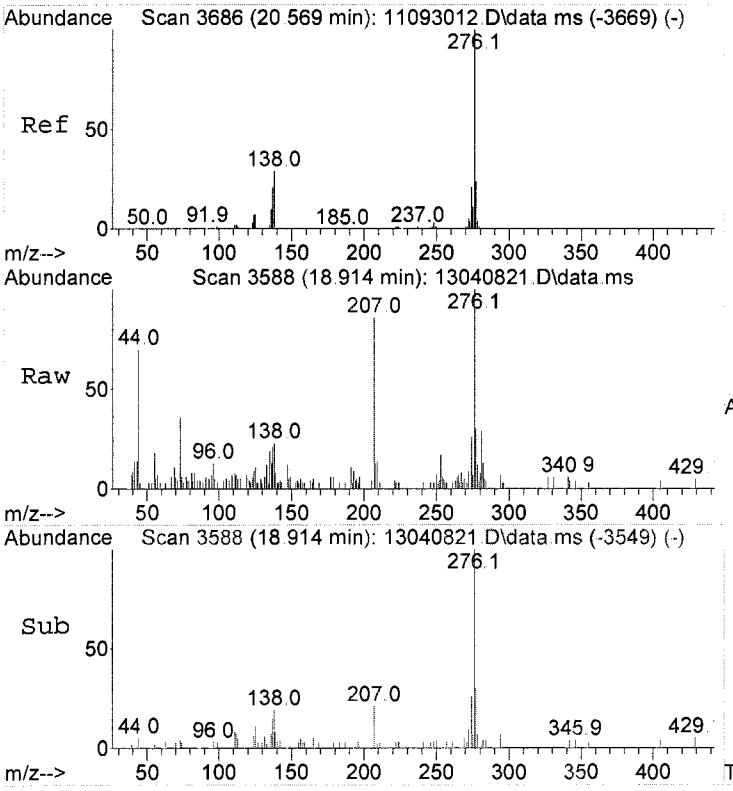


#88
BENZO[A]PYRENE
Concen: 0.96 mg/L
RT: 17.046 min Scan# 3200
Delta R.T. -0.014 min
Lab File: 13040821.D
Acq: 8 Apr 2013 9:52 pm

Tgt Ion:252 Resp: 43772

Ion	Ratio	Lower	Upper
252	100		
253	17.4	1.9	41.9
126	15.6	0.0	39.1

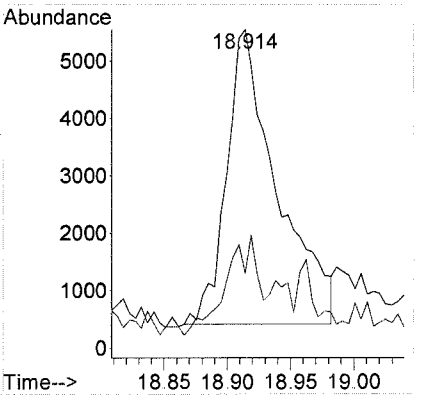


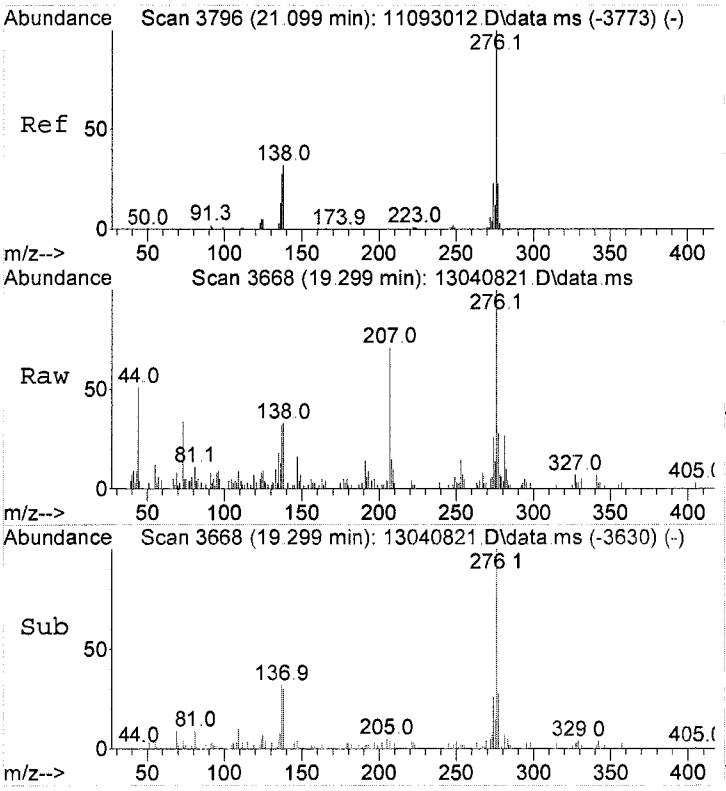


#89
Indeno(1,2,3-c,d)pyrene
Concen: 0.51 mg/L
RT: 18.914 min Scan# 3588
Delta R.T. -0.014 min
Lab File: 13040821.D
Acq: 8 Apr 2013 9:52 pm

Tgt Ion:276 Resp: 14251

Ion	Ratio	Lower	Upper
276	100		
138	21.1	7.3	47.3

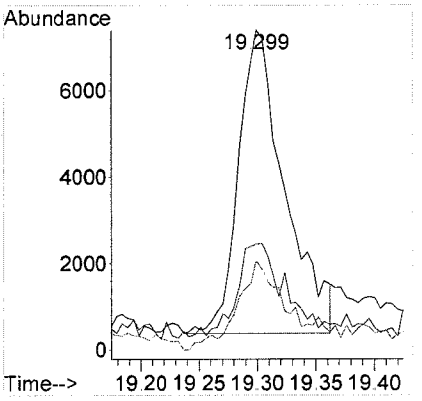




#91
Benzo[g,h,i]perylene
Concen: 0.56 mg/L
RT: 19.299 min Scan# 3668
Delta R.T. -0.019 min
Lab File: 13040821.D
Acq: 8 Apr 2013 9:52 pm

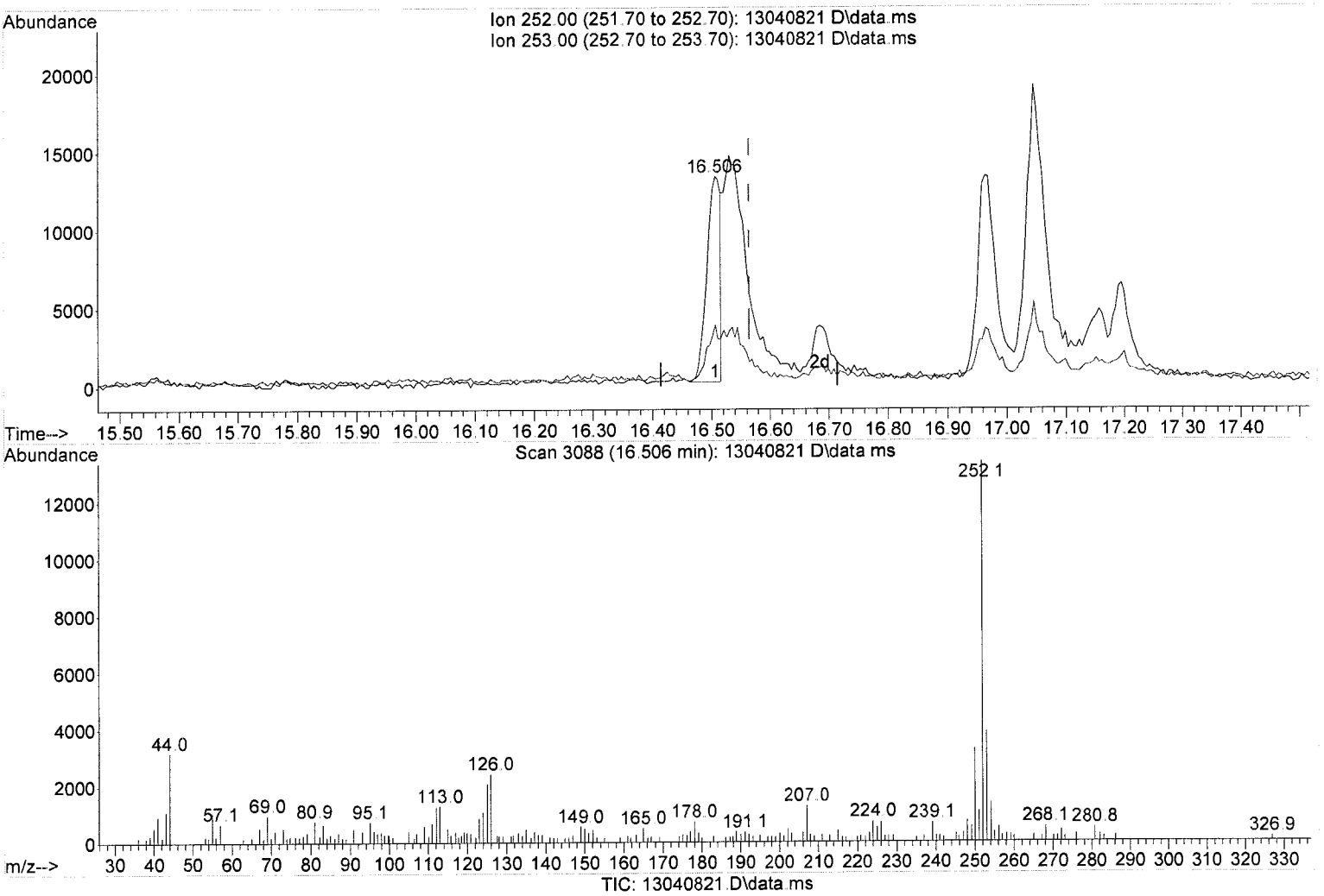
Tgt Ion:276 Resp: 19321

Ion	Ratio	Lower	Upper
276	100		
138	30.8	9.6	49.6
277	29.9	2.9	42.9



Data Path : P:\SVOC\2\data\130408\
Data File : 13040821.D
Acq On : 8 Apr 2013 9:52 pm
Operator : BW
Sample : 13040516-011
Misc : Batch 45474 1000mL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 10 09:37:06 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



(87) Benzo[k]fluoranthene (T)

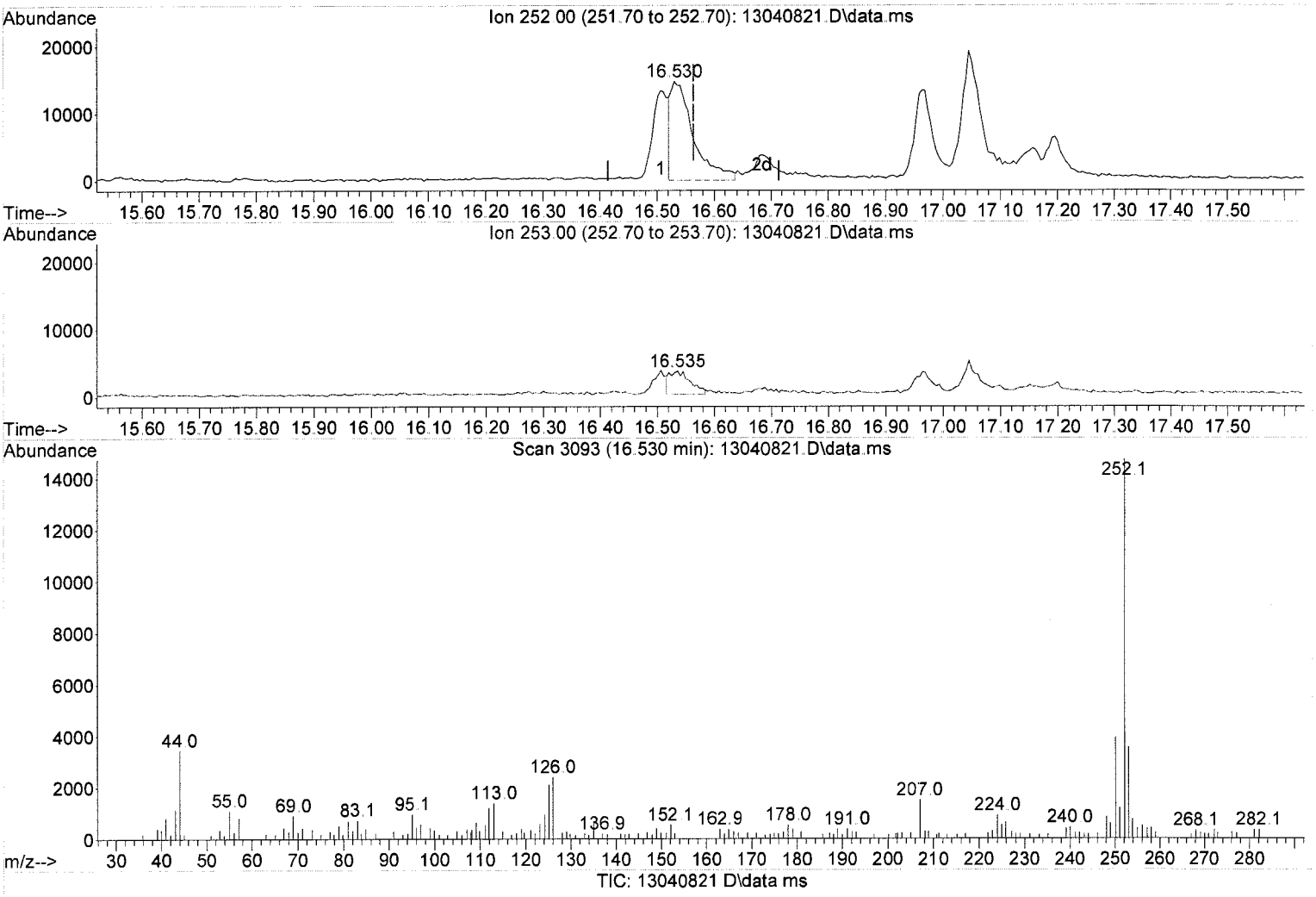
16.506min (-0.058) 0.42 mg/L

response 21583

Ion	Exp%	Act%
252.00	100	100
253.00	21.80	24.70
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : P:\SVOC\2\data\130408\
Data File : 13040821.D
Acq On : 8 Apr 2013 9:52 pm
Operator : BW
Sample : 13040516-011
Misc : Batch 45474 1000mL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 10 09:37:06 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



(87) Benzo[k]fluoranthene (T)

16.530min (-0.034) 0.78 mg/L m

response 40166

Ion	Exp%	Act%
252.00	100	100
253.00	21.80	21.32
0.00	0.00	0.00
0.00	0.00	0.00

3rd 4/10

2G - FORM II SV-1
WATER SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod Ref No.: _____ SDG No. : 13040516

	EPA SAMPLE NO.	SDMC1 (FBP) #	SDMC2 (2FP) #	SDMC3 (NBZ) #	SDMC4 (PHL) #	SDMC5 (TPH) #	SDMC6 (TBP) #	SDMC7 () #	SDMC8 () #
1	45474-1-BLK	101	95	90	97	103	73		
2	45474-1-BKS	100	89	88	88	99	102		
3	45474-1-BSD	94	85	86	83	90	95		
4	1644-Sump	87	75	80	82	95	80		
5	SB-03 (GW)	91	78	84	86	102	88		
6	SB-040413 (GW)	91	77	83	85	95	90		
7	SB-04 (GW)	88	76	80	82	89	86		
8	1646-Sump	88	76	81	82	89	85		
9	Surface Water	85	72	75	78	92	81		

		QC LIMITS
SDMC1	(FBP) = 2-Fluorobiphenyl	(58 - 119)
SDMC2	(2FP) = 2-Fluorophenol	(43 - 104)
SDMC3	(NBZ) = Nitrobenzene-d5	(51 - 110)
SDMC4	(PHL) = Phenol-d6	(53 - 112)
SDMC5	(TPH) = Terphenyl-D14	(59 - 120)
SDMC6	(TBP) = 2,4,6-Tribromophenol	(47 - 124)
SDMC7	_____	_____
SDMC8	_____	_____

\# Column to be used to flag recovery values
* Values outside of contract required QC limits
D DMC diluted out

2J - FORM II SV-3
SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No.: _____ Mod Ref No.: _____ SDG No. : 13040516

Level: (LOW/MED) _____

	EPA SAMPLE NO.	SDMC1 (FBP) #	SDMC2 (2FP) #	SDMC3 (NBZ) #	SDMC4 (PHL) #	SDMC5 (TPH) #	SDMC6 (TBP) #	SDMC7 () #	Total Out
1	45492-1-BLK	103	98	97	101	98	85		0
2	45492-1-BKS	93	85	85	82	90	101		0
3	45492-1-BSD	96	89	90	86	94	99		0
4	SB-01 (2-2.5) S	99	90	92	89	99	104		0
5	SB-01 (2-2.5) SD	92	85	86	83	90	98		0
6	SB-01 (2-2.5)	91	81	87	89	98	94		0
7	SB-02 (2-2.5)	90	80	84	87	97	92		0
8	SB-04 (2-2.5)	87	78	82	84	91	85		0
9	SB-03 (2-2.5)	89	75	81	82	90	84		0
10	SB-040413 (2-2.5)	103	91	96	98	104	98		0

		QC LIMITS
SDMC1	(FBP) = 2-Fluorobiphenyl	(60 - 132)
SDMC2	(2FP) = 2-Fluorophenol	(43 - 110)
SDMC3	(NBZ) = Nitrobenzene-d5	(48 - 123)
SDMC4	(PHL) = Phenol-d6	(58 - 120)
SDMC5	(TPH) = Terphenyl-D14	(48 - 140)
SDMC6	(TBP) = 2,4,6-Tribromophenol	(47 - 138)
SDMC7		

Column to be used to flag recovery values

* Values outside of contract required QC limits

SW8270C

3D - FORM III SV-2

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix Spike - EPA Sample No. **SB-01 (2-2.5)** Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS CONCENTRATION ug/kg	MS % REC #	QC LIMITS REC.
Acenaphthene	1544.00	0	1279	83	42-128
Acenaphthylene	1544.00	0	1254	81	48-122
Anthracene	1544.00	0	1295	84	65-114
Benzo(a)anthracene	1544.00	0	1397	90	66-124
Benzo(a)pyrene	1544.00	0	1384	90	61-117
Benzo(b)fluoranthene	1544.00	0	1270	82	53-122
Benzo(g,h,i)perylene	1544.00	0	1536	99	39-139
Benzo(k)fluoranthene	1544.00	0	1392	90	64-123
Chrysene	1544.00	0	1398	91	66-122
Dibenz(a,h)Anthracene	1544.00	0	1401	91	34-143
Fluoranthene	1544.00	0	1410	91	60-122
Fluorene	1544.00	0	1315	85	57-116
Indeno(1,2,3-c,d)Pyrene	1544.00	0	1462	95	33-140
2-Methylnaphthalene	1544.00	0	1252	81	48-116
Naphthalene	1544.00	0	1234	80	43-120
Phenanthrene	1544.00	0	1316	85	62-114
Pyrene	1544.00	0	1274	83	58-128

COMPOUND	SPIKE ADDED ug/kg	MSD CONCENTRATION ug/kg	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Acenaphthene	1551.00	1287	83	1	30	42-128
Acenaphthylene	1551.00	1266	82	1	30	48-122
Anthracene	1551.00	1281	83	1	30	65-114
Benzo(a)anthracene	1551.00	1396	90	0	30	66-124
Benzo(a)pyrene	1551.00	1376	89	1	30	61-117
Benzo(b)fluoranthene	1551.00	1295	83	2	30	53-122
Benzo(g,h,i)perylene	1551.00	1519	98	1	30	39-139
Benzo(k)fluoranthene	1551.00	1355	87	3	30	64-123
Chrysene	1551.00	1371	88	2	30	66-122
Dibenz(a,h)Anthracene	1551.00	1414	91	1	30	34-143
Fluoranthene	1551.00	1420	92	1	30	60-122
Fluorene	1551.00	1325	85	1	30	57-116
Indeno(1,2,3-c,d)Pyrene	1551.00	1498	97	2	30	33-140
2-Methylnaphthalene	1551.00	1279	82	2	30	48-116

3D - FORM III SV-2

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No.: 13040516

Matrix Spike - EPA Sample No. **SB-01 (2-2.5)** Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	MSD CONCENTRATION ug/kg	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Naphthalene	1551.00	1254	81	2	30	43-120
Phenanthrene	1551.00	1316	85	0	30	62-114
Pyrene	1551.00	1185	76	7	30	58-128

Column to be used to flag recovery and RPD Values with an asterisk.

* Values outside of QC limits

RPD 0 Out of 17 outside limits

Spike Recovery : 0 Out of 34 outside limits

COMMENTS: _____

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5) S

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-004 S

Sample wt/vol: 30.12 (g/mL): g Lab File ID: 13040911.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 14 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	1279	
208-96-8	Acenaphthylene	1254	
120-12-7	Anthracene	1295	
56-55-3	Benzo(a)anthracene	1397	
50-32-8	Benzo(a)pyrene	1384	
205-99-2	Benzo(b)fluoranthene	1270	
191-24-2	Benzo(g,h,i)perylene	1536	
207-08-9	Benzo(k)fluoranthene	1392	
218-01-9	Chrysene	1398	
53-70-3	Dibenz(a,h)Anthracene	1401	
206-44-0	Fluoranthene	1410	
86-73-7	Fluorene	1315	
193-39-5	Indeno(1,2,3-c,d)Pyrene	1462	
91-57-6	2-Methylnaphthalene	1252	
91-20-3	Naphthalene	1234	
85-01-8	Phenanthrene	1316	
129-00-0	Pyrene	1274	

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

SB-01 (2-2.5) SD

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOIL Lab Sample Id: 13040516-004 SD

Sample wt/vol: 29.99 (g/mL): g Lab File ID: 13040912.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 14 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	1287	
208-96-8	Acenaphthylene	1266	
120-12-7	Anthracene	1281	
56-55-3	Benzo(a)anthracene	1396	
50-32-8	Benzo(a)pyrene	1376	
205-99-2	Benzo(b)fluoranthene	1295	
191-24-2	Benzo(g,h,i)perylene	1519	
207-08-9	Benzo(k)fluoranthene	1355	
218-01-9	Chrysene	1371	
53-70-3	Dibenz(a,h)Anthracene	1414	
206-44-0	Fluoranthene	1420	
86-73-7	Fluorene	1325	
193-39-5	Indeno(1,2,3-c,d)Pyrene	1498	
91-57-6	2-Methylnaphthalene	1279	
91-20-3	Naphthalene	1254	
85-01-8	Phenanthrene	1316	
129-00-0	Pyrene	1185	

(1) Cannot be separated from Diphenylamine

SW8270C

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040911.D
Acq On : 9 Apr 2013 4:58 pm
Operator : BW
Sample : 13040516-004 S
Misc : Batch 45492 30.12g
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 10 07:45:20 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.277	152	1739562	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.073	136	6443043	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.327	164	3309957	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.109	188	4371691	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.682	240	2355021	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.162	264	1709605	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2271524	35.86	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 89.65%			
5) Phenol-d6 Acid SS 2	4.907	99	2697290	35.50	mg/L	-0.01
Spiked Amount 40.000	Range 31 - 109		Recovery = 88.75%			
22) Nitrobenzene-d5 BN SS 1	6.134	82	1214634	18.47	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 92.35%			
42) 2-Fluorobiphenyl BN SS 2	8.523	172	2506787	19.74	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 98.70%			
60) 2,4,6-Tribromophenol A...	10.300	141	217340	41.43	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 103.57%			
77) Terphenyl-d14 BN SS 3	13.121	244	1590061	19.89	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 99.45%			
Target Compounds						Qvalue
2) Pyridine	1.834	79	2227139	27.06	mg/L	99
3) N-Nitrosodimethylamine	1.849	74	1236436	25.05	mg/L	100
6) Benzaldehyde	4.651	77	165236	13.77	mg/L	98
7) Aniline	4.878	93	3158401	32.38	mg/L	95
8) PHENOL	4.926	94	2750253	33.85	mg/L	92
9) Bis(2-chloroethyl)ether	5.008	93	1980275	28.15	mg/L	98
10) 2-Chlorophenol	5.022	128	2158632	31.04	mg/L	99
11) n-Decane	5.138	43	1694250	29.15	mg/L	100
12) 1,4'-DICHLOROBENZENE	5.301	146	2128327	31.51	mg/L	100
13) 1,3'-Dichlorobenzene	5.220	146	2261766	29.20	mg/L	100
14) 1,2'-Dichlorobenzene	5.566	146	2221543	30.07	mg/L	100
15) 2-Methylphenol	5.778	107	1723592	31.96	mg/L	98
16) bis(2-chloroisopropyl)...	5.797	45	2521056	27.01	mg/L	97
17) 3,4-Methylphenol	6.004	107	1930049	31.89	mg/L	99
18) Acetophenone	5.937	105	2778956	30.42	mg/L	99
19) N-Nitrosodi-n-propyl a...	6.019	70	1292181	28.18	mg/L	99
20) Hexachloroethane	5.995	117	709697	31.31	mg/L	100
23) Nitrobenzene	6.159	77	2021521	29.24	mg/L	99
24) Isophorone	6.500	82	4260522	31.10	mg/L	99
25) 2-NITROPHENOL	6.602	139	1224077	35.65	mg/L	99
26) 2,4-dimethylphenol	6.727	122	1935390	30.64	mg/L	100
27) Bis(2-chloroethoxy)met...	6.857	93	2540963	27.24	mg/L	99
28) 2,4-DICHLOROPHENOL	6.929	162	1786158	32.97	mg/L	100
29) 1,2,4-Trichlorobenzene	7.030	180	1851019	29.45	mg/L	100
30) Naphthalene`	7.098	128	5405593	31.96	mg/L	100
31) 4-Chloroaniline	7.232	127	2401223	31.04	mg/L	99
32) HEXACHLOROBUTADIENE`	7.362	225	997648	32.77	mg/L	100
33) e-Caprolactam	7.719	55	842831	31.41	mg/L	96
34) 4-CHLORO-3-METHYLPHENOL	7.921	107	1777438	34.10	mg/L	100

Data Path : P:\SVOC\2\data\130409\
Data File : 13040911.D
Acq On : 9 Apr 2013 4:58 pm
Operator : BW
Sample : 13040516-004 S
Misc : Batch 45492 30.12g
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 10 07:45:20 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2-Methylnaphthalene	8.003	142	3729383	32.42	mg/L	99
36) Biphenyl	8.624	154	3871387	35.80	mg/L	99
37) 1,2,4,5-Tetrachloroben...	8.272	216	1766499	30.63	mg/L	100
39) Hexachlorocyclopentadiene	8.301	237	685994	32.16	mg/L	100
40) 2,4,6-TRICHLOROPHENOL	8.422	198	1231883	36.37	mg/L	99
41) 2,4,5-trichlorophenol	8.470	196	1254367	36.88	mg/L	98
43) 2-Chloronaphthalene	8.610	162	3109693	33.51	mg/L	100
44) 2-Nitroaniline	8.812	65	1039216	31.40	mg/L	99
45) 3-Nitroaniline	9.332	138	595910	28.83	mg/L	99
46) 4-Nitroaniline	10.083	138	481655	30.59	mg/L	88
47) Dimethylphthalate	9.115	163	4040857	33.76	mg/L	100
48) 2,6-Dinitrotoluene	9.183	165	957704	32.81	mg/L	98
49) Acenaphthylene	9.130	152	5097207	32.48	mg/L	100
50) ACENAPHTHENE	9.366	154	3133858	33.13	mg/L	100
51) 2,4-Dinitrophenol	9.457	184	337498	36.57	mg/L	98
52) 4-nitrophenol	9.577	65	481641	35.13	mg/L	96
53) 2,4-Dinitrotoluene	9.650	165	1207311	33.97	mg/L	99
54) Dibenzofuran	9.563	168	4709307	33.13	mg/L	98
55) 2,3,4,6-Tetrachlorophenol	9.780	232	942115	36.16	mg/L	100
56) Diethylphthalate	9.987	149	3429689	36.26	mg/L	99
57) 4-chlorophenyl phenyl ...	10.011	204	1764085	30.18	mg/L	99
58) Fluorene	9.982	166	3198173	34.05	mg/L	100
59) Atrazine	10.897	200	952584	36.20	mg/L	99
62) 4,6-Dinitro-2-methylph...	10.141	198	524746	38.83	mg/L	96
63) N-NITROSODI-N-PHENYLAMINE	10.175	169	3049363	33.75	mg/L	99
64) 1,2-diphenylhydrazine	10.199	77	3718114	34.09	mg/L	99
65) 4-bromophenyl phenyl e...	10.593	250	1067978	30.30	mg/L	100
66) Hexachlorobenzene	10.748	142	442403	36.33	mg/L	99
67) PENTACHLOROPHENOL	10.974	266	651112	39.97	mg/L	99
68) Octadecane	11.075	57	2089639	32.91	mg/L	99
69) Phenanthrene	11.133	178	4476671	34.09	mg/L	100
70) Anthracene	11.186	178	4364585	33.54	mg/L	100
71) Carbazole	11.402	167	3096836	34.89	mg/L	99
72) Di-n-Butylphthalate	11.961	149	5687527	36.74	mg/L	100
73) FLUORANTHENE	12.573	202	3986875	36.53	mg/L	99
75) Pyrene	12.847	202	3947415	32.99	mg/L	99
76) Benzidine	12.799	184	15353	7.04	mg/L	95
78) Butylbenzylphthalate	13.950	149	1915403	37.28	mg/L	99
79) Bis 2-ethylhexyl adipate	14.133	129	1821104	32.38	mg/L	99
80) Bis(2-ethylhexyl)phtha...	15.009	149	2577706	35.00	mg/L	99
81) 3,3-Dichlorobenzidine	14.691	252	396608	35.77	mg/L	99
82) Benzo[a]anthracene	14.653	228	2427605	36.19	mg/L	100
83) Chrysene	14.725	228	2172592	36.22	mg/L	99
85) DI-N-OCTYLPHTHALATE	16.117	149	3452836	32.39	mg/L	98
86) Benzo[b]fluoranthene	16.516	252	1715052	32.91	mg/L	99
87) Benzo[k]fluoranthene	16.560	252	1847431	36.07	mg/L	100
88) BENZO[A]PYRENE	17.056	252	1616201	35.85	mg/L	99
89) Indeno(1,2,3-c,d)pyrene	18.924	276	970152	37.86	mg/L	99
90) Dibenzo[a,h]anthracene	18.982	278	1081606	36.29	mg/L	96
91) Benzo[g,h,i]perylene	19.314	276	1193743	39.79	mg/L	99

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040911.D
Acq On : 9 Apr 2013 4:58 pm
Operator : BW
Sample : 13040516-004 S
Misc : Batch 45492 30.12g
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 10 07:45:20 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

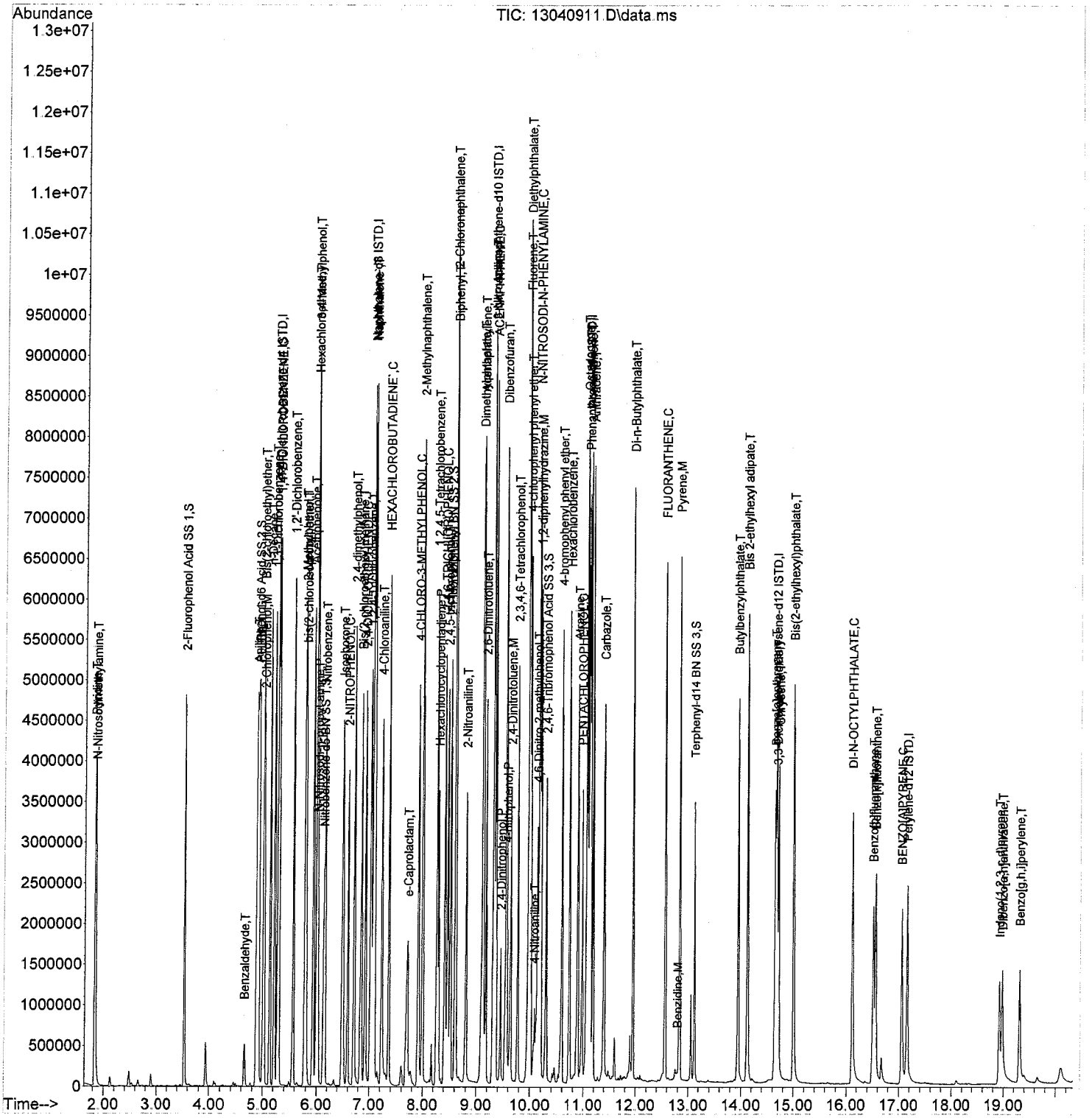
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040911.D
Acq On : 9 Apr 2013 4:58 pm
Operator : BW
Sample : 13040516-004 S
Misc : Batch 45492 30.12g
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 10 07:45:20 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040912.D
Acq On : 9 Apr 2013 5:26 pm
Operator : BW
Sample : 13040516-004 SD
Misc : Batch 45492 29.99g
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 10 07:45:24 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.277	152	1693172	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.073	136	6327377	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.327	164	3275857	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.108	188	4397317	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.686	240	2578713	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.166	264	1899866	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2101652	34.09	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 85.23%			
5) Phenol-d6 Acid SS 2	4.902	99	2464670	33.18	mg/L	-0.02
Spiked Amount 40.000	Range 31 - 109		Recovery = 82.95%			
22) Nitrobenzene-d5 BN SS 1	6.129	82	1116785	17.29	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 86.45%			
42) 2-Fluorobiphenyl BN SS 2	8.518	172	2333588	18.47	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 92.35%			
60) 2,4,6-Tribromophenol A...	10.299	141	204215	39.15	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 97.88%			
77) Terphenyl-d14 BN SS 3	13.126	244	1574432	17.98	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 89.90%			
Target Compounds						Qvalue
2) Pyridine	1.829	79	2170826	27.10	mg/L	99
3) N-Nitrosodimethylamine	1.849	74	1213224	25.26	mg/L	100
6) Benzaldehyde	4.651	77	162487	13.90	mg/L	98
7) Aniline	4.877	93	3074763	32.38	mg/L	95
8) PHENOL	4.921	94	2689480	34.03	mg/L	91
9) Bis(2-chloroethyl)ether	5.007	93	1967187	28.80	mg/L	98
10) 2-Chlorophenol	5.022	128	2089167	30.87	mg/L	99
11) n-Decane	5.137	43	1678105	29.77	mg/L	99
12) 1,4'-DICHLOROBENZENE	5.301	146	2084540	31.74	mg/L	100
13) 1,3'-Dichlorobenzene	5.219	146	2201333	29.20	mg/L	100
14) 1,2'-Dichlorobenzene	5.566	146	2168075	30.15	mg/L	100
15) 2-Methylphenol	5.773	107	1665718	31.74	mg/L	98
16) bis(2-chloroisopropyl)...	5.797	45	2460688	27.10	mg/L	98
17) 3,4-Methylphenol	6.004	107	1877726	31.87	mg/L	100
18) Acetophenone	5.937	105	2707131	30.45	mg/L	99
19) N-Nitrosodi-n-propyl a...	6.014	70	1258901	28.21	mg/L	98
20) Hexachloroethane	5.995	117	684328	30.99	mg/L	99
23) Nitrobenzene	6.158	77	1970403	29.02	mg/L	99
24) Isophorone	6.500	82	4178031	31.05	mg/L	99
25) 2-NITROPHENOL	6.601	139	1190513	35.30	mg/L	99
26) 2,4-dimethylphenol	6.727	122	1874058	30.22	mg/L	100
27) Bis(2-chloroethoxy)met...	6.857	93	2499698	27.29	mg/L	99
28) 2,4-DICHLOROPHENOL	6.929	162	1734881	32.61	mg/L	99
29) 1,2,4-Trichlorobenzene	7.030	180	1834447	29.72	mg/L	100
30) Naphthalene`	7.097	128	5361292	32.33	mg/L	100
31) 4-Chloroaniline	7.232	127	2327121	30.63	mg/L	99
32) HEXACHLOROBUTADIENE`	7.362	225	976761	32.66	mg/L	99
33) e-Caprolactam	7.714	55	826782	31.37	mg/L	96
34) 4-CHLORO-3-METHYLPHENOL	7.921	107	1751044	34.21	mg/L	100

Data Path : P:\SVOC\2\data\130409\
Data File : 13040912.D
Acq On : 9 Apr 2013 5:26 pm
Operator : BW
Sample : 13040516-004 SD
Misc : Batch 45492 29.99g
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 10 07:45:24 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2-Methylnaphthalene	8.003	142	3719437	32.99	mg/L	99
36) Biphenyl	8.624	154	3813519	35.94	mg/L	100
37) 1,2,4,5-Tetrachloroben...	8.272	216	1755182	30.99	mg/L	100
39) Hexachlorocyclopentadiene	8.301	237	688231	32.64	mg/L	99
40) 2,4,6-TRICHLOROPHENOL	8.422	198	1221257	36.43	mg/L	99
41) 2,4,5-trichlorophenol	8.470	196	1235563	36.70	mg/L	98
43) 2-Chloronaphthalene	8.609	162	3071001	33.42	mg/L	100
44) 2-Nitroaniline	8.812	65	1032667	31.54	mg/L	99
45) 3-Nitroaniline	9.336	138	582651	28.47	mg/L	99
46) 4-Nitroaniline	10.083	138	454557	29.31	mg/L	89
47) Dimethylphthalate	9.115	163	4039679	34.18	mg/L	100
48) 2,6-Dinitrotoluene	9.182	165	954867	33.11	mg/L	96
49) Acenaphthylene	9.129	152	5064494	32.64	mg/L	100
50) ACENAPHTHENE	9.365	154	3105738	33.19	mg/L	100
51) 2,4-Dinitrophenol	9.457	184	337828	36.94	mg/L	98
52) 4-nitrophenol	9.577	65	474448	34.94	mg/L	96
53) 2,4-Dinitrotoluene	9.649	165	1198591	34.09	mg/L	99
54) Dibenzofuran	9.563	168	4697547	33.43	mg/L	99
55) 2,3,4,6-Tetrachlorophenol	9.779	232	933041	36.19	mg/L	99
56) Diethylphthalate	9.991	149	3398169	36.31	mg/L	100
57) 4-chlorophenyl phenyl ...	10.011	204	1754342	30.36	mg/L	100
58) Fluorene	9.982	166	3174973	34.17	mg/L	100
59) Atrazine	10.897	200	943621	36.24	mg/L	97
62) 4,6-Dinitro-2-methylph...	10.141	198	530580	39.06	mg/L	97
63) N-NITROSODI-N-PHENYLAMINE	10.174	169	3018802	33.13	mg/L	100
64) 1,2-diphenylhydrazine	10.198	77	3687238	33.51	mg/L	88
65) 4-bromophenyl phenyl e...	10.593	250	1069459	30.17	mg/L	99
66) Hexachlorobenzene	10.747	142	437302	35.60	mg/L	98
67) PENTACHLOROPHENOL	10.978	266	655282	39.99	mg/L	100
68) Octadecane	11.075	57	2066695	32.23	mg/L	99
69) Phenanthrene	11.133	178	4484212	33.95	mg/L	100
70) Anthracene	11.185	178	4324494	33.04	mg/L	100
71) Carbazole	11.402	167	3121195	34.97	mg/L	99
72) Di-n-Butylphthalate	11.961	149	5680326	36.43	mg/L	100
73) FLUORANTHENE	12.572	202	4021349	36.63	mg/L	99
75) Pyrene	12.852	202	4002841	30.55	mg/L	99
76) Benzidine	12.794	184	25008	10.47	mg/L	98
78) Butylbenzylphthalate	13.949	149	2003782	35.62	mg/L	98
79) Bis 2-ethylhexyl adipate	14.132	129	1892871	30.59	mg/L	99
80) Bis(2-ethylhexyl)phtha...	15.009	149	2716154	33.58	mg/L	100
81) 3,3-Dichlorobenzidine	14.696	252	450860	37.16	mg/L	97
82) Benzo[a]anthracene	14.653	228	2644199	36.00	mg/L	99
83) Chrysene	14.725	228	2323588	35.37	mg/L	100
85) DI-N-OCTYLPHTHALATE	16.116	149	3709644	31.38	mg/L	98
86) Benzo[b]fluoranthene	16.521	252	1935905	33.41	mg/L	99
87) Benzo[k]fluoranthene	16.564	252	1988954	34.94	mg/L	100
88) BENZO[A]PYRENE	17.060	252	1777607	35.48	mg/L	99
89) Indeno(1,2,3-c,d)pyrene	18.929	276	1098575	38.64	mg/L	99
90) Dibenzo[a,h]anthracene	18.981	278	1207250	36.46	mg/L	97
91) Benzo[g,h,i]perylene	19.314	276	1308805	39.17	mg/L	98

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040912.D
Acq On : 9 Apr 2013 5:26 pm
Operator : BW
Sample : 13040516-004 SD
Misc : Batch 45492 29.99g
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 10 07:45:24 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

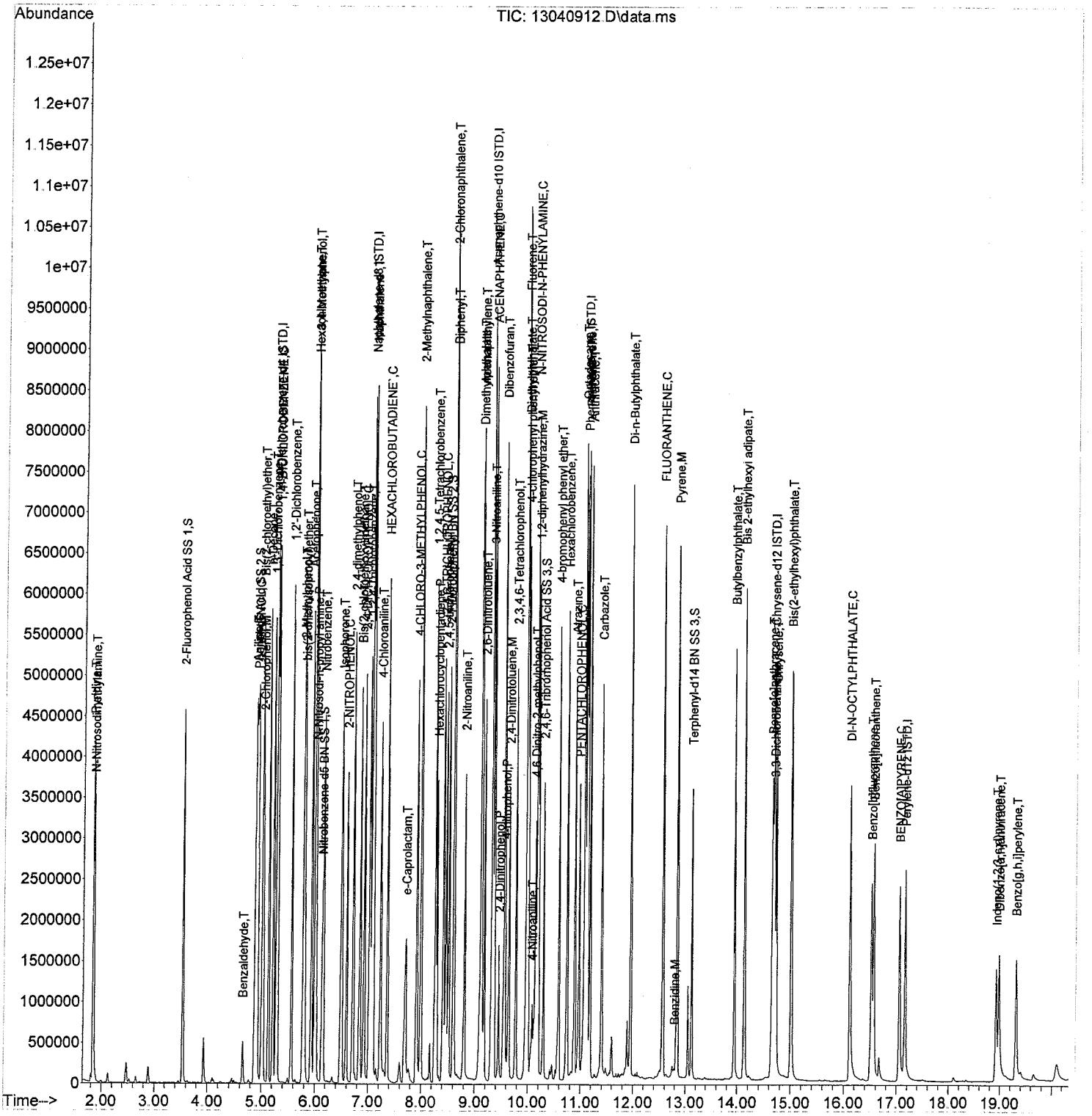
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040912.D
Acq On : 9 Apr 2013 5:26 pm
Operator : BW
Sample : 13040516-004 SD
Misc : Batch 45492 29.99g
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 10 07:45:24 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



3C - FORM III SV-1
WATER SEMIVOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. 45474-1-BKS

COMPOUND	SPIKE ADDED ug/L	BLANK CONCENTRATION ug/L	BKS CONCENTRATION ug/L	BKS % REC #	QC LIMITS REC
Acenaphthene	40.0	0	35.86	90	69-115
Acenaphthylene	40.0	0	34.90	87	67-118
Anthracene	40.0	0	34.33	86	69-126
Benzo(a)anthracene	40.0	0	38.18	95	65-136
Benzo(a)pyrene	40.0	0	36.25	91	56-132
Benzo(b)fluoranthene	40.0	0	35.77	89	51-134
Benzo(g,h,i)perylene	40.0	0	46.36	116	54-142
Benzo(k)fluoranthene	40.0	0	36.97	92	64-135
Chrysene	40.0	0	38.12	95	65-134
Dibenz(a,h)Anthracene	40.0	0	43.75	109	42-152
Fluoranthene	40.0	0	37.13	93	66-122
Fluorene	40.0	0	36.29	91	54-137
Indeno(1,2,3-c,d)Pyrene	40.0	0	41.05	103	33-155
2-Methylnaphthalene	40.0	0	35.96	90	65-120
Naphthalene	40.0	0	34.67	87	65-122
Phenanthrene	40.0	0	35.42	89	60-133
Pyrene	40.0	0	33.40	84	57-143

COMPOUND	SPIKE ADDED ug/L	BSD CONCENTRATION ug/L	BSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Acenaphthene	40.0	35.13	88	2	20	69-115
Acenaphthylene	40.0	34.35	86	2	20	67-118
Anthracene	40.0	33.52	84	2	20	69-126
Benzo(a)anthracene	40.0	37.56	94	2	20	65-136
Benzo(a)pyrene	40.0	37.66	94	4	20	56-132
Benzo(b)fluoranthene	40.0	35.56	89	1	20	51-134
Benzo(g,h,i)perylene	40.0	44.56	111	4	20	54-142
Benzo(k)fluoranthene	40.0	36.29	91	2	20	64-135
Chrysene	40.0	37.38	93	2	20	65-134
Dibenz(a,h)Anthracene	40.0	42.33	106	3	20	42-152
Fluoranthene	40.0	37.13	93	0	20	66-122
Fluorene	40.0	35.18	88	3	20	54-137
Indeno(1,2,3-c,d)Pyrene	40.0	42.60	107	4	20	33-155
2-Methylnaphthalene	40.0	34.95	87	3	20	65-120
Naphthalene	40.0	34.52	86	1	20	65-122
Phenanthrene	40.0	34.37	86	3	20	60-133
Pyrene	40.0	31.83	80	5	20	57-143

Column to be used to flag recovery and RPD Values with an asterisk.
* Values outside of QC limits

RPD 0 Out of 17 outside limits

3C - FORM III SV-1

WATER SEMIVOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. : 45474-1-BKS

Spike Recovery : 0 Out of 34 outside limit

COMMENTS: _____

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

45474-1-BKS

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105216 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 45474-1-BKS

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040808.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µL) Date Extracted: 04/08/2013

Injection Volume: _____ (µL) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
83-32-9	Acenaphthene	35.86	
208-96-8	Acenaphthylene	34.90	
120-12-7	Anthracene	34.33	
56-55-3	Benzo(a)anthracene	38.18	
50-32-8	Benzo(a)pyrene	36.25	
205-99-2	Benzo(b)fluoranthene	35.77	
191-24-2	Benzo(g,h,i)perylene	46.36	
207-08-9	Benzo(k)fluoranthene	36.97	
218-01-9	Chrysene	38.12	
53-70-3	Dibenz(a,h)Anthracene	43.75	
206-44-0	Fluoranthene	37.13	
86-73-7	Fluorene	36.29	
193-39-5	Indeno(1,2,3-c,d)Pyrene	41.05	
91-57-6	2-Methylnaphthalene	35.96	
91-20-3	Naphthalene	34.67	
85-01-8	Phenanthrene	35.42	
129-00-0	Pyrene	33.40	

(1) Cannot be separated from Diphenylamine

SW8270C

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040808.D
Acq On : 8 Apr 2013 3:47 pm
Operator : BW
Sample : 45474&5-1-BKS
Misc : Batch 45474&5 1000mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 09 09:16:15 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.277	152	1909976	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.073	136	6981366	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.327	164	3653087	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.109	188	4891505	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.681	240	2568779	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.161	264	1882216	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2486054	35.75	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 89.38%			
5) Phenol-d6 Acid SS 2	4.906	99	2930932	35.10	mg/L	-0.01
Spiked Amount 40.000	Range 31 - 109		Recovery = 87.75%			
22) Nitrobenzene-d5 BN SS 1	6.134	82	1248260	17.52	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 87.60%			
42) 2-Fluorobiphenyl BN SS 2	8.523	172	2806357	20.05	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 100.25%			
60) 2,4,6-Tribromophenol A...	10.300	141	236896	40.87	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 102.18%			
77) Terphenyl-d14 BN SS 3	13.126	244	1729730	19.84	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 99.20%			
Target Compounds						Qvalue
2) Pyridine	1.829	79	2589639	28.66	mg/L	98
3) N-Nitrosodimethylamine	1.844	74	1419103	26.19	mg/L	100
6) Benzaldehyde	4.651	77	183842	13.94	mg/L	97
7) Aniline	4.878	93	3623826	33.83	mg/L	92
8) PHENOL	4.926	94	3186302	36.04	mg/L	91
9) Bis(2-chloroethyl)ether	5.008	93	2309996	30.12	mg/L	99
10) 2-Chlorophenol	5.022	128	2485509	32.56	mg/L	99
11) n-Decane	5.138	43	1967861	31.21	mg/L	100
12) 1,4'-DICHLOROBENZENE	5.301	146	2496792	34.05	mg/L	100
13) 1,3'-Dichlorobenzene	5.219	146	2660719	31.28	mg/L	100
14) 1,2'-Dichlorobenzene	5.566	146	2604006	32.10	mg/L	100
15) 2-Methylphenol	5.778	107	2002175	33.82	mg/L	98
16) bis(2-chloroisopropyl)...	5.797	45	2875301	28.32	mg/L	96
17) 3,4-Methylphenol	6.004	107	2212856	33.44	mg/L	100
18) Acetophenone	5.937	105	3317392	33.08	mg/L	99
19) N-Nitrosodi-n-propyl a...	6.019	70	1519043	30.17	mg/L	98
20) Hexachloroethane	5.995	117	807882	32.57	mg/L	99
23) Nitrobenzene	6.163	77	2288712	30.55	mg/L	100
24) Isophorone	6.505	82	5030399	33.88	mg/L	99
25) 2-NITROPHENOL	6.601	139	1275361	34.28	mg/L	99
26) 2,4-dimethylphenol	6.727	122	2331968	34.08	mg/L	99
27) Bis(2-chloroethoxy)met...	6.857	93	2978305	29.46	mg/L	100
28) 2,4-DICHLOROPHENOL	6.929	162	2075000	35.35	mg/L	99
29) 1,2,4-Trichlorobenzene	7.030	180	2191098	32.17	mg/L	100
30) Naphthalene`	7.097	128	6281871	34.67	mg/L	100
31) 4-Chloroaniline	7.232	127	2852046	34.02	mg/L	99
32) HEXACHLOROBUTADIENE`	7.362	225	1153997	35.33	mg/L	99
33) e-Caprolactam	7.719	55	1063535	36.97	mg/L	95
34) 4-CHLORO-3-METHYLPHENOL	7.921	107	2056745	36.42	mg/L	99

Data Path : P:\SVOC\2\data\130408\
Data File : 13040808.D
Acq On : 8 Apr 2013 3:47 pm
Operator : BW
Sample : 45474&5-1-BKS
Misc : Batch 45474&5 1000mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 09 09:16:15 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.003	142	4423598	35.96 mg/L	99
36) Biphenyl	8.624	154	4461105	38.82 mg/L	100
37) 1,2,4,5-Tetrachloroben...	8.272	216	2085269	33.37 mg/L	100
39) Hexachlorocyclopentadiene	8.301	237	770594	32.79 mg/L	100
40) 2,4,6-TRICHLOROPHENOL	8.422	198	1412904	37.79 mg/L	100
41) 2,4,5-trichlorophenol	8.470	196	1454604	38.75 mg/L	98
43) 2-Chloronaphthalene	8.609	162	3582743	35.34 mg/L	100
44) 2-Nitroaniline	8.812	65	1134189	31.01 mg/L	98
45) 3-Nitroaniline	9.336	138	618587	27.06 mg/L	99
46) 4-Nitroaniline	10.083	138	489899	28.41 mg/L #	86
47) Dimethylphthalate	9.115	163	4753672	36.60 mg/L	100
48) 2,6-Dinitrotoluene	9.182	165	1041531	32.23 mg/L	100
49) Acenaphthylene	9.129	152	5961059	34.90 mg/L	100
50) ACENAPHTHENE	9.370	154	3694368	35.86 mg/L	100
51) 2,4-Dinitrophenol	9.457	184	251867	25.60 mg/L	99
52) 4-nitrophenol	9.577	65	495184	32.41 mg/L #	88
53) 2,4-Dinitrotoluene	9.654	165	1307790	33.29 mg/L	99
54) Dibenzofuran	9.563	168	5539291	35.65 mg/L	99
55) 2,3,4,6-Tetrachlorophenol	9.784	232	1044889	36.36 mg/L	99
56) Diethylphthalate	9.991	149	3935606	38.26 mg/L	100
57) 4-chlorophenyl phenyl ...	10.011	204	2062277	32.40 mg/L	99
58) Fluorene	9.982	166	3720784	36.29 mg/L	100
59) Atrazine	10.897	200	1131697	39.71 mg/L	95
62) 4,6-Dinitro-2-methylph...	10.141	198	463604	29.84 mg/L	100
63) N-NITROSODI-N-PHENYLAMINE	10.174	169	3558126	35.45 mg/L	100
64) 1,2-diphenylhydrazine	10.198	77	4259804	35.07 mg/L	99
65) 4-bromophenyl phenyl e...	10.593	250	1248704	31.67 mg/L	99
66) Hexachlorobenzene	10.747	142	515865	38.10 mg/L	98
67) PENTACHLOROPHENOL	10.979	266	685400	37.61 mg/L	99
68) Octadecane	11.075	57	2378608	33.61 mg/L	98
69) Phenanthrene	11.137	178	5203492	35.42 mg/L	100
70) Anthracene	11.186	178	4997487	34.33 mg/L	100
71) Carbazole	11.402	167	3447739	34.70 mg/L	99
72) Di-n-Butylphthalate	11.961	149	6717338	39.20 mg/L	100
73) FLUORANTHENE	12.572	202	4533891	37.13 mg/L	99
75) Pyrene	12.852	202	4359649	33.40 mg/L	100
76) Benzidine	12.789	184	9689	4.07 mg/L	90
78) Butylbenzylphthalate	13.950	149	2179966	38.90 mg/L	98
79) Bis 2-ethylhexyl adipate	14.133	129	2083318	34.13 mg/L	100
80) Bis(2-ethylhexyl)phtha...	15.009	149	2942042	36.76 mg/L	100
81) 3,3-Dichlorobenzidine	14.691	252	443732	36.70 mg/L	98
82) Benzo[a]anthracene	14.653	228	2793508	38.18 mg/L	100
83) Chrysene	14.725	228	2494677	38.12 mg/L	100
85) DI-N-OCTYLPHTHALATE	16.116	149	3747418	31.96 mg/L	98
86) Benzo[b]fluoranthene	16.516	252	2059001	35.77 mg/L	99
87) Benzo[k]fluoranthene	16.564	252	2084722	36.97 mg/L	100
88) BENZO[A]PYRENE	17.060	252	1798771	36.25 mg/L	100
89) Indeno(1,2,3-c,d)pyrene	18.929	276	1149878	41.05 mg/L	98
90) Dibenzo[a,h]anthracene	18.982	278	1407061	43.75 mg/L	99
91) Benzo[g,h,i]perylene	19.314	276	1492934	46.36 mg/L	98

Data Path : P:\SVOC\2\data\130408\
Data File : 13040808.D
Acq On : 8 Apr 2013 3:47 pm
Operator : BW
Sample : 45474&5-1-BKS
Misc : Batch 45474&5 1000mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 09 09:16:15 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

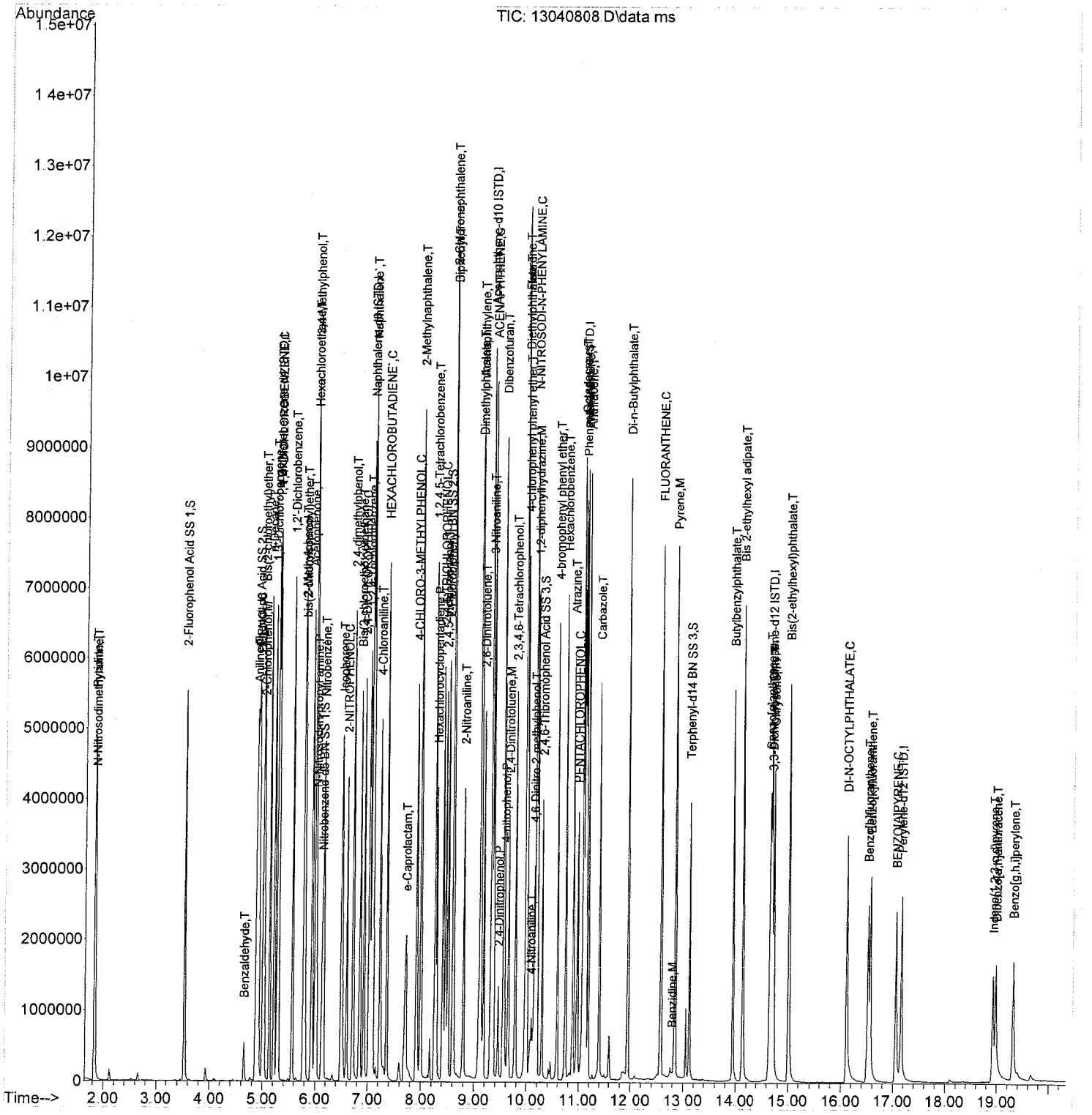
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040808.D
Acq On : 8 Apr 2013 3:47 pm
Operator : BW
Sample : 45474&5-1-BKS
Misc : Batch 45474&5 1000mL
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 09 09:16:15 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



L_SVOC.M Tue Apr 09 09:24:32 2013 Page: 4

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040809.D
Acq On : 8 Apr 2013 4:15 pm
Operator : BW
Sample : 45474&5-1-BSD
Misc : Batch 45474&5 1000mL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 09 09:16:19 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.277	152	1907171	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.073	136	6895342	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.327	164	3552070	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.108	188	4804353	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.681	240	2699051	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.161	264	1940949	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2354209	33.90	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 84.75%			
5) Phenol-d6 Acid SS 2	4.902	99	2772317	33.13	mg/L	-0.02
Spiked Amount 40.000	Range 31 - 109		Recovery = 82.83%			
22) Nitrobenzene-d5 BN SS 1	6.134	82	1215089	17.26	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 86.30%			
42) 2-Fluorobiphenyl BN SS 2	8.523	172	2574973	18.82	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 94.10%			
60) 2,4,6-Tribromophenol A...	10.299	141	215439	38.00	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 95.00%			
77) Terphenyl-d14 BN SS 3	13.126	244	1646982	17.97	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 89.85%			
Target Compounds						Qvalue
2) Pyridine	1.829	79	2550001	28.26	mg/L	98
3) N-Nitrosodimethylamine	1.849	74	1410741	26.07	mg/L	100
6) Benzaldehyde	4.656	77	182139	13.84	mg/L	99
7) Aniline	4.877	93	3630005	33.94	mg/L	92
8) PHENOL	4.926	94	3144123	35.54	mg/L	91
9) Bis(2-chloroethyl)ether	5.007	93	2273044	29.63	mg/L	99
10) 2-Chlorophenol	5.022	128	2459228	32.26	mg/L	99
11) n-Decane	5.137	43	1950386	30.93	mg/L	99
12) 1,4'-DICHLOROBENZENE	5.301	146	2481923	33.87	mg/L	100
13) 1,3'-Dichlorobenzene	5.219	146	2640214	31.09	mg/L	100
14) 1,2'-Dichlorobenzene	5.566	146	2561402	31.63	mg/L	99
15) 2-Methylphenol	5.778	107	1958344	33.13	mg/L	98
16) bis(2-chloroisopropyl)...	5.802	45	2869426	28.30	mg/L	97
17) 3,4-Methylphenol	6.004	107	2154073	32.52	mg/L	100
18) Acetophenone	5.937	105	3208967	32.04	mg/L	98
19) N-Nitrosodi-n-propyl a...	6.019	70	1469210	29.23	mg/L	98
20) Hexachloroethane	5.995	117	804635	32.48	mg/L	99
23) Nitrobenzene	6.163	77	2260543	30.55	mg/L	100
24) Isophorone	6.505	82	4861653	33.16	mg/L	99
25) 2-NITROPHENOL	6.601	139	1326085	36.09	mg/L	99
26) 2,4-dimethylphenol	6.727	122	2184306	32.32	mg/L	99
27) Bis(2-chloroethoxy)met...	6.857	93	2905682	29.10	mg/L	100
28) 2,4-DICHLOROPHENOL	6.929	162	2006579	34.61	mg/L	99
29) 1,2,4-Trichlorobenzene	7.030	180	2127120	31.62	mg/L	100
30) Naphthalene`	7.097	128	6180984	34.52	mg/L	100
31) 4-Chloroaniline	7.232	127	2786094	33.65	mg/L	99
32) HEXACHLOROBUTADIENE`	7.362	225	1141844	35.41	mg/L	100
33) e-Caprolactam	7.714	55	945708	33.03	mg/L	95
34) 4-CHLORO-3-METHYLPHENOL	7.921	107	1979456	35.48	mg/L	99

Data Path : P:\SVOC\2\data\130408\
Data File : 13040809.D
Acq On : 8 Apr 2013 4:15 pm
Operator : BW
Sample : 45474&5-1-BSD
Misc : Batch 45474&5 1000mL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 09 09:16:19 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2-Methylnaphthalene	8.003	142	4262881	34.95	mg/L	99
36) Biphenyl	8.624	154	4227298	36.75	mg/L	100
37) 1,2,4,5-Tetrachloroben...	8.272	216	2002017	32.43	mg/L	100
39) Hexachlorocyclopentadiene	8.301	237	763979	33.49	mg/L	99
40) 2,4,6-TRICHLOROPHENOL	8.422	198	1356148	37.31	mg/L	99
41) 2,4,5-trichlorophenol	8.470	196	1413017	38.71	mg/L	98
43) 2-Chloronaphthalene	8.614	162	3441743	34.81	mg/L	100
44) 2-Nitroaniline	8.812	65	1103425	31.03	mg/L	98
45) 3-Nitroaniline	9.336	138	606176	27.27	mg/L	99
46) 4-Nitroaniline	10.083	138	513761	30.42	mg/L	90
47) Dimethylphthalate	9.115	163	4511374	35.48	mg/L	100
48) 2,6-Dinitrotoluene	9.187	165	1023646	32.65	mg/L	99
49) Acenaphthylene	9.129	152	5722363	34.35	mg/L	100
50) ACENAPHTHENE	9.365	154	3531757	35.13	mg/L	99
51) 2,4-Dinitrophenol	9.457	184	288535	29.76	mg/L	99
52) 4-nitrophenol	9.577	65	499376	33.78	mg/L	96
53) 2,4-Dinitrotoluene	9.654	165	1275341	33.40	mg/L	99
54) Dibenzofuran	9.563	168	5282004	34.85	mg/L	99
55) 2,3,4,6-Tetrachlorophenol	9.784	232	1016817	36.39	mg/L	99
56) Diethylphthalate	9.991	149	3674478	36.17	mg/L	100
57) 4-chlorophenyl phenyl ...	10.011	204	1976590	31.83	mg/L	99
58) Fluorene	9.982	166	3526753	35.18	mg/L	99
59) Atrazine	10.897	200	1066957	38.19	mg/L	96
62) 4,6-Dinitro-2-methylph...	10.141	198	499023	33.02	mg/L	98
63) N-NITROSODI-N-PHENYLAMINE	10.174	169	3378597	34.07	mg/L	100
64) 1,2-diphenylhydrazine	10.203	77	4104827	34.27	mg/L	100
65) 4-bromophenyl phenyl e...	10.593	250	1204855	31.11	mg/L	100
66) Hexachlorobenzene	10.747	142	486783	36.38	mg/L	97
67) PENTACHLOROPHENOL	10.978	266	688012	38.43	mg/L	100
68) Octadecane	11.075	57	2272143	32.48	mg/L	98
69) Phenanthrene	11.137	178	4959763	34.37	mg/L	100
70) Anthracene	11.190	178	4793293	33.52	mg/L	100
71) Carbazole	11.402	167	3283956	33.54	mg/L	100
72) Di-n-Butylphthalate	11.961	149	6367843	37.56	mg/L	100
73) FLUORANTHENE	12.572	202	4453475	37.13	mg/L	99
75) Pyrene	12.847	202	4364983	31.83	mg/L	100
76) Benzidine	12.794	184	10788	4.32	mg/L	89
78) Butylbenzylphthalate	13.949	149	2148694	36.49	mg/L	98
79) Bis 2-ethylhexyl adipate	14.132	129	2044772	31.66	mg/L	99
80) Bis(2-ethylhexyl)phtha...	15.014	149	2944675	34.88	mg/L	100
81) 3,3-Dichlorobenzidine	14.696	252	455645	35.85	mg/L	98
82) Benzo[a]anthracene	14.653	228	2887262	37.56	mg/L	100
83) Chrysene	14.725	228	2570045	37.38	mg/L	99
85) DI-N-OCTYLPHTHALATE	16.116	149	3828696	31.68	mg/L	98
86) Benzo[b]fluoranthene	16.516	252	2110827	35.56	mg/L	97
87) Benzo[k]fluoranthene	16.564	252	2110320	36.29	mg/L	100
88) BENZO[A]PYRENE	17.060	252	1926416	37.66	mg/L	98
89) Indeno(1,2,3-c,d)pyrene	18.929	276	1226252	42.60	mg/L	97
90) Dibenzo[a,h]anthracene	18.981	278	1409130	42.33	mg/L	99
91) Benzo[g,h,i]perylene	19.314	276	1490263	44.56	mg/L	98

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040809.D
Acq On : 8 Apr 2013 4:15 pm
Operator : BW
Sample : 45474&5-1-BSD
Misc : Batch 45474&5 1000mL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 09 09:16:19 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

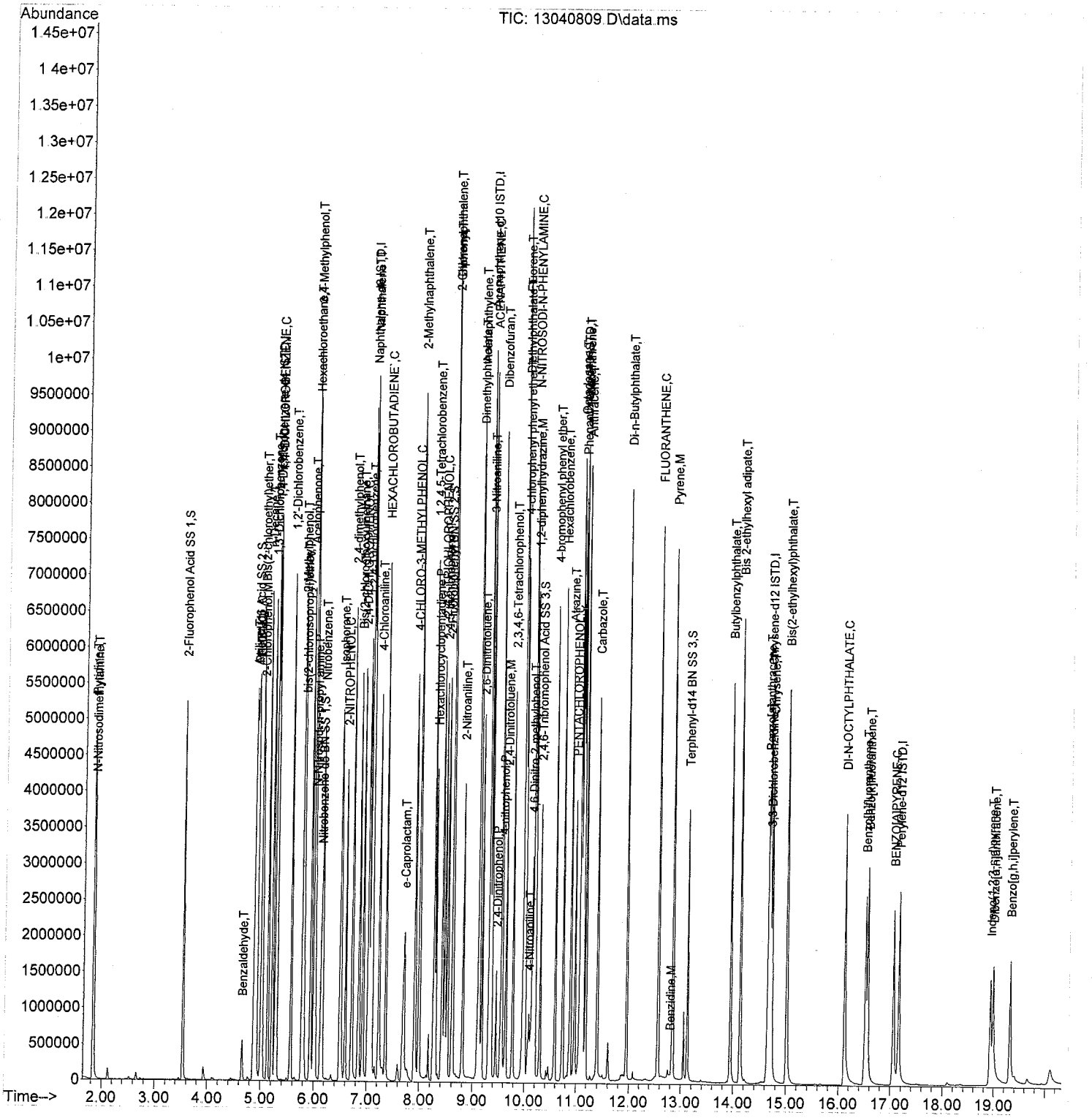
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040809.D
Acq On : 8 Apr 2013 4:15 pm
Operator : BW
Sample : 45474&5-1-BSD
Misc : Batch 45474&5 1000mL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 09 09:16:19 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



L_SVOC.M Tue Apr 09 09:24:36 2013 Page: 4

3D - FORM III SV-2

SOIL SEMIVOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. :45492-1-BKS Level : (low / med) LOW

COMPOUND	SPIKE ADDED ug/kg	BLANK CONCENTRATION ug/kg	BKS CONCENTRATION ug/kg	BKS % REC #	QC LIMITS REC.
Acenaphthene	1330.00	0	1155	87	63-115
Acenaphthylene	1330.00	0	1141	86	64-115
Anthracene	1330.00	0	1132	85	69-120
Benzo(a)anthracene	1330.00	0	1252	94	63-128
Benzo(a)pyrene	1330.00	0	1231	93	61-118
Benzo(b)fluoranthene	1330.00	0	1144	86	56-119
Benzo(g,h,i)perylene	1330.00	0	1373	103	47-140
Benzo(k)fluoranthene	1330.00	0	1221	92	63-125
Chrysene	1330.00	0	1230	92	67-124
Dibenz(a,h)Anthracene	1330.00	0	1366	103	47-136
Fluoranthene	1330.00	0	1283	96	69-114
Fluorene	1330.00	0	1177	88	59-123
Indeno(1,2,3-c,d)Pyrene	1330.00	0	1305	98	45-131
2-Methylnaphthalene	1330.00	0	1130	85	58-121
Naphthalene	1330.00	0	1092	82	61-117
Phenanthrene	1330.00	0	1155	87	62-121
Pyrene	1330.00	0	1045	79	62-129

COMPOUND	SPIKE ADDED ug/kg	BSD CONCENTRATION ug/kg	BSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
Acenaphthene	1332.00	1177	88	2	25	63-115
Acenaphthylene	1332.00	1180	89	3	25	64-115
Anthracene	1332.00	1184	89	4	25	69-120
Benzo(a)anthracene	1332.00	1267	95	1	25	63-128
Benzo(a)pyrene	1332.00	1278	96	4	25	61-118
Benzo(b)fluoranthene	1332.00	1175	88	3	25	56-119
Benzo(g,h,i)perylene	1332.00	1383	104	1	25	47-140
Benzo(k)fluoranthene	1332.00	1297	97	6	25	63-125
Chrysene	1332.00	1272	95	3	25	67-124
Dibenz(a,h)Anthracene	1332.00	1267	95	8	25	47-136
Fluoranthene	1332.00	1294	97	1	25	69-114
Fluorene	1332.00	1186	89	1	25	59-123
Indeno(1,2,3-c,d)Pyrene	1332.00	1340	101	3	25	45-131
2-Methylnaphthalene	1332.00	1171	88	4	25	58-121
Naphthalene	1332.00	1160	87	6	25	61-117
Phenanthrene	1332.00	1173	88	2	25	62-121
Pyrene	1332.00	1139	86	9	25	62-129

Column to be used to flag recovery and RPD Values with an asterisk.

* Values outside of QC limits

RPD 0 Out of 17 outside limits

Spike Recovery : 0 Out of 34 outside limit

3D - FORM III SV-2

SOIL SEMIVOLATILE BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY

Lab Name: PHASE SEPARATION SCIENCE Contract : 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Blank Spike - EPA Sample No. :45492-1-BKS Level : (low / med) LOW

COMMENTS: _____

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

45492-1-BKS

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOLID Lab Sample Id: 45492-1-BKS

Sample wt/vol: 30.07 (g/mL): g Lab File ID: 13040909.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 0 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	1155	
208-96-8	Acenaphthylene	1141	
120-12-7	Anthracene	1132	
56-55-3	Benzo(a)anthracene	1252	
50-32-8	Benzo(a)pyrene	1231	
205-99-2	Benzo(b)fluoranthene	1144	
191-24-2	Benzo(g,h,i)perylene	1373	
207-08-9	Benzo(k)fluoranthene	1221	
218-01-9	Chrysene	1230	
53-70-3	Dibenz(a,h)Anthracene	1366	
206-44-0	Fluoranthene	1283	
86-73-7	Fluorene	1177	
193-39-5	Indeno(1,2,3-c,d)Pyrene	1305	
91-57-6	2-Methylnaphthalene	1130	
91-20-3	Naphthalene	1092	
85-01-8	Phenanthrene	1155	
129-00-0	Pyrene	1045	

(1) Cannot be separated from Diphenylamine

SW8270C

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040909.D
Acq On : 9 Apr 2013 4:03 pm
Operator : BW
Sample : 45492-1-BKS
Misc : Batch 45492 30.07g
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 10 07:45:12 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.277	152	1722148	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.073	136	6394291	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.327	164	3293202	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.108	188	4524300	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.686	240	2724743	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.166	264	2050300	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2141752	34.16	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 85.40%			
5) Phenol-d6 Acid SS 2	4.906	99	2483006	32.84	mg/L	-0.01
Spiked Amount 40.000	Range 31 - 109		Recovery = 82.10%			
22) Nitrobenzene-d5 BN SS 1	6.129	82	1111820	17.04	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 85.20%			
42) 2-Fluorobiphenyl BN SS 2	8.518	172	2368364	18.66	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 93.30%			
60) 2,4,6-Tribromophenol A...	10.299	141	211431	40.42	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 101.05%			
77) Terphenyl-d14 BN SS 3	13.126	244	1667434	18.03	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 90.15%			
Target Compounds						Qvalue
2) Pyridine	1.829	79	2279170	27.98	mg/L	99
3) N-Nitrosodimethylamine	1.849	74	1266077	25.91	mg/L	98
6) Benzaldehyde	4.651	77	181846	15.15	mg/L	99
7) Aniline	4.877	93	3209845	33.24	mg/L	94
8) PHENOL	4.921	94	2814668	35.18	mg/L	91
9) Bis(2-chloroethyl)ether	5.007	93	2034734	29.34	mg/L	98
10) 2-Chlorophenol	5.022	128	2206538	32.05	mg/L	99
11) n-Decane	5.137	43	1720831	30.07	mg/L	100
12) 1,4'-DICHLOROBENZENE	5.301	146	2198898	33.12	mg/L	100
13) 1,3'-Dichlorobenzene	5.219	146	2306573	30.08	mg/L	100
14) 1,2'-Dichlorobenzene	5.566	146	2263302	30.95	mg/L	100
15) 2-Methylphenol	5.773	107	1752460	32.83	mg/L	98
16) bis(2-chloroisopropyl)...	5.797	45	2568043	27.99	mg/L	97
17) 3,4-Methylphenol	6.004	107	1967416	32.93	mg/L	99
18) Acetophenone	5.937	105	2836217	31.36	mg/L	100
19) N-Nitrosodi-n-propyl a...	6.019	70	1323666	29.16	mg/L	98
20) Hexachloroethane	5.995	117	719354	32.12	mg/L	99
23) Nitrobenzene	6.158	77	2040833	29.74	mg/L	100
24) Isophorone	6.505	82	4361231	32.07	mg/L	99
25) 2-NITROPHENOL	6.601	139	1224595	35.93	mg/L	99
26) 2,4-dimethylphenol	6.726	122	2031242	32.41	mg/L	100
27) Bis(2-chloroethoxy)met...	6.856	93	2602661	28.11	mg/L	99
28) 2,4-DICHLOROPHENOL	6.929	162	1822854	33.91	mg/L	100
29) 1,2,4-Trichlorobenzene	7.025	180	1914212	30.69	mg/L	100
30) Naphthalene`	7.097	128	5493753	32.85	mg/L	100
31) 4-Chloroaniline	7.232	127	2512399	32.72	mg/L	99
32) HEXACHLOROBUTADIENE`	7.362	225	1028941	34.25	mg/L	100
33) e-Caprolactam	7.718	55	878086	33.08	mg/L	96
34) 4-CHLORO-3-METHYLPHENOL	7.921	107	1836807	35.51	mg/L	100

Data Path : P:\SVOC\2\data\130409\
Data File : 13040909.D
Acq On : 9 Apr 2013 4:03 pm
Operator : BW
Sample : 45492-1-BKS
Misc : Batch 45492 30.07g
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 10 07:45:12 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2-Methylnaphthalene	8.003	142	3858147	33.99	mg/L	100
36) Biphenyl	8.624	154	3928280	36.85	mg/L	100
37) 1,2,4,5-Tetrachloroben...	8.272	216	1823010	31.85	mg/L	100
39) Hexachlorocyclopentadiene	8.301	237	694905	32.80	mg/L	99
40) 2,4,6-TRICHLOROPHENOL	8.421	198	1262060	37.45	mg/L	99
41) 2,4,5-trichlorophenol	8.470	196	1305572	38.58	mg/L	99
43) 2-Chloronaphthalene	8.609	162	3177890	34.64	mg/L	100
44) 2-Nitroaniline	8.812	65	1062273	32.35	mg/L	99
45) 3-Nitroaniline	9.336	138	623364	30.36	mg/L	98
46) 4-Nitroaniline	10.088	138	494931	31.49	mg/L	86
47) Dimethylphthalate	9.115	163	4187253	35.53	mg/L	100
48) 2,6-Dinitrotoluene	9.187	165	994320	34.58	mg/L	98
49) Acenaphthylene	9.129	152	5299034	34.30	mg/L	100
50) ACENAPHTHENE	9.365	154	3243229	34.73	mg/L	100
51) 2,4-Dinitrophenol	9.457	184	317464	34.77	mg/L	99
52) 4-nitrophenol	9.577	65	486301	35.72	mg/L	99
53) 2,4-Dinitrotoluene	9.654	165	1242629	35.25	mg/L	99
54) Dibenzofuran	9.563	168	4879566	34.71	mg/L	99
55) 2,3,4,6-Tetrachlorophenol	9.784	232	965634	37.34	mg/L	100
56) Diethylphthalate	9.991	149	3510190	37.70	mg/L	99
57) 4-chlorophenyl phenyl ...	10.011	204	1817295	31.50	mg/L	99
58) Fluorene	9.982	166	3285352	35.39	mg/L	100
59) Atrazine	10.897	200	1021105	39.76	mg/L	97
62) 4,6-Dinitro-2-methylph...	10.141	198	533175	38.03	mg/L	98
63) N-NITROSODI-N-PHENYLAMINE	10.174	169	3198010	34.28	mg/L	100
64) 1,2-diphenylhydrazine	10.203	77	3824757	33.84	mg/L	99
65) 4-bromophenyl phenyl e...	10.593	250	1128506	30.94	mg/L	99
66) Hexachlorobenzene	10.747	142	464678	36.95	mg/L	98
67) PENTACHLOROPHENOL	10.978	266	688515	40.83	mg/L	99
68) Octadecane	11.075	57	2126322	32.23	mg/L	99
69) Phenanthrene	11.137	178	4721679	34.74	mg/L	100
70) Anthracene	11.185	178	4584797	34.05	mg/L	100
71) Carbazole	11.402	167	3389147	37.13	mg/L	100
72) Di-n-Butylphthalate	11.961	149	6089160	38.26	mg/L	99
73) FLUORANTHENE	12.572	202	4355872	38.57	mg/L	99
75) Pyrene	12.852	202	4349732	31.42	mg/L	100
76) Benzidine	12.789	184	26860	10.65	mg/L	97
78) Butylbenzylphthalate	13.949	149	2181441	36.70	mg/L	99
79) Bis 2-ethylhexyl adipate	14.132	129	2022584	30.96	mg/L	99
80) Bis(2-ethylhexyl)phtha...	15.009	149	2926791	34.29	mg/L	100
81) 3,3-Dichlorobenzidine	14.696	252	490592	38.28	mg/L	99
82) Benzo[a]anthracene	14.652	228	2920884	37.64	mg/L	100
83) Chrysene	14.725	228	2567102	36.99	mg/L	100
85) DI-N-OCTYLPHTHALATE	16.116	149	4002768	31.37	mg/L	98
86) Benzo[b]fluoranthene	16.521	252	2153664	34.40	mg/L	100
87) Benzo[k]fluoranthene	16.564	252	2256119	36.73	mg/L	100
88) BENZO[A]PYRENE	17.060	252	2000814	37.02	mg/L	99
89) Indeno(1,2,3-c,d)pyrene	18.928	276	1202572	39.25	mg/L	99
90) Dibenzo[a,h]anthracene	18.981	278	1449858	41.09	mg/L	99
91) Benzo[g,h,i]perylene	19.318	276	1476760	41.28	mg/L	100

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040909.D
Acq On : 9 Apr 2013 4:03 pm
Operator : BW
Sample : 45492-1-BKS
Misc : Batch 45492 30.07g
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 10 07:45:12 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

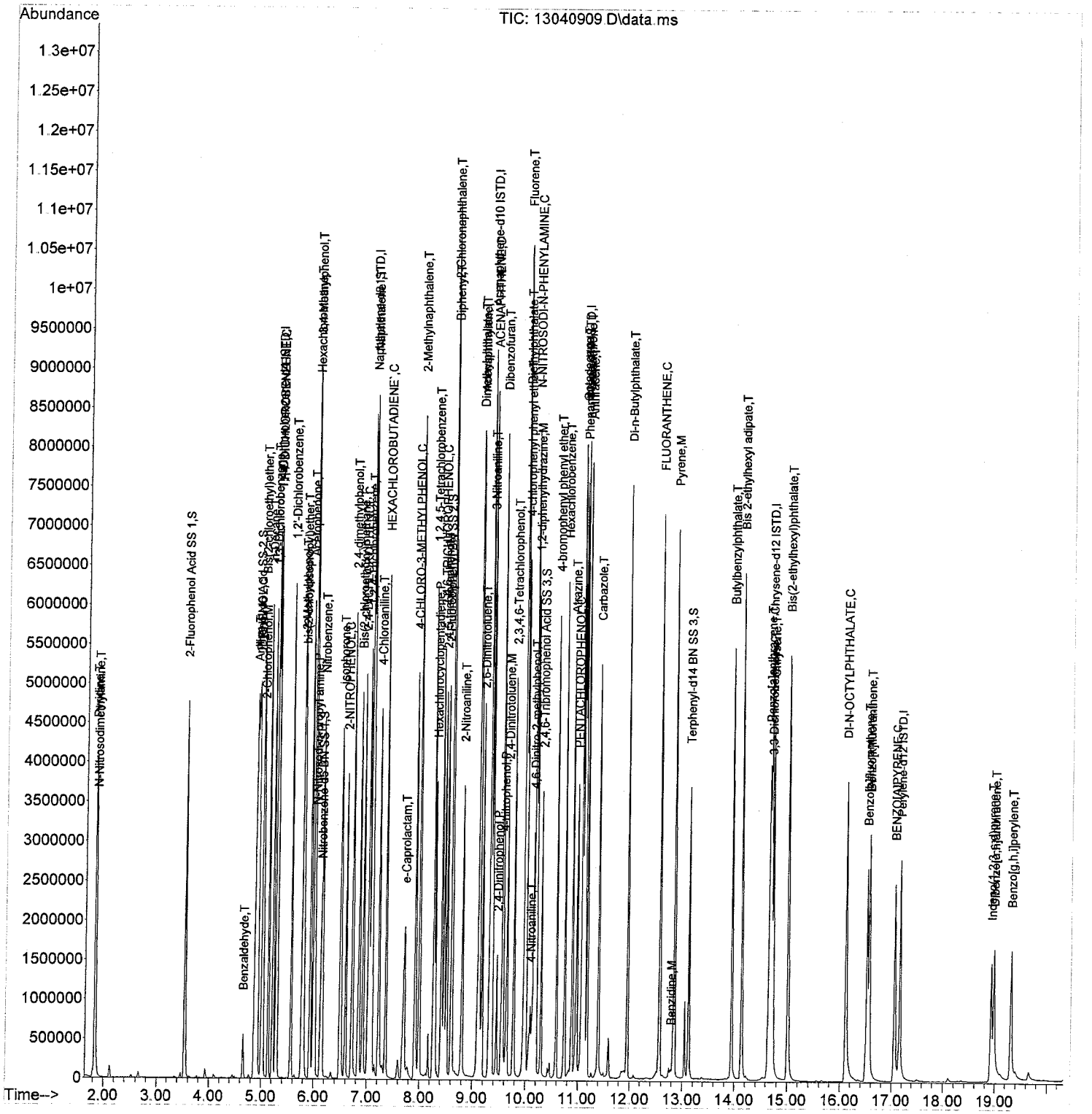
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040909.D
Acq On : 9 Apr 2013 4:03 pm
Operator : BW
Sample : 45492-1-BKS
Misc : Batch 45492 30.07g
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 10 07:45:12 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



L_SVOC.M Wed Apr 10 09:07:22 2013 Page: 4

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040910.D
Acq On : 9 Apr 2013 4:31 pm
Operator : BW
Sample : 45492-1-BSD
Misc : Batch 45492 30.02g
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 10 07:45:16 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.277	152	1710366	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.073	136	6313188	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.327	164	3233007	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.109	188	4223561	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.682	240	2303863	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.162	264	1630691	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.534	112	2208132	35.46	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 88.65%			
5) Phenol-d6 Acid SS 2	4.907	99	2585637	34.55	mg/L	-0.01
Spiked Amount 40.000	Range 31 - 109		Recovery = 86.37%			
22) Nitrobenzene-d5 BN SS 1	6.130	82	1153986	17.91	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 89.55%			
42) 2-Fluorobiphenyl BN SS 2	8.518	172	2383879	19.17	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 95.85%			
60) 2,4,6-Tribromophenol A...	10.300	141	203377	39.54	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 98.85%			
77) Terphenyl-d14 BN SS 3	13.126	244	1477717	18.89	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 94.45%			
Target Compounds						Qvalue
2) Pyridine	1.834	79	2394443	29.59	mg/L	98
3) N-Nitrosodimethylamine	1.849	74	1312720	27.05	mg/L	99
6) Benzaldehyde	4.651	77	191148	15.95	mg/L	98
7) Aniline	4.878	93	3378904	35.23	mg/L	95
8) PHENOL	4.926	94	2943691	37.39	mg/L	93
9) Bis(2-chloroethyl)ether	5.008	93	2070696	30.16	mg/L	98
10) 2-Chlorophenol	5.022	128	2277597	33.31	mg/L	99
11) n-Decane	5.138	43	1798539	32.00	mg/L	100
12) 1,4'-DICHLOROBENZENE	5.301	146	2277711	34.80	mg/L	100
13) 1,3'-Dichlorobenzene	5.220	146	2420433	31.78	mg/L	100
14) 1,2'-Dichlorobenzene	5.566	146	2357790	32.46	mg/L	99
15) 2-Methylphenol	5.778	107	1800189	33.96	mg/L	98
16) bis(2-chloroisopropyl)...	5.797	45	2605167	28.75	mg/L	97
17) 3,4-Methylphenol	6.004	107	2030113	34.34	mg/L	100
18) Acetophenone	5.937	105	2943129	32.77	mg/L	99
19) N-Nitrosodi-n-propyl a...	6.019	70	1372371	30.44	mg/L	98
20) Hexachloroethane	5.995	117	752534	34.01	mg/L	99
23) Nitrobenzene	6.159	77	2128576	31.42	mg/L	99
24) Isophorone	6.505	82	4478537	33.36	mg/L	99
25) 2-NITROPHENOL	6.602	139	1291500	38.38	mg/L	99
26) 2,4-dimethylphenol	6.727	122	2090660	33.78	mg/L	100
27) Bis(2-chloroethoxy)met...	6.857	93	2689838	29.43	mg/L	100
28) 2,4-DICHLOROPHENOL	6.929	162	1862708	35.09	mg/L	100
29) 1,2,4-Trichlorobenzene	7.025	180	1948189	31.63	mg/L	100
30) Naphthalene`	7.098	128	5701318	34.82	mg/L	100
31) 4-Chloroaniline	7.232	127	2598407	34.27	mg/L	99
32) HEXACHLOROBUTADIENE`	7.362	225	1048584	35.53	mg/L	100
33) e-Caprolactam	7.719	55	873988	33.37	mg/L	96
34) 4-CHLORO-3-METHYLPHENOL	7.921	107	1826728	35.77	mg/L	100

Data Path : P:\SVOC\2\data\130409\
Data File : 13040910.D
Acq On : 9 Apr 2013 4:31 pm
Operator : BW
Sample : 45492-1-BSD
Misc : Batch 45492 30.02g
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 10 07:45:16 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.003	142	3922379	35.15 mg/L	100
36) Biphenyl	8.624	154	3934011	37.55 mg/L	100
37) 1,2,4,5-Tetrachloroben...	8.272	216	1839865	32.56 mg/L	99
39) Hexachlorocyclopentadiene	8.301	237	716101	34.58 mg/L	99
40) 2,4,6-TRICHLOROPHENOL	8.422	198	1275146	38.54 mg/L	99
41) 2,4,5-trichlorophenol	8.470	196	1314913	39.58 mg/L	99
43) 2-Chloronaphthalene	8.610	162	3197820	35.72 mg/L	100
44) 2-Nitroaniline	8.812	65	1059579	32.92 mg/L	98
45) 3-Nitroaniline	9.337	138	622100	30.88 mg/L	99
46) 4-Nitroaniline	10.088	138	472898	30.73 mg/L	88
47) Dimethylphthalate	9.115	163	4169073	36.17 mg/L	100
48) 2,6-Dinitrotoluene	9.183	165	984592	34.95 mg/L	99
49) Acenaphthylene	9.130	152	5338014	35.42 mg/L	100
50) ACENAPHTHENE	9.366	154	3230539	35.34 mg/L	100
51) 2,4-Dinitrophenol	9.457	184	322296	35.83 mg/L	99
52) 4-nitrophenol	9.577	65	474139	35.44 mg/L	98
53) 2,4-Dinitrotoluene	9.654	165	1231751	35.62 mg/L	99
54) Dibenzofuran	9.563	168	4873153	35.40 mg/L	100
55) 2,3,4,6-Tetrachlorophenol	9.784	232	953825	37.59 mg/L	99
56) Diethylphthalate	9.992	149	3434238	37.52 mg/L	100
57) 4-chlorophenyl phenyl ...	10.011	204	1813768	32.15 mg/L	99
58) Fluorene	9.982	166	3241302	35.60 mg/L	100
59) Atrazine	10.897	200	1006915	39.99 mg/L	98
62) 4,6-Dinitro-2-methylph...	10.141	198	519593	39.94 mg/L	96
63) N-NITROSODI-N-PHENYLAMINE	10.175	169	3101923	35.86 mg/L	100
64) 1,2-diphenylhydrazine	10.199	77	3736179	35.74 mg/L	99
65) 4-bromophenyl phenyl e...	10.593	250	1089392	31.99 mg/L	99
66) Hexachlorobenzene	10.748	142	454273	38.98 mg/L	99
67) PENTACHLOROPHENOL	10.979	266	653346	41.51 mg/L	99
68) Octadecane	11.075	57	2101734	34.58 mg/L	99
69) Phenanthrene	11.133	178	4465602	35.20 mg/L	100
70) Anthracene	11.186	178	4466406	35.53 mg/L	100
71) Carbazole	11.402	167	3173049	37.25 mg/L	99
72) Di-n-Butylphthalate	11.956	149	5909396	40.09 mg/L	100
73) FLUORANTHENE	12.573	202	4096243	38.85 mg/L	99
75) Pyrene	12.847	202	4000954	34.18 mg/L	100
76) Benzidine	12.789	184	13535	6.34 mg/L	94
78) Butylbenzylphthalate	13.950	149	1961892	39.04 mg/L	99
79) Bis 2-ethylhexyl adipate	14.133	129	1862014	34.00 mg/L	99
80) Bis(2-ethylhexyl)phtha...	15.009	149	2627765	36.60 mg/L	100
81) 3,3-Dichlorobenzidine	14.691	252	404344	37.30 mg/L	98
82) Benzo[a]anthracene	14.653	228	2496222	38.04 mg/L	100
83) Chrysene	14.725	228	2240564	38.18 mg/L	100
85) DI-N-OCTYLPHTHALATE	16.117	149	3475308	34.05 mg/L	98
86) Benzo[b]fluoranthene	16.516	252	1757761	35.26 mg/L	100
87) Benzo[k]fluoranthene	16.560	252	1902290	38.94 mg/L	100
88) BENZO[A]PYRENE	17.060	252	1648153	38.36 mg/L	99
89) Indeno(1,2,3-c,d)pyrene	18.924	276	978381	40.24 mg/L	99
90) Dibenzo[a,h]anthracene	18.982	278	1076443	38.04 mg/L	96
91) Benzo[g,h,i]perylene	19.314	276	1180513	41.53 mg/L	98

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040910.D
Acq On : 9 Apr 2013 4:31 pm
Operator : BW
Sample : 45492-1-BSD
Misc : Batch 45492 30.02g
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 10 07:45:16 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

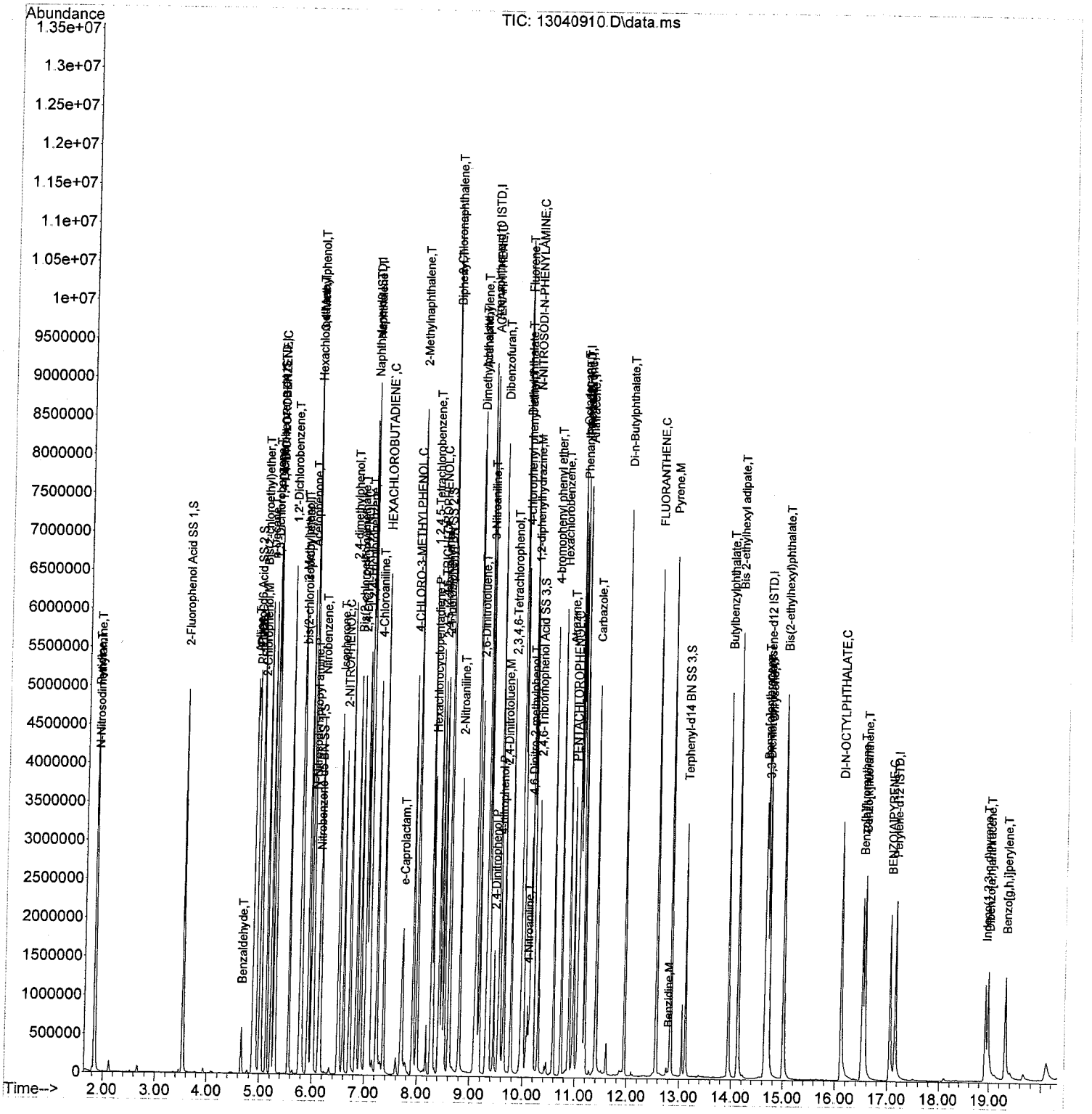
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040910.D
Acq On : 9 Apr 2013 4:31 pm
Operator : BW
Sample : 45492-1-BSD
Misc : Batch 45492 30.02g
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 10 07:45:16 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



L_SVOC.M Wed Apr 10 09:07:27 2013

Page: 4

4C - FORM IV SV
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

45474-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No. : 13040516

Lab File ID: 13040806 Lab Sample ID: 45474-1-BLK

Instrument ID: SVOC #2 Date Extracted: 04/08/2013

Matrix: (soil/sed/ water) WATER Date Analyzed: 04/08/2013

Level: (low/med) LOW Time Analyzed: 14:52

Extraction: (Type) SEPF GPC Cleanup: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	45474-1-BKS	45474-1-BKS	13040808	04/08/13
2	45474-1-BSD	45474-1-BSD	13040809	04/08/13
3	1644-SUMP	13040516-006	13040816	04/08/13
4	SB-03 (GW)	13040516-007	13040817	04/08/13
5	SB-040413 (GW)	13040516-008	13040818	04/08/13
6	SB-04 (GW)	13040516-009	13040819	04/08/13
7	1646-SUMP	13040516-010	13040820	04/08/13
8	SURFACE WATER	13040516-011	13040821	04/08/13

COMMENTS: _____

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.
45474-1-BLK

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105216 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) WATER Lab Sample Id: 45474-1-BLK

Sample wt/vol: 1000 (g/mL): ml Lab File ID: 13040806.D

Level: (LOW/MED) LOW Extraction: (Type) SEPF

% Moisture: _____ Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/08/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/08/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
83-32-9	Acenaphthene	5.000	U
208-96-8	Acenaphthylene	5.000	U
120-12-7	Anthracene	5.000	U
56-55-3	Benzo(a)anthracene	0.5000	U
50-32-8	Benzo(a)pyrene	0.5000	U
205-99-2	Benzo(b)fluoranthene	0.5000	U
191-24-2	Benzo(g,h,i)perylene	5.000	U
207-08-9	Benzo(k)fluoranthene	0.5000	U
218-01-9	Chrysene	2.000	U
53-70-3	Dibenz(a,h)Anthracene	0.5000	U
206-44-0	Fluoranthene	5.000	U
86-73-7	Fluorene	5.000	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.5000	U
91-57-6	2-Methylnaphthalene	2.000	U
91-20-3	Naphthalene	0.5000	U
85-01-8	Phenanthrene	5.000	U
129-00-0	Pyrene	5.000	U

SW8270C

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040806.D
Acq On : 8 Apr 2013 2:52 pm
Operator : BW
Sample : 45474-1-BLK
Misc : Batch 45474 1000mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 09 09:19:36 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.268	152	1734682	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	6119228	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3170709	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4024868	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.672	240	1795925	40.00	mg/L	-0.01
84) Perylene-d12 ISTD	17.152	264	1208568	40.00	mg/L	-0.01
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.524	112	2401026	38.01	mg/L	-0.02
Spiked Amount 40.000	Range 29 - 111		Recovery = 95.02%			
5) Phenol-d6 Acid SS 2	4.887	99	2933919	38.97	mg/L	-0.03
Spiked Amount 40.000	Range 31 - 109		Recovery = 97.42%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1128016	18.06	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 90.30%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2449379	20.17	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 100.85%			
60) 2,4,6-Tribromophenol A...	10.290	141	149989	29.11	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 72.78%			
77) Terphenyl-d14 BN SS 3	13.121	244	1261483	20.69	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 103.45%			

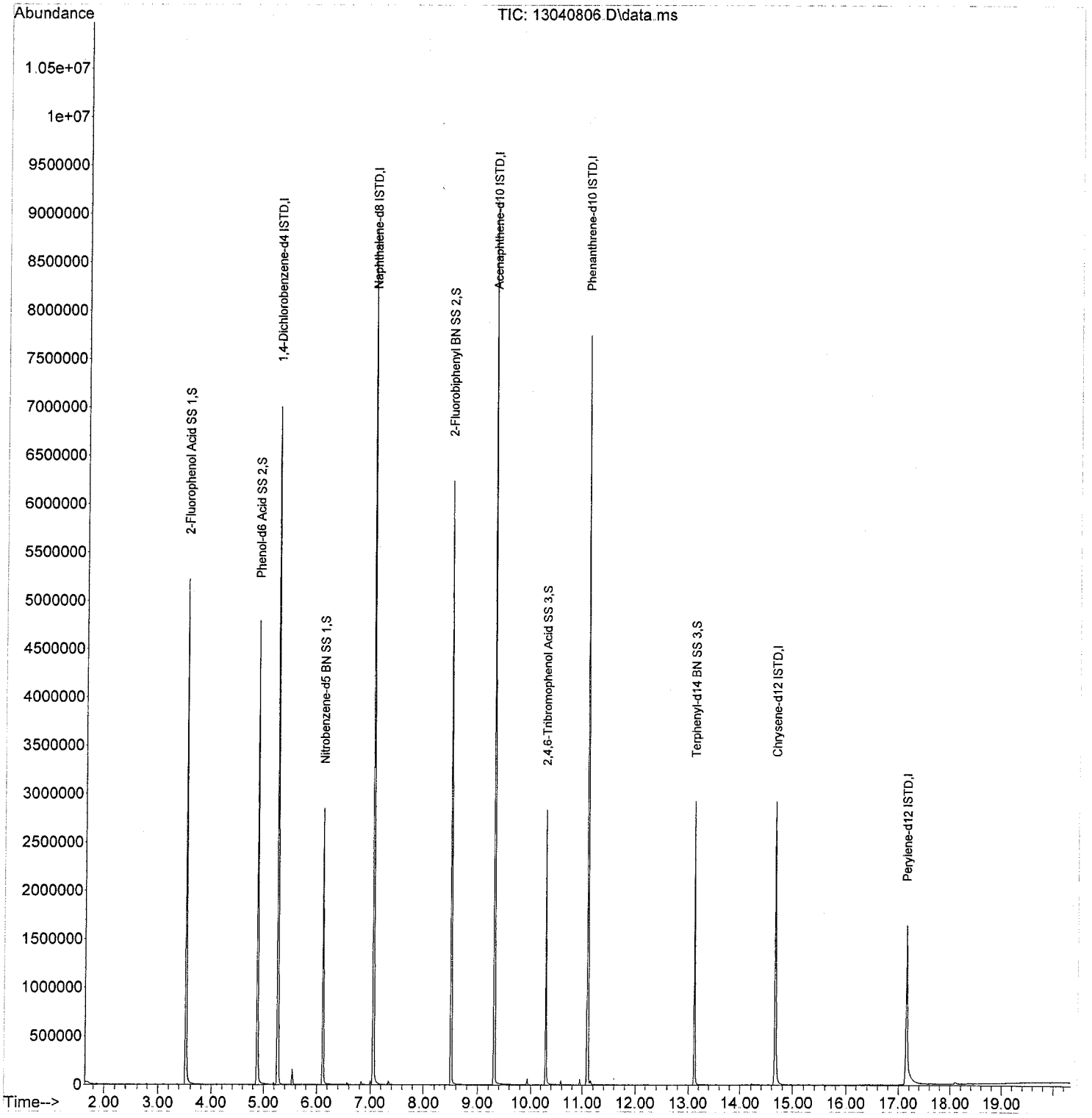
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040806.D
Acq On : 8 Apr 2013 2:52 pm
Operator : BW
Sample : 45474-1-BLK
Misc : Batch 45474 1000mL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 09 09:19:36 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



4C - FORM IV SV
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

45492-1-BLK

Lab Name: PHASE SEPARATION SCIENCE Contract: 4184

Lab Code: PHASE Case No. : _____ Mod. Ref No.: _____ SDG No. : 13040516

Lab File ID: 13040908 Lab Sample ID: 45492-1-BLK

Instrument ID: SVOC #2 Date Extracted: 04/09/2013

Matrix: (soil/sed/ water) SOIL Date Analyzed: 04/09/2013

Level: (low/med) LOW Time Analyzed: 15:36

Extraction: (Type) SONC GPC Cleanup: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	45492-1-BKS	45492-1-BKS	13040909	04/09/13
2	45492-1-BSD	45492-1-BSD	13040910	04/09/13
3	SB-01 (2-2.5) S	13040516-004 S	13040911	04/09/13
4	SB-01 (2-2.5) SD	13040516-004 SD	13040912	04/09/13
5	SB-01 (2-2.5)	13040516-004	13040913	04/09/13
6	SB-02 (2-2.5)	13040516-001	13040914	04/09/13
7	SB-04 (2-2.5)	13040516-002	13040915	04/09/13
8	SB-03 (2-2.5)	13040516-003	13040916	04/09/13
9	SB-040413 (2-2.5)	13040516-005	13040917	04/09/13

COMMENTS: _____

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

45492-1-BLK

Lab Name : PHASE SEPARATION SCIENCE Contract: 4184

Lab Code : PHASE Case No.: 105245 Mod. Ref No.: _____ SDG No.: 13040516

Matrix : (SOIL/SED/WATER) SOLID Lab Sample Id: 45492-1-BLK

Sample wt/vol: 30.12 (g/mL): g Lab File ID: 13040908.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 0 Decanted: (Y/N) N Date Received: 04/05/2013

Concentrated Extract Volume: 1 (µ L) Date Extracted: 04/09/2013

Injection Volume: _____ (µ L) GPC Factor: 1.000 Date Analyzed: 04/09/2013

GPC Cleanup (Y/N): N pH: N/A Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
83-32-9	Acenaphthene	166	U
208-96-8	Acenaphthylene	166	U
120-12-7	Anthracene	166	U
56-55-3	Benzo(a)anthracene	166	U
50-32-8	Benzo(a)pyrene	23.24	U
205-99-2	Benzo(b)fluoranthene	166	U
191-24-2	Benzo(g,h,i)perylene	166	U
207-08-9	Benzo(k)fluoranthene	166	U
218-01-9	Chrysene	166	U
53-70-3	Dibenz(a,h)Anthracene	23.24	U
206-44-0	Fluoranthene	166	U
86-73-7	Fluorene	166	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	166	U
91-57-6	2-Methylnaphthalene	166	U
91-20-3	Naphthalene	166	U
85-01-8	Phenanthrene	166	U
129-00-0	Pyrene	166	U

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040908.D
Acq On : 9 Apr 2013 3:36 pm
Operator : BW
Sample : 45492-1-BLK
Misc : Batch 45492 30.12g
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 10 08:59:06 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.268	152	1734979	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.064	136	6274127	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.322	164	3192040	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.099	188	4290658	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.672	240	2248996	40.00	mg/L	-0.01
84) Perylene-d12 ISTD	17.157	264	1491718	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.524	112	2472869	39.14	mg/L	-0.02
Spiked Amount 40.000	Range 29 - 111		Recovery = 97.85%			
5) Phenol-d6 Acid SS 2	4.882	99	3042825	40.53	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery = 101.33%			
22) Nitrobenzene-d5 BN SS 1	6.120	82	1244022	19.43	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 97.15%			
42) 2-Fluorobiphenyl BN SS 2	8.513	172	2510545	20.57	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery = 102.85%			
60) 2,4,6-Tribromophenol A...	10.290	141	174743	34.02	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 85.05%			
77) Terphenyl-d14 BN SS 3	13.121	244	1490003	19.52	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 97.60%			

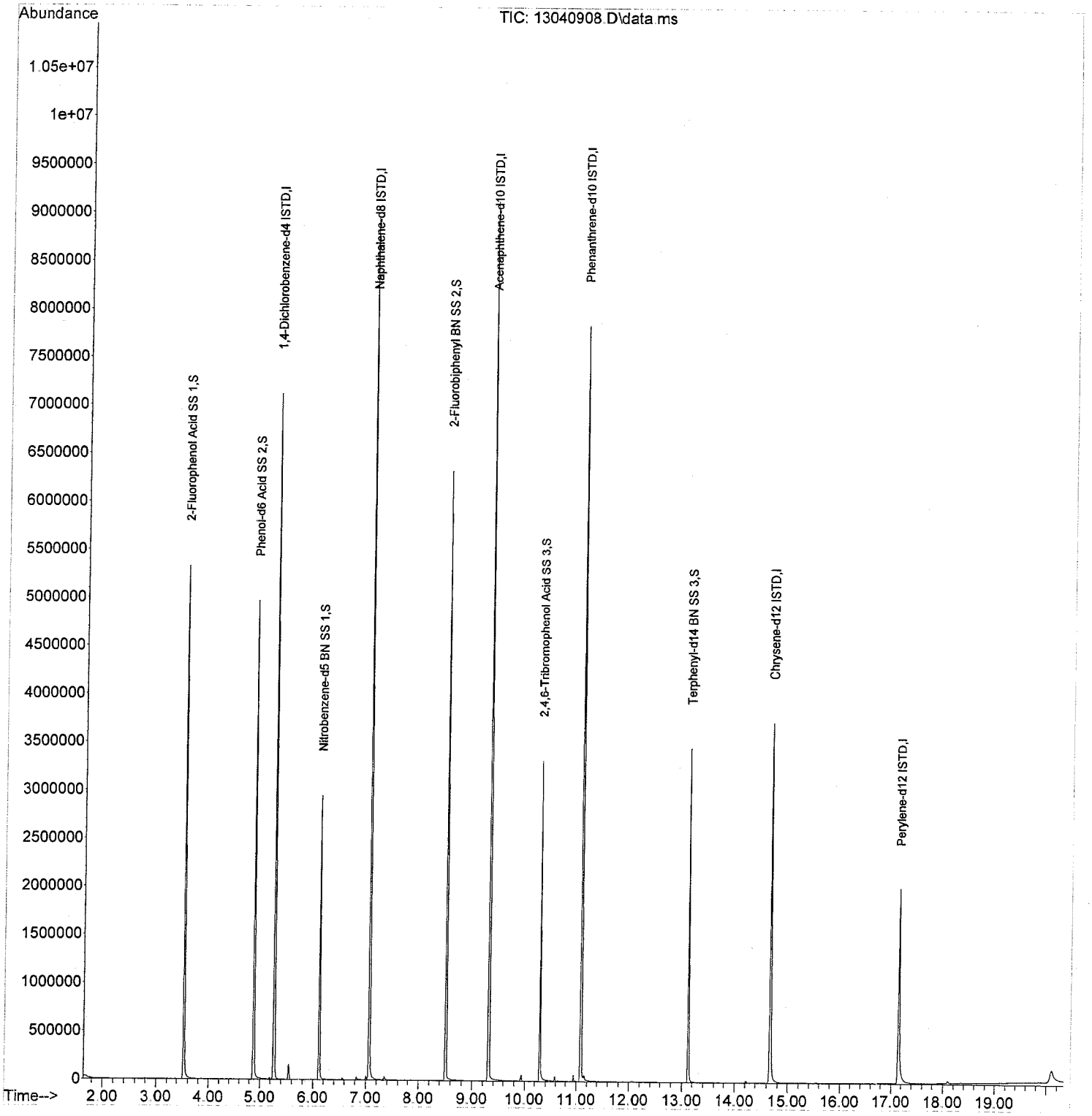
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040908.D
Acq On : 9 Apr 2013 3:36 pm
Operator : BW
Sample : 45492-1-BLK
Misc : Batch 45492 30.12g
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 10 08:59:06 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

EPA SAMPLE NO.
ULTRA

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID : 13032703 DFTPP Injection Date : 03/27/2013

Instrument ID : SVOC #2 DFTPP Injection Time : 09:23

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.4
68	Less than 2.0% of mass 69	0.6 (1.8)1
69	Mass 69 relative abundance	33.9
70	0 - 2.0% of mass 69	0.2 (0.6)1
127	40.0 - 60.0% of mass 198	48.2
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	25.4
365	Greater than 1.0% of mass 198	2.9
441	Present, but less than mass 443	12.1
442	40.0 - 100.0% of mass 198	83.7
443	17.0 - 23.0% of mass 442	16.7 (19.9)2

1-Value is % mass 69 2-Value is % mass 442

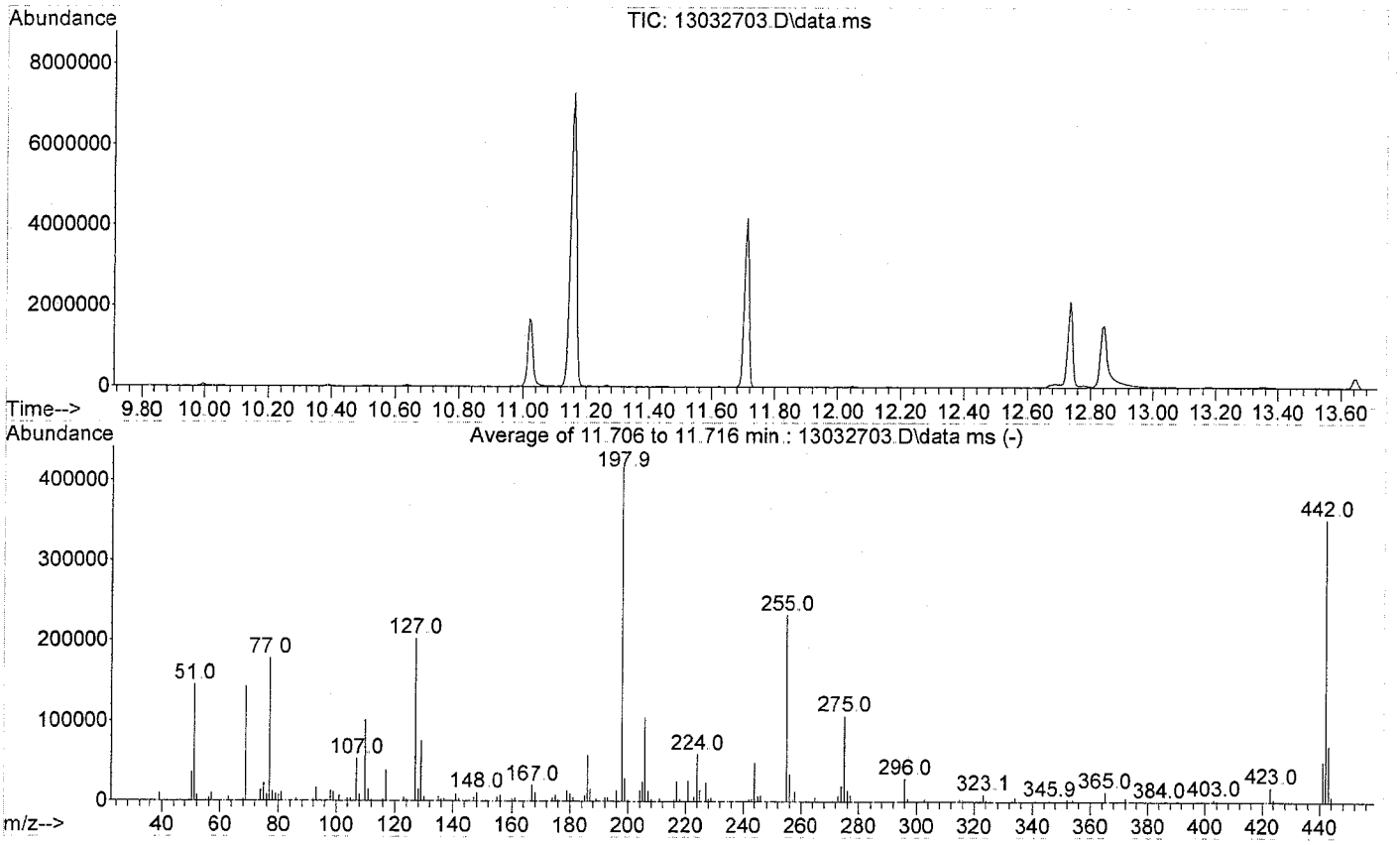
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS :

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	CAL9	CAL9	13032704	03/27/2013	09:53
2	CAL8	CAL8	13032705	03/27/2013	10:22
3	CAL7	CAL7	13032706	03/27/2013	10:51
4	CAL6	CAL6	13032707	03/27/2013	11:19
5	CAL5	CAL5	13032708	03/27/2013	12:35
6	CAL4	CAL4	13032709	03/27/2013	13:02
7	CAL3	CAL3	13032710	03/27/2013	13:30
8	CAL2	CAL2	13032711	03/27/2013	14:30
9	CAL1	CAL1	13032712	03/27/2013	14:58
10	ICV/CCV	ICV/CCV	13032714	03/27/2013	15:50
11	CCV-01	CCV-01	13032802	03/28/2013	11:40

Data Path : P:\SVOC\2\data\130327\
Data File : 13032703.D
Acq On : 27 Mar 2013 9:23 am
Operator : BW
Sample : ULTRA Tune Solution@50ppm
Misc : ID#A2353 EX 04/30/13 BW
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : P:\SVOC\2\data\130327\L_SVOC.M
Title : ALS8270.M
Last Update : Wed Mar 27 14:03:15 2013



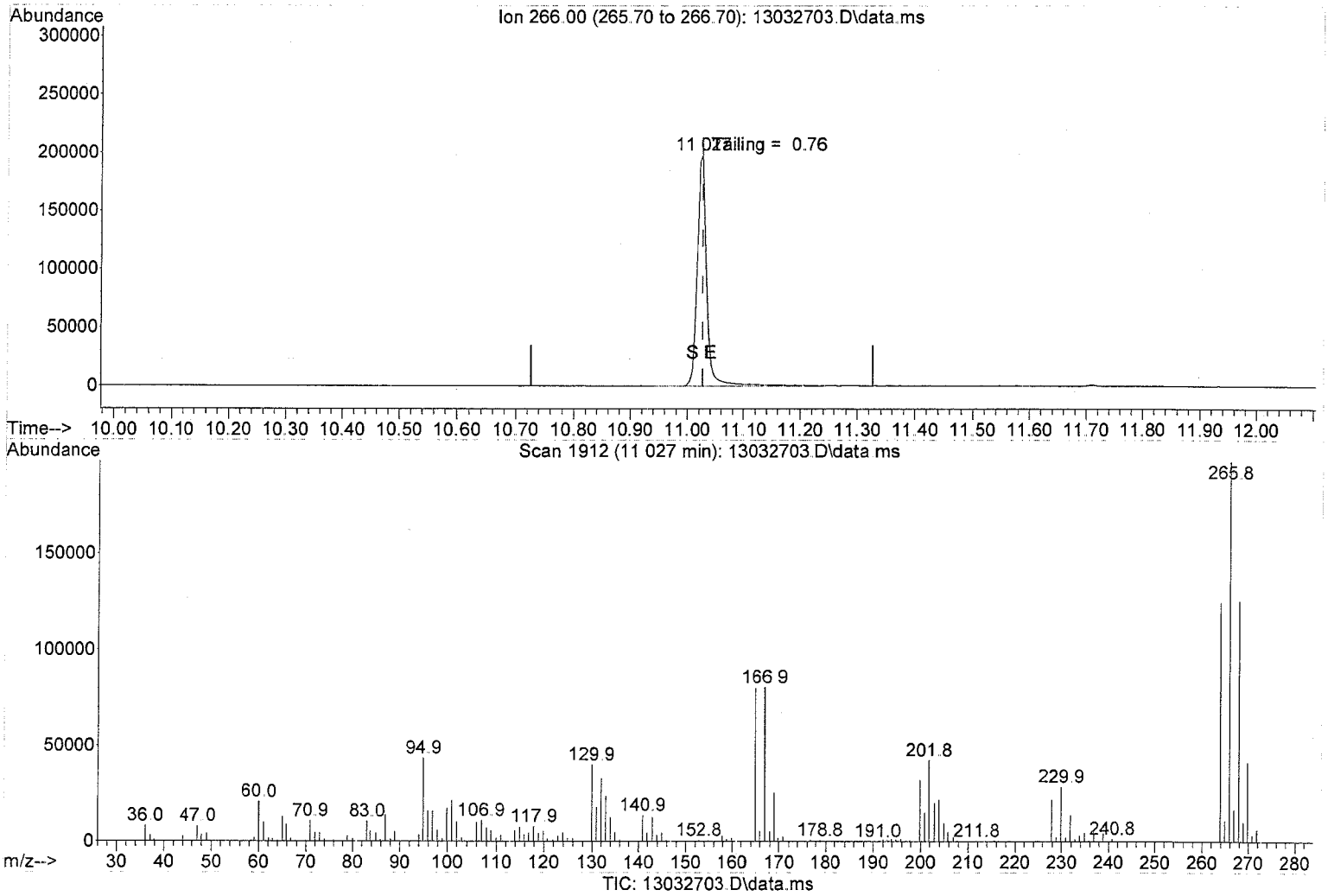
Spectrum Information: Average of 11.706 to 11.716 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.4	144880	PASS
68	69	0.00	2	1.8	2503	PASS
69	198	0.00	100	33.9	142686	PASS
70	69	0.00	2	0.6	859	PASS
127	198	40	60	48.2	202560	PASS
197	198	0.00	1	0.3	1198	PASS
198	198	100	100	100.0	420629	PASS
199	198	5	9	6.8	28656	PASS
275	198	10	30	25.4	107013	PASS
365	198	1	100	2.9	12347	PASS
441	443	0.01	100	72.7	51000	PASS
442	198	40	100	83.7	352235	PASS
443	442	17	23	19.9	70144	PASS

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032703.D
Acq On : 27 Mar 2013 9:23 am
Operator : BW
Sample : ULTRA Tune Solution@50ppm
Misc : ID#A2353 EX 04/30/13 BW
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 14:31:14 2013
Quant Method : P:\SVOC\2\data\130327\TUNE.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 14:31:08 2013
Response via : Initial Calibration



(5) PENTACHLOROPHENOL (M)

11.027min (0.000) 50.00 mg/L

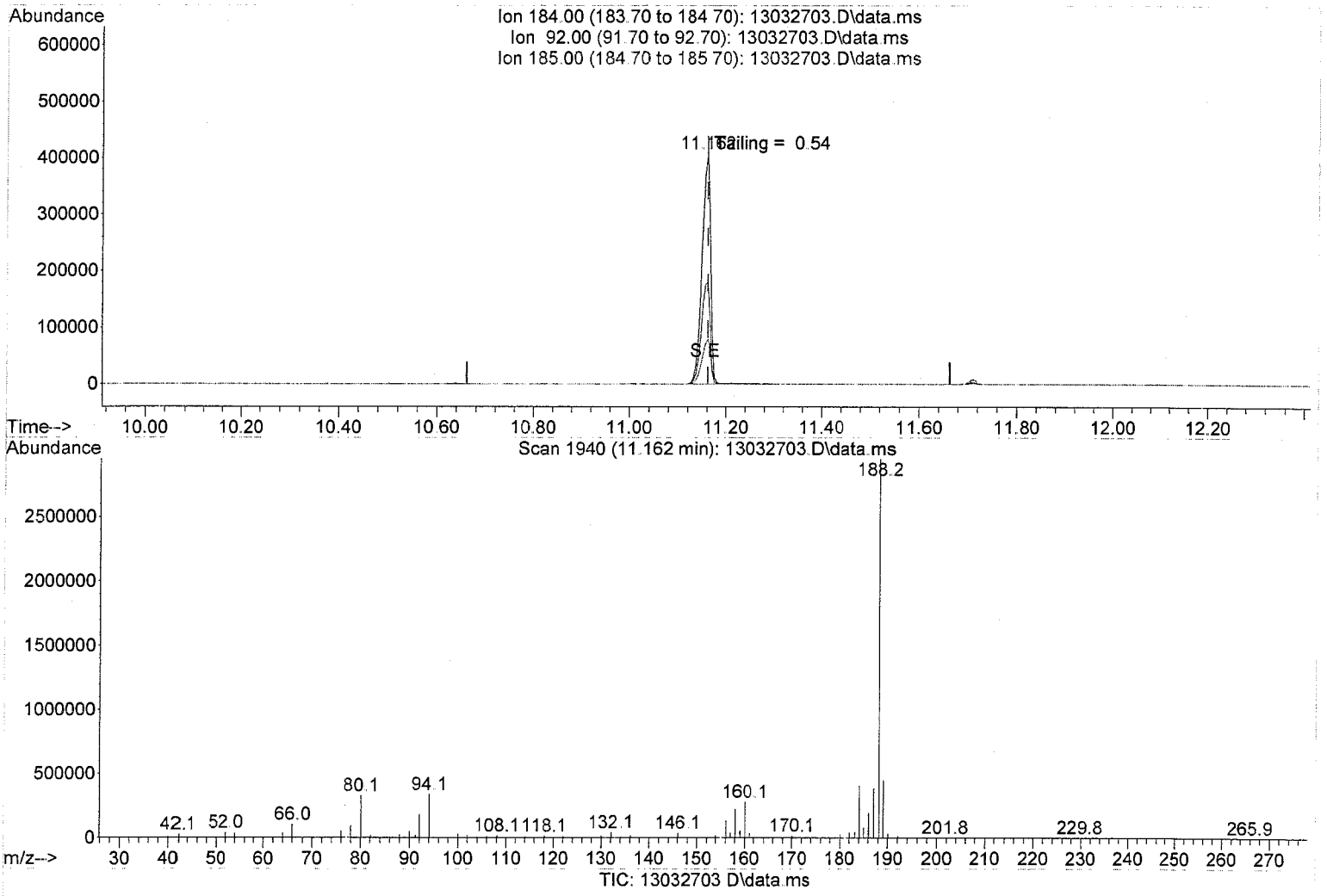
response 229998

Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032703.D
Acq On : 27 Mar 2013 9:23 am
Operator : BW
Sample : ULTRA Tune Solution@50ppm
Misc : ID#A2353 EX 04/30/13 BW
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 14:31:14 2013
Quant Method : P:\SVOC\2\data\130327\TUNE.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 14:31:08 2013
Response via : Initial Calibration



(8) Benzidine (T)

11.162min (0.000) 50.00 mg/L

response 508892

Ion	Exp%	Act%
184.00	100	100
92.00	48.40	45.25
185.00	19.50	19.80
0.00	0.00	0.00

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

EPA SAMPLE NO.
ULTRA

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID : 13040804 DFTPP Injection Date : 04/08/2013

Instrument ID : SVOC #2 DFTPP Injection Time : 13:29

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0% of mass 198	33.4	
68	Less than 2.0% of mass 69	0.6	(1.7)1
69	Mass 69 relative abundance	34.5	
70	0 - 2.0% of mass 69	0.2	(0.5)1
127	40.0 - 60.0% of mass 198	48.9	
197	Less than 1.0% of mass 198	0.1	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0 - 30.0% of mass 198	25.6	
365	Greater than 1.0% of mass 198	2.9	
441	Present, but less than mass 443	12.7	
442	40.0 - 100.0% of mass 198	89.1	
443	17.0 - 23.0% of mass 442	18.1	(20.3)2

1-Value is % mass 69 2-Value is % mass 442

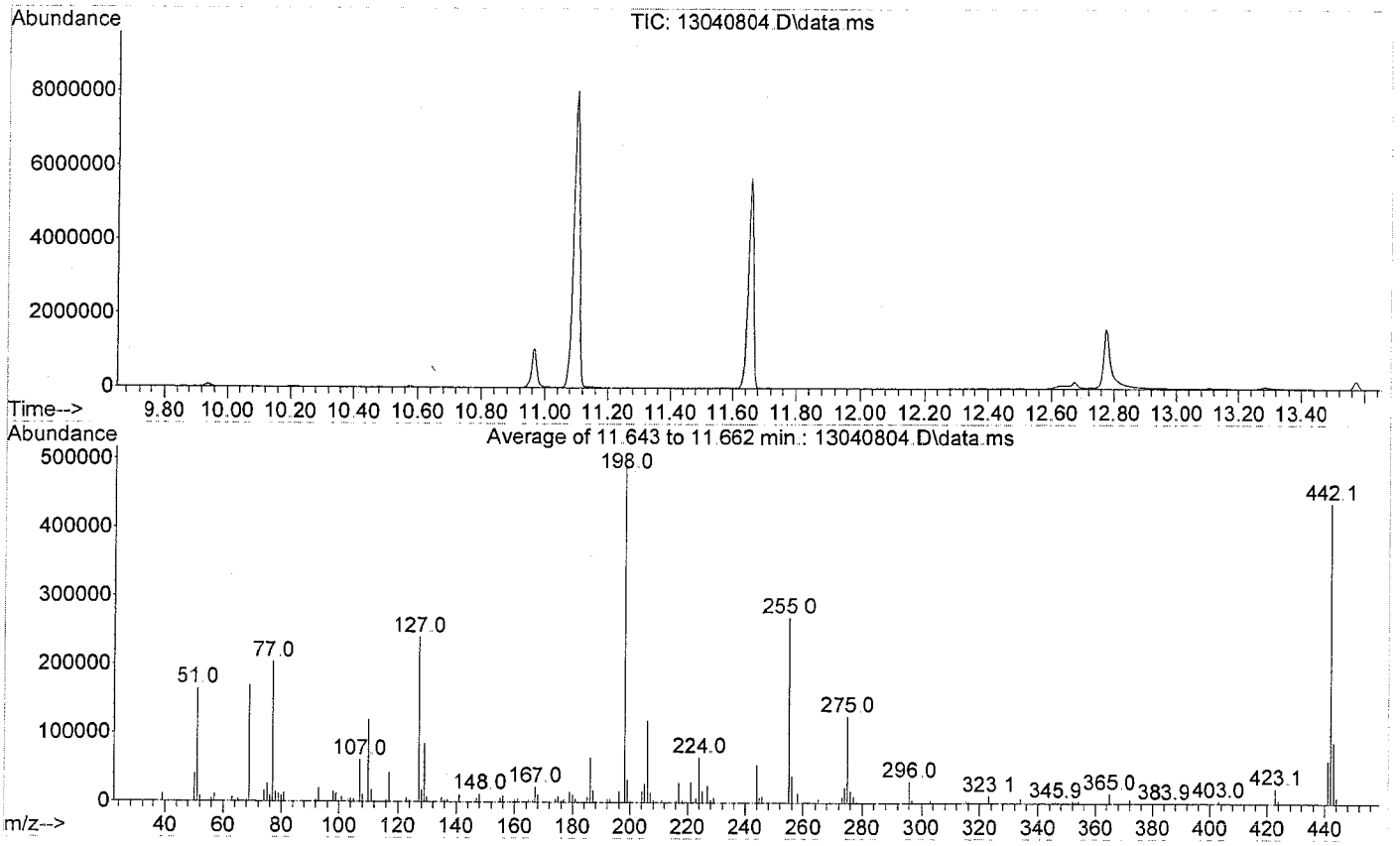
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS :

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	CCV-01	CCV-01	13040805	04/08/2013	13:56
2	45474-1-BLK	45474-1-BLK	13040806	04/08/2013	14:52
3	45474-1-BKS	45474-1-BKS	13040808	04/08/2013	15:47
4	45474-1-BSD	45474-1-BSD	13040809	04/08/2013	16:15
5	1644-SUMP	13040516-006	13040816	04/08/2013	19:31
6	SB-03 (GW)	13040516-007	13040817	04/08/2013	19:59
7	SB-040413 (GW)	13040516-008	13040818	04/08/2013	20:28
8	SB-04 (GW)	13040516-009	13040819	04/08/2013	20:56
9	1646-SUMP	13040516-010	13040820	04/08/2013	21:24
10	SURFACE WATER	13040516-011	13040821	04/08/2013	21:52

Data Path : P:\SVOC\2\data\130408\
Data File : 13040804.D
Acq On : 8 Apr 2013 1:29 pm
Operator : BW
Sample : ULTRA Tune Solution@50ppm
Misc : ID#A2353 EX 04/30/13 BW
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : P:\SVOC\2\data\130408\L_SVOC.M
Title : ALS8270.M
Last Update : Mon Apr 08 14:16:29 2013



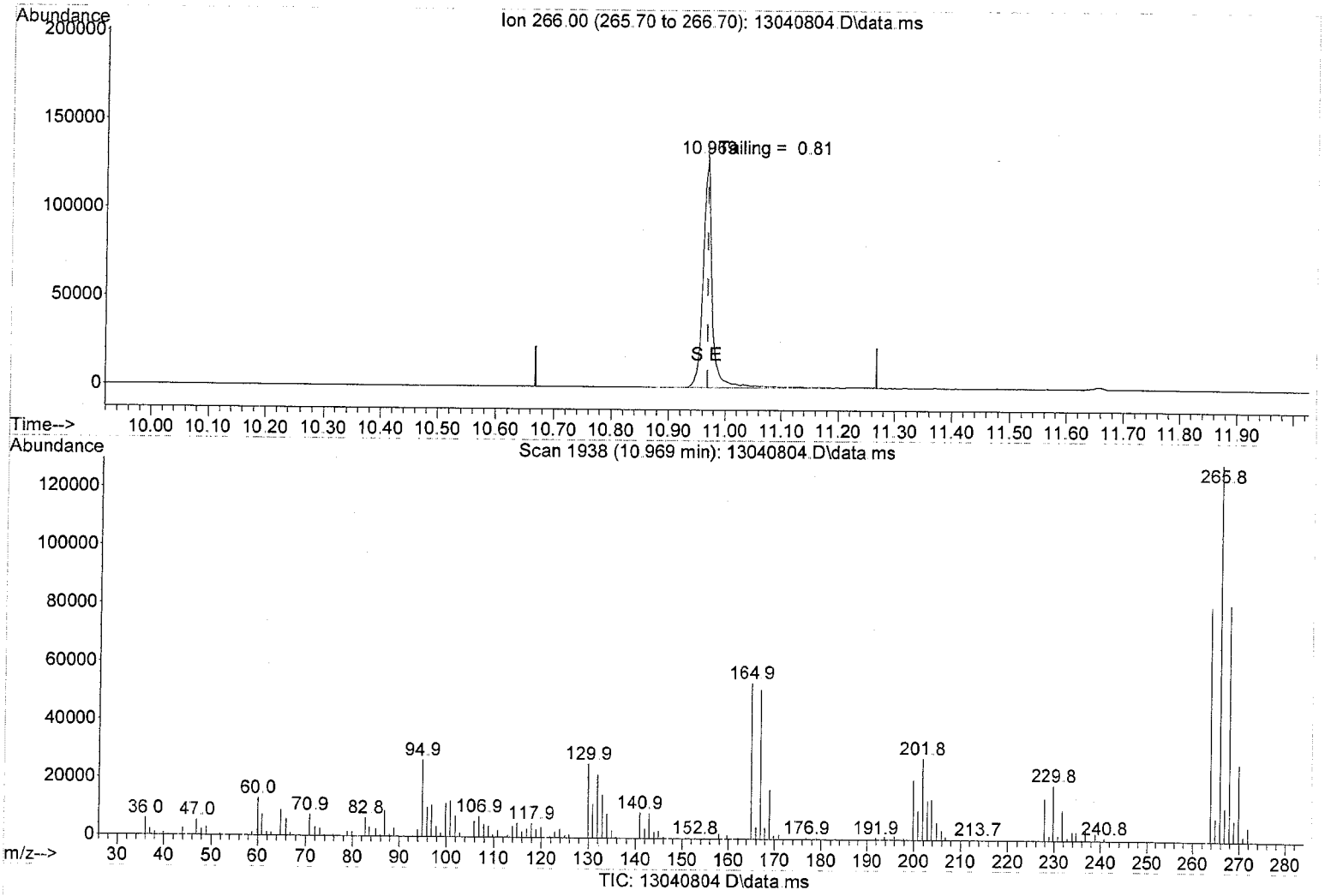
Spectrum Information: Average of 11.643 to 11.662 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.4	164270	PASS
68	69	0.00	2	1.7	2892	PASS
69	198	0.00	100	34.5	169528	PASS
70	69	0.00	2	0.5	886	PASS
127	198	40	60	48.9	240042	PASS
197	198	0.00	1	0.1	322	PASS
198	198	100	100	100.0	491290	PASS
199	198	5	9	6.8	33230	PASS
275	198	10	30	25.6	125875	PASS
365	198	1	100	2.9	14335	PASS
441	443	0.01	100	70.4	62538	PASS
442	198	40	100	89.1	437899	PASS
443	442	17	23	20.3	88781	PASS

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040804.D
Acq On : 8 Apr 2013 1:29 pm
Operator : BW
Sample : ULTRA Tune Solution@50ppm
Misc : ID#A2353 EX 04/30/13 BW
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 11:33:21 2013
Quant Method : P:\SVOC\2\data\130408\TUNE.M
Quant Title : ALS8270.M
QLast Update : Tue Apr 09 11:33:15 2013
Response via : Initial Calibration



(5) PENTACHLOROPHENOL (M)

10.969min (0.000) 50.00 mg/L

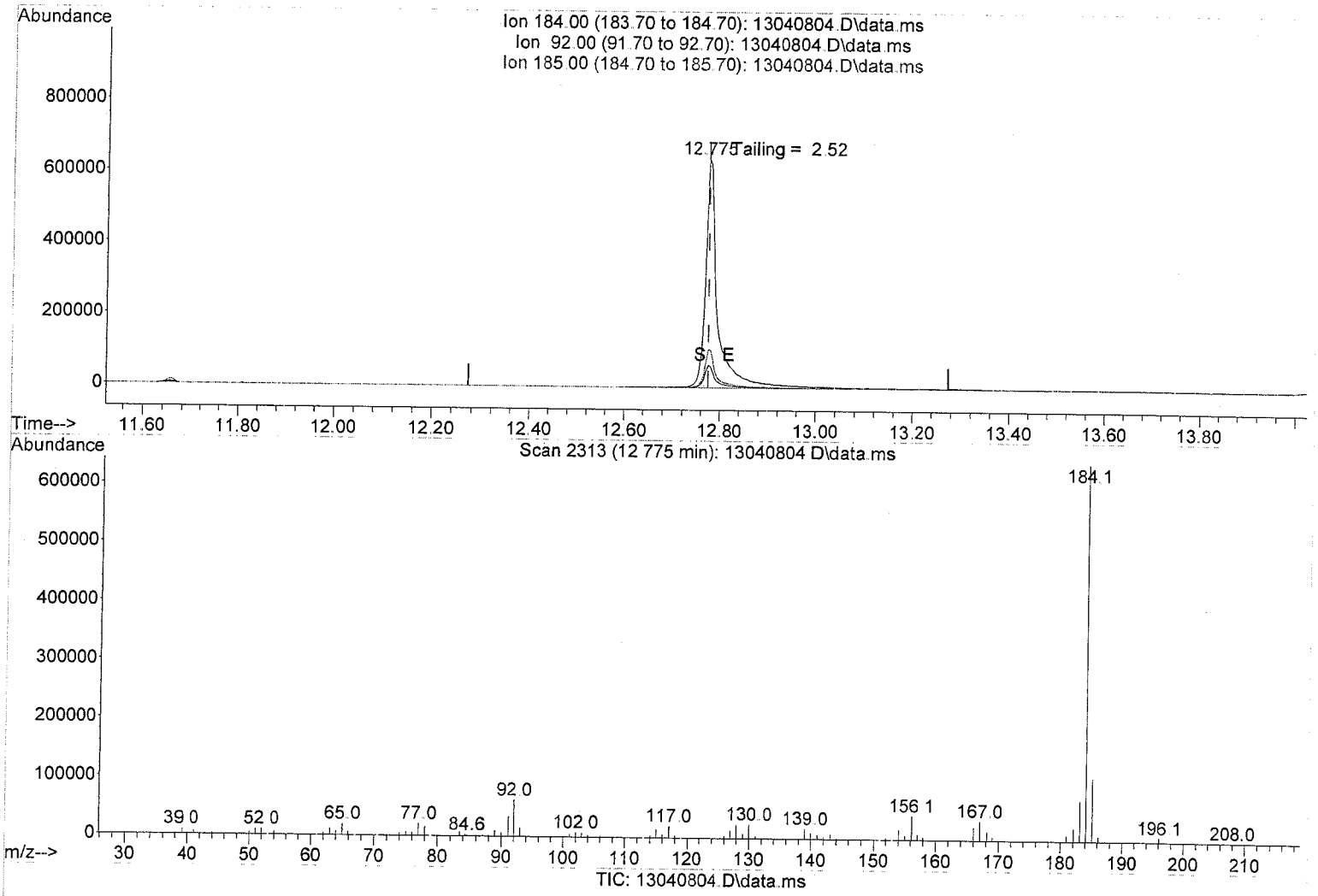
response 142456

Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040804.D
Acq On : 8 Apr 2013 1:29 pm
Operator : BW
Sample : ULTRA Tune Solution@50ppm
Misc : ID#A2353 EX 04/30/13 BW
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 09 11:33:21 2013
Quant Method : P:\SVOC\2\data\130408\TUNE.M
Quant Title : ALS8270.M
QLast Update : Tue Apr 09 11:33:15 2013
Response via : Initial Calibration



(8) Benzidine (T)

12.775min (0.000) 50.00 mg/L

response 1155677

Ion	Exp%	Act%
184.00	100	100
92.00	9.40	9.65
185.00	14.70	16.53
0.00	0.00	0.00

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

EPA SAMPLE NO.
ULTRA

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No. : _____ SDG No. : 13040516

Lab File ID : 13040903 DFTPP Injection Date : 04/09/2013

Instrument ID : SVOC #2 DFTPP Injection Time : 13:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.3
68	Less than 2.0% of mass 69	0.6 (1.8)1
69	Mass 69 relative abundance	34.1
70	0 - 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	48.2
197	Less than 1.0% of mass 198	0.5
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	26.2
365	Greater than 1.0% of mass 198	3.0
441	Present, but less than mass 443	13.3
442	40.0 - 100.0% of mass 198	90.7
443	17.0 - 23.0% of mass 442	18.6 (20.5)2

1-Value is % mass 69 2-Value is % mass 442

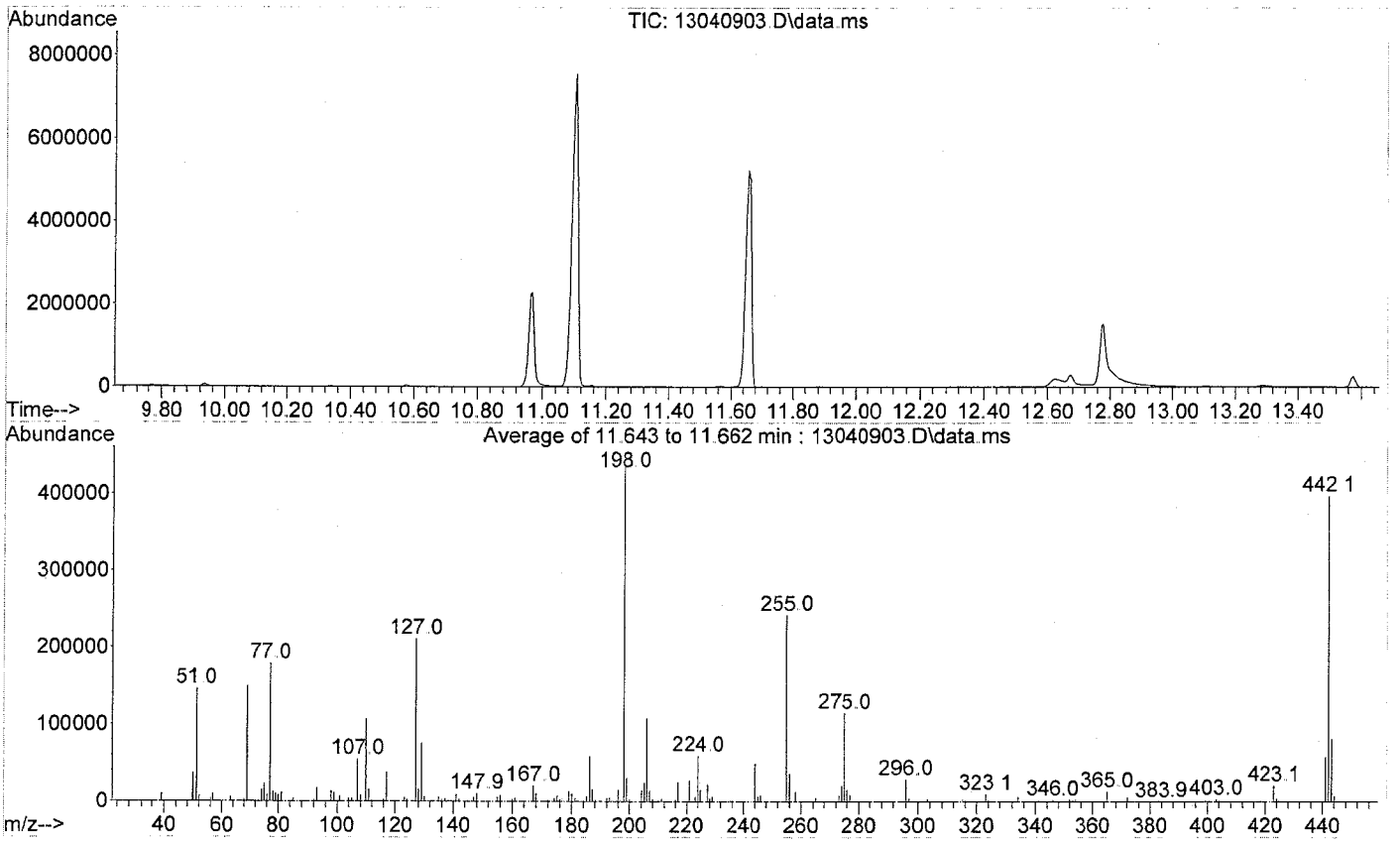
THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS :

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	CCV-01	CCV-01	13040904	04/09/2013	13:34
2	45492-1-BLK	45492-1-BLK	13040908	04/09/2013	15:36
3	45492-1-BKS	45492-1-BKS	13040909	04/09/2013	16:03
4	45492-1-BSD	45492-1-BSD	13040910	04/09/2013	16:31
5	SB-01 (2-2.5) S	13040516-004 S	13040911	04/09/2013	16:58
6	SB-01 (2-2.5) SD	13040516-004 SD	13040912	04/09/2013	17:26
7	SB-01 (2-2.5)	13040516-004	13040913	04/09/2013	17:54
8	SB-02 (2-2.5)	13040516-001	13040914	04/09/2013	18:23
9	SB-04 (2-2.5)	13040516-002	13040915	04/09/2013	18:51
10	SB-03 (2-2.5)	13040516-003	13040916	04/09/2013	19:19
11	SB-040413 (2-2.5)	13040516-005	13040917	04/09/2013	19:48

Data Path : P:\SVOC\2\data\130409\
Data File : 13040903.D
Acq On : 9 Apr 2013 1:07 pm
Operator : BW
Sample : ULTRA Tune Solution@50ppm
Misc : ID#A2353 EX 04/30/13 BW
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : P:\SVOC\2\data\130408\L_SVOC.M
Title : ALS8270.M
Last Update : Mon Apr 08 14:16:29 2013



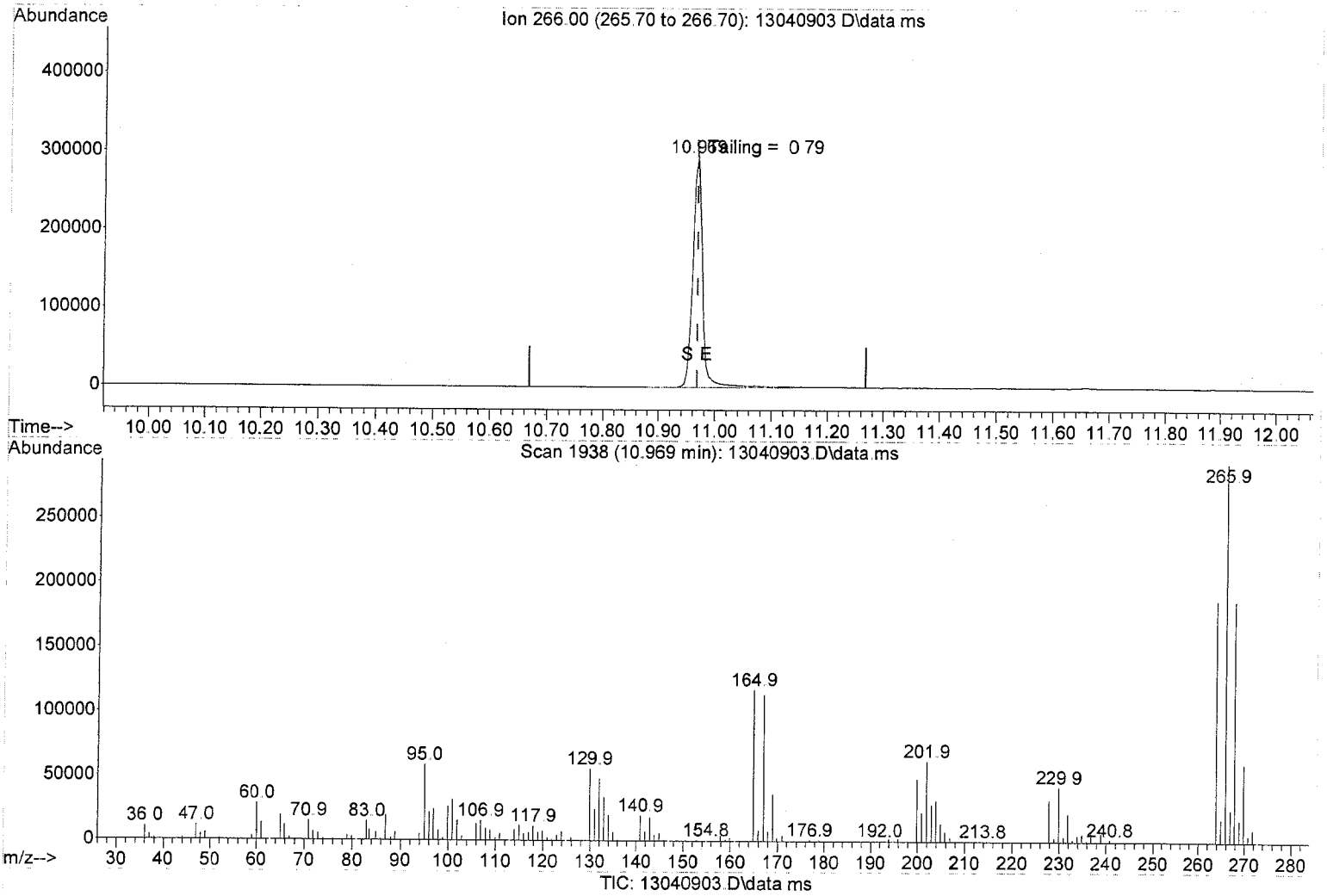
Spectrum Information: Average of 11.643 to 11.662 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.3	145952	PASS
68	69	0.00	2	1.8	2701	PASS
69	198	0.00	100	34.1	149621	PASS
70	69	0.00	2	0.5	712	PASS
127	198	40	60	48.2	211078	PASS
197	198	0.00	1	0.5	2039	PASS
198	198	100	100	100.0	438131	PASS
199	198	5	9	7.0	30692	PASS
275	198	10	30	26.2	114978	PASS
365	198	1	100	3.0	12933	PASS
441	443	0.01	100	71.2	58058	PASS
442	198	40	100	90.7	397395	PASS
443	442	17	23	20.5	81520	PASS

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040903.D
Acq On : 9 Apr 2013 1:07 pm
Operator : BW
Sample : ULTRA Tune Solution@50ppm
Misc : ID#A2353 EX 04/30/13 BW
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:45:54 2013
Quant Method : P:\SVOC\2\data\130408\TUNE.M
Quant Title : ALS8270.M
QLast Update : Wed Apr 10 09:45:50 2013
Response via : Initial Calibration



(5) PENTACHLOROPHENOL (M)

10.969min (0.000) 50.00 mg/L

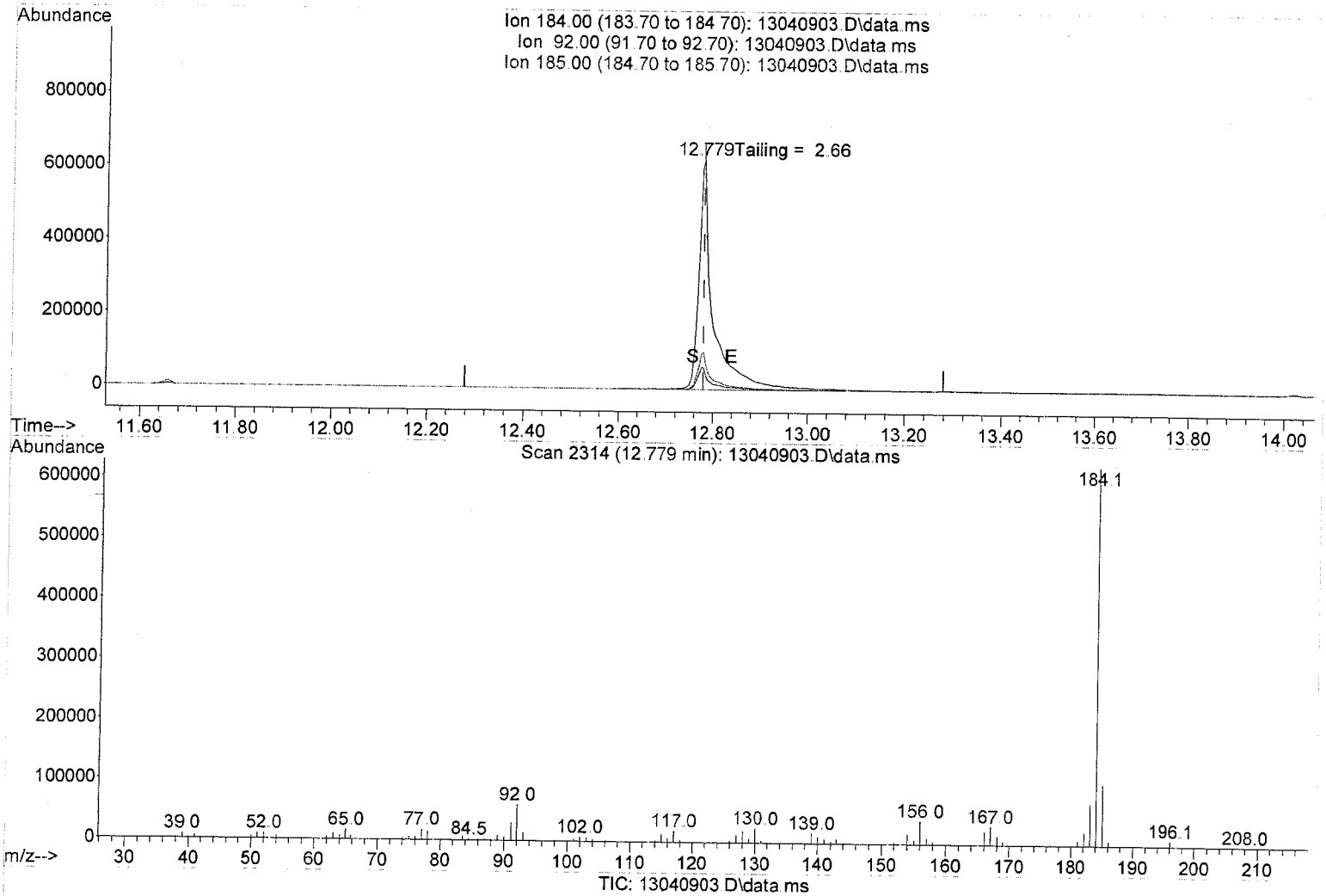
response 336985

Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040903.D
Acq On : 9 Apr 2013 1:07 pm
Operator : BW
Sample : ULTRA Tune Solution@50ppm
Misc : ID#A2353 EX 04/30/13 BW
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 10 09:45:54 2013
Quant Method : P:\SVOC\2\data\130408\TUNE.M
Quant Title : ALS8270.M
QLast Update : Wed Apr 10 09:45:50 2013
Response via : Initial Calibration



(8) Benzidine (T)

12.779min (0.000) 50.00 mg/L

response 1352344

Ion	Exp%	Act%
184.00	100	100
92.00	9.40	9.35
185.00	14.70	15.83
0.00	0.00	0.00

Injection Log

Directory: P:\SVOC\2\data\130327

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13032701.D	1.	ULTRA Tune Solution@50ppm	ID#A2353 EX 04/30/13 BW	
2	1	13032702.D	1.	ULTRA Tune Solution@50ppm	ID#A2353 EX 04/30/13 BW	27 Mar 2013 07:55
3	1	13032703.D	1.	ULTRA Tune Solution@50ppm	ID#A2353 EX 04/30/13 BW	27 Mar 2013 08:24
4	2	13032704.D	1.	ICAL SVOA 80ppm	ID#A2343 EX 04/22/13 BW	27 Mar 2013 09:23
5	3	13032705.D	1.	ICAL SVOA 50ppm SW8270: 104952 B625: 104954	ID#A2344 EX 04/22/13 BW	27 Mar 2013 09:53
6	4	13032706.D	1.	ICAL SVOA 40ppm	ID#A2345 EX 04/22/13 BW	27 Mar 2013 10:22
7	5	13032707.D	1.	ICAL SVOA 30ppm	ID#A2346 EX 04/22/13 BW	27 Mar 2013 10:51
8	6	13032708.D	1.	ICAL SVOA 20ppm	ID#A2347 EX 04/22/13 BW	27 Mar 2013 11:19
9	7	13032709.D	1.	ICAL SVOA 10ppm	ID#A2348 EX 04/22/13 BW	27 Mar 2013 12:35
10	8	13032710.D	1.	ICAL SVOA 5ppm	ID#A2349 EX 04/22/13 BW	27 Mar 2013 13:02
11	9	13032711.D	1.	ICAL SVOA 2ppm	ID#A2350 EX 04/22/13 BW	27 Mar 2013 13:30
12	10	13032712.D	1.	ICAL SVOA 0.5ppm	ID#A2351 EX 04/22/13 BW	27 Mar 2013 14:30
13	1	13032713.D	1.	ULTRA Tune Solution@50ppm	ID#A2353 EX 04/30/13 BW	27 Mar 2013 14:58
14	11	13032714.D	1.	ICV/CCV SVOA 40ppm	ID#A2352 EX 04/22/13 BW	27 Mar 2013 15:25
15	12	13032715.D	1.	45339-1-BLK	Batch #45339 30.06g	27 Mar 2013 15:50
16	13	13032716.D	1.	45339-1-BKS	Batch #45339 30.15g	27 Mar 2013 16:18
17		13032717.D	1.			27 Mar 2013 16:46

Response Factor Report Lean Mean Semi Machine

Method Path : P:\SVOC\2\data\130327\
Method File : L_SVOC.M
Title : ALS8270.M
Last Update : Wed Mar 27 15:22:21 2013
Response Via : Initial Calibration

Calibration Files
C0.5=13032712.D C2 =13032711.D C5 =13032710.D C10 =13032709.D C20 =13032708.D C30 =13032707.D C40 =13032706.D
C50 =13032705.D C80 =13032704.D

		Compound	C0.5	C2	C5	C10	C20	C30	C40	C50	C80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------										
2)	T	Pyridine	2.165	1.993	1.996	1.957	1.905	1.784	1.750	1.791	1.689	1.892	8.00
3)	T	N-Nitrosodimet...	1.350	1.245	1.238	1.190	1.137	1.059	1.022	1.031	0.940	1.135	11.64
4)	S	2-Fluorophenol...	1.697	1.646	1.668	1.598	1.498	1.370	1.282	1.263	1.087	1.456	14.81
5)	S	Phenol-d6 Acid...	2.166	2.077	2.021	1.895	1.781	1.650	1.570	1.546	1.346	1.784	15.52
6)	T	Benzaldehyde			0.282	0.262	0.285	0.294	0.328	0.359	0.407	0.317	16.23
7)	T	Aniline	2.285	2.280	2.483	2.420	2.354	2.188	2.130	2.129	1.919	2.243	7.68
8)	C	PHENOL	2.461	2.301	2.249	2.137	2.021	1.895	1.775	1.758	1.518	2.013	15.06
9)	T	Bis(2-chloroet...	2.191	2.032	1.955	1.868	1.767	1.605	1.497	1.480	1.317	1.746	16.64
10)	M	2-Chlorophenol	1.837	1.781	1.745	1.679	1.637	1.521	1.452	1.457	1.280	1.599	11.46
11)	T	n-Decane	2.095	1.882	1.795	1.655	1.502	1.334	1.207	1.158	0.953	1.509	25.02
12)	C	1,4'-DICHLOROB...	2.105	1.856	1.837	1.761	1.680	1.560	1.469	1.428	1.227	1.658	16.04
13)	T	1,3'-Dichlorob...	2.275	1.974	1.927	1.862	1.782	1.665	1.587	1.578	1.380	1.781	14.89
14)	T	1,2'-Dichlorob...	2.101	1.887	1.884	1.797	1.721	1.601	1.526	1.490	1.281	1.699	14.71
15)	T	2-Methylphenol	1.418	1.333	1.346	1.329	1.288	1.224	1.137	1.123	0.961	1.240	11.55
16)	T	bis(2-chlorois...	3.332	2.963	2.869	2.695	2.410	2.134	1.869	1.746	1.340	2.373	27.42
17)	T	3,4-Methylphenol	2.042	1.911	1.890	1.835	1.526	1.327	1.281	1.363	1.219	1.599	19.95
18)	T	Acetophenone	2.440	2.265	2.260	2.187	2.123	1.986	1.930	1.940	1.772	2.100	9.97
19)	P	N-Nitrosodi-n-...	1.294	1.199	1.144	1.067	0.989	0.959	0.959	0.979	0.899	1.054	12.49
20)	T	Hexachloroethane	0.732	0.675	0.657	0.634	0.558	0.504	0.487	0.508	0.453	0.579	16.97
21)	I	Naphthalene-d8 ISTD	----------ISTD----------										
22)	S	Nitrobenzene-d...	0.428	0.427	0.438	0.429	0.418	0.402	0.390	0.390	0.352	0.408	6.74
23)	T	Nitrobenzene	0.503	0.474	0.476	0.455	0.431	0.408	0.390	0.383	0.345	0.429	12.06
24)	T	Isophorone	0.977	0.910	0.924	0.865	0.838	0.805	0.779	0.796	0.762	0.851	8.66
25)	C	2-NITROPHENOL	0.148	0.188	0.226	0.234	0.238	0.232	0.224	0.226	0.203	0.213	13.74
26)	T	2,4-dimethylph...	0.420	0.417	0.430	0.411	0.394	0.378	0.366	0.368	0.344	0.392	7.57
27)	T	Bis(2-chloroet...	0.701	0.632	0.631	0.595	0.574	0.543	0.527	0.528	0.482	0.579	11.70
28)	C	2,4-DICHLOROPH...	0.323	0.344	0.368	0.357	0.350	0.336	0.327	0.327	0.294	0.336	6.49
29)	T	1,2,4-Trichlor...	0.483	0.434	0.430	0.409	0.393	0.366	0.349	0.343	0.305	0.390	14.12
30)	T	Naphthalene`	1.498	1.322	1.311	1.239	1.145	1.048	0.994	0.968	0.842	1.152	18.08
31)	T	4-Chloroaniline	0.490	0.474	0.521	0.523	0.506	0.474	0.461	0.460	0.415	0.480	7.15
32)	C	HEXACHLOROBUTA...	0.261	0.244	0.236	0.222	0.205	0.191	0.180	0.175	0.155	0.208	17.06
33)	T	e-Caprolactam			0.185	0.176	0.184	0.164	0.158	0.162	0.151	0.169	7.76
34)	C	4-CHLORO-3-MET...	0.287	0.327	0.355	0.355	0.345	0.322	0.315	0.318	0.287	0.324	7.87
35)	T	2-Methylnaphth...	0.986	0.898	0.899	0.840	0.783	0.714	0.677	0.665	0.592	0.784	16.71
36)	T	Biphenyl	1.168	1.023	1.003	0.904	0.783	0.695	0.634	0.596	0.486	0.810	28.11
37)	T	1,2,4,5-Tetrac...	0.447	0.396	0.398	0.386	0.359	0.330	0.316	0.312	0.279	0.358	14.84

Method Path : P:\SVOC\2\data\130327\
Method File : L_SVOC.M
Title : ALS8270.M

38)	I	Acenaphthene-d10 ISTD	----------ISTD----------										
39)	P	Hexachlorocycl...	0.111	0.145	0.191	0.235	0.254	0.254	0.254	0.258	0.225	0.214	25.18
40)	C	2,4,6-TRICHLOR...	0.298	0.376	0.429	0.441	0.447	0.433	0.427	0.431	0.402	0.409	11.52
41)	T	2,4,5-trichlor...	0.315	0.387	0.437	0.474	0.464	0.451	0.435	0.415	0.321	0.411	14.27
42)	S	2-Fluorobiphen...	1.974	1.771	1.738	1.661	1.552	1.463	1.385	1.345	1.149	1.560	16.23
43)	T	2-Chloronaphth...	1.742	1.587	1.548	1.433	1.249	1.144	1.055	1.004	0.838	1.289	23.66
44)	T	2-Nitroaniline		0.356	0.398	0.421	0.415	0.397	0.384	0.386	0.341	0.387	7.10
45)	T	3-Nitroaniline		0.254	0.257	0.275	0.231	0.239	0.240	0.261	0.233	0.249	6.22
46)	T	4-Nitroaniline			0.191	0.178	0.183	0.173	0.188	0.221	0.222	0.194	10.37
47)	T	Dimethylphthalate	1.900	1.761	1.765	1.715	1.592	1.473	1.371	1.313	1.051	1.549	17.46
48)	T	2,6-Dinitrotol...		0.282	0.337	0.358	0.361	0.351	0.338	0.336	0.258	0.328	11.40
49)	T	Acenaphthylene	2.493	2.397	2.386	2.269	2.099	1.943	1.773	1.691	1.383	2.048	18.45
50)	C	ACENAPHTHENE	1.504	1.360	1.400	1.348	1.238	1.151	1.082	1.059	0.888	1.226	16.03
51)	P	2,4-Dinitrophenol			0.026	0.064	0.096	0.100	0.114	0.129	0.124	0.093	39.33
52)	P	4-nitrophenol		0.092	0.129	0.176	0.169	0.154	0.160	0.172	0.137	0.149	19.02
53)	M	2,4-Dinitrotol...		0.308	0.385	0.422	0.441	0.421	0.420	0.430	0.381	0.401	10.74
54)	T	Dibenzofuran	2.346	2.118	2.107	2.024	1.854	1.706	1.638	1.621	1.418	1.870	15.99
55)	T	2,3,4,6-Tetrac...		0.209	0.274	0.314	0.329	0.314	0.308	0.315	0.286	0.294	13.14
56)	T	Diethylphthalate		1.765	1.676	1.512	1.317	1.197	1.067	1.031	0.777	1.293	26.36
57)	T	4-chlorophenyl...	0.982	0.866	0.859	0.828	0.772	0.706	0.657	0.617	0.494	0.753	19.91
58)	T	Fluorene	1.680	1.545	1.524	1.457	1.270	1.156	1.067	1.035	0.883	1.291	21.20
59)	T	Atrazine		0.343	0.371	0.364	0.342	0.321	0.305	0.306	0.242	0.324	12.76
60)	S	2,4,6-Tribromo...		0.055	0.067	0.071	0.066	0.060	0.057	0.056	0.048	0.060	12.41
61)	I	Phenanthrene-d10 ISTD	----------ISTD----------										
62)	T	4,6-Dinitro-2-...			0.053	0.095	0.117	0.121	0.125	0.132	0.105	0.107	25.15
63)	C	N-NITROSODI-N-...	1.097	1.035	1.009	0.971	0.882	0.859	0.791	0.759	0.665	0.896	15.90
64)	M	1,2-diphenylhy...		1.142	1.257	1.177	1.060	1.024	0.962	0.916	0.774	1.039	14.98
65)	T	4-bromophenyl ...	0.369	0.356	0.349	0.337	0.316	0.310	0.297	0.291	0.277	0.322	9.89
66)	T	Hexachlorobenzene	0.159	0.143	0.143	0.132	0.121	0.115	0.108	0.105	0.094	0.124	17.11
67)	C	PENTACHLOROPHENOL		0.059	0.096	0.139	0.149	0.145	0.148	0.155	0.148	0.130	26.20
68)	T	Octadecane	0.829	0.832	0.843	0.764	0.646	0.614	0.542	0.503	0.433	0.667	23.39
69)	T	Phenanthrene	1.444	1.262	1.286	1.284	1.198	1.138	1.111	1.087	1.003	1.201	11.05
70)	T	Anthracene	1.384	1.273	1.294	1.335	1.224	1.143	1.070	1.045	0.947	1.191	12.40
71)	T	Carbazole	1.109	1.066	1.092	1.109	0.880	0.845	0.740	0.776	0.713	0.926	18.13
72)	T	Di-n-Butylphth...	1.700	1.734	1.834	1.773	1.589	1.469	1.358	1.315	1.158	1.548	15.15
73)	C	FLUORANTHENE	1.018	0.982	1.054	1.165	1.083	0.943	0.950	0.941	0.852	0.999	9.28
74)	I	Chrysene-d12 ISTD	----------ISTD----------										
75)	M	Pyrene	2.335	2.011	2.292	1.912	1.973	2.077	1.935	1.961	1.795	2.032	8.70
76)	M	Benzidine			0.053	0.053	0.011	0.006	0.017	0.033	0.086	0.037#	77.79
77)	S	Terphenyl-d14 ...	1.492	1.293	1.500	1.296	1.342	1.419	1.312	1.336	1.232	1.358	6.81
78)	T	Butylbenzylpht...	0.701	0.722	0.991	0.862	0.926	0.964	0.917	0.918	0.852	0.873	11.58
79)	T	Bis 2-ethylhex...	0.598	0.717	1.025	0.851	0.943	1.009	0.922	0.923	0.826	0.868	15.95
80)	T	Bis(2-ethylhex...	0.759	0.941	1.307	1.148	1.254	1.286	1.237	1.228	1.123	1.143	15.91
81)	T	3,3-Dichlorobe...	0.199	0.265	0.270	0.240	0.188	0.174	0.180	0.196	0.184	0.211	17.86
82)	T	Benzo[a]anthra...	1.178	1.041	1.089	1.169	1.163	1.137	1.156	1.192	1.127	1.139	4.22

Method Path : P:\SVOC\2\data\130327\
Method File : L_SVOC.M
Title : ALS8270.M

83)	T	Chrysene	1.076	0.999	1.017	1.042	1.029	1.002	1.011	1.039	0.954	1.019	3.33
84)	I	Perylene-d12 ISTD	----------	----------	ISTD	----------	----------	----------	----------	----------	----------	----------	
85)	C	DI-N-OCTYLPHTH...			1.933	1.755	2.331	2.470	2.520	2.707	2.726	2.349	15.93
86)	T	Benzo[b]fluora...	0.656	0.855	0.983	1.035	1.134	1.215	1.193	1.317	1.276	1.074	20.02
87)	T	Benzo[k]fluora...	1.032	1.075	1.273	1.194	1.278	1.230	1.242	1.248	1.213	1.198	7.25
88)	C	BENZO[A]PYRENE	0.588	0.721	0.839	0.961	1.023	1.017	1.065	1.093	1.031	0.926	18.75
89)	T	Indeno(1,2,3-c...	0.249	0.381	0.424	0.616	0.578	0.601	0.610	0.601	0.538	0.511	25.46
90)	T	Dibenzo[a,h]an...	0.283	0.483	0.516	0.684	0.632	0.711	0.709	0.699	0.608	0.592	24.09
91)	T	Benzo[g,h,i]pe...	0.418	0.607	0.638	0.785	0.701	0.726	0.705	0.694	0.591	0.652	16.36

(#) = Out of Range

Calibration Report Lean Mean Semi Machine

Method Path : P:\SVOC\2\data\130327\
Method File : L_SVOC.M
Title : ALS8270.M
Last Update : Wed Mar 27 15:22:21 2013
Response Via : Initial Calibration

Calibration Files
C0.5=13032712 C2 =13032711 C5 =13032710 C10 =13032709 C20 =13032708 C30 =13032707
C40 =13032706 C50 =13032705 C80 =13032704

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	I	1,4-Dichlorobenz...	ISTD				
2)	T	Pyridine	Avg	-----	1.8923	-----	0.0800
3)	T	N-Nitrosodimethy...	Avg	-----	1.1347	-----	0.1164
4)	S	2-Fluorophenol A...	Avg	-----	1.4564	-----	0.1481
5)	S	Phenol-d6 Acid SS 2	QuadF	-----	1.8625	-0.1297	0.9996
6)	T	Benzaldehyde	QuadF	-----	0.2483	0.0803	0.9993
7)	T	Aniline	Avg	-----	2.2431	-----	0.0768
8)	C	PHENOL	QuadF	-----	2.1267	-0.3052	0.9996
9)	T	Bis(2-chloroethy...	QuadF	-----	1.7844	-0.2369	0.9991
10)	M	2-Chlorophenol	Avg	-----	1.5989	-----	0.1146
11)	T	n-Decane	QuadF	-----	1.5606	-0.3077	0.9983
12)	C	1,4'-DICHLOROBEN...	QuadF	-----	1.7663	-0.2707	0.9998
13)	T	1,3'-Dichloroben...	Avg	-----	1.7812	-----	0.1489
14)	T	1,2'-Dichloroben...	Avg	-----	1.6987	-----	0.1471
15)	T	2-Methylphenol	Avg	-----	1.2399	-----	0.1155
16)	T	bis(2-chloroisop...	QuadF	-----	2.5651	-0.6201	0.9976
17)	T	3,4-Methylphenol	QuadF	-----	1.5077	-0.1456	0.9960
18)	T	Acetophenone	Avg	-----	2.1004	-----	0.0997
19)	P	N-Nitrosodi-n-pr...	Avg	-----	1.0544	-----	0.1249
20)	T	Hexachloroethane	QuadF	-----	0.5653	-0.0563	0.9981
21)	I	Naphthalene-d8 ISTD	ISTD				
22)	S	Nitrobenzene-d5 ...	Avg	-----	0.4083	-----	0.0674
23)	T	Nitrobenzene	Avg	-----	0.4293	-----	0.1206
24)	T	Isophorone	Avg	-----	0.8506	-----	0.0866
25)	C	2-NITROPHENOL	Avg	-----	0.2132	-----	0.1374
26)	T	2,4-dimethylphenol	Avg	-----	0.3921	-----	0.0757
27)	T	Bis(2-chloroetho...	Avg	-----	0.5792	-----	0.1170
28)	C	2,4-DICHLOROPHENOL	Avg	-----	0.3363	-----	0.0649
29)	T	1,2,4-Trichlorob...	Avg	-----	0.3902	-----	0.1412
30)	T	Naphthalene`	QuadF	-----	1.1904	-0.1757	0.9995
31)	T	4-Chloroaniline	Avg	-----	0.4803	-----	0.0715
32)	C	HEXACHLOROBUTADI...	QuadF	-----	0.2128	-0.0291	0.9995
33)	T	e-Caprolactam	QuadF	-----	0.1765	-0.0127	0.9986
34)	C	4-CHLORO-3-METHY...	Avg	-----	0.3236	-----	0.0787
35)	T	2-Methylnaphthalene	QuadF	-----	0.7993	-0.1051	0.9993
36)	T	Biphenyl	QuadF	-----	0.8253	-0.1720	0.9980
37)	T	1,2,4,5-Tetrachl...	Avg	-----	0.3581	-----	0.1484
38)	I	Acenaphthene-d10...	ISTD				
39)	P	Hexachlorocyclop...	QuadF	-----	0.2781	-0.0254	0.9983
40)	C	2,4,6-TRICHLOROP...	Avg	-----	0.4093	-----	0.1152
41)	T	2,4,5-trichlorop...	Avg	-----	0.4111	-----	0.1427
42)	S	2-Fluorobiphenyl...	QuadF	-----	1.6612	-0.2565	0.9999
43)	T	2-Chloronaphthalene	QuadF	-----	1.3294	-0.2484	0.9989
44)	T	2-Nitroaniline	QuadF	-----	0.4375	-0.0477	0.9995
45)	T	3-Nitroaniline	QuadF	-----	0.2581	-0.0115	0.9959
46)	T	4-Nitroaniline	QuadF	-----	0.1692	0.0276	0.9944
47)	T	Dimethylphthalate	QuadF	-----	1.7361	-0.3430	0.9998
48)	T	2,6-Dinitrotoluene	QuadF	-----	0.4164	-0.0776	0.9978
49)	T	Acenaphthylene	QuadF	-----	2.2520	-0.4377	0.9995
50)	C	ACENAPHTHENE	QuadF	-----	1.3237	-0.2181	0.9996
51)	P	2,4-Dinitrophenol	QuadF	-----	0.0989	0.0138	0.9905
52)	P	4-nitrophenol	QuadF	-----	0.1862	-0.0233	0.9924
53)	M	2,4-Dinitrotoluene	QuadF	-----	0.4634	-0.0400	0.9988

Method Path : P:\SVOC\2\data\130327\
Method File : L_SVOC.M
Title : ALS8270.M

54)	T	Dibenzofuran	QuadF	-----	1.9308	-0.2573	0.9995
55)	T	2,3,4,6-Tetrachl...	QuadF	-----	0.3375	-0.0251	0.9993
56)	T	Diethylphthalate	QuadF	-----	1.4494	-0.3379	0.9985
57)	T	4-chlorophenyl p...	QuadF	-----	0.8364	-0.1722	0.9998
58)	T	Fluorene	QuadF	-----	1.3263	-0.2245	0.9987
59)	T	Atrazine	QuadF	-----	0.3797	-0.0681	0.9985
60)	S	2,4,6-Tribromoph...	QuadF	-----	0.0688	-0.0052	0.9994
61)	I	Phenanthrene-d10...	-----	ISTD	-----	-----	-----
62)	T	4,6-Dinitro-2-me...	QuadF	-----	0.1383	-0.0151	0.9889
63)	C	N-NITROSODI-N-PH...	QuadF	-----	0.9468	-0.1422	0.9996
64)	M	1,2-diphenylhydr...	QuadF	-----	1.1657	-0.1967	0.9998
65)	T	4-bromophenyl ph...	Avg	-----	0.3225	-----	0.0989
66)	T	Hexachlorobenzene	QuadF	-----	0.1260	-0.0160	0.9995
67)	C	PENTACHLOROPHENOL	QuadF	-----	0.1486	0.0004	0.9988
68)	T	Octadecane	QuadF	-----	0.6887	-0.1309	0.9970
69)	T	Phenanthrene	Avg	-----	1.2015	-----	0.1105
70)	T	Anthracene	Avg	-----	1.1906	-----	0.1240
71)	T	Carbazole	QuadF	-----	0.8931	-0.0928	0.9961
72)	T	Di-n-Butylphthalate	QuadF	-----	1.6424	-0.2458	0.9990
73)	C	FLUORANTHENE	Avg	-----	0.9985	-----	0.0928
74)	I	Chrysene-d12 ISTD	-----	ISTD	-----	-----	-----
75)	M	Pyrene	Avg	-----	2.0323	-----	0.0870
76)	M	Benzidine	Quad	0.0226	-0.0814	0.0777	0.9948
77)	S	Terphenyl-d14 BN...	Avg	-----	1.3579	-----	0.0681
78)	T	Butylbenzylphtha...	Avg	-----	0.8726	-----	0.1158
79)	T	Bis 2-ethylhexyl...	QuadF	-----	1.0407	-0.1055	0.9986
80)	T	Bis(2-ethylhexyl...	QuadF	-----	1.3466	-0.1093	0.9995
81)	T	3,3-Dichlorobenz...	QuadF	-----	0.1916	-0.0036	0.9955
82)	T	Benzo[a]anthracene	Avg	-----	1.1392	-----	0.0422
83)	T	Chrysene	Avg	-----	1.0189	-----	0.0333
84)	I	Perylene-d12 ISTD	-----	ISTD	-----	-----	-----
85)	C	DI-N-OCTYLPHTHALATE	QuadF	-----	2.3210	0.2142	0.9980
86)	T	Benzo[b]fluorant...	QuadF	-----	1.1712	0.0585	0.9980
87)	T	Benzo[k]fluorant...	Avg	-----	1.1984	-----	0.0725
88)	C	BENZO[A]PYRENE	QuadF	-----	1.0663	-0.0130	0.9988
89)	T	Indeno(1,2,3-c,d...	QuadF	-----	0.6504	-0.0536	0.9986
90)	T	Dibenzo[a,h]anth...	QuadF	-----	0.7652	-0.0748	0.9973
91)	T	Benzo[g,h,i]pery...	QuadF	-----	0.8077	-0.1064	0.9989

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 12:55:55 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.364	152	1780633	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.151	136	6432346	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.400	164	3394864	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.181	188	4376266	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.773	240	2044636	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.263	264	1125628	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.636	112	7741893	0.00	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 0.00%#			
5) Phenol-d6 Acid SS 2	5.032	99	9583539	0.00	mg/L	0.00
Spiked Amount 40.000	Range 31 - 109		Recovery = 0.00%#			
22) Nitrobenzene-d5 BN SS 1	6.231	82	4525235	0.00	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 0.00%#			
42) 2-Fluorobiphenyl BN SS 2	8.600	172	7803969	0.00	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 0.00%#			
60) 2,4,6-Tribromophenol A...	10.387	141	651702	0.00	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 0.00%#			
77) Terphenyl-d14 BN SS 3	13.208	244	5038857	0.00	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 0.00%#			
Target Compounds						Qvalue
2) Pyridine	1.897	79	6014967	No Calib		
3) N-Nitrosodimethylamine	1.945	74	3346824	No Calib		
6) Benzaldehyde	4.733	77	1450102	No Calib		
7) Aniline	4.969	93	6834915	No Calib		
8) PHENOL	5.051	94	5406330	No Calib		
9) Bis(2-chloroethyl)ether	5.119	93	4690579	No Calib		
10) 2-Chlorophenol	5.119	128	4557887	No Calib		
11) n-Decane	5.220	43	3394548	No Calib		
12) 1,4'-DICHLOROBENZENE	5.393	146	4371372	No Calib		
13) 1,3'-Dichlorobenzene	5.316	146	4914314	No Calib		
14) 1,2'-Dichlorobenzene	5.653	146	4561962	No Calib		
15) 2-Methylphenol	5.860	107	3421889	No Calib		
16) bis(2-chloroisopropyl)...	5.880	45	4772647	No Calib		
17) 3,4-Methylphenol	6.111	107	4341503	No Calib		
18) Acetophenone	6.038	105	6311433	No Calib		
19) N-Nitrosodi-n-propyl a...	6.149	70	3200220	No Calib		
20) Hexachloroethane	6.072	117	1612847	No Calib		
23) Nitrobenzene	6.260	77	4432654	No Calib		
24) Isophorone	6.607	82	9799880	No Calib		
25) 2-NITROPHENOL	6.684	139	2609285	No Calib		
26) 2,4-dimethylphenol	6.819	122	4419387	No Calib		
27) Bis(2-chloroethoxy)met...	6.944	93	6201784	No Calib		
28) 2,4-DICHLOROPHENOL	7.026	162	3786319	No Calib		
29) 1,2,4-Trichlorobenzene	7.103	180	3920826	No Calib		
30) Naphthalene`	7.180	128	10830066	No Calib		
31) 4-Chloroaniline	7.314	127	5333119	No Calib		
32) HEXACHLOROBUTADIENE`	7.435	225	1997963	No Calib		
33) e-Caprolactam	7.878	55	1947573	No Calib		
34) 4-CHLORO-3-METHYLPHENOL	8.013	107	3695803	No Calib		

Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 12:55:55 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.080	142	7610624	No Calib	
36) Biphenyl	8.701	154	6255588	No Calib	
37) 1,2,4,5-Tetrachloroben...	8.345	216	3584810	No Calib	
39) Hexachlorocyclopentadiene	8.369	237	1527606	No Calib	
40) 2,4,6-TRICHLOROPHENOL	8.504	198	2728316	No Calib	
41) 2,4,5-trichlorophenol	8.562	196	2176976	No Calib	
43) 2-Chloronaphthalene	8.682	162	5692958	No Calib	
44) 2-Nitroaniline	8.894	65	2314620	No Calib	
45) 3-Nitroaniline	9.419	138	1579237	No Calib	
46) 4-Nitroaniline	10.189	138	1508489	No Calib	
47) Dimethylphthalate	9.192	163	7137232	No Calib	
48) 2,6-Dinitrotoluene	9.270	165	1752129	No Calib	
49) Acenaphthylene	9.207	152	9390434	No Calib	
50) ACENAPHTHENE	9.443	154	6032615	No Calib	
51) 2,4-Dinitrophenol	9.544	184	841075	No Calib	
52) 4-nitrophenol	9.664	65	930892	No Calib	#
53) 2,4-Dinitrotoluene	9.741	165	2583959	No Calib	
54) Dibenzofuran	9.640	168	9629441	No Calib	
55) 2,3,4,6-Tetrachlorophenol	9.862	232	1941524	No Calib	
56) Diethylphthalate	10.074	149	5277818	No Calib	
57) 4-chlorophenyl phenyl ...	10.088	204	3351055	No Calib	
58) Fluorene	10.059	166	5996209	No Calib	
59) Atrazine	10.979	200	1642275	No Calib	
62) 4,6-Dinitro-2-methylph...	10.237	198	922863	No Calib	
63) N-NITROSODI-N-PHENYLAMINE	10.261	169	5822026	No Calib	
64) 1,2-diphenylhydrazine	10.281	77	6772546	No Calib	
65) 4-bromophenyl phenyl e...	10.666	250	2422093	No Calib	
66) Hexachlorobenzene	10.825	142	826391	No Calib	
67) PENTACHLOROPHENOL	11.051	266	1299544	No Calib	
68) Octadecane	11.143	57	3786672	No Calib	
69) Phenanthrene	11.215	178	8778046	No Calib	
70) Anthracene	11.268	178	8288884	No Calib	
71) Carbazole	11.480	167	6240488	No Calib	
72) Di-n-Butylphthalate	12.029	149	10137533	No Calib	
73) FLUORANTHENE	12.650	202	7460388	No Calib	
75) Pyrene	12.934	202	7338885	No Calib	
76) Benzidine	12.857	184	350829	No Calib	
78) Butylbenzylphthalate	14.032	149	3484732	No Calib	
79) Bis 2-ethylhexyl adipate	14.215	129	3379284	No Calib	
80) Bis(2-ethylhexyl)phtha...	15.096	149	4594068	No Calib	
81) 3,3-Dichlorobenzidine	14.783	252	751265	No Calib	
82) Benzo[a]anthracene	14.749	228	4608285	No Calib	
83) Chrysene	14.822	228	3901588	No Calib	
85) DI-N-OCTYLPHTHALATE	16.208	149	6136258	No Calib	
86) Benzo[b]fluoranthene	16.622	252	2873396	No Calib	
87) Benzo[k]fluoranthene	16.666	252	2730059	No Calib	
88) BENZO[A]PYRENE	17.167	252	2322027	No Calib	
89) Indeno(1,2,3-c,d)pyrene	19.030	276	1212185	No Calib	
90) Dibenzo[a,h]anthracene	19.088	278	1369609	No Calib	
91) Benzo[g,h,i]perylene	19.420	276	1329804	No Calib	

Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

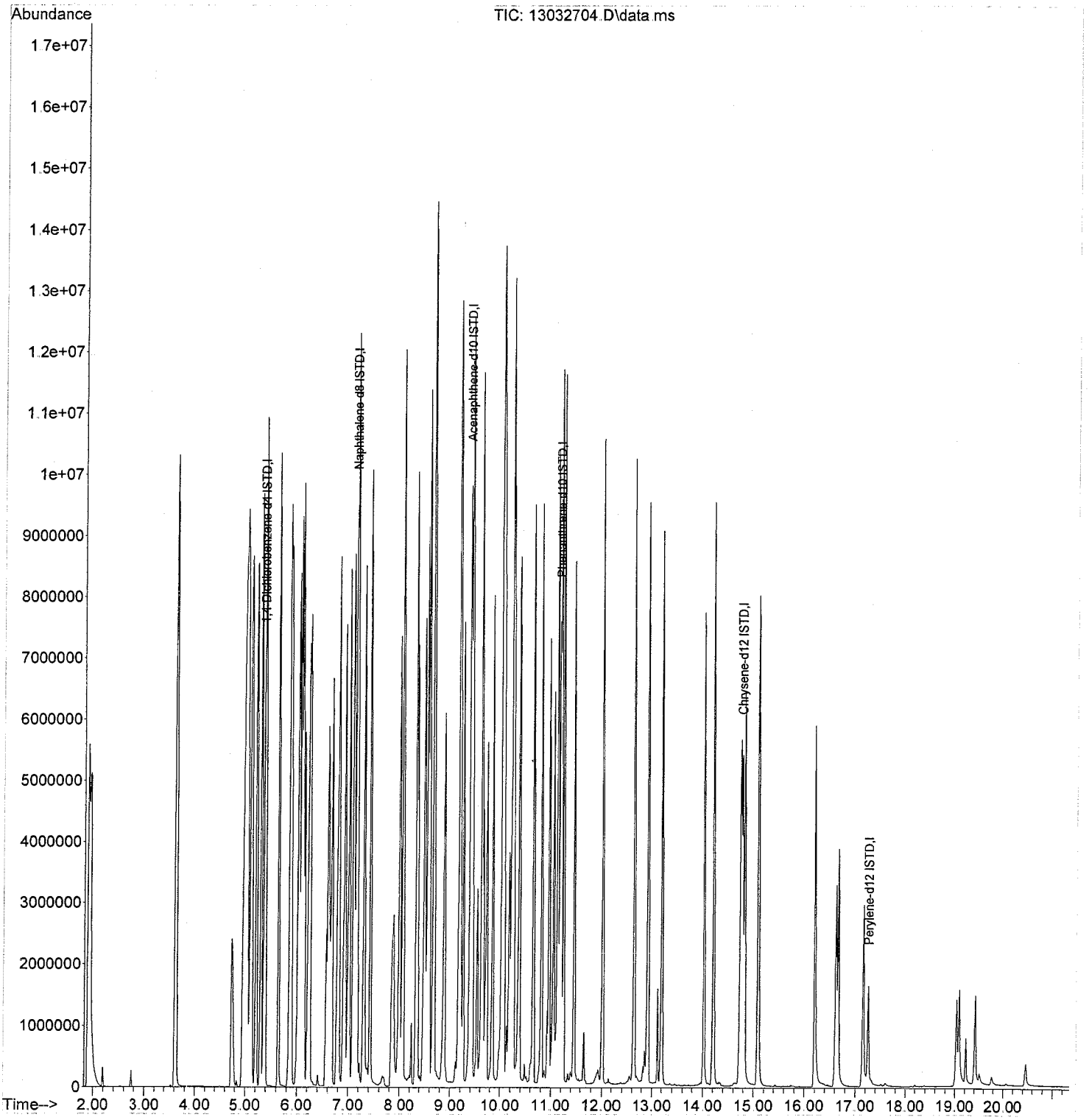
Quant Time: Mar 27 12:55:55 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

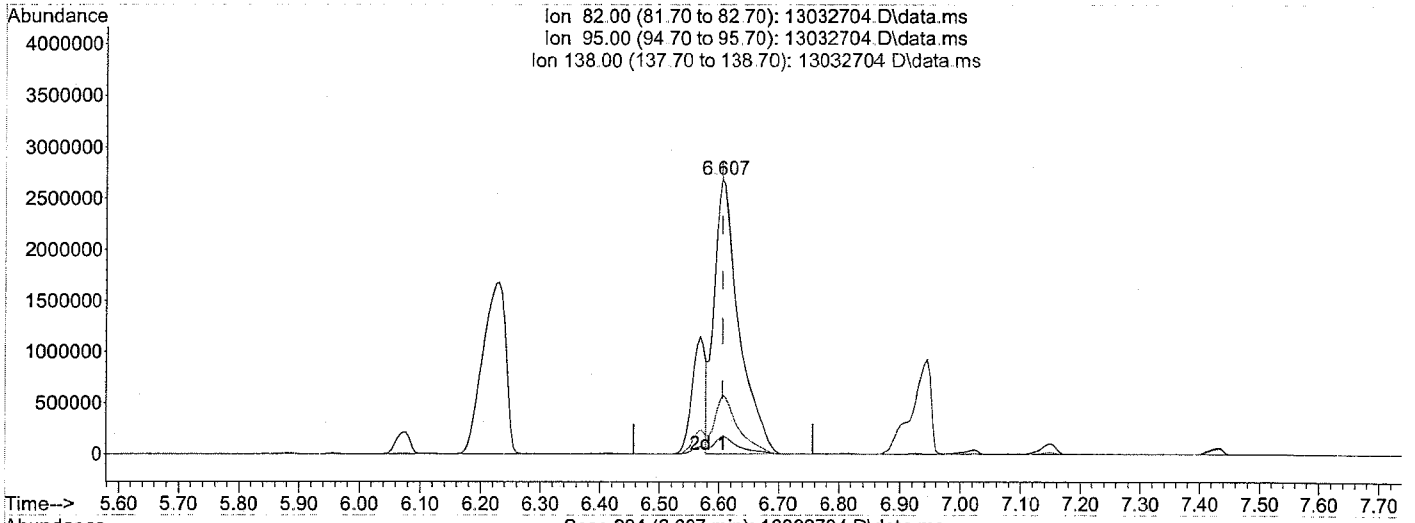
Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

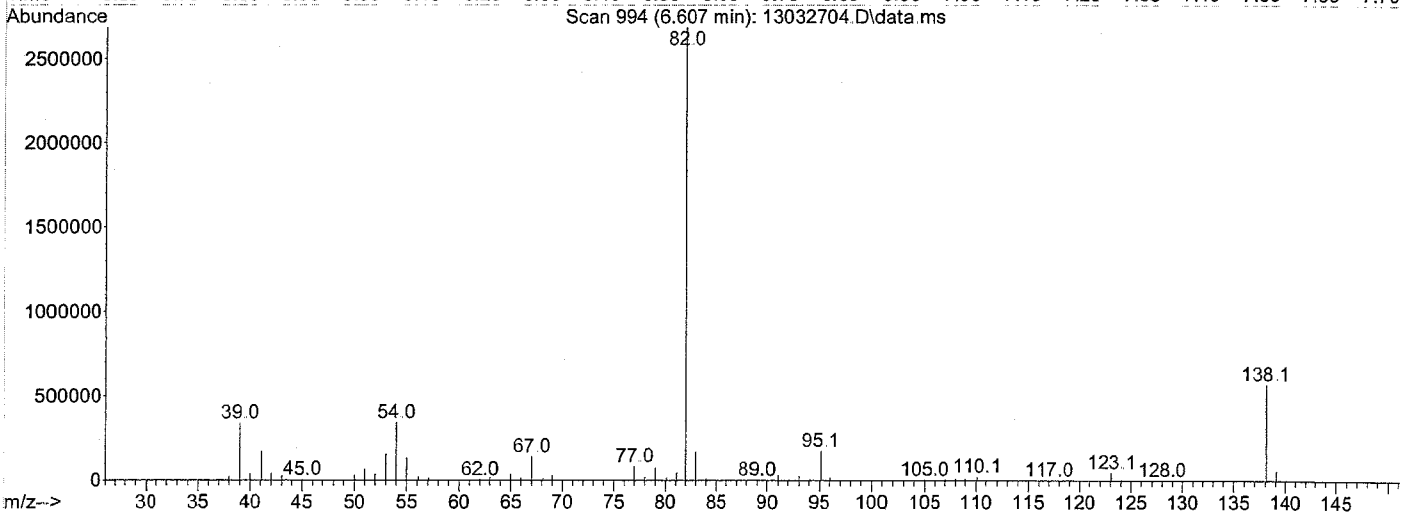
Quant Time: Mar 27 12:55:55 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration



Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 10:23:46 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration





TIC: 13032704.D\data.ms

(24) Isophorone (T)

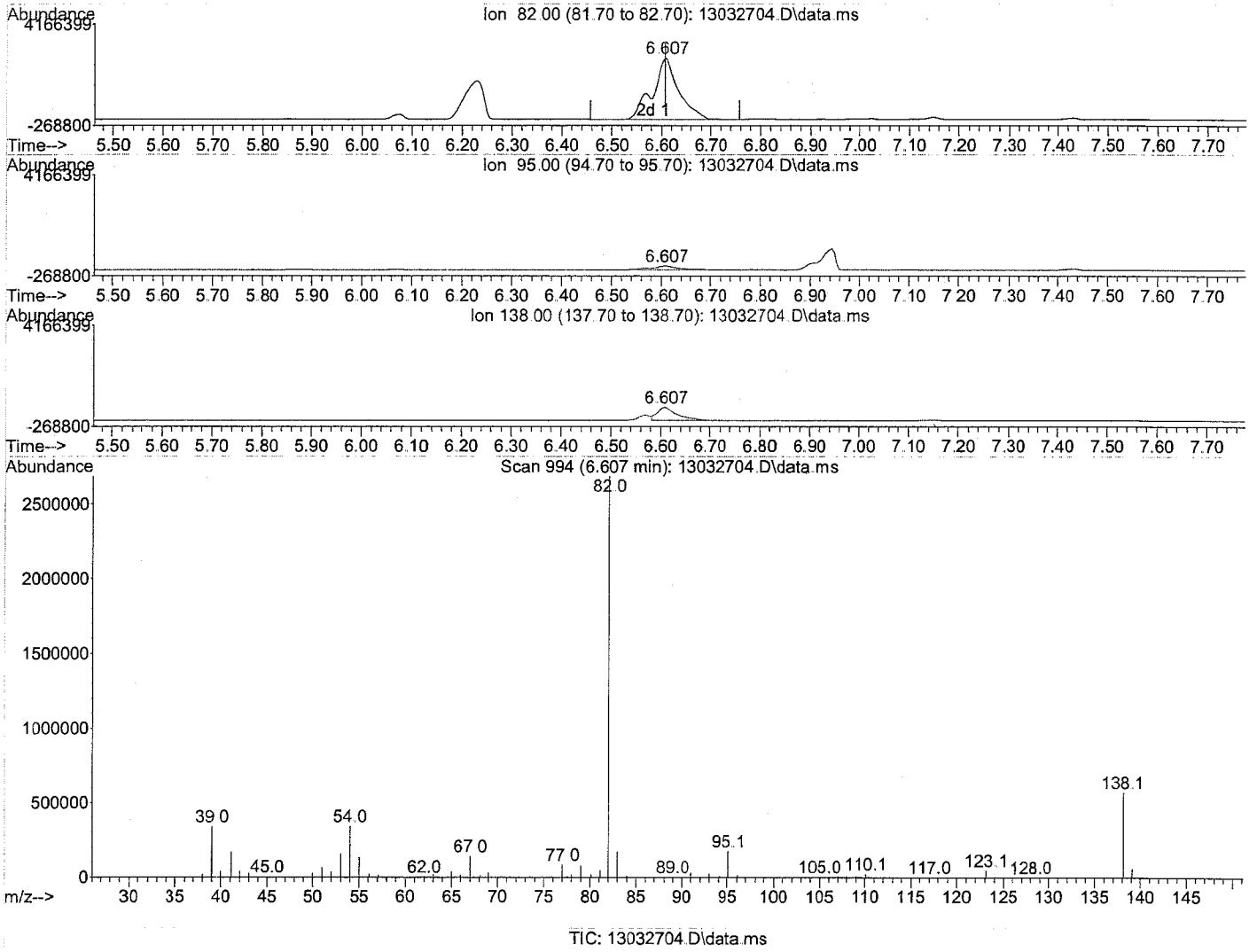
6.607min (0.000) 0.00 mg/L

response 7922503

Ion	Exp%	Act%
82.00	100	100
95.00	6.50	6.50
138.00	21.50	19.99
0.00	0.00	0.00

Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 10:23:46 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration



TIC: 13032704.D\data.ms

(24) Isophorone (T)

6.607min (0.000) 0.00 mg/L m

response 9799880

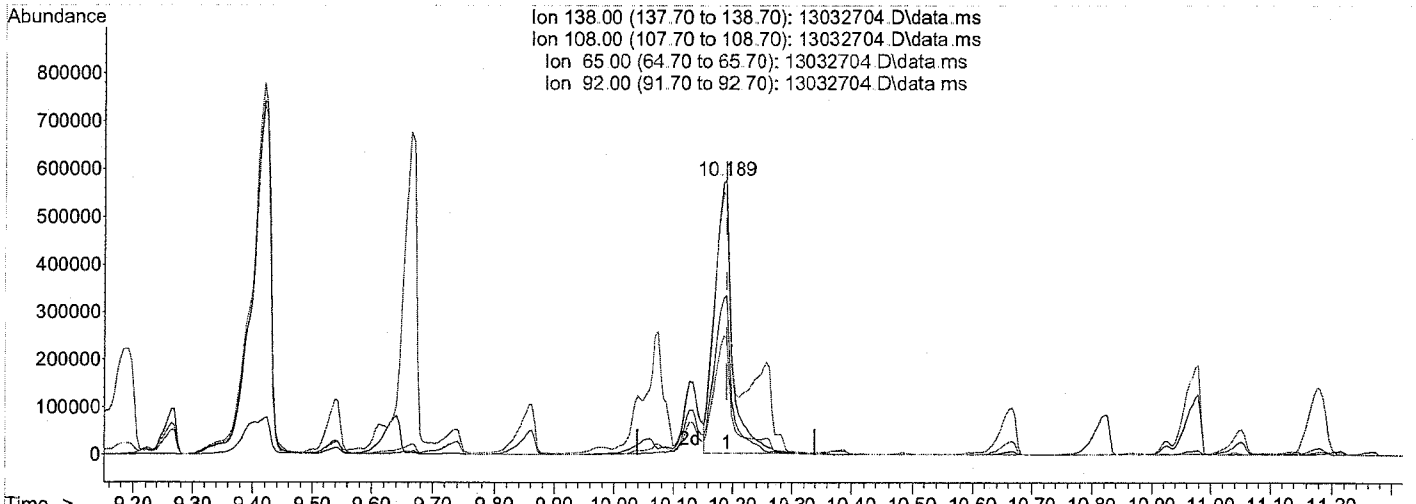
Ion	Exp%	Act%
82.00	100	100
95.00	6.50	6.32
138.00	21.50	16.16
0.00	0.00	0.00

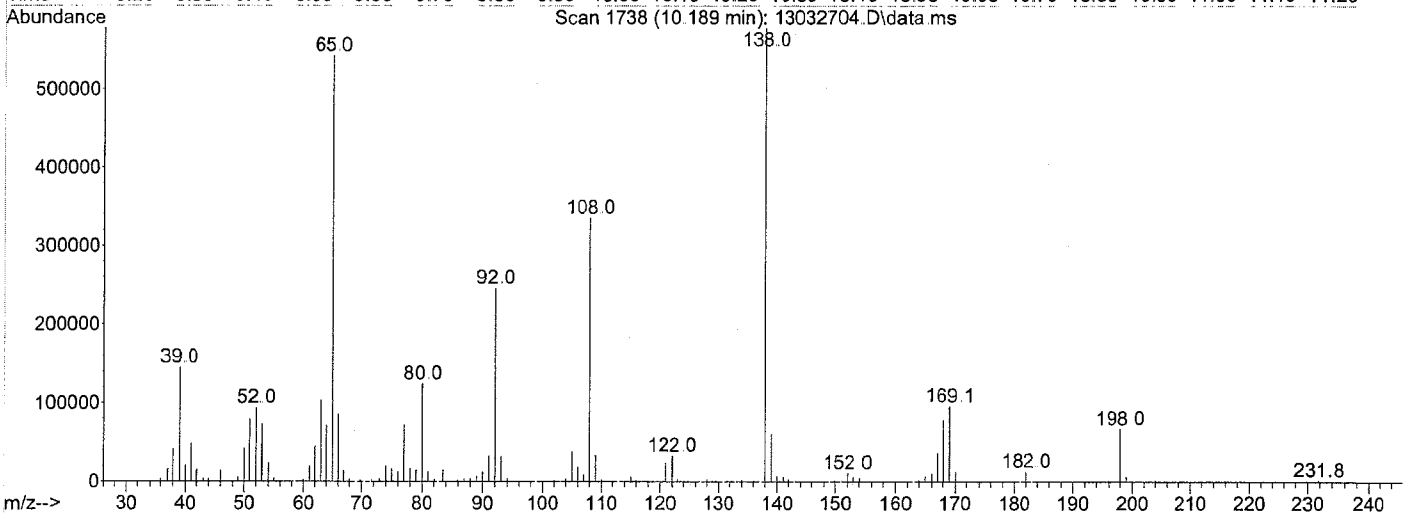
3/27

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 10:23:46 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration





TIC: 13032704.D\data.ms

(46) 4-Nitroaniline (T)

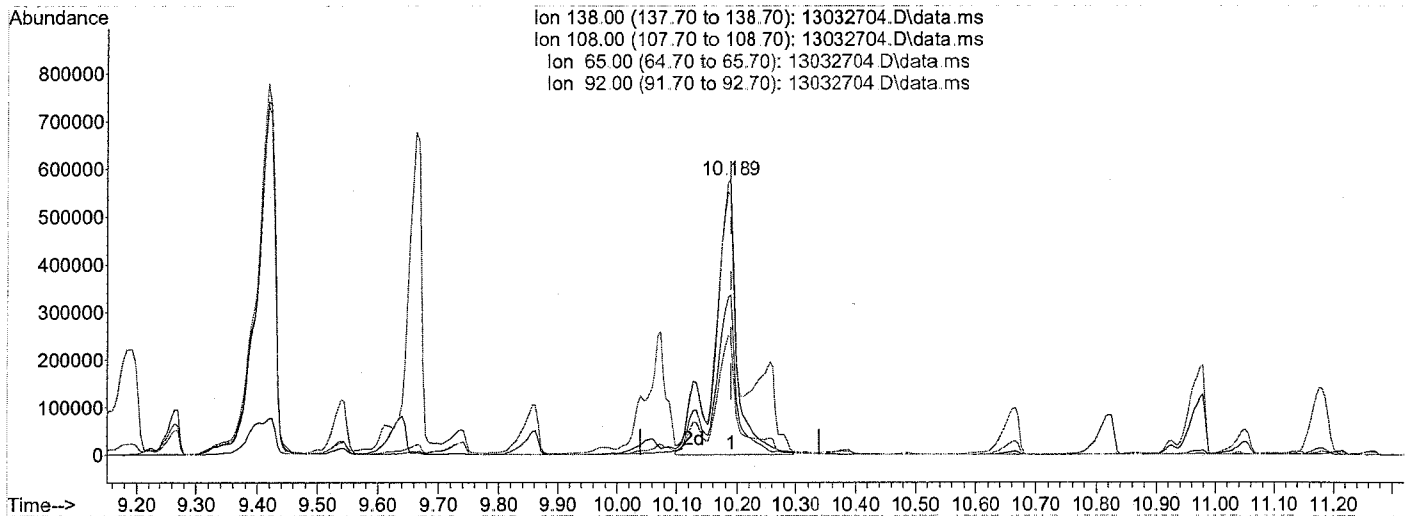
10.189min (0.000) 0.00 mg/L

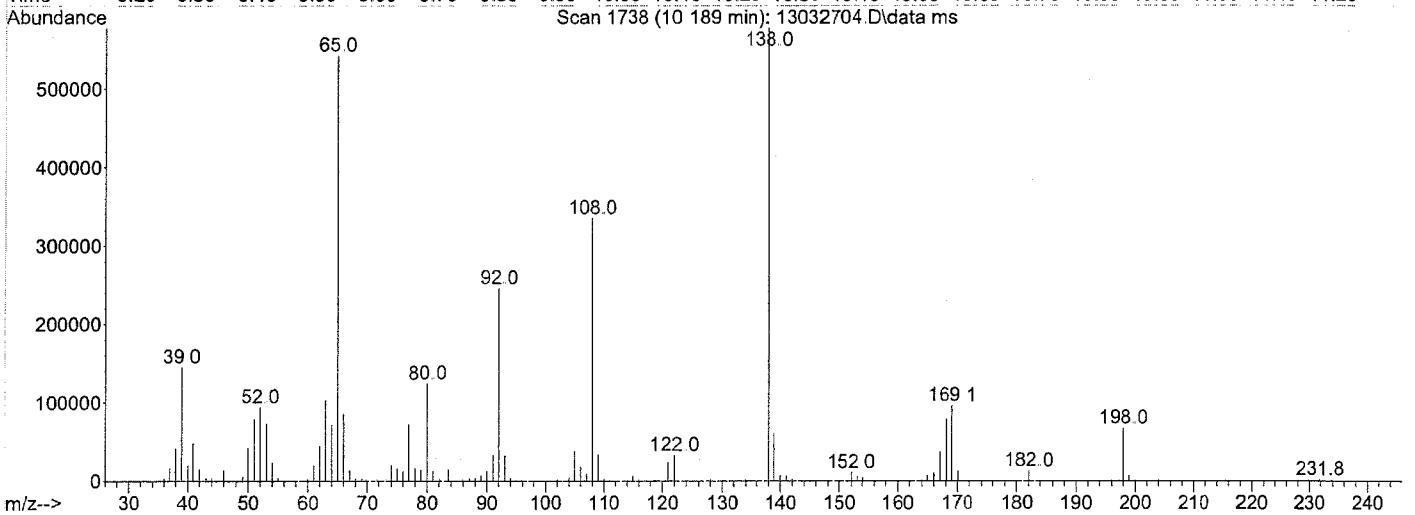
response 1209970

Ion	Exp%	Act%
138.00	100	100
108.00	59.40	57.04
65.00	80.50	70.43
92.00	46.70	34.68

Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 10:23:46 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration





TIC: 13032704.D\data.ms

(46) 4-Nitroaniline (T)

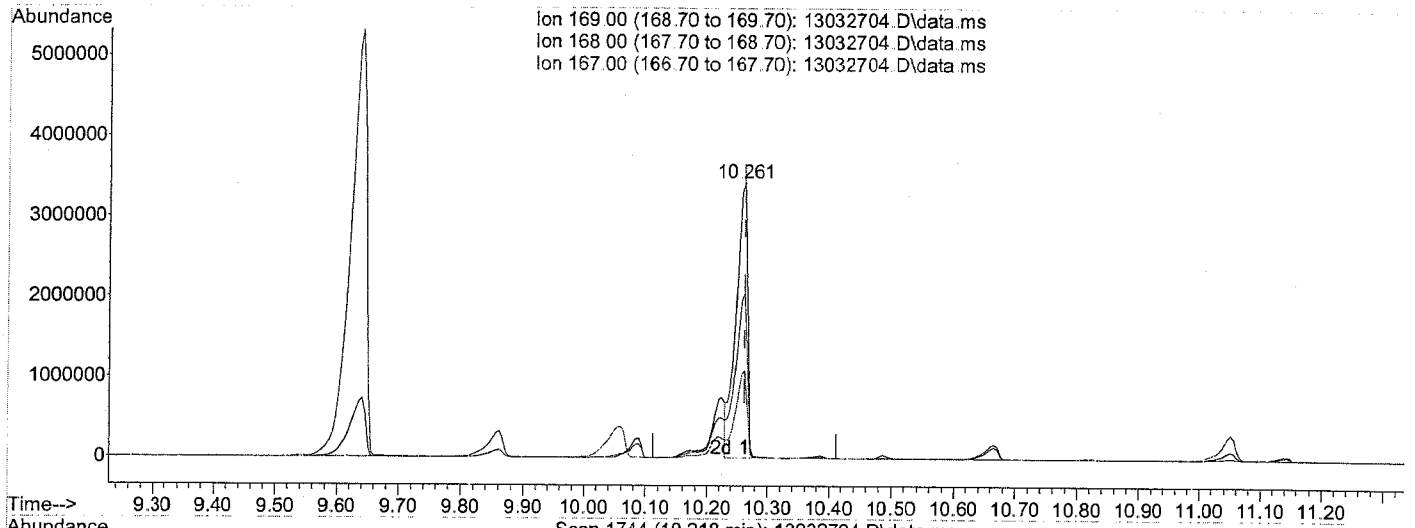
10.189min (0.000) 0.00 mg/L m

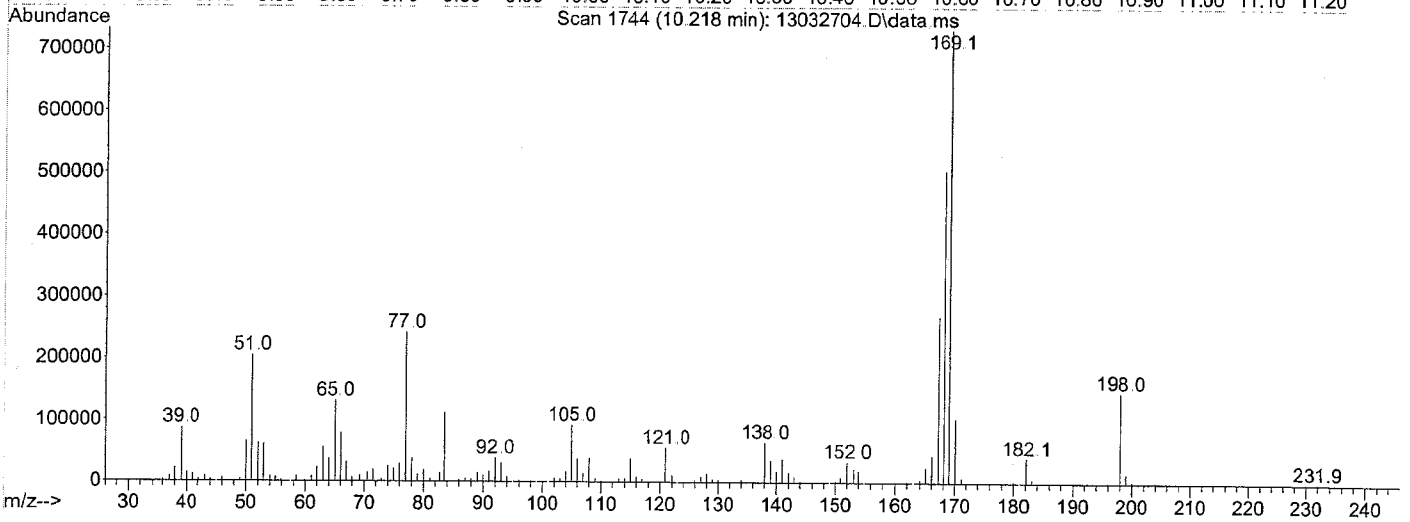
response 1508489

Ion	Exp%	Act%
138.00	100	100
108.00	59.40	45.75
65.00	80.50	56.50#
92.00	46.70	27.82

Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 10:23:46 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration





TIC: 13032704.D\data.ms

(63) N-NITROSODI-N-PHENYLAMINE (C)

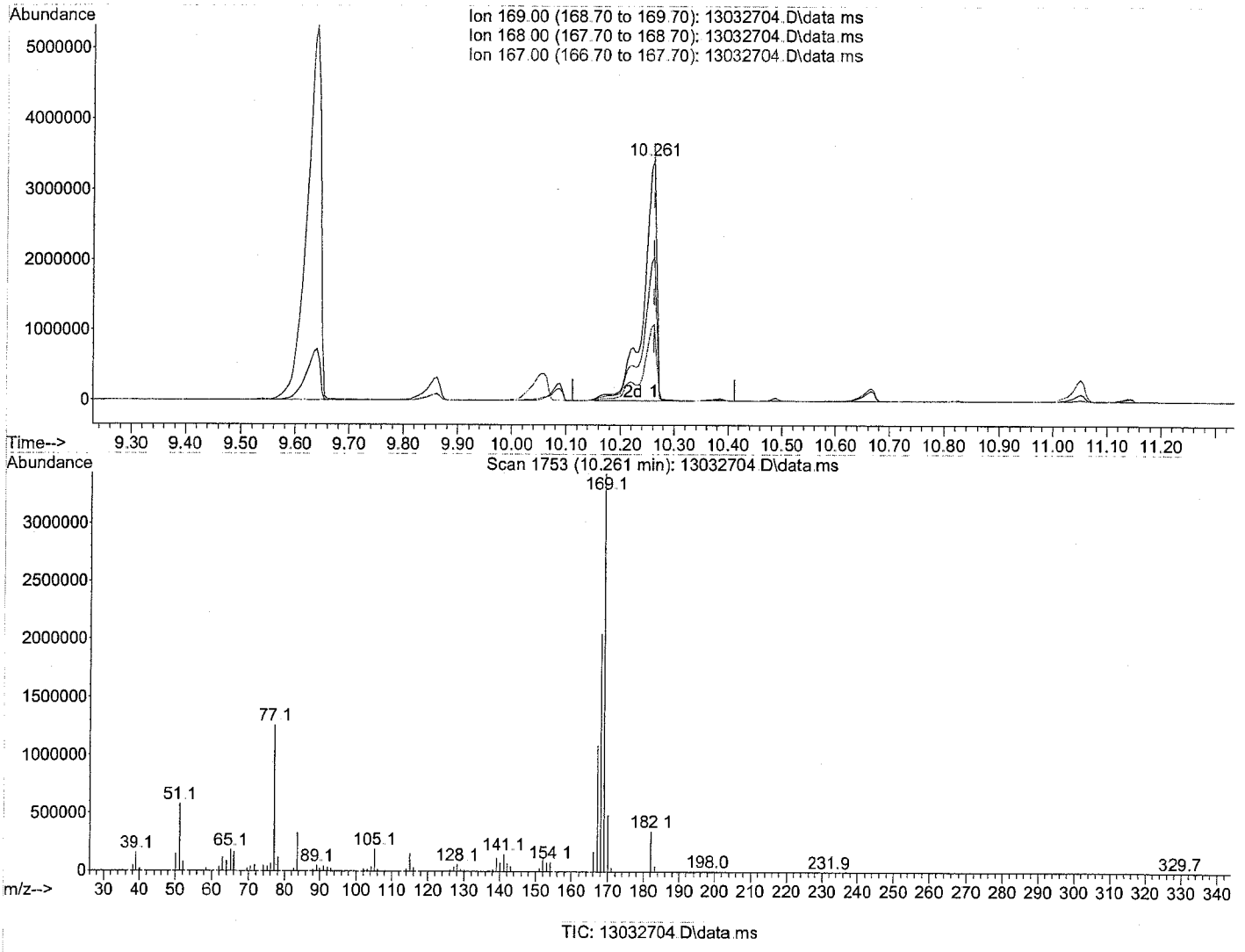
10.261min (0.000) 0.00 mg/L

response 4564389

Ion	Exp%	Act%
169.00	100	100
168.00	63.20	81.08
167.00	33.70	30.47
0.00	0.00	0.00

Data Path : P:\SVOC\2\data\130327\
Data File : 13032704.D
Acq On : 27 Mar 2013 9:53 am
Operator : BW
Sample : ICAL SVOA 80ppm
Misc : ID#A2343 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 10:23:46 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 10:15:20 2013
Response via : Initial Calibration



TIC: 13032704.D\data.ms

(63) N-NITROSODI-N-PHENYLAMINE (C)

10.261min (0.000) 0.00 mg/L m

response 5822026

Ion	Exp%	Act%
169.00	100	100
168.00	63.20	63.57
167.00	33.70	23.89
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032705.D
Acq On : 27 Mar 2013 10:22 am
Operator : BW
Sample : ICAL SVOA 50ppm
Misc : ID#A2344 EX 04/22/13 BW
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 12:58:28 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.360	152	1885245	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.142	136	6860781	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.395	164	3503401	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.177	188	4769296	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.769	240	2244005	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.259	264	1303581	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.626	112	5951710	0.00	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery =	0.00%#		
5) Phenol-d6 Acid SS 2	5.004	99	7288016	0.00	mg/L	-0.03
Spiked Amount 40.000	Range 31 - 109		Recovery =	0.00%#		
22) Nitrobenzene-d5 BN SS 1	6.217	82	3342860	0.00	mg/L	-0.01
Spiked Amount 20.000	Range 33 - 114		Recovery =	0.00%#		
42) 2-Fluorobiphenyl BN SS 2	8.591	172	5890946	0.00	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery =	0.00%#		
60) 2,4,6-Tribromophenol A...	10.373	141	492697	0.00	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery =	0.00%#		
77) Terphenyl-d14 BN SS 3	13.204	244	3748469	0.00	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery =	0.00%#		
Target Compounds						Qvalue
2) Pyridine	1.903	79	4220186	No Calib		
3) N-Nitrosodimethylamine	1.936	74	2429310	No Calib		
6) Benzaldehyde	4.729	77	846598	No Calib		
7) Aniline	4.960	93	5018137	No Calib		
8) PHENOL	5.023	94	4142991	No Calib		
9) Bis(2-chloroethyl)ether	5.100	93	3488530	No Calib		
10) 2-Chlorophenol	5.109	128	3434323	No Calib		
11) n-Decane	5.215	43	2729538	No Calib		
12) 1,4'-DICHLOROBENZENE	5.384	146	3364684	No Calib		
13) 1,3'-Dichlorobenzene	5.302	146	3717531	No Calib		
14) 1,2'-Dichlorobenzene	5.644	146	3511241	No Calib		
15) 2-Methylphenol	5.846	107	2646978	No Calib		
16) bis(2-chloroisopropyl)...	5.875	45	4115164	No Calib		
17) 3,4-Methylphenol	6.087	107	3212743	No Calib		
18) Acetophenone	6.020	105	4572274	No Calib		
19) N-Nitrosodi-n-propyl a...	6.126	70	2307943	No Calib		
20) Hexachloroethane	6.068	117	1196378	No Calib		
23) Nitrobenzene	6.246	77	3284880	No Calib		
24) Isophorone	6.588	82	6827612	No Calib		
25) 2-NITROPHENOL	6.674	139	1938825	No Calib		
26) 2,4-dimethylphenol	6.800	122	3159200	No Calib		
27) Bis(2-chloroethoxy)met...	6.930	93	4528264	No Calib		
28) 2,4-DICHLOROPHENOL	7.007	162	2807794	No Calib		
29) 1,2,4-Trichlorobenzene	7.098	180	2943538	No Calib		
30) Naphthalene`	7.170	128	8304180	No Calib		
31) 4-Chloroaniline	7.300	127	3940949	No Calib		
32) HEXACHLOROBUTADIENE`	7.430	225	1503977	No Calib		
33) e-Caprolactam	7.830	55	1392360	No Calib		
34) 4-CHLORO-3-METHYLPHENOL	7.994	107	2727738	No Calib		

Data Path : P:\SVOC\2\data\130327\
Data File : 13032705.D
Acq On : 27 Mar 2013 10:22 am
Operator : BW
Sample : ICAL SVOA 50ppm
Misc : ID#A2344 EX 04/22/13 BW
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 12:58:28 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.071	142	5706676	No Calib	
36) Biphenyl	8.692	154	5112723	No Calib	
37) 1,2,4,5-Tetrachloroben...	8.341	216	2675014	No Calib	
39) Hexachlorocyclopentadiene	8.369	237	1128568	No Calib	
40) 2,4,6-TRICHLOROPHENOL	8.490	198	1886153	No Calib	
41) 2,4,5-trichlorophenol	8.543	196	1819172	No Calib	
43) 2-Chloronaphthalene	8.678	162	4397915	No Calib	
44) 2-Nitroaniline	8.885	65	1692003	No Calib	
45) 3-Nitroaniline	9.410	138	1141695	No Calib	
46) 4-Nitroaniline	10.161	138	968194	No Calib	
47) Dimethylphthalate	9.183	163	5751857	No Calib	
48) 2,6-Dinitrotoluene	9.255	165	1469703	No Calib	
49) Acenaphthylene	9.198	152	7403148	No Calib	
50) ACENAPHTHENE	9.438	154	4637587	No Calib	
51) 2,4-Dinitrophenol	9.525	184	566867	No Calib	
52) 4-nitrophenol	9.646	65	752751	No Calib	#
53) 2,4-Dinitrotoluene	9.723	165	1883712	No Calib	
54) Dibenzofuran	9.631	168	7100199	No Calib	
55) 2,3,4,6-Tetrachlorophenol	9.848	232	1378065	No Calib	
56) Diethylphthalate	10.060	149	4513630	No Calib	
57) 4-chlorophenyl phenyl ...	10.079	204	2701814	No Calib	
58) Fluorene	10.050	166	4530464	No Calib	
59) Atrazine	10.965	200	1340327	No Calib	
62) 4,6-Dinitro-2-methylph...	10.219	198	788206	No Calib	
63) N-NITROSODI-N-PHENYLAMINE	10.247	169	4524817	No Calib	
64) 1,2-diphenylhydrazine	10.272	77	5459956	No Calib	
65) 4-bromophenyl phenyl e...	10.662	250	1736163	No Calib	
66) Hexachlorobenzene	10.816	142	623598	No Calib	
67) PENTACHLOROPHENOL	11.042	266	922389	No Calib	
68) Octadecane	11.138	57	2996871	No Calib	
69) Phenanthrene	11.206	178	6482532	No Calib	
70) Anthracene	11.259	178	6227465	No Calib	
71) Carbazole	11.471	167	4627005	No Calib	
72) Di-n-Butylphthalate	12.019	149	7840454	No Calib	
73) FLUORANTHENE	12.645	202	5607699	No Calib	
75) Pyrene	12.925	202	5500499	No Calib	
76) Benzidine	12.857	184	91819	No Calib	
78) Butylbenzylphthalate	14.027	149	2574623	No Calib	
79) Bis 2-ethylhexyl adipate	14.210	129	2587732	No Calib	
80) Bis(2-ethylhexyl)phtha...	15.092	149	3443933	No Calib	
81) 3,3-Dichlorobenzidine	14.779	252	550854	No Calib	
82) Benzo[a]anthracene	14.740	228	3344135	No Calib	
83) Chrysene	14.817	228	2914929	No Calib	
85) DI-N-OCTYLPHTHALATE	16.204	149	4411365	No Calib	
86) Benzo[b]fluoranthene	16.618	252	2145727	No Calib	
87) Benzo[k]fluoranthene	16.661	252	2033533	No Calib	
88) BENZO[A]PYRENE	17.162	252	1780690	No Calib	
89) Indeno(1,2,3-c,d)pyrene	19.031	276	979308	No Calib	
90) Dibenzo[a,h]anthracene	19.084	278	1138540	No Calib	
91) Benzo[g,h,i]perylene	19.421	276	1131032	No Calib	

Data Path : P:\SVOC\2\data\130327\
Data File : 13032705.D
Acq On : 27 Mar 2013 10:22 am
Operator : BW
Sample : ICAL SVOA 50ppm
Misc : ID#A2344 EX 04/22/13 BW
ALS Vial : 3 Sample Multiplier: 1

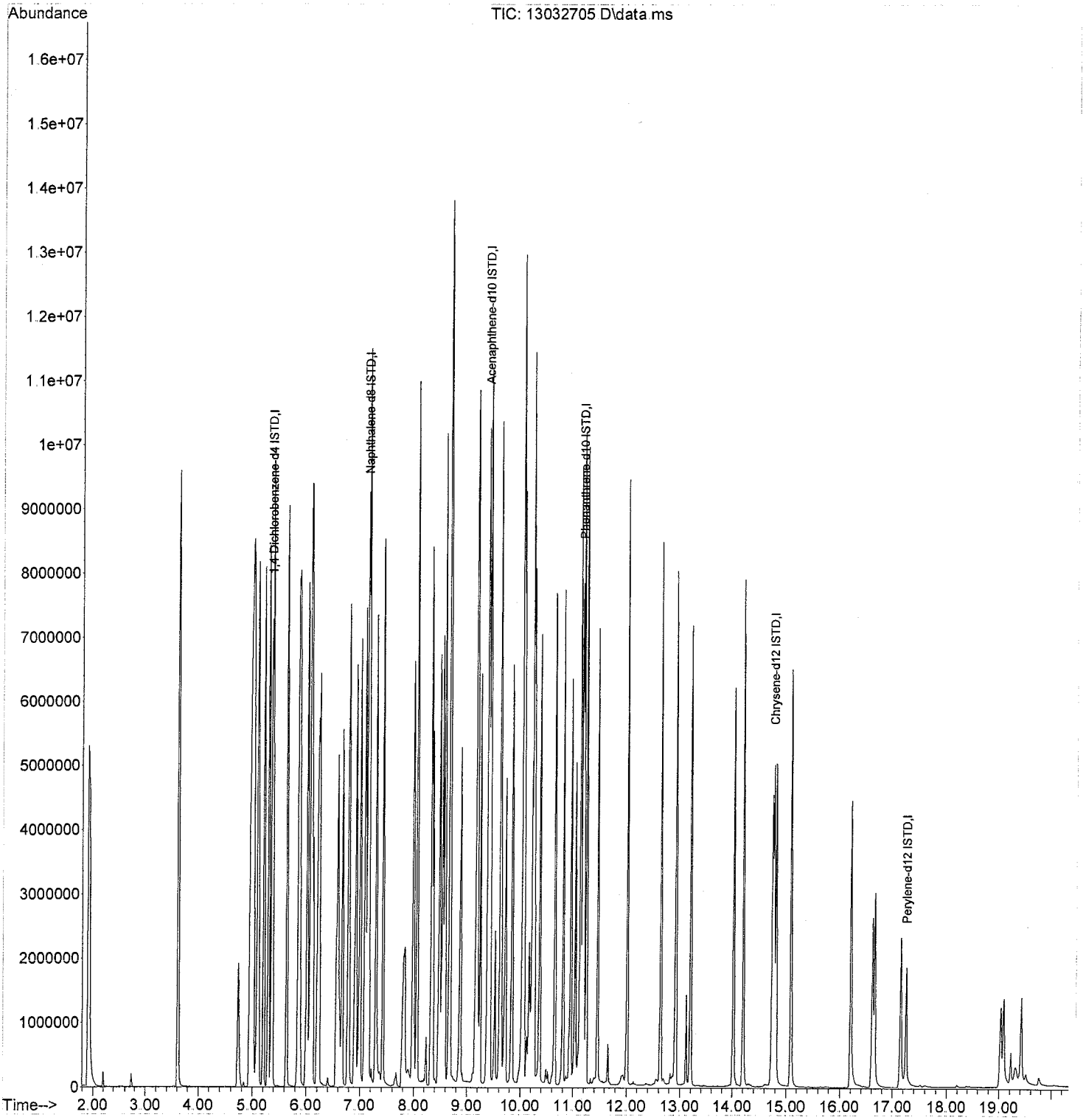
Quant Time: Mar 27 12:58:28 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

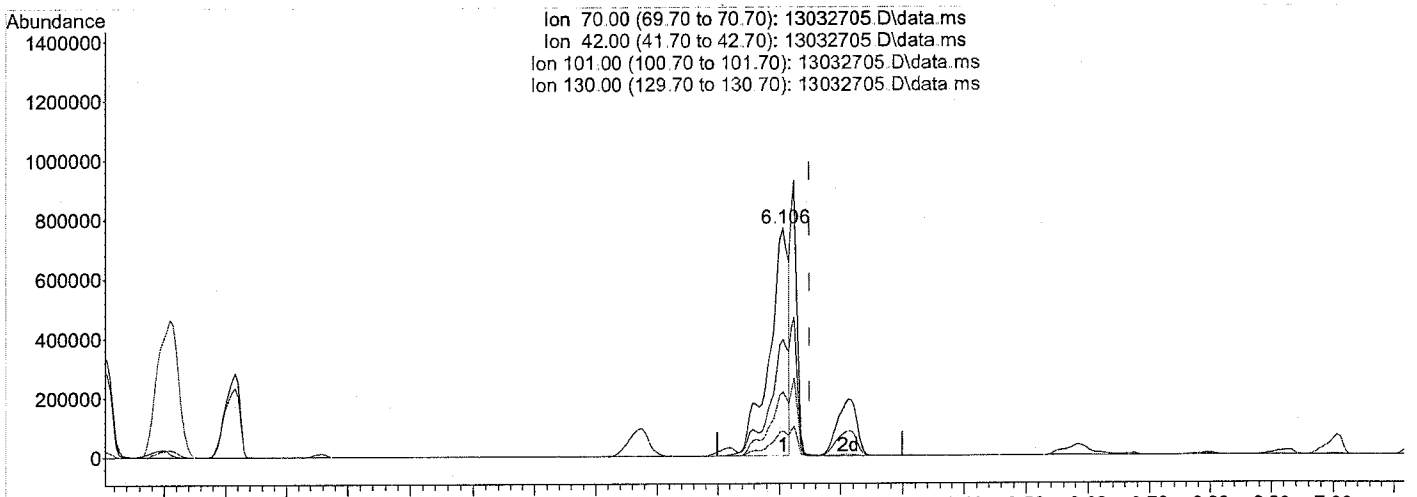
Data Path : P:\SVOC\2\data\130327\
Data File : 13032705.D
Acq On : 27 Mar 2013 10:22 am
Operator : BW
Sample : ICAL SVOA 50ppm
Misc : ID#A2344 EX 04/22/13 BW
ALS Vial : 3 Sample Multiplier: 1

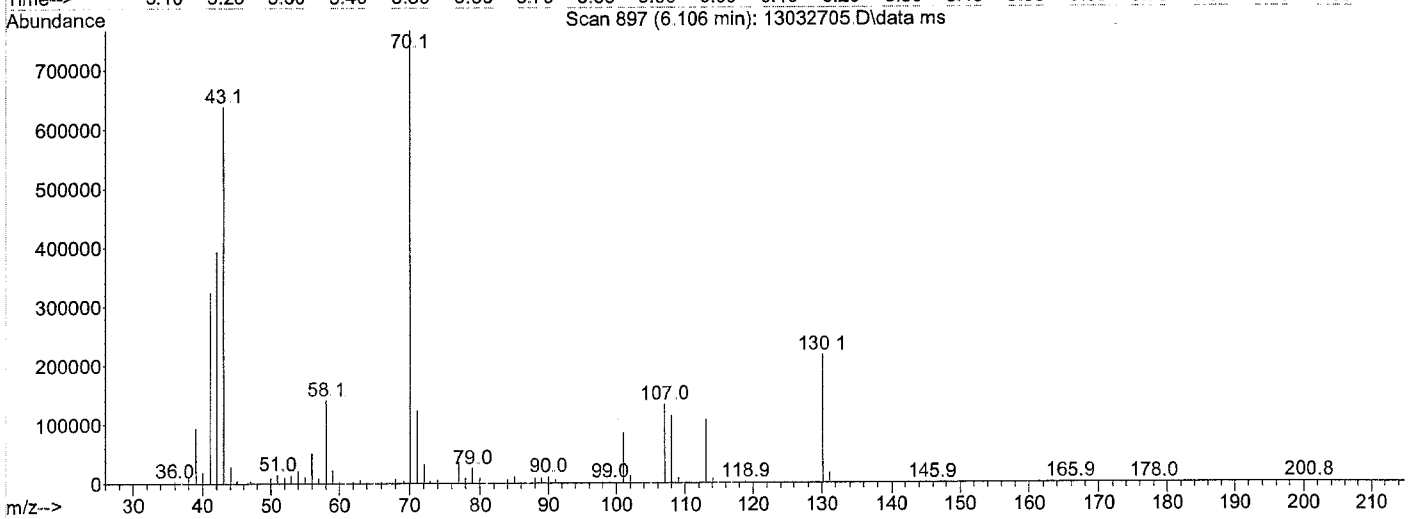
Quant Time: Mar 27 12:58:28 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration



Data Path : P:\SVOC\2\data\130327\
Data File : 13032705.D
Acq On : 27 Mar 2013 10:22 am
Operator : BW
Sample : ICAL SVOA 50ppm
Misc : ID#A2344 EX 04/22/13 BW
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 12:57:25 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration





TIC: 13032705.D\data.ms

(19) N-Nitrosodi-n-propyl amine (P)

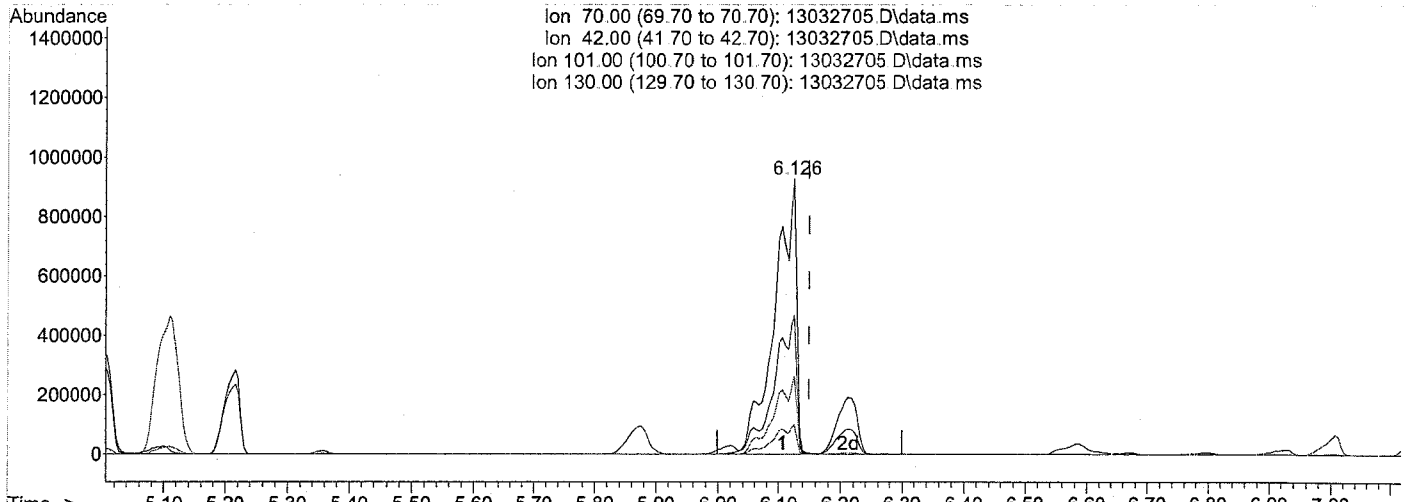
6.106min (-0.043) 0.00 mg/L

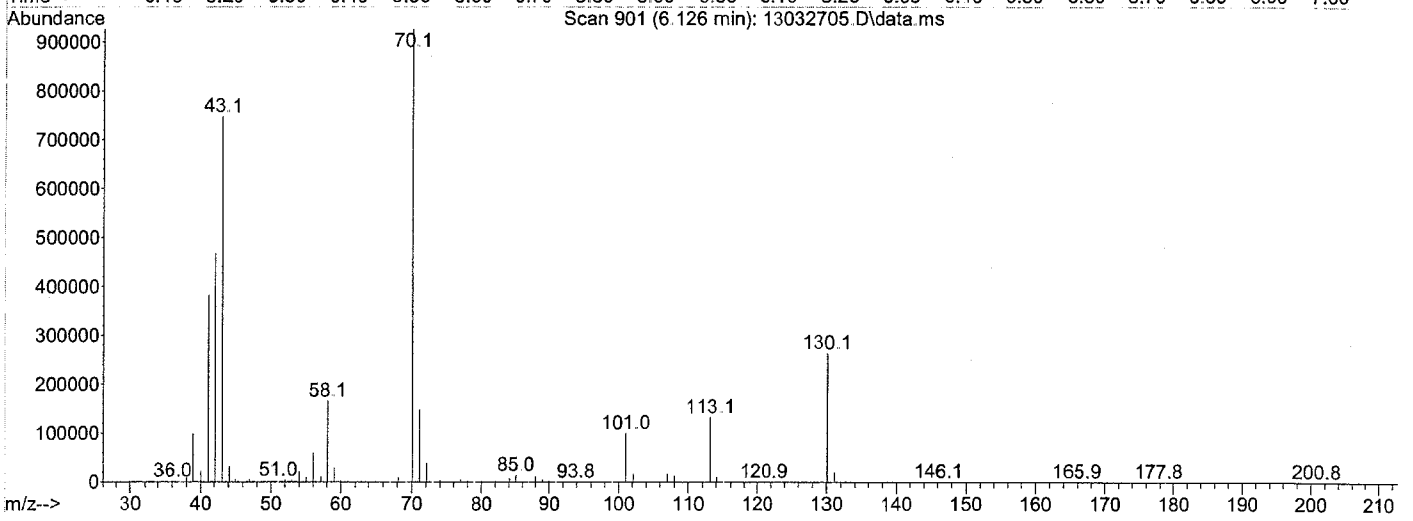
response 1642175

Ion	Exp%	Act%
70.00	100	100
42.00	38.50	30.52
101.00	9.90	11.01
130.00	29.90	28.91

Data Path : P:\SVOC\2\data\130327\
Data File : 13032705.D
Acq On : 27 Mar 2013 10:22 am
Operator : BW
Sample : ICAL SVOA 50ppm
Misc : ID#A2344 EX 04/22/13 BW
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 12:57:25 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration





TIC: 13032705.D\data.ms

(19) N-Nitrosodi-n-propyl amine (P)

6.126min (-0.024) 0.00 mg/L m

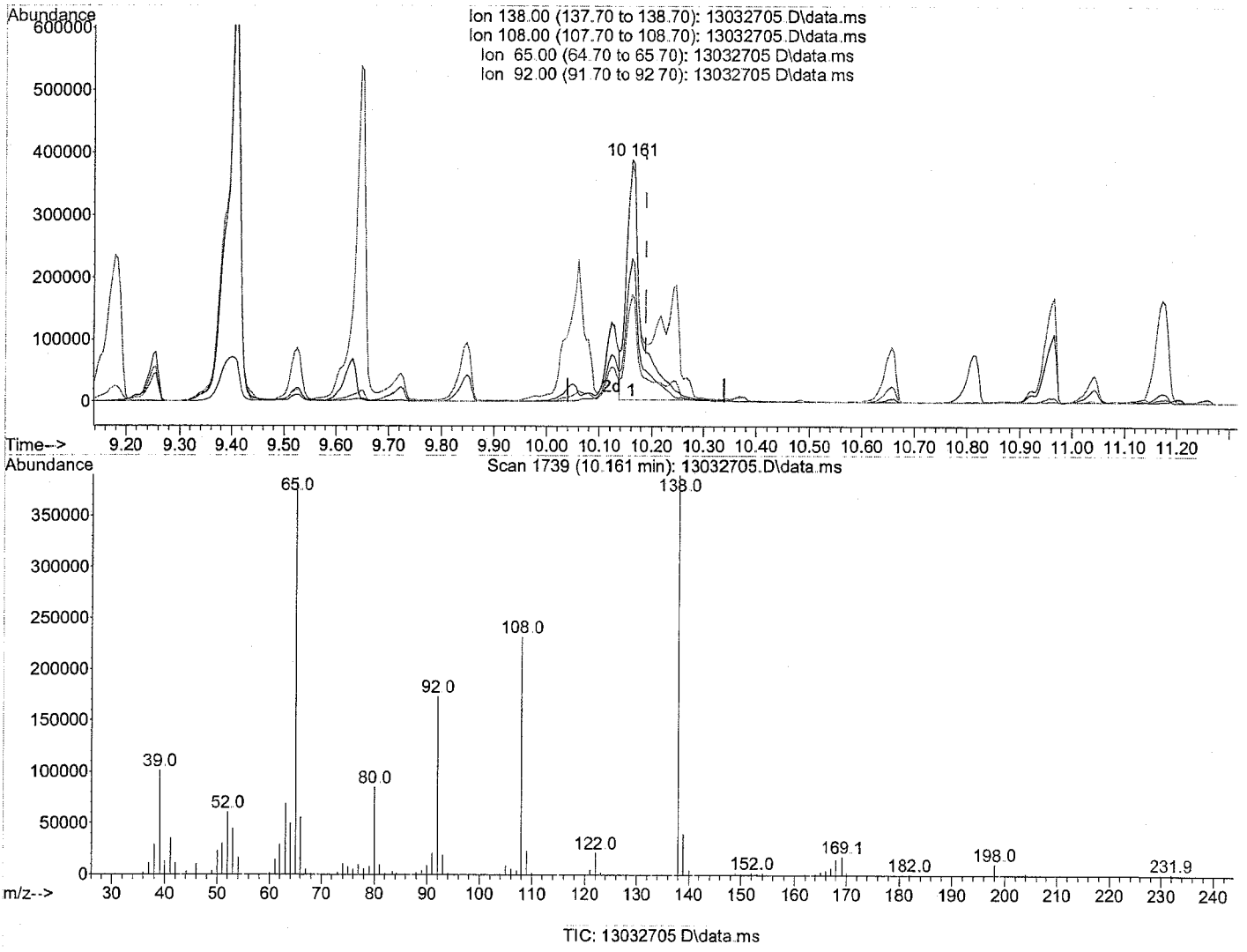
response 2307943

Ion	Exp%	Act%
70.00	100	100
42.00	38.50	21.71
101.00	9.90	7.83
130.00	29.90	20.57

BW 3/27

Data Path : P:\SVOC\2\data\130327\
Data File : 13032705.D
Acq On : 27 Mar 2013 10:22 am
Operator : BW
Sample : ICAL SVOA 50ppm
Misc : ID#A2344 EX 04/22/13 BW
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 12:57:25 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration



TIC: 13032705 D\data.ms

(46) 4-Nitroaniline (T)

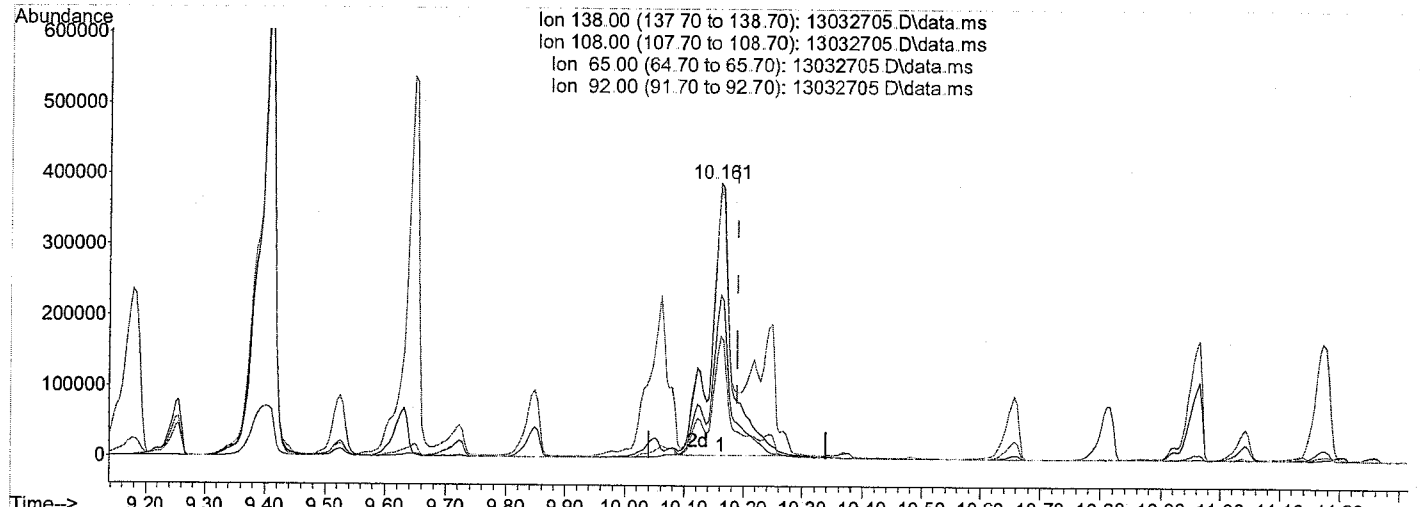
10.161min (-0.028) 0.00 mg/L

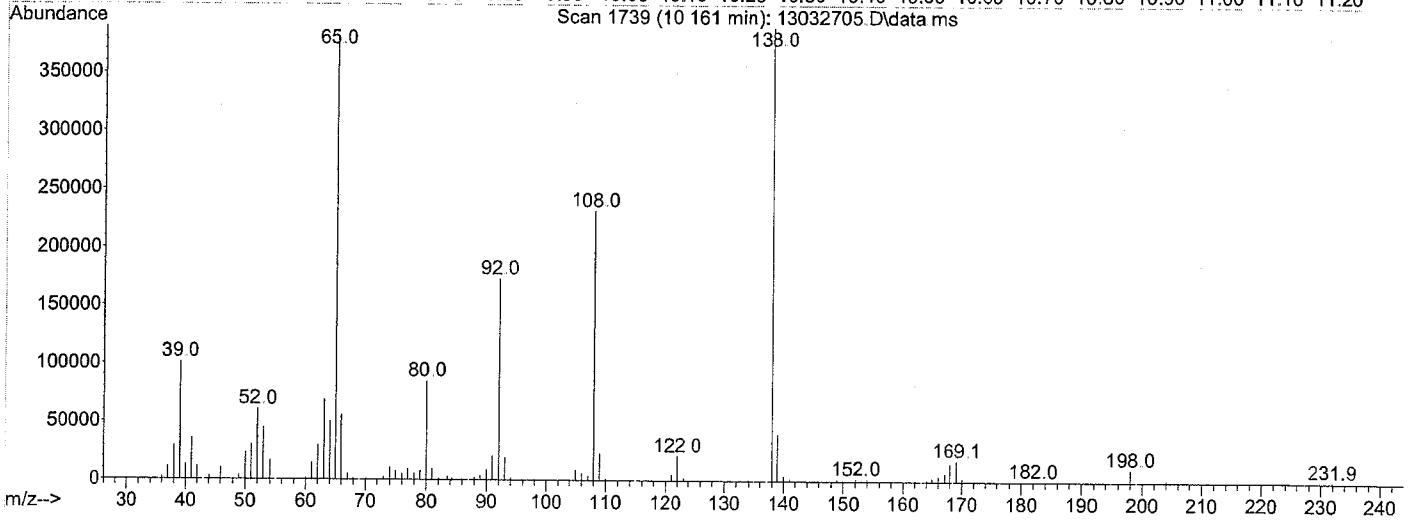
response 783483

Ion	Exp%	Act%
138.00	100	100
108.00	59.40	59.99
65.00	80.50	82.15
92.00	46.70	26.98

Data Path : P:\SVOC\2\data\130327\
Data File : 13032705.D
Acq On : 27 Mar 2013 10:22 am
Operator : BW
Sample : ICAL SVOA 50ppm
Misc : ID#A2344 EX 04/22/13 BW
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 12:57:25 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration





TIC: 13032705.D\data.ms

(46) 4-Nitroaniline (T)

10.161min (-0.028) 0.00 mg/L m

response 968194

Ion	Exp%	Act%
138.00	100	100
108.00	59.40	48.54
65.00	80.50	66.48
92.00	46.70	21.83#

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032706.D
Acq On : 27 Mar 2013 10:51 am
Operator : BW
Sample : ICAL SVOA 40ppm
Misc : ID#A2345 EX 04/22/13 BW
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 27 12:59:12 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.355	152	1906751	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.142	136	6912032	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.390	164	3447892	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.172	188	4638279	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.769	240	2216318	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.258	264	1353286	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.617	112	4888893	0.00	mg/L	-0.02
Spiked Amount 40.000	Range 29 - 111		Recovery =	0.00%#		
5) Phenol-d6 Acid SS 2	4.994	99	5988690	0.00	mg/L	-0.04
Spiked Amount 40.000	Range 31 - 109		Recovery =	0.00%#		
22) Nitrobenzene-d5 BN SS 1	6.207	82	2698774	0.00	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery =	0.00%#		
42) 2-Fluorobiphenyl BN SS 2	8.586	172	4776848	0.00	mg/L	-0.01
Spiked Amount 20.000	Range 45 - 117		Recovery =	0.00%#		
60) 2,4,6-Tribromophenol A...	10.368	141	394741	0.00	mg/L	-0.02
Spiked Amount 40.000	Range 42 - 114		Recovery =	0.00%#		
77) Terphenyl-d14 BN SS 3	13.199	244	2908284	0.00	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery =	0.00%#		
Target Compounds						Qvalue
2) Pyridine	1.898	79	3336577	No Calib		
3) N-Nitrosodimethylamine	1.927	74	1948762	No Calib		
6) Benzaldehyde	4.729	77	625050	No Calib		
7) Aniline	4.955	93	4061183	No Calib		
8) PHENOL	5.013	94	3384983	No Calib		
9) Bis(2-chloroethyl)ether	5.090	93	2855328	No Calib		
10) 2-Chlorophenol	5.100	128	2768493	No Calib		
11) n-Decane	5.211	43	2301000	No Calib		
12) 1,4'-DICHLOROBENZENE	5.379	146	2801679	No Calib		
13) 1,3'-Dichlorobenzene	5.297	146	3026783	No Calib		
14) 1,2'-Dichlorobenzene	5.644	146	2909071	No Calib		
15) 2-Methylphenol	5.846	107	2168392	No Calib		
16) bis(2-chloroisopropyl)...	5.870	45	3564292	No Calib		
17) 3,4-Methylphenol	6.077	107	2442386	No Calib		
18) Acetophenone	6.010	105	3679899	No Calib		
19) N-Nitrosodi-n-propyl a...	6.097	70	1828850	No Calib		
20) Hexachloroethane	6.068	117	929144	No Calib		
23) Nitrobenzene	6.236	77	2695696	No Calib		
24) Isophorone	6.573	82	5384100	No Calib		
25) 2-NITROPHENOL	6.670	139	1546063	No Calib		
26) 2,4-dimethylphenol	6.795	122	2529836	No Calib		
27) Bis(2-chloroethoxy)met...	6.925	93	3642649	No Calib		
28) 2,4-DICHLOROPHENOL	7.002	162	2257632	No Calib		
29) 1,2,4-Trichlorobenzene	7.093	180	2412471	No Calib		
30) Naphthalene`	7.166	128	6871420	No Calib		
31) 4-Chloroaniline	7.296	127	3183139	No Calib		
32) HEXACHLOROBUTADIENE`	7.426	225	1243091	No Calib		
33) e-Caprolactam	7.792	55	1095027	No Calib		
34) 4-CHLORO-3-METHYLPHENOL	7.984	107	2178044	No Calib		

Data Path : P:\SVOC\2\data\130327\
Data File : 13032706.D
Acq On : 27 Mar 2013 10:51 am
Operator : BW
Sample : ICAL SVOA 40ppm
Misc : ID#A2345 EX 04/22/13 BW
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 27 12:59:12 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.066	142	4682086	No Calib	
36) Biphenyl	8.687	154	4384314	No Calib	
37) 1,2,4,5-Tetrachloroben...	8.336	216	2186588	No Calib	
39) Hexachlorocyclopentadiene	8.365	237	877099	No Calib	
40) 2,4,6-TRICHLOROPHENOL	8.485	198	1473826	No Calib	
41) 2,4,5-trichlorophenol	8.538	196	1498670	No Calib	
43) 2-Chloronaphthalene	8.678	162	3635838	No Calib	
44) 2-Nitroaniline	8.875	65	1324104	No Calib	
45) 3-Nitroaniline	9.400	138	828215	No Calib	
46) 4-Nitroaniline	10.151	138	647878	No Calib	
47) Dimethylphthalate	9.174	163	4725601	No Calib	
48) 2,6-Dinitrotoluene	9.246	165	1165559	No Calib	
49) Acenaphthylene	9.193	152	6112410	No Calib	
50) ACENAPHTHENE	9.429	154	3731828	No Calib	
51) 2,4-Dinitrophenol	9.520	184	392465	No Calib	
52) 4-nitrophenol	9.636	65	552894	No Calib	#
53) 2,4-Dinitrotoluene	9.718	165	1448484	No Calib	
54) Dibenzofuran	9.626	168	5647489	No Calib	
55) 2,3,4,6-Tetrachlorophenol	9.843	232	1062955	No Calib	
56) Diethylphthalate	10.055	149	3679953	No Calib	
57) 4-chlorophenyl phenyl ...	10.074	204	2264495	No Calib	
58) Fluorene	10.045	166	3679974	No Calib	
59) Atrazine	10.955	200	1051290	No Calib	
62) 4,6-Dinitro-2-methylph...	10.209	198	577645	No Calib	
63) N-NITROSODI-N-PHENYLAMINE	10.243	169	3666985	No Calib	
64) 1,2-diphenylhydrazine	10.262	77	4461750	No Calib	
65) 4-bromophenyl phenyl e...	10.657	250	1376493	No Calib	
66) Hexachlorobenzene	10.811	142	500174	No Calib	
67) PENTACHLOROPHENOL	11.037	266	686615	No Calib	
68) Octadecane	11.133	57	2512238	No Calib	
69) Phenanthrene	11.201	178	5154283	No Calib	
70) Anthracene	11.254	178	4961959	No Calib	
71) Carbazole	11.466	167	3434167	No Calib	
72) Di-n-Butylphthalate	12.019	149	6299236	No Calib	
73) FLUORANTHENE	12.641	202	4404883	No Calib	
75) Pyrene	12.920	202	4289497	No Calib	
76) Benzidine	12.862	184	36753	No Calib	
78) Butylbenzylphthalate	14.023	149	2031386	No Calib	
79) Bis 2-ethylhexyl adipate	14.206	129	2044282	No Calib	
80) Bis(2-ethylhexyl)phtha...	15.092	149	2741751	No Calib	
81) 3,3-Dichlorobenzidine	14.774	252	399720	No Calib	
82) Benzo[a]anthracene	14.735	228	2561759	No Calib	
83) Chrysene	14.812	228	2241153	No Calib	
85) DI-N-OCTYLPHTHALATE	16.199	149	3410722	No Calib	
86) Benzo[b]fluoranthene	16.613	252	1614408	No Calib	
87) Benzo[k]fluoranthene	16.657	252	1680655	No Calib	
88) BENZO[A]PYRENE	17.157	252	1440809	No Calib	
89) Indeno(1,2,3-c,d)pyrene	19.026	276	824868	No Calib	
90) Dibenzo[a,h]anthracene	19.083	278	959551	No Calib	
91) Benzo[g,h,i]perylene	19.421	276	954313	No Calib	

Data Path : P:\SVOC\2\data\130327\
Data File : 13032706.D
Acq On : 27 Mar 2013 10:51 am
Operator : BW
Sample : ICAL SVOA 40ppm
Misc : ID#A2345 EX 04/22/13 BW
ALS Vial : 4 Sample Multiplier: 1

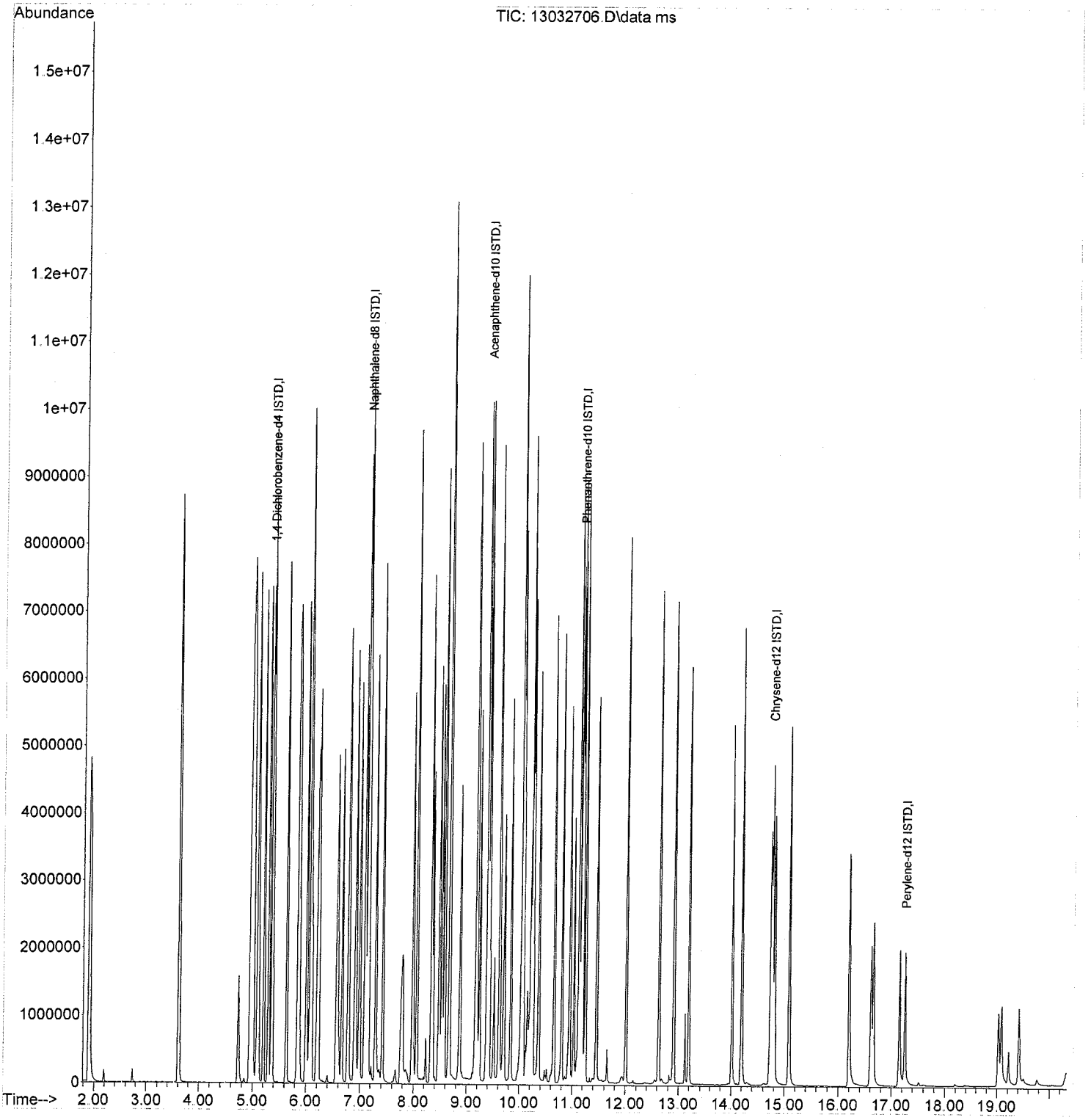
Quant Time: Mar 27 12:59:12 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

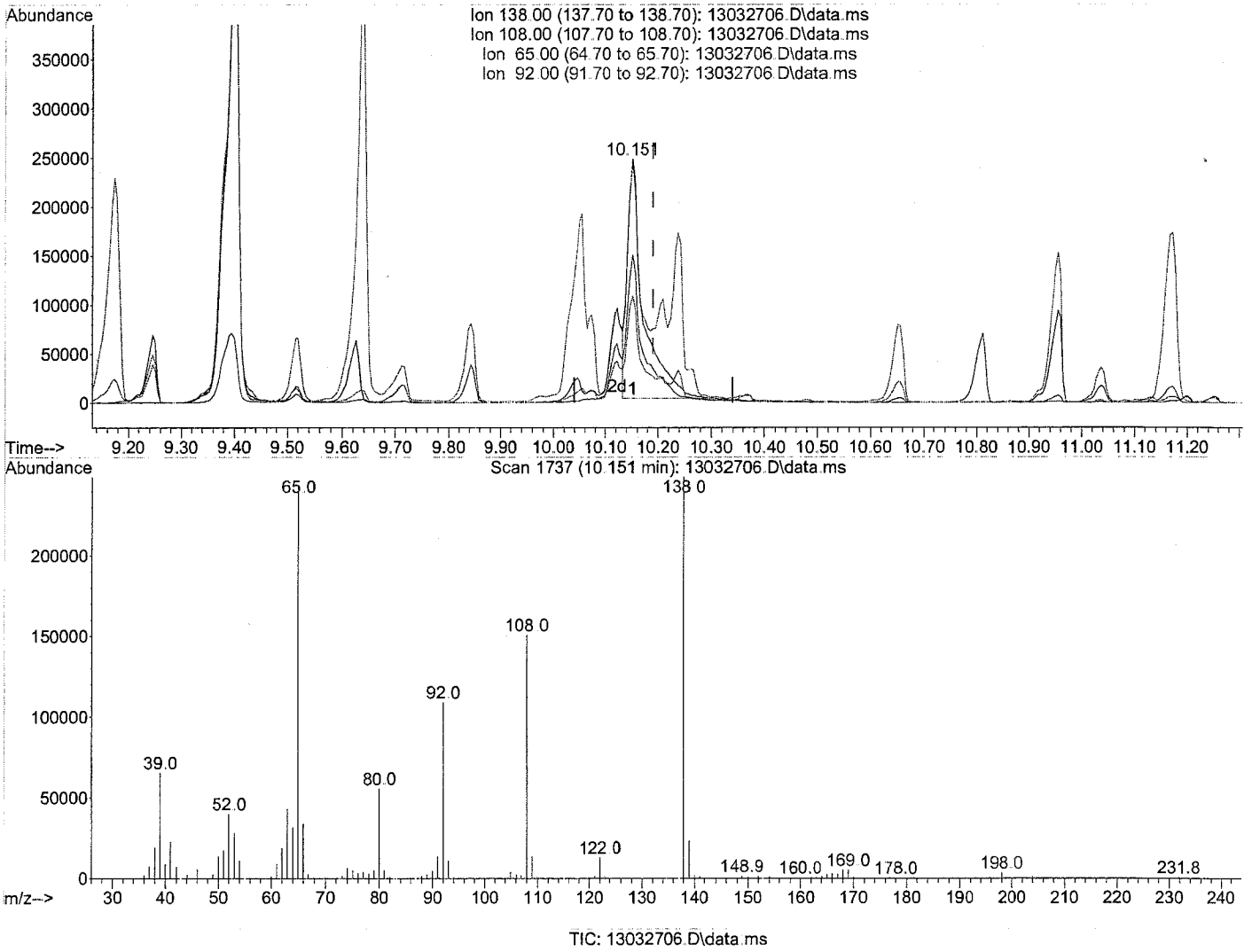
Data Path : P:\SVOC\2\data\130327\
Data File : 13032706.D
Acq On : 27 Mar 2013 10:51 am
Operator : BW
Sample : ICAL SVOA 40ppm
Misc : ID#A2345 EX 04/22/13 BW
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 27 12:59:12 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration



Data Path : P:\SVOC\2\data\130327\
Data File : 13032706.D
Acq On : 27 Mar 2013 10:51 am
Operator : BW
Sample : ICAL SVOA 40ppm
Misc : ID#A2345 EX 04/22/13 BW
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 27 12:58:40 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration



TIC: 13032706.D\data.ms

(46) 4-Nitroaniline (T)

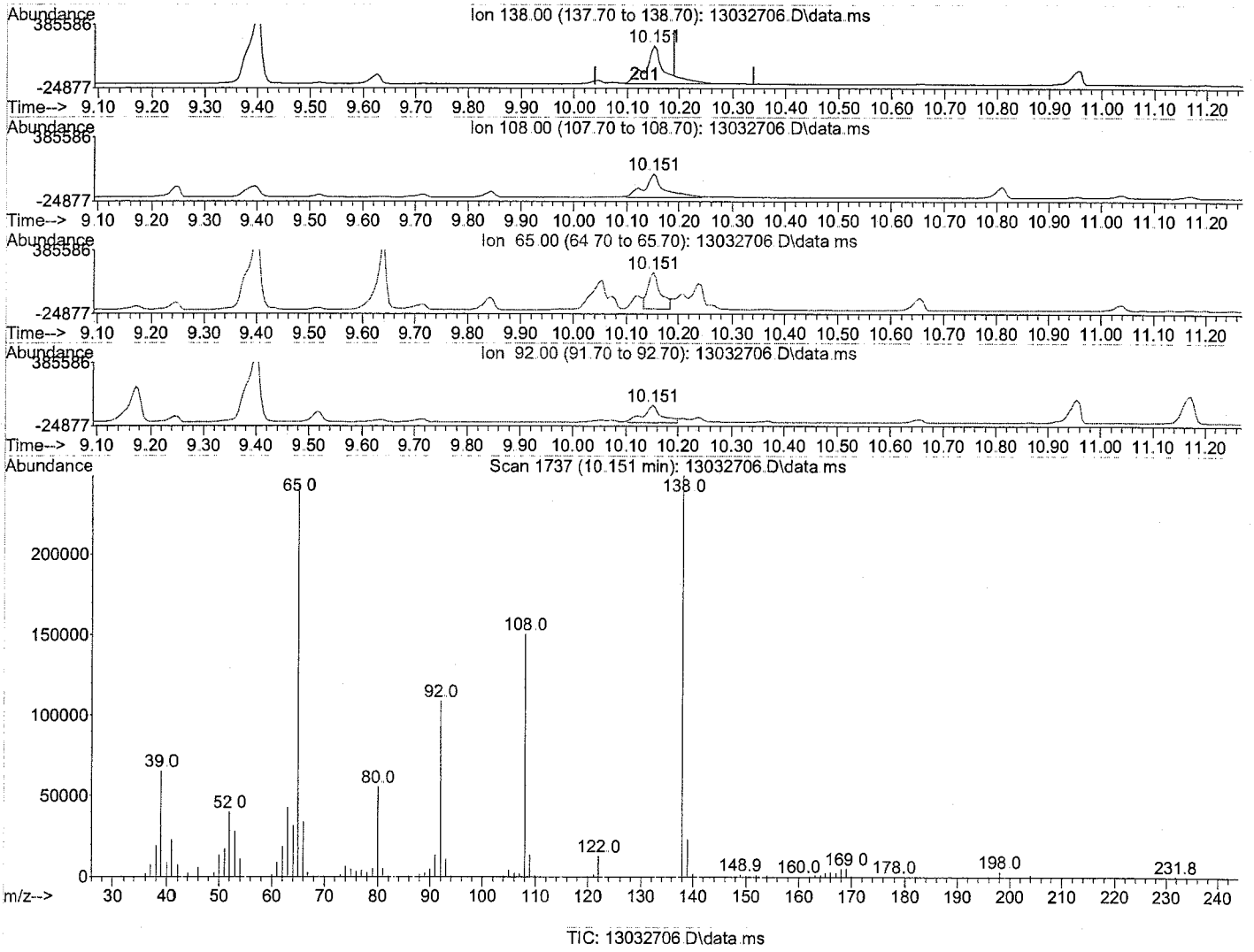
10.151min (-0.038) 0.00 mg/L

response 517995

Ion	Exp%	Act%
138.00	100	100
108.00	59.40	60.30
65.00	80.50	78.28
92.00	46.70	23.92#

Data Path : P:\SVOC\2\data\130327\
Data File : 13032706.D
Acq On : 27 Mar 2013 10:51 am
Operator : BW
Sample : ICAL SVOA 40ppm
Misc : ID#A2345 EX 04/22/13 BW
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 27 12:58:40 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 12:57:23 2013
Response via : Initial Calibration



TIC: 13032706.D\data.ms

(46) 4-Nitroaniline (T)

10.151min (-0.038) 0.00 mg/L m

response 647878

Ion	Exp%	Act%
138.00	100	100
108.00	59.40	62.76
65.00	80.50	62.59
92.00	46.70	41.67

Data Path : P:\SVOC\2\data\130327\
Data File : 13032707.D
Acq On : 27 Mar 2013 11:19 am
Operator : BW
Sample : ICAL SVOA 30ppm
Misc : ID#A2346 EX 04/22/13 BW
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 27 13:00:23 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.350	152	1901489	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.137	136	6875435	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.390	164	3417959	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.167	188	4501646	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.764	240	1951654	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.254	264	1151647	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.612	112	3906514	0.00	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery =	0.00%#		
5) Phenol-d6 Acid SS 2	4.979	99	4705676	0.00	mg/L	0.00
Spiked Amount 40.000	Range 31 - 109		Recovery =	0.00%#		
22) Nitrobenzene-d5 BN SS 1	6.202	82	2073170	0.00	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery =	0.00%#		
42) 2-Fluorobiphenyl BN SS 2	8.581	172	3750769	0.00	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery =	0.00%#		
60) 2,4,6-Tribromophenol A...	10.363	141	308558	0.00	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery =	0.00%#		
77) Terphenyl-d14 BN SS 3	13.194	244	2076448	0.00	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery =	0.00%#		
Target Compounds						Qvalue
2) Pyridine	1.907	79	2544878	No Calib		
3) N-Nitrosodimethylamine	1.926	74	1510804	No Calib		
6) Benzaldehyde	4.724	77	419363	No Calib		
7) Aniline	4.950	93	3120134	No Calib		
8) PHENOL	4.999	94	2703140	No Calib		
9) Bis(2-chloroethyl)ether	5.080	93	2288897	No Calib		
10) 2-Chlorophenol	5.095	128	2169367	No Calib		
11) n-Decane	5.206	43	1902219	No Calib		
12) 1,4'-DICHLOROBENZENE	5.374	146	2224447	No Calib		
13) 1,3'-Dichlorobenzene	5.292	146	2374795	No Calib		
14) 1,2'-Dichlorobenzene	5.639	146	2282863	No Calib		
15) 2-Methylphenol	5.841	107	1745229	No Calib		
16) bis(2-chloroisopropyl)...	5.865	45	3043845	No Calib		
17) 3,4-Methylphenol	6.068	107	1891870	No Calib		
18) Acetophenone	6.005	105	2832888	No Calib		
19) N-Nitrosodi-n-propyl a...	6.082	70	1367060	No Calib		
20) Hexachloroethane	6.063	117	718885	No Calib		
23) Nitrobenzene	6.231	77	2104386	No Calib		
24) Isophorone	6.568	82	4151189	No Calib		
25) 2-NITROPHENOL	6.665	139	1194878	No Calib		
26) 2,4-dimethylphenol	6.785	122	1948242	No Calib		
27) Bis(2-chloroethoxy)met...	6.920	93	2797757	No Calib		
28) 2,4-DICHLOROPHENOL	6.992	162	1731506	No Calib		
29) 1,2,4-Trichlorobenzene	7.093	180	1886922	No Calib		
30) Naphthalene`	7.161	128	5403837	No Calib		
31) 4-Chloroaniline	7.291	127	2446356	No Calib		
32) HEXACHLOROBUTADIENE`	7.425	225	983354	No Calib		
33) e-Caprolactam	7.767	55	845254	No Calib		
34) 4-CHLORO-3-METHYLPHENOL	7.974	107	1662510	No Calib		

Data Path : P:\SVOC\2\data\130327\
Data File : 13032707.D
Acq On : 27 Mar 2013 11:19 am
Operator : BW
Sample : ICAL SVOA 30ppm
Misc : ID#A2346 EX 04/22/13 BW
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 27 13:00:23 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.066	142	3681607	No Calib	
36) Biphenyl	8.682	154	3583995	No Calib	
37) 1,2,4,5-Tetrachloroben...	8.331	216	1701742	No Calib	
39) Hexachlorocyclopentadiene	8.364	237	651430	No Calib	
40) 2,4,6-TRICHLOROPHENOL	8.480	198	1110076	No Calib	
41) 2,4,5-trichlorophenol	8.528	196	1156624	No Calib	
43) 2-Chloronaphthalene	8.673	162	2931552	No Calib	
44) 2-Nitroaniline	8.870	65	1018678	No Calib	
45) 3-Nitroaniline	9.395	138	612068	No Calib	
46) 4-Nitroaniline	10.141	138	442675	No Calib	
47) Dimethylphthalate	9.169	163	3775593	No Calib	
48) 2,6-Dinitrotoluene	9.241	165	899306	No Calib	
49) Acenaphthylene	9.188	152	4979739	No Calib	
50) ACENAPHTHENE	9.429	154	2949617	No Calib	
51) 2,4-Dinitrophenol	9.511	184	255538	No Calib	
52) 4-nitrophenol	9.631	65	394619	No Calib	#
53) 2,4-Dinitrotoluene	9.708	165	1078935	No Calib	
54) Dibenzofuran	9.621	168	4373152	No Calib	
55) 2,3,4,6-Tetrachlorophenol	9.838	232	804971	No Calib	
56) Diethylphthalate	10.045	149	3068848	No Calib	
57) 4-chlorophenyl phenyl ...	10.069	204	1809194	No Calib	
58) Fluorene	10.040	166	2962423	No Calib	
59) Atrazine	10.950	200	821644	No Calib	
62) 4,6-Dinitro-2-methylph...	10.199	198	408341	No Calib	
63) N-NITROSODI-N-PHENYLAMINE	10.233	169	2901811	No Calib	
64) 1,2-diphenylhydrazine	10.262	77	3458663	No Calib	
65) 4-bromophenyl phenyl e...	10.652	250	1047345	No Calib	
66) Hexachlorobenzene	10.806	142	388589	No Calib	
67) PENTACHLOROPHENOL	11.037	266	490419	No Calib	
68) Octadecane	11.128	57	2072404	No Calib	
69) Phenanthrene	11.196	178	3841601	No Calib	
70) Anthracene	11.249	178	3860514	No Calib	
71) Carbazole	11.461	167	2853814	No Calib	
72) Di-n-Butylphthalate	12.014	149	4959045	No Calib	
73) FLUORANTHENE	12.636	202	3182183	No Calib	
75) Pyrene	12.915	202	3040242	No Calib	
76) Benzidine	12.857	184	9024	No Calib	
78) Butylbenzylphthalate	14.022	149	1411384	No Calib	
79) Bis 2-ethylhexyl adipate	14.205	129	1476375	No Calib	
80) Bis(2-ethylhexyl)phtha...	15.087	149	1882947	No Calib	
81) 3,3-Dichlorobenzidine	14.774	252	254319	No Calib	
82) Benzo[a]anthracene	14.730	228	1664216	No Calib	
83) Chrysene	14.803	228	1467167	No Calib	
85) DI-N-OCTYLPHTHALATE	16.199	149	2133821	No Calib	
86) Benzo[b]fluoranthene	16.608	252	1049818	No Calib	
87) Benzo[k]fluoranthene	16.647	252	1062607	No Calib	
88) BENZO[A]PYRENE	17.152	252	878167	No Calib	
89) Indeno(1,2,3-c,d)pyrene	19.021	276	519413	No Calib	
90) Dibenzo[a,h]anthracene	19.074	278	613919	No Calib	
91) Benzo[g,h,i]perylene	19.411	276	627112	No Calib	

Data Path : P:\SVOC\2\data\130327\
Data File : 13032707.D
Acq On : 27 Mar 2013 11:19 am
Operator : BW
Sample : ICAL SVOA 30ppm
Misc : ID#A2346 EX 04/22/13 BW
ALS Vial : 5 Sample Multiplier: 1

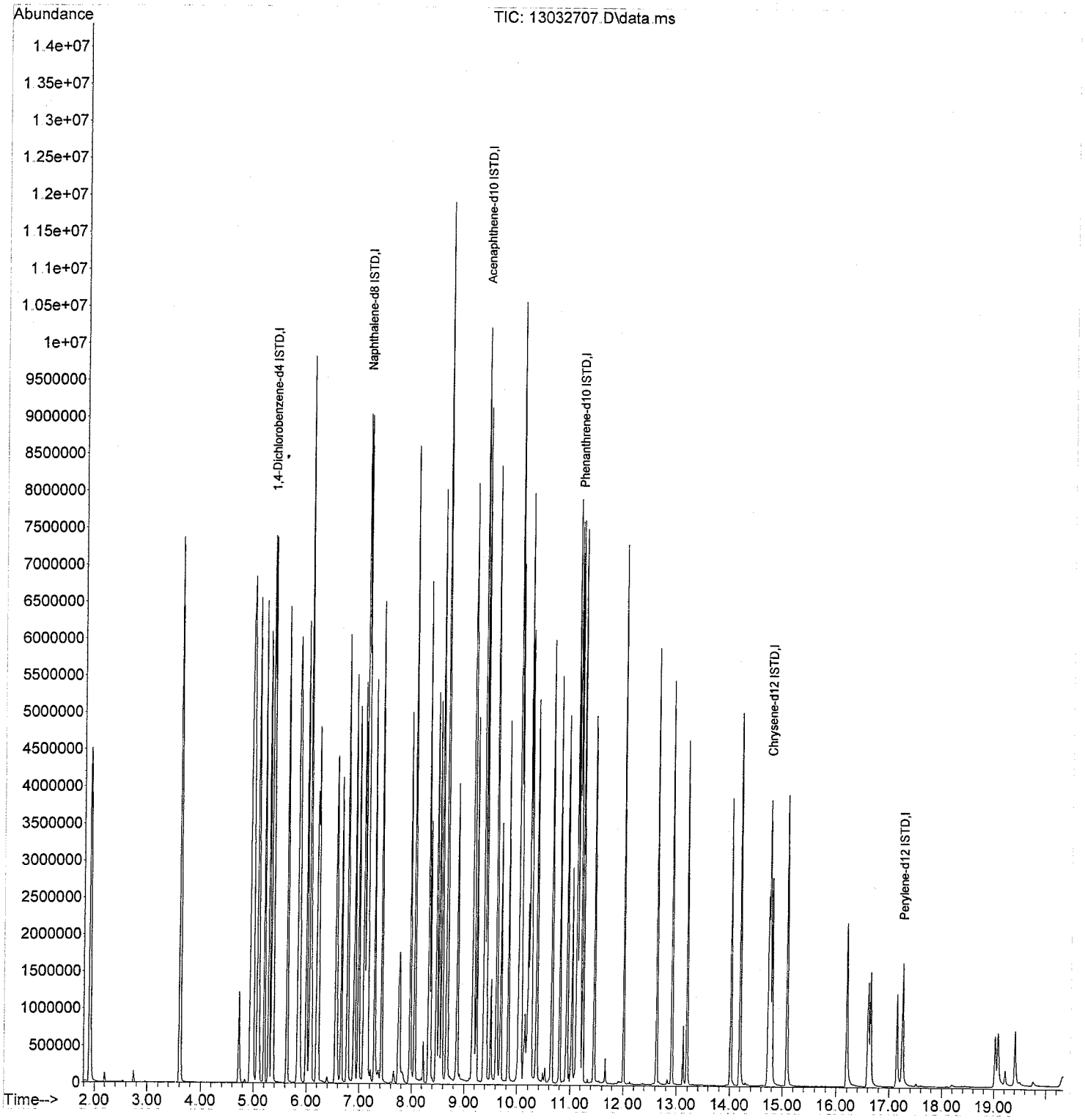
Quant Time: Mar 27 13:00:23 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : P:\SVOC\2\data\130327\
Data File : 13032707.D
Acq On : 27 Mar 2013 11:19 am
Operator : BW
Sample : ICAL SVOA 30ppm
Misc : ID#A2346 EX 04/22/13 BW
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 27 13:00:23 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032708.D
Acq On : 27 Mar 2013 12:35 pm
Operator : BW
Sample : ICAL SVOA 20ppm
Misc : ID#A2347 EX 04/22/13 BW
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 27 13:01:04 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.345	152	1976585	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.137	136	7177007	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.390	164	3638239	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.172	188	5039844	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.769	240	2711668	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.263	264	1730373	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.602	112	2960742	0.00	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 0.00%#			
5) Phenol-d6 Acid SS 2	4.965	99	3520859	0.00	mg/L	-0.01
Spiked Amount 40.000	Range 31 - 109		Recovery = 0.00%#			
22) Nitrobenzene-d5 BN SS 1	6.193	82	1501286	0.00	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 0.00%#			
42) 2-Fluorobiphenyl BN SS 2	8.581	172	2822869	0.00	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 0.00%#			
60) 2,4,6-Tribromophenol A...	10.358	141	238313	0.00	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 0.00%#			
77) Terphenyl-d14 BN SS 3	13.194	244	1819692	0.00	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 0.00%#			
Target Compounds						Qvalue
2) Pyridine	1.898	79	1882793	No Calib		
3) N-Nitrosodimethylamine	1.912	74	1123918	No Calib		
6) Benzaldehyde	4.719	77	281236	No Calib		
7) Aniline	4.946	93	2326107	No Calib		
8) PHENOL	4.984	94	1997331	No Calib		
9) Bis(2-chloroethyl)ether	5.071	93	1746279	No Calib		
10) 2-Chlorophenol	5.090	128	1618259	No Calib		
11) n-Decane	5.201	43	1483957	No Calib		
12) 1,4'-DICHLOROBENZENE	5.369	146	1660052	No Calib		
13) 1,3'-Dichlorobenzene	5.288	146	1761370	No Calib		
14) 1,2'-Dichlorobenzene	5.634	146	1701193	No Calib		
15) 2-Methylphenol	5.837	107	1273270	No Calib		
16) bis(2-chloroisopropyl)...	5.861	45	2381679	No Calib		
17) 3,4-Methylphenol	6.058	107	1507765	No Calib		
18) Acetophenone	5.995	105	2098049	No Calib		
19) N-Nitrosodi-n-propyl a...	6.072	70	977891	No Calib		
20) Hexachloroethane	6.063	117	551192	No Calib		
23) Nitrobenzene	6.222	77	1547497	No Calib		
24) Isophorone	6.559	82	3006040	No Calib		
25) 2-NITROPHENOL	6.660	139	855340	No Calib		
26) 2,4-dimethylphenol	6.780	122	1415420	No Calib		
27) Bis(2-chloroethoxy)met...	6.910	93	2059051	No Calib		
28) 2,4-DICHLOROPHENOL	6.987	162	1254767	No Calib		
29) 1,2,4-Trichlorobenzene	7.089	180	1410121	No Calib		
30) Naphthalene`	7.161	128	4108517	No Calib		
31) 4-Chloroaniline	7.286	127	1816543	No Calib		
32) HEXACHLOROBUTADIENE`	7.421	225	737011	No Calib		
33) e-Caprolactam	7.743	55	658944	No Calib		
34) 4-CHLORO-3-METHYLPHENOL	7.970	107	1237063	No Calib		

Data Path : P:\SVOC\2\data\130327\
Data File : 13032708.D
Acq On : 27 Mar 2013 12:35 pm
Operator : BW
Sample : ICAL SVOA 20ppm
Misc : ID#A2347 EX 04/22/13 BW
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 27 13:01:04 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.061	142	2808107	No Calib	
36) Biphenyl	8.678	154	2808164	No Calib	
37) 1,2,4,5-Tetrachloroben...	8.331	216	1289480	No Calib	
39) Hexachlorocyclopentadiene	8.360	237	462824	No Calib	
40) 2,4,6-TRICHLOROPHENOL	8.475	198	813358	No Calib	
41) 2,4,5-trichlorophenol	8.524	196	844008	No Calib	
43) 2-Chloronaphthalene	8.668	162	2272961	No Calib	
44) 2-Nitroaniline	8.865	65	755454	No Calib	
45) 3-Nitroaniline	9.385	138	419883	No Calib	
46) 4-Nitroaniline	10.137	138	332108	No Calib	
47) Dimethylphthalate	9.169	163	2895680	No Calib	
48) 2,6-Dinitrotoluene	9.236	165	657078	No Calib	
49) Acenaphthylene	9.188	152	3819113	No Calib	
50) ACENAPHTHENE	9.424	154	2252080	No Calib	
51) 2,4-Dinitrophenol	9.511	184	175385	No Calib	
52) 4-nitrophenol	9.626	65	307612	No Calib	#
53) 2,4-Dinitrotoluene	9.703	165	801472	No Calib	
54) Dibenzofuran	9.617	168	3371759	No Calib	
55) 2,3,4,6-Tetrachlorophenol	9.838	232	599100	No Calib	
56) Diethylphthalate	10.040	149	2395487	No Calib	
57) 4-chlorophenyl phenyl ...	10.069	204	1403550	No Calib	
58) Fluorene	10.040	166	2309522	No Calib	
59) Atrazine	10.950	200	622302	No Calib	
62) 4,6-Dinitro-2-methylph...	10.194	198	294060	No Calib	
63) N-NITROSODI-N-PHENYLAMINE	10.233	169	2223722	No Calib	
64) 1,2-diphenylhydrazine	10.257	77	2671756	No Calib	
65) 4-bromophenyl phenyl e...	10.652	250	796391	No Calib	
66) Hexachlorobenzene	10.806	142	305029	No Calib	
67) PENTACHLOROPHENOL	11.037	266	376451	No Calib	
68) Octadecane	11.129	57	1627614	No Calib	
69) Phenanthrene	11.196	178	3018525	No Calib	
70) Anthracene	11.249	178	3083282	No Calib	
71) Carbazole	11.461	167	2216999	No Calib	
72) Di-n-Butylphthalate	12.015	149	4004172	No Calib	
73) FLUORANTHENE	12.636	202	2728237	No Calib	
75) Pyrene	12.915	202	2674638	No Calib	
76) Benzidine	12.862	184	15012	No Calib	
78) Butylbenzylphthalate	14.023	149	1254995	No Calib	
79) Bis 2-ethylhexyl adipate	14.206	129	1278333	No Calib	
80) Bis(2-ethylhexyl)phtha...	15.092	149	1699777	No Calib	
81) 3,3-Dichlorobenzidine	14.774	252	254324	No Calib	
82) Benzo[a]anthracene	14.735	228	1577488	No Calib	
83) Chrysene	14.807	228	1394978	No Calib	
85) DI-N-OCTYLPHTHALATE	16.199	149	2017170	No Calib	
86) Benzo[b]fluoranthene	16.608	252	981495	No Calib	
87) Benzo[k]fluoranthene	16.652	252	1105757	No Calib	
88) BENZO[A]PYRENE	17.153	252	885342	No Calib	
89) Indeno(1,2,3-c,d)pyrene	19.026	276	499893	No Calib	
90) Dibenzo[a,h]anthracene	19.079	278	546805	No Calib	
91) Benzo[g,h,i]perylene	19.411	276	606517	No Calib	

Data Path : P:\SVOC\2\data\130327\
Data File : 13032708.D
Acq On : 27 Mar 2013 12:35 pm
Operator : BW
Sample : ICAL SVOA 20ppm
Misc : ID#A2347 EX 04/22/13 BW
ALS Vial : 6 Sample Multiplier: 1

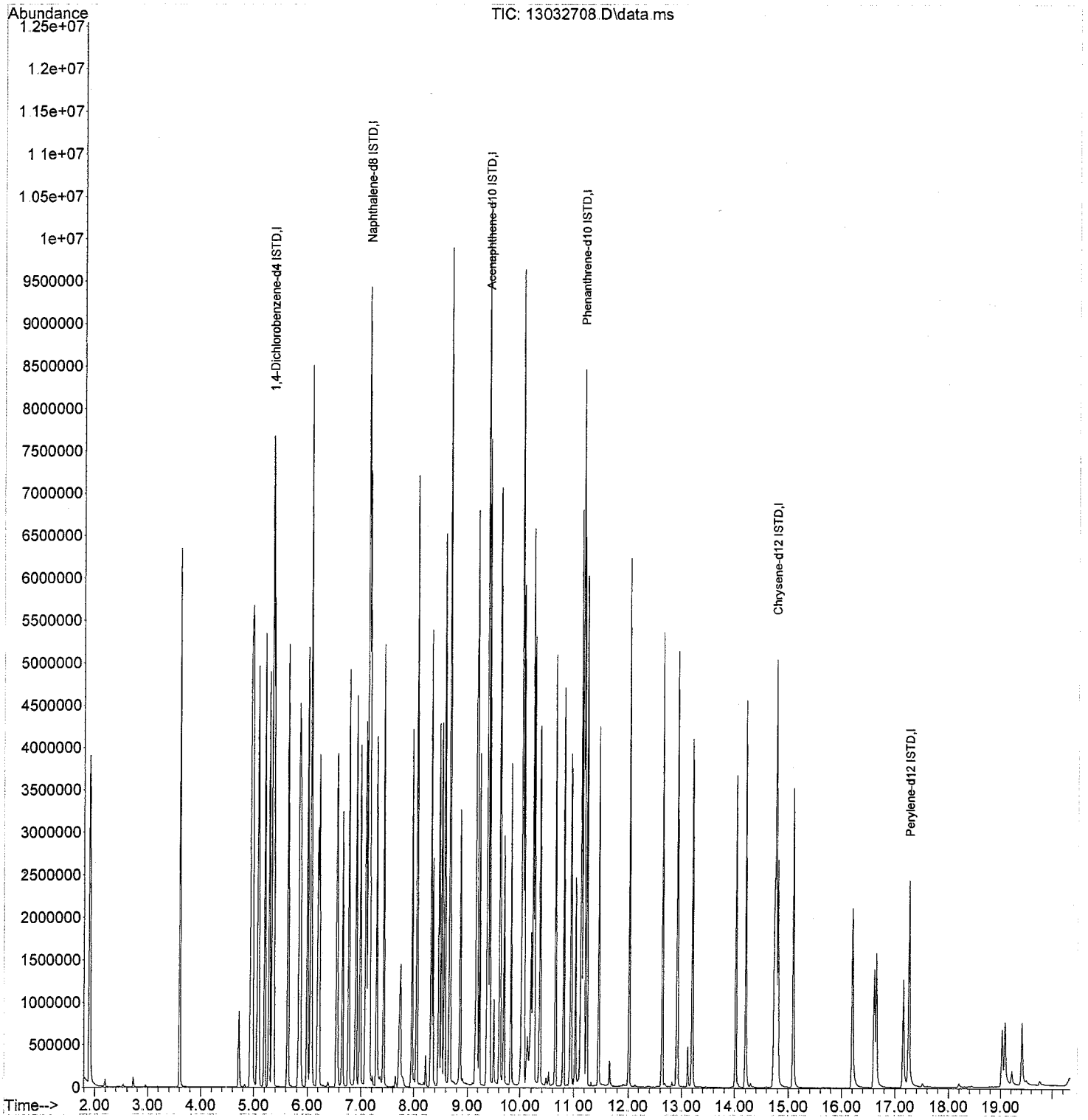
Quant Time: Mar 27 13:01:04 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : P:\SVOC\2\data\130327\
Data File : 13032708.D
Acq On : 27 Mar 2013 12:35 pm
Operator : BW
Sample : ICAL SVOA 20ppm
Misc : ID#A2347 EX 04/22/13 BW
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 27 13:01:04 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032709.D
Acq On : 27 Mar 2013 1:02 pm
Operator : BW
Sample : ICAL SVOA 10ppm
Misc : ID#A2348 EX 04/22/13 BW
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 13:25:41 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.345	152	1934269	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.132	136	6956591	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.385	164	3539131	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.167	188	4818257	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.764	240	2902490	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.263	264	2183601	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.602	112	1545497	0.00	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 0.00%#			
5) Phenol-d6 Acid SS 2	4.951	99	1832463	0.00	mg/L	-0.03
Spiked Amount 40.000	Range 31 - 109		Recovery = 0.00%#			
22) Nitrobenzene-d5 BN SS 1	6.188	82	745399	0.00	mg/L	-0.01
Spiked Amount 20.000	Range 33 - 114		Recovery = 0.00%#			
42) 2-Fluorobiphenyl BN SS 2	8.572	172	1469368	0.00	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 0.00%#			
60) 2,4,6-Tribromophenol A...	10.353	141	125126	0.00	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 0.00%#			
77) Terphenyl-d14 BN SS 3	13.190	244	940072	0.00	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 0.00%#			
Target Compounds						Qvalue
2) Pyridine	1.902	79	946378	No Calib		
3) N-Nitrosodimethylamine	1.912	74	575456	No Calib		
6) Benzaldehyde	4.719	77	126606	No Calib		
7) Aniline	4.936	93	1170190	No Calib		
8) PHENOL	4.970	94	1033506	No Calib		
9) Bis(2-chloroethyl)ether	5.061	93	903304	No Calib		
10) 2-Chlorophenol	5.081	128	811683	No Calib		
11) n-Decane	5.196	43	800136	No Calib		
12) 1,4'-DICHLOROBENZENE	5.365	146	851658	No Calib		
13) 1,3'-Dichlorobenzene	5.283	146	900359	No Calib		
14) 1,2'-Dichlorobenzene	5.629	146	869186	No Calib		
15) 2-Methylphenol	5.827	107	642738	No Calib		
16) bis(2-chloroisopropyl)...	5.856	45	1303320	No Calib		
17) 3,4-Methylphenol	6.044	107	887504	No Calib		
18) Acetophenone	5.986	105	1057402	No Calib		
19) N-Nitrosodi-n-propyl a...	6.053	70	516092	No Calib		
20) Hexachloroethane	6.058	117	306407	No Calib		
23) Nitrobenzene	6.212	77	790513	No Calib		
24) Isophorone	6.544	82	1503649	No Calib		
25) 2-NITROPHENOL	6.655	139	406816	No Calib		
26) 2,4-dimethylphenol	6.771	122	714477	No Calib		
27) Bis(2-chloroethoxy)met...	6.906	93	1034904	No Calib		
28) 2,4-DICHLOROPHENOL	6.978	162	621571	No Calib		
29) 1,2,4-Trichlorobenzene	7.084	180	711208	No Calib		
30) Naphthalene`	7.151	128	2155148	No Calib		
31) 4-Chloroaniline	7.281	127	909941	No Calib		
32) HEXACHLOROBUTADIENE`	7.421	225	386129	No Calib		
33) e-Caprolactam	7.700	55	306815	No Calib		
34) 4-CHLORO-3-METHYLPHENOL	7.955	107	617535	No Calib		

Data Path : P:\SVOC\2\data\130327\
Data File : 13032709.D
Acq On : 27 Mar 2013 1:02 pm
Operator : BW
Sample : ICAL SVOA 10ppm
Misc : ID#A2348 EX 04/22/13 BW
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 13:25:41 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.056	142	1460515	No Calib	
36) Biphenyl	8.673	154	1572728	No Calib	
37) 1,2,4,5-Tetrachloroben...	8.326	216	671081	No Calib	
39) Hexachlorocyclopentadiene	8.360	237	207825	No Calib	
40) 2,4,6-TRICHLOROPHENOL	8.471	198	390200	No Calib	
41) 2,4,5-trichlorophenol	8.514	196	419081	No Calib	
43) 2-Chloronaphthalene	8.663	162	1267728	No Calib	
44) 2-Nitroaniline	8.856	65	372448	No Calib	
45) 3-Nitroaniline	9.376	138	242984	No Calib	
46) 4-Nitroaniline	10.122	138	157336	No Calib	
47) Dimethylphthalate	9.159	163	1517536	No Calib	
48) 2,6-Dinitrotoluene	9.227	165	316329	No Calib	
49) Acenaphthylene	9.183	152	2007781	No Calib	
50) ACENAPHTHENE	9.419	154	1192597	No Calib	
51) 2,4-Dinitrophenol	9.501	184	56291	No Calib	
52) 4-nitrophenol	9.612	65	155664	No Calib	#
53) 2,4-Dinitrotoluene	9.694	165	373353	No Calib	
54) Dibenzofuran	9.612	168	1791144	No Calib	
55) 2,3,4,6-Tetrachlorophenol	9.828	232	278142	No Calib	
56) Diethylphthalate	10.031	149	1337967	No Calib	
57) 4-chlorophenyl phenyl ...	10.064	204	732203	No Calib	
58) Fluorene	10.031	166	1289133	No Calib	
59) Atrazine	10.936	200	322498	No Calib	
62) 4,6-Dinitro-2-methylph...	10.180	198	113851	No Calib	
63) N-NITROSODI-N-PHENYLAMINE	10.223	169	1169893	No Calib	
64) 1,2-diphenylhydrazine	10.247	77	1418148	No Calib	
65) 4-bromophenyl phenyl e...	10.647	250	405945	No Calib	
66) Hexachlorobenzene	10.801	142	159228	No Calib	
67) PENTACHLOROPHENOL	11.027	266	167184	No Calib	
68) Octadecane	11.124	57	920882	No Calib	
69) Phenanthrene	11.191	178	1547003	No Calib	
70) Anthracene	11.239	178	1608554	No Calib	
71) Carbazole	11.456	167	1336389	No Calib	
72) Di-n-Butylphthalate	12.010	149	2135444	No Calib	
73) FLUORANTHENE	12.631	202	1402737	No Calib	
75) Pyrene	12.910	202	1387613	No Calib	
76) Benzidine	12.843	184	38787	No Calib	
78) Butylbenzylphthalate	14.018	149	625416	No Calib	
79) Bis 2-ethylhexyl adipate	14.201	129	617316	No Calib	
80) Bis(2-ethylhexyl)phtha...	15.087	149	832727	No Calib	
81) 3,3-Dichlorobenzidine	14.769	252	174495	No Calib	
82) Benzo[a]anthracene	14.730	228	848523	No Calib	
83) Chrysene	14.798	228	756364	No Calib	
85) DI-N-OCTYLPHTHALATE	16.194	149	958082	No Calib	
86) Benzo[b]fluoranthene	16.604	252	565197	No Calib	
87) Benzo[k]fluoranthene	16.647	252	652050	No Calib	
88) BENZO[A]PYRENE	17.148	252	524342	No Calib	
89) Indeno(1,2,3-c,d)pyrene	19.021	276	336051	No Calib	
90) Dibenzo[a,h]anthracene	19.079	278	373297	No Calib	
91) Benzo[g,h,i]perylene	19.406	276	428804	No Calib	

Data Path : P:\SVOC\2\data\130327\
Data File : 13032709.D
Acq On : 27 Mar 2013 1:02 pm
Operator : BW
Sample : ICAL SVOA 10ppm
Misc : ID#A2348 EX 04/22/13 BW
ALS Vial : 7 Sample Multiplier: 1

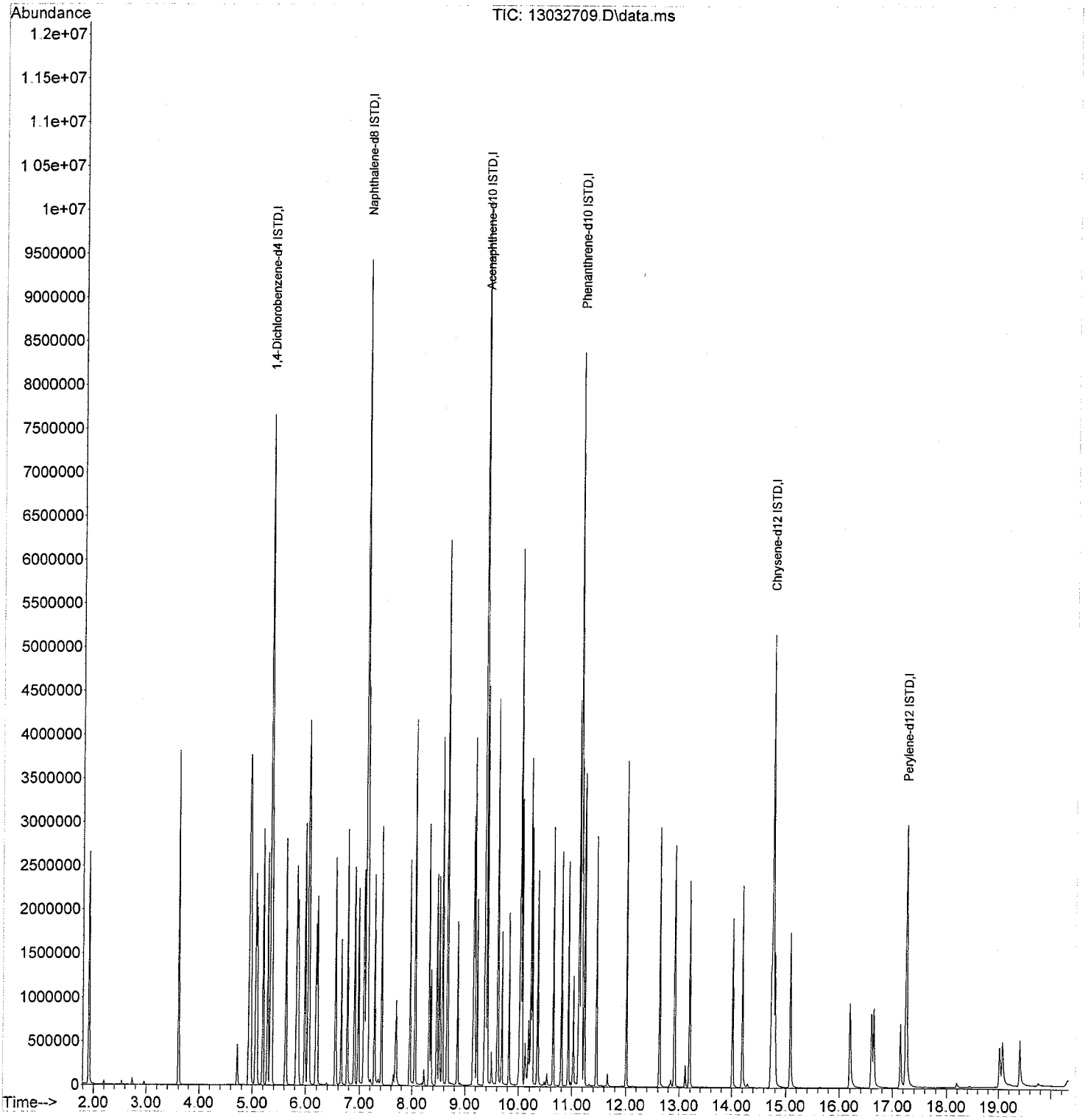
Quant Time: Mar 27 13:25:41 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : P:\SVOC\2\data\130327\
Data File : 13032709.D
Acq On : 27 Mar 2013 1:02 pm
Operator : BW
Sample : ICAL SVOA 10ppm
Misc : ID#A2348 EX 04/22/13 BW
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 27 13:25:41 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:00:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032710.D
Acq On : 27 Mar 2013 1:30 pm
Operator : BW
Sample : ICAL SVOA 5ppm
Misc : ID#A2349 EX 04/22/13 BW
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 27 13:55:26 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:55:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.345	152	1922948	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.127	136	6752250	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.385	164	3476663	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.162	188	4593501	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.759	240	2032172	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.253	264	1213448	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.602	112	801763	0.00	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 0.00%#			
5) Phenol-d6 Acid SS 2	4.946	99	971764	0.00	mg/L	-0.03
Spiked Amount 40.000	Range 31 - 109		Recovery = 0.00%#			
22) Nitrobenzene-d5 BN SS 1	6.183	82	370040	0.00	mg/L	-0.02
Spiked Amount 20.000	Range 33 - 114		Recovery = 0.00%#			
42) 2-Fluorobiphenyl BN SS 2	8.572	172	755144	0.00	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 0.00%#			
60) 2,4,6-Tribromophenol A...	10.348	141	58223	0.00	mg/L	-0.01
Spiked Amount 40.000	Range 42 - 114		Recovery = 0.00%#			
77) Terphenyl-d14 BN SS 3	13.189	244	380951	0.00	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 0.00%#			
Target Compounds						Qvalue
2) Pyridine	1.902	79	479787	No Calib		
3) N-Nitrosodimethylamine	1.907	74	297692	No Calib		
6) Benzaldehyde	4.719	77	67858	No Calib		
7) Aniline	4.936	93	596759	No Calib		
8) PHENOL	4.960	94	540645	No Calib		
9) Bis(2-chloroethyl)ether	5.056	93	469991	No Calib		
10) 2-Chlorophenol	5.080	128	419459	No Calib		
11) n-Decane	5.196	43	431495	No Calib		
12) 1,4'-DICHLOROBENZENE	5.365	146	441609	No Calib		
13) 1,3'-Dichlorobenzene	5.283	146	463230	No Calib		
14) 1,2'-Dichlorobenzene	5.629	146	452794	No Calib		
15) 2-Methylphenol	5.827	107	323417	No Calib		
16) bis(2-chloroisopropyl)...	5.851	45	689525	No Calib		#
17) 3,4-Methylphenol	6.039	107	454333	No Calib		
18) Acetophenone	5.981	105	543328	No Calib		
19) N-Nitrosodi-n-propyl a...	6.048	70	275072	No Calib		
20) Hexachloroethane	6.058	117	157992	No Calib		
23) Nitrobenzene	6.207	77	401516	No Calib		
24) Isophorone	6.539	82	780017	No Calib		
25) 2-NITROPHENOL	6.655	139	191065	No Calib		
26) 2,4-dimethylphenol	6.766	122	363321	No Calib		
27) Bis(2-chloroethoxy)met...	6.901	93	532424	No Calib		
28) 2,4-DICHLOROPHENOL	6.973	162	310839	No Calib		
29) 1,2,4-Trichlorobenzene	7.084	180	363145	No Calib		
30) Naphthalene`	7.151	128	1106620	No Calib		
31) 4-Chloroaniline	7.281	127	439519	No Calib		
32) HEXACHLOROBUTADIENE`	7.421	225	199020	No Calib		
33) e-Caprolactam	7.666	55	156466	No Calib		
34) 4-CHLORO-3-METHYLPHENOL	7.950	107	299776	No Calib		

Data Path : P:\SVOC\2\data\130327\
Data File : 13032710.D
Acq On : 27 Mar 2013 1:30 pm
Operator : BW
Sample : ICAL SVOA 5ppm
Misc : ID#A2349 EX 04/22/13 BW
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 27 13:55:26 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:55:24 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.056	142	758400	No Calib	
36) Biphenyl	8.673	154	846287	No Calib	
37) 1,2,4,5-Tetrachloroben...	8.321	216	335654	No Calib	
39) Hexachlorocyclopentadiene	8.360	237	83218	No Calib	
40) 2,4,6-TRICHLOROPHENOL	8.466	198	186459	No Calib	
41) 2,4,5-trichlorophenol	8.509	196	190046	No Calib	
43) 2-Chloronaphthalene	8.663	162	672934	No Calib	
44) 2-Nitroaniline	8.856	65	172787	No Calib	
45) 3-Nitroaniline	9.371	138	111810	No Calib	#
46) 4-Nitroaniline	10.117	138	82985	No Calib	
47) Dimethylphthalate	9.154	163	767176	No Calib	
48) 2,6-Dinitrotoluene	9.226	165	146562	No Calib	
49) Acenaphthylene	9.178	152	1037005	No Calib	
50) ACENAPHTHENE	9.414	154	608357	No Calib	
51) 2,4-Dinitrophenol	9.496	184	11433	No Calib	
52) 4-nitrophenol	9.607	65	56273	No Calib	#
53) 2,4-Dinitrotoluene	9.689	165	167248	No Calib	
54) Dibenzofuran	9.612	168	915555	No Calib	
55) 2,3,4,6-Tetrachlorophenol	9.828	232	118876	No Calib	
56) Diethylphthalate	10.026	149	728175	No Calib	
57) 4-chlorophenyl phenyl ...	10.059	204	373134	No Calib	
58) Fluorene	10.031	166	662411	No Calib	
59) Atrazine	10.931	200	161203	No Calib	
62) 4,6-Dinitro-2-methylph...	10.175	198	30331	No Calib	
63) N-NITROSODI-N-PHENYLAMINE	10.218	169	579320	No Calib	
64) 1,2-diphenylhydrazine	10.247	77	721973	No Calib	
65) 4-bromophenyl phenyl e...	10.647	250	200665	No Calib	
66) Hexachlorobenzene	10.796	142	82176	No Calib	
67) PENTACHLOROPHENOL	11.027	266	55186	No Calib	
68) Octadecane	11.124	57	484092	No Calib	
69) Phenanthrene	11.186	178	738186	No Calib	
70) Anthracene	11.234	178	742764	No Calib	
71) Carbazole	11.451	167	626817	No Calib	
72) Di-n-Butylphthalate	12.010	149	1053070	No Calib	
73) FLUORANTHENE	12.626	202	605383	No Calib	
75) Pyrene	12.905	202	582166	No Calib	
76) Benzidine	12.838	184	13587	No Calib	
78) Butylbenzylphthalate	14.013	149	251766	No Calib	
79) Bis 2-ethylhexyl adipate	14.196	129	260349	No Calib	
80) Bis(2-ethylhexyl)phtha...	15.082	149	331950	No Calib	
81) 3,3-Dichlorobenzidine	14.764	252	68712	No Calib	
82) Benzo[a]anthracene	14.725	228	276663	No Calib	
83) Chrysene	14.793	228	258428	No Calib	
85) DI-N-OCTYLPHTHALATE	16.194	149	293259	No Calib	
86) Benzo[b]fluoranthene	16.599	252	149147	No Calib	
87) Benzo[k]fluoranthene	16.642	252	193153	No Calib	
88) BENZO[A]PYRENE	17.143	252	127209	No Calib	
89) Indeno(1,2,3-c,d)pyrene	19.016	276	64308	No Calib	
90) Dibenzo[a,h]anthracene	19.069	278	78318	No Calib	
91) Benzo[g,h,i]perylene	19.401	276	96772	No Calib	

Data Path : P:\SVOC\2\data\130327\
Data File : 13032710.D
Acq On : 27 Mar 2013 1:30 pm
Operator : BW
Sample : ICAL SVOA 5ppm
Misc : ID#A2349 EX 04/22/13 BW
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 27 13:55:26 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:55:24 2013
Response via : Initial Calibration

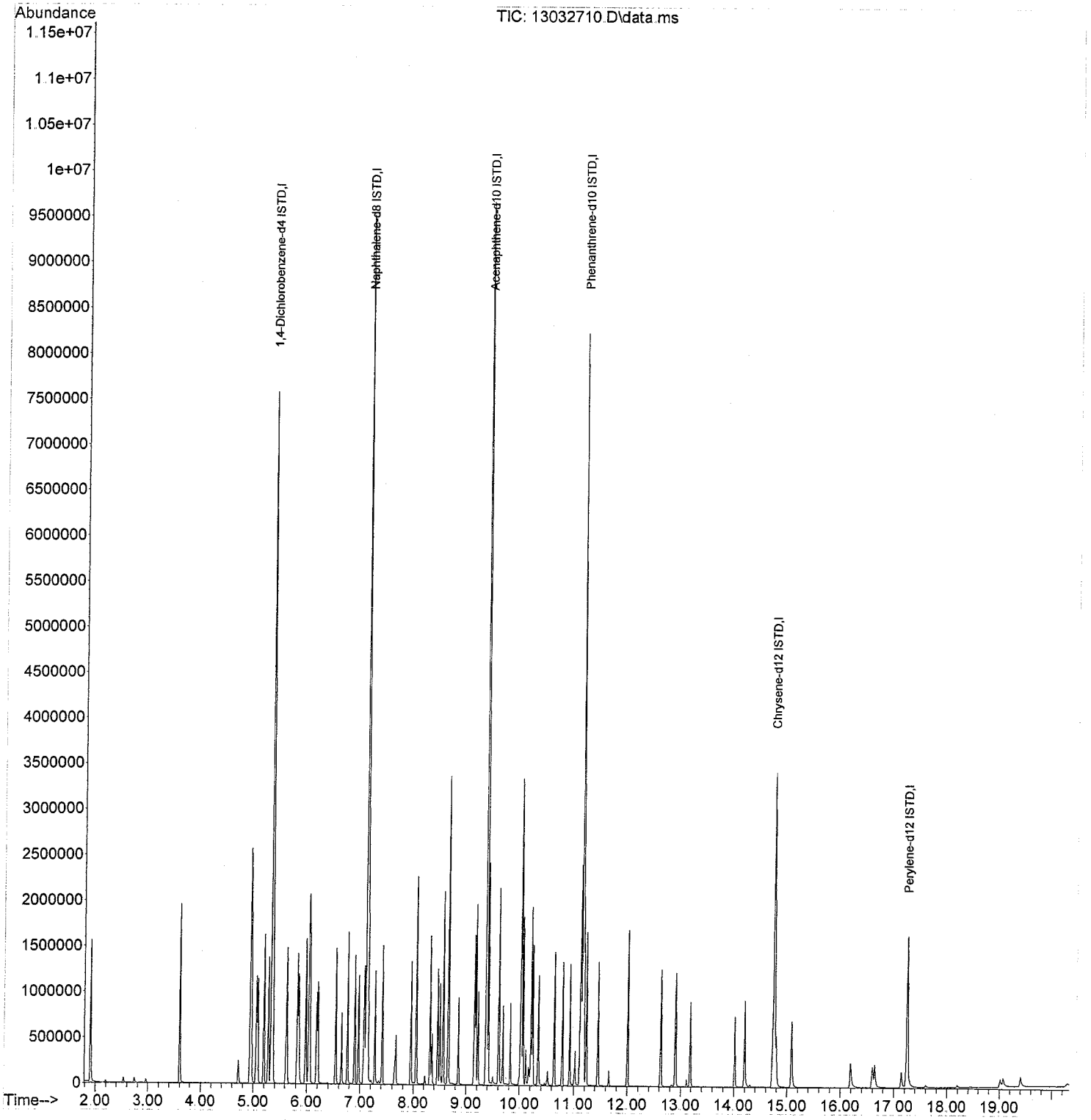
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032710.D
Acq On : 27 Mar 2013 1:30 pm
Operator : BW
Sample : ICAL SVOA 5ppm
Misc : ID#A2349 EX 04/22/13 BW
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 27 13:55:26 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 13:55:24 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032711.D
Acq On : 27 Mar 2013 2:30 pm
Operator : BW
Sample : ICAL SVOA 2ppm
Misc : ID#A2350 EX 04/22/13 BW
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 27 14:58:23 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 14:58:20 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.341	152	1951222	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.127	136	6826130	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.386	164	3435599	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.162	188	4398893	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.759	240	2143604	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.259	264	1497263	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.602	112	321105	0.00	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery =	0.00%#		
5) Phenol-d6 Acid SS 2	4.941	99	405342	0.00	mg/L	0.00
Spiked Amount 40.000	Range 31 - 109		Recovery =	0.00%#		
22) Nitrobenzene-d5 BN SS 1	6.183	82	145818	0.00	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery =	0.00%#		
42) 2-Fluorobiphenyl BN SS 2	8.572	172	304293	0.00	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery =	0.00%#		
60) 2,4,6-Tribromophenol A...	10.349	141	18806	0.00	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery =	0.00%#		
77) Terphenyl-d14 BN SS 3	13.190	244	138587	0.00	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery =	0.00%#		
Target Compounds						Qvalue
2) Pyridine	1.907	79	194487	No Calib		
3) N-Nitrosodimethylamine	1.912	74	121429	No Calib		
6) Benzaldehyde	4.719	77	26651	No Calib		
7) Aniline	4.931	93	222451	No Calib		
8) PHENOL	4.955	94	224476	No Calib		#
9) Bis(2-chloroethyl)ether	5.052	93	198248	No Calib		
10) 2-Chlorophenol	5.076	128	173801	No Calib		
11) n-Decane	5.196	43	183634	No Calib		
12) 1,4'-DICHLOROBENZENE	5.365	146	181062	No Calib		
13) 1,3'-Dichlorobenzene	5.278	146	192594	No Calib		
14) 1,2'-Dichlorobenzene	5.630	146	184139	No Calib		
15) 2-Methylphenol	5.822	107	130021	No Calib		#
16) bis(2-chloroisopropyl)...	5.851	45	289061	No Calib		#
17) 3,4-Methylphenol	6.034	107	186442	No Calib		
18) Acetophenone	5.981	105	220929	No Calib		
19) N-Nitrosodi-n-propyl a...	6.044	70	116943	No Calib		
20) Hexachloroethane	6.058	117	65828	No Calib		
23) Nitrobenzene	6.207	77	161685	No Calib		
24) Isophorone	6.540	82	310510	No Calib		
25) 2-NITROPHENOL	6.655	139	64040	No Calib		
26) 2,4-dimethylphenol	6.766	122	142323	No Calib		
27) Bis(2-chloroethoxy)met...	6.896	93	215687	No Calib		
28) 2,4-DICHLOROPHENOL	6.973	162	117470	No Calib		
29) 1,2,4-Trichlorobenzene	7.079	180	148087	No Calib		
30) Naphthalene`	7.146	128	451130	No Calib		
31) 4-Chloroaniline	7.281	127	161876	No Calib		
32) HEXACHLOROBUTADIENE`	7.421	225	83319	No Calib		
33) e-Caprolactam	7.647	55	55894	No Calib		
34) 4-CHLORO-3-METHYLPHENOL	7.951	107	111709	No Calib		

Data Path : P:\SVOC\2\data\130327\
Data File : 13032711.D
Acq On : 27 Mar 2013 2:30 pm
Operator : BW
Sample : ICAL SVOA 2ppm
Misc : ID#A2350 EX 04/22/13 BW
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 27 14:58:23 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 14:58:20 2013
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35)	2-Methylnaphthalene	8.056	142	306374	No Calib	
36)	Biphenyl	8.668	154	349269	No Calib	
37)	1,2,4,5-Tetrachloroben...	8.321	216	135263	No Calib	
39)	Hexachlorocyclopentadiene	8.360	237	24943	No Calib	
40)	2,4,6-TRICHLOROPHENOL	8.466	198	64609	No Calib	
41)	2,4,5-trichlorophenol	8.509	196	66554	No Calib	
43)	2-Chloronaphthalene	8.663	162	272600	No Calib	
44)	2-Nitroaniline	8.851	65	61087	No Calib	
45)	3-Nitroaniline	9.371	138	43702	No Calib	#
46)	4-Nitroaniline	10.117	138	36300	No Calib	#
47)	Dimethylphthalate	9.154	163	302533	No Calib	
48)	2,6-Dinitrotoluene	9.222	165	48412	No Calib	
49)	Acenaphthylene	9.178	152	411765	No Calib	
50)	ACENAPHTHENE	9.414	154	233662	No Calib	
51)	2,4-Dinitrophenol	9.496	184	1706	No Calib	#
52)	4-nitrophenol	9.607	65	15770	No Calib	#
53)	2,4-Dinitrotoluene	9.689	165	52882	No Calib	
54)	Dibenzofuran	9.607	168	363896	No Calib	
55)	2,3,4,6-Tetrachlorophenol	9.829	232	35881	No Calib	
56)	Diethylphthalate	10.026	149	303229	No Calib	
57)	4-chlorophenyl phenyl ...	10.060	204	148830	No Calib	
58)	Fluorene	10.031	166	265452	No Calib	
59)	Atrazine	10.926	200	58999	No Calib	
62)	4,6-Dinitro-2-methylph...	10.175	198	5793	No Calib	
63)	N-NITROSODI-N-PHENYLAMINE	10.214	169	227618	No Calib	
64)	1,2-diphenylhydrazine	10.243	77	251184	No Calib	
65)	4-bromophenyl phenyl e...	10.647	250	78287	No Calib	
66)	Hexachlorobenzene	10.796	142	31363	No Calib	
67)	PENTACHLOROPHENOL	11.028	266	13024	No Calib	
68)	Octadecane	11.124	57	182936	No Calib	
69)	Phenanthrene	11.186	178	277662	No Calib	
70)	Anthracene	11.235	178	280080	No Calib	
71)	Carbazole	11.451	167	234553	No Calib	
72)	Di-n-Butylphthalate	12.010	149	381406	No Calib	
73)	FLUORANTHENE	12.626	202	215985	No Calib	
75)	Pyrene	12.905	202	215534	No Calib	
76)	Benzidine	12.838	184	14100	No Calib	
78)	Butylbenzylphthalate	14.018	149	77433	No Calib	
79)	Bis 2-ethylhexyl adipate	14.201	129	76826	No Calib	
80)	Bis(2-ethylhexyl)phtha...	15.087	149	100877	No Calib	
81)	3,3-Dichlorobenzidine	14.769	252	28448	No Calib	
82)	Benzo[a]anthracene	14.726	228	111522	No Calib	
83)	Chrysene	14.793	228	107113	No Calib	
85)	DI-N-OCTYLPHTHALATE	16.194	149	72160	No Calib	
86)	Benzo[b]fluoranthene	16.599	252	64008	No Calib	
87)	Benzo[k]fluoranthene	16.642	252	80501	No Calib	
88)	BENZO[A]PYRENE	17.143	252	53980	No Calib	
89)	Indeno(1,2,3-c,d)pyrene	19.016	276	28498	No Calib	
90)	Dibenzo[a,h]anthracene	19.069	278	36130	No Calib	
91)	Benzo[g,h,i]perylene	19.406	276	45461	No Calib	

Data Path : P:\SVOC\2\data\130327\
Data File : 13032711.D
Acq On : 27 Mar 2013 2:30 pm
Operator : BW
Sample : ICAL SVOA 2ppm
Misc : ID#A2350 EX 04/22/13 BW
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 27 14:58:23 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 14:58:20 2013
Response via : Initial Calibration

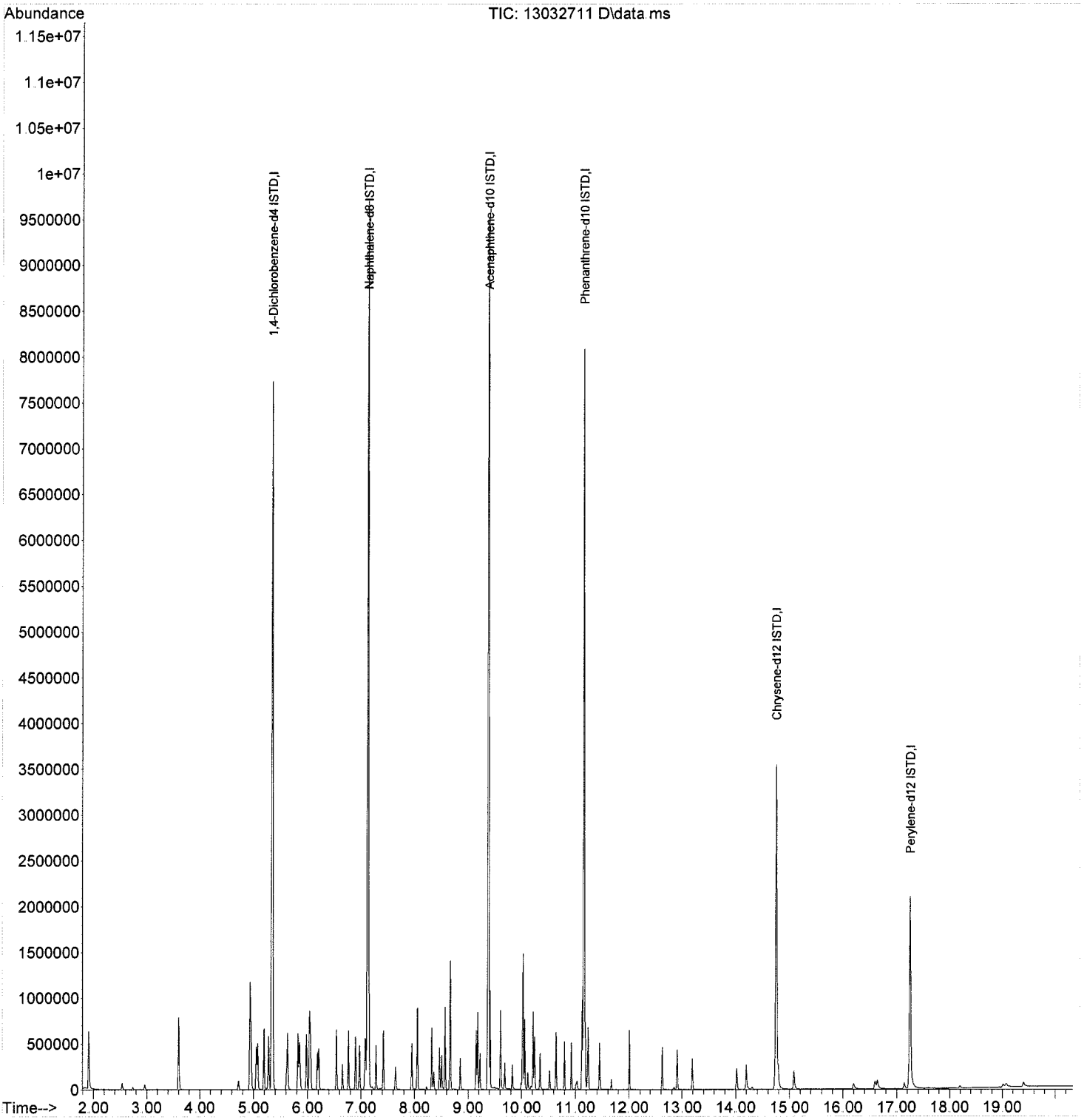
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032711.D
Acq On : 27 Mar 2013 2:30 pm
Operator : BW
Sample : ICAL SVOA 2ppm
Misc : ID#A2350 EX 04/22/13 BW
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 27 14:58:23 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 14:58:20 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032712.D
Acq On : 27 Mar 2013 2:58 pm
Operator : BW
Sample : ICAL SVOA 0.5ppm
Misc : ID#A2351 EX 04/22/13 BW
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 27 15:16:52 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 15:16:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.341	152	1958981	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.127	136	6857062	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.381	164	3489119	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.162	188	4500119	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.755	240	1898607	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.254	264	1073965	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.602	112	83118	0.00	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery =	0.00%#		
5) Phenol-d6 Acid SS 2	4.941	99	106102	0.00	mg/L	0.00
Spiked Amount 40.000	Range 31 - 109		Recovery =	0.00%#		
22) Nitrobenzene-d5 BN SS 1	6.183	82	36675	0.00	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery =	0.00%#		
42) 2-Fluorobiphenyl BN SS 2	8.567	172	86099	0.00	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery =	0.00%#		
60) 2,4,6-Tribromophenol A...	10.344	141	2891	0.00	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery =	0.00%#		
77) Terphenyl-d14 BN SS 3	13.190	244	35401	0.00	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery =	0.00%#		
Target Compounds						Qvalue
2) Pyridine	1.907	79	53010	No Calib		
3) N-Nitrosodimethylamine	1.907	74	33065	No Calib		
6) Benzaldehyde	4.724	77	7421	No Calib		
7) Aniline	4.931	93	55954	No Calib		
8) PHENOL	4.955	94	60257	No Calib		#
9) Bis(2-chloroethyl)ether	5.052	93	53652	No Calib		
10) 2-Chlorophenol	5.081	128	44988	No Calib		
11) n-Decane	5.196	43	51302	No Calib		
12) 1,4'-DICHLOROBENZENE	5.360	146	51553	No Calib		
13) 1,3'-Dichlorobenzene	5.283	146	55715	No Calib		
14) 1,2'-Dichlorobenzene	5.630	146	51436	No Calib		
15) 2-Methylphenol	5.822	107	34729	No Calib		#
16) bis(2-chloroisopropyl)...	5.851	45	81583	No Calib		#
17) 3,4-Methylphenol	6.034	107	49996	No Calib		
18) Acetophenone	5.981	105	59746	No Calib		
19) N-Nitrosodi-n-propyl a...	6.044	70	31680	No Calib		
20) Hexachloroethane	6.058	117	17923	No Calib		
23) Nitrobenzene	6.207	77	43072	No Calib		
24) Isophorone	6.540	82	83760	No Calib		
25) 2-NITROPHENOL	6.655	139	12689	No Calib		
26) 2,4-dimethylphenol	6.761	122	36036	No Calib		
27) Bis(2-chloroethoxy)met...	6.896	93	60101	No Calib		
28) 2,4-DICHLOROPHENOL	6.973	162	27705	No Calib		
29) 1,2,4-Trichlorobenzene	7.079	180	41402	No Calib		
30) Naphthalene`	7.146	128	128366	No Calib		
31) 4-Chloroaniline	7.281	127	41958	No Calib		
32) HEXACHLOROBUTADIENE`	7.421	225	22389	No Calib		
33) e-Caprolactam	7.638	55	12654	No Calib		
34) 4-CHLORO-3-METHYLPHENOL	7.946	107	24628	No Calib		

Data Path : P:\SVOC\2\data\130327\
Data File : 13032712.D
Acq On : 27 Mar 2013 2:58 pm
Operator : BW
Sample : ICAL SVOA 0.5ppm
Misc : ID#A2351 EX 04/22/13 BW
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 27 15:16:52 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 15:16:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.052	142	84501	No Calib	
36) Biphenyl	8.668	154	100111	No Calib	
37) 1,2,4,5-Tetrachloroben...	8.321	216	38272	No Calib	
39) Hexachlorocyclopentadiene	8.360	237	4824	No Calib	
40) 2,4,6-TRICHLOROPHENOL	8.466	198	12986	No Calib	
41) 2,4,5-trichlorophenol	8.509	196	13749	No Calib	
43) 2-Chloronaphthalene	8.658	162	75990	No Calib	
44) 2-Nitroaniline	8.851	65	13263	No Calib	
45) 3-Nitroaniline	9.371	138	9133	No Calib	#
46) 4-Nitroaniline	10.117	138	7208	No Calib	#
47) Dimethylphthalate	9.150	163	82851	No Calib	
48) 2,6-Dinitrotoluene	9.222	165	9188	No Calib	
49) Acenaphthylene	9.178	152	108729	No Calib	
50) ACENAPHTHENE	9.414	154	65614	No Calib	
51) 2,4-Dinitrophenol	0.000		0	N.D.	
52) 4-nitrophenol	9.617	65	1768	No Calib	#
53) 2,4-Dinitrotoluene	9.689	165	9252	No Calib	
54) Dibenzofuran	9.607	168	102329	No Calib	
55) 2,3,4,6-Tetrachlorophenol	9.829	232	5212	No Calib	
56) Diethylphthalate	10.021	149	91302	No Calib	
57) 4-chlorophenyl phenyl ...	10.060	204	42850	No Calib	
58) Fluorene	10.026	166	73261	No Calib	
59) Atrazine	10.926	200	14979	No Calib	
62) 4,6-Dinitro-2-methylph...	10.175	198	386	No Calib	#
63) N-NITROSODI-N-PHENYLAMINE	10.214	169	61684	No Calib	
64) 1,2-diphenylhydrazine	10.243	77	70511	No Calib	
65) 4-bromophenyl phenyl e...	10.642	250	20748	No Calib	
66) Hexachlorobenzene	10.796	142	8966	No Calib	
67) PENTACHLOROPHENOL	11.023	266	1038	No Calib	
68) Octadecane	11.124	57	46648	No Calib	
69) Phenanthrene	11.182	178	81210	No Calib	
70) Anthracene	11.235	178	77865	No Calib	
71) Carbazole	11.451	167	62396	No Calib	
72) Di-n-Butylphthalate	12.005	149	95609	No Calib	
73) FLUORANTHENE	12.626	202	57255	No Calib	
75) Pyrene	12.906	202	55418	No Calib	
76) Benzidine	12.838	184	2670	No Calib	
78) Butylbenzylphthalate	14.018	149	16644	No Calib	
79) Bis 2-ethylhexyl adipate	14.201	129	14203	No Calib	
80) Bis(2-ethylhexyl)phtha...	15.087	149	18012	No Calib	
81) 3,3-Dichlorobenzidine	14.774	252	4730	No Calib	#
82) Benzo[a]anthracene	14.726	228	27964	No Calib	
83) Chrysene	14.793	228	25527	No Calib	
85) DI-N-OCTYLPHTHALATE	16.190	149	10087	No Calib	
86) Benzo[b]fluoranthene	16.599	252	8809	No Calib	
87) Benzo[k]fluoranthene	16.637	252	13854	No Calib	
88) BENZO[A]PYRENE	17.138	252	7888	No Calib	
89) Indeno(1,2,3-c,d)pyrene	19.011	276	3342	No Calib	#
90) Dibenzo[a,h]anthracene	19.069	278	3803	No Calib	
91) Benzo[g,h,i]perylene	19.397	276	5612	No Calib	

Data Path : P:\SVOC\2\data\130327\
Data File : 13032712.D
Acq On : 27 Mar 2013 2:58 pm
Operator : BW
Sample : ICAL SVOA 0.5ppm
Misc : ID#A2351 EX 04/22/13 BW
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 27 15:16:52 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Wed Mar 27 15:16:49 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Evaluate Continuing Calibration Report

Data Path : P:\SVOC\2\data\130327\
Data File : 13032714.D
Acq On : 27 Mar 2013 3:50 pm
Operator : BW
Sample : ICV/CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 09 15:08:21 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Thu Mar 28 12:07:05 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 ISTD	40.000	40.000	0.0	101	0.00
2	T	Pyridine	40.000	37.142	7.1	101	0.00
3	T	N-Nitrosodimethylamine	40.000	35.956	10.1	101	0.00
4	S	2-Fluorophenol Acid SS 1	80.000	69.921	12.6	100	0.00
5	S	Phenol-d6 Acid SS 2	80.000	77.678	2.9	100	0.00
6	T	Benzaldehyde	40.000	39.477	1.3	99	0.00
7	T	Aniline	40.000	37.824	5.4	100	0.00
8	C	PHENOL	40.000	39.141	2.1	102	0.00
9	T	Bis(2-chloroethyl)ether	40.000	38.270	4.3	100	0.00
10	M	2-Chlorophenol	40.000	36.224	9.4	100	0.00
11	T	n-Decane	40.000	38.403	4.0	101	0.00
12	C	1,4'-DICHLOROBENZENE	40.000	39.007	2.5	100	0.00
13	T	1,3'-Dichlorobenzene	40.000	35.480	11.3	100	0.00
14	T	1,2'-Dichlorobenzene	40.000	35.888	10.3	101	0.00
15	T	2-Methylphenol	40.000	36.714	8.2	101	0.00
16	T	bis(2-chloroisopropyl)ether	40.000	38.350	4.1	102	0.00
17	T	3,4-Methylphenol	40.000	37.182	7.0	100	0.00
18	T	Acetophenone	40.000	36.862	7.8	101	0.00
19	P	N-Nitrosodi-n-propyl amine	40.000	36.925	7.7	102	0.00
20	T	Hexachloroethane	40.000	38.294	4.3	101	0.00
21	I	Naphthalene-d8 ISTD	40.000	40.000	0.0	102	0.00
22	S	Nitrobenzene-d5 BN SS 1	40.000	37.893	5.3	101	0.00
23	T	Nitrobenzene	40.000	36.191	9.5	101	0.00
24	T	Isophorone	40.000	36.844	7.9	102	0.00
25	C	2-NITROPHENOL	40.000	41.914	-4.8	101	0.00
26	T	2,4-dimethylphenol	40.000	37.105	7.2	101	0.00
27	T	Bis(2-chloroethoxy)methane	40.000	36.324	9.2	101	0.00
28	C	2,4-DICHLOROPHENOL	40.000	38.617	3.5	101	0.00
29	T	1,2,4-Trichlorobenzene	40.000	35.762	10.6	102	0.00
30	T	Naphthalene`	40.000	38.559	3.6	101	0.00
31	T	4-Chloroaniline	40.000	38.098	4.8	101	0.00
32	C	HEXACHLOROBUTADIENE`	40.000	39.296	1.8	102	0.00
33	T	e-Caprolactam	40.000	38.247	4.4	101	0.00
34	C	4-CHLORO-3-METHYLPHENOL	40.000	39.316	1.7	103	0.00
35	T	2-Methylnaphthalene	40.000	39.309	1.7	103	0.00
36	T	Biphenyl	40.000	39.392	1.5	103	0.00
37	T	1,2,4,5-Tetrachlorobenzene	40.000	35.914	10.2	103	0.00
38	I	Acenaphthene-d10 ISTD	40.000	40.000	0.0	104	0.00
39	P	Hexachlorocyclopentadiene	40.000	38.181	4.5	99	0.00
40	C	2,4,6-TRICHLOROPHENOL	40.000	41.774	-4.4	104	0.00
41	T	2,4,5-trichlorophenol	40.000	40.528	-1.3	99	0.00
42	S	2-Fluorobiphenyl BN SS 2	40.000	38.721	3.2	102	0.00
43	T	2-Chloronaphthalene	40.000	38.769	3.1	104	0.00
44	T	2-Nitroaniline	40.000	38.674	3.3	102	0.00
45	T	3-Nitroaniline	40.000	39.770	0.6	106	0.00
46	T	4-Nitroaniline	40.000	40.801	-2.0	111	0.00

Evaluate Continuing Calibration Report

Data Path : P:\SVOC\2\data\130327\
Data File : 13032714.D
Acq On : 27 Mar 2013 3:50 pm
Operator : BW
Sample : ICV/CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 09 15:08:21 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Thu Mar 28 12:07:05 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
47	T	Dimethylphthalate	40.000	39.194	2.0	104	0.00
48	T	2,6-Dinitrotoluene	40.000	40.068	-0.2	104	0.00
49	T	Acenaphthylene	40.000	39.220	2.0	105	0.00
50	C	ACENAPHTHENE	40.000	39.193	2.0	104	0.00
51	P	2,4-Dinitrophenol	40.000	39.564	1.1	101	0.00
52	P	4-nitrophenol	40.000	38.187	4.5	101	0.00
53	M	2,4-Dinitrotoluene	40.000	39.582	1.0	104	0.00
54	T	Dibenzofuran	40.000	38.626	3.4	103	0.00
55	T	2,3,4,6-Tetrachlorophenol	40.000	39.949	0.1	105	0.00
56	T	Diethylphthalate	40.000	38.225	4.4	105	0.00
57	T	4-chlorophenyl phenyl ether	40.000	38.559	3.6	102	0.00
58	T	Fluorene	40.000	38.824	2.9	105	0.00
59	T	Atrazine	40.000	39.409	1.5	105	0.00
60	S	2,4,6-Tribromophenol Acid S	80.000	78.138	2.3	104	0.00
61	I	Phenanthrene-d10 ISTD	40.000	40.000	0.0	104	0.00
62	T	4,6-Dinitro-2-methylphenol	40.000	40.990	-2.5	105	0.00
63	C	N-NITROSODI-N-PHENYLAMINE	40.000	39.104	2.2	104	0.00
64	M	1,2-diphenylhydrazine	40.000	39.563	1.1	104	0.00
65	T	4-bromophenyl phenyl ether	40.000	36.631	8.4	104	0.00
66	T	Hexachlorobenzene	40.000	39.400	1.5	105	0.00
67	C	PENTACHLOROPHENOL	40.000	40.530	-1.3	106	0.00
68	T	Octadecane	40.000	38.937	2.7	105	0.00
69	T	Phenanthrene	40.000	37.007	7.5	104	0.00
70	T	Anthracene	40.000	35.744	10.6	104	0.00
71	T	Carbazole	40.000	37.165	7.1	105	0.00
72	T	Di-n-Butylphthalate	40.000	38.246	4.4	103	0.00
73	C	FLUORANTHENE	40.000	37.987	5.0	104	0.00
74	I	Chrysene-d12 ISTD	40.000	40.000	0.0	110	0.00
75	M	Pyrene	40.000	36.439	8.9	105	0.00
76	M	Benzidine	40.000	42.515	-6.3	158	0.00
77	S	Terphenyl-d14 BN SS 3	40.000	37.142	7.1	105	0.00
78	T	Butylbenzylphthalate	40.000	41.125	-2.8	107	0.00
79	T	Bis 2-ethylhexyl adipate	40.000	37.771	5.6	106	0.00
80	T	Bis(2-ethylhexyl)phthalate	40.000	39.118	2.2	107	0.00
81	T	3,3-Dichlorobenzidine	40.000	41.242	-3.1	118	0.00
82	T	Benzo[a]anthracene	40.000	40.540	-1.3	109	0.00
83	T	Chrysene	40.000	39.564	1.1	109	0.00
84	I	Perylene-d12 ISTD	40.000	40.000	0.0	117	0.00
85	C	DI-N-OCTYLPHTHALATE	40.000	37.384	6.5	109	0.00
86	T	Benzo[b]fluoranthene	40.000	37.957	5.1	114	0.00
87	T	Benzo[k]fluoranthene	40.000	39.175	2.1	110	0.00
88	C	BENZO[A]PYRENE	40.000	40.921	-2.3	118	0.00
89	T	Indeno(1,2,3-c,d)pyrene	40.000	41.247	-3.1	118	0.00
90	T	Dibenzo[a,h]anthracene	40.000	42.542	-6.4	120	0.00
91	T	Benzo[g,h,i]perylene	40.000	42.208	-5.5	122	0.00

Evaluate Continuing Calibration Report

Data Path : P:\SVOC\2\data\130327\
Data File : 13032714.D
Acq On : 27 Mar 2013 3:50 pm
Operator : BW
Sample : ICV/CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 09 15:08:21 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Thu Mar 28 12:07:05 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032714.D
Acq On : 27 Mar 2013 3:50 pm
Operator : BW
Sample : ICV/CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 09 15:08:21 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Thu Mar 28 12:07:05 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.355	152	1920781	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.137	136	7020284	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.390	164	3575109	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.172	188	4829454	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.769	240	2428350	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.259	264	1580730	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.617	112	4890056	69.92	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 174.80%#			
5) Phenol-d6 Acid SS 2	4.994	99	6007321	77.68	mg/L	0.00
Spiked Amount 40.000	Range 31 - 109		Recovery = 194.20%#			
22) Nitrobenzene-d5 BN SS 1	6.207	82	2715298	37.89	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 189.45%#			
42) 2-Fluorobiphenyl BN SS 2	8.586	172	4889850	38.72	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 193.60%#			
60) 2,4,6-Tribromophenol A...	10.368	141	409392	78.14	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 195.35%#			
77) Terphenyl-d14 BN SS 3	13.199	244	3061961	37.14	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 185.70%#			
Target Compounds						Qvalue
2) Pyridine	1.903	79	3374971	37.14	mg/L	100
3) N-Nitrosodimethylamine	1.931	74	1959266	35.96	mg/L	99
6) Benzaldehyde	4.729	77	620900	39.48	mg/L	100
7) Aniline	4.955	93	4074068	37.82	mg/L	99
8) PHENOL	5.008	94	3435873	39.14	mg/L	99
9) Bis(2-chloroethyl)ether	5.090	93	2862833	38.27	mg/L	100
10) 2-Chlorophenol	5.105	128	2781227	36.22	mg/L	100
11) n-Decane	5.211	43	2333122	38.40	mg/L	100
12) 1,4'-DICHLOROBENZENE	5.379	146	2813986	39.01	mg/L	100
13) 1,3'-Dichlorobenzene	5.297	146	3034717	35.48	mg/L	100
14) 1,2'-Dichlorobenzene	5.639	146	2927295	35.89	mg/L	100
15) 2-Methylphenol	5.841	107	2185914	36.71	mg/L	99
16) bis(2-chloroisopropyl)...	5.870	45	3628885	38.35	mg/L	100
17) 3,4-Methylphenol	6.077	107	2450316	37.18	mg/L	99
18) Acetophenone	6.010	105	3717829	36.86	mg/L	100
19) N-Nitrosodi-n-propyl a...	6.092	70	1869517	36.93	mg/L	94
20) Hexachloroethane	6.063	117	940470	38.29	mg/L	99
23) Nitrobenzene	6.236	77	2726594	36.19	mg/L	100
24) Isophorone	6.578	82	5500273	36.84	mg/L	100
25) 2-NITROPHENOL	6.670	139	1568187	41.91	mg/L	100
26) 2,4-dimethylphenol	6.790	122	2553425	37.11	mg/L	100
27) Bis(2-chloroethoxy)met...	6.925	93	3692231	36.32	mg/L	100
28) 2,4-DICHLOROPHENOL	6.997	162	2279433	38.62	mg/L	100
29) 1,2,4-Trichlorobenzene	7.093	180	2449245	35.76	mg/L	100
30) Naphthalene`	7.166	128	6909661	38.56	mg/L	100
31) 4-Chloroaniline	7.296	127	3211716	38.10	mg/L	100
32) HEXACHLOROBUTADIENE`	7.426	225	1270775	39.30	mg/L	100
33) e-Caprolactam	7.792	55	1103661	38.25	mg/L	99
34) 4-CHLORO-3-METHYLPHENOL	7.984	107	2232964	39.32	mg/L	100

Data Path : P:\SVOC\2\data\130327\
Data File : 13032714.D
Acq On : 27 Mar 2013 3:50 pm
Operator : BW
Sample : ICV/CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 09 15:08:21 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Thu Mar 28 12:07:05 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2-Methylnaphthalene	8.066	142	4802291	39.31	mg/L	100
36) Biphenyl	8.687	154	4534802	39.39	mg/L	100
37) 1,2,4,5-Tetrachloroben...	8.336	216	2256954	35.91	mg/L	100
39) Hexachlorocyclopentadiene	8.365	237	866537	38.18	mg/L	99
40) 2,4,6-TRICHLOROPHENOL	8.485	198	1528354	41.77	mg/L	100
41) 2,4,5-trichlorophenol	8.533	196	1488963	40.53	mg/L	97
43) 2-Chloronaphthalene	8.678	162	3772447	38.77	mg/L	100
44) 2-Nitroaniline	8.875	65	1352706	38.67	mg/L	100
45) 3-Nitroaniline	9.400	138	876820	39.77	mg/L	100
46) 4-Nitroaniline	10.151	138	719630m	40.80	mg/L	
47) Dimethylphthalate	9.174	163	4904391	39.19	mg/L	100
48) 2,6-Dinitrotoluene	9.246	165	1212739	40.07	mg/L	99
49) Acenaphthylene	9.193	152	6389866	39.22	mg/L	100
50) ACENAPHTHENE	9.434	154	3888370	39.19	mg/L	100
51) 2,4-Dinitrophenol	9.520	184	398036	39.56	mg/L	99
52) 4-nitrophenol	9.636	65	559453	38.19	mg/L	97
53) 2,4-Dinitrotoluene	9.718	165	1499505	39.58	mg/L	100
54) Dibenzofuran	9.626	168	5808021	38.63	mg/L	100
55) 2,3,4,6-Tetrachlorophenol	9.843	232	1115585	39.95	mg/L	100
56) Diethylphthalate	10.055	149	3848815	38.23	mg/L	99
57) 4-chlorophenyl phenyl ...	10.074	204	2310250	38.56	mg/L	100
58) Fluorene	10.045	166	3846068	38.82	mg/L	100
59) Atrazine	10.960	200	1100837	39.41	mg/L	100
62) 4,6-Dinitro-2-methylph...	10.209	198	607854	40.99	mg/L	100
63) N-NITROSODI-N-PHENYLAMINE	10.238	169	3813382	39.10	mg/L	100
64) 1,2-diphenylhydrazine	10.262	77	4638860	39.56	mg/L	99
65) 4-bromophenyl phenyl e...	10.657	250	1426208	36.63	mg/L	100
66) Hexachlorobenzene	10.811	142	524247	39.40	mg/L	99
67) PENTACHLOROPHENOL	11.042	266	729467	40.53	mg/L	99
68) Octadecane	11.133	57	2638788	38.94	mg/L	100
69) Phenanthrene	11.201	178	5368350	37.01	mg/L	100
70) Anthracene	11.254	178	5137934	35.74	mg/L	100
71) Carbazole	11.466	167	3620522	37.16	mg/L	100
72) Di-n-Butylphthalate	12.019	149	6498473	38.25	mg/L	100
73) FLUORANTHENE	12.641	202	4579588	37.99	mg/L	100
75) Pyrene	12.920	202	4495799	36.44	mg/L	100
76) Benzidine	12.857	184	58022	42.51	mg/L	95
78) Butylbenzylphthalate	14.023	149	2178534	41.13	mg/L	100
79) Bis 2-ethylhexyl adipate	14.206	129	2157751	37.77	mg/L	100
80) Bis(2-ethylhexyl)phtha...	15.092	149	2944029	39.12	mg/L	100
81) 3,3-Dichlorobenzidine	14.779	252	470325	41.24	mg/L	99
82) Benzo[a]anthracene	14.740	228	2803716	40.54	mg/L	100
83) Chrysene	14.812	228	2447388	39.56	mg/L	100
85) DI-N-OCTYLPHTHALATE	16.199	149	3724687	37.38	mg/L	100
86) Benzo[b]fluoranthene	16.613	252	1839993	37.96	mg/L	99
87) Benzo[k]fluoranthene	16.657	252	1855358	39.18	mg/L	97
88) BENZO[A]PYRENE	17.157	252	1702867	40.92	mg/L	99
89) Indeno(1,2,3-c,d)pyrene	19.031	276	969936	41.25	mg/L	100
90) Dibenzo[a,h]anthracene	19.084	278	1152790	42.54	mg/L	100
91) Benzo[g,h,i]perylene	19.421	276	1160014	42.21	mg/L	99

Data Path : P:\SVOC\2\data\130327\
Data File : 13032714.D
Acq On : 27 Mar 2013 3:50 pm
Operator : BW
Sample : ICV/CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 09 15:08:21 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Thu Mar 28 12:07:05 2013
Response via : Initial Calibration

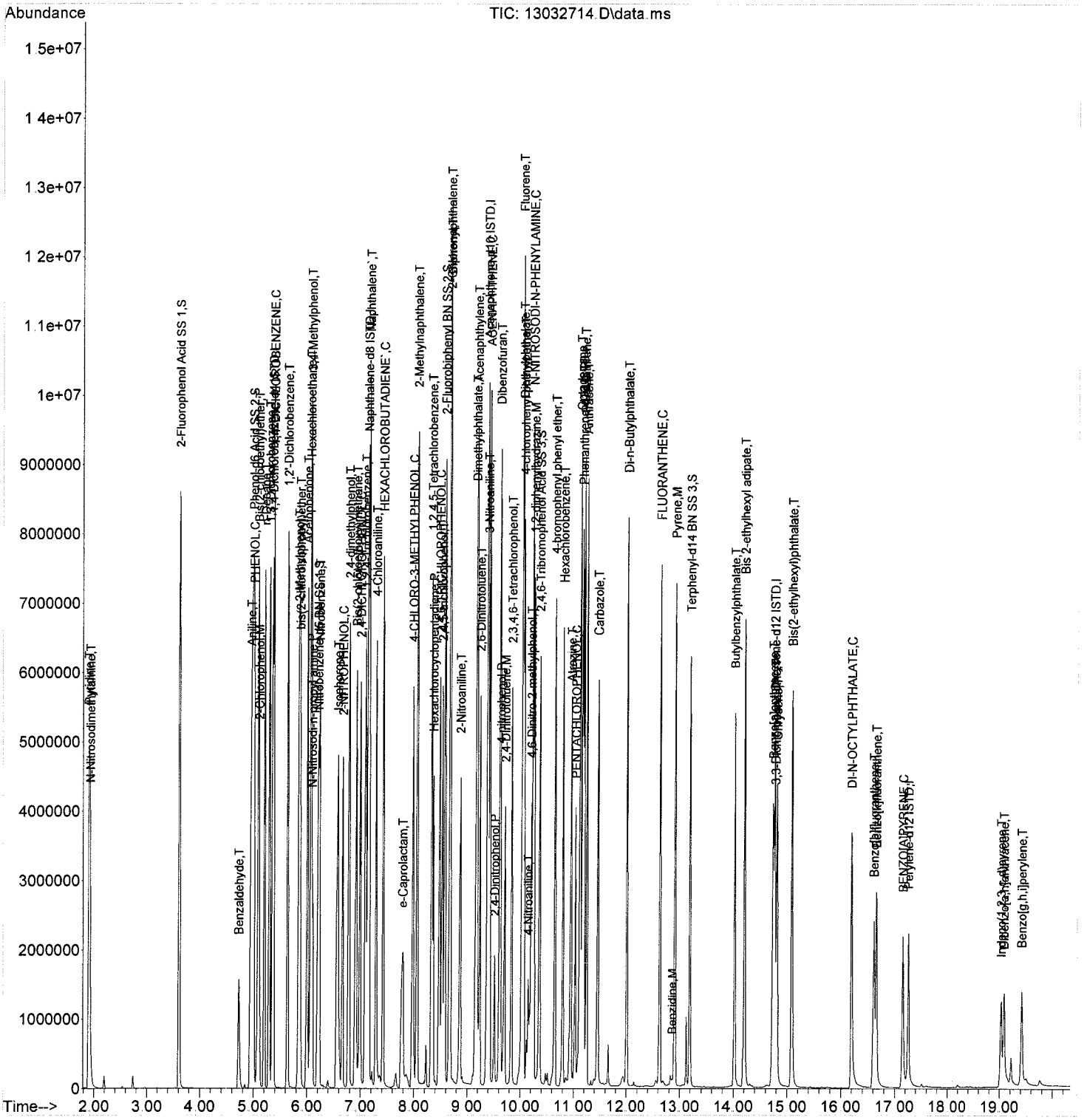
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032714.D
Acq On : 27 Mar 2013 3:50 pm
Operator : BW
Sample : ICV/CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 11 Sample Multiplier: 1

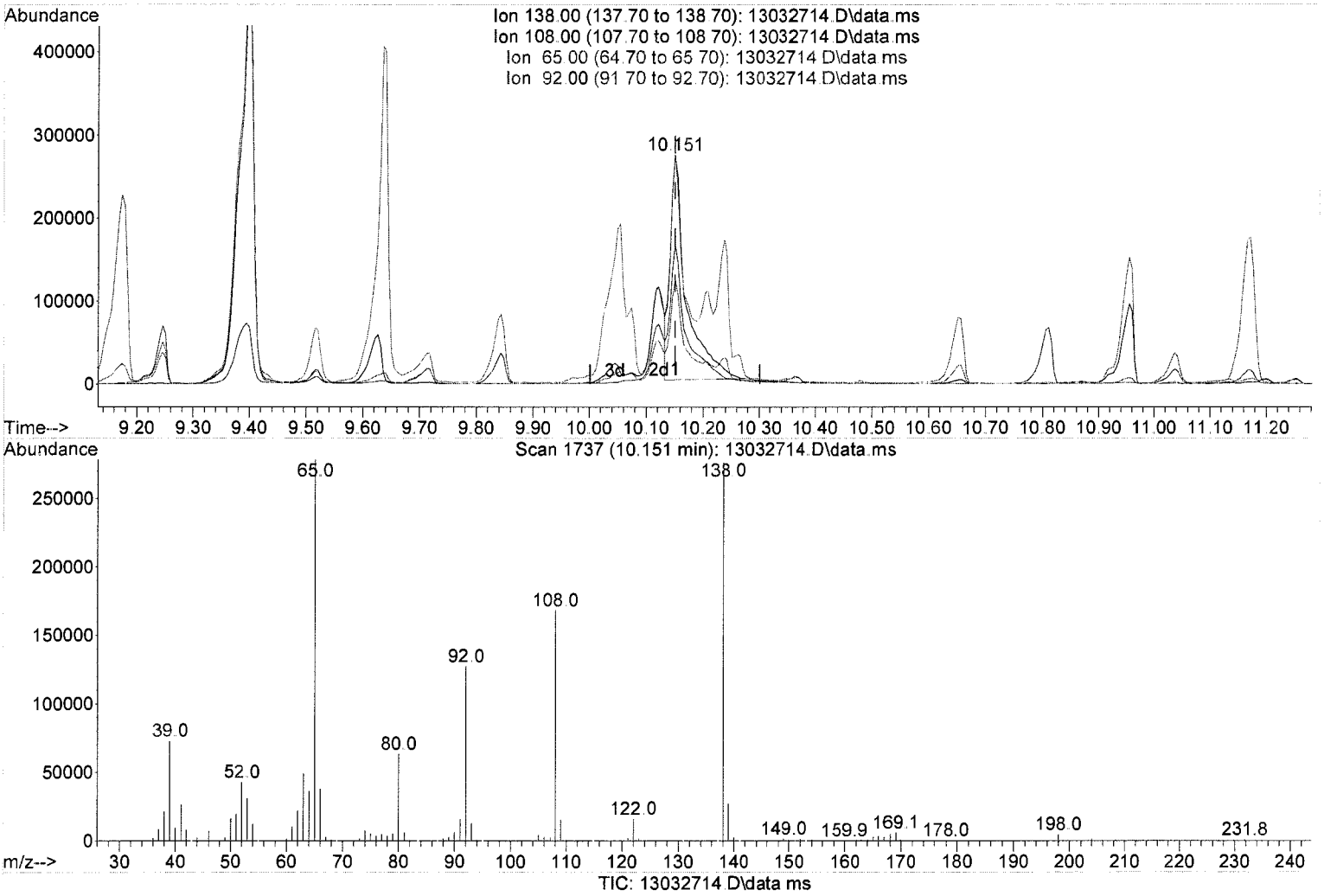
Quant Time: Apr 09 15:08:21 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Thu Mar 28 12:07:05 2013
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032714.D
Acq On : 27 Mar 2013 3:50 pm
Operator : BW
Sample : ICV/CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 12:07:40 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Thu Mar 28 12:07:05 2013
Response via : Initial Calibration



TIC: 13032714.D\data.ms

(46) 4-Nitroaniline (T)

10.151min (0.000) 31.55 mg/L

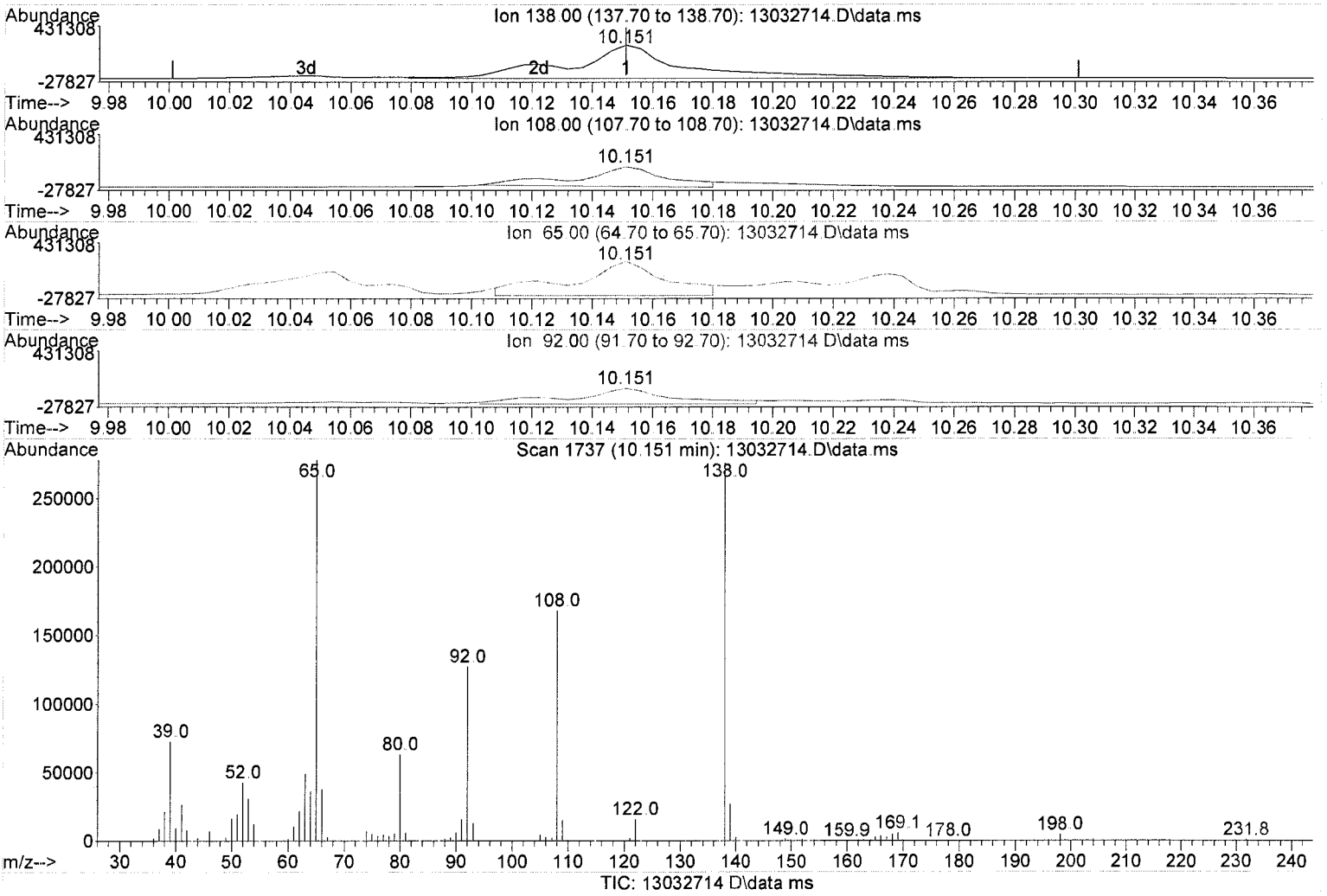
response 538362

Ion	Exp%	Act%
138.00	100	100
108.00	62.80	60.64
65.00	62.60	83.91#
92.00	41.70	26.42

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130327\
Data File : 13032714.D
Acq On : 27 Mar 2013 3:50 pm
Operator : BW
Sample : ICV/CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 28 12:07:40 2013
Quant Method : P:\SVOC\2\data\130327\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Thu Mar 28 12:07:05 2013
Response via : Initial Calibration



(46) 4-Nitroaniline (T)

10.151min (0.000) 40.80 mg/L m

response 719630

Ion	Exp%	Act%
138.00	100	100
108.00	62.80	44.70
65.00	62.60	81.60
92.00	41.70	40.72

3d 4/9

Injection Log

Directory: P:\SVOC\2\data\130408

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	13040801.D	1.	13040109-001	Batch #45432 500mL	8 Apr 2013 10:07
2	1	13040802.D	1.	ULTRA Tune Solution@50ppm	ID#A2353 EX 04/30/13 BW	8 Apr 2013 10:34
3	2	13040803.D	1.	CCV SVOA 40ppm	ID#A2352 EX 04/22/13 BW	8 Apr 2013 11:02
4	1	13040804.D	1.	ULTRA Tune Solution@50ppm	ID#A2353 EX 04/30/13 BW	8 Apr 2013 13:29
5	2	13040805.D	1.	CCV SVOA 40ppm	ID#A2352 EX 04/22/13 BW	8 Apr 2013 13:56
6	3	13040806.D	1.	45474-1-BLK	Batch 45474 1000mL	8 Apr 2013 14:52
7	4	13040807.D	1.	45475-1-BLK	Batch 45475 500mL	8 Apr 2013 15:19
8	5	13040808.D	1.	45474&5-1-BKS	Batch 45474&5 1000mL	8 Apr 2013 15:47
9	6	13040809.D	1.	45474&5-1-BSD	Batch 45474&5 1000mL	8 Apr 2013 16:15
10	7	13040810.D	1.	13040315-002 S	Batch 45475 500mL	8 Apr 2013 16:43
11	8	13040811.D	1.	13040315-002	Batch 45475 500mL	8 Apr 2013 17:11
12	9	13040812.D	1.	13040205-001	Batch 45474 950mL	8 Apr 2013 17:39
13	10	13040813.D	1.	13040205-002	Batch 45474 1000mL	8 Apr 2013 18:07
14	11	13040814.D	1.	13040205-003	Batch 45474 1000mL	8 Apr 2013 18:35
15	12	13040815.D	1.	13040524-005	Batch 45474 1000mL	8 Apr 2013 19:03
16	13	13040816.D	1.	13040516-006	Batch 45474 1000mL	8 Apr 2013 19:31
17	14	13040817.D	1.	13040516-007	Batch 45474 1000mL	8 Apr 2013 19:59
18	15	13040818.D	1.	13040516-008	Batch 45474 1000mL	8 Apr 2013 20:28
19	16	13040819.D	1.	13040516-009	Batch 45474 900mL	8 Apr 2013 20:56
20	17	13040820.D	1	13040516-010	Batch 45474 1000mL	8 Apr 2013 21:24
21	18	13040821.D	1.	13040516-011	Batch 45474 1000mL	8 Apr 2013 21:52
22		13040822.D	1.			

45474 / 105216
45475 / 105238

BW
4/9/13

Response Factor Report Lean Mean Semi Machine

Method Path : P:\SVOC\2\data\130408\
Method File : L_SVOC.M
Title : ALS8270.M
Last Update : Mon Apr 08 14:16:29 2013
Response Via : Initial Calibration

Calibration Files
C0.5=13032712.D C2 =13032711.D C5 =13032710.D C10 =13032709.D C20 =13032708.D C30 =13032707.D C40 =13040805.D
C50 =13032705.D C80 =13032704.D

		Compound	C0.5	C2	C5	C10	C20	C30	C40	C50	C80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------										
2)	T	Pyridine	2.165	1.993	1.996	1.957	1.905	1.784	1.750	1.791	1.689	1.892	8.00
3)	T	N-Nitrosodimet...	1.350	1.245	1.238	1.190	1.137	1.059	1.022	1.031	0.940	1.135	11.64
4)	S	2-Fluorophenol...	1.697	1.646	1.668	1.598	1.498	1.370	1.282	1.263	1.087	1.456	14.81
5)	S	Phenol-d6 Acid...	2.166	2.077	2.021	1.895	1.781	1.650	1.570	1.546	1.346	1.784	15.52
6)	T	Benzaldehyde			0.282	0.262	0.285	0.294	0.328	0.359	0.407	0.317	16.23
7)	T	Aniline	2.285	2.280	2.483	2.420	2.354	2.188	2.130	2.129	1.919	2.243	7.68
8)	C	PHENOL	2.461	2.301	2.249	2.137	2.021	1.895	1.775	1.758	1.518	2.013	15.06
9)	T	Bis(2-chloroet...	2.191	2.032	1.955	1.868	1.767	1.605	1.497	1.480	1.317	1.746	16.64
10)	M	2-Chlorophenol	1.837	1.781	1.745	1.679	1.637	1.521	1.452	1.457	1.280	1.599	11.46
11)	T	n-Decane	2.095	1.882	1.795	1.655	1.502	1.334	1.207	1.158	0.953	1.509	25.02
12)	C	1,4'-DICHLOROB...	2.105	1.856	1.837	1.761	1.680	1.560	1.469	1.428	1.227	1.658	16.04
13)	T	1,3'-Dichlorob...	2.275	1.974	1.927	1.862	1.782	1.665	1.587	1.578	1.380	1.781	14.89
14)	T	1,2'-Dichlorob...	2.101	1.887	1.884	1.797	1.721	1.601	1.526	1.490	1.281	1.699	14.71
15)	T	2-Methylphenol	1.418	1.333	1.346	1.329	1.288	1.224	1.137	1.123	0.961	1.240	11.55
16)	T	bis(2-chlorois...	3.332	2.963	2.869	2.695	2.410	2.134	1.869	1.746	1.340	2.373	27.42
17)	T	3,4-Methylphenol	2.042	1.911	1.890	1.835	1.526	1.327	1.281	1.363	1.219	1.599	19.95
18)	T	Acetophenone	2.440	2.265	2.260	2.187	2.123	1.986	1.930	1.940	1.772	2.100	9.97
19)	P	N-Nitrosodi-n-...	1.294	1.199	1.144	1.067	0.989	0.959	0.959	0.979	0.899	1.054	12.49
20)	T	Hexachloroethane	0.732	0.675	0.657	0.634	0.558	0.504	0.487	0.508	0.453	0.579	16.97
21)	I	Naphthalene-d8 ISTD	----------ISTD----------										
22)	S	Nitrobenzene-d...	0.428	0.427	0.438	0.429	0.418	0.402	0.390	0.390	0.352	0.408	6.74
23)	T	Nitrobenzene	0.503	0.474	0.476	0.455	0.431	0.408	0.390	0.383	0.345	0.429	12.06
24)	T	Isophorone	0.977	0.910	0.924	0.865	0.838	0.805	0.779	0.796	0.762	0.851	8.66
25)	C	2-NITROPHENOL	0.148	0.188	0.226	0.234	0.238	0.232	0.224	0.226	0.203	0.213	13.74
26)	T	2,4-dimethylph...	0.420	0.417	0.430	0.411	0.394	0.378	0.366	0.368	0.344	0.392	7.57
27)	T	Bis(2-chloroet...	0.701	0.632	0.631	0.595	0.574	0.543	0.527	0.528	0.482	0.579	11.70
28)	C	2,4-DICHLOROPH...	0.323	0.344	0.368	0.357	0.350	0.336	0.327	0.327	0.294	0.336	6.49
29)	T	1,2,4-Trichlor...	0.483	0.434	0.430	0.409	0.393	0.366	0.349	0.343	0.305	0.390	14.12
30)	T	Naphthalene`	1.498	1.322	1.311	1.239	1.145	1.048	0.994	0.968	0.842	1.152	18.08
31)	T	4-Chloroaniline	0.490	0.474	0.521	0.523	0.506	0.474	0.461	0.460	0.415	0.480	7.15
32)	C	HEXACHLOROBUTA...	0.261	0.244	0.236	0.222	0.205	0.191	0.180	0.175	0.155	0.208	17.06
33)	T	e-Caprolactam			0.185	0.176	0.184	0.164	0.158	0.162	0.151	0.169	7.76
34)	C	4-CHLORO-3-MET...	0.287	0.327	0.355	0.355	0.345	0.322	0.315	0.318	0.287	0.324	7.87
35)	T	2-Methylnaphth...	0.986	0.898	0.899	0.840	0.783	0.714	0.677	0.665	0.592	0.784	16.71
36)	T	Biphenyl	1.168	1.023	1.003	0.904	0.783	0.695	0.634	0.596	0.486	0.810	28.11
37)	T	1,2,4,5-Tetrac...	0.447	0.396	0.398	0.386	0.359	0.330	0.316	0.312	0.279	0.358	14.84

Method Path : P:\SVOC\2\data\130408\
Method File : L_SVOC.M
Title : ALS8270.M

38)	I	Acenaphthene-d10 ISTD	----------ISTD----------										
39)	P	Hexachlorocycl...	0.111	0.145	0.191	0.235	0.254	0.254	0.254	0.258	0.225	0.214	25.18
40)	C	2,4,6-TRICHLOR...	0.298	0.376	0.429	0.441	0.447	0.433	0.427	0.431	0.402	0.409	11.52
41)	T	2,4,5-trichlor...	0.315	0.387	0.437	0.474	0.464	0.451	0.435	0.415	0.321	0.411	14.27
42)	S	2-Fluorobiphen...	1.974	1.771	1.738	1.661	1.552	1.463	1.385	1.345	1.149	1.560	16.23
43)	T	2-Chloronaphth...	1.742	1.587	1.548	1.433	1.249	1.144	1.055	1.004	0.838	1.289	23.66
44)	T	2-Nitroaniline		0.356	0.398	0.421	0.415	0.397	0.384	0.386	0.341	0.387	7.10
45)	T	3-Nitroaniline		0.254	0.257	0.275	0.231	0.239	0.240	0.261	0.233	0.249	6.22
46)	T	4-Nitroaniline			0.191	0.178	0.183	0.173	0.188	0.221	0.222	0.194	10.37
47)	T	Dimethylphthalate	1.900	1.761	1.765	1.715	1.592	1.473	1.371	1.313	1.051	1.549	17.46
48)	T	2,6-Dinitrotol...		0.282	0.337	0.358	0.361	0.351	0.338	0.336	0.258	0.328	11.40
49)	T	Acenaphthylene	2.493	2.397	2.386	2.269	2.099	1.943	1.773	1.691	1.383	2.048	18.45
50)	C	ACENAPHTHENE	1.504	1.360	1.400	1.348	1.238	1.151	1.082	1.059	0.888	1.226	16.03
51)	P	2,4-Dinitrophenol			0.026	0.064	0.096	0.100	0.114	0.129	0.124	0.093	39.33
52)	P	4-nitrophenol		0.092	0.129	0.176	0.169	0.154	0.160	0.172	0.137	0.149	19.02
53)	M	2,4-Dinitrotol...		0.308	0.385	0.422	0.441	0.421	0.420	0.430	0.381	0.401	10.74
54)	T	Dibenzofuran	2.346	2.118	2.107	2.024	1.854	1.706	1.638	1.621	1.418	1.870	15.99
55)	T	2,3,4,6-Tetrac...		0.209	0.274	0.314	0.329	0.314	0.308	0.315	0.286	0.294	13.14
56)	T	Diethylphthalate		1.765	1.676	1.512	1.317	1.197	1.067	1.031	0.777	1.293	26.36
57)	T	4-chlorophenyl...	0.982	0.866	0.859	0.828	0.772	0.706	0.657	0.617	0.494	0.753	19.91
58)	T	Fluorene	1.680	1.545	1.524	1.457	1.270	1.156	1.067	1.035	0.883	1.291	21.20
59)	T	Atrazine		0.343	0.371	0.364	0.342	0.321	0.305	0.306	0.242	0.324	12.76
60)	S	2,4,6-Tribromo...		0.055	0.067	0.071	0.066	0.060	0.057	0.056	0.048	0.060	12.41
61)	I	Phenanthrene-d10 ISTD	----------ISTD----------										
62)	T	4,6-Dinitro-2-...			0.053	0.095	0.117	0.121	0.125	0.132	0.105	0.107	25.15
63)	C	N-NITROSODI-N-...	1.097	1.035	1.009	0.971	0.882	0.859	0.791	0.759	0.665	0.896	15.90
64)	M	1,2-diphenylhy...		1.142	1.257	1.177	1.060	1.024	0.962	0.916	0.774	1.039	14.98
65)	T	4-bromophenyl ...	0.369	0.356	0.349	0.337	0.316	0.310	0.297	0.291	0.277	0.322	9.89
66)	T	Hexachlorobenzene	0.159	0.143	0.143	0.132	0.121	0.115	0.108	0.105	0.094	0.124	17.11
67)	C	PENTACHLOROPHENOL		0.059	0.096	0.139	0.149	0.145	0.148	0.155	0.148	0.130	26.20
68)	T	Octadecane	0.829	0.832	0.843	0.764	0.646	0.614	0.542	0.503	0.433	0.667	23.39
69)	T	Phenanthrene	1.444	1.262	1.286	1.284	1.198	1.138	1.111	1.087	1.003	1.201	11.05
70)	T	Anthracene	1.384	1.273	1.294	1.335	1.224	1.143	1.070	1.045	0.947	1.191	12.40
71)	T	Carbazole	1.109	1.066	1.092	1.109	0.880	0.845	0.740	0.776	0.713	0.926	18.13
72)	T	Di-n-Butylphth...	1.700	1.734	1.834	1.773	1.589	1.469	1.358	1.315	1.158	1.548	15.15
73)	C	FLUORANTHENE	1.018	0.982	1.054	1.165	1.083	0.943	0.950	0.941	0.852	0.999	9.28
74)	I	Chrysene-d12 ISTD	----------ISTD----------										
75)	M	Pyrene	2.335	2.011	2.292	1.912	1.973	2.077	1.935	1.961	1.795	2.032	8.70
76)	M	Benzidine			0.053	0.053	0.011	0.006	0.017	0.033	0.086	0.037#	77.79
77)	S	Terphenyl-d14 ...	1.492	1.293	1.500	1.296	1.342	1.419	1.312	1.336	1.232	1.358	6.81
78)	T	Butylbenzylpht...	0.701	0.722	0.991	0.862	0.926	0.964	0.917	0.918	0.852	0.873	11.58
79)	T	Bis 2-ethylhex...	0.598	0.717	1.025	0.851	0.943	1.009	0.922	0.923	0.826	0.868	15.95
80)	T	Bis(2-ethylhex...	0.759	0.941	1.307	1.148	1.254	1.286	1.237	1.228	1.123	1.143	15.91
81)	T	3,3-Dichlorobe...	0.199	0.265	0.270	0.240	0.188	0.174	0.180	0.196	0.184	0.211	17.86
82)	T	Benzo[a]anthra...	1.178	1.041	1.089	1.169	1.163	1.137	1.156	1.192	1.127	1.139	4.22

Method Path : P:\SVOC\2\data\130408\
Method File : L_SVOC.M
Title : ALS8270.M

83)	T	Chrysene	1.076	0.999	1.017	1.042	1.029	1.002	1.011	1.039	0.954	1.019	3.33
84)	I	Perylene-d12 ISTD	----------ISTD----------										
85)	C	DI-N-OCTYLPHTH...			1.933	1.755	2.331	2.470	2.520	2.707	2.726	2.349	15.93
86)	T	Benzo[b]fluora...	0.656	0.855	0.983	1.035	1.134	1.215	1.193	1.317	1.276	1.074	20.02
87)	T	Benzo[k]fluora...	1.032	1.075	1.273	1.194	1.278	1.230	1.242	1.248	1.213	1.198	7.25
88)	C	BENZO[A]PYRENE	0.588	0.721	0.839	0.961	1.023	1.017	1.065	1.093	1.031	0.926	18.75
89)	T	Indeno(1,2,3-c...	0.249	0.381	0.424	0.616	0.578	0.601	0.610	0.601	0.538	0.511	25.46
90)	T	Dibenzo[a,h]an...	0.283	0.483	0.516	0.684	0.632	0.711	0.709	0.699	0.608	0.592	24.09
91)	T	Benzo[g,h,i]pe...	0.418	0.607	0.638	0.785	0.701	0.726	0.705	0.694	0.591	0.652	16.36

(#) = Out of Range

Calibration Report Lean Mean Semi Machine

Method Path : P:\SVOC\2\data\130408\
Method File : L_SVOC.M
Title : ALS8270.M
Last Update : Mon Apr 08 14:16:29 2013
Response Via : Initial Calibration

Calibration Files
C0.5=13032712 C2 =13032711 C5 =13032710 C10 =13032709 C20 =13032708 C30 =13032707
C40 =13040805 C50 =13032705 C80 =13032704

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	I	1,4-Dichlorobenz...	ISTD				
2)	T	Pyridine	Avg	-----	1.8923	-----	0.0800
3)	T	N-Nitrosodimethy...	Avg	-----	1.1347	-----	0.1164
4)	S	2-Fluorophenol A...	Avg	-----	1.4564	-----	0.1481
5)	S	Phenol-d6 Acid SS 2	QuadF	-----	1.8625	-0.1297	0.9996
6)	T	Benzaldehyde	QuadF	-----	0.2483	0.0803	0.9993
7)	T	Aniline	Avg	-----	2.2431	-----	0.0768
8)	C	PHENOL	QuadF	-----	2.1267	-0.3052	0.9996
9)	T	Bis(2-chloroethy...	QuadF	-----	1.7844	-0.2369	0.9991
10)	M	2-Chlorophenol	Avg	-----	1.5989	-----	0.1146
11)	T	n-Decane	QuadF	-----	1.5606	-0.3077	0.9983
12)	C	1,4'-DICHLOROBEN...	QuadF	-----	1.7663	-0.2707	0.9998
13)	T	1,3'-Dichloroben...	Avg	-----	1.7812	-----	0.1489
14)	T	1,2'-Dichloroben...	Avg	-----	1.6987	-----	0.1471
15)	T	2-Methylphenol	Avg	-----	1.2399	-----	0.1155
16)	T	bis(2-chloroisop...	QuadF	-----	2.5651	-0.6201	0.9976
17)	T	3,4-Methylphenol	QuadF	-----	1.5077	-0.1456	0.9960
18)	T	Acetophenone	Avg	-----	2.1004	-----	0.0997
19)	P	N-Nitrosodi-n-pr...	Avg	-----	1.0544	-----	0.1249
20)	T	Hexachloroethane	QuadF	-----	0.5653	-0.0563	0.9981
21)	I	Naphthalene-d8 ISTD	ISTD				
22)	S	Nitrobenzene-d5 ...	Avg	-----	0.4083	-----	0.0674
23)	T	Nitrobenzene	Avg	-----	0.4293	-----	0.1206
24)	T	Isophorone	Avg	-----	0.8506	-----	0.0866
25)	C	2-NITROPHENOL	Avg	-----	0.2132	-----	0.1374
26)	T	2,4-dimethylphenol	Avg	-----	0.3921	-----	0.0757
27)	T	Bis(2-chloroetho...	Avg	-----	0.5792	-----	0.1170
28)	C	2,4-DICHLOROPHENOL	Avg	-----	0.3363	-----	0.0649
29)	T	1,2,4-Trichlorob...	Avg	-----	0.3902	-----	0.1412
30)	T	Naphthalene`	QuadF	-----	1.1904	-0.1757	0.9995
31)	T	4-Chloroaniline	Avg	-----	0.4803	-----	0.0715
32)	C	HEXACHLOROBUTADI...	QuadF	-----	0.2128	-0.0291	0.9995
33)	T	e-Caprolactam	QuadF	-----	0.1765	-0.0127	0.9986
34)	C	4-CHLORO-3-METHY...	Avg	-----	0.3236	-----	0.0787
35)	T	2-Methylnaphthalene	QuadF	-----	0.7993	-0.1051	0.9993
36)	T	Biphenyl	QuadF	-----	0.8253	-0.1720	0.9980
37)	T	1,2,4,5-Tetrachl...	Avg	-----	0.3581	-----	0.1484
38)	I	Acenaphthene-d10...	ISTD				
39)	P	Hexachlorocyclop...	QuadF	-----	0.2781	-0.0254	0.9983
40)	C	2,4,6-TRICHLOROP...	Avg	-----	0.4093	-----	0.1152
41)	T	2,4,5-trichlorop...	Avg	-----	0.4111	-----	0.1427
42)	S	2-Fluorobiphenyl...	QuadF	-----	1.6612	-0.2565	0.9999
43)	T	2-Chloronaphthalene	QuadF	-----	1.3294	-0.2484	0.9989
44)	T	2-Nitroaniline	QuadF	-----	0.4375	-0.0477	0.9995
45)	T	3-Nitroaniline	QuadF	-----	0.2581	-0.0115	0.9959
46)	T	4-Nitroaniline	QuadF	-----	0.1692	0.0276	0.9944
47)	T	Dimethylphthalate	QuadF	-----	1.7361	-0.3430	0.9998
48)	T	2,6-Dinitrotoluene	QuadF	-----	0.4164	-0.0776	0.9978
49)	T	Acenaphthylene	QuadF	-----	2.2520	-0.4377	0.9995
50)	C	ACENAPHTHENE	QuadF	-----	1.3237	-0.2181	0.9996
51)	P	2,4-Dinitrophenol	QuadF	-----	0.0989	0.0138	0.9905
52)	P	4-nitrophenol	QuadF	-----	0.1862	-0.0233	0.9924
53)	M	2,4-Dinitrotoluene	QuadF	-----	0.4634	-0.0400	0.9988

Method Path : P:\SVOC\2\data\130408\
Method File : L_SVOC.M
Title : ALS8270.M

54)	T	Dibenzofuran	QuadF	-----	1.9308	-0.2573	0.9995
55)	T	2,3,4,6-Tetrachl...	QuadF	-----	0.3375	-0.0251	0.9993
56)	T	Diethylphthalate	QuadF	-----	1.4494	-0.3379	0.9985
57)	T	4-chlorophenyl p...	QuadF	-----	0.8364	-0.1722	0.9998
58)	T	Fluorene	QuadF	-----	1.3263	-0.2245	0.9987
59)	T	Atrazine	QuadF	-----	0.3797	-0.0681	0.9985
60)	S	2,4,6-Tribromoph...	QuadF	-----	0.0688	-0.0052	0.9994
61)	I	Phenanthrene-d10...	----------	ISTD	----------		
62)	T	4,6-Dinitro-2-me...	QuadF	-----	0.1383	-0.0151	0.9889
63)	C	N-NITROSODI-N-PH...	QuadF	-----	0.9468	-0.1422	0.9996
64)	M	1,2-diphenylhydr...	QuadF	-----	1.1657	-0.1967	0.9998
65)	T	4-bromophenyl ph...	Avg	-----	0.3225	-----	0.0989
66)	T	Hexachlorobenzene	QuadF	-----	0.1260	-0.0160	0.9995
67)	C	PENTACHLOROPHENOL	QuadF	-----	0.1486	0.0004	0.9988
68)	T	Octadecane	QuadF	-----	0.6887	-0.1309	0.9970
69)	T	Phenanthrene	Avg	-----	1.2015	-----	0.1105
70)	T	Anthracene	Avg	-----	1.1906	-----	0.1240
71)	T	Carbazole	QuadF	-----	0.8931	-0.0928	0.9961
72)	T	Di-n-Butylphthalate	QuadF	-----	1.6424	-0.2458	0.9990
73)	C	FLUORANTHENE	Avg	-----	0.9985	-----	0.0928
74)	I	Chrysene-d12 ISTD	----------	ISTD	----------		
75)	M	Pyrene	Avg	-----	2.0323	-----	0.0870
76)	M	Benzidine	Avg	-----	0.0370	-----	0.7779
77)	S	Terphenyl-d14 BN...	Avg	-----	1.3579	-----	0.0681
78)	T	Butylbenzylphtha...	Avg	-----	0.8726	-----	0.1158
79)	T	Bis 2-ethylhexyl...	QuadF	-----	1.0407	-0.1055	0.9986
80)	T	Bis(2-ethylhexyl...	QuadF	-----	1.3466	-0.1093	0.9995
81)	T	3,3-Dichlorobenz...	QuadF	-----	0.1916	-0.0036	0.9955
82)	T	Benzo[a]anthracene	Avg	-----	1.1392	-----	0.0422
83)	T	Chrysene	Avg	-----	1.0189	-----	0.0333
84)	I	Perylene-d12 ISTD	----------	ISTD	----------		
85)	C	DI-N-OCTYLPHTHALATE	QuadF	-----	2.3210	0.2142	0.9980
86)	T	Benzo[b]fluorant...	QuadF	-----	1.1712	0.0585	0.9980
87)	T	Benzo[k]fluorant...	Avg	-----	1.1984	-----	0.0725
88)	C	BENZO[A]PYRENE	QuadF	-----	1.0663	-0.0130	0.9988
89)	T	Indeno(1,2,3-c,d...	QuadF	-----	0.6504	-0.0536	0.9986
90)	T	Dibenzo[a,h]anth...	QuadF	-----	0.7652	-0.0748	0.9973
91)	T	Benzo[g,h,i]pery...	QuadF	-----	0.8077	-0.1064	0.9989

Evaluate Continuing Calibration Report

Data Path : P:\SVOC\2\data\130408\
Data File : 13040805.D
Acq On : 8 Apr 2013 1:56 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 09 09:12:47 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 ISTD	40.000	40.000	0.0	94	0.00
2	T	Pyridine	40.000	34.829	12.9	88	0.00
3	T	N-Nitrosodimethylamine	40.000	33.874	15.3	88	0.00
4	S	2-Fluorophenol Acid SS 1	80.000	69.289	13.4	92	0.00
5	S	Phenol-d6 Acid SS 2	80.000	75.722	5.3	91	0.00
6	T	Benzaldehyde	40.000	44.381	-11.0	107	0.00
7	T	Aniline	40.000	36.938	7.7	91	0.00
8	C	PHENOL	40.000	37.126	7.2	90	0.00
9	T	Bis(2-chloroethyl)ether	40.000	38.183	4.5	93	0.00
10	M	2-Chlorophenol	40.000	35.019	12.5	91	0.00
11	T	n-Decane	40.000	36.024	9.9	90	0.00
12	C	1,4'-DICHLOROBENZENE	40.000	39.831	0.4	95	0.00
13	T	1,3'-Dichlorobenzene	40.000	35.600	11.0	94	0.00
14	T	1,2'-Dichlorobenzene	40.000	36.301	9.2	95	0.00
15	T	2-Methylphenol	40.000	35.904	10.2	92	0.00
16	T	bis(2-chloroisopropyl)ether	40.000	35.637	10.9	90	0.00
17	T	3,4-Methylphenol	40.000	36.529	8.7	92	0.00
18	T	Acetophenone	40.000	36.529	8.7	93	0.00
19	P	N-Nitrosodi-n-propyl amine	40.000	35.009	12.5	90	0.00
20	T	Hexachloroethane	40.000	39.360	1.6	97	0.00
21	I	Naphthalene-d8 ISTD	40.000	40.000	0.0	94	0.00
22	S	Nitrobenzene-d5 BN SS 1	40.000	33.996	15.0	84	0.00
23	T	Nitrobenzene	40.000	33.684	15.8	87	0.00
24	T	Isophorone	40.000	36.215	9.5	93	0.00
25	C	2-NITROPHENOL	40.000	34.031	14.9	77	0.00
26	T	2,4-dimethylphenol	40.000	34.867	12.8	88	0.00
27	T	Bis(2-chloroethoxy)methane	40.000	35.836	10.4	93	0.00
28	C	2,4-DICHLOROPHENOL	40.000	37.476	6.3	91	0.00
29	T	1,2,4-Trichlorobenzene	40.000	35.735	10.7	94	0.00
30	T	Naphthalene`	40.000	39.193	2.0	95	0.00
31	T	4-Chloroaniline	40.000	37.392	6.5	92	0.00
32	C	HEXACHLOROBUTADIENE`	40.000	40.125	-0.3	97	0.00
33	T	e-Caprolactam	40.000	34.789	13.0	86	0.00
34	C	4-CHLORO-3-METHYLPHENOL	40.000	37.515	6.2	91	0.00
35	T	2-Methylnaphthalene	40.000	39.469	1.3	96	0.00
36	T	Biphenyl	40.000	40.995	-2.5	99	0.00
37	T	1,2,4,5-Tetrachlorobenzene	40.000	36.559	8.6	98	0.00
38	I	Acenaphthene-d10 ISTD	40.000	40.000	0.0	99	0.00
39	P	Hexachlorocyclopentadiene	40.000	32.454	18.9	81	0.00
40	C	2,4,6-TRICHLOROPHENOL	40.000	40.320	-0.8	96	0.00
41	T	2,4,5-trichlorophenol	40.000	38.820	2.9	91	0.00
42	S	2-Fluorobiphenyl BN SS 2	40.000	38.089	4.8	97	0.00
43	T	2-Chloronaphthalene	40.000	38.212	4.5	98	0.00
44	T	2-Nitroaniline	40.000	32.247	19.4	83	0.00
45	T	3-Nitroaniline	40.000	30.185	24.5#	78	0.00
46	T	4-Nitroaniline	40.000	33.570	16.1	85	0.00

Evaluate Continuing Calibration Report

Data Path : P:\SVOC\2\data\130408\
Data File : 13040805.D
Acq On : 8 Apr 2013 1:56 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 09 09:12:47 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
47	T	Dimethylphthalate	40.000	37.524	6.2	96	0.00
48	T	2,6-Dinitrotoluene	40.000	33.972	15.1	87	0.00
49	T	Acenaphthylene	40.000	38.152	4.6	98	0.00
50	C	ACENAPHTHENE	40.000	39.069	2.3	99	0.00
51	P	2,4-Dinitrophenol	40.000	24.774	38.1#	58	0.00
52	P	4-nitrophenol	40.000	33.278	16.8	86	0.00
53	M	2,4-Dinitrotoluene	40.000	35.737	10.7	90	0.00
54	T	Dibenzofuran	40.000	38.566	3.6	98	0.00
55	T	2,3,4,6-Tetrachlorophenol	40.000	37.834	5.4	95	0.00
56	T	Diethylphthalate	40.000	39.288	1.8	102	0.00
57	T	4-chlorophenyl phenyl ether	40.000	38.491	3.8	97	0.00
58	T	Fluorene	40.000	39.470	1.3	101	0.00
59	T	Atrazine	40.000	39.504	1.2	100	0.00
60	S	2,4,6-Tribromophenol Acid S	80.000	77.794	2.8	99	0.00
61	I	Phenanthrene-d10 ISTD	40.000	40.000	0.0	100	0.00
62	T	4,6-Dinitro-2-methylphenol	40.000	29.069	27.3#	74	0.00
63	C	N-NITROSODI-N-PHENYLAMINE	40.000	37.602	6.0	97	0.00
64	M	1,2-diphenylhydrazine	40.000	36.640	8.4	94	0.00
65	T	4-bromophenyl phenyl ether	40.000	36.340	9.1	99	0.00
66	T	Hexachlorobenzene	40.000	39.885	0.3	102	0.00
67	C	PENTACHLOROPHENOL	40.000	38.491	3.8	97	0.00
68	T	Octadecane	40.000	35.476	11.3	94	0.00
69	T	Phenanthrene	40.000	37.743	5.6	102	0.00
70	T	Anthracene	40.000	35.916	10.2	100	0.00
71	T	Carbazole	40.000	34.143	14.6	94	0.00
72	T	Di-n-Butylphthalate	40.000	39.248	1.9	102	0.00
73	C	FLUORANTHENE	40.000	39.925	0.2	105	0.00
74	I	Chrysene-d12 ISTD	40.000	40.000	0.0	115	0.00
75	M	Pyrene	40.000	35.191	12.0	106	0.00
76	M	Benzidine	40.000	0.200	99.5#	1	0.00
77	S	Terphenyl-d14 BN SS 3	40.000	36.094	9.8	108	0.00
78	T	Butylbenzylphthalate	40.000	40.100	-0.3	110	0.00
79	T	Bis 2-ethylhexyl adipate	40.000	35.985	10.0	106	0.00
80	T	Bis(2-ethylhexyl)phthalate	40.000	38.001	5.0	110	0.00
81	T	3,3-Dichlorobenzidine	40.000	38.047	4.9	114	0.00
82	T	Benzo[a]anthracene	40.000	40.480	-1.2	115	0.00
83	T	Chrysene	40.000	39.563	1.1	115	0.00
84	I	Perylene-d12 ISTD	40.000	40.000	0.0	130	0.00
85	C	DI-N-OCTYLPHTHALATE	40.000	35.154	12.1	114	0.00
86	T	Benzo[b]fluoranthene	40.000	37.698	5.8	126	0.00
87	T	Benzo[k]fluoranthene	40.000	40.329	-0.8	126	0.00
88	C	BENZO[A]PYRENE	40.000	40.410	-1.0	130	0.00
89	T	Indeno(1,2,3-c,d)pyrene	40.000	44.590	-11.5	140	0.00
90	T	Dibenzo[a,h]anthracene	40.000	44.419	-11.0	139	0.00
91	T	Benzo[g,h,i]perylene	40.000	46.856	-17.1	148	0.00

Evaluate Continuing Calibration Report

Data Path : P:\SVOC\2\data\130408\
Data File : 13040805.D
Acq On : 8 Apr 2013 1:56 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 09 09:12:47 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	Amount	Calc.	%Dev Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040805.D
Acq On : 8 Apr 2013 1:56 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 09 09:12:47 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.277	152	1790073	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.073	136	6522831	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.327	164	3416411	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.108	188	4650713	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.686	240	2553112	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.166	264	1759407	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.544	112	4516144	69.29	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 173.22%#			
5) Phenol-d6 Acid SS 2	4.921	99	5479068	75.72	mg/L	0.00
Spiked Amount 40.000	Range 31 - 109		Recovery = 189.30%#			
22) Nitrobenzene-d5 BN SS 1	6.139	82	2263413	34.00	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 170.00%#			
42) 2-Fluorobiphenyl BN SS 2	8.527	172	4609735	38.09	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 190.45%#			
60) 2,4,6-Tribromophenol A...	10.304	141	389793	77.79	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 194.48%#			
77) Terphenyl-d14 BN SS 3	13.131	244	3128408	36.09	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 180.45%#			
Target Compounds						Qvalue
2) Pyridine	1.834	79	2949487	34.83	mg/L	97
3) N-Nitrosodimethylamine	1.849	74	1720214	33.87	mg/L	99
6) Benzaldehyde	4.651	77	670068	44.38	mg/L	99
7) Aniline	4.882	93	3707973	36.94	mg/L	99
8) PHENOL	4.935	94	3062816	37.13	mg/L	96
9) Bis(2-chloroethyl)ether	5.017	93	2662797	38.18	mg/L	98
10) 2-Chlorophenol	5.027	128	2505707	35.02	mg/L	99
11) n-Decane	5.137	43	2069176	36.02	mg/L	99
12) 1,4'-DICHLOROBENZENE	5.306	146	2667958	39.83	mg/L	100
13) 1,3'-Dichlorobenzene	5.224	146	2837721	35.60	mg/L	100
14) 1,2'-Dichlorobenzene	5.571	146	2759552	36.30	mg/L	99
15) 2-Methylphenol	5.778	107	1992208	35.90	mg/L	100
16) bis(2-chloroisopropyl)...	5.802	45	3209794	35.64	mg/L	98
17) 3,4-Methylphenol	6.014	107	2247369	36.53	mg/L	99
18) Acetophenone	5.942	105	3433563	36.53	mg/L	99
19) N-Nitrosodi-n-propyl a...	6.023	70	1651880	35.01	mg/L	92
20) Hexachloroethane	5.995	117	898220	39.36	mg/L	100
23) Nitrobenzene	6.168	77	2357945	33.68	mg/L	100
24) Isophorone	6.510	82	5023263	36.22	mg/L	99
25) 2-NITROPHENOL	6.601	139	1183033	34.03	mg/L	99
26) 2,4-dimethylphenol	6.731	122	2229400	34.87	mg/L	99
27) Bis(2-chloroethoxy)met...	6.861	93	3384518	35.84	mg/L	100
28) 2,4-DICHLOROPHENOL	6.934	162	2055324	37.48	mg/L	100
29) 1,2,4-Trichlorobenzene	7.030	180	2273971	35.74	mg/L	100
30) Naphthalene`	7.102	128	6507813	39.19	mg/L	100
31) 4-Chloroaniline	7.232	127	2928879	37.39	mg/L	99
32) HEXACHLOROBUTADIENE`	7.367	225	1201684	40.12	mg/L	99
33) e-Caprolactam	7.723	55	938967	34.79	mg/L	89
34) 4-CHLORO-3-METHYLPHENOL	7.926	107	1979718	37.52	mg/L	99

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040805.D
Acq On : 8 Apr 2013 1:56 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 09 09:12:47 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

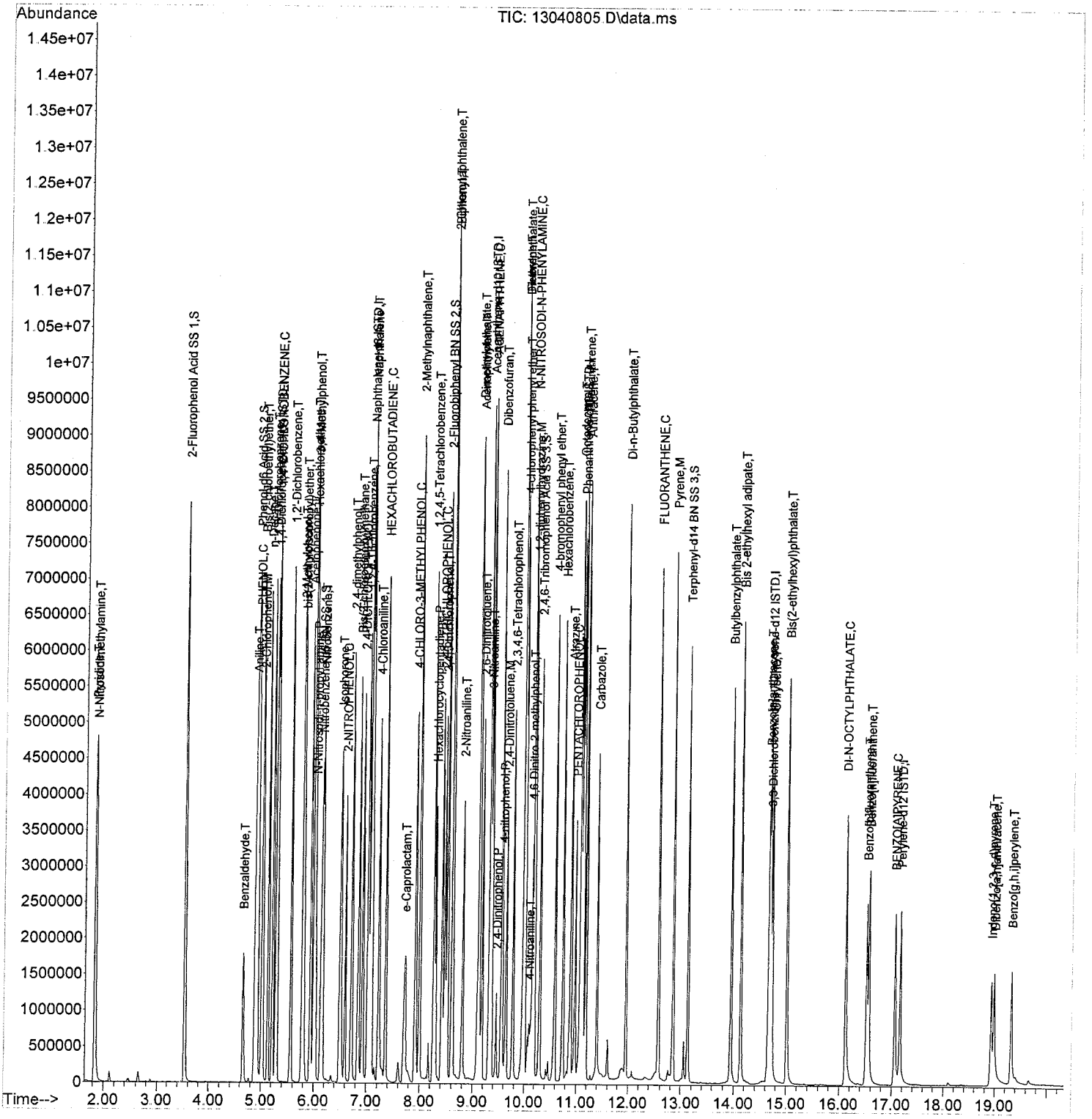
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2-Methylnaphthalene	8.003	142	4477528	39.47	mg/L		100
36) Biphenyl	8.624	154	4338910	41.00	mg/L		100
37) 1,2,4,5-Tetrachloroben...	8.272	216	2134734	36.56	mg/L		100
39) Hexachlorocyclopentadiene	8.301	237	713933	32.45	mg/L		99
40) 2,4,6-TRICHLOROPHENOL	8.426	198	1409678	40.32	mg/L		97
41) 2,4,5-trichlorophenol	8.474	196	1362908	38.82	mg/L		99
43) 2-Chloronaphthalene	8.614	162	3564474	38.21	mg/L		100
44) 2-Nitroaniline	8.816	65	1098947	32.25	mg/L		98
45) 3-Nitroaniline	9.341	138	643069	30.18	mg/L		98
46) 4-Nitroaniline	10.092	138	551492m	33.57	mg/L		
47) Dimethylphthalate	9.120	163	4532854	37.52	mg/L		100
48) 2,6-Dinitrotoluene	9.187	165	1016906	33.97	mg/L		99
49) Acenaphthylene	9.134	152	5977910	38.15	mg/L		100
50) ACENAPHTHENE	9.370	154	3706274	39.07	mg/L		100
51) 2,4-Dinitrophenol	9.457	184	227389	24.77	mg/L		98
52) 4-nitrophenol	9.577	65	474030	33.28	mg/L	#	82
53) 2,4-Dinitrotoluene	9.654	165	1305475	35.74	mg/L		99
54) Dibenzofuran	9.563	168	5542777	38.57	mg/L		98
55) 2,3,4,6-Tetrachlorophenol	9.784	232	1013927	37.83	mg/L		99
56) Diethylphthalate	9.991	149	3750099	39.29	mg/L		100
57) 4-chlorophenyl phenyl ...	10.015	204	2204767	38.49	mg/L		99
58) Fluorene	9.982	166	3724327	39.47	mg/L		100
59) Atrazine	10.897	200	1053963	39.50	mg/L		97
62) 4,6-Dinitro-2-methylph...	10.145	198	430331	29.07	mg/L		97
63) N-NITROSODI-N-PHENYLAMINE	10.179	169	3554546	37.60	mg/L		100
64) 1,2-diphenylhydrazine	10.203	77	4198343	36.64	mg/L		98
65) 4-bromophenyl phenyl e...	10.593	250	1362508	36.34	mg/L		99
66) Hexachlorobenzene	10.747	142	510156	39.89	mg/L		98
67) PENTACHLOROPHENOL	10.978	266	667032	38.49	mg/L		100
68) Octadecane	11.075	57	2361949	35.48	mg/L		98
69) Phenanthrene	11.137	178	5272464	37.74	mg/L		100
70) Anthracene	11.190	178	4971627	35.92	mg/L		100
71) Carbazole	11.402	167	3230871	34.14	mg/L		100
72) Di-n-Butylphthalate	11.961	149	6393772	39.25	mg/L		100
73) FLUORANTHENE	12.572	202	4635015	39.92	mg/L		99
75) Pyrene	12.852	202	4564879	35.19	mg/L		100
78) Butylbenzylphthalate	13.949	149	2233375	40.10	mg/L		98
79) Bis 2-ethylhexyl adipate	14.137	129	2172193	35.99	mg/L		99
80) Bis(2-ethylhexyl)phtha...	15.014	149	3014298	38.00	mg/L		100
81) 3,3-Dichlorobenzidine	14.696	252	456886	38.05	mg/L		98
82) Benzo[a]anthracene	14.657	228	2943395	40.48	mg/L		100
83) Chrysene	14.725	228	2573050	39.56	mg/L		100
85) DI-N-OCTYLPHTHALATE	16.116	149	3879897	35.15	mg/L		98
86) Benzo[b]fluoranthene	16.521	252	2033365	37.70	mg/L		100
87) Benzo[k]fluoranthene	16.564	252	2125880	40.33	mg/L		100
88) BENZO[A]PYRENE	17.060	252	1871976	40.41	mg/L		99
89) Indeno(1,2,3-c,d)pyrene	18.928	276	1158288	44.59	mg/L		97
90) Dibenzo[a,h]anthracene	18.986	278	1332869	44.42	mg/L		100
91) Benzo[g,h,i]perylene	19.319	276	1407842	46.86	mg/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040805.D
Acq On : 8 Apr 2013 1:56 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 09 09:12:47 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

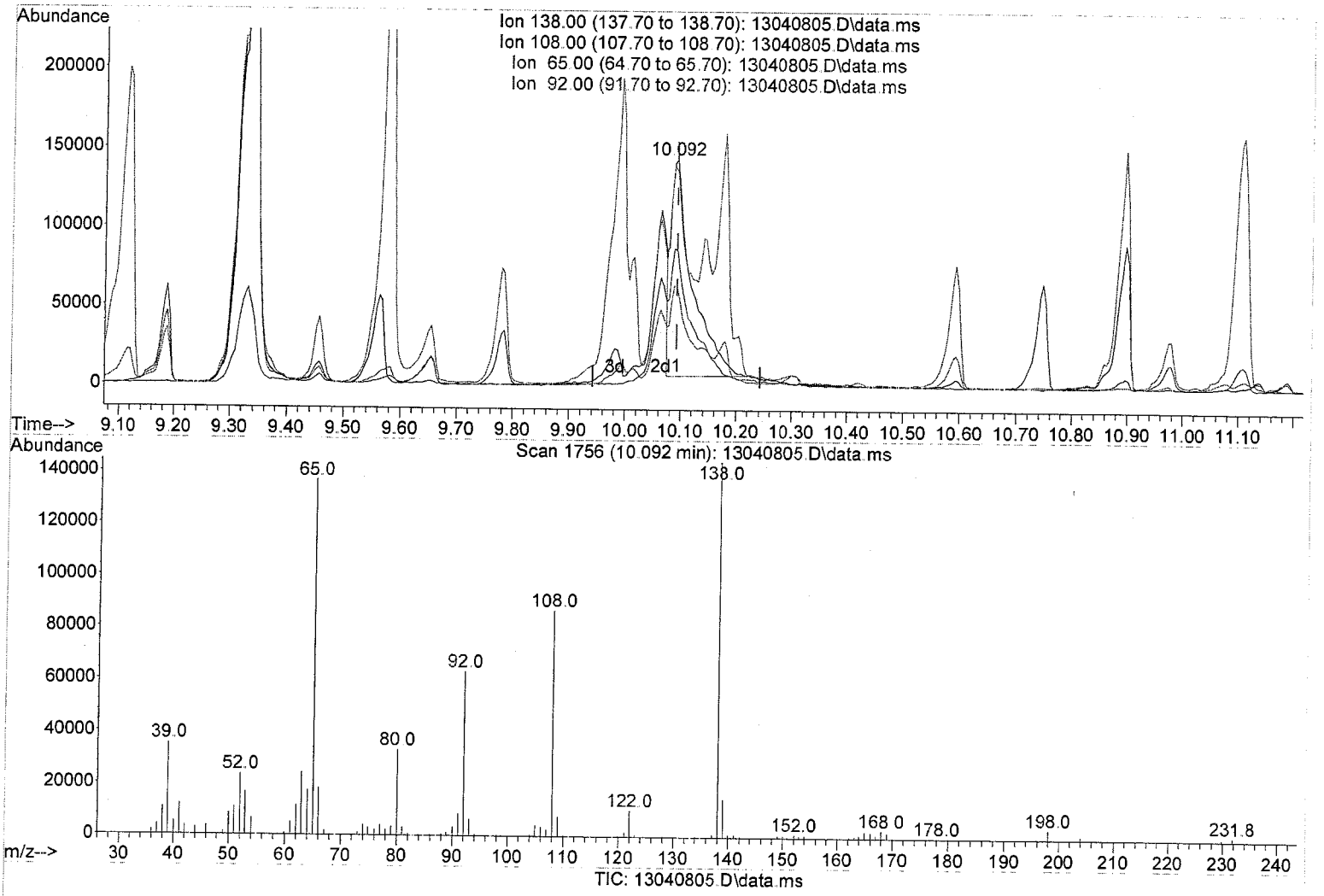


L_SVOC.M Tue Apr 09 09:15:51 2013 Page: 3

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130408\
Data File : 13040805.D
Acq On : 8 Apr 2013 1:56 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 09 09:12:09 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



(46) 4-Nitroaniline (T)

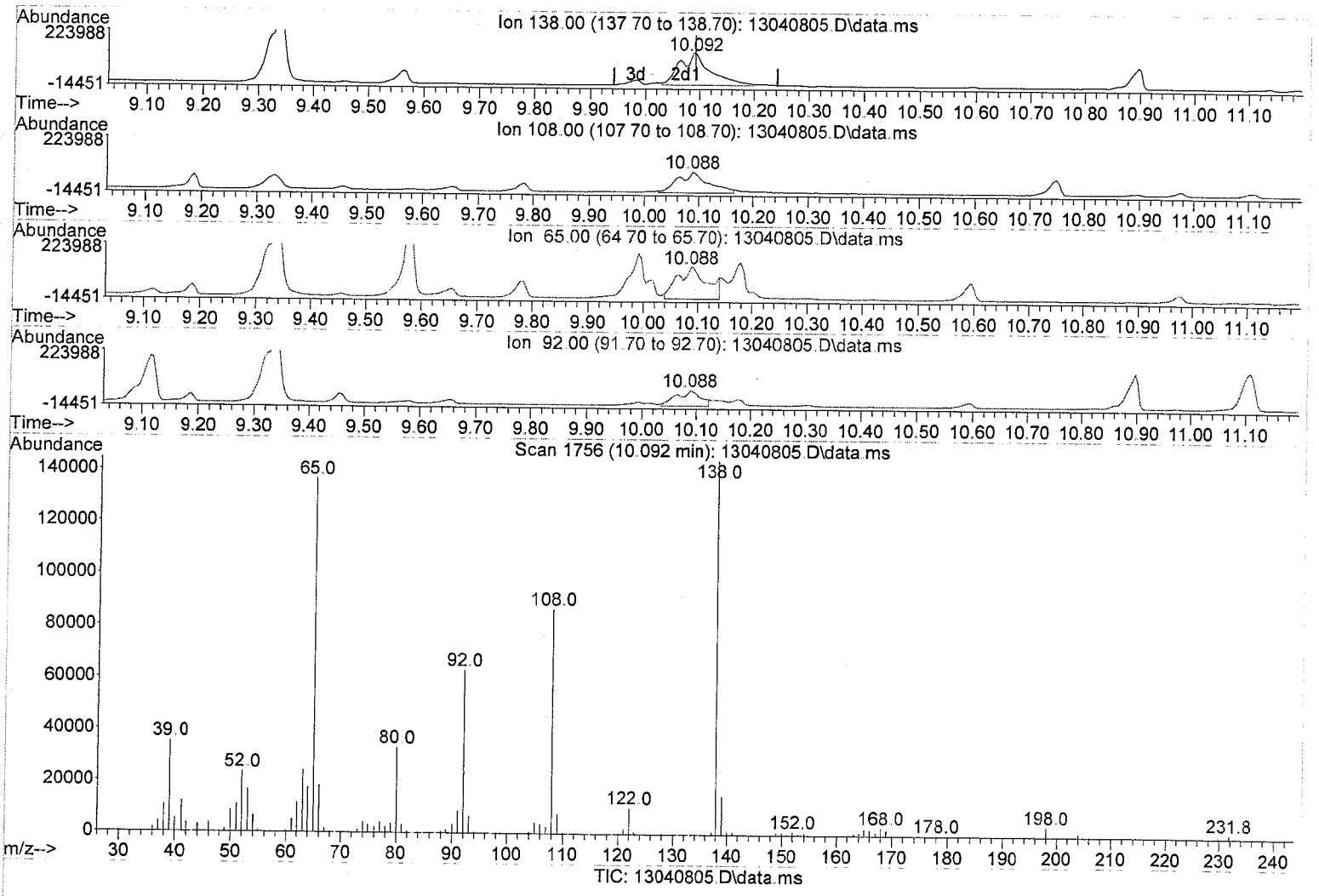
10.092min (0.000) 23.15 mg/L

response 366019

Ion	Exp%	Act%
138.00	100	100
108.00	62.80	61.71
65.00	62.60	79.16
92.00	41.70	45.40

Data Path : P:\SVOC\2\data\130408\
Data File : 13040805.D
Acq On : 8 Apr 2013 1:56 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 09 09:12:09 2013
Quant Method : P:\SVOC\2\data\130408\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



(46) 4-Nitroaniline (T)

10.092min (0.000) 33.57 mg/L m

response 551492

Ion	Exp%	Act%
138.00	100	100
108.00	62.80	63.88
65.00	62.60	96.44#
92.00	41.70	37.26

BW

4/9.

Injection Log

Directory: P:\SVOC\2\data\130409

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	13040901.D	1.	ULTRA Tune Solution@50ppm	ID#A2353 EX 04/30/13 BW	9 Apr 2013 09:05
2	2	13040902.D	1.	CCV SVOA 40ppm	ID#A2352 EX 04/22/13 BW	9 Apr 2013 09:33
3	1	13040903.D	1.	ULTRA Tune Solution@50ppm	ID#A2353 EX 04/30/13 BW	9 Apr 2013 13:07
4	2	13040904.D	1.	CCV SVOA 40ppm	ID#A2352 EX 04/22/13 BW	9 Apr 2013 13:34
5	3	13040905.D	1.	45493-1-BLK	Batch 45493 1000mL	9 Apr 2013 14:14
6	4	13040906.D	1.	45493-1-BKS	Batch 45493 1000mL	9 Apr 2013 14:41
7	5	13040907.D	1.	45493-1-BSD	Batch 45493 1000mL	9 Apr 2013 15:08
8	6	13040908.D	1.	45492-1-BLK	Batch 45492 30.12g	9 Apr 2013 15:36
9	7	13040909.D	1.	45492-1-BKS	Batch 45492 30.07g	9 Apr 2013 16:03
10	8	13040910.D	1.	45492-1-BSD	Batch 45492 30.02g	9 Apr 2013 16:31
11	9	13040911.D	1.	13040516-004 S	Batch 45492 30.12g	9 Apr 2013 16:58
12	10	13040912.D	1.	13040516-004 SD	Batch 45492 29.99g	9 Apr 2013 17:26
13	11	13040913.D	1.	13040516-004	Batch 45492 30.45g	9 Apr 2013 17:54
14	12	13040914.D	1.	13040516-001	Batch 45492 30.29g	9 Apr 2013 18:23
15	13	13040915.D	1.	13040516-002	Batch 45492 30.36g	9 Apr 2013 18:51
16	14	13040916.D	1.	13040516-003	Batch 45492 29.63g	9 Apr 2013 19:19
17	15	13040917.D	1.	13040516-005	Batch 45492 30.09g	9 Apr 2013 19:48
18	16	13040918.D	1.	13040801-001	Batch 45492 30.12g	9 Apr 2013 20:16
19	17	13040919.D	1.	13040801-002	Batch 45492 30.02g	9 Apr 2013 20:45
20	18	13040920.D	1.	13040801-003	Batch 45492 29.91g	9 Apr 2013 21:14
21	19	13040921.D	1.	13040801-004	Batch 45492 30.25g	9 Apr 2013 21:43
22	20	13040922.D	1.	13040527-001	Batch 45492 30.33g	9 Apr 2013 22:12
23	21	13040923.D	1.	13040809-001	Batch 45492 30.13g	9 Apr 2013 22:41
24	22	13040924.D	1.	13040808-002	Batch 45493 1000mL F.V.=5mL 20D	9 Apr 2013 23:10

45492 / 105245 BW 4/10

45493 / 105293

Response Factor Report Lean Mean Semi Machine

Method Path : P:\SVOC\2\data\130409\
Method File : L_SVOC.M
Title : ALS8270.M
Last Update : Mon Apr 08 14:16:29 2013
Response Via : Initial Calibration

Calibration Files
C0.5=13032712.D C2 =13032711.D C5 =13032710.D C10 =13032709.D C20 =13032708.D C30 =13032707.D C40 =13040805.D
C50 =13032705.D C80 =13032704.D

		Compound	C0.5	C2	C5	C10	C20	C30	C40	C50	C80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------	ISTD	----------								
2)	T	Pyridine	2.165	1.993	1.996	1.957	1.905	1.784	1.750	1.791	1.689	1.892	8.00
3)	T	N-Nitrosodimet...	1.350	1.245	1.238	1.190	1.137	1.059	1.022	1.031	0.940	1.135	11.64
4)	S	2-Fluorophenol...	1.697	1.646	1.668	1.598	1.498	1.370	1.282	1.263	1.087	1.456	14.81
5)	S	Phenol-d6 Acid...	2.166	2.077	2.021	1.895	1.781	1.650	1.570	1.546	1.346	1.784	15.52
6)	T	Benzaldehyde			0.282	0.262	0.285	0.294	0.328	0.359	0.407	0.317	16.23
7)	T	Aniline	2.285	2.280	2.483	2.420	2.354	2.188	2.130	2.129	1.919	2.243	7.68
8)	C	PHENOL	2.461	2.301	2.249	2.137	2.021	1.895	1.775	1.758	1.518	2.013	15.06
9)	T	Bis(2-chloroet...	2.191	2.032	1.955	1.868	1.767	1.605	1.497	1.480	1.317	1.746	16.64
10)	M	2-Chlorophenol	1.837	1.781	1.745	1.679	1.637	1.521	1.452	1.457	1.280	1.599	11.46
11)	T	n-Decane	2.095	1.882	1.795	1.655	1.502	1.334	1.207	1.158	0.953	1.509	25.02
12)	C	1,4'-DICHLOROB...	2.105	1.856	1.837	1.761	1.680	1.560	1.469	1.428	1.227	1.658	16.04
13)	T	1,3'-Dichlorob...	2.275	1.974	1.927	1.862	1.782	1.665	1.587	1.578	1.380	1.781	14.89
14)	T	1,2'-Dichlorob...	2.101	1.887	1.884	1.797	1.721	1.601	1.526	1.490	1.281	1.699	14.71
15)	T	2-Methylphenol	1.418	1.333	1.346	1.329	1.288	1.224	1.137	1.123	0.961	1.240	11.55
16)	T	bis(2-chlorois...	3.332	2.963	2.869	2.695	2.410	2.134	1.869	1.746	1.340	2.373	27.42
17)	T	3,4-Methylphenol	2.042	1.911	1.890	1.835	1.526	1.327	1.281	1.363	1.219	1.599	19.95
18)	T	Acetophenone	2.440	2.265	2.260	2.187	2.123	1.986	1.930	1.940	1.772	2.100	9.97
19)	P	N-Nitrosodi-n-...	1.294	1.199	1.144	1.067	0.989	0.959	0.959	0.979	0.899	1.054	12.49
20)	T	Hexachloroethane	0.732	0.675	0.657	0.634	0.558	0.504	0.487	0.508	0.453	0.579	16.97
21)	I	Naphthalene-d8 ISTD	----------	ISTD	----------								
22)	S	Nitrobenzene-d...	0.428	0.427	0.438	0.429	0.418	0.402	0.390	0.390	0.352	0.408	6.74
23)	T	Nitrobenzene	0.503	0.474	0.476	0.455	0.431	0.408	0.390	0.383	0.345	0.429	12.06
24)	T	Isophorone	0.977	0.910	0.924	0.865	0.838	0.805	0.779	0.796	0.762	0.851	8.66
25)	C	2-NITROPHENOL	0.148	0.188	0.226	0.234	0.238	0.232	0.224	0.226	0.203	0.213	13.74
26)	T	2,4-dimethylph...	0.420	0.417	0.430	0.411	0.394	0.378	0.366	0.368	0.344	0.392	7.57
27)	T	Bis(2-chloroet...	0.701	0.632	0.631	0.595	0.574	0.543	0.527	0.528	0.482	0.579	11.70
28)	C	2,4-DICHLOROPH...	0.323	0.344	0.368	0.357	0.350	0.336	0.327	0.327	0.294	0.336	6.49
29)	T	1,2,4-Trichlor...	0.483	0.434	0.430	0.409	0.393	0.366	0.349	0.343	0.305	0.390	14.12
30)	T	Naphthalene	1.498	1.322	1.311	1.239	1.145	1.048	0.994	0.968	0.842	1.152	18.08
31)	T	4-Chloroaniline	0.490	0.474	0.521	0.523	0.506	0.474	0.461	0.460	0.415	0.480	7.15
32)	C	HEXACHLOROBUTA...	0.261	0.244	0.236	0.222	0.205	0.191	0.180	0.175	0.155	0.208	17.06
33)	T	e-Caprolactam			0.185	0.176	0.184	0.164	0.158	0.162	0.151	0.169	7.76
34)	C	4-CHLORO-3-MET...	0.287	0.327	0.355	0.355	0.345	0.322	0.315	0.318	0.287	0.324	7.87
35)	T	2-Methylnaphth...	0.986	0.898	0.899	0.840	0.783	0.714	0.677	0.665	0.592	0.784	16.71
36)	T	Biphenyl	1.168	1.023	1.003	0.904	0.783	0.695	0.634	0.596	0.486	0.810	28.11
37)	T	1,2,4,5-Tetrac...	0.447	0.396	0.398	0.386	0.359	0.330	0.316	0.312	0.279	0.358	14.84

Method Path : P:\SVOC\2\data\130409\
Method File : L_SVOC.M
Title : ALS8270.M

38)	I	Acenaphthene-d10 ISTD ----------ISTD----------											
39)	P	Hexachlorocycl...	0.111	0.145	0.191	0.235	0.254	0.254	0.254	0.258	0.225	0.214	25.18
40)	C	2,4,6-TRICHLOR...	0.298	0.376	0.429	0.441	0.447	0.433	0.427	0.431	0.402	0.409	11.52
41)	T	2,4,5-trichlor...	0.315	0.387	0.437	0.474	0.464	0.451	0.435	0.415	0.321	0.411	14.27
42)	S	2-Fluorobiphen...	1.974	1.771	1.738	1.661	1.552	1.463	1.385	1.345	1.149	1.560	16.23
43)	T	2-Chloronaphth...	1.742	1.587	1.548	1.433	1.249	1.144	1.055	1.004	0.838	1.289	23.66
44)	T	2-Nitroaniline		0.356	0.398	0.421	0.415	0.397	0.384	0.386	0.341	0.387	7.10
45)	T	3-Nitroaniline		0.254	0.257	0.275	0.231	0.239	0.240	0.261	0.233	0.249	6.22
46)	T	4-Nitroaniline			0.191	0.178	0.183	0.173	0.188	0.221	0.222	0.194	10.37
47)	T	Dimethylphthalate	1.900	1.761	1.765	1.715	1.592	1.473	1.371	1.313	1.051	1.549	17.46
48)	T	2,6-Dinitrotol...		0.282	0.337	0.358	0.361	0.351	0.338	0.336	0.258	0.328	11.40
49)	T	Acenaphthylene	2.493	2.397	2.386	2.269	2.099	1.943	1.773	1.691	1.383	2.048	18.45
50)	C	ACENAPHTHENE	1.504	1.360	1.400	1.348	1.238	1.151	1.082	1.059	0.888	1.226	16.03
51)	P	2,4-Dinitrophenol			0.026	0.064	0.096	0.100	0.114	0.129	0.124	0.093	39.33
52)	P	4-nitrophenol		0.092	0.129	0.176	0.169	0.154	0.160	0.172	0.137	0.149	19.02
53)	M	2,4-Dinitrotol...		0.308	0.385	0.422	0.441	0.421	0.420	0.430	0.381	0.401	10.74
54)	T	Dibenzofuran	2.346	2.118	2.107	2.024	1.854	1.706	1.638	1.621	1.418	1.870	15.99
55)	T	2,3,4,6-Tetrac...		0.209	0.274	0.314	0.329	0.314	0.308	0.315	0.286	0.294	13.14
56)	T	Diethylphthalate		1.765	1.676	1.512	1.317	1.197	1.067	1.031	0.777	1.293	26.36
57)	T	4-chlorophenyl...	0.982	0.866	0.859	0.828	0.772	0.706	0.657	0.617	0.494	0.753	19.91
58)	T	Fluorene	1.680	1.545	1.524	1.457	1.270	1.156	1.067	1.035	0.883	1.291	21.20
59)	T	Atrazine		0.343	0.371	0.364	0.342	0.321	0.305	0.306	0.242	0.324	12.76
60)	S	2,4,6-Tribromo...		0.055	0.067	0.071	0.066	0.060	0.057	0.056	0.048	0.060	12.41
61)	I	Phenanthrene-d10 ISTD ----------ISTD----------											
62)	T	4,6-Dinitro-2-...			0.053	0.095	0.117	0.121	0.125	0.132	0.105	0.107	25.15
63)	C	N-NITROSODI-N-...	1.097	1.035	1.009	0.971	0.882	0.859	0.791	0.759	0.665	0.896	15.90
64)	M	1,2-diphenylhy...		1.142	1.257	1.177	1.060	1.024	0.962	0.916	0.774	1.039	14.98
65)	T	4-bromophenyl ...	0.369	0.356	0.349	0.337	0.316	0.310	0.297	0.291	0.277	0.322	9.89
66)	T	Hexachlorobenzene	0.159	0.143	0.143	0.132	0.121	0.115	0.108	0.105	0.094	0.124	17.11
67)	C	PENTACHLOROPHENOL		0.059	0.096	0.139	0.149	0.145	0.148	0.155	0.148	0.130	26.20
68)	T	Octadecane	0.829	0.832	0.843	0.764	0.646	0.614	0.542	0.503	0.433	0.667	23.39
69)	T	Phenanthrene	1.444	1.262	1.286	1.284	1.198	1.138	1.111	1.087	1.003	1.201	11.05
70)	T	Anthracene	1.384	1.273	1.294	1.335	1.224	1.143	1.070	1.045	0.947	1.191	12.40
71)	T	Carbazole	1.109	1.066	1.092	1.109	0.880	0.845	0.740	0.776	0.713	0.926	18.13
72)	T	Di-n-Butylphth...	1.700	1.734	1.834	1.773	1.589	1.469	1.358	1.315	1.158	1.548	15.15
73)	C	FLUORANTHENE	1.018	0.982	1.054	1.165	1.083	0.943	0.950	0.941	0.852	0.999	9.28
74)	I	Chrysene-d12 ISTD ----------ISTD----------											
75)	M	Pyrene	2.335	2.011	2.292	1.912	1.973	2.077	1.935	1.961	1.795	2.032	8.70
76)	M	Benzidine			0.053	0.053	0.011	0.006	0.017	0.033	0.086	0.037#	77.79
77)	S	Terphenyl-d14 ...	1.492	1.293	1.500	1.296	1.342	1.419	1.312	1.336	1.232	1.358	6.81
78)	T	Butylbenzylpht...	0.701	0.722	0.991	0.862	0.926	0.964	0.917	0.918	0.852	0.873	11.58
79)	T	Bis 2-ethylhex...	0.598	0.717	1.025	0.851	0.943	1.009	0.922	0.923	0.826	0.868	15.95
80)	T	Bis(2-ethylhex...	0.759	0.941	1.307	1.148	1.254	1.286	1.237	1.228	1.123	1.143	15.91
81)	T	3,3-Dichlorobe...	0.199	0.265	0.270	0.240	0.188	0.174	0.180	0.196	0.184	0.211	17.86
82)	T	Benzo[a]anthra...	1.178	1.041	1.089	1.169	1.163	1.137	1.156	1.192	1.127	1.139	4.22

Method Path : P:\SVOC\2\data\130409\
Method File : L_SVOC.M
Title : ALS8270.M

83)	T	Chrysene	1.076	0.999	1.017	1.042	1.029	1.002	1.011	1.039	0.954	1.019	3.33
84)	I	Perylene-d12 ISTD	----------ISTD----------										
85)	C	DI-N-OCTYLPHTH...			1.933	1.755	2.331	2.470	2.520	2.707	2.726	2.349	15.93
86)	T	Benzo[b]fluora...	0.656	0.855	0.983	1.035	1.134	1.215	1.193	1.317	1.276	1.074	20.02
87)	T	Benzo[k]fluora...	1.032	1.075	1.273	1.194	1.278	1.230	1.242	1.248	1.213	1.198	7.25
88)	C	BENZO[A]PYRENE	0.588	0.721	0.839	0.961	1.023	1.017	1.065	1.093	1.031	0.926	18.75
89)	T	Indeno(1,2,3-c...	0.249	0.381	0.424	0.616	0.578	0.601	0.610	0.601	0.538	0.511	25.46
90)	T	Dibenzo[a,h]an...	0.283	0.483	0.516	0.684	0.632	0.711	0.709	0.699	0.608	0.592	24.09
91)	T	Benzo[g,h,i]pe...	0.418	0.607	0.638	0.785	0.701	0.726	0.705	0.694	0.591	0.652	16.36

(#) = Out of Range

Calibration Report Lean Mean Semi Machine

Method Path : P:\SVOC\2\data\130409\
Method File : L_SVOC.M
Title : ALS8270.M
Last Update : Mon Apr 08 14:16:29 2013
Response Via : Initial Calibration

Calibration Files
C0.5=13032712 C2 =13032711 C5 =13032710 C10 =13032709 C20 =13032708 C30 =13032707
C40 =13040805 C50 =13032705 C80 =13032704

		Compound	Fit	Constant	Linear	Quad	RSD/Cf
1)	I	1,4-Dichlorobenz...	----------	ISTD	----------		
2)	T	Pyridine	Avg	-----	1.8923	-----	0.0800
3)	T	N-Nitrosodimethy...	Avg	-----	1.1347	-----	0.1164
4)	S	2-Fluorophenol A...	Avg	-----	1.4564	-----	0.1481
5)	S	Phenol-d6 Acid SS 2	QuadF	-----	1.8625	-0.1297	0.9996
6)	T	Benzaldehyde	QuadF	-----	0.2483	0.0803	0.9993
7)	T	Aniline	Avg	-----	2.2431	-----	0.0768
8)	C	PHENOL	QuadF	-----	2.1267	-0.3052	0.9996
9)	T	Bis(2-chloroethy...	QuadF	-----	1.7844	-0.2369	0.9991
10)	M	2-Chlorophenol	Avg	-----	1.5989	-----	0.1146
11)	T	n-Decane	QuadF	-----	1.5606	-0.3077	0.9983
12)	C	1,4'-DICHLOROBEN...	QuadF	-----	1.7663	-0.2707	0.9998
13)	T	1,3'-Dichloroben...	Avg	-----	1.7812	-----	0.1489
14)	T	1,2'-Dichloroben...	Avg	-----	1.6987	-----	0.1471
15)	T	2-Methylphenol	Avg	-----	1.2399	-----	0.1155
16)	T	bis(2-chloroisop...	QuadF	-----	2.5651	-0.6201	0.9976
17)	T	3,4-Methylphenol	QuadF	-----	1.5077	-0.1456	0.9960
18)	T	Acetophenone	Avg	-----	2.1004	-----	0.0997
19)	P	N-Nitrosodi-n-pr...	Avg	-----	1.0544	-----	0.1249
20)	T	Hexachloroethane	QuadF	-----	0.5653	-0.0563	0.9981
21)	I	Naphthalene-d8 ISTD	----------	ISTD	----------		
22)	S	Nitrobenzene-d5 ...	Avg	-----	0.4083	-----	0.0674
23)	T	Nitrobenzene	Avg	-----	0.4293	-----	0.1206
24)	T	Isophorone	Avg	-----	0.8506	-----	0.0866
25)	C	2-NITROPHENOL	Avg	-----	0.2132	-----	0.1374
26)	T	2,4-dimethylphenol	Avg	-----	0.3921	-----	0.0757
27)	T	Bis(2-chloroetho...	Avg	-----	0.5792	-----	0.1170
28)	C	2,4-DICHLOROPHENOL	Avg	-----	0.3363	-----	0.0649
29)	T	1,2,4-Trichlorob...	Avg	-----	0.3902	-----	0.1412
30)	T	Naphthalene`	QuadF	-----	1.1904	-0.1757	0.9995
31)	T	4-Chloroaniline	Avg	-----	0.4803	-----	0.0715
32)	C	HEXACHLOROBUTADI...	QuadF	-----	0.2128	-0.0291	0.9995
33)	T	e-Caprolactam	QuadF	-----	0.1765	-0.0127	0.9986
34)	C	4-CHLORO-3-METHY...	Avg	-----	0.3236	-----	0.0787
35)	T	2-Methylnaphthalene	QuadF	-----	0.7993	-0.1051	0.9993
36)	T	Biphenyl	QuadF	-----	0.8253	-0.1720	0.9980
37)	T	1,2,4,5-Tetrachl...	Avg	-----	0.3581	-----	0.1484
38)	I	Acenaphthene-d10...	----------	ISTD	----------		
39)	P	Hexachlorocyclop...	QuadF	-----	0.2781	-0.0254	0.9983
40)	C	2,4,6-TRICHLOROP...	Avg	-----	0.4093	-----	0.1152
41)	T	2,4,5-trichlorop...	Avg	-----	0.4111	-----	0.1427
42)	S	2-Fluorobiphenyl...	QuadF	-----	1.6612	-0.2565	0.9999
43)	T	2-Chloronaphthalene	QuadF	-----	1.3294	-0.2484	0.9989
44)	T	2-Nitroaniline	QuadF	-----	0.4375	-0.0477	0.9995
45)	T	3-Nitroaniline	QuadF	-----	0.2581	-0.0115	0.9959
46)	T	4-Nitroaniline	QuadF	-----	0.1692	0.0276	0.9944
47)	T	Dimethylphthalate	QuadF	-----	1.7361	-0.3430	0.9998
48)	T	2,6-Dinitrotoluene	QuadF	-----	0.4164	-0.0776	0.9978
49)	T	Acenaphthylene	QuadF	-----	2.2520	-0.4377	0.9995
50)	C	ACENAPHTHENE	QuadF	-----	1.3237	-0.2181	0.9996
51)	P	2,4-Dinitrophenol	QuadF	-----	0.0989	0.0138	0.9905
52)	P	4-nitrophenol	QuadF	-----	0.1862	-0.0233	0.9924
53)	M	2,4-Dinitrotoluene	QuadF	-----	0.4634	-0.0400	0.9988

Method Path : P:\SVOC\2\data\130409\
Method File : L_SVOC.M
Title : ALS8270.M

54)	T	Dibenzofuran	QuadF	-----	1.9308	-0.2573	0.9995
55)	T	2,3,4,6-Tetrachl...	QuadF	-----	0.3375	-0.0251	0.9993
56)	T	Diethylphthalate	QuadF	-----	1.4494	-0.3379	0.9985
57)	T	4-chlorophenyl p...	QuadF	-----	0.8364	-0.1722	0.9998
58)	T	Fluorene	QuadF	-----	1.3263	-0.2245	0.9987
59)	T	Atrazine	QuadF	-----	0.3797	-0.0681	0.9985
60)	S	2,4,6-Tribromoph...	QuadF	-----	0.0688	-0.0052	0.9994
61)	I	Phenanthrene-d10...	----------	ISTD	----------		
62)	T	4,6-Dinitro-2-me...	QuadF	-----	0.1383	-0.0151	0.9889
63)	C	N-NITROSODI-N-PH...	QuadF	-----	0.9468	-0.1422	0.9996
64)	M	1,2-diphenylhydr...	QuadF	-----	1.1657	-0.1967	0.9998
65)	T	4-bromophenyl ph...	Avg	-----	0.3225	-----	0.0989
66)	T	Hexachlorobenzene	QuadF	-----	0.1260	-0.0160	0.9995
67)	C	PENTACHLOROPHENOL	QuadF	-----	0.1486	0.0004	0.9988
68)	T	Octadecane	QuadF	-----	0.6887	-0.1309	0.9970
69)	T	Phenanthrene	Avg	-----	1.2015	-----	0.1105
70)	T	Anthracene	Avg	-----	1.1906	-----	0.1240
71)	T	Carbazole	QuadF	-----	0.8931	-0.0928	0.9961
72)	T	Di-n-Butylphthalate	QuadF	-----	1.6424	-0.2458	0.9990
73)	C	FLUORANTHENE	Avg	-----	0.9985	-----	0.0928
74)	I	Chrysene-d12 ISTD	----------	ISTD	----------		
75)	M	Pyrene	Avg	-----	2.0323	-----	0.0870
76)	M	Benzidine	Avg	-----	0.0370	-----	0.7779
77)	S	Terphenyl-d14 BN...	Avg	-----	1.3579	-----	0.0681
78)	T	Butylbenzylphtha...	Avg	-----	0.8726	-----	0.1158
79)	T	Bis 2-ethylhexyl...	QuadF	-----	1.0407	-0.1055	0.9986
80)	T	Bis(2-ethylhexyl...	QuadF	-----	1.3466	-0.1093	0.9995
81)	T	3,3-Dichlorobenz...	QuadF	-----	0.1916	-0.0036	0.9955
82)	T	Benzo[a]anthracene	Avg	-----	1.1392	-----	0.0422
83)	T	Chrysene	Avg	-----	1.0189	-----	0.0333
84)	I	Perylene-d12 ISTD	----------	ISTD	----------		
85)	C	DI-N-OCTYLPHTHALATE	QuadF	-----	2.3210	0.2142	0.9980
86)	T	Benzo[b]fluorant...	QuadF	-----	1.1712	0.0585	0.9980
87)	T	Benzo[k]fluorant...	Avg	-----	1.1984	-----	0.0725
88)	C	BENZO[A]PYRENE	QuadF	-----	1.0663	-0.0130	0.9988
89)	T	Indeno(1,2,3-c,d...	QuadF	-----	0.6504	-0.0536	0.9986
90)	T	Dibenzo[a,h]anth...	QuadF	-----	0.7652	-0.0748	0.9973
91)	T	Benzo[g,h,i]pery...	QuadF	-----	0.8077	-0.1064	0.9989

Evaluate Continuing Calibration Report

Data Path : P:\SVOC\2\data\130409\
Data File : 13040904.D
Acq On : 9 Apr 2013 1:34 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 09:21:57 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4 ISTD	40.000	40.000	0.0	89	0.00
2	T	Pyridine	40.000	35.164	12.1	84	0.00
3	T	N-Nitrosodimethylamine	40.000	34.605	13.5	85	0.00
4	S	2-Fluorophenol Acid SS 1	80.000	69.697	12.9	88	0.00
5	S	Phenol-d6 Acid SS 2	80.000	75.611	5.5	86	0.00
6	T	Benzaldehyde	40.000	45.028	-12.6	103	0.00
7	T	Aniline	40.000	37.305	6.7	87	0.00
8	C	PHENOL	40.000	37.605	6.0	86	0.00
9	T	Bis(2-chloroethyl)ether	40.000	37.674	5.8	87	0.00
10	M	2-Chlorophenol	40.000	36.111	9.7	88	0.00
11	T	n-Decane	40.000	35.527	11.2	84	0.00
12	C	1,4'-DICHLOROBENZENE	40.000	39.669	0.8	89	0.00
13	T	1,3'-Dichlorobenzene	40.000	36.050	9.9	90	0.00
14	T	1,2'-Dichlorobenzene	40.000	36.354	9.1	90	0.00
15	T	2-Methylphenol	40.000	36.497	8.8	88	0.00
16	T	bis(2-chloroisopropyl)ether	40.000	35.452	11.4	85	0.00
17	T	3,4-Methylphenol	40.000	37.832	5.4	90	0.00
18	T	Acetophenone	40.000	36.724	8.2	88	0.00
19	P	N-Nitrosodi-n-propyl amine	40.000	35.337	11.7	86	0.00
20	T	Hexachloroethane	40.000	40.701	-1.8	94	0.00
21	I	Naphthalene-d8 ISTD	40.000	40.000	0.0	89	0.00
22	S	Nitrobenzene-d5 BN SS 1	40.000	36.967	7.6	86	0.00
23	T	Nitrobenzene	40.000	34.804	13.0	86	0.00
24	T	Isophorone	40.000	36.068	9.8	88	0.00
25	C	2-NITROPHENOL	40.000	41.900	-4.7	89	0.00
26	T	2,4-dimethylphenol	40.000	35.403	11.5	85	0.00
27	T	Bis(2-chloroethoxy)methane	40.000	35.677	10.8	88	0.00
28	C	2,4-DICHLOROPHENOL	40.000	38.658	3.4	89	0.00
29	T	1,2,4-Trichlorobenzene	40.000	36.022	9.9	90	0.00
30	T	Naphthalene`	40.000	39.246	1.9	90	0.00
31	T	4-Chloroaniline	40.000	37.450	6.4	87	0.00
32	C	HEXACHLOROBUTADIENE`	40.000	39.965	0.1	91	0.00
33	T	e-Caprolactam	40.000	36.237	9.4	84	0.01
34	C	4-CHLORO-3-METHYLPHENOL	40.000	38.771	3.1	89	0.00
35	T	2-Methylnaphthalene	40.000	39.409	1.5	90	0.00
36	T	Biphenyl	40.000	40.368	-0.9	93	0.00
37	T	1,2,4,5-Tetrachlorobenzene	40.000	36.652	8.4	93	0.00
38	I	Acenaphthene-d10 ISTD	40.000	40.000	0.0	93	0.00
39	P	Hexachlorocyclopentadiene	40.000	34.177	14.6	80	0.00
40	C	2,4,6-TRICHLOROPHENOL	40.000	42.112	-5.3	94	0.00
41	T	2,4,5-trichlorophenol	40.000	39.849	0.4	88	0.00
42	S	2-Fluorobiphenyl BN SS 2	40.000	38.084	4.8	91	0.00
43	T	2-Chloronaphthalene	40.000	38.173	4.6	92	0.00
44	T	2-Nitroaniline	40.000	35.832	10.4	86	0.00
45	T	3-Nitroaniline	40.000	31.448	21.4#	76	0.00
46	T	4-Nitroaniline	40.000	37.335	6.7	90	0.00

Evaluate Continuing Calibration Report

Data Path : P:\SVOC\2\data\130409\
Data File : 13040904.D
Acq On : 9 Apr 2013 1:34 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 09:21:57 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
47	T	Dimethylphthalate	40.000	37.075	7.3	90	0.00
48	T	2,6-Dinitrotoluene	40.000	38.966	2.6	92	0.00
49	T	Acenaphthylene	40.000	37.667	5.8	91	0.00
50	C	ACENAPHTHENE	40.000	38.139	4.7	92	0.00
51	P	2,4-Dinitrophenol	40.000	36.707	8.2	84	0.00
52	P	4-nitrophenol	40.000	37.640	5.9	90	0.00
53	M	2,4-Dinitrotoluene	40.000	38.952	2.6	92	0.00
54	T	Dibenzofuran	40.000	38.325	4.2	92	0.00
55	T	2,3,4,6-Tetrachlorophenol	40.000	40.768	-1.9	96	0.00
56	T	Diethylphthalate	40.000	38.905	2.7	95	0.00
57	T	4-chlorophenyl phenyl ether	40.000	38.093	4.8	91	0.00
58	T	Fluorene	40.000	39.560	1.1	96	0.00
59	T	Atrazine	40.000	38.480	3.8	93	0.00
60	S	2,4,6-Tribromophenol Acid S	80.000	78.676	1.7	94	0.00
61	I	Phenanthrene-d10 ISTD	40.000	40.000	0.0	93	0.00
62	T	4,6-Dinitro-2-methylphenol	40.000	39.959	0.1	92	0.00
63	C	N-NITROSODI-N-PHENYLAMINE	40.000	37.663	5.8	90	0.00
64	M	1,2-diphenylhydrazine	40.000	37.553	6.1	89	0.00
65	T	4-bromophenyl phenyl ether	40.000	36.845	7.9	93	0.00
66	T	Hexachlorobenzene	40.000	39.766	0.6	94	0.00
67	C	PENTACHLOROPHENOL	40.000	42.526	-6.3	99	0.00
68	T	Octadecane	40.000	34.713	13.2	86	0.00
69	T	Phenanthrene	40.000	37.536	6.2	94	0.00
70	T	Anthracene	40.000	35.961	10.1	93	0.00
71	T	Carbazole	40.000	31.431	21.4#	81	0.00
72	T	Di-n-Butylphthalate	40.000	40.423	-1.1	96	0.00
73	C	FLUORANTHENE	40.000	40.071	-0.2	98	0.00
74	I	Chrysene-d12 ISTD	40.000	40.000	0.0	110	0.00
75	M	Pyrene	40.000	34.467	13.8	99	0.00
76	M	Benzidine	40.000	14.451	63.9#	89	-0.06
77	S	Terphenyl-d14 BN SS 3	40.000	35.093	12.3	100	0.00
78	T	Butylbenzylphthalate	40.000	38.855	2.9	102	0.00
79	T	Bis 2-ethylhexyl adipate	40.000	34.663	13.3	98	0.00
80	T	Bis(2-ethylhexyl)phthalate	40.000	36.382	9.0	101	0.00
81	T	3,3-Dichlorobenzidine	40.000	39.464	1.3	113	0.00
82	T	Benzo[a]anthracene	40.000	40.505	-1.3	110	0.00
83	T	Chrysene	40.000	39.729	0.7	110	0.00
84	I	Perylene-d12 ISTD	40.000	40.000	0.0	133	0.00
85	C	DI-N-OCTYLPHTHALATE	40.000	33.398	16.5	110	0.00
86	T	Benzo[b]fluoranthene	40.000	37.671	5.8	129	0.00
87	T	Benzo[k]fluoranthene	40.000	40.365	-0.9	130	0.00
88	C	BENZO[A]PYRENE	40.000	40.500	-1.3	133	0.00
89	T	Indeno(1,2,3-c,d)pyrene	40.000	44.657	-11.6	144	0.00
90	T	Dibenzo[a,h]anthracene	40.000	45.316	-13.3	145	0.00
91	T	Benzo[g,h,i]perylene	40.000	46.167	-15.4	149	0.00

Evaluate Continuing Calibration Report

Data Path : P:\SVOC\2\data\130409\
Data File : 13040904.D
Acq On : 9 Apr 2013 1:34 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 09:21:57 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	Amount	Calc.	%Dev	Area%	Dev(min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040904.D
Acq On : 9 Apr 2013 1:34 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 09:21:57 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4...	5.282	152	1687971	40.00	mg/L	0.00
21) Naphthalene-d8 ISTD	7.073	136	6178171	40.00	mg/L	0.00
38) Acenaphthene-d10 ISTD	9.327	164	3219951	40.00	mg/L	0.00
61) Phenanthrene-d10 ISTD	11.108	188	4310096	40.00	mg/L	0.00
74) Chrysene-d12 ISTD	14.686	240	2436972	40.00	mg/L	0.00
84) Perylene-d12 ISTD	17.166	264	1800398	40.00	mg/L	0.00
System Monitoring Compounds						
4) 2-Fluorophenol Acid SS 1	3.544	112	4283625	69.70	mg/L	0.00
Spiked Amount 40.000	Range 29 - 111		Recovery = 174.25%#			
5) Phenol-d6 Acid SS 2	4.921	99	5160086	75.61	mg/L	0.00
Spiked Amount 40.000	Range 31 - 109		Recovery = 189.03%#			
22) Nitrobenzene-d5 BN SS 1	6.139	82	2331157	36.97	mg/L	0.00
Spiked Amount 20.000	Range 33 - 114		Recovery = 184.85%#			
42) 2-Fluorobiphenyl BN SS 2	8.527	172	4344112	38.08	mg/L	0.00
Spiked Amount 20.000	Range 45 - 117		Recovery = 190.40%#			
60) 2,4,6-Tribromophenol A...	10.304	141	370818	78.68	mg/L	0.00
Spiked Amount 40.000	Range 42 - 114		Recovery = 196.70%#			
77) Terphenyl-d14 BN SS 3	13.131	244	2903317	35.09	mg/L	0.00
Spiked Amount 20.000	Range 35 - 147		Recovery = 175.45%#			
Target Compounds						Qvalue
2) Pyridine	1.834	79	2807972	35.16	mg/L	98
3) N-Nitrosodimethylamine	1.858	74	1657083	34.61	mg/L	99
6) Benzaldehyde	4.651	77	643533	45.03	mg/L	99
7) Aniline	4.882	93	3531220	37.31	mg/L	99
8) PHENOL	4.940	94	2919524	37.60	mg/L	100
9) Bis(2-chloroethyl)ether	5.017	93	2482267	37.67	mg/L	99
10) 2-Chlorophenol	5.027	128	2436468	36.11	mg/L	99
11) n-Decane	5.138	43	1929956	35.53	mg/L	99
12) 1,4'-DICHLOROBENZENE	5.306	146	2507367	39.67	mg/L	100
13) 1,3'-Dichlorobenzene	5.224	146	2709672	36.05	mg/L	100
14) 1,2'-Dichlorobenzene	5.566	146	2605956	36.35	mg/L	100
15) 2-Methylphenol	5.778	107	1909611	36.50	mg/L	100
16) bis(2-chloroisopropyl)...	5.802	45	3015299	35.45	mg/L	97
17) 3,4-Methylphenol	6.014	107	2187200	37.83	mg/L	99
18) Acetophenone	5.942	105	3254955	36.72	mg/L	99
19) N-Nitrosodi-n-propyl a...	6.028	70	1572261	35.34	mg/L	98
20) Hexachloroethane	5.995	117	872613	40.70	mg/L	100
23) Nitrobenzene	6.168	77	2307570	34.80	mg/L	99
24) Isophorone	6.510	82	4738470	36.07	mg/L	99
25) 2-NITROPHENOL	6.601	139	1379617	41.90	mg/L	99
26) 2,4-dimethylphenol	6.731	122	2144047	35.40	mg/L	100
27) Bis(2-chloroethoxy)met...	6.861	93	3191488	35.68	mg/L	100
28) 2,4-DICHLOROPHENOL	6.934	162	2008141	38.66	mg/L	100
29) 1,2,4-Trichlorobenzene	7.030	180	2171095	36.02	mg/L	99
30) Naphthalene`	7.102	128	6170909	39.25	mg/L	100
31) 4-Chloroaniline	7.232	127	2778378	37.45	mg/L	99
32) HEXACHLOROBUTADIENE`	7.362	225	1134368	39.96	mg/L	100
33) e-Caprolactam	7.738	55	923787	36.24	mg/L	96
34) 4-CHLORO-3-METHYLPHENOL	7.926	107	1937853	38.77	mg/L	99

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040904.D
Acq On : 9 Apr 2013 1:34 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 09:21:57 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) 2-Methylnaphthalene	8.003	142	4235431	39.41 mg/L	100
36) Biphenyl	8.624	154	4063597	40.37 mg/L	100
37) 1,2,4,5-Tetrachloroben...	8.272	216	2027051	36.65 mg/L	100
39) Hexachlorocyclopentadiene	8.301	237	705595	34.18 mg/L	100
40) 2,4,6-TRICHLOROPHENOL	8.426	198	1387652	42.11 mg/L	99
41) 2,4,5-trichlorophenol	8.475	196	1318575	39.85 mg/L	99
43) 2-Chloronaphthalene	8.614	162	3356792	38.17 mg/L	100
44) 2-Nitroaniline	8.816	65	1138557	35.83 mg/L	98
45) 3-Nitroaniline	9.341	138	630533	31.45 mg/L	99
46) 4-Nitroaniline	10.088	138	585887m	37.34 mg/L	
47) Dimethylphthalate	9.115	163	4232623	37.08 mg/L	100
48) 2,6-Dinitrotoluene	9.187	165	1068929	38.97 mg/L	97
49) Acenaphthylene	9.134	152	5578729	37.67 mg/L	100
50) ACENAPHTHENE	9.370	154	3425545	38.14 mg/L	100
51) 2,4-Dinitrophenol	9.457	184	329699	36.71 mg/L	98
52) 4-nitrophenol	9.582	65	497622	37.64 mg/L	97
53) 2,4-Dinitrotoluene	9.654	165	1331028	38.95 mg/L	97
54) Dibenzofuran	9.563	168	5196169	38.32 mg/L	100
55) 2,3,4,6-Tetrachlorophenol	9.784	232	1023670	40.77 mg/L	99
56) Diethylphthalate	9.996	149	3510119	38.91 mg/L	100
57) 4-chlorophenyl phenyl ...	10.015	204	2061774	38.09 mg/L	99
58) Fluorene	9.982	166	3516568	39.56 mg/L	100
59) Atrazine	10.897	200	973003	38.48 mg/L	96
62) 4,6-Dinitro-2-methylph...	10.145	198	530510	39.96 mg/L	100
63) N-NITROSODI-N-PHENYLAMINE	10.179	169	3298714	37.66 mg/L	99
64) 1,2-diphenylhydrazine	10.203	77	3969705	37.55 mg/L	98
65) 4-bromophenyl phenyl e...	10.598	250	1280255	36.85 mg/L	99
66) Hexachlorobenzene	10.747	142	471584	39.77 mg/L	96
67) PENTACHLOROPHENOL	10.978	266	683178	42.53 mg/L	99
68) Octadecane	11.075	57	2151223	34.71 mg/L	99
69) Phenanthrene	11.137	178	4859474	37.54 mg/L	100
70) Anthracene	11.190	178	4613221	35.96 mg/L	100
71) Carbazole	11.402	167	2777716	31.43 mg/L	99
72) Di-n-Butylphthalate	11.961	149	6071488	40.42 mg/L	100
73) FLUORANTHENE	12.572	202	4311308	40.07 mg/L	99
75) Pyrene	12.852	202	4267674	34.47 mg/L	100
76) Benzidine	12.799	184	32612	14.45 mg/L	94
78) Butylbenzylphthalate	13.950	149	2065583	38.85 mg/L	98
79) Bis 2-ethylhexyl adipate	14.132	129	2004530	34.66 mg/L	99
80) Bis(2-ethylhexyl)phtha...	15.009	149	2764422	36.38 mg/L	100
81) 3,3-Dichlorobenzidine	14.696	252	452036	39.46 mg/L	99
82) Benzo[a]anthracene	14.657	228	2811259	40.51 mg/L	100
83) Chrysene	14.725	228	2466299	39.73 mg/L	100
85) DI-N-OCTYLPHTHALATE	16.116	149	3757858	33.40 mg/L	98
86) Benzo[b]fluoranthene	16.521	252	2079167	37.67 mg/L	99
87) Benzo[k]fluoranthene	16.564	252	2177348	40.36 mg/L	100
88) BENZO[A]PYRENE	17.060	252	1919810	40.50 mg/L	99
89) Indeno(1,2,3-c,d)pyrene	18.933	276	1186859	44.66 mg/L	97
90) Dibenzo[a,h]anthracene	18.986	278	1388039	45.32 mg/L	99
91) Benzo[g,h,i]perylene	19.319	276	1423248	46.17 mg/L	99

Data Path : P:\SVOC\2\data\130409\
Data File : 13040904.D
Acq On : 9 Apr 2013 1:34 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 09:21:57 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

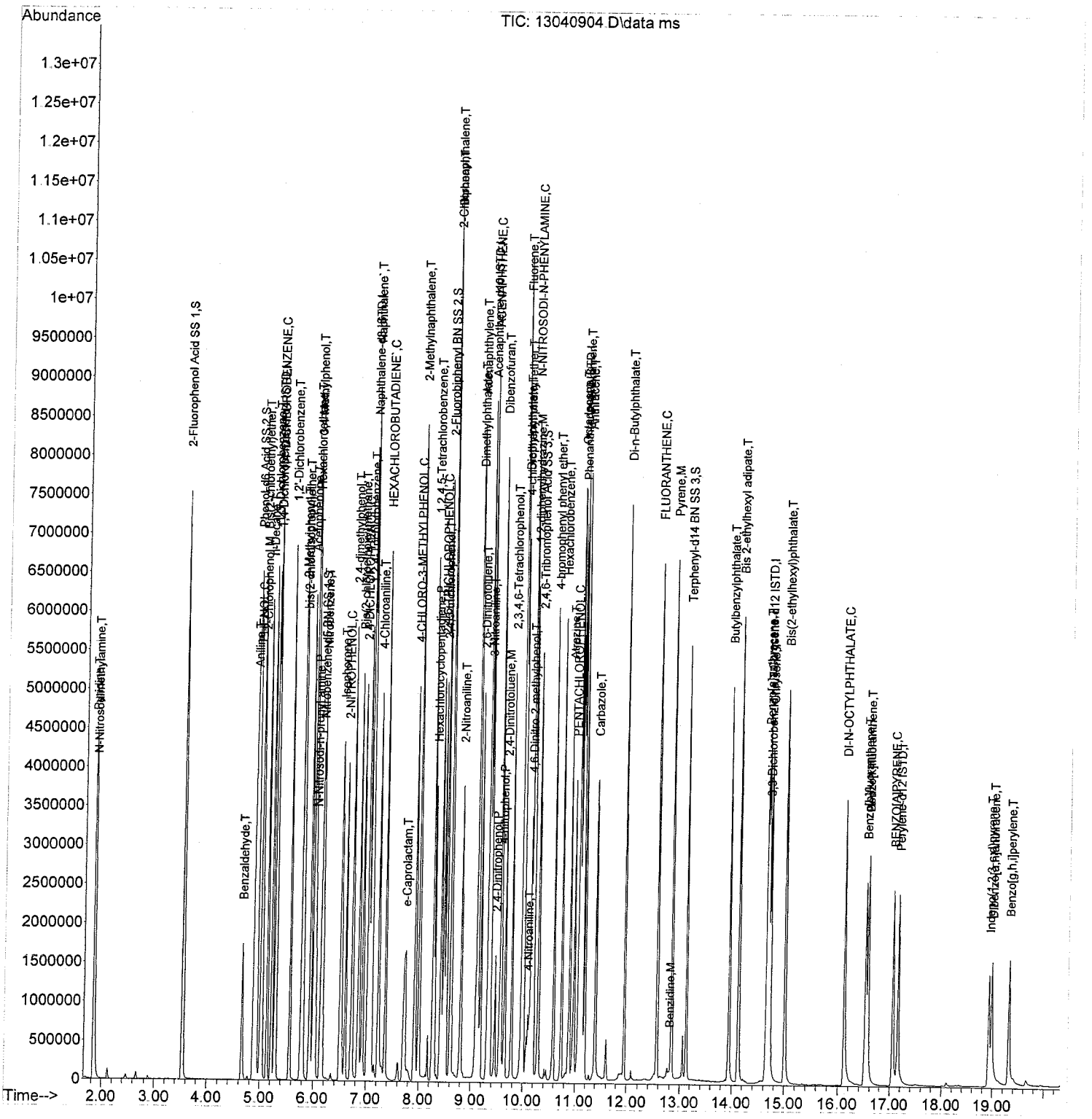
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040904.D
Acq On : 9 Apr 2013 1:34 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 09:21:57 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration

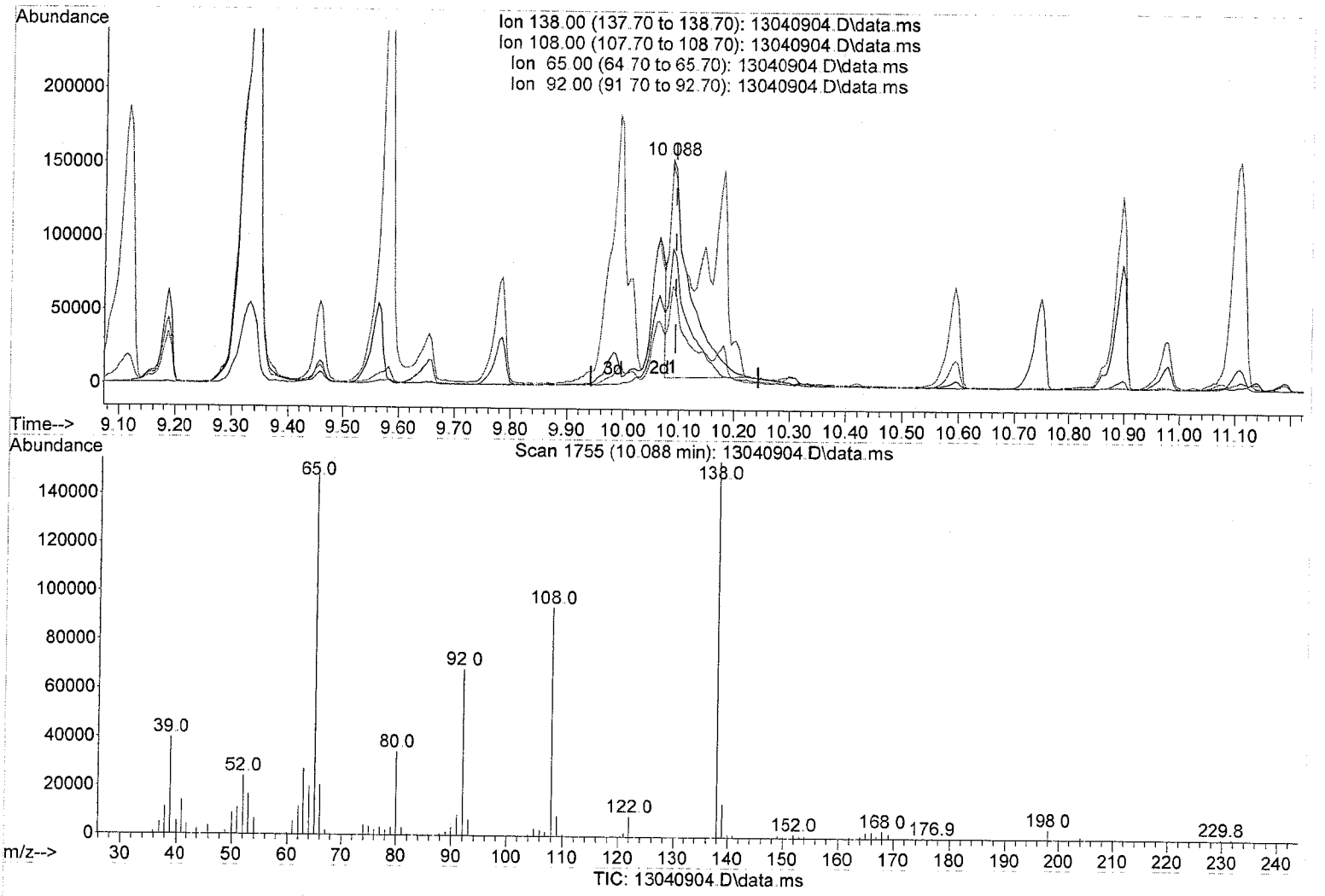


L_SVOC.M Wed Apr 10 09:25:29 2013 Page: 4

Quantitation Report (Qedit)

Data Path : P:\SVOC\2\data\130409\
Data File : 13040904.D
Acq On : 9 Apr 2013 1:34 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 07:50:57 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



(46) 4-Nitroaniline (T)

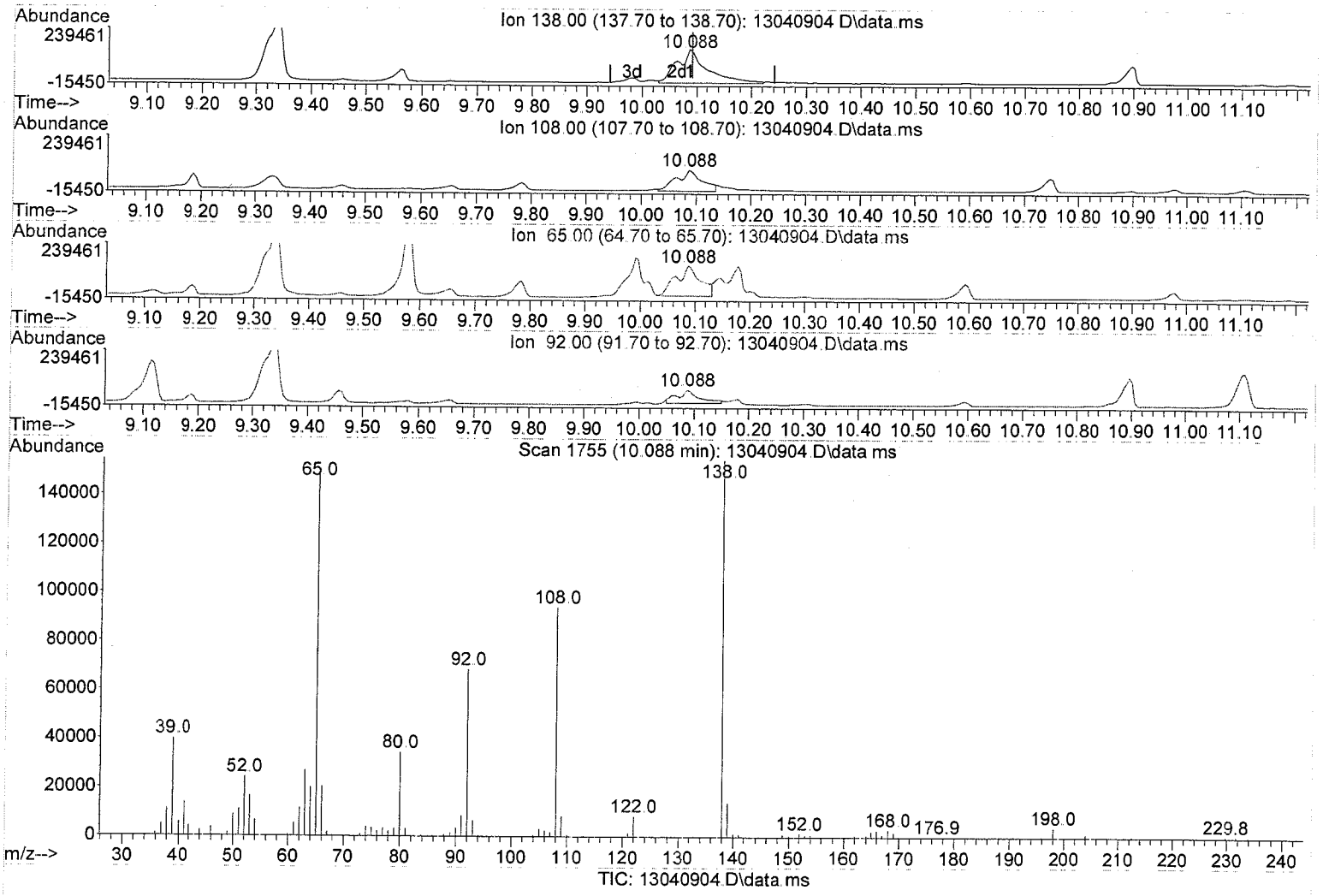
10.088min (-0.005) 24.91 mg/L

response 373682

Ion	Exp%	Act%
138.00	100	100
108.00	62.80	60.47
65.00	62.60	74.94
92.00	41.70	44.22

Data Path : P:\SVOC\2\data\130409\
Data File : 13040904.D
Acq On : 9 Apr 2013 1:34 pm
Operator : BW
Sample : CCV SVOA 40ppm
Misc : ID#A2352 EX 04/22/13 BW
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 10 07:50:57 2013
Quant Method : P:\SVOC\2\data\130409\L_SVOC.M
Quant Title : ALS8270.M
QLast Update : Mon Apr 08 14:16:29 2013
Response via : Initial Calibration



(46) 4-Nitroaniline (T)

10.088min (-0.005) 37.34 mg/L m

response 585887

BW 4/10

Ion	Exp%	Act%
138.00	100	100
108.00	62.80	52.26
65.00	62.60	73.33
92.00	41.70	28.47

Waters and Soils For Extraction

Analytical : **SW8270C / SW8270CPAH_MDE**
Prep: **SW3510C**
Matrix **WATER**

21110 - GC/MS Semi-Volatiles Organic Department

Tech: Mike West
Prep Seq: **45474**

Method Description : Polyaromatic Hydrocarbons (PAHs)

Factor Calculation : d = b * c / a ;

	Client	Lab ID	Type	Client Sample Id	Prep Date	HT Expiration	Due Date	Smp Wt (g)/ Vol (ml) (a)	Final Vol (ml) (b)	Additional Dilution (c)	Factor (d)	Initial PH	1st PH	2nd PH	Chlorine Absent? Y N
1		45474-1-BKS	BKS	45474-1-BKS	04/08/13			1000 ML	1	1	.001	6	12	11	☐ ☐
2		45474-1-BLK	BLK	45474-1-BLK	04/08/13			1000 ML	1	1	.001	6			☐ ☐
3		45474-1-BSD	BSD	45474-1-BSD	04/08/13			1000 ML	1	1	.001	6			☐ ☐
4	2546	13040516-006	SMP	1644-Sump	04/08/13	04/11/13	04/10/13	1000 ML	1	1	.001	7			☐ ☐
5	2546	13040516-007	SMP	SB-03 (GW)	04/08/13	04/11/13	04/10/13	1000 ML	1	1	.001	7			☐ ☐
6	2546	13040516-008	SMP	SB-040413 (GW)	04/08/13	04/11/13	04/10/13	1000 ML	1	1	.001	7			☐ ☐
7	2546	13040516-009	SMP	SB-04 (GW)	04/08/13	04/11/13	04/10/13	900 ML	1	1	.001111	7			☐ ☐
8	2546	13040516-010	SMP	1646-Sump	04/08/13	04/12/13	04/10/13	1000 ML	1	1	.001	7			☐ ☐
9	2546	13040516-011	SMP	Surface Water	04/08/13	04/12/13	04/10/13	1000 ML	1	1	.001	7			☐ ☐

Comments : _____

Spk Std ID : 1361-1
Surr / Int ID : A2495
Reagent ID 1416-1 506 9 15/8-1
1392-2

Prepared By : _____
Reviewed By : _____

Date : 4/5/13
Date _____

Waters and Soils For Extraction

Analytical : **SW8270C / SW8270CTCL**
Prep: **SW3510C**
Matrix **WATER**

21110 - GC/MS Semi-Volatiles Organic Department

Tech: Mike West
Prep Seq: **45474**

Method Description : TCL Semivolatile Organic Compounds

Factor Calculation : d = b * c / a ;

	Client	Lab ID	Type	Client Sample Id	Prep Date	HT Expiration	Due Date	Smp Wt (g)/ Vol (ml) (a)	Final Vol (ml) (b)	Additional Dilution (c)	Factor (d)	Initial PH	1st PH	2nd PH	Chlorine Absent? Y N
10	5365	13040205-001	SMP	371132 3-091-004	04/08/13	04/09/13	04/10/13	950 ML	1	1	.001053	7	<2	>11	☐ ☐
11	5365	13040205-002	SMP	373632 3-091-005	04/08/13	04/09/13	04/10/13	1000 ML	1	1	.001	7			☐ ☐
12	5365	13040205-003	SMP	373633 3-091-006	04/08/13	04/09/13	04/10/13	1000 ML	1	1	.001	7			☐ ☐
13	6159	13040524-005	SMP	413-JH-W1	04/08/13	04/10/13	04/12/13	1000 ML	1	1	.001	7			☐ ☐

Comments : _____

Spk Std ID : _____
Surr / Int ID : _____
Reagent ID _____

Prepared By : _____ Date : _____
Reviewed By : _____ Date _____

Waters and Soils For Extraction

Analytical : **SW8270C / SW8270CPAH**
Prep: **SW3550**
Matrix **SOLID**

21110 - GC/MS Semi-Volatiles Organic Department

Tech: Mike West
Prep Seq: **45492**

Method Description : Polyaromatic Hydrocarbons (PAHs)

Factor Calculation : d = b * c / a ;

	Client	Lab ID	Type	Client Sample Id	Prep Date	HT Expiration	Due Date	Smp Wt (g)/ Vol (ml) (a)	Final Vol (ml) (b)	Additional Dilution (c)	Factor (d)	Initial PH	1st PH	2nd PH	Chlorine Absent? Y N
1	6334	13040801-001	SMP	Bottom Mid Point	04/09/13	04/17/13	04/11/13	30.12 GR	1	1	.033201				☐ ☐
2	6334	13040801-002	SMP	South Sidewall	04/09/13	04/18/13	04/11/13	30.02 GR	1	1	.033311				☐ ☐
3	6334	13040801-003	SMP	West Sidewall	04/09/13	04/18/13	04/11/13	29.91 GR	1	1	.033434				☐ ☐
4	6334	13040801-004	SMP	South Bottom	04/09/13	04/18/13	04/11/13	30.25 GR	1	1	.033058				☐ ☐

Comments :

Spk Std ID : 1381-1
Surr / Int ID : A2495
Reagent ID 1416-1 E066 E069

Prepared By : W
Date : 4/9/13
Reviewed By :
Date

Waters and Soils For Extraction

Analytical : **SW8270C / SW8270CPAH_MDE**
Prep: **SW3550**
Matrix **SOLID**

21110 - GC/MS Semi-Volatiles Organic Department

Tech: Mike West
Prep Seq: **45492**

Method Description : Polyaromatic Hydrocarbons (PAHs)

Factor Calculation : d = b * c / a ;

	Client	Lab ID	Type	Client Sample Id	Prep Date	HT Expiration	Due Date	Smp Wt (g)/ Vol (ml) (a)	Final Vol (ml) (b)	Additional Dilution (c)	Factor (d)	Initial PH	1st PH	2nd PH	Chlorine Absent? Y N
5		45492-1-BKS	BKS	45492-1-BKS	04/09/13			30.07 GR	1	1	.033256				☐ ☐
6		45492-1-BLK	BLK	45492-1-BLK	04/09/13			30.12 GR	1	1	.033201				☐ ☐
7		45492-1-BSD	BSD	45492-1-BSD	04/09/13			30.02 GR	1	1	.033311				☐ ☐
8	2546	13040516-004 S	MS	SB-01 (2-2.5) S	04/09/13	04/18/13	04/10/13	30.12 GR	1	1	.033201				☐ ☐
9	2546	13040516-004 SD	MSD	SB-01 (2-2.5) SD	04/09/13	04/18/13	04/10/13	29.99 GR	1	1	.033344				☐ ☐
10	2546	13040516-001	SMP	SB-02 (2-2.5)	04/09/13	04/18/13	04/10/13	30.29 GR	1	1	.033014				☐ ☐
11	2546	13040516-002	SMP	SB-04 (2-2.5)	04/09/13	04/18/13	04/10/13	30.36 GR	1	1	.032938				☐ ☐
12	2546	13040516-003	SMP	SB-03 (2-2.5)	04/09/13	04/18/13	04/10/13	29.63 GR	1	1	.033750				☐ ☐
13	2546	13040516-004	SMP	SB-01 (2-2.5)	04/09/13	04/18/13	04/10/13	30.45 GR	1	1	.032841				☐ ☐
14	2546	13040516-005	SMP	SB-040413 (2-2.5)	04/09/13	04/18/13	04/10/13	30.09 GR	1	1	.033234				☐ ☐

Comments : _____

Spk Std ID : _____
Surr / Int ID : _____
Reagent ID _____

Prepared By : _____ Date : _____
Reviewed By : _____ Date _____

Waters and Soils For Extraction

Analytical : **SW8270C / SW8270CTCL**
Prep: **SW3550**
Matrix **SOLID**

21110 - GC/MS Semi-Volatiles Organic Department

Tech: Mike West
Prep Seq: **45492**

Method Description : TCL Semivolatile Organic Compounds

Factor Calculation : d = b * c / a ;

	Client	Lab ID	Type	Client Sample Id	Prep Date	HT Expiration	Due Date	Smp Wt (g)/ Vol (ml) (a)	Final Vol (ml) (b)	Additional Dilution (c)	Factor (d)	Initial PH	1st PH	2nd PH	Chlorine Absent? Y N
15	2539	13040527-001	SMP	NEBBC-12, SC-22, 114'-119'	04/09/13	04/17/13	04/12/13	30.33 GR	1	1	.032971				☐ ☐

Comments : _____

Spk Std ID : _____
Surr / Int ID : _____
Reagent ID _____

Prepared By : _____ Date : _____
Reviewed By : _____ Date _____

Waters and Soils For Extraction

Analytical : **SW8270C / SW8270C_VCP**
Prep: **SW3550**
Matrix **SOLID**

21110 - GC/MS Semi-Volatiles Organic Department

Tech: Mike West
Prep Seq: **45492**

Method Description : VCP Semivolatile Organic Compounds

Factor Calculation : d = b * c / a ;

	Client	Lab ID	Type	Client Sample Id	Prep Date	HT Expiration	Due Date	Smp Wt (g)/ Vol (ml) (a)	Final Vol (ml) (b)	Additional Dilution (c)	Factor (d)	Initial PH	1st PH	2nd PH	Chlorine Absent? Y N
16	2165	13040809-001	SMP	10395-Elevator-8'	04/09/13	04/19/13	04/15/13	30.13 GR	1	1	.033190				☐ ☐

Comments : _____

Spk Std ID : _____
Surr / Int ID : _____
Reagent ID _____

Prepared By : _____ Date : _____
Reviewed By : _____ Date _____

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No.: _____ SDG No. : 13040516

GC Column: HP-5 ID: 0.20 (mm) Init. Calib. Date(s): 03/27/2013 03/27/2013

EPA Sample No. (SSTD020##) CCV-01 Date Analyzed: 04/08/2013

Lab File ID (standard) 13040805 Time Analyzed: 13:56

Instrument ID: SVOC #2

			IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD		1790073		5.28		6522831		7.07		3416411		9.33	
	UPPER LIMIT		3580146		5.78		13045662		7.57		6832822		9.83	
	LOWER LIMIT		895036.5		4.78		3261415.5		6.57		1708205.5		8.83	
	Lab Sample ID	Client Id												
01	13040516-006	1644-SUMP	1977997		5.27		7010271		7.06		3681881		9.32	
02	13040516-007	SB-03 (GW)	1961379		5.27		6924003		7.06		3667442		9.32	
03	13040516-008	SB-040413 (GW)	2020534		5.27		7183100		7.06		3759147		9.32	
04	13040516-009	SB-04 (GW)	2004394		5.27		7121171		7.06		3748607		9.32	
05	13040516-010	1646-SUMP	1989052		5.27		7013461		7.06		3726380		9.32	
06	13040516-011	SURFACE WATER	1966775		5.27		6914773		7.06		3529855		9.32	
07	45474-1-BKS	45474-1-BKS	1909976		5.28		6981366		7.07		3653087		9.33	
08	45474-1-BLK	45474-1-BLK	1734682		5.27		6119228		7.06		3170709		9.32	
09	45474-1-BSD	45474-1-BSD	1907171		5.28		6895342		7.07		3552070		9.33	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No.: _____ SDG No. : 13040516

GC Column: HP-5 ID: 0.20 (mm) Init. Calib. Date(s): 03/27/2013 03/27/2013

EPA Sample No. (SSTD020##) CCV-01 Date Analyzed: 04/08/2013

Lab File ID (standard) 13040805 Time Analyzed: 13:56

Instrument ID: SVOC #2

			IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD		4650713		11.11		2553112		14.69		1759407		17.17	
	UPPER LIMIT		9301426		11.61		5106224		15.19		3518814		17.67	
	LOWER LIMIT		2325356.5		10.61		1276556		14.19		879703.5		16.67	
	Lab Sample ID	Client Id												
01	13040516-006	1644-SUMP	4957883		11.10		2582202		14.67		1725192		17.16	
02	13040516-007	SB-03 (GW)	4979038		11.10		2438326		14.67		1554075		17.16	
03	13040516-008	SB-040413 (GW)	5152948		11.10		2761805		14.68		1890467		17.16	
04	13040516-009	SB-04 (GW)	5159989		11.10		2870212		14.68		1992947		17.16	
05	13040516-010	1646-SUMP	5176392		11.10		2893675		14.68		2048254		17.16	
06	13040516-011	SURFACE WATER	4430827		11.10		2344654		14.68		1719760		17.16	
07	45474-1-BKS	45474-1-BKS	4891505		11.11		2568779		14.68		1882216		17.16	
08	45474-1-BLK	45474-1-BLK	4024868		11.10		1795925		14.67		1208568		17.15	
09	45474-1-BSD	45474-1-BSD	4804353		11.11		2699051		14.68		1940949		17.16	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No.: _____ SDG No. : 13040516

GC Column: HP-5 ID: 0.20 (mm) Init. Calib. Date(s): 03/27/2013 03/27/2013

EPA Sample No. (SSTD020##) CCV-01 Date Analyzed: 04/09/2013

Lab File ID (standard) 13040904 Time Analyzed: 13:34

Instrument ID: SVOC #2

			IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD		1687971		5.28		6178171		7.07		3219951		9.33	
	UPPER LIMIT		3375942		5.78		12356342		7.57		6439902		9.83	
	LOWER LIMIT		843985.5		4.78		3089085.5		6.57		1609975.5		8.83	
	Lab Sample ID	Client Id												
01	13040516-001	SB-02 (2-2.5)	1781041		5.27		6384530		7.06		3372718		9.32	
02	13040516-002	SB-04 (2-2.5)	1815875		5.27		6486777		7.06		3473825		9.32	
03	13040516-003	SB-03 (2-2.5)	1838570		5.27		6496068		7.06		3355400		9.32	
04	13040516-004	SB-01 (2-2.5)	1815141		5.27		6498111		7.06		3418838		9.32	
05	13040516-004 S	SB-01 (2-2.5) S	1739562		5.28		6443043		7.07		3309957		9.33	
06	13040516-004 SD	SB-01 (2-2.5) SD	1693172		5.28		6327377		7.07		3275857		9.33	
07	13040516-005	SB-040413 (2-2.5)	1729546		5.27		6190526		7.06		3256681		9.32	
08	45492-1-BKS	45492-1-BKS	1722148		5.28		6394291		7.07		3293202		9.33	
09	45492-1-BLK	45492-1-BLK	1734979		5.27		6274127		7.06		3192040		9.32	
10	45492-1-BSD	45492-1-BSD	1710366		5.28		6313188		7.07		3233007		9.33	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name : PHASE SEPARATION SCIENCE Contract : 4184

Lab Code : PHASE Case No. : _____ Mod. Ref No.: _____ SDG No. : 13040516

GC Column: HP-5 ID: 0.20 (mm) Init. Calib. Date(s): 03/27/2013 03/27/2013

EPA Sample No. (SSTD020##) CCV-01 Date Analyzed: 04/09/2013

Lab File ID (standard) 13040904 Time Analyzed: 13:34

Instrument ID: SVOC #2

			IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD		4310096	11.11	2436972	14.69	1800398	17.17
	UPPER LIMIT		8620192	11.61	4873944	15.19	3600796	17.67
	LOWER LIMIT		2155048	10.61	1218486	14.19	900199	16.67
	Lab Sample ID	Client Id						
01	13040516-001	SB-02 (2-2.5)	4641837	11.10	2516368	14.67	1722354	17.16
02	13040516-002	SB-04 (2-2.5)	4718075	11.10	2499725	14.68	1639010	17.16
03	13040516-003	SB-03 (2-2.5)	4559612	11.10	2431109	14.67	1636311	17.16
04	13040516-004	SB-01 (2-2.5)	4694399	11.10	2445710	14.68	1616125	17.16
05	13040516-004 S	SB-01 (2-2.5) S	4371691	11.11	2355021	14.68	1709605	17.16
06	13040516-004 SD	SB-01 (2-2.5) SD	4397317	11.11	2578713	14.69	1899866	17.17
07	13040516-005	SB-040413 (2-2.5)	4466750	11.10	2443039	14.68	1648529	17.16
08	45492-1-BKS	45492-1-BKS	4524300	11.11	2724743	14.69	2050300	17.17
09	45492-1-BLK	45492-1-BLK	4290658	11.10	2248996	14.67	1491718	17.16
10	45492-1-BSD	45492-1-BSD	4223561	11.11	2303863	14.68	1630691	17.16

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

MARYLAND SPECTRAL SERVICES INC.

1500 CATON CENTER DRIVE, BALTIMORE MD 21227

410-247-7600

LABORATORY RESULTS

SAMPLE DATA SUMMARY PACKAGE

RESULTS OF ORGANICS ANALYSIS OF THE

13040516

PREPARED FOR

Phase Separation Science, Inc.

Baltimore, MD

10-April-2013

SAMPE DATA SUMMARY PACKAGE

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Initial calibration Summary

Continuing Calibration Summary

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1. Results

- Narrative
- Results of Analysis
- Chain of Custody documents
- Chromatograms

Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

10 April 2013

Simon Crisp
Phase Separation Science, Inc.
6630 Baltimore National Pike, Route 40 West
Baltimore, MD 21228

RE: 13040516

Enclosed are the results of analyses for samples received by the laboratory on 04/05/13 16:02.

Maryland Spectral Services, Inc. is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

Please visit our website at www.mdspectral.com for a complete listing of our NELAP accreditations.

If you have any questions concerning this report, please feel free to contact me.

Cory Koons

Cory Koons
Staff Chemist

Maryland spectral Services

Analytical Chemistry Services

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Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Analytical Results

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1644-Sump	13040516-006	3040523-01	Water	04/04/13 14:25	04/05/13 16:02
SB-03 (GW)	13040516-007	3040523-02	Water	04/04/13 14:25	04/05/13 16:02
SB-040413 (GW)	13040516-008	3040523-03	Water	04/04/13 14:25	04/05/13 16:02
SB-04 (GW)	13040516-009	3040523-04	Water	04/04/13 14:25	04/05/13 16:02
1646-Sump	13040516-010	3040523-05	Water	04/04/13 14:25	04/05/13 16:02
Surface Water	13040516-011	3040523-06	Water	04/04/13 14:25	04/05/13 16:02

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety

Cory Koons

Cory Koons, Staff Chemist

As a NELAP accredited laboratory, MSS certifies that all applicable test results meet NELAC requirements.

Maryland spectral Services

Analytical Chemistry Services

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VELAP ID 460040

Analytical Results

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

1644-Sump
13040516-006
3040523-01 (Water)
Sample Date: 04/04/13

Analyte	Result	Units	Reporting Limit	Dilution	Prepared	Analyzed	Analyst	Notes
DISSOLVED GASES BY RSK-175 / EPA SM6211B/EPA8015M (HEADSPACE/GC/FID)								
Methane	ND	mg/L	0 0057	1	04/08/13	04/08/13 12:32	CMK	

Cory Koons

Cory Koons, Staff Chemist

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Analytical Results

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

SB-03 (GW)
13040516-007
3040523-02 (Water)
Sample Date: 04/04/13

Analyte	Result	Units	Reporting Limit	Dilution	Prepared	Analyzed	Analyst	Notes
DISSOLVED GASES BY RSK-175 / EPA SM6211B/EPA8015M (HEADSPACE/GC/FID)								
Methane	ND	mg/L	0 0059	1	04/08/13	04/08/13 12:40	CMK	

Cory Koons

Cory Koons, Staff Chemist

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Analytical Results

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

SB-040413 (GW)
13040516-008
3040523-03 (Water)
Sample Date: 04/04/13

Analyte	Result	Units	Reporting Limit	Dilution	Prepared	Analyzed	Analyst	Notes
DISSOLVED GASES BY RSK-175 / EPA SM6211B/EPA8015M (HEADSPACE/GC/FID)								
Methane	ND	mg/L	0 0062	1	04/08/13	04/08/13 12:50	CMK	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety

Cory Koons, Staff Chemist

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Analytical Results

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VELAP ID 460040

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

SB-04 (GW)
13040516-009
3040523-04 (Water)
Sample Date: 04/04/13

Analyte	Result	Units	Reporting Limit	Dilution	Prepared	Analyzed	Analyst	Notes
DISSOLVED GASES BY RSK-175 / EPA SM6211B/EPA8015M (HEADSPACE/GC/FID)								
Methane	ND	mg/L	0 0067	1	04/08/13	04/08/13 13:04	CMK	

Cory Koons

Cory Koons, Staff Chemist

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Analytical Results

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VELAP ID 460040

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

1646-Sump
13040516-010
3040523-05 (Water)
Sample Date: 04/04/13

Analyte	Result	Units	Reporting Limit	Dilution	Prepared	Analyzed	Analyst	Notes
DISSOLVED GASES BY RSK-175 / EPA SM6211B/EPA8015M (HEADSPACE/GC/FID)								
Methane	ND	mg/L	0 0057	1	04/08/13	04/08/13 13:14	CMK	

Cory Koons

Cory Koons, Staff Chemist

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VELAP ID 460040

Analytical Results

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

Surface Water
13040516-011
3040523-06 (Water)
Sample Date: 04/04/13

Analyte	Result	Units	Reporting Limit	Dilution	Prepared	Analyzed	Analyst	Notes
DISSOLVED GASES BY RSK-175 / EPA SM6211B/EPA8015M (HEADSPACE/GC/FID)								
Methane	ND	mg/L	0 0064	1	04/08/13	04/08/13 13:23	CMK	

Cory Koons

Cory Koons, Staff Chemist

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Analytical Results

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www.mdspectral.com
VELAP ID 460040

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

LIGHT HYDROCARBONS BY EPA 8015M - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S304055 - B304068										
Instrument Blank (S304055-IBL1)				Prepared & Analyzed: 04/08/13						
Methane	2 42	0 00610	ppmv							
Instrument Blank (S304055-IBL2)				Prepared & Analyzed: 04/08/13						
Methane	2 68	0 00610	ppmv							
Instrument Blank (S304055-IBL3)				Prepared & Analyzed: 04/08/13						
Methane	2 60	0.00610	ppmv							

Cory Koons

Cory Koons, Staff Chemist

The results in this report apply to the samples analyzed in accordance with the chain of custody document This analytical report must be reproduced in its entirety

As a NELAP accredited laboratory, MSS certifies that all applicable test results meet NELAC requirements.

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

DISSOLVED GASES BY RSK-175 / EPA SM6211B/EPA8015M (HEADSPACE/GC/FID) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B304068 - 8015(Dissolved Gas Extraction)										
Blank (B304068-BLK1)				Prepared & Analyzed: 04/08/13						
Methane	ND	0 0078	mg/L							
LCS (B304068-BS1)				Prepared & Analyzed: 04/08/13						
Methane	3780		ppmv	4420		86	80-120			
Duplicate (B304068-DUP1)	**Source: 3040519-02**			Prepared & Analyzed: 04/08/13						
Methane	0 210	0 577	mg/L		0 205			2	40	
Matrix Spike (B304068-MS1)	**Source: 3040523-02**			Prepared & Analyzed: 04/08/13						
Methane	3520		ppmv	4570	2 54	77	70-130			
Matrix Spike Dup (B304068-MSD1)	**Source: 3040523-02**			Prepared & Analyzed: 04/08/13						
Methane	3630		ppmv	4780	2 65	76	70-130	3	30	

Cory Koons

Cory Koons, Staff Chemist

The results in this report apply to the samples analyzed in accordance with the chain of custody document This analytical report must be reproduced in its entirety.

As a NELAP accredited laboratory, MSS certifies that all applicable test results meet NELAC requirements.

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: 13040516

Project Number: [none]
Project Manager: Simon Crisp

Reported:
04/10/13 16:16

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Cory Koons

Cory Koons, Staff Chemist

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety

As a NELAP accredited laboratory, MSS certifies that all applicable test results meet NELAC requirements.

SAMPLE CHAI

PHASE SEPARATION S

CHAIN OF CUSTODY RECORD 1504016

Page 1 of 1

Matrices: S = Soil; Aq = Water; A = Air; Bu = Bulk; W = Wipe; Bi = Biota; OW = Oily Waste; O = Other

Requested Analyses

(1) *CLIENT: *OFFICE LOC.

	Sample Identification:	Depth	Date	Time	Matrix	Number of Containers	624 LOB + TCL VOCs	625 SC + TCL SVOCs	8260 - TAL + CRO	8015 - DG	8015 - TPH - DRO	Nº	Remarks
1	SB-02 (2-2.5)	2'-2.5'	4/4/13	1025	S	4	X	X	X				
2	SB-04 (2-2.5)	2'-2.5'	"	1113	S	4	X	X	X				
3	SB-03 (2-2.5)	2'-2.5'	"	1152	S	4	X	X	X				
	MS/MSD	2'-2.5'	"	1242	S	4	X	X	X				MS of SB-01 (2-2.5)
~~4~~	~~SB-01 (2-2.5)~~	~~2'-2.5'~~	"	~~1300~~	S	4	X	X	X				
5	SB-04 0413 (2-2.5)	2'-2.5'	"	1310	S	4	X	X	X				Diss. gases
6	1644 - Sump	—	"	1315	AQ	9	X	X	X	X		3040523-01 A	
7	SB-03 (GW)	—	"	1445	AQ	9	X	X	X	X		3040523-02 A	Methane only
8	SB-040413 (GW)	—	"	1515	AQ	9	X	X	X	X		3040523-03 A	
9	SB-04 (GW)	—	"	1545	AQ	9	X	X	X	X		3040523-04 A	Dk 4/10/13 COB
~~10~~	~~MS/MSD #2~~	—	"	~~1550~~	AQ	9	X	X	X	X		X	~~MS of SB-03 (GW)~~
10	1646 - Sump	—	4/5/13	1015	AQ	9	X	X	X	X		3040523-05 A	
11	Surface Water	—	"	1040	AQ	9	X	X	X	X		3040523-06 A	Paper COC will follow.
	Contact Simon Crisp w/ question)												

Relinquished By: (2)	Date	Time	Received By:
COT	4/5/13	1532	#659
Relinquished By: (3)	Date	Time	Received By:
	4/5/13	1602	
Relinquished By: (4)	Date	Time	Received By:

☐ Next Day ☐ Emergency ☐ Other

Data Deliverables Required: COA ☐ QC SUMM ☐ CLP LIKE ☐ OTHER _____

Ice Present? Temp

Shipping Carrier

Special Instructions: 4.6°C

Call Simon for questions

DW COMPLIANCE? YES ☐ | EDD FORMAT TYPE _____ | STATE RESULTS REPORTED TO: MD ☐ DE ☐ PA ☐ VA ☐ WV ☐ OTHER _____

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED

Chain of Custody Form for Subcontracted Analyses

Phase Separation Science, Inc
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

W.O. No. : 13040516
P.O. No. :
Project Number : 4184
Report To LOD : Yes

Samples Transferred To:
Maryland Spectral Services
1500 Caton Center Drive
Baltimore, MD 21227
Phone : 410-247-7600

For Questions or issues please contact: Simon Crisp

Report Due On :04/10/13 05:00

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
13040516-006	1644-Sump	04/04/13	13:15	Water	Methane in Water	SW8015MOD	40 ml VOA	COOL
13040516-007	SR-03 (GW)	04/04/13	14:45	Water	Methane in Water	SW8015MOD	40 ml VOA	COOL
13040516-008	SR-040413 (GW)	04/04/13	15:15	Water	Methane in Water	SW8015MOD	40 ml VOA	COOL
13040516-009	SR-04 (GW)	04/04/13	15:45	Water	Methane in Water	SW8015MOD	40 ml VOA	COOL
13040516-010	1646-Sump	04/05/13	10:15	Water	Methane in Water	SW8015MOD	40 ml VOA	COOL
13040516-011	Surface Water	04/05/13	10:40	Water	Methane in Water	SW8015MOD	40 ml VOA	COOL

Data Deliverables Required: Full CLP-like Package

Perform Q.C. on Sample : 007

Send Report Attn : reporting@phaseonline.com

Send InvoiceAttn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : _____

Condition Upon Receipt : _____

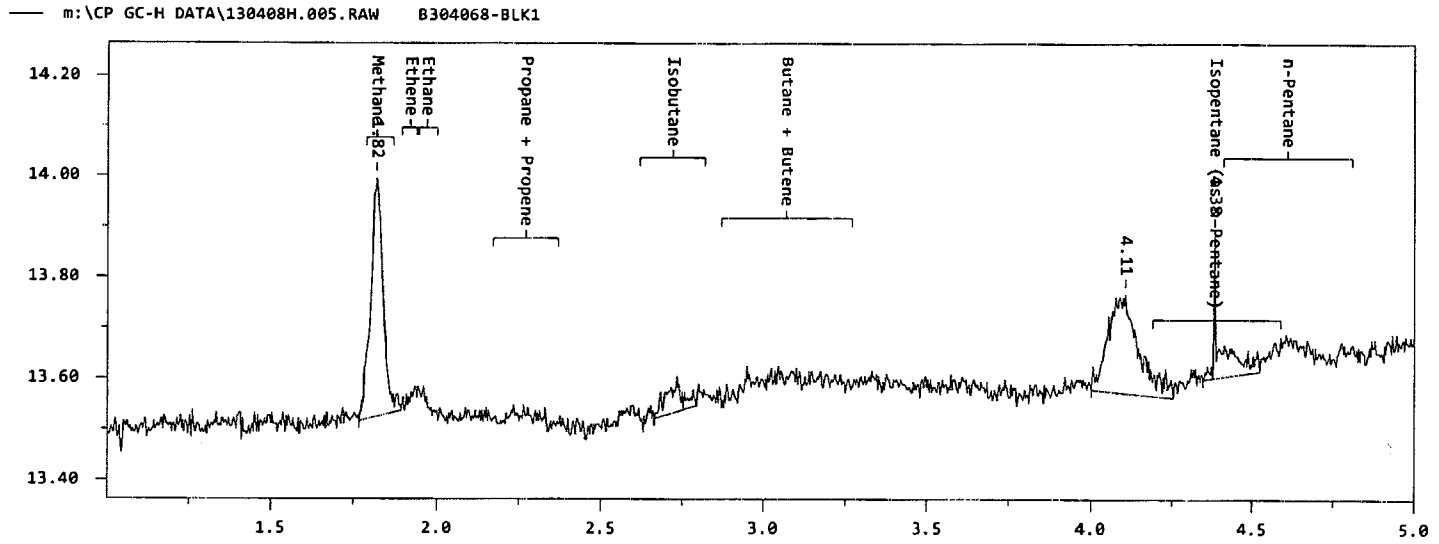
Comments : **Special price for methane in water $65/sample (inc. data package) now x 1.25 for 3-day ($81.25)**

Samples Relinquished By : _____ Date : _____ Time: _____ Samples Received By : _____

Samples Relinquished By: _____ Date : _____ Time : _____ Samples Received By: _____

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: _____

Sub-Contractor	Method	Matrix	Analyte Name
Maryland Spectral Services	SW8015MOD	Water	Methane



Instrument: GC-H

Sample Name: **B304068-BLK1**
Raw File Name: **m:\CP GC-H DATA\130408H.005.RAW**

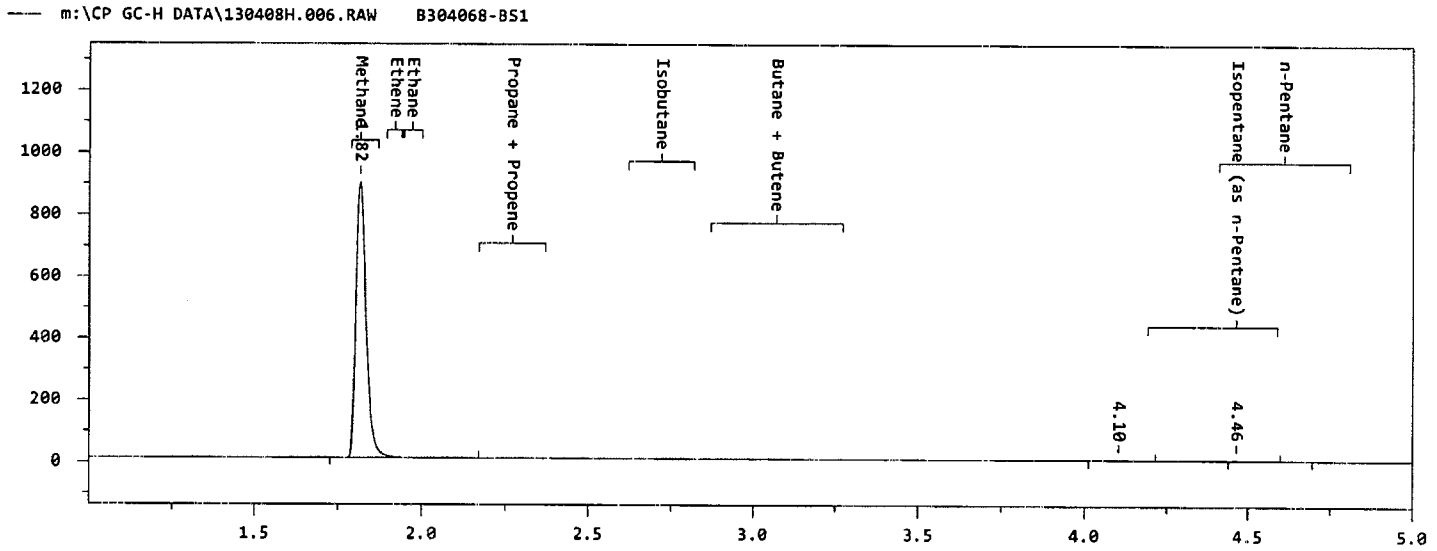
Analysis Date/Time: 04/08/13 11:12:02 AM

Column Type:
Method Identifier:

Method: M:\CPMethods\GC-H\C1C2.MET
Calibration: M:\CPCalibrations\GC-H\C1-C2.CAL

Ret. Time	Name	Amount	Area
1.82	Methane	2.45	1228
0.00	Ethene	0.00	0
0.00	Ethane	0.00	0
0.00	Propane + Propene	0.00	0
0.00	Isobutane	0.00	0
0.00	Butane + Butene	0.00	0
4.38	Isopentane (as n-Pentane)	0.16	396
0.00	n-Pentane	0.00	0

Total Methane: 2.45



Instrument: GC-H

Sample Name: B304068-BS1
Raw File Name: m:\CP GC-H DATA\130408H.006.RAW

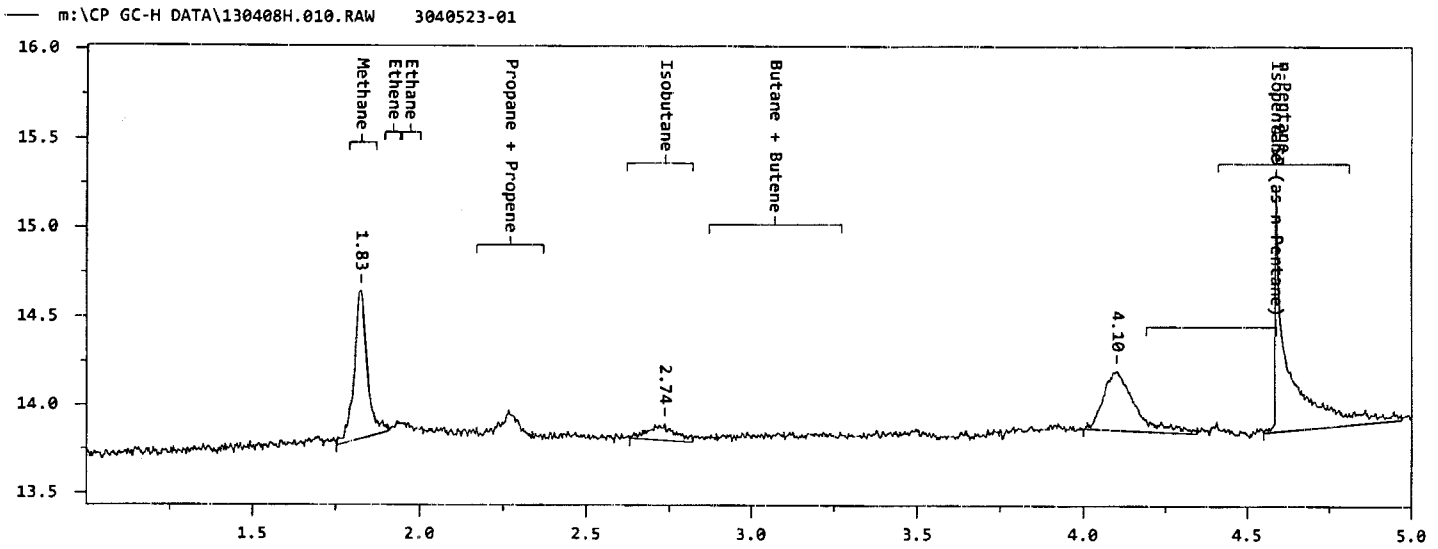
Analysis Date/Time: 04/08/13 11:28:35 AM

Column Type:
Method Identifier:

Method: M:\CPMethods\GC-H\C1C2.MET
Calibration: M:\CPCalibrations\GC-H\C1-C2.CAL

Ret. Time	Name	Amount	Area
1.82	Methane	3783.33	1897438
0.00	Ethene	0.00	0
0.00	Ethane	0.00	0
0.00	Propane + Propene	0.00	0
0.00	Isobutane	0.00	0
0.00	Butane + Butene	0.00	0
4.46	Isopentane (as n-Pentane)	0.46	1135
0.00	n-Pentane	0.00	0

Total Methane: 3783.33



Instrument: GC-H

Sample Name: 3040523-01
Raw File Name: m:\CP GC-H DATA\130408H.010.RAW

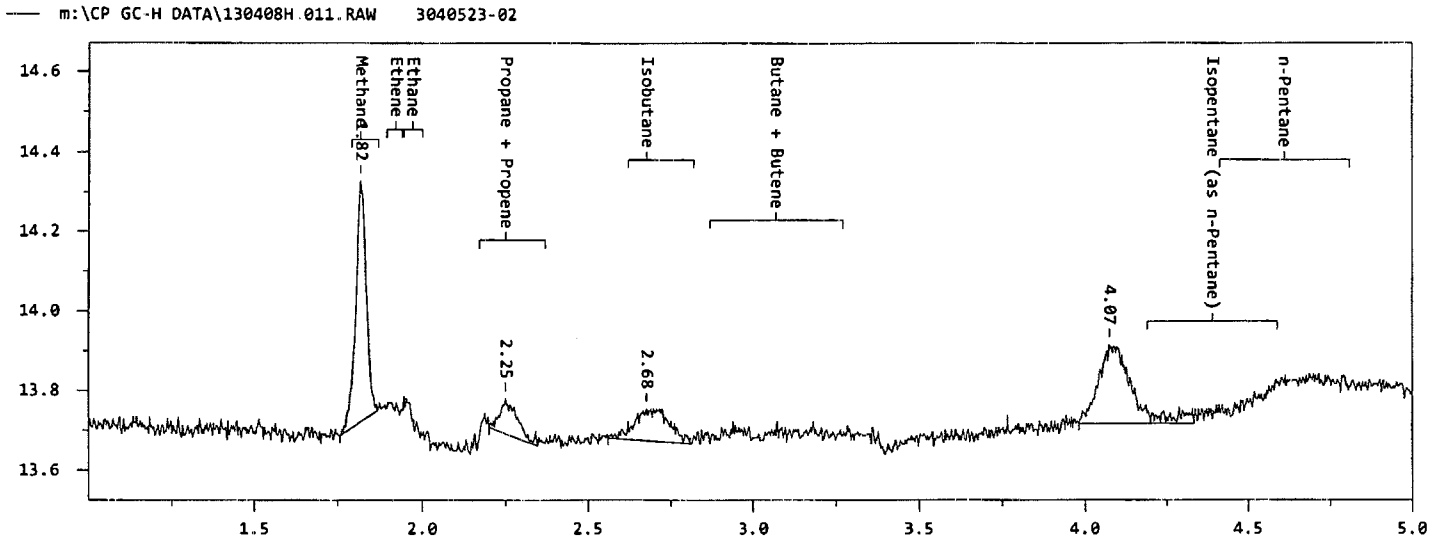
Analysis Date/Time: 04/08/13 12:38:26 PM

Column Type:
Method Identifier:

Method: M:\CPMethods\GC-H\C1C2.MET
Calibration: M:\CPCalibrations\GC-H\C1-C2.CAL

Ret. Time	Name	Amount	Area
1.83	Methane	4.59	2304
0.00	Ethene	0.00	0
0.00	Ethane	0.00	0
0.00	Propane + Propene	0.00	0
2.74	Isobutane	0.25	502
0.00	Butane + Butene	0.00	0
4.59	Isopentane (as n-Pentane)	1.49	3717
0.00	n-Pentane	0.00	0

Total Methane: 4.59



Instrument: GC-H

Sample Name: **3040523-02**
Raw File Name: **m:\CP GC-H DATA\130408H.011.RAW**

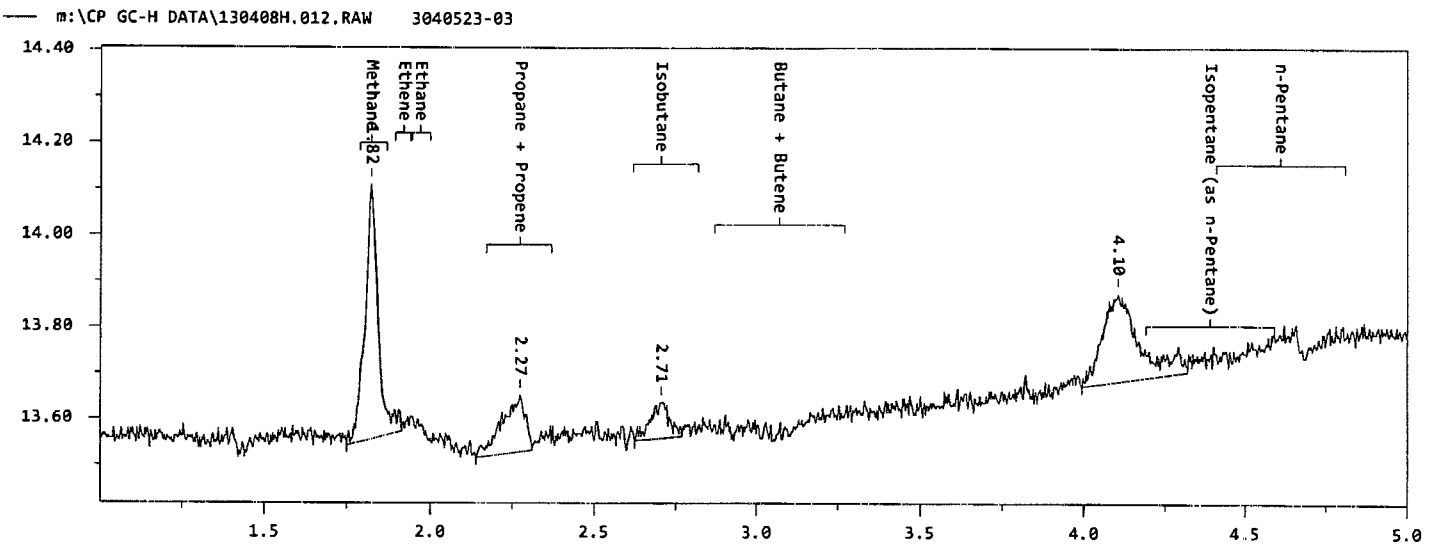
Analysis Date/Time: 04/08/13 12:46:35 PM

Column Type:
Method Identifier:

Method: M:\CPMethods\GC-H\C1C2.MET
Calibration: M:\CPCalibrations\GC-H\C1-C2.CAL

Ret. Time	Name	Amount	Area
1.82	Methane	2.65	1329
0.00	Ethene	0.00	0
0.00	Ethane	0.00	0
2.25	Propane + Propene	0.22	327
2.68	Isobutane	0.30	599
0.00	Butane + Butene	0.00	0
0.00	Isopentane (as n-Pentane)	0.00	0
0.00	n-Pentane	0.00	0

Total Methane: 2.65



Instrument: GC-H

Sample Name: **3040523-03**
Raw File Name: **m:\CP GC-H DATA\130408H.012.RAW**

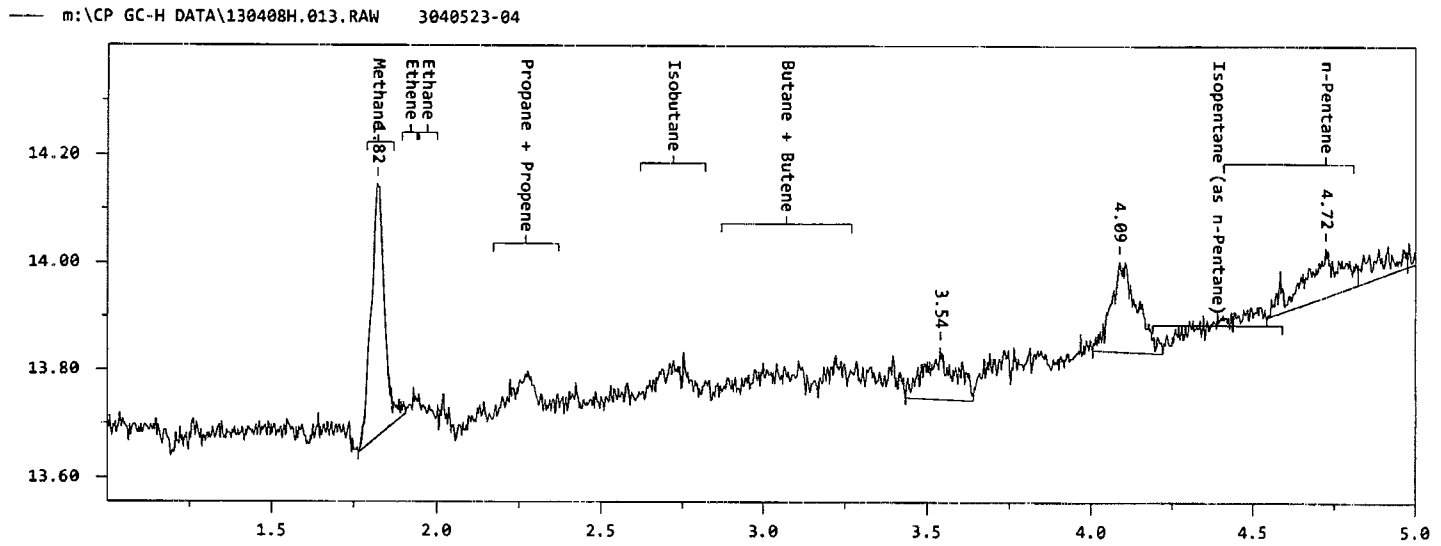
Analysis Date/Time: 04/08/13 12:56:53 PM

Column Type:
Method Identifier:

Method: M:\CPMethods\GC-H\C1C2.MET
Calibration: M:\CPCalibrations\GC-H\C1-C2.CAL

Ret. Time	Name	Amount	Area
1.82	Methane	3.06	1533
0.00	Ethene	0.00	0
0.00	Ethane	0.00	0
2.27	Propane + Propene	0.40	608
2.71	Isobutane	0.16	327
0.00	Butane + Butene	0.00	0
0.00	Isopentane (as n-Pentane)	0.00	0
0.00	n-Pentane	0.00	0

Total Methane: 3.06



Instrument: GC-H

Sample Name: **3040523-04**
Raw File Name: m:\CP GC-H DATA\130408H.013.RAW

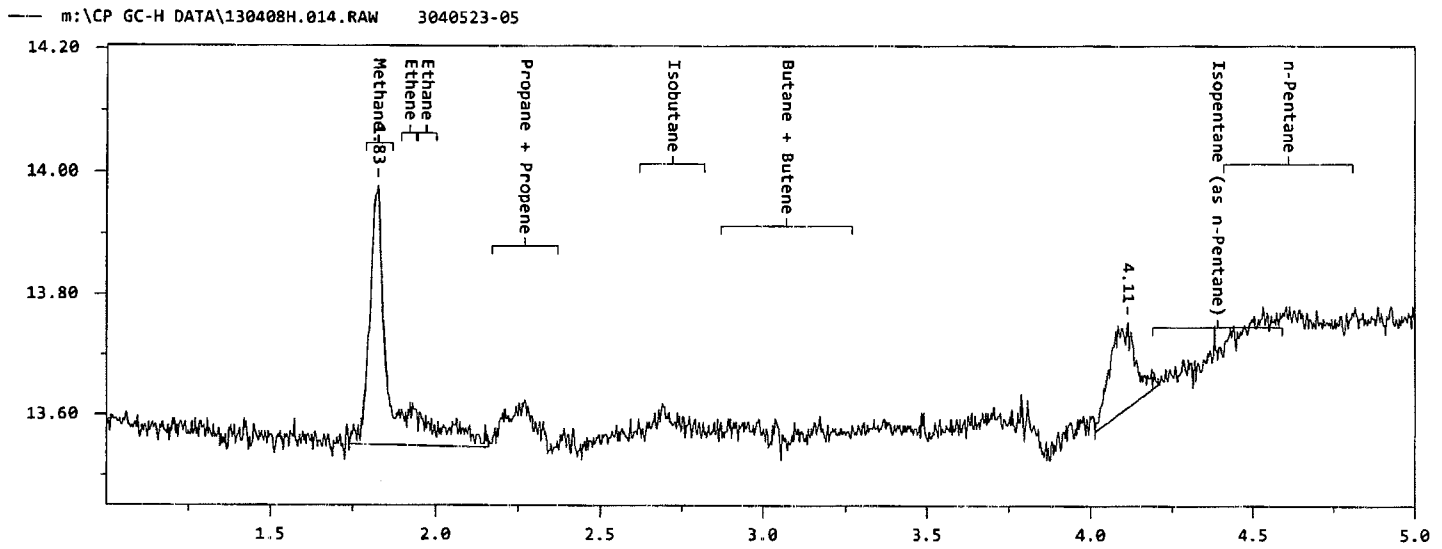
Analysis Date/Time: 04/08/13 01:10:31 PM

Column Type:
Method Identifier:

Method: M:\CPMethods\GC-H\C1C2.MET
Calibration: M:\CPCalibrations\GC-H\C1-C2.CAL

Ret. Time	Name	Amount	Area
1.82	Methane	2.65	1327
0.00	Ethene	0.00	0
0.00	Ethane	0.00	0
0.00	Propane + Propene	0.00	0
0.00	Isobutane	0.00	0
0.00	Butane + Butene	0.00	0
0.00	Isopentane (as n-Pentane)	0.00	0
4.72	n-Pentane	0.29	720

Total Methane: 2.65



Instrument: GC-H

Sample Name: **3040523-05**
Raw File Name: **m:\CP GC-H DATA\130408H.014.RAW**

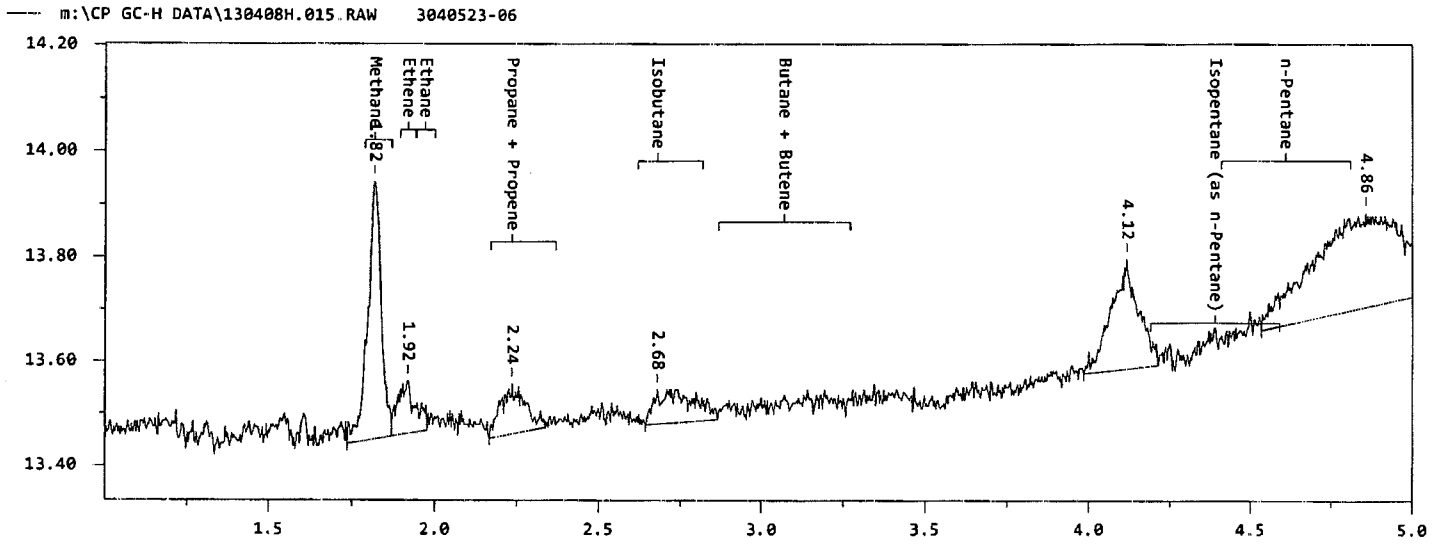
Analysis Date/Time: 04/08/13 01:20:33 PM

Column Type:
Method Identifier:

Method: M:\CPMethods\GC-H\C1C2.MET
Calibration: M:\CPCalibrations\GC-H\C1-C2.CAL

Ret. Time	Name	Amount	Area
1.83	Methane	3.54	1773
0.00	Ethene	0.00	0
0.00	Ethane	0.00	0
0.00	Propane + Propene	0.00	0
0.00	Isobutane	0.00	0
0.00	Butane + Butene	0.00	0
0.00	Isopentane (as n-Pentane)	0.00	0
0.00	n-Pentane	0.00	0

Total Methane: 3.54



Instrument: GC-H

Sample Name: **3040523-06**
Raw File Name: m:\CP GC-H DATA\130408H.015.RAW

Analysis Date/Time: 04/08/13 01:29:46 PM

Column Type:
Method Identifier:

Method: M:\CPMethods\GC-H\C1C2.MET
Calibration: M:\CPCalibrations\GC-H\C1-C2.CAL

Ret. Time	Name	Amount	Area
1.82	Methane	2.76	1382
1.92	Ethene	0.37	365
0.00	Ethane	0.00	0
2.24	Propane + Propene	0.32	484
2.68	Isobutane	0.26	514
0.00	Butane + Butene	0.00	0
0.00	Isopentane (as n-Pentane)	0.00	0
0.00	n-Pentane	0.00	0

Total Methane: 2.76

2. QC Summaries

Holding Time Summary

Surrogate Recovery Summary ' nosInnm` K(

KBR Matrix Spike/Matrix Spike Duplicate Summary

Method Blank Summary

GC/MS Tuning and Mass Calibration ' nosInnm` K(

Initial calibration Summary

Continuing Calibration Summary

Internal Standard Area Summary ' nosInnm` K(

HOLDING TIME SUMMARY

8015M

Laboratory: Maryland Spectral Services SDG:

Client: Phase Separation Science, Inc. Project: 13040516

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
1644-Sump	04/04/13 14:25	04/05/13 16:02	04/08/13 09:05	3.78	14.00	04/08/13 12:32	3.92	14.00	
SB-03 (GW)	04/04/13 14:25	04/05/13 16:02	04/08/13 09:05	3.78	14.00	04/08/13 12:40	3.93	14.00	
SB-040413 (GW)	04/04/13 14:25	04/05/13 16:02	04/08/13 09:05	3.78	14.00	04/08/13 12:50	3.93	14.00	
SB-04 (GW)	04/04/13 14:25	04/05/13 16:02	04/08/13 09:05	3.78	14.00	04/08/13 13:04	3.94	14.00	
1646-Sump	04/04/13 14:25	04/05/13 16:02	04/08/13 09:05	3.78	14.00	04/08/13 13:14	3.95	14.00	
Surface Water	04/04/13 14:25	04/05/13 16:02	04/08/13 09:05	3.78	14.00	04/08/13 13:23	3.96	14.00	

LCS / LCS DUPLICATE RECOVERY

8015M

Laboratory:	Maryland Spectral Services	SDG:	
Client:	Phase Separation Science, Inc.	Project:	13040516
Matrix:	Water		
Batch:	B304068	Laboratory ID:	B304068-BS1
Preparation:	8015(Dissolved Gas Extraction)	Initial/Final:	67.6 mL / 21.6 mL

COMPOUND	SPIKE ADDED (ppmv)	LCS CONCENTRATION (ppmv)	LCS % REC. #	QC LIMITS REC.
Methane	4420	3780	86	80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

8015M

SB-03 (GW)

Laboratory: Maryland Spectral Services

SDG:

Client: Phase Separation Science, Inc.

Project: 13040516

Matrix: Water

Batch: B304068

Laboratory ID: B304068-MS1

Preparation: 8015(Dissolved Gas Extraction)

Initial/Final: 69.2 mL / 20.9 mL

Source Sample Name: SB-03 (GW)

COMPOUND	SPIKE ADDED (ppmv)	SAMPLE CONCENTRATION (ppmv)	MS CONCENTRATION (ppmv)	MS % REC. #	QC LIMITS REC.
Methane	4570	2.54	3520	77	70 - 130

COMPOUND	SPIKE ADDED (ppmv)	MSD CONCENTRATION (ppmv)	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Methane	4780	3630	76	3	30	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION DATA

8015

Laboratory:	Maryland Spectral Services	SDG:	
Client:	Phase Separation Science, Inc.	Project:	13040516
Calibration:	M3D1002	Instrument:	GC-H
Matrix:	Vapor	Calibration Date:	09/27/11 15:08

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppmv	RF	ppmv	RF	ppmv	RF	ppmv	RF	ppmv	RF	ppmv	RF
Ethane	9 54	1184 067	19 1	1257 539	95 4	1224 644	477	1029 088	956	1042 754	0	
Ethene	6 88	1530 378	20 8	1020 817	99 9	1110 41	500	942 142	999	982 7087	0	
Isobutane	10 2		20 4		102		510		1020		0	
Methane	18 8	661 4894	37 6	652 8458	188	624 4841	940	511 5511	1880	502 7356	5000	507 9976
Butane + Butene	10	2266	20	2328 75	100	2460 78	500	2081 156	1000	1994 317	0	0
Propane + Propene	9 54	1722 222	19 1	1909 005	95 4	1816 153	477	1531 581	954	1501 926	0	

INITIAL CALIBRATION DATA (Continued)

8015

Laboratory: Maryland Spectral Services
SDG:
Client: Phase Separation Science, Inc.
Project: 13040516
Calibration: M3D1002
Instrument: GC-H
Matrix: Vapor
Calibration Date: 09/27/11 15:08

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppmv	RF	ppmv	RF	ppmv	RF	ppmv	RF	ppmv	RF	ppmv	RF
Ethane	0		0		0		0					
Ethene	0		0		0		0					
Isobutane	0		0		0		0					
Methane	10000	518 1835	20000	535 856	50000	513 8516	100000	496 8875				
Butane + Butene	0	0	0	0	0	0	0	0				
Propane + Propene	0		0		0		0					

INITIAL CALIBRATION DATA (Continued)

8015

Laboratory: Maryland Spectral Services
SDG:
Client: Phase Separation Science, Inc.
Project: 13040516
Calibration: M3D1002
Instrument: GC-H
Matrix: Vapor
Calibration Date: 09/27/11 15:08

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Ethane	1147 618	9 179412			0 99983			
Ethene	1117 291	21 4051			0 99964			
Isobutane					0 00000			
Methane	552 5882	11 95908			0 99980			
Butane + Butene	1113 1	106 0113			0 99962			
Propane + Propene	1696 177	10 43015			0 99983			

CONTINUING CALIBRATION CHECK

8015

Laboratory:	Maryland Spectral Services	SDG:	
Client:	Phase Separation Science, Inc.	Project:	13040516
Instrument ID:	GC-H	Calibration:	M3D1002
Lab File ID:	130408H.001.ZED	Calibration Date:	09/27/11 15:08
Sequence:	S304055	Injection Date:	04/08/13
Lab Sample ID:	S304055-CCV1	Injection Time:	10:14

		CONC. (ppmv)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methane	L	940	856	552.5882			-8.9	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

8015

Laboratory:	Maryland Spectral Services	SDG:	
Client:	Phase Separation Science, Inc.	Project:	13040516
Instrument ID:	GC-H	Calibration:	M3D1002
Lab File ID:	130408H.020.ZED	Calibration Date:	09/27/11 15:08
Sequence:	S304055	Injection Date:	04/08/13
Lab Sample ID:	S304055-CCV2	Injection Time:	16:17

		CONC. (ppmv)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methane	L	940	865	552.5882	461.5011		-8.0	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

8015

Laboratory:	Maryland Spectral Services	SDG:	
Client:	Phase Separation Science, Inc.	Project:	13040516
Sequence:	S304055	Instrument:	GC-H
Matrix:	Water	Calibration:	M3D1002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	S304055-CCV1	130408H.001.ZED	04/08/13 10:14
Calibration Blank	S304055-CCB1	130408H.003.ZED	04/08/13 10:34
Instrument Blank	S304055-IBL1	130408H.004.ZED	04/08/13 10:45
Instrument Blank	S304055-IBL2	130408H.008.ZED	04/08/13 11:50
Instrument Blank	S304055-IBL3	130408H.009.ZED	04/08/13 12:00
Calibration Check	S304055-CCV2	130408H.020.ZED	04/08/13 16:17

PREPARATION BATCH SUMMARY

8015M

Laboratory: Maryland Spectral Services SDG:

Client: Phase Separation Science, Inc. Project: 13040516

Batch: B304068 Batch Matrix: Water Preparation: 8015(Dissolved Gas Extraction)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
1644-Sump	3040523-01	130408H.010.ZED	04/08/13 09:05	
SB-03 (GW)	3040523-02	130408H.011.ZED	04/08/13 09:05	
SB-040413 (GW)	3040523-03	130408H.012.ZED	04/08/13 09:05	
SB-04 (GW)	3040523-04	130408H.013.ZED	04/08/13 09:05	
1646-Sump	3040523-05	130408H.014.ZED	04/08/13 09:05	
Surface Water	3040523-06	130408H.015.ZED	04/08/13 09:05	
Blank	B304068-BLK1	130408H.005.ZED	04/08/13 09:05	
LCS	B304068-BS1	130408H.006.ZED	04/08/13 09:05	
Duplicate	B304068-DUP1	130408H.016.ZED	04/08/13 09:05	
SB-03 (GW)	B304068-MS1	130408H.019.ZED	04/08/13 09:05	
SB-03 (GW)	B304068-MSD1	130408H.022.ZED	04/08/13 09:05	

ANALYSIS BATCH (SEQUENCE) SUMMARY

8015M

Laboratory:	Maryland Spectral Services	SDG:	
Client:	Phase Separation Science, Inc.	Project:	13040516
Sequence:	S304055	Instrument:	GC-H
Matrix:	Water	Calibration:	M3D1002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Blank	B304068-BLK1	130408H.005.ZED	04/08/13 11:06
LCS	B304068-BS1	130408H.006.ZED	04/08/13 11:22
1644-Sump	3040523-01	130408H.010.ZED	04/08/13 12:32
SB-03 (GW)	3040523-02	130408H.011.ZED	04/08/13 12:40
SB-040413 (GW)	3040523-03	130408H.012.ZED	04/08/13 12:50
SB-04 (GW)	3040523-04	130408H.013.ZED	04/08/13 13:04
1646-Sump	3040523-05	130408H.014.ZED	04/08/13 13:14
Surface Water	3040523-06	130408H.015.ZED	04/08/13 13:23
Duplicate	B304068-DUP1	130408H.016.ZED	04/08/13 13:35
SB-03 (GW)	B304068-MS1	130408H.019.ZED	04/08/13 15:48
SB-03 (GW)	B304068-MSD1	130408H.022.ZED	04/08/13 17:09

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April 23, 2013

Keith Green
WSP Environment and Energy
11190 Sunrise Valley Dr.
Reston, VA 20191

RE: Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Dear Keith Green:
Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carolynne Trout

Carolynne Trout

carolynne.trout@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia/DCLS Certification #: 002521
Virginia/VELAP Certification #: 460163
Washington Certification #: C754
West Virginia Certification #: 382
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10224616001	**1644-A-040313**	Air	04/04/13 10:46	04/05/13 09:10
10224616002	**1644-B-040313**	Air	04/04/13 10:49	04/05/13 09:10
10224616003	**1000-B-040313**	Air	04/04/13 10:49	04/05/13 09:10
10224616004	**1646-A-040313**	Air	04/04/13 10:30	04/05/13 09:10
10224616005	**1646-B-040313**	Air	04/04/13 10:30	04/05/13 09:10
10224616006	**1644/46-BK-040313**	Air	04/04/13 10:19	04/05/13 09:10
10224616007	**1644-F-040313**	Air	04/04/13 11:45	04/05/13 09:10
10224616008	**1644-R-040313**	Air	04/04/13 12:34	04/05/13 09:10
10224616009	**1646-F-040313**	Air	04/04/13 12:06	04/05/13 09:10
10224616010	**1646-R-040313**	Air	04/04/13 12:22	04/05/13 09:10
10224616011	**PACE0264**	Air	04/04/13 00:00	04/05/13 09:10
10224616012	**PACE0671**	Air	04/04/13 00:00	04/05/13 09:10
10224616013	**PACE0849**	Air	04/04/13 00:00	04/05/13 09:10
10224616014	**PACE2029**	Air	04/04/13 00:00	04/05/13 09:10
10224616015	**Cert Can 0099**	Air	04/03/13 00:00	04/05/13 16:29
10224616016	**Cert Can 0433**	Air	04/03/13 00:00	04/05/13 16:29
10224616017	**Cert Can 2033**	Air	04/03/13 00:00	04/05/13 16:29
10224616018	**Cert Can 1053**	Air	04/03/13 00:00	04/05/13 16:29
10224616019	**Cert Can 1078**	Air	04/03/13 00:00	04/05/13 16:29
10224616020	**Cert Can 0557**	Air	04/03/13 00:00	04/05/13 16:29
10224616021	**Cert Can 0262**	Air	04/03/13 00:00	04/05/13 16:29
10224616022	**Cert Can 0006**	Air	04/03/13 00:00	04/05/13 16:29
10224616023	**Cert Can 1611**	Air	04/03/13 00:00	04/05/13 16:29
10224616024	**Cert Can 1600**	Air	04/03/13 00:00	04/05/13 16:29

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SAMPLE ANALYTE COUNT

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10224616001	1644-A-040313	TO-15	CJR	58
10224616002	1644-B-040313	TO-15	CJR	58
10224616003	1000-B-040313	TO-15	CJR	58
10224616004	1646-A-040313	TO-15	CJR	58
10224616005	1646-B-040313	TO-15	CJR	58
10224616006	1644/46-BK-040313	TO-15	CJR	58
10224616007	1644-F-040313	TO-15	CJR	58
10224616008	1644-R-040313	TO-15	CJR	58
10224616009	1646-F-040313	TO-15	CJR	58
10224616010	1646-R-040313	TO-15	CJR	58
10224616015	Cert Can 0099	TO-15	DR1	57
10224616016	Cert Can 0433	TO-15	CJR	57
10224616017	Cert Can 2033	TO-15	DR1	57
10224616018	Cert Can 1053	TO-15	CJR	57
10224616019	Cert Can 1078	TO-15	CJR	57
10224616020	Cert Can 0557	TO-15	DR1	57
10224616021	Cert Can 0262	TO-15	CJR	57
10224616022	Cert Can 0006	TO-15	DR1	57
10224616023	Cert Can 1611	TO-15	DR1	57
10224616024	Cert Can 1600	TO-15	CJR	57

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-A-040313 **Lab ID: 10224616001** Collected: 04/04/13 10:46 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**29.2**	ug/m3	0.69	1.44		04/18/13 16:30	67-64-1	
Benzene	**1.4**	ug/m3	0.47	1.44		04/18/13 16:30	71-43-2	
Bromodichloromethane	ND	ug/m3	2.0	1.44		04/18/13 16:30	75-27-4	
Bromoform	ND	ug/m3	3.0	1.44		04/18/13 16:30	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.44		04/18/13 16:30	74-83-9	
1,3-Butadiene	ND	ug/m3	0.65	1.44		04/18/13 16:30	106-99-0	
2-Butanone (MEK)	**1.7**	ug/m3	0.86	1.44		04/18/13 16:30	78-93-3	
Carbon disulfide	ND	ug/m3	0.91	1.44		04/18/13 16:30	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.92	1.44		04/18/13 16:30	56-23-5	
Chlorobenzene	ND	ug/m3	1.4	1.44		04/18/13 16:30	108-90-7	
Chloroethane	ND	ug/m3	0.78	1.44		04/18/13 16:30	75-00-3	
Chloroform	ND	ug/m3	1.4	1.44		04/18/13 16:30	67-66-3	
Chloromethane	**0.63**	ug/m3	0.60	1.44		04/18/13 16:30	74-87-3	
Cyclohexane	**2.9**	ug/m3	1.0	1.44		04/18/13 16:30	110-82-7	
Dibromochloromethane	ND	ug/m3	2.5	1.44		04/18/13 16:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.2	1.44		04/18/13 16:30	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.44		04/18/13 16:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.8	1.44		04/18/13 16:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.8	1.44		04/18/13 16:30	106-46-7	
Dichlorodifluoromethane	**2.2**	ug/m3	1.5	1.44		04/18/13 16:30	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.2	1.44		04/18/13 16:30	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.59	1.44		04/18/13 16:30	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.2	1.44		04/18/13 16:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.2	1.44		04/18/13 16:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.2	1.44		04/18/13 16:30	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.4	1.44		04/18/13 16:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.3	1.44		04/18/13 16:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.3	1.44		04/18/13 16:30	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.0	1.44		04/18/13 16:30	76-14-2	
Ethyl acetate	**74.4**	ug/m3	1.1	1.44		04/18/13 16:30	141-78-6	
Ethylbenzene	**2.1**	ug/m3	1.3	1.44		04/18/13 16:30	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.4	1.44		04/18/13 16:30	622-96-8	
n-Heptane	**4.2**	ug/m3	1.2	1.44		04/18/13 16:30	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.2	1.44		04/18/13 16:30	87-68-3	
n-Hexane	**4.7**	ug/m3	1.0	1.44		04/18/13 16:30	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.44		04/18/13 16:30	591-78-6	
Methylene Chloride	**1.3**	ug/m3	1.0	1.44		04/18/13 16:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.2	1.44		04/18/13 16:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.44		04/18/13 16:30	1634-04-4	
Naphthalene	ND	ug/m3	1.5	1.44		04/18/13 16:30	91-20-3	
Propylene	ND	ug/m3	0.50	1.44		04/18/13 16:30	115-07-1	
Styrene	ND	ug/m3	1.3	1.44		04/18/13 16:30	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.0	1.44		04/18/13 16:30	79-34-5	
Tetrachloroethene	ND	ug/m3	0.99	1.44		04/18/13 16:30	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.86	1.44		04/18/13 16:30	109-99-9	
Toluene	**7.0**	ug/m3	1.1	1.44		04/18/13 16:30	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.44		04/18/13 16:30	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-A-040313 **Lab ID: 10224616001** Collected: 04/04/13 10:46 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.6	1.44		04/18/13 16:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.79	1.44		04/18/13 16:30	79-00-5	
Trichloroethene	**2.9**	ug/m3	0.79	1.44		04/18/13 16:30	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.6	1.44		04/18/13 16:30	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.3	1.44		04/18/13 16:30	76-13-1	
1,2,4-Trimethylbenzene	**1.8**	ug/m3	1.4	1.44		04/18/13 16:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.4	1.44		04/18/13 16:30	108-67-8	
Vinyl acetate	ND	ug/m3	1.0	1.44		04/18/13 16:30	108-05-4	
Vinyl chloride	ND	ug/m3	0.37	1.44		04/18/13 16:30	75-01-4	
m&p-Xylene	**6.6**	ug/m3	2.5	1.44		04/18/13 16:30	179601-23-1	
o-Xylene	**1.9**	ug/m3	1.3	1.44		04/18/13 16:30	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-B-040313 **Lab ID: 10224616002** Collected: 04/04/13 10:49 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Dichlorodifluoromethane	**2.2**	ug/m3	1.3	1.26		04/18/13 17:01	75-71-8	
Chloromethane	**0.63**	ug/m3	0.53	1.26		04/18/13 17:01	74-87-3	
Dichlorotetrafluoroethane	ND	ug/m3	1.8	1.26		04/18/13 17:01	76-14-2	
Vinyl chloride	ND	ug/m3	0.33	1.26		04/18/13 17:01	75-01-4	
Bromomethane	ND	ug/m3	1.0	1.26		04/18/13 17:01	74-83-9	
Chloroethane	ND	ug/m3	0.68	1.26		04/18/13 17:01	75-00-3	
Trichlorofluoromethane	ND	ug/m3	1.4	1.26		04/18/13 17:01	75-69-4	
1,1-Dichloroethene	ND	ug/m3	1.0	1.26		04/18/13 17:01	75-35-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.0	1.26		04/18/13 17:01	76-13-1	
Methylene Chloride	**1.4**	ug/m3	0.89	1.26		04/18/13 17:01	75-09-2	
1,1-Dichloroethane	ND	ug/m3	1.0	1.26		04/18/13 17:01	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.0	1.26		04/18/13 17:01	156-59-2	
Chloroform	ND	ug/m3	1.2	1.26		04/18/13 17:01	67-66-3	
1,1,1-Trichloroethane	ND	ug/m3	1.4	1.26		04/18/13 17:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.69	1.26		04/18/13 17:01	79-00-5	
1,2-Dichloroethane	ND	ug/m3	0.52	1.26		04/18/13 17:01	107-06-2	
Benzene	**1.7**	ug/m3	0.41	1.26		04/18/13 17:01	71-43-2	
Carbon tetrachloride	ND	ug/m3	0.81	1.26		04/18/13 17:01	56-23-5	
1,2-Dichloropropane	ND	ug/m3	1.2	1.26		04/18/13 17:01	78-87-5	
Trichloroethene	ND	ug/m3	0.69	1.26		04/18/13 17:01	79-01-6	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.26		04/18/13 17:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.26		04/18/13 17:01	10061-02-6	
Toluene	**8.1**	ug/m3	0.97	1.26		04/18/13 17:01	108-88-3	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.0	1.26		04/18/13 17:01	106-93-4	
Tetrachloroethene	ND	ug/m3	0.87	1.26		04/18/13 17:01	127-18-4	
Chlorobenzene	ND	ug/m3	1.2	1.26		04/18/13 17:01	108-90-7	
Ethylbenzene	**2.8**	ug/m3	1.1	1.26		04/18/13 17:01	100-41-4	
m&p-Xylene	**10.2**	ug/m3	2.2	1.26		04/18/13 17:01	179601-23-1	
Styrene	ND	ug/m3	1.1	1.26		04/18/13 17:01	100-42-5	
o-Xylene	**2.8**	ug/m3	1.1	1.26		04/18/13 17:01	95-47-6	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.88	1.26		04/18/13 17:01	79-34-5	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.26		04/18/13 17:01	108-67-8	
1,2,4-Trimethylbenzene	**3.8**	ug/m3	1.3	1.26		04/18/13 17:01	95-63-6	
1,3-Dichlorobenzene	ND	ug/m3	1.5	1.26		04/18/13 17:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.5	1.26		04/18/13 17:01	106-46-7	
1,2-Dichlorobenzene	ND	ug/m3	1.5	1.26		04/18/13 17:01	95-50-1	
1,2,4-Trichlorobenzene	ND	ug/m3	1.9	1.26		04/18/13 17:01	120-82-1	
Hexachloro-1,3-butadiene	ND	ug/m3	2.8	1.26		04/18/13 17:01	87-68-3	
Tetrahydrofuran	ND	ug/m3	0.76	1.26		04/18/13 17:01	109-99-9	
Acetone	ND	ug/m3	0.60	1.26		04/18/13 17:01	67-64-1	
2-Butanone (MEK)	ND	ug/m3	0.76	1.26		04/18/13 17:01	78-93-3	
n-Hexane	**4.9**	ug/m3	0.91	1.26		04/18/13 17:01	110-54-3	
Methyl-tert-butyl ether	ND	ug/m3	0.92	1.26		04/18/13 17:01	1634-04-4	
Dibromochloromethane	ND	ug/m3	2.2	1.26		04/18/13 17:01	124-48-1	
1,3-Butadiene	ND	ug/m3	0.57	1.26		04/18/13 17:01	106-99-0	
Carbon disulfide	ND	ug/m3	0.79	1.26		04/18/13 17:01	75-15-0	
Vinyl acetate	ND	ug/m3	0.90	1.26		04/18/13 17:01	108-05-4	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-B-040313 **Lab ID: 10224616002** Collected: 04/04/13 10:49 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Cyclohexane	**3.0**	ug/m3	0.88	1.26		04/18/13 17:01	110-82-7	
Ethyl acetate	ND	ug/m3	0.92	1.26		04/18/13 17:01	141-78-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.0	1.26		04/18/13 17:01	108-10-1	
2-Hexanone	ND	ug/m3	1.0	1.26		04/18/13 17:01	591-78-6	
Bromoform	ND	ug/m3	2.6	1.26		04/18/13 17:01	75-25-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.0	1.26		04/18/13 17:01	156-60-5	
Bromodichloromethane	ND	ug/m3	1.7	1.26		04/18/13 17:01	75-27-4	
n-Heptane	**4.0**	ug/m3	1.0	1.26		04/18/13 17:01	142-82-5	
Propylene	ND	ug/m3	0.44	1.26		04/18/13 17:01	115-07-1	
4-Ethyltoluene	**1.6**	ug/m3	1.3	1.26		04/18/13 17:01	622-96-8	
Naphthalene	ND	ug/m3	1.3	1.26		04/18/13 17:01	91-20-3	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1000-B-040313 **Lab ID: 10224616003** Collected: 04/04/13 10:49 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.64	1.34		04/19/13 16:49	67-64-1	
Benzene	**2.1**	ug/m3	0.44	1.34		04/19/13 16:49	71-43-2	
Bromodichloromethane	ND	ug/m3	1.8	1.34		04/19/13 16:49	75-27-4	
Bromoform	ND	ug/m3	2.8	1.34		04/19/13 16:49	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.34		04/19/13 16:49	74-83-9	
1,3-Butadiene	ND	ug/m3	0.60	1.34		04/19/13 16:49	106-99-0	
2-Butanone (MEK)	**3.9**	ug/m3	0.80	1.34		04/19/13 16:49	78-93-3	
Carbon disulfide	ND	ug/m3	0.84	1.34		04/19/13 16:49	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.86	1.34		04/19/13 16:49	56-23-5	
Chlorobenzene	ND	ug/m3	1.3	1.34		04/19/13 16:49	108-90-7	
Chloroethane	ND	ug/m3	0.72	1.34		04/19/13 16:49	75-00-3	
Chloroform	ND	ug/m3	1.3	1.34		04/19/13 16:49	67-66-3	
Chloromethane	**0.72**	ug/m3	0.56	1.34		04/19/13 16:49	74-87-3	
Cyclohexane	**3.5**	ug/m3	0.94	1.34		04/19/13 16:49	110-82-7	
Dibromochloromethane	ND	ug/m3	2.3	1.34		04/19/13 16:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.1	1.34		04/19/13 16:49	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/19/13 16:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/19/13 16:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/19/13 16:49	106-46-7	
Dichlorodifluoromethane	**2.6**	ug/m3	1.4	1.34		04/19/13 16:49	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.1	1.34		04/19/13 16:49	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.55	1.34		04/19/13 16:49	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.1	1.34		04/19/13 16:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.1	1.34		04/19/13 16:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.1	1.34		04/19/13 16:49	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.3	1.34		04/19/13 16:49	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		04/19/13 16:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		04/19/13 16:49	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.9	1.34		04/19/13 16:49	76-14-2	
Ethyl acetate	ND	ug/m3	0.98	1.34		04/19/13 16:49	141-78-6	
Ethylbenzene	**3.9**	ug/m3	1.2	1.34		04/19/13 16:49	100-41-4	
4-Ethyltoluene	**2.0**	ug/m3	1.3	1.34		04/19/13 16:49	622-96-8	
n-Heptane	**4.9**	ug/m3	1.1	1.34		04/19/13 16:49	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.9	1.34		04/19/13 16:49	87-68-3	
n-Hexane	**5.7**	ug/m3	0.96	1.34		04/19/13 16:49	110-54-3	
2-Hexanone	ND	ug/m3	1.1	1.34		04/19/13 16:49	591-78-6	
Methylene Chloride	**1.9**	ug/m3	0.95	1.34		04/19/13 16:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.1	1.34		04/19/13 16:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.98	1.34		04/19/13 16:49	1634-04-4	
Naphthalene	**2.4**	ug/m3	1.4	1.34		04/19/13 16:49	91-20-3	CH,L1
Propylene	ND	ug/m3	0.47	1.34		04/19/13 16:49	115-07-1	
Styrene	ND	ug/m3	1.2	1.34		04/19/13 16:49	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.94	1.34		04/19/13 16:49	79-34-5	
Tetrachloroethene	ND	ug/m3	0.92	1.34		04/19/13 16:49	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.80	1.34		04/19/13 16:49	109-99-9	
Toluene	**10.1**	ug/m3	1.0	1.34		04/19/13 16:49	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.0	1.34		04/19/13 16:49	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1000-B-040313 **Lab ID: 10224616003** Collected: 04/04/13 10:49 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.5	1.34		04/19/13 16:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.74	1.34		04/19/13 16:49	79-00-5	
Trichloroethene	**0.99**	ug/m3	0.74	1.34		04/19/13 16:49	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.5	1.34		04/19/13 16:49	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.1	1.34		04/19/13 16:49	76-13-1	
1,2,4-Trimethylbenzene	**5.6**	ug/m3	1.3	1.34		04/19/13 16:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.34		04/19/13 16:49	108-67-8	
Vinyl acetate	ND	ug/m3	0.96	1.34		04/19/13 16:49	108-05-4	
Vinyl chloride	ND	ug/m3	0.35	1.34		04/19/13 16:49	75-01-4	
m&p-Xylene	**13.3**	ug/m3	2.4	1.34		04/19/13 16:49	179601-23-1	
o-Xylene	**4.1**	ug/m3	1.2	1.34		04/19/13 16:49	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-A-040313 **Lab ID: 10224616004** Collected: 04/04/13 10:30 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.72	1.49		04/18/13 20:32	67-64-1	
Benzene	**1.1**	ug/m3	0.48	1.49		04/18/13 20:32	71-43-2	
Bromodichloromethane	ND	ug/m3	2.0	1.49		04/18/13 20:32	75-27-4	
Bromoform	ND	ug/m3	3.1	1.49		04/18/13 20:32	75-25-2	
Bromomethane	ND	ug/m3	1.2	1.49		04/18/13 20:32	74-83-9	
1,3-Butadiene	ND	ug/m3	0.67	1.49		04/18/13 20:32	106-99-0	
2-Butanone (MEK)	**5.6**	ug/m3	0.89	1.49		04/18/13 20:32	78-93-3	
Carbon disulfide	ND	ug/m3	0.94	1.49		04/18/13 20:32	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.95	1.49		04/18/13 20:32	56-23-5	
Chlorobenzene	ND	ug/m3	1.4	1.49		04/18/13 20:32	108-90-7	
Chloroethane	ND	ug/m3	0.80	1.49		04/18/13 20:32	75-00-3	
Chloroform	**1.5**	ug/m3	1.5	1.49		04/18/13 20:32	67-66-3	
Chloromethane	**0.97**	ug/m3	0.63	1.49		04/18/13 20:32	74-87-3	
Cyclohexane	**2.2**	ug/m3	1.0	1.49		04/18/13 20:32	110-82-7	
Dibromochloromethane	ND	ug/m3	2.6	1.49		04/18/13 20:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.3	1.49		04/18/13 20:32	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.49		04/18/13 20:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.8	1.49		04/18/13 20:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.8	1.49		04/18/13 20:32	106-46-7	
Dichlorodifluoromethane	**2.4**	ug/m3	1.5	1.49		04/18/13 20:32	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.2	1.49		04/18/13 20:32	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.61	1.49		04/18/13 20:32	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.2	1.49		04/18/13 20:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.2	1.49		04/18/13 20:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.2	1.49		04/18/13 20:32	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.4	1.49		04/18/13 20:32	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.4	1.49		04/18/13 20:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.4	1.49		04/18/13 20:32	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.1	1.49		04/18/13 20:32	76-14-2	
Ethyl acetate	**24.4**	ug/m3	1.1	1.49		04/18/13 20:32	141-78-6	
Ethylbenzene	**1.4**	ug/m3	1.3	1.49		04/18/13 20:32	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.5	1.49		04/18/13 20:32	622-96-8	
n-Heptane	**3.9**	ug/m3	1.2	1.49		04/18/13 20:32	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.3	1.49		04/18/13 20:32	87-68-3	
n-Hexane	**2.3**	ug/m3	1.1	1.49		04/18/13 20:32	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.49		04/18/13 20:32	591-78-6	
Methylene Chloride	**1.6**	ug/m3	1.1	1.49		04/18/13 20:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.2	1.49		04/18/13 20:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.49		04/18/13 20:32	1634-04-4	
Naphthalene	ND	ug/m3	1.6	1.49		04/18/13 20:32	91-20-3	
Propylene	ND	ug/m3	0.52	1.49		04/18/13 20:32	115-07-1	
Styrene	ND	ug/m3	1.3	1.49		04/18/13 20:32	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.0	1.49		04/18/13 20:32	79-34-5	
Tetrachloroethene	ND	ug/m3	1.0	1.49		04/18/13 20:32	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.89	1.49		04/18/13 20:32	109-99-9	
Toluene	**7.0**	ug/m3	1.1	1.49		04/18/13 20:32	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.49		04/18/13 20:32	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-A-040313 **Lab ID: 10224616004** Collected: 04/04/13 10:30 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.49		04/18/13 20:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.82	1.49		04/18/13 20:32	79-00-5	
Trichloroethene	**1.1**	ug/m3	0.82	1.49		04/18/13 20:32	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.7	1.49		04/18/13 20:32	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.4	1.49		04/18/13 20:32	76-13-1	
1,2,4-Trimethylbenzene	**2.0**	ug/m3	1.5	1.49		04/18/13 20:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.5	1.49		04/18/13 20:32	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.49		04/18/13 20:32	108-05-4	
Vinyl chloride	ND	ug/m3	0.39	1.49		04/18/13 20:32	75-01-4	
m&p-Xylene	ND	ug/m3	2.6	1.49		04/18/13 20:32	179601-23-1	
o-Xylene	ND	ug/m3	1.3	1.49		04/18/13 20:32	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-B-040313 **Lab ID: 10224616005** Collected: 04/04/13 10:30 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.64	1.34		04/18/13 18:03	67-64-1	
Benzene	**0.64**	ug/m3	0.44	1.34		04/18/13 18:03	71-43-2	
Bromodichloromethane	ND	ug/m3	1.8	1.34		04/18/13 18:03	75-27-4	
Bromoform	ND	ug/m3	2.8	1.34		04/18/13 18:03	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.34		04/18/13 18:03	74-83-9	
1,3-Butadiene	ND	ug/m3	0.60	1.34		04/18/13 18:03	106-99-0	
2-Butanone (MEK)	**1.9**	ug/m3	0.80	1.34		04/18/13 18:03	78-93-3	
Carbon disulfide	ND	ug/m3	0.84	1.34		04/18/13 18:03	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.86	1.34		04/18/13 18:03	56-23-5	
Chlorobenzene	ND	ug/m3	1.3	1.34		04/18/13 18:03	108-90-7	
Chloroethane	ND	ug/m3	0.72	1.34		04/18/13 18:03	75-00-3	
Chloroform	ND	ug/m3	1.3	1.34		04/18/13 18:03	67-66-3	
Chloromethane	ND	ug/m3	0.56	1.34		04/18/13 18:03	74-87-3	
Cyclohexane	**1.8**	ug/m3	0.94	1.34		04/18/13 18:03	110-82-7	
Dibromochloromethane	ND	ug/m3	2.3	1.34		04/18/13 18:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.1	1.34		04/18/13 18:03	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/18/13 18:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/18/13 18:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/18/13 18:03	106-46-7	
Dichlorodifluoromethane	**2.1**	ug/m3	1.4	1.34		04/18/13 18:03	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.1	1.34		04/18/13 18:03	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.55	1.34		04/18/13 18:03	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.1	1.34		04/18/13 18:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.1	1.34		04/18/13 18:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.1	1.34		04/18/13 18:03	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.3	1.34		04/18/13 18:03	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		04/18/13 18:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		04/18/13 18:03	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.9	1.34		04/18/13 18:03	76-14-2	
Ethyl acetate	**3.0**	ug/m3	0.98	1.34		04/18/13 18:03	141-78-6	
Ethylbenzene	ND	ug/m3	1.2	1.34		04/18/13 18:03	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.3	1.34		04/18/13 18:03	622-96-8	
n-Heptane	**3.2**	ug/m3	1.1	1.34		04/18/13 18:03	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.9	1.34		04/18/13 18:03	87-68-3	
n-Hexane	**1.7**	ug/m3	0.96	1.34		04/18/13 18:03	110-54-3	
2-Hexanone	ND	ug/m3	1.1	1.34		04/18/13 18:03	591-78-6	
Methylene Chloride	ND	ug/m3	0.95	1.34		04/18/13 18:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.1	1.34		04/18/13 18:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.98	1.34		04/18/13 18:03	1634-04-4	
Naphthalene	ND	ug/m3	1.4	1.34		04/18/13 18:03	91-20-3	
Propylene	ND	ug/m3	0.47	1.34		04/18/13 18:03	115-07-1	
Styrene	ND	ug/m3	1.2	1.34		04/18/13 18:03	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.94	1.34		04/18/13 18:03	79-34-5	
Tetrachloroethene	ND	ug/m3	0.92	1.34		04/18/13 18:03	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.80	1.34		04/18/13 18:03	109-99-9	
Toluene	**2.3**	ug/m3	1.0	1.34		04/18/13 18:03	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.0	1.34		04/18/13 18:03	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-B-040313 **Lab ID: 10224616005** Collected: 04/04/13 10:30 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.5	1.34		04/18/13 18:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.74	1.34		04/18/13 18:03	79-00-5	
Trichloroethene	**2.4**	ug/m3	0.74	1.34		04/18/13 18:03	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.5	1.34		04/18/13 18:03	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.1	1.34		04/18/13 18:03	76-13-1	
1,2,4-Trimethylbenzene	**1.7**	ug/m3	1.3	1.34		04/18/13 18:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.34		04/18/13 18:03	108-67-8	
Vinyl acetate	ND	ug/m3	0.96	1.34		04/18/13 18:03	108-05-4	
Vinyl chloride	ND	ug/m3	0.35	1.34		04/18/13 18:03	75-01-4	
m&p-Xylene	ND	ug/m3	2.4	1.34		04/18/13 18:03	179601-23-1	
o-Xylene	ND	ug/m3	1.2	1.34		04/18/13 18:03	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644/46-BK-040313 **Lab ID: 10224616006** Collected: 04/04/13 10:19 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**0.90**	ug/m3	0.81	1.69		04/19/13 17:54	67-64-1	
Benzene	ND	ug/m3	0.55	1.69		04/19/13 17:54	71-43-2	
Bromodichloromethane	ND	ug/m3	2.3	1.69		04/19/13 17:54	75-27-4	
Bromoform	ND	ug/m3	3.5	1.69		04/19/13 17:54	75-25-2	
Bromomethane	ND	ug/m3	1.3	1.69		04/19/13 17:54	74-83-9	
1,3-Butadiene	ND	ug/m3	0.76	1.69		04/19/13 17:54	106-99-0	
2-Butanone (MEK)	ND	ug/m3	1.0	1.69		04/19/13 17:54	78-93-3	
Carbon disulfide	ND	ug/m3	1.1	1.69		04/19/13 17:54	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.1	1.69		04/19/13 17:54	56-23-5	
Chlorobenzene	ND	ug/m3	1.6	1.69		04/19/13 17:54	108-90-7	
Chloroethane	ND	ug/m3	0.91	1.69		04/19/13 17:54	75-00-3	
Chloroform	ND	ug/m3	1.7	1.69		04/19/13 17:54	67-66-3	
Chloromethane	ND	ug/m3	0.71	1.69		04/19/13 17:54	74-87-3	
Cyclohexane	ND	ug/m3	1.2	1.69		04/19/13 17:54	110-82-7	
Dibromochloromethane	ND	ug/m3	2.9	1.69		04/19/13 17:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.6	1.69		04/19/13 17:54	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.1	1.69		04/19/13 17:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.1	1.69		04/19/13 17:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.1	1.69		04/19/13 17:54	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.7	1.69		04/19/13 17:54	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.4	1.69		04/19/13 17:54	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.69	1.69		04/19/13 17:54	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.4	1.69		04/19/13 17:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.69		04/19/13 17:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.69		04/19/13 17:54	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.6	1.69		04/19/13 17:54	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.6	1.69		04/19/13 17:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.6	1.69		04/19/13 17:54	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.4	1.69		04/19/13 17:54	76-14-2	
Ethyl acetate	ND	ug/m3	1.2	1.69		04/19/13 17:54	141-78-6	
Ethylbenzene	ND	ug/m3	1.5	1.69		04/19/13 17:54	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.7	1.69		04/19/13 17:54	622-96-8	
n-Heptane	ND	ug/m3	1.4	1.69		04/19/13 17:54	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.7	1.69		04/19/13 17:54	87-68-3	
n-Hexane	**2.8**	ug/m3	1.2	1.69		04/19/13 17:54	110-54-3	
2-Hexanone	ND	ug/m3	1.4	1.69		04/19/13 17:54	591-78-6	
Methylene Chloride	**16.3**	ug/m3	1.2	1.69		04/19/13 17:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.4	1.69		04/19/13 17:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.2	1.69		04/19/13 17:54	1634-04-4	
Naphthalene	ND	ug/m3	1.8	1.69		04/19/13 17:54	91-20-3	
Propylene	ND	ug/m3	0.59	1.69		04/19/13 17:54	115-07-1	
Styrene	ND	ug/m3	1.5	1.69		04/19/13 17:54	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.2	1.69		04/19/13 17:54	79-34-5	
Tetrachloroethene	ND	ug/m3	1.2	1.69		04/19/13 17:54	127-18-4	
Tetrahydrofuran	ND	ug/m3	1.0	1.69		04/19/13 17:54	109-99-9	
Toluene	ND	ug/m3	1.3	1.69		04/19/13 17:54	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.6	1.69		04/19/13 17:54	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644/46-BK-040313 **Lab ID: 10224616006** Collected: 04/04/13 10:19 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.9	1.69		04/19/13 17:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.93	1.69		04/19/13 17:54	79-00-5	
Trichloroethene	ND	ug/m3	0.93	1.69		04/19/13 17:54	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.9	1.69		04/19/13 17:54	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.7	1.69		04/19/13 17:54	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.7	1.69		04/19/13 17:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.7	1.69		04/19/13 17:54	108-67-8	
Vinyl acetate	ND	ug/m3	1.2	1.69		04/19/13 17:54	108-05-4	
Vinyl chloride	ND	ug/m3	0.44	1.69		04/19/13 17:54	75-01-4	
m&p-Xylene	ND	ug/m3	3.0	1.69		04/19/13 17:54	179601-23-1	
o-Xylene	ND	ug/m3	1.5	1.69		04/19/13 17:54	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-F-040313 **Lab ID: 10224616007** Collected: 04/04/13 11:45 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	14.9	31		04/19/13 19:15	67-64-1	
Benzene	**96.1**	ug/m3	10.1	31		04/19/13 19:15	71-43-2	
Bromodichloromethane	ND	ug/m3	42.2	31		04/19/13 19:15	75-27-4	
Bromoform	ND	ug/m3	65.1	31		04/19/13 19:15	75-25-2	
Bromomethane	ND	ug/m3	24.5	31		04/19/13 19:15	74-83-9	
1,3-Butadiene	ND	ug/m3	14.0	31		04/19/13 19:15	106-99-0	
2-Butanone (MEK)	ND	ug/m3	18.6	31		04/19/13 19:15	78-93-3	
Carbon disulfide	ND	ug/m3	19.5	31		04/19/13 19:15	75-15-0	
Carbon tetrachloride	ND	ug/m3	19.8	31		04/19/13 19:15	56-23-5	
Chlorobenzene	ND	ug/m3	29.1	31		04/19/13 19:15	108-90-7	
Chloroethane	ND	ug/m3	16.7	31		04/19/13 19:15	75-00-3	
Chloroform	**148**	ug/m3	30.7	31		04/19/13 19:15	67-66-3	
Chloromethane	ND	ug/m3	13.0	31		04/19/13 19:15	74-87-3	
Cyclohexane	**168**	ug/m3	21.7	31		04/19/13 19:15	110-82-7	
Dibromochloromethane	ND	ug/m3	53.6	31		04/19/13 19:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	48.4	31		04/19/13 19:15	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	37.8	31		04/19/13 19:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	37.8	31		04/19/13 19:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	37.8	31		04/19/13 19:15	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	31.3	31		04/19/13 19:15	75-71-8	
1,1-Dichloroethane	ND	ug/m3	25.4	31		04/19/13 19:15	75-34-3	
1,2-Dichloroethane	ND	ug/m3	12.7	31		04/19/13 19:15	107-06-2	
1,1-Dichloroethene	ND	ug/m3	25.1	31		04/19/13 19:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	25.1	31		04/19/13 19:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	25.1	31		04/19/13 19:15	156-60-5	
1,2-Dichloropropane	ND	ug/m3	29.1	31		04/19/13 19:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	28.5	31		04/19/13 19:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	28.5	31		04/19/13 19:15	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	44.0	31		04/19/13 19:15	76-14-2	
Ethyl acetate	ND	ug/m3	22.6	31		04/19/13 19:15	141-78-6	
Ethylbenzene	**142**	ug/m3	27.3	31		04/19/13 19:15	100-41-4	
4-Ethyltoluene	**81.9**	ug/m3	31.0	31		04/19/13 19:15	622-96-8	
n-Heptane	**589**	ug/m3	25.7	31		04/19/13 19:15	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	68.2	31		04/19/13 19:15	87-68-3	
n-Hexane	**583**	ug/m3	22.3	31		04/19/13 19:15	110-54-3	
2-Hexanone	ND	ug/m3	25.7	31		04/19/13 19:15	591-78-6	
Methylene Chloride	**99.9**	ug/m3	22.0	31		04/19/13 19:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	25.7	31		04/19/13 19:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	22.6	31		04/19/13 19:15	1634-04-4	
Naphthalene	ND	ug/m3	33.2	31		04/19/13 19:15	91-20-3	
Propylene	ND	ug/m3	10.8	31		04/19/13 19:15	115-07-1	
Styrene	**80.2**	ug/m3	27.0	31		04/19/13 19:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	21.6	31		04/19/13 19:15	79-34-5	
Tetrachloroethene	**842**	ug/m3	21.4	31		04/19/13 19:15	127-18-4	
Tetrahydrofuran	ND	ug/m3	18.6	31		04/19/13 19:15	109-99-9	
Toluene	**704**	ug/m3	23.9	31		04/19/13 19:15	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	46.8	31		04/19/13 19:15	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-F-040313 **Lab ID: 10224616007** Collected: 04/04/13 11:45 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	34.4	31		04/19/13 19:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	17.0	31		04/19/13 19:15	79-00-5	
Trichloroethene	ND	ug/m3	17.0	31		04/19/13 19:15	79-01-6	
Trichlorofluoromethane	ND	ug/m3	35.3	31		04/19/13 19:15	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	49.6	31		04/19/13 19:15	76-13-1	
1,2,4-Trimethylbenzene	**229**	ug/m3	31.0	31		04/19/13 19:15	95-63-6	
1,3,5-Trimethylbenzene	**86.1**	ug/m3	31.0	31		04/19/13 19:15	108-67-8	
Vinyl acetate	ND	ug/m3	22.2	31		04/19/13 19:15	108-05-4	
Vinyl chloride	ND	ug/m3	8.1	31		04/19/13 19:15	75-01-4	
m&p-Xylene	**774**	ug/m3	54.6	31		04/19/13 19:15	179601-23-1	
o-Xylene	**186**	ug/m3	27.3	31		04/19/13 19:15	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-R-040313 **Lab ID: 10224616008** Collected: 04/04/13 12:34 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	59.3	123.49		04/21/13 17:47	67-64-1	
Benzene	ND	ug/m3	40.1	123.49		04/21/13 17:47	71-43-2	
Bromodichloromethane	ND	ug/m3	168	123.49		04/21/13 17:47	75-27-4	
Bromoform	ND	ug/m3	259	123.49		04/21/13 17:47	75-25-2	
Bromomethane	ND	ug/m3	97.6	123.49		04/21/13 17:47	74-83-9	
1,3-Butadiene	ND	ug/m3	55.6	123.49		04/21/13 17:47	106-99-0	
2-Butanone (MEK)	**12300**	ug/m3	74.1	123.49		04/21/13 17:47	78-93-3	
Carbon disulfide	ND	ug/m3	77.8	123.49		04/21/13 17:47	75-15-0	
Carbon tetrachloride	ND	ug/m3	79.0	123.49		04/21/13 17:47	56-23-5	
Chlorobenzene	ND	ug/m3	116	123.49		04/21/13 17:47	108-90-7	
Chloroethane	ND	ug/m3	66.7	123.49		04/21/13 17:47	75-00-3	
Chloroform	ND	ug/m3	122	123.49		04/21/13 17:47	67-66-3	
Chloromethane	ND	ug/m3	51.9	123.49		04/21/13 17:47	74-87-3	
Cyclohexane	ND	ug/m3	86.4	123.49		04/21/13 17:47	110-82-7	
Dibromochloromethane	ND	ug/m3	214	123.49		04/21/13 17:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	193	123.49		04/21/13 17:47	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.44		04/18/13 19:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	151	123.49		04/21/13 17:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	151	123.49		04/21/13 17:47	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	125	123.49		04/21/13 17:47	75-71-8	A3
1,1-Dichloroethane	ND	ug/m3	101	123.49		04/21/13 17:47	75-34-3	
1,2-Dichloroethane	ND	ug/m3	50.6	123.49		04/21/13 17:47	107-06-2	
1,1-Dichloroethene	ND	ug/m3	100	123.49		04/21/13 17:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	100	123.49		04/21/13 17:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	100	123.49		04/21/13 17:47	156-60-5	
1,2-Dichloropropane	ND	ug/m3	116	123.49		04/21/13 17:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	114	123.49		04/21/13 17:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	114	123.49		04/21/13 17:47	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	175	123.49		04/21/13 17:47	76-14-2	
Ethyl acetate	**6890**	ug/m3	90.1	123.49		04/21/13 17:47	141-78-6	
Ethylbenzene	ND	ug/m3	109	123.49		04/21/13 17:47	100-41-4	
4-Ethyltoluene	**409**	ug/m3	123	123.49		04/21/13 17:47	622-96-8	
n-Heptane	ND	ug/m3	102	123.49		04/21/13 17:47	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.2	1.44		04/18/13 19:12	87-68-3	
n-Hexane	ND	ug/m3	88.9	123.49		04/21/13 17:47	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.44		04/18/13 19:12	591-78-6	
Methylene Chloride	**230**	ug/m3	87.7	123.49		04/21/13 17:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	102	123.49		04/21/13 17:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	90.1	123.49		04/21/13 17:47	1634-04-4	
Naphthalene	**11.3**	ug/m3	1.5	1.44		04/18/13 19:12	91-20-3	CH,L3
Propylene	ND	ug/m3	43.2	123.49		04/21/13 17:47	115-07-1	
Styrene	ND	ug/m3	107	123.49		04/21/13 17:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	86.2	123.49		04/21/13 17:47	79-34-5	
Tetrachloroethene	ND	ug/m3	85.1	123.49		04/21/13 17:47	127-18-4	
Tetrahydrofuran	ND	ug/m3	74.1	123.49		04/21/13 17:47	109-99-9	
Toluene	ND	ug/m3	95.1	123.49		04/21/13 17:47	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.44		04/18/13 19:12	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-R-040313 **Lab ID: 10224616008** Collected: 04/04/13 12:34 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	137	123.49		04/21/13 17:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	67.9	123.49		04/21/13 17:47	79-00-5	
Trichloroethene	ND	ug/m3	67.9	123.49		04/21/13 17:47	79-01-6	
Trichlorofluoromethane	ND	ug/m3	141	123.49		04/21/13 17:47	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	198	123.49		04/21/13 17:47	76-13-1	
1,2,4-Trimethylbenzene	**668**	ug/m3	123	123.49		04/21/13 17:47	95-63-6	
1,3,5-Trimethylbenzene	**270**	ug/m3	123	123.49		04/21/13 17:47	108-67-8	
Vinyl acetate	ND	ug/m3	88.4	123.49		04/21/13 17:47	108-05-4	
Vinyl chloride	ND	ug/m3	32.1	123.49		04/21/13 17:47	75-01-4	
m&p-Xylene	ND	ug/m3	217	123.49		04/21/13 17:47	179601-23-1	
o-Xylene	ND	ug/m3	109	123.49		04/21/13 17:47	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-F-040313 **Lab ID: 10224616009** Collected: 04/04/13 12:06 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**7.8**	ug/m3	0.74	1.55		04/18/13 22:38	67-64-1	
Benzene	**6.3**	ug/m3	0.50	1.55		04/18/13 22:38	71-43-2	
Bromodichloromethane	ND	ug/m3	2.1	1.55		04/18/13 22:38	75-27-4	
Bromoform	ND	ug/m3	3.3	1.55		04/18/13 22:38	75-25-2	
Bromomethane	ND	ug/m3	1.2	1.55		04/18/13 22:38	74-83-9	
1,3-Butadiene	ND	ug/m3	0.70	1.55		04/18/13 22:38	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.93	1.55		04/18/13 22:38	78-93-3	
Carbon disulfide	ND	ug/m3	0.98	1.55		04/18/13 22:38	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.99	1.55		04/18/13 22:38	56-23-5	
Chlorobenzene	ND	ug/m3	1.5	1.55		04/18/13 22:38	108-90-7	
Chloroethane	ND	ug/m3	0.84	1.55		04/18/13 22:38	75-00-3	
Chloroform	ND	ug/m3	1.5	1.55		04/18/13 22:38	67-66-3	
Chloromethane	ND	ug/m3	0.65	1.55		04/18/13 22:38	74-87-3	
Cyclohexane	**8.9**	ug/m3	1.1	1.55		04/18/13 22:38	110-82-7	
Dibromochloromethane	ND	ug/m3	2.7	1.55		04/18/13 22:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.4	1.55		04/18/13 22:38	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/18/13 22:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/18/13 22:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/18/13 22:38	106-46-7	
Dichlorodifluoromethane	**2.1**	ug/m3	1.6	1.55		04/18/13 22:38	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		04/18/13 22:38	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.64	1.55		04/18/13 22:38	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.3	1.55		04/18/13 22:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		04/18/13 22:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		04/18/13 22:38	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.5	1.55		04/18/13 22:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		04/18/13 22:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		04/18/13 22:38	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.2	1.55		04/18/13 22:38	76-14-2	
Ethyl acetate	ND	ug/m3	1.1	1.55		04/18/13 22:38	141-78-6	
Ethylbenzene	**11.6**	ug/m3	1.4	1.55		04/18/13 22:38	100-41-4	
4-Ethyltoluene	**7.8**	ug/m3	1.6	1.55		04/18/13 22:38	622-96-8	
n-Heptane	**22.4**	ug/m3	1.3	1.55		04/18/13 22:38	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.4	1.55		04/18/13 22:38	87-68-3	
n-Hexane	**21.0**	ug/m3	1.1	1.55		04/18/13 22:38	110-54-3	
2-Hexanone	ND	ug/m3	1.3	1.55		04/18/13 22:38	591-78-6	
Methylene Chloride	**7.5**	ug/m3	1.1	1.55		04/18/13 22:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.3	1.55		04/18/13 22:38	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.55		04/18/13 22:38	1634-04-4	
Naphthalene	**2.3**	ug/m3	1.7	1.55		04/18/13 22:38	91-20-3	CH,L1
Propylene	**7.3**	ug/m3	0.54	1.55		04/18/13 22:38	115-07-1	
Styrene	**5.7**	ug/m3	1.3	1.55		04/18/13 22:38	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.1	1.55		04/18/13 22:38	79-34-5	
Tetrachloroethene	**40.3**	ug/m3	1.1	1.55		04/18/13 22:38	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.93	1.55		04/18/13 22:38	109-99-9	
Toluene	**50.2**	ug/m3	1.2	1.55		04/18/13 22:38	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.3	1.55		04/18/13 22:38	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-F-040313 **Lab ID: 10224616009** Collected: 04/04/13 12:06 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.55		04/18/13 22:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.85	1.55		04/18/13 22:38	79-00-5	
Trichloroethene	**1.9**	ug/m3	0.85	1.55		04/18/13 22:38	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.8	1.55		04/18/13 22:38	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.5	1.55		04/18/13 22:38	76-13-1	
1,2,4-Trimethylbenzene	**26.1**	ug/m3	1.5	1.55		04/18/13 22:38	95-63-6	
1,3,5-Trimethylbenzene	**8.3**	ug/m3	1.5	1.55		04/18/13 22:38	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.55		04/18/13 22:38	108-05-4	
Vinyl chloride	ND	ug/m3	0.40	1.55		04/18/13 22:38	75-01-4	
m&p-Xylene	**56.5**	ug/m3	2.7	1.55		04/18/13 22:38	179601-23-1	
o-Xylene	**15.3**	ug/m3	1.4	1.55		04/18/13 22:38	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-R-040313 **Lab ID: 10224616010** Collected: 04/04/13 12:22 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**684**	ug/m3	0.74	1.55		04/19/13 18:46	67-64-1	E
Benzene	**7.0**	ug/m3	0.50	1.55		04/19/13 18:46	71-43-2	
Bromodichloromethane	ND	ug/m3	2.1	1.55		04/19/13 18:46	75-27-4	
Bromoform	ND	ug/m3	3.3	1.55		04/19/13 18:46	75-25-2	
Bromomethane	ND	ug/m3	1.2	1.55		04/19/13 18:46	74-83-9	
1,3-Butadiene	ND	ug/m3	0.70	1.55		04/19/13 18:46	106-99-0	
2-Butanone (MEK)	**105**	ug/m3	0.93	1.55		04/19/13 18:46	78-93-3	
Carbon disulfide	**10.5**	ug/m3	0.98	1.55		04/19/13 18:46	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.99	1.55		04/19/13 18:46	56-23-5	
Chlorobenzene	ND	ug/m3	1.5	1.55		04/19/13 18:46	108-90-7	
Chloroethane	ND	ug/m3	0.84	1.55		04/19/13 18:46	75-00-3	
Chloroform	**16.4**	ug/m3	1.5	1.55		04/19/13 18:46	67-66-3	
Chloromethane	ND	ug/m3	0.65	1.55		04/19/13 18:46	74-87-3	
Cyclohexane	**6.4**	ug/m3	1.1	1.55		04/19/13 18:46	110-82-7	
Dibromochloromethane	ND	ug/m3	2.7	1.55		04/19/13 18:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.4	1.55		04/19/13 18:46	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/19/13 18:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/19/13 18:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/19/13 18:46	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.6	1.55		04/19/13 18:46	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		04/19/13 18:46	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.64	1.55		04/19/13 18:46	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.3	1.55		04/19/13 18:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		04/19/13 18:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		04/19/13 18:46	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.5	1.55		04/19/13 18:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		04/19/13 18:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		04/19/13 18:46	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.2	1.55		04/19/13 18:46	76-14-2	
Ethyl acetate	ND	ug/m3	1.1	1.55		04/19/13 18:46	141-78-6	
Ethylbenzene	**10.3**	ug/m3	1.4	1.55		04/19/13 18:46	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.6	1.55		04/19/13 18:46	622-96-8	
n-Heptane	**24.2**	ug/m3	1.3	1.55		04/19/13 18:46	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.4	1.55		04/19/13 18:46	87-68-3	
n-Hexane	**12.6**	ug/m3	1.1	1.55		04/19/13 18:46	110-54-3	
2-Hexanone	ND	ug/m3	1.3	1.55		04/19/13 18:46	591-78-6	
Methylene Chloride	**5.8**	ug/m3	1.1	1.55		04/19/13 18:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.3	1.55		04/19/13 18:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.55		04/19/13 18:46	1634-04-4	
Naphthalene	**3.7**	ug/m3	1.7	1.55		04/19/13 18:46	91-20-3	CH,L1
Propylene	ND	ug/m3	0.54	1.55		04/19/13 18:46	115-07-1	
Styrene	**5.1**	ug/m3	1.3	1.55		04/19/13 18:46	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.1	1.55		04/19/13 18:46	79-34-5	
Tetrachloroethene	**49.1**	ug/m3	1.1	1.55		04/19/13 18:46	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.93	1.55		04/19/13 18:46	109-99-9	
Toluene	**40.2**	ug/m3	1.2	1.55		04/19/13 18:46	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.3	1.55		04/19/13 18:46	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-R-040313 **Lab ID: 10224616010** Collected: 04/04/13 12:22 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.55		04/19/13 18:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.85	1.55		04/19/13 18:46	79-00-5	
Trichloroethene	ND	ug/m3	0.85	1.55		04/19/13 18:46	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.8	1.55		04/19/13 18:46	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.5	1.55		04/19/13 18:46	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.5	1.55		04/19/13 18:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.5	1.55		04/19/13 18:46	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.55		04/19/13 18:46	108-05-4	
Vinyl chloride	ND	ug/m3	0.40	1.55		04/19/13 18:46	75-01-4	
m&p-Xylene	**48.3**	ug/m3	2.7	1.55		04/19/13 18:46	179601-23-1	
o-Xylene	**14.7**	ug/m3	1.4	1.55		04/19/13 18:46	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0099 **Lab ID: 10224616015** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/27/13 20:35	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/27/13 20:35	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/27/13 20:35	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/27/13 20:35	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/27/13 20:35	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/27/13 20:35	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/27/13 20:35	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/27/13 20:35	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/27/13 20:35	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/27/13 20:35	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/27/13 20:35	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/27/13 20:35	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/27/13 20:35	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/27/13 20:35	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/27/13 20:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/27/13 20:35	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 20:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 20:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 20:35	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/27/13 20:35	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/27/13 20:35	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/27/13 20:35	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 20:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 20:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 20:35	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/27/13 20:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 20:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 20:35	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/27/13 20:35	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/27/13 20:35	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/27/13 20:35	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/27/13 20:35	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/27/13 20:35	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/27/13 20:35	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/27/13 20:35	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/27/13 20:35	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/27/13 20:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/27/13 20:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/27/13 20:35	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/27/13 20:35	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/27/13 20:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/27/13 20:35	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/27/13 20:35	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/27/13 20:35	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/27/13 20:35	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/27/13 20:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/27/13 20:35	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0099 **Lab ID: 10224616015** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/27/13 20:35	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/27/13 20:35	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/27/13 20:35	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/27/13 20:35	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 20:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 20:35	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/27/13 20:35	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/27/13 20:35	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/27/13 20:35	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/27/13 20:35	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0433 **Lab ID: 10224616016** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		04/01/13 13:15	67-64-1	
Benzene	ND	ug/m3	0.32	1		04/01/13 13:15	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		04/01/13 13:15	75-27-4	
Bromoform	ND	ug/m3	2.1	1		04/01/13 13:15	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		04/01/13 13:15	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		04/01/13 13:15	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		04/01/13 13:15	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		04/01/13 13:15	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		04/01/13 13:15	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		04/01/13 13:15	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		04/01/13 13:15	75-00-3	
Chloroform	ND	ug/m3	0.99	1		04/01/13 13:15	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		04/01/13 13:15	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		04/01/13 13:15	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		04/01/13 13:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		04/01/13 13:15	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 13:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 13:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 13:15	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		04/01/13 13:15	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		04/01/13 13:15	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		04/01/13 13:15	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 13:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 13:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 13:15	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		04/01/13 13:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 13:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 13:15	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		04/01/13 13:15	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		04/01/13 13:15	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		04/01/13 13:15	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		04/01/13 13:15	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		04/01/13 13:15	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		04/01/13 13:15	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		04/01/13 13:15	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		04/01/13 13:15	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		04/01/13 13:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		04/01/13 13:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		04/01/13 13:15	1634-04-4	
Propylene	ND	ug/m3	0.35	1		04/01/13 13:15	115-07-1	
Styrene	ND	ug/m3	0.87	1		04/01/13 13:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		04/01/13 13:15	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		04/01/13 13:15	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		04/01/13 13:15	109-99-9	
Toluene	ND	ug/m3	0.77	1		04/01/13 13:15	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		04/01/13 13:15	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		04/01/13 13:15	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0433 **Lab ID: 10224616016** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		04/01/13 13:15	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		04/01/13 13:15	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		04/01/13 13:15	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		04/01/13 13:15	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 13:15	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 13:15	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		04/01/13 13:15	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		04/01/13 13:15	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		04/01/13 13:15	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		04/01/13 13:15	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 2033 **Lab ID: 10224616017** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/27/13 22:04	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/27/13 22:04	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/27/13 22:04	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/27/13 22:04	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/27/13 22:04	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/27/13 22:04	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/27/13 22:04	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/27/13 22:04	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/27/13 22:04	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/27/13 22:04	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/27/13 22:04	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/27/13 22:04	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/27/13 22:04	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/27/13 22:04	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/27/13 22:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/27/13 22:04	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 22:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 22:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 22:04	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/27/13 22:04	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/27/13 22:04	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/27/13 22:04	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 22:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 22:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 22:04	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/27/13 22:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 22:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 22:04	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/27/13 22:04	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/27/13 22:04	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/27/13 22:04	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/27/13 22:04	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/27/13 22:04	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/27/13 22:04	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/27/13 22:04	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/27/13 22:04	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/27/13 22:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/27/13 22:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/27/13 22:04	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/27/13 22:04	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/27/13 22:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/27/13 22:04	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/27/13 22:04	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/27/13 22:04	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/27/13 22:04	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/27/13 22:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/27/13 22:04	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 2033 **Lab ID: 10224616017** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/27/13 22:04	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/27/13 22:04	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/27/13 22:04	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/27/13 22:04	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 22:04	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 22:04	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/27/13 22:04	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/27/13 22:04	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/27/13 22:04	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/27/13 22:04	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1053 **Lab ID: 10224616018** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		04/01/13 15:21	67-64-1	
Benzene	ND	ug/m3	0.32	1		04/01/13 15:21	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		04/01/13 15:21	75-27-4	
Bromoform	ND	ug/m3	2.1	1		04/01/13 15:21	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		04/01/13 15:21	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		04/01/13 15:21	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		04/01/13 15:21	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		04/01/13 15:21	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		04/01/13 15:21	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		04/01/13 15:21	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		04/01/13 15:21	75-00-3	
Chloroform	ND	ug/m3	0.99	1		04/01/13 15:21	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		04/01/13 15:21	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		04/01/13 15:21	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		04/01/13 15:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		04/01/13 15:21	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 15:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 15:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 15:21	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		04/01/13 15:21	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		04/01/13 15:21	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		04/01/13 15:21	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 15:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 15:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 15:21	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		04/01/13 15:21	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 15:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 15:21	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		04/01/13 15:21	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		04/01/13 15:21	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		04/01/13 15:21	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		04/01/13 15:21	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		04/01/13 15:21	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		04/01/13 15:21	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		04/01/13 15:21	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		04/01/13 15:21	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		04/01/13 15:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		04/01/13 15:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		04/01/13 15:21	1634-04-4	
Propylene	ND	ug/m3	0.35	1		04/01/13 15:21	115-07-1	
Styrene	ND	ug/m3	0.87	1		04/01/13 15:21	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		04/01/13 15:21	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		04/01/13 15:21	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		04/01/13 15:21	109-99-9	
Toluene	ND	ug/m3	0.77	1		04/01/13 15:21	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		04/01/13 15:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		04/01/13 15:21	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1053 **Lab ID: 10224616018** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		04/01/13 15:21	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		04/01/13 15:21	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		04/01/13 15:21	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		04/01/13 15:21	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 15:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 15:21	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		04/01/13 15:21	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		04/01/13 15:21	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		04/01/13 15:21	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		04/01/13 15:21	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1078 **Lab ID: 10224616019** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/27/13 15:02	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/27/13 15:02	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/27/13 15:02	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/27/13 15:02	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/27/13 15:02	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/27/13 15:02	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/27/13 15:02	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/27/13 15:02	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/27/13 15:02	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/27/13 15:02	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/27/13 15:02	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/27/13 15:02	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/27/13 15:02	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/27/13 15:02	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/27/13 15:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/27/13 15:02	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 15:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 15:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 15:02	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/27/13 15:02	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/27/13 15:02	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/27/13 15:02	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 15:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 15:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 15:02	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/27/13 15:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 15:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 15:02	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/27/13 15:02	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/27/13 15:02	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/27/13 15:02	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/27/13 15:02	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/27/13 15:02	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/27/13 15:02	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/27/13 15:02	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/27/13 15:02	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/27/13 15:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/27/13 15:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/27/13 15:02	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/27/13 15:02	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/27/13 15:02	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/27/13 15:02	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/27/13 15:02	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/27/13 15:02	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/27/13 15:02	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/27/13 15:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/27/13 15:02	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1078 **Lab ID: 10224616019** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/27/13 15:02	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/27/13 15:02	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/27/13 15:02	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/27/13 15:02	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 15:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 15:02	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/27/13 15:02	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/27/13 15:02	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/27/13 15:02	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/27/13 15:02	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0557 **Lab ID: 10224616020** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/28/13 00:33	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/28/13 00:33	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/28/13 00:33	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/28/13 00:33	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/28/13 00:33	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/28/13 00:33	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/28/13 00:33	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/28/13 00:33	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/28/13 00:33	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/28/13 00:33	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/28/13 00:33	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/28/13 00:33	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/28/13 00:33	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/28/13 00:33	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/28/13 00:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/28/13 00:33	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/28/13 00:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/28/13 00:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/28/13 00:33	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/28/13 00:33	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/28/13 00:33	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/28/13 00:33	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/28/13 00:33	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/28/13 00:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/28/13 00:33	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/28/13 00:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/28/13 00:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/28/13 00:33	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/28/13 00:33	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/28/13 00:33	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/28/13 00:33	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/28/13 00:33	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/28/13 00:33	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/28/13 00:33	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/28/13 00:33	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/28/13 00:33	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/28/13 00:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/28/13 00:33	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/28/13 00:33	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/28/13 00:33	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/28/13 00:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/28/13 00:33	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/28/13 00:33	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/28/13 00:33	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/28/13 00:33	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/28/13 00:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/28/13 00:33	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0557 **Lab ID: 10224616020** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/28/13 00:33	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/28/13 00:33	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/28/13 00:33	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/28/13 00:33	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/28/13 00:33	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/28/13 00:33	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/28/13 00:33	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/28/13 00:33	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/28/13 00:33	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/28/13 00:33	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0262 **Lab ID: 10224616021** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		04/01/13 14:18	67-64-1	
Benzene	ND	ug/m3	0.32	1		04/01/13 14:18	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		04/01/13 14:18	75-27-4	
Bromoform	ND	ug/m3	2.1	1		04/01/13 14:18	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		04/01/13 14:18	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		04/01/13 14:18	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		04/01/13 14:18	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		04/01/13 14:18	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		04/01/13 14:18	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		04/01/13 14:18	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		04/01/13 14:18	75-00-3	
Chloroform	ND	ug/m3	0.99	1		04/01/13 14:18	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		04/01/13 14:18	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		04/01/13 14:18	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		04/01/13 14:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		04/01/13 14:18	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:18	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		04/01/13 14:18	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		04/01/13 14:18	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		04/01/13 14:18	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:18	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		04/01/13 14:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 14:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 14:18	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		04/01/13 14:18	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		04/01/13 14:18	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		04/01/13 14:18	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		04/01/13 14:18	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		04/01/13 14:18	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		04/01/13 14:18	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		04/01/13 14:18	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		04/01/13 14:18	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		04/01/13 14:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		04/01/13 14:18	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		04/01/13 14:18	1634-04-4	
Propylene	ND	ug/m3	0.35	1		04/01/13 14:18	115-07-1	
Styrene	ND	ug/m3	0.87	1		04/01/13 14:18	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		04/01/13 14:18	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		04/01/13 14:18	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		04/01/13 14:18	109-99-9	
Toluene	ND	ug/m3	0.77	1		04/01/13 14:18	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		04/01/13 14:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		04/01/13 14:18	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0262 **Lab ID: 10224616021** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		04/01/13 14:18	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		04/01/13 14:18	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		04/01/13 14:18	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		04/01/13 14:18	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 14:18	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 14:18	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		04/01/13 14:18	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		04/01/13 14:18	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		04/01/13 14:18	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		04/01/13 14:18	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0006 **Lab ID: 10224616022** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/27/13 19:35	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/27/13 19:35	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/27/13 19:35	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/27/13 19:35	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/27/13 19:35	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/27/13 19:35	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/27/13 19:35	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/27/13 19:35	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/27/13 19:35	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/27/13 19:35	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/27/13 19:35	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/27/13 19:35	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/27/13 19:35	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/27/13 19:35	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/27/13 19:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/27/13 19:35	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 19:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 19:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 19:35	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/27/13 19:35	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/27/13 19:35	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/27/13 19:35	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 19:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 19:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 19:35	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/27/13 19:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 19:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 19:35	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/27/13 19:35	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/27/13 19:35	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/27/13 19:35	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/27/13 19:35	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/27/13 19:35	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/27/13 19:35	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/27/13 19:35	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/27/13 19:35	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/27/13 19:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/27/13 19:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/27/13 19:35	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/27/13 19:35	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/27/13 19:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/27/13 19:35	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/27/13 19:35	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/27/13 19:35	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/27/13 19:35	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/27/13 19:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/27/13 19:35	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0006 **Lab ID: 10224616022** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/27/13 19:35	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/27/13 19:35	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/27/13 19:35	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/27/13 19:35	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 19:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 19:35	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/27/13 19:35	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/27/13 19:35	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/27/13 19:35	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/27/13 19:35	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1611 **Lab ID: 10224616023** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/08/13 07:23	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/08/13 07:23	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/08/13 07:23	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/08/13 07:23	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/08/13 07:23	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/08/13 07:23	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/08/13 07:23	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/08/13 07:23	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/08/13 07:23	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/08/13 07:23	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/08/13 07:23	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/08/13 07:23	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/08/13 07:23	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/08/13 07:23	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/08/13 07:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/08/13 07:23	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/08/13 07:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/08/13 07:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/08/13 07:23	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/08/13 07:23	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/08/13 07:23	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/08/13 07:23	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/08/13 07:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/08/13 07:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/08/13 07:23	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/08/13 07:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/08/13 07:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/08/13 07:23	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/08/13 07:23	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/08/13 07:23	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/08/13 07:23	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/08/13 07:23	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/08/13 07:23	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/08/13 07:23	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/08/13 07:23	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/08/13 07:23	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/08/13 07:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/08/13 07:23	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/08/13 07:23	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/08/13 07:23	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/08/13 07:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/08/13 07:23	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/08/13 07:23	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/08/13 07:23	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/08/13 07:23	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/08/13 07:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/08/13 07:23	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1611 **Lab ID: 10224616023** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/08/13 07:23	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/08/13 07:23	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/08/13 07:23	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/08/13 07:23	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/08/13 07:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/08/13 07:23	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/08/13 07:23	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/08/13 07:23	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/08/13 07:23	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/08/13 07:23	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1600 **Lab ID: 10224616024** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		04/01/13 14:49	67-64-1	
Benzene	ND	ug/m3	0.32	1		04/01/13 14:49	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		04/01/13 14:49	75-27-4	
Bromoform	ND	ug/m3	2.1	1		04/01/13 14:49	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		04/01/13 14:49	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		04/01/13 14:49	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		04/01/13 14:49	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		04/01/13 14:49	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		04/01/13 14:49	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		04/01/13 14:49	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		04/01/13 14:49	75-00-3	
Chloroform	ND	ug/m3	0.99	1		04/01/13 14:49	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		04/01/13 14:49	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		04/01/13 14:49	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		04/01/13 14:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		04/01/13 14:49	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:49	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		04/01/13 14:49	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		04/01/13 14:49	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		04/01/13 14:49	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:49	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		04/01/13 14:49	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 14:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 14:49	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		04/01/13 14:49	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		04/01/13 14:49	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		04/01/13 14:49	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		04/01/13 14:49	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		04/01/13 14:49	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		04/01/13 14:49	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		04/01/13 14:49	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		04/01/13 14:49	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		04/01/13 14:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		04/01/13 14:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		04/01/13 14:49	1634-04-4	
Propylene	ND	ug/m3	0.35	1		04/01/13 14:49	115-07-1	
Styrene	ND	ug/m3	0.87	1		04/01/13 14:49	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		04/01/13 14:49	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		04/01/13 14:49	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		04/01/13 14:49	109-99-9	
Toluene	ND	ug/m3	0.77	1		04/01/13 14:49	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		04/01/13 14:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		04/01/13 14:49	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1600 **Lab ID: 10224616024** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		04/01/13 14:49	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		04/01/13 14:49	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		04/01/13 14:49	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		04/01/13 14:49	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 14:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 14:49	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		04/01/13 14:49	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		04/01/13 14:49	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		04/01/13 14:49	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		04/01/13 14:49	95-47-6	

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Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

QC Batch: AIR/17165 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10224616001, 10224616002, 10224616004, 10224616005, 10224616009

METHOD BLANK: 1411878 Matrix: Air
Associated Lab Samples: 10224616001, 10224616002, 10224616004, 10224616005, 10224616009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	04/18/13 12:25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	04/18/13 12:25	
1,1,2-Trichloroethane	ug/m3	ND	0.55	04/18/13 12:25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	04/18/13 12:25	
1,1-Dichloroethane	ug/m3	ND	0.82	04/18/13 12:25	
1,1-Dichloroethene	ug/m3	ND	0.81	04/18/13 12:25	
1,2,4-Trichlorobenzene	ug/m3	ND	1.5	04/18/13 12:25	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	04/18/13 12:25	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	04/18/13 12:25	
1,2-Dichlorobenzene	ug/m3	ND	1.2	04/18/13 12:25	
1,2-Dichloroethane	ug/m3	ND	0.41	04/18/13 12:25	
1,2-Dichloropropane	ug/m3	ND	0.94	04/18/13 12:25	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	04/18/13 12:25	
1,3-Butadiene	ug/m3	ND	0.45	04/18/13 12:25	
1,3-Dichlorobenzene	ug/m3	ND	1.2	04/18/13 12:25	
1,4-Dichlorobenzene	ug/m3	ND	1.2	04/18/13 12:25	
2-Butanone (MEK)	ug/m3	ND	0.60	04/18/13 12:25	
2-Hexanone	ug/m3	ND	0.83	04/18/13 12:25	
4-Ethyltoluene	ug/m3	ND	1.0	04/18/13 12:25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	04/18/13 12:25	
Acetone	ug/m3	ND	0.48	04/18/13 12:25	
Benzene	ug/m3	ND	0.32	04/18/13 12:25	
Bromodichloromethane	ug/m3	ND	1.4	04/18/13 12:25	
Bromoform	ug/m3	ND	2.1	04/18/13 12:25	
Bromomethane	ug/m3	ND	0.79	04/18/13 12:25	
Carbon disulfide	ug/m3	ND	0.63	04/18/13 12:25	
Carbon tetrachloride	ug/m3	ND	0.64	04/18/13 12:25	
Chlorobenzene	ug/m3	ND	0.94	04/18/13 12:25	
Chloroethane	ug/m3	ND	0.54	04/18/13 12:25	
Chloroform	ug/m3	ND	0.99	04/18/13 12:25	
Chloromethane	ug/m3	ND	0.42	04/18/13 12:25	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	04/18/13 12:25	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	04/18/13 12:25	
Cyclohexane	ug/m3	ND	0.70	04/18/13 12:25	
Dibromochloromethane	ug/m3	ND	1.7	04/18/13 12:25	
Dichlorodifluoromethane	ug/m3	ND	1.0	04/18/13 12:25	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	04/18/13 12:25	
Ethyl acetate	ug/m3	ND	0.73	04/18/13 12:25	
Ethylbenzene	ug/m3	ND	0.88	04/18/13 12:25	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	04/18/13 12:25	
m&p-Xylene	ug/m3	ND	1.8	04/18/13 12:25	
Methyl-tert-butyl ether	ug/m3	ND	0.73	04/18/13 12:25	
Methylene Chloride	ug/m3	ND	0.71	04/18/13 12:25	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

METHOD BLANK: 1411878 Matrix: Air

Associated Lab Samples: 10224616001, 10224616002, 10224616004, 10224616005, 10224616009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/m3	ND	0.83	04/18/13 12:25	
n-Hexane	ug/m3	ND	0.72	04/18/13 12:25	
Naphthalene	ug/m3	ND	1.1	04/18/13 12:25	
o-Xylene	ug/m3	ND	0.88	04/18/13 12:25	
Propylene	ug/m3	ND	0.35	04/18/13 12:25	
Styrene	ug/m3	ND	0.87	04/18/13 12:25	
Tetrachloroethene	ug/m3	ND	0.69	04/18/13 12:25	
Tetrahydrofuran	ug/m3	ND	0.60	04/18/13 12:25	
Toluene	ug/m3	ND	0.77	04/18/13 12:25	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	04/18/13 12:25	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	04/18/13 12:25	
Trichloroethene	ug/m3	ND	0.55	04/18/13 12:25	
Trichlorofluoromethane	ug/m3	ND	1.1	04/18/13 12:25	
Vinyl acetate	ug/m3	ND	0.72	04/18/13 12:25	
Vinyl chloride	ug/m3	ND	0.26	04/18/13 12:25	

LABORATORY CONTROL SAMPLE: 1411879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	54.7	98	69-131	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	76.7	110	66-135	
1,1,2-Trichloroethane	ug/m3	55.5	55.8	101	68-132	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	71.5	92	65-130	
1,1-Dichloroethane	ug/m3	41.2	37.8	92	66-131	
1,1-Dichloroethene	ug/m3	40.3	37.4	93	64-136	
1,2,4-Trichlorobenzene	ug/m3	75.5	157	207	30-150	CH,L3
1,2,4-Trimethylbenzene	ug/m3	50	48.9	98	71-135	
1,2-Dibromoethane (EDB)	ug/m3	78.1	86.6	111	72-132	
1,2-Dichlorobenzene	ug/m3	61.2	57.8	95	68-148	
1,2-Dichloroethane	ug/m3	41.2	40.7	99	66-136	
1,2-Dichloropropane	ug/m3	47	48.3	103	68-133	
1,3,5-Trimethylbenzene	ug/m3	50	49.4	99	69-136	
1,3-Butadiene	ug/m3	22.5	23.7	105	69-134	
1,3-Dichlorobenzene	ug/m3	61.2	58.9	96	70-134	
1,4-Dichlorobenzene	ug/m3	61.2	60.4	99	66-134	
2-Butanone (MEK)	ug/m3	30	28.3	94	69-141	
2-Hexanone	ug/m3	41.7	39.5	95	74-132	
4-Ethyltoluene	ug/m3	50	48.8	98	71-134	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	38.0	91	74-131	
Acetone	ug/m3	24.2	24.2	100	62-142	
Benzene	ug/m3	32.5	29.0	89	72-136	
Bromodichloromethane	ug/m3	68.2	71.6	105	69-135	
Bromoform	ug/m3	105	126	120	72-133	
Bromomethane	ug/m3	39.5	35.8	91	65-125	
Carbon disulfide	ug/m3	31.7	28.6	90	68-127	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

LABORATORY CONTROL SAMPLE: 1411879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/m3	64	63.1	99	64-133	
Chlorobenzene	ug/m3	46.8	48.4	103	65-135	
Chloroethane	ug/m3	26.8	25.3	94	63-129	
Chloroform	ug/m3	49.7	47.8	96	66-129	
Chloromethane	ug/m3	21	19.9	95	57-135	
cis-1,2-Dichloroethene	ug/m3	40.3	38.3	95	73-135	
cis-1,3-Dichloropropene	ug/m3	46.2	42.6	92	75-137	
Cyclohexane	ug/m3	35	32.2	92	73-139	
Dibromochloromethane	ug/m3	86.6	98.8	114	73-130	
Dichlorodifluoromethane	ug/m3	50.3	45.7	91	64-131	
Dichlorotetrafluoroethane	ug/m3	71.1	65.8	93	64-131	
Ethyl acetate	ug/m3	36.6	40.8	111	73-136	
Ethylbenzene	ug/m3	44.2	43.3	98	74-136	
Hexachloro-1,3-butadiene	ug/m3	108	258	238	30-150	CH,L3
m&p-Xylene	ug/m3	44.2	42.3	96	72-135	
Methyl-tert-butyl ether	ug/m3	36.7	34.2	93	71-134	
Methylene Chloride	ug/m3	35.3	32.8	93	59-140	
n-Heptane	ug/m3	41.7	37.1	89	73-136	
n-Hexane	ug/m3	35.8	27.3	76	67-136	
Naphthalene	ug/m3	53.3	120	226	30-150	CH,L1
o-Xylene	ug/m3	44.2	43.5	99	74-135	
Propylene	ug/m3	17.5	16.3	93	66-138	
Styrene	ug/m3	43.3	41.2	95	73-135	
Tetrachloroethene	ug/m3	69	73.7	107	66-135	
Tetrahydrofuran	ug/m3	30	27.8	93	73-130	
Toluene	ug/m3	38.3	30.2	79	71-134	
trans-1,2-Dichloroethene	ug/m3	40.3	36.1	90	68-129	
trans-1,3-Dichloropropene	ug/m3	46.2	42.5	92	75-129	
Trichloroethene	ug/m3	54.6	58.4	107	68-134	
Trichlorofluoromethane	ug/m3	57.1	50.2	88	61-134	
Vinyl acetate	ug/m3	35.8	35.9	100	70-139	
Vinyl chloride	ug/m3	26	24.6	95	64-134	

SAMPLE DUPLICATE: 1412388

Parameter	Units	10224616002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	3.8	3.9	1	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

SAMPLE DUPLICATE: 1412388

Parameter	Units	10224616002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	1J		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	ND	ND		25	
2-Hexanone	ug/m3	ND	ND		25	
4-Ethyltoluene	ug/m3	1.6	1.6	.8	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	ND	ND		25	
Benzene	ug/m3	1.7	1.6	.8	25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	0.63	0.67	7	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	3.0	3.0	1	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.2	2.2	2	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	2.8	2.8	.1	25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	10.2	10.2	.3	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	1.4	1.4	.3	25	
n-Heptane	ug/m3	4.0	4.0	2	25	
n-Hexane	ug/m3	4.9	5.1	3	25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	2.8	2.8	1	25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	8.1	8.2	2	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	ND		25	
Trichlorofluoromethane	ug/m3	ND	1.1J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

QC Batch: AIR/17167 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10224616003, 10224616006, 10224616007, 10224616010

METHOD BLANK: 1412429 Matrix: Air
Associated Lab Samples: 10224616003, 10224616006, 10224616007, 10224616010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	04/19/13 15:49	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	04/19/13 15:49	
1,1,2-Trichloroethane	ug/m3	ND	0.55	04/19/13 15:49	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	04/19/13 15:49	
1,1-Dichloroethane	ug/m3	ND	0.82	04/19/13 15:49	
1,1-Dichloroethene	ug/m3	ND	0.81	04/19/13 15:49	
1,2,4-Trichlorobenzene	ug/m3	ND	1.5	04/19/13 15:49	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	04/19/13 15:49	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	04/19/13 15:49	
1,2-Dichlorobenzene	ug/m3	ND	1.2	04/19/13 15:49	
1,2-Dichloroethane	ug/m3	ND	0.41	04/19/13 15:49	
1,2-Dichloropropane	ug/m3	ND	0.94	04/19/13 15:49	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	04/19/13 15:49	
1,3-Butadiene	ug/m3	ND	0.45	04/19/13 15:49	
1,3-Dichlorobenzene	ug/m3	ND	1.2	04/19/13 15:49	
1,4-Dichlorobenzene	ug/m3	ND	1.2	04/19/13 15:49	
2-Butanone (MEK)	ug/m3	ND	0.60	04/19/13 15:49	
2-Hexanone	ug/m3	ND	0.83	04/19/13 15:49	
4-Ethyltoluene	ug/m3	ND	1.0	04/19/13 15:49	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	04/19/13 15:49	
Acetone	ug/m3	ND	0.48	04/19/13 15:49	
Benzene	ug/m3	ND	0.32	04/19/13 15:49	
Bromodichloromethane	ug/m3	ND	1.4	04/19/13 15:49	
Bromoform	ug/m3	ND	2.1	04/19/13 15:49	
Bromomethane	ug/m3	ND	0.79	04/19/13 15:49	
Carbon disulfide	ug/m3	ND	0.63	04/19/13 15:49	
Carbon tetrachloride	ug/m3	ND	0.64	04/19/13 15:49	
Chlorobenzene	ug/m3	ND	0.94	04/19/13 15:49	
Chloroethane	ug/m3	ND	0.54	04/19/13 15:49	
Chloroform	ug/m3	ND	0.99	04/19/13 15:49	
Chloromethane	ug/m3	ND	0.42	04/19/13 15:49	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	04/19/13 15:49	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	04/19/13 15:49	
Cyclohexane	ug/m3	ND	0.70	04/19/13 15:49	
Dibromochloromethane	ug/m3	ND	1.7	04/19/13 15:49	
Dichlorodifluoromethane	ug/m3	ND	1.0	04/19/13 15:49	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	04/19/13 15:49	
Ethyl acetate	ug/m3	ND	0.73	04/19/13 15:49	
Ethylbenzene	ug/m3	ND	0.88	04/19/13 15:49	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	04/19/13 15:49	
m&p-Xylene	ug/m3	ND	1.8	04/19/13 15:49	
Methyl-tert-butyl ether	ug/m3	ND	0.73	04/19/13 15:49	
Methylene Chloride	ug/m3	ND	0.71	04/19/13 15:49	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

METHOD BLANK: 1412429 Matrix: Air

Associated Lab Samples: 10224616003, 10224616006, 10224616007, 10224616010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/m3	ND	0.83	04/19/13 15:49	
n-Hexane	ug/m3	ND	0.72	04/19/13 15:49	
Naphthalene	ug/m3	ND	1.1	04/19/13 15:49	
o-Xylene	ug/m3	ND	0.88	04/19/13 15:49	
Propylene	ug/m3	ND	0.35	04/19/13 15:49	
Styrene	ug/m3	ND	0.87	04/19/13 15:49	
Tetrachloroethene	ug/m3	ND	0.69	04/19/13 15:49	
Tetrahydrofuran	ug/m3	ND	0.60	04/19/13 15:49	
Toluene	ug/m3	ND	0.77	04/19/13 15:49	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	04/19/13 15:49	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	04/19/13 15:49	
Trichloroethene	ug/m3	ND	0.55	04/19/13 15:49	
Trichlorofluoromethane	ug/m3	ND	1.1	04/19/13 15:49	
Vinyl acetate	ug/m3	ND	0.72	04/19/13 15:49	
Vinyl chloride	ug/m3	ND	0.26	04/19/13 15:49	

LABORATORY CONTROL SAMPLE: 1412430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	57.9	104	69-131	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	82.4	118	66-135	
1,1,2-Trichloroethane	ug/m3	55.5	57.8	104	68-132	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	71.7	92	65-130	
1,1-Dichloroethane	ug/m3	41.2	39.0	95	66-131	
1,1-Dichloroethene	ug/m3	40.3	37.5	93	64-136	
1,2,4-Trichlorobenzene	ug/m3	75.5	161	214	30-150	CH,L3
1,2,4-Trimethylbenzene	ug/m3	50	52.6	105	71-135	
1,2-Dibromoethane (EDB)	ug/m3	78.1	90.3	116	72-132	
1,2-Dichlorobenzene	ug/m3	61.2	62.5	102	68-148	
1,2-Dichloroethane	ug/m3	41.2	43.3	105	66-136	
1,2-Dichloropropane	ug/m3	47	50.0	106	68-133	
1,3,5-Trimethylbenzene	ug/m3	50	53.7	107	69-136	
1,3-Butadiene	ug/m3	22.5	22.6	100	69-134	
1,3-Dichlorobenzene	ug/m3	61.2	62.5	102	70-134	
1,4-Dichlorobenzene	ug/m3	61.2	64.8	106	66-134	
2-Butanone (MEK)	ug/m3	30	29.4	98	69-141	
2-Hexanone	ug/m3	41.7	41.9	101	74-132	
4-Ethyltoluene	ug/m3	50	51.5	103	71-134	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	38.4	92	74-131	
Acetone	ug/m3	24.2	23.4	97	62-142	
Benzene	ug/m3	32.5	30.2	93	72-136	
Bromodichloromethane	ug/m3	68.2	75.3	111	69-135	
Bromoform	ug/m3	105	136	129	72-133	
Bromomethane	ug/m3	39.5	35.7	90	65-125	
Carbon disulfide	ug/m3	31.7	28.6	90	68-127	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

LABORATORY CONTROL SAMPLE: 1412430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/m3	64	67.0	105	64-133	
Chlorobenzene	ug/m3	46.8	50.5	108	65-135	
Chloroethane	ug/m3	26.8	24.3	91	63-129	
Chloroform	ug/m3	49.7	51.1	103	66-129	
Chloromethane	ug/m3	21	19.7	94	57-135	
cis-1,2-Dichloroethene	ug/m3	40.3	40.3	100	73-135	
cis-1,3-Dichloropropene	ug/m3	46.2	44.3	96	75-137	
Cyclohexane	ug/m3	35	33.4	95	73-139	
Dibromochloromethane	ug/m3	86.6	104	121	73-130	
Dichlorodifluoromethane	ug/m3	50.3	48.1	96	64-131	
Dichlorotetrafluoroethane	ug/m3	71.1	65.6	92	64-131	
Ethyl acetate	ug/m3	36.6	44.0	120	73-136	
Ethylbenzene	ug/m3	44.2	45.9	104	74-136	
Hexachloro-1,3-butadiene	ug/m3	108	274	253	30-150	CH,L3
m&p-Xylene	ug/m3	44.2	45.1	102	72-135	
Methyl-tert-butyl ether	ug/m3	36.7	33.1	90	71-134	
Methylene Chloride	ug/m3	35.3	32.5	92	59-140	
n-Heptane	ug/m3	41.7	39.1	94	73-136	
n-Hexane	ug/m3	35.8	27.8	78	67-136	
Naphthalene	ug/m3	53.3	123	230	30-150	CH,L1
o-Xylene	ug/m3	44.2	46.4	105	74-135	
Propylene	ug/m3	17.5	16.5	94	66-138	
Styrene	ug/m3	43.3	43.3	100	73-135	
Tetrachloroethene	ug/m3	69	78.8	114	66-135	
Tetrahydrofuran	ug/m3	30	30.0	100	73-130	
Toluene	ug/m3	38.3	31.3	82	71-134	
trans-1,2-Dichloroethene	ug/m3	40.3	37.0	92	68-129	
trans-1,3-Dichloropropene	ug/m3	46.2	43.5	94	75-129	
Trichloroethene	ug/m3	54.6	59.8	109	68-134	
Trichlorofluoromethane	ug/m3	57.1	51.4	90	61-134	
Vinyl acetate	ug/m3	35.8	35.7	100	70-139	
Vinyl chloride	ug/m3	26	24.7	95	64-134	

SAMPLE DUPLICATE: 1413420

Parameter	Units	10224616003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	5.6	5.1	9	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

SAMPLE DUPLICATE: 1413420

Parameter	Units	10224616003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	3.9	3.9	.4	25	
2-Hexanone	ug/m3	ND	ND		25	
4-Ethyltoluene	ug/m3	2.0	2.0	2	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	ND	ND		25	
Benzene	ug/m3	2.1	2.1	1	25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	0.72	0.91	23	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	3.5	3.4	3	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.6	2.8	5	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	3.9	3.6	8	25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	13.3	12.3	8	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	1.9	1.4	30	25	R1
n-Heptane	ug/m3	4.9	4.7	4	25	
n-Hexane	ug/m3	5.7	5.5	4	25	
Naphthalene	ug/m3	2.4	1.7	35	25	CH,L1,R1
o-Xylene	ug/m3	4.1	3.7	10	25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	10.1	10.2	1	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	0.99	0.90	9	25	
Trichlorofluoromethane	ug/m3	ND	1.4J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

QC Batch: AIR/17180
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10224616008

METHOD BLANK: 1413527
Matrix: Air
Associated Lab Samples: 10224616008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	04/21/13 15:16	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	04/21/13 15:16	
1,1,2-Trichloroethane	ug/m3	ND	0.55	04/21/13 15:16	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	04/21/13 15:16	
1,1-Dichloroethane	ug/m3	ND	0.82	04/21/13 15:16	
1,1-Dichloroethene	ug/m3	ND	0.81	04/21/13 15:16	
1,2,4-Trichlorobenzene	ug/m3	ND	1.5	04/18/13 12:25	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	04/21/13 15:16	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	04/21/13 15:16	
1,2-Dichlorobenzene	ug/m3	ND	1.2	04/18/13 12:25	
1,2-Dichloroethane	ug/m3	ND	0.41	04/21/13 15:16	
1,2-Dichloropropane	ug/m3	ND	0.94	04/21/13 15:16	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	04/21/13 15:16	
1,3-Butadiene	ug/m3	ND	0.45	04/21/13 15:16	
1,3-Dichlorobenzene	ug/m3	ND	1.2	04/21/13 15:16	
1,4-Dichlorobenzene	ug/m3	ND	1.2	04/21/13 15:16	
2-Butanone (MEK)	ug/m3	ND	0.60	04/21/13 15:16	
2-Hexanone	ug/m3	ND	0.83	04/18/13 12:25	
4-Ethyltoluene	ug/m3	ND	1.0	04/21/13 15:16	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	04/21/13 15:16	
Acetone	ug/m3	ND	0.48	04/21/13 15:16	
Benzene	ug/m3	ND	0.32	04/21/13 15:16	
Bromodichloromethane	ug/m3	ND	1.4	04/21/13 15:16	
Bromoform	ug/m3	ND	2.1	04/21/13 15:16	
Bromomethane	ug/m3	ND	0.79	04/21/13 15:16	
Carbon disulfide	ug/m3	ND	0.63	04/21/13 15:16	
Carbon tetrachloride	ug/m3	ND	0.64	04/21/13 15:16	
Chlorobenzene	ug/m3	ND	0.94	04/21/13 15:16	
Chloroethane	ug/m3	ND	0.54	04/21/13 15:16	
Chloroform	ug/m3	ND	0.99	04/21/13 15:16	
Chloromethane	ug/m3	ND	0.42	04/21/13 15:16	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	04/21/13 15:16	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	04/21/13 15:16	
Cyclohexane	ug/m3	ND	0.70	04/21/13 15:16	
Dibromochloromethane	ug/m3	ND	1.7	04/21/13 15:16	
Dichlorodifluoromethane	ug/m3	ND	1.0	04/21/13 15:16	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	04/21/13 15:16	
Ethyl acetate	ug/m3	ND	0.73	04/21/13 15:16	
Ethylbenzene	ug/m3	ND	0.88	04/21/13 15:16	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	04/18/13 12:25	
m&p-Xylene	ug/m3	ND	1.8	04/21/13 15:16	
Methyl-tert-butyl ether	ug/m3	ND	0.73	04/21/13 15:16	
Methylene Chloride	ug/m3	ND	0.71	04/21/13 15:16	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

METHOD BLANK: 1413527 Matrix: Air

Associated Lab Samples: 10224616008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/m3	ND	0.83	04/21/13 15:16	
n-Hexane	ug/m3	ND	0.72	04/21/13 15:16	
Naphthalene	ug/m3	ND	1.1	04/18/13 12:25	
o-Xylene	ug/m3	ND	0.88	04/21/13 15:16	
Propylene	ug/m3	ND	0.35	04/21/13 15:16	
Styrene	ug/m3	ND	0.87	04/21/13 15:16	
Tetrachloroethene	ug/m3	ND	0.69	04/21/13 15:16	
Tetrahydrofuran	ug/m3	ND	0.60	04/21/13 15:16	
Toluene	ug/m3	ND	0.77	04/21/13 15:16	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	04/21/13 15:16	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	04/21/13 15:16	
Trichloroethene	ug/m3	ND	0.55	04/21/13 15:16	
Trichlorofluoromethane	ug/m3	ND	1.1	04/21/13 15:16	
Vinyl acetate	ug/m3	ND	0.72	04/21/13 15:16	
Vinyl chloride	ug/m3	ND	0.26	04/21/13 15:16	

LABORATORY CONTROL SAMPLE: 1413528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	57.4	103	69-131	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	85.2	122	66-135	
1,1,2-Trichloroethane	ug/m3	55.5	59.2	107	68-132	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	71.4	92	65-130	
1,1-Dichloroethane	ug/m3	41.2	39.2	95	66-131	
1,1-Dichloroethene	ug/m3	40.3	38.5	96	64-136	
1,2,4-Trichlorobenzene	ug/m3	75.5	157	207	30-150	CH,L3
1,2,4-Trimethylbenzene	ug/m3	50	56.2	112	71-135	
1,2-Dibromoethane (EDB)	ug/m3	78.1	87.5	112	72-132	
1,2-Dichlorobenzene	ug/m3	61.2	57.8	95	68-148	
1,2-Dichloroethane	ug/m3	41.2	43.7	106	66-136	
1,2-Dichloropropane	ug/m3	47	52.0	111	68-133	
1,3,5-Trimethylbenzene	ug/m3	50	53.1	106	69-136	
1,3-Butadiene	ug/m3	22.5	24.2	108	69-134	
1,3-Dichlorobenzene	ug/m3	61.2	67.2	110	70-134	
1,4-Dichlorobenzene	ug/m3	61.2	68.9	113	66-134	
2-Butanone (MEK)	ug/m3	30	31.5	105	69-141	
2-Hexanone	ug/m3	41.7	39.5	95	74-132	
4-Ethyltoluene	ug/m3	50	51.3	103	71-134	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	54.1	130	74-131	
Acetone	ug/m3	24.2	27.4	114	62-142	
Benzene	ug/m3	32.5	38.5	119	72-136	
Bromodichloromethane	ug/m3	68.2	73.3	108	69-135	
Bromoform	ug/m3	105	127	121	72-133	
Bromomethane	ug/m3	39.5	35.3	89	65-125	
Carbon disulfide	ug/m3	31.7	28.4	90	68-127	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

LABORATORY CONTROL SAMPLE: 1413528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/m3	64	63.5	99	64-133	
Chlorobenzene	ug/m3	46.8	51.3	110	65-135	
Chloroethane	ug/m3	26.8	25.2	94	63-129	
Chloroform	ug/m3	49.7	50.9	102	66-129	
Chloromethane	ug/m3	21	20.0	95	57-135	
cis-1,2-Dichloroethene	ug/m3	40.3	42.1	105	73-135	
cis-1,3-Dichloropropene	ug/m3	46.2	43.9	95	75-137	
Cyclohexane	ug/m3	35	35.3	101	73-139	
Dibromochloromethane	ug/m3	86.6	98.4	114	73-130	
Dichlorodifluoromethane	ug/m3	50.3	45.4	90	64-131	
Dichlorotetrafluoroethane	ug/m3	71.1	65.3	92	64-131	
Ethyl acetate	ug/m3	36.6	44.4	121	73-136	
Ethylbenzene	ug/m3	44.2	46.5	105	74-136	
Hexachloro-1,3-butadiene	ug/m3	108	258	238	30-150	CH,L3
m&p-Xylene	ug/m3	44.2	46.9	106	72-135	
Methyl-tert-butyl ether	ug/m3	36.7	38.2	104	71-134	
Methylene Chloride	ug/m3	35.3	30.4	86	59-140	
n-Heptane	ug/m3	41.7	42.2	101	73-136	
n-Hexane	ug/m3	35.8	34.4	96	67-136	
Naphthalene	ug/m3	53.3	120	226	30-150	CH,L1
o-Xylene	ug/m3	44.2	47.1	107	74-135	
Propylene	ug/m3	17.5	15.2	87	66-138	
Styrene	ug/m3	43.3	45.1	104	73-135	
Tetrachloroethene	ug/m3	69	75.2	109	66-135	
Tetrahydrofuran	ug/m3	30	30.0	100	73-130	
Toluene	ug/m3	38.3	46.4	121	71-134	
trans-1,2-Dichloroethene	ug/m3	40.3	37.7	94	68-129	
trans-1,3-Dichloropropene	ug/m3	46.2	42.8	93	75-129	
Trichloroethene	ug/m3	54.6	62.2	114	68-134	
Trichlorofluoromethane	ug/m3	57.1	51.6	90	61-134	
Vinyl acetate	ug/m3	35.8	39.1	109	70-139	
Vinyl chloride	ug/m3	26	25.6	98	64-134	

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QUALIFIERS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 10224616010

[1]	The internal standard recoveries associated with this sample exceed the lower control limit (-40% of initial calibration standard). Results confirmed by second analysis.

ANALYTE QUALIFIERS

A3	The sample was analyzed by serial dilution.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10224616001	**1644-A-040313**	TO-15	AIR/17165		
10224616002	**1644-B-040313**	TO-15	AIR/17165		
10224616003	**1000-B-040313**	TO-15	AIR/17167		
10224616004	**1646-A-040313**	TO-15	AIR/17165		
10224616005	**1646-B-040313**	TO-15	AIR/17165		
10224616006	**1644/46-BK-040313**	TO-15	AIR/17167		
10224616007	**1644-F-040313**	TO-15	AIR/17167		
10224616008	**1644-R-040313**	TO-15	AIR/17180		
10224616009	**1646-F-040313**	TO-15	AIR/17165		
10224616010	**1646-R-040313**	TO-15	AIR/17167		
10224616015	**Cert Can 0099**	TO-15	AIR/17184		
10224616016	**Cert Can 0433**	TO-15	AIR/17184		
10224616017	**Cert Can 2033**	TO-15	AIR/17184		
10224616018	**Cert Can 1053**	TO-15	AIR/17184		
10224616019	**Cert Can 1078**	TO-15	AIR/17184		
10224616020	**Cert Can 0557**	TO-15	AIR/17184		
10224616021	**Cert Can 0262**	TO-15	AIR/17184		
10224616022	**Cert Can 0006**	TO-15	AIR/17184		
10224616023	**Cert Can 1611**	TO-15	AIR/17184		
10224616024	**Cert Can 1600**	TO-15	AIR/17184		

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10224616

09487

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: WSP	Report To: CRAIG RAMICH	Attention: Per MSA
Address: 11190 SUNRISE VALLEY DR. #300 RESTON, VA 20191	Copy To: KEITH GREEN keith.green@wspgroup.com	Company Name:
Email To: craig.ramich@wspgroup.com	Purchase Order No.:	Address:
Phone: 703-709-6500 Fax: 703-709-8505	Project Name: YAKONA RD.	Pace Quote Reference:
Requested Due Date/TAT:	Project Number: 41841/10	Pace Project Manager/Sales Rep.
		Pace Profile #:

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other____

Location of Sampling by State: MD

Reporting Units: ug/m³ X mg/m³ ____ PPBV ___ PPMV ___ Other ___

Report Level II.___ III.___ IV.___ Other____

'Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
*6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START END/GRAB DATE	COLLECTED COMPOSITE START END/GRAB TIME	COLLECTED COMPOSITE - DATE	COLLECTED COMPOSITE - TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method: PM10	3C- Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15	TO15 Short List*	Pace Lab ID
1	1644-A-040313	6LC		04/03/13	10:55	04/04/13	1046	40	3.5	0099	0266							X			
2	1644-B-040313	6LC		04/03/13	1100	04/04/13	1049	27	1.5	0433	0101							X			
3	1000-B-040313	6LC		04/03/13	1100	04/04/13	1049	30	1.5	2033	0371							X			
4	1646-A-040313	6LC		04/03/13	1111	04/04/13	10:30	30	5.0	1053	0373							X			
5	1646-B-040313	6LC		04/03/13	1113	04/04/13	10:30	30	1.5	1078	0290							X			
6	1644/46-BK-040313	6LC		04/03/13	1125	04/04/13	1019	28.5	1.0	0557	0098							X			
7	1644-F-040413	6LC		04/04/13	1144	04/04/13	1145	30	5.0	0202	0186							X			
8	1644-R-040413	6LC		04/04/13	1233	04/04/13	1234	27	3.6	0006	0186							X			
9	1646-F-040413	6LC		04/04/13	1205	04/04/13	1206	30	5.0	1611	0186							X			
10	1646-R-040413	6LC		04/04/13	1221	04/04/13	1222	29	5.0	1600	0186							X			
11	LRO						LRO														
12																					

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
WSP	04/04/13	6:15PM		4-5-13	09:10

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: LUIS OCAMPO

SIGNATURE of SAMPLER: X

DATE Signed (MM / DD / YY): 04/04/13

ORIGINAL

Pace Analytical®	Document Name: Air Sample Condition Upon Receipt	Document Revised: 28Jan2013 Page 1 of 1
	Document No.: F-MN-A-106-rev.07	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: WSP

Project #: WO#: 10224616

10224616

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 8019 6520 0488; 2957 7297 5504 5515 5526

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other:

Temp. (TO17 and TO13 samples only) (°C): AnB **Corrected Temp (°C):** _____ **Thermom. Used:** ☐ B88A912167504 ☐ 80512447 ☐ 72337080

Temp should be above freezing to 6°C **Correction Factor:** _____ **Date & Initials of Person Examining Contents:** 4-5-13 JK

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Media: AIR (CAN)				11.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12.

Samples Received: 14 CANS 10 FC's, 4 GAUGES

Canisters		Flow Controllers		Stand Alone G	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
1644-A	0099	FC0366		0264	FC0352
" -B	0433	FC0101		0671	FC0232
1000-B	2033	FC0371		0849	FC0313
1646-A	1053	FC0373		2024	FC0249
" -B	1078	FC0390			
1644/46-BK	0557	FC0098			
1644-F	0262				P89
" -R	0006				186
1646-F	1611				P11
-R	1600				PACE003

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ **Date:** 4/8/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Fraction: TO15

Instrument: 10AIRD Method: Misc. Prep. Info: Surrogate Lot: 8137-89-11
Column: J&W DB-5 0.32mm Helium Tune Standard: 8137-89-11 ISTD Lot: 8137-89-11 Cal. Standard: 8137-88-10/12

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
10601BFB.D	BFB	L/	Tune	1		50NG_BFB	4/16/13 08:20	CJR	
10602.D	CCAL	G/	CCal	1		TO15_101-13	4/16/13 08:50	CJR	
10603.D	CCAL	G/	CCal	1		TO15_101-13	4/16/13 09:31	CJR	
10604BFB.D	BFB	L/	Tune	1		50NG_BFB	4/16/13 10:12	CJR	
10605.D	ICAL1	G/	Ical	1		TO15_106-13	4/16/13 10:41	CJR	
10606.D	ICAL2	G/	Ical	1		TO15_106-13	4/16/13 11:10	CJR	
10607.D	ICAL3	G/	Ical	1		TO15_106-13	4/16/13 11:40	CJR	
10608.D	ICAL4	G/	Ical	1		TO15_106-13	4/16/13 12:13	CJR	
10609.D	ICAL5	G/	Ical	1		TO15_106-13	4/16/13 12:43	CJR	
10610.D	ICAL6	G/	Ical	1		TO15_106-13	4/16/13 13:14	CJR	
10611.D	ICAL7	G/	Ical	1		TO15_106-13	4/16/13 13:45	CJR	
10612.D	SSV	G/	LCS	1		TO15_106-13	4/16/13 14:15	CJR	8137-85-10
10613.D	LCS	G/	LCS	1		TO15_106-13	4/16/13 14:46	CJR	
10613A.D	1410725	G/17152	LCS	1		TO15_106-13	4/16/13 14:46	CJR	
10613LL.D	1410718	G/17151	LCS	1		TO15_106-13	4/16/13 14:46	CJR	
10614.D	CC	G/	Sample	1		TO15_106-13	4/16/13 15:17	CJR	
10615.D	CC	G/	Sample	1		TO15_106-13	4/16/13 15:49	CJR	
10616LL.D	1410717	G/17151	Blank	1		TO15_106-13	4/16/13 16:19	CJR	
10616.D	CC	G/	Sample	1		TO15_106-13	4/16/13 16:19	CJR	
10616B.D	BLANK	G/	Blank	1		TO15_106-13	4/16/13 16:19	CJR	
10616A.D	1410724	G/17152	Blank	1		TO15_106-13	4/16/13 16:19	CJR	
10617.D	60141575001	G/17151	Sample	7.45		TO15_106-13	4/16/13 16:49	CJR	
10618.D	-DUP	G/17151	Duplicate	7.45		TO15_106-13	4/16/13 17:18	CJR	
10619.D	10224390002	G/17151	Sample	1.44		TO15_106-13	4/16/13 18:03	CJR	
10620.D	10224390001	G/17151	Sample	1.49		TO15_106-13	4/16/13 18:34	CJR	
10621.D	10224437001	G/17139	Sample	1149.184		TO15_106-13	4/16/13 19:03	CJR	
10622.D	10224437003	G/17151	Sample	1.34		TO15_106-13	4/16/13 19:35	CJR	
10623.D	10224437002	G/17151	Sample	1.34		TO15_106-13	4/16/13 20:04	CJR	
10624.D	10224437005	G/17151	Sample	1.34		TO15_106-13	4/16/13 20:40	CJR	
10625.D	10224437004	G/17151	Sample	1.44		TO15_106-13	4/16/13 21:12	CJR	
10626.D	10224394002	G/17139	Sample	53.088		TO15_106-13	4/16/13 21:41	CJR	
10627.D	10224394004	G/17139	Sample	39.27		TO15_106-13	4/16/13 22:10	CJR	
10628.D	IC	G/	Sample	1		TO15_106-13	4/16/13 22:42	CJR	
10629.D	IC	G/	Sample	1		TO15_106-13	4/16/13 23:11	CJR	
10630.D	IC	G/	Sample	1		TO15_106-13	4/16/13 23:40	CJR	
10631.D	10224344003	G/17152	Sample	34.8		TO15_106-13	4/17/13 00:09	CJR	
10632.D	1411035	G/17152	Duplicate	34.8		TO15_106-13	4/17/13 00:38	CJR	
10633.D	10224344002	G/17152	Sample	233.856		TO15_106-13	4/17/13 01:08	CJR	
10634.D	10224344001	G/17152	Sample	967.68		TO15_106-13	4/17/13 01:37	CJR	
10635.D	3090957001	G/17151	Sample	1.49		TO15_106-13	4/17/13 02:08	CJR	
10636.D	3090957002	G/17151	Sample	1.44		TO15_106-13	4/17/13 02:39	CJR	
10637.D	3090957003	G/17151	Sample	1.55		TO15_106-13	4/17/13 03:10	CJR	
10638.D	10224930002	G/17151	Sample	1.83		TO15_106-13	4/17/13 03:39	CJR	
10639.D	10224930001	G/17151	Sample	1.44		TO15_106-13	4/17/13 04:08	CJR	
10640.D	10224576001	G/17151	Sample	1.34		TO15_106-13	4/17/13 04:39	CJR	
10641.D	10224576002	G/17151	Sample	1.39		TO15_106-13	4/17/13 05:08	CJR	

Instrument Run Log

Instrument: 10AIRD Method: Misc. Prep. Info: Surrogate Lot: 8137-89-11
Column: J&W DB-5 0.32mm Helium Tune Standard: 8137-89-11 ISTD Lot: 8137-89-11 Cal. Standard: 8137-88-10/12

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
10642.D	10224392001	G/17151	Sample	1.55		TO15_106-13	4/17/13 05:44	CJR	
10643.D	10224436002	G/17151	Sample	1.34		TO15_106-13	4/17/13 06:15	CJR	
10644.D	10224436001	G/17151	Sample	1.34		TO15_106-13	4/17/13 06:47	CJR	
10645.D	IC	G/	Sample	1		TO15_106-13	4/17/13 07:18	CJR	
10646.D	CC	G/	Sample	1		TO15_106-13	4/17/13 07:47	CJR	
10647.D	CC	G/	Sample	1		TO15_106-13	4/17/13 08:20	CJR	
10648.D	CC	G/	Sample	1		TO15_106-13	4/17/13 08:51	CJR	
10649.D	CC	G/	Sample	1		TO15_106-13	4/17/13 09:23	CJR	
10650.D	10224390001	G/17151	Sample	14.9		TO15_106-13	4/17/13 09:52	CJR	

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: U:\10AIRD.I\041613.B\
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 04/17/2013 10:28
Reviewed By/Date:

Instrument Run Log

Instrument: 10AIRD Method: Misc. Prep. Info: Surrogate Lot: 8137-89-11
Column: J&W DB-5 0.32mm Helium Tune Standard: 8137-89-11 ISTD Lot: 8137-89-11 Cal. Standard: 8137-88-12

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
10801BFB.D	BFB	L/	Tune	1		50NG_BFB	4/18/13 10:37	CJR	
10802S.D	1413528	G/17180	LCS	1		TO15_106-13	4/18/13 11:08	CJR	
10802.D	CCAL	G/	CCal	1		TO15_106-13	4/18/13 11:08	CJR	
10802LL.D	1411879	G/17165	LCS	1		TO15_106-13	4/18/13 11:08	CJR	
10803.D	IC	G/	Sample	1		TO15_106-13	4/18/13 11:53	CJR	
10804.D	CC	G/	Sample	1		TO15_106-13	4/18/13 12:25	CJR	
10804B.D	BLANK	G/	Blank	1		TO15_106-13	4/18/13 12:25	CJR	
10804LL.D	1411878	G/17165	Blank	1		TO15_106-13	4/18/13 12:25	CJR	
10804S.D	1413527	G/17180	Blank	1		TO15_106-13	4/18/13 12:25	CJR	
10805.D	10224798001	G/17165	Sample	1.68		TO15_106-13	4/18/13 13:01	CJR	
10806.D	10224798001	G/17165	Sample	1.68		TO15_106-13	4/18/13 13:31	CJR	
10807.D	10224704001	G/17165	Sample	3.88		TO15_106-13	4/18/13 14:01	CJR	
10808.D	10224704002	G/17165	Sample	3.74		TO15_106-13	4/18/13 14:30	CJR	
10809.D	10224798001	G/17165	Sample	33.6		TO15_106-13	4/18/13 15:00	CJR	
10810.D	10224704004	G/17154	Sample	3870.72		TO15_106-13	4/18/13 15:29	CJR	
10811.D	10224704003	G/17154	Sample	1042.944		TO15_106-13	4/18/13 15:58	CJR	
10812.D	10224616001	G/17165	Sample	1.44		TO15_106-13	4/18/13 16:30	CJR	
10813.D	10224616002	G/17165	Sample	1.26		TO15_106-13	4/18/13 17:01	CJR	
10814.D	1412388	G/17165	Duplicate	1.26		TO15_106-13	4/18/13 17:33	CJR	
10815.D	10224616005	G/17165	Sample	1.34		TO15_106-13	4/18/13 18:03	CJR	
10816.D	-DUP	G/17165	Duplicate	1.34		TO15_106-13	4/18/13 18:34	CJR	
10817.D	10224616008	G/17180	Sample	1.44		TO15_106-13	4/18/13 19:12	CJR	
10818.D	10224616003	G/17165	Sample	1.34		TO15_106-13	4/18/13 20:00	CJR	
10819.D	10224616004	G/17165	Sample	1.49		TO15_106-13	4/18/13 20:32	CJR	
10820.D	10224616006	G/17165	Sample	1.26		TO15_106-13	4/18/13 21:03	CJR	
10821.D	10224616007	G/17165	Sample	1.55		TO15_106-13	4/18/13 21:35	CJR	
10822.D	10224616010	G/17165	Sample	1.55		TO15_106-13	4/18/13 22:07	CJR	
10823.D	10224616009	G/17165	Sample	1.55		TO15_106-13	4/18/13 22:38	CJR	
10824.D	10225709001	G/17165	Sample	1.55		TO15_106-13	4/18/13 23:09	CJR	
10825.D	10225709002	G/17165	Sample	1.68		TO15_106-13	4/18/13 23:40	CJR	
10826.D	10225709003	G/17165	Sample	1.44		TO15_106-13	4/19/13 00:12	CJR	
10827.D	10225709004	G/17165	Sample	1.39		TO15_106-13	4/19/13 00:42	CJR	
10828.D	10225709005	G/17165	Sample	1.39		TO15_106-13	4/19/13 01:14	CJR	
10829.D	10225709006	G/17165	Sample	1.39		TO15_106-13	4/19/13 01:45	CJR	
10830.D	10225709007	G/17165	Sample	1.39		TO15_106-13	4/19/13 02:14	CJR	
10831.D	10225709008	G/17165	Sample	1.44		TO15_106-13	4/19/13 02:50	CJR	
10832.D	10225709009	G/17165	Sample	1.44		TO15_106-13	4/19/13 03:22	CJR	
10833.D	10225709010	G/17165	Sample	1.44		TO15_106-13	4/19/13 03:54	CJR	
10834.D	10225709011	G/17165	Sample	1.39		TO15_106-13	4/19/13 04:26	CJR	
10835.D	10225709012	G/17165	Sample	1.34		TO15_106-13	4/19/13 04:58	CJR	
10836.D	IC	G/	Sample	1		TO15_106-13	4/19/13 05:29	CJR	
10837.D	IC	G/	Sample	1		TO15_106-13	4/19/13 06:00	CJR	
10838.D	IC	G/	Sample	1		TO15_106-13	4/19/13 06:30	CJR	
10839.D	CC	G/	Sample	1		TO15_106-13	4/19/13 06:59	CJR	
10840.D	CC	G/	Sample	1		TO15_106-13	4/19/13 07:28	CJR	
10841.D	CC	G/	Sample	1		TO15_106-13	4/19/13 07:58	CJR	

Instrument: 10AIRD Method: Misc. Prep. Info: Surrogate Lot: 8137-89-11
Column: J&W DB-5 0.32mm Helium Tune Standard: 8137-89-11 ISTD Lot: 8137-89-11 Cal. Standard: 8137-88-12

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
10842.D	CC	G/	Sample	1		TO15_106-13	4/19/13 08:30	CJR	
10843.D	CC	G/	Sample	1		TO15_106-13	4/19/13 08:59	CJR	
10844.D	CC	G/	Sample	1		TO15_106-13	4/19/13 09:28	CJR	
10845.D	CC	G/	Sample	1		TO15_106-13	4/19/13 09:58	CJR	
10846.D	CC	G/	Sample	1		TO15_106-13	4/19/13 10:30	CJR	

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: U:\10AIRD.I\041813.B\
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 04/22/2013 11:48
Reviewed By/Date:

Instrument Run Log

Instrument: 10AIRD Method: Misc. Prep. Info: Surrogate Lot: 8137-89-11
Column: J&W DB-5 0.32mm Helium Tune Standard: 8137-89-11 ISTD Lot: 8137-89-11 Cal. Standard: 8137-88-12

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
10901BFB.D	BFB	L/	Tune	1		50NG_BFB	4/19/13 11:03	CJR	
10902.D	CCAL	G/	CCal	1		TO15_106-13	4/19/13 11:32	CJR	
10903LL.D	1412430	G/17167	LCS	1		TO15_106-13	4/19/13 12:14	CJR	
10903S.D	1413528	G/17180	LCS	1		TO15_106-13	4/19/13 12:14	CJR	
10903.D	CCAL	G/	CCal	1		TO15_106-13	4/19/13 12:14	CJR	
10903T.D	1412930	G/17173	LCS	1		TO15_106-13	4/19/13 12:14	CJR	
10903A.D	1412432	G/17168	LCS	1		TO15_106-13	4/19/13 12:14	CJR	
10904.D	CC	G/	Sample	1		TO15_106-13	4/19/13 14:43	CJR	
10905.D	CC	G/	Sample	1		TO15_106-13	4/19/13 15:15	CJR	
10906S.D	1413527	G/17180	Blank	1		TO15_106-13	4/19/13 15:49	CJR	
10906.D	BLANK	G/	Blank	1		TO15_106-13	4/19/13 15:49	CJR	
10906LL.D	1412429	G/17167	Blank	1		TO15_106-13	4/19/13 15:49	CJR	
10906T.D	1412929	G/17173	Blank	1		TO15_106-13	4/19/13 15:49	CJR	
10906A.D	1412431	G/17168	Blank	1		TO15_106-13	4/19/13 15:49	CJR	
10907.D	10224616003	G/17167	Sample	1.34		TO15_106-13	4/19/13 16:49	CJR	
10908.D	1413420	G/17167	Duplicate	1.34		TO15_106-13	4/19/13 17:18	CJR	
10909.D	10224616006	G/17167	Sample	1.6884		TO15_106-13	4/19/13 17:54	CJR	
10910.D	10224616010	G/17167	Sample	1.55		TO15_106-13	4/19/13 18:46	CJR	
10911.D	10224616007	G/17167	Sample	31		TO15_106-13	4/19/13 19:15	CJR	
10912.D	10224616008	G/17167	Sample	2469.888		TO15_106-13	4/19/13 19:44	CJR	
10913.D	10225847001	G/17173	Sample	1.44		TO15_106-13	4/19/13 20:17	CJR	
10914.D	-DUP	G/17173	Duplicate	1.44		TO15_106-13	4/19/13 20:50	CJR	
10915.D	10225847002	G/17173	Sample	1.44		TO15_106-13	4/19/13 21:19	CJR	
10916.D	10225847003	G/17173	Sample	1.55		TO15_106-13	4/19/13 21:49	CJR	
10917.D	-DUP	G/17173	Duplicate	1.55		TO15_106-13	4/19/13 22:18	CJR	
10918.D	3589106004	G/17167	Sample	1.34		TO15_106-13	4/19/13 22:47	CJR	
10919.D	3589106003	G/17167	Sample	3.1		TO15_106-13	4/19/13 23:17	CJR	
10920.D	10225567001	G/17168	Sample	50.4		TO15_106-13	4/19/13 23:46	CJR	
10921.D	IC	G/	Sample	1		TO15_106-13	4/20/13 00:15	CJR	
10922.D	IC	G/	Sample	1		TO15_106-13	4/20/13 00:49	CJR	
10923.D	IC	G/	Sample	1		TO15_106-13	4/20/13 01:25	CJR	
10924.D	IC	G/	Sample	1		TO15_106-13	4/20/13 01:55	CJR	
10925.D	10225413001	G/17167	Sample	1.8		TO15_106-13	4/20/13 02:27	CJR	
10926.D	10225413002	G/17167	Sample	1.68		TO15_106-13	4/20/13 02:56	CJR	
10927.D	3091314002	G/17167	Sample	1.8		TO15_106-13	4/20/13 03:30	CJR	
10928.D	3091314001	G/17167	Sample	36		TO15_106-13	4/20/13 03:59	CJR	
10929.D	10225108006	G/17167	Sample	1.83		TO15_106-13	4/20/13 04:28	CJR	
10930.D	10225108008	G/17167	Sample	1.34		TO15_106-13	4/20/13 05:02	CJR	
10931.D	10225108004	G/17167	Sample	1.34		TO15_106-13	4/20/13 05:46	CJR	
10932.D	10225108005	G/17167	Sample	1.34		TO15_106-13	4/20/13 06:15	CJR	
10933.D	10225108002	G/17167	Sample	26.8		TO15_106-13	4/20/13 06:44	CJR	
10934.D	10225108001	G/17167	Sample	26.8		TO15_106-13	4/20/13 07:13	CJR	
10935.D	10225108007	G/17167	Sample	26.8		TO15_106-13	4/20/13 07:42	CJR	
10936.D	10225108003	G/17167	Sample	26.8		TO15_106-13	4/20/13 08:11	CJR	
10937.D	IC	G/	Sample	1		TO15_106-13	4/20/13 08:40	CJR	
10938.D	IC	G/	Sample	1		TO15_106-13	4/20/13 09:09	CJR	

Instrument: 10AIRD Method: Misc. Prep. Info: Surrogate Lot: 8137-89-11
Column: J&W DB-5 0.32mm Helium Tune Standard: 8137-89-11 ISTD Lot: 8137-89-11 Cal. Standard: 8137-88-12

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
10939.D	IC	G/	Sample	1		TO15_106-13	4/20/13 09:41	CJR	

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: U:\10AIRD.I\041913.B\
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 04/24/2013 09:19
Reviewed By/Date:

Instrument: 10AIRD Method: Misc. Prep. Info: Surrogate Lot: 8137-89-12
Column: J&W DB-5 0.32mm Helium Tune Standard: 8137-89-12 ISTD Lot: 8137-89-12 Cal. Standard: 813-88-15/8137-88-12

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
11101BFB.D	BFB	L/	Tune	1		50NG_BFB	4/21/13 07:50	CJR	
11102.D	CCV-NOT EVALUATED	G/	Sample	1		TO15_111-13	4/21/13 08:21	CJR	
11103BFB.D	BFB	L/	Tune	1		50NG_BFB	4/21/13 09:14	CJR	
11104.D	0	G/	Sample	1		TO15_111-13	4/21/13 09:47	CJR	
11105BFB.D	BFB	L/	Tune	1		50NG_BFB	4/21/13 10:16	CJR	
11105.D	ICAL1	G/	Ical	1		TO15_111-13	4/21/13 10:16	CJR	
11106.D	ICAL2	G/	Ical	1		TO15_111-13	4/21/13 10:45	CJR	
11107.D	ICAL3	G/	Ical	1		TO15_111-13	4/21/13 11:15	CJR	
11108.D	ICAL4	G/	Ical	1		TO15_111-13	4/21/13 11:47	CJR	
11109.D	ICAL5	G/	Ical	1		TO15_111-13	4/21/13 12:16	CJR	
11110.D	ICAL6	G/	Ical	1		TO15_111-13	4/21/13 12:45	CJR	
11111.D	ICAL7	G/	Ical	1		TO15_111-13	4/21/13 13:15	CJR	
11112.D	SSV	G/	LCS	1		TO15_111-13	4/21/13 13:46	CJR	8137-85-10
11113A.D	1412432	G/17168	LCS	1		TO15_111-13	4/21/13 14:17	CJR	
11113.D	LCS	G/	LCS	1		TO15_111-13	4/21/13 14:17	CJR	
11113LL.D	1413528	G/17180	LCS	1		TO15_111-13	4/21/13 14:17	CJR	
11114.D	0	G/	Sample	1		TO15_111-13	4/21/13 14:46	CJR	
11115A.D	1412431	G/17168	Blank	1		TO15_111-13	4/21/13 15:16	CJR	
11115.D	BLANK	G/	Blank	1		TO15_111-13	4/21/13 15:16	CJR	
11115LL.D	1413527	G/17180	Blank	1		TO15_111-13	4/21/13 15:16	CJR	
11116.D	10224934001	G/17179	Sample	1		TO15_111-13	4/21/13 15:45	CJR	
11117.D	-DUP	G/17179	Sample	1		TO15_111-13	4/21/13 16:15	CJR	
11118.D	10225567001	G/17168	Sample	50.4		TO15_111-13	4/21/13 16:44	CJR	
11119.D	-DUP	G/17168	Duplicate	50.4		TO15_111-13	4/21/13 17:14	CJR	
11120.D	10224616008	G/17180	Sample	123.4944		TO15_111-13	4/21/13 17:47	CJR	
11121.D	10225108004	G/17167	Sample	143.648		TO15_111-13	4/21/13 18:16	CJR	
11122.D		G/	Sample	1		TO15_111-13	4/21/13 18:46	CJR	
11123.D		G/	Sample	1		TO15_111-13	4/21/13 19:15	CJR	
11124.D		G/	Sample	1		TO15_111-13	4/21/13 19:44	CJR	
11125.D		G/	Sample	1		TO15_111-13	4/21/13 20:14	CJR	
11126.D		G/	Sample	1		TO15_111-13	4/21/13 20:43	CJR	
11127.D		G/	Sample	1		TO15_111-13	4/21/13 21:12	CJR	
11128.D		G/	Sample	1		TO15_111-13	4/21/13 21:42	CJR	
11129.D		G/	Sample	1		TO15_111-13	4/21/13 22:16	CJR	
11130.D		G/	Sample	1		TO15_111-13	4/21/13 22:45	CJR	
11131.D		G/	Sample	1		TO15_111-13	4/21/13 23:18	CJR	
11132.D	3589106004	G/17167	Sample	26.8		TO15_111-13	4/21/13 23:47	CJR	
11133.D	3589106003	G/17167	Sample	62		TO15_111-13	4/22/13 00:16	CJR	
11134.D	10225847003	G/17173	Sample	31		TO15_111-13	4/22/13 00:46	CJR	
11135.D	10225108005	G/17167	Sample	287.296		TO15_111-13	4/22/13 01:15	CJR	
11136.D	10225108006	G/17167	Sample	9193.472		TO15_111-13	4/22/13 01:44	CJR	
11137.D	10225108008	G/17167	Sample	9193.472		TO15_111-13	4/22/13 02:13	CJR	
11138.D	10225108002	G/17167	Sample	9193.472		TO15_111-13	4/22/13 02:43	CJR	
11139.D	10225108001	G/17167	Sample	9193.472		TO15_111-13	4/22/13 03:12	CJR	
11140.D	10225108007	G/17167	Sample	574.592		TO15_111-13	4/22/13 03:41	CJR	
11141.D	10225108003	G/17167	Sample	9193.472		TO15_111-13	4/22/13 04:11	CJR	

Instrument: 10AIRD Method: Misc. Prep. Info: Surrogate Lot: 8137-89-12
Column: J&W DB-5 0.32mm Helium Tune Standard: 8137-89-12 ISTD Lot: 8137-89-12 Cal. Standard: 813-88-15/8137-88-12

Path/File	Lab ID	Matrix/Batch	Type	DF	pH	Method	Date & Time	Oper.	Comments
11142.D	0	G/	Sample	1		TO15_111-13	4/22/13 07:42	CJR	
11143.D	CC	G/	Sample	1		TO15_111-13	4/22/13 08:11	CJR	
11144.D	CC	G/	Sample	1		TO15_111-13	4/22/13 08:41	CJR	
11145.D	CERT	G/	Sample	1		TO15_111-13	4/22/13 09:10	DR1	
11146.D	CERT	G/	Sample	1		TO15_111-13	4/22/13 09:40	DR1	

Check Maintenance Items Performed:

Changed septum	Clipped column	Changed column - Lot #
Cleaned liner	Changed trap - Lot #	Other minor parts replaced
Replaced/Cleaned gold seal	Cleaned MS Source	No maintenance performed today

Additional Comments:

File Path 1: U:\10AIRD.I\042113.B\
Matrix Codes: [G]as, [L]iquid, [S]olid, [N]one

Run order verified:

Report Date: 04/24/2013 09:16
Reviewed By/Date:

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Calibration File Names:
Level 1: \\192.168.10.12\chem\10airD.i\041613.B\10605.d
Level 2: \\192.168.10.12\chem\10airD.i\041613.B\10606.d
Level 3: \\192.168.10.12\chem\10airD.i\041613.B\10607.d
Level 4: \\192.168.10.12\chem\10airD.i\041613.B\10608.d
Level 5: \\192.168.10.12\chem\10airD.i\041613.B\10609.d
Level 6: \\192.168.10.12\chem\10airD.i\041613.B\10610.d
Level 7: \\192.168.10.12\chem\10airD.i\041613.B\10611.d

Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	30.0000 Level 7										
1 Propylene	865	1733	4085	9616	134785	313343					
	525337						LINR	0.04807	0.11249		0.99617
2 Dichlorodifluoromethane	1.27209	1.20244	1.08154	1.08732	1.01080	0.96532					
	0.91664						AVRG		1.07659		11.77934
3 Dichlorotetrafluoroethane	1.00525	0.94980	0.83050	0.84426	0.82300	0.79740					
	0.76045						AVRG		0.85867		10.13779
4 Chloromethane	0.26774	0.24557	0.21893	0.23406	0.23023	0.23540					
	0.23297						AVRG		0.23784		6.45261

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
5 Vinyl chloride	0.29400	0.27207	0.25128	0.27284	0.25419	0.25878					
	0.26491						AVRG		0.26687		5.45559
6 1,3-Butadiene	0.12706	0.11292	0.11617	0.12900	0.13937	0.14504					
	0.15047						AVRG		0.13143		10.81019
7 Bromomethane	0.31870	0.31766	0.29006	0.29572	0.27386	0.27873					
	0.28024						AVRG		0.29357		6.24231
8 Chloroethane	0.16163	0.13496	0.12045	0.13066	0.12613	0.12906					
	0.12986						AVRG		0.13325		9.96842
9 Ethanol	3600	6003	13531	25902	218521	469019					
	746295						LINR	-0.00006	0.15982		0.99936
10 Vinyl Bromide	0.28525	0.25476	0.23161	0.23116	0.24563	0.24415					
	0.24570						AVRG		0.24832		7.37081
11 Acrolein	0.06473	0.05349	0.06160	0.05180	0.07538	0.07829					
	0.07946						AVRG		0.06639		17.37159

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
12 Trichlorofluoromethane	1.16807	1.10673	1.01096	1.03674	0.92806	0.83926					
	0.76526						AVRG		0.97930		14.69326
13 Acetone	17229	29856	50954	103214	700101	1397945					
	2117257						LINR	-0.04203	0.45552		0.99968
14 Isopropyl Alcohol	4710	8508	19247	37816	469042	1014877					
	1528344						LINR	0.00580	0.33424		0.99975
15 1,1-Dichloroethene	0.56099	0.53669	0.46738	0.48946	0.47624	0.45696					
	0.44078						AVRG		0.48979		8.91331
16 Acrylonitrile	0.16672	0.17030	0.15248	0.16253	0.16532	0.16597					
	0.16322						AVRG		0.16379		3.41606
17 Tert Butyl Alcohol	6441	12513	27648	59013	607451	1225526					
	+++++						LINR	-0.00531	0.41140		0.99974
18 Freon 113	0.72075	0.68087	0.62015	0.66278	0.60436	0.56175					
	0.51774						AVRG		0.62406		11.26749

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	30.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
19 Methylene chloride	+++++	0.32635	0.30108	0.29183	0.27826	0.27582	0.26486					
								AVRG		0.28970		7.59137
20 Allyl Chloride	0.13686	0.11662	0.11455	0.11037	0.12916	0.12891	0.12758					
								AVRG		0.12343		7.80133
21 Carbon Disulfide	1.13448	0.97933	0.87822	0.89436	0.86357	0.84695	0.82668					
								AVRG		0.91766		11.69571
22 trans-1,2-dichloroethene	0.36726	0.31055	0.27559	0.28276	0.27455	0.26752	0.26140					
								AVRG		0.29138		12.68780
23 Methyl Tert Butyl Ether	0.72516	0.64821	0.59198	0.59739	0.57961	0.57415	0.57180					
								AVRG		0.61261		9.14376
24 Vinyl Acetate	0.47845	0.52539	0.49399	0.51527	0.54158	0.54163	0.52159					
								AVRG		0.51684		4.55135
25 1,1-Dichloroethane	0.62093	0.58258	0.56717	0.56756	0.53974	0.50775	0.47737					
								AVRG		0.55187		8.70141

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	30.0000 Level 7										
27 Methyl Ethyl Ketone	0.14113	0.14479	0.13150	0.13495	0.13956	0.13697					
	0.13564						AVRG		0.13779		3.19216
28 n-Hexane	0.51669	0.47594	0.46320	0.48777	0.33211	0.32363					
	0.31222						AVRG		0.41594		21.38063
29 cis-1,2-Dichloroethene	3691	6857	15587	34229	412929	904658					
	1385695						LINR	0.01234	0.30180		0.99981
30 Ethyl Acetate	0.30972	0.33494	0.35054	0.38767	0.44091	0.45446					
	0.46167						AVRG		0.39141		15.78716
31 Chloroform	0.80246	0.82524	0.76489	0.76471	0.77157	0.76725					
	0.74521						AVRG		0.77733		3.48684
32 Tetrahydrofuran	1472	2413	8563	20369	249959	565577					
	923063						LINR	0.03534	0.19844		0.99809
33 1,1,1-Trichloroethane	0.84953	0.75765	0.68118	0.74147	0.76764	0.74861					
	0.71552						AVRG		0.75166		6.92477

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 1,2-Dichloroethane	0.60776	0.60205	0.55587	0.56420	0.60965	0.58590					
	0.55202						AVRG		0.58249		4.28727
35 Benzene	0.90251	0.91038	0.97568	1.03657	0.81701	0.86303					
	0.87253						AVRG		0.91110		8.09515
36 Carbon tetrachloride	0.83135	0.76033	0.73147	0.77792	0.75652	0.68228					
	0.61221						AVRG		0.73601		9.62172
37 Cyclohexane	2508	4623	15549	37639	438709	1011784					
	1568551						LINR	0.02530	0.34109		0.99918
39 2,2,4-Trimethylpentane	7533	15601	45305	111559	1346746	3074699					
	4836000						LINR	0.02767	1.04811		0.99911
40 Heptane	1905	3866	14902	32116	426160	980881					
	1610430						LINR	0.04091	0.34610		0.99753
41 1,2-Dichloropropane	0.25711	0.23752	0.23503	0.23875	0.26764	0.28189					
	0.29902						AVRG		0.25957		9.49891

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
42 Trichloroethene	0.21401	0.21302	0.22746	0.23090	0.26984	0.27653					
	0.28005						AVRG		0.24454		12.18471
43 1,4-Dioxane	+++++	2162	6233	15147	251455	561211					
	879166						LINR	0.03824	0.19190		0.99955
44 Bromodichloromethane	0.79318	0.75202	0.73360	0.77245	0.85482	0.82746					
	0.79355						AVRG		0.78958		5.31271
45 Methyl Isobutyl Ketone	2368	5286	14124	38230	616060	1379080					
	2254104						LINR	0.04098	0.48576		0.99827
46 cis-1,3-Dichloropropene	3471	6664	20340	48529	686313	1518462					
	2428681						LINR	0.03046	0.52498		0.99916
47 trans-1,3-Dichloropropene	2051	6323	15026	38228	753340	1692104					
	2662229						LINR	0.03619	0.57951		0.99935
49 Toluene	1.38313	1.31460	1.38915	1.52990	1.01741	1.07328					
	1.05669						AVRG		1.25202		16.04952

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
50 1,1,2-Trichloroethane	0.32767	0.35108	0.28657	0.29835	0.34945	0.36388					
	0.36327						AVRG		0.33432		9.33172
51 Methyl Butyl Ketone	1584	4520	16043	37094	621030	1403978					
	2274821						LINR	0.03453	0.83242		0.99905
52 Dibromochloromethane	0.77601	0.75235	0.77751	0.84593	1.01799	0.99953					
	0.96229						AVRG		0.87594		13.07963
53 1,2-Dibromoethane	0.71409	0.73582	0.71328	0.78055	0.91070	0.93710					
	0.93623						AVRG		0.81825		12.88312
54 Tetrachloroethene	0.69239	0.70157	0.69126	0.75493	0.82907	0.85650					
	0.83573						AVRG		0.76592		9.58068
56 Chlorobenzene	1.13934	1.02554	0.97363	1.04133	1.15381	1.20762					
	1.21541						AVRG		1.10810		8.54870
57 Ethyl Benzene	8102	14698	52426	136763	1911466	4159125					
	6350749						LINR	0.01209	2.35485		0.99981

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	30.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
58 m&p-Xylene	7450	17597	64368	159970	1549483	3404998	5207552	LINR	0.00154	1.92014		0.99978
59 Bromoform	0.77228	0.81257	0.75649	0.79706	1.16917	1.16790	1.14163	AVRG		0.94530		21.30648
60 Styrene	2216	5269	16825	49768	964122	2173192	3427889	LINR	0.03250	1.26469		0.99962
61 o-Xylene	6333	15044	61967	148664	1652245	3608322	5420144	LINR	0.00191	2.01290		0.99952
62 1,1,2,2-Tetrachloroethane	0.98207	1.04291	1.02890	1.05028	1.29029	1.33157	1.34026	AVRG		1.15233		13.86189
63 Isopropylbenzene	1.93884	1.89035	1.83061	1.96543	2.44525	2.44437	2.32747	AVRG		2.12033		12.87631
64 N-Propylbenzene	7565	16330	55003	145467	2574500	5535602	8302005	LINR	0.01283	3.10268		0.99933

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
65 4-Ethyltoluene	5371 / 6266812	12058	43638	119272	1896477	4156110	LINR	0.01472	2.33606		0.99954
66 1,3,5-Trimethylbenzene	5506 / 5399791	12003	45775	113269	1677212	3592578	LINR	0.00795	2.01271		0.99945
67 1,2,4-Trimethylbenzene	4861 / 5360391	8692	32887	98340	1659971	3608413	LINR	0.01270	2.00897		0.99907
68 1,3-Dichlorobenzene	4100 / 3195679	8316	24601	54708	961722	2116450	LINR	0.01554	1.19069		0.99954
69 Sec- Butylbenzene	5661 / 7207419	14188	54138	142419	2329420	5005180	LINR	0.00401	2.72705		0.99755
71 Benzyl Chloride	8441 / 4952273	14719	33830	69862	1423487	3238385	LINR	0.02463	1.83985		0.99950
72 1,4-Dichlorobenzene	7083 / 3000270	13283	29267	59141	942604	2036094	LINR	0.00281	1.12368		0.99880

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	30.0000 Level 7										
73 1,2-Dichlorobenzene	3926	6898	20955	44401	866582	1914955					
	2984344						LINR	0.02438	1.10315		0.99981
74 N-Butylbenzene	4777	9641	35811	101395	2004872	4328236					
	6408566						LINR	0.01410	2.40754		0.99886
75 1,2,4-Trichlorobenzene	3478	4661	9345	17310	284422	553580					
	+++++						LINR	-0.00024	0.32241		0.99793
76 Naphthalene	4277	4949	10764	20953	368833	759753					
	+++++						LINR	0.00952	0.43943		0.99948
77 Hexachlorobutadiene	3797	11063	21954	28069	328894	+++++					
	+++++						LINR	-0.01152	0.39403		0.99936
$ 26 Hexane-d14(S)	0.46254	0.45750	0.45220	0.45862	0.43740	0.42451					
	0.42552						AVRG		0.44547		3.61619
$ 48 Toluene-d8 (S)	0.88419	0.88925	0.90888	0.89533	0.93735	0.95407					
	0.93897						AVRG		0.91543		3.03634

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	30.0000 Level 7										
$ 70 1,4-dichlorobenzene-d4 (S)	0.47808	0.52245	0.55641	0.53019	0.62280	0.61801					
	0.60539						AVRG		0.56190		9.84621

Report Date : 16-Apr-2013 14:12

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-APR-2013 10:41
End Cal Date : 16-APR-2013 13:45
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Last Edit : 16-Apr-2013 14:08 creindl

Average %RSD Results.
Calculated Average %RSD = 9.53940
Maximun Average %RSD = 40.00000
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10605.d
Report Date: 16-Apr-2013 13:47

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041613.B\10605.d
Lab Smp Id: ICAL1
Inj Date : 16-APR-2013 10:41
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Meth Date : 16-Apr-2013 13:39 10airD.i Quant Type: ISTD
Cal Date : 16-APR-2013 10:41 Cal File: 10605.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.934	2.934	(0.484)	865	0.10000	0.219(M)
2	Dichlorodifluoromethane	85	2.950	2.950	(0.487)	17000	0.10000	0.115(M)
3	Dichlorotetrafluoroethane	85	3.045	3.045	(0.503)	13434	0.10000	0.115(M)
4	Chloromethane	50	3.041	3.041	(0.502)	3578	0.10000	0.112(M)
5	Vinyl chloride	62	3.136	3.136	(0.518)	3929	0.10000	0.110(M)
6	1,3-Butadiene	54	3.188	3.188	(0.526)	1698	0.10000	0.106(M)
7	Bromomethane	94	3.332	3.332	(0.550)	4259	0.10000	0.108(M)
8	Chloroethane	64	3.388	3.388	(0.559)	2160	0.10000	0.112(M)
9	Ethanol	31	3.447	3.447	(0.569)	3600	0.10000	0.164(M)
10	Vinyl Bromide	106	3.538	3.538	(0.584)	3812	0.10000	0.115(M)
11	Acrolein	56	3.643	3.643	(0.601)	865	0.10000	0.100(M)
12	Trichlorofluoromethane	101	3.640	3.640	(0.601)	15610	0.10000	0.115
13	Acetone	43	3.695	3.695	(0.610)	17229	0.10000	(M)
14	Isopropyl Alcohol	45	3.715	3.715	(0.613)	4710	0.10000	0.202(M)
15	1,1-Dichloroethene	61	3.930	3.930	(0.649)	7497	0.10000	0.113
16	Acrylonitrile	53	3.937	3.937	(0.650)	2228	0.10000	0.120(M)
17	Tert Butyl Alcohol	59	3.944	3.944	(0.651)	6441	0.10000	0.112(M)
18	Freon 113	101	3.986	3.986	(0.658)	9632	0.10000	0.112
19	Methylene chloride	49	4.042	4.042	(0.667)	5488	0.10000	0.139
20	Allyl Chloride	76	4.061	4.061	(0.670)	1829	0.10000	0.114(M)
21	Carbon Disulfide	76	4.179	4.179	(0.690)	15161	0.10000	0.122(M)
22	trans-1,2-dichloroethene	96	4.378	4.378	(0.723)	4908	0.10000	0.125(M)
23	Methyl Tert Butyl Ether	73	4.417	4.417	(0.729)	9691	0.10000	0.111
24	Vinyl Acetate	43	4.545	4.545	(0.750)	6394	0.10000	0.0931(M)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10605.d
Report Date: 16-Apr-2013 13:47

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ppbv)	(ppbv)
	25 1,1-Dichloroethane	63	4.538	4.538	(0.749)	8298	0.10000	0.110(M)
$	26 Hexane-d14(S)	66	4.656	4.656	(0.769)	618133	10.0000	10.3
	27 Methyl Ethyl Ketone	72	4.757	4.757	(0.785)	1886	0.10000	0.100(M)
	28 n-Hexane	57	4.770	4.770	(0.787)	6905	0.10000	0.122
	29 cis-1,2-Dichloroethene	96	4.937	4.937	(0.815)	3691	0.10000	0.217(M)
	30 Ethyl Acetate	43	4.963	4.963	(0.819)	4139	0.10000	0.0771(M)
	31 Chloroform	83	5.074	5.074	(0.838)	10724	0.10000	0.102
	32 Tetrahydrofuran	42	5.307	5.307	(0.876)	1472	0.10000	0.312(M)
	33 1,1,1-Trichloroethane	97	5.562	5.562	(0.918)	11353	0.10000	0.112(M)
	34 1,2-Dichloroethane	62	5.578	5.578	(0.921)	8122	0.10000	0.105(M)
	35 Benzene	78	5.852	5.852	(0.966)	12061	0.10000	0.0984
	36 Carbon tetrachloride	117	5.869	5.869	(0.969)	11110	0.10000	0.110
	37 Cyclohexane	56	5.885	5.885	(0.971)	2508	0.10000	0.311(M)
*	38 1,4-Difluorobenzene	114	6.058	6.058	(1.000)	1336387	10.0000	
	39 2,2,4-Trimethylpentane	57	6.238	6.238	(1.030)	7533	0.10000	0.401(M)
	40 Heptane	43	6.408	6.408	(1.058)	1905	0.10000	0.298(M)
	41 1,2-Dichloropropane	63	6.480	6.480	(1.070)	3436	0.10000	0.0980(M)
	42 Trichloroethene	130	6.506	6.506	(1.074)	2860	0.10000	0.0955(M)
	43 1,4-Dioxane	88	6.673	6.673	(1.101)	719	0.10000	0.0306(M)
	44 Bromodichloromethane	83	6.624	6.624	(1.093)	10600	0.10000	0.100
	45 Methyl Isobutyl Ketone	43	7.212	7.212	(1.190)	2368	0.10000	0.319(M)
	46 cis-1,3-Dichloropropene	75	7.261	7.261	(1.199)	3471	0.10000	0.271(M)
	47 trans-1,3-Dichloropropene	75	7.755	7.755	(1.280)	2051	0.10000	0.397(M)
$	48 Toluene-d8 (S)	98	7.823	7.823	(1.291)	1181625	10.0000	9.70
	49 Toluene	91	7.915	7.915	(1.306)	18484	0.10000	0.0292(M)
	50 1,1,2-Trichloroethane	97	7.928	7.928	(1.309)	4379	0.10000	0.201(M)
	51 Methyl Butyl Ketone	43	8.261	8.261	(0.854)	1584	0.10000	0.250(M)
	52 Dibromochloromethane	129	8.546	8.546	(0.883)	5615	0.10000	0.0901(M)
	53 1,2-Dibromoethane	107	8.817	8.817	(0.911)	5167	0.10000	0.207(M)
	54 Tetrachloroethene	166	8.902	8.902	(0.920)	5010	0.10000	0.105(M)
*	55 Chlorobenzene - d5	117	9.677	9.677	(1.000)	723576	10.0000	
	56 Chlorobenzene	112	9.726	9.726	(1.005)	8244	0.10000	0.107(M)
	57 Ethyl Benzene	91	10.030	10.030	(1.036)	8102	0.10000	0.210(M)
	58 m&p-Xylene	91	10.203	10.203	(1.054)	7450	0.10000	0.0991(M)
	59 Bromoform	173	10.651	10.651	(1.101)	5588	0.10000	0.0846(M)
	60 Styrene	104	10.706	10.706	(1.106)	2216	0.10000	0.331(M)
	61 o-Xylene	91	10.768	10.768	(1.113)	6333	0.10000	0.148(M)
	62 1,1,2,2-Tetrachloroethane	83	11.086	11.086	(1.146)	7106	0.10000	0.0931(M)
	63 Isopropylbenzene	105	11.455	11.455	(1.184)	14029	0.10000	0.0932(M)
	64 N-Propylbenzene	91	12.118	12.118	(1.252)	7565	0.10000	0.199(M)
	65 4-Ethyltoluene	105	12.318	12.318	(1.273)	5371	0.10000	0.0954(M)
	66 1,3,5-Trimethylbenzene	105	12.419	12.419	(1.283)	5506	0.10000	0.202(M)
	67 1,2,4-Trimethylbenzene	105	13.021	13.021	(1.346)	4861	0.10000	0.258(M)
	68 1,3-Dichlorobenzene	146	13.367	13.367	(1.381)	4100	0.10000	0.194(M)
	69 Sec- Butylbenzene	105	13.400	13.400	(1.385)	5661	0.10000	0.231(M)
$	70 1,4-dichlorobenzene-d4 (S)	150	13.452	13.452	(1.390)	345927	10.0000	8.62
	71 Benzyl Chloride	91	13.485	13.485	(1.393)	8441	0.10000	0.374(M)
	72 1,4-Dichlorobenzene	146	13.494	13.494	(1.395)	7083	0.10000	0.239(M)
	73 1,2-Dichlorobenzene	146	14.040	14.040	(1.451)	3926	0.10000	0.298(M)
	74 N-Butylbenzene	91	14.335	14.335	(1.481)	4777	0.10000	0.275(M)
	75 1,2,4-Trichlorobenzene	180	16.688	16.688	(1.725)	3478	0.10000	0.340(M)
	76 Naphthalene	128	16.878	16.878	(1.744)	4277	0.10000	0.298(M)
	77 Hexachlorobutadiene	225	17.240	17.240	(1.782)	3797	0.10000	0.0202(M)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10605.d
Report Date: 16-Apr-2013 13:47

QC Flag Legend

M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10605.d
Report Date: 16-Apr-2013 13:47

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10605.d
Lab Smp Id: ICAL1
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Misc Info:

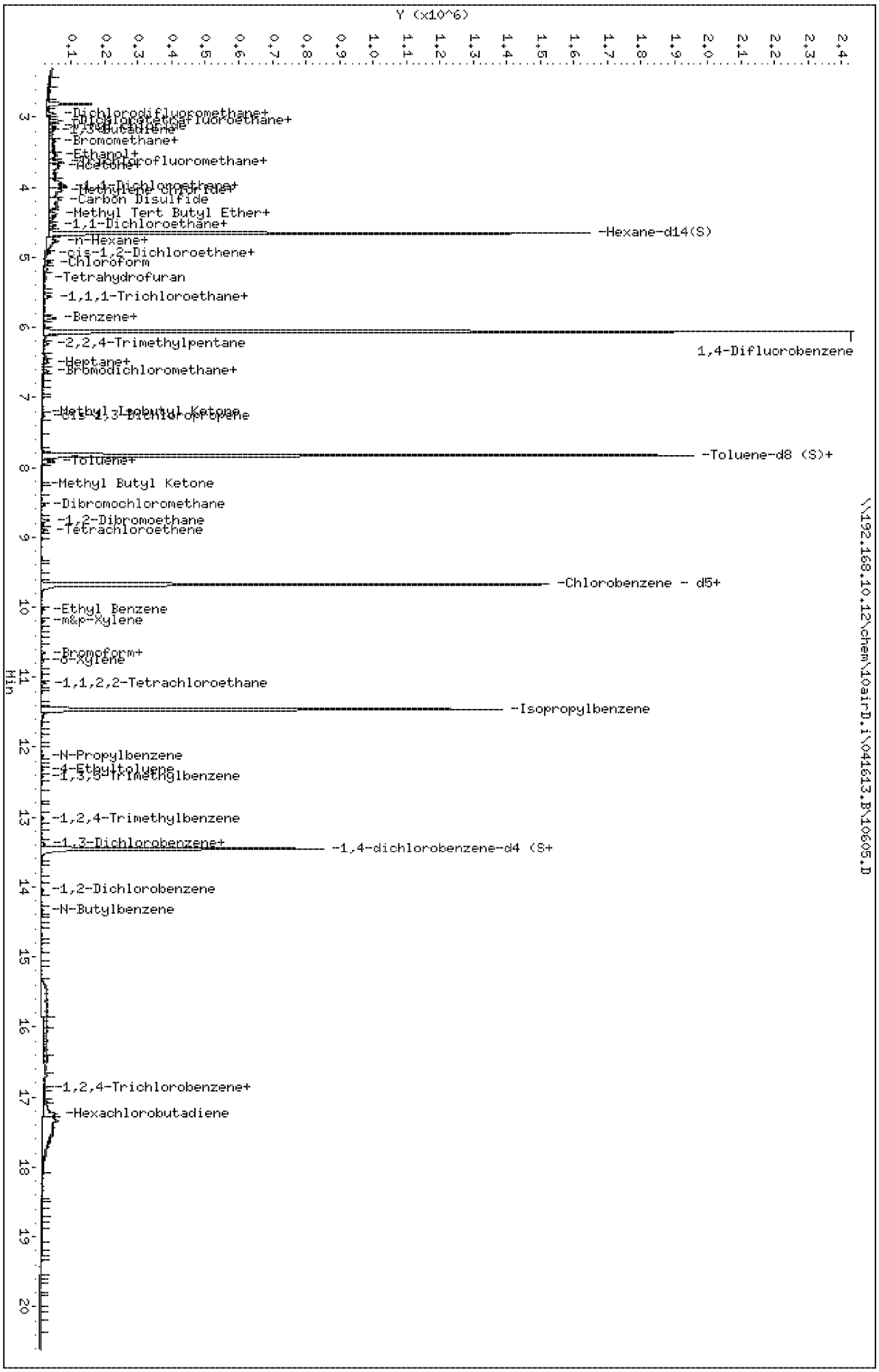
Calibration Date: 16-APR-2013
Calibration Time: 12:43
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1336387	-6.70
55 Chlorobenzene - d	825122	495073	1155171	723576	-12.31

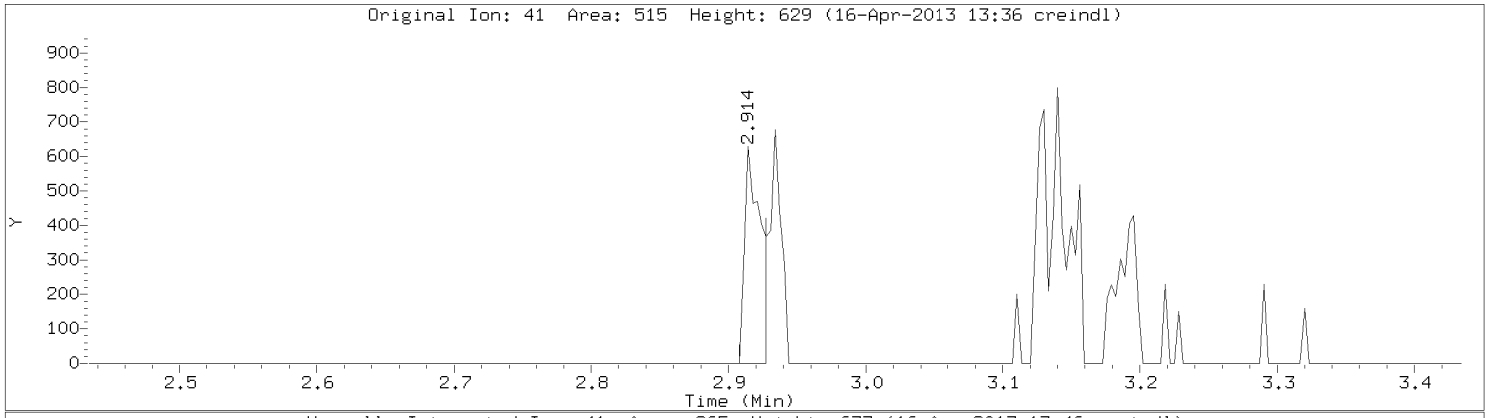
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

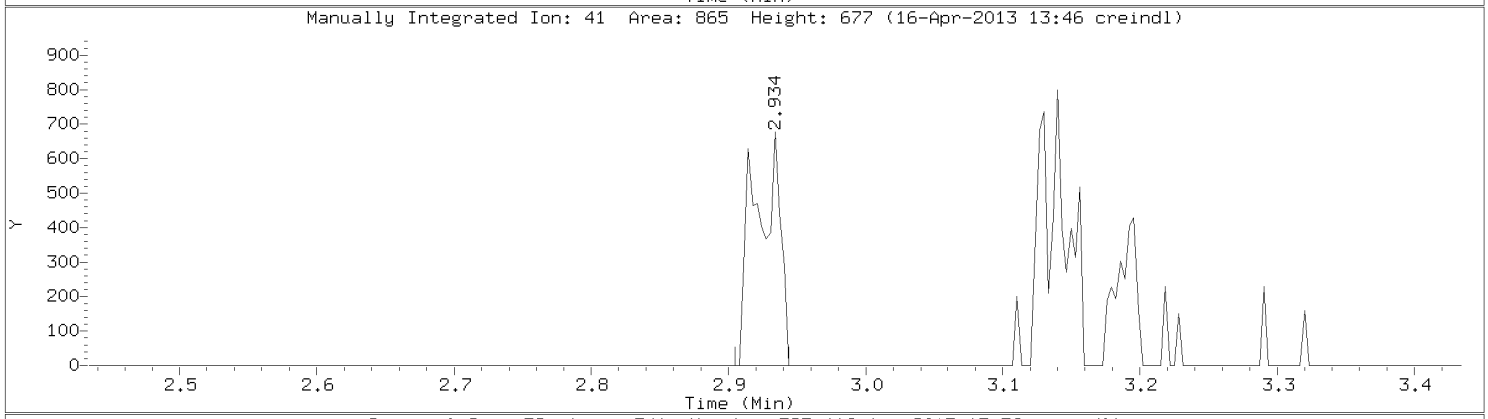
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

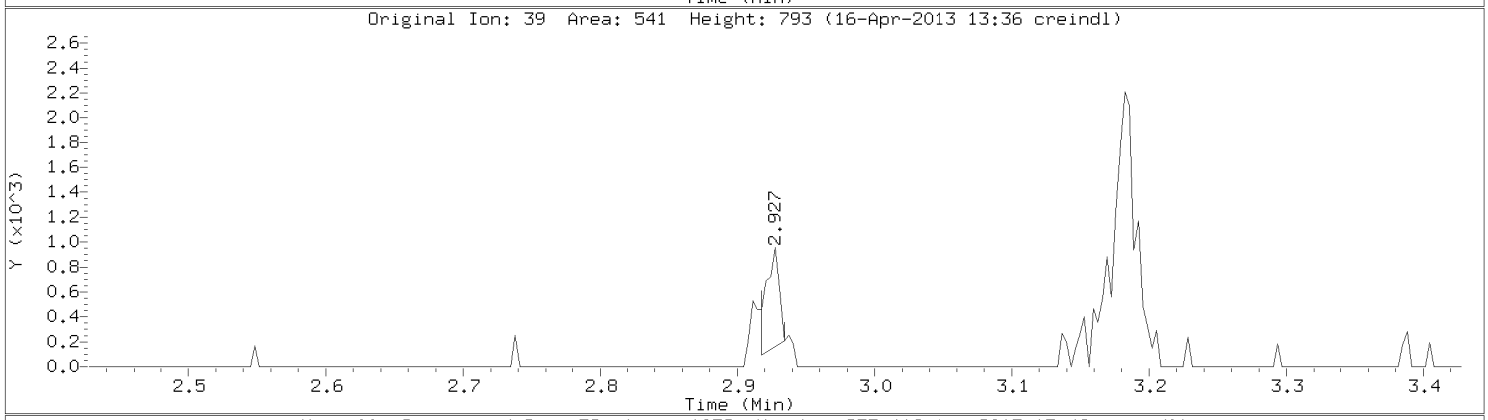

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10605.D
Date : 16-APR-2013 10:41
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^6)
Min
-Dichlorodifluoromethane+
-Trichlorotrifluoroethane+
-1,3-Butadiene
-Bromomethane+
-Ethanol+
-Acetone+
-Trichlorofluoromethane+
-1,1-Dichloroethene+
-Methylene Chloride
-Carbon Disulfide
-Methyl Tert Butyl Ether+
-1,1-Dichloroethane+
-Hexane-d14(S)
-n-Hexane+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-2,2,4-Trimethylpentane
1,4-Difluorobenzene
-Heptane+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
-cis-1,3-Dichloropropene
-Toluene+
-Toluene-d8 (S)+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform+
-o-Xylene
-1,1,2,2-Tetrachloroethane
-Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,3-Dichlorobenzene+
-1,4-dichlorobenzene-d4 (S+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene+
-Hexachlorobutadiene
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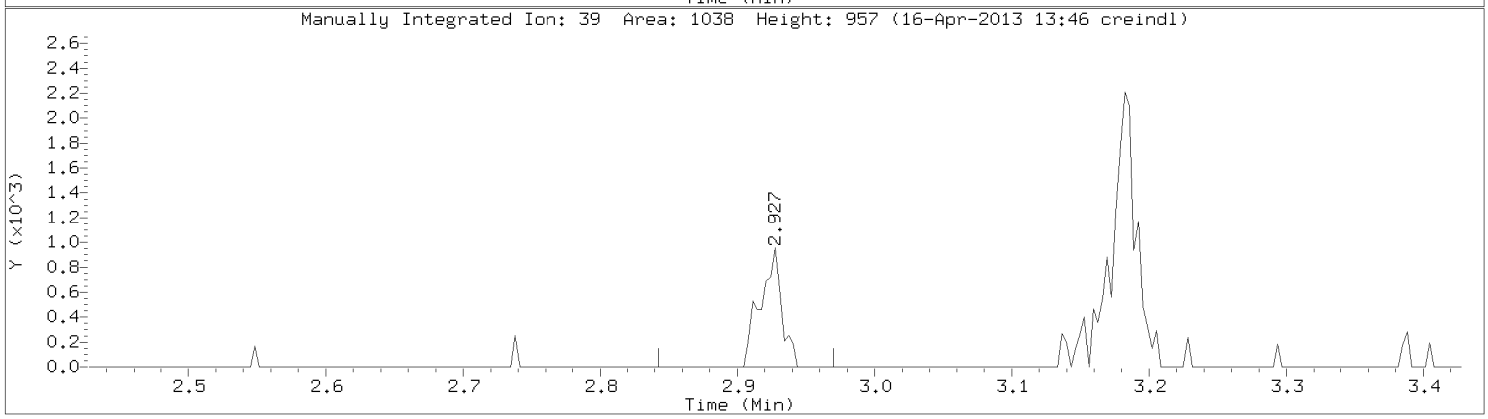
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Propylene
CAS Number: 76-14-2



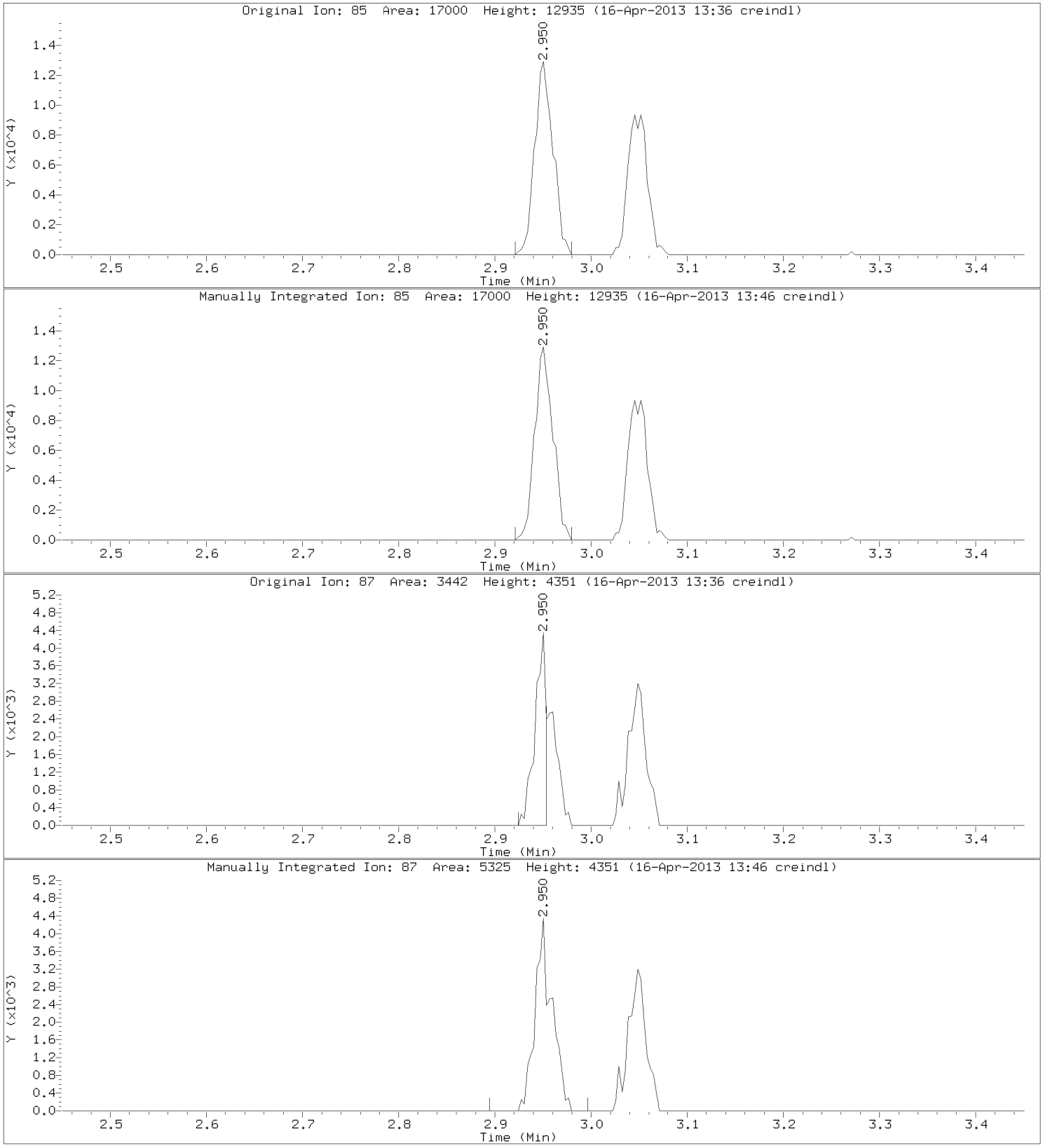






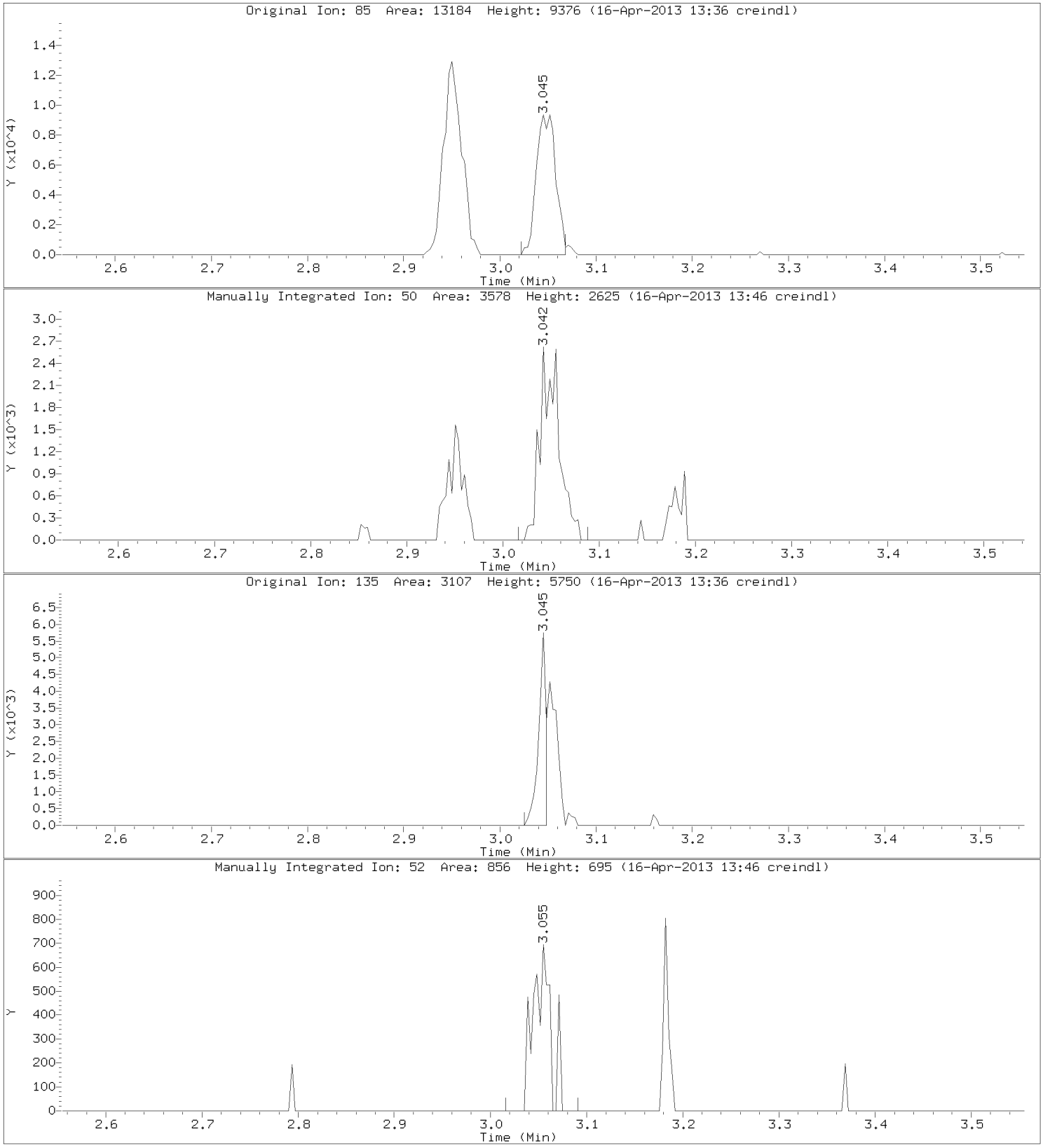
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Dichlorodifluoromethane
CAS Number: 79-34-5



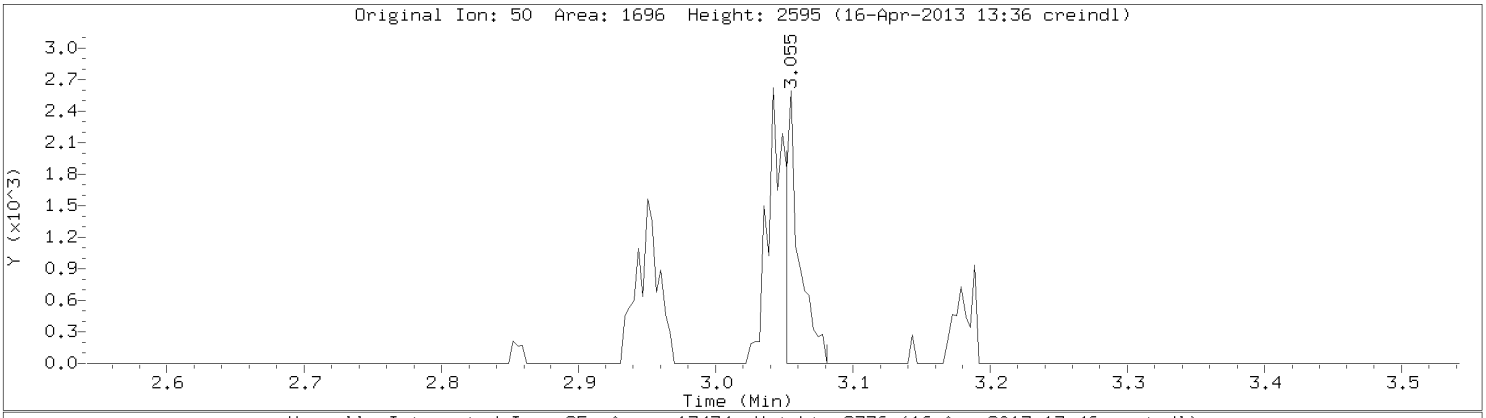
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Instrument: 10airD.i
Lab Sample ID: ICAL1

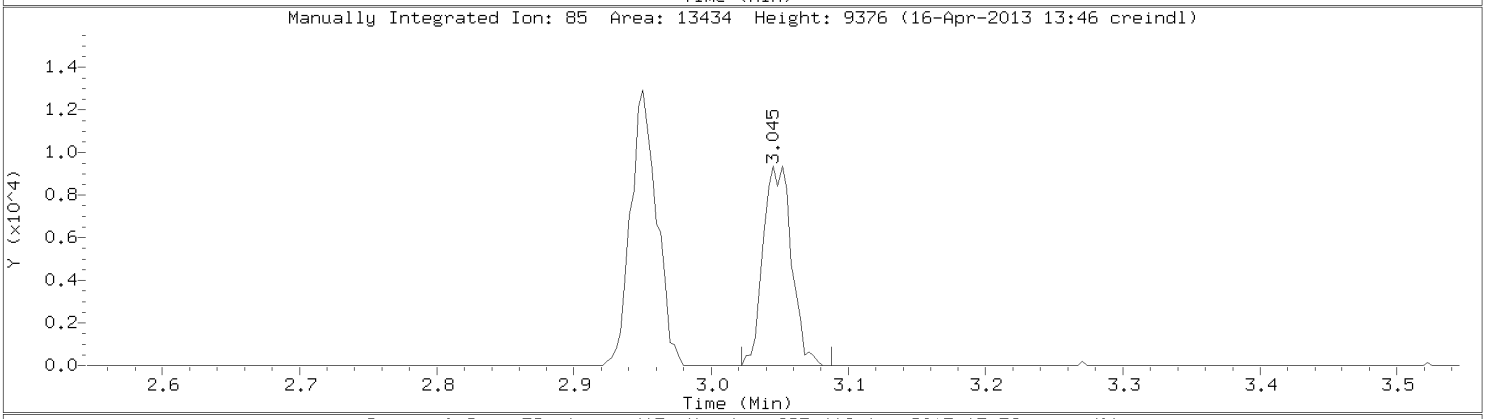
Compound: Chloromethane
CAS Number: 74-87-3

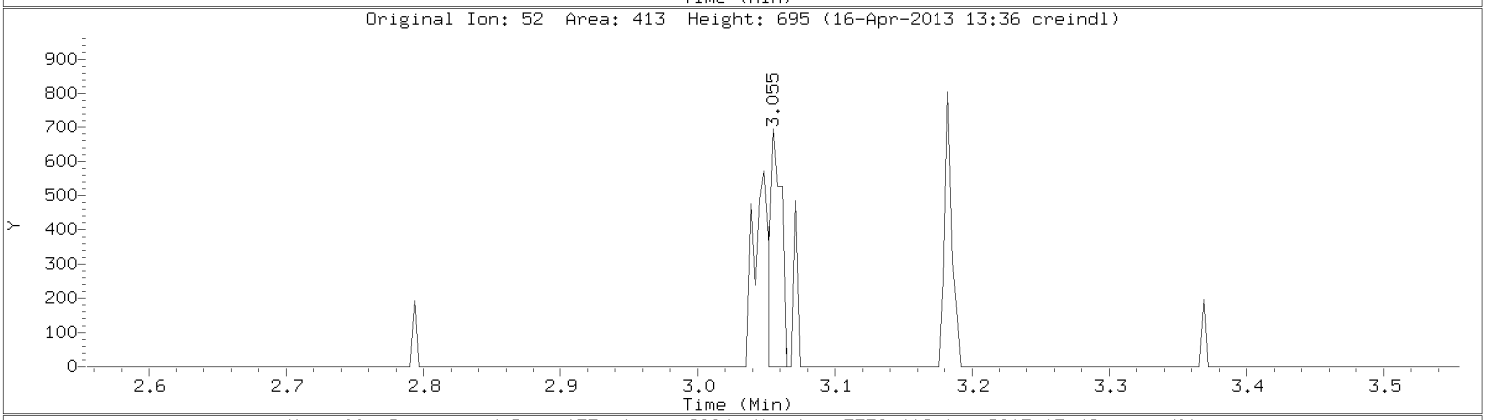


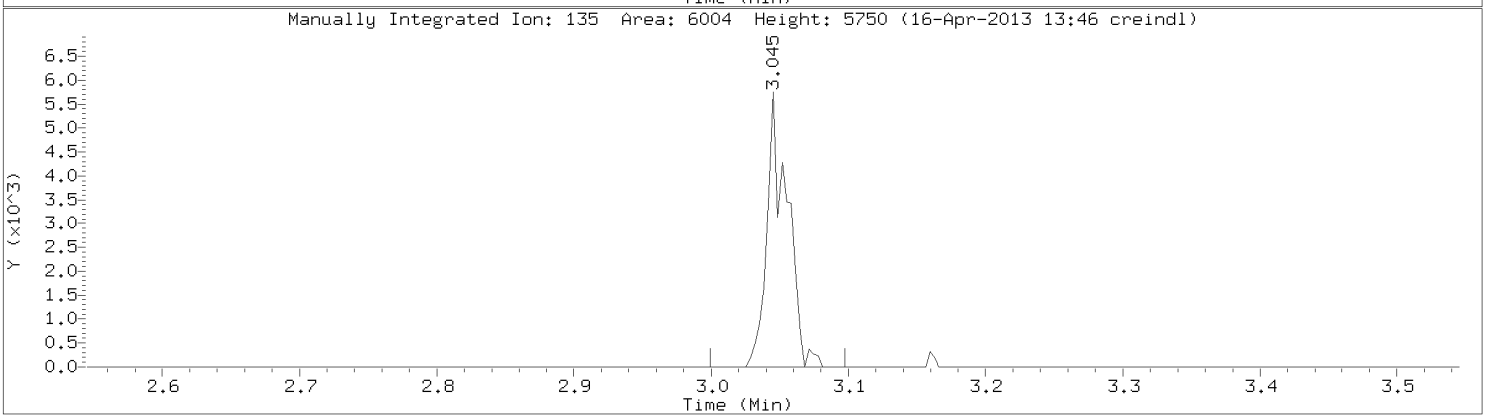
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Lab Sample ID: ICAL1

Compound: Dichlorotetrafluoroethane
CAS Number: 76-14-2

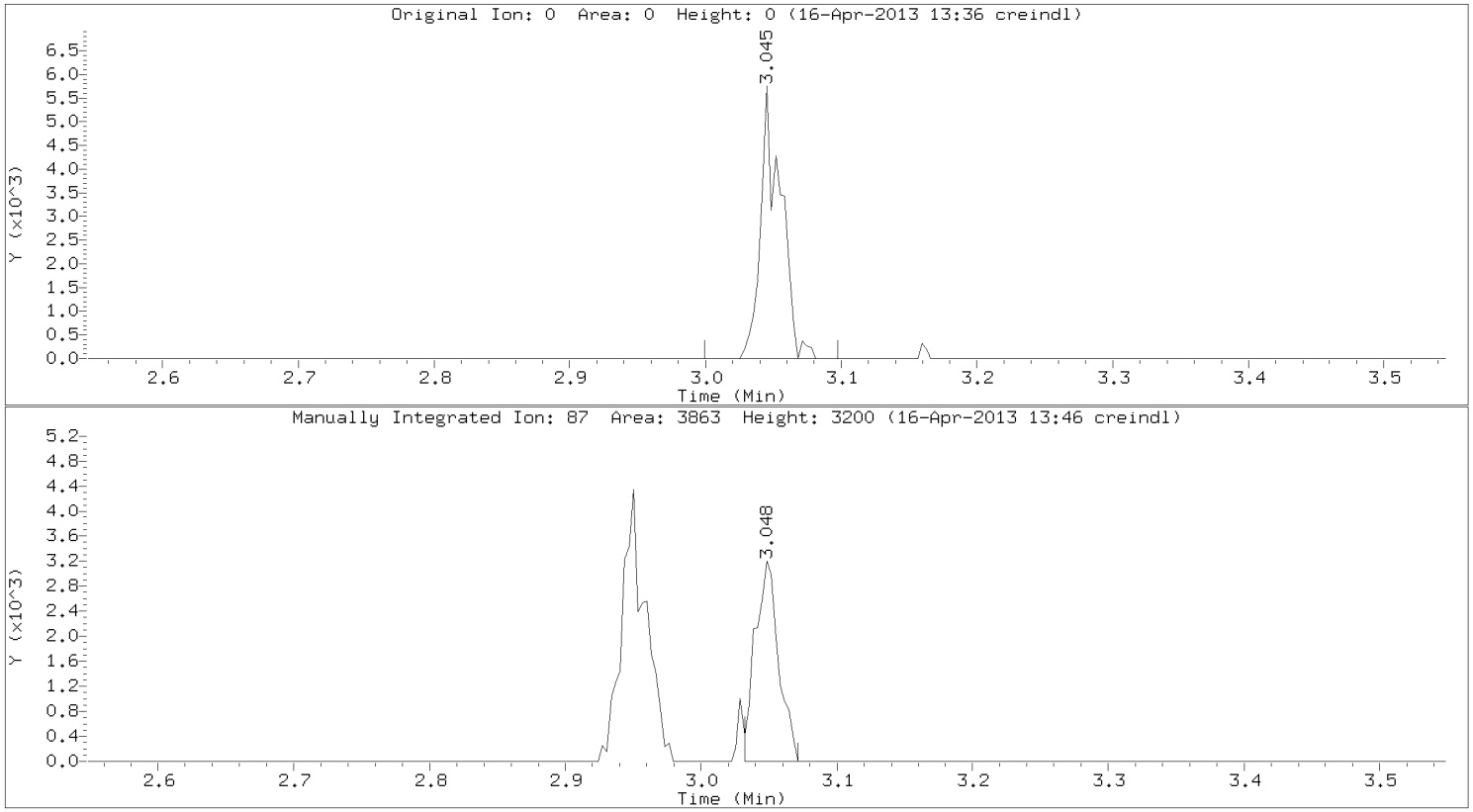






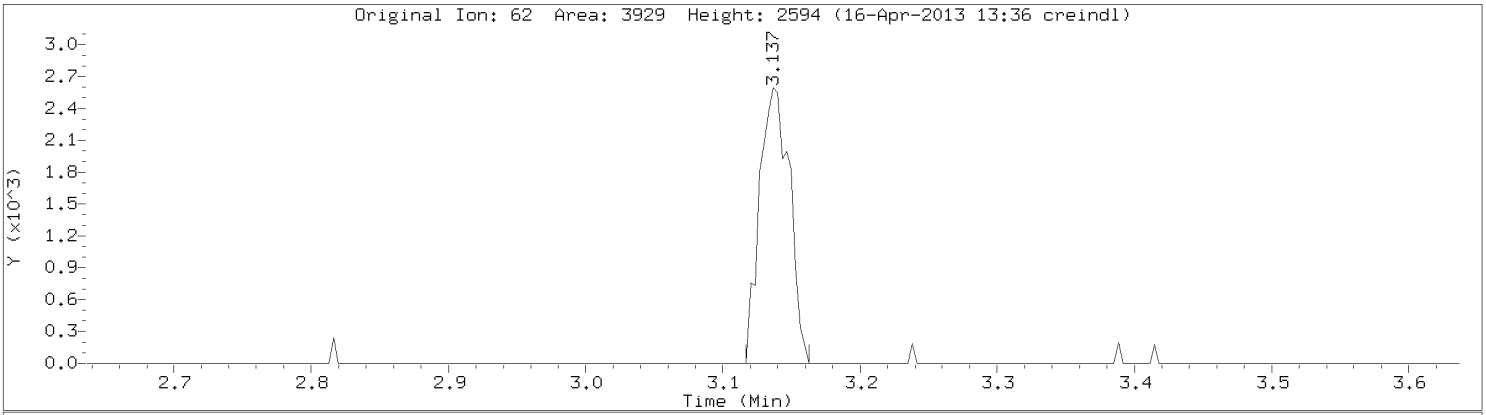


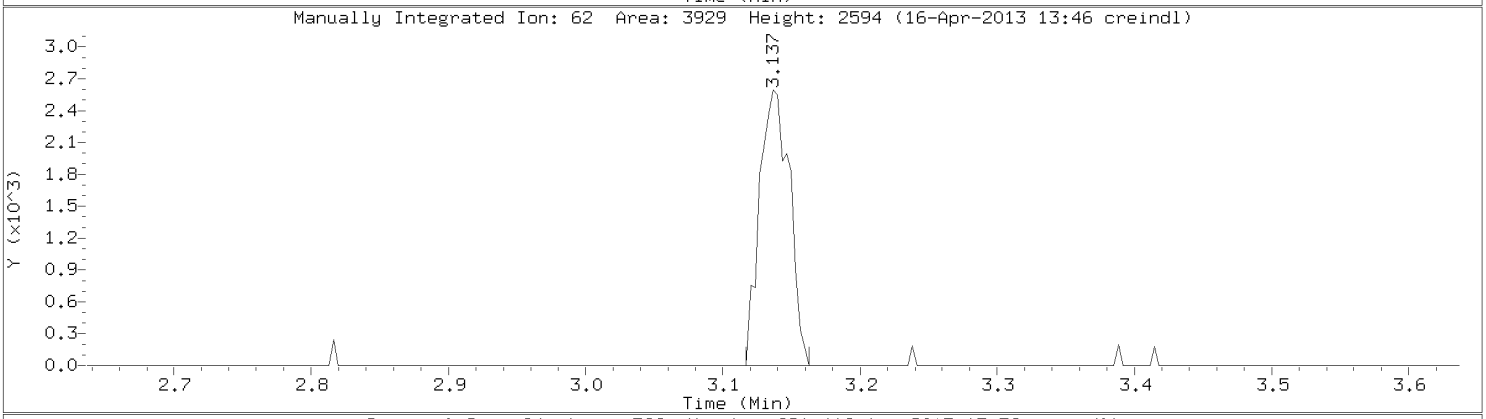
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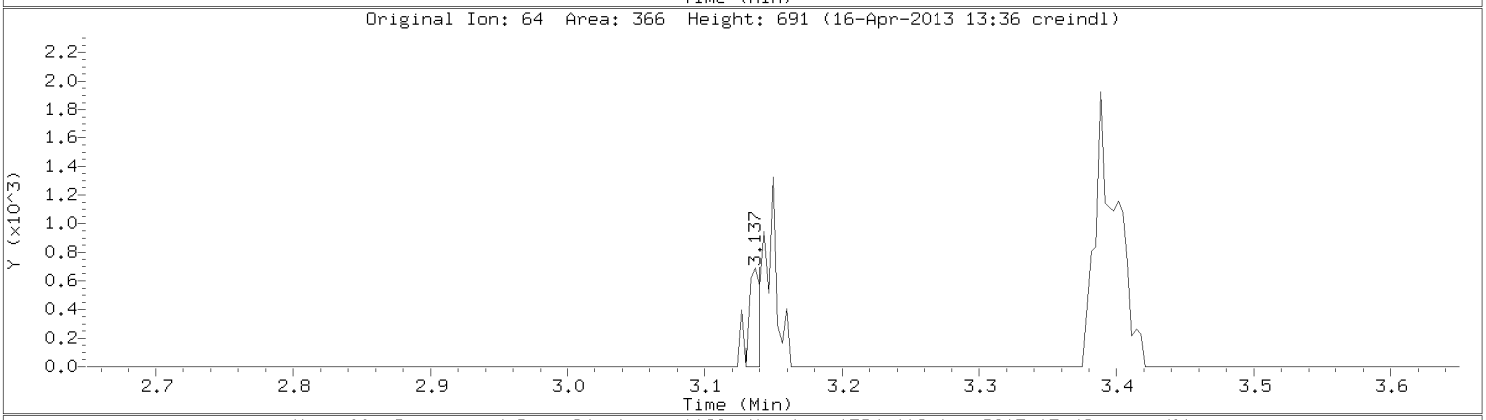


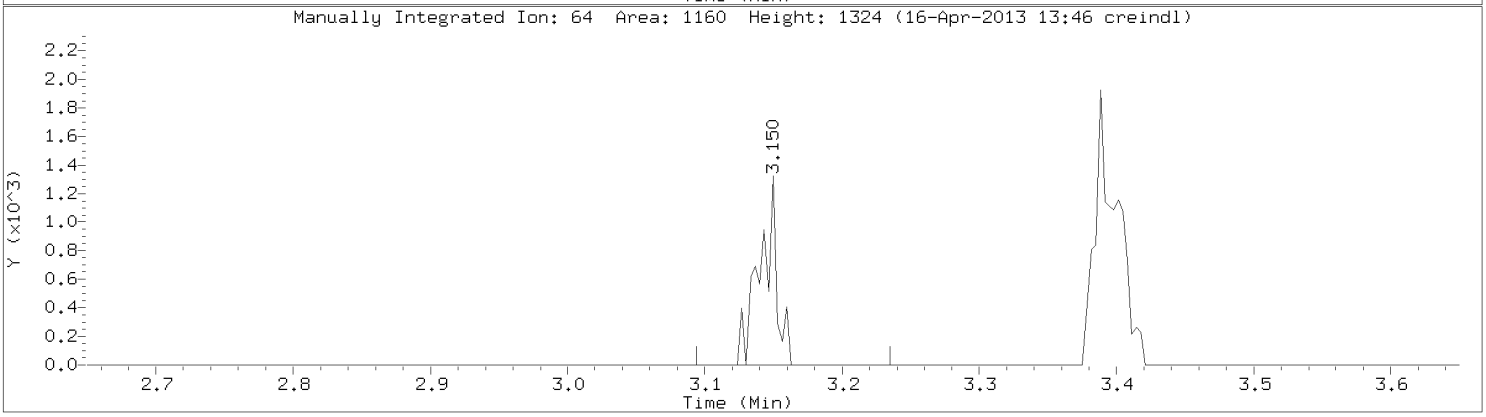
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Vinyl chloride
CAS Number: 75-01-4



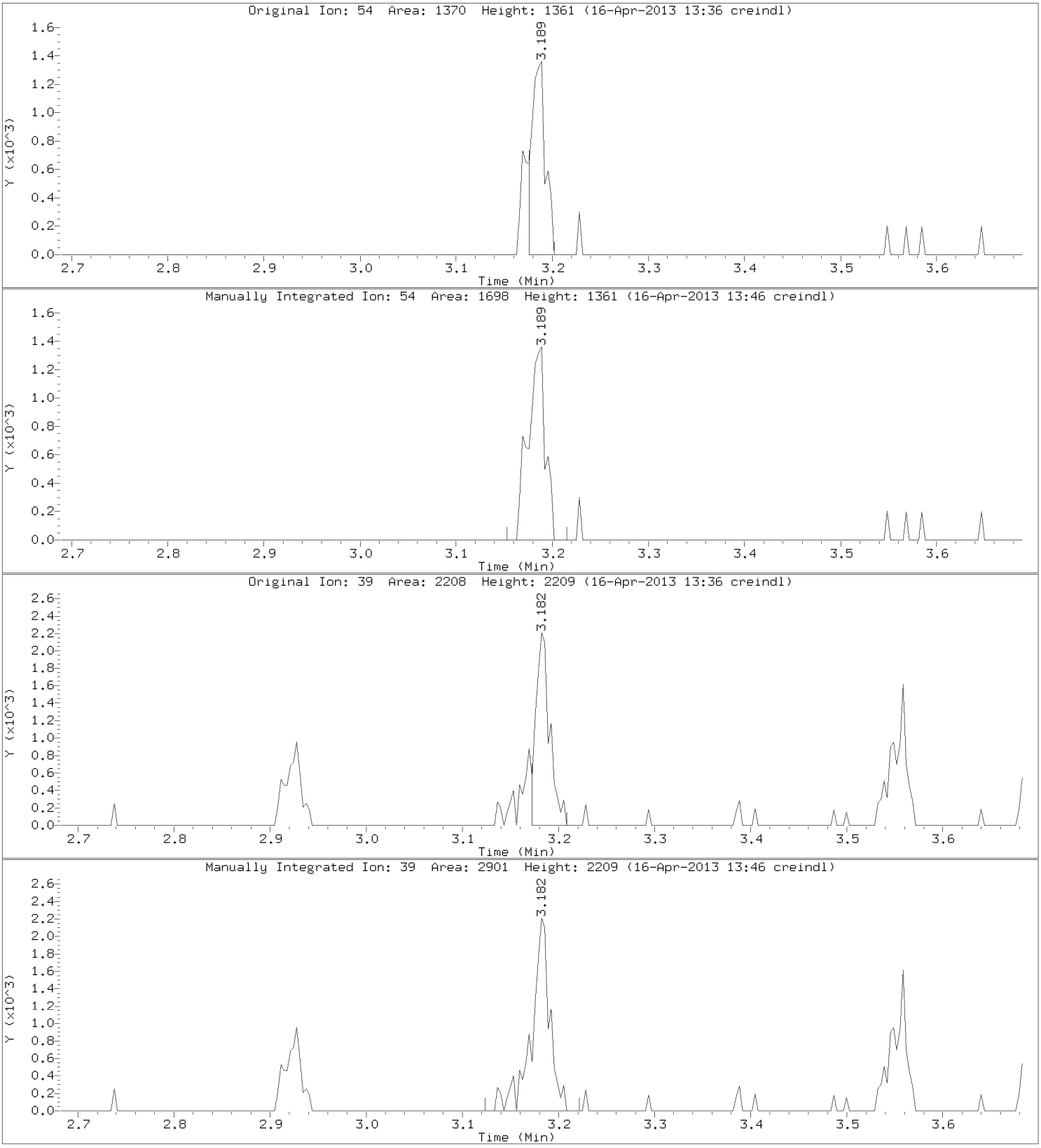






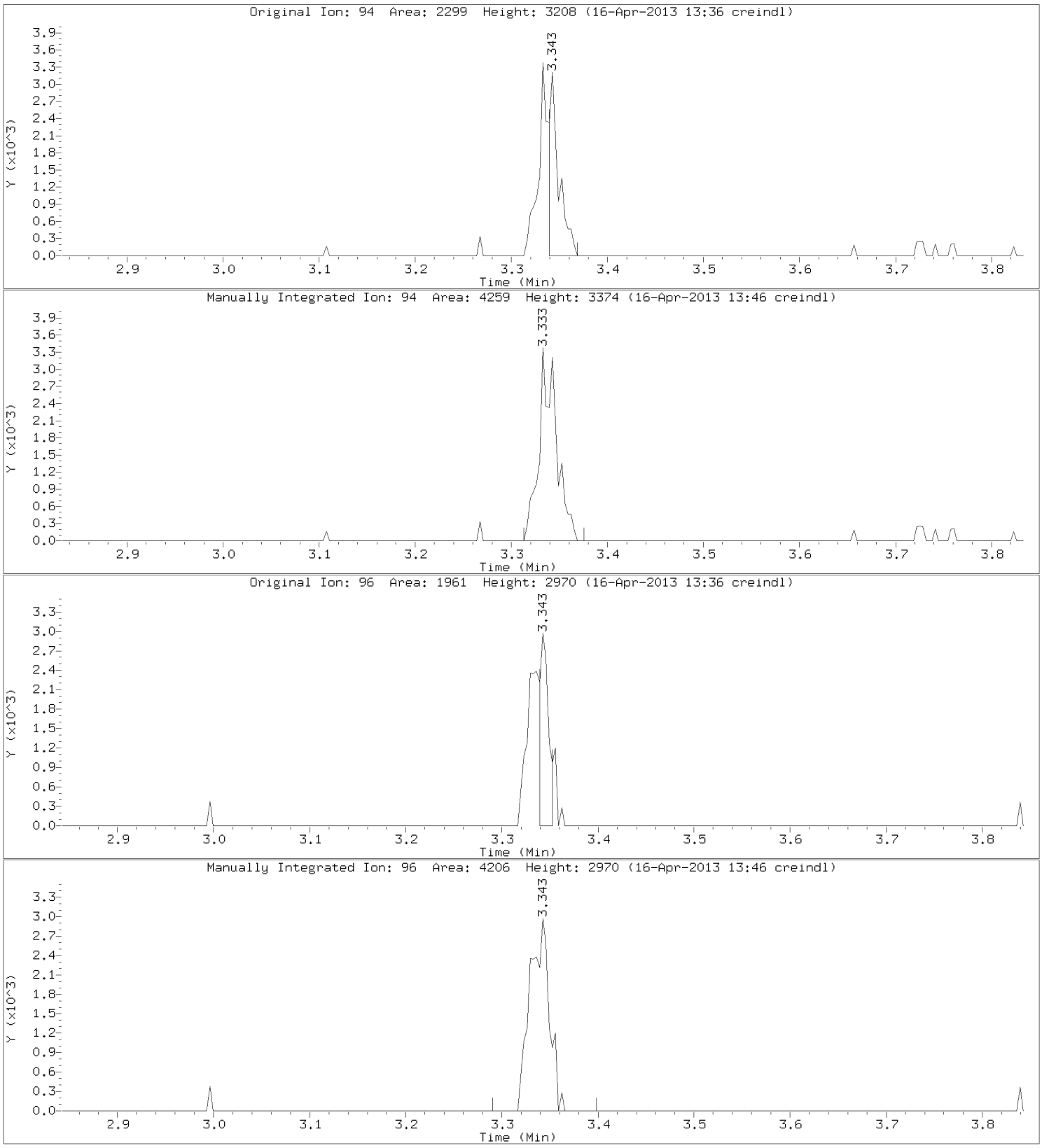
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,3-Butadiene
CAS Number: 106-99-0



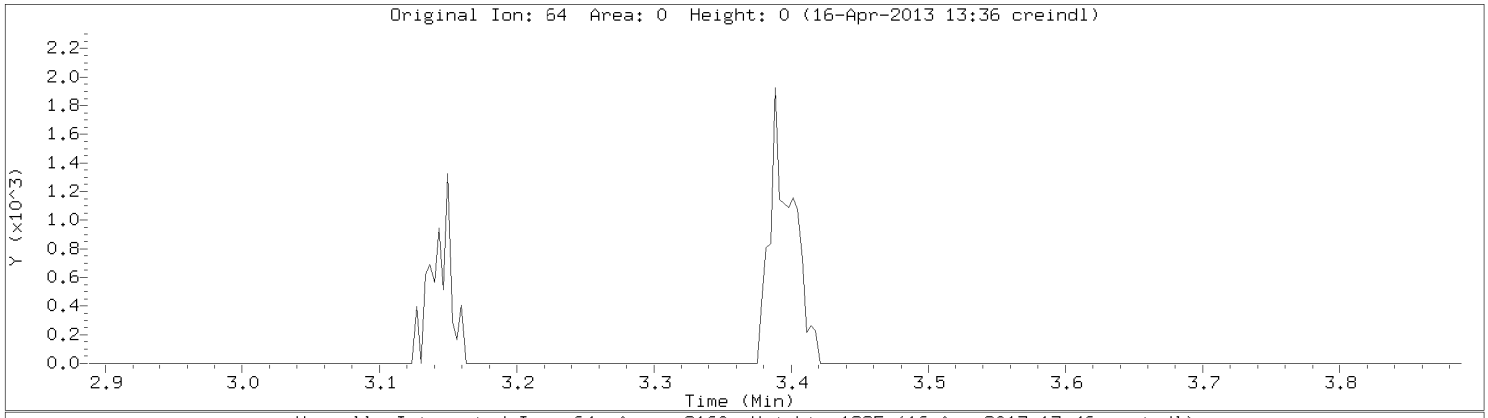
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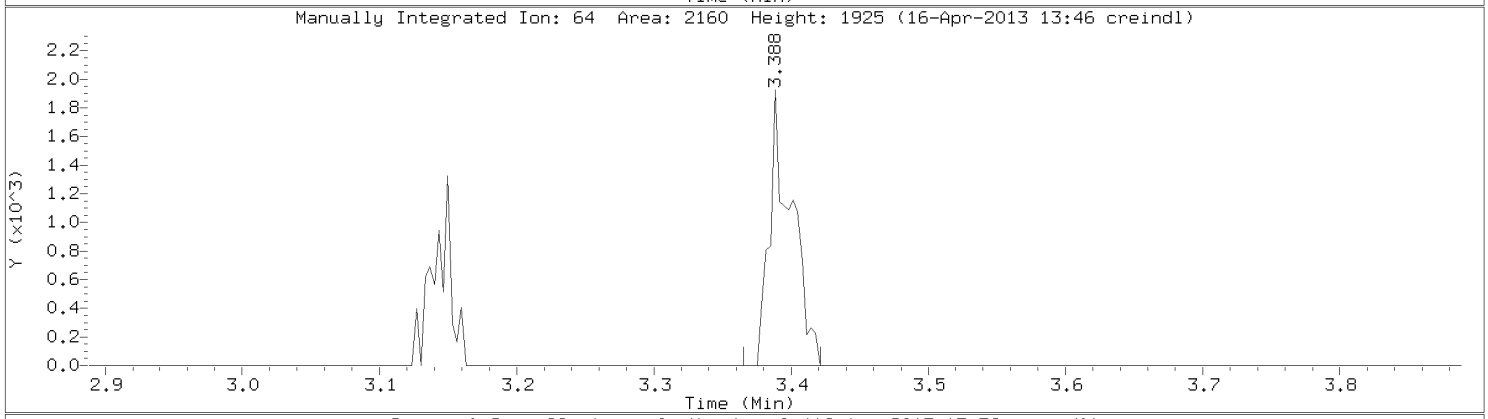
Compound: Bromomethane
CAS Number: 74-83-9

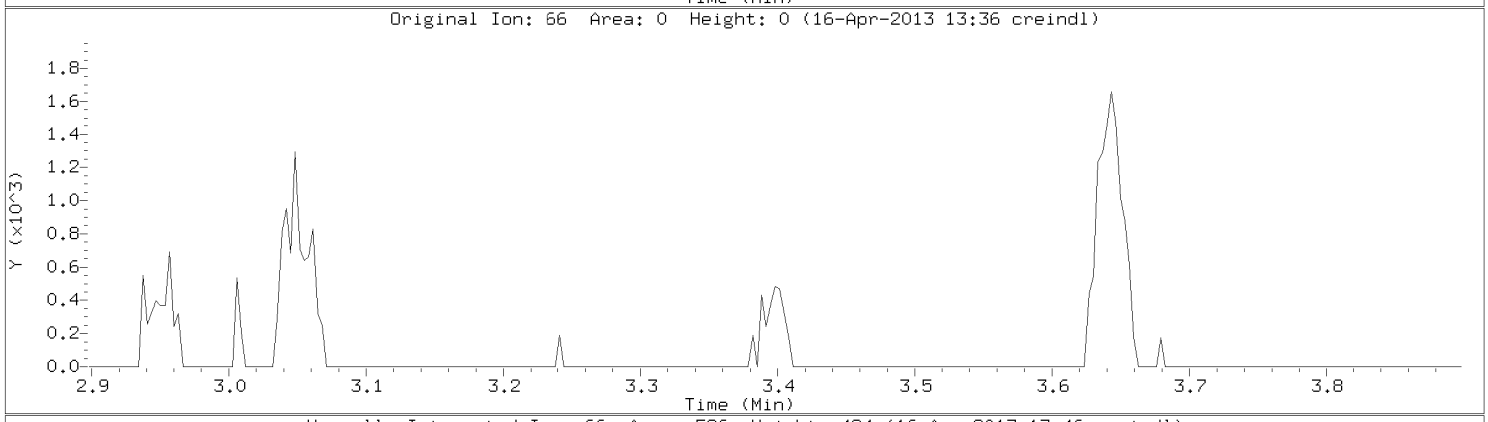


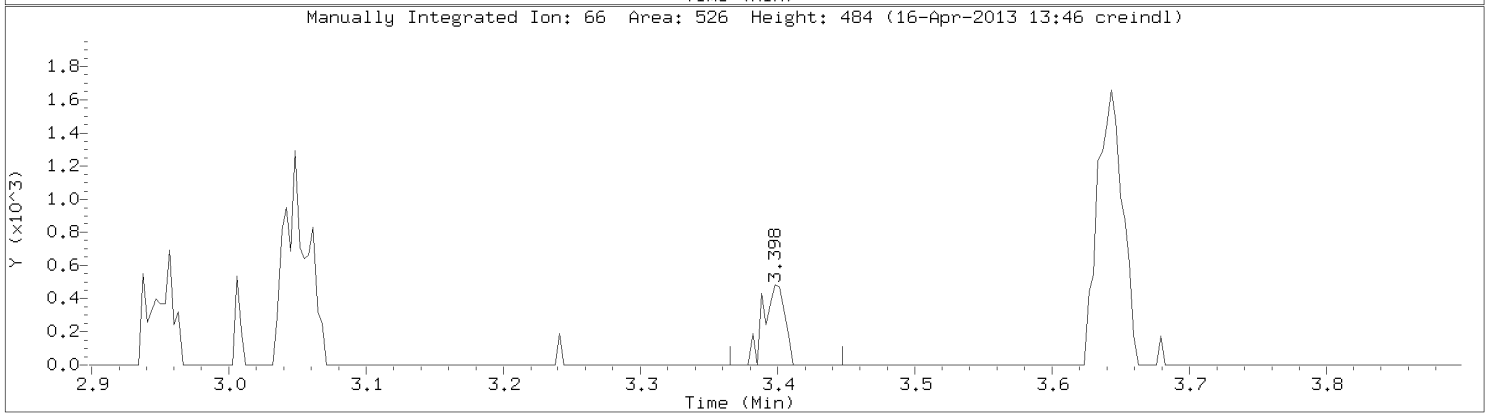
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Chloroethane
CAS Number: 75-00-3



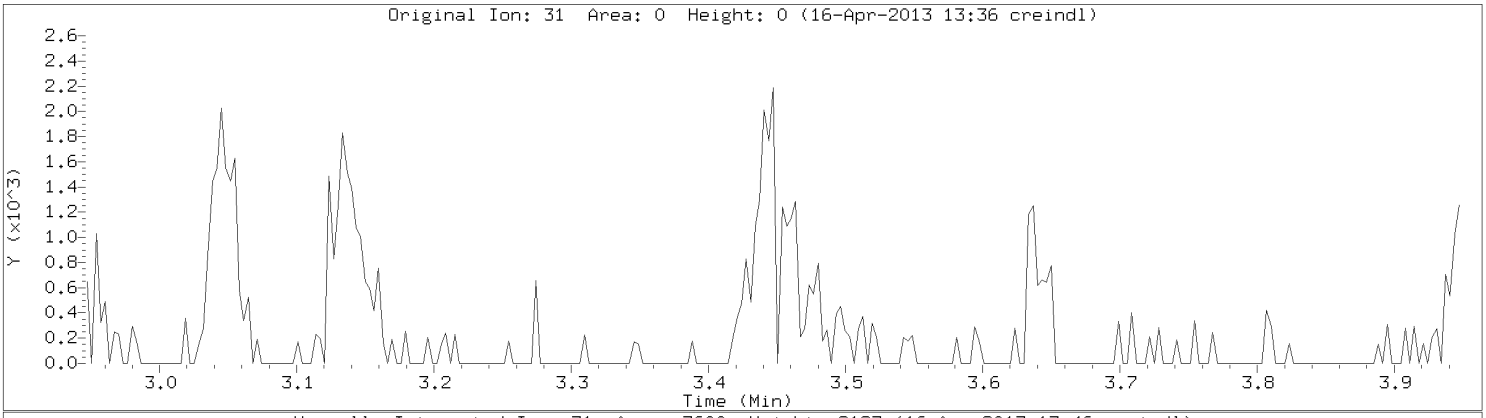


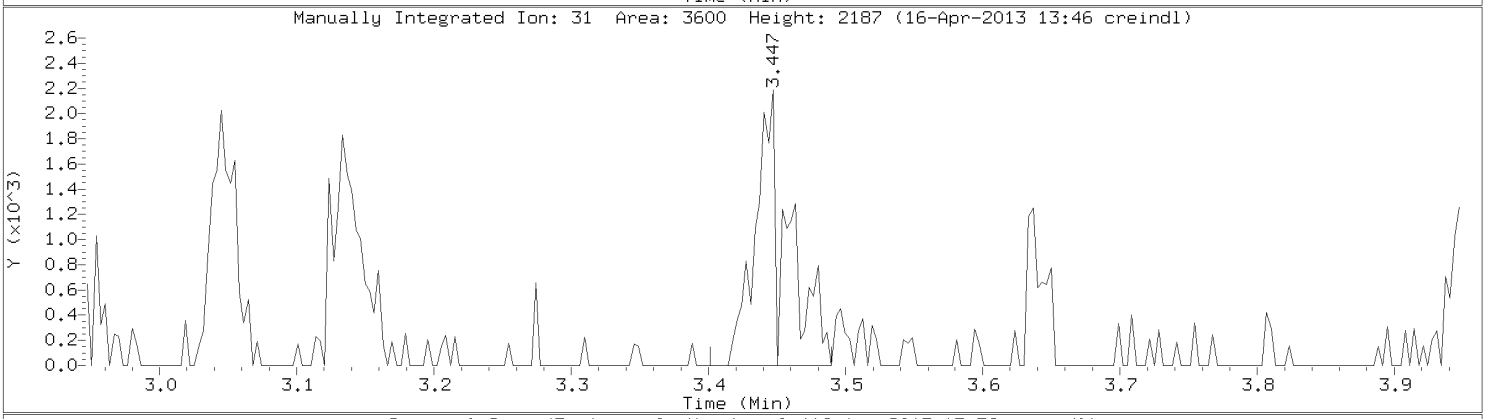


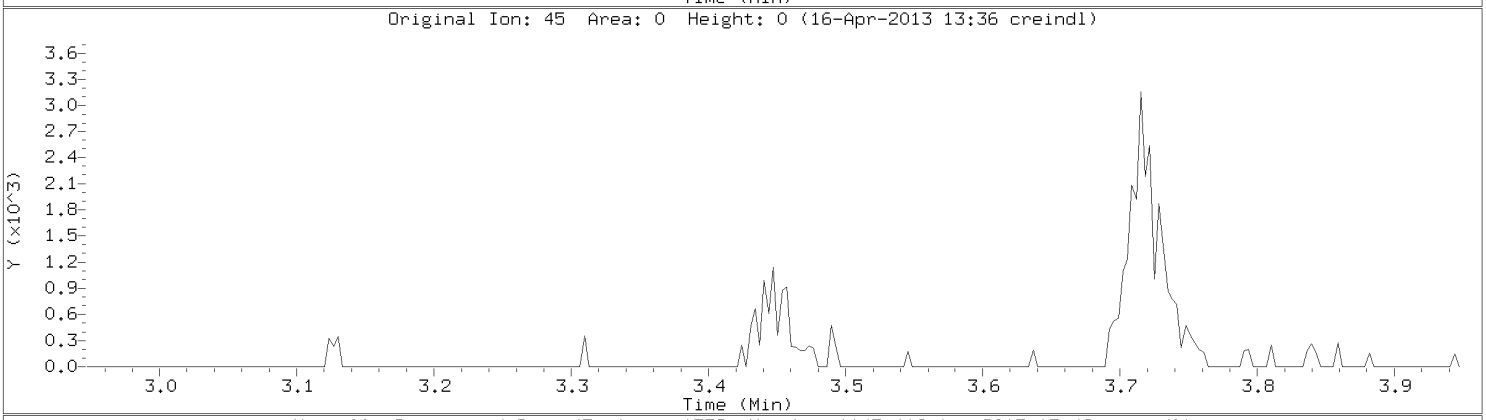


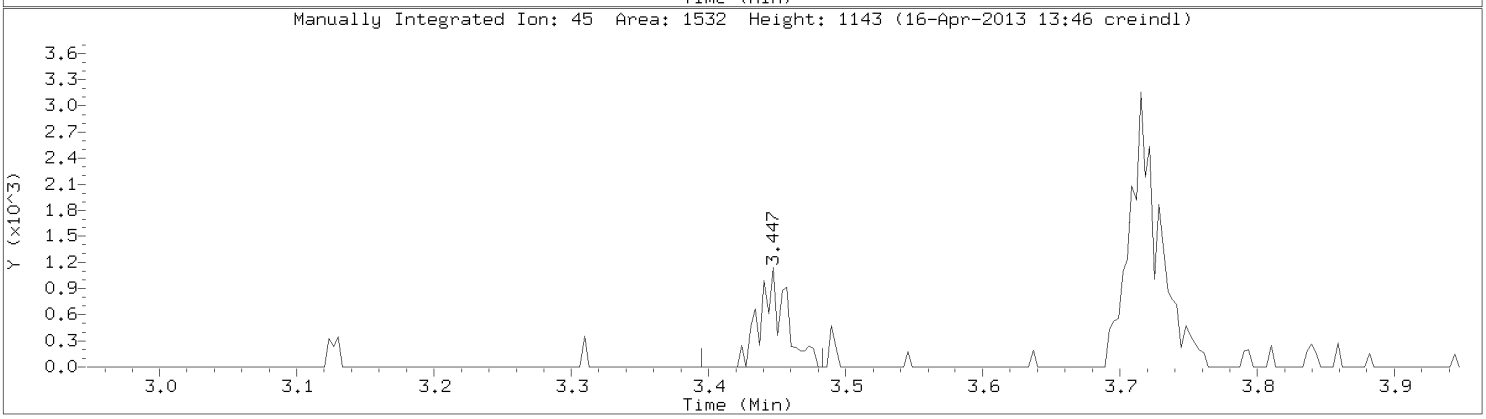
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Lab Sample ID: ICAL1

Compound: Ethanol
CAS Number: 64-17-5



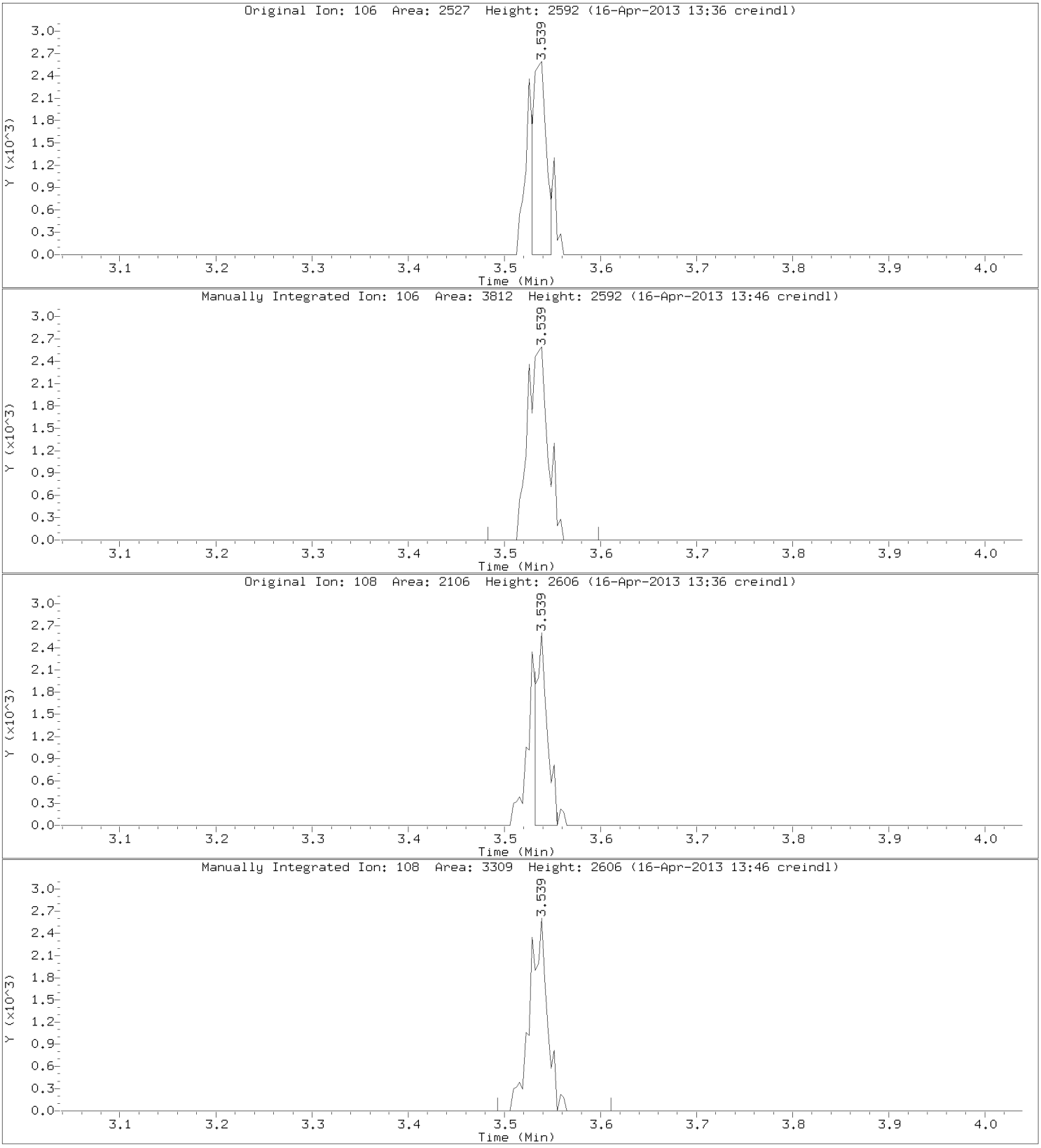






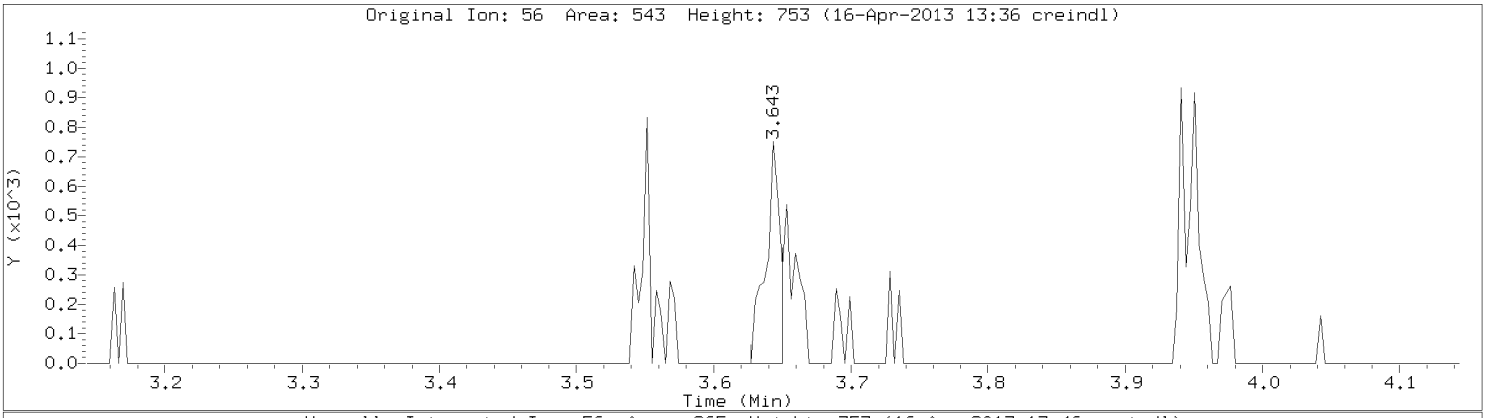
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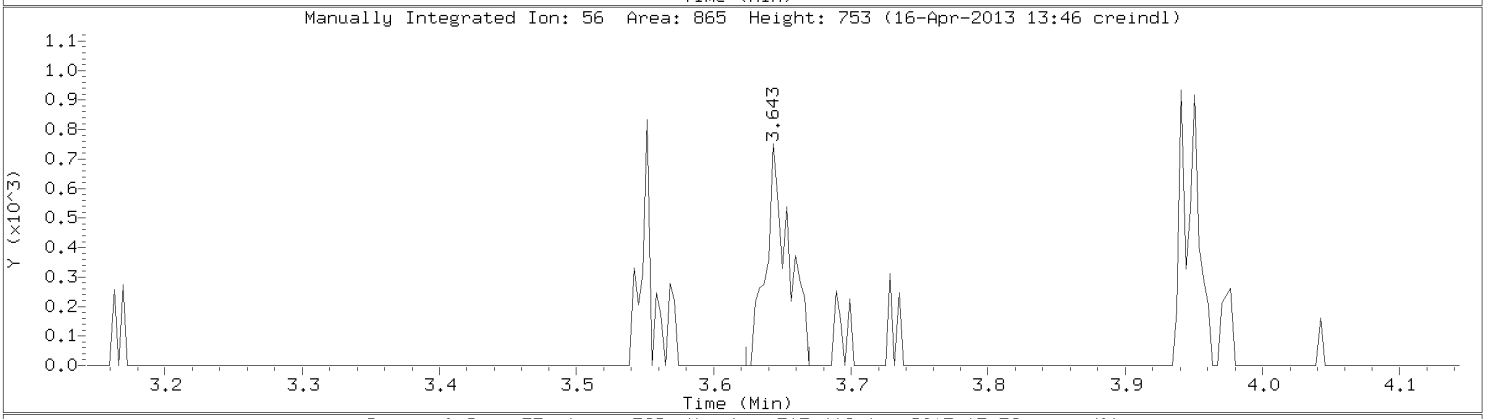
Compound: Vinyl Bromide
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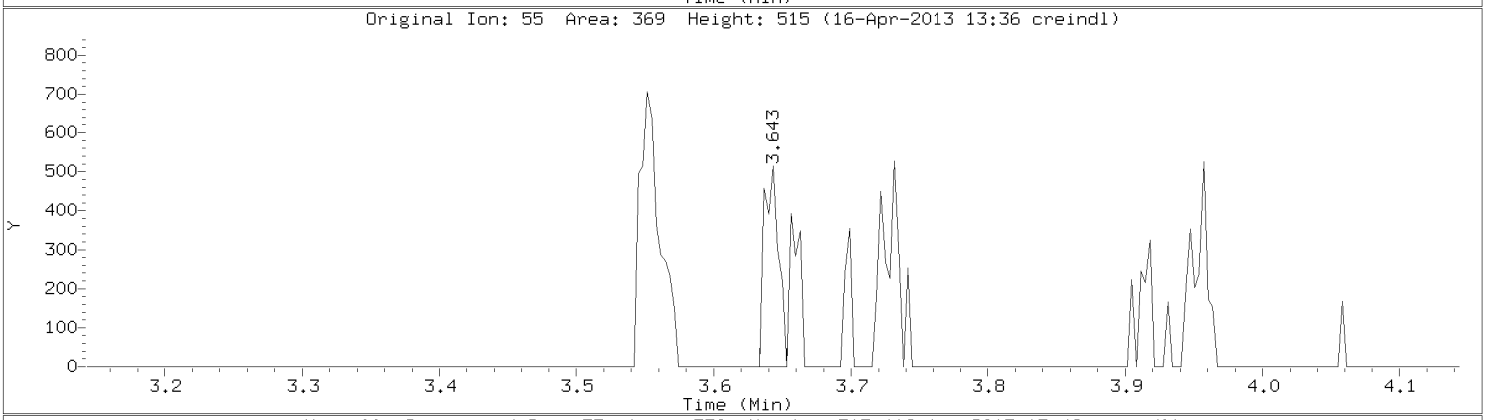


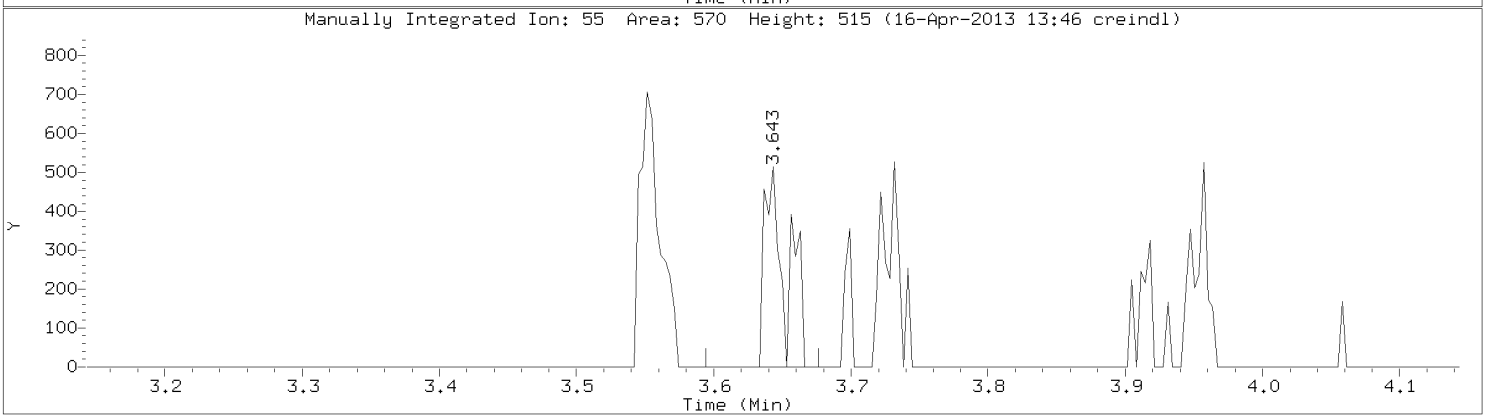
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Acrolein
CAS Number: 107-02-08



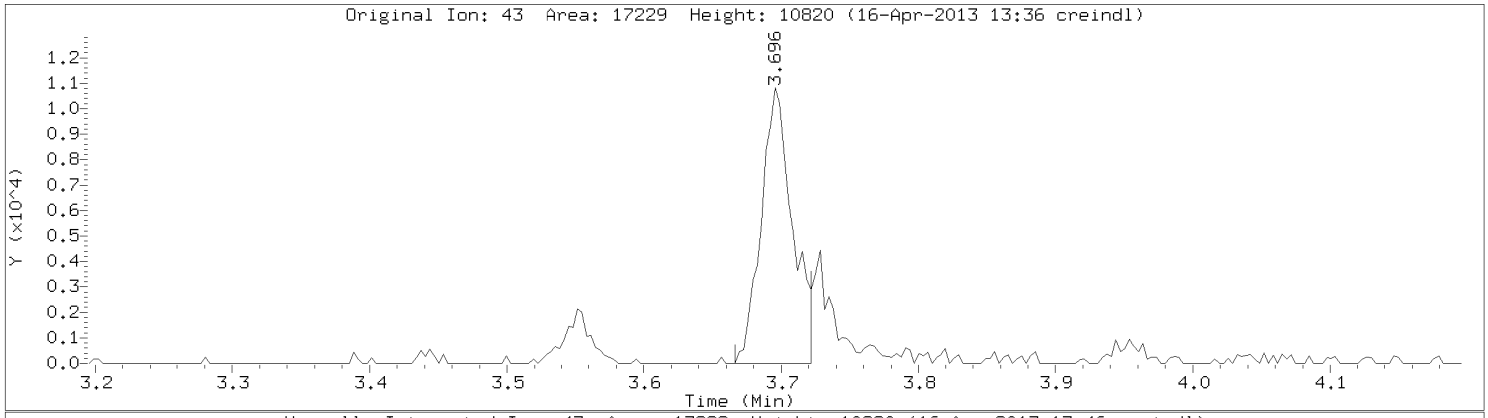


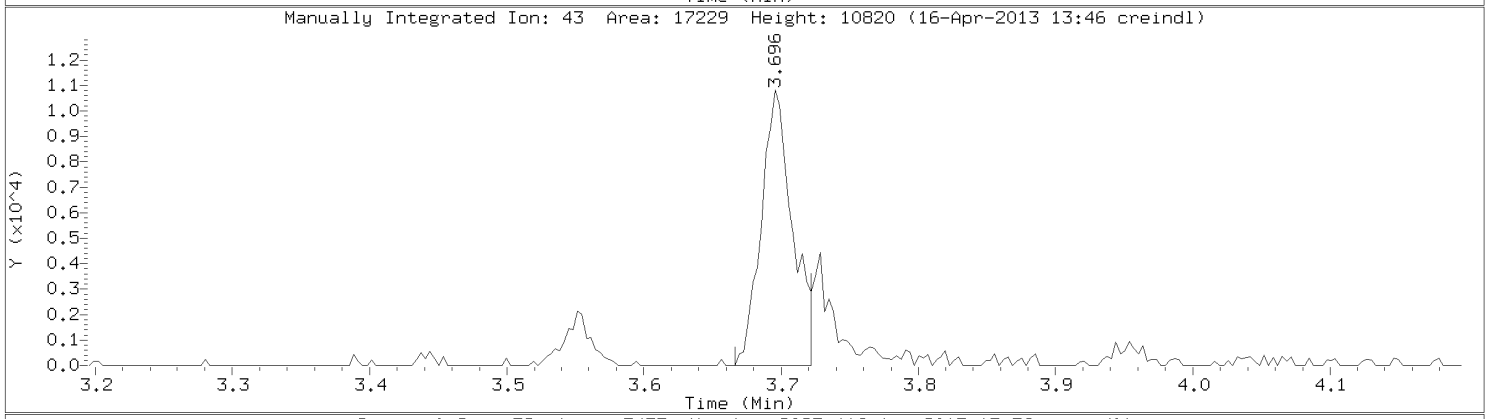


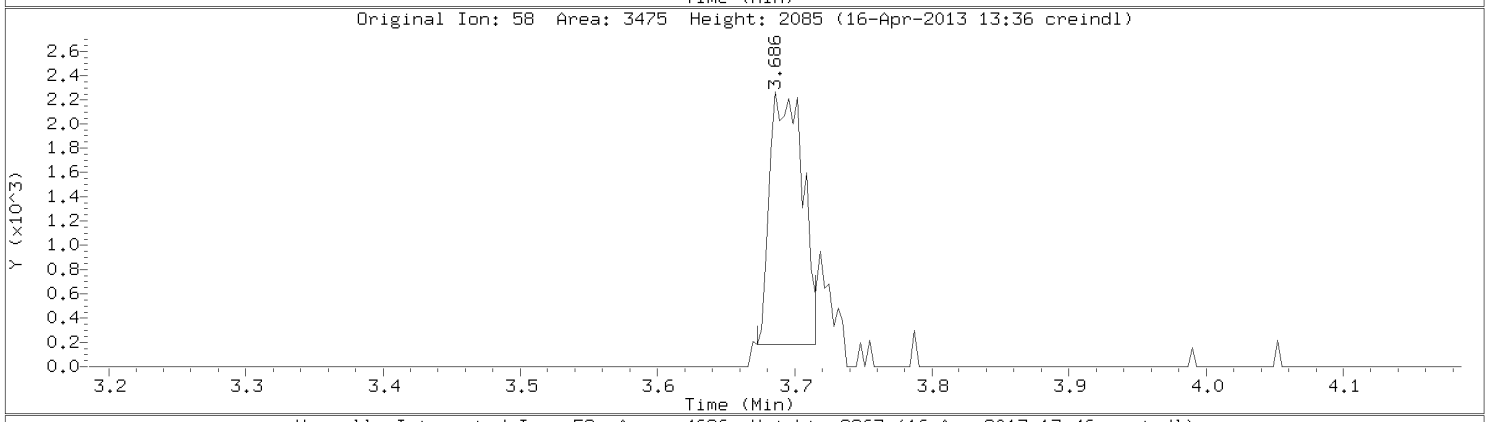


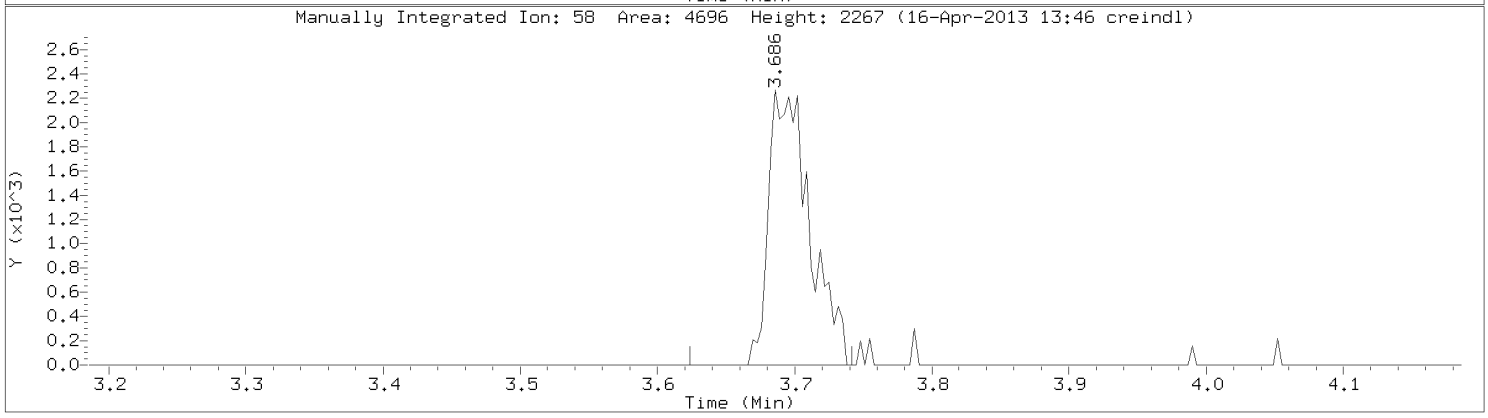
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Acetone
CAS Number: 67-64-1



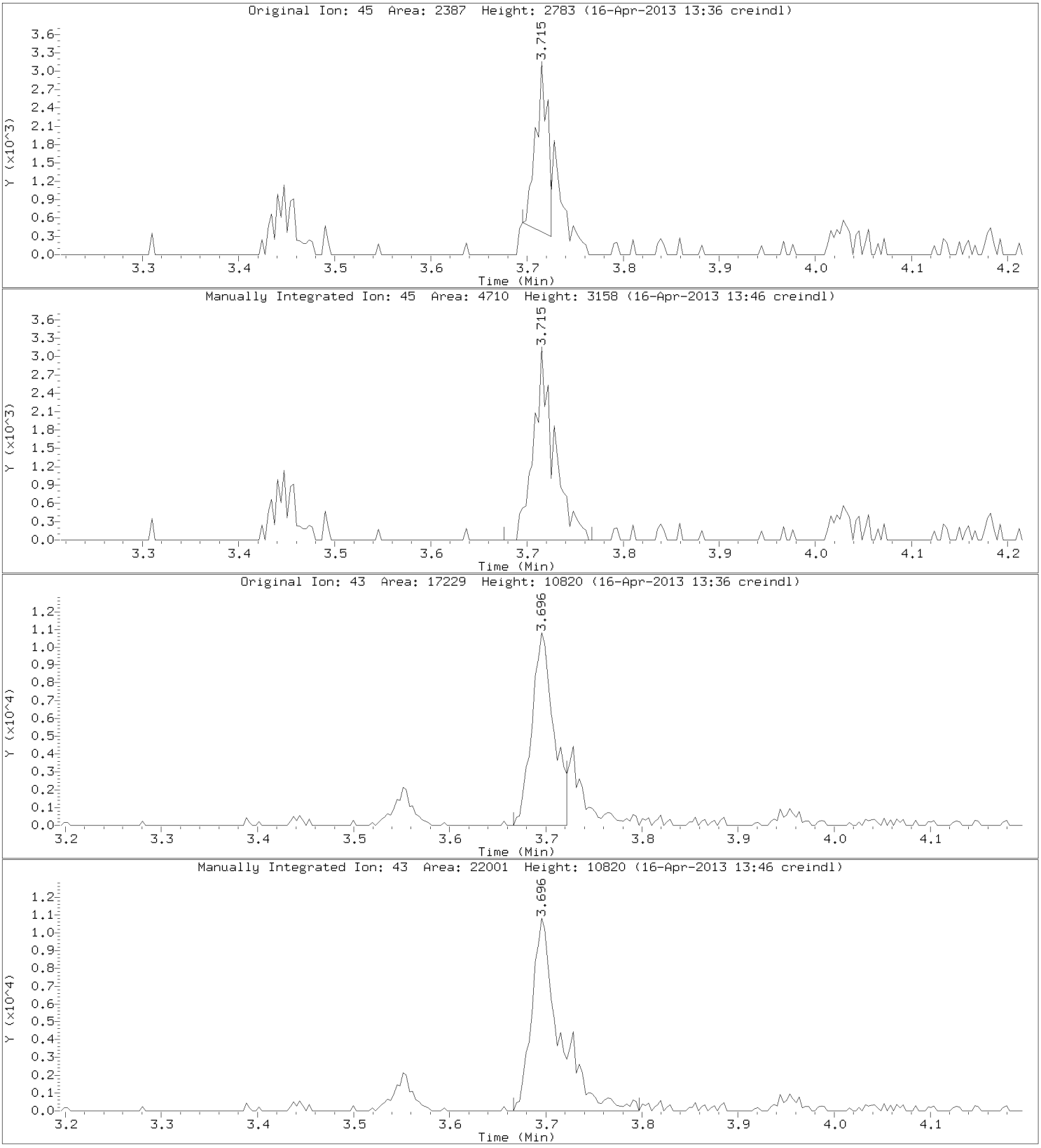






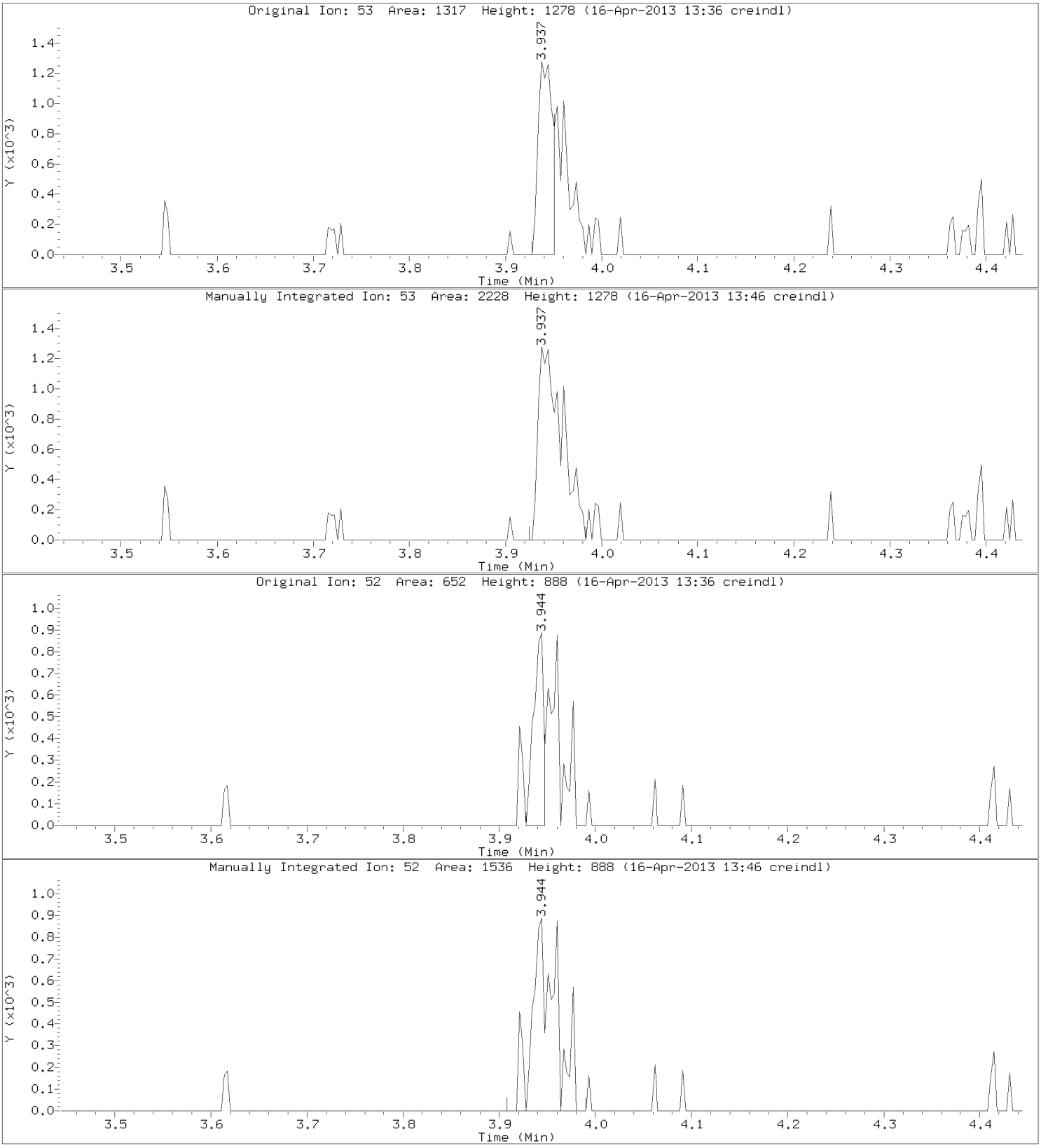
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Isopropyl Alcohol
CAS Number: 67-63-0



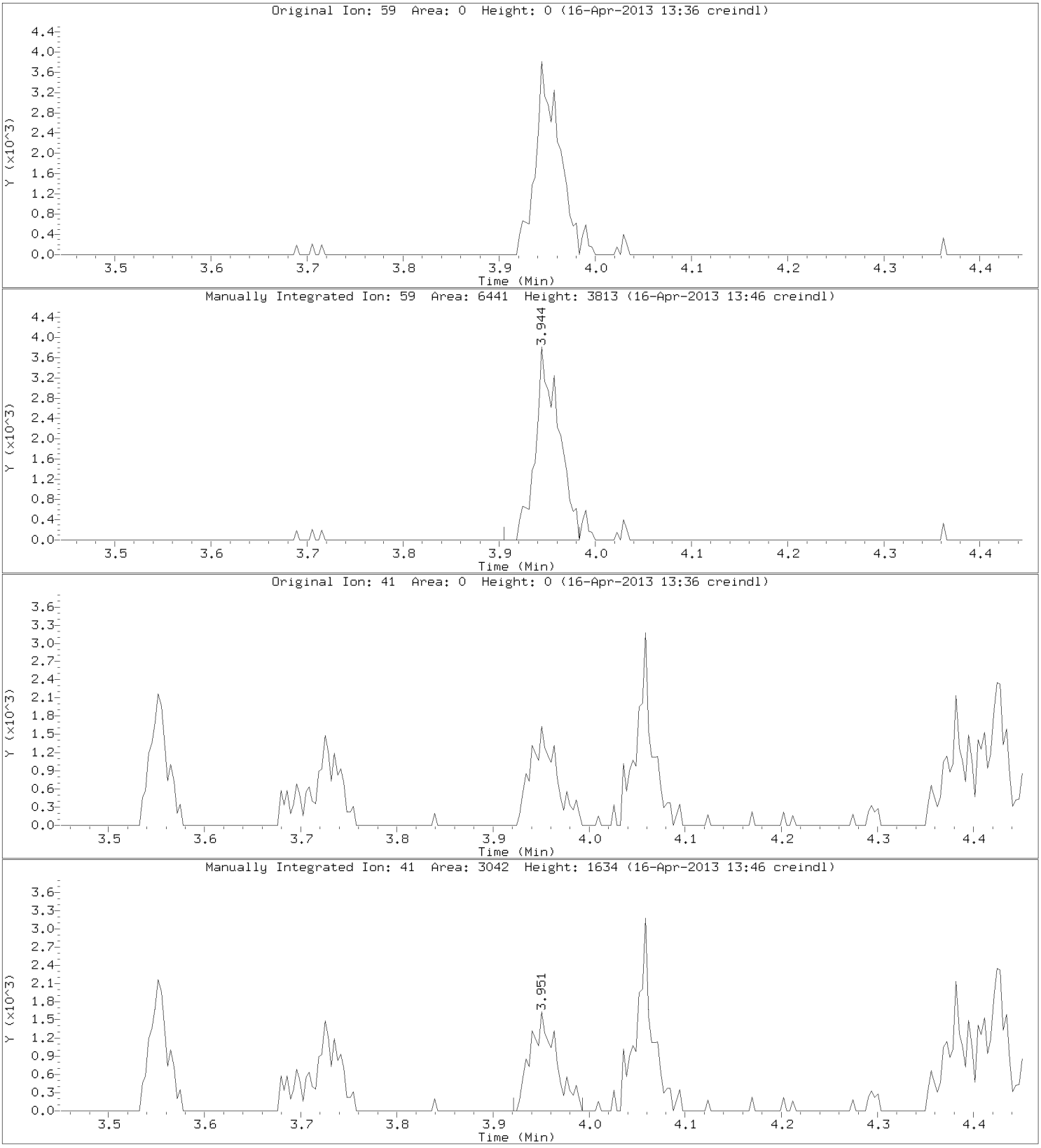
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Lab Sample ID: ICAL1

Compound: Acrylonitrile
CAS Number: 107-13-1



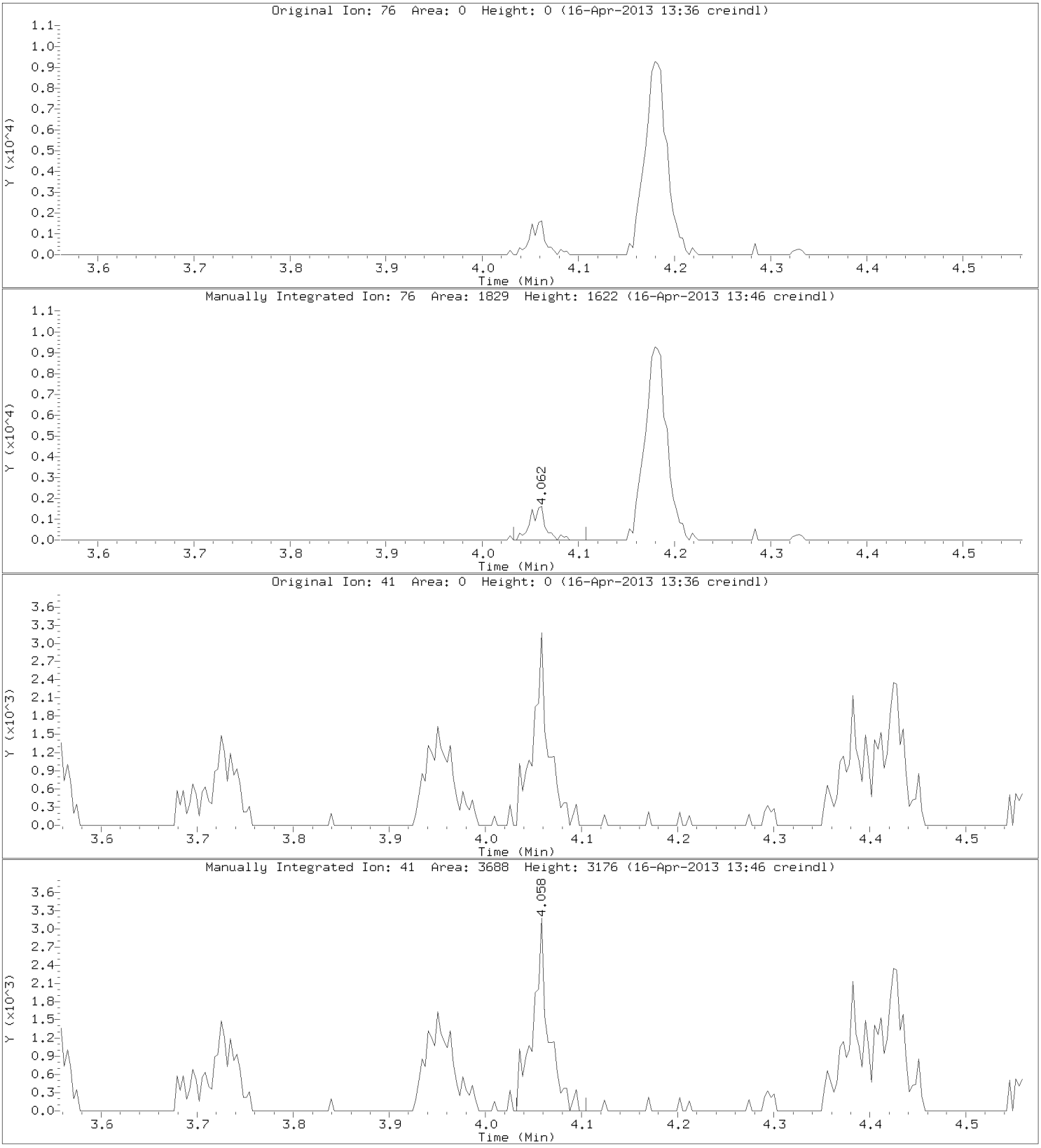
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0

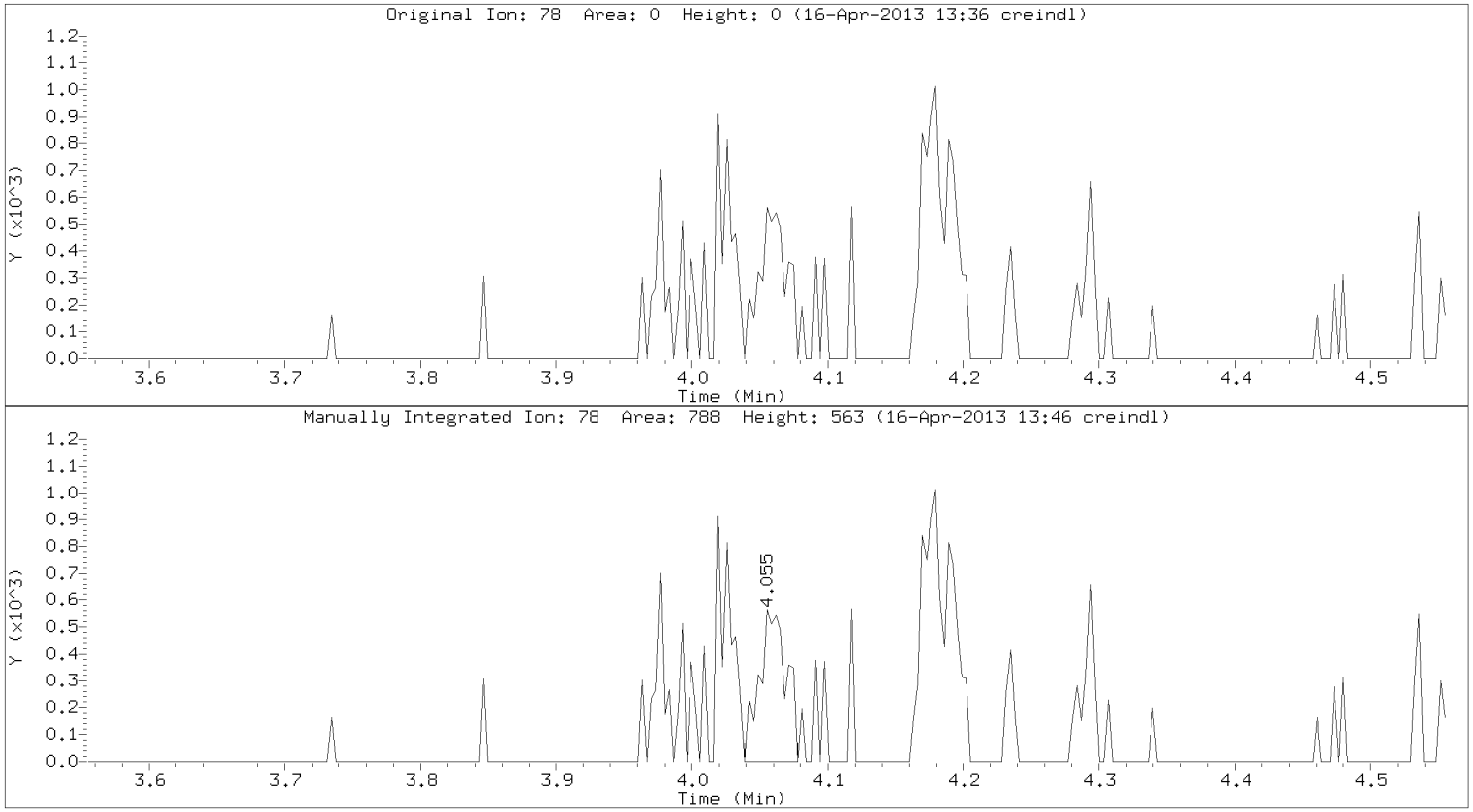


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Allyl Chloride
CAS Number: 107-05-1

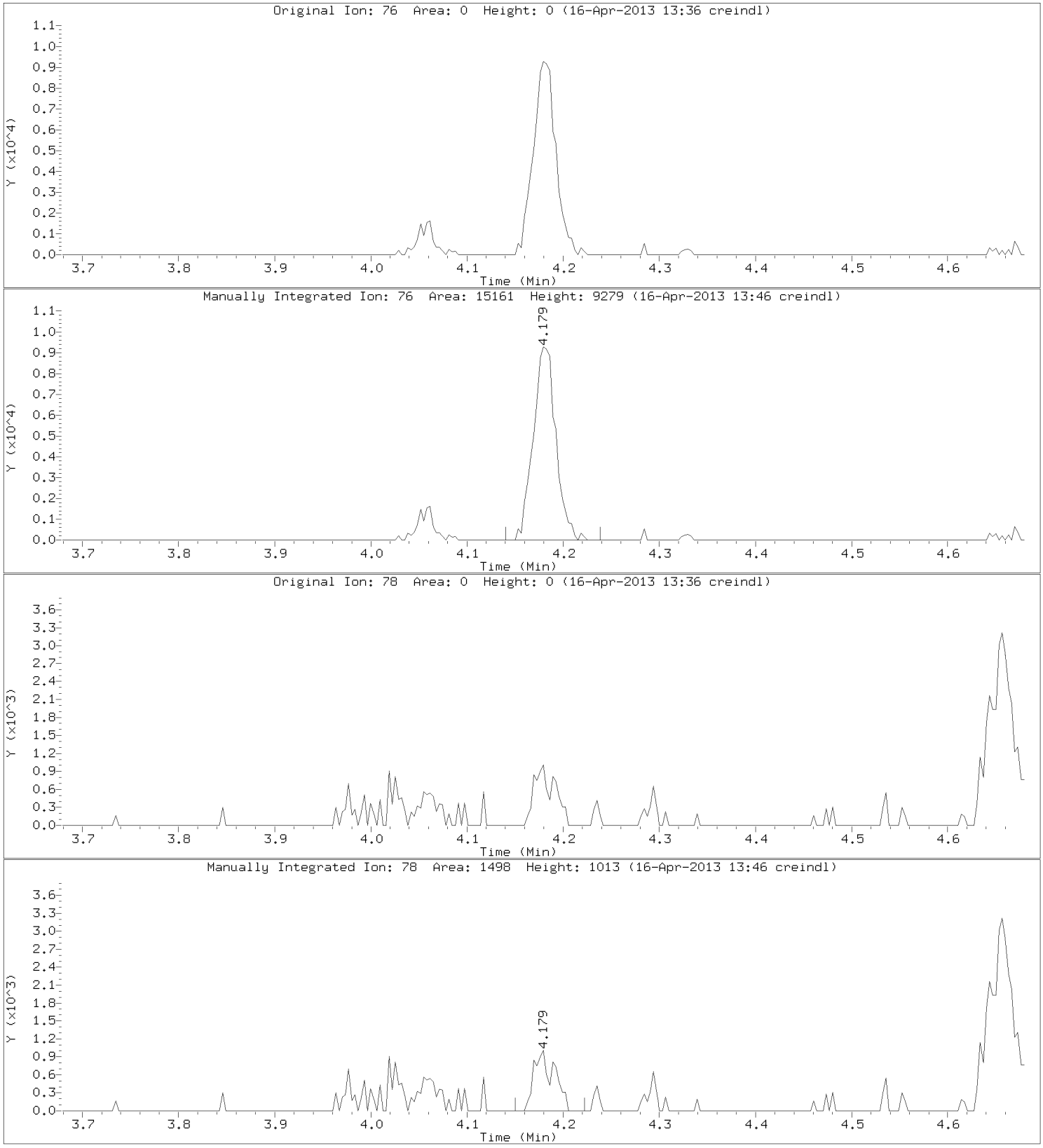


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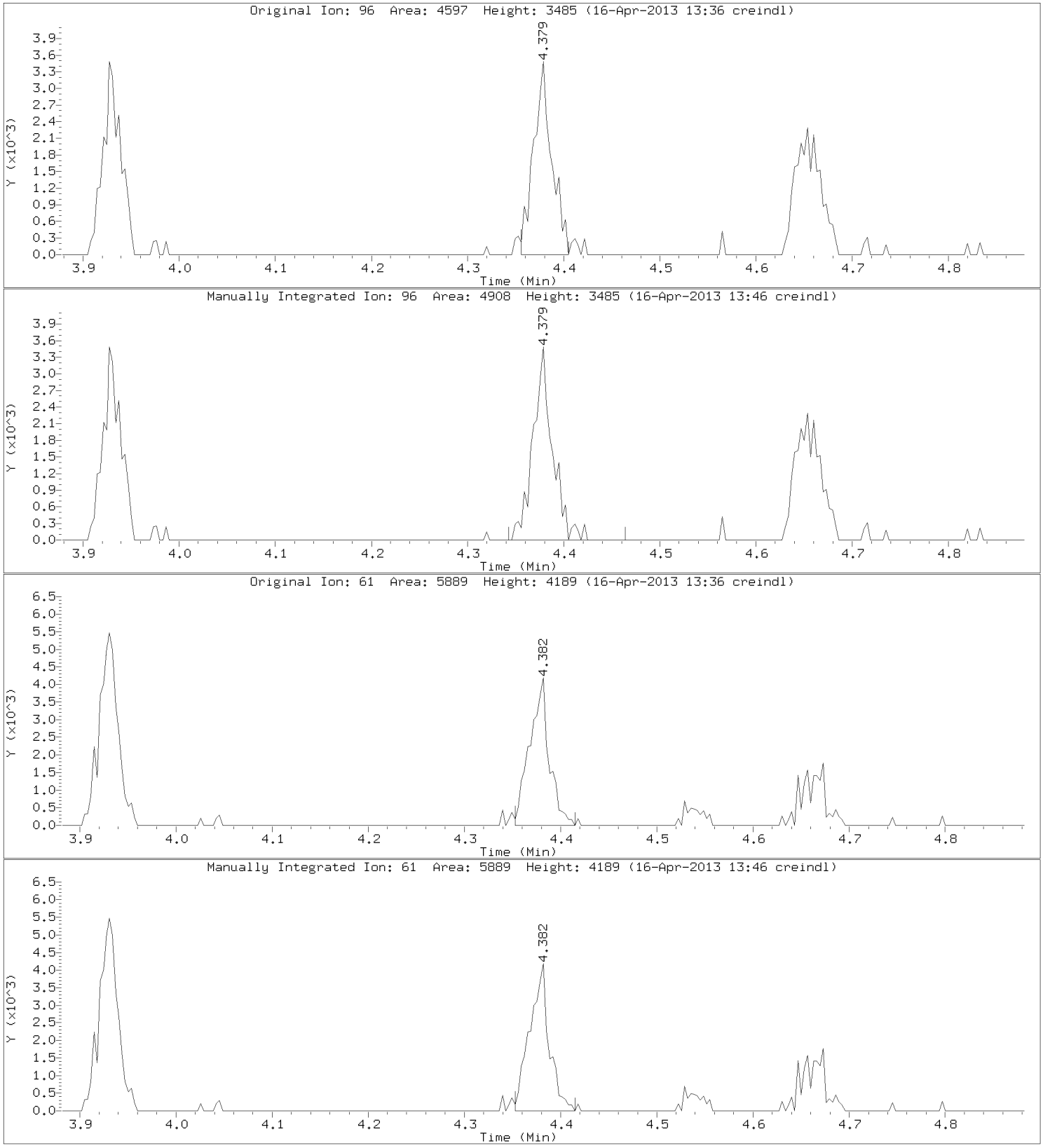
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Carbon Disulfide
CAS Number: 75-15-0

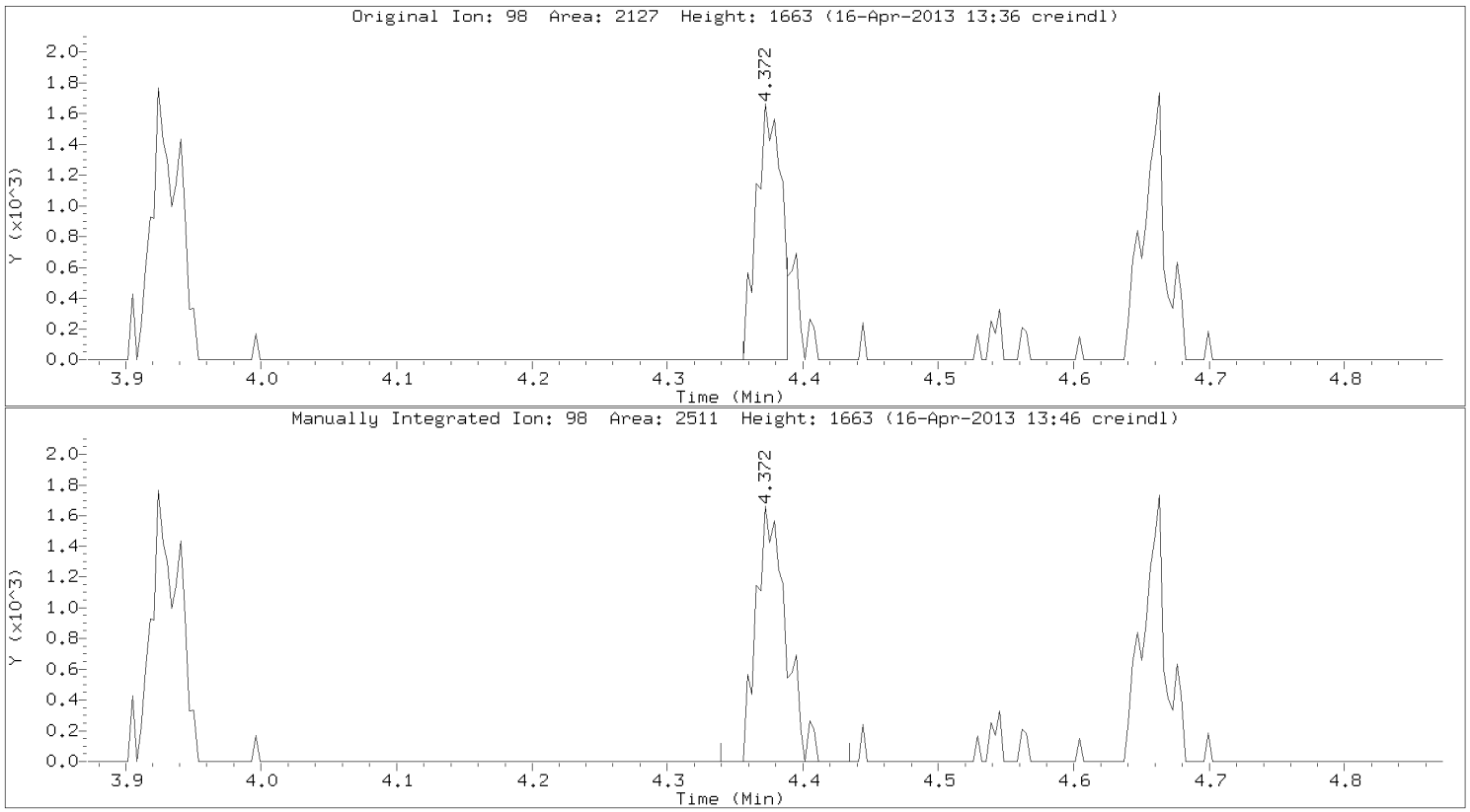


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: trans-1,2-dichloroethene
CAS Number: 156-60-5

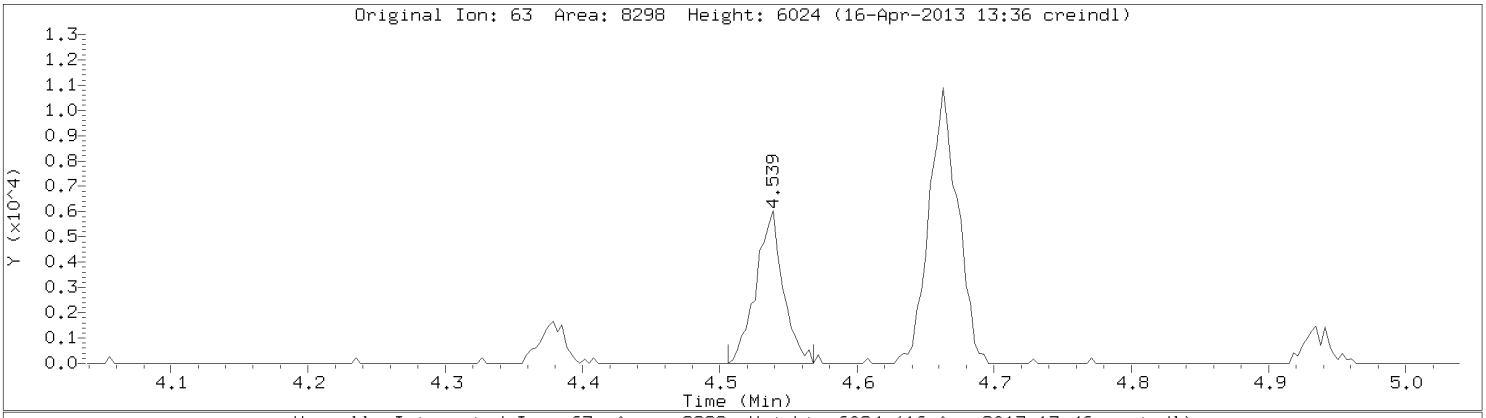


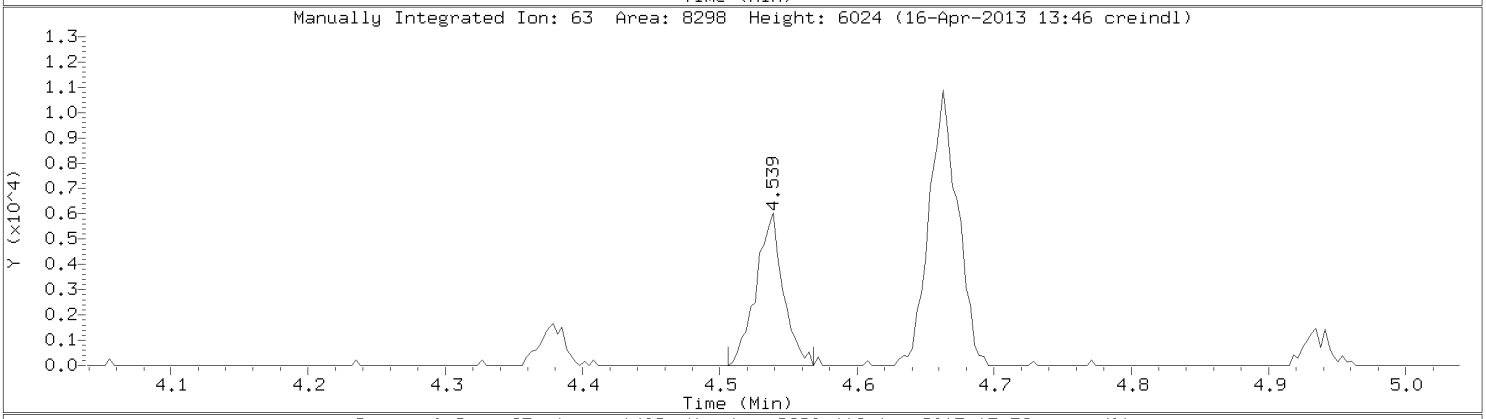
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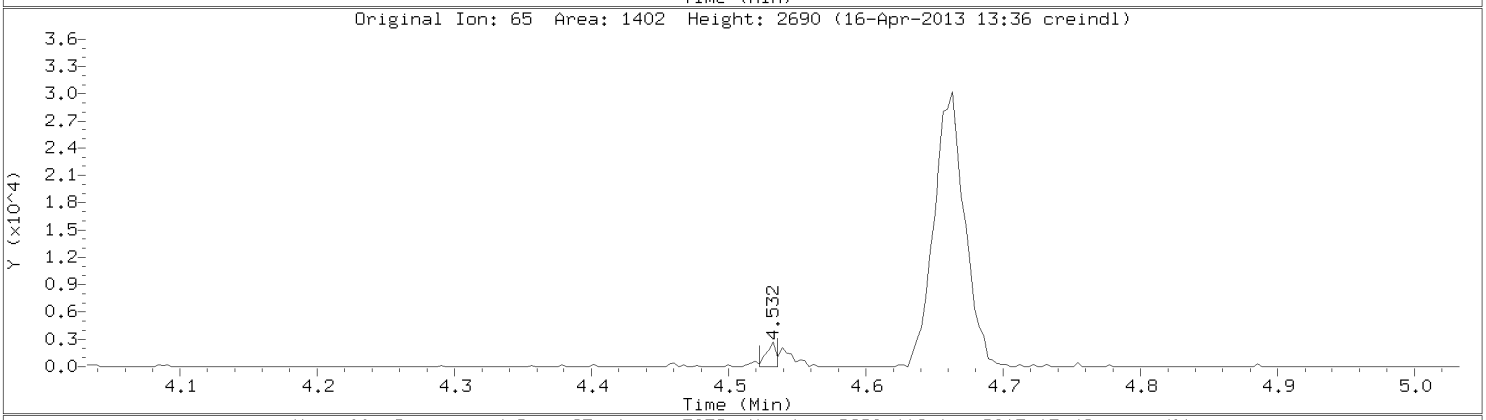


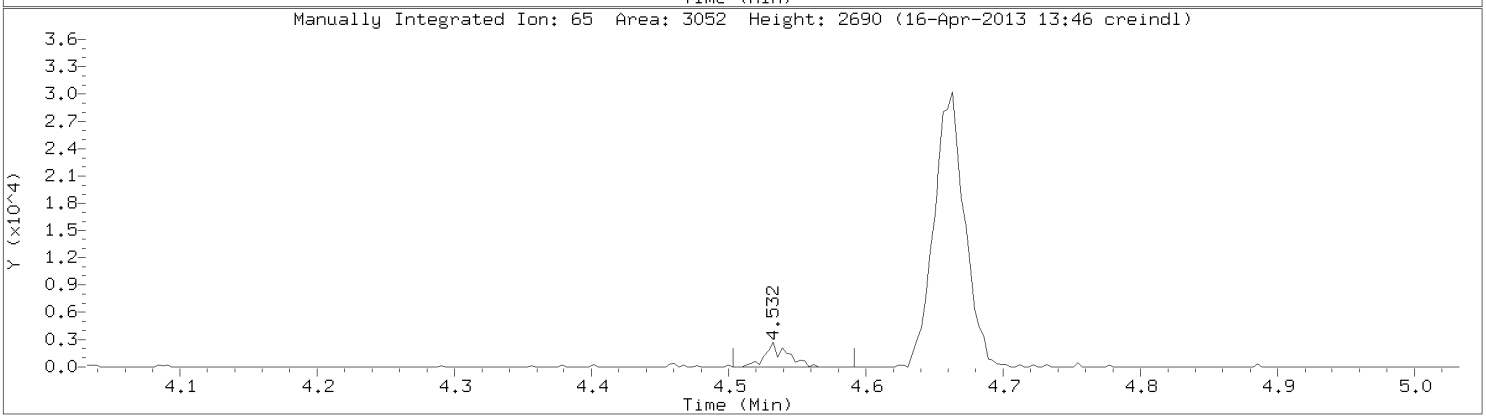
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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,1-Dichloroethane
CAS Number: 75-34-3



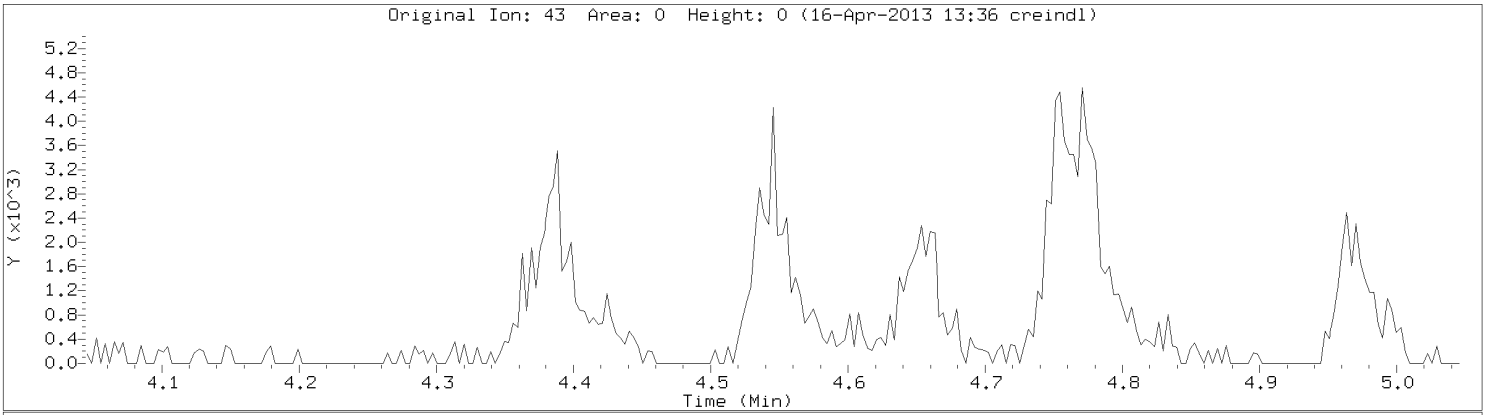


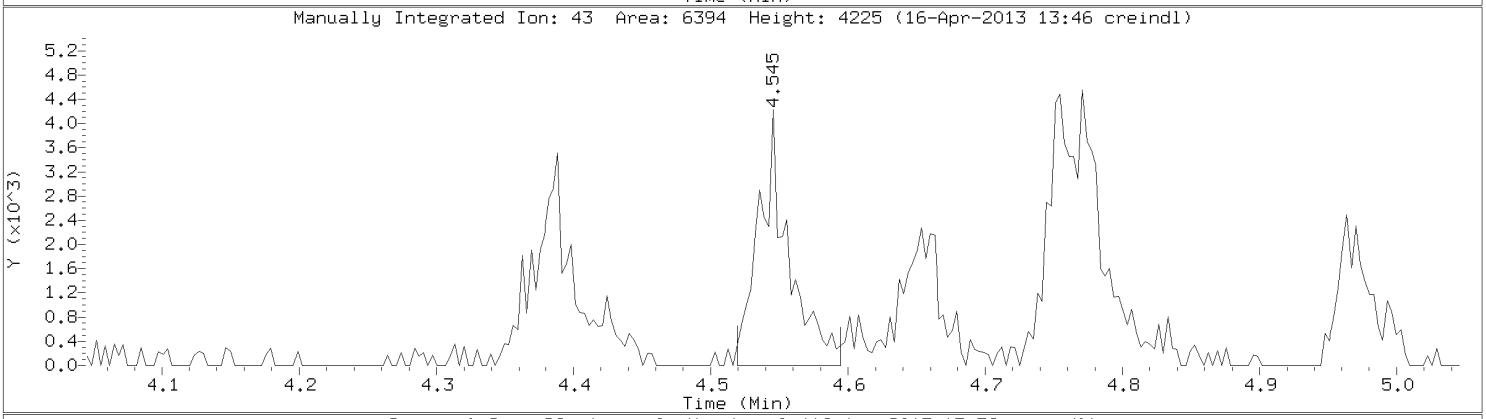


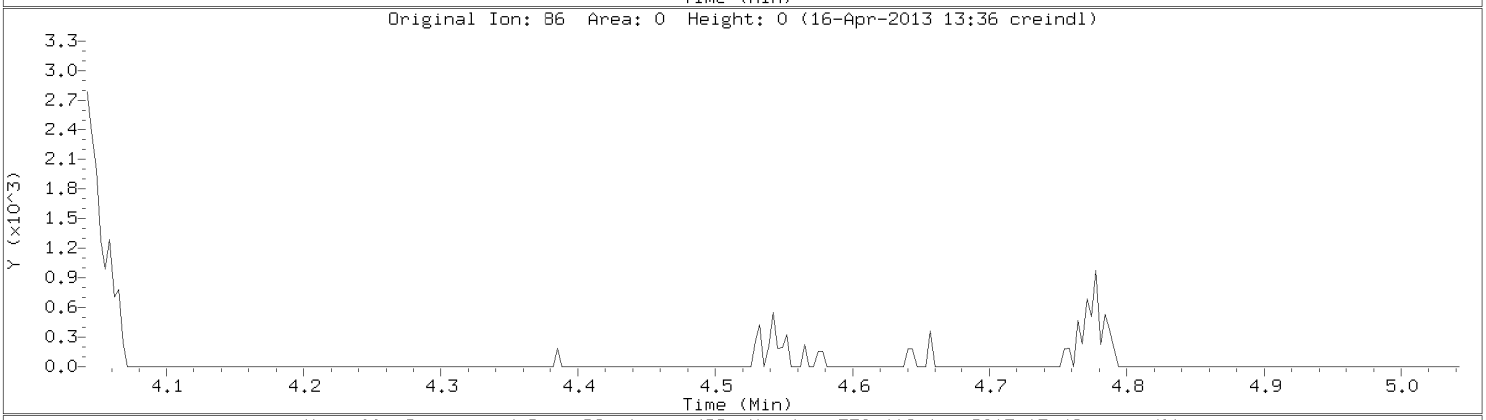


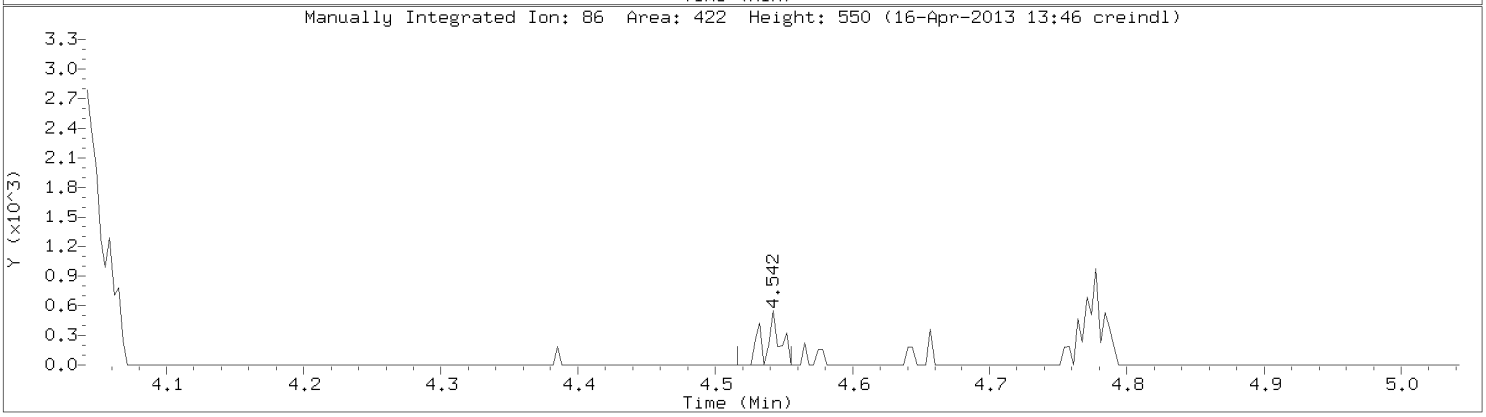
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Vinyl Acetate
CAS Number: 108-05-4



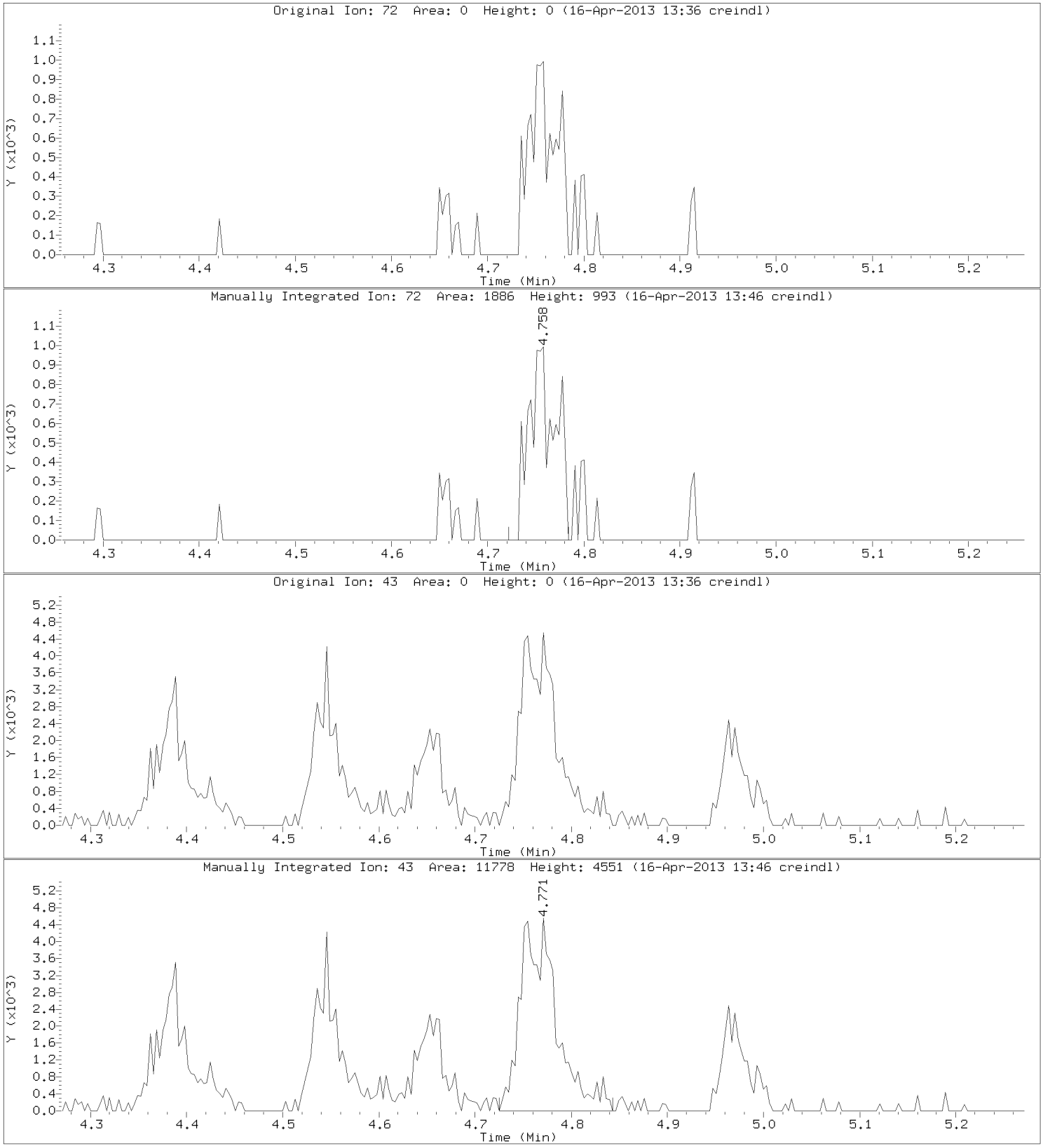






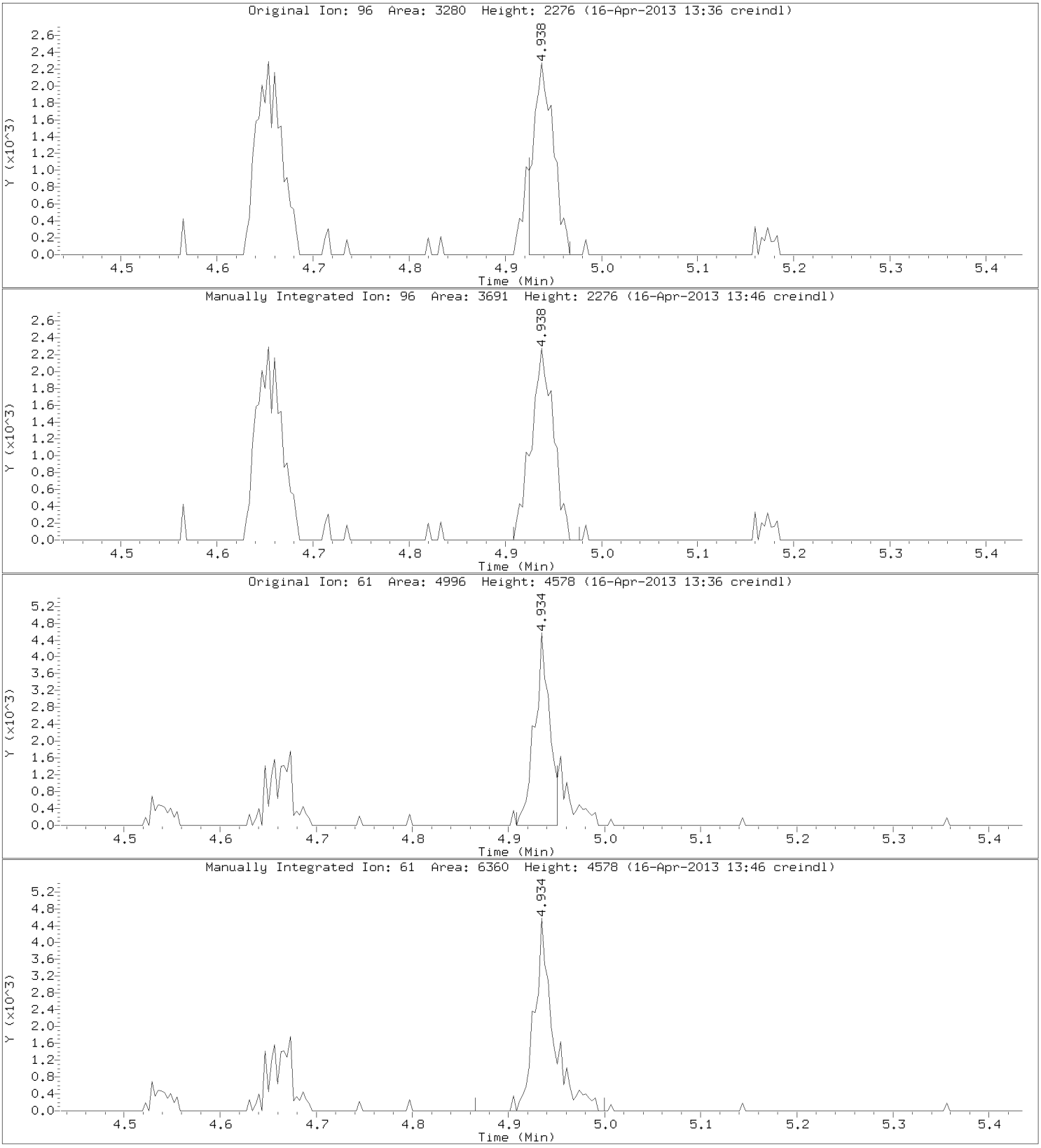
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

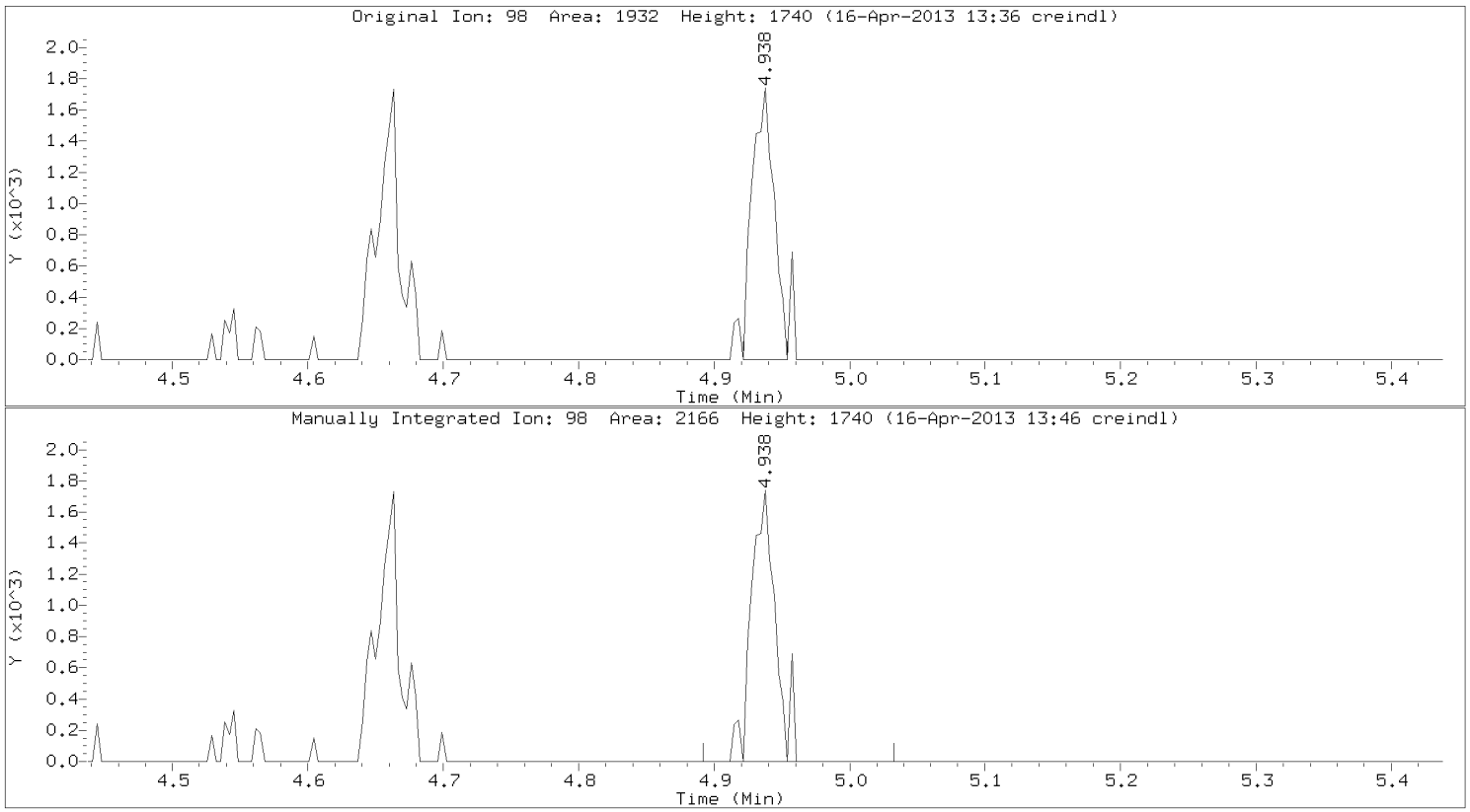


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2

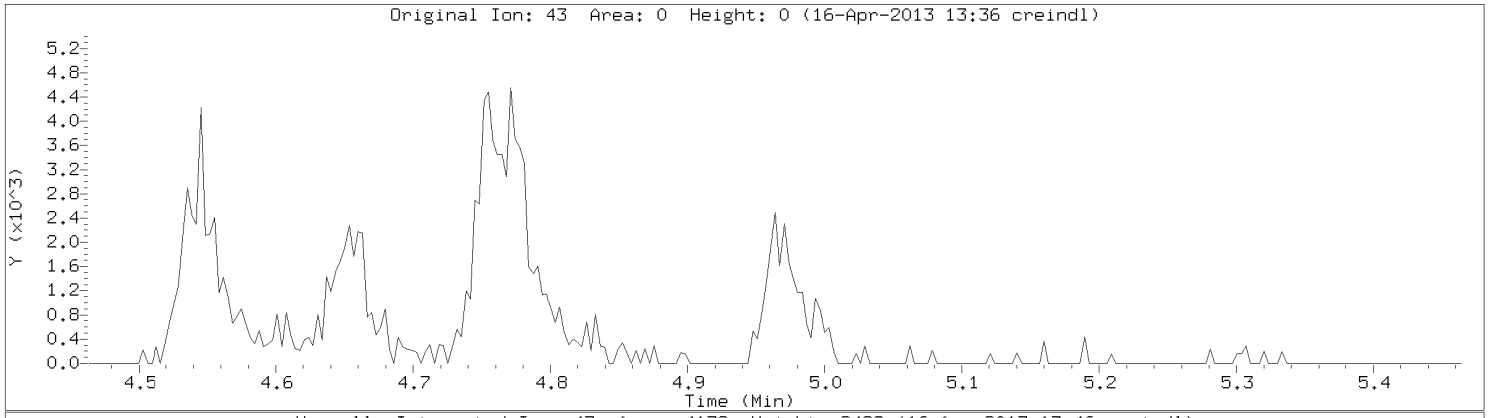


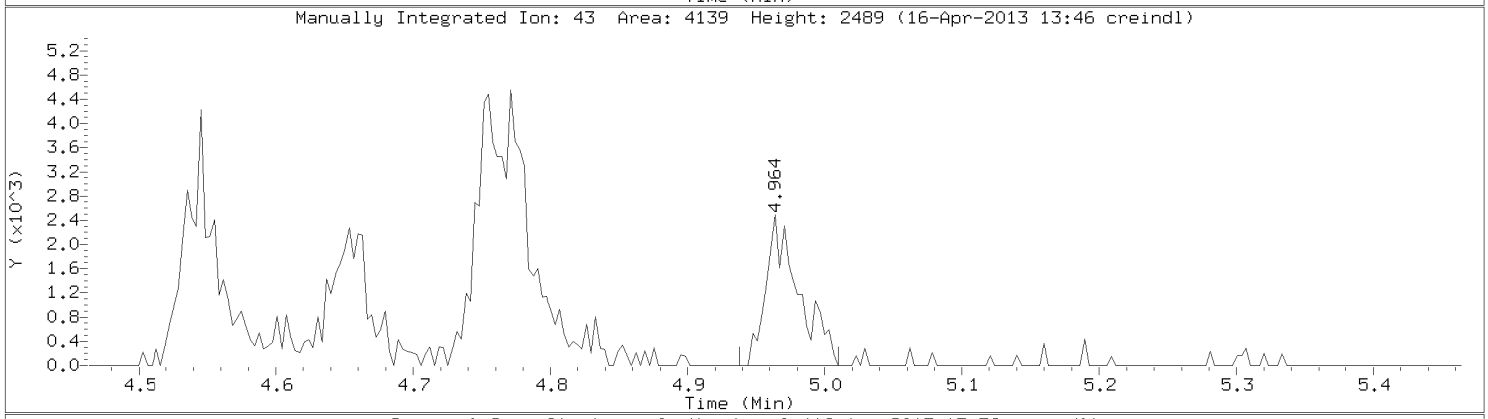
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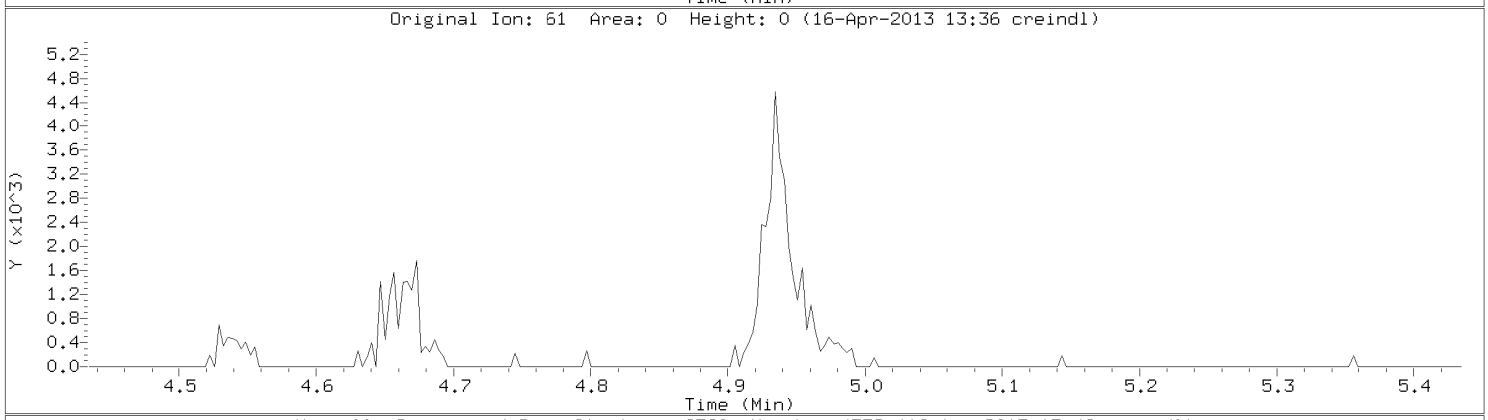


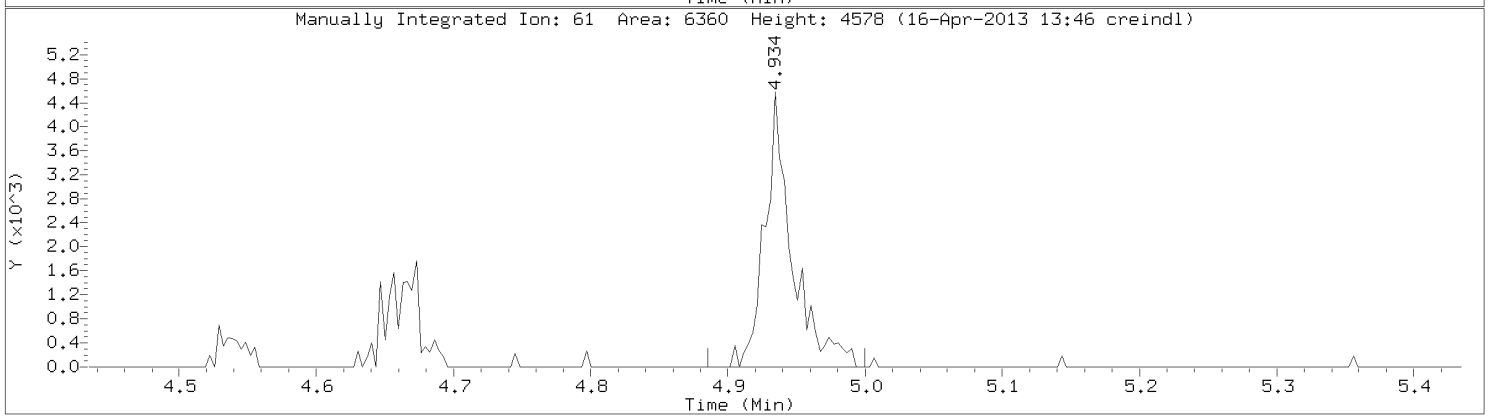
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Ethyl Acetate
CAS Number: 141-78-6

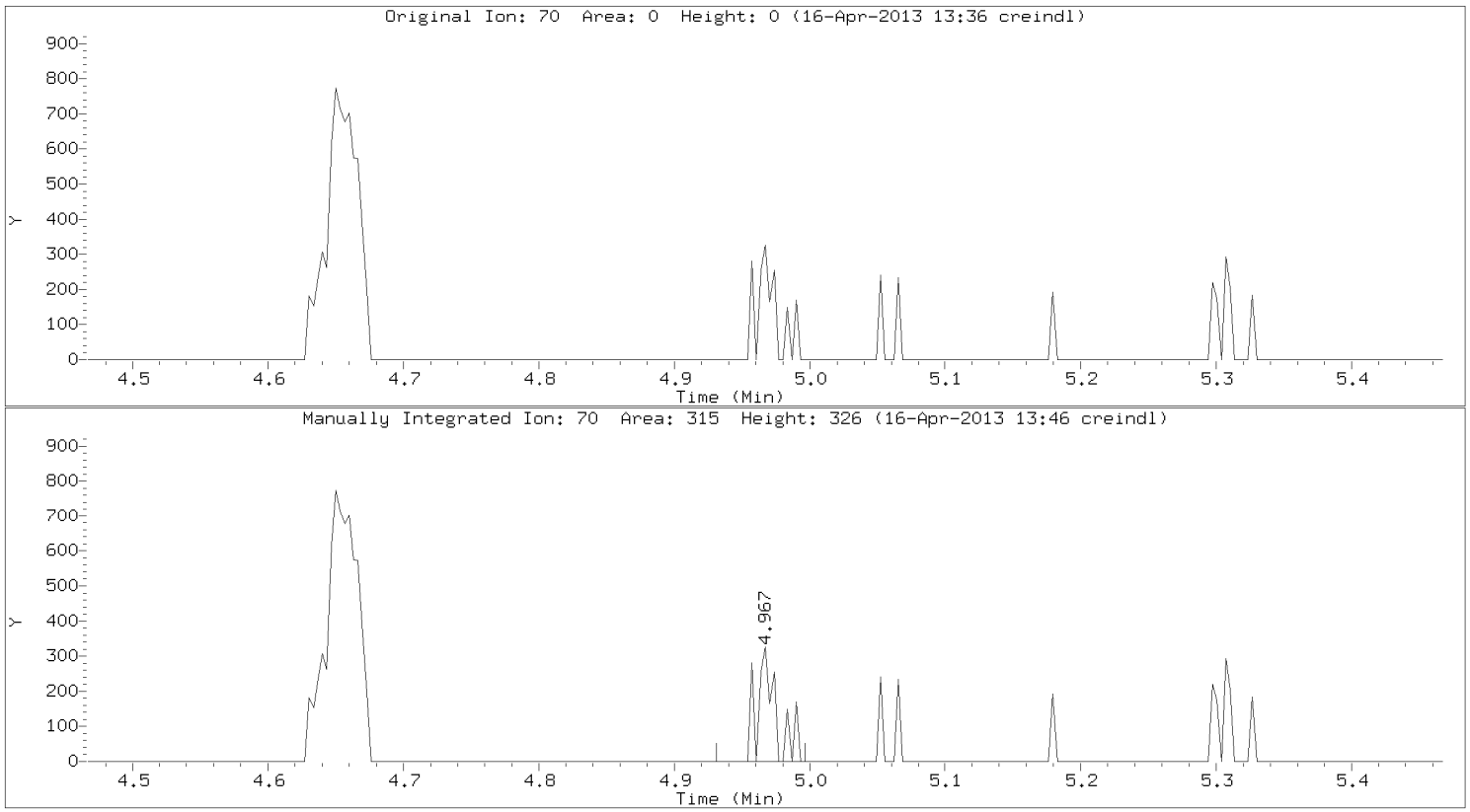






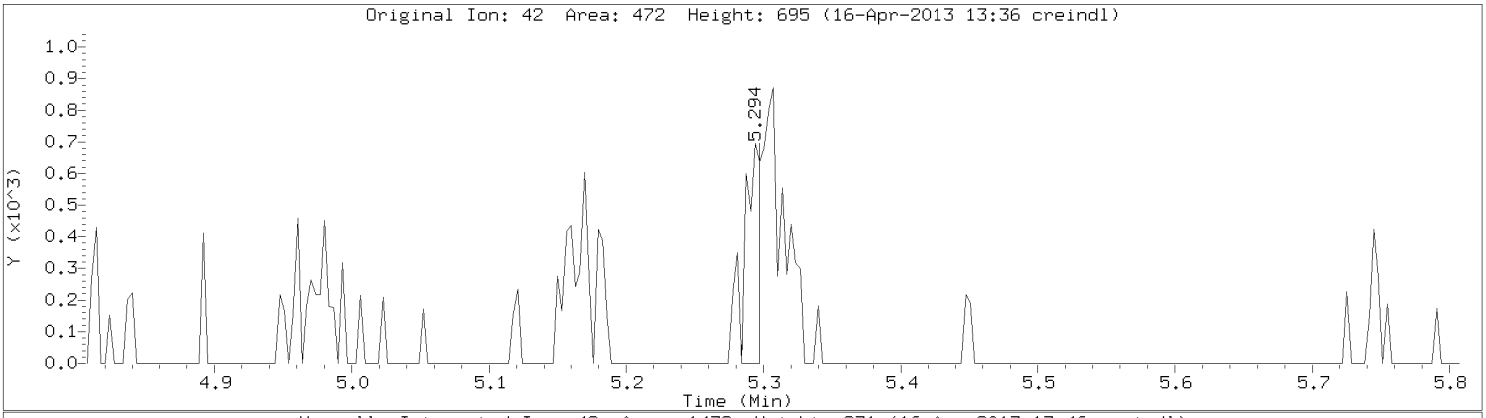


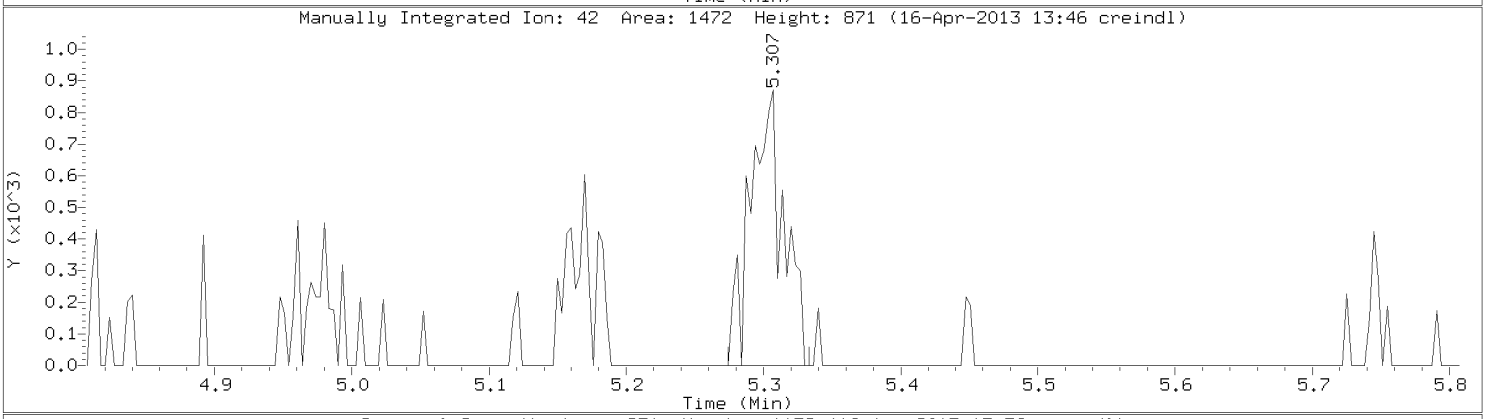
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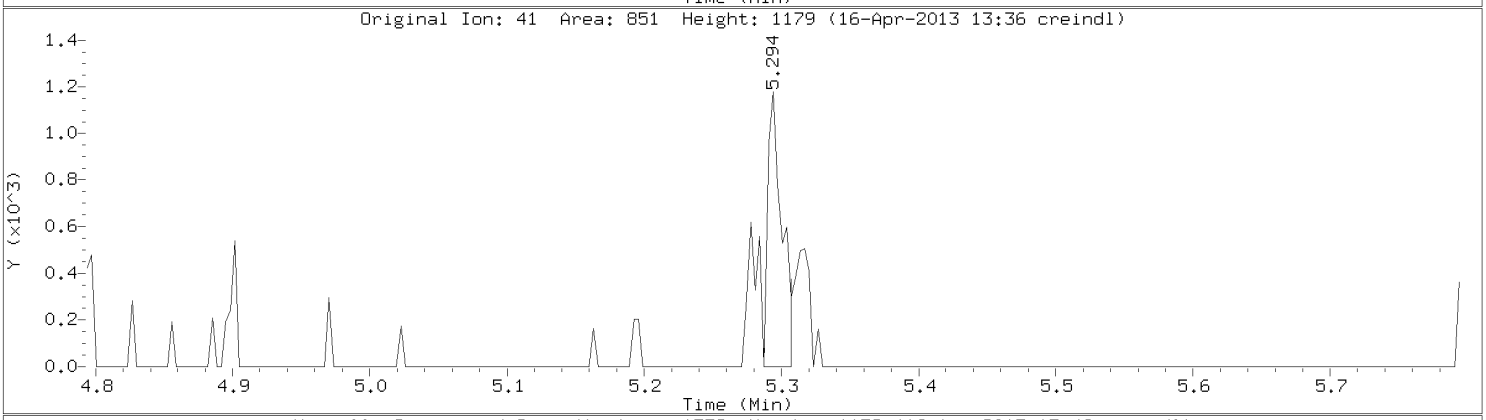


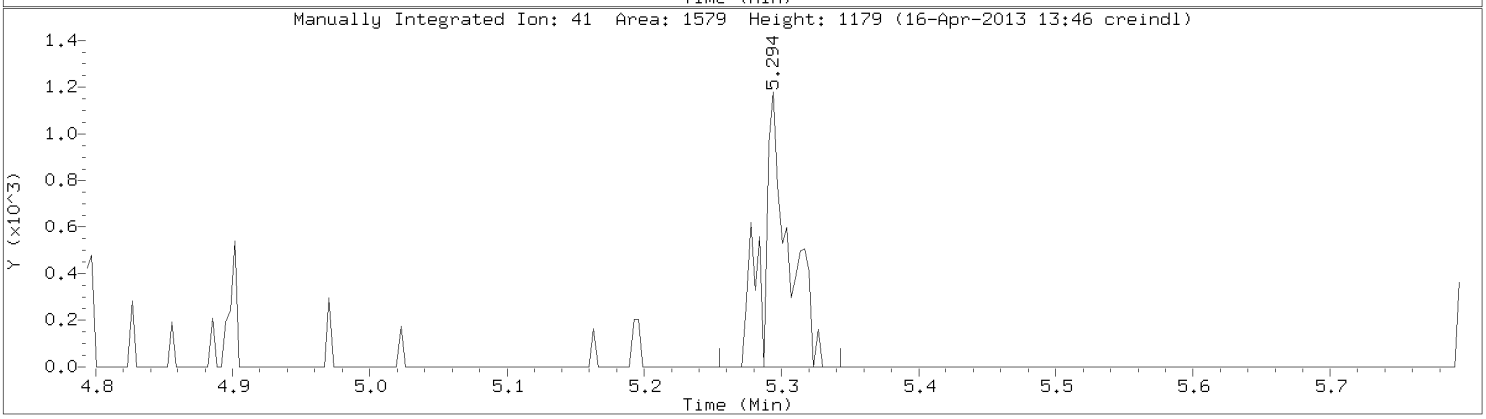
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Tetrahydrofuran
CAS Number: 109-99-9

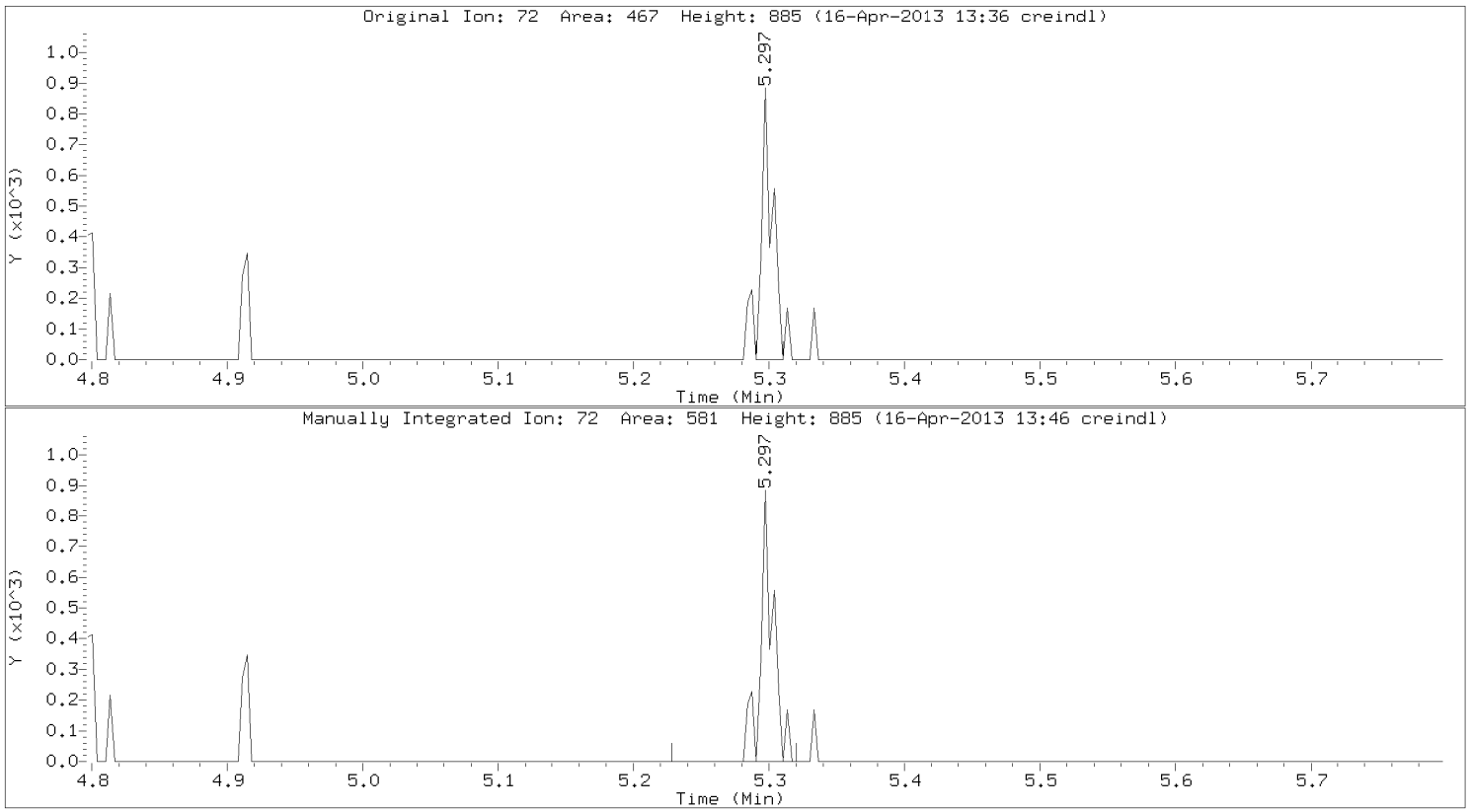






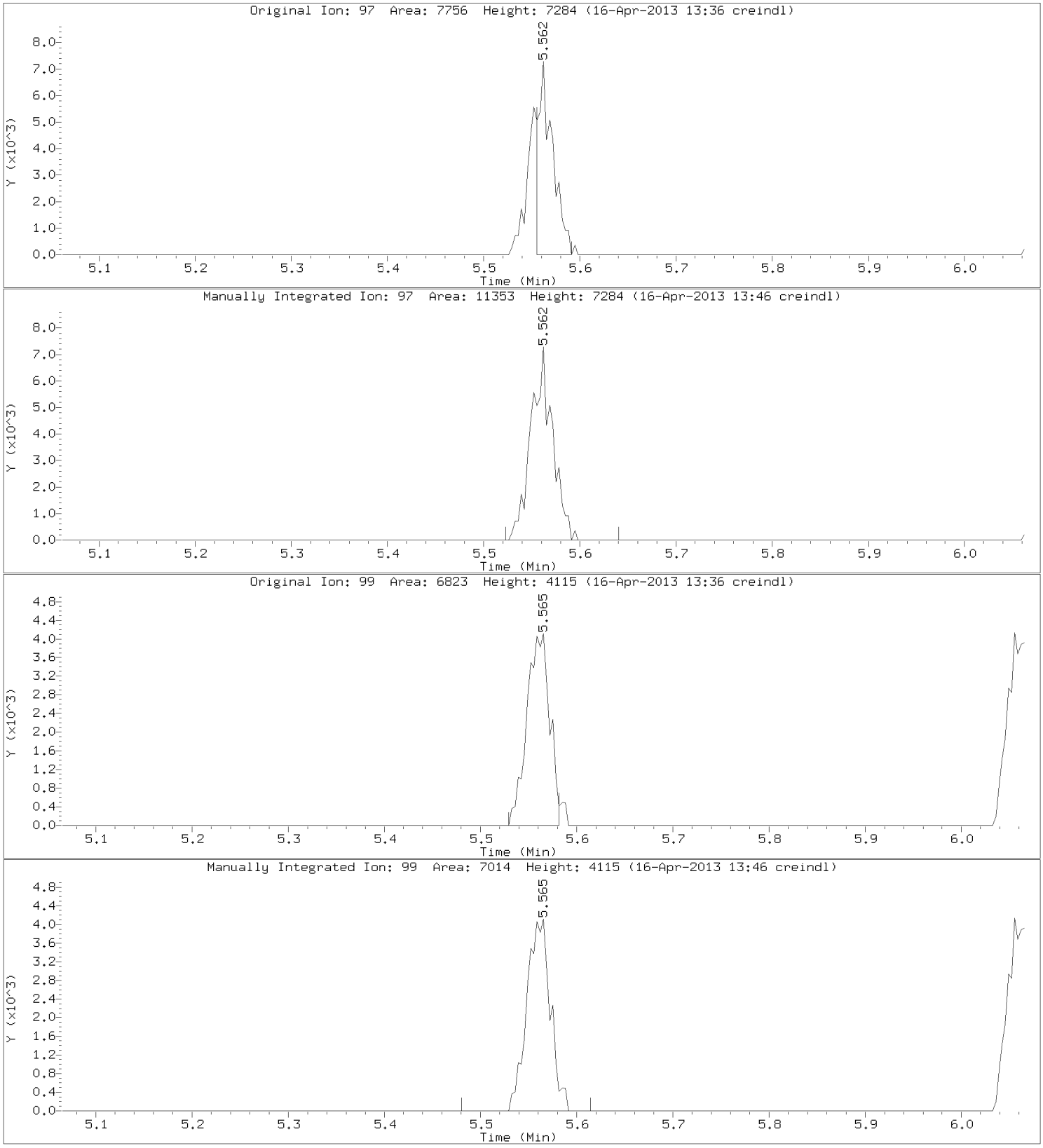


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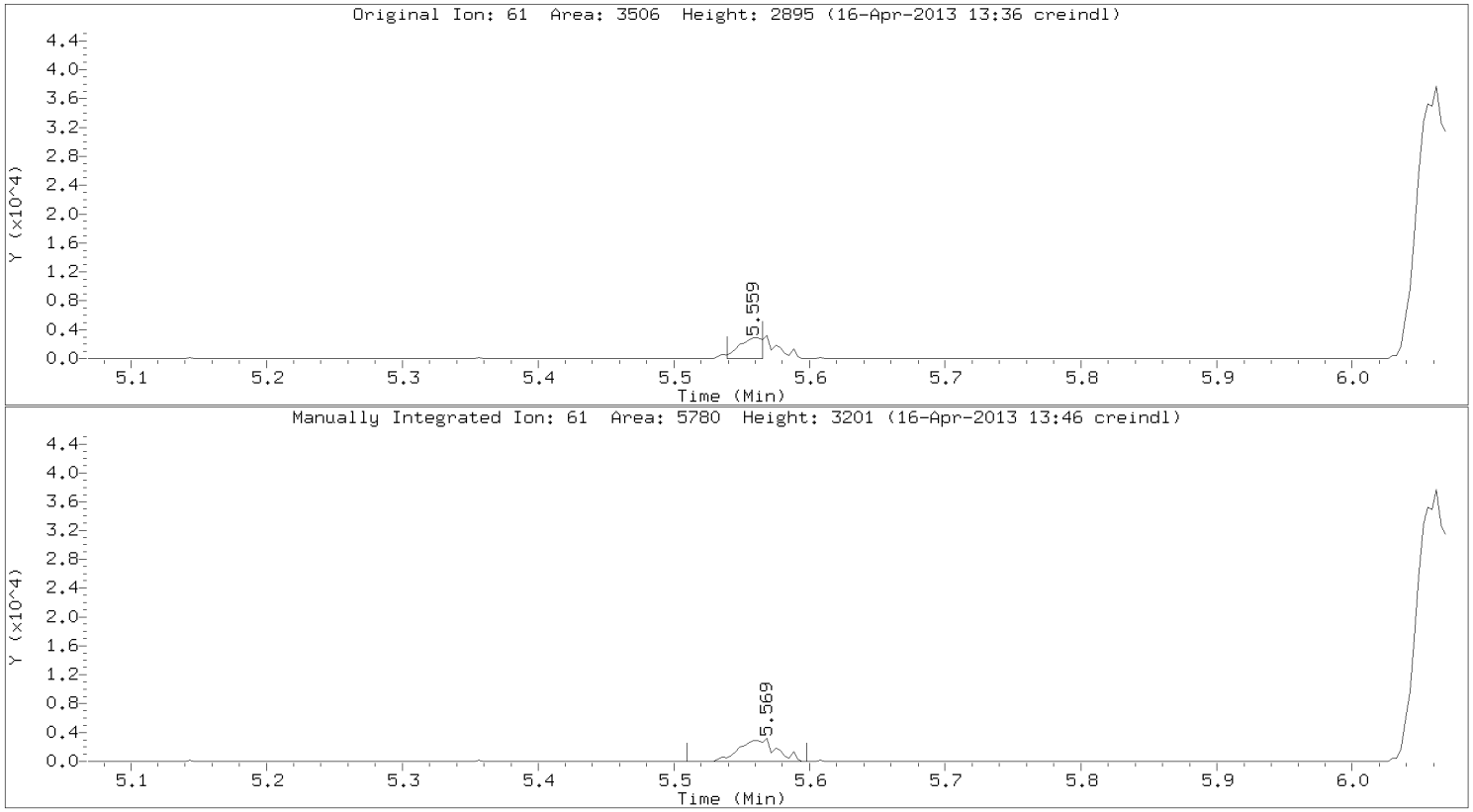


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,1,1-Trichloroethane
CAS Number: 71-55-6

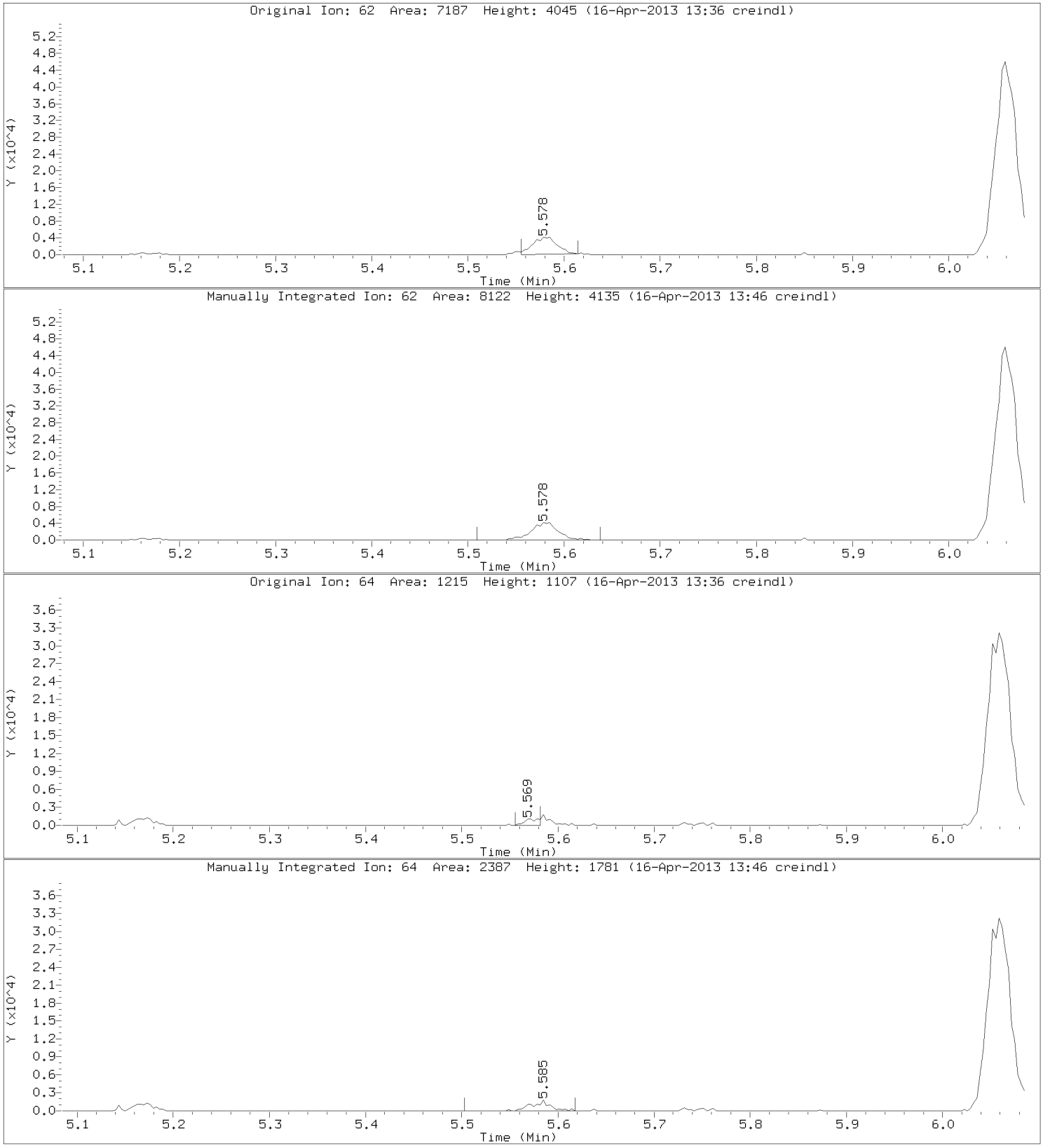


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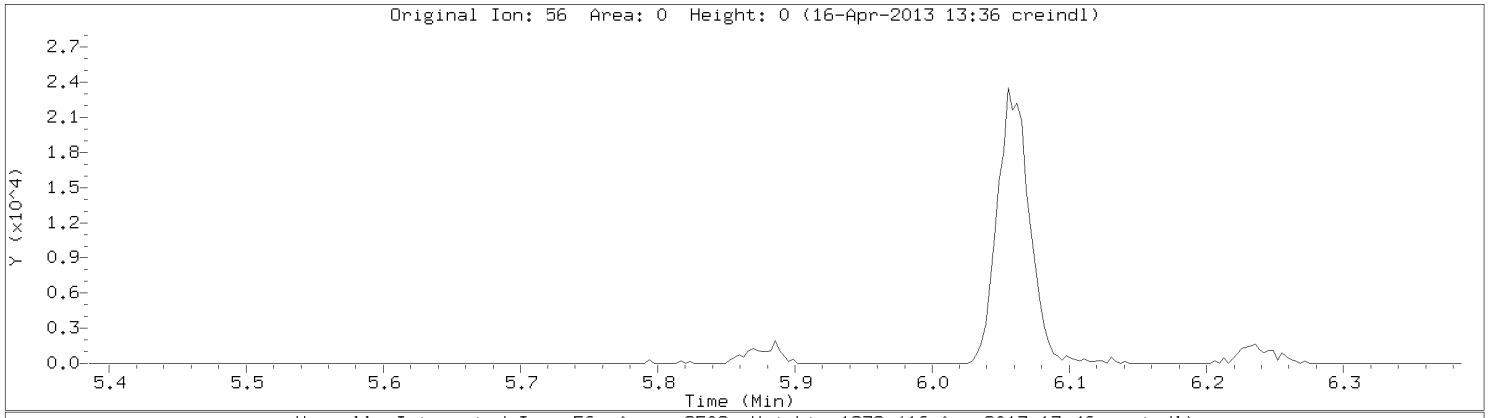
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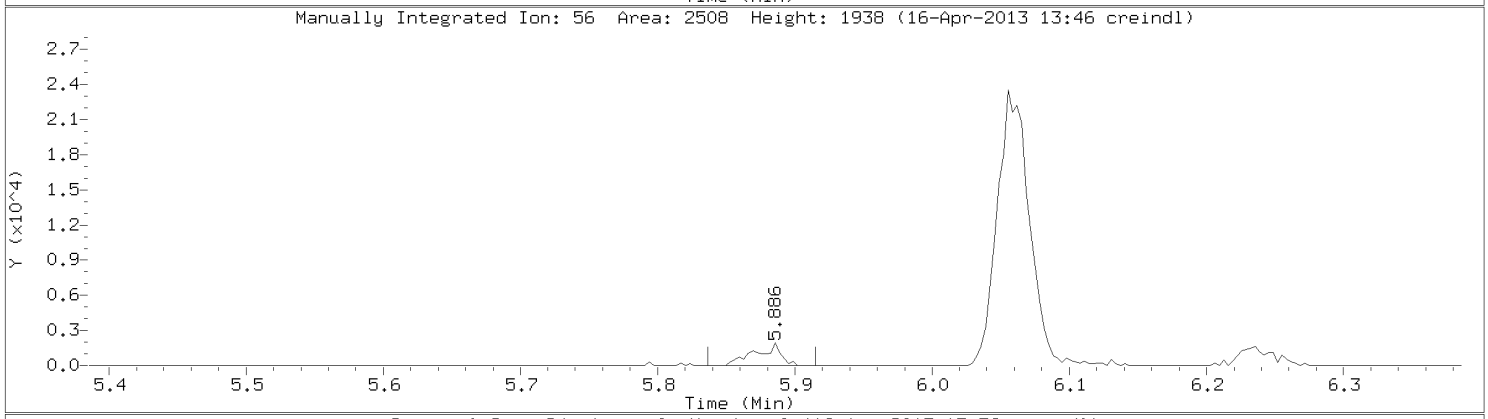
Compound: 1,2-Dichloroethane
CAS Number: 107-06-2

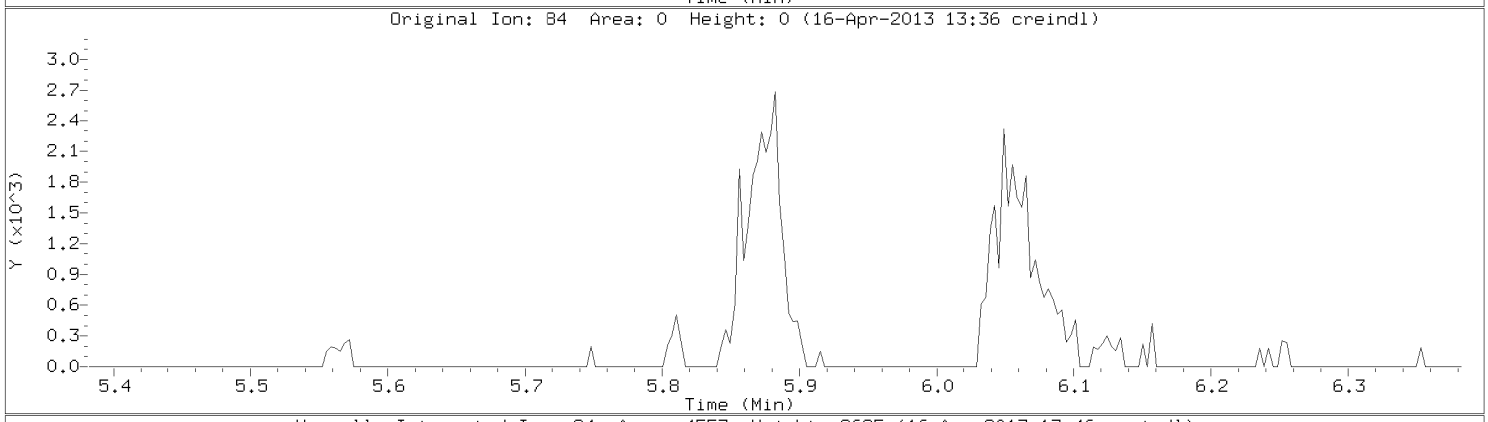


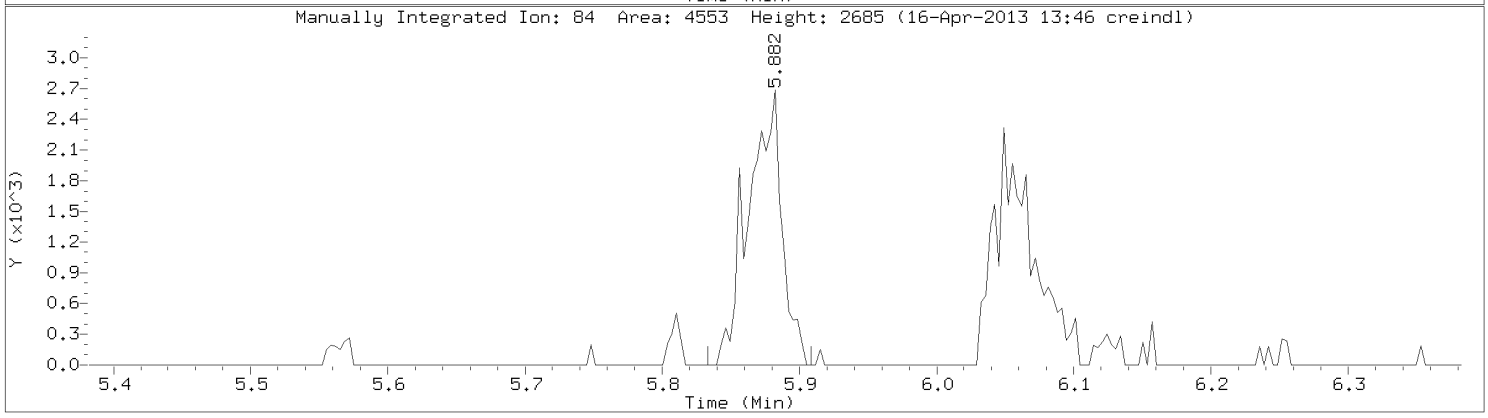
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Cyclohexane
CAS Number: 110-82-7

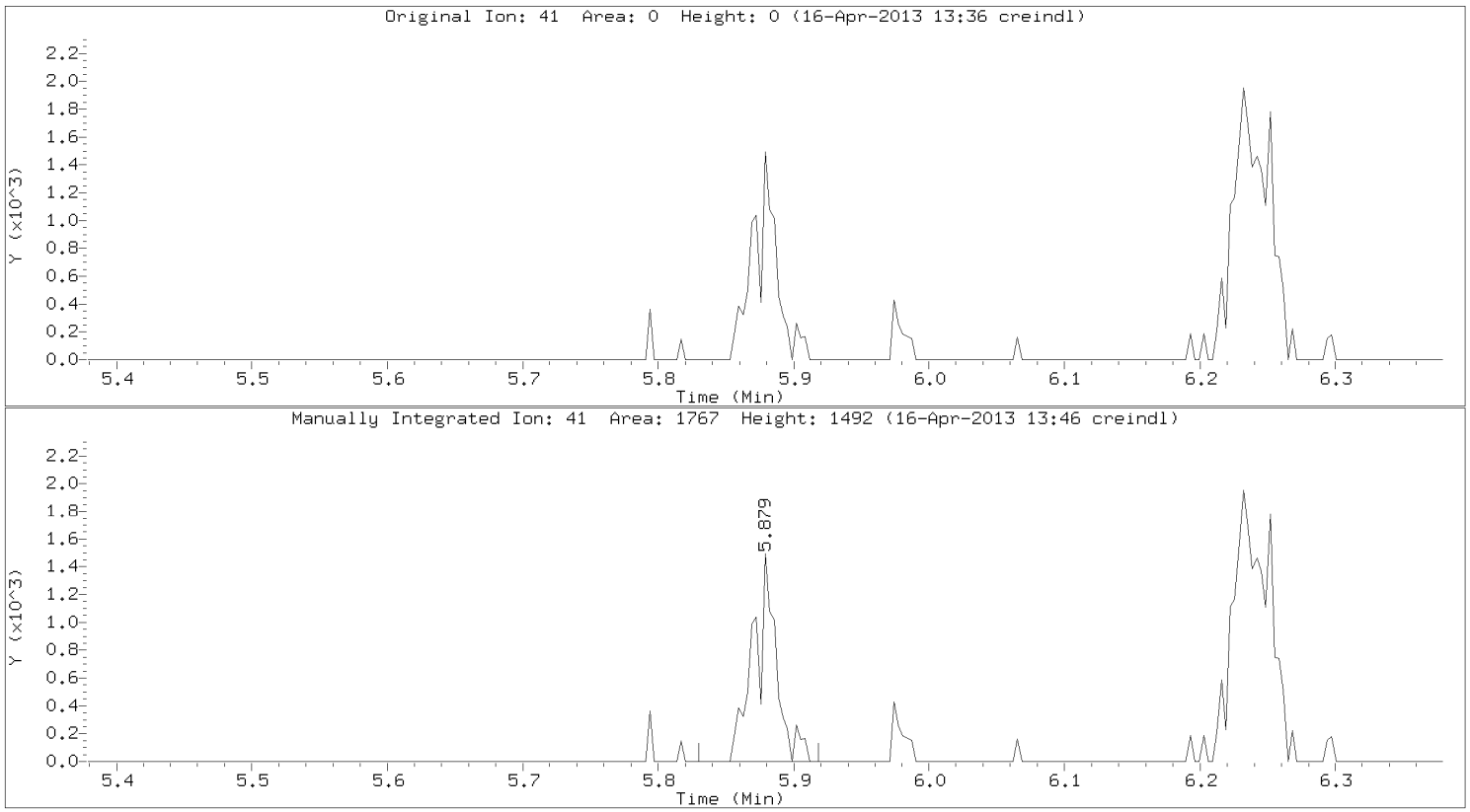






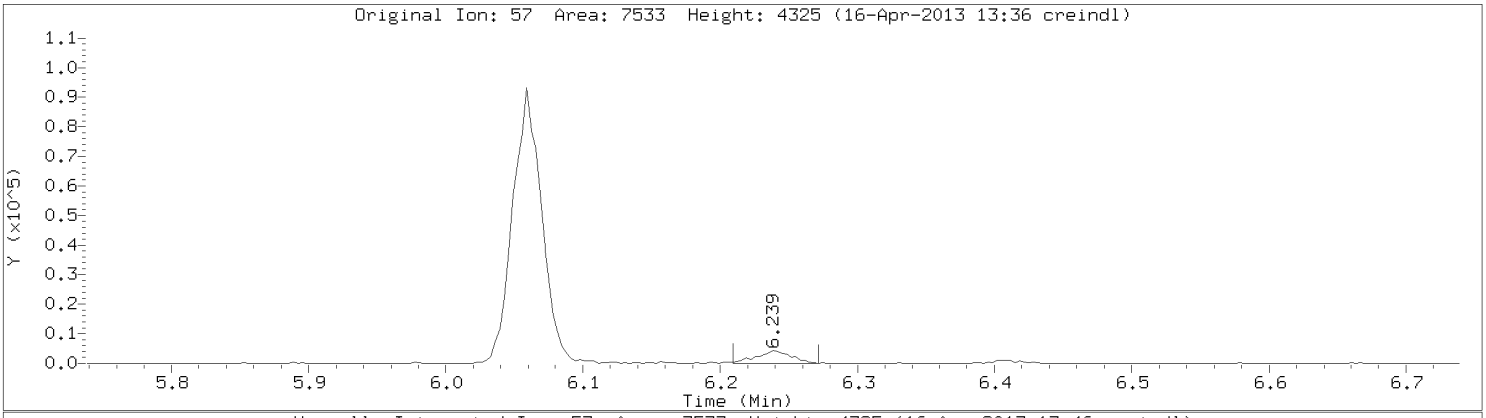


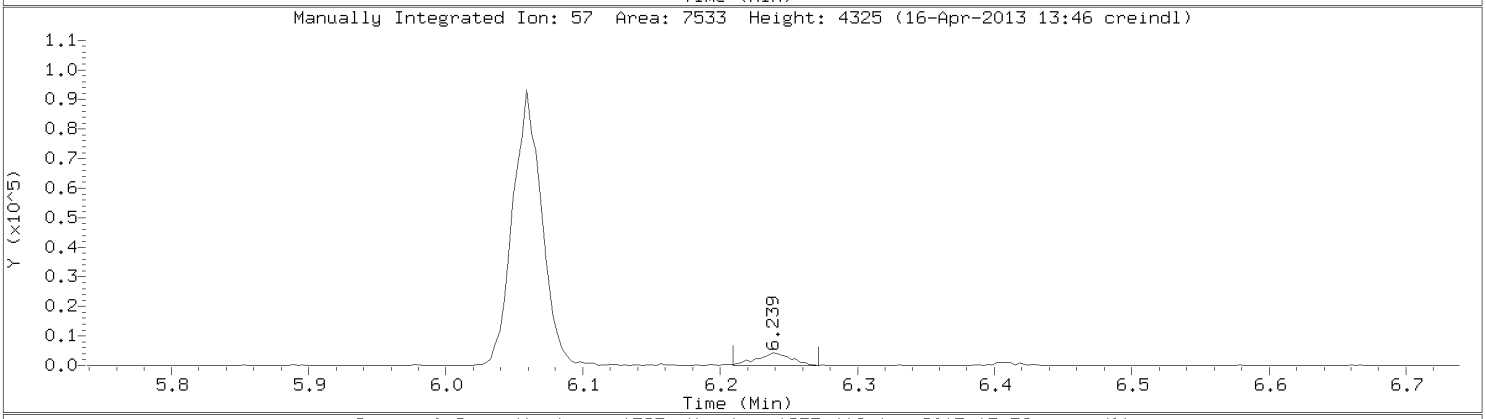
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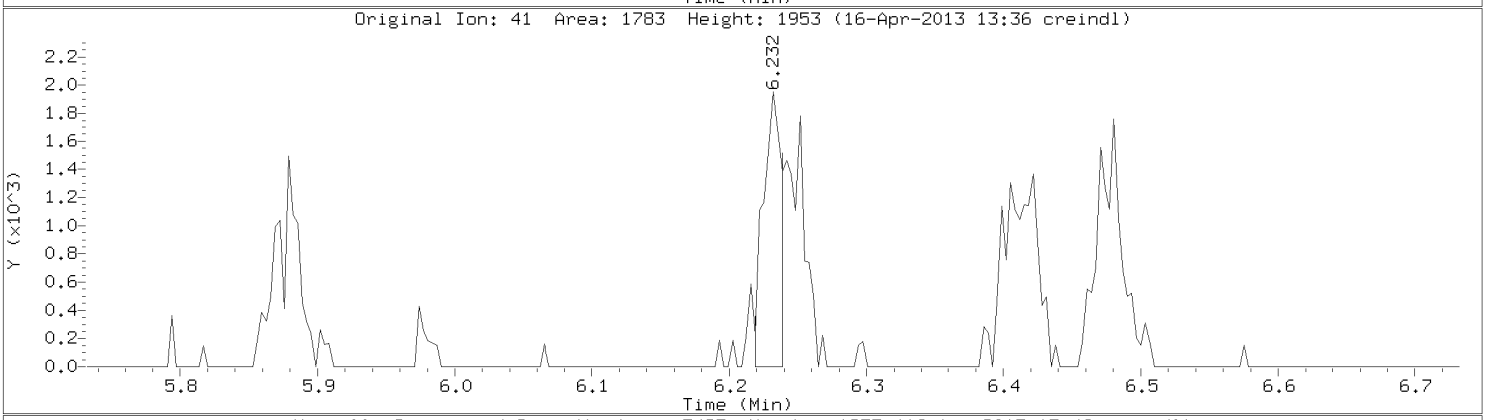


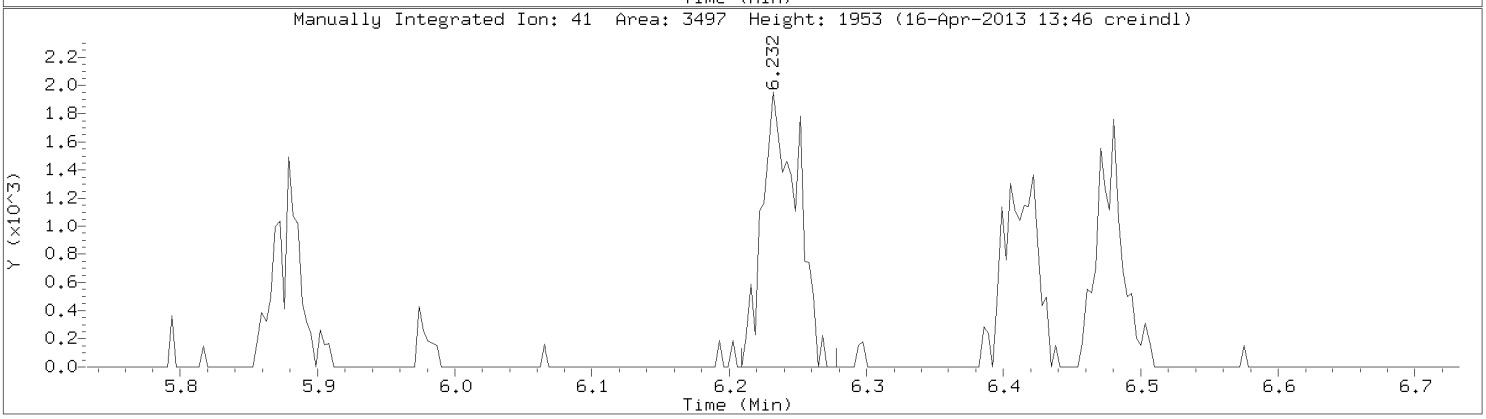
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

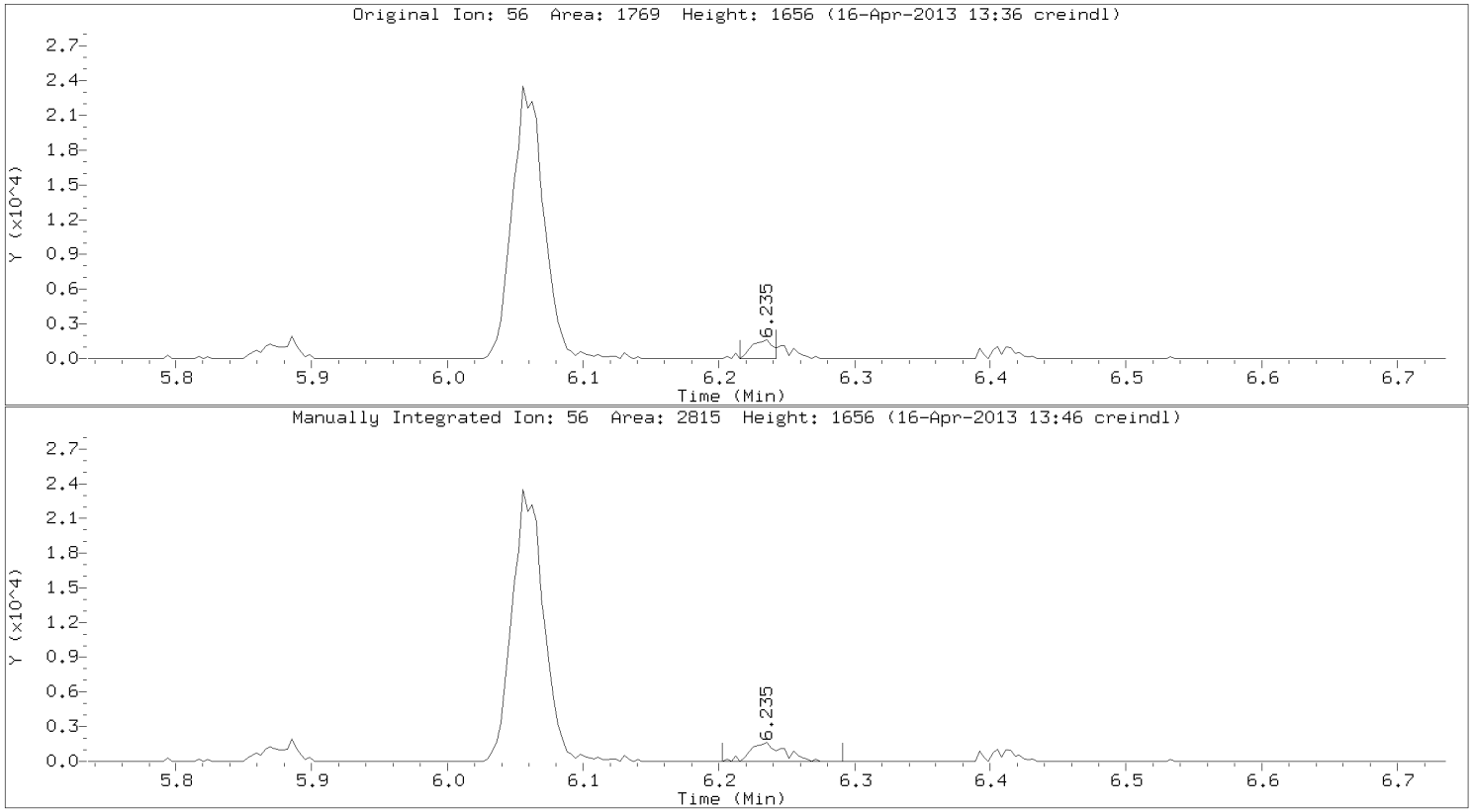






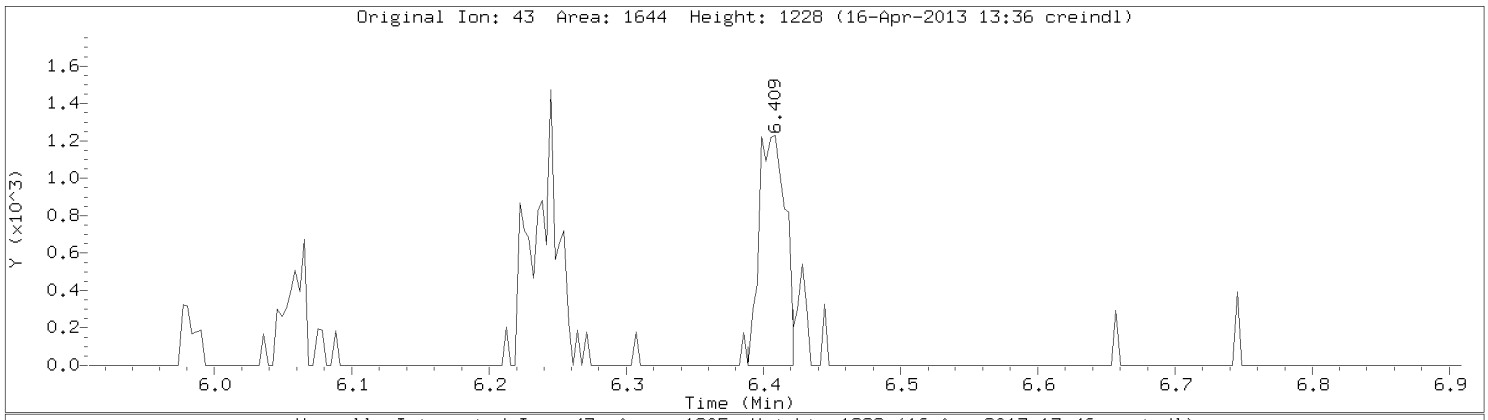


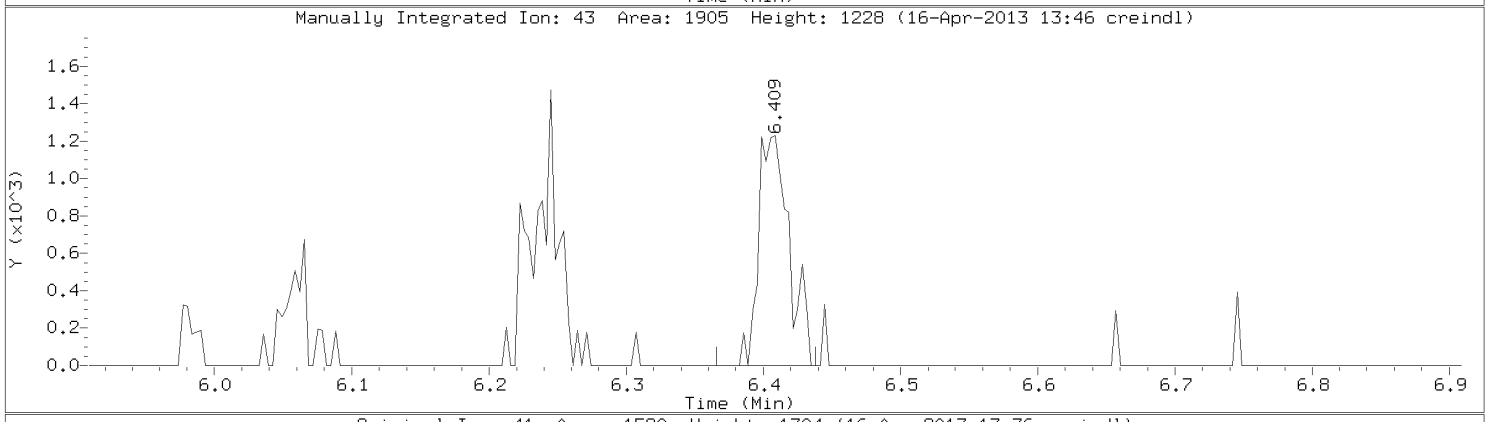
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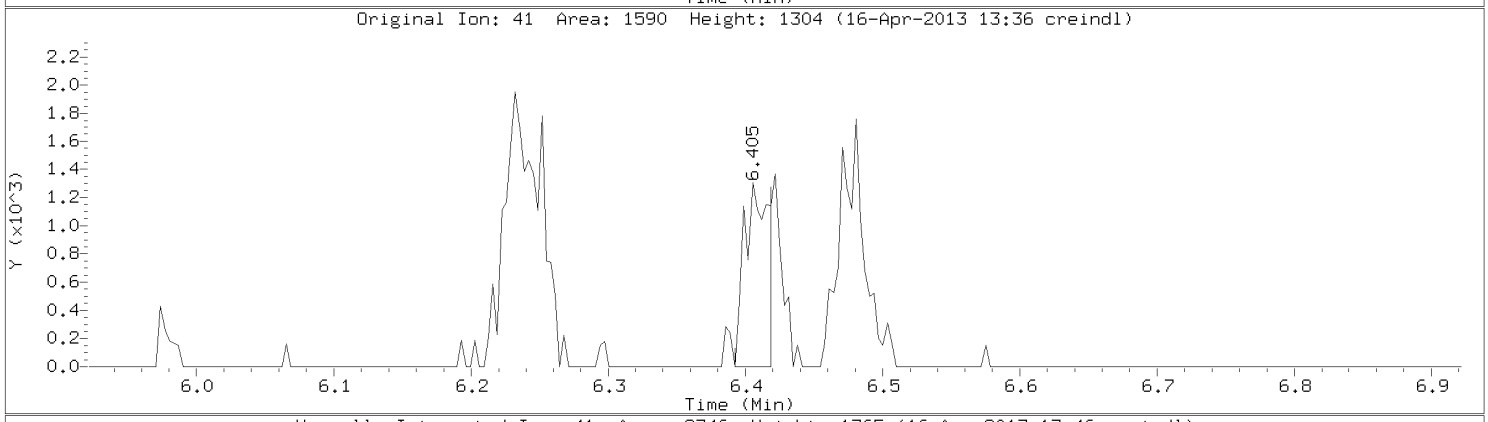


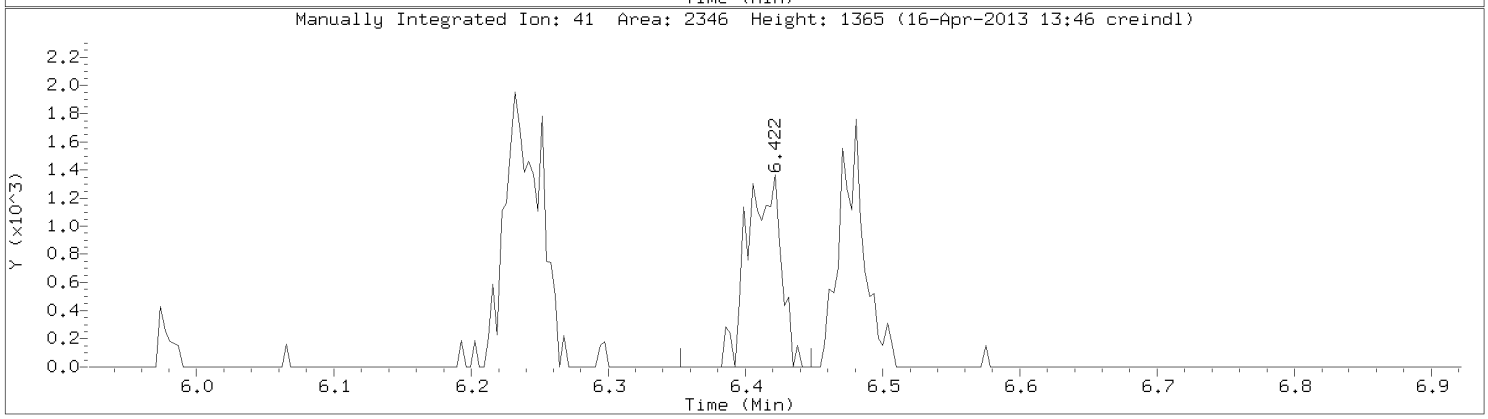
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Heptane
CAS Number: 142-82-5



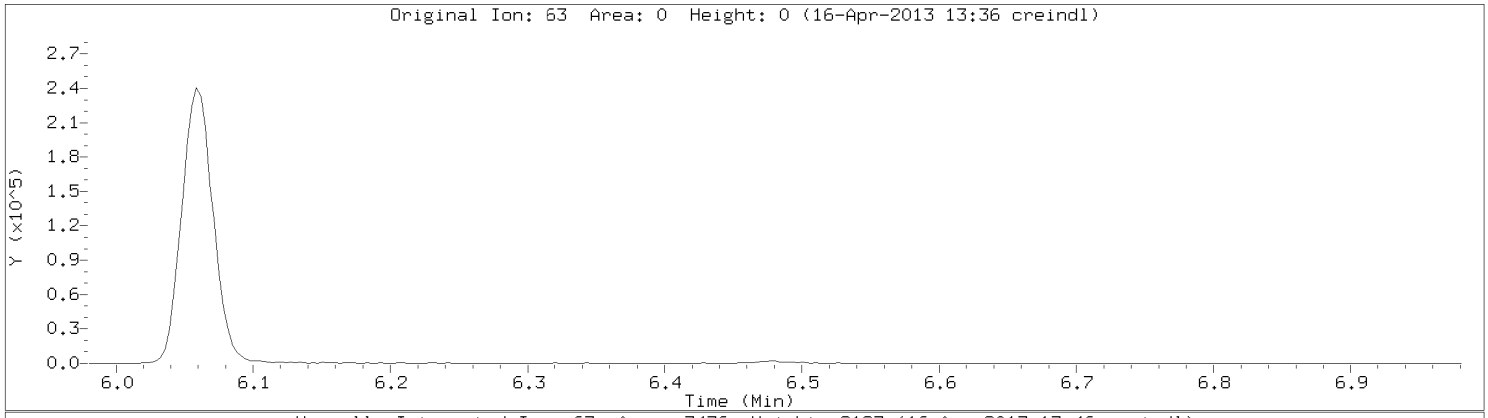


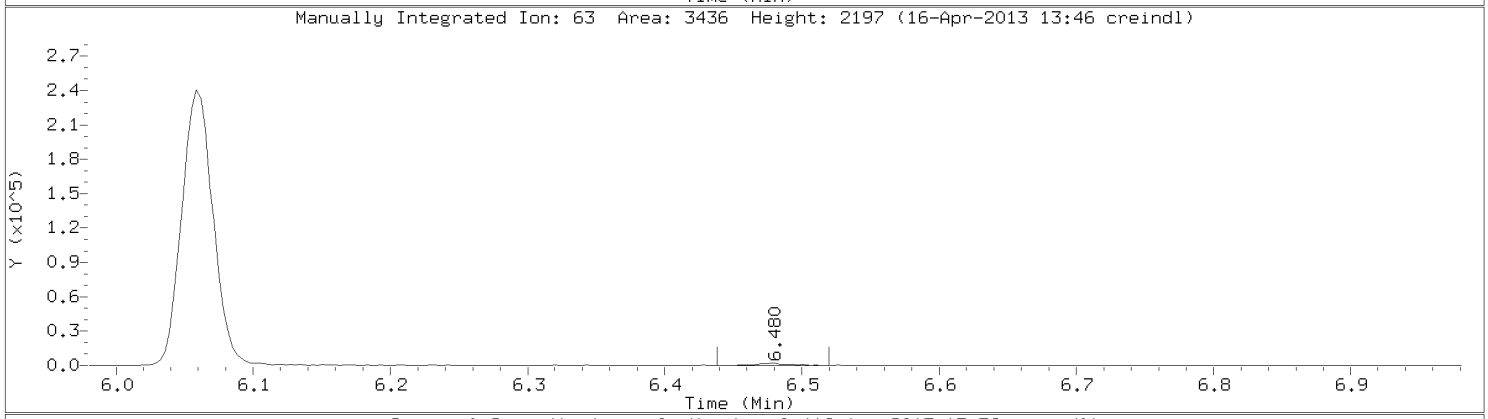


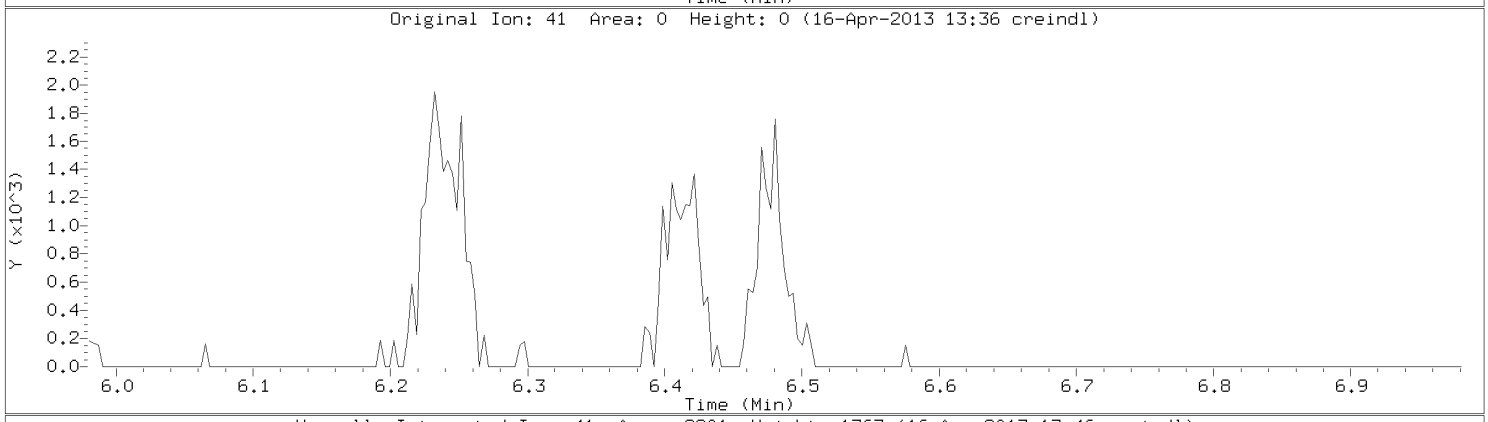


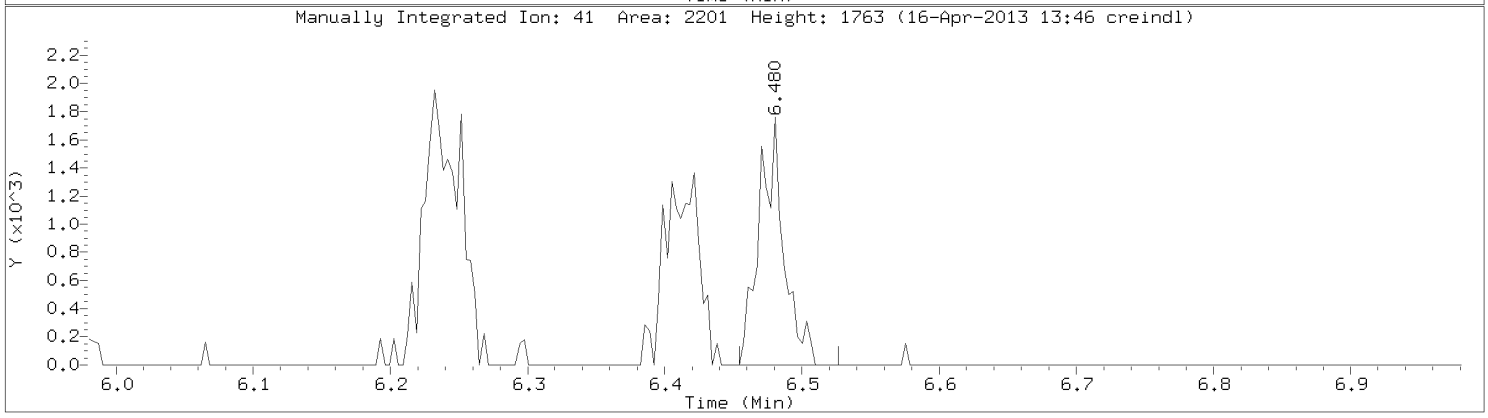
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

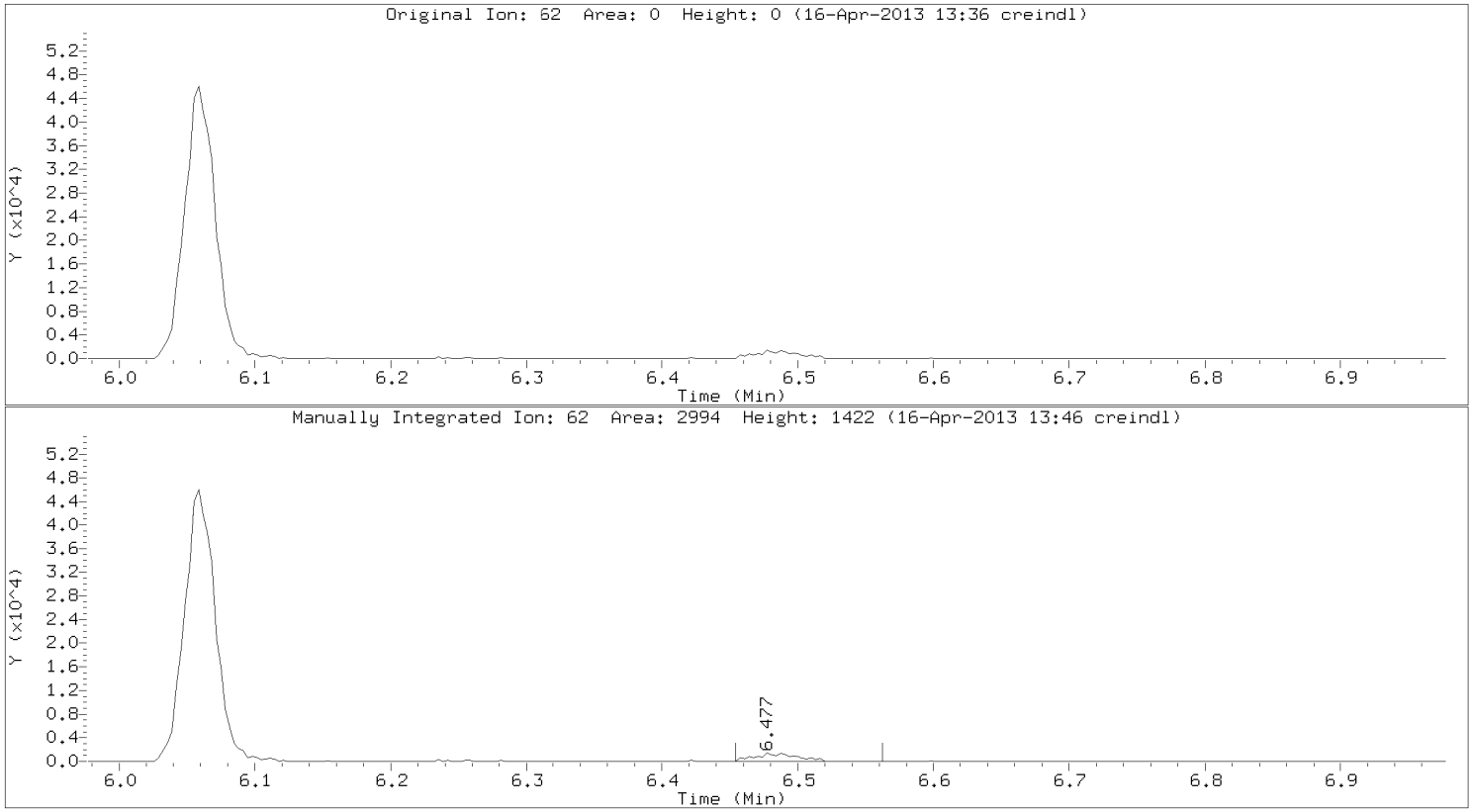






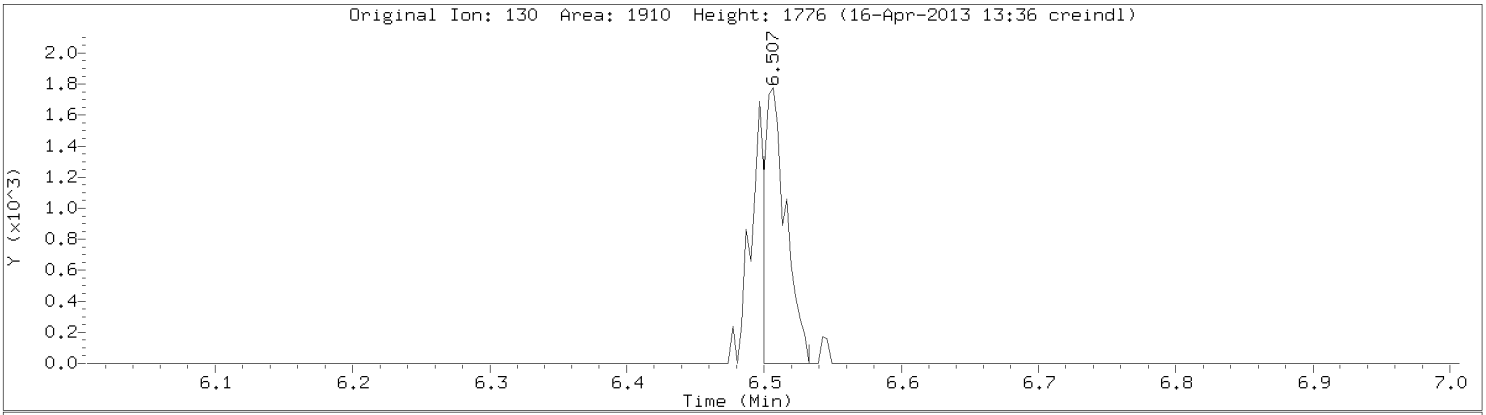


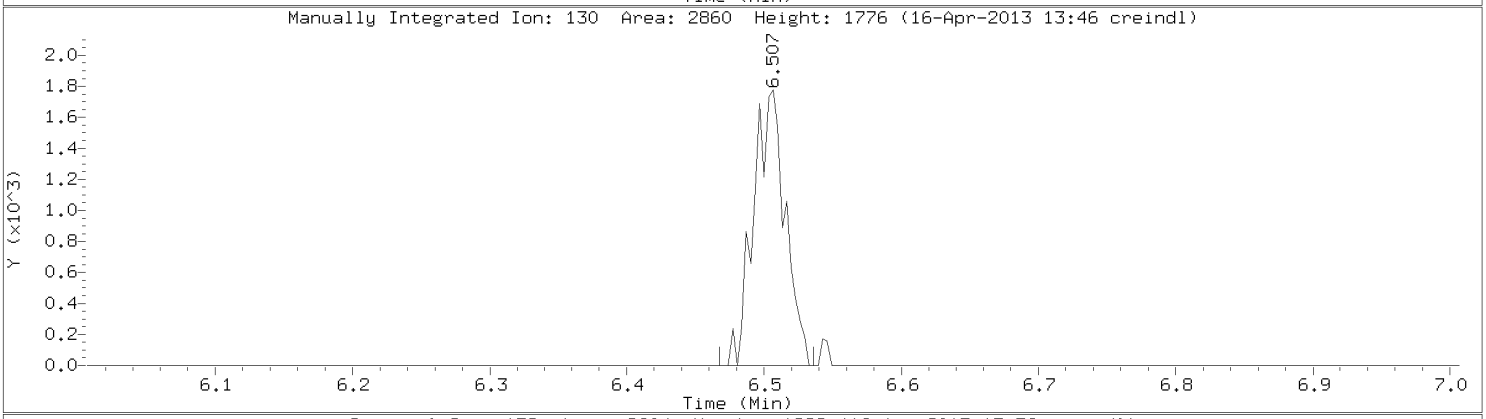
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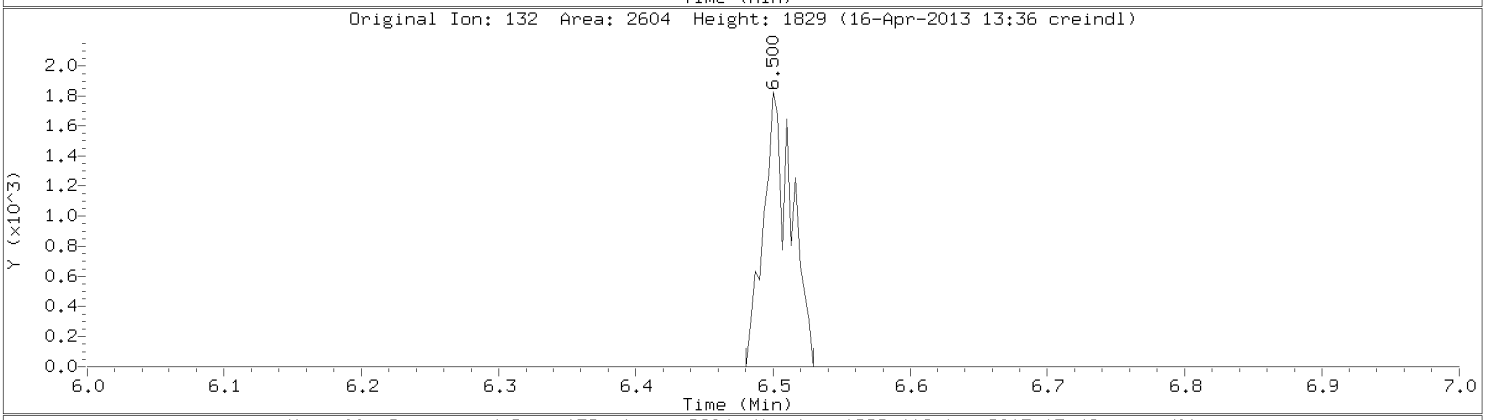


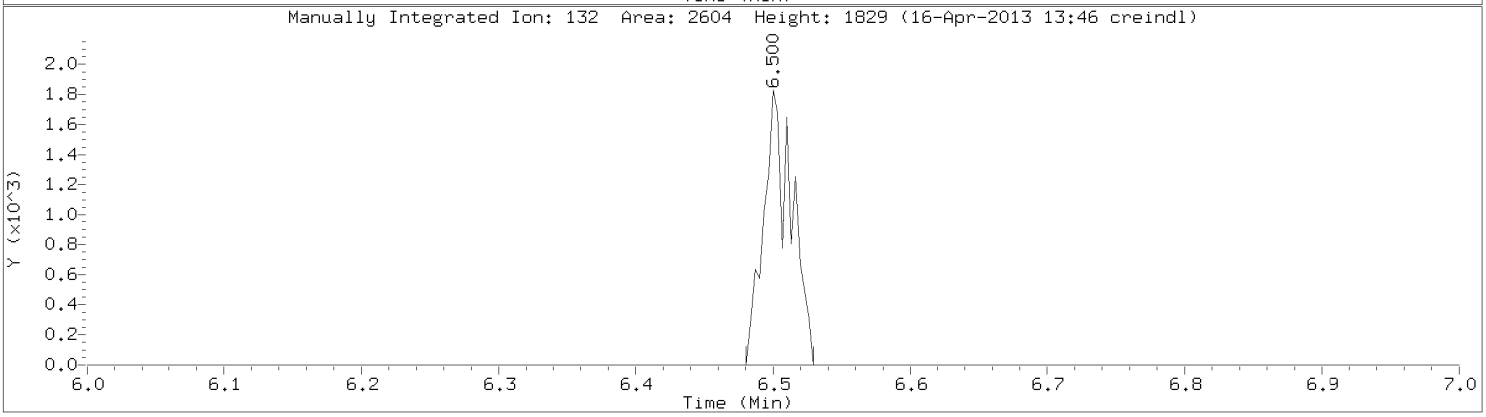
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Trichloroethene
CAS Number: 79-01-6

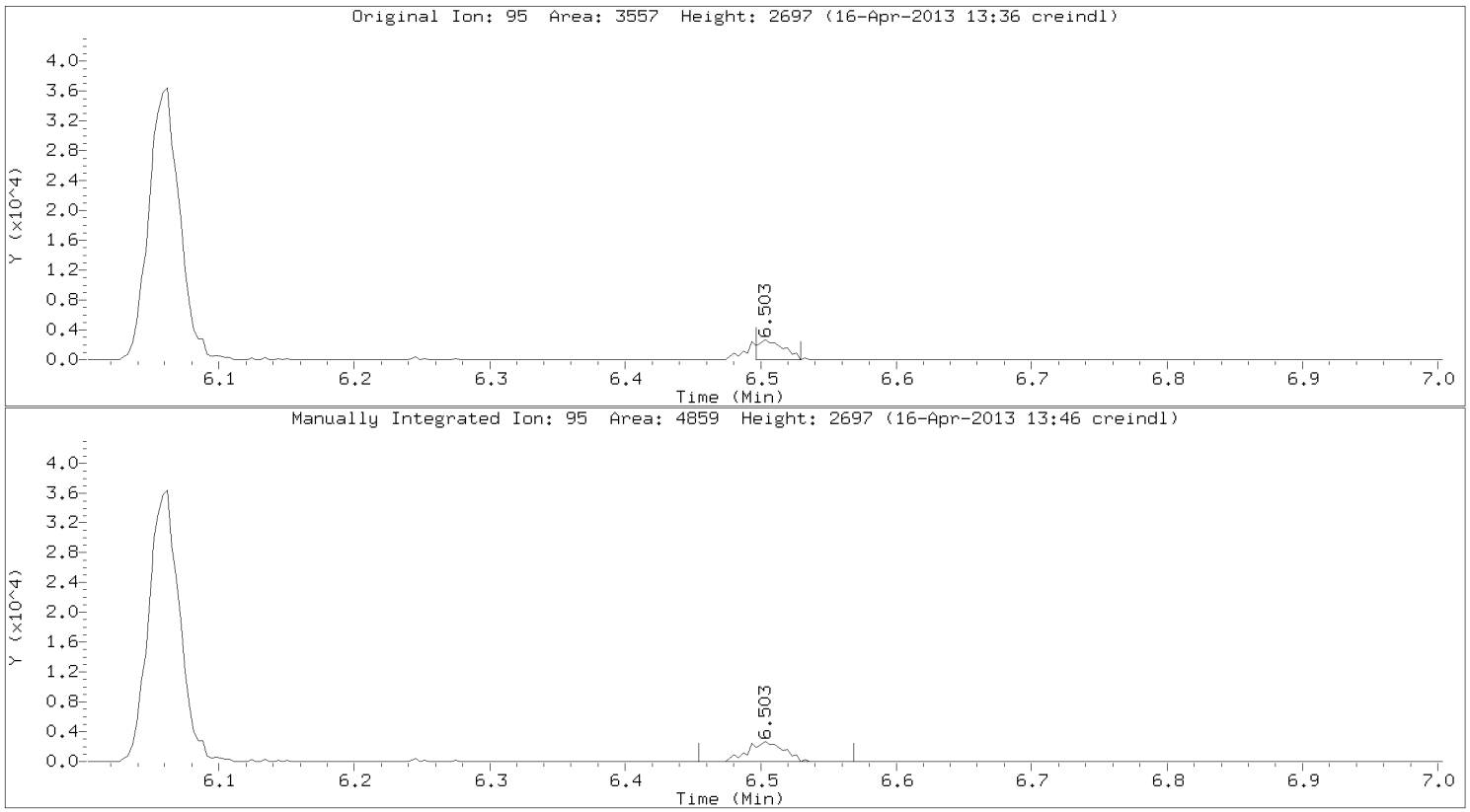






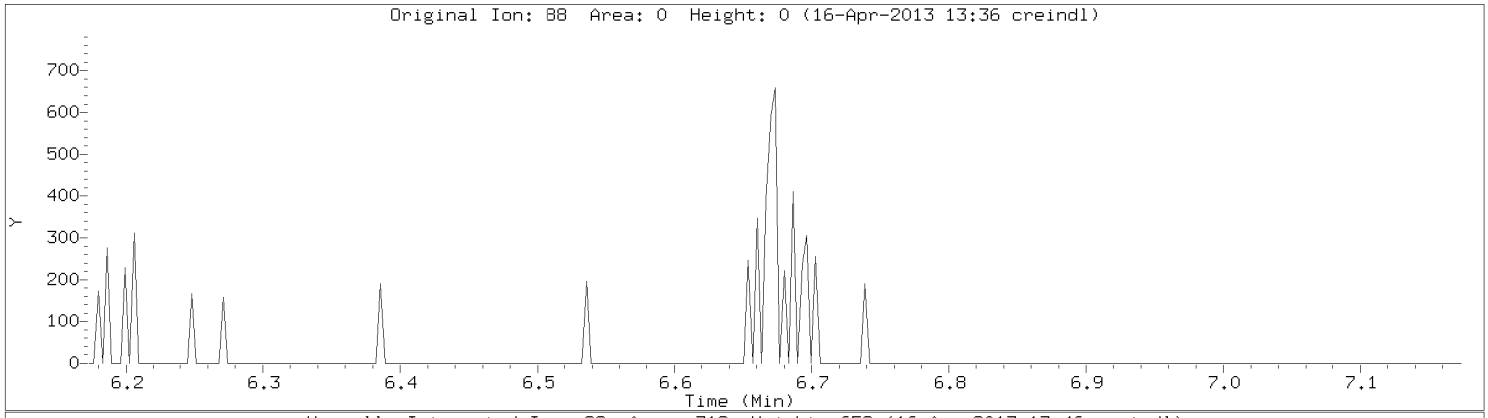


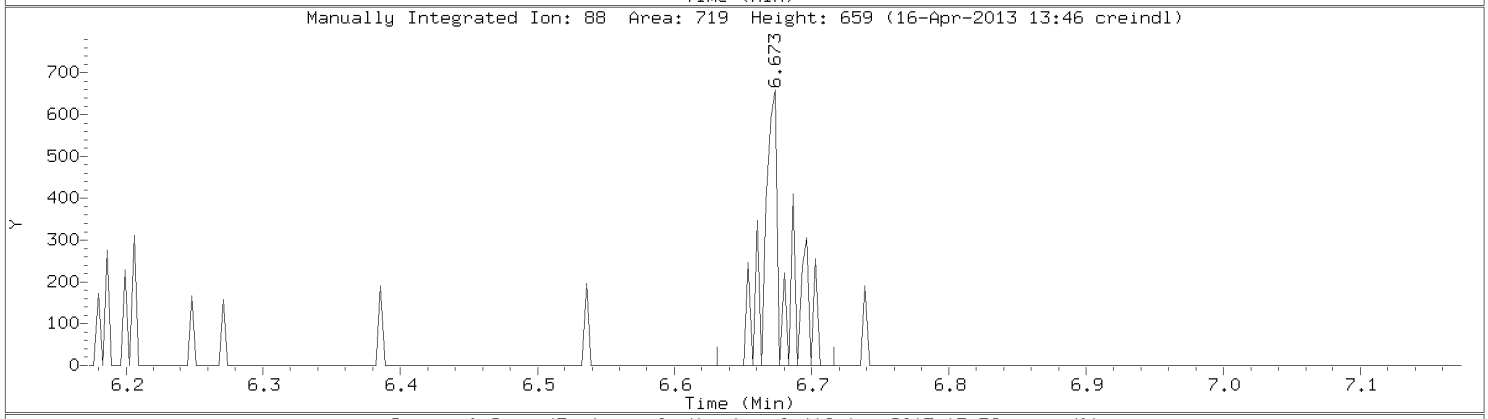
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Lab Sample ID: ICAL1

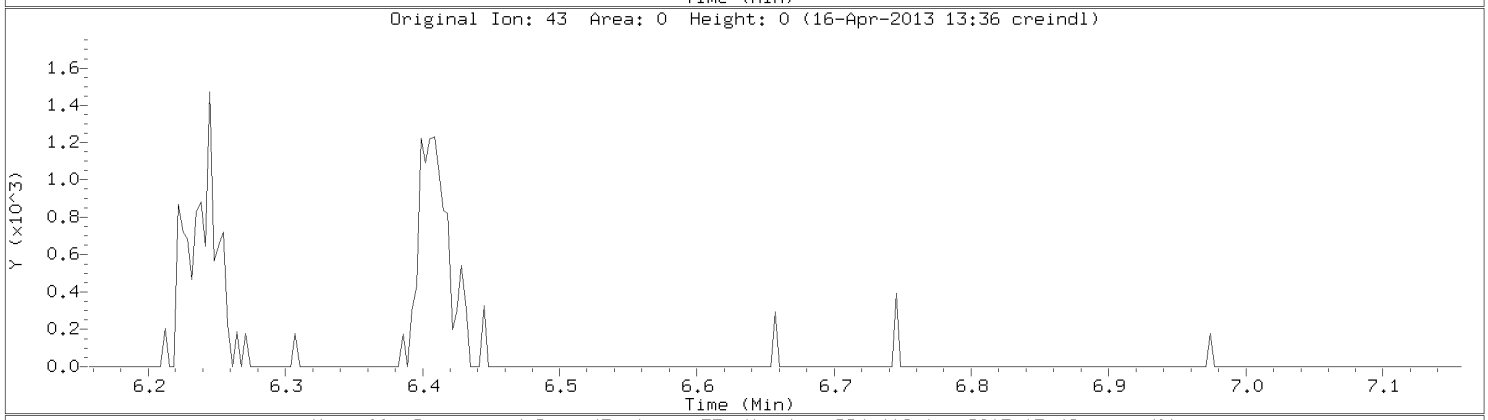


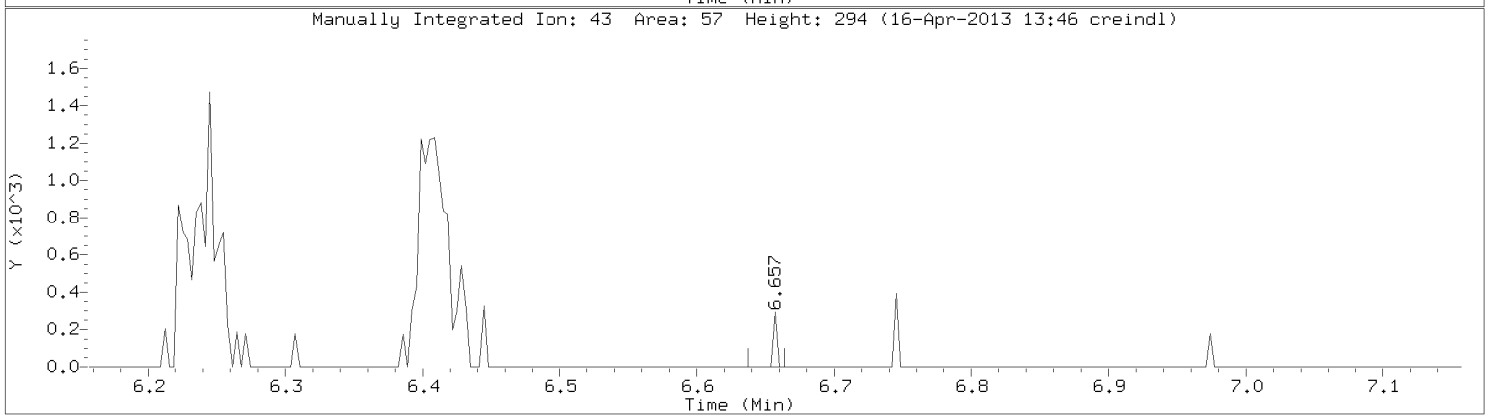
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,4-Dioxane
CAS Number: 123-91-1



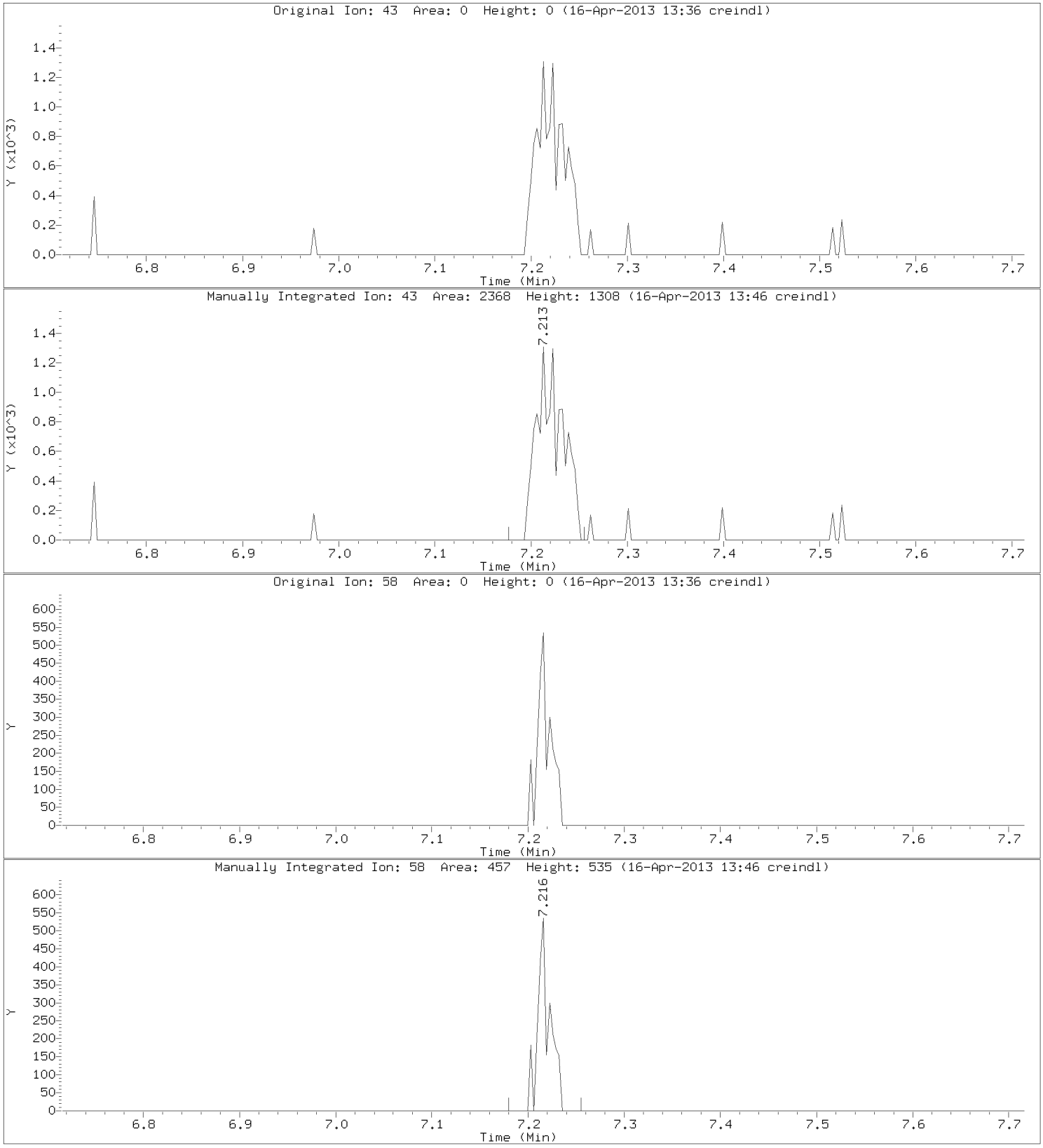




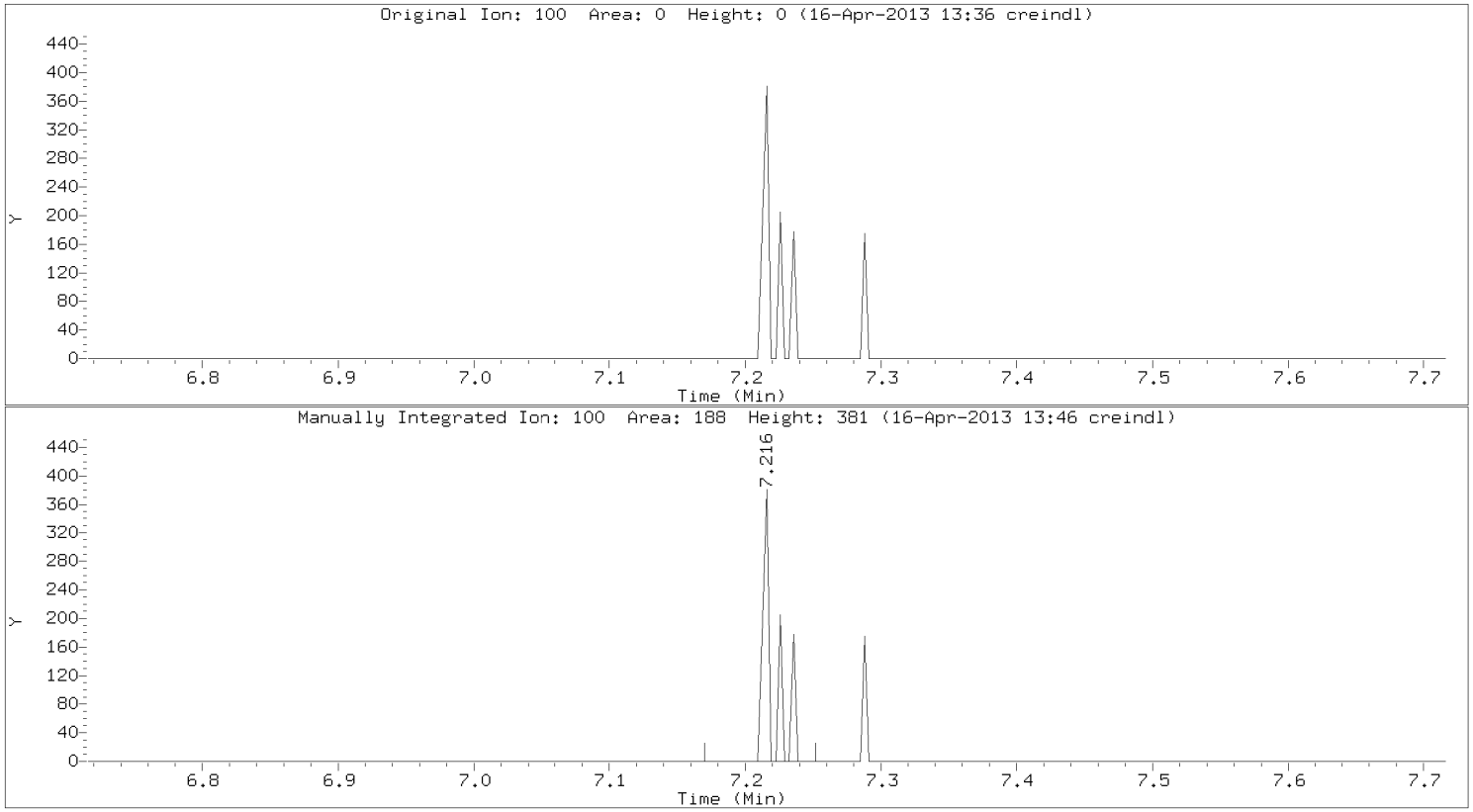


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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Methyl Isobutyl Ketone
CAS Number: 108-10-1

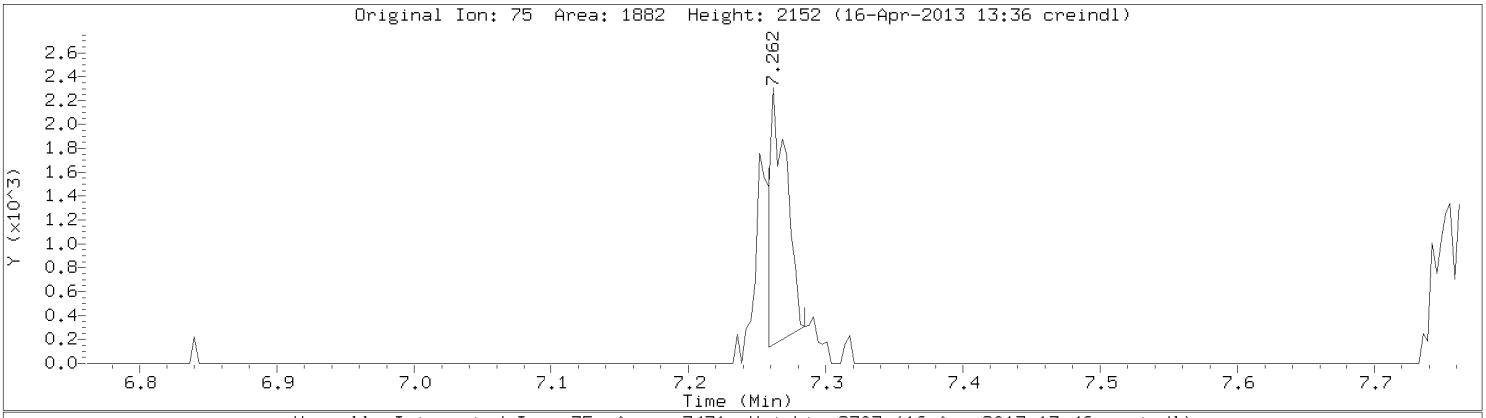


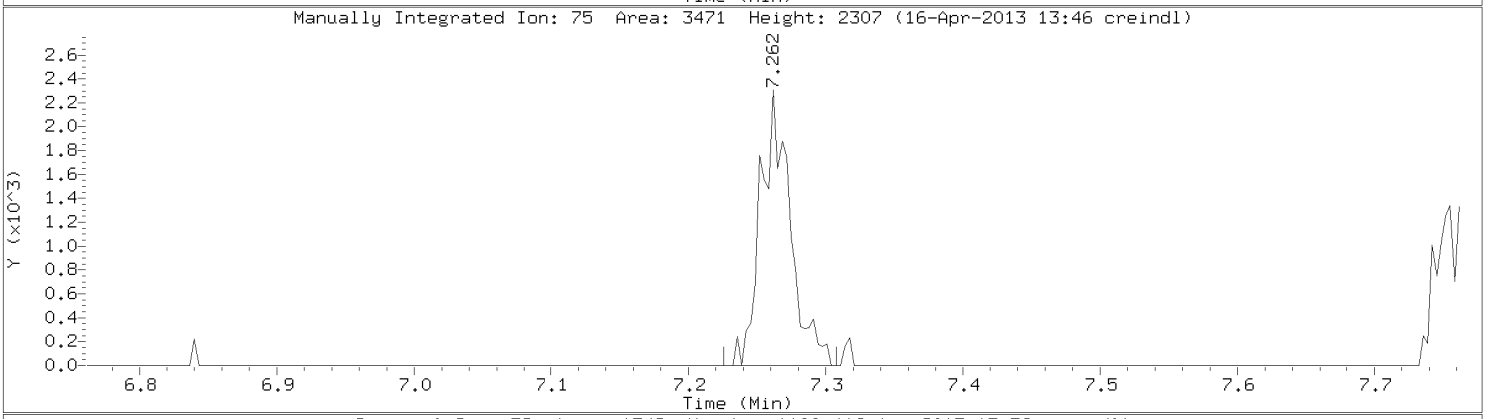
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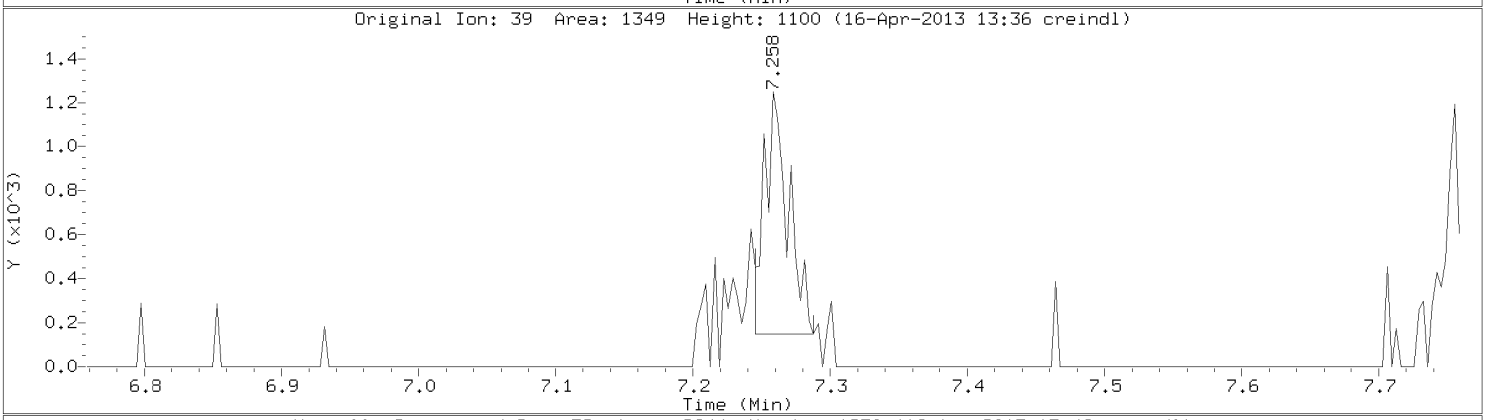


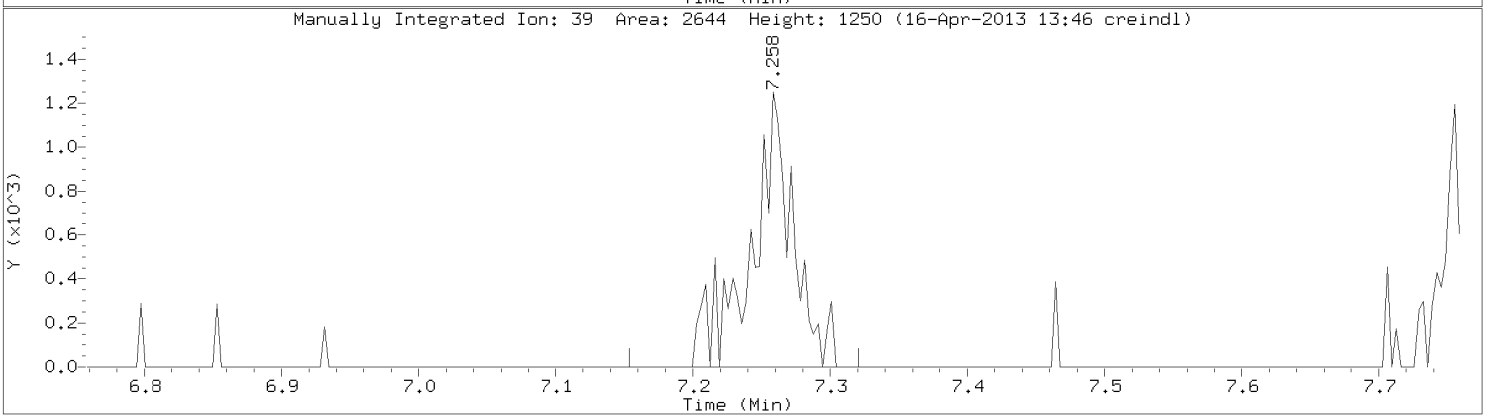
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Lab Sample ID: ICAL1

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5

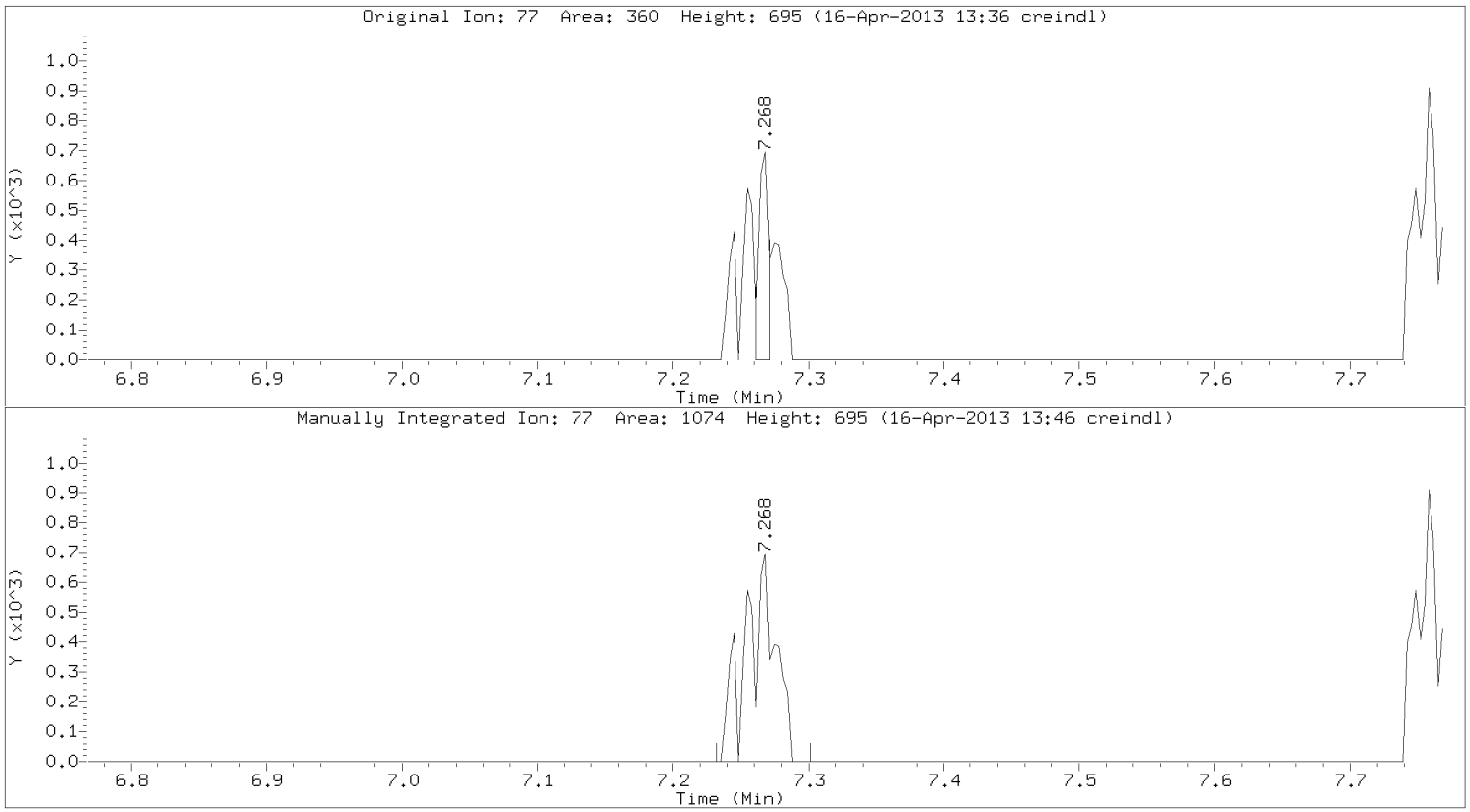






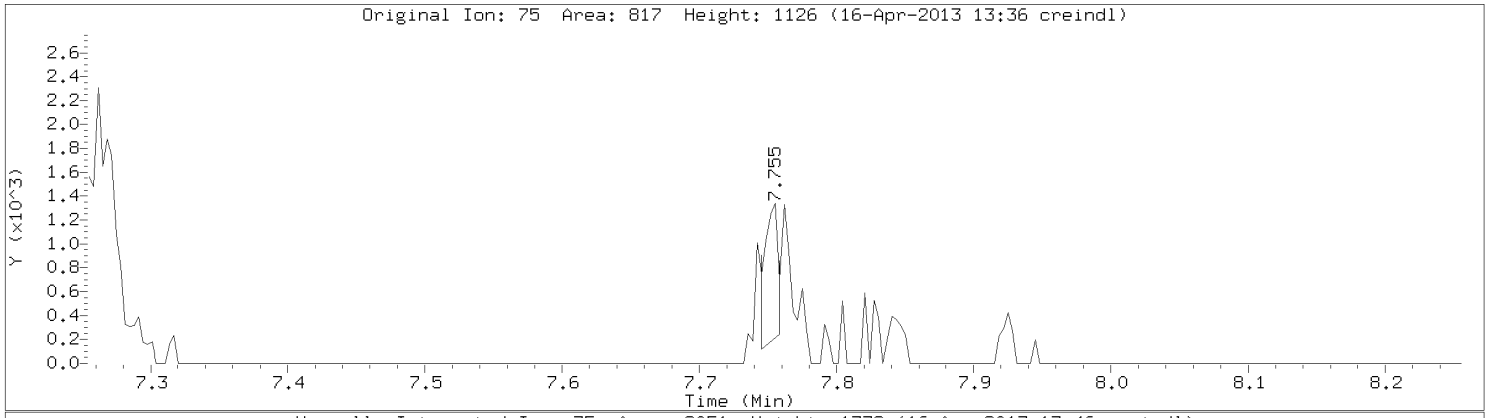


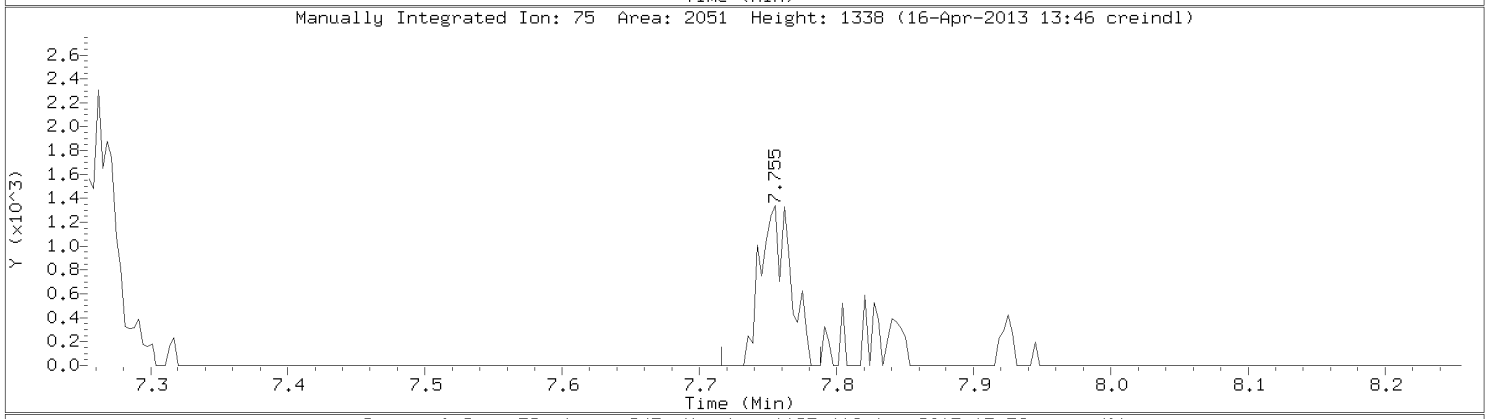
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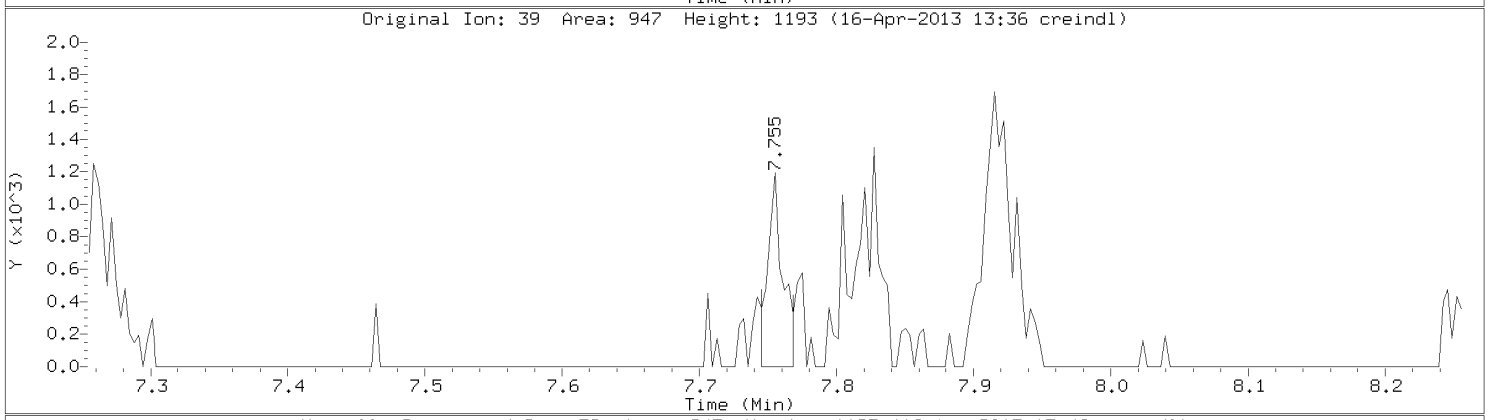


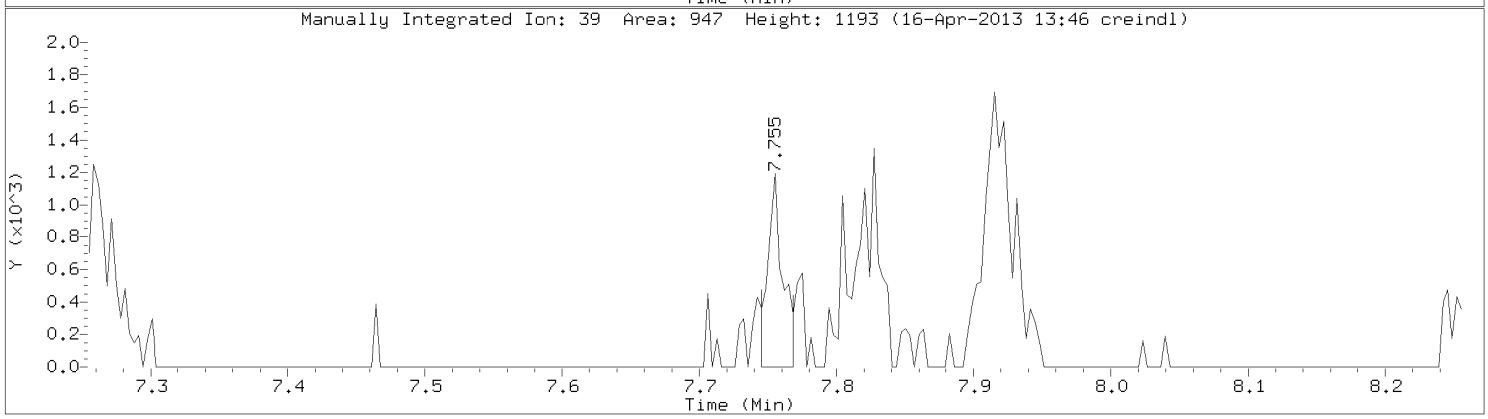
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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: trans-1,3-Dichloropropene
CAS Number: 10061-02-6

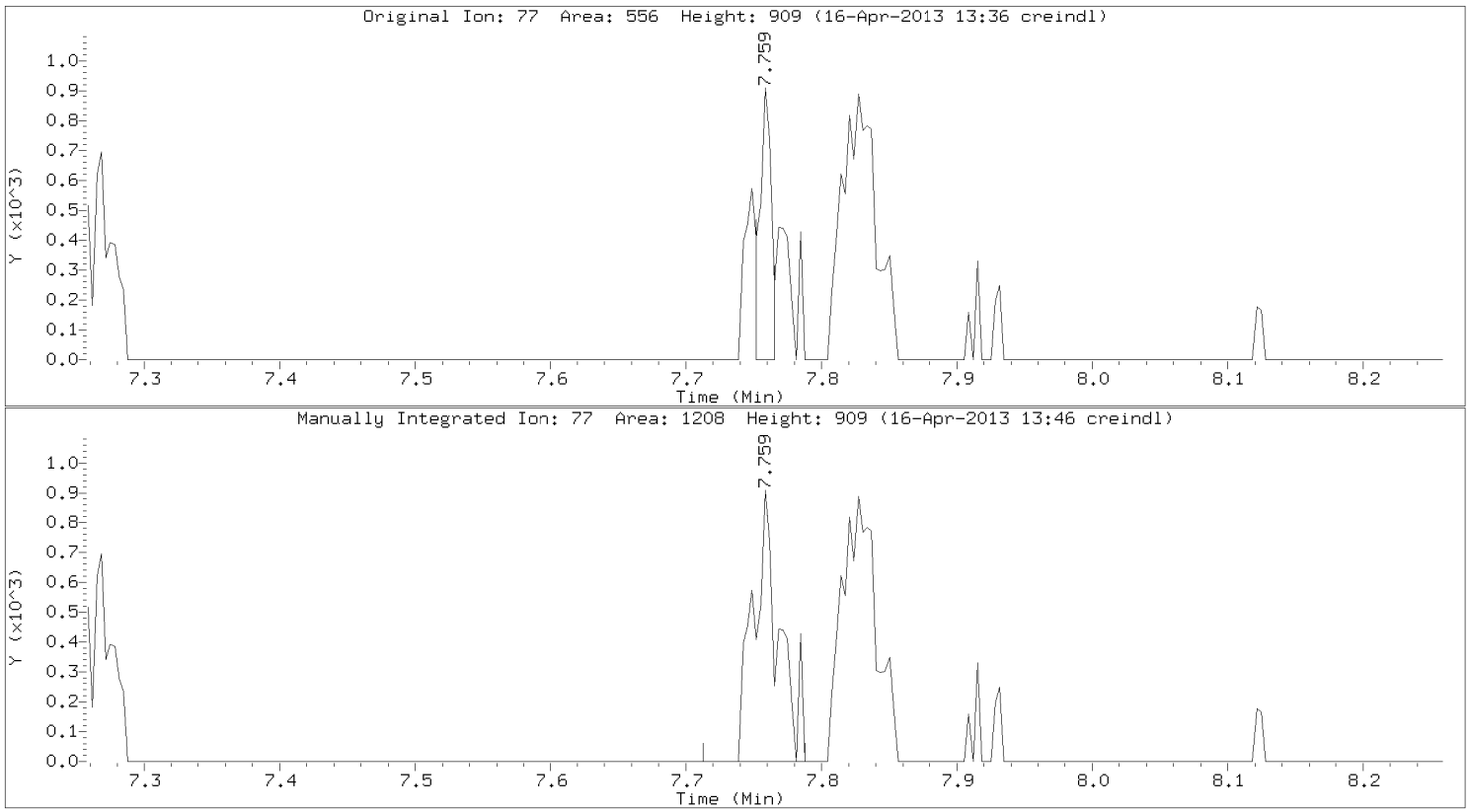






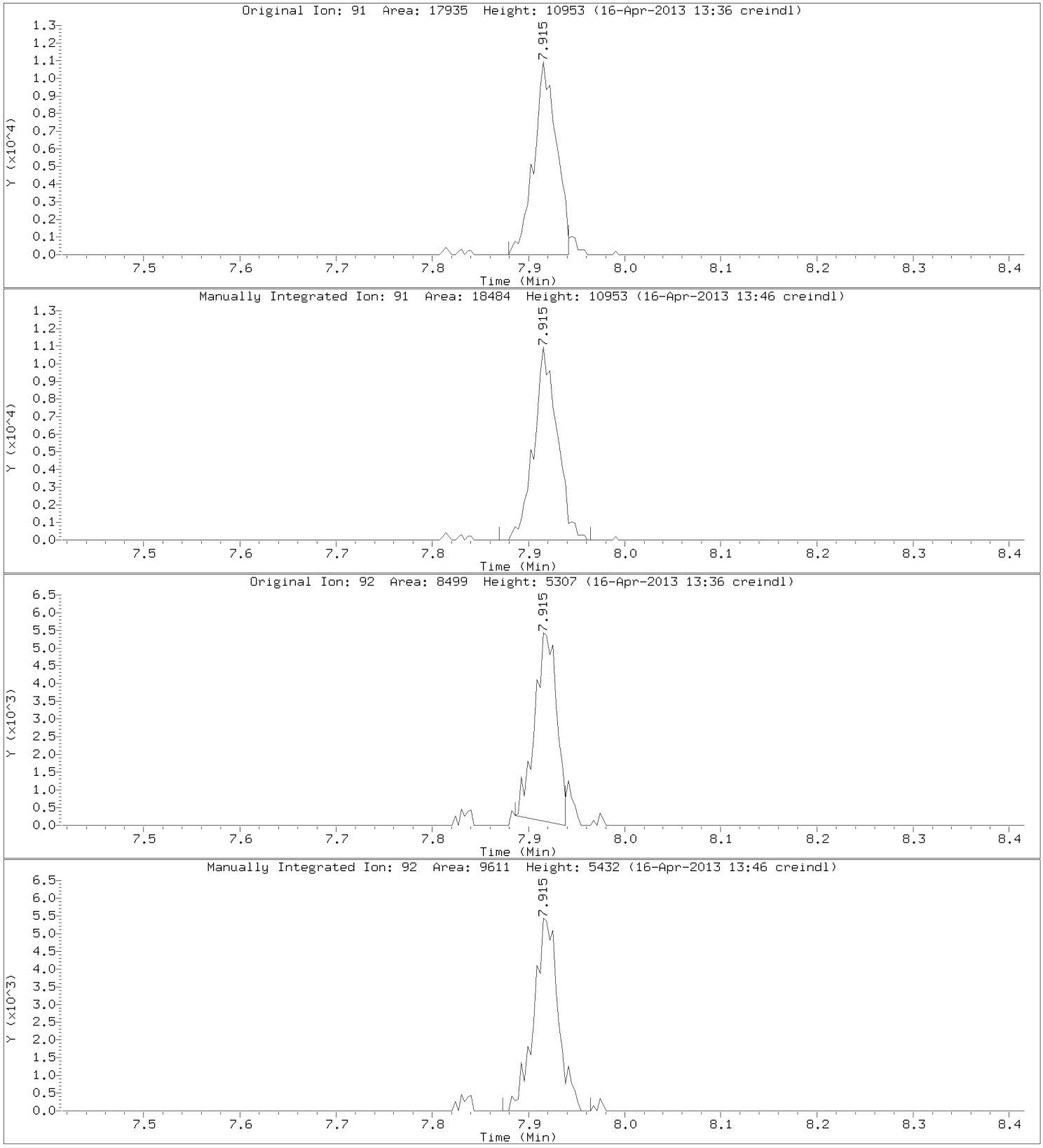


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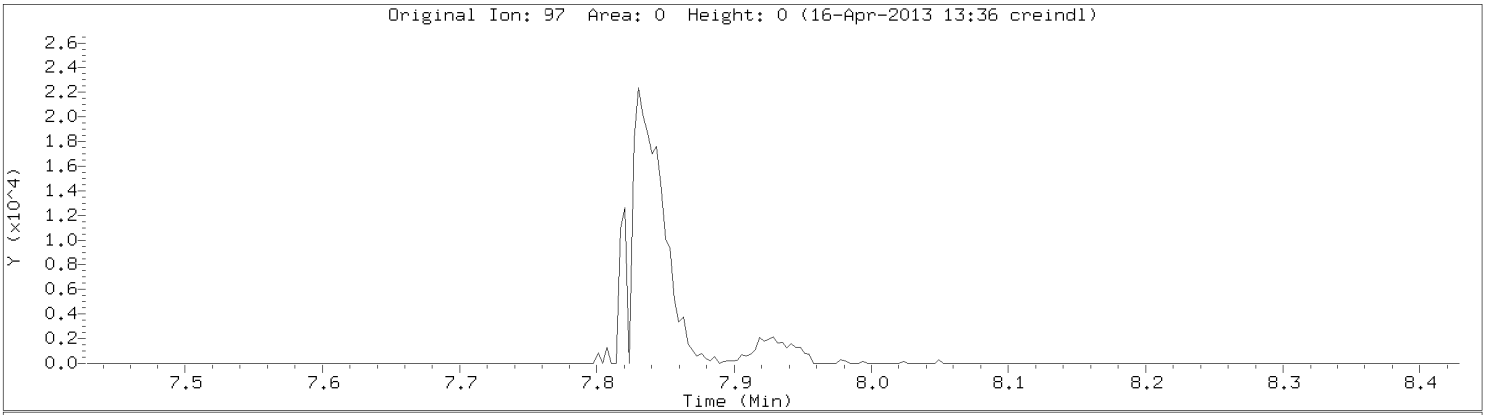
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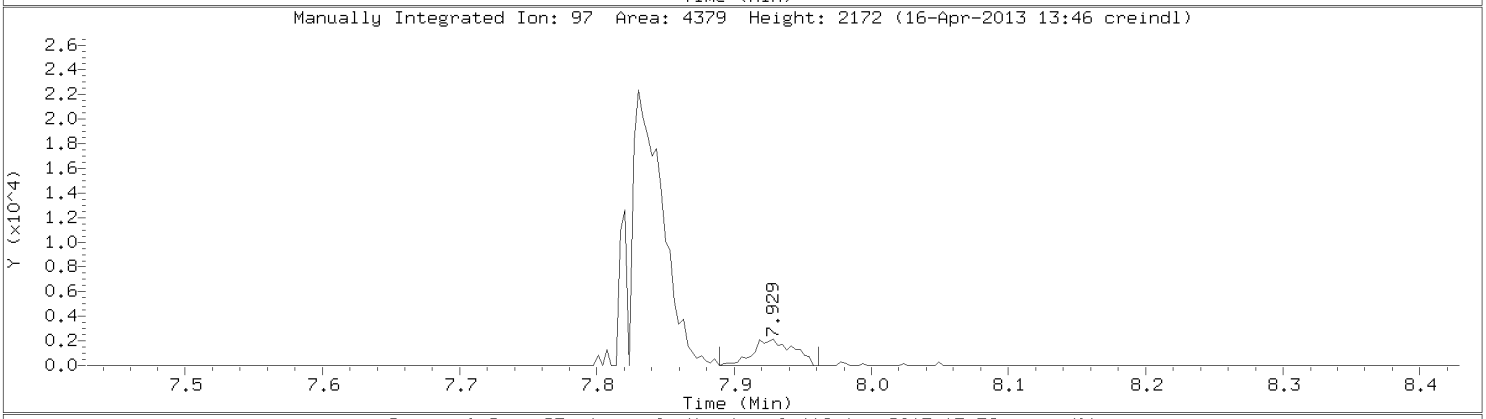
Compound: Toluene
CAS Number: 108-88-3

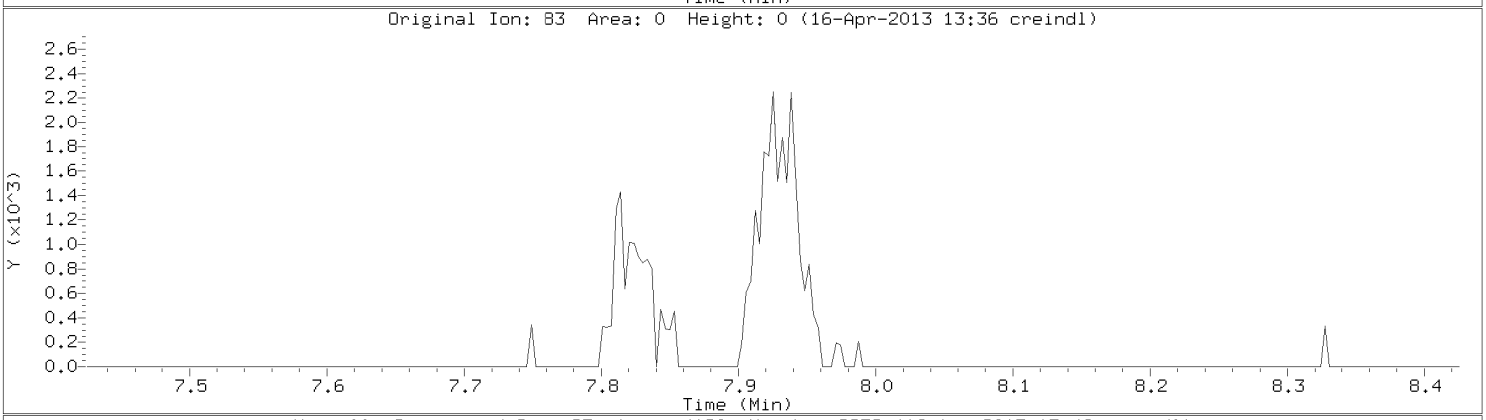


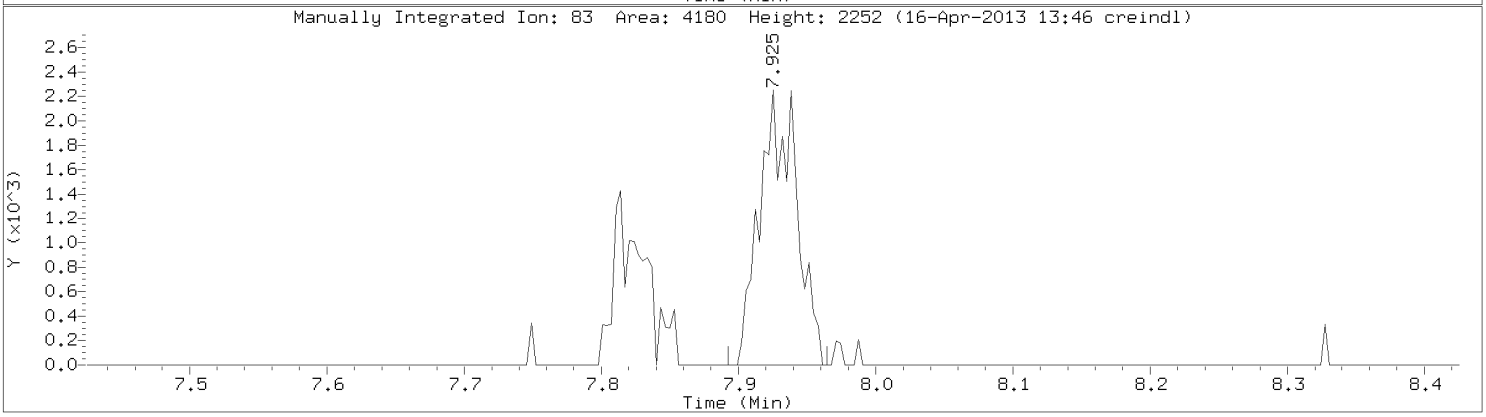
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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,1,2-Trichloroethane
CAS Number: 79-00-5

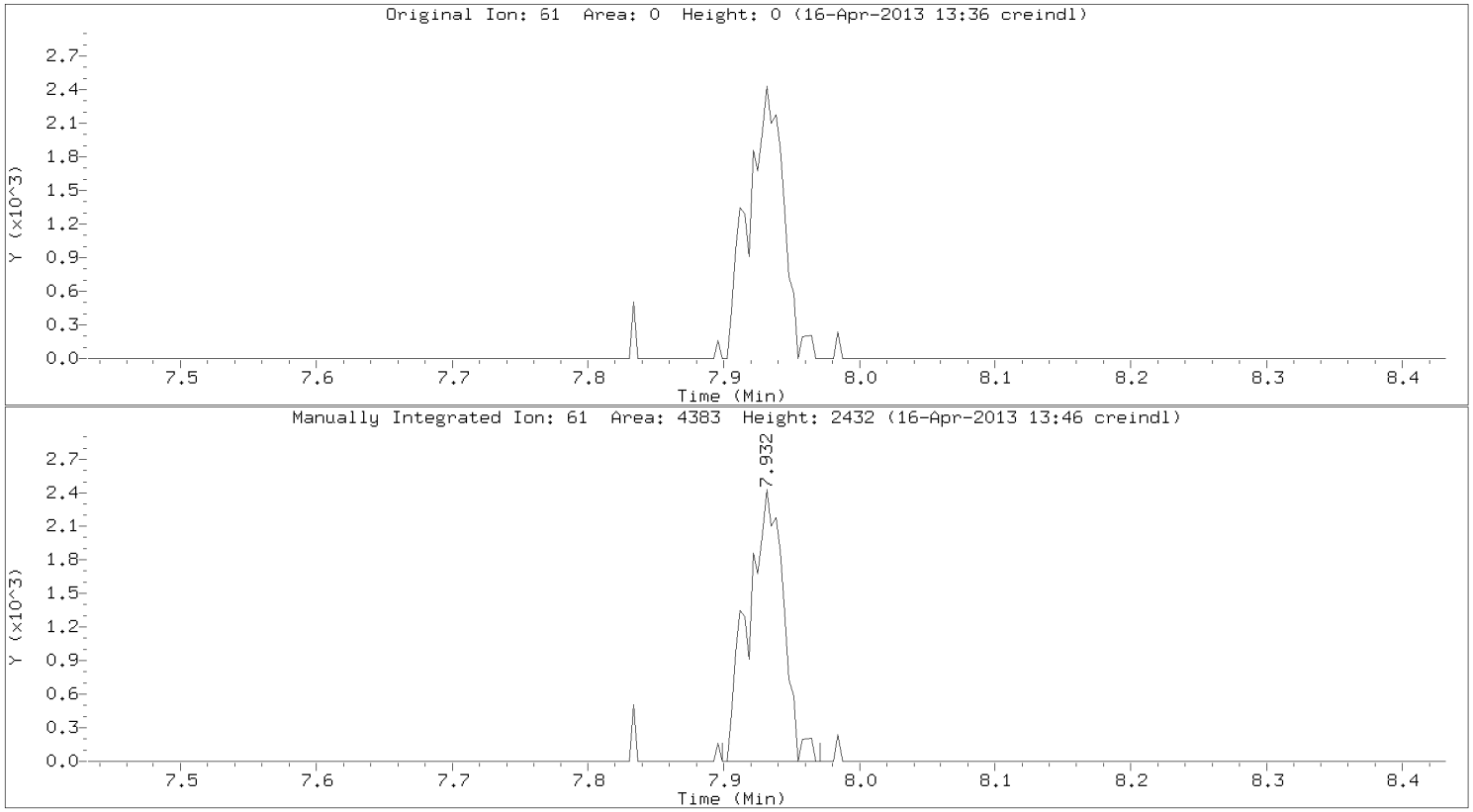






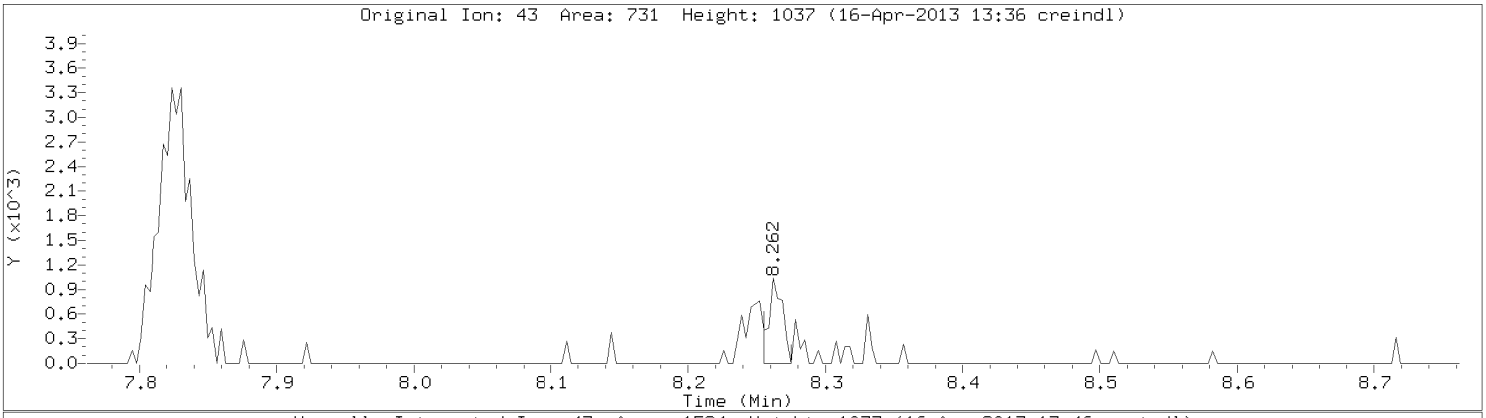


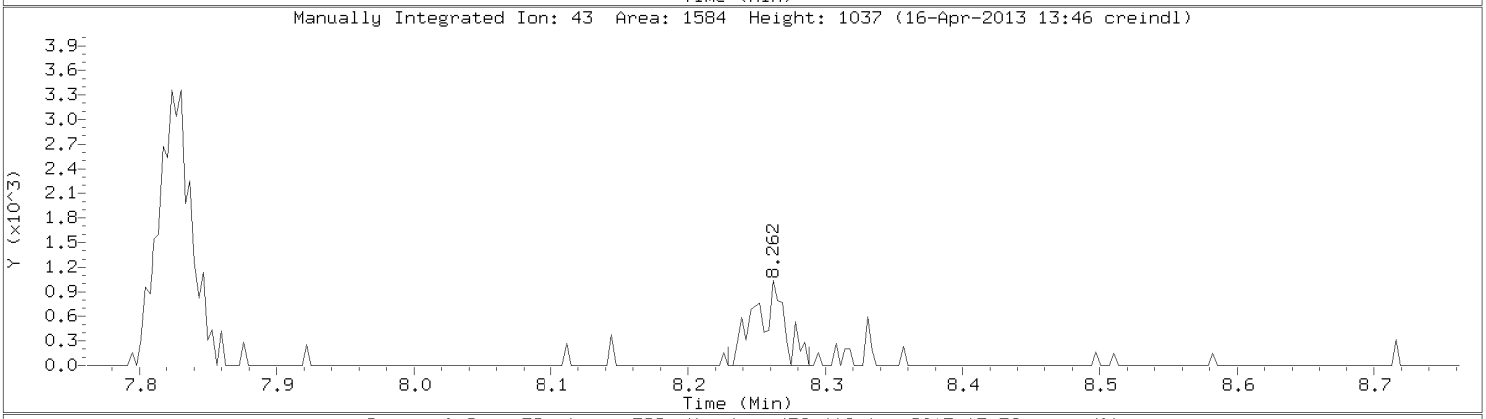
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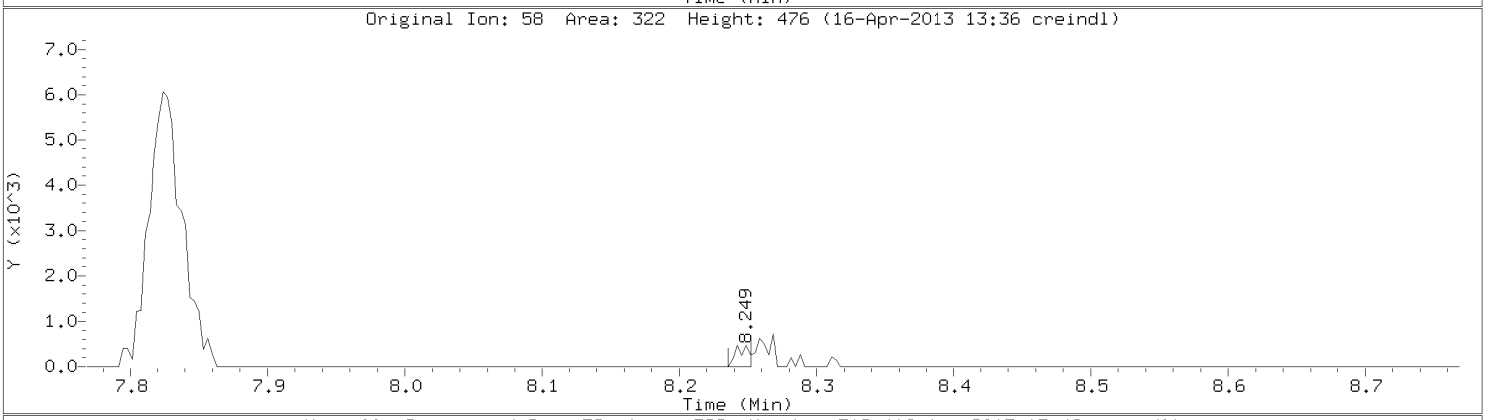


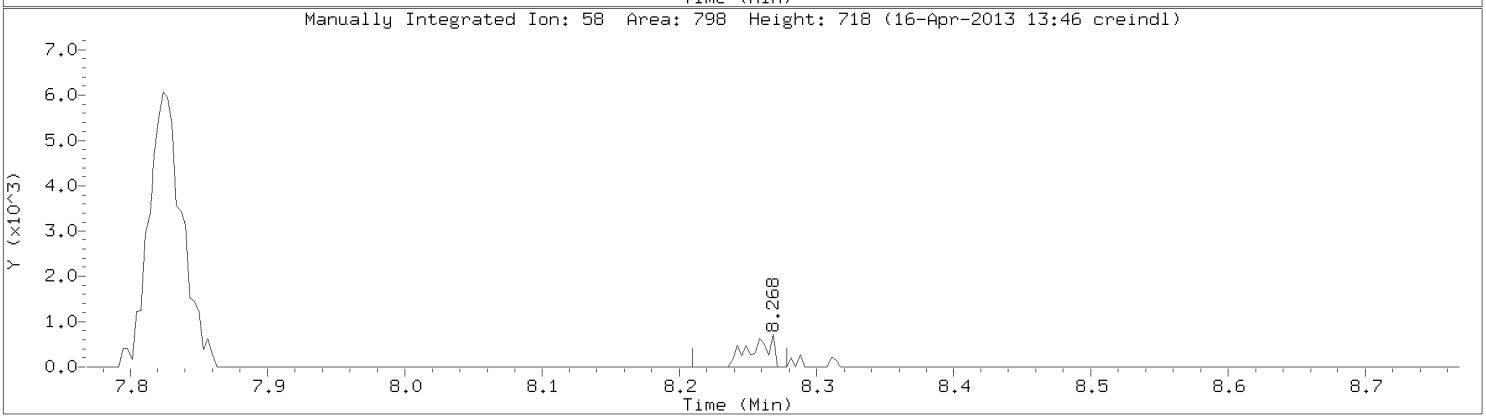
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Methyl Butyl Ketone
CAS Number: 591-78-6



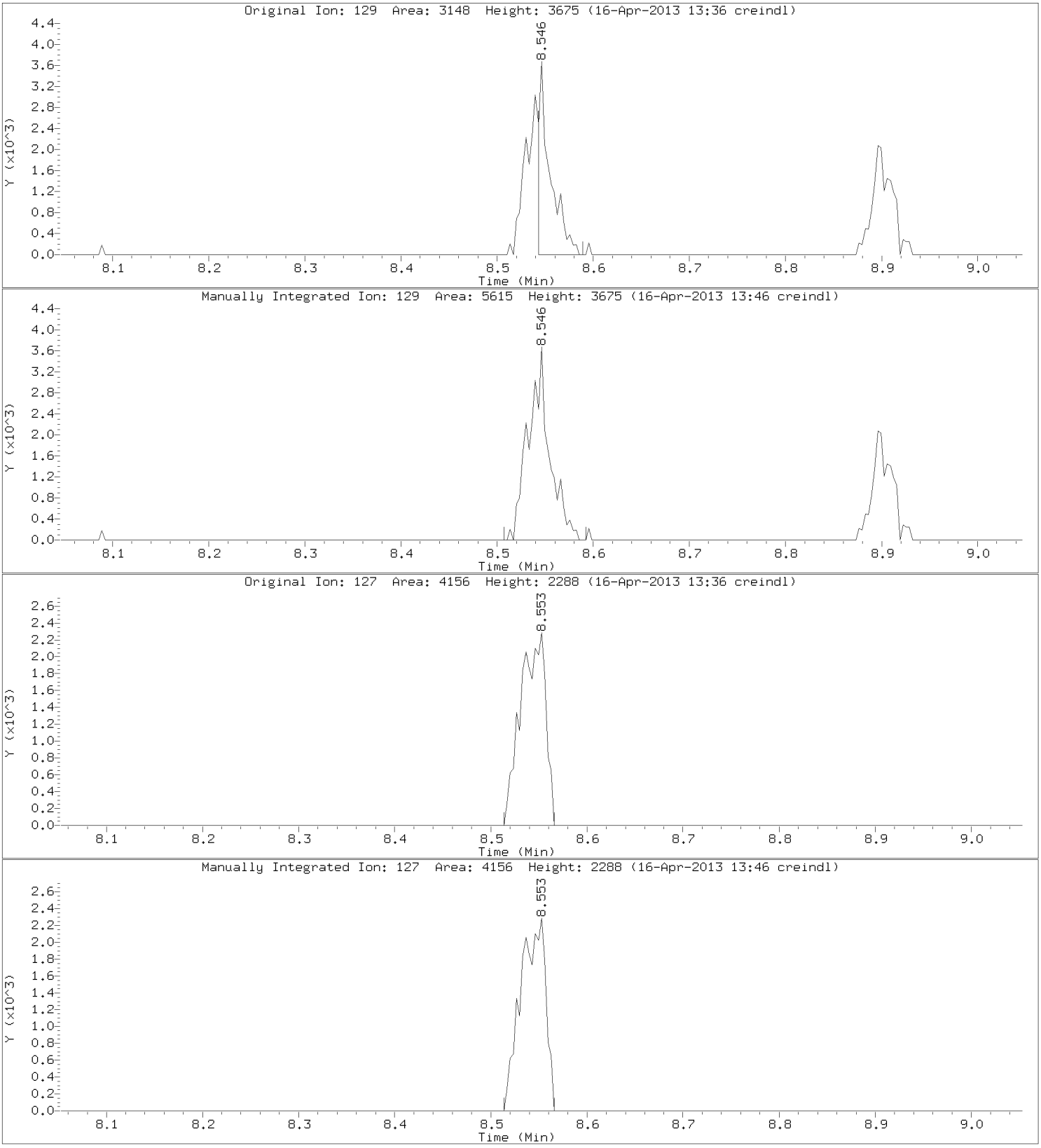






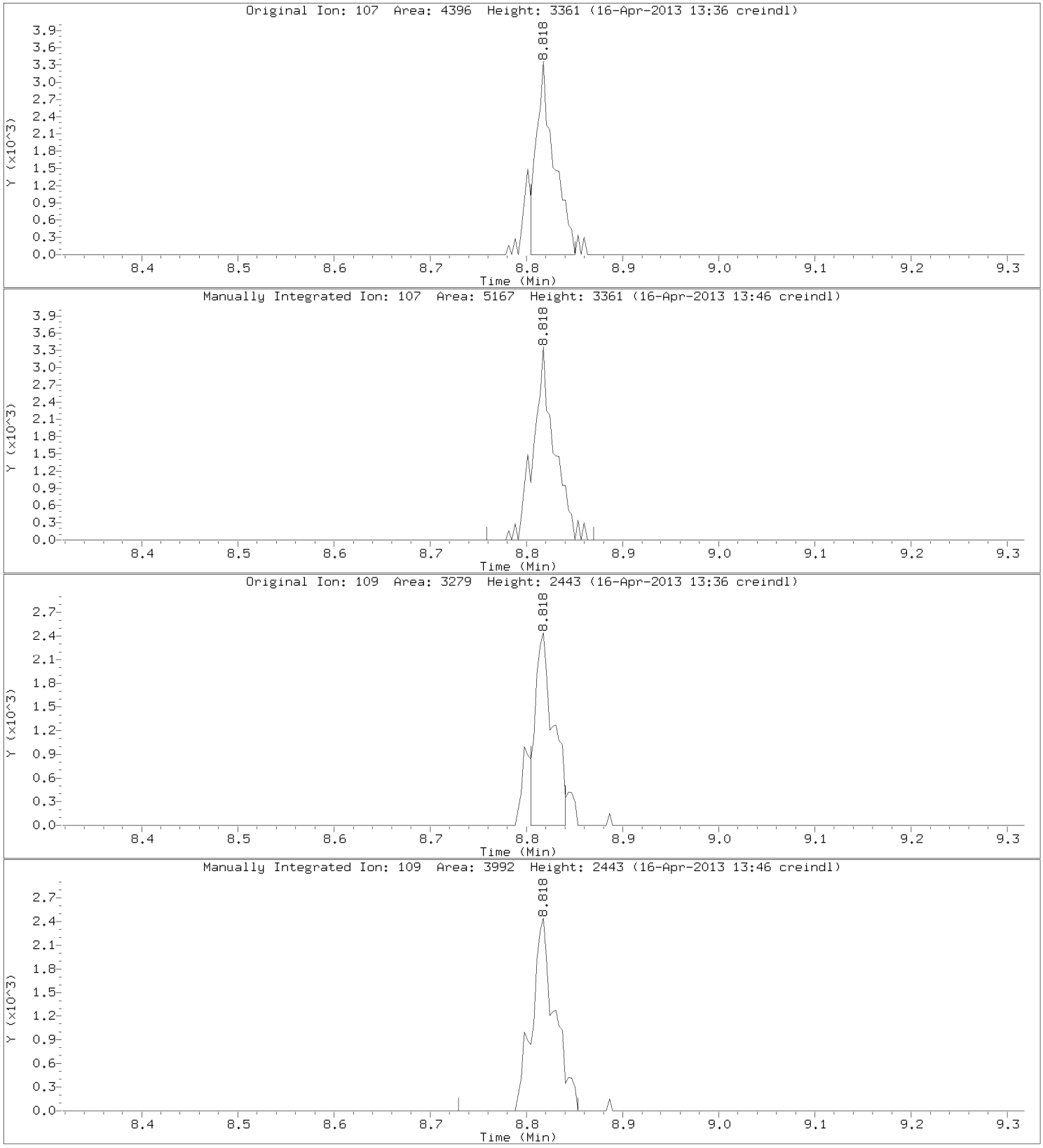
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Dibromochloromethane
CAS Number: 124-48-1



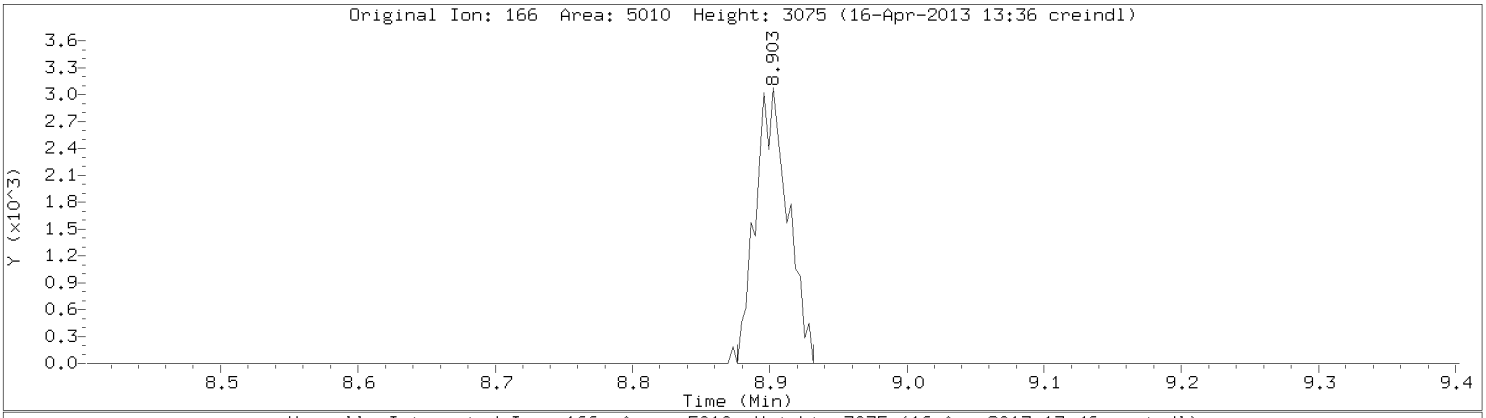
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Lab Sample ID: ICAL1

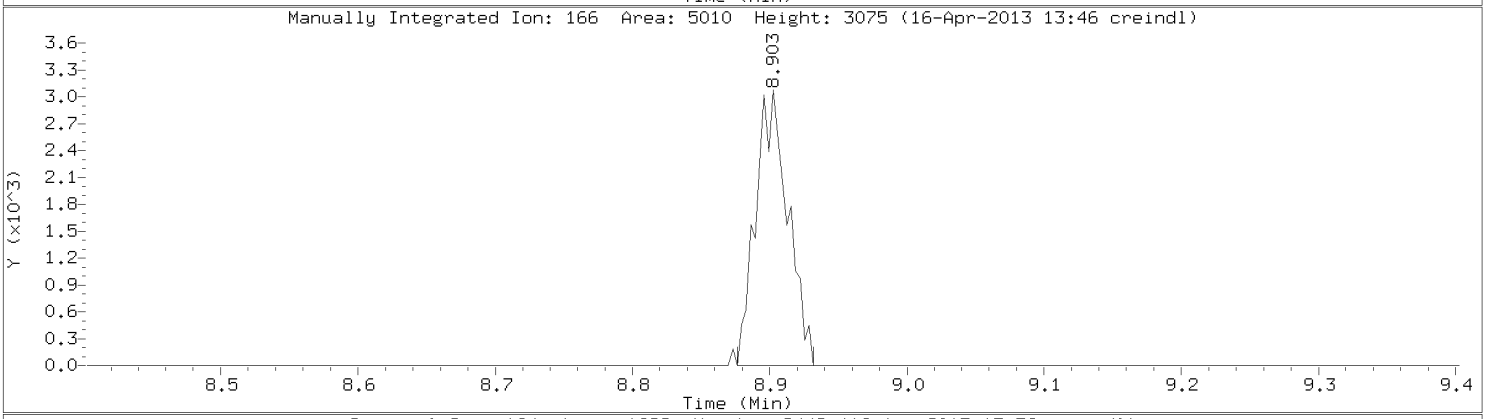
Compound: 1,2-Dibromoethane
CAS Number: 106-93-4

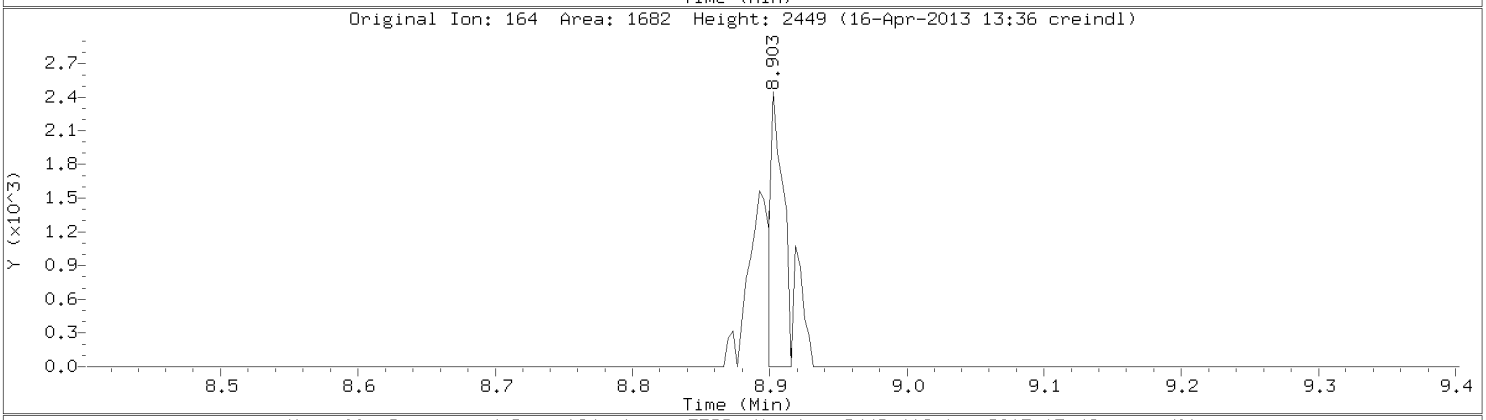


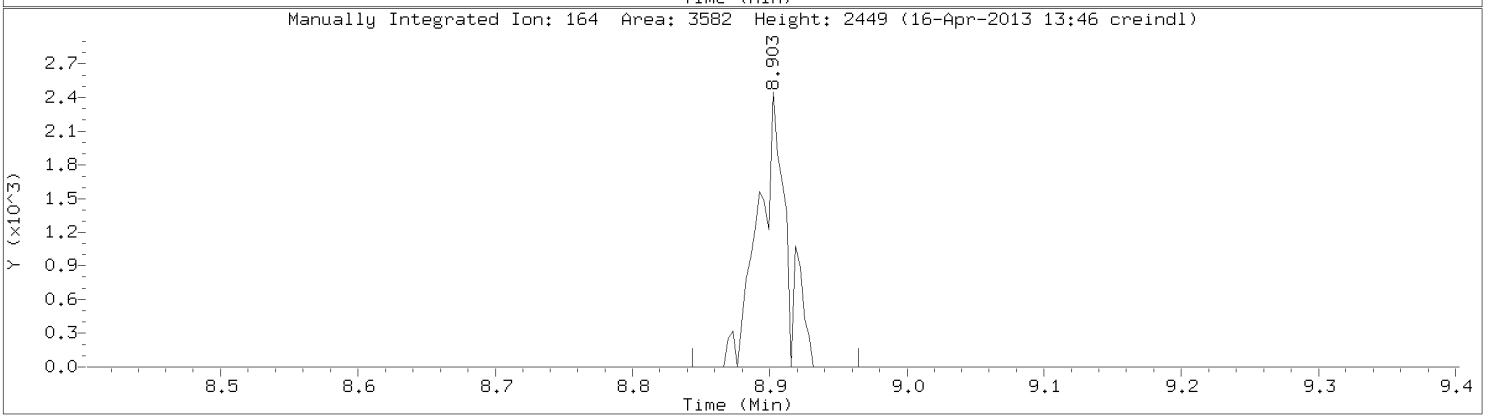
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Tetrachloroethene
CAS Number: 127-18-4

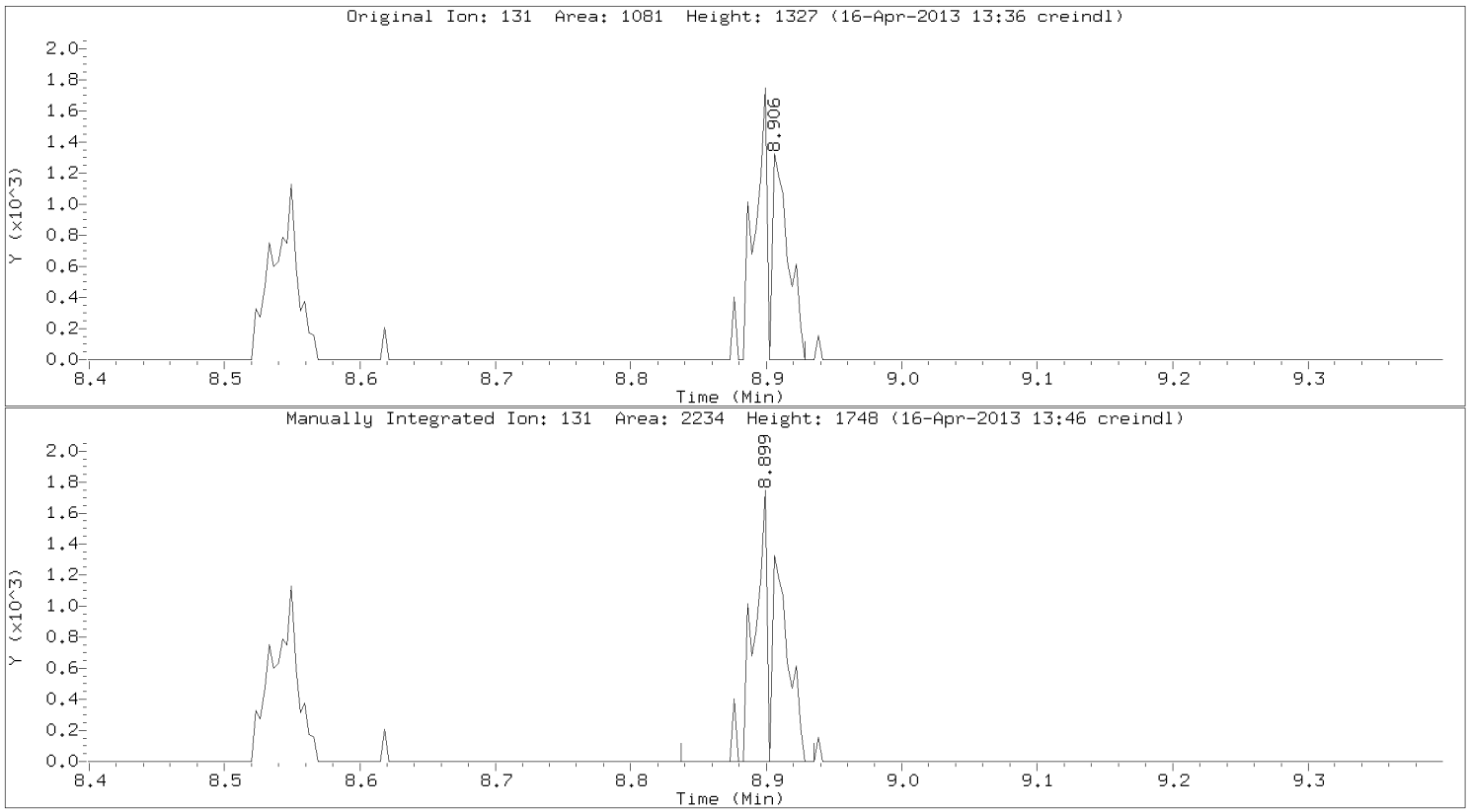






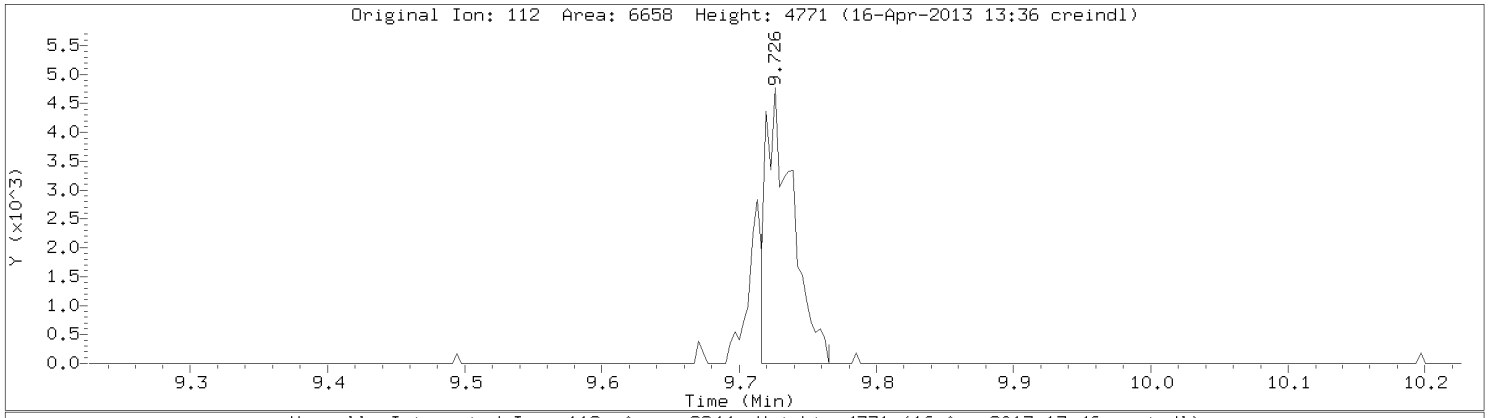


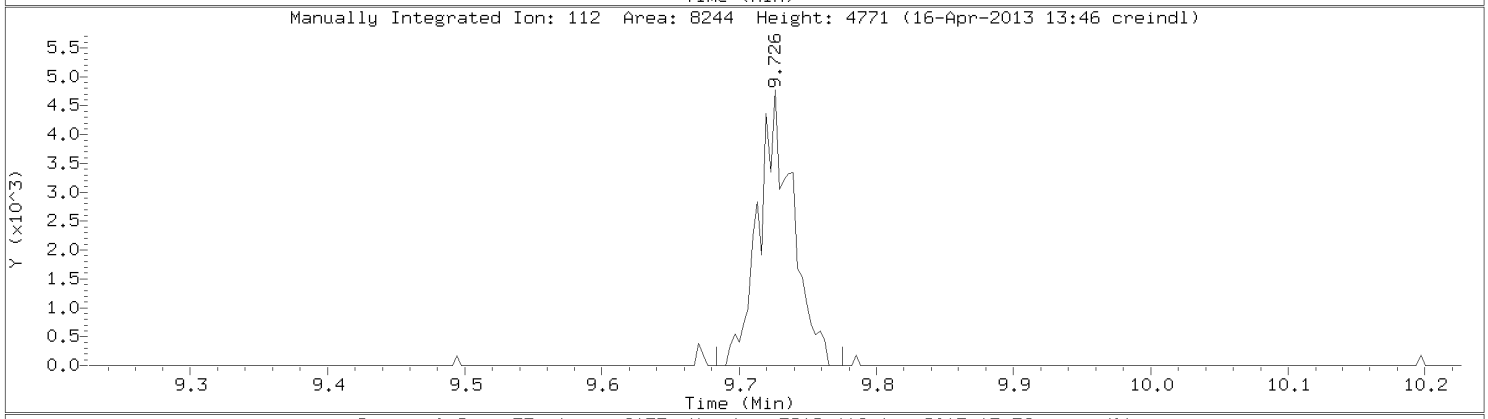
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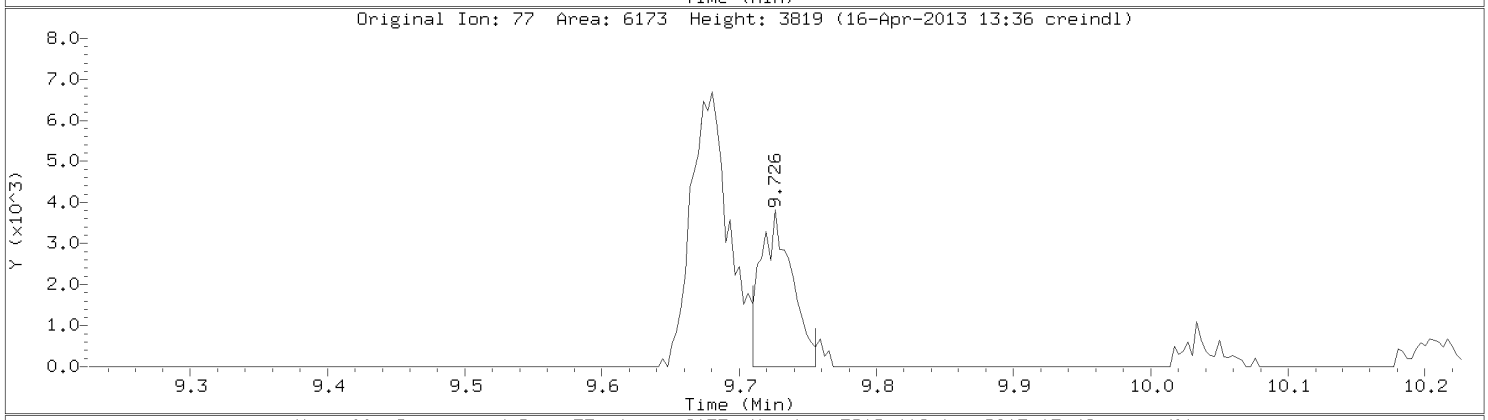


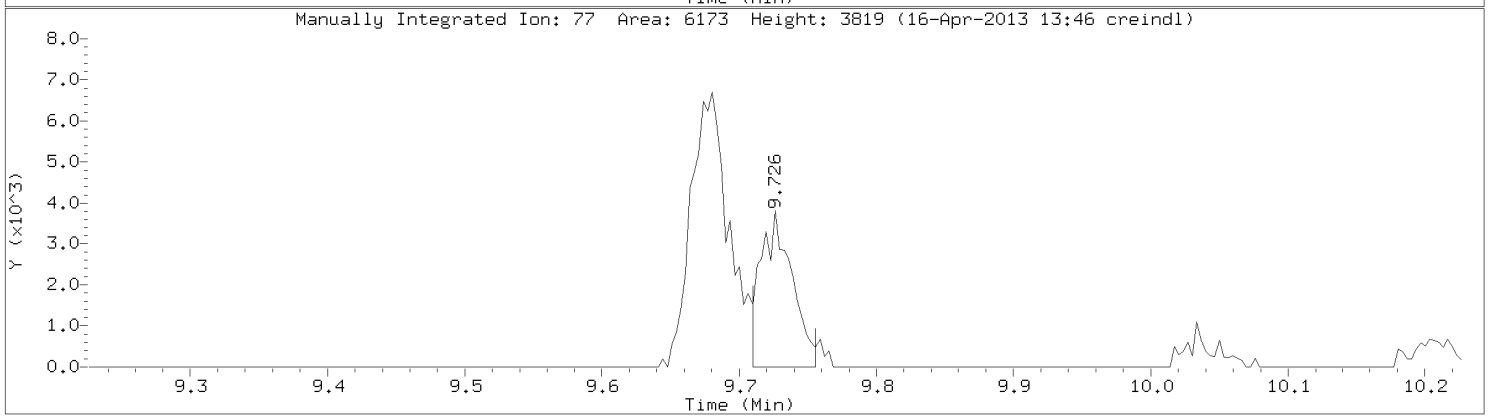
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Chlorobenzene
CAS Number: 108-90-7

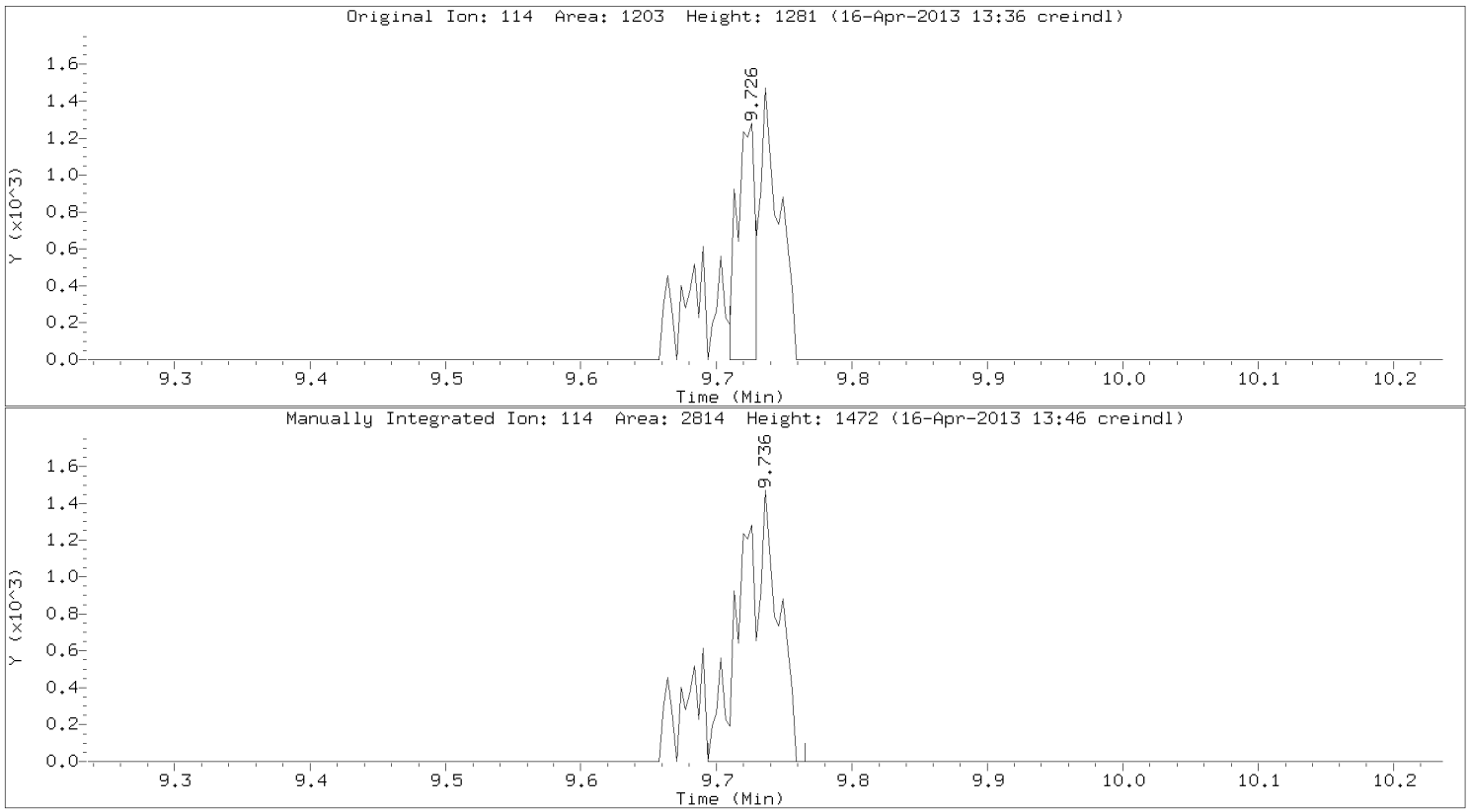






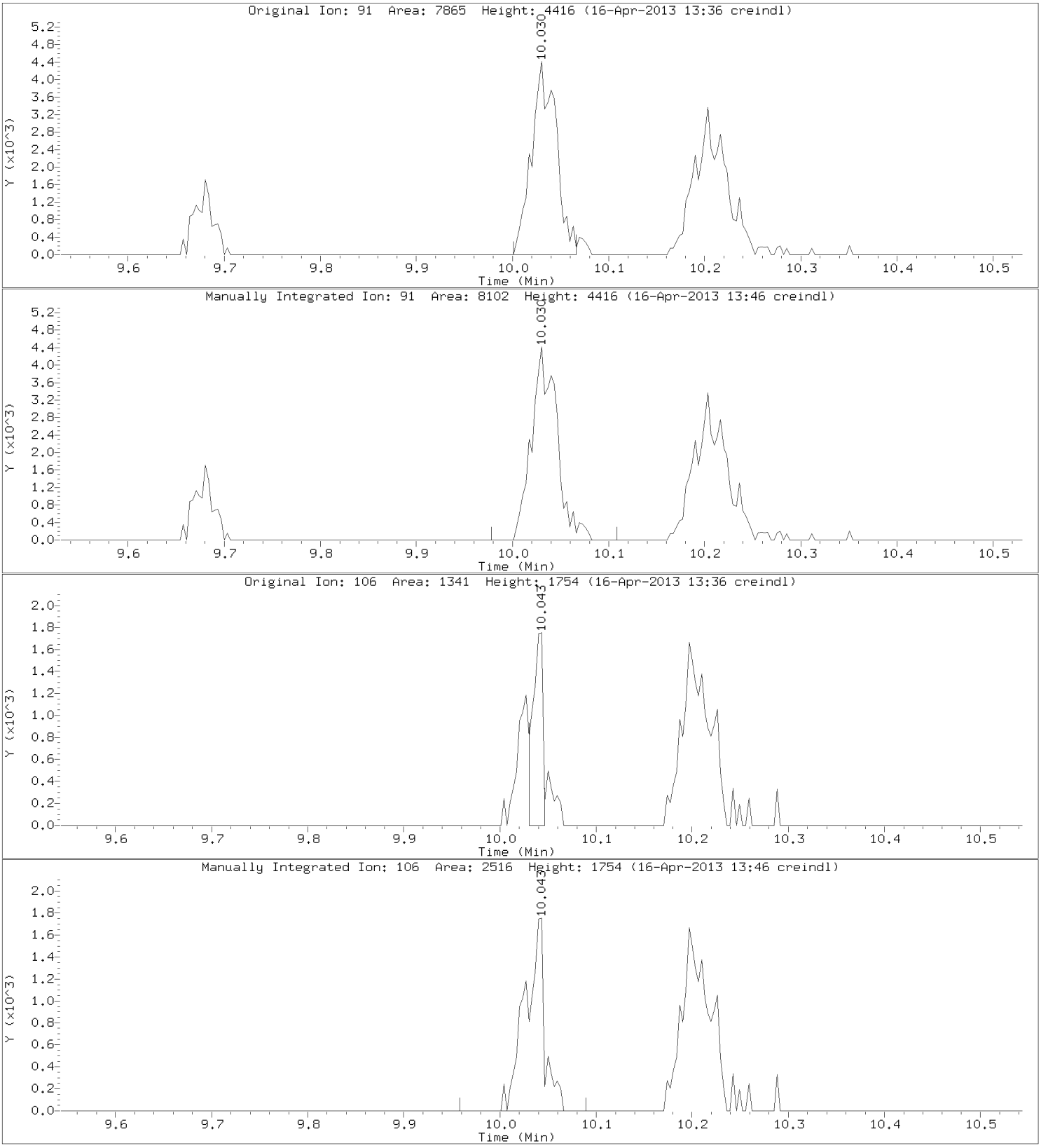


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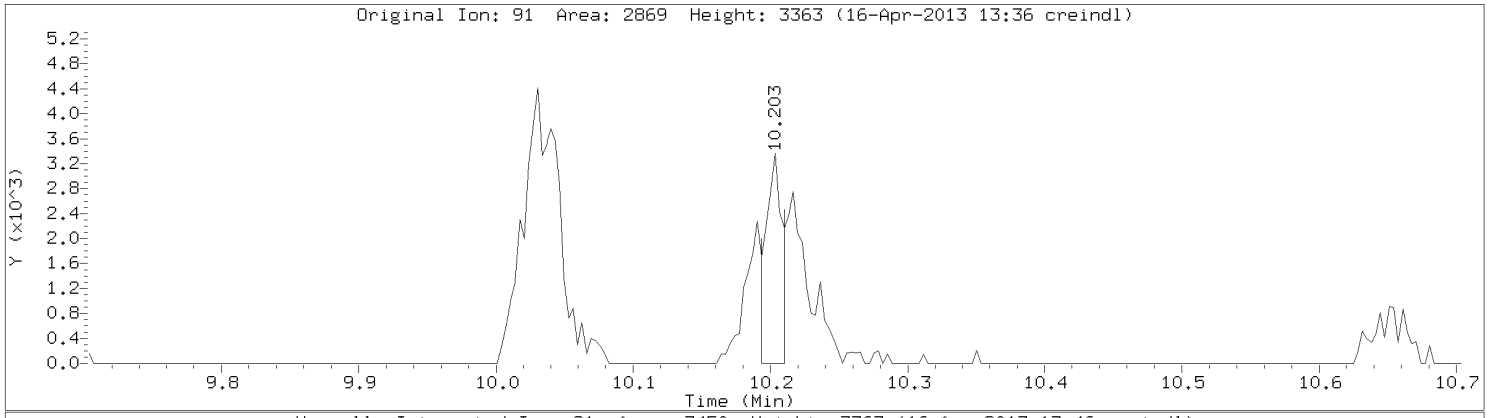
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Lab Sample ID: ICAL1

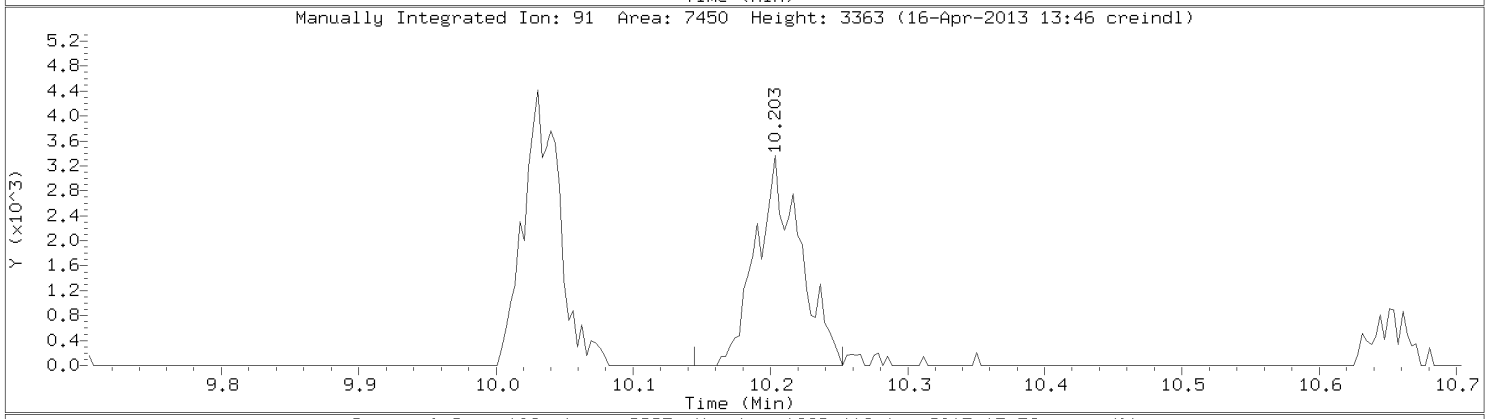
Compound: Ethyl Benzene
CAS Number: 100-41-4

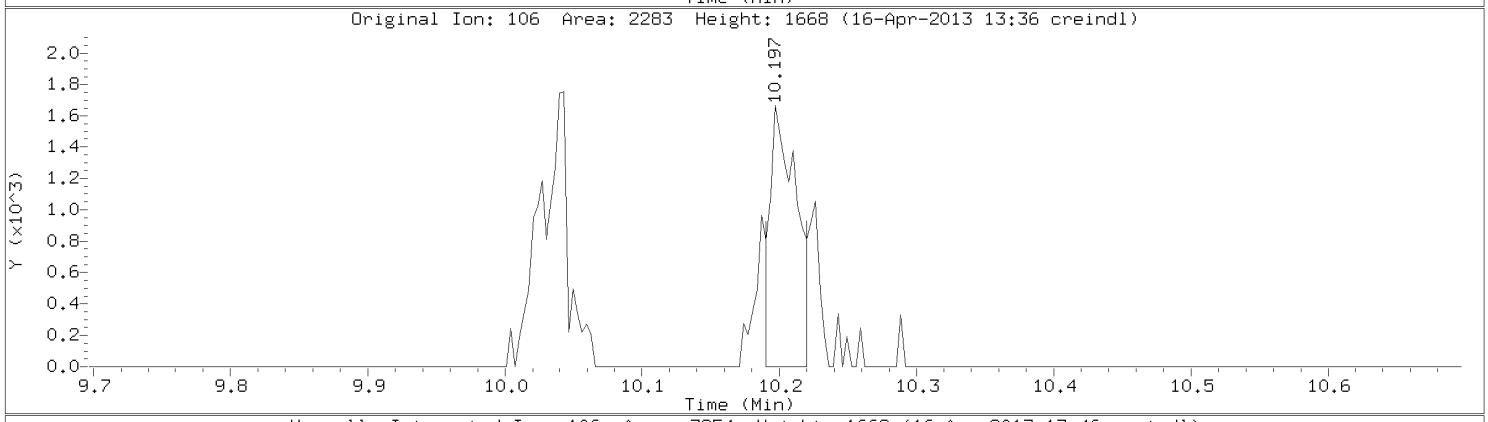


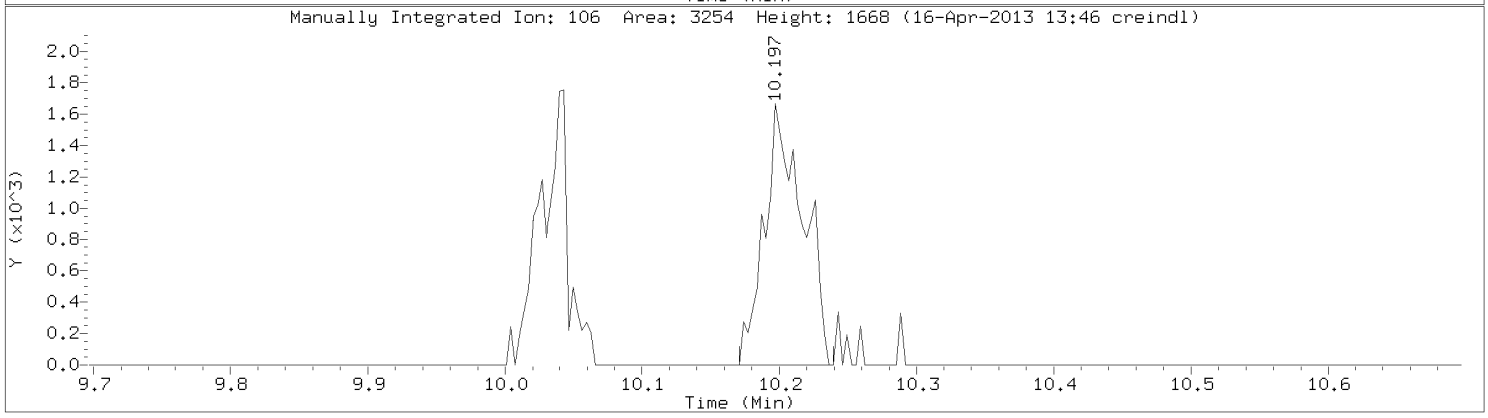
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: m&p-Xylene
CAS Number: 7816-60-0



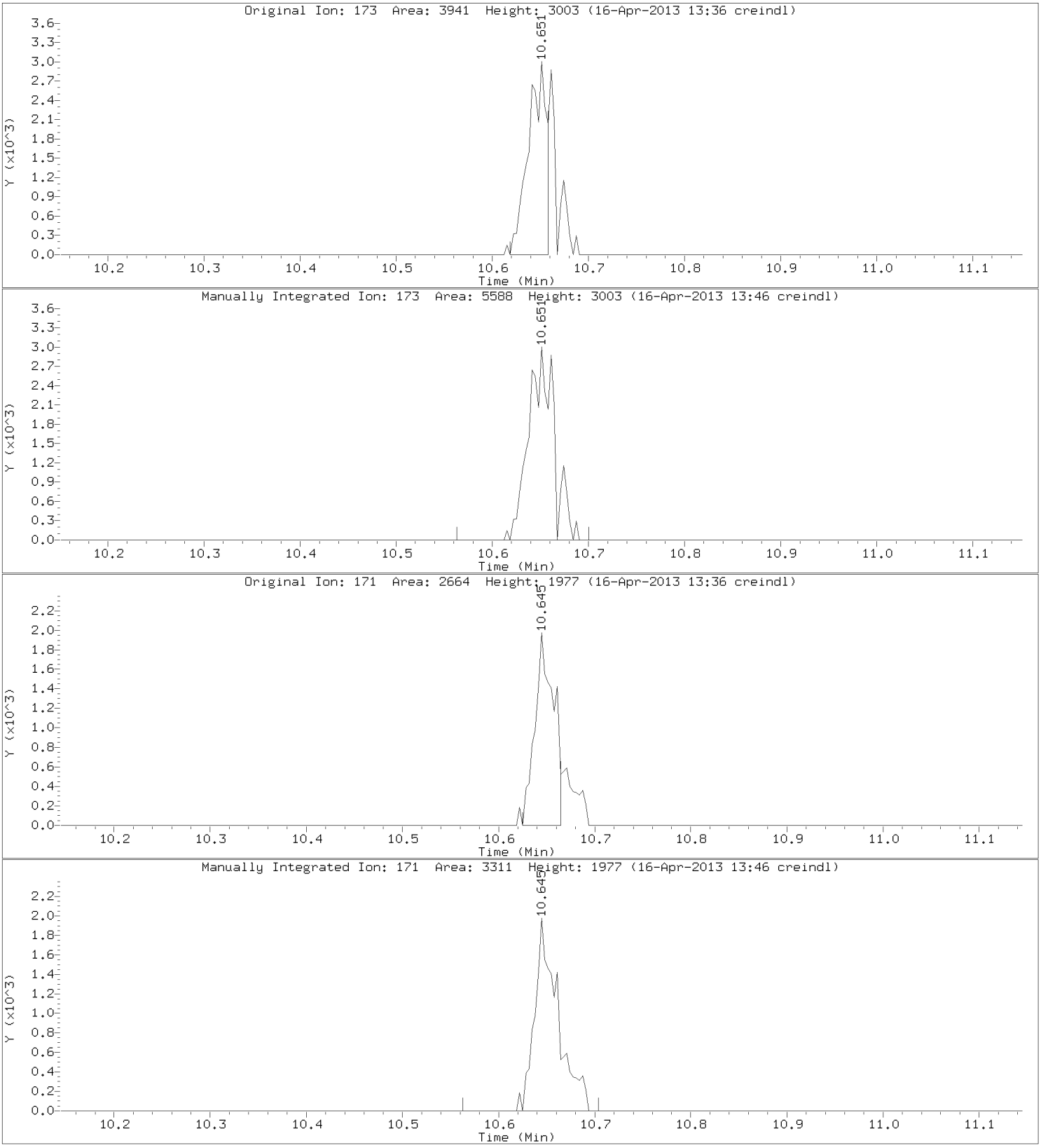






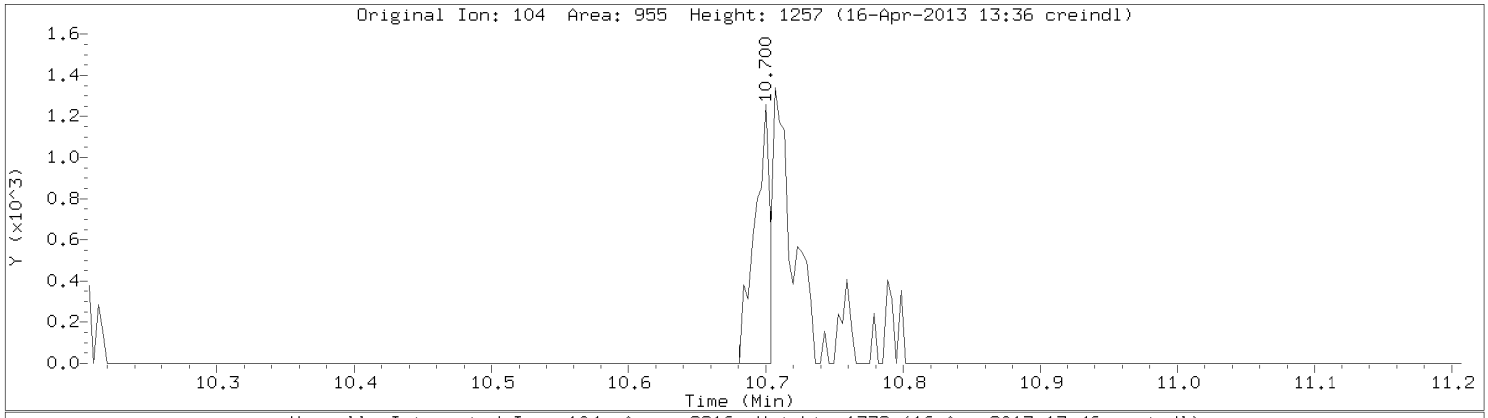
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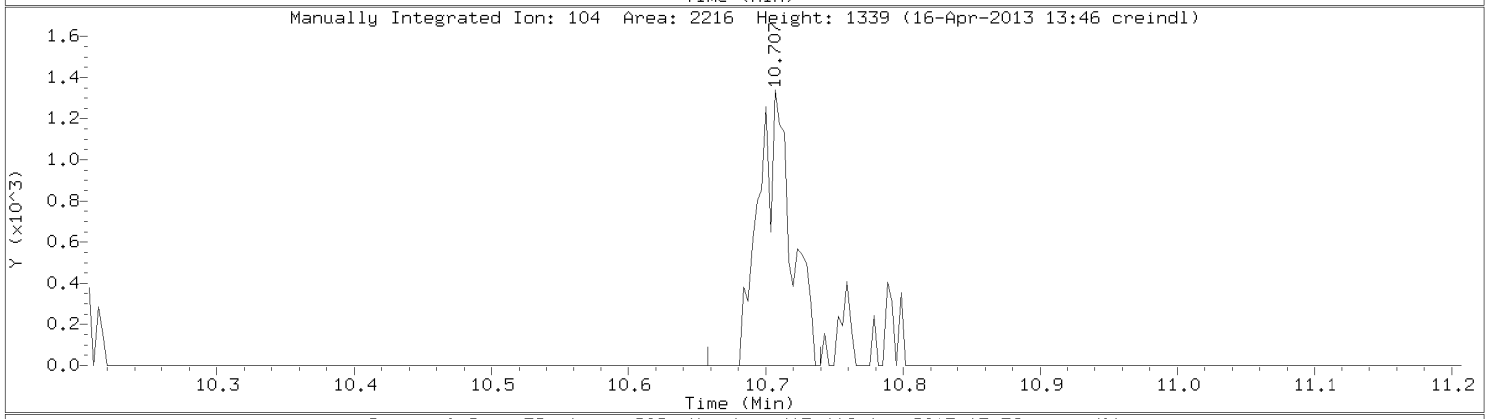
Compound: Bromoform
CAS Number: 75-25-2

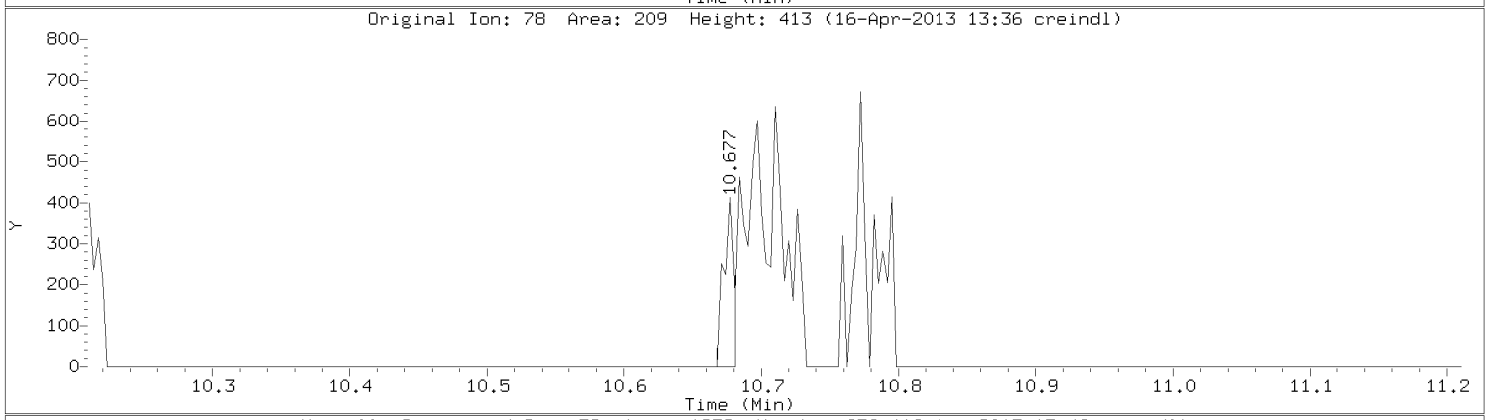


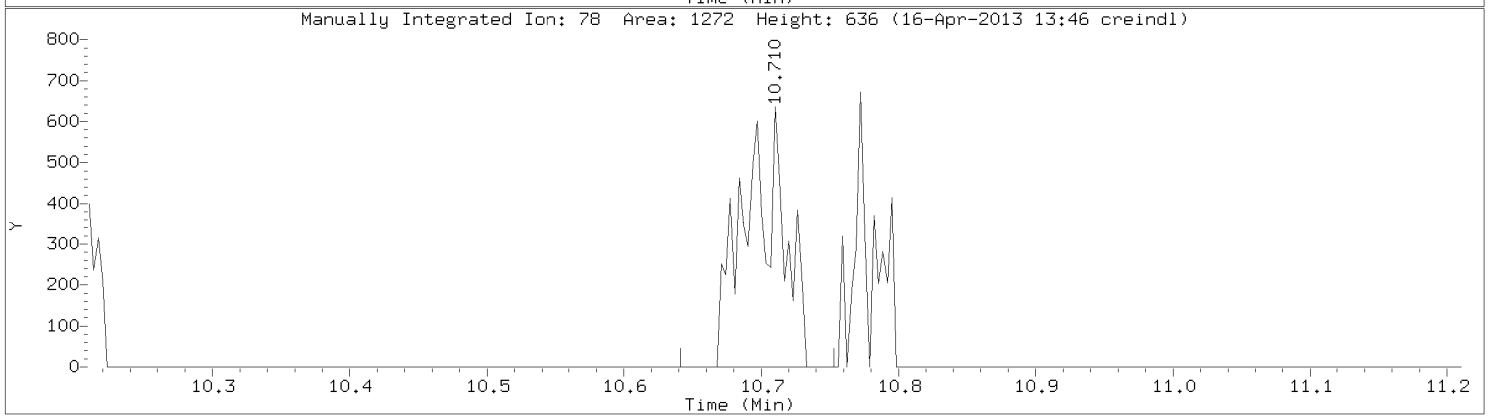
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Styrene
CAS Number: 100-42-5

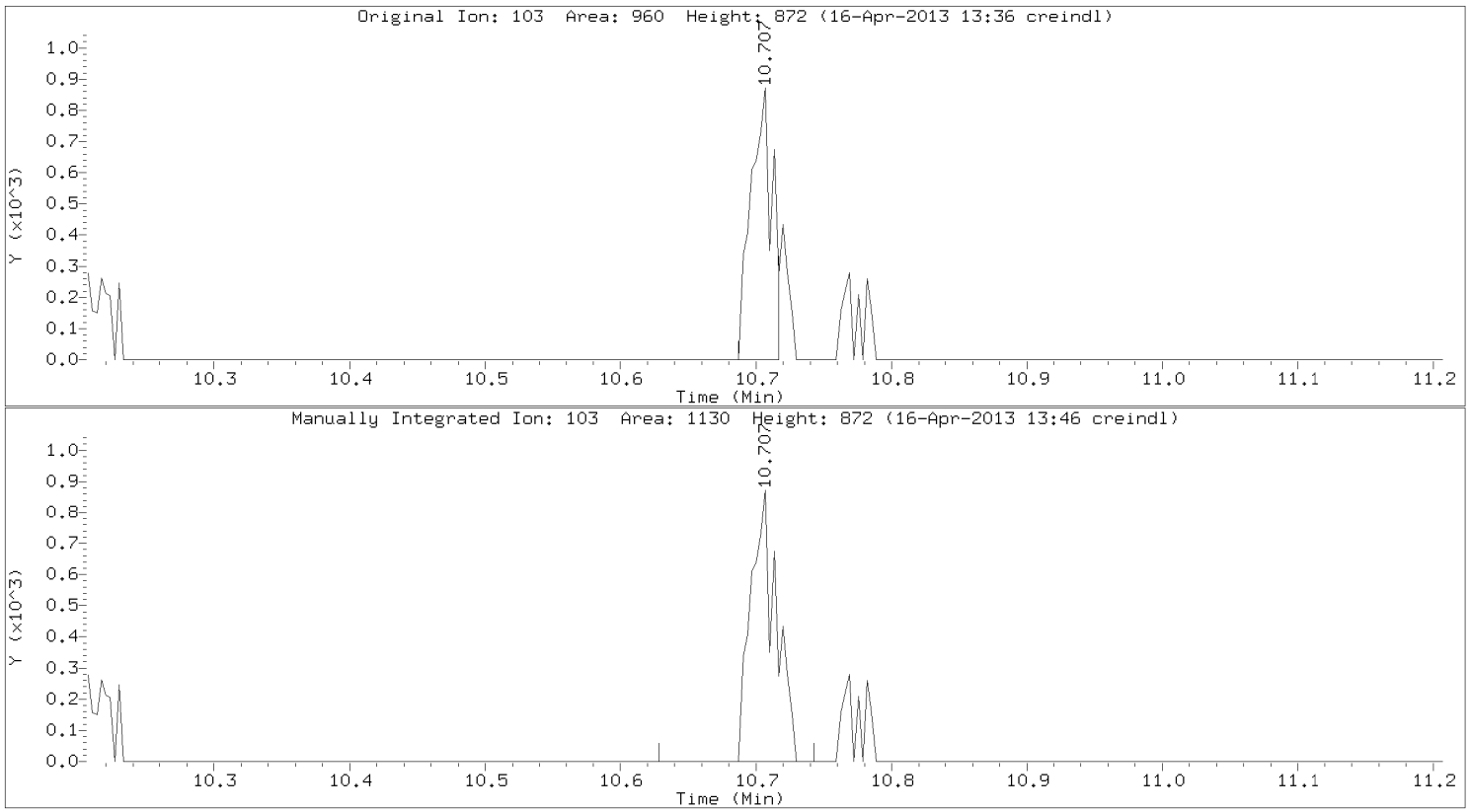






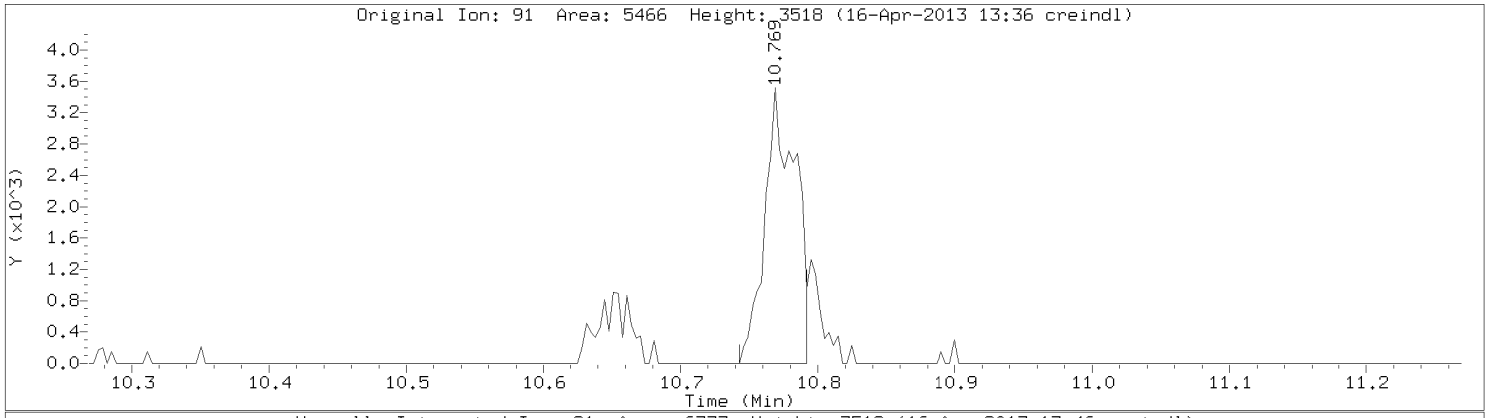


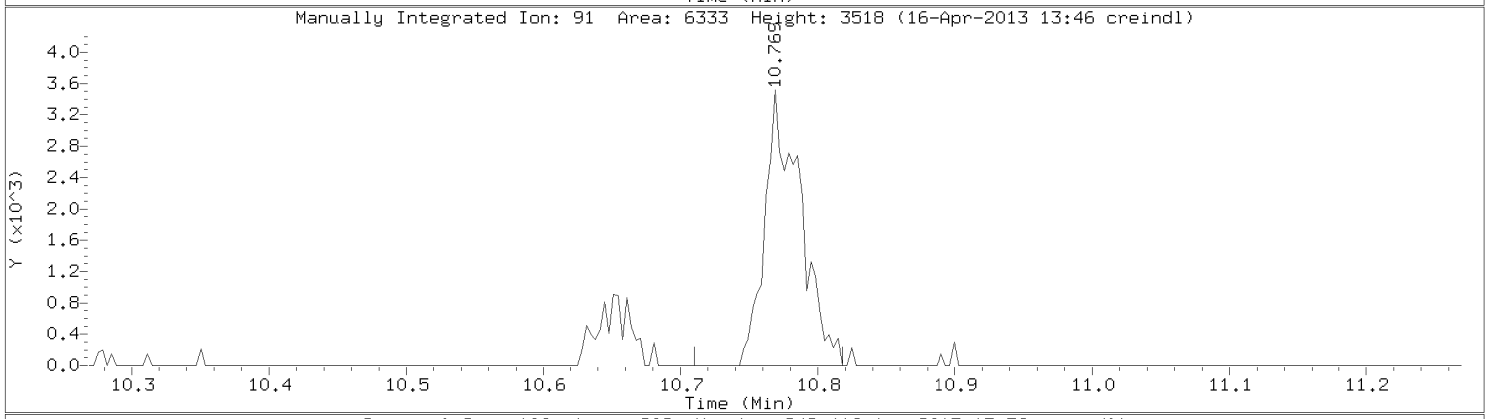
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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

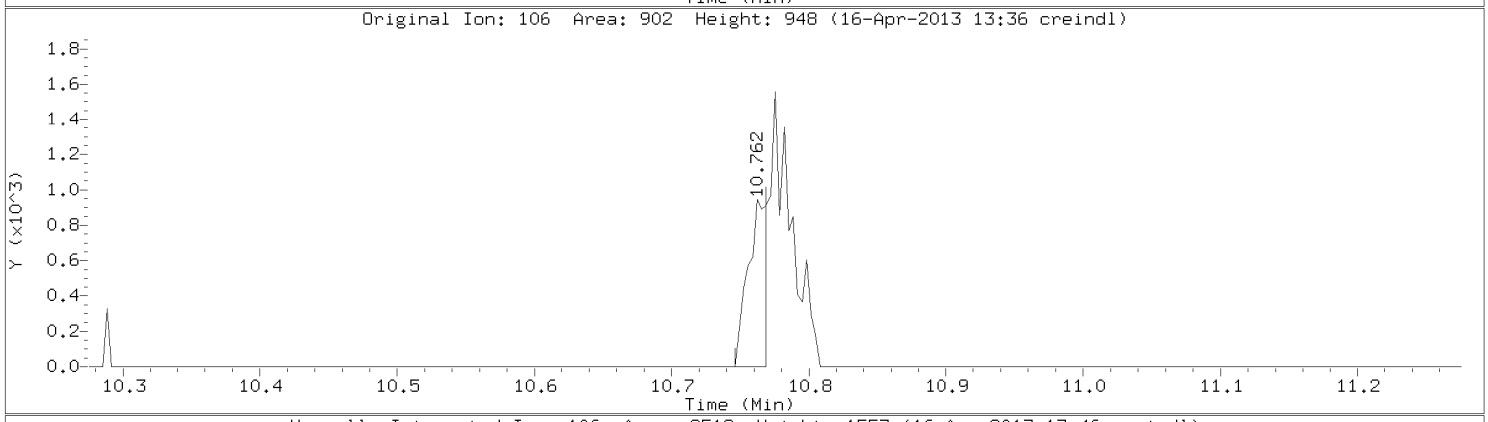


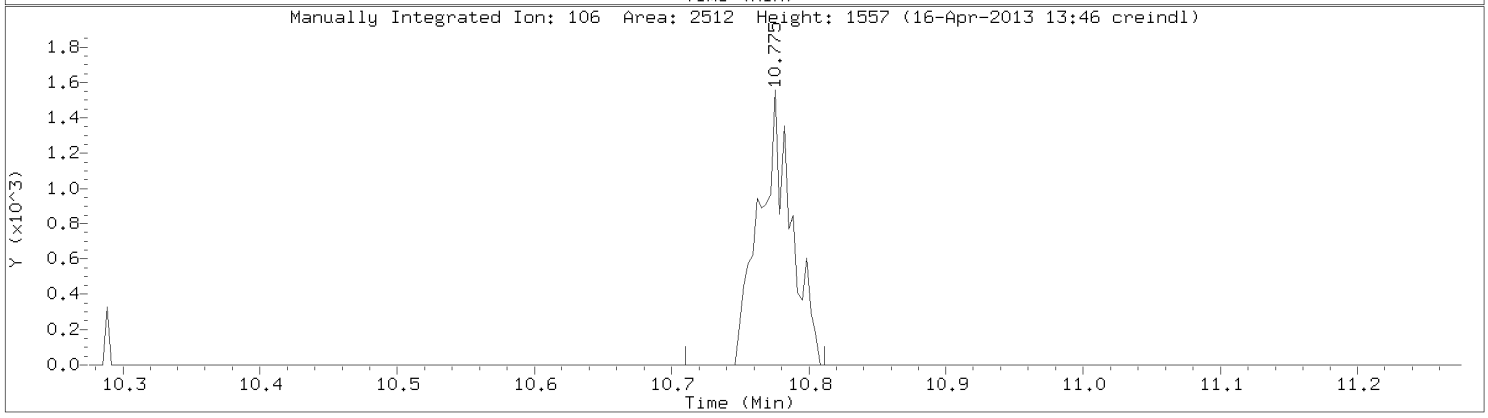
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: o-Xylene
CAS Number: 95-47-6



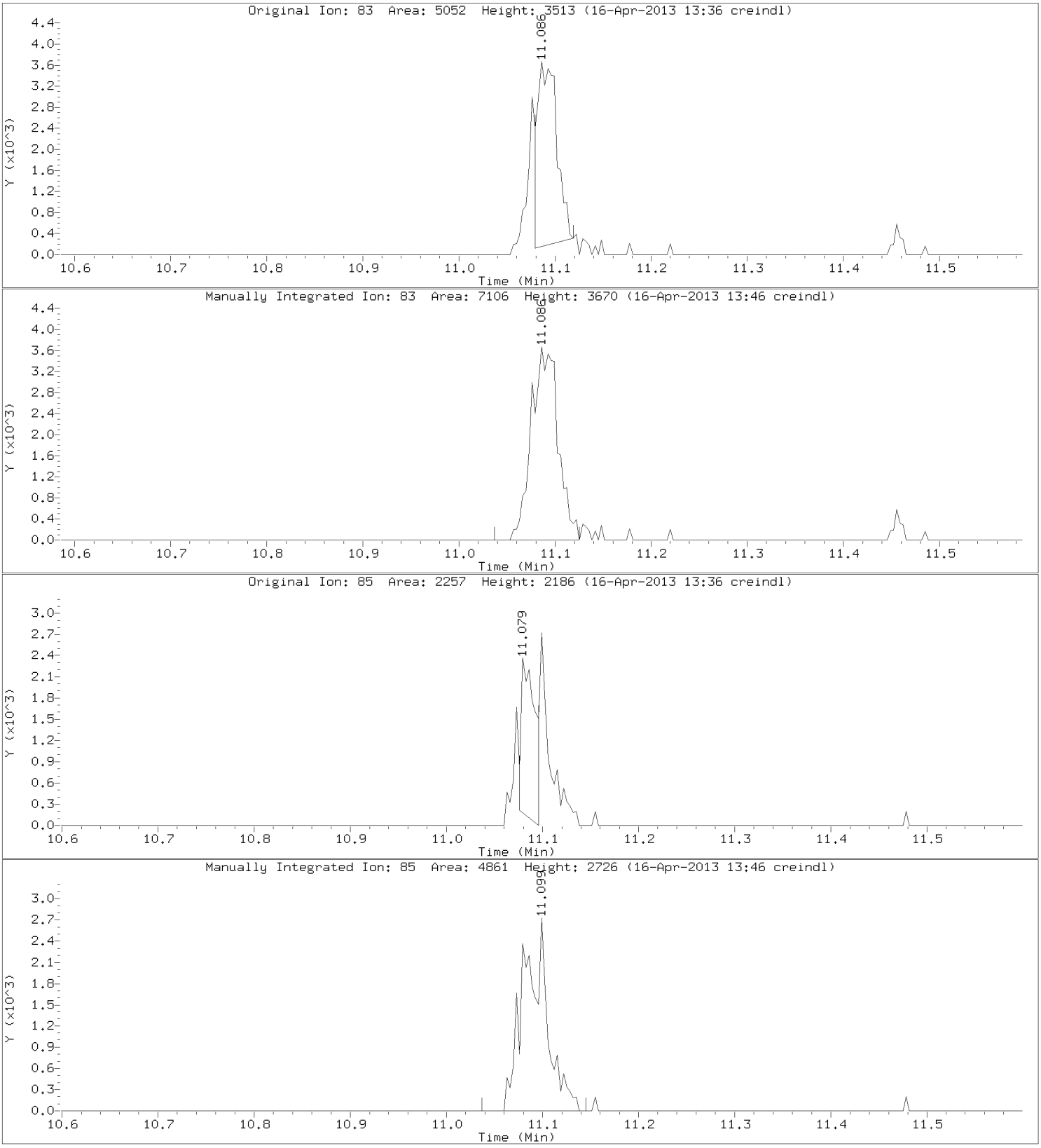






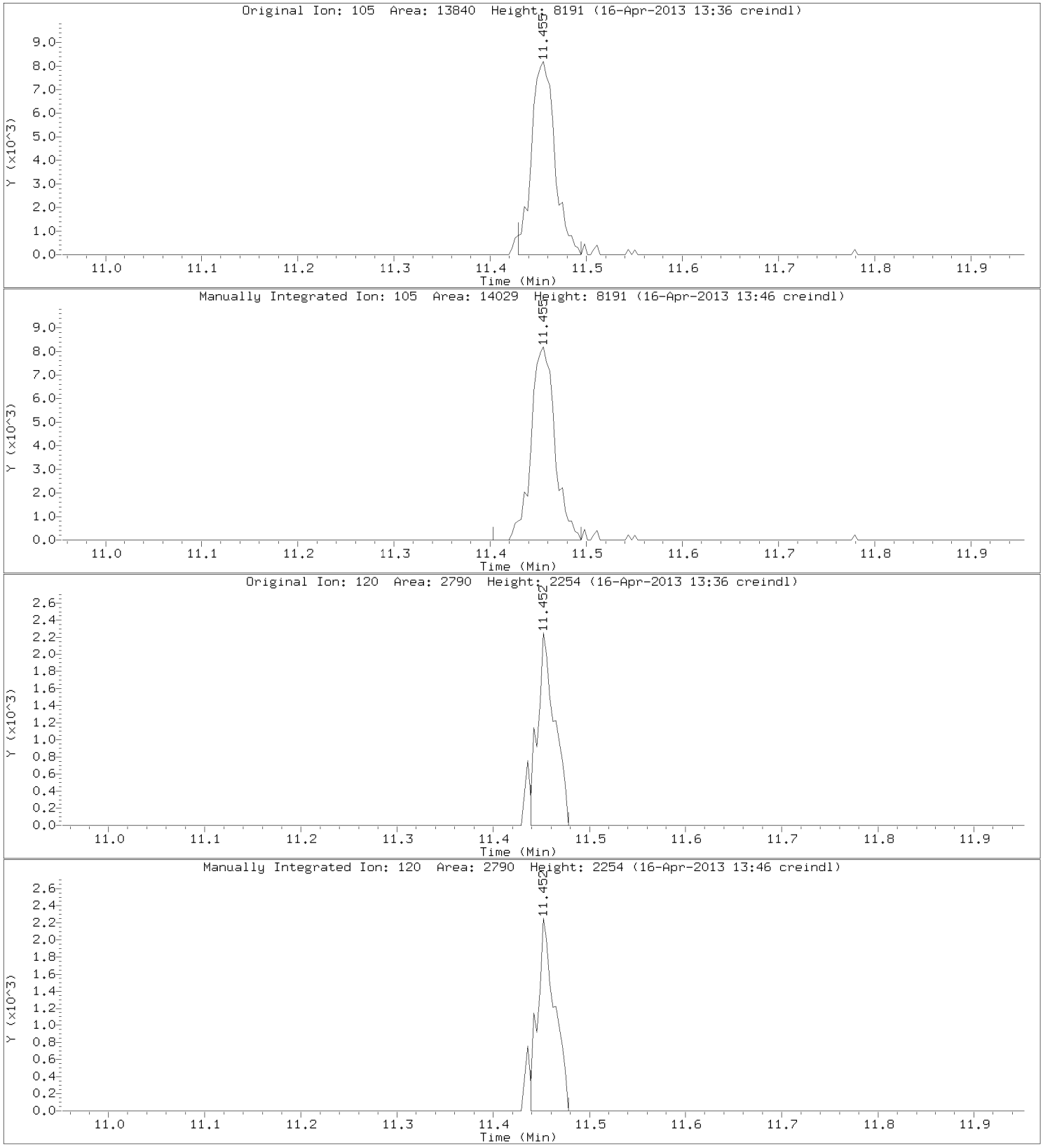
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



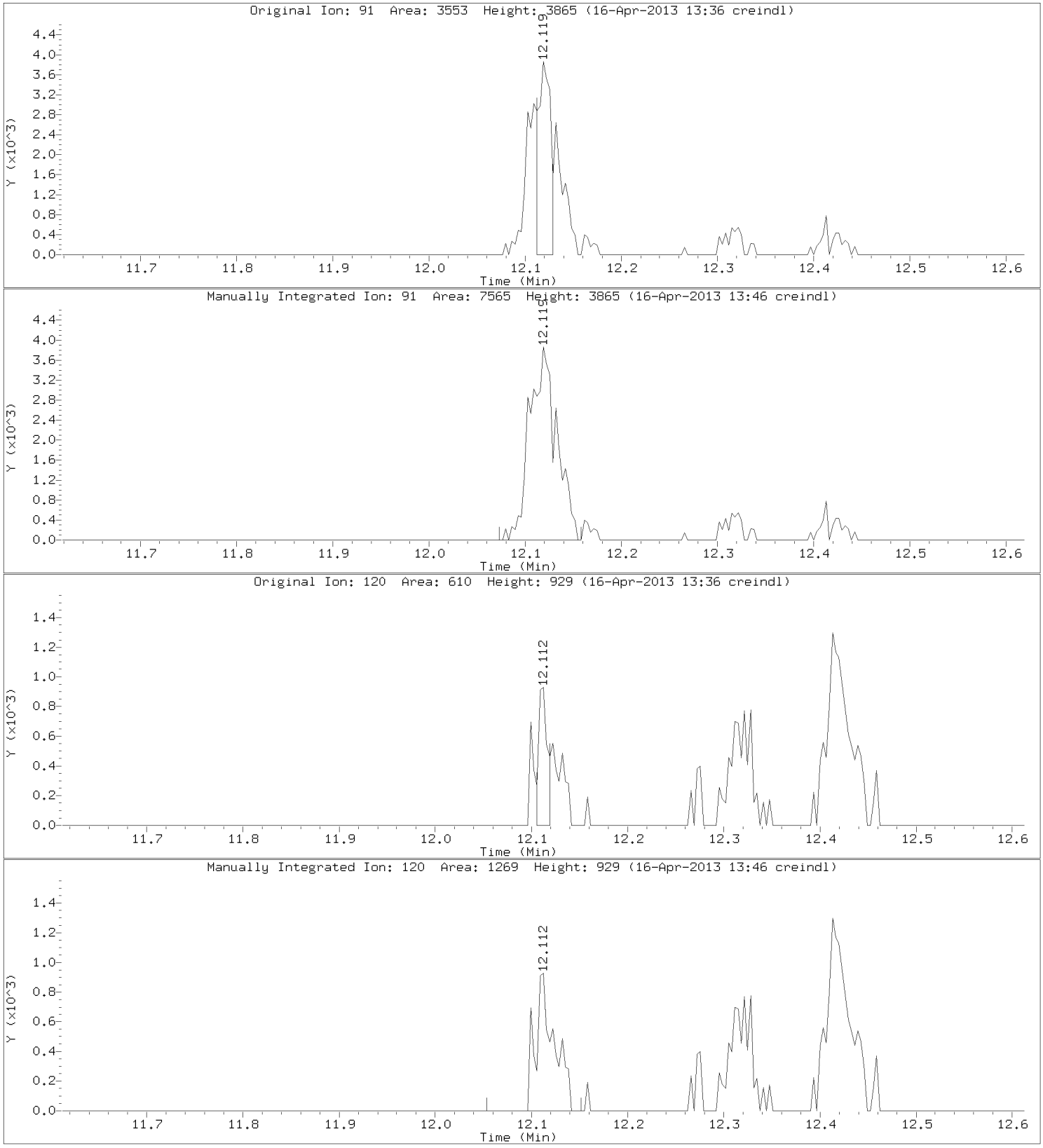
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Isopropylbenzene
CAS Number:



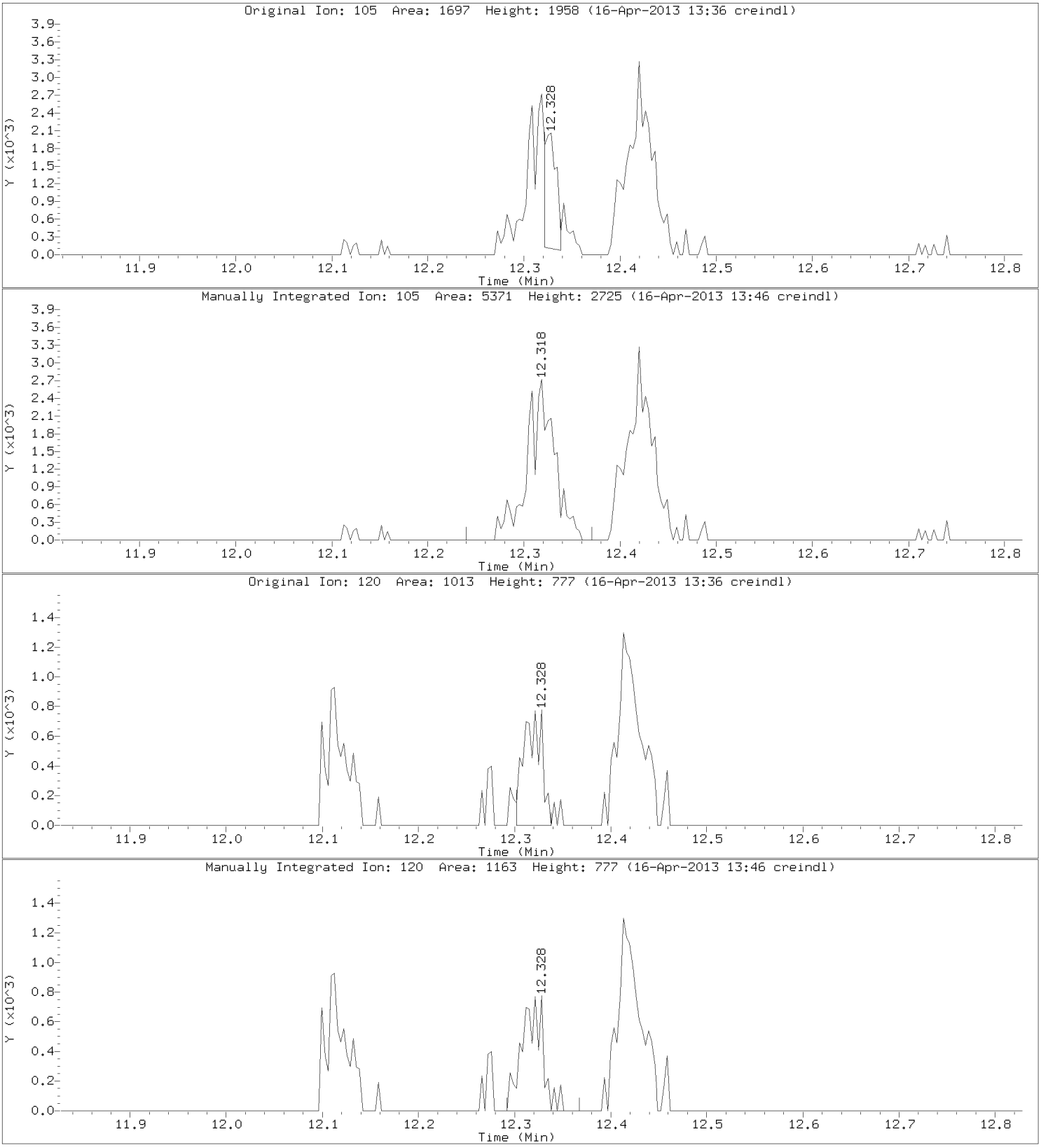
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: N-Propylbenzene
CAS Number: 103-65-1

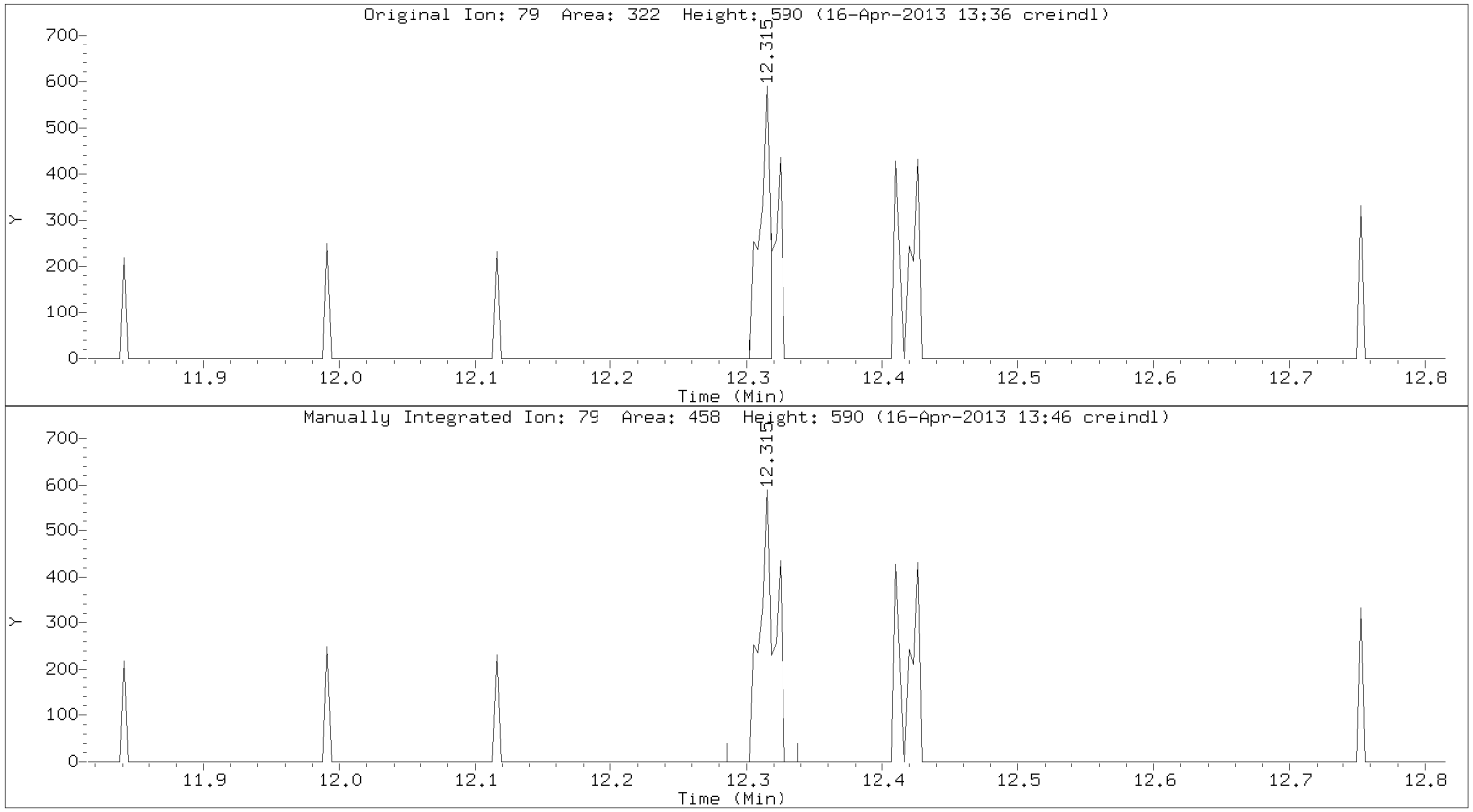


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

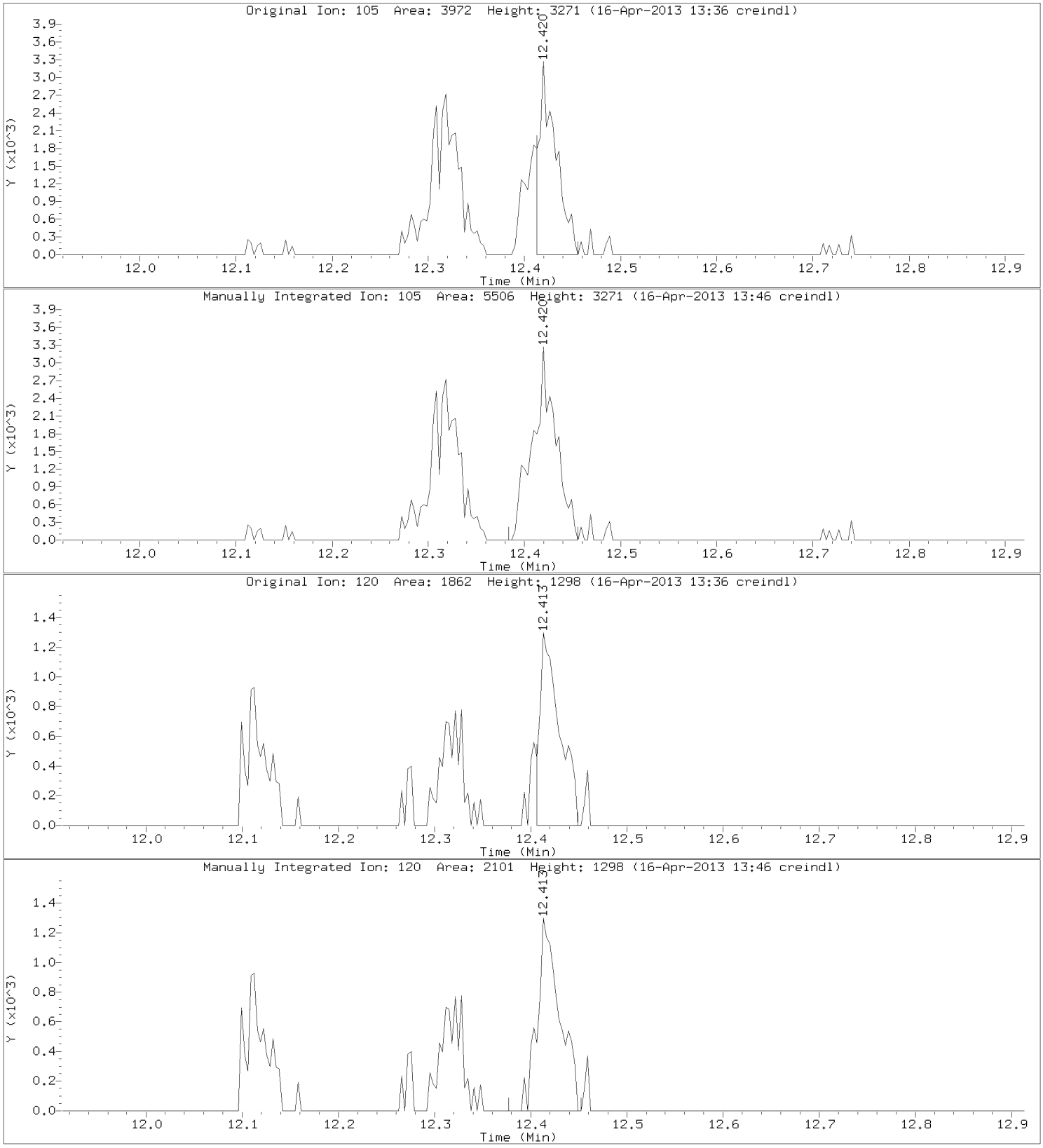


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Lab Sample ID: ICAL1



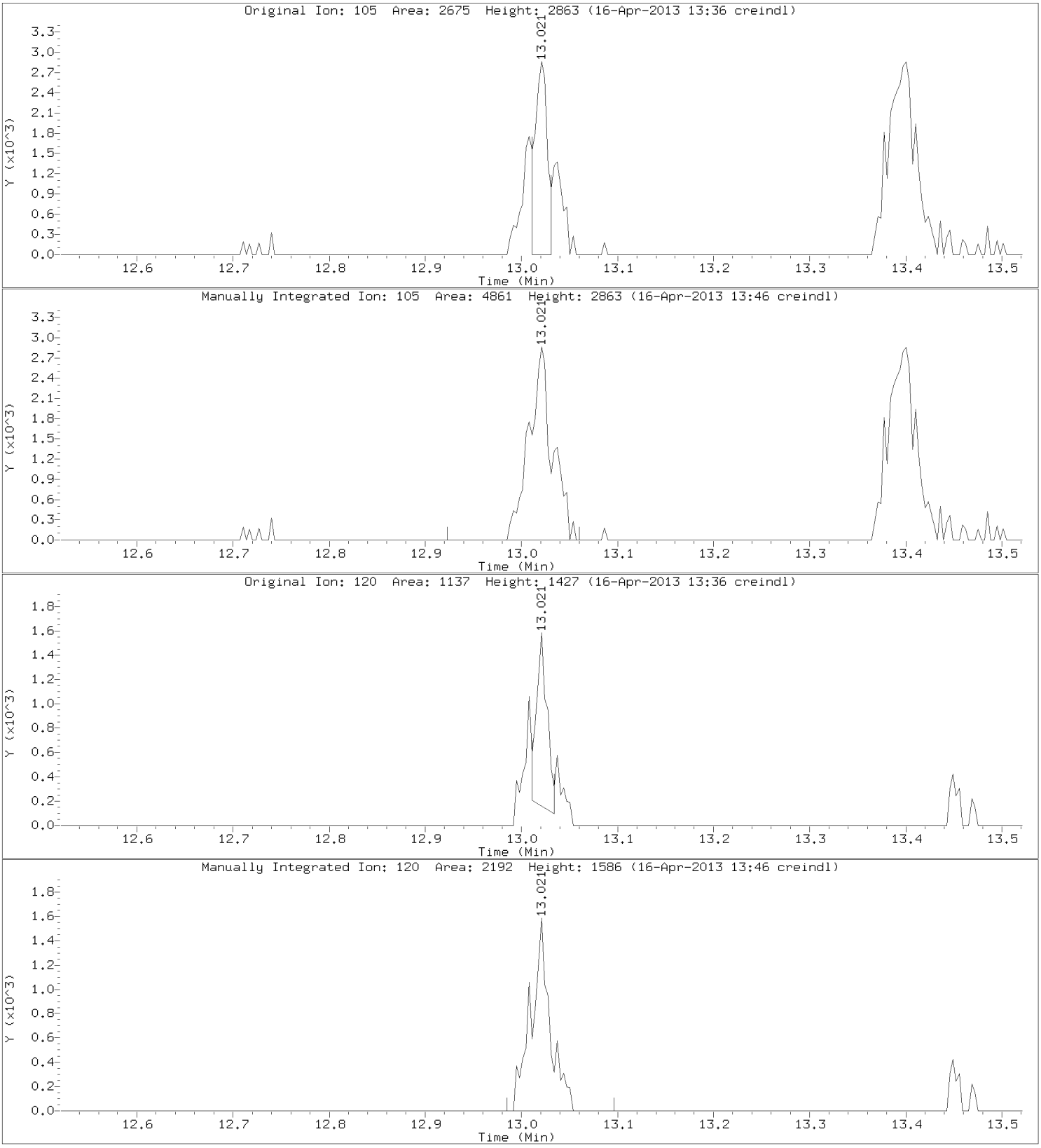
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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,3,5-Trimethylbenzene
CAS Number: 108-67-8



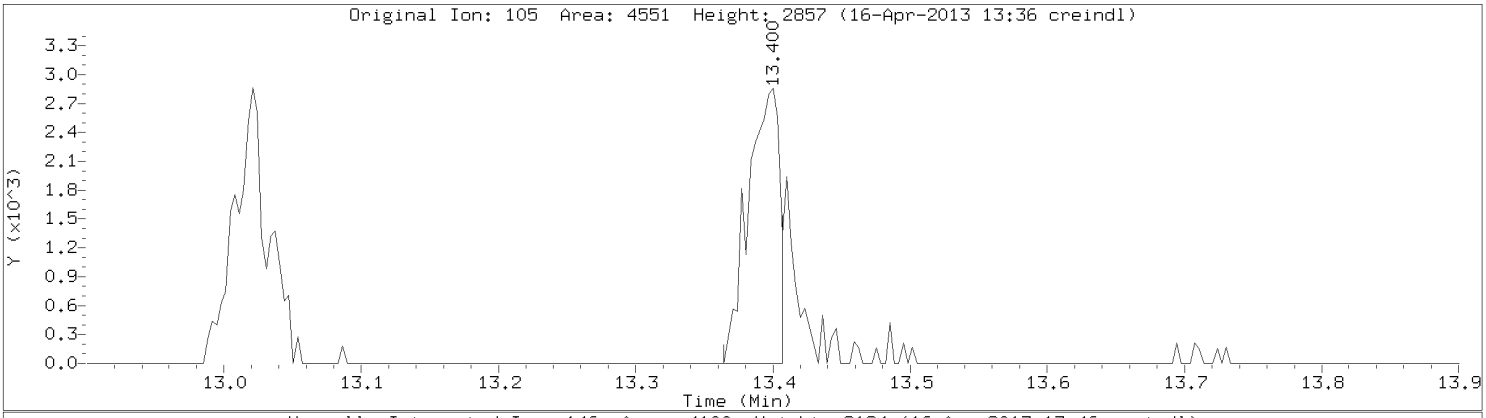
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Lab Sample ID: ICAL1

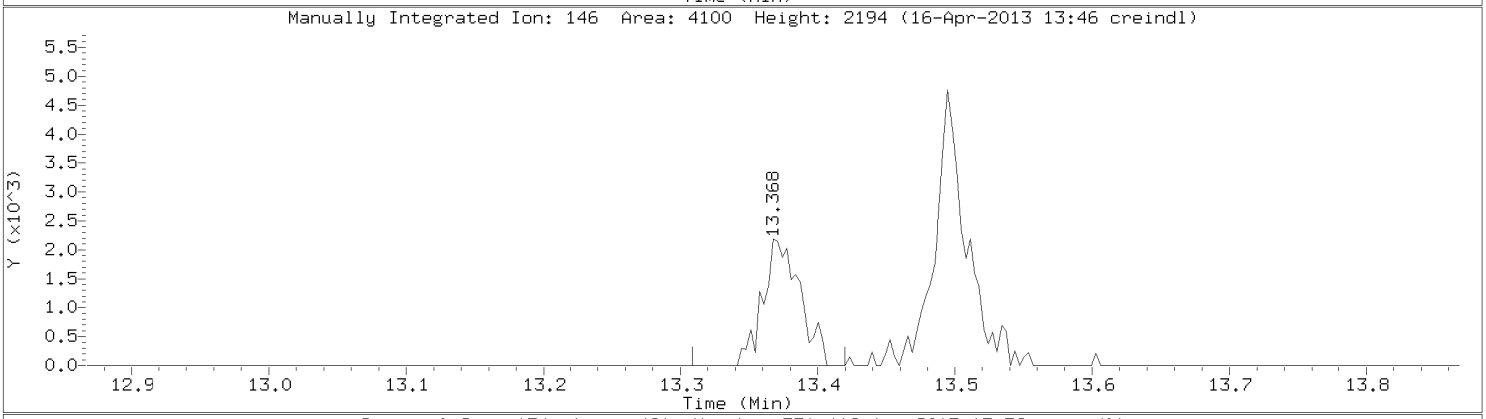
Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6

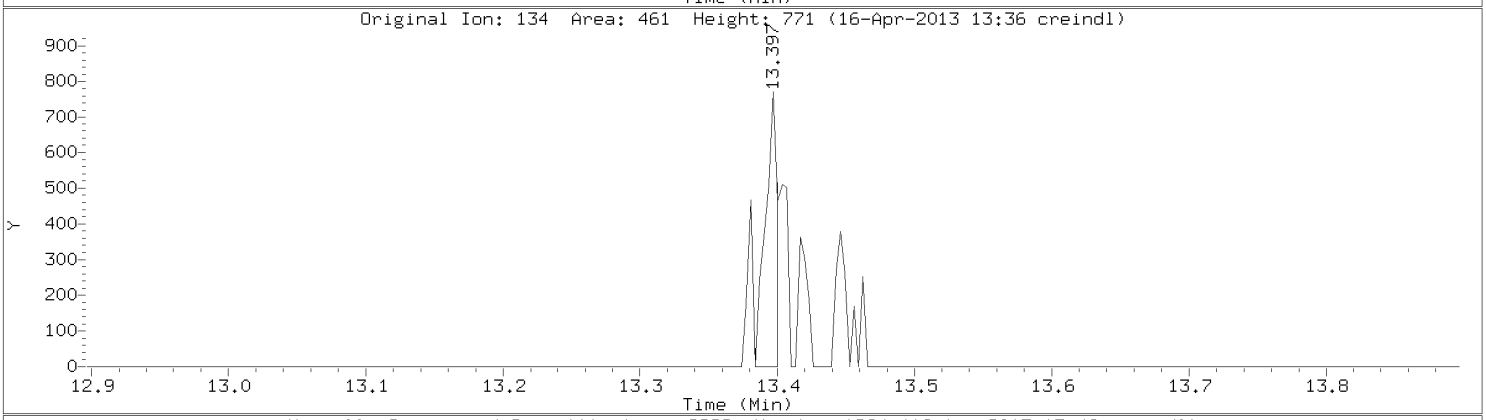


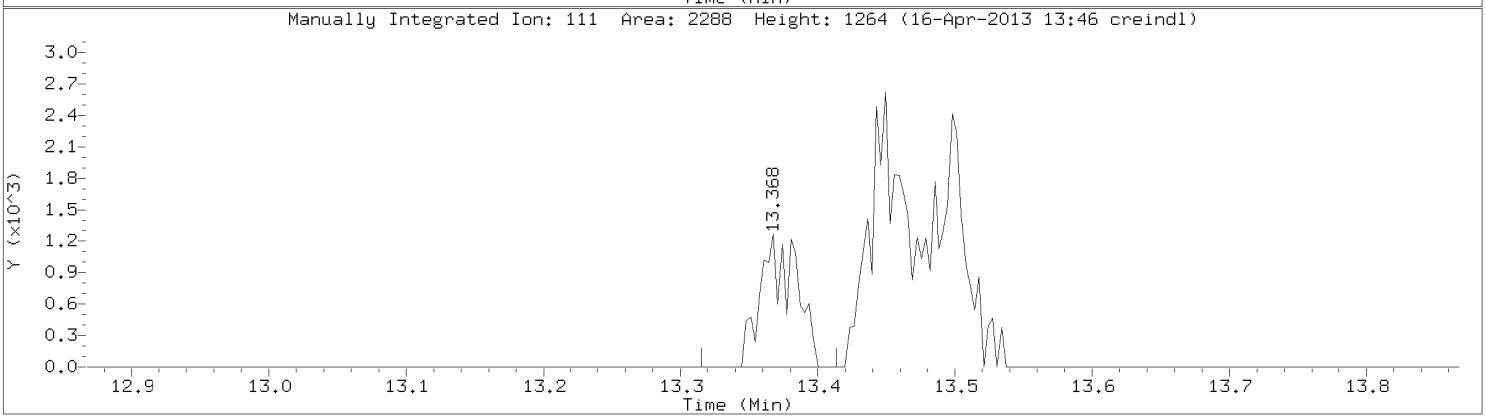
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,3-Dichlorobenzene
CAS Number: 541-73-1

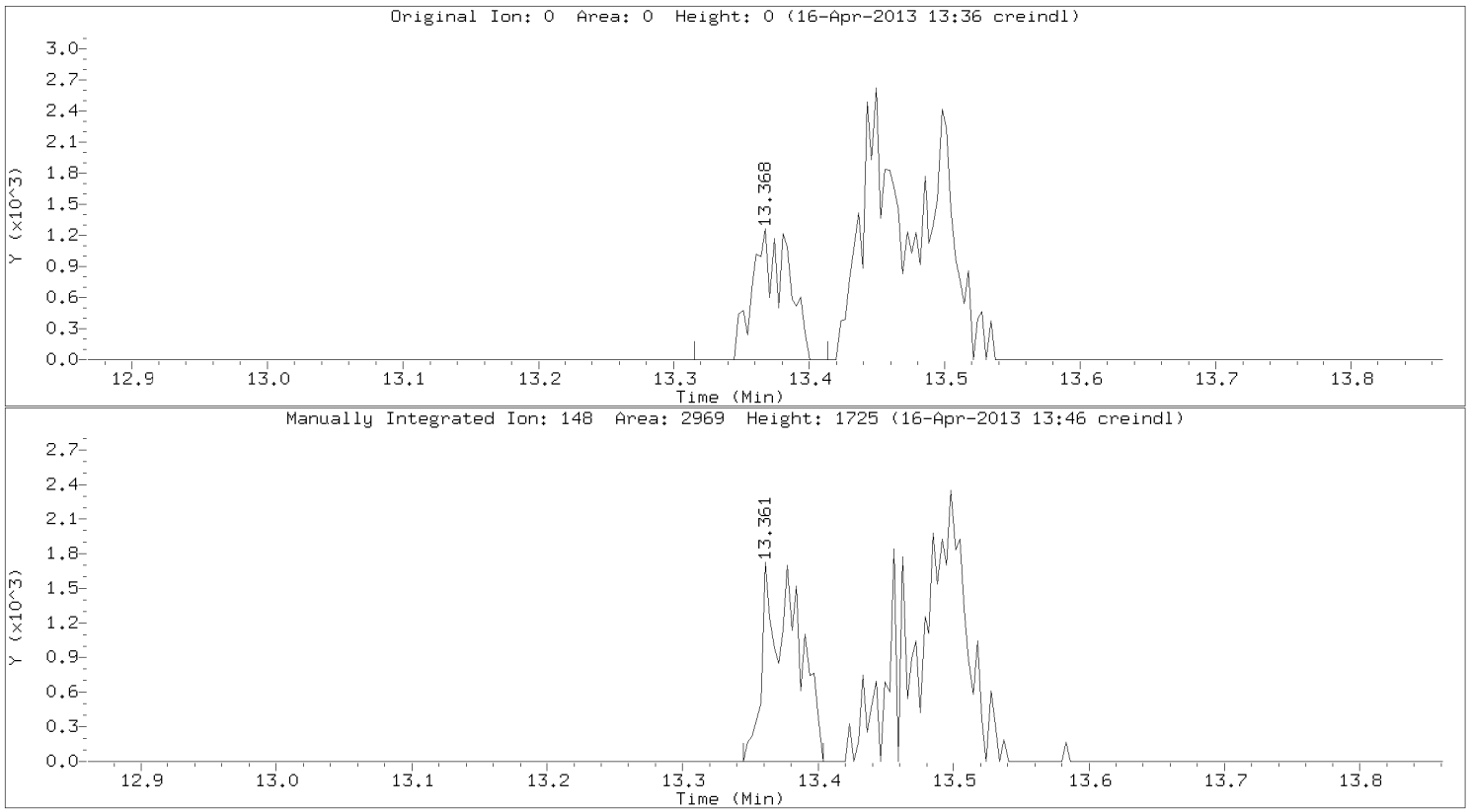






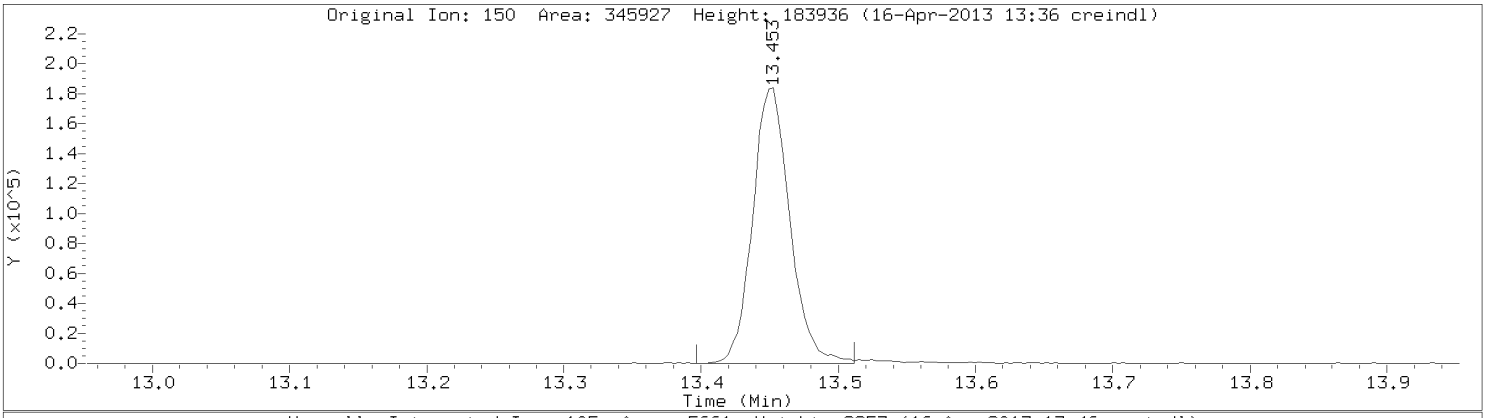


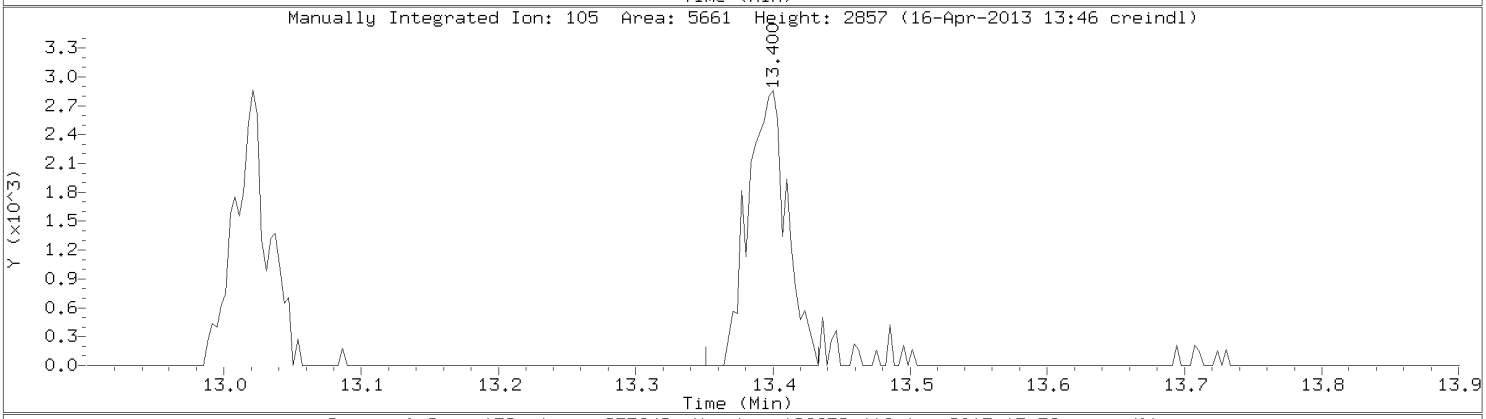
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Lab Sample ID: ICAL1

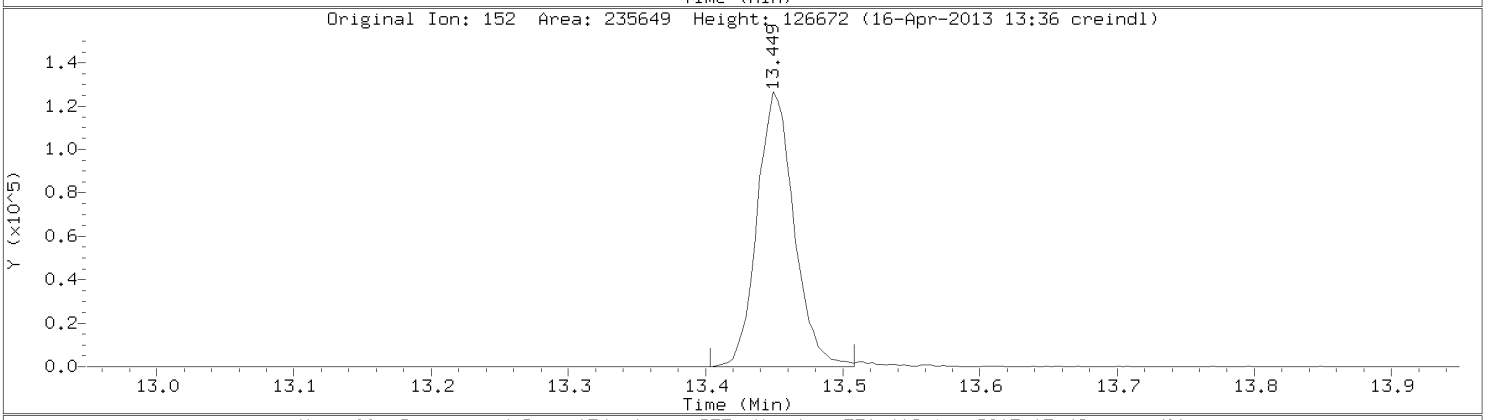


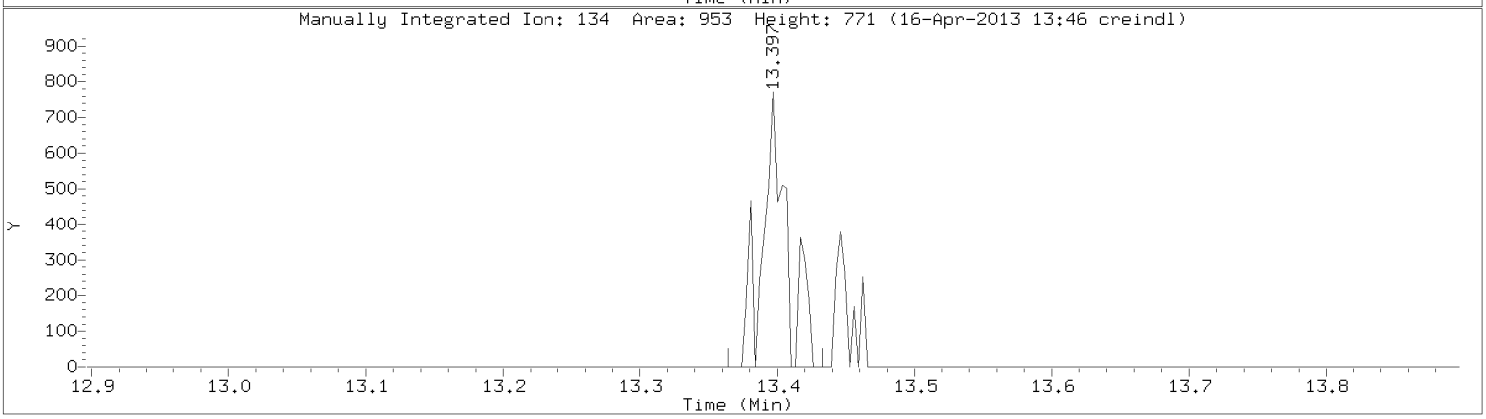
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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Sec- Butylbenzene
CAS Number: 135-98-8



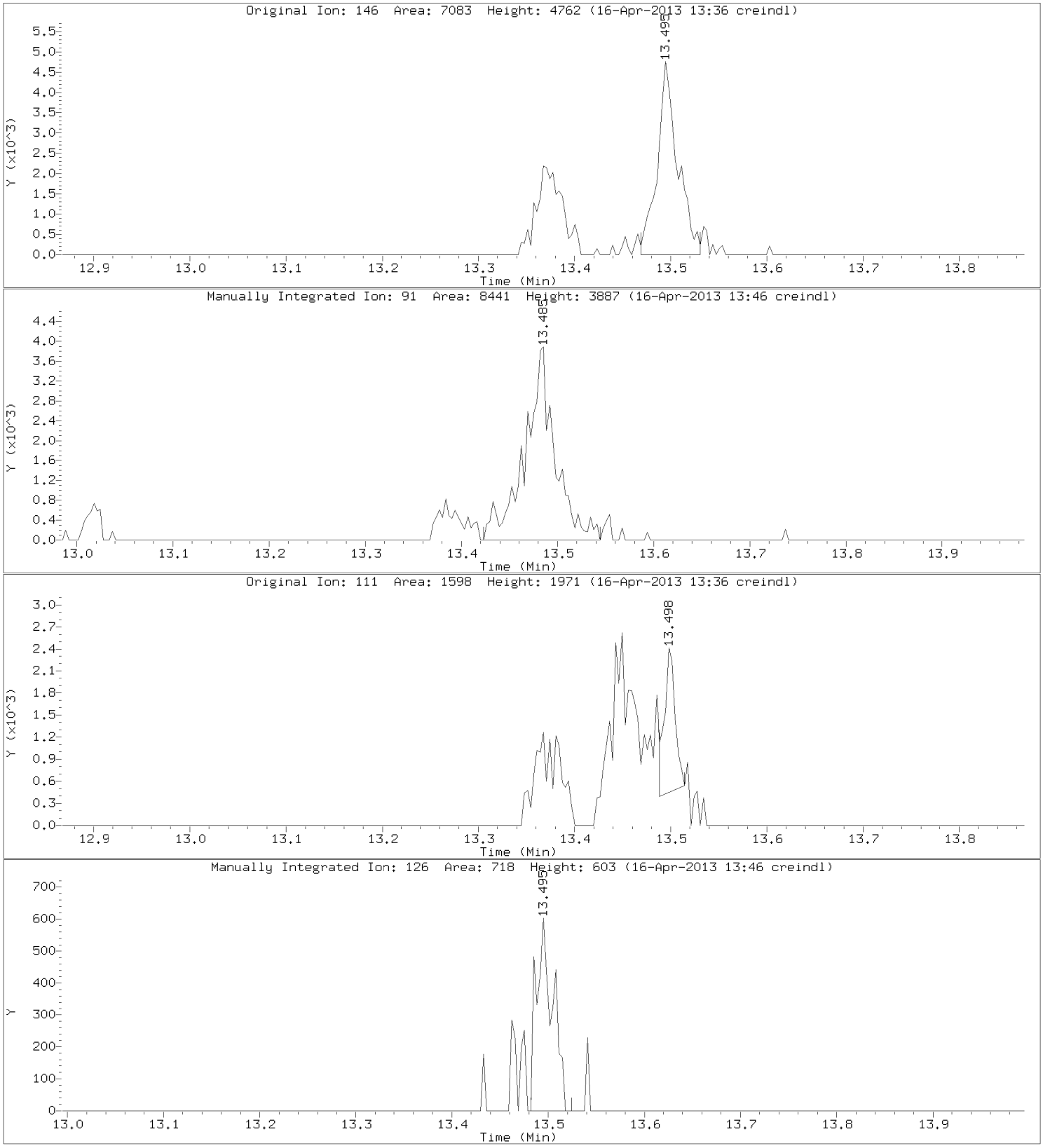






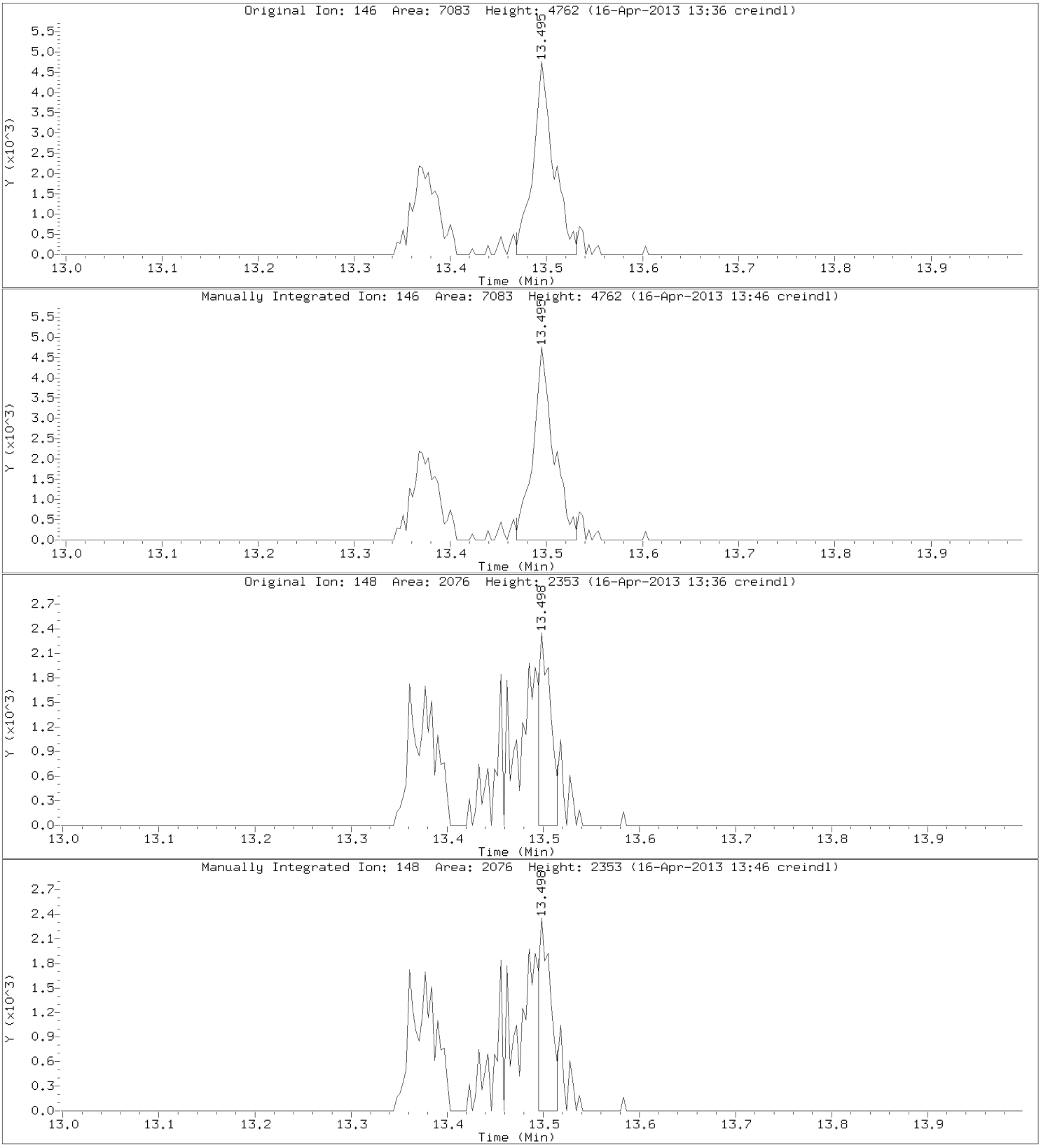
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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Benzyl Chloride
CAS Number: 100-44-7

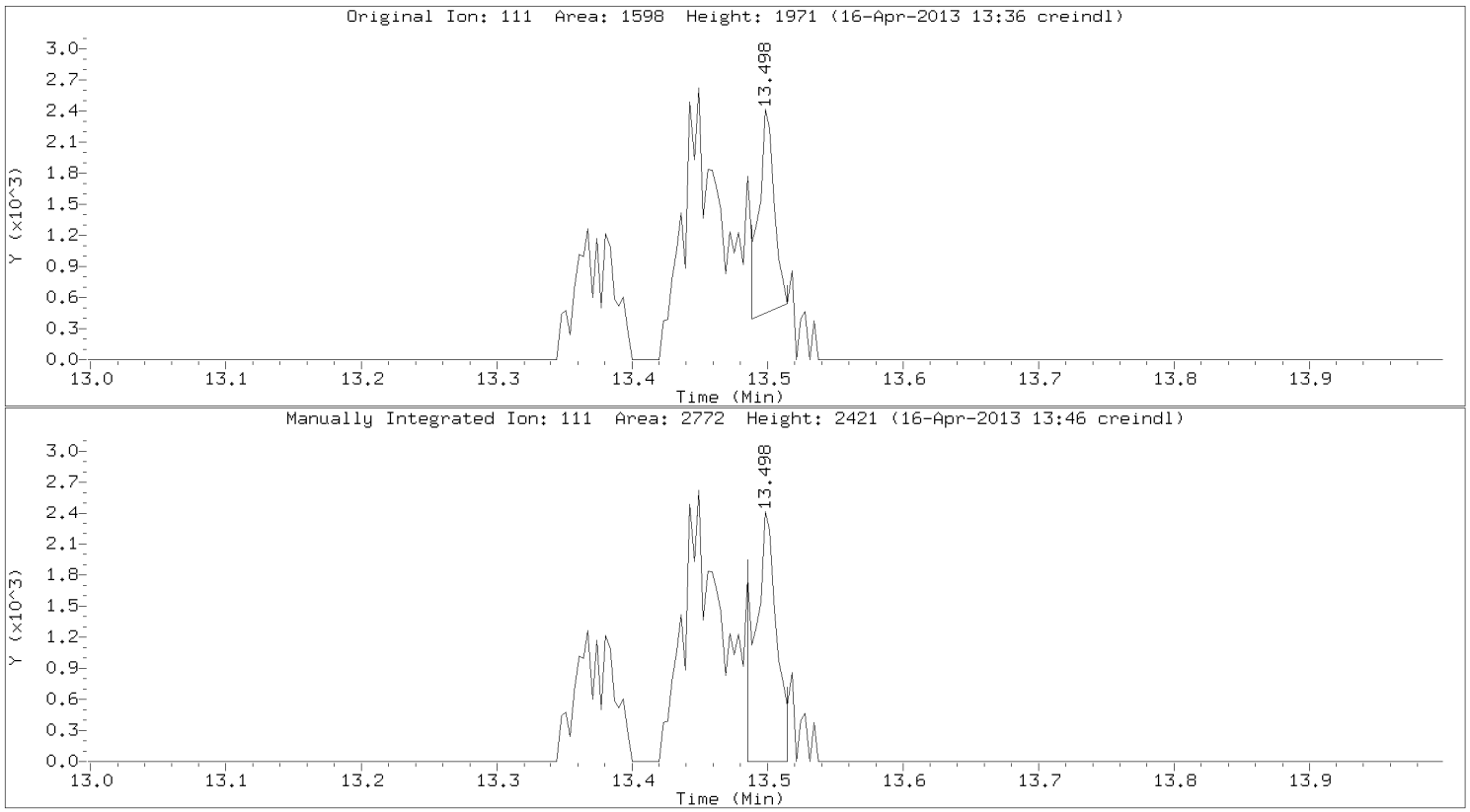


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7

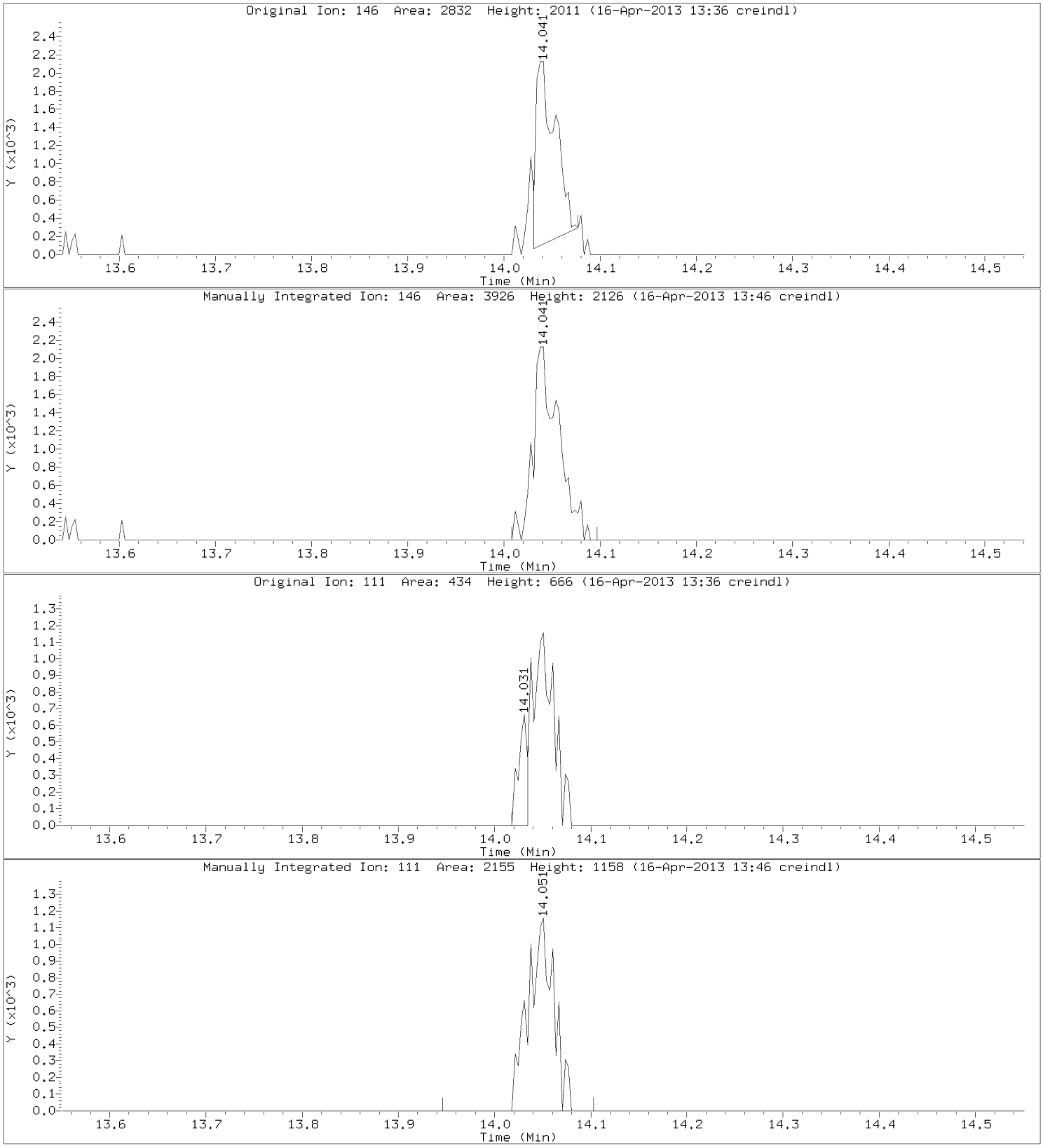


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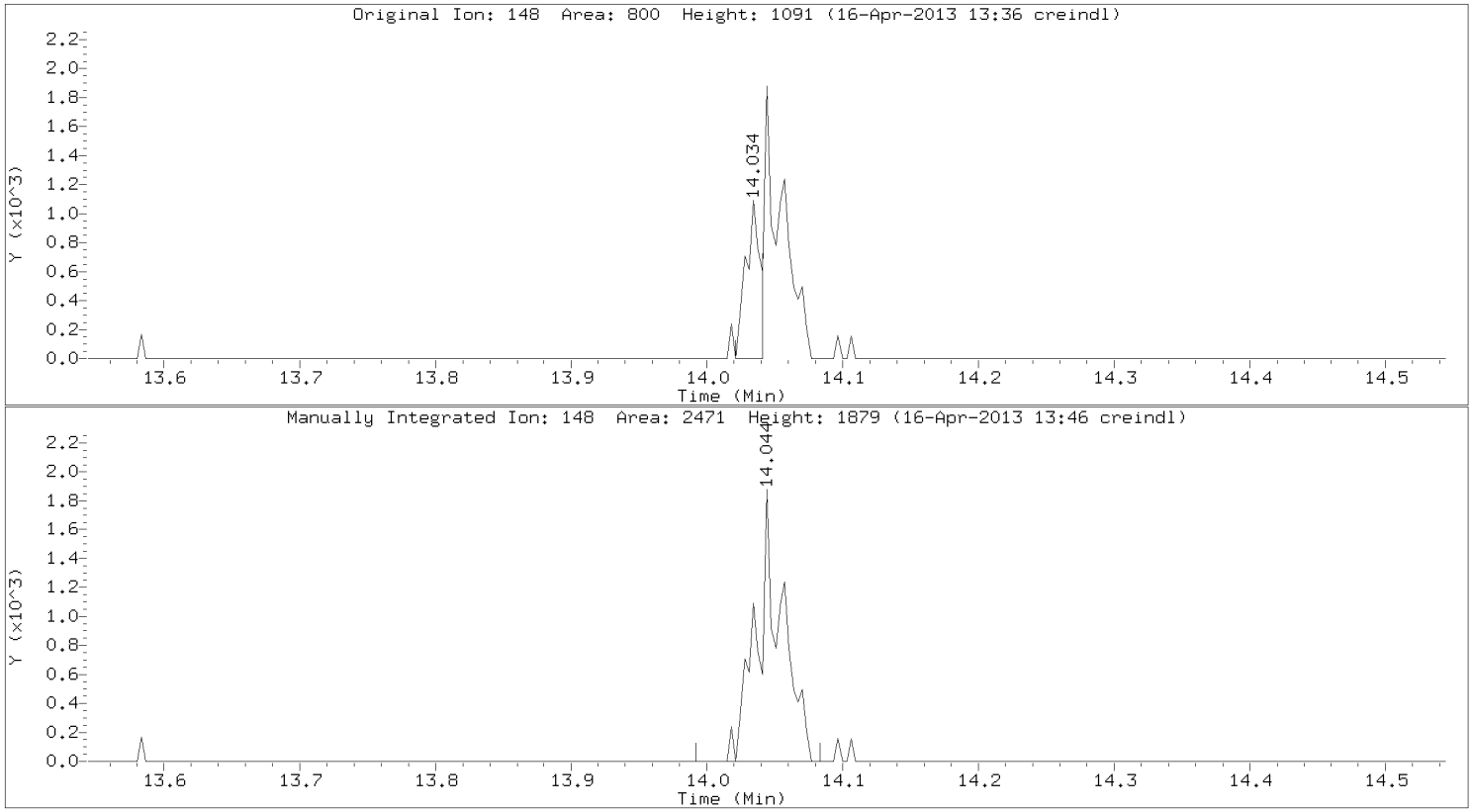


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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1

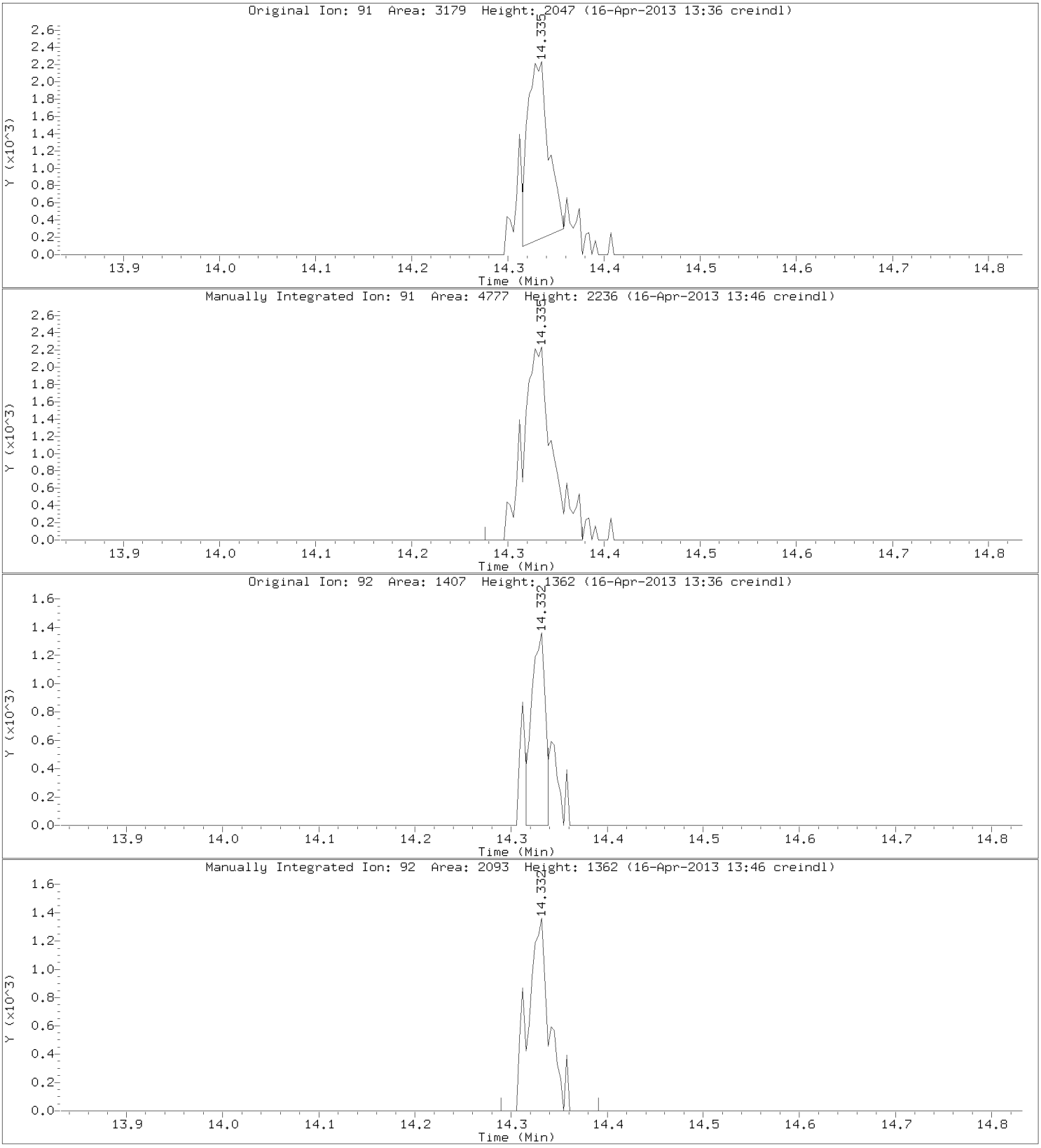


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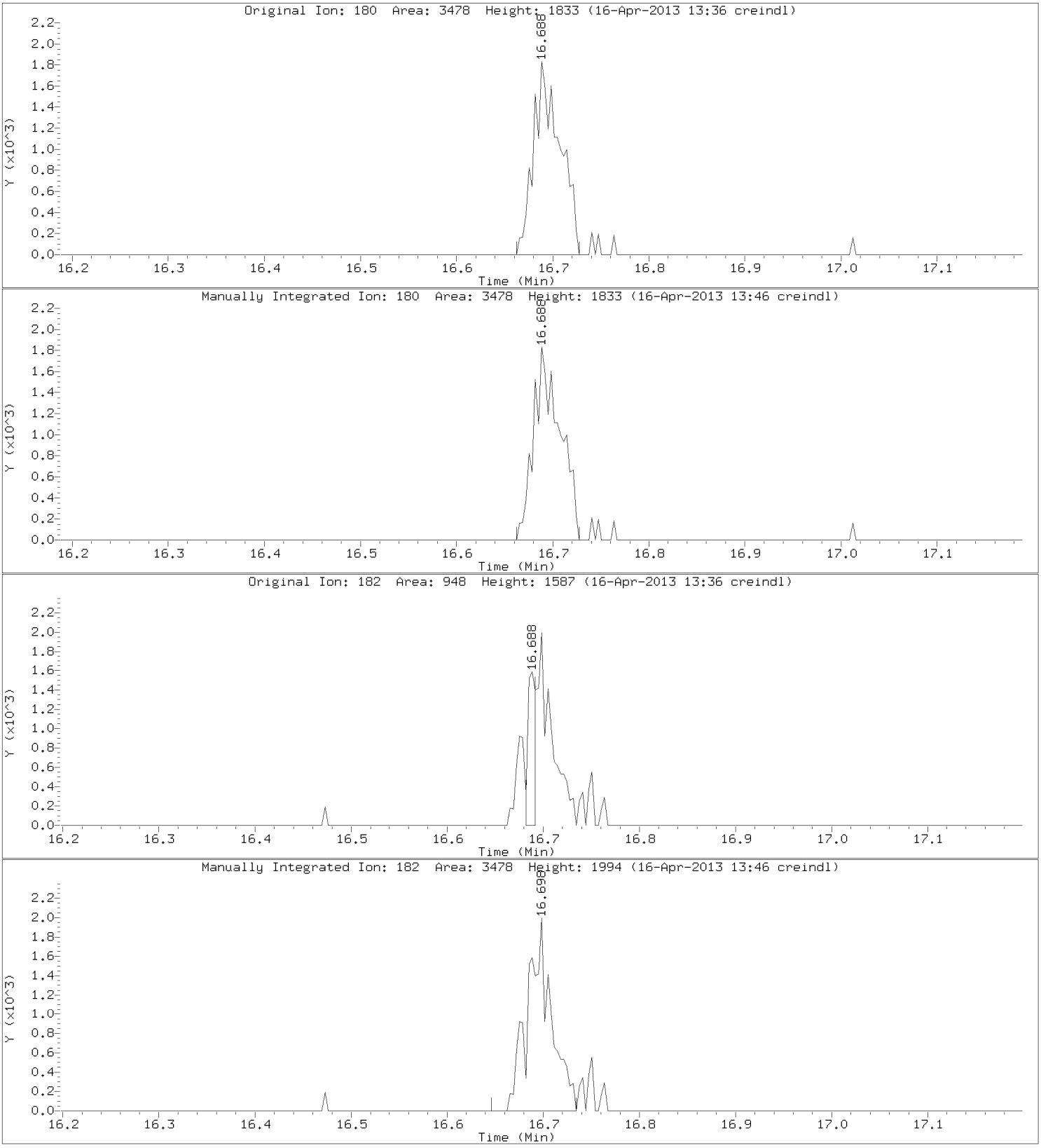
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: N-Butylbenzene
CAS Number: 104-51-8

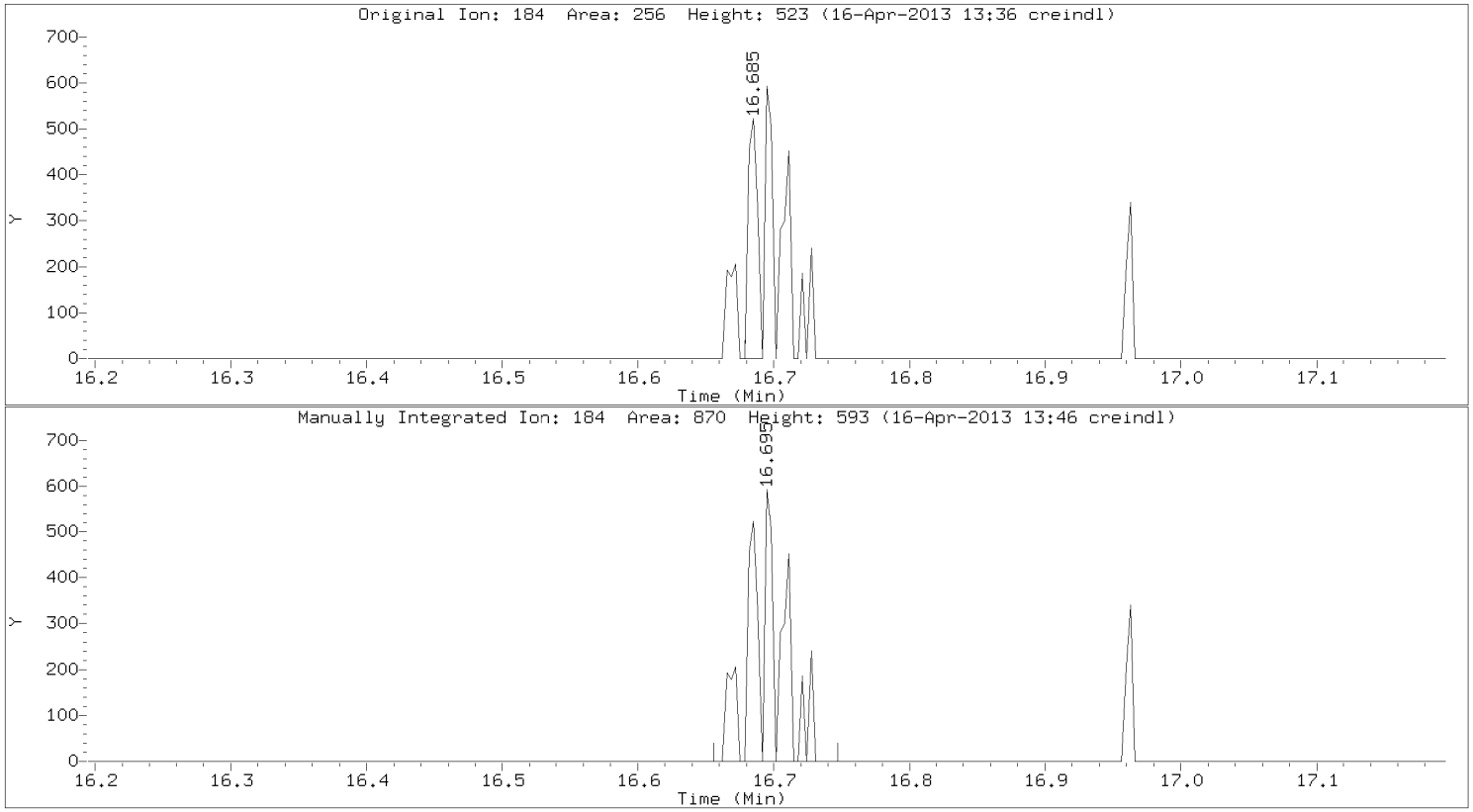


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,2,4-Trichlorobenzene
CAS Number: 95-63-6

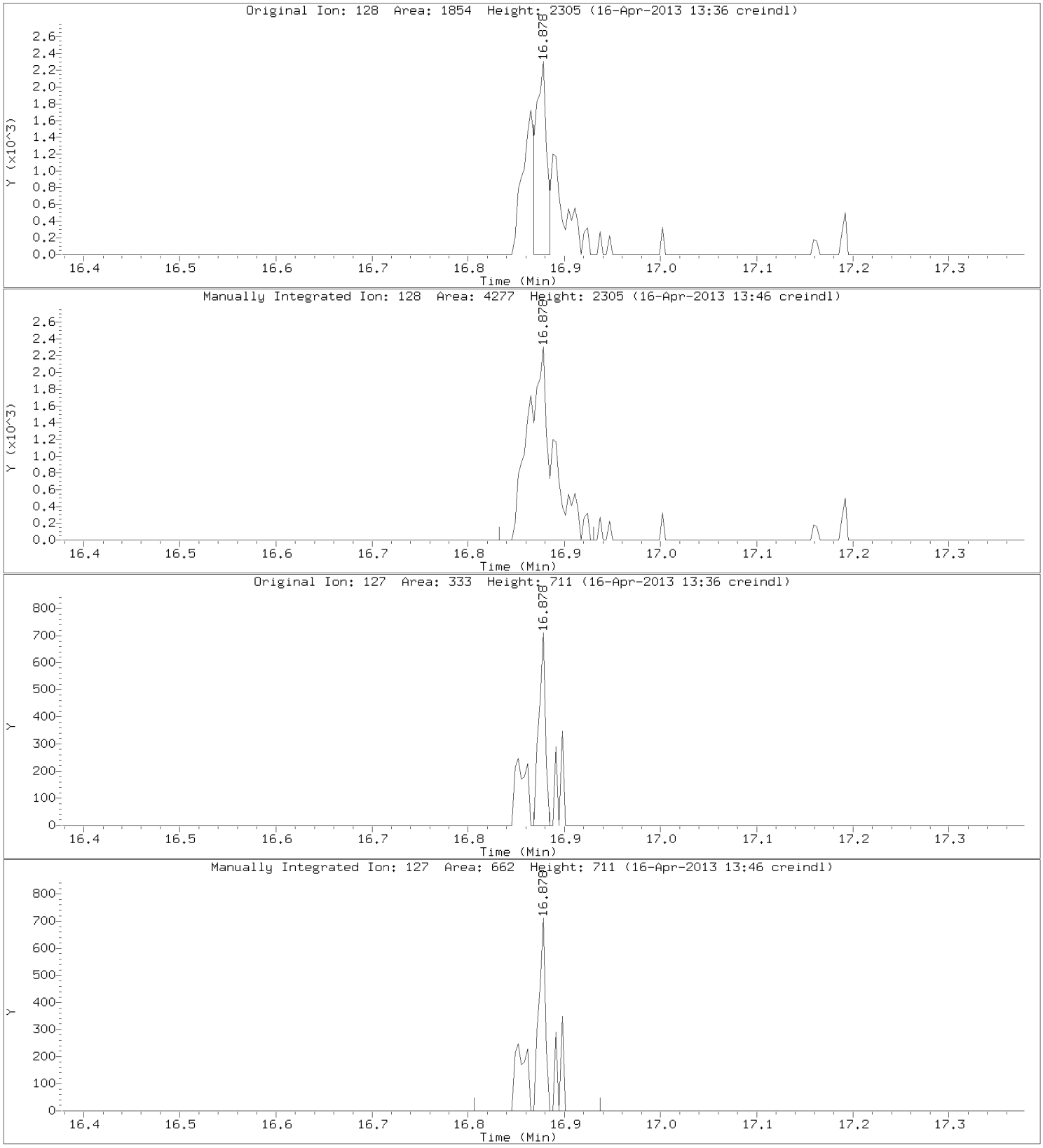


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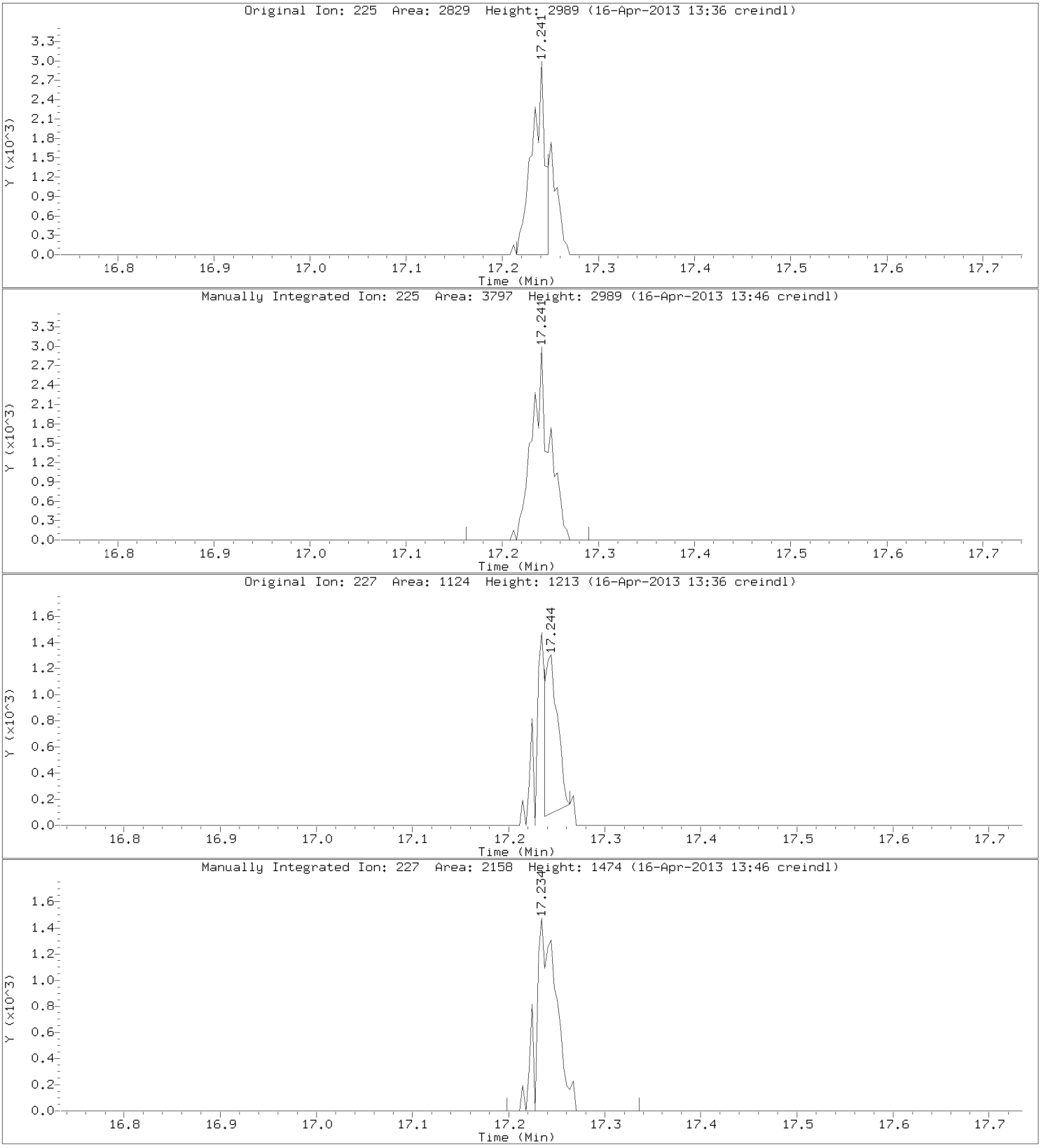
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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Naphthalene
CAS Number: 91-20-3

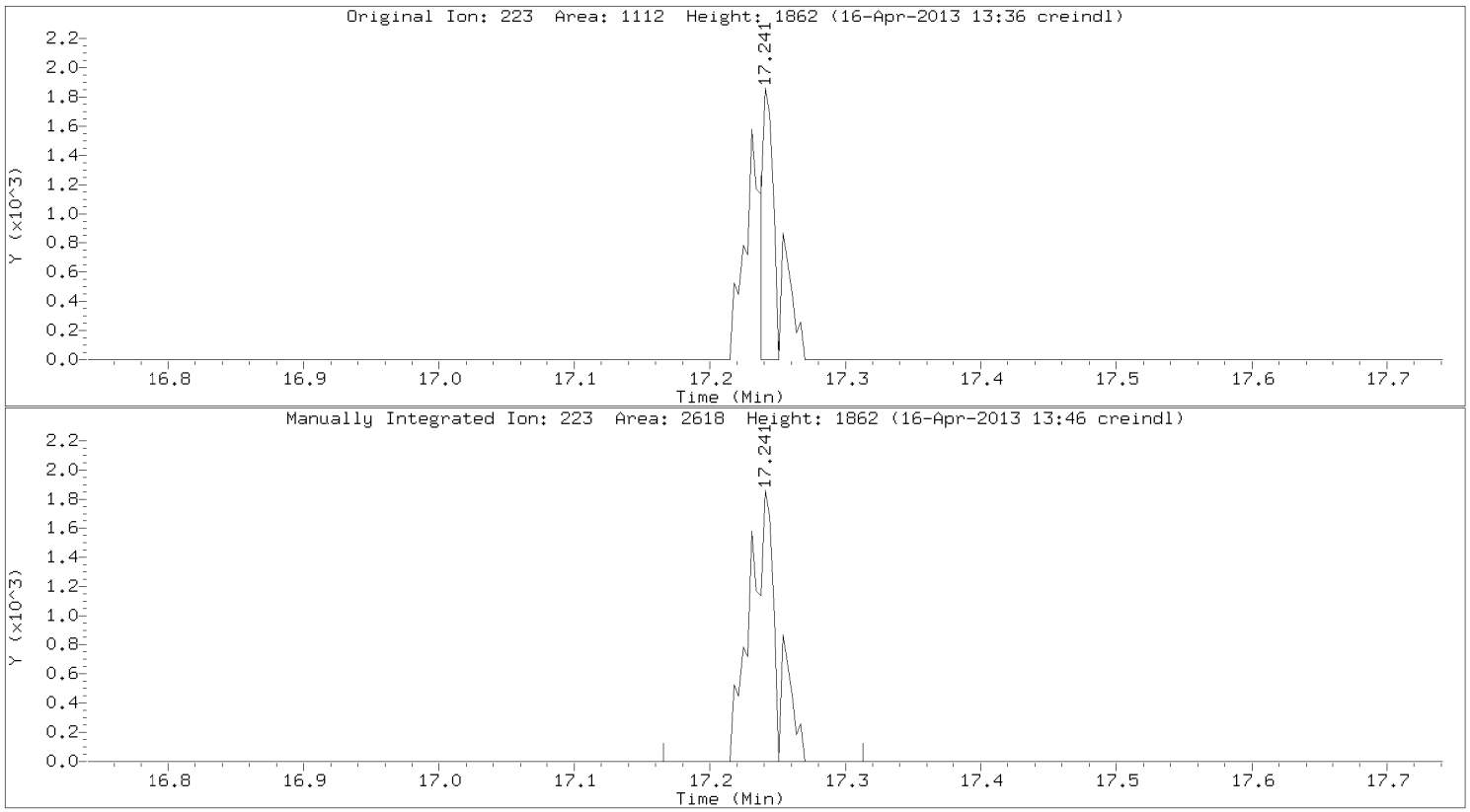


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Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Data File: \\192.168.10.12\chem\10airD.i\041613.B/10605.d
Injection Date: 16-APR-2013 10:41
Instrument: 10airD.i
Lab Sample ID: ICAL1



Data File: \\192.168.10.12\chem\10airD.i\041613.B\10606.d
Report Date: 16-Apr-2013 13:53

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041613.B\10606.d
Lab Smp Id: ICAL2
Inj Date : 16-APR-2013 11:10
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Meth Date : 16-Apr-2013 13:39 10airD.i Quant Type: ISTD
Cal Date : 16-APR-2013 11:10 Cal File: 10606.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.933	2.933	(0.484)	1733	0.20000	0.275(M)
2	Dichlorodifluoromethane	85	2.950	2.950	(0.487)	31808	0.20000	0.218(M)
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	25125	0.20000	0.217
4	Chloromethane	50	3.051	3.051	(0.503)	6496	0.20000	0.206
5	Vinyl chloride	62	3.143	3.143	(0.518)	7197	0.20000	0.204(M)
6	1,3-Butadiene	54	3.185	3.185	(0.526)	2987	0.20000	0.176(M)
7	Bromomethane	94	3.342	3.342	(0.551)	8403	0.20000	0.215(M)
8	Chloroethane	64	3.391	3.391	(0.559)	3570	0.20000	0.192(M)
9	Ethanol	31	3.447	3.447	(0.569)	6003	0.20000	0.262(M)
10	Vinyl Bromide	106	3.538	3.538	(0.584)	6739	0.20000	0.205(M)
11	Acrolein	56	3.649	3.649	(0.602)	1415	0.20000	0.170(M)
12	Trichlorofluoromethane	101	3.646	3.646	(0.602)	29276	0.20000	0.218(M)
13	Acetone	43	3.695	3.695	(0.610)	29856	0.20000	0.0563(M)
14	Isopropyl Alcohol	45	3.711	3.711	(0.612)	8508	0.20000	0.260(M)
15	1,1-Dichloroethene	61	3.927	3.927	(0.648)	14197	0.20000	0.216(M)
16	Acrylonitrile	53	3.943	3.943	(0.651)	4505	0.20000	0.217(M)
17	Tert Butyl Alcohol	59	3.947	3.947	(0.651)	12513	0.20000	0.217(M)
18	Freon 113	101	3.986	3.986	(0.658)	18011	0.20000	0.212(M)
19	Methylene chloride	49	4.045	4.045	(0.667)	8633	0.20000	0.222(M)
20	Allyl Chloride	76	4.058	4.058	(0.669)	3085	0.20000	0.186(M)
21	Carbon Disulfide	76	4.182	4.182	(0.690)	25906	0.20000	0.210(M)
22	trans-1,2-dichloroethene	96	4.375	4.375	(0.722)	8215	0.20000	0.210(M)
23	Methyl Tert Butyl Ether	73	4.424	4.424	(0.730)	17147	0.20000	0.199
24	Vinyl Acetate	43	4.535	4.535	(0.748)	13898	0.20000	0.204(M)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10606.d
Report Date: 16-Apr-2013 13:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	25 1,1-Dichloroethane	63	4.535	4.535	(0.748)	15411	0.20000	0.206
$	26 Hexane-d14(S)	66	4.656	4.656	(0.768)	605111	10.0000	10.2
	27 Methyl Ethyl Ketone	72	4.747	4.747	(0.783)	3830	0.20000	0.204(M)
	28 n-Hexane	57	4.777	4.777	(0.788)	12590	0.20000	0.216(M)
	29 cis-1,2-Dichloroethene	96	4.934	4.934	(0.814)	6857	0.20000	0.298(M)
	30 Ethyl Acetate	43	4.966	4.966	(0.819)	8860	0.20000	0.174(M)
	31 Chloroform	83	5.074	5.074	(0.837)	21830	0.20000	0.211
	32 Tetrahydrofuran	42	5.293	5.293	(0.873)	2413	0.20000	0.336(M)
	33 1,1,1-Trichloroethane	97	5.558	5.558	(0.917)	20042	0.20000	0.200
	34 1,2-Dichloroethane	62	5.578	5.578	(0.920)	15926	0.20000	0.205(M)
	35 Benzene	78	5.852	5.852	(0.965)	24082	0.20000	0.198
	36 Carbon tetrachloride	117	5.872	5.872	(0.969)	20113	0.20000	0.201
	37 Cyclohexane	56	5.878	5.878	(0.970)	4623	0.20000	0.320(M)
*	38 1,4-Difluorobenzene	114	6.061	6.061	(1.000)	1322641	10.0000	
	39 2,2,4-Trimethylpentane	57	6.245	6.245	(1.030)	15601	0.20000	0.345(M)
	40 Heptane	43	6.414	6.414	(1.058)	3866	0.20000	0.334(M)
	41 1,2-Dichloropropane	63	6.480	6.480	(1.069)	6283	0.20000	0.187(M)
	42 Trichloroethene	130	6.503	6.503	(1.073)	5635	0.20000	0.190(M)
	43 1,4-Dioxane	88	6.666	6.666	(1.100)	2162	0.20000	0.200(M)
	44 Bromodichloromethane	83	6.627	6.627	(1.093)	19893	0.20000	0.191
	45 Methyl Isobutyl Ketone	43	7.219	7.219	(1.191)	5286	0.20000	0.356(M)
	46 cis-1,3-Dichloropropene	75	7.258	7.258	(1.197)	6664	0.20000	0.312(M)
	47 trans-1,3-Dichloropropene	75	7.751	7.751	(1.279)	6323	0.20000	0.394(M)
$	48 Toluene-d8 (S)	98	7.827	7.827	(1.291)	1176156	10.0000	9.76
	49 Toluene	91	7.915	7.915	(1.306)	34775	0.20000	0.147
	50 1,1,2-Trichloroethane	97	7.928	7.928	(1.308)	9287	0.20000	0.304(M)
	51 Methyl Butyl Ketone	43	8.245	8.245	(0.852)	4520	0.20000	0.294(M)
	52 Dibromochloromethane	129	8.539	8.539	(0.882)	10831	0.20000	0.175
	53 1,2-Dibromoethane	107	8.807	8.807	(0.910)	10593	0.20000	0.268(M)
	54 Tetrachloroethene	166	8.899	8.899	(0.920)	10100	0.20000	0.197(M)
*	55 Chlorobenzene - d5	117	9.677	9.677	(1.000)	719813	10.0000	
	56 Chlorobenzene	112	9.722	9.722	(1.005)	14764	0.20000	0.188(M)
	57 Ethyl Benzene	91	10.026	10.026	(1.036)	14698	0.20000	0.248(M)
	58 m&p-Xylene	91	10.200	10.200	(1.054)	17597	0.20000	0.172(M)
	59 Bromoform	173	10.654	10.654	(1.101)	11698	0.20000	0.178(M)
	60 Styrene	104	10.700	10.700	(1.106)	5269	0.20000	0.355(M)
	61 o-Xylene	91	10.778	10.778	(1.114)	15044	0.20000	0.192(M)
	62 1,1,2,2-Tetrachloroethane	83	11.089	11.089	(1.146)	15014	0.20000	0.186(M)
	63 Isopropylbenzene	105	11.458	11.458	(1.184)	27214	0.20000	0.181(M)
	64 N-Propylbenzene	91	12.122	12.122	(1.253)	16330	0.20000	0.225(M)
	65 4-Ethyltoluene	105	12.324	12.324	(1.274)	12058	0.20000	0.138(M)
	66 1,3,5-Trimethylbenzene	105	12.416	12.416	(1.283)	12003	0.20000	0.239(M)
	67 1,2,4-Trimethylbenzene	105	13.017	13.017	(1.345)	8692	0.20000	0.281(M)
	68 1,3-Dichlorobenzene	146	13.380	13.380	(1.383)	8316	0.20000	0.244(M)
	69 Sec- Butylbenzene	105	13.386	13.386	(1.383)	14188	0.20000	0.263(M)
$	70 1,4-dichlorobenzene-d4 (S)	150	13.449	13.449	(1.390)	376067	10.0000	9.42
	71 Benzyl Chloride	91	13.481	13.481	(1.393)	14719	0.20000	0.412(M)
	72 1,4-Dichlorobenzene	146	13.498	13.498	(1.395)	13283	0.20000	0.299(M)
	73 1,2-Dichlorobenzene	146	14.037	14.037	(1.451)	6898	0.20000	0.334(M)
	74 N-Butylbenzene	91	14.334	14.334	(1.481)	9641	0.20000	0.299(M)
	75 1,2,4-Trichlorobenzene	180	16.694	16.694	(1.725)	4661	0.20000	0.362(M)
	76 Naphthalene	128	16.874	16.874	(1.744)	4949	0.20000	0.301(M)
	77 Hexachlorobutadiene	225	17.243	17.243	(1.782)	11063	0.20000	0.275(M)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10606.d
Report Date: 16-Apr-2013 13:53

QC Flag Legend

M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10606.d
Report Date: 16-Apr-2013 13:53

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10606.d
Lab Smp Id: ICAL2
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Misc Info:

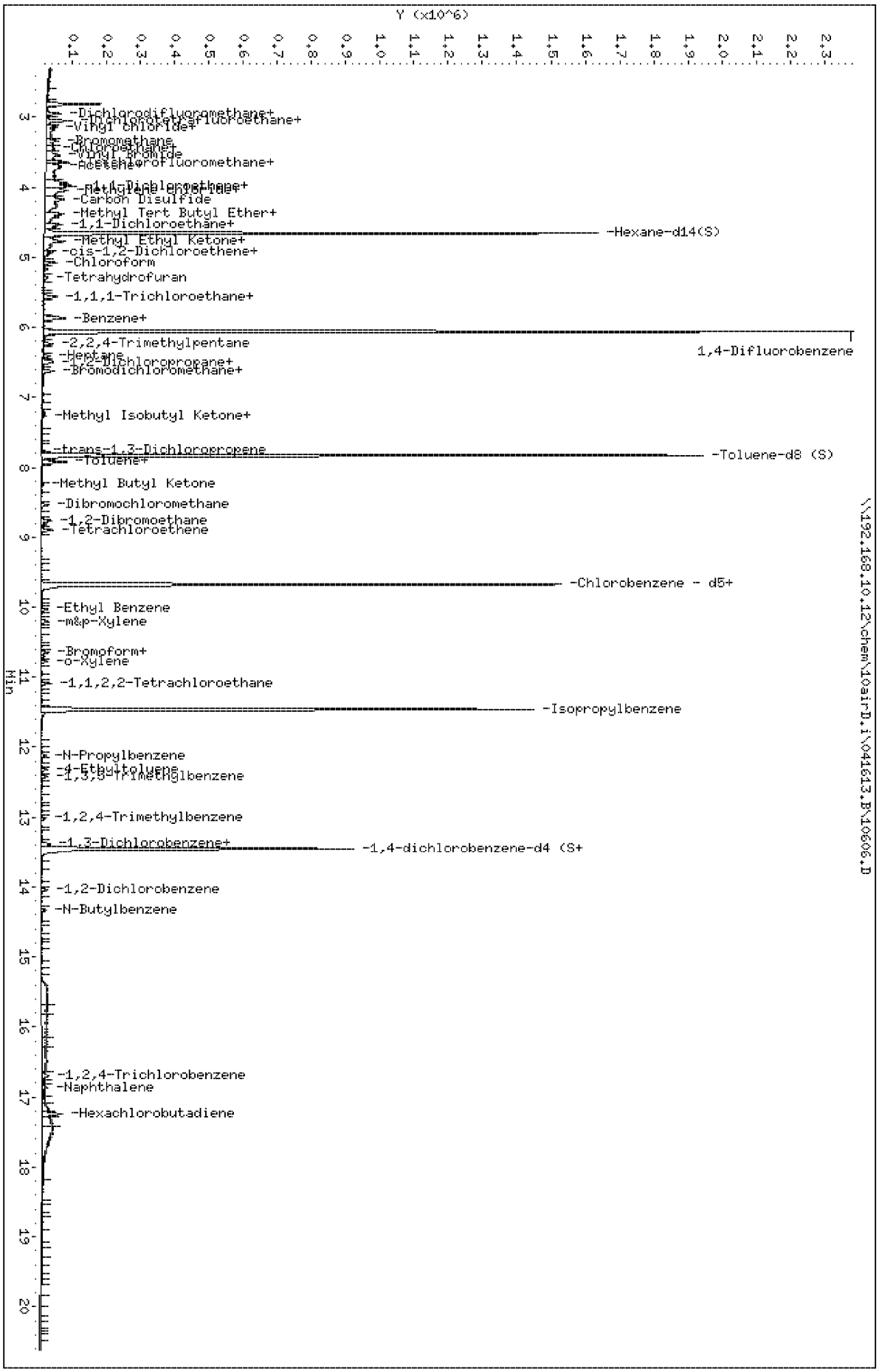
Calibration Date: 16-APR-2013
Calibration Time: 12:43
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1322641	-7.66
55 Chlorobenzene - d	825122	495073	1155171	719813	-12.76

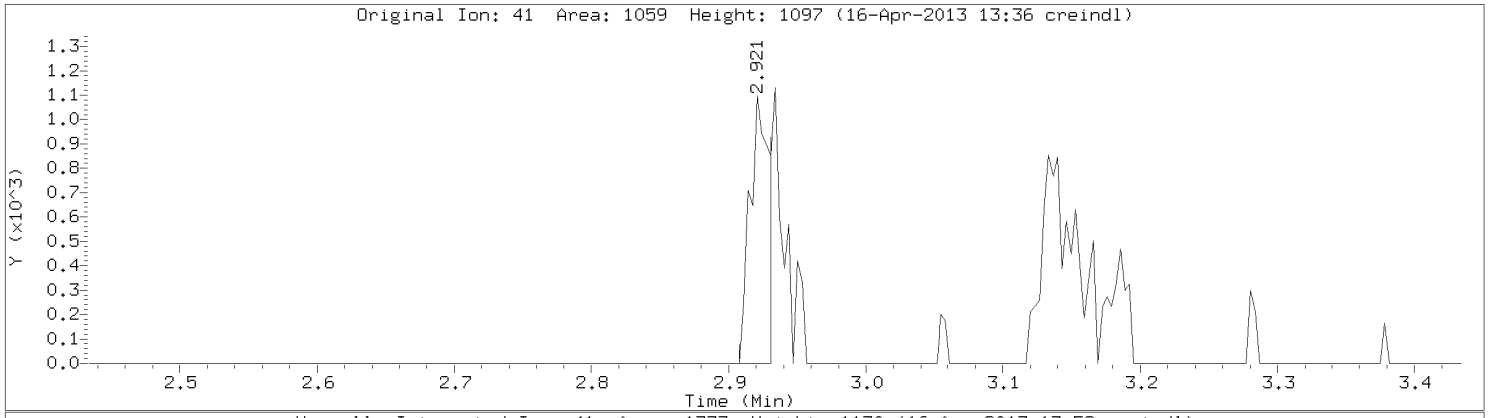
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

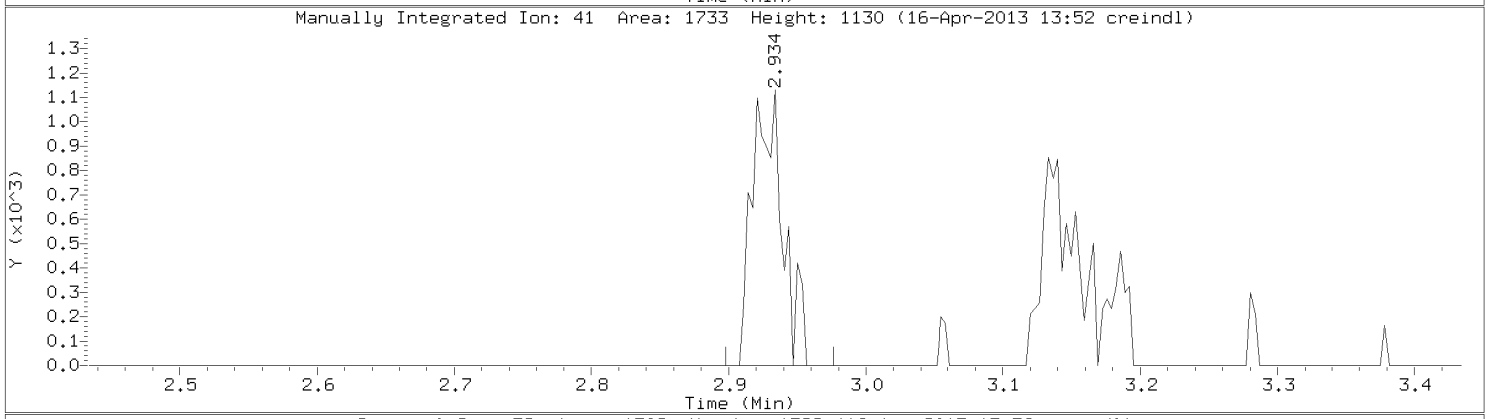
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AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

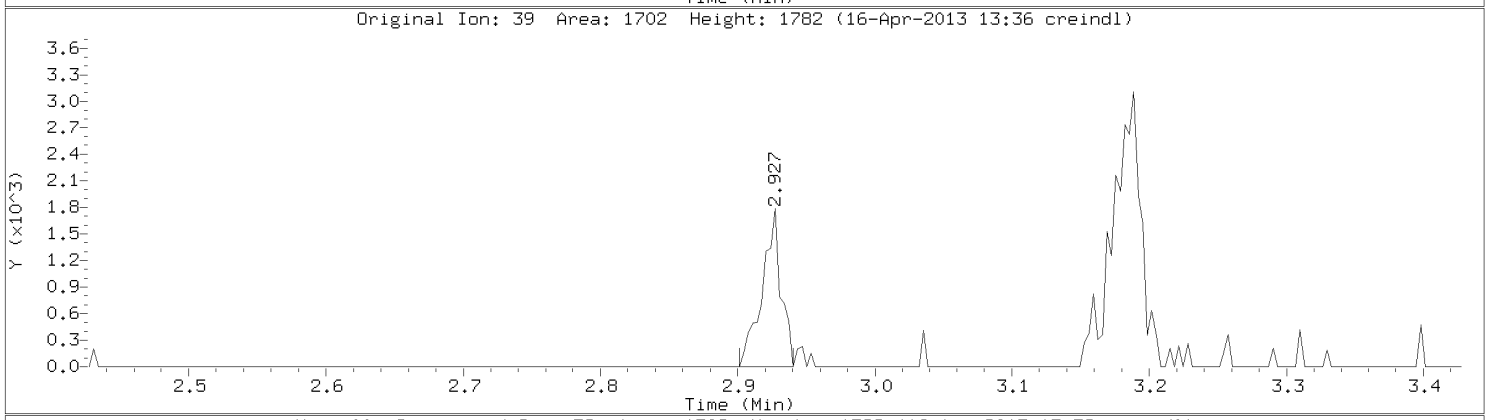

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Date : 16-APR-2013 11:10
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^6)
\\192.168.10.12\chem\10airD.i\041613.B\10606.D
Min
-Dichlorodifluoromethane+
-Trichlorofluoromethane+
-Vinyl Chloride+
-Bromomethane
-Chloroethane+
-Vinyl Bromide
-Acetone+
-Trichlorofluoroethane+
-1,1-Dichloroethene+
-Methylene Chloride
-Carbon Disulfide
-Methyl Tert Butyl Ether+
-1,1-Dichloroethane+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-2,2,4-Trimethylpentane
-Heptane
1,4-Difluorobenzene
-1,2-Dichloropropane+
-Bromodichloromethane+
-Methyl Isobutyl Ketone+
-trans-1,3-Dichloropropene
-Toluene+
-Toluene-d8 (S)
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform+
-o-Xylene
-1,1,2,2-Tetrachloroethane
-Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,3-Dichlorobenzene+
-1,4-dichlorobenzene-d4 (S+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene

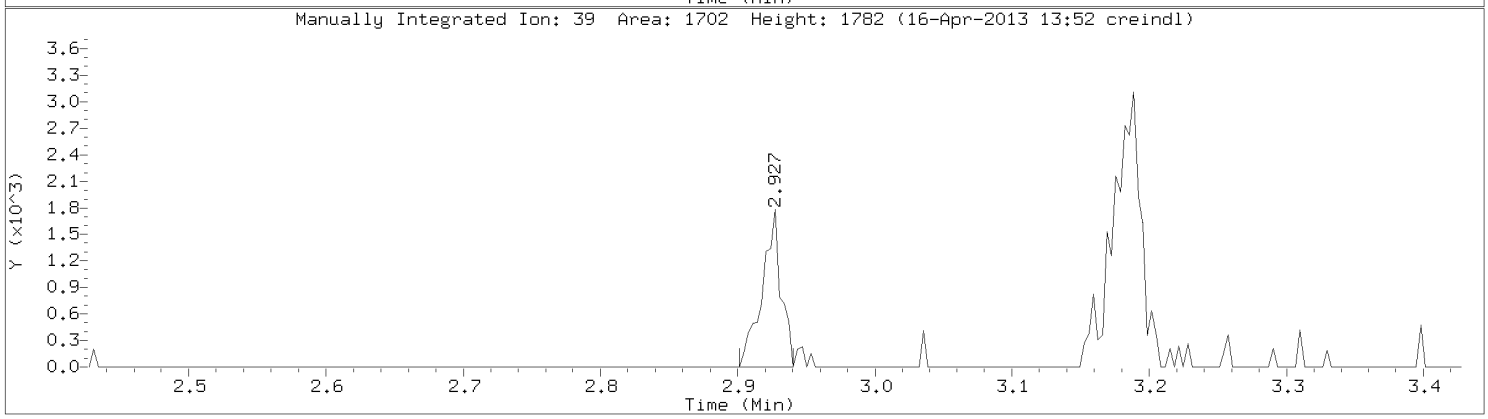
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Propylene
CAS Number: 76-14-2



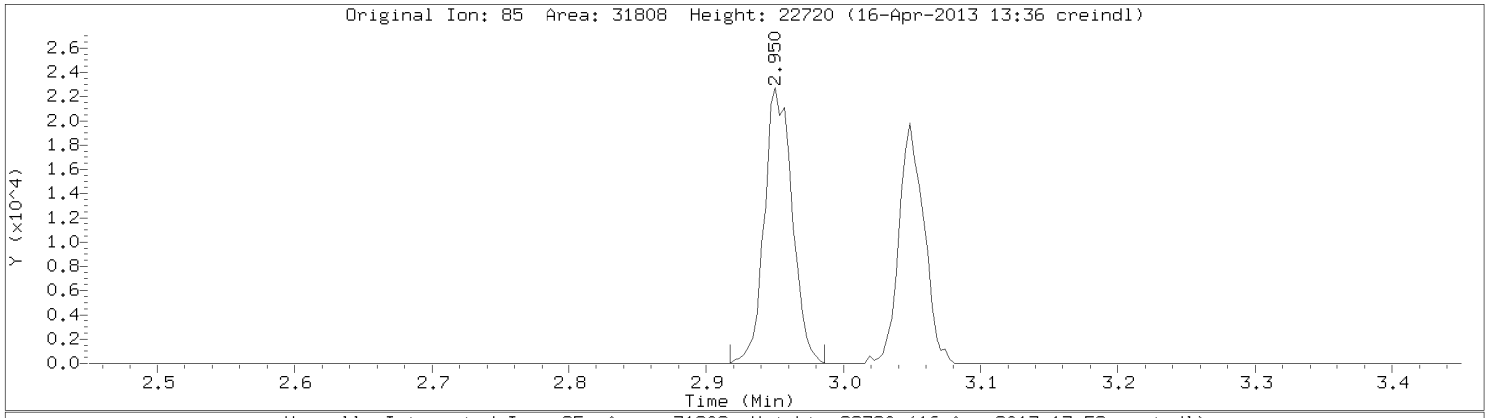


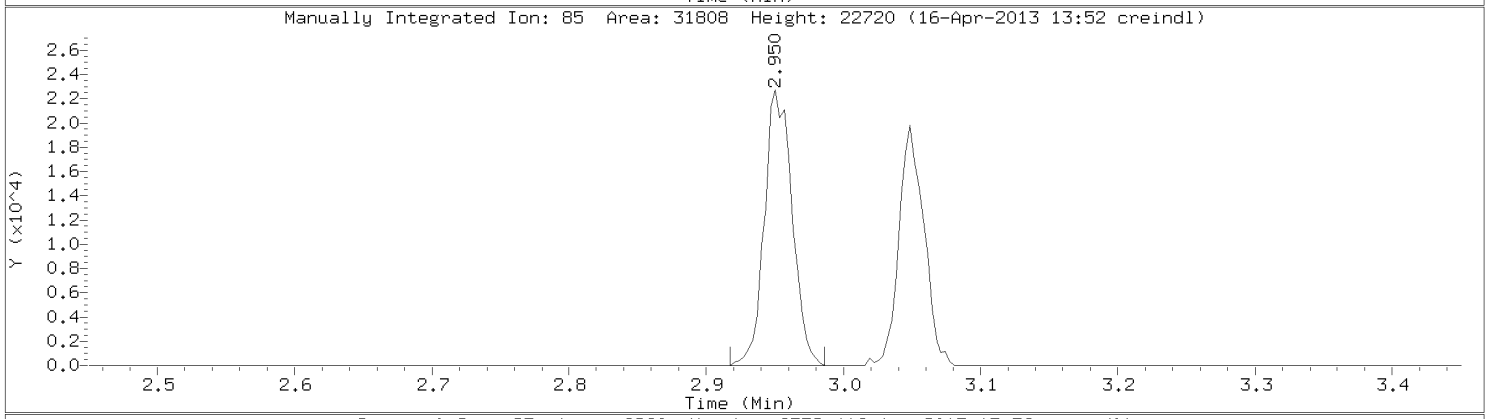


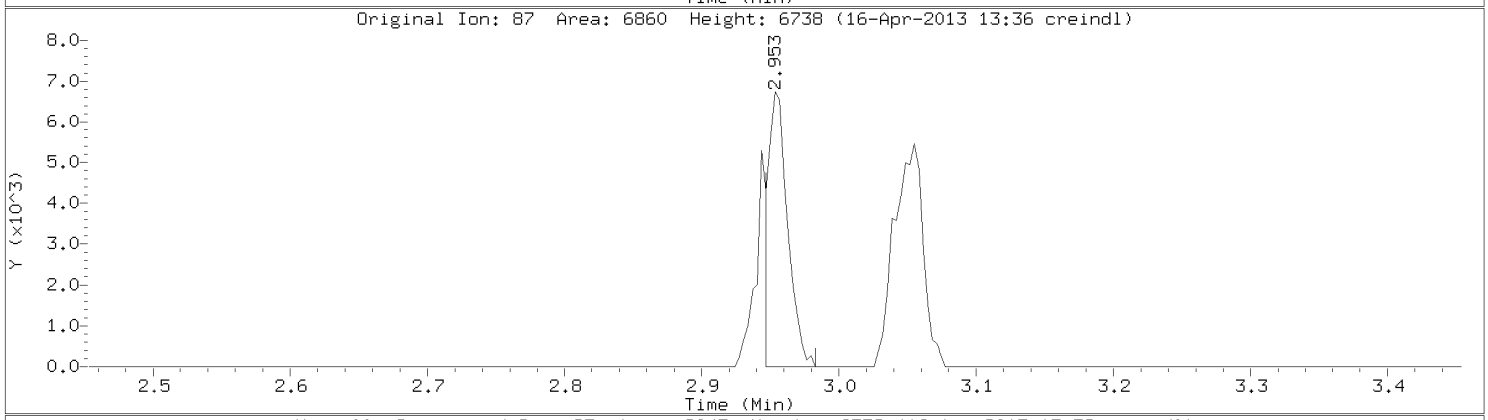


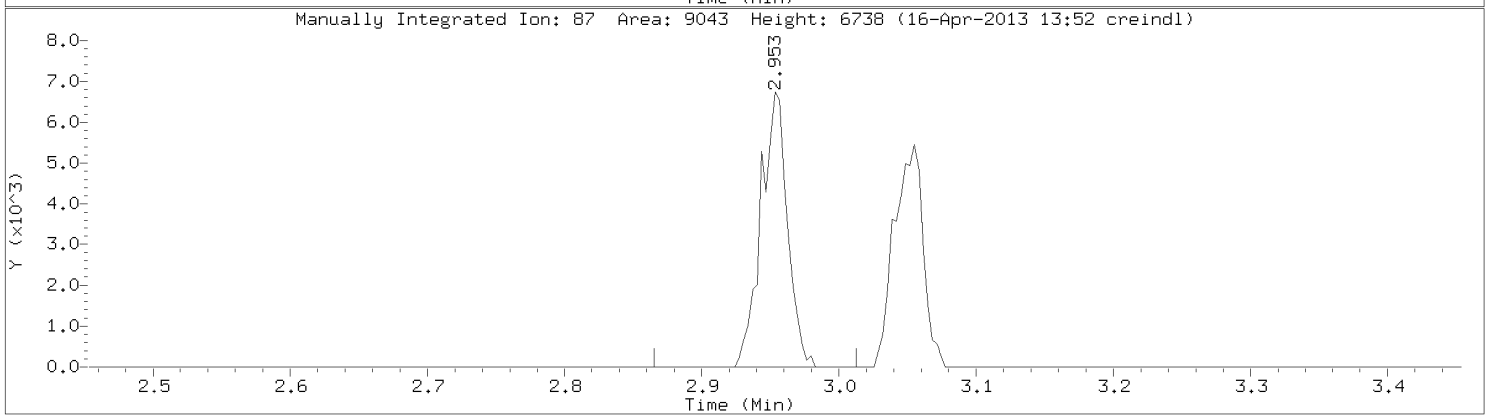
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Dichlorodifluoromethane
CAS Number: 79-34-5



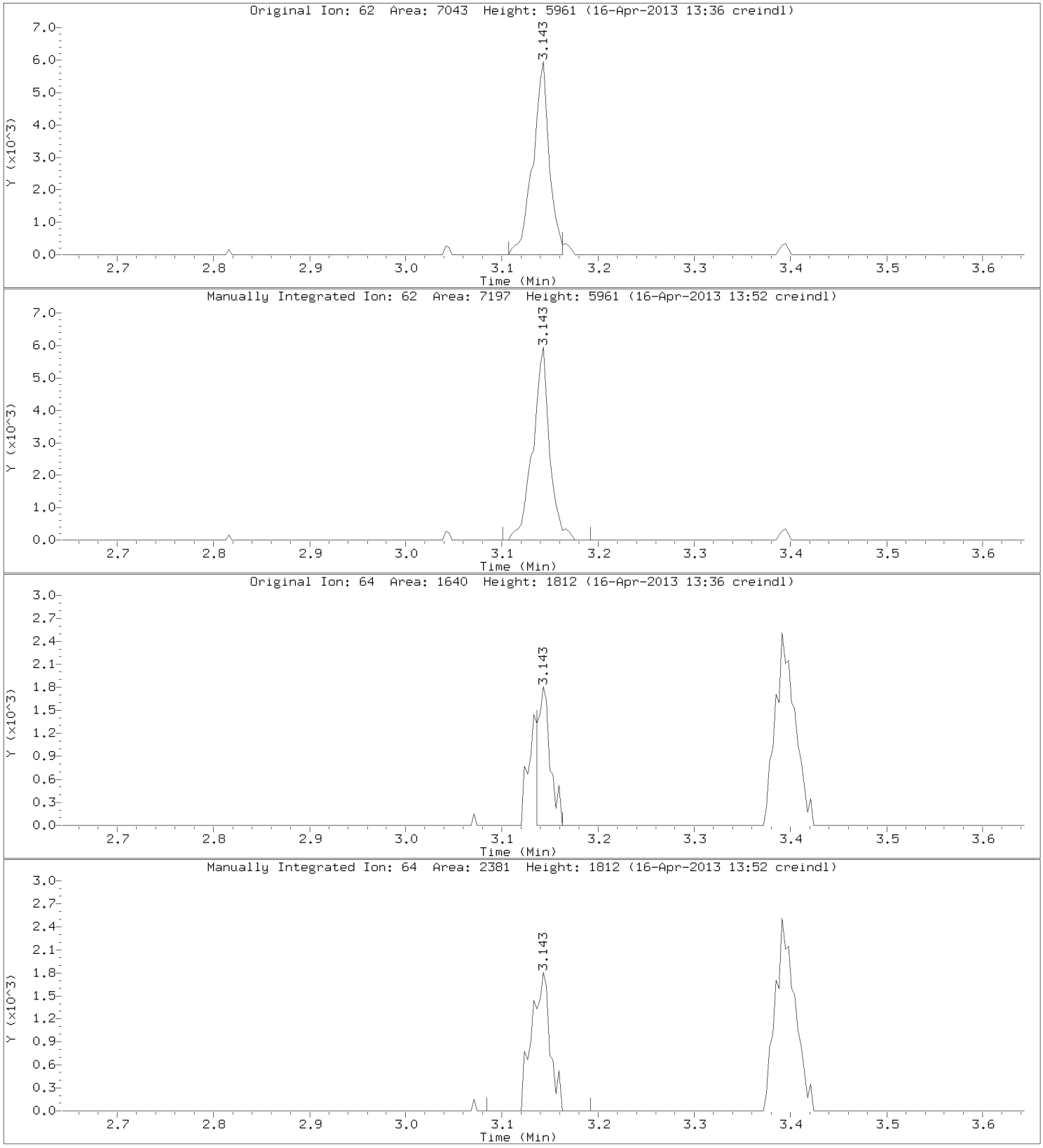






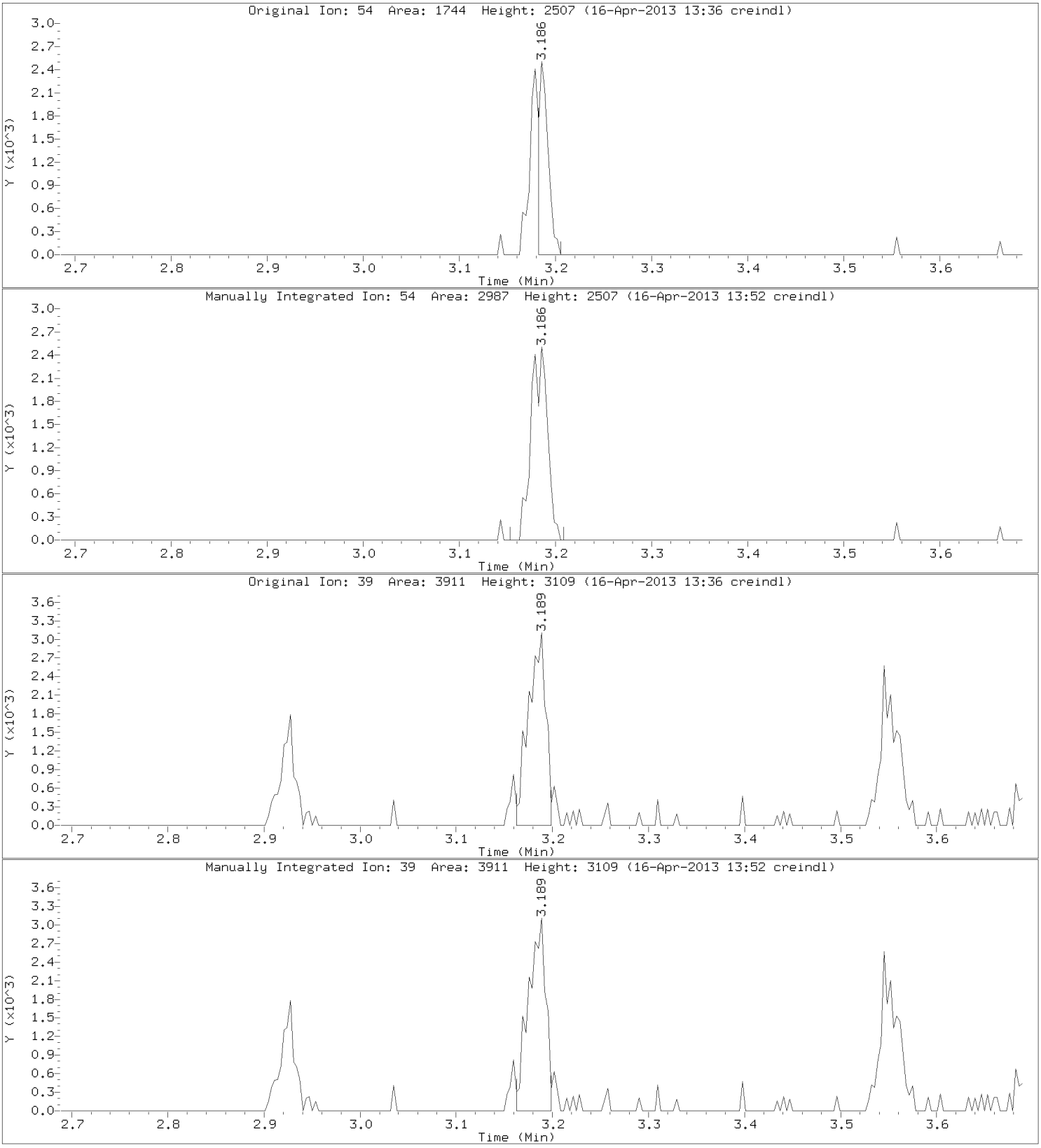
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Vinyl chloride
CAS Number: 75-01-4



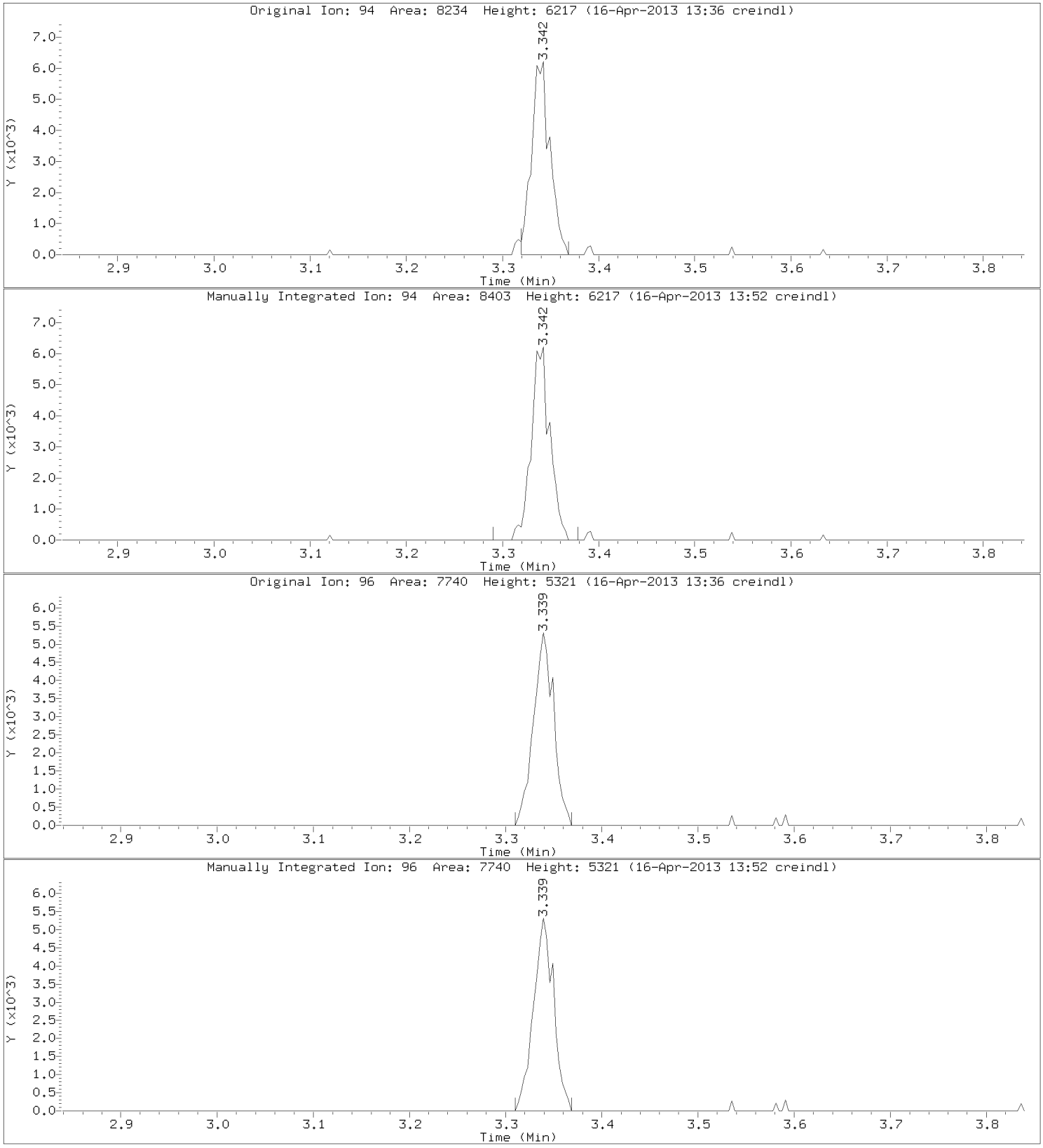
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,3-Butadiene
CAS Number: 106-99-0



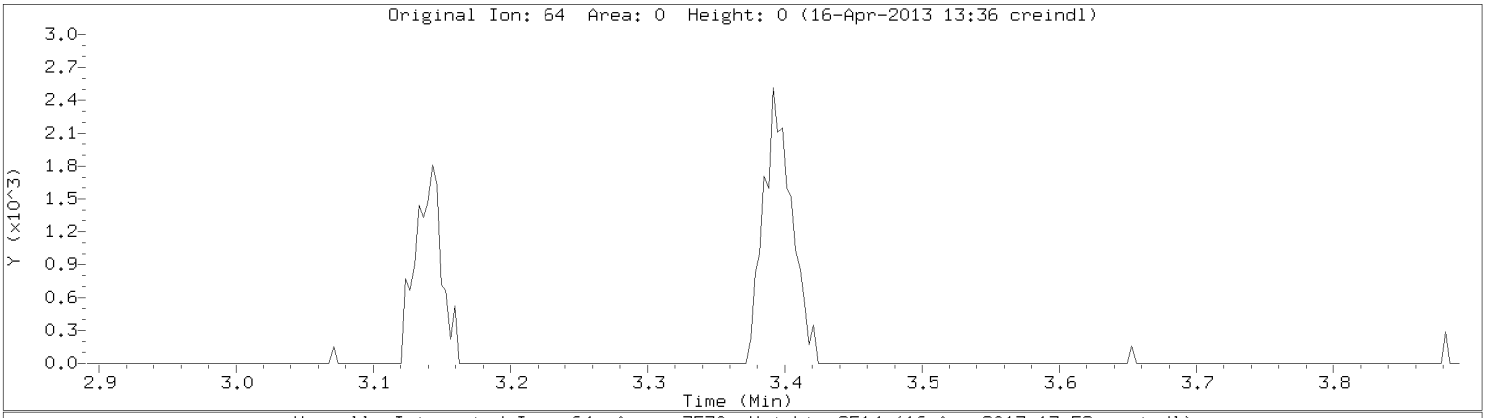
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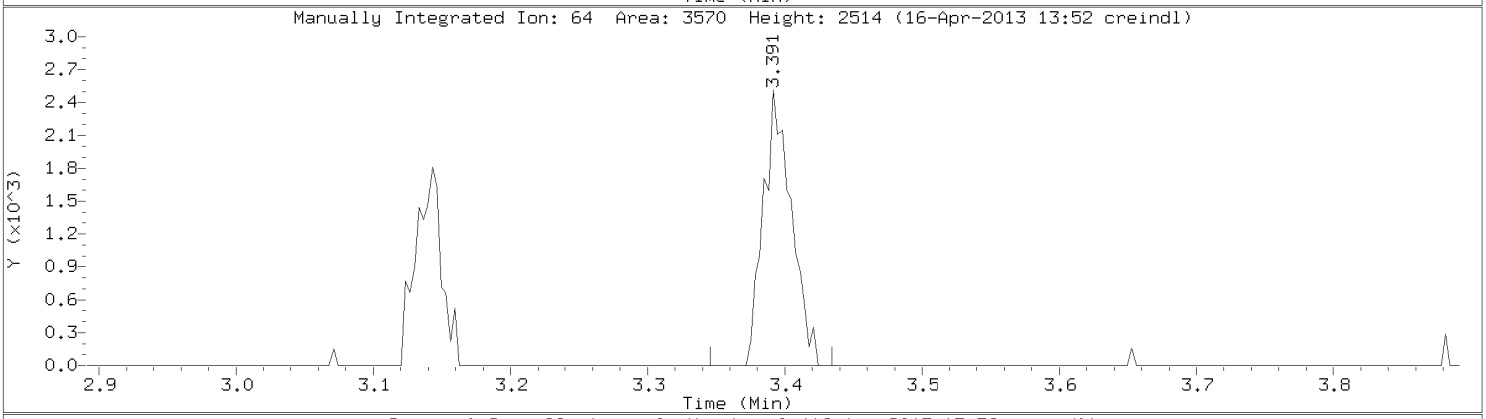
Compound: Bromomethane
CAS Number: 74-83-9

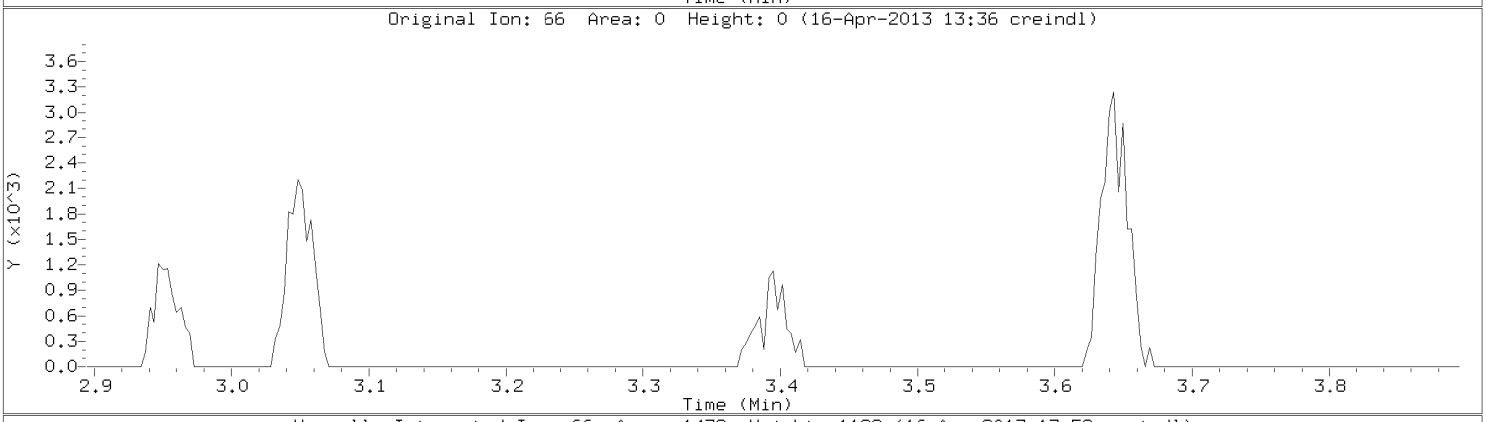


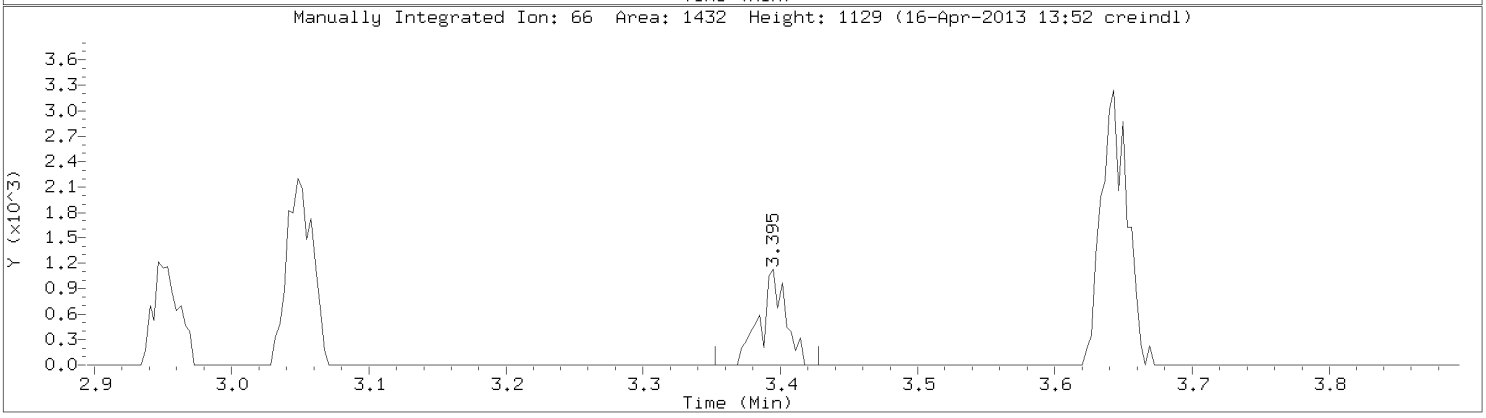
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Chloroethane
CAS Number: 75-00-3



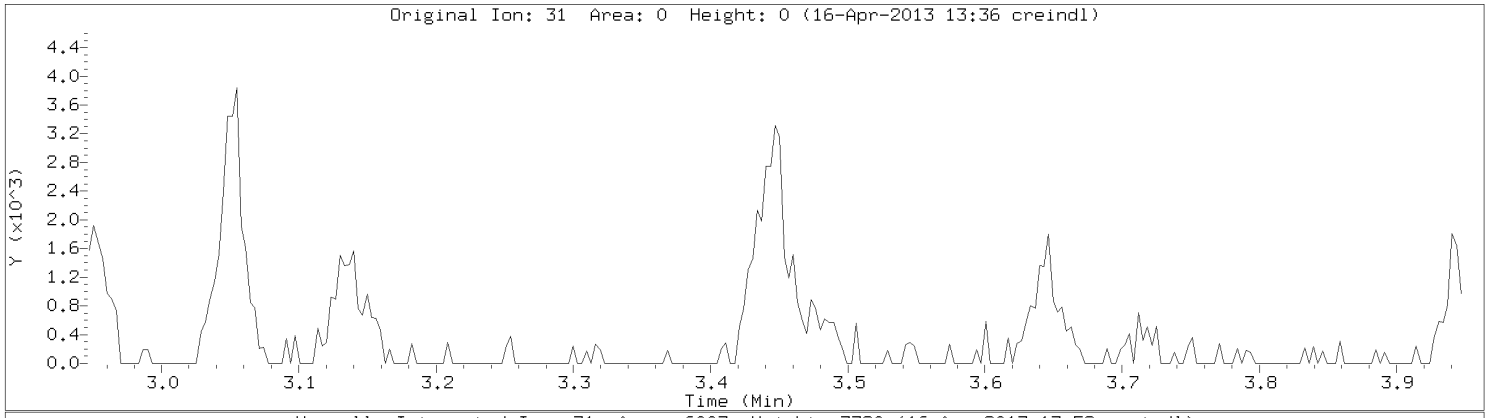


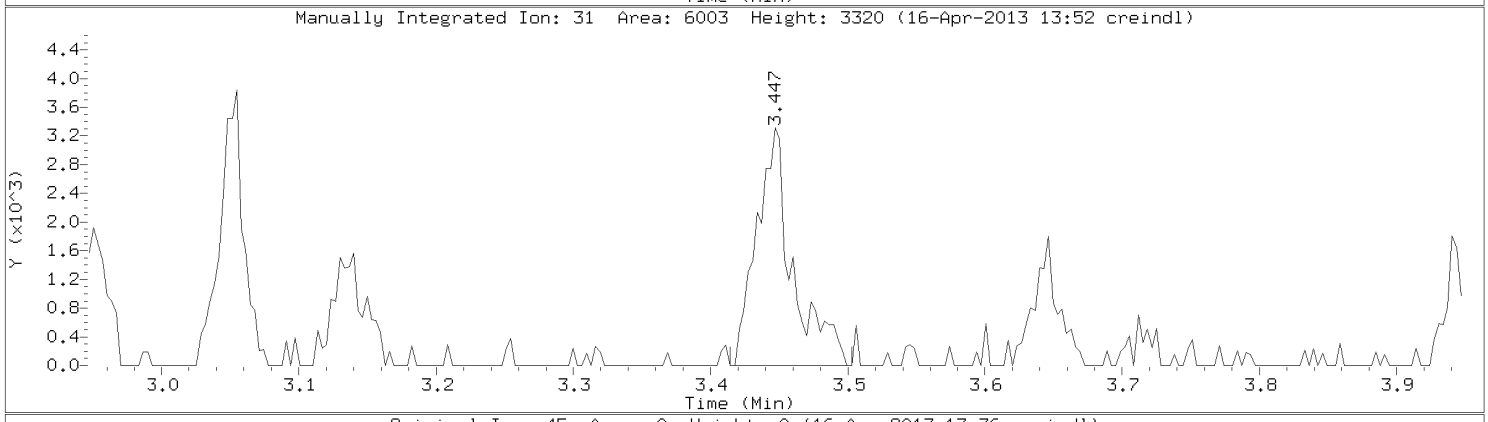


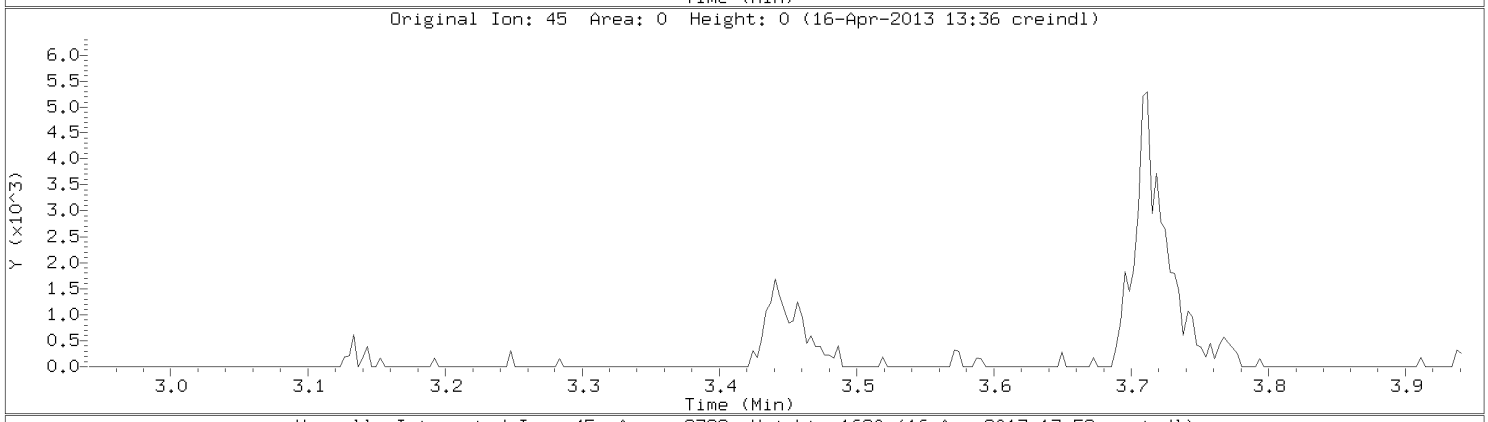


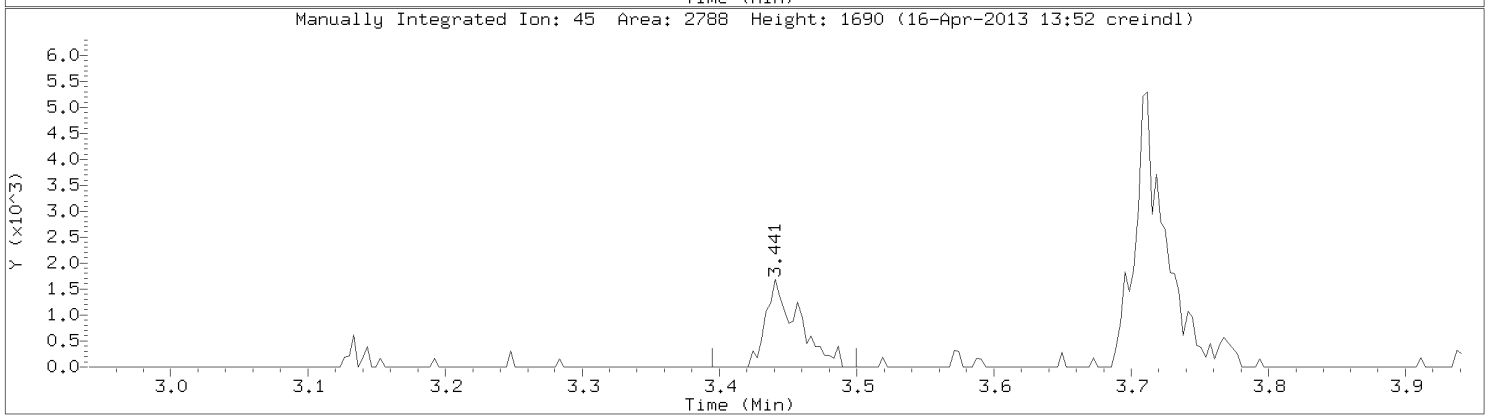
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Ethanol
CAS Number: 64-17-5



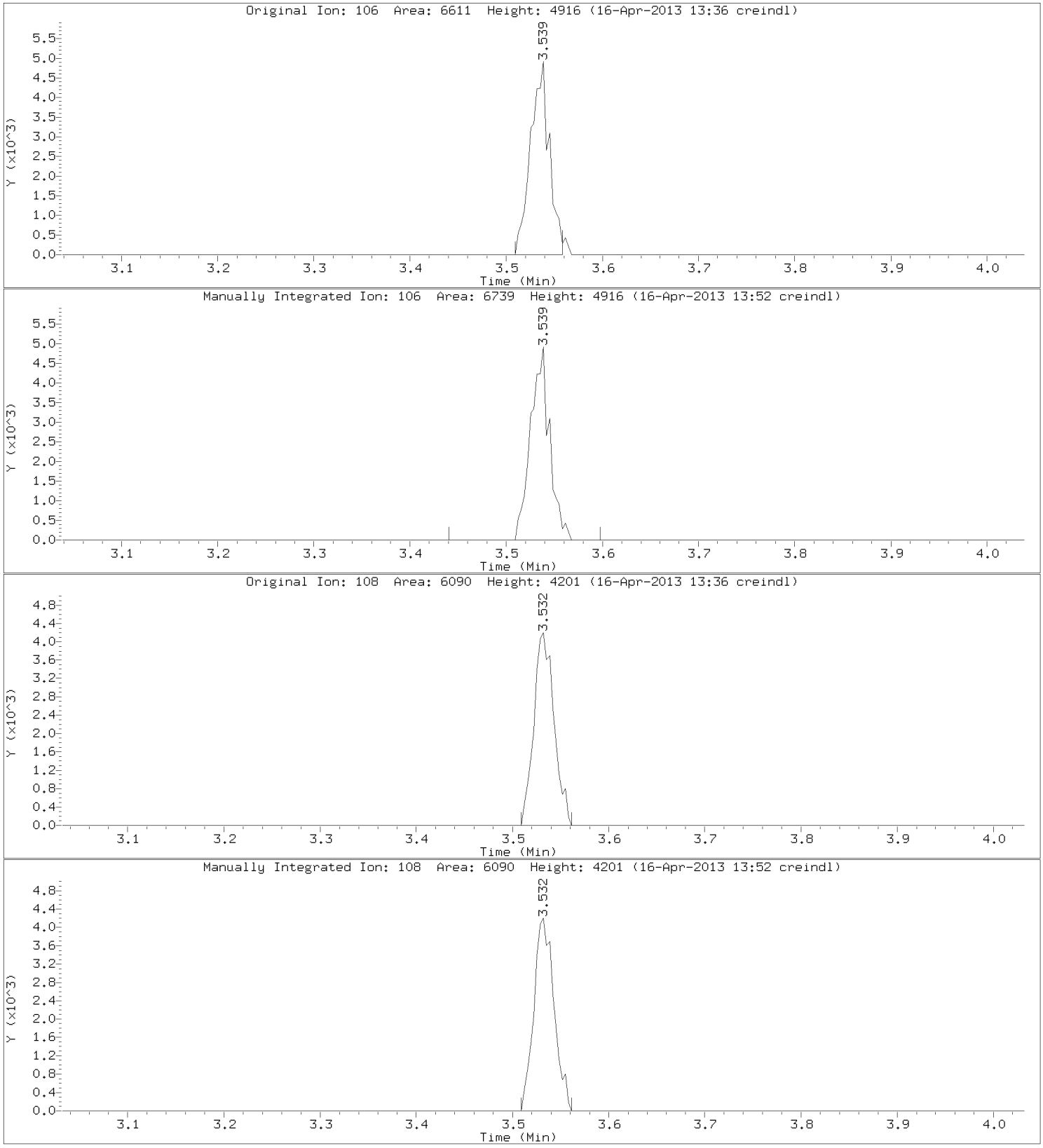






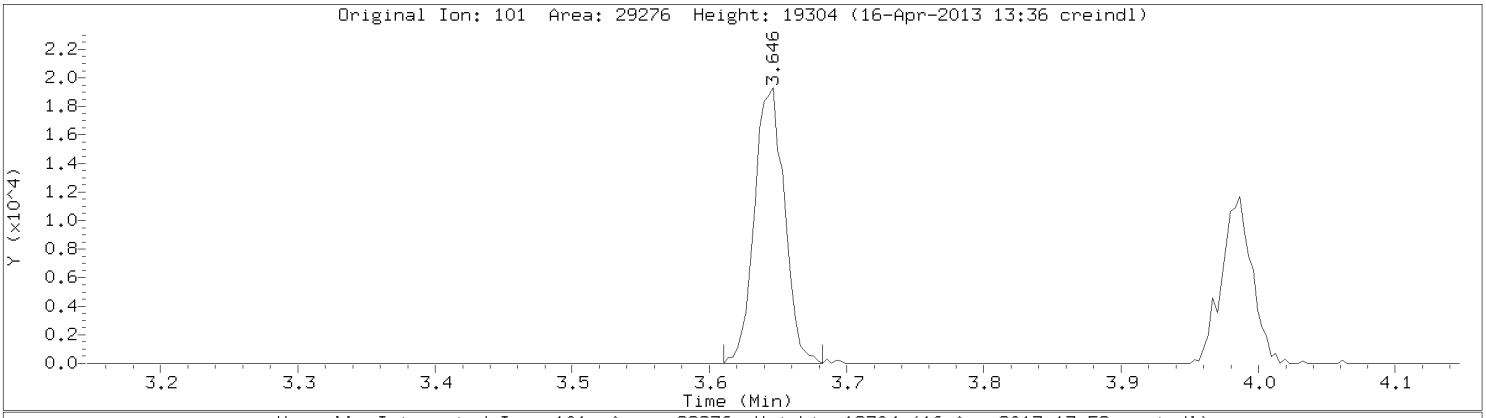
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Instrument: 10airD.i
Lab Sample ID: ICAL2

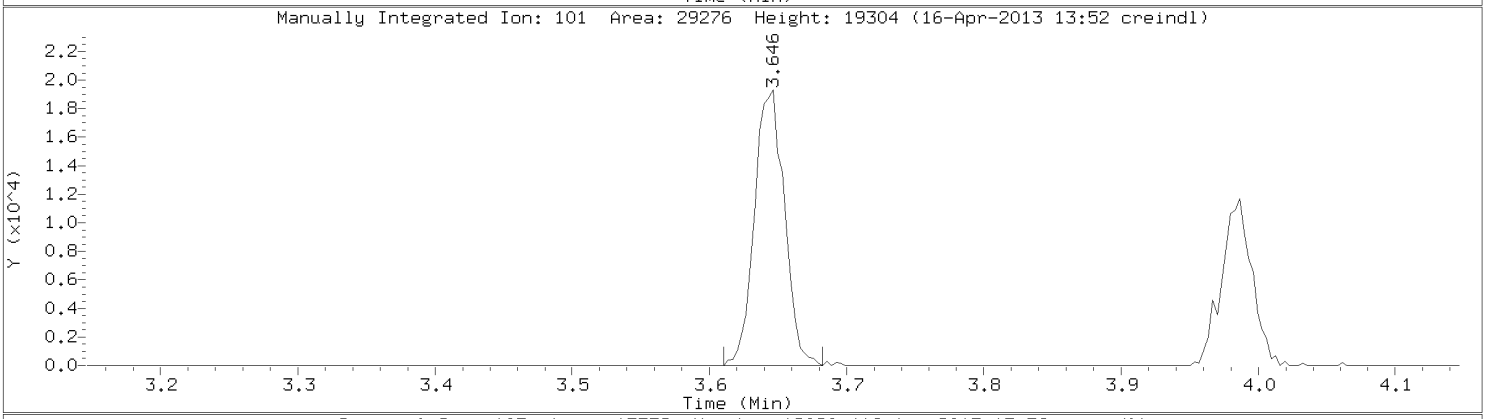
Compound: Vinyl Bromide
CAS Number: 593-60-2

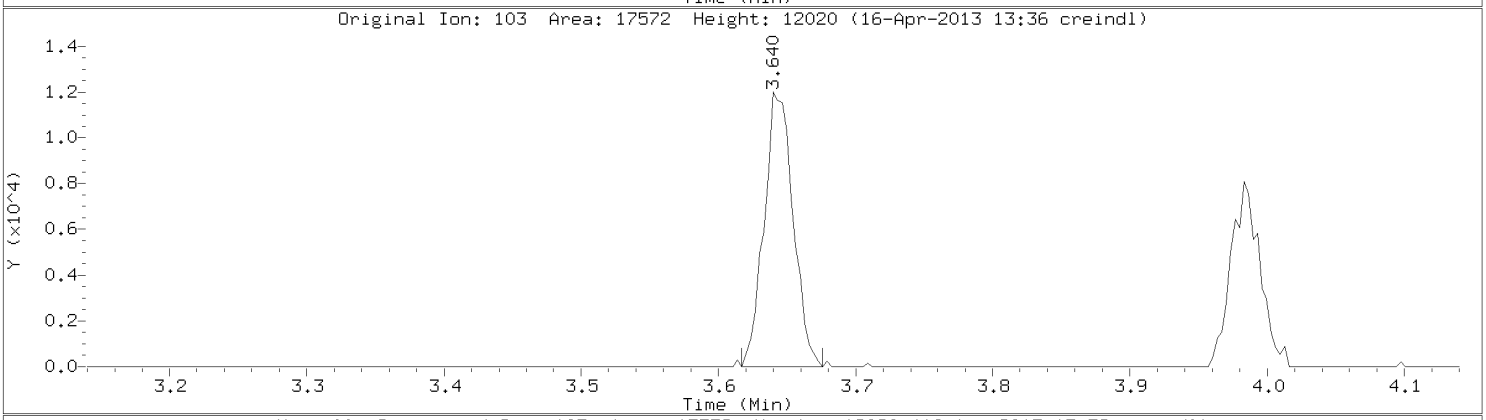


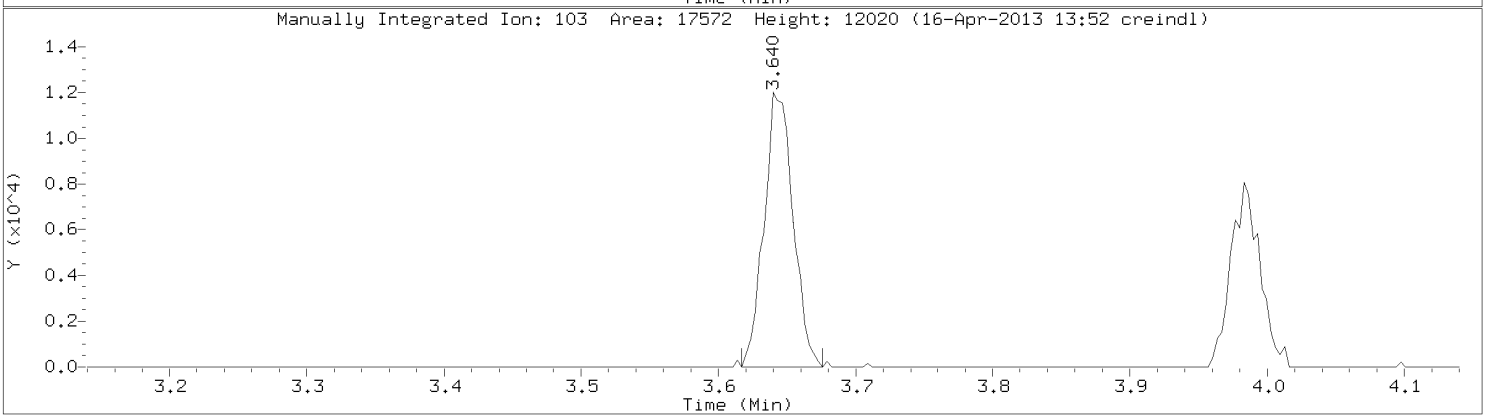
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Trichlorofluoromethane
CAS Number: 75-69-4

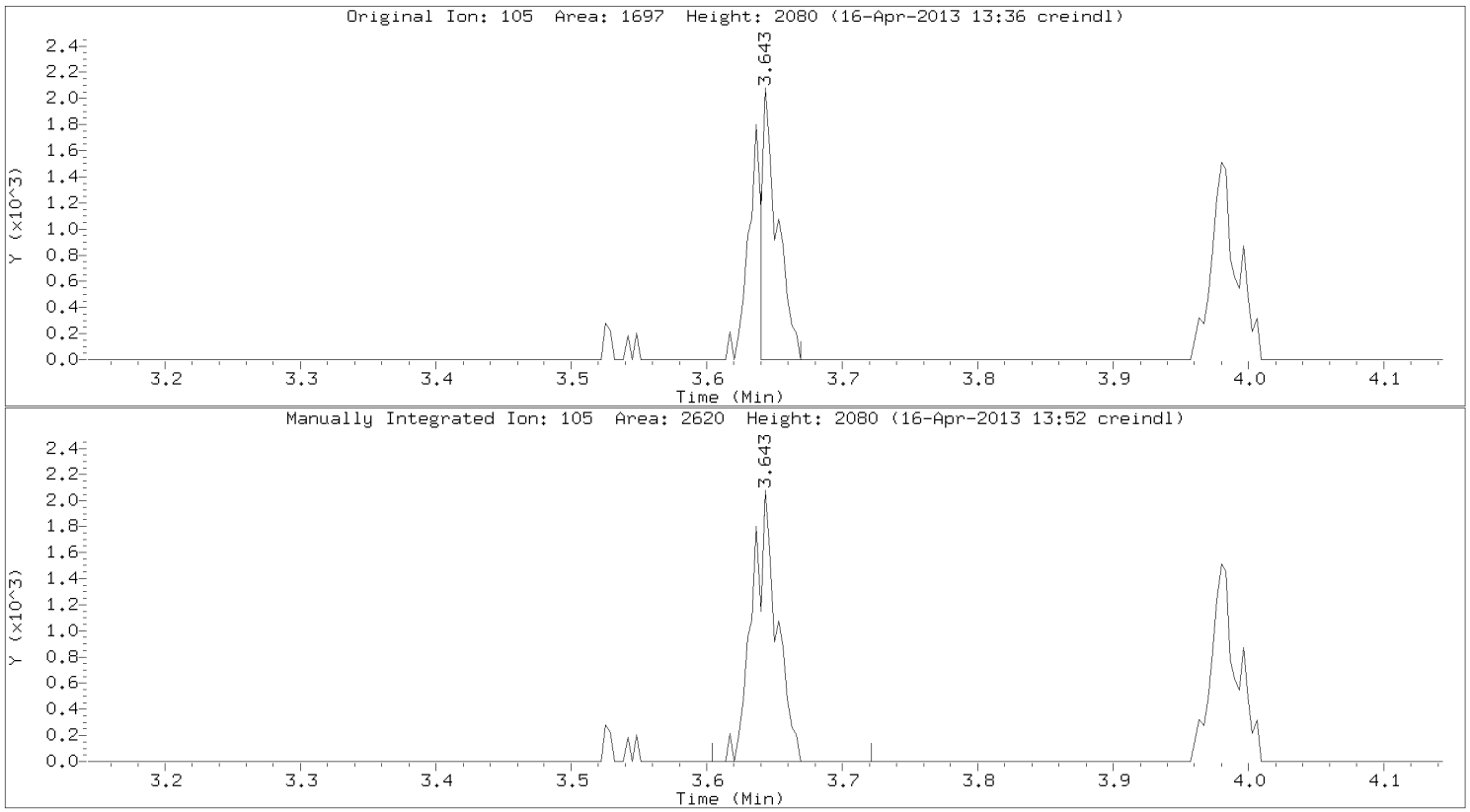






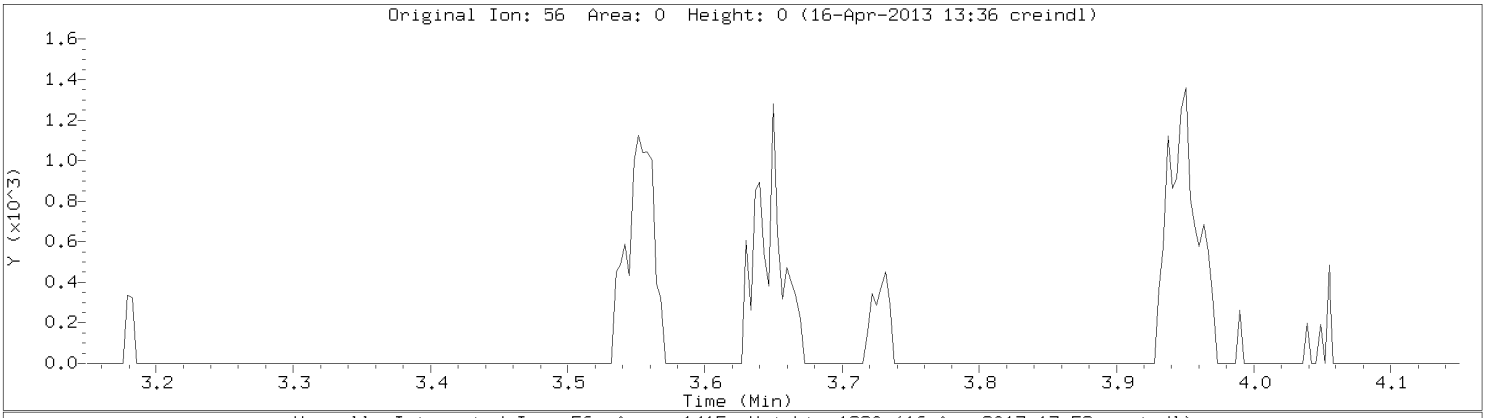


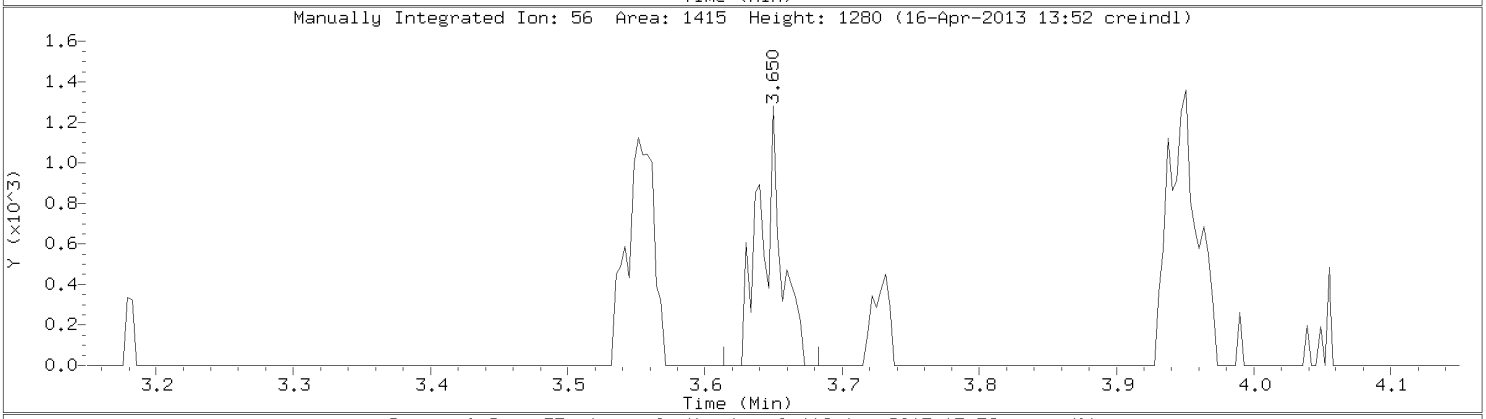
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Instrument: 10airD.i
Lab Sample ID: ICAL2

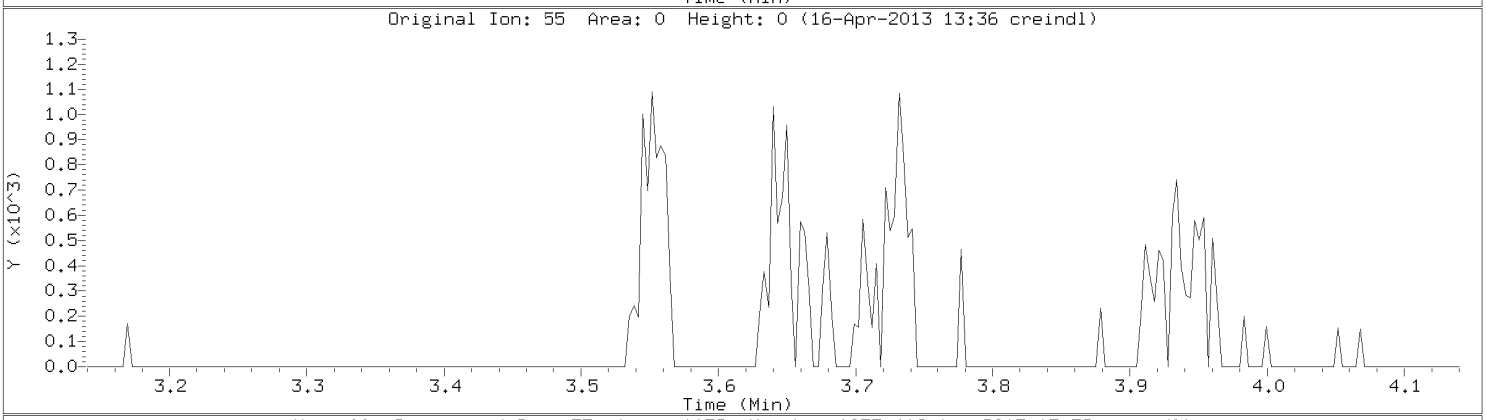


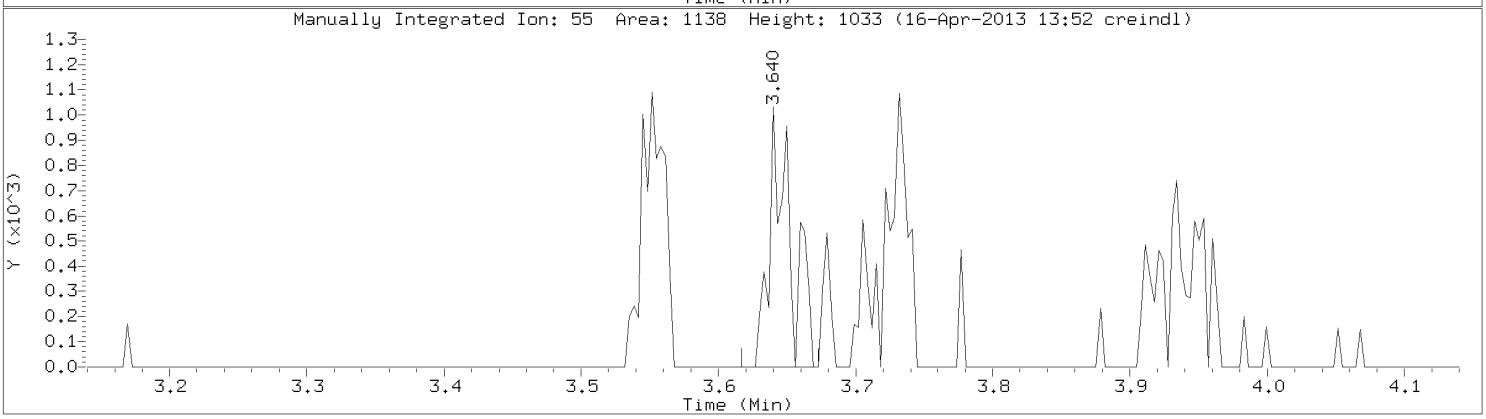
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Acrolein
CAS Number: 107-02-08



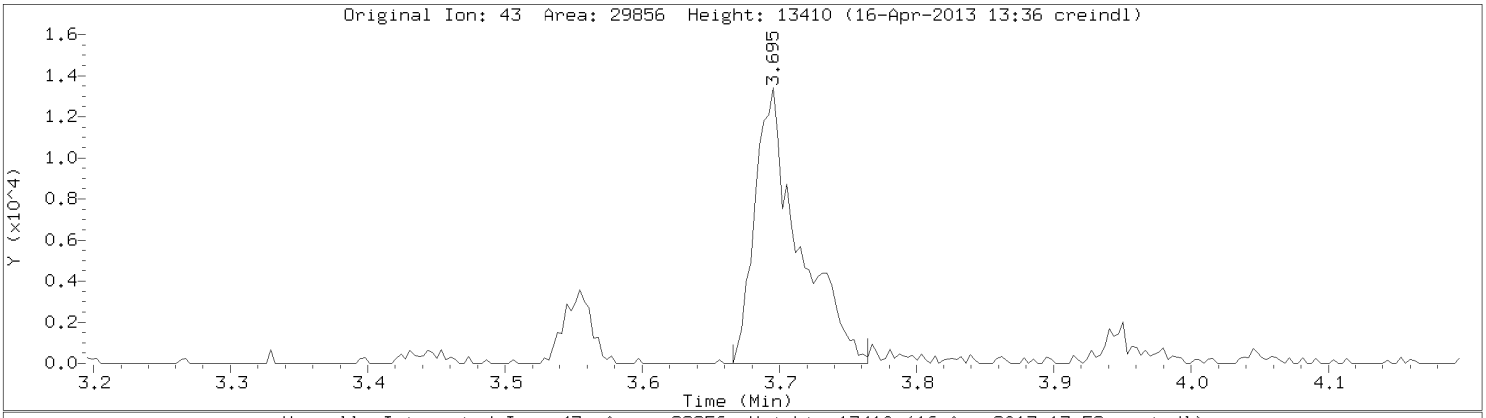


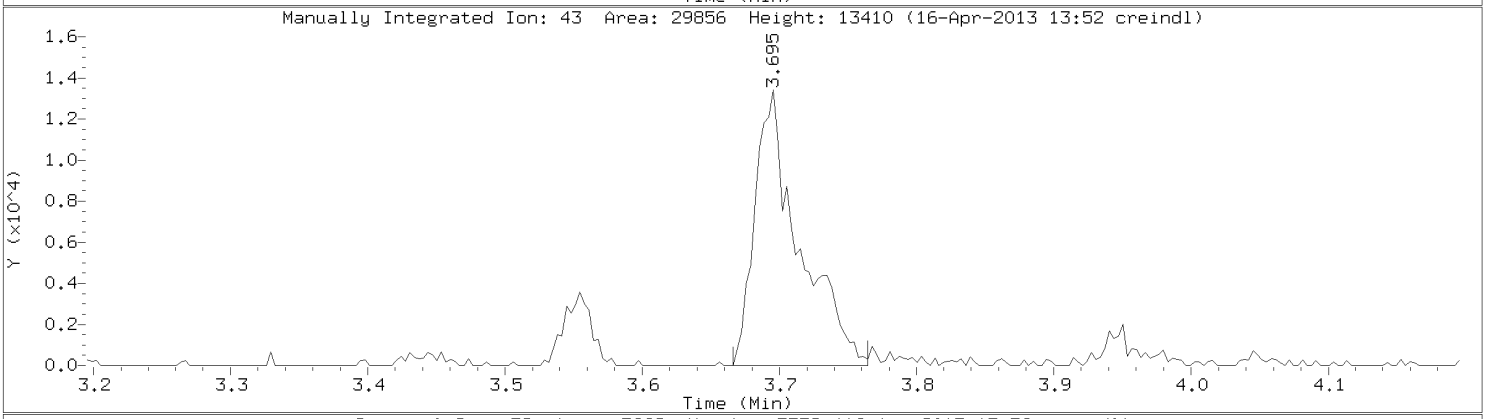


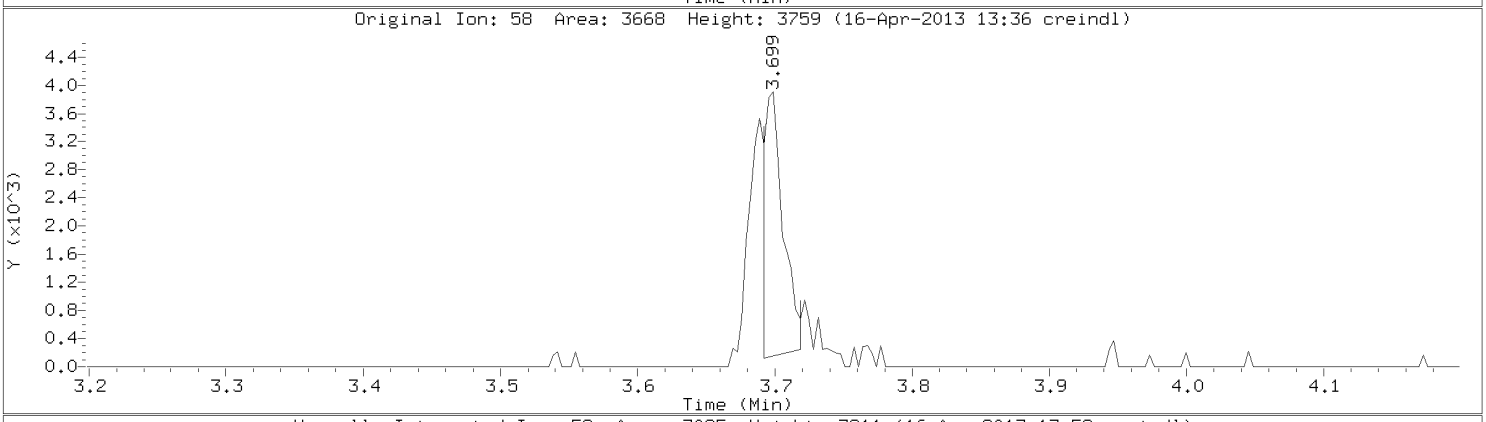


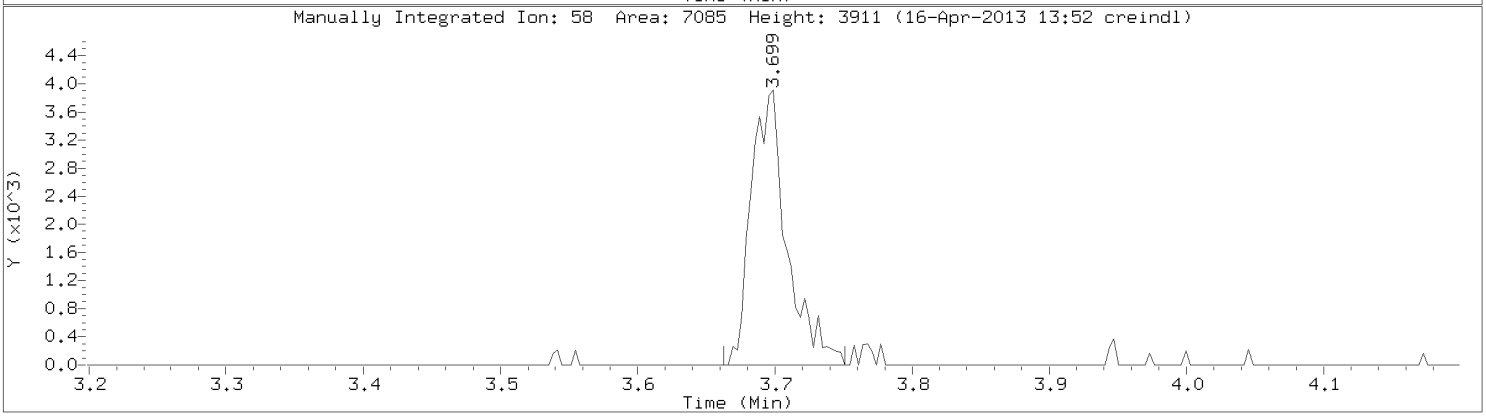
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Acetone
CAS Number: 67-64-1



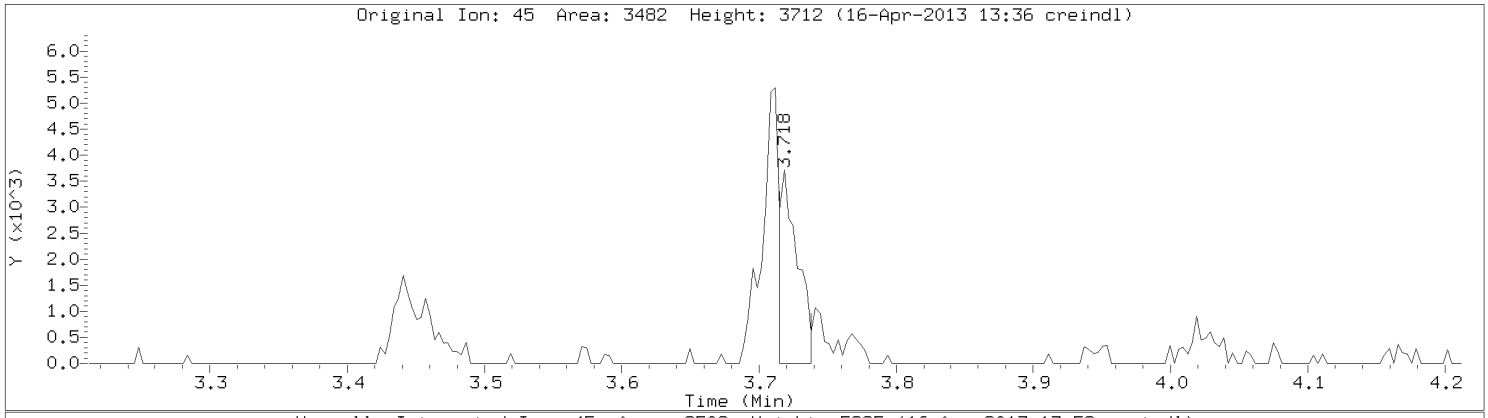


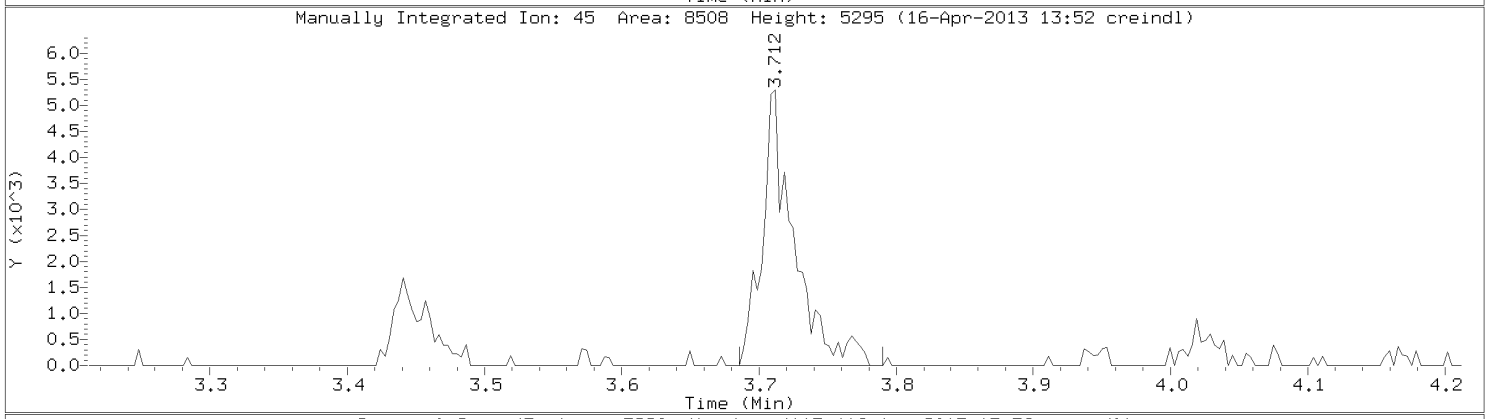


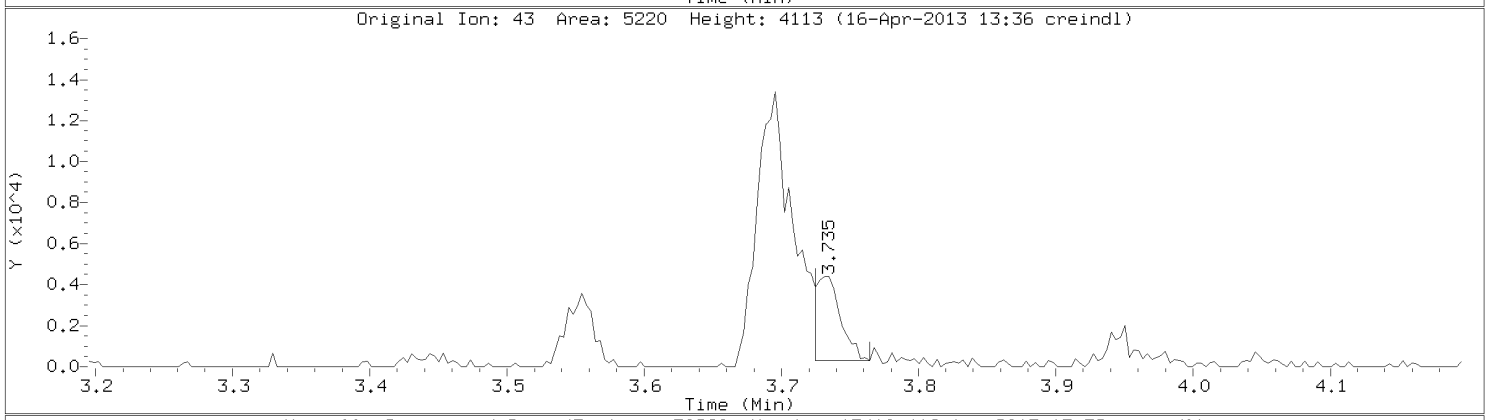


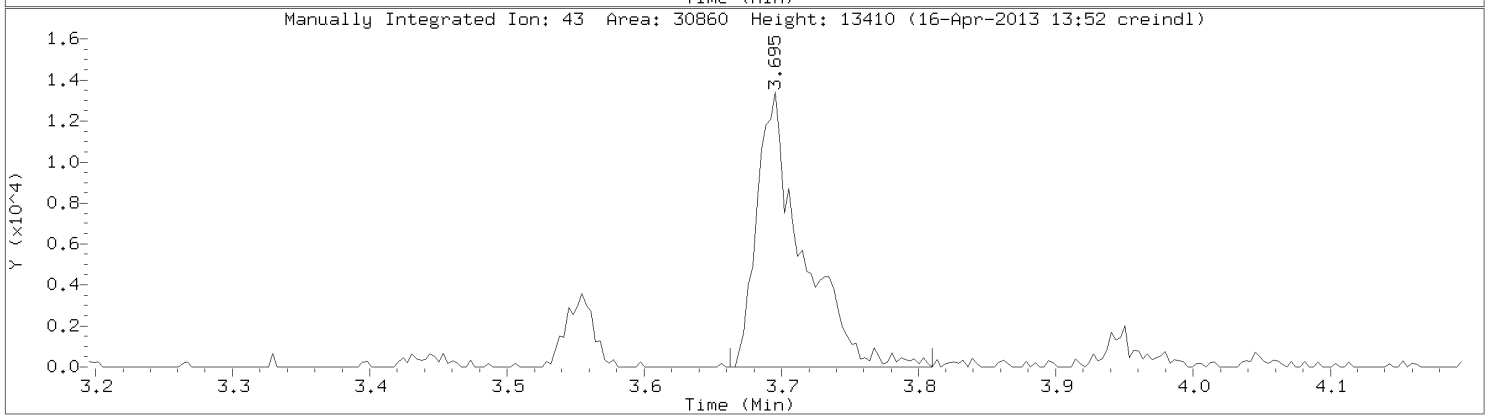
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Isopropyl Alcohol
CAS Number: 67-63-0



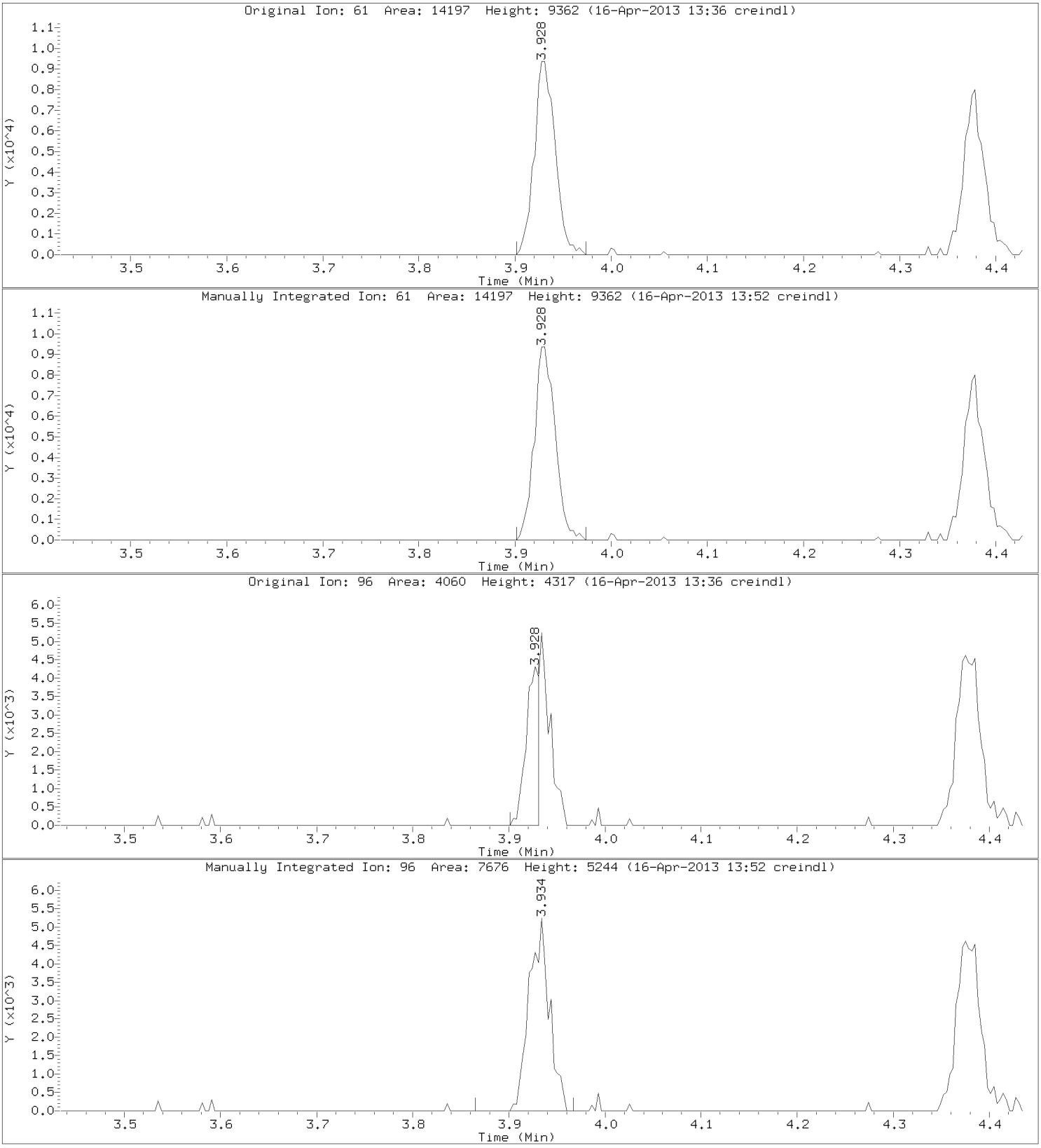






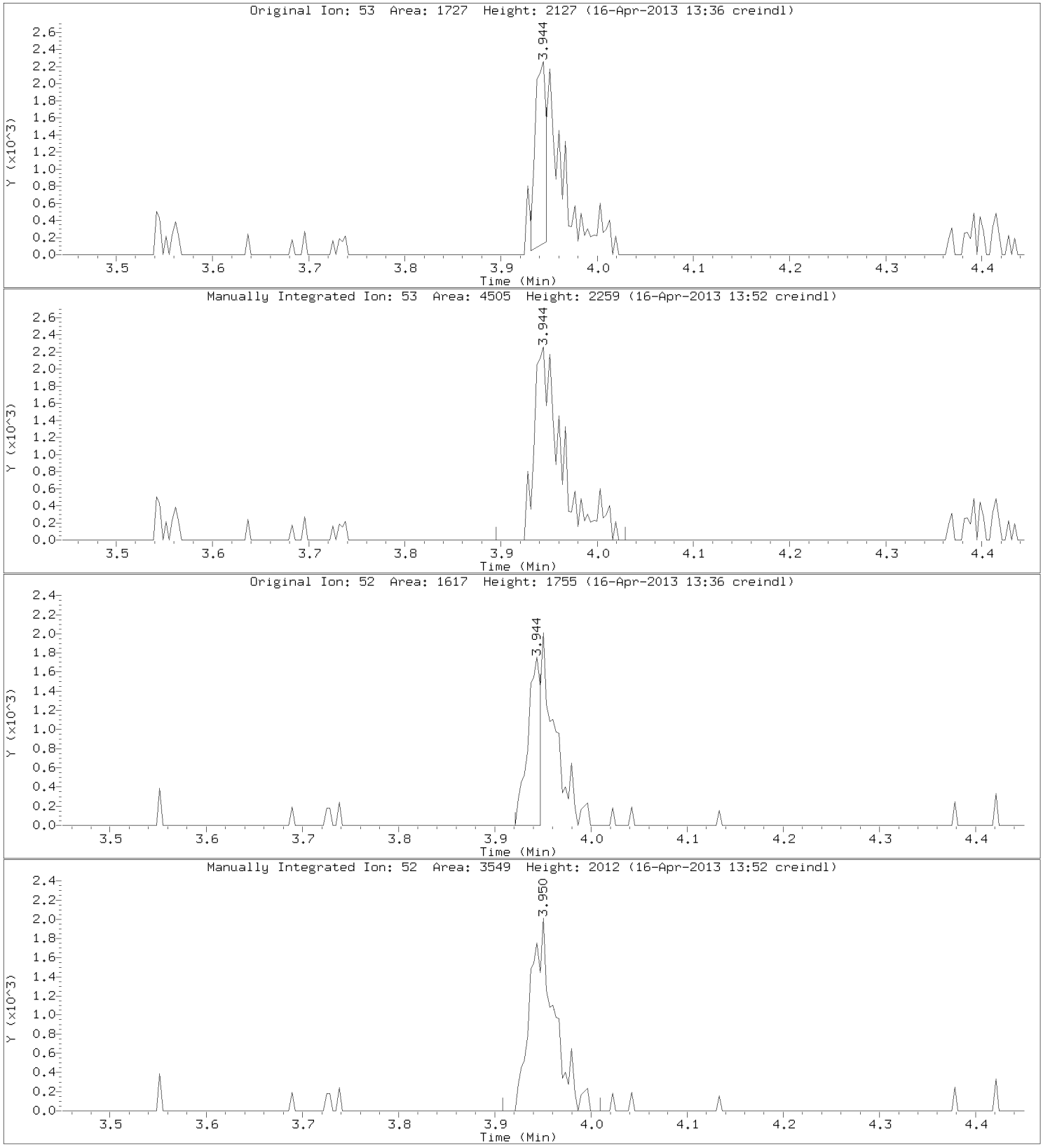
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



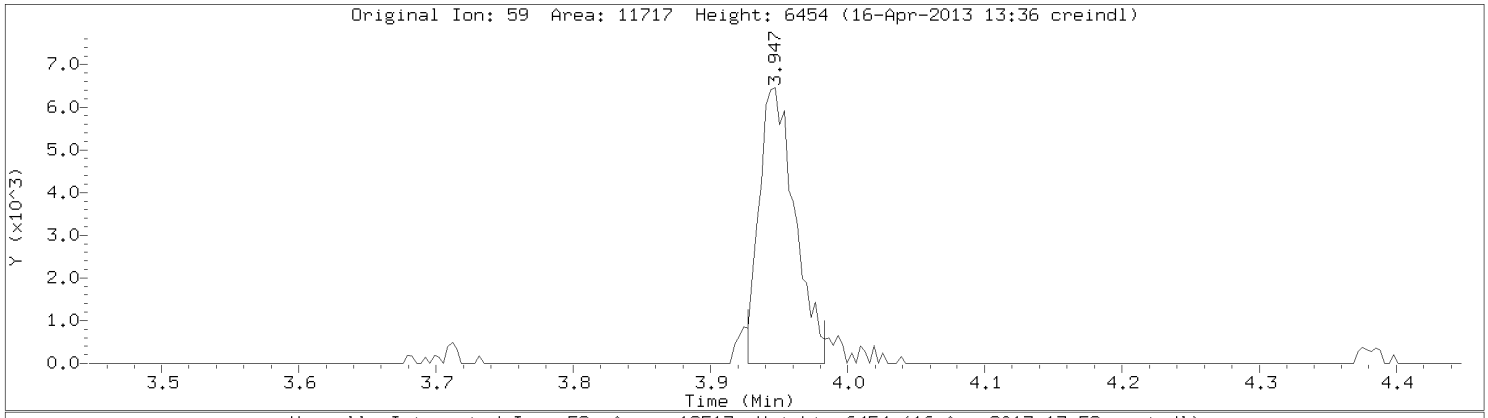
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Lab Sample ID: ICAL2

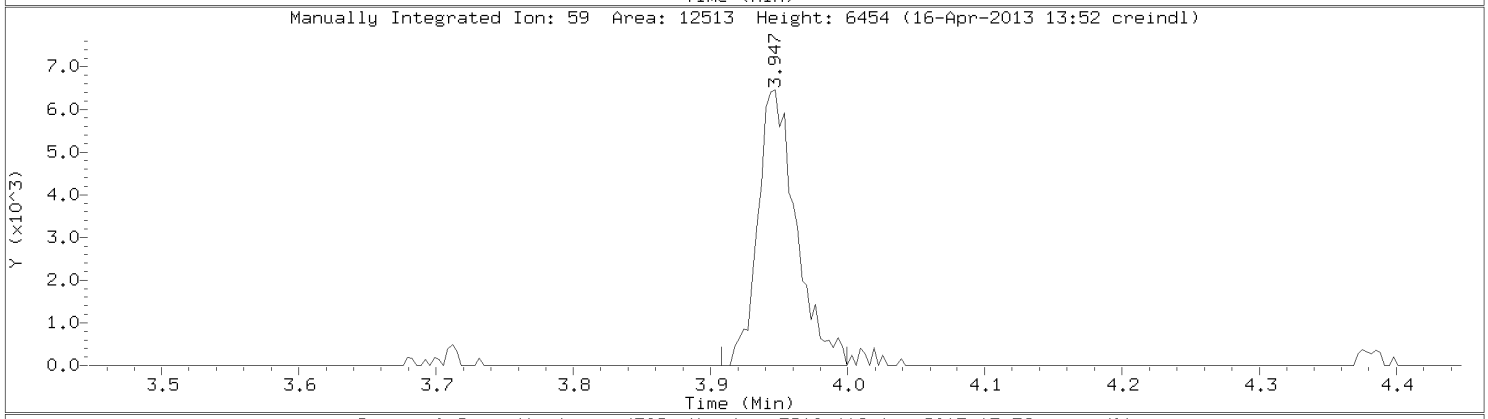
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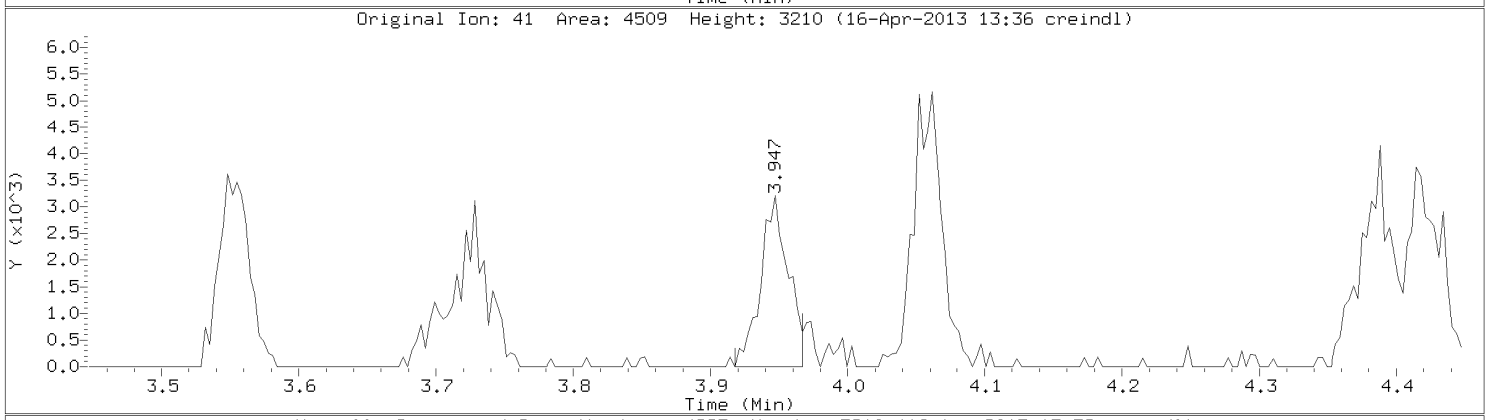


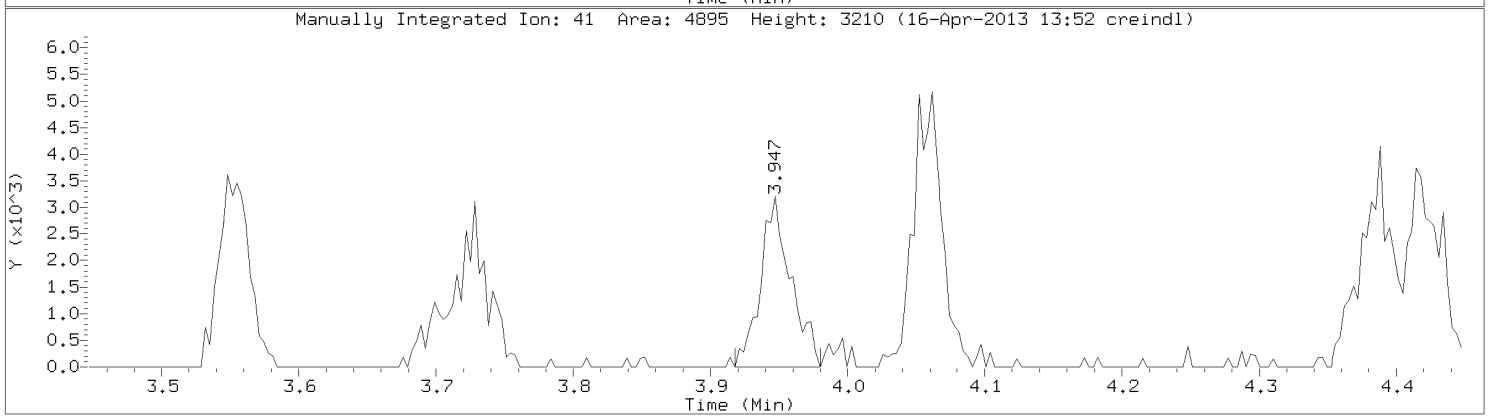
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



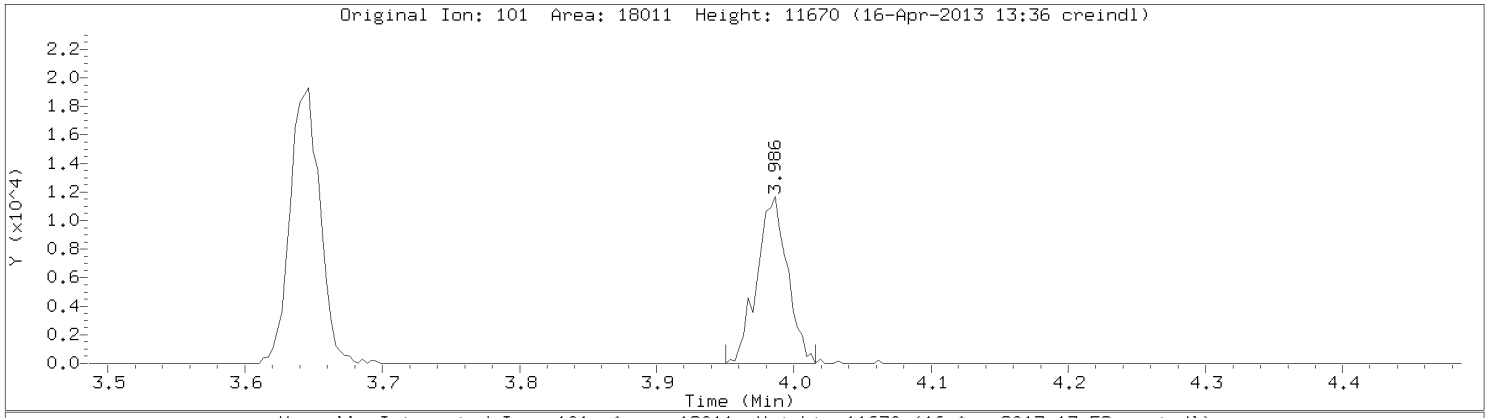


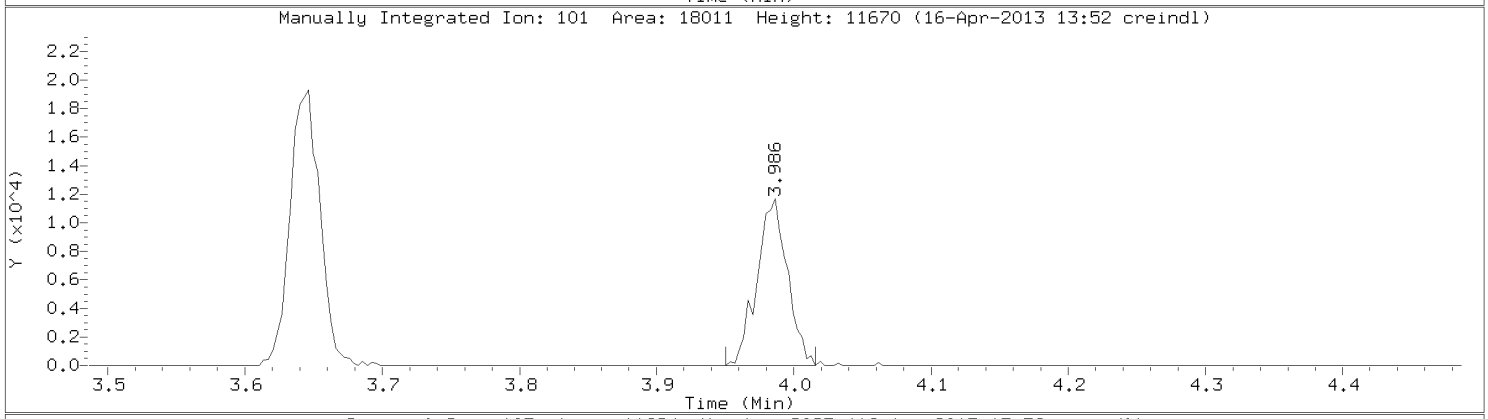


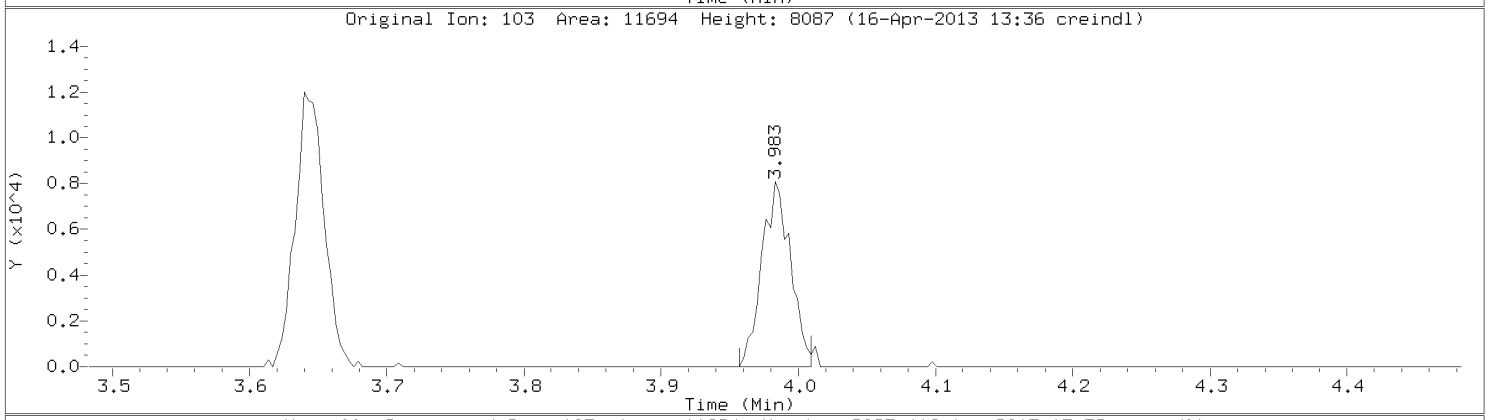


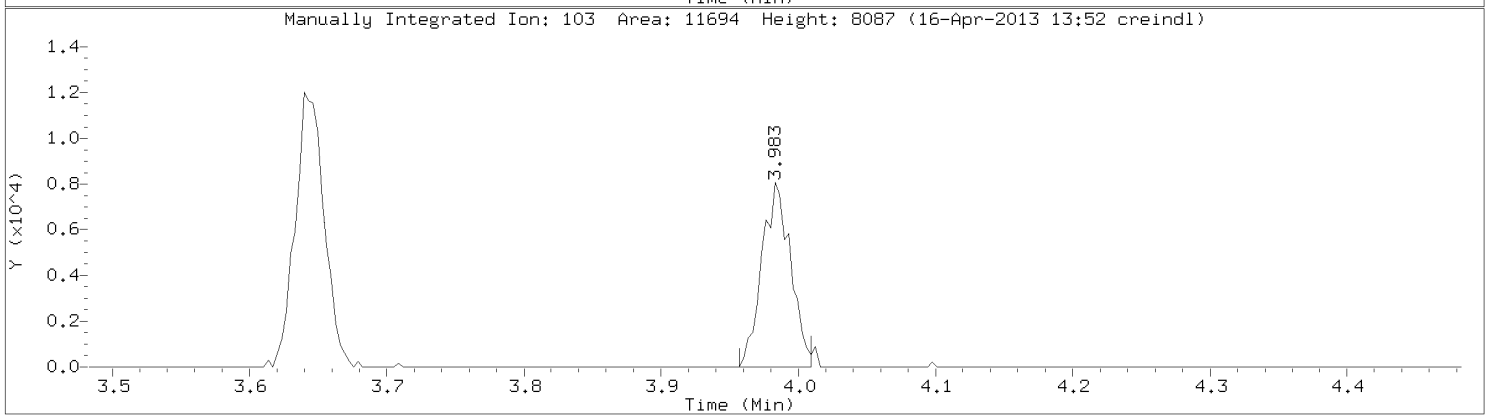
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Freon 113
CAS Number: 76-13-1

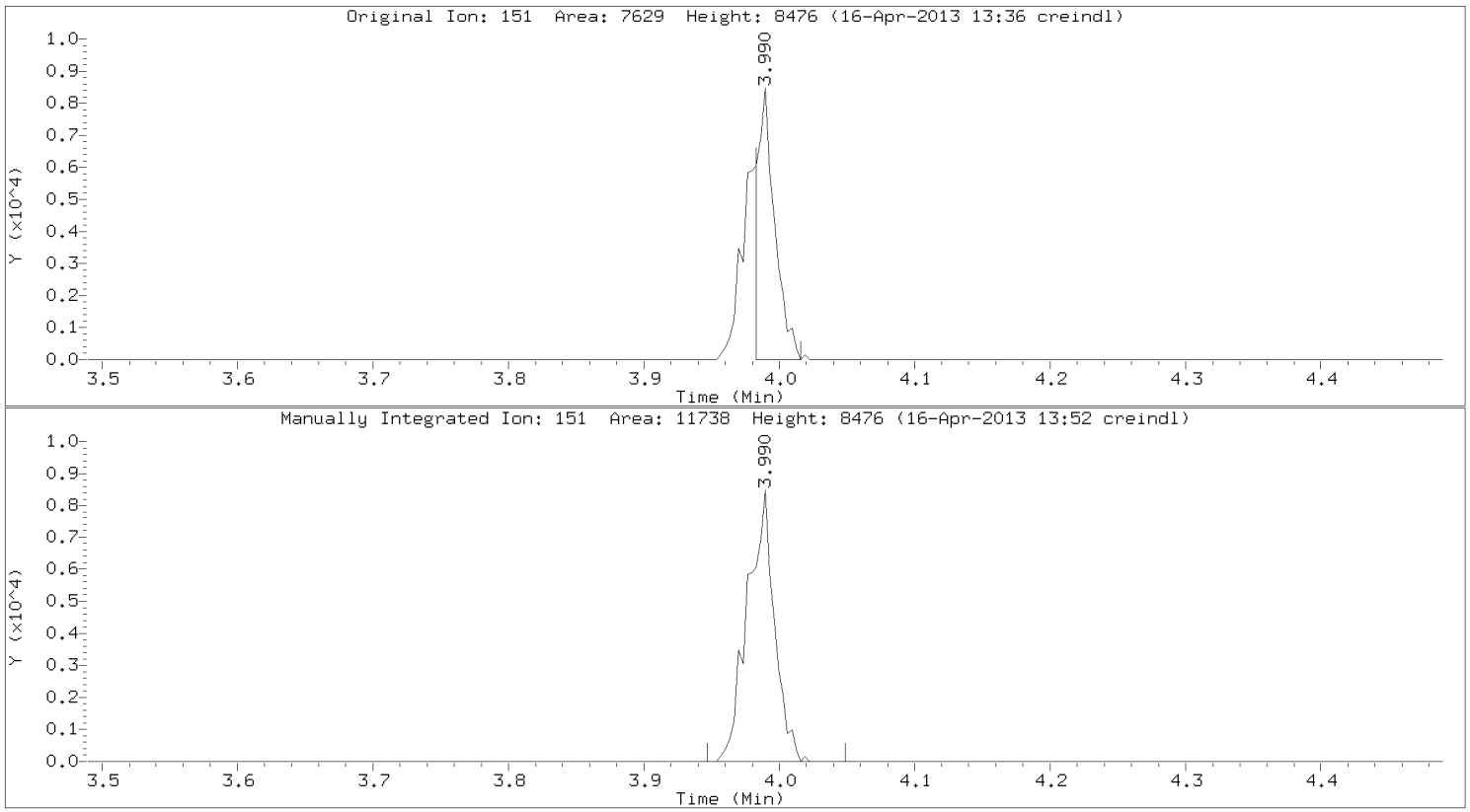






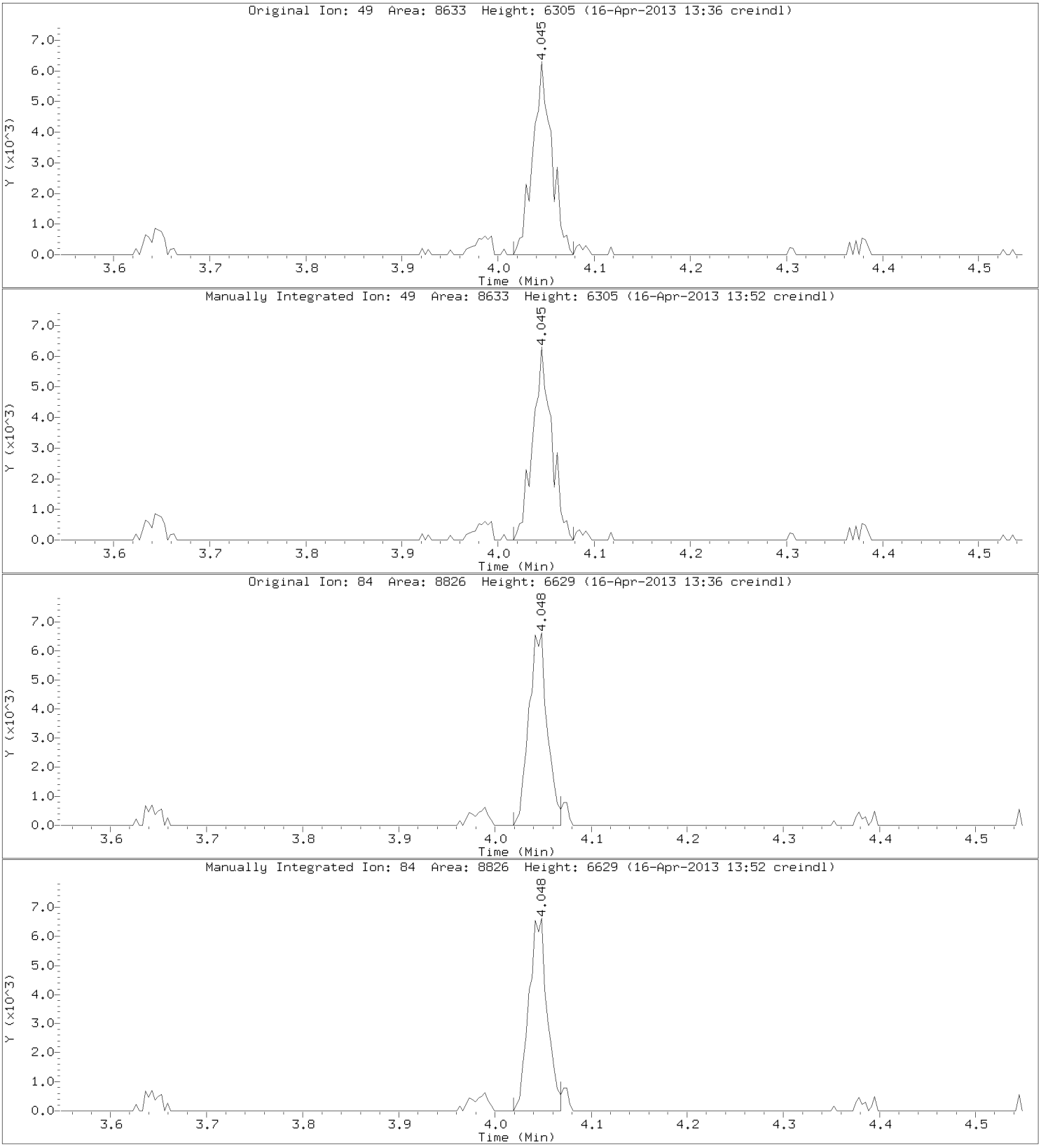


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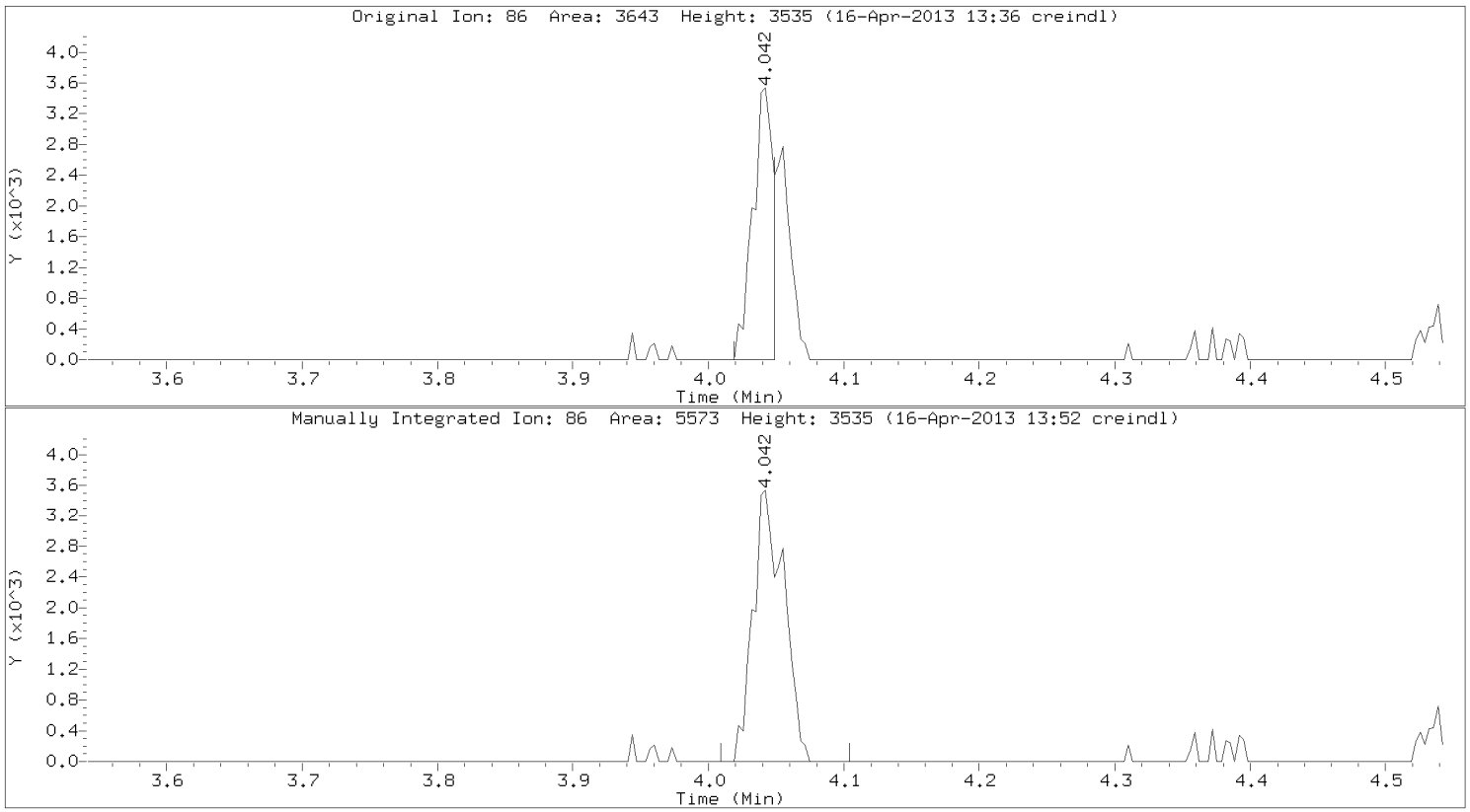


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Lab Sample ID: ICAL2

Compound: Methylene chloride
CAS Number: 75-09-2

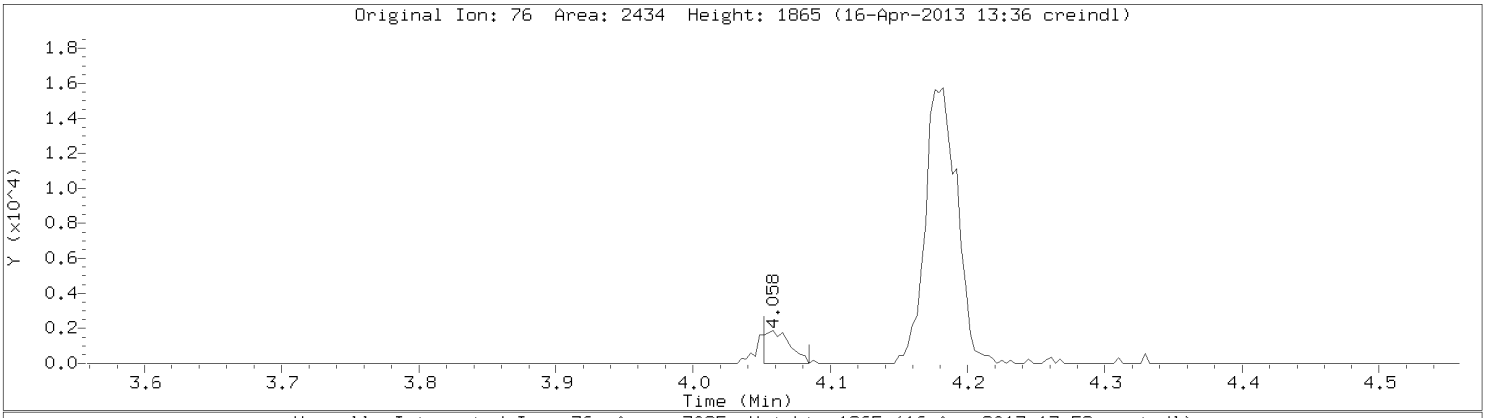


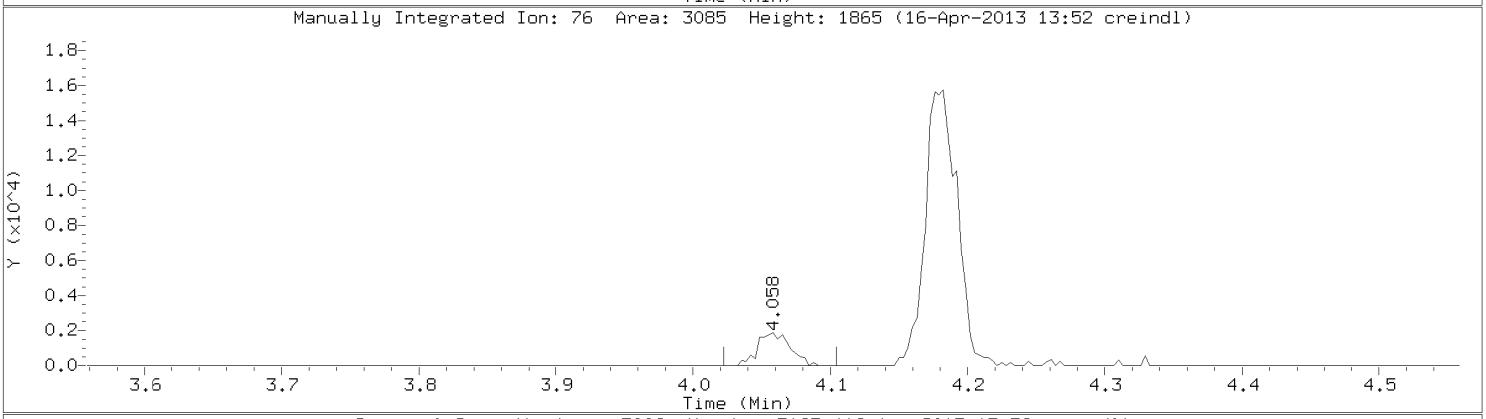
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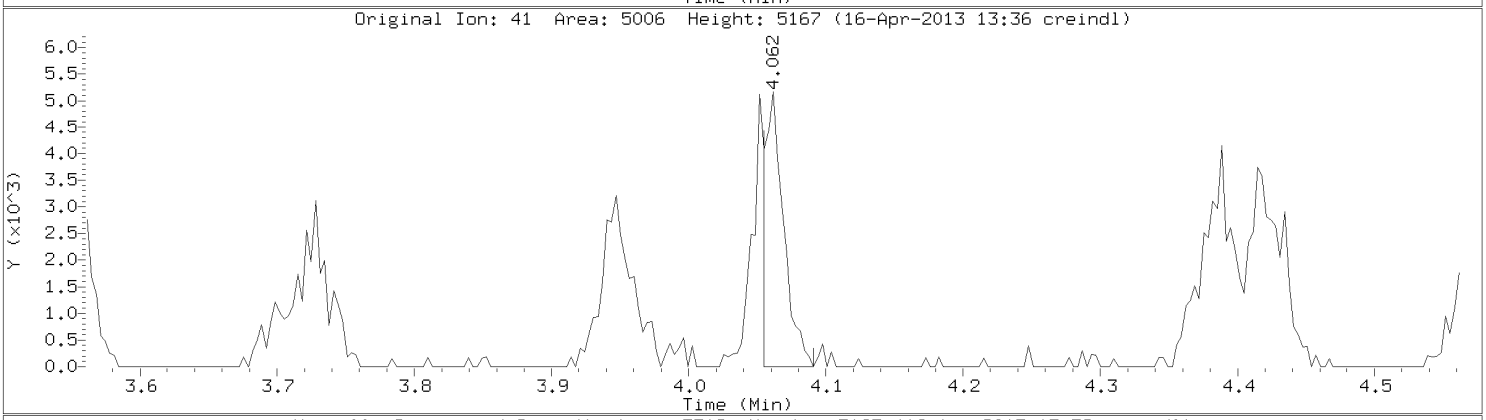


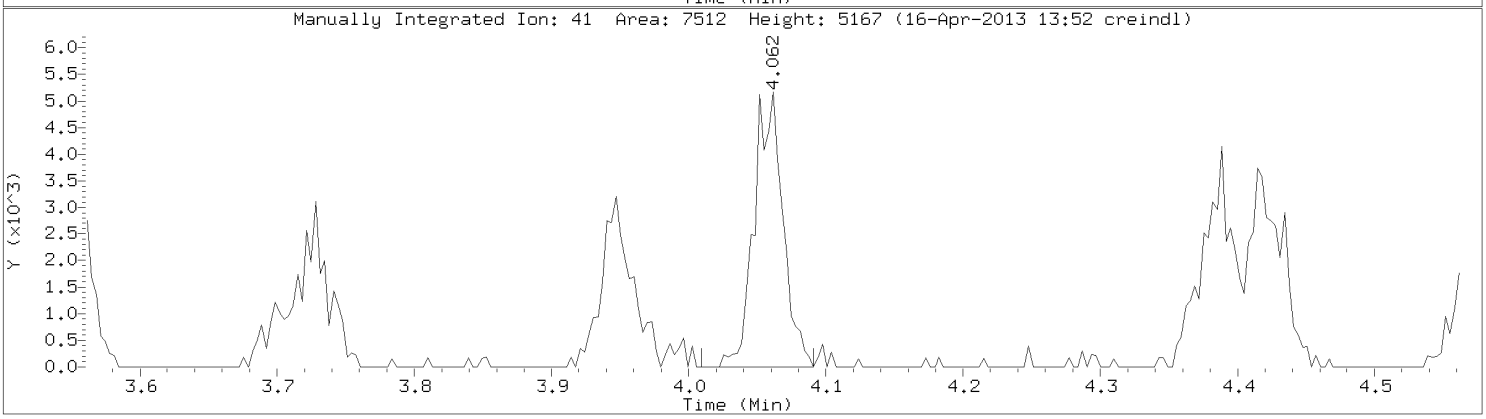
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Allyl Chloride
CAS Number: 107-05-1

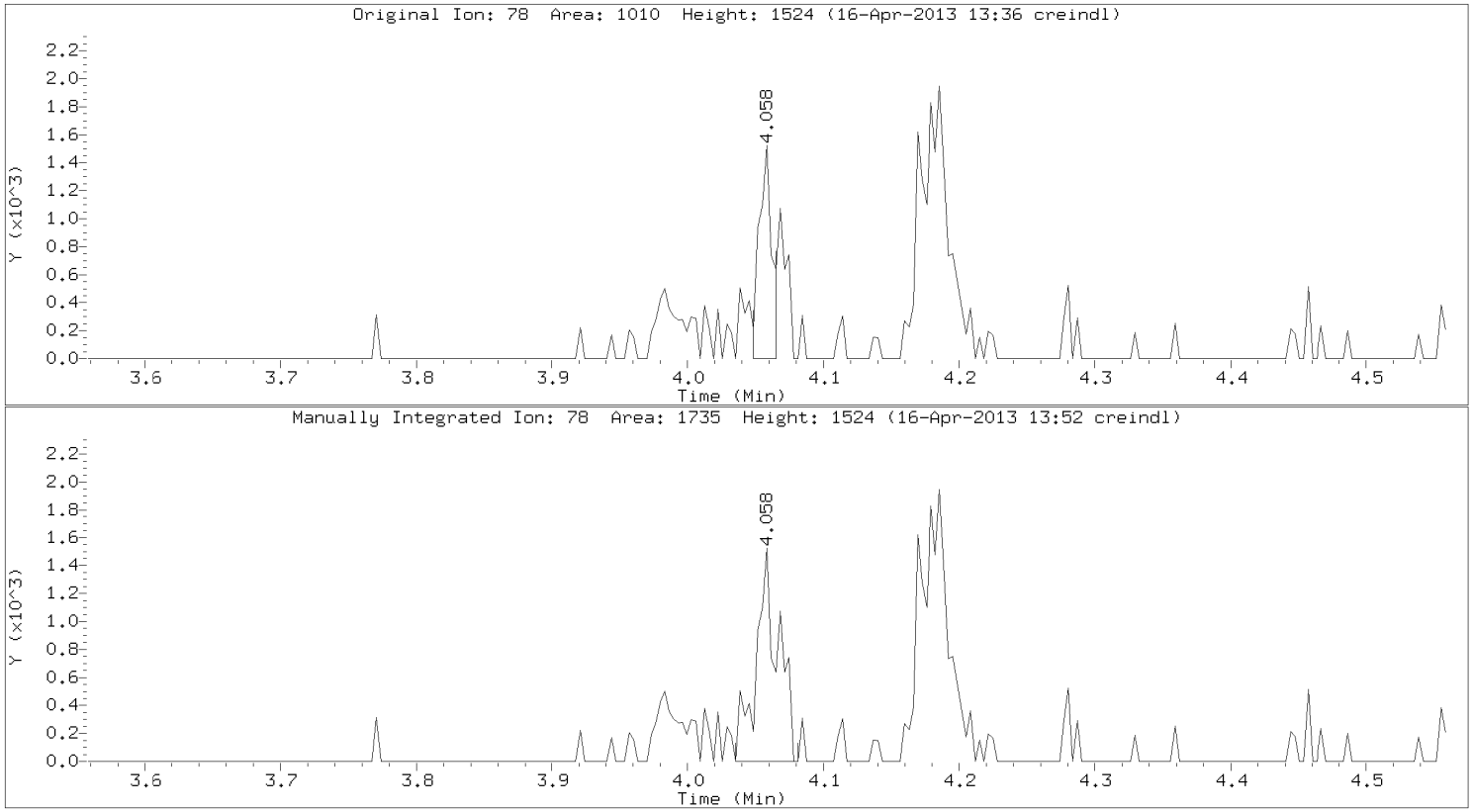






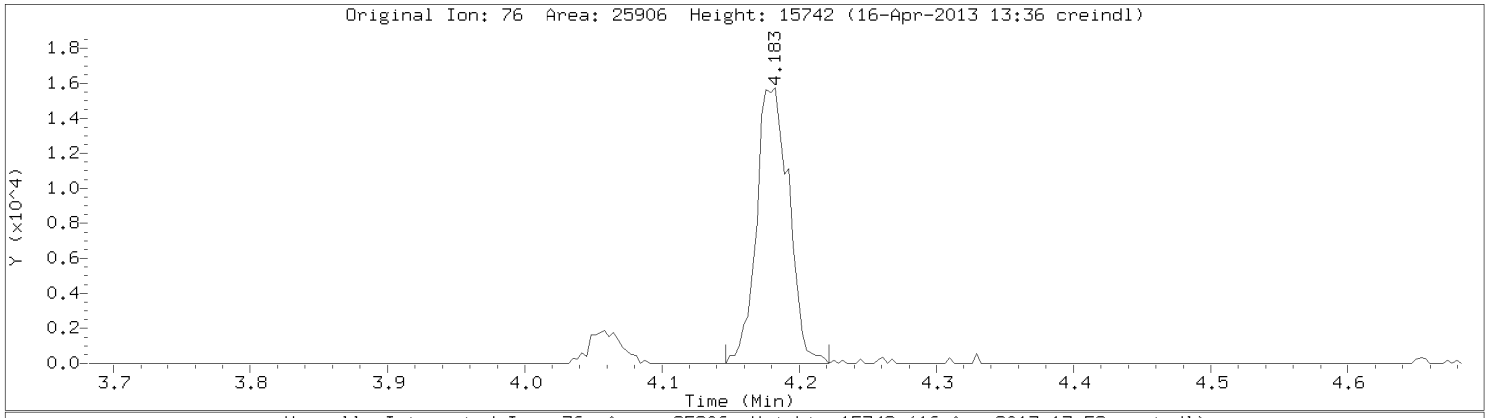


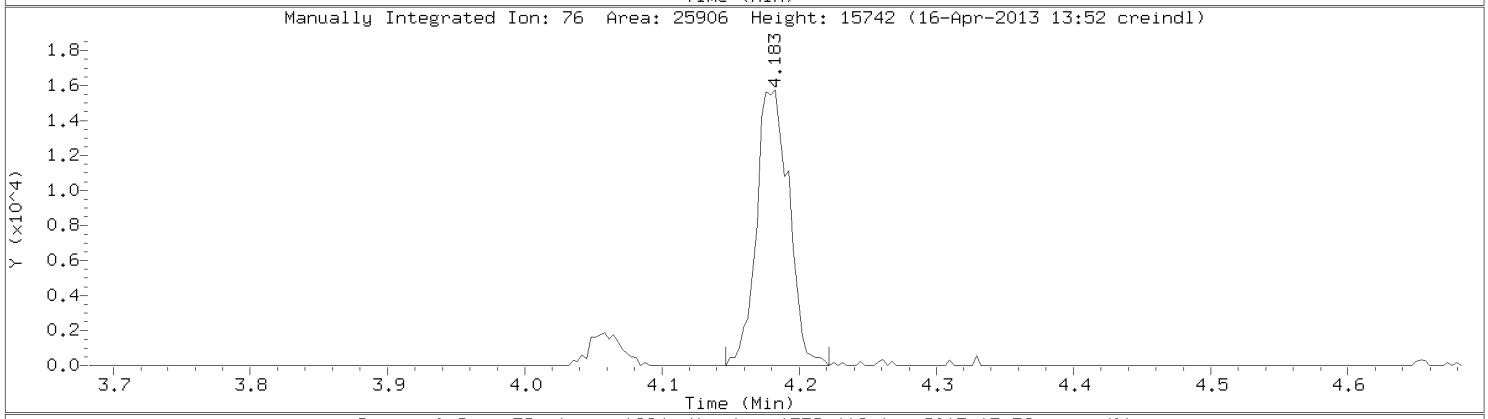
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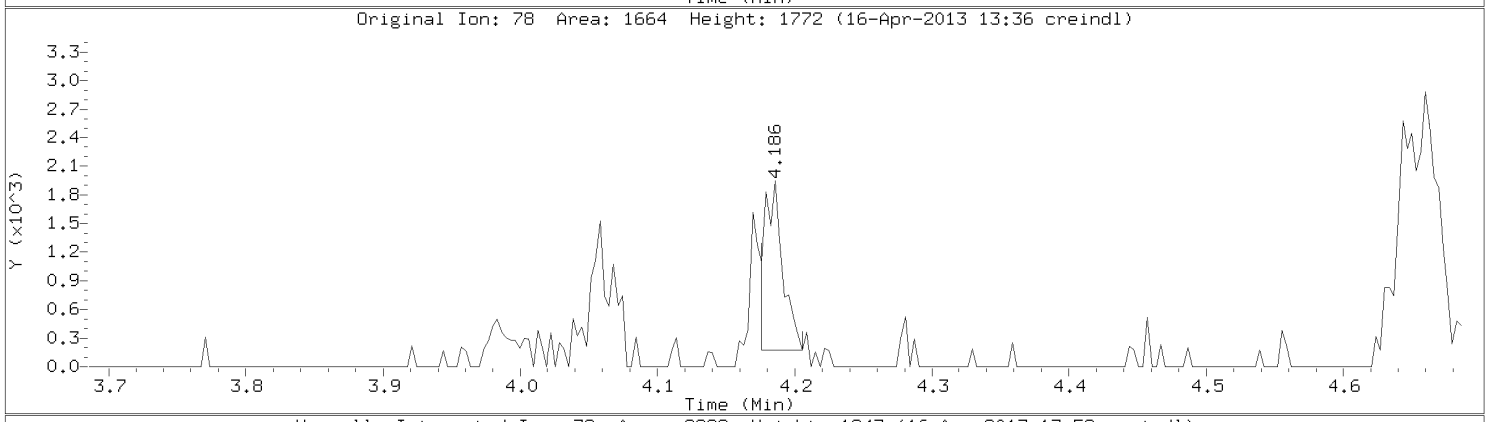


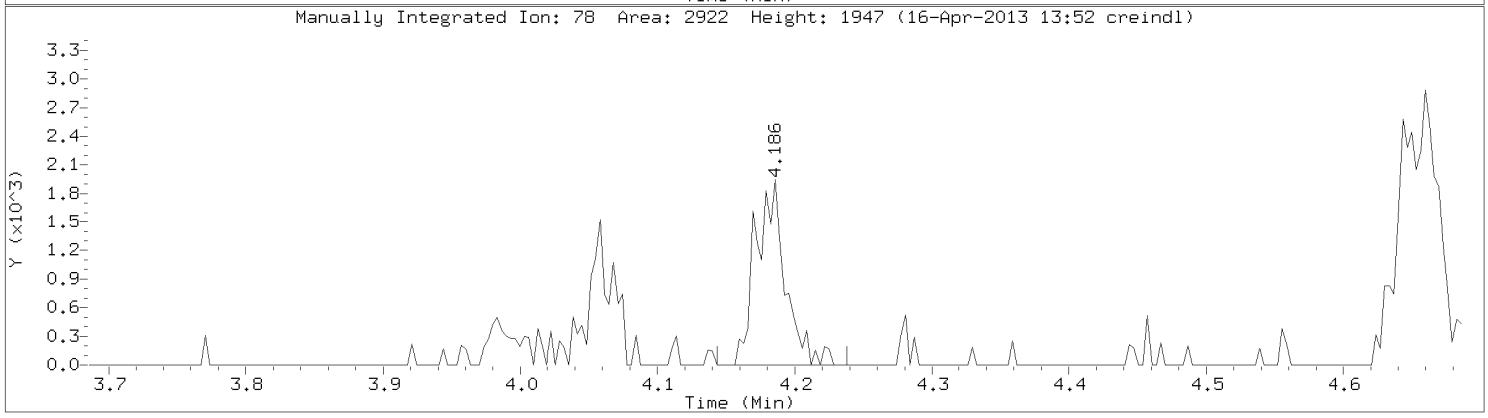
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Carbon Disulfide
CAS Number: 75-15-0



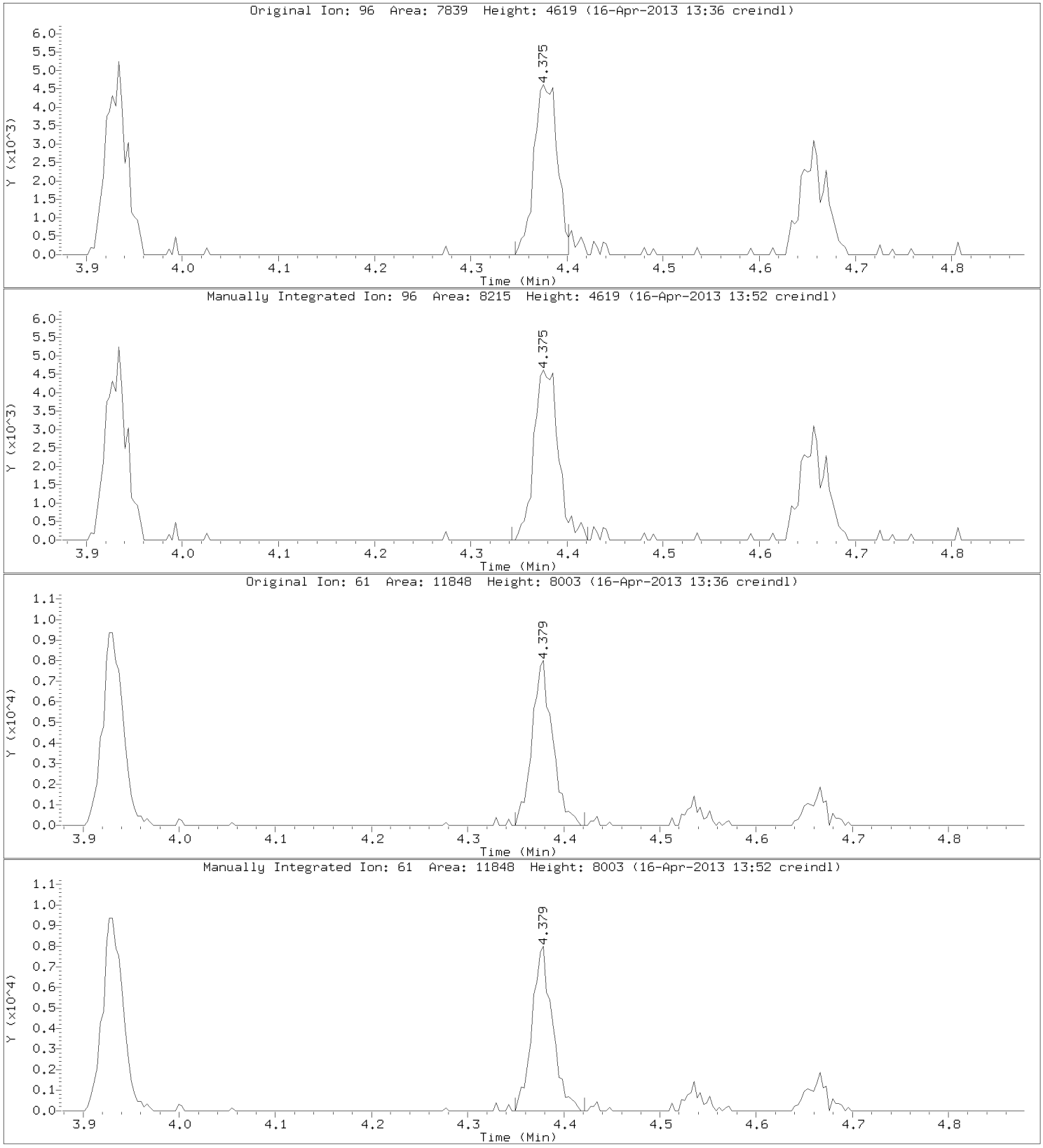




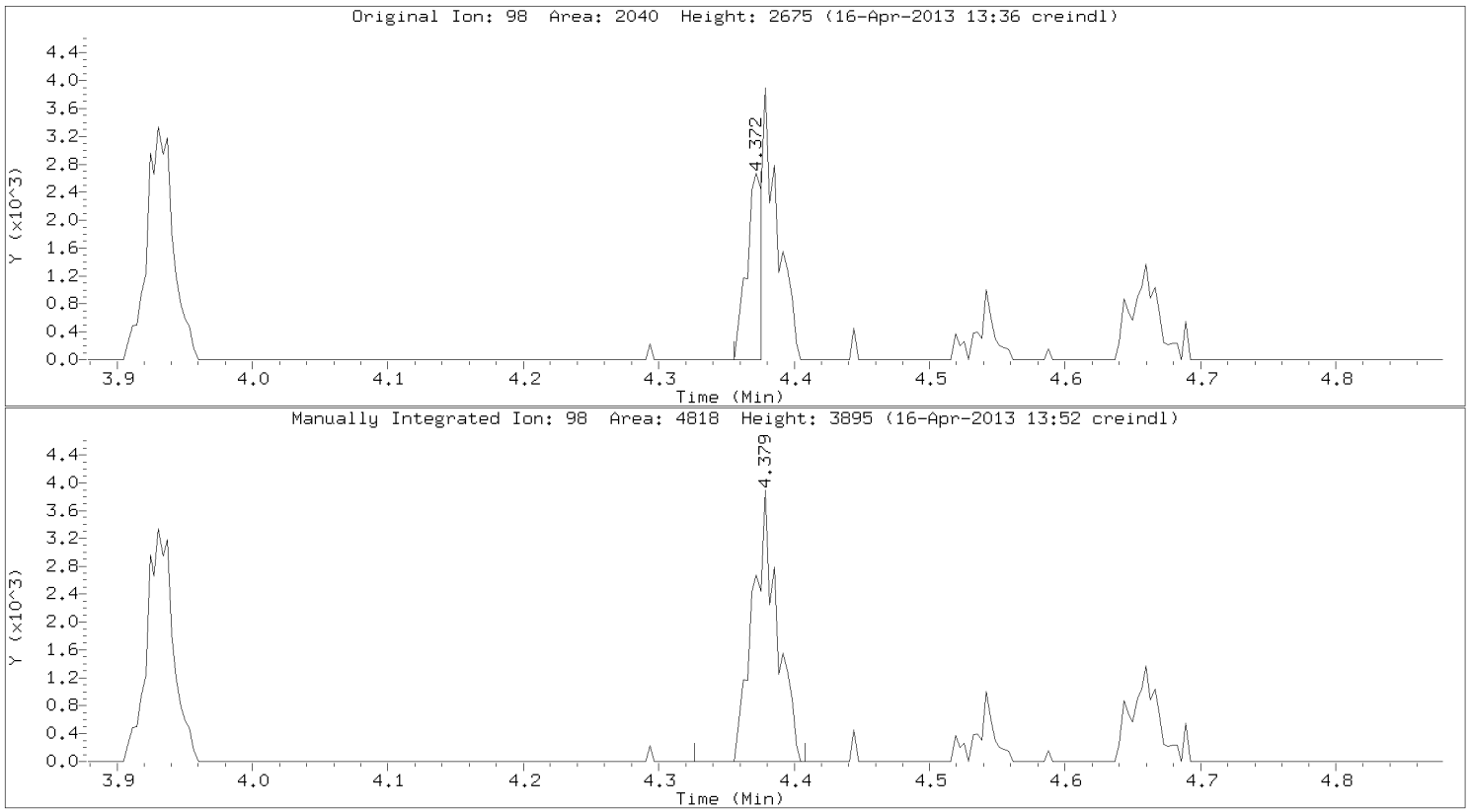


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: trans-1,2-dichloroethene
CAS Number: 156-60-5

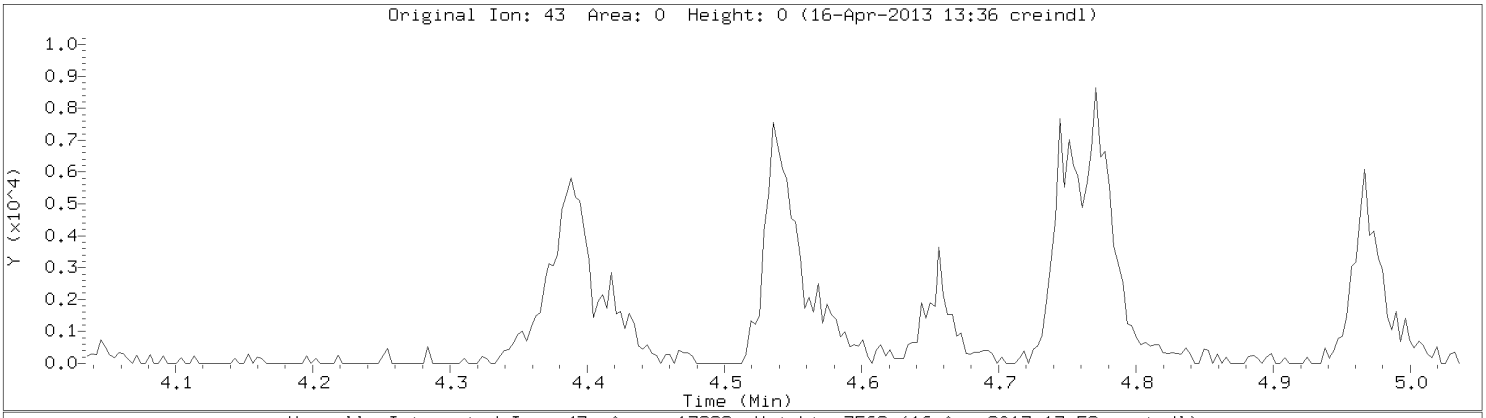


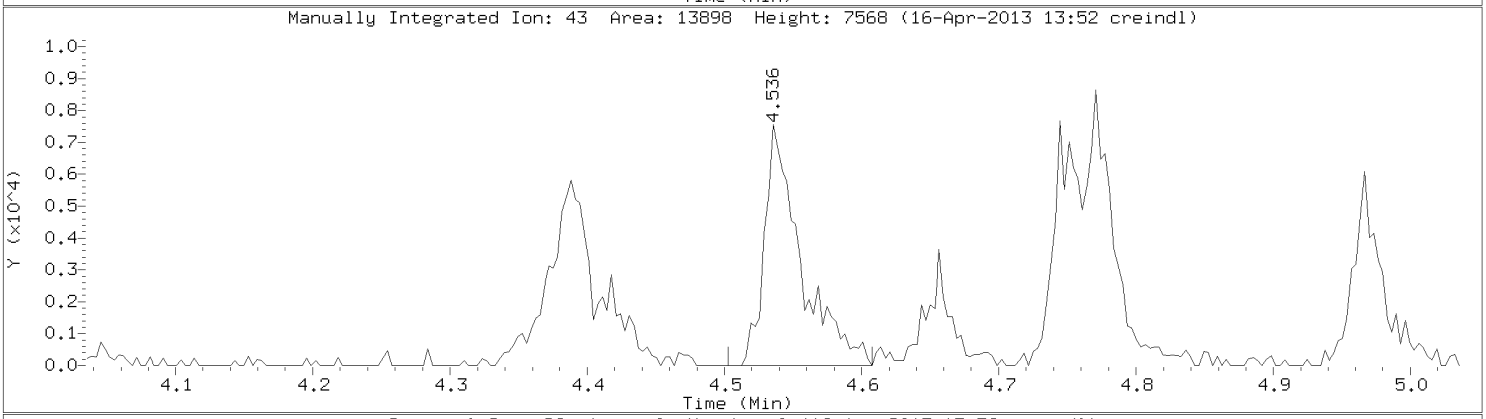
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Lab Sample ID: ICAL2

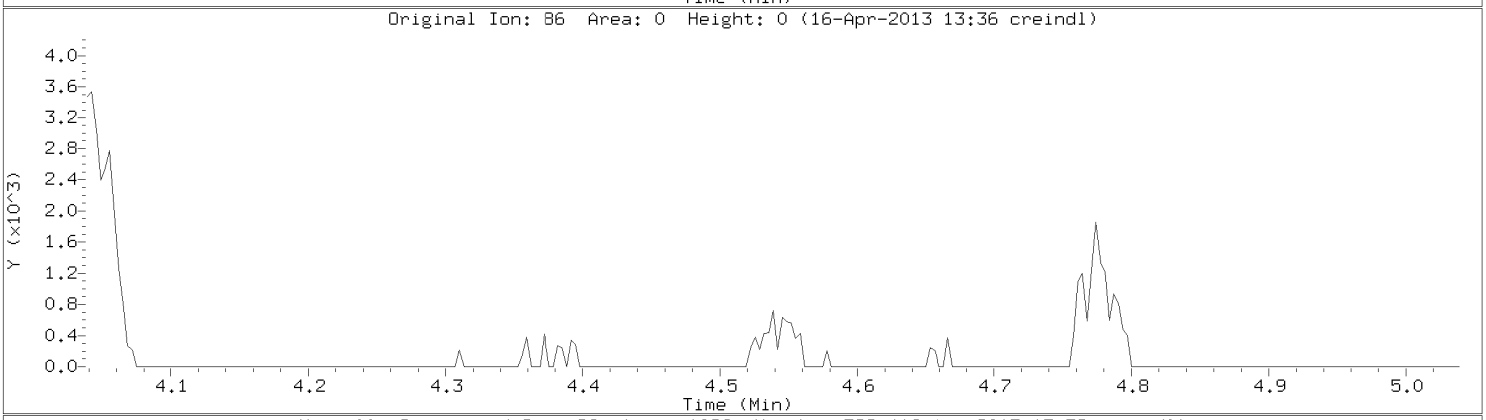


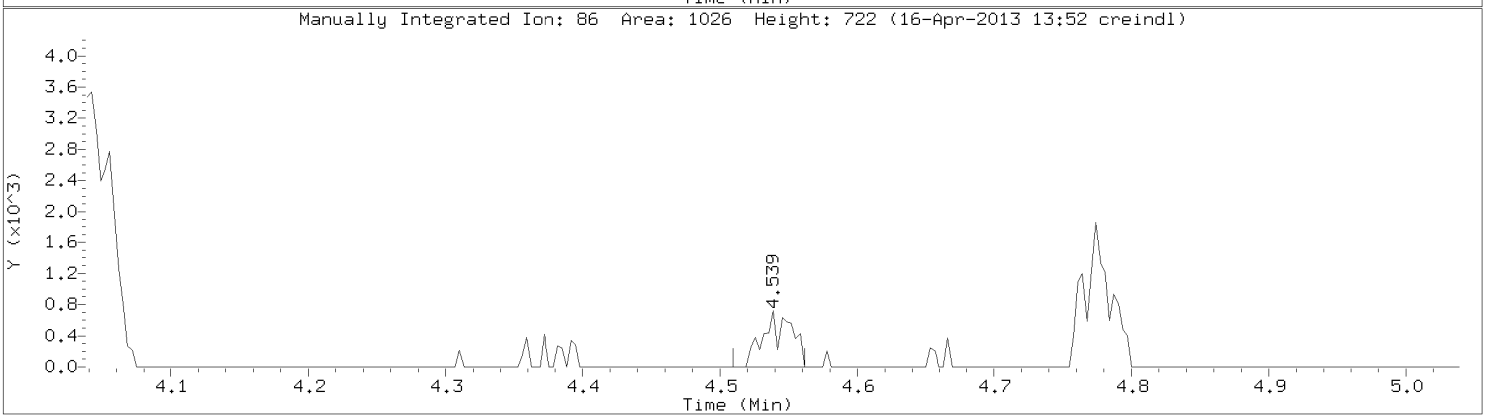
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Vinyl Acetate
CAS Number: 108-05-4



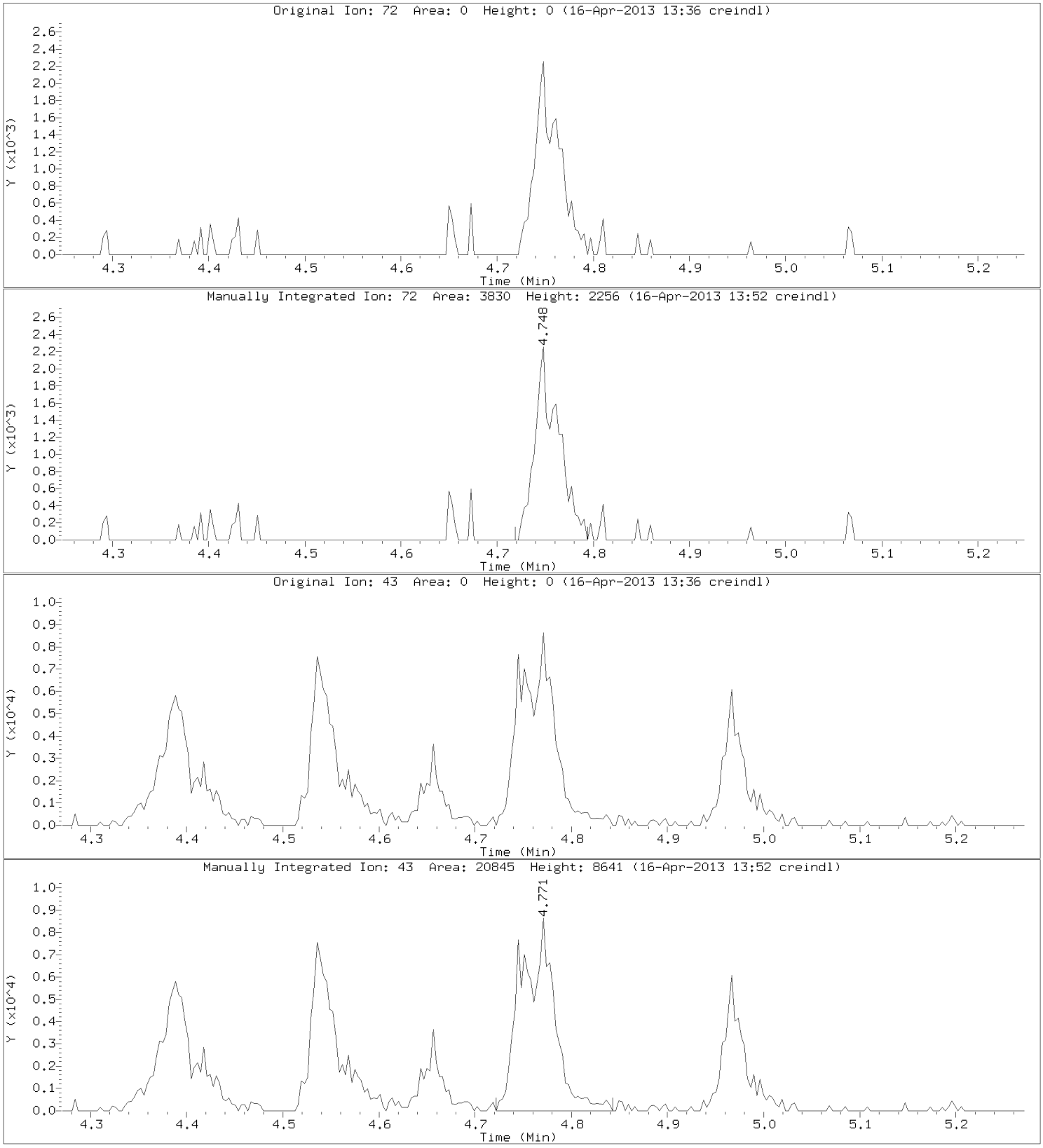






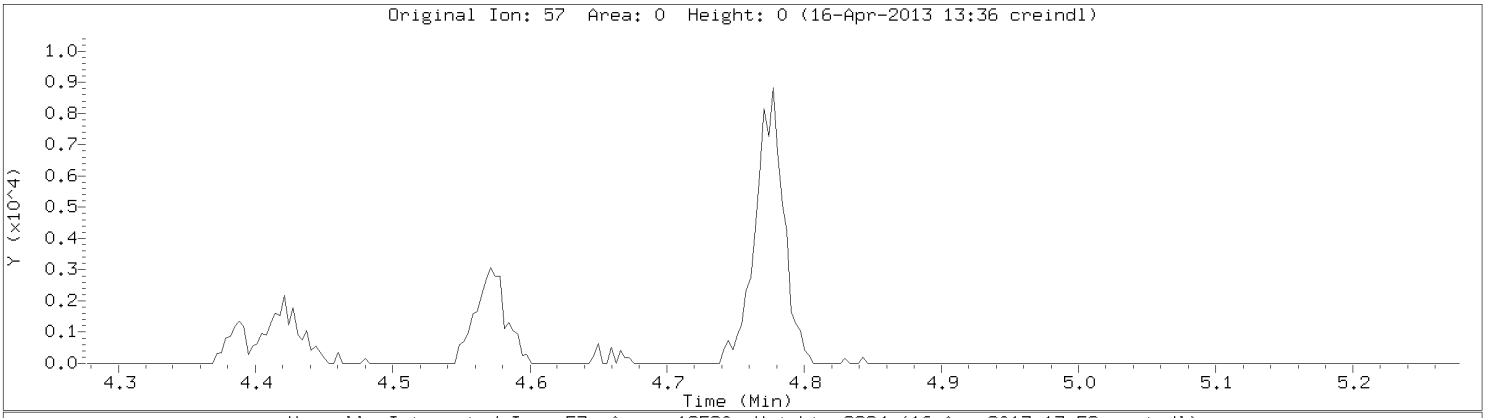
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Lab Sample ID: ICAL2

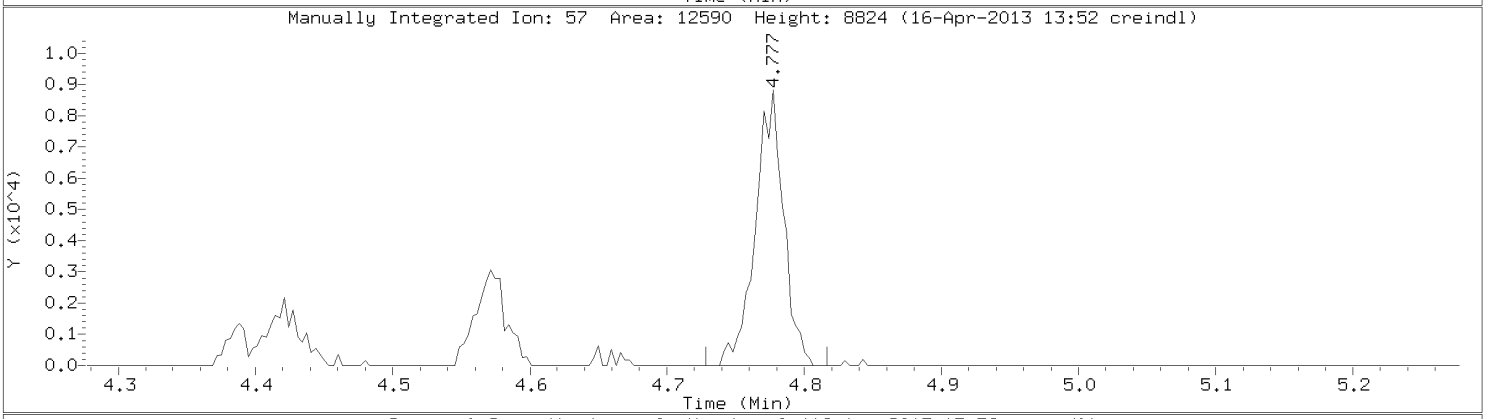
Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

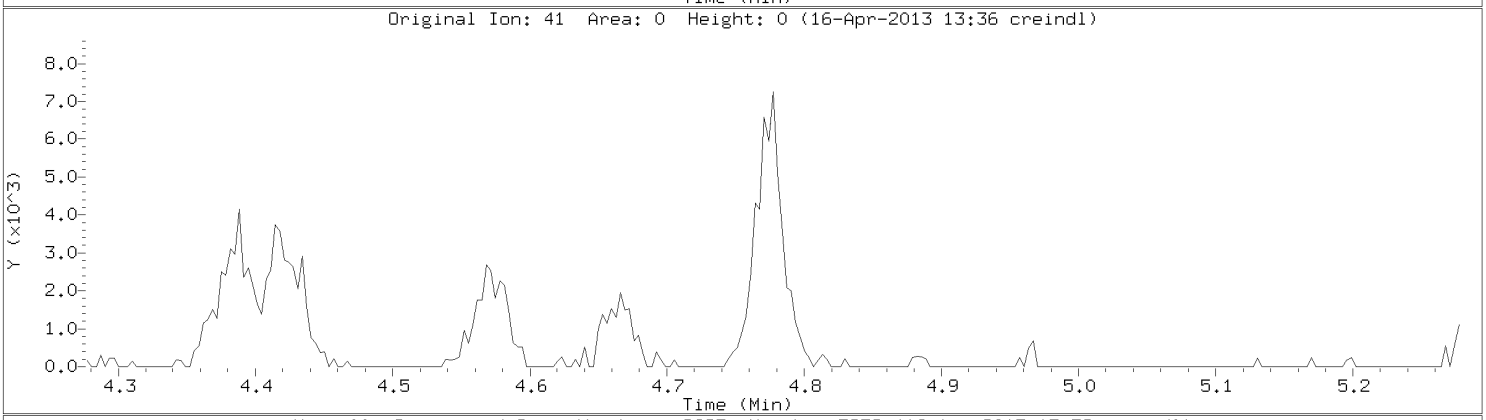


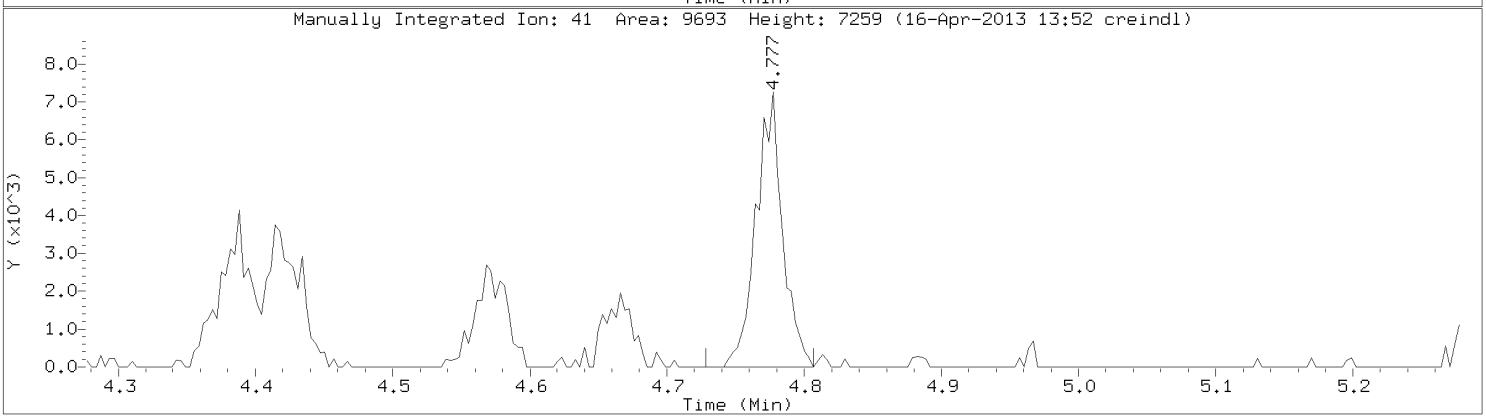
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: n-Hexane
CAS Number: 110-54-3

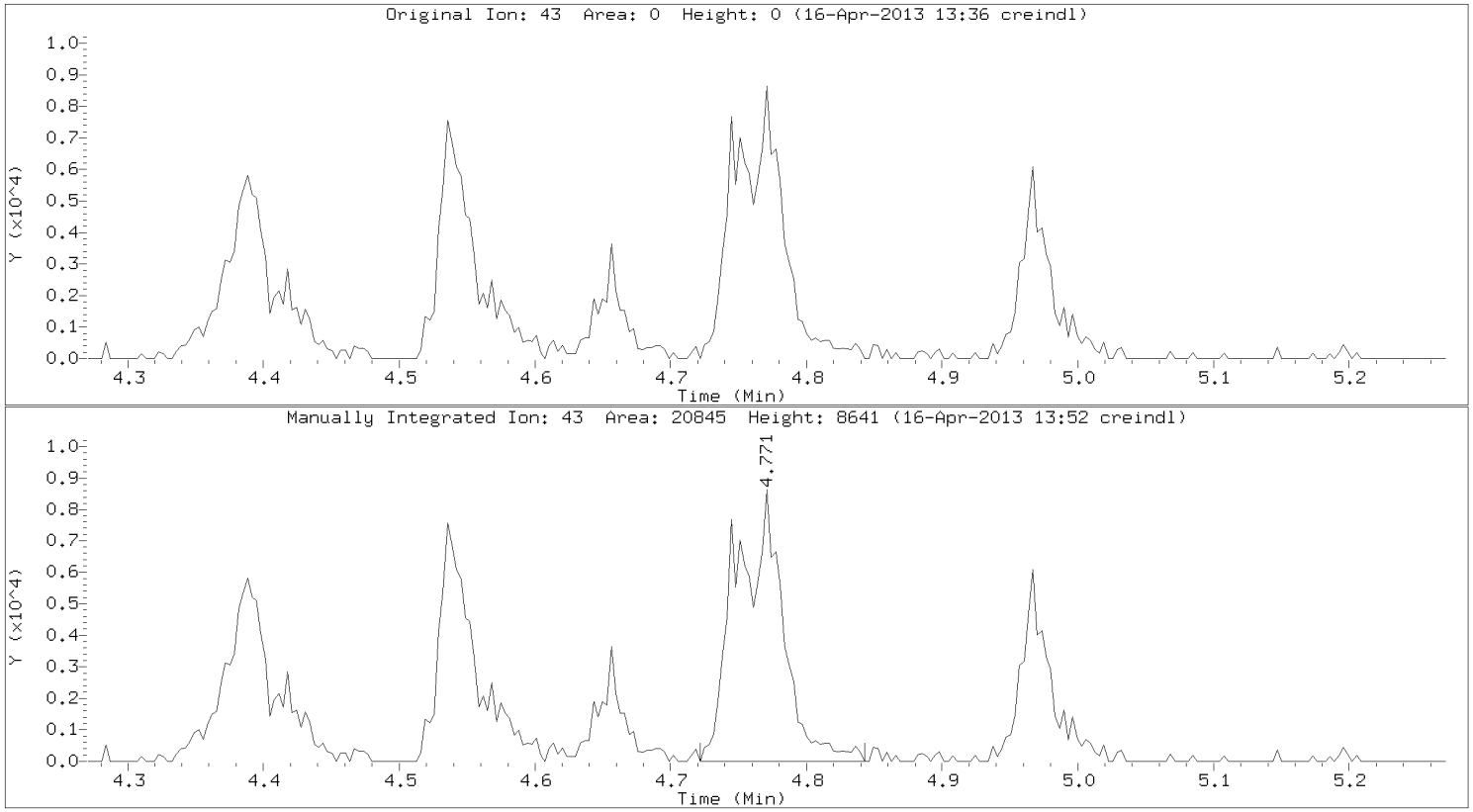






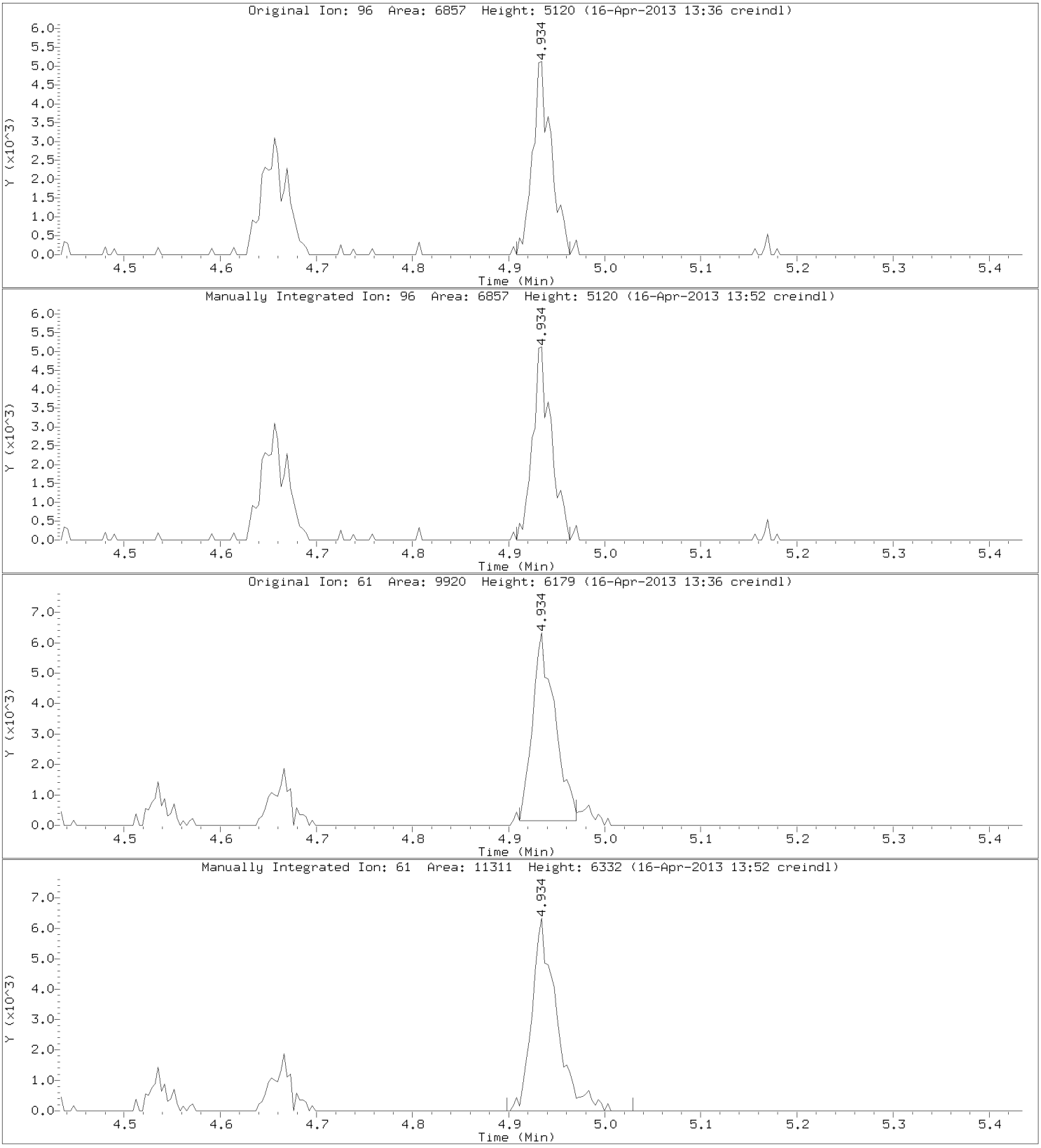


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Instrument: 10airD.i
Lab Sample ID: ICAL2

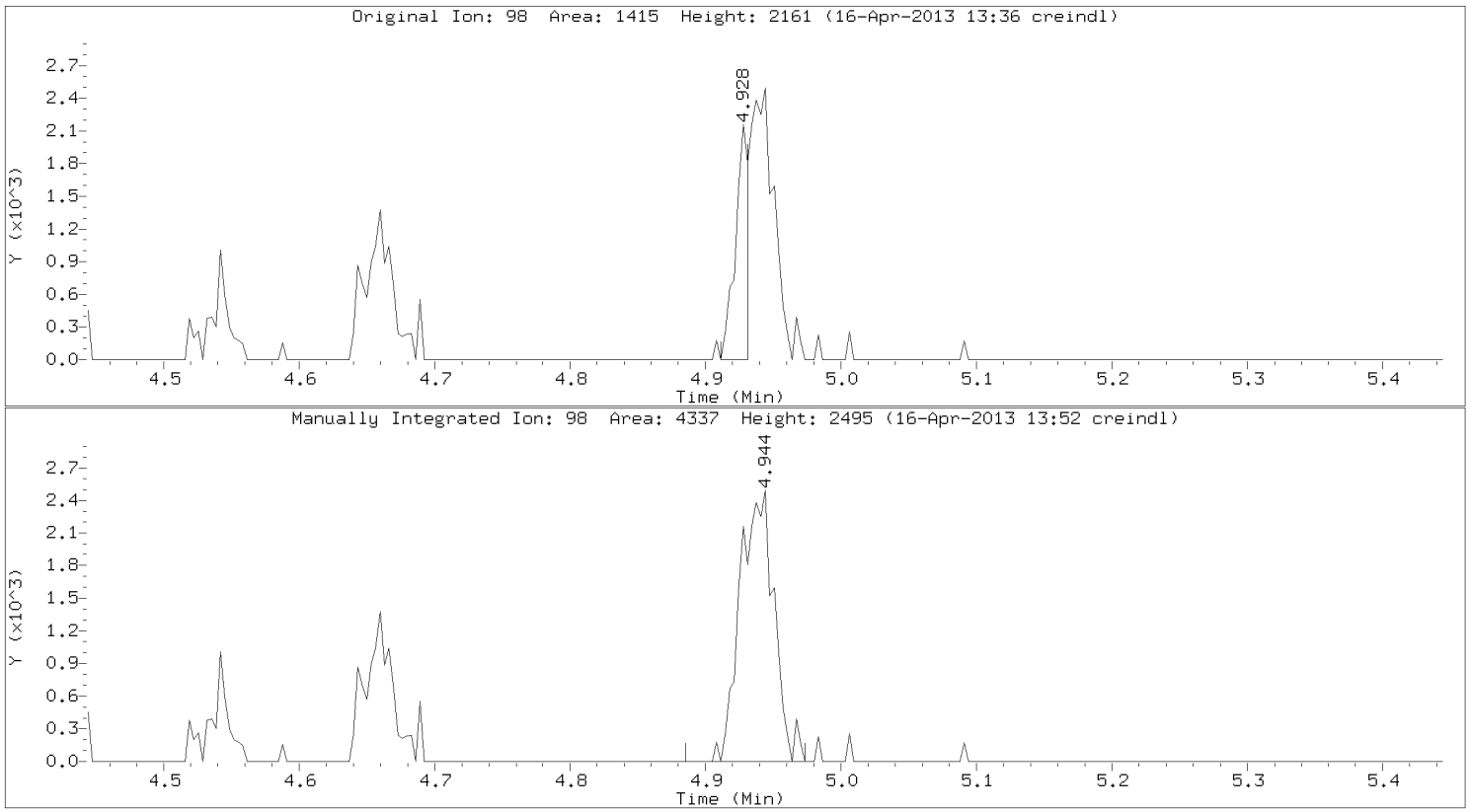


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2

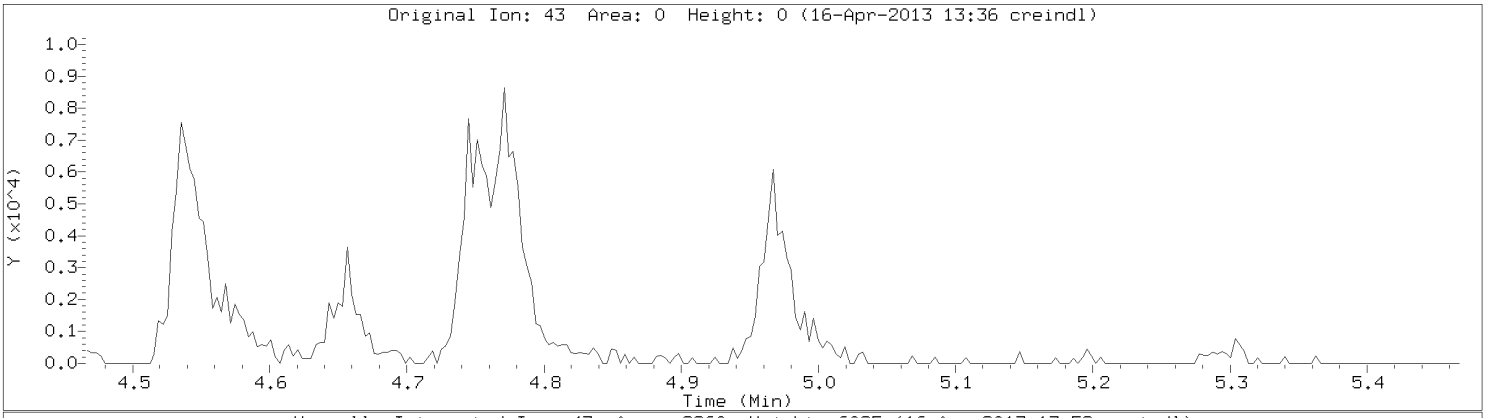


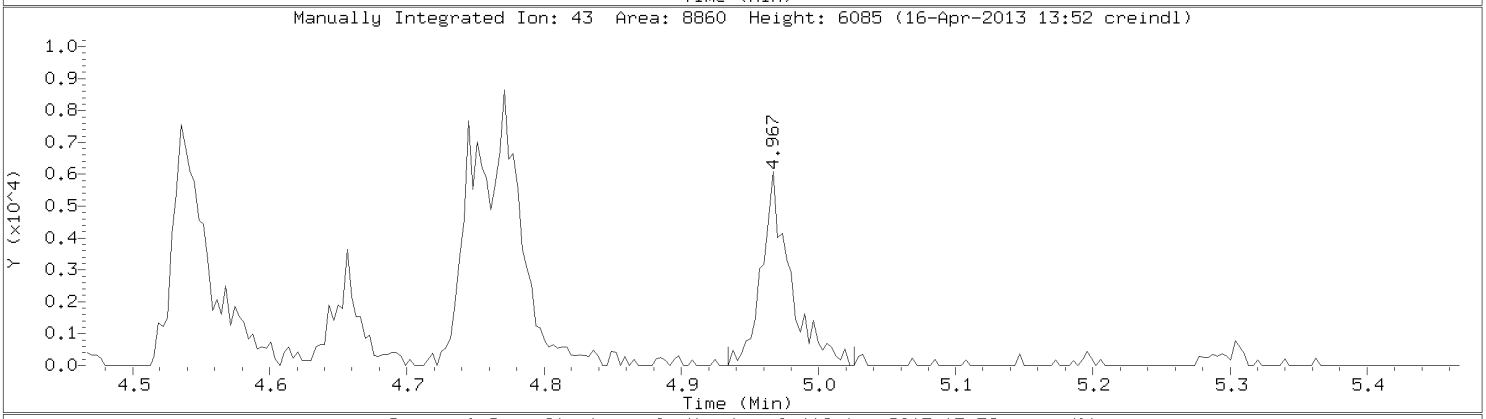
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Instrument: 10airD.i
Lab Sample ID: ICAL2

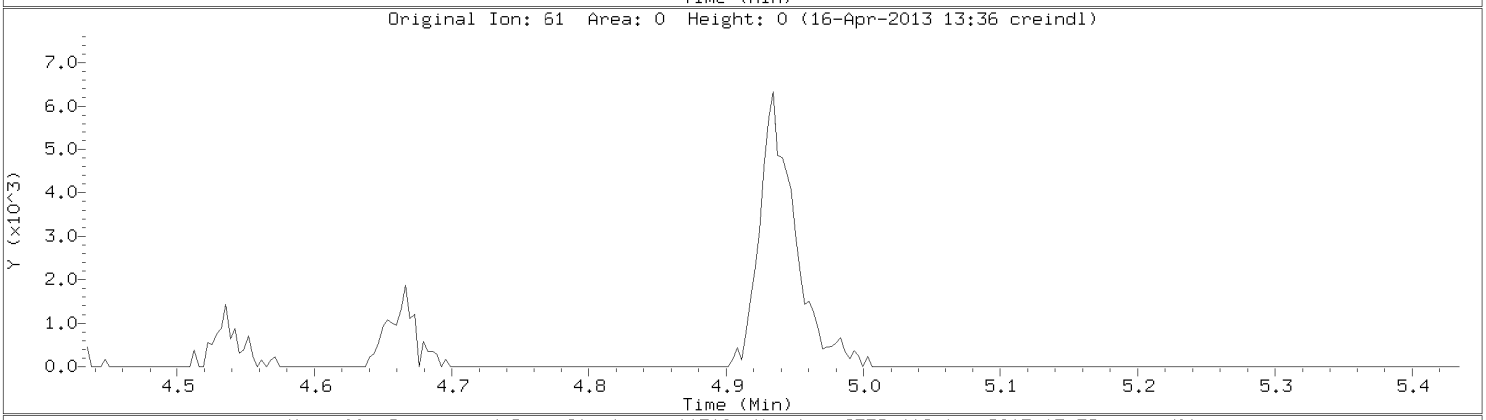


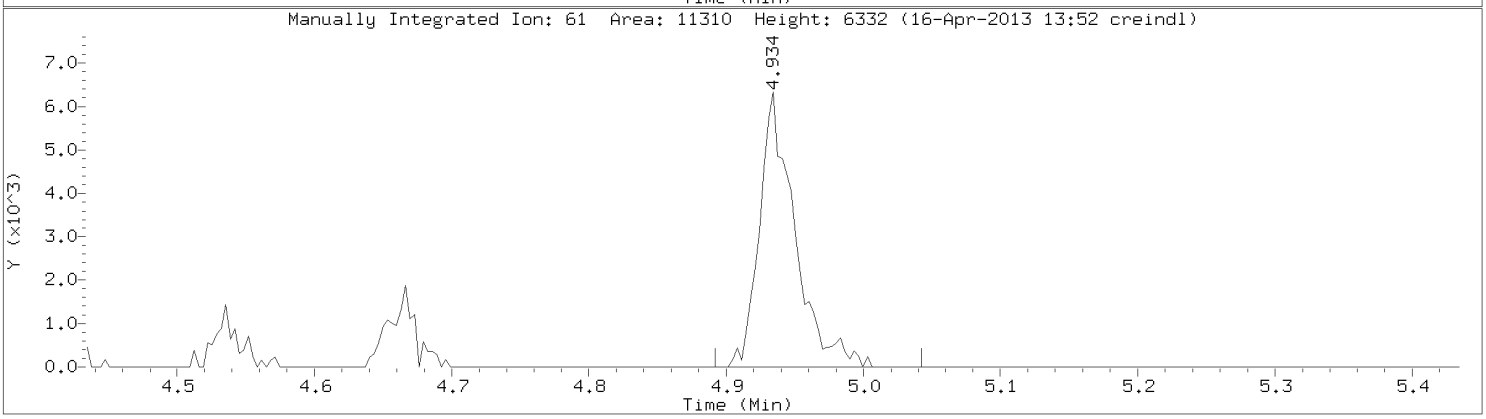
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Ethyl Acetate
CAS Number: 141-78-6

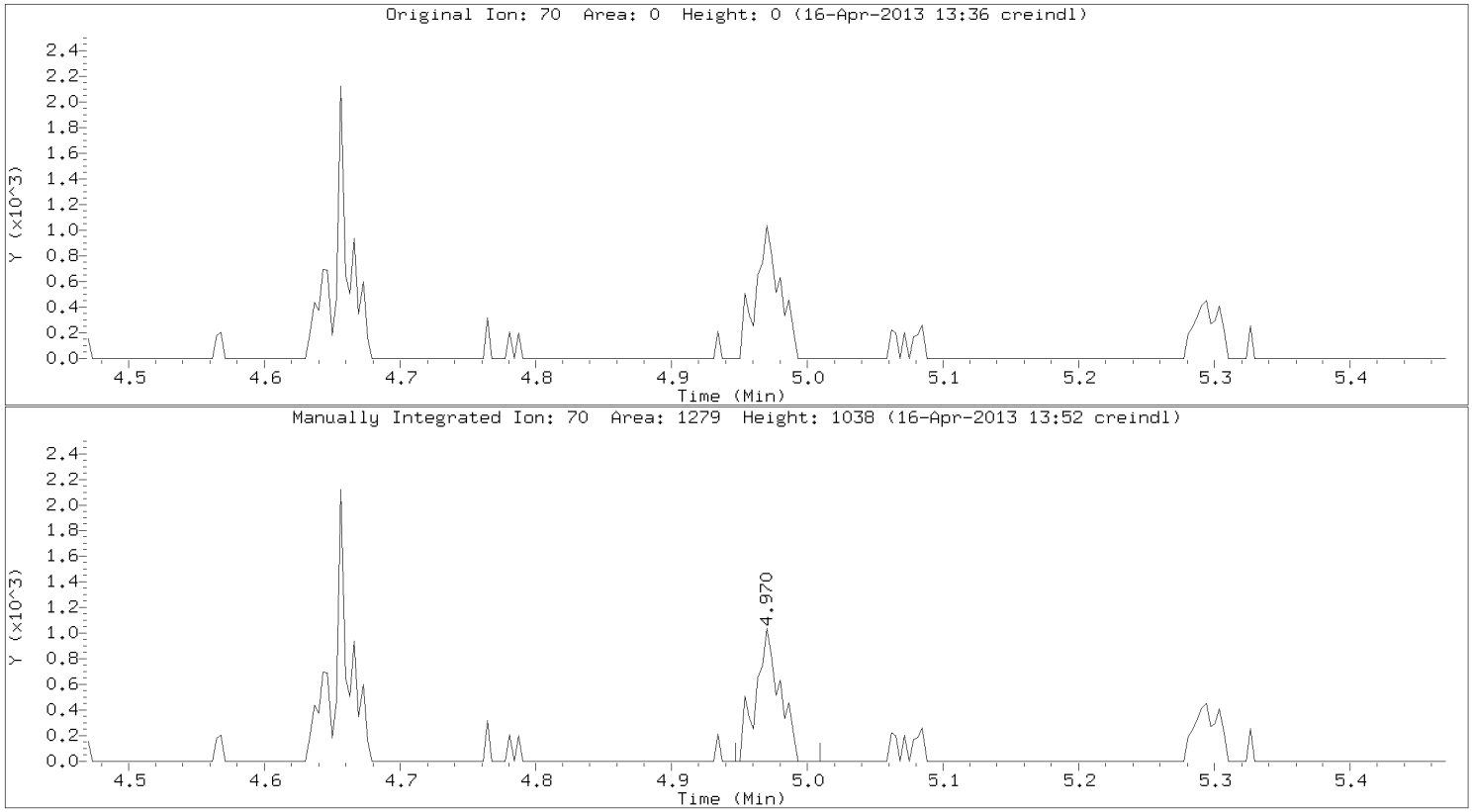






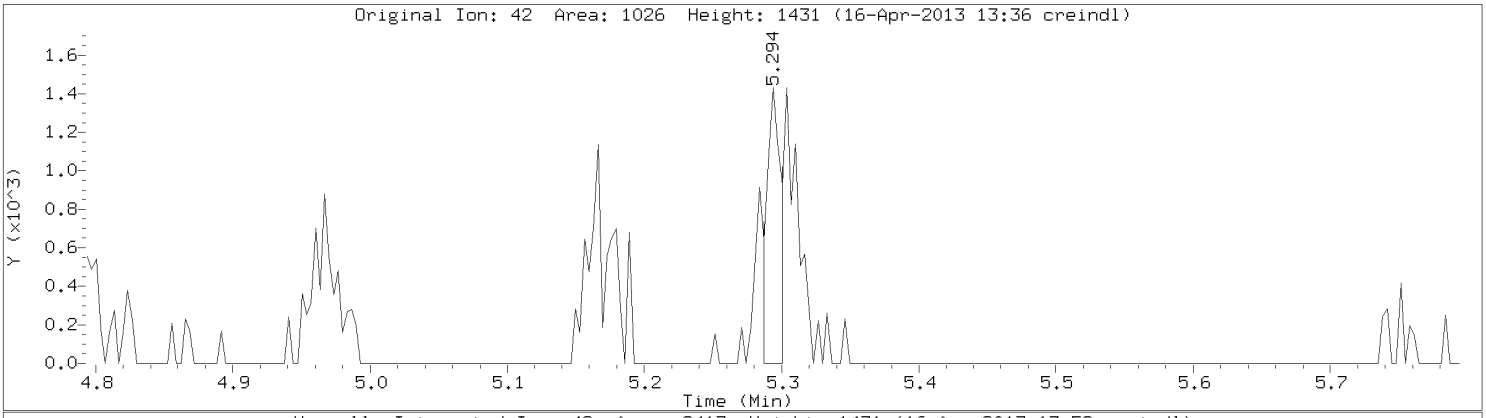


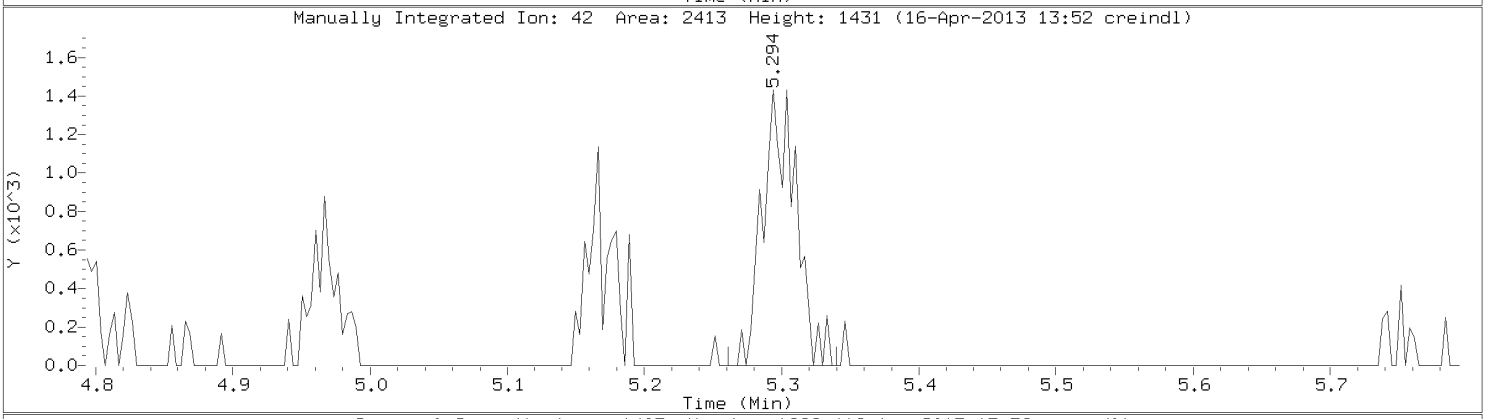
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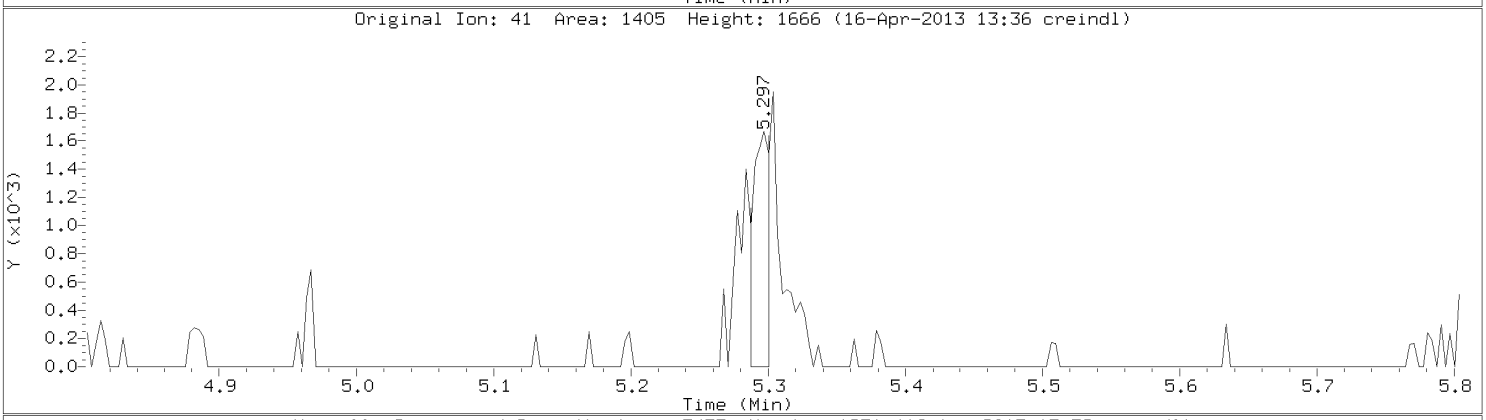


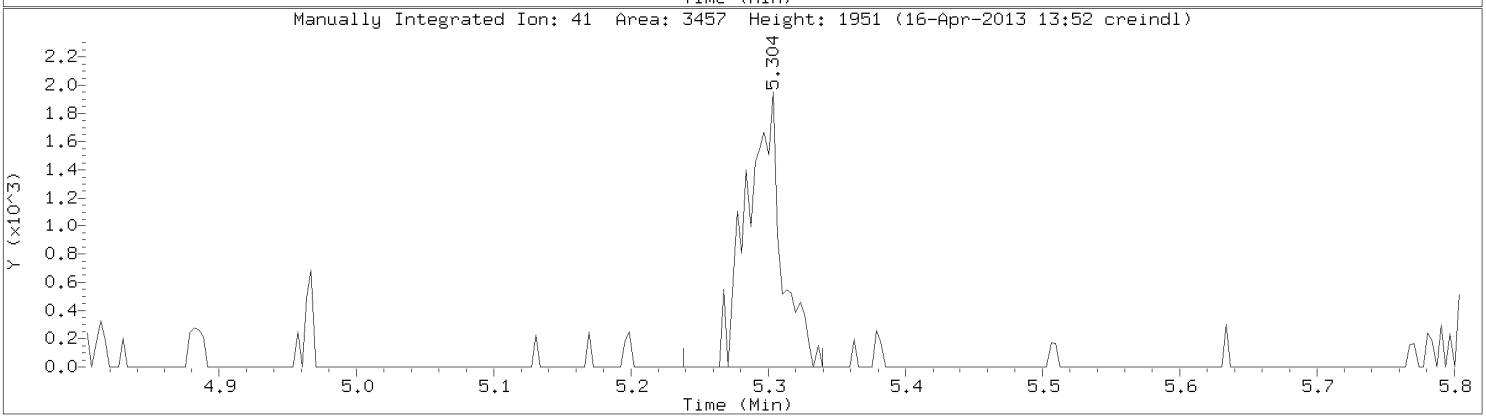
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Tetrahydrofuran
CAS Number: 109-99-9

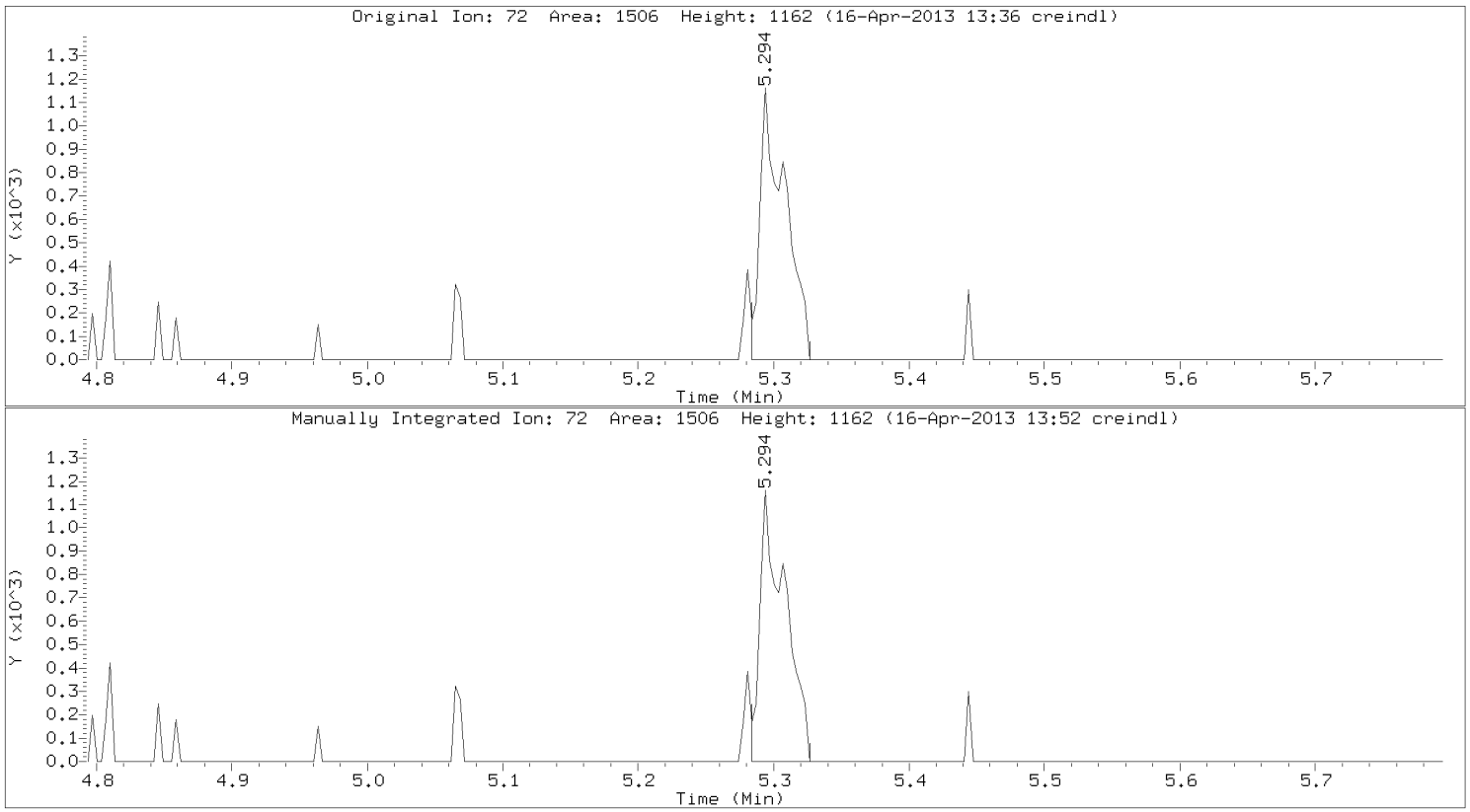






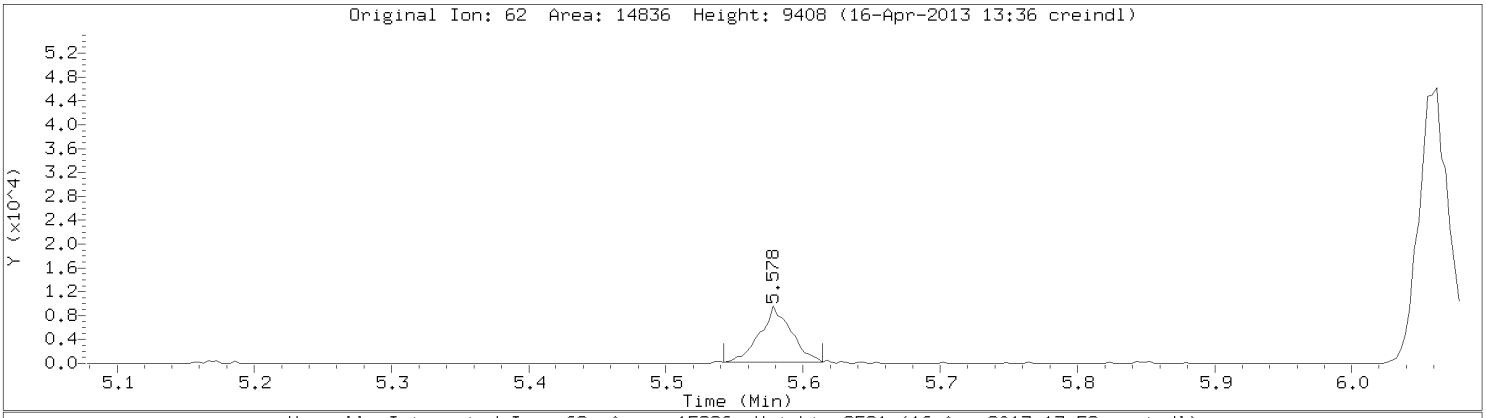


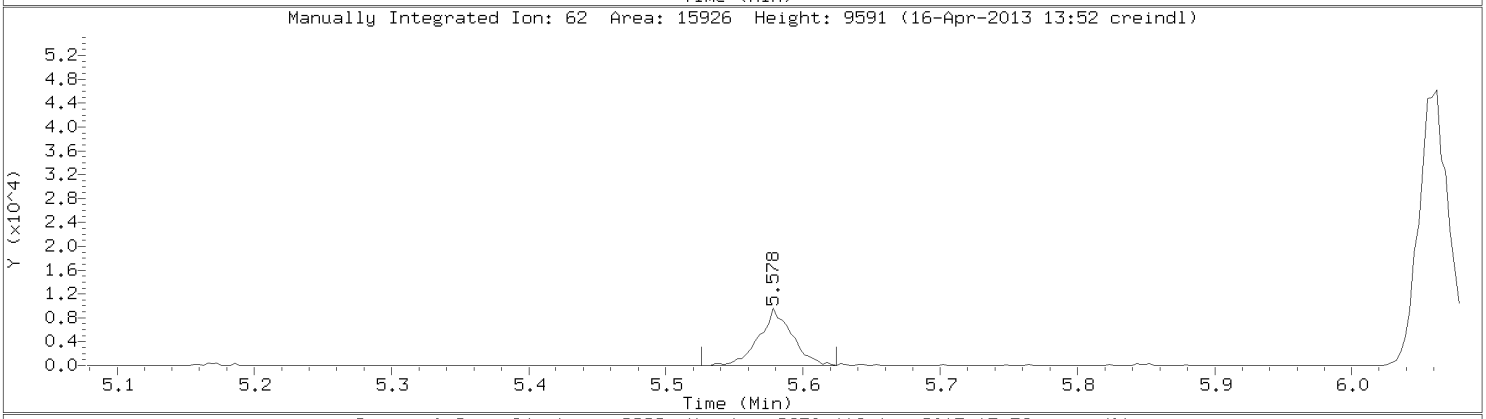
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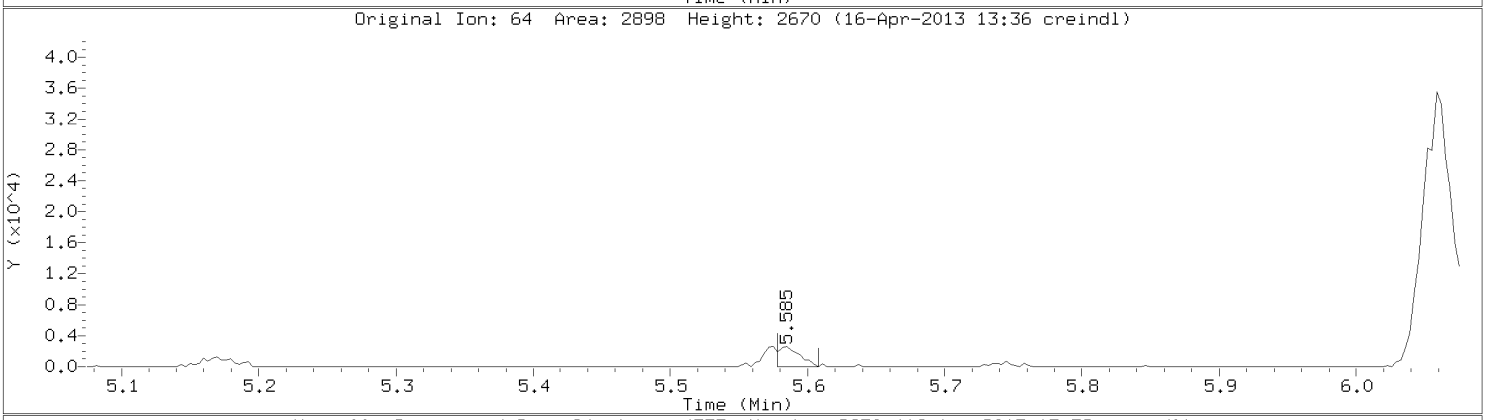


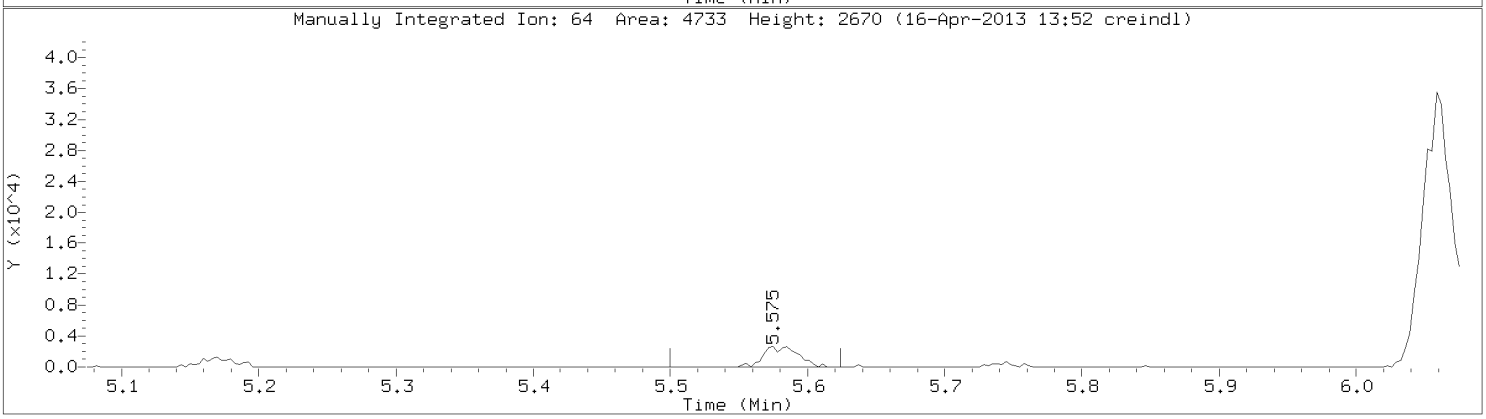
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,2-Dichloroethane
CAS Number: 107-06-2



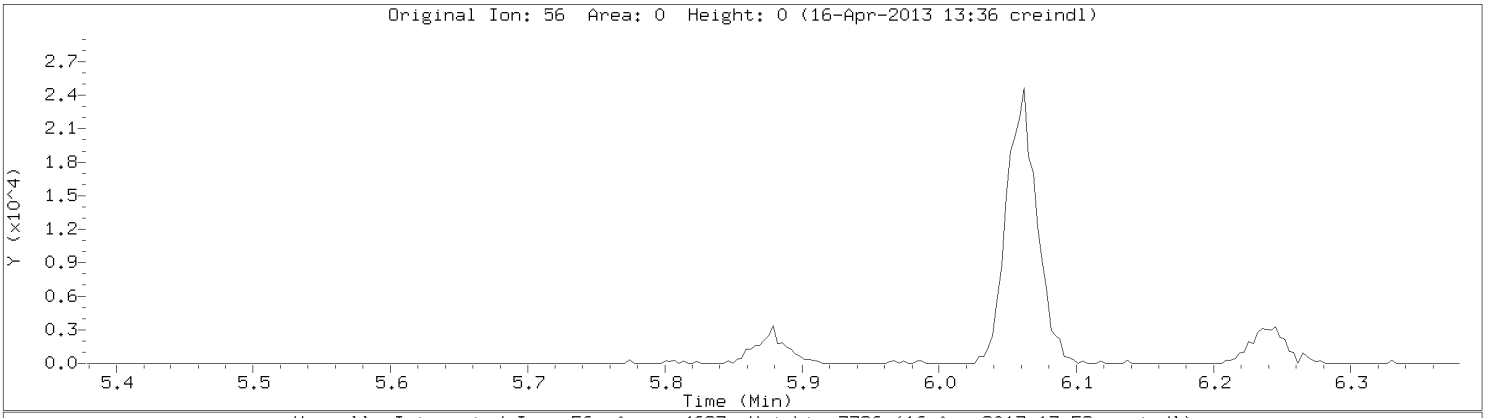


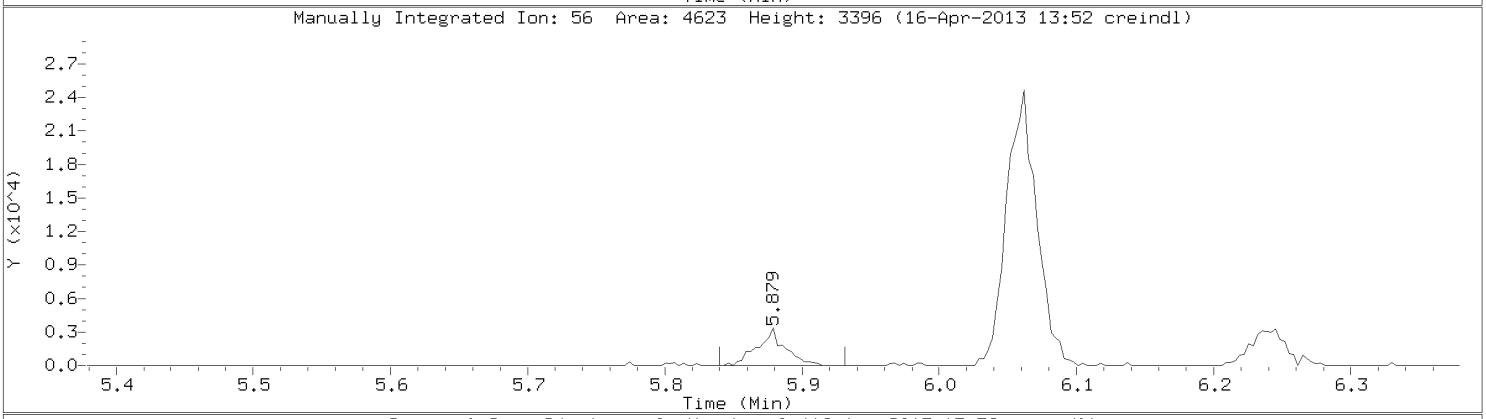


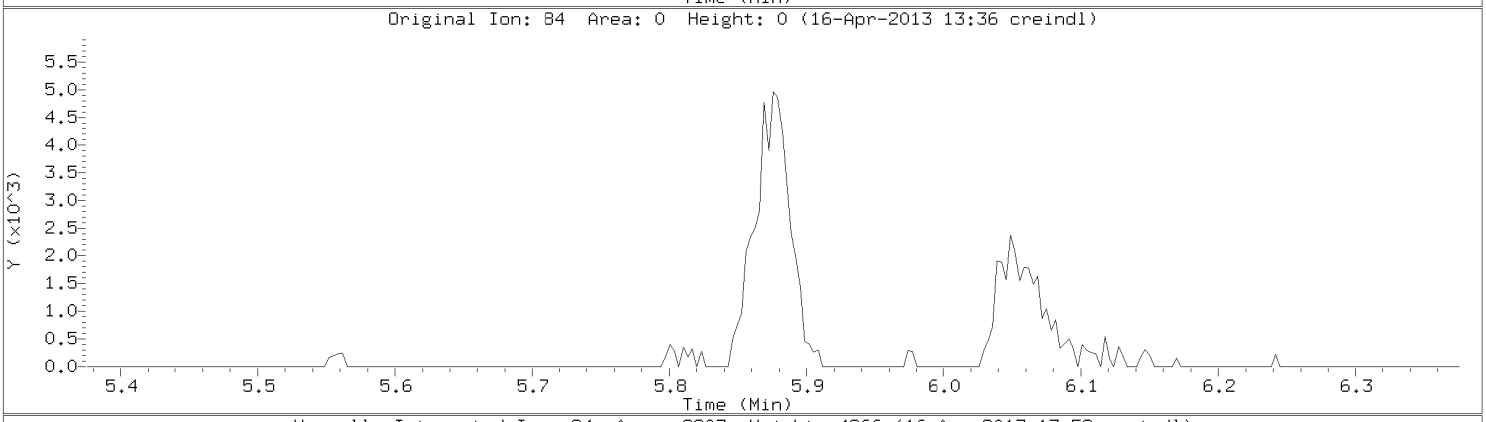


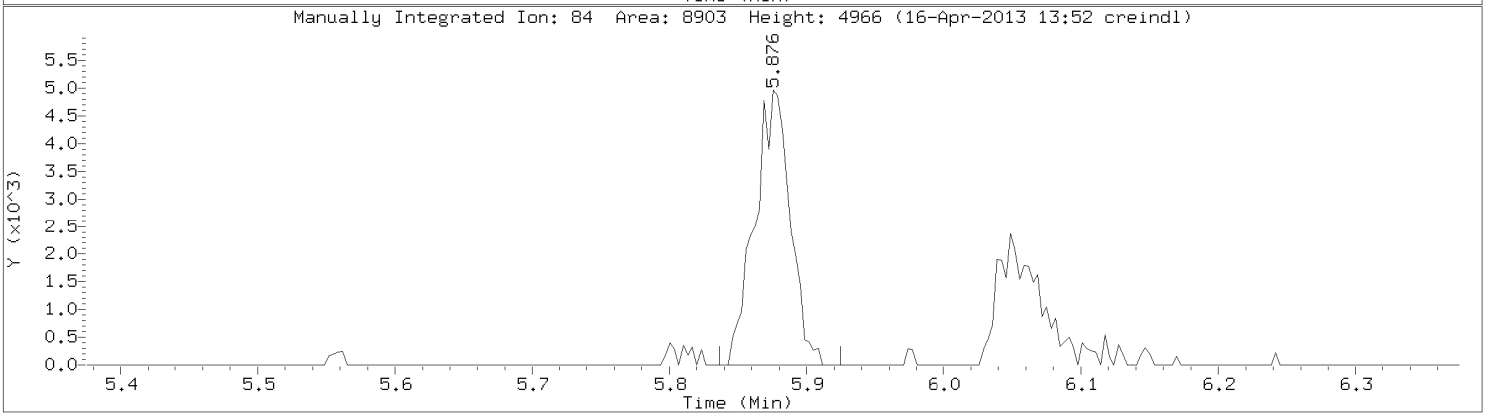
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Cyclohexane
CAS Number: 110-82-7

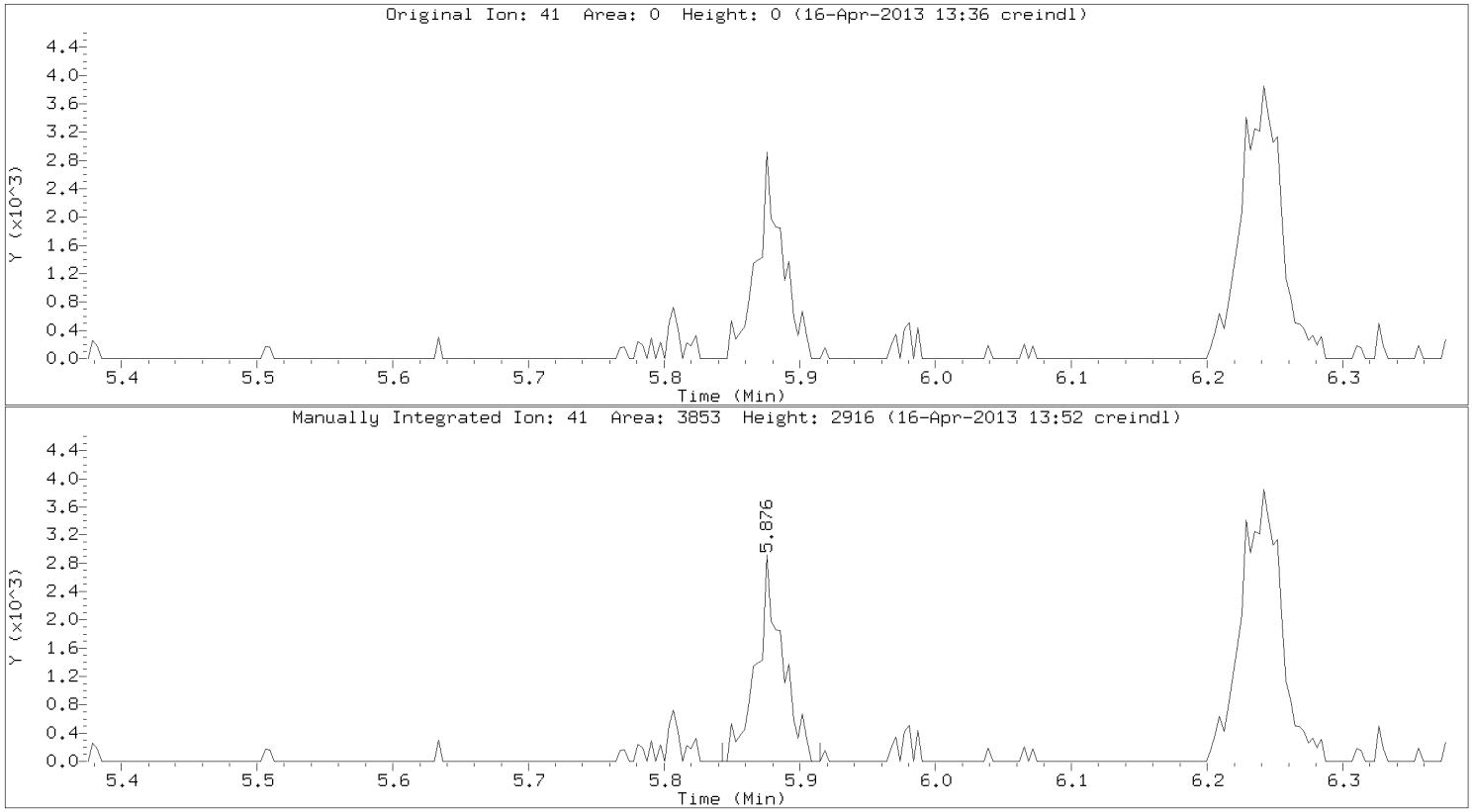






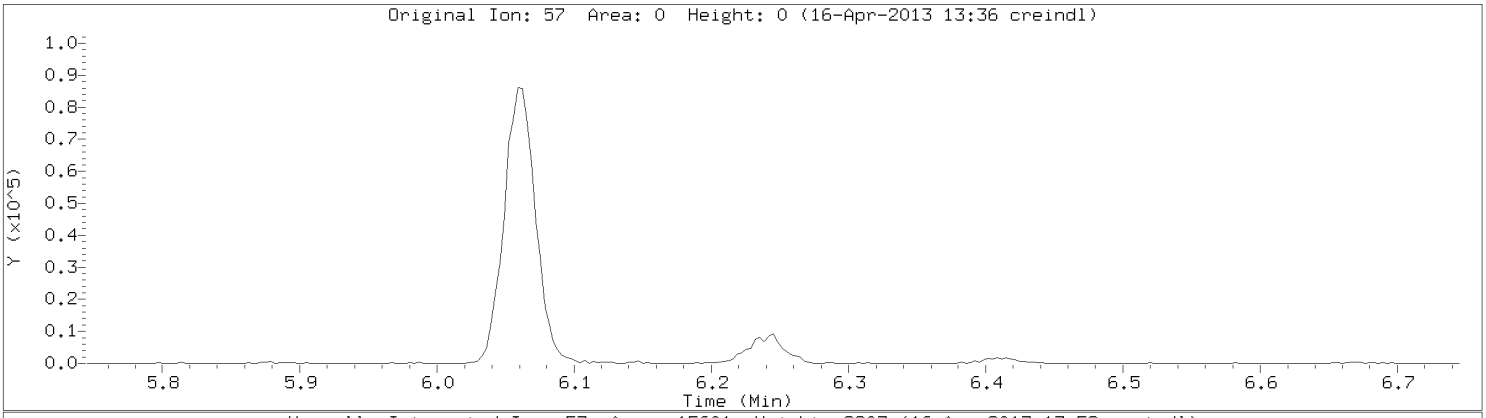


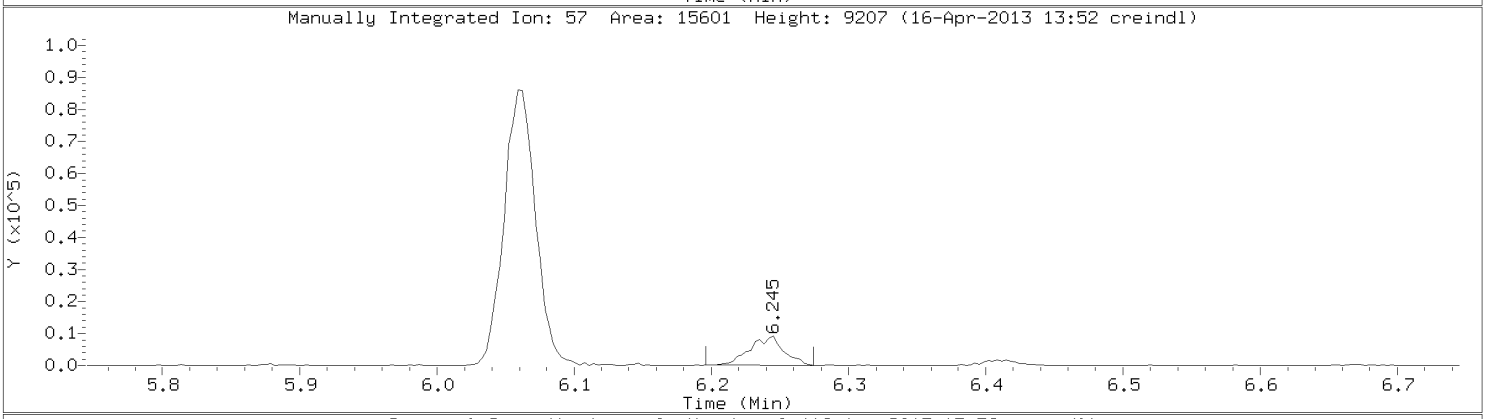
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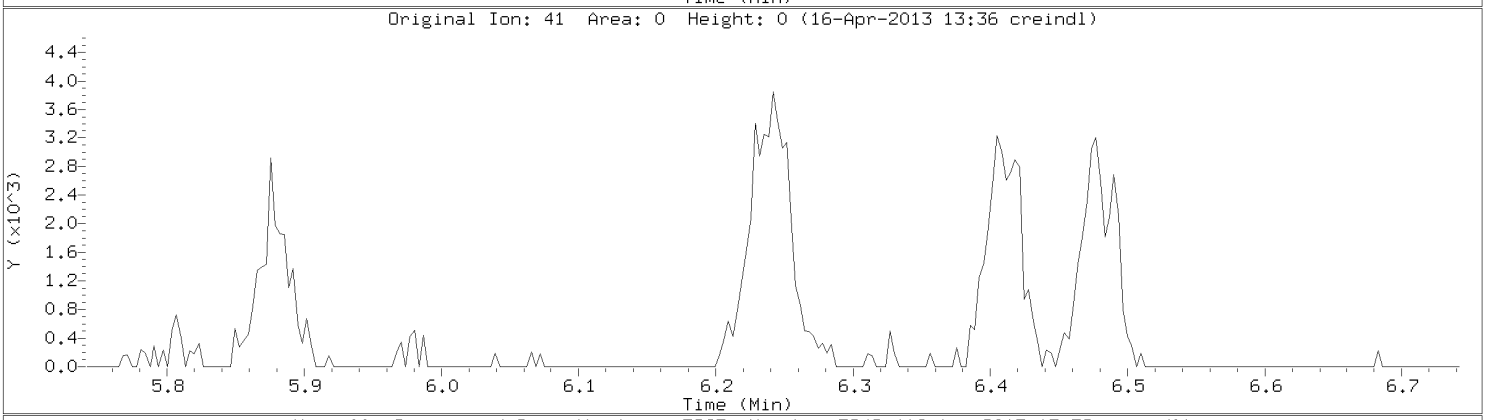


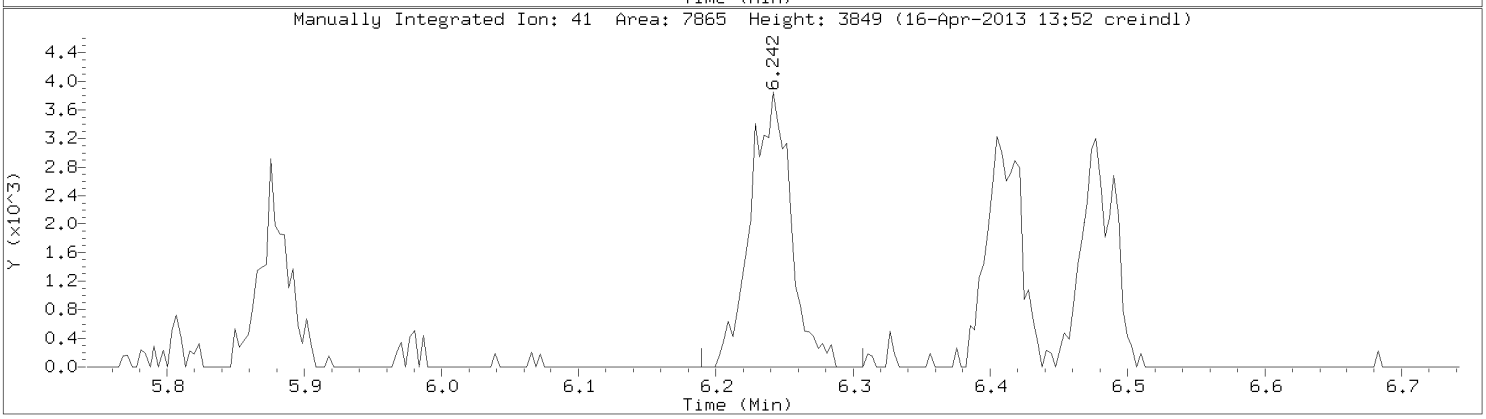
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Lab Sample ID: ICAL2

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

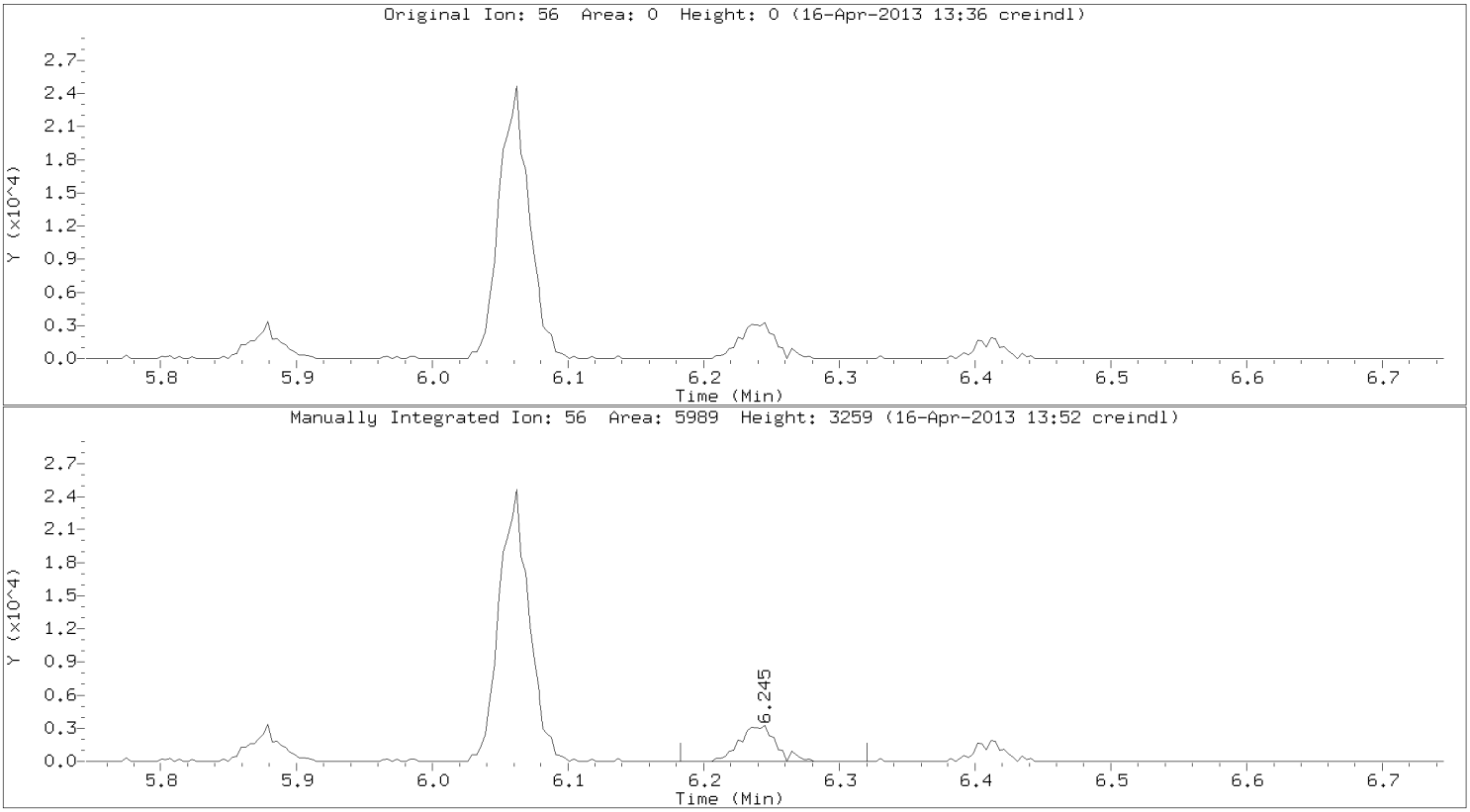






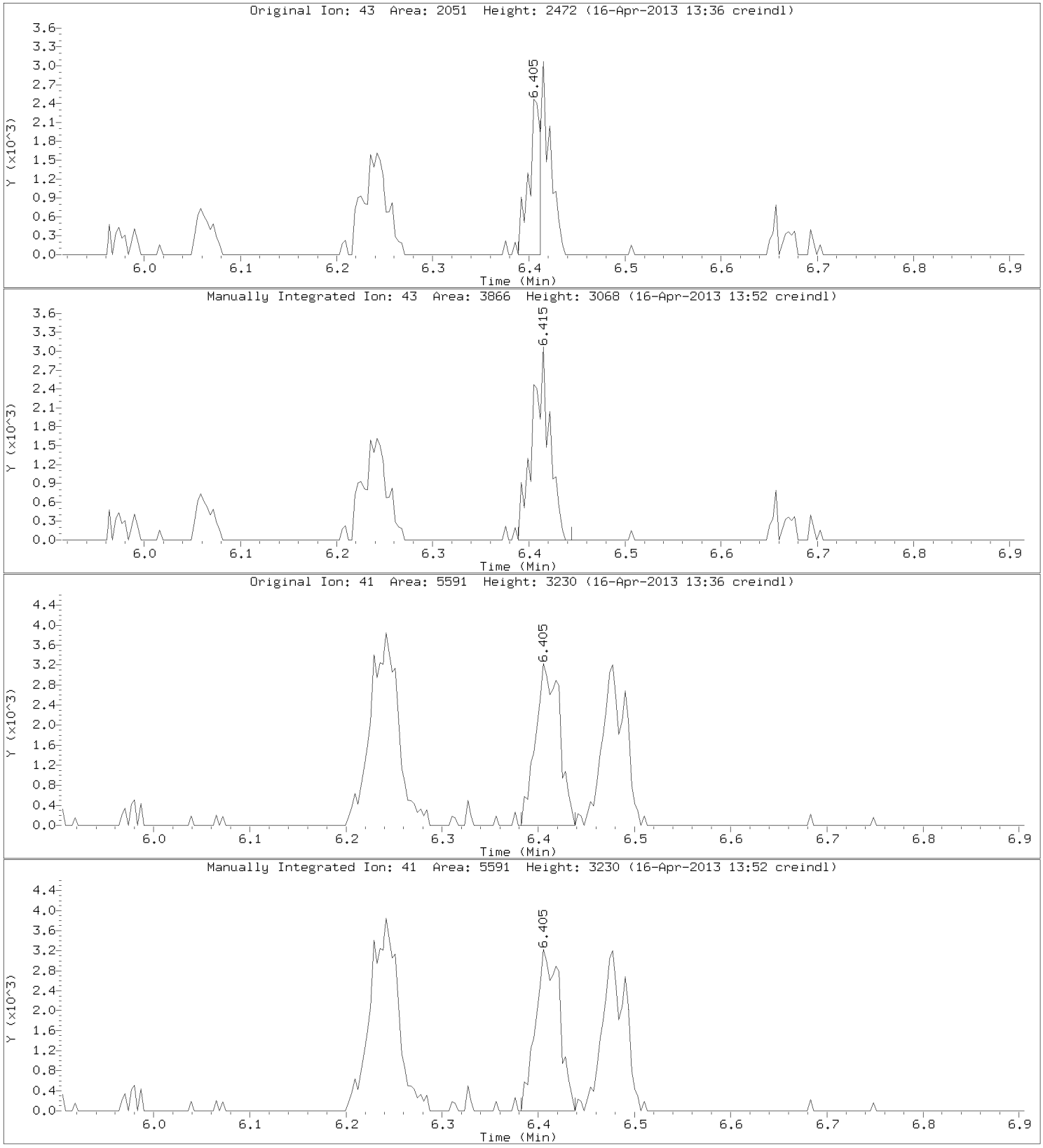


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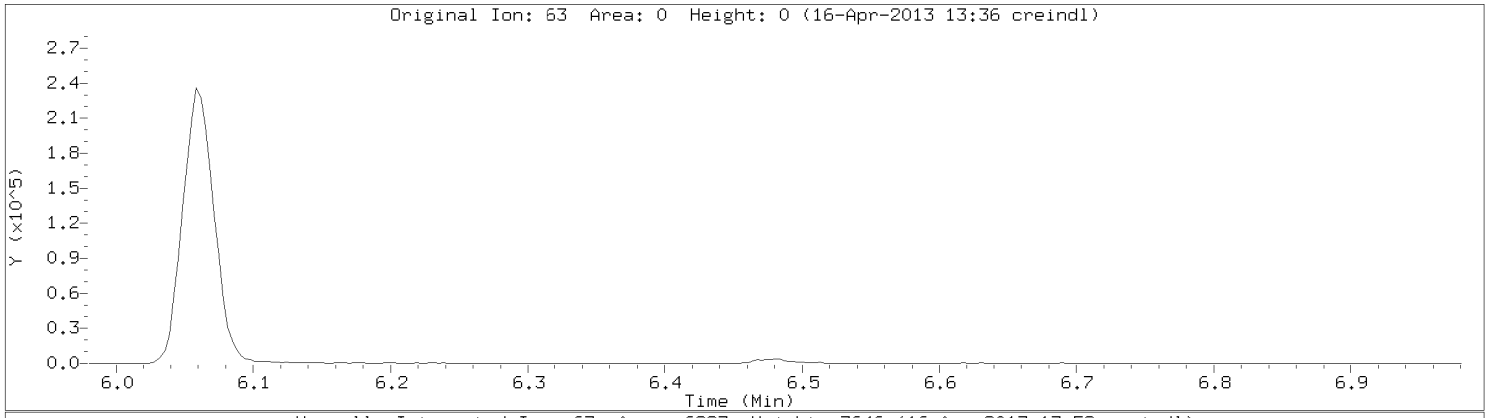
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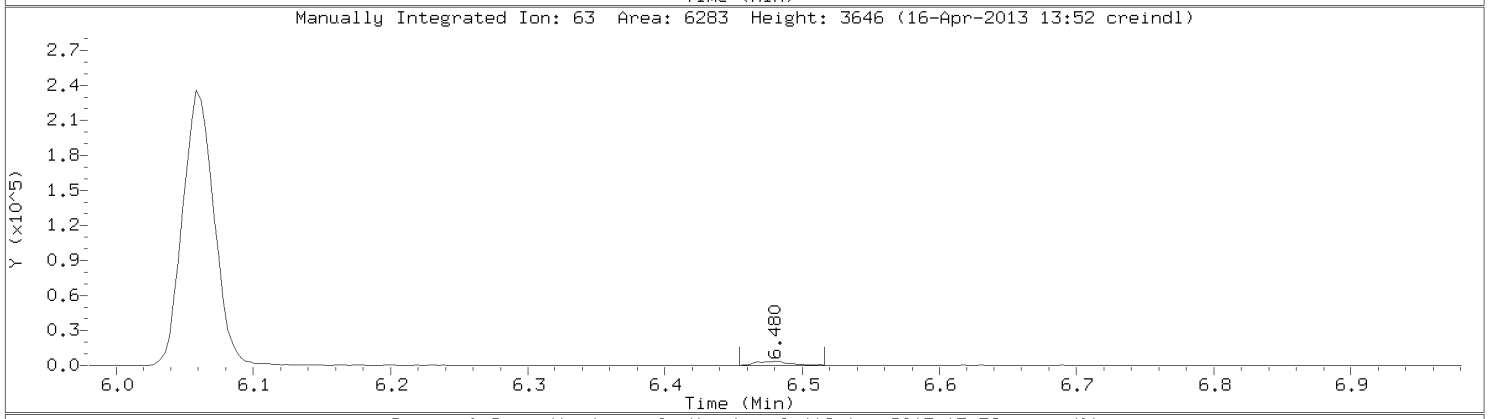
Compound: Heptane
CAS Number: 142-82-5

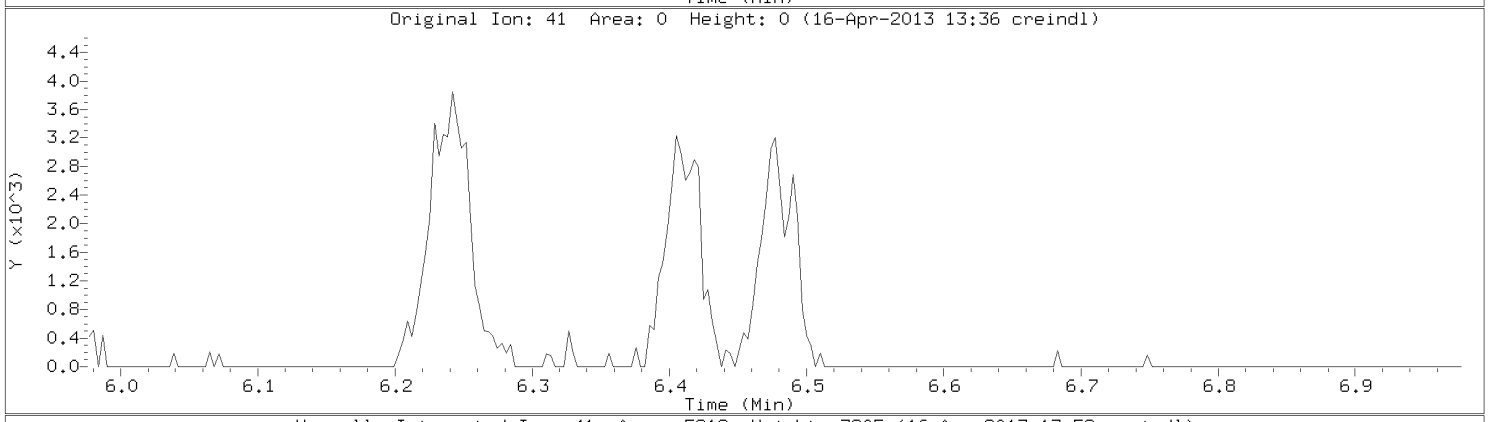


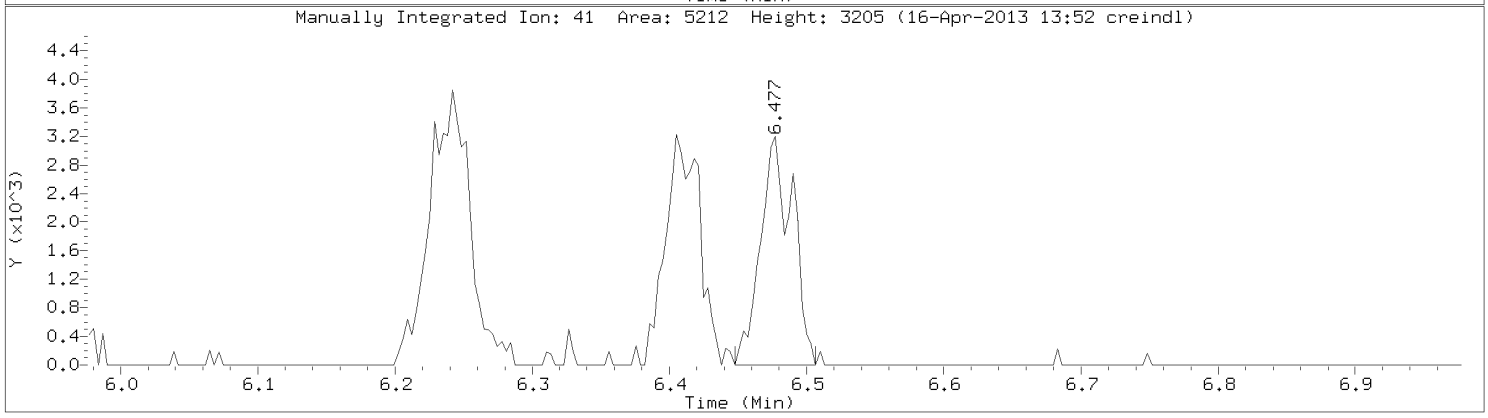
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

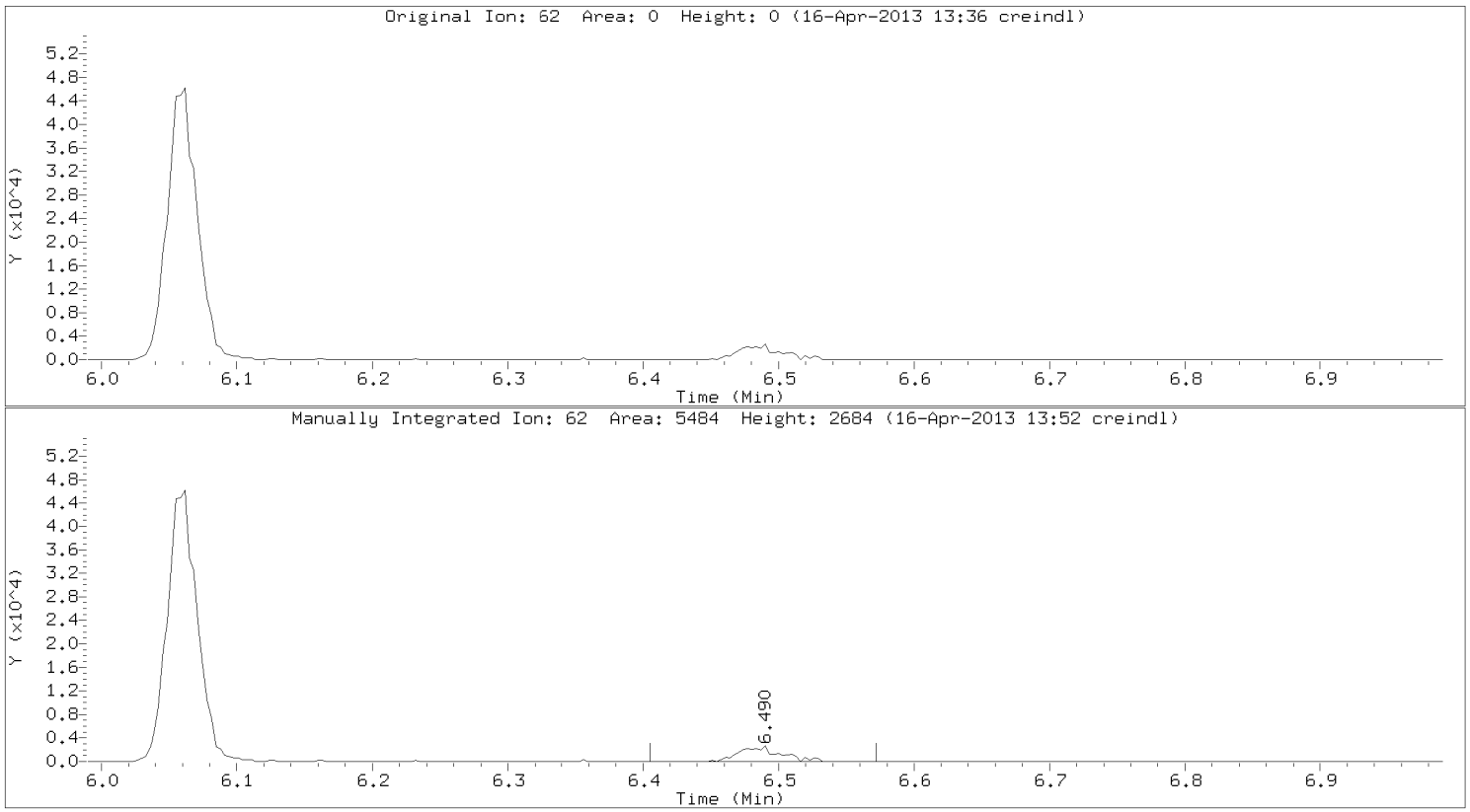






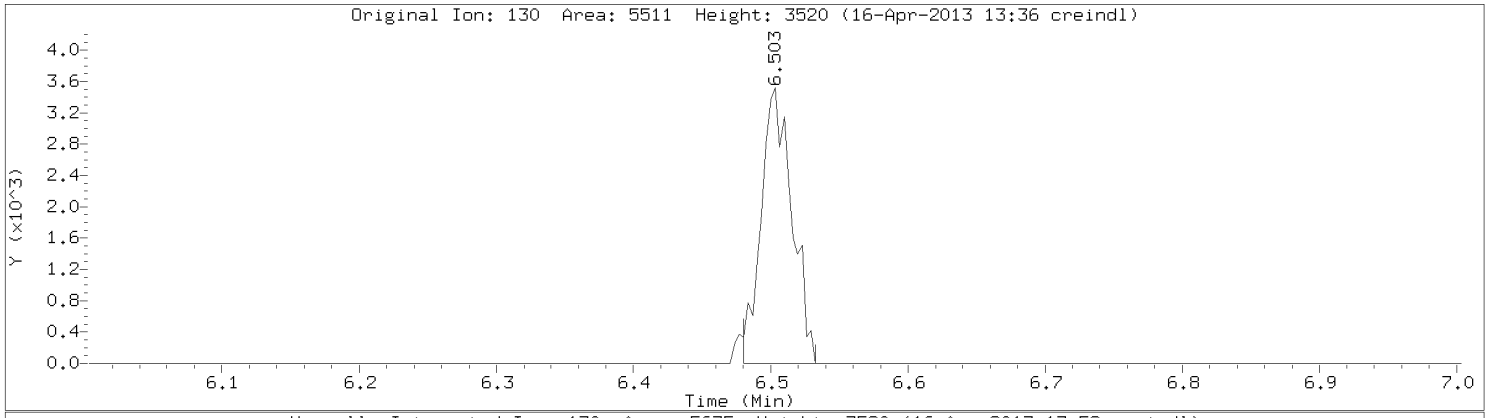


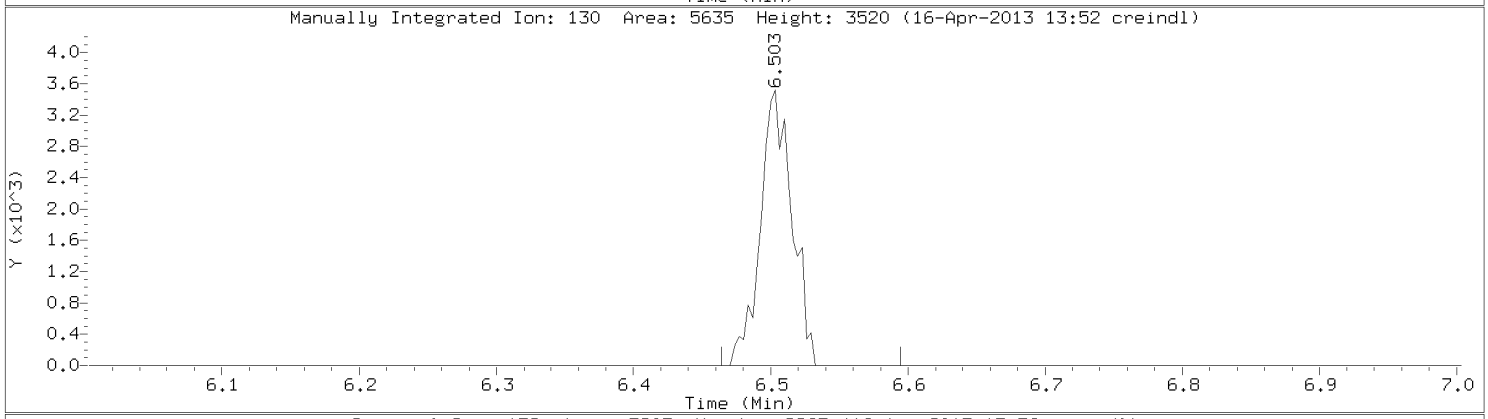
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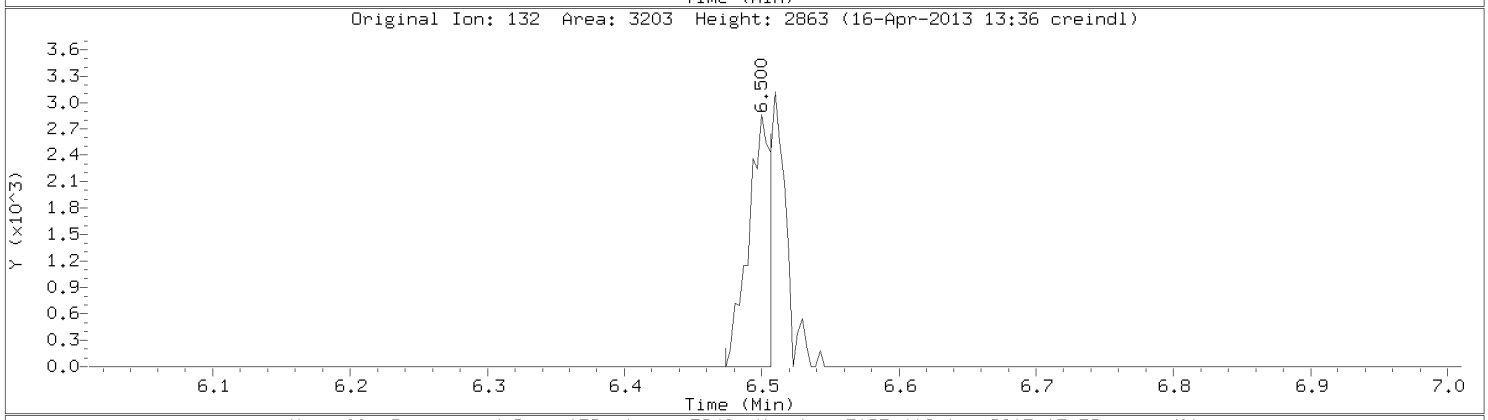


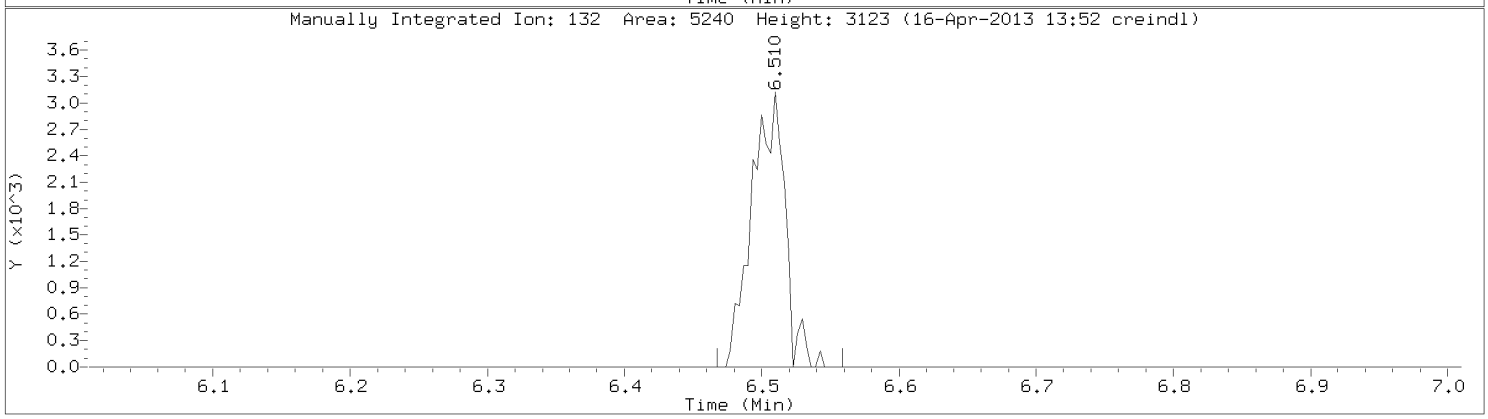
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Trichloroethene
CAS Number: 79-01-6

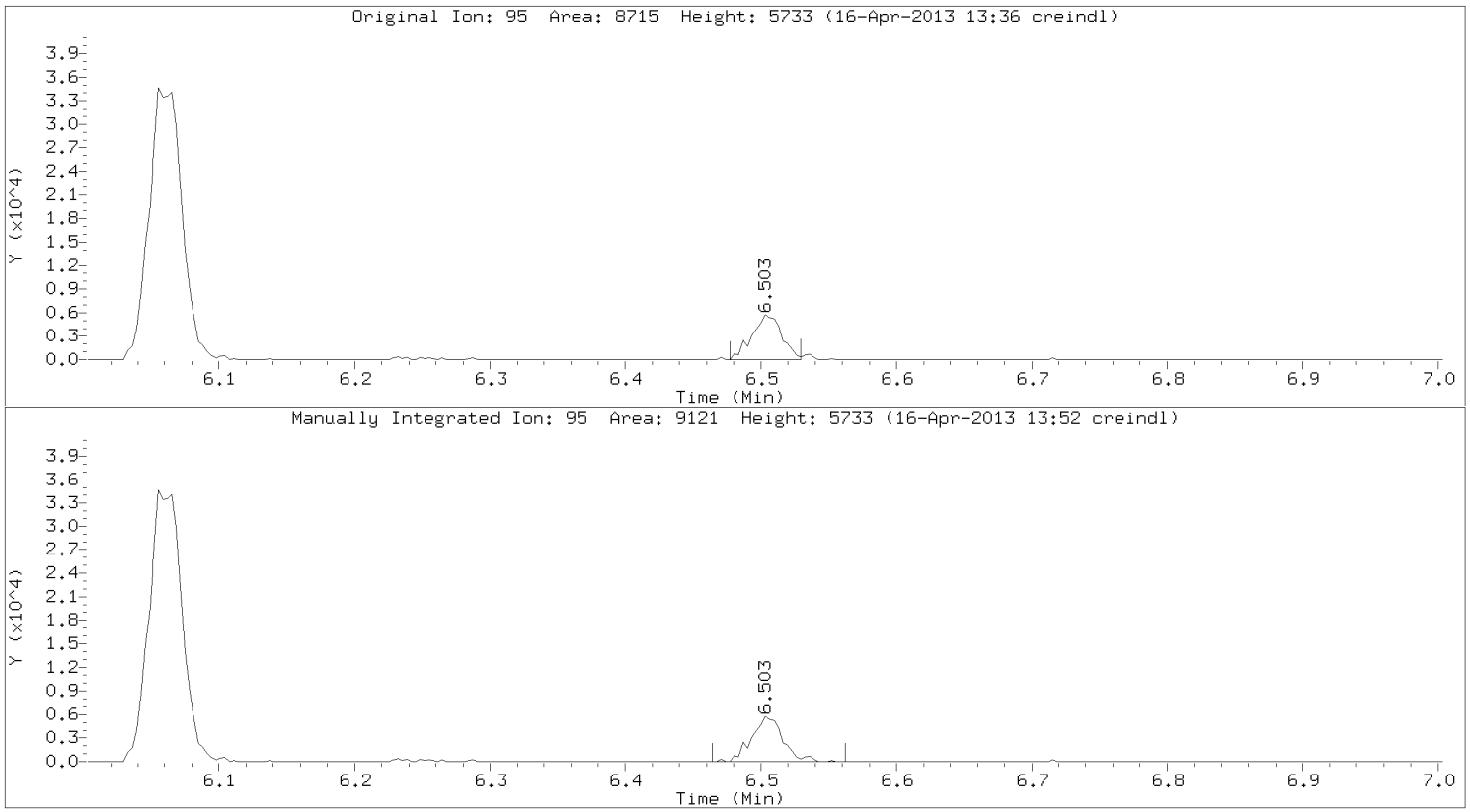






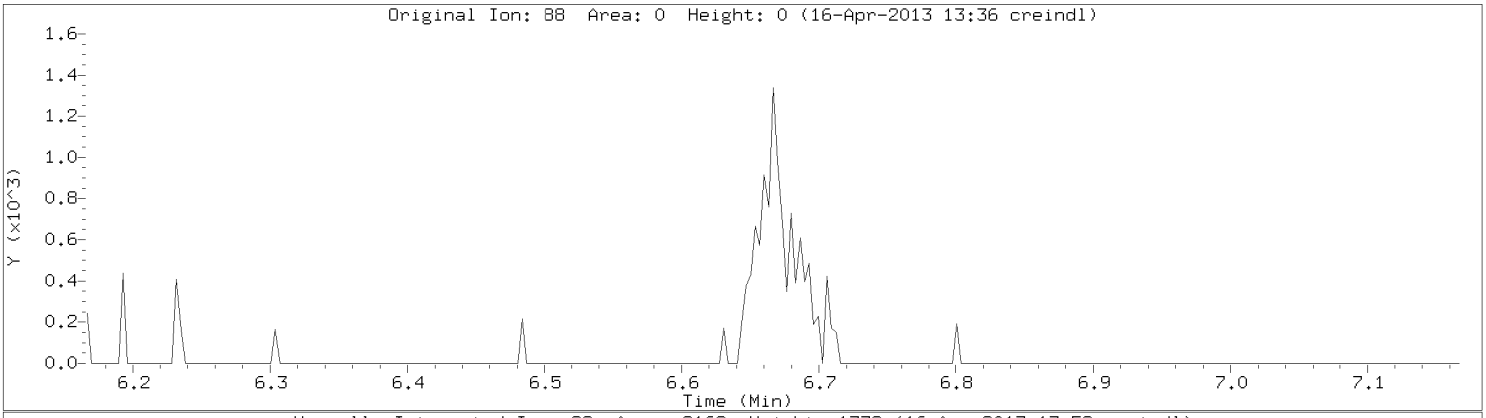


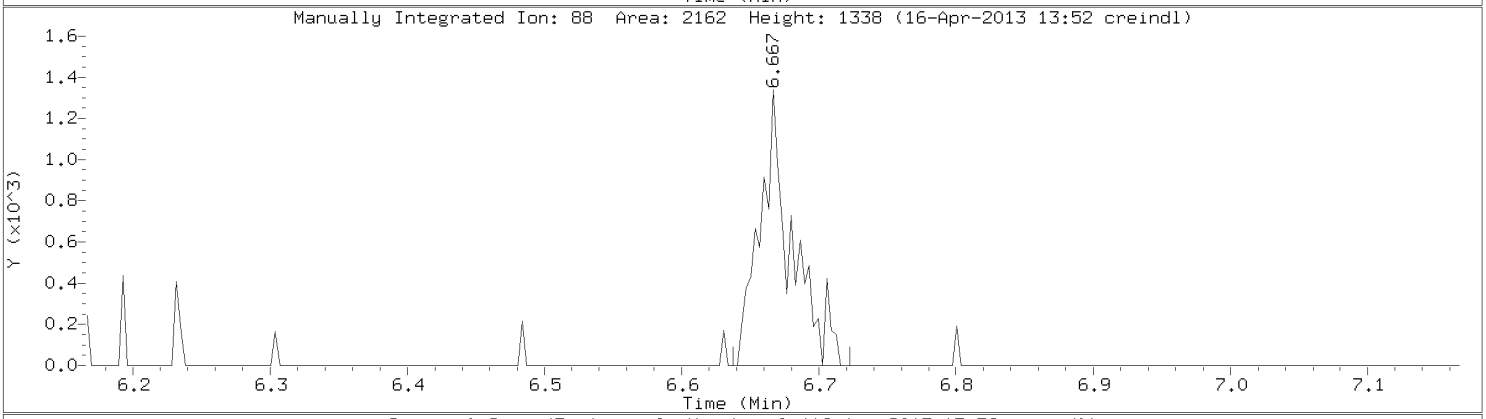
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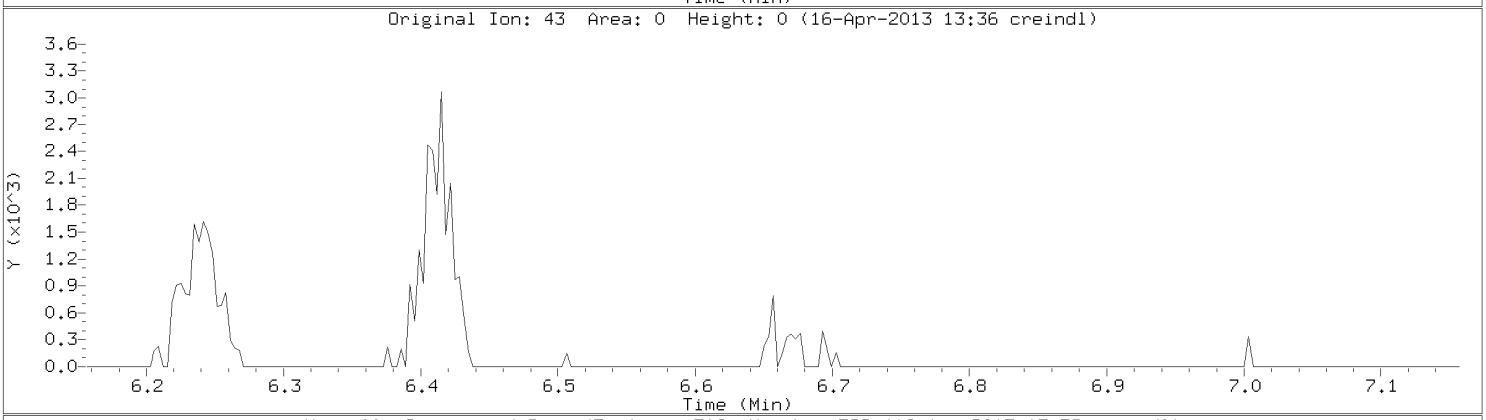


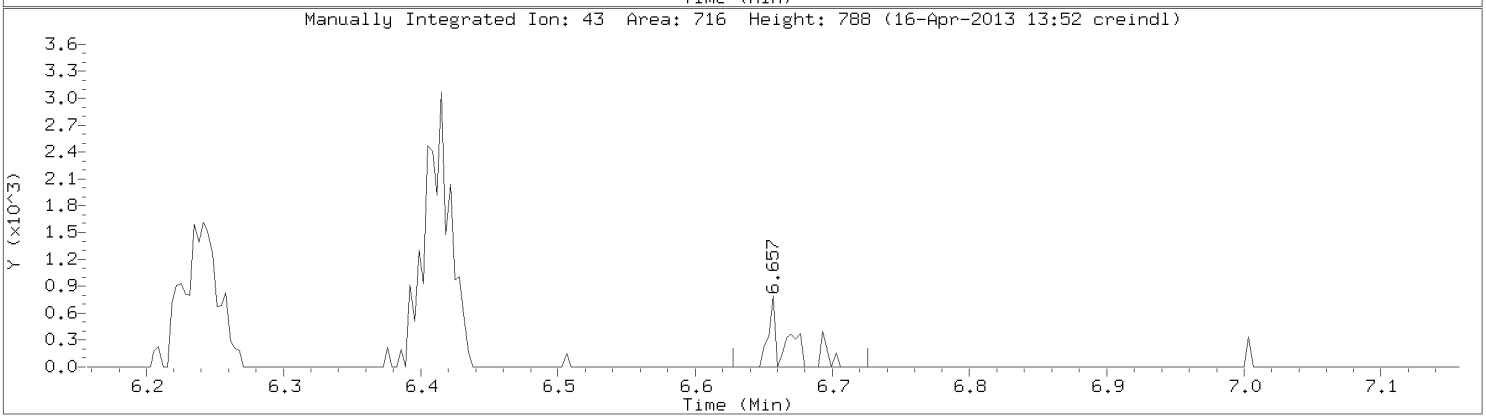
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,4-Dioxane
CAS Number: 123-91-1



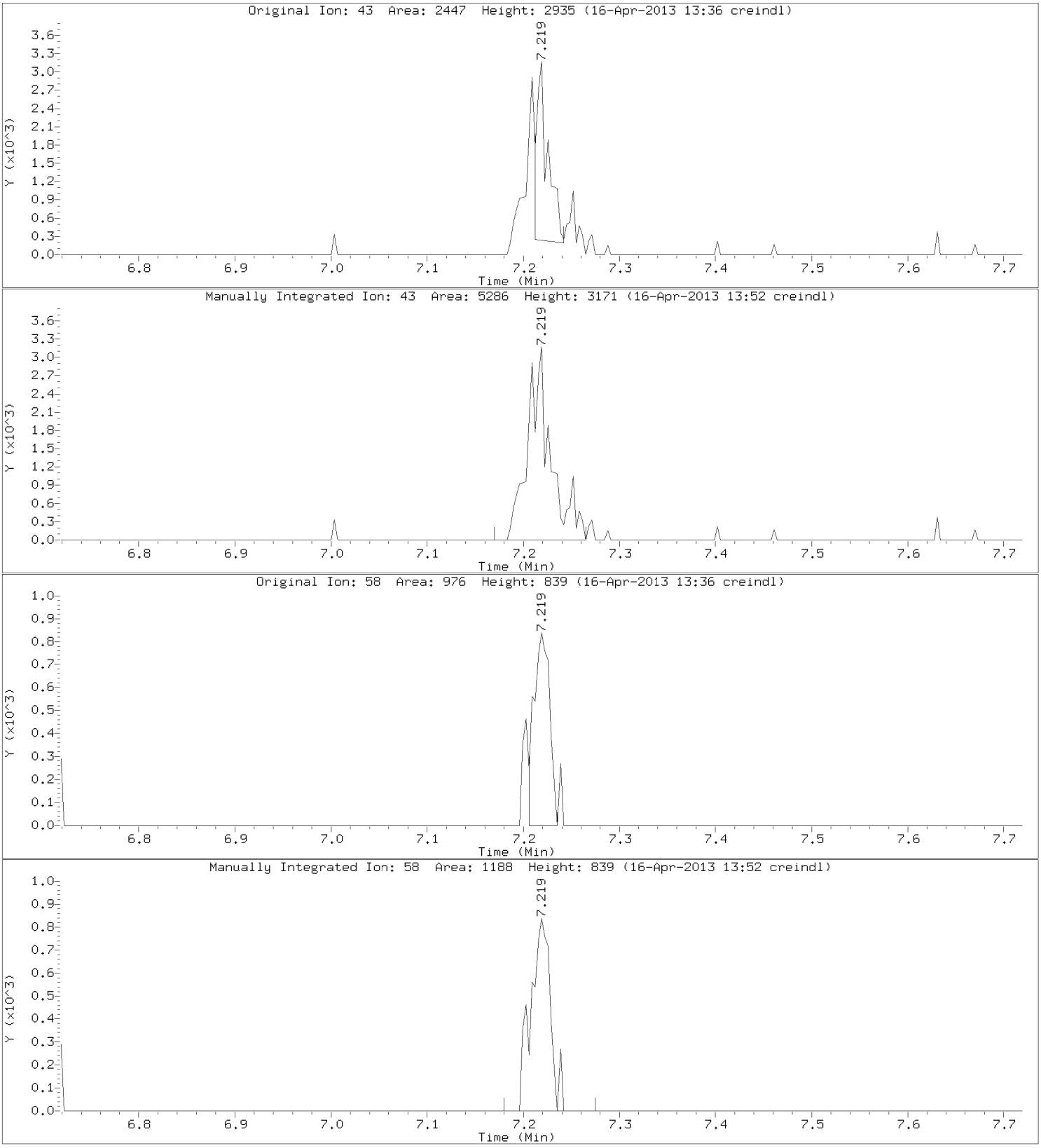




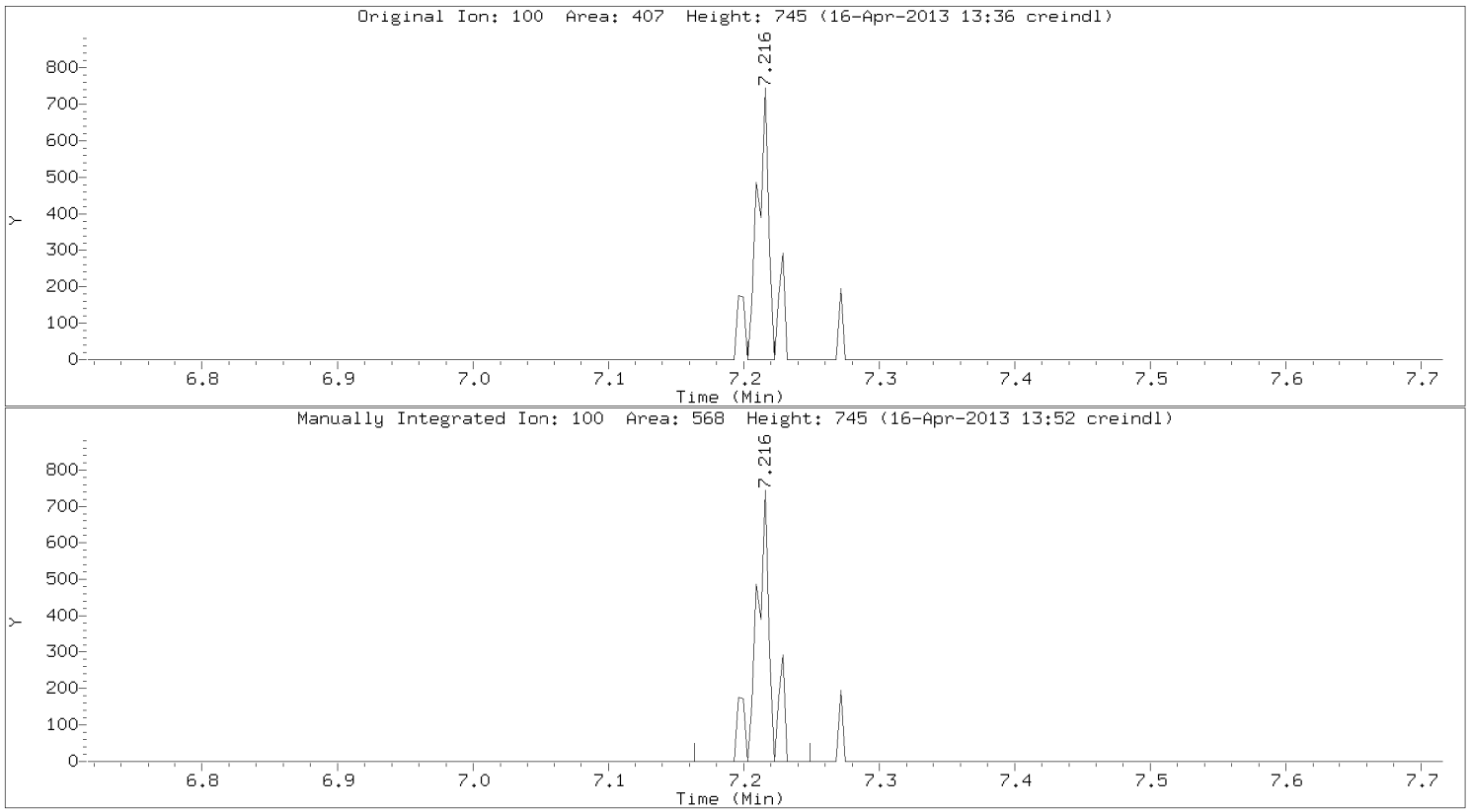


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Methyl Isobutyl Ketone
CAS Number: 108-10-1

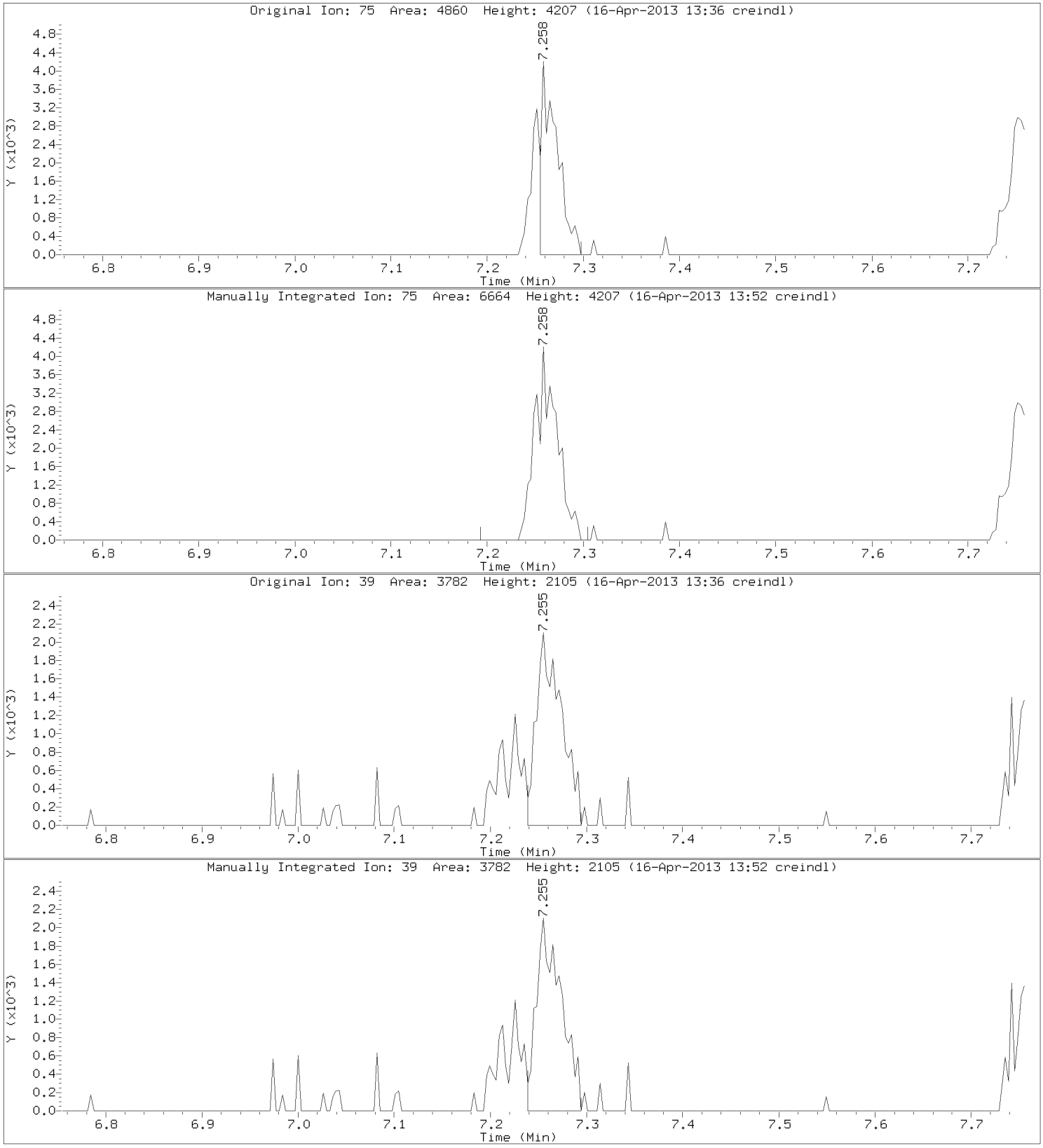


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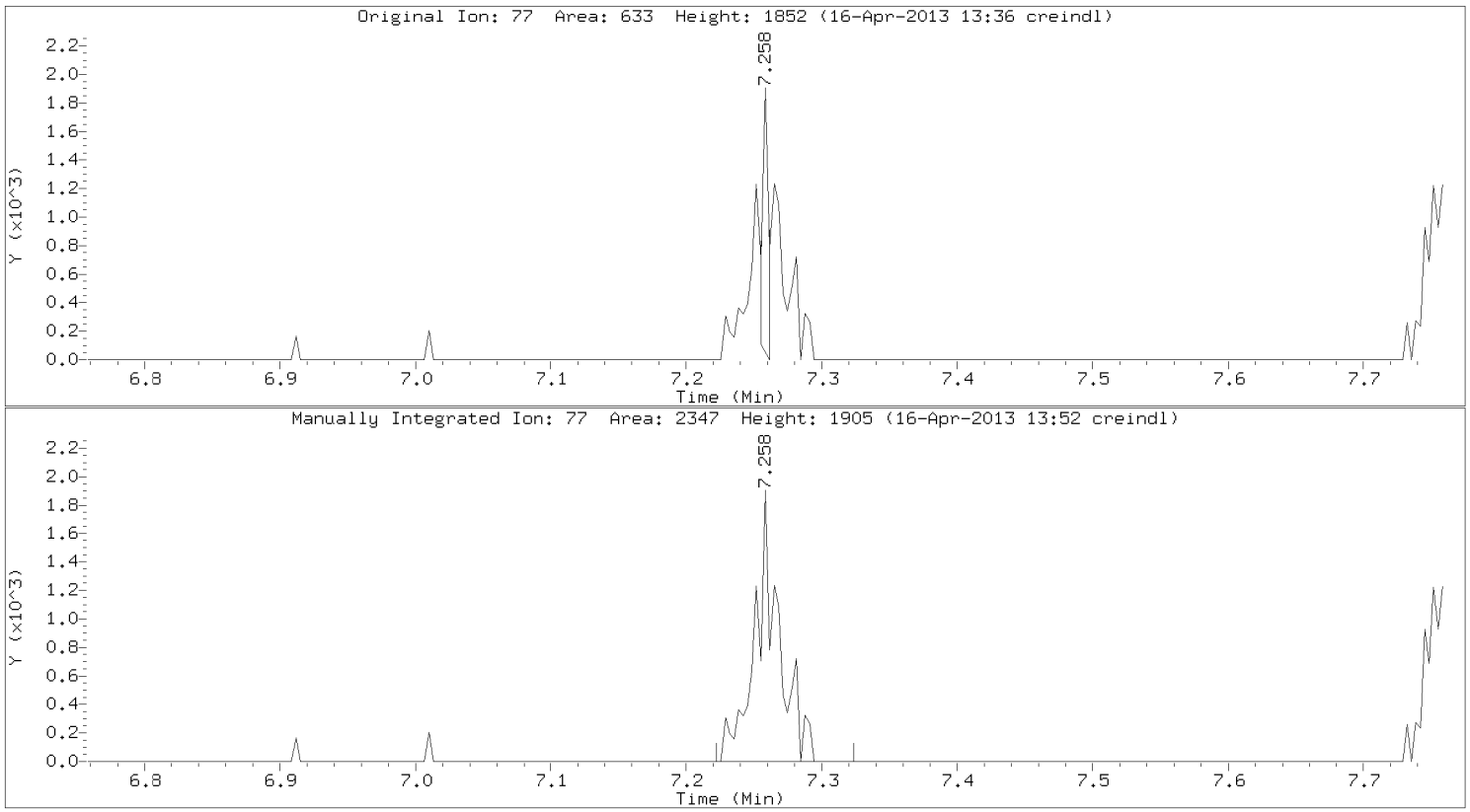


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5

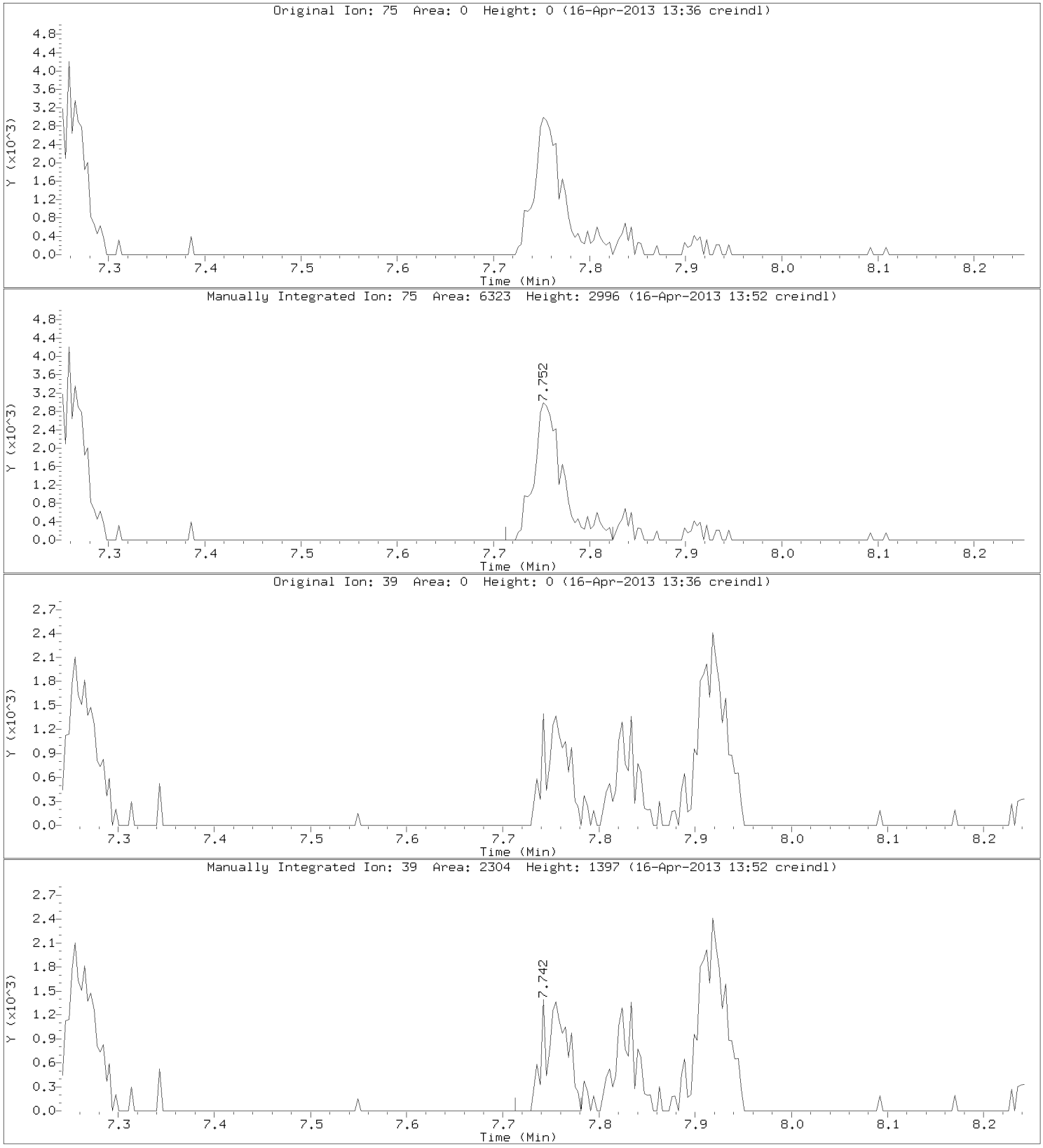


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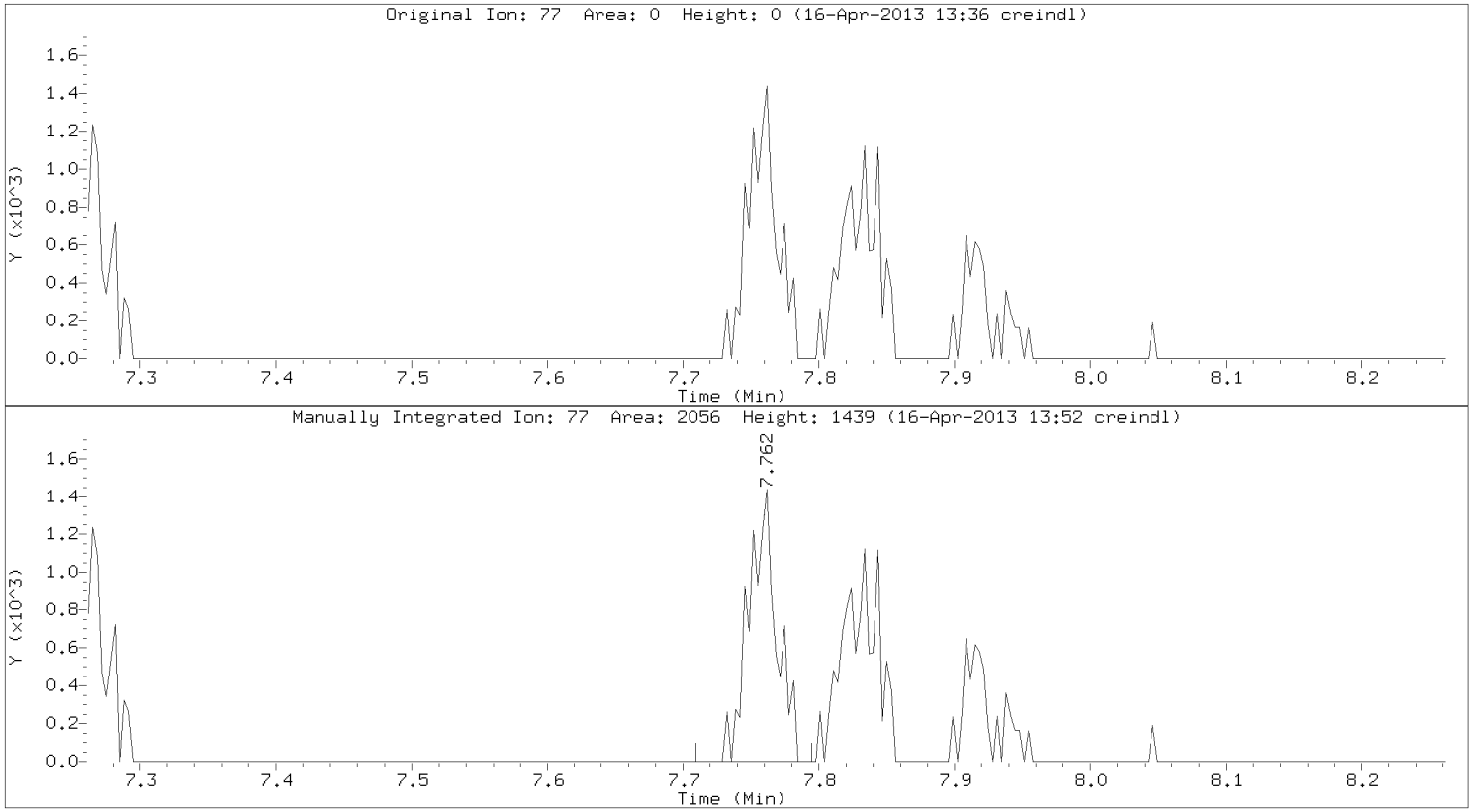


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: trans-1,3-Dichloropropene
CAS Number: 10061-02-6

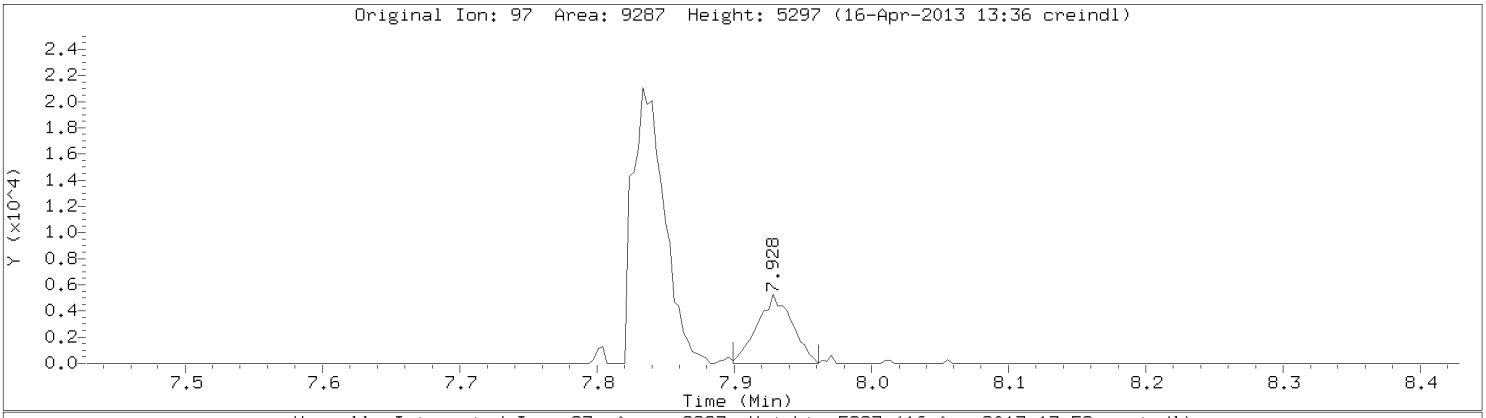


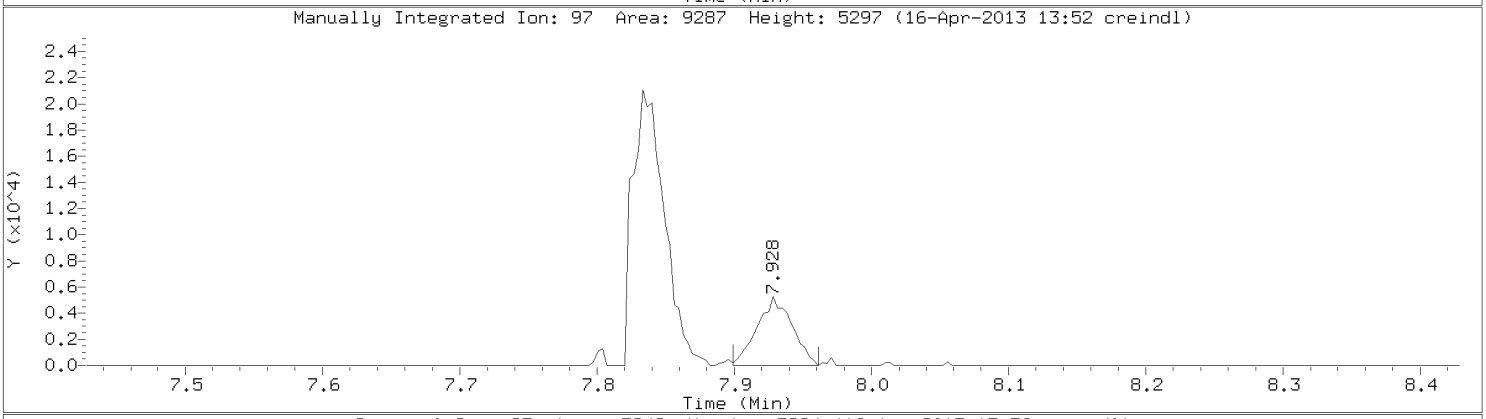
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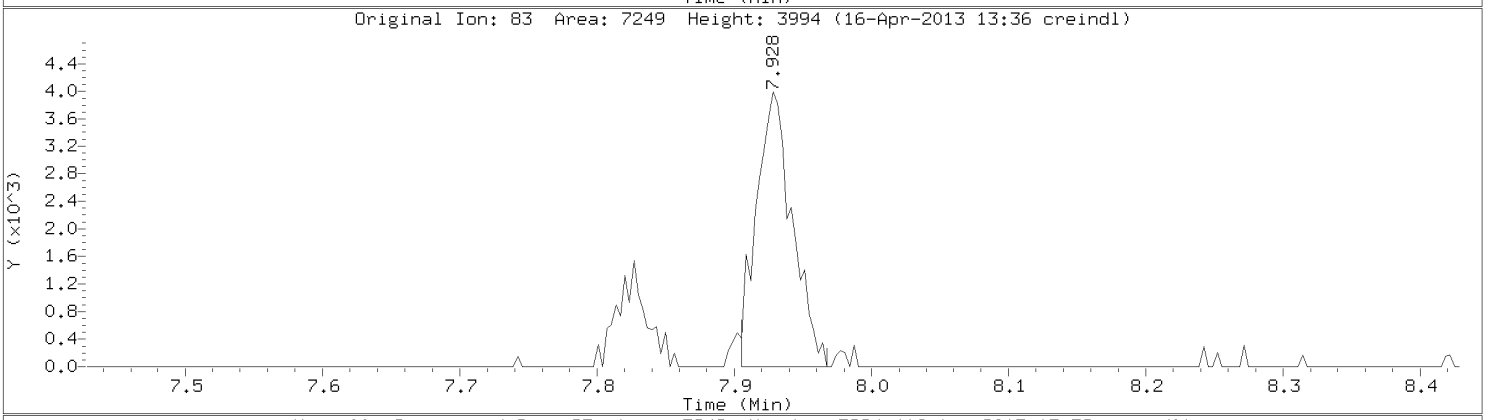


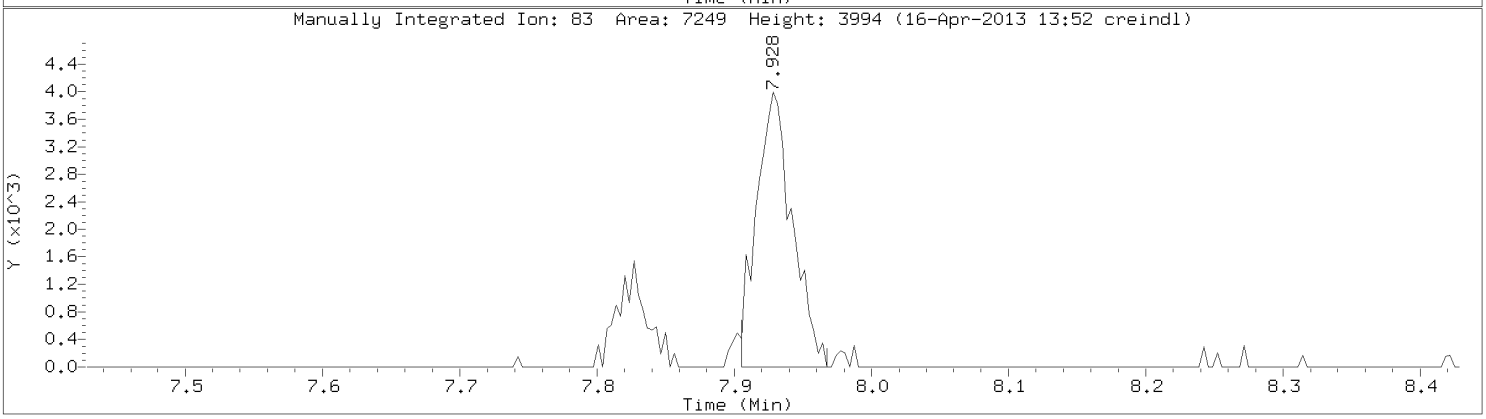
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,1,2-Trichloroethane
CAS Number: 79-00-5

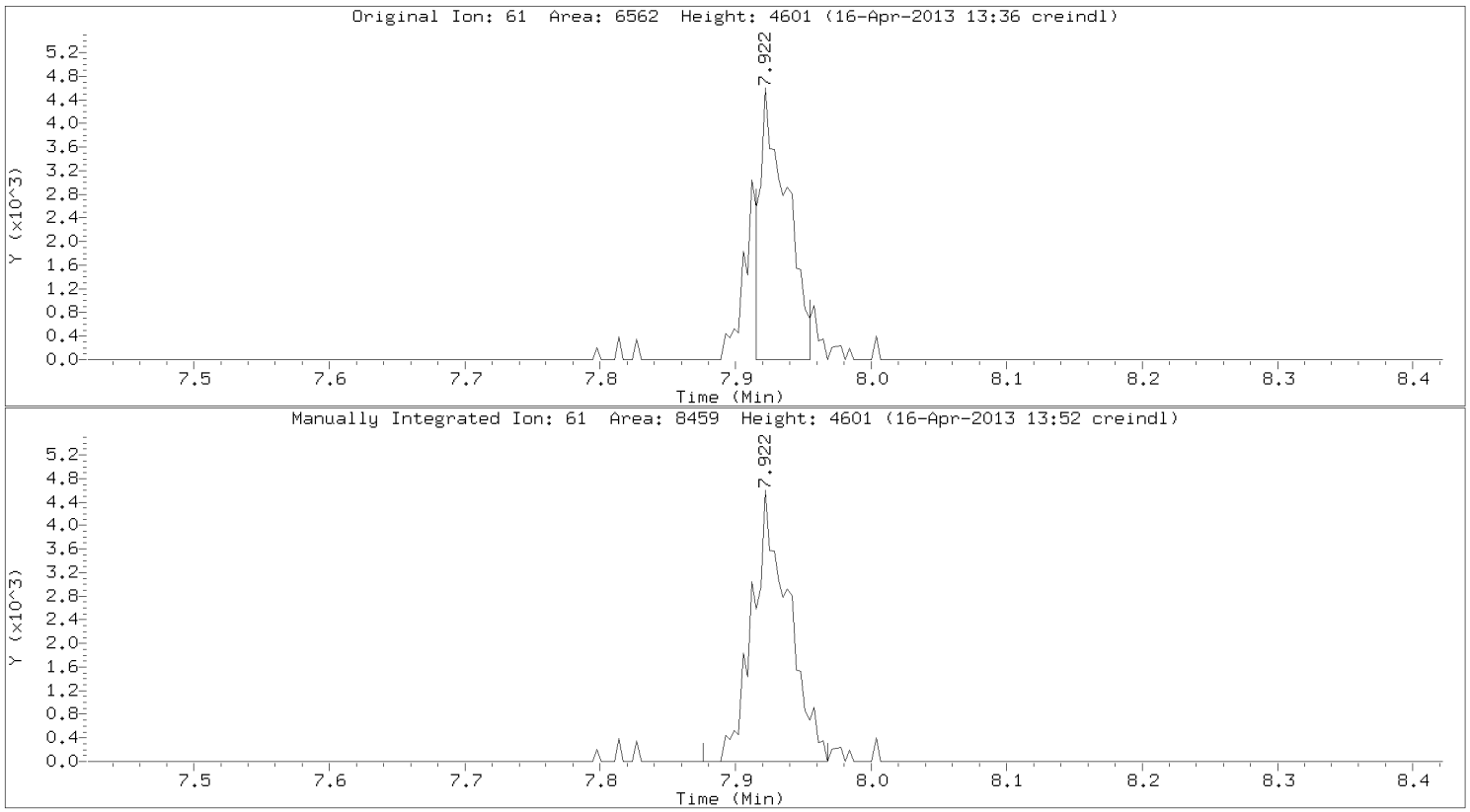






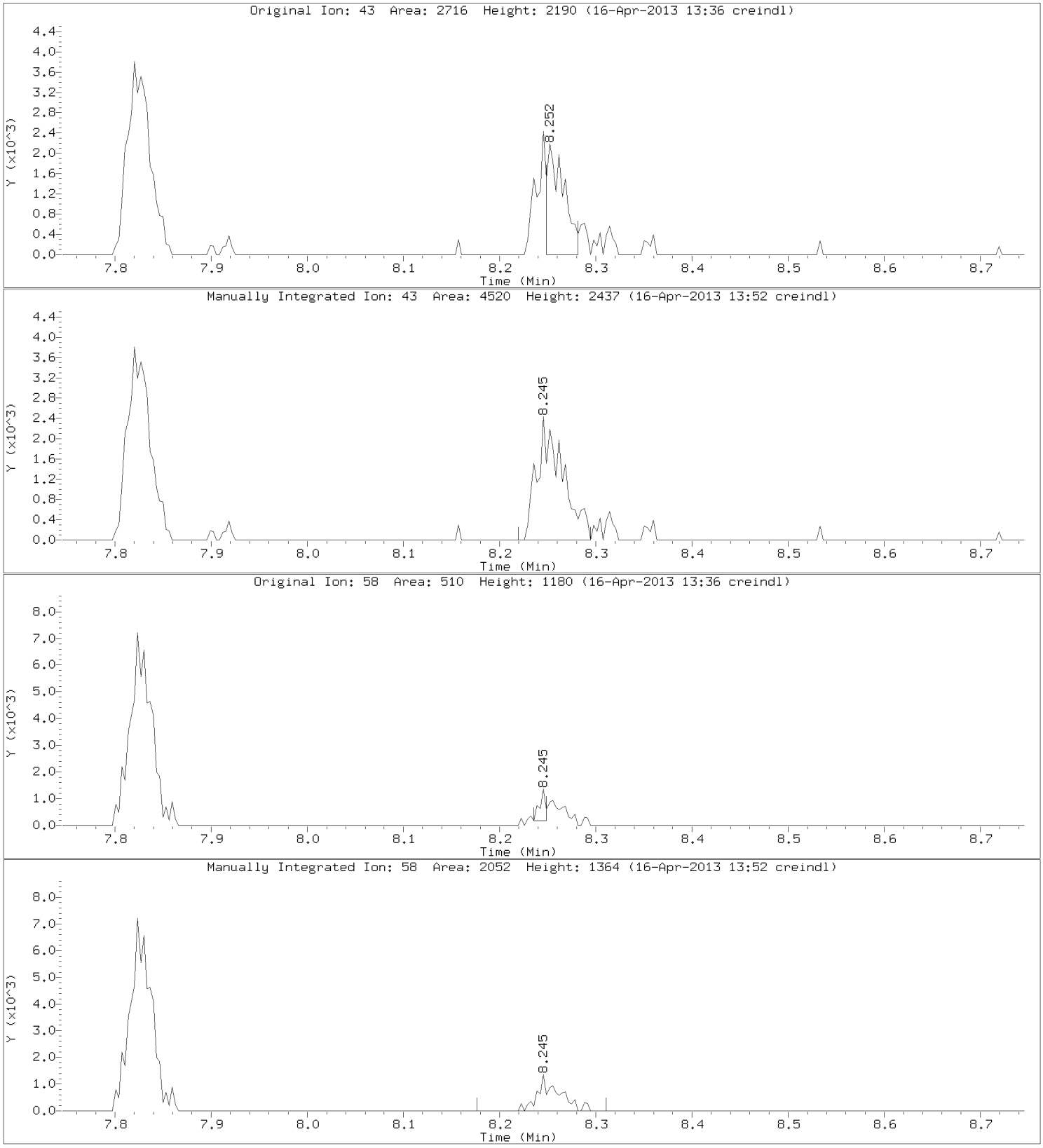


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Instrument: 10airD.i
Lab Sample ID: ICAL2



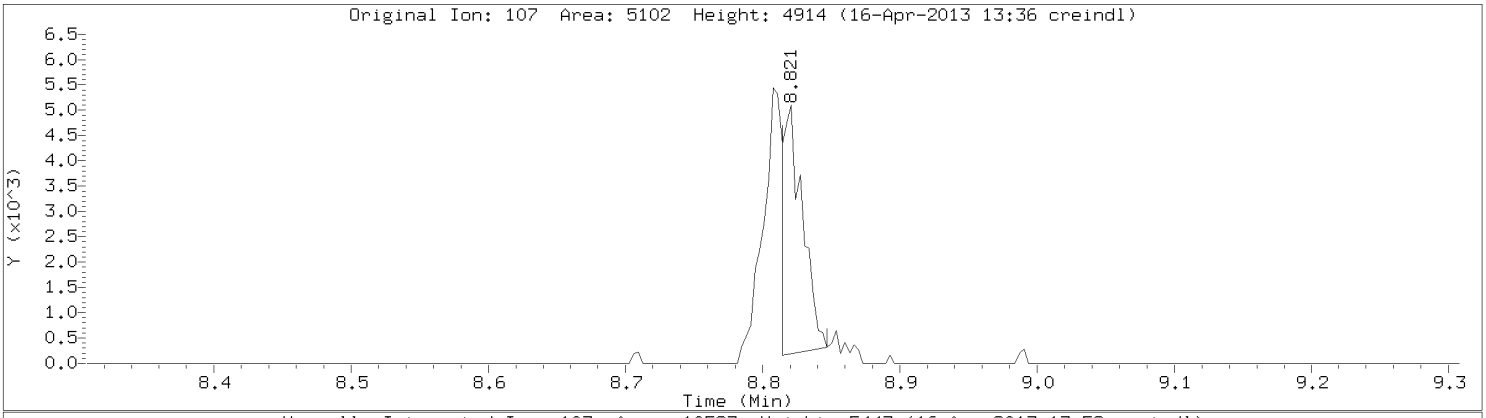
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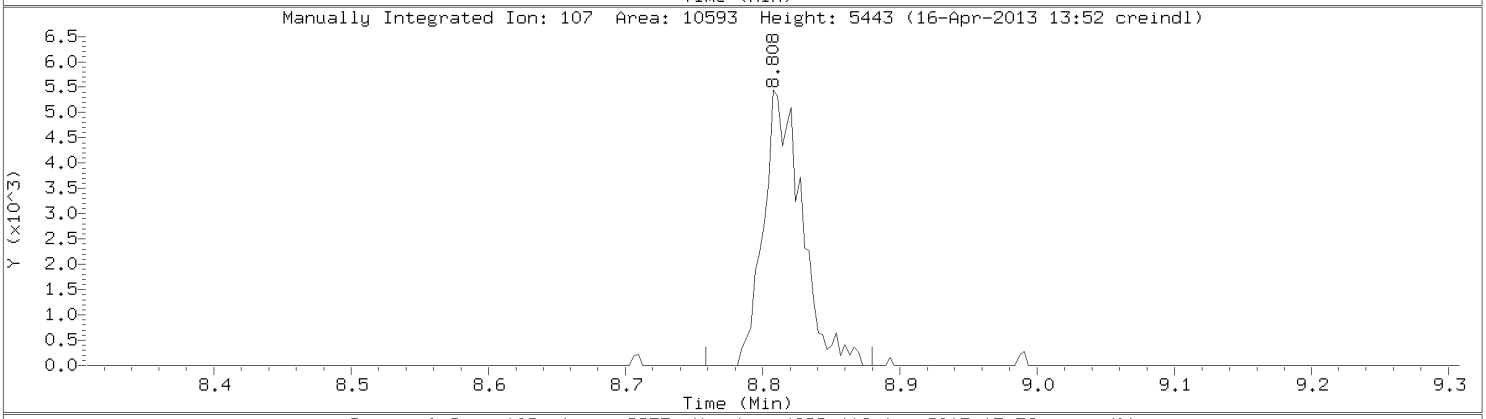
Compound: Methyl Butyl Ketone
CAS Number: 591-78-6

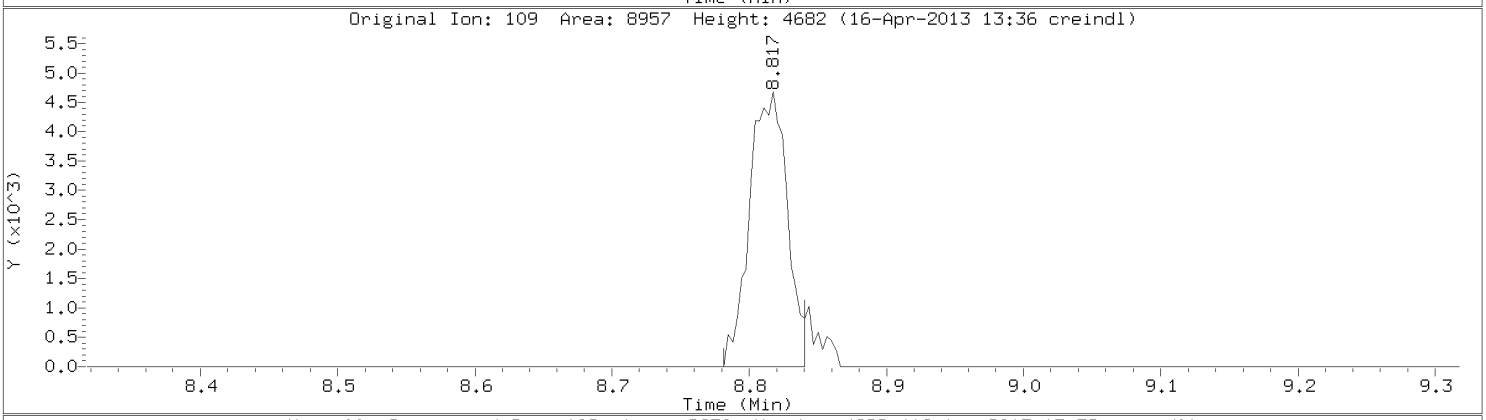


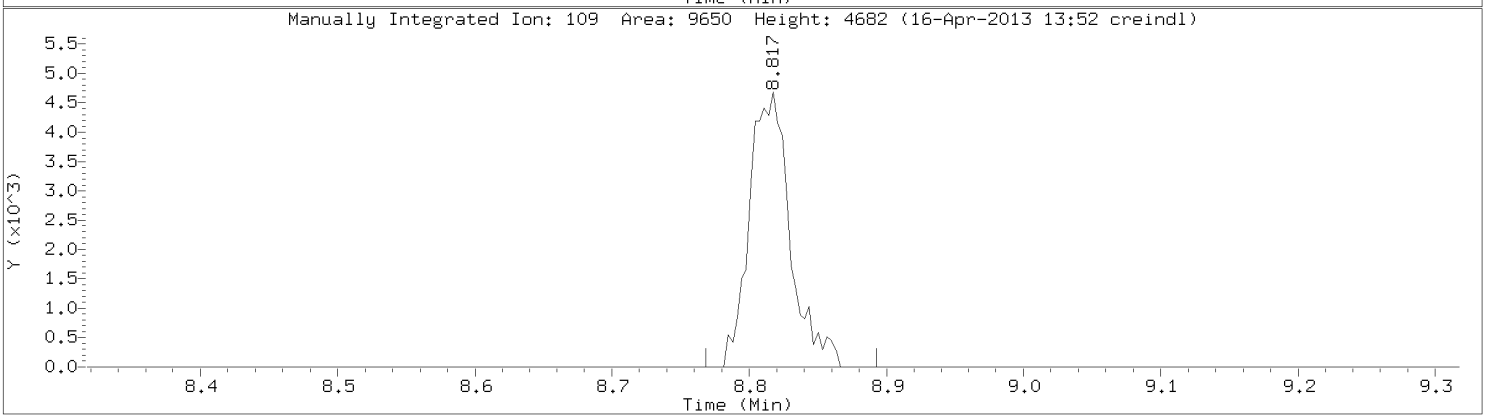
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,2-Dibromoethane
CAS Number: 106-93-4



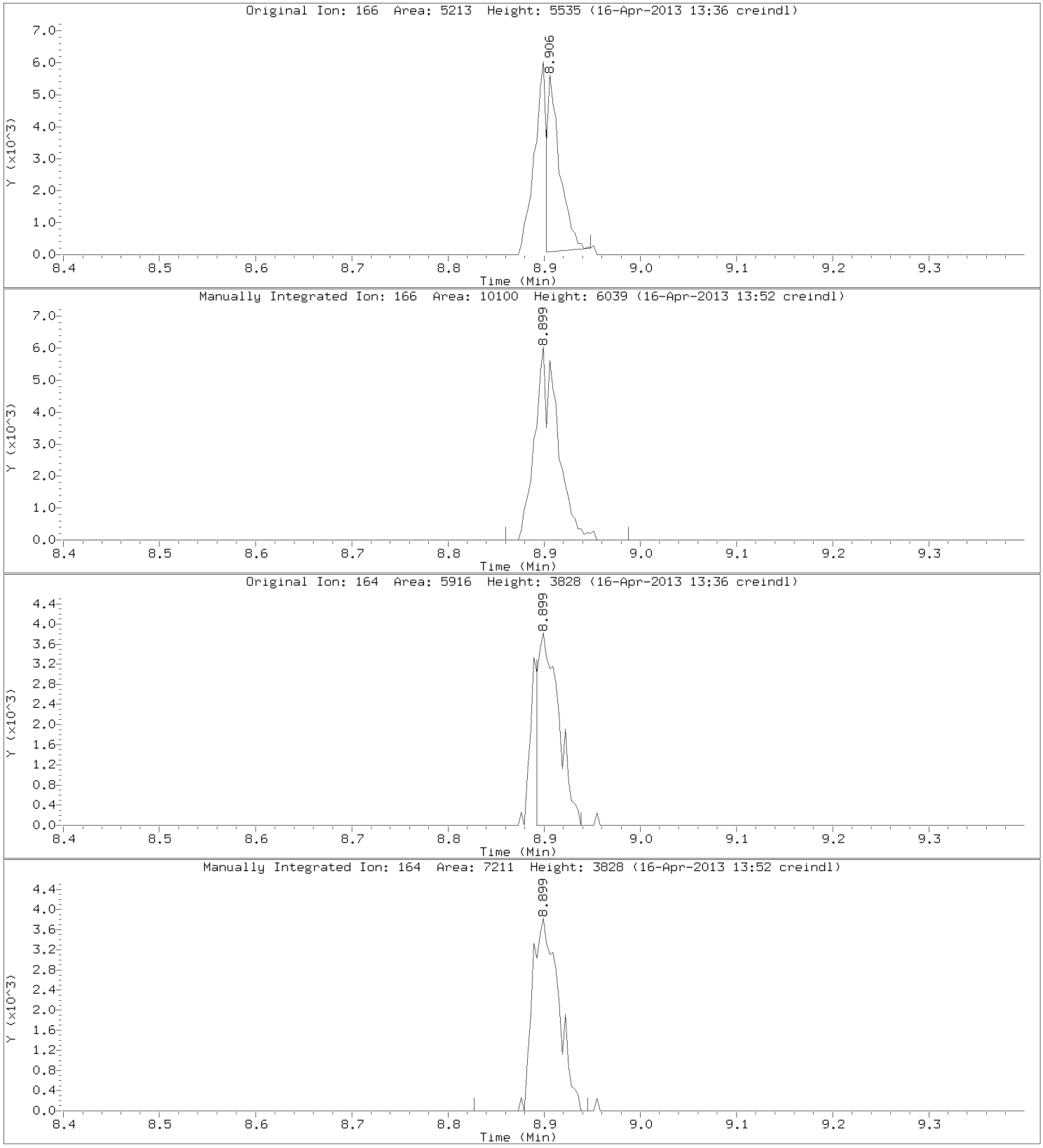




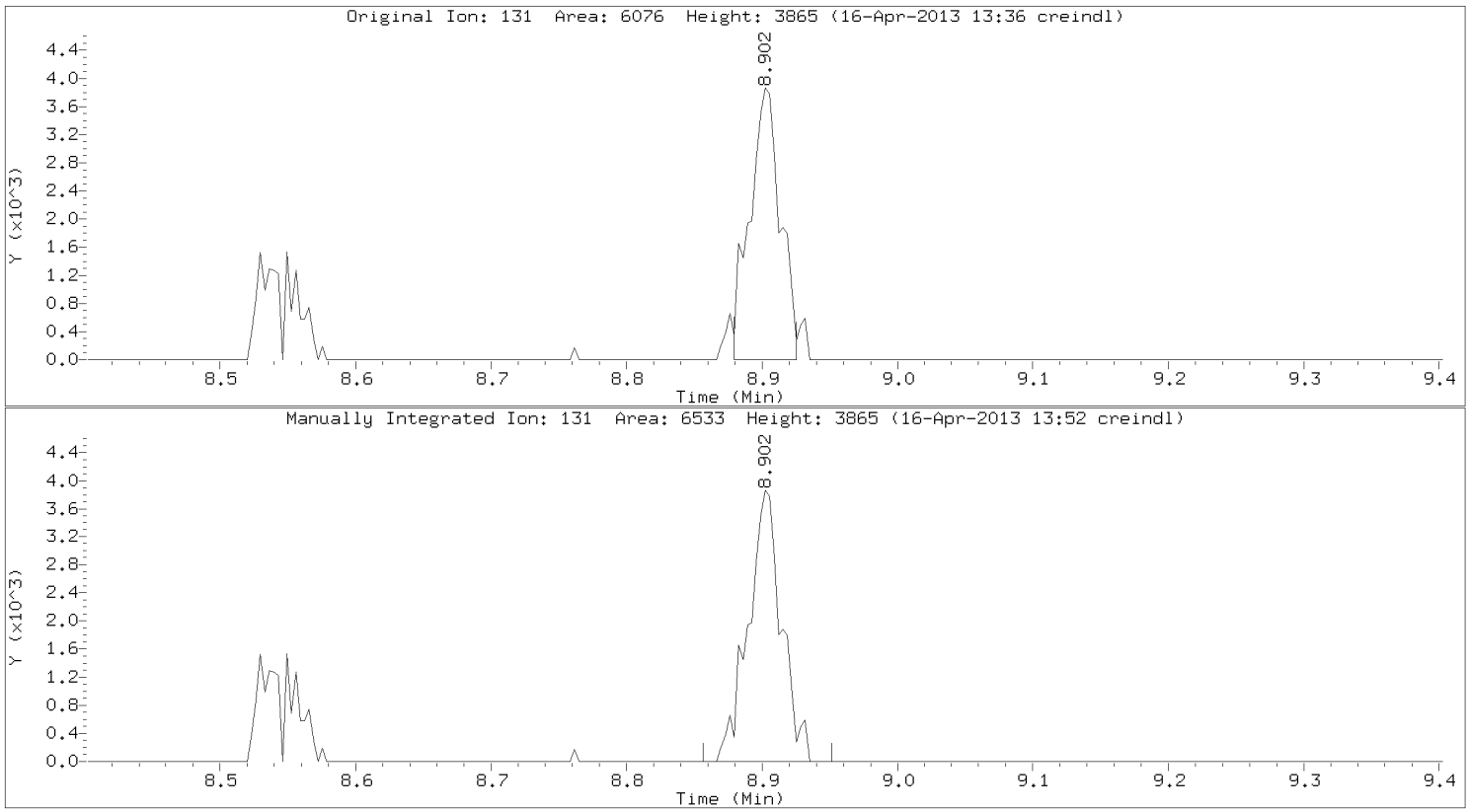


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Tetrachloroethene
CAS Number: 127-18-4

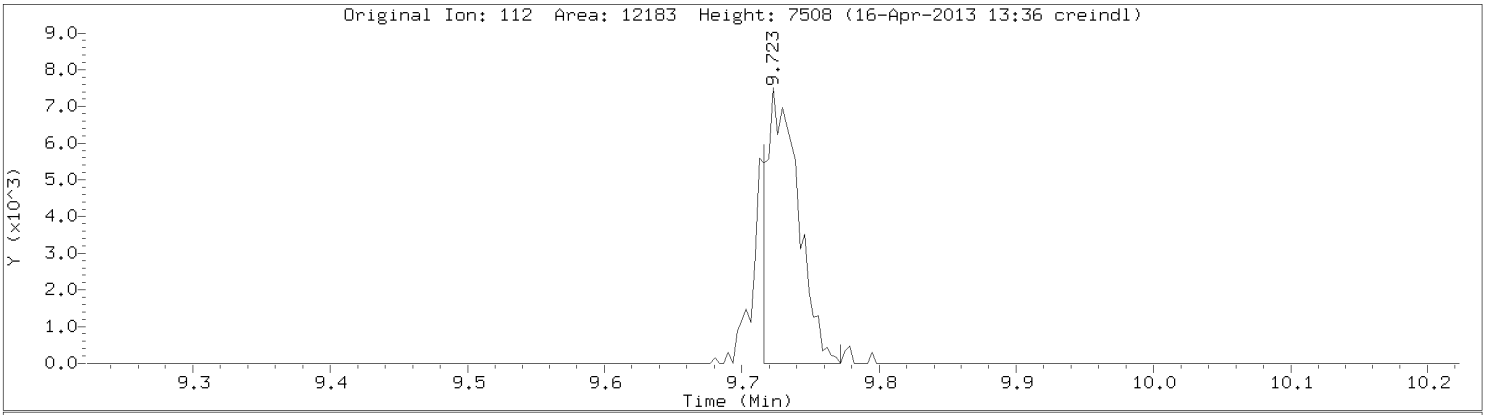


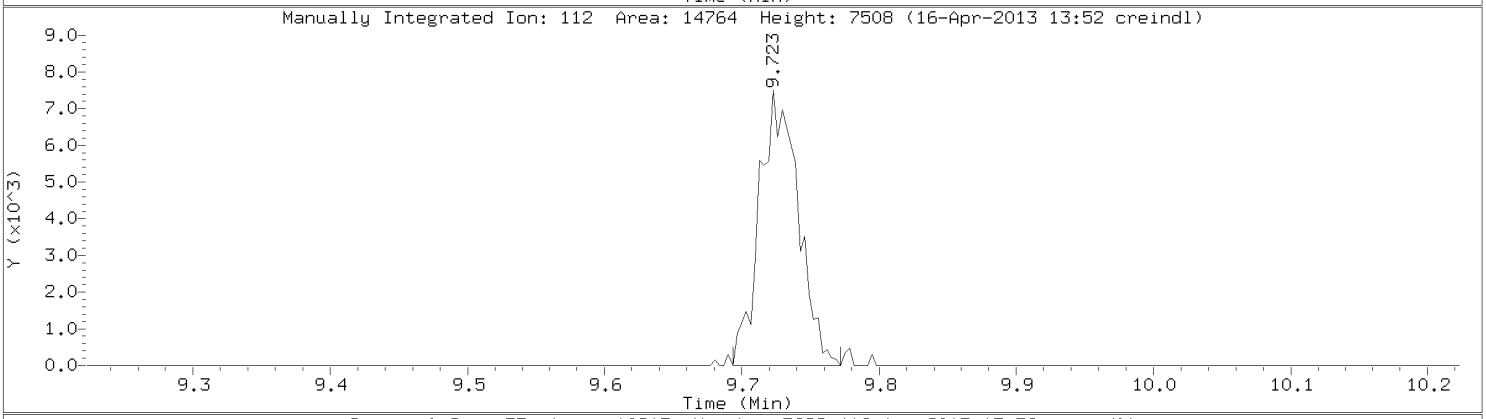
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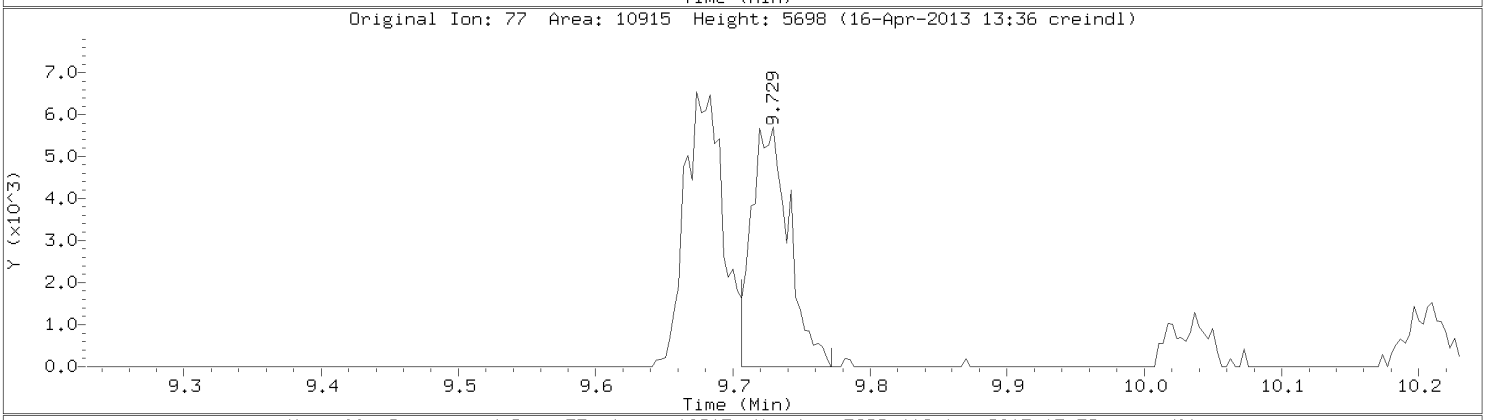


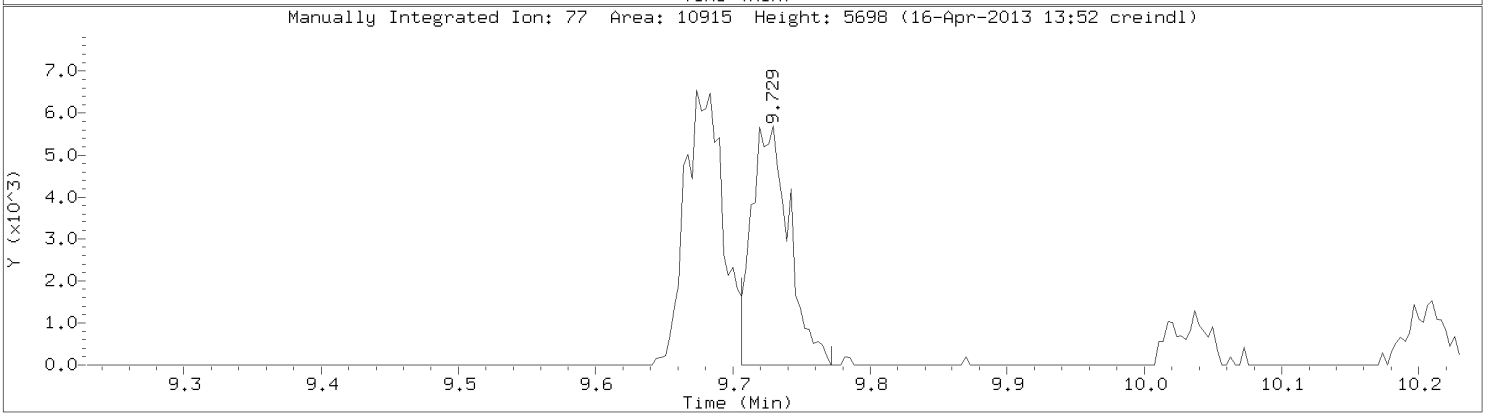
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Chlorobenzene
CAS Number: 108-90-7

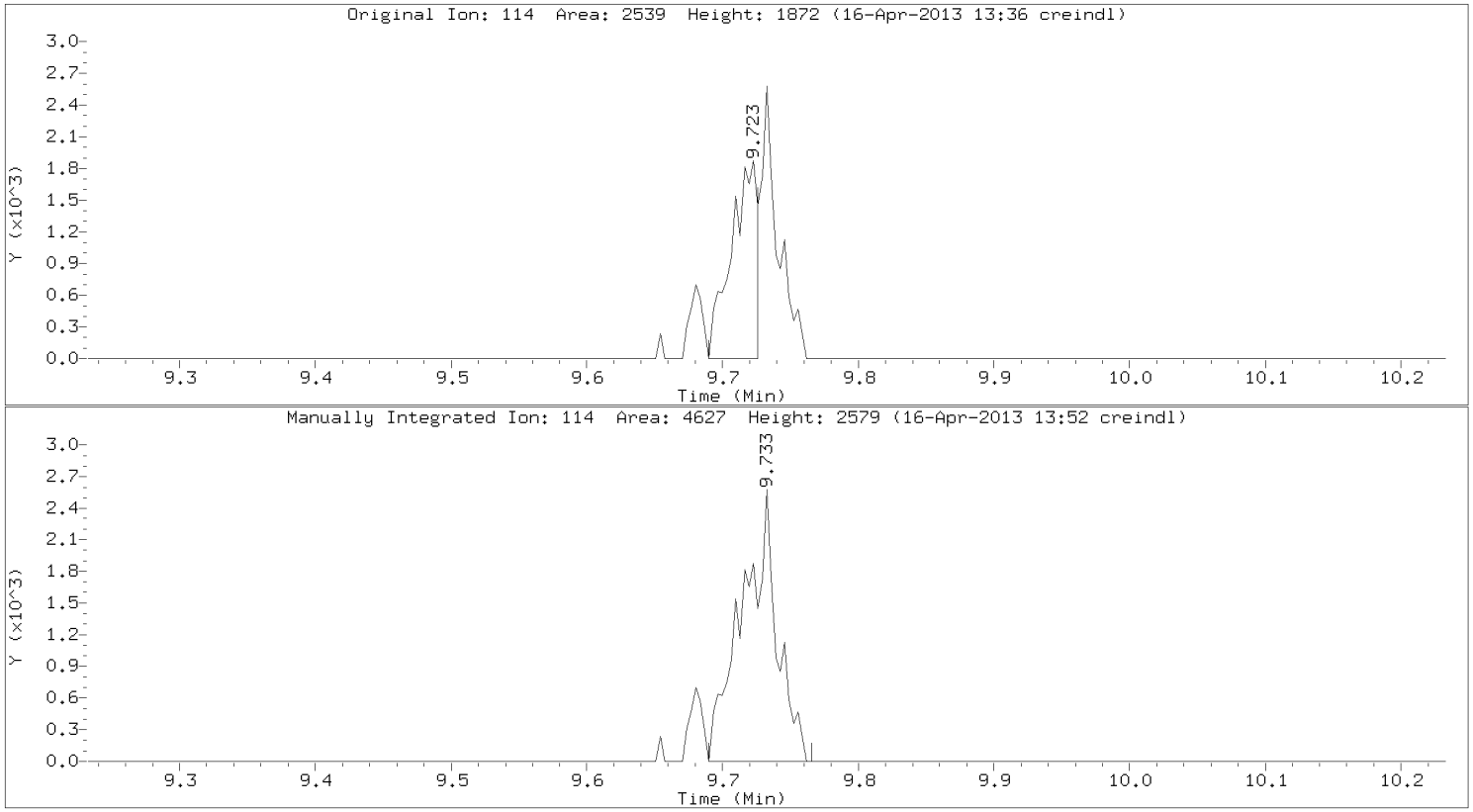






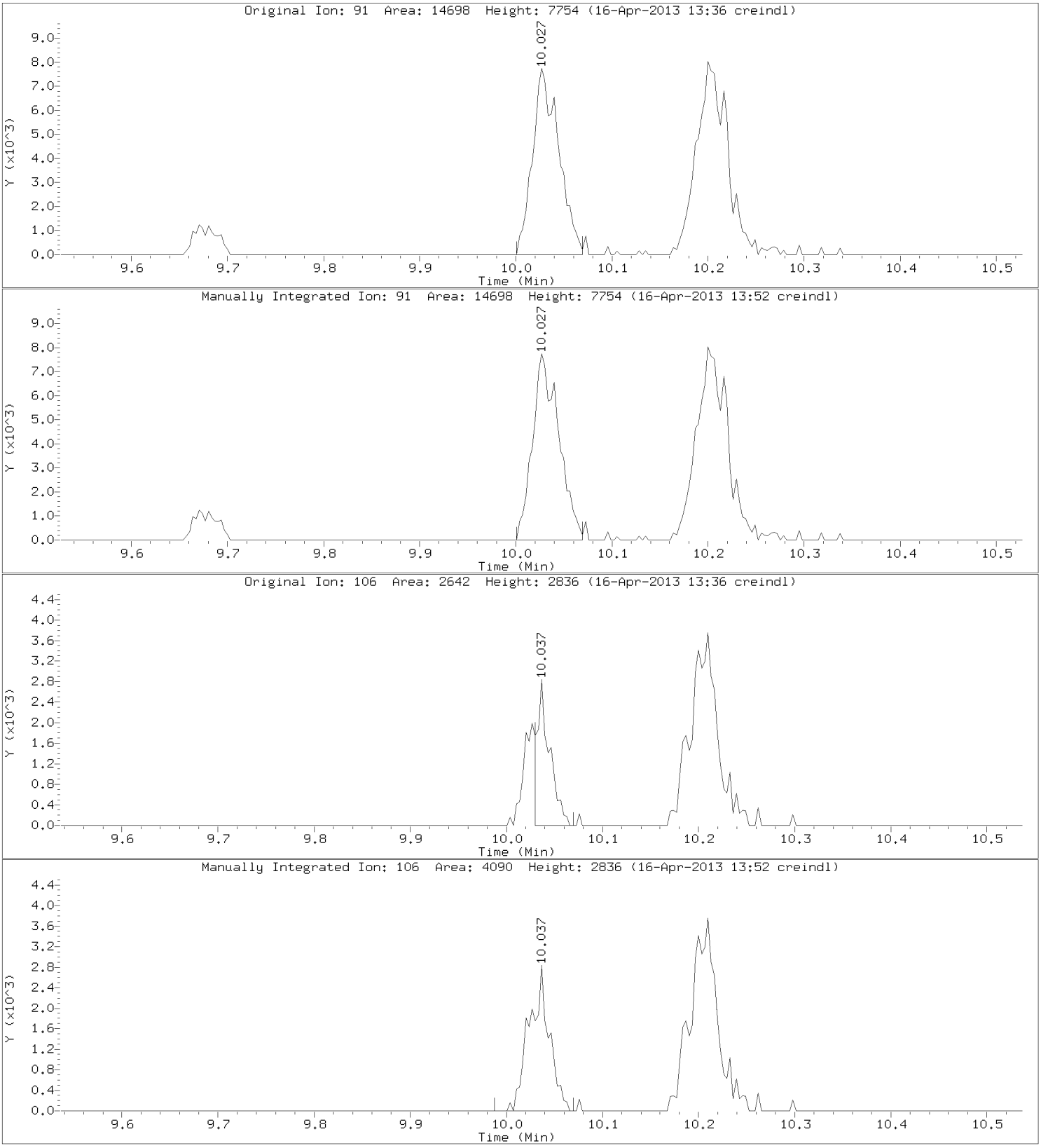


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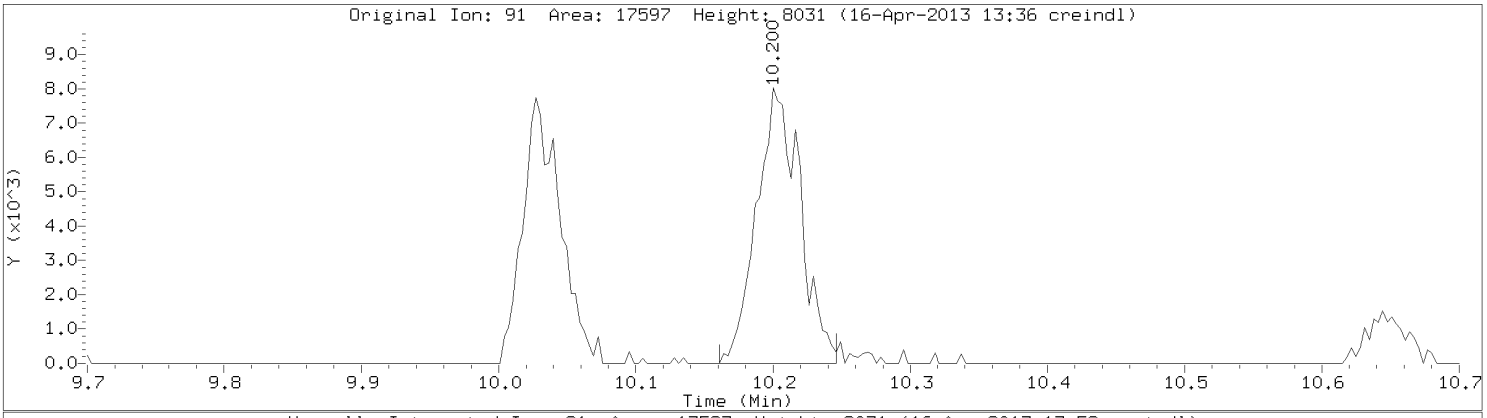
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Lab Sample ID: ICAL2

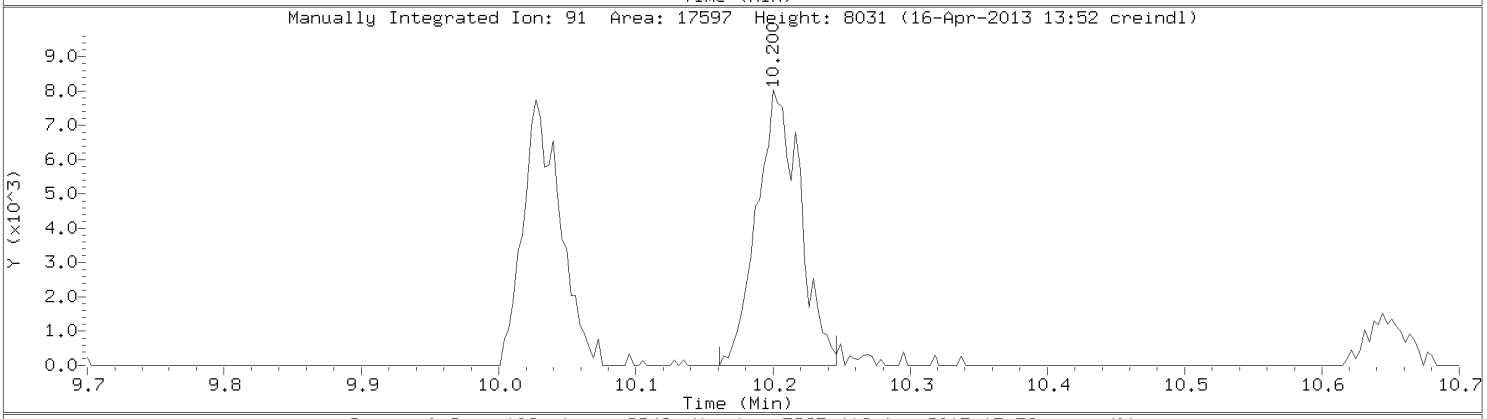
Compound: Ethyl Benzene
CAS Number: 100-41-4

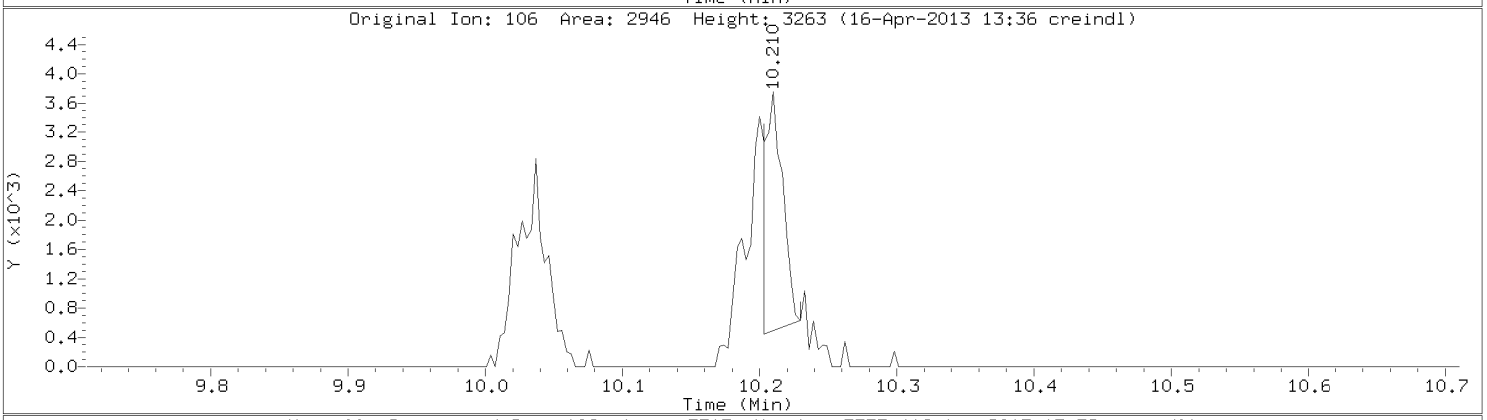


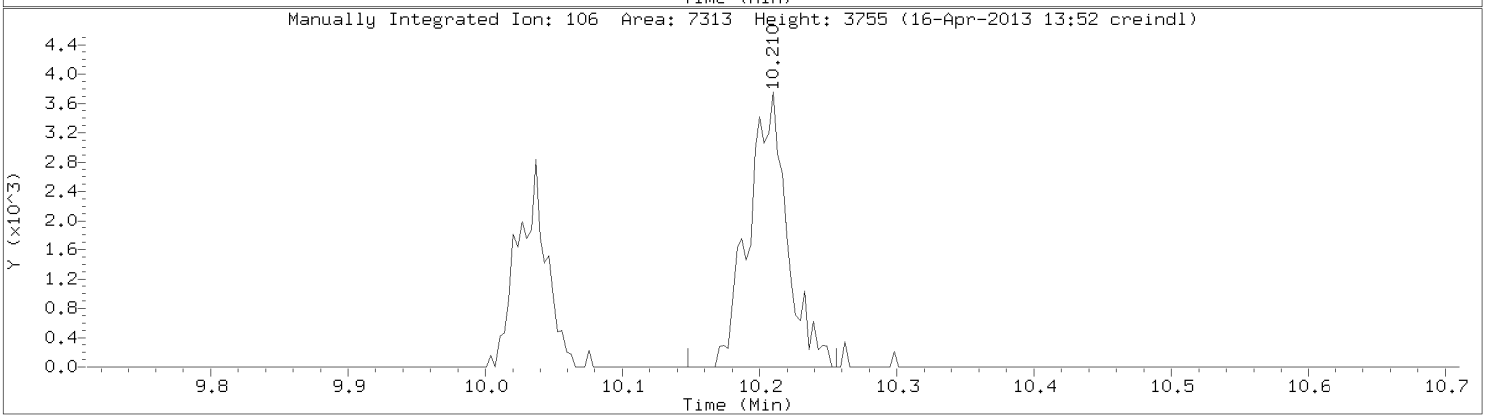
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: m&p-Xylene
CAS Number: 7816-60-0



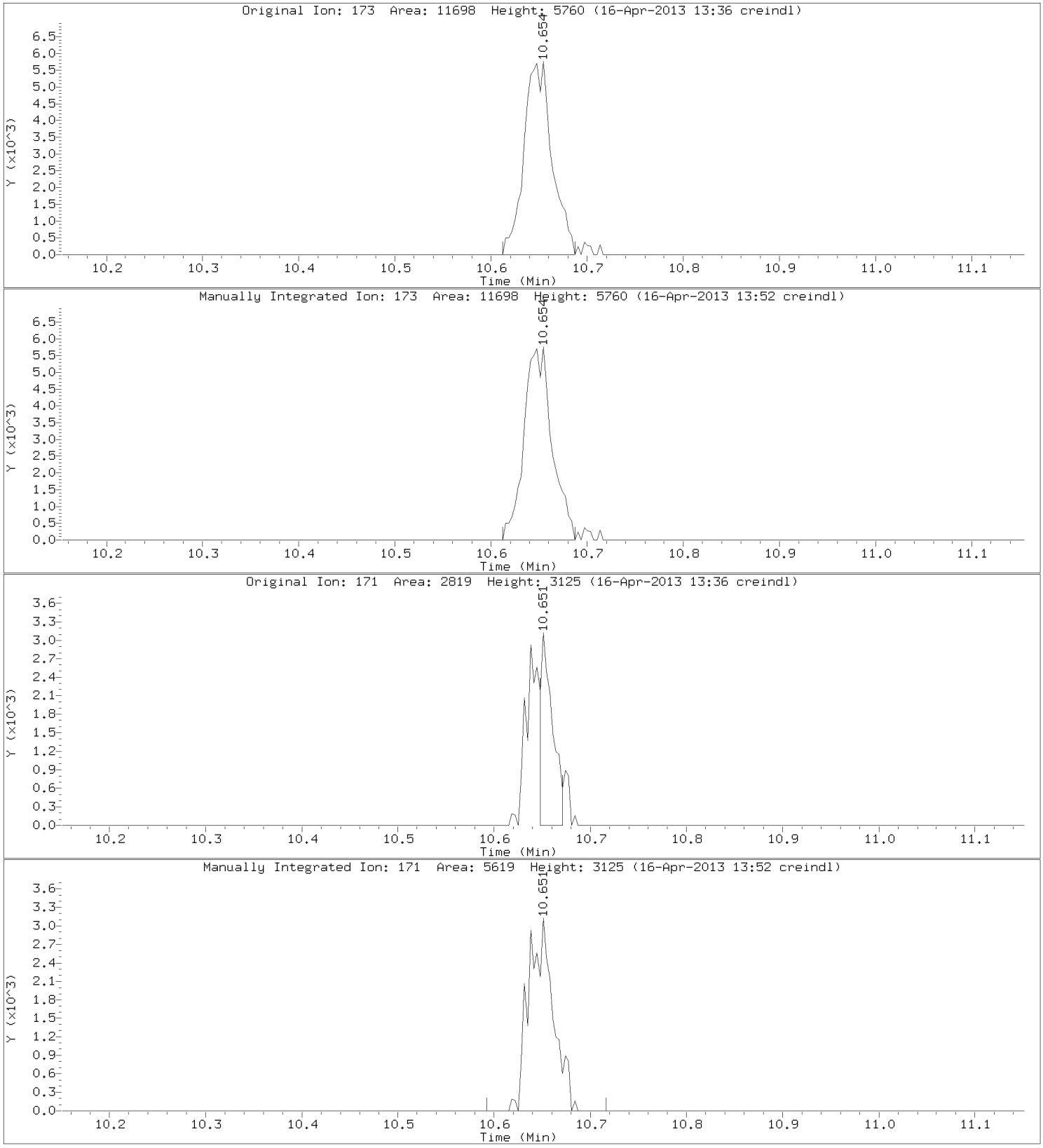






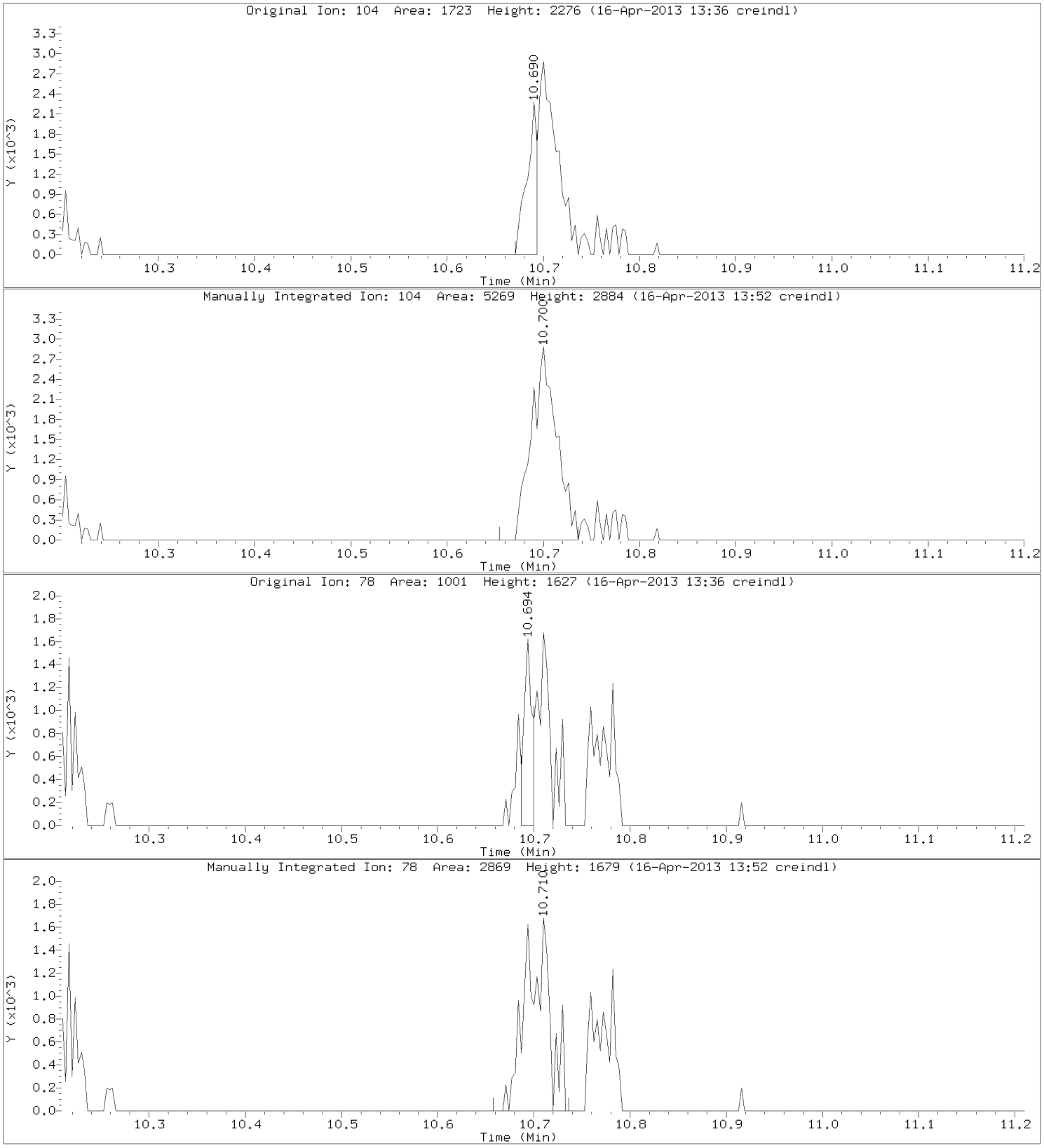
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Compound: Bromoform
CAS Number: 75-25-2

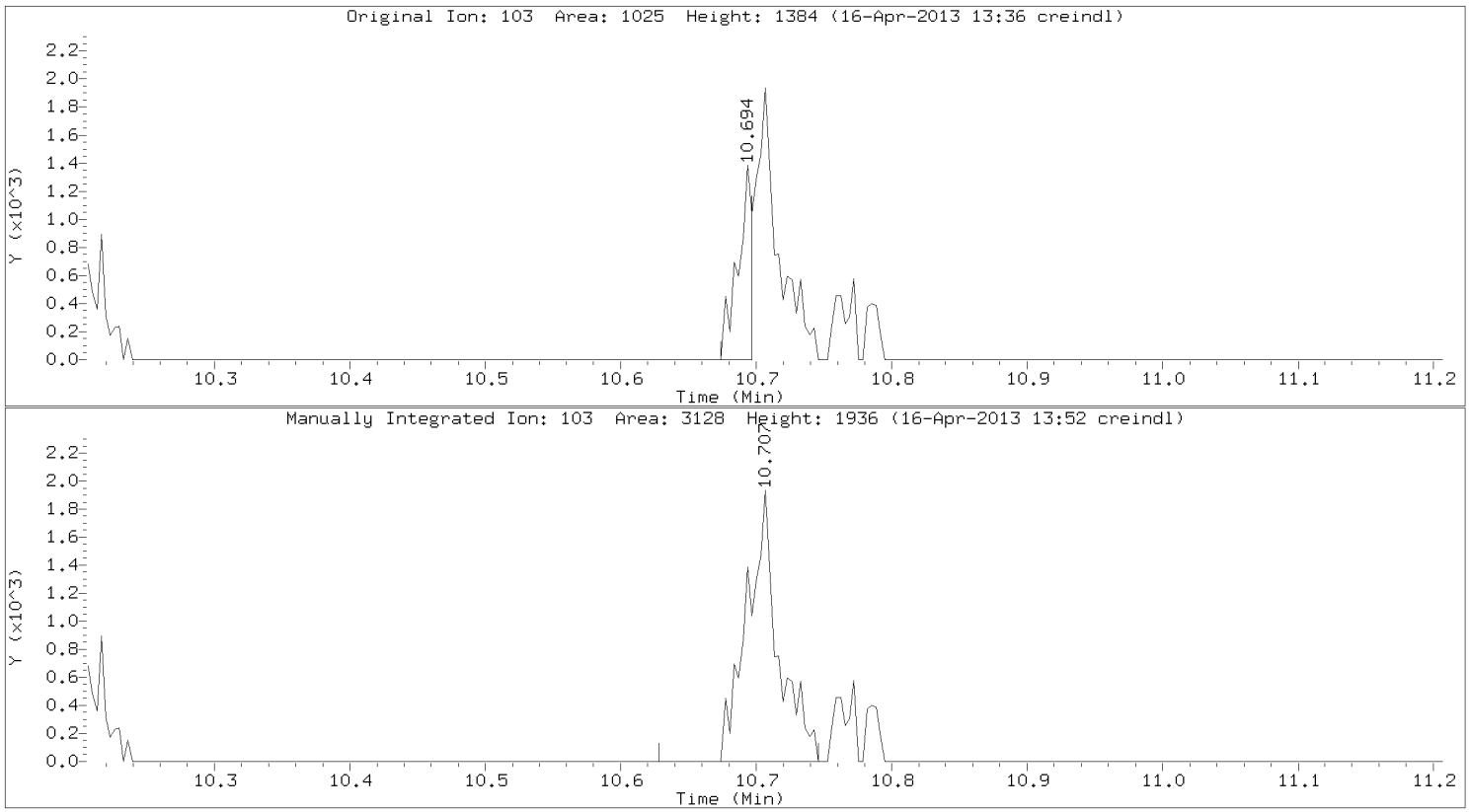


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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Styrene
CAS Number: 100-42-5

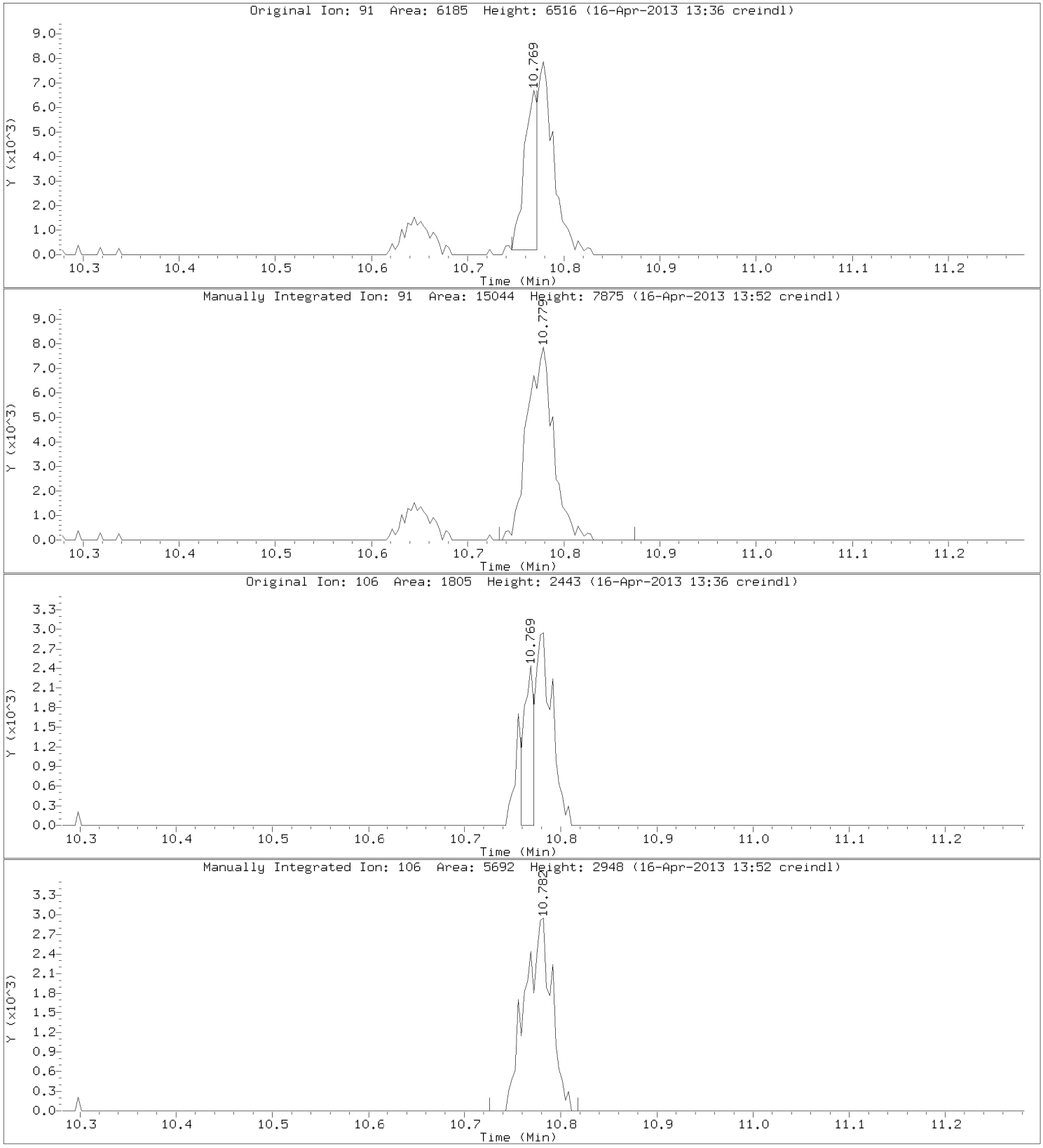


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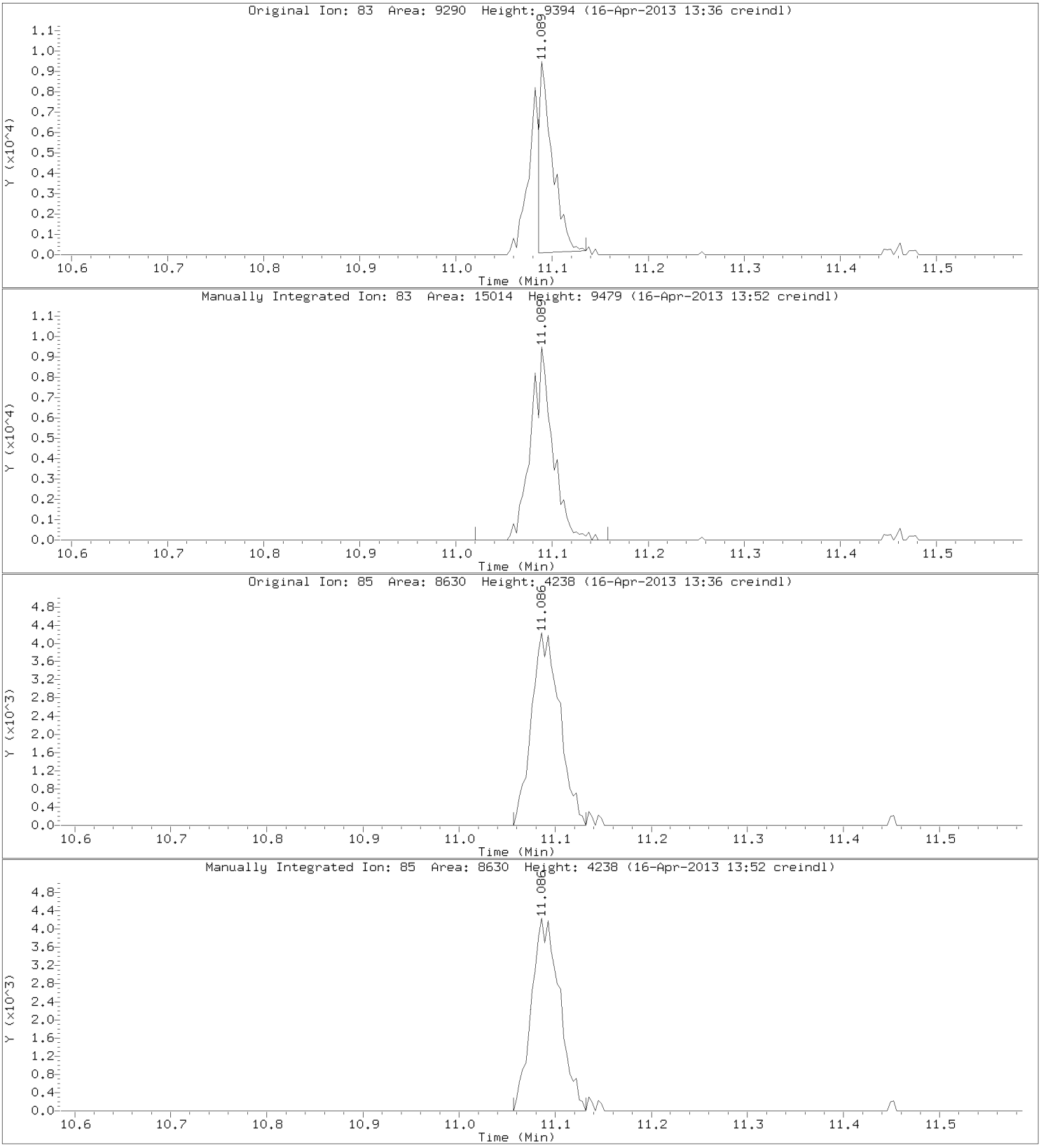
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: o-Xylene
CAS Number: 95-47-6



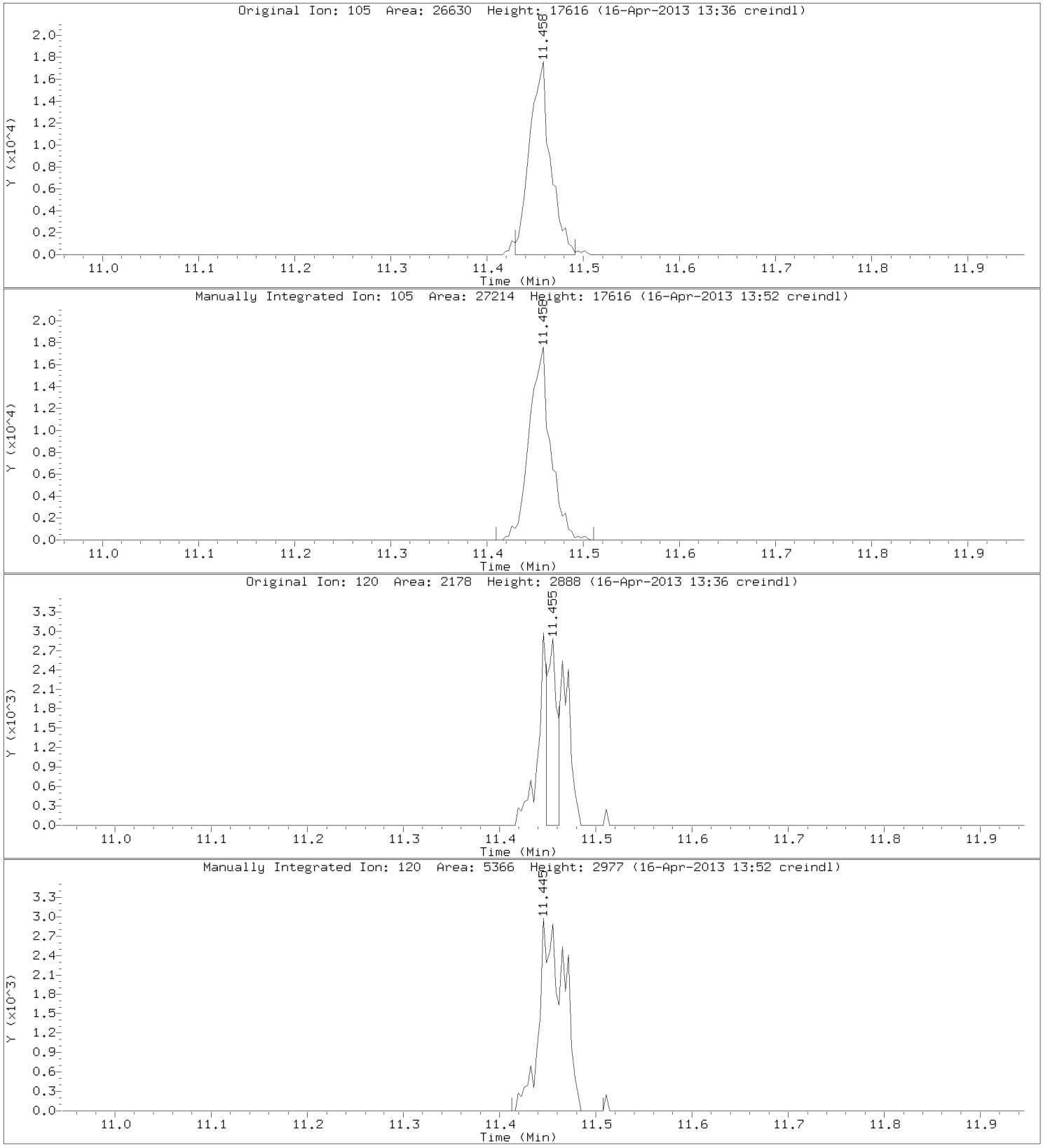
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



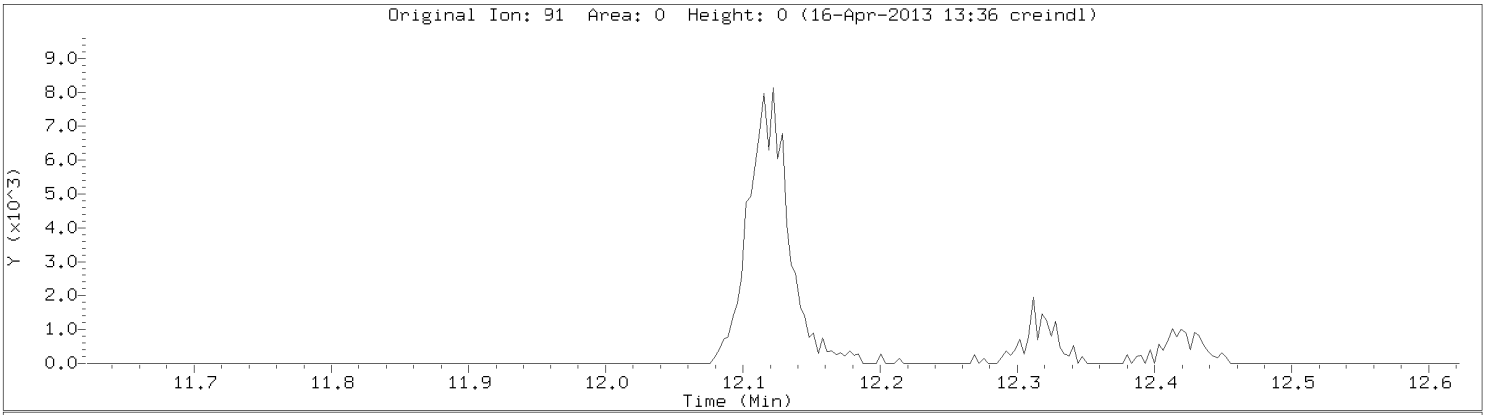
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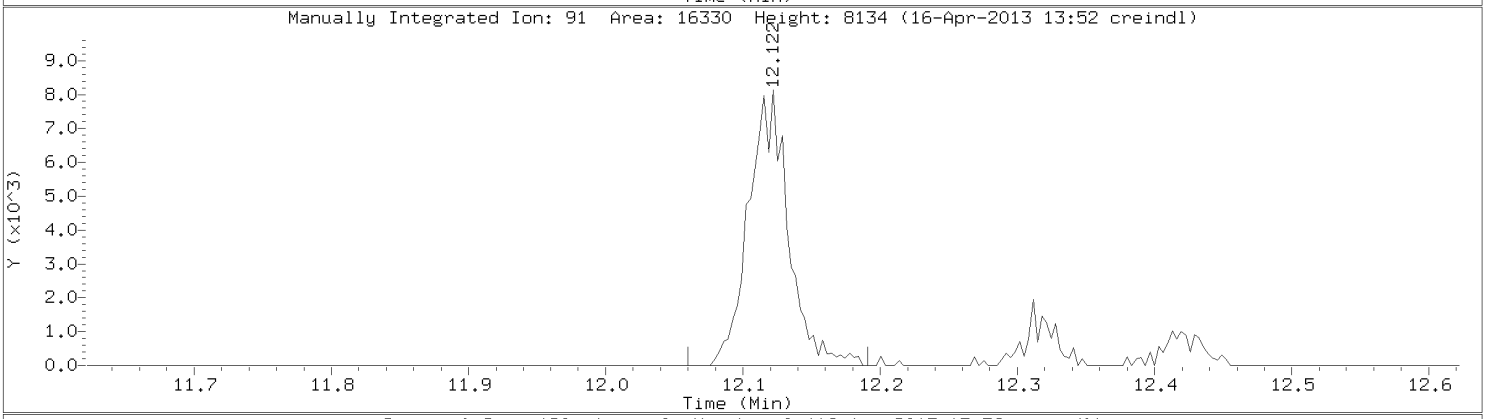
Compound: Isopropylbenzene
CAS Number:

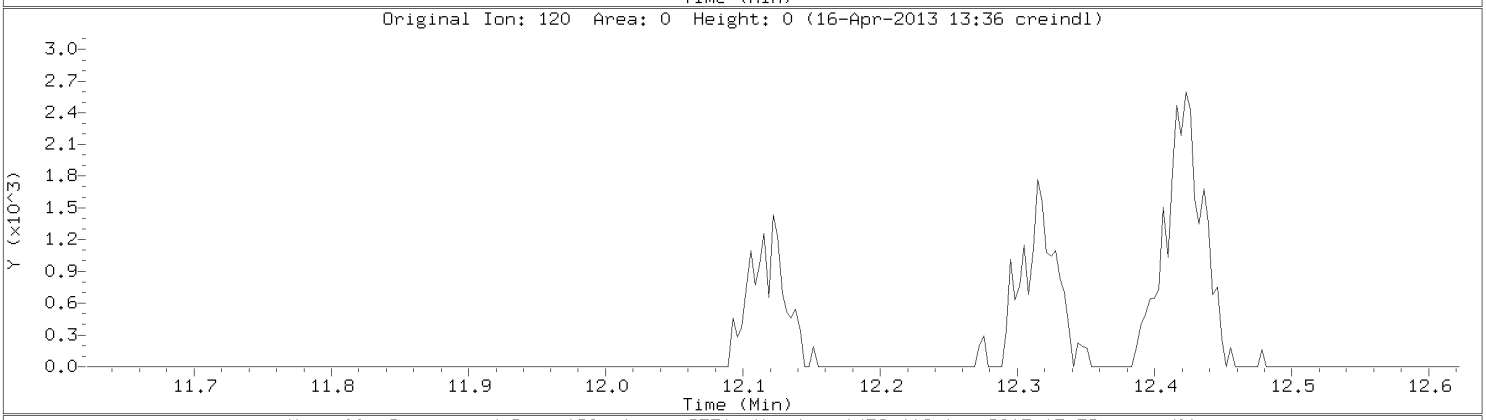


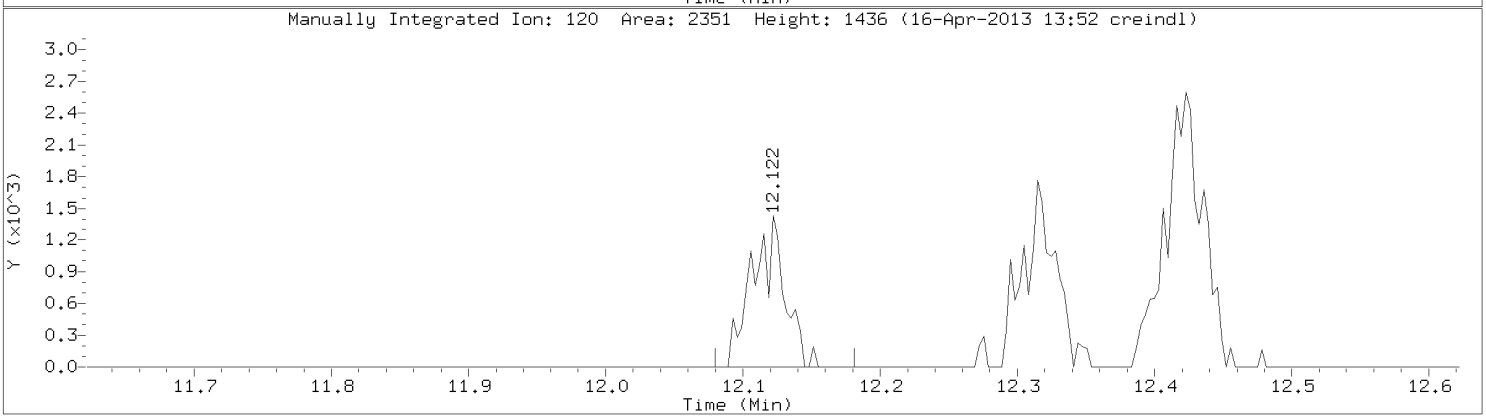
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: N-Propylbenzene
CAS Number: 103-65-1



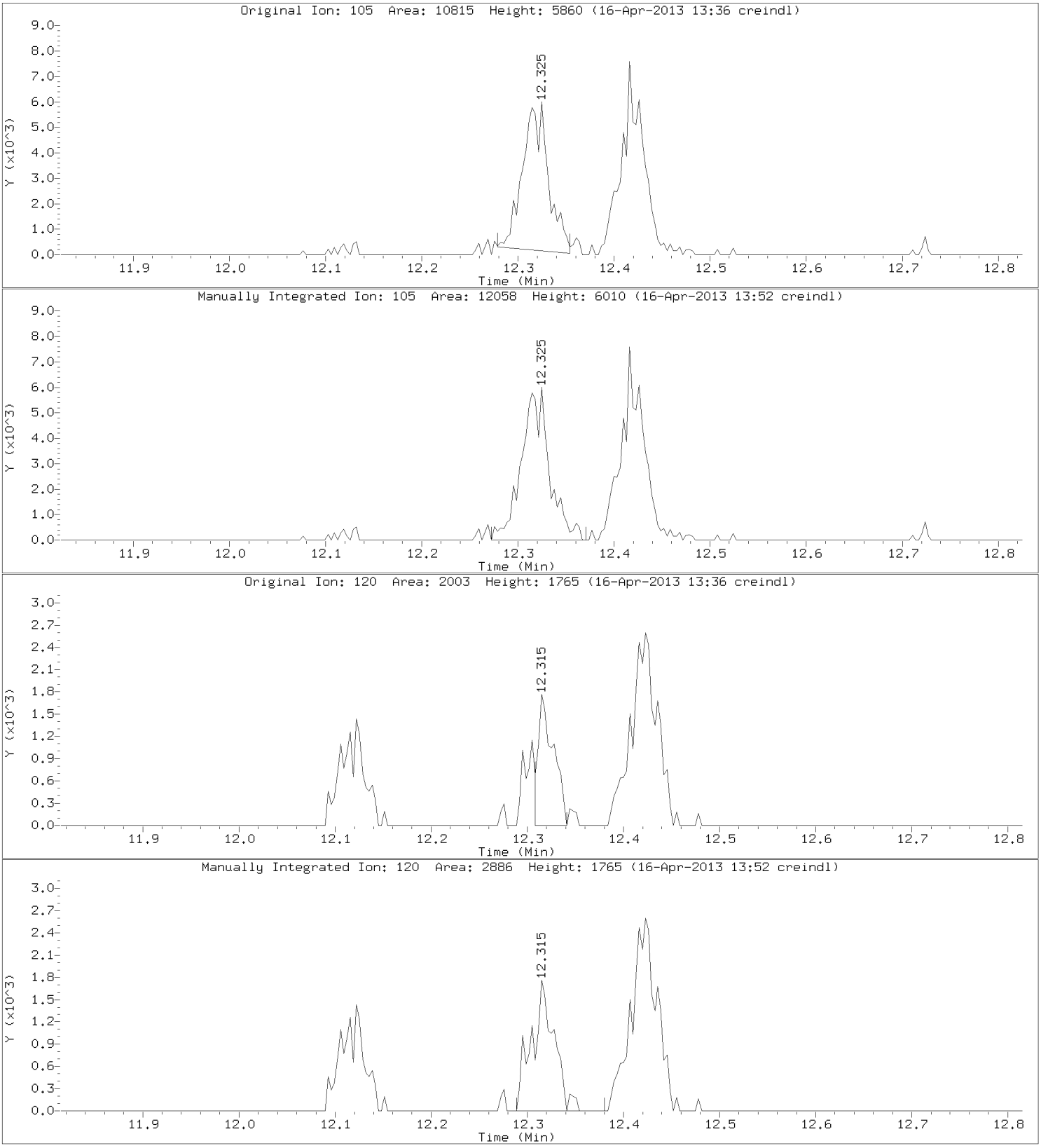




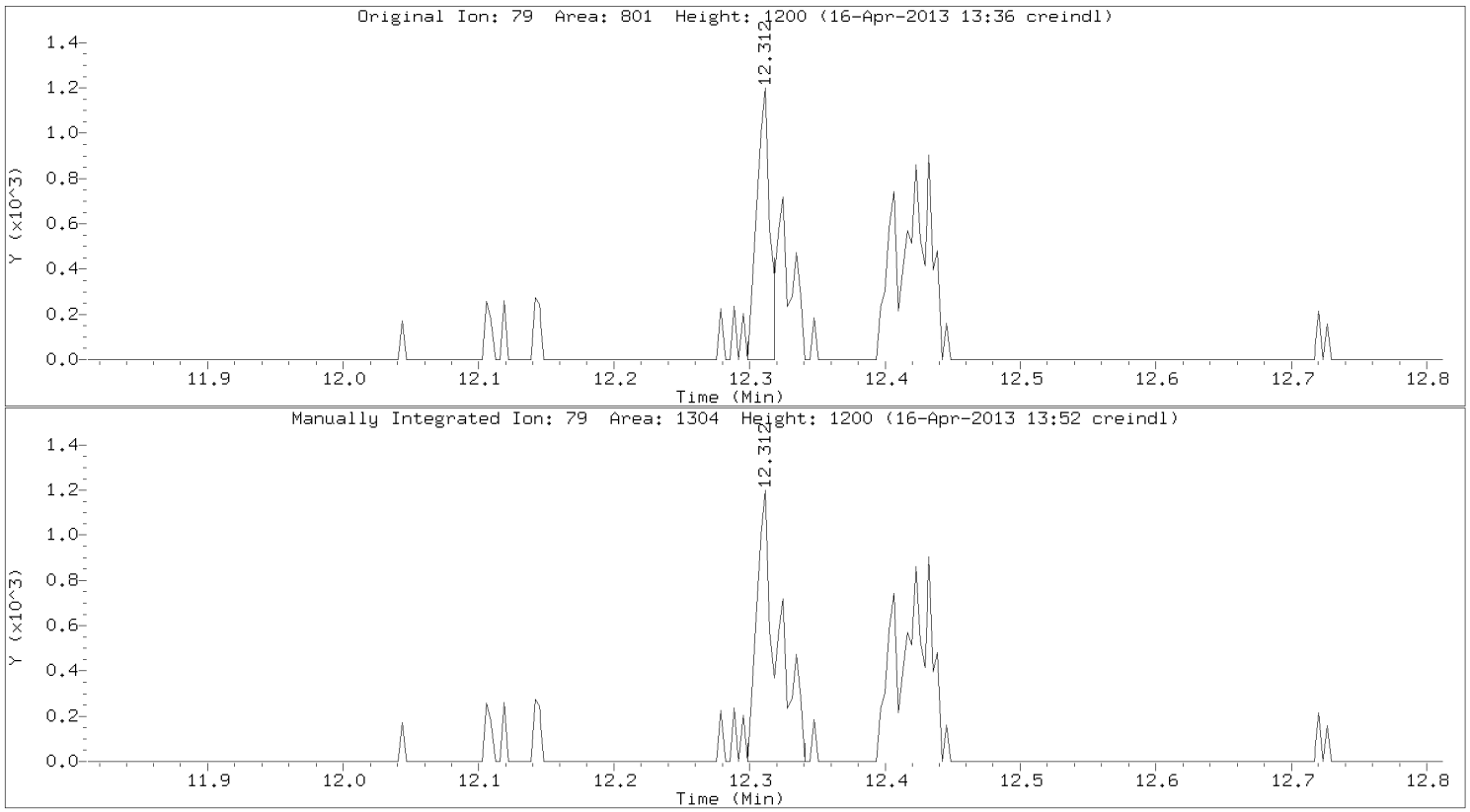


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

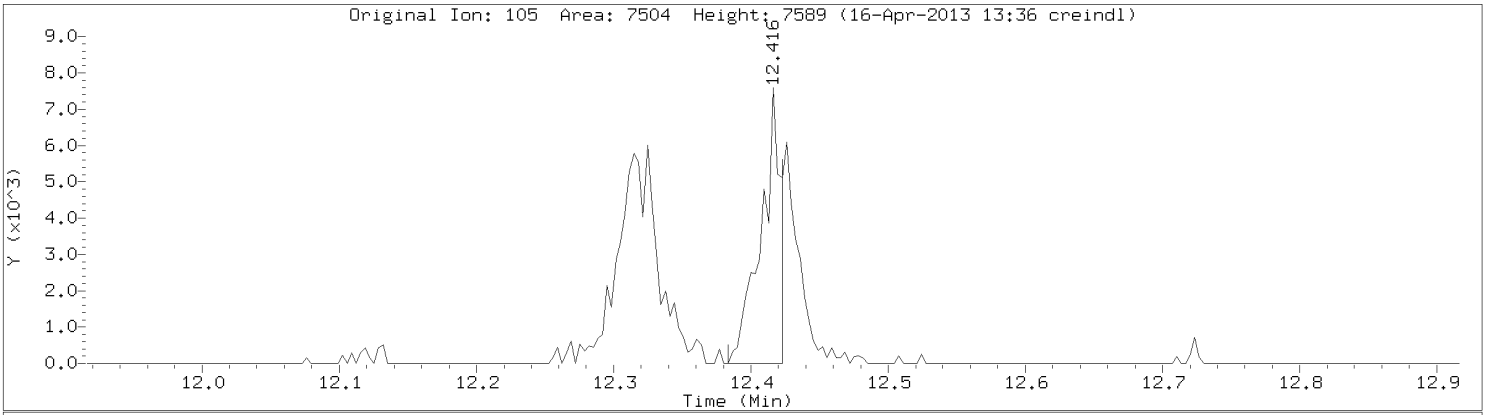


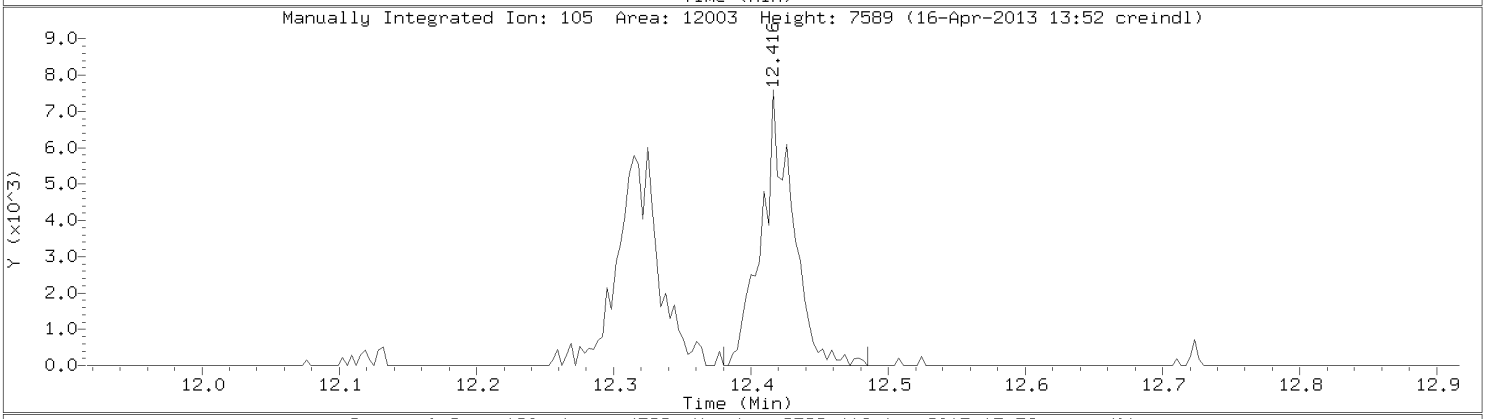
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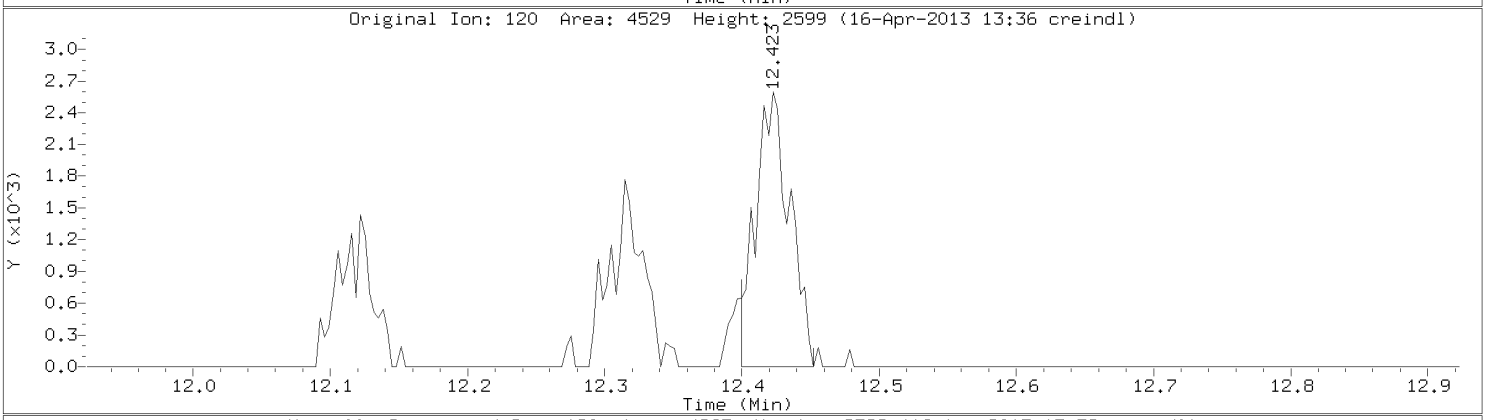


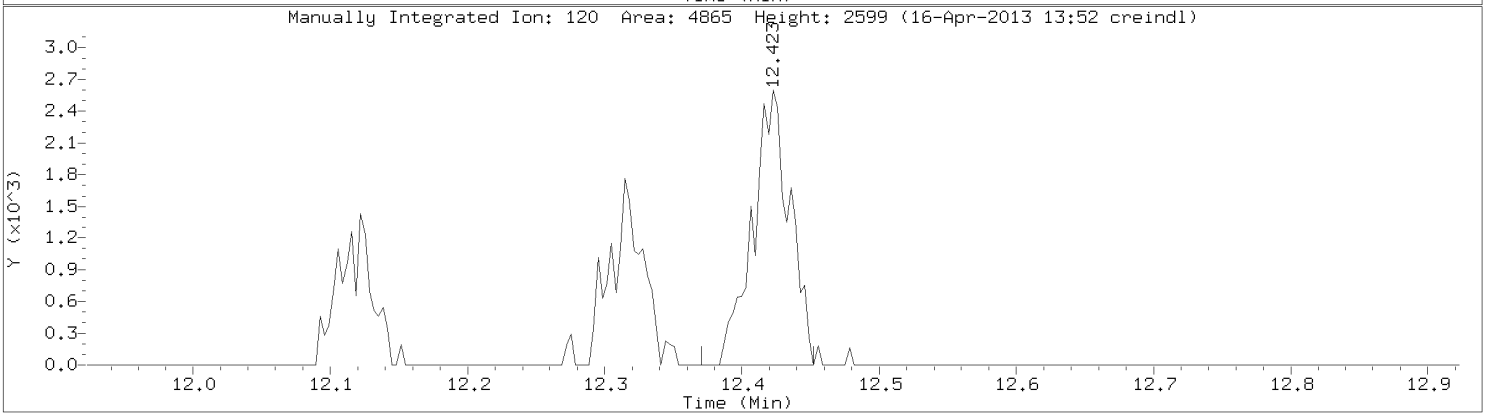
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,3,5-Trimethylbenzene
CAS Number: 108-67-8



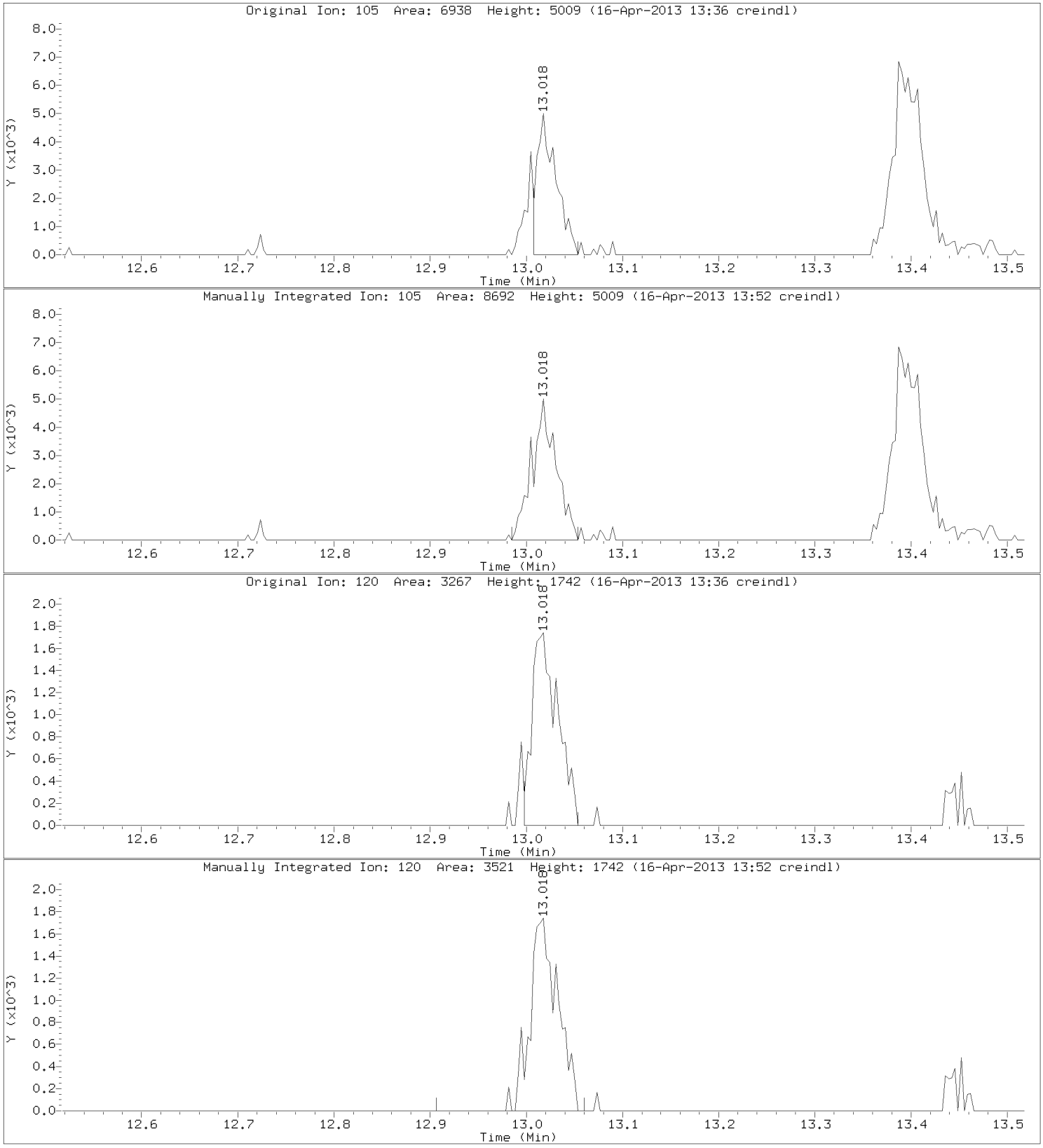






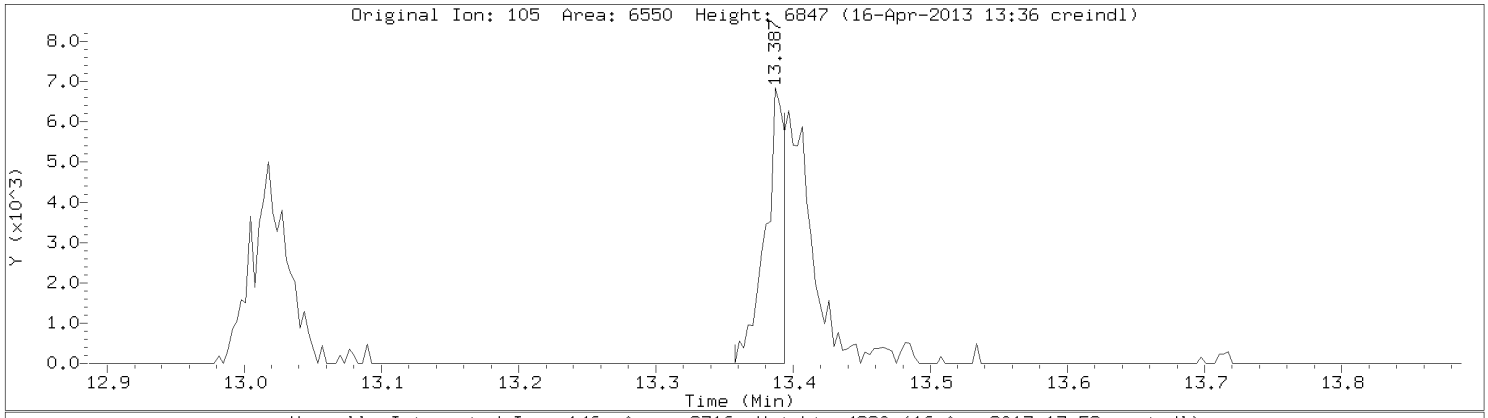
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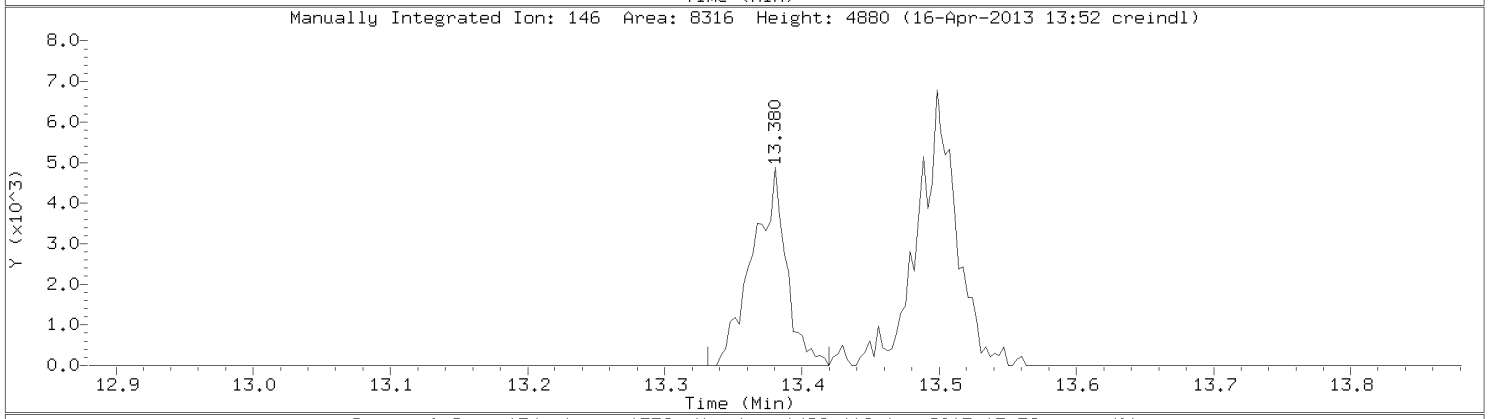
Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6

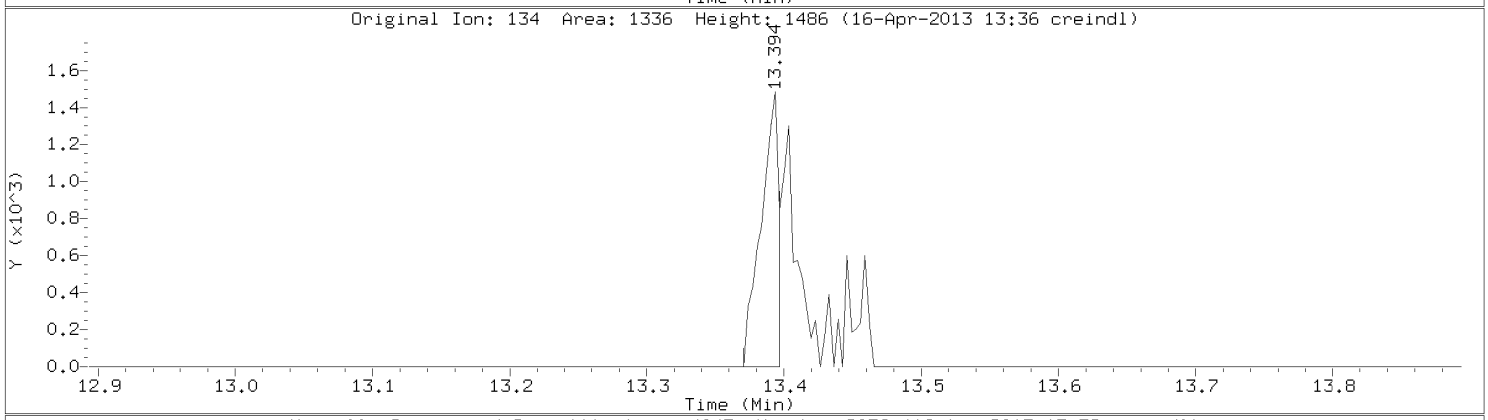


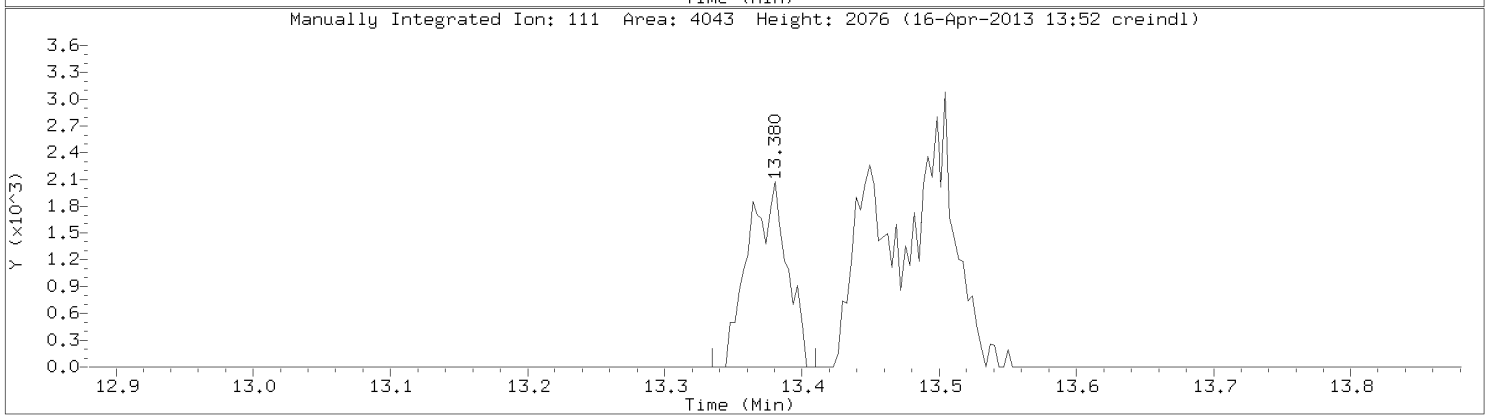
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,3-Dichlorobenzene
CAS Number: 541-73-1

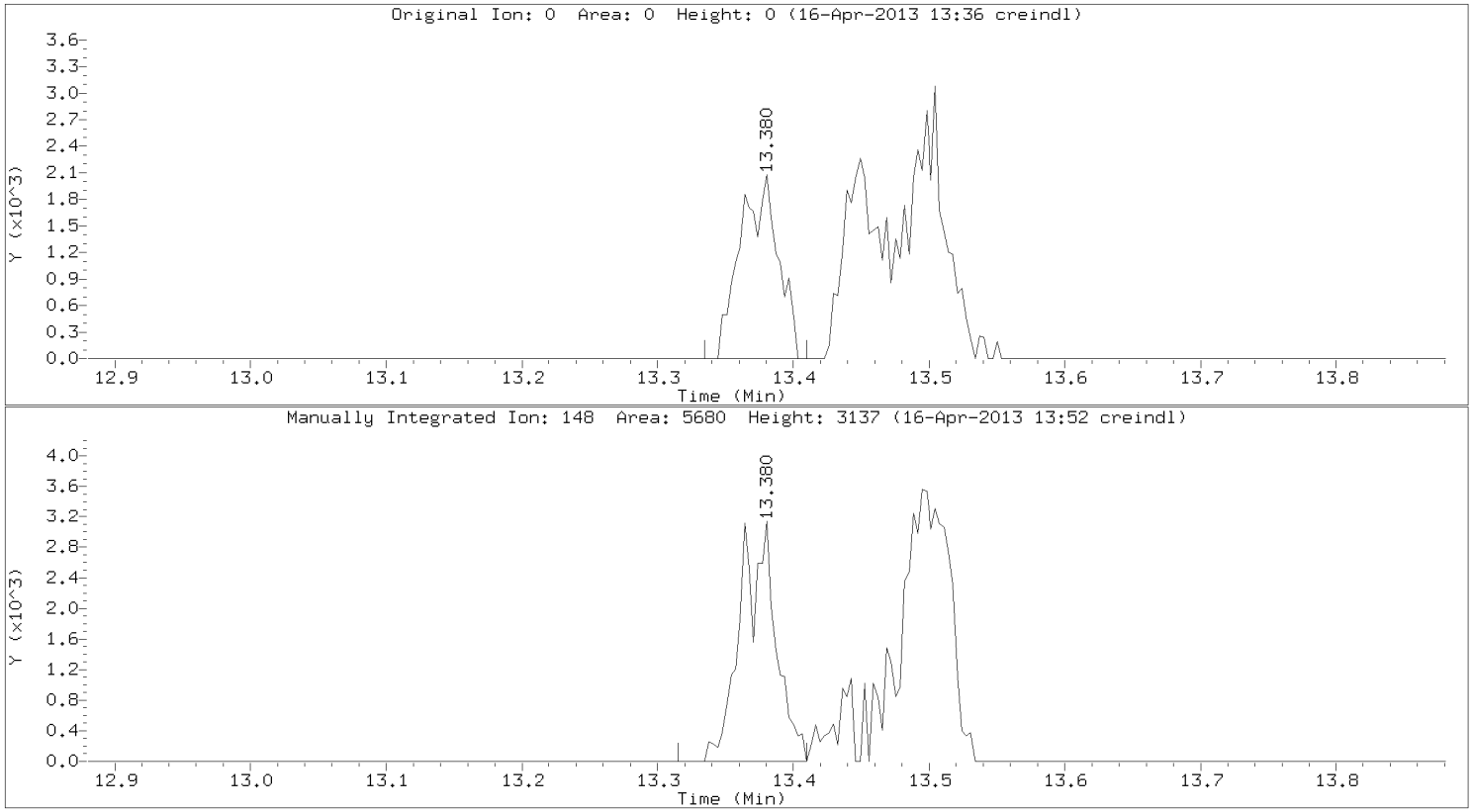






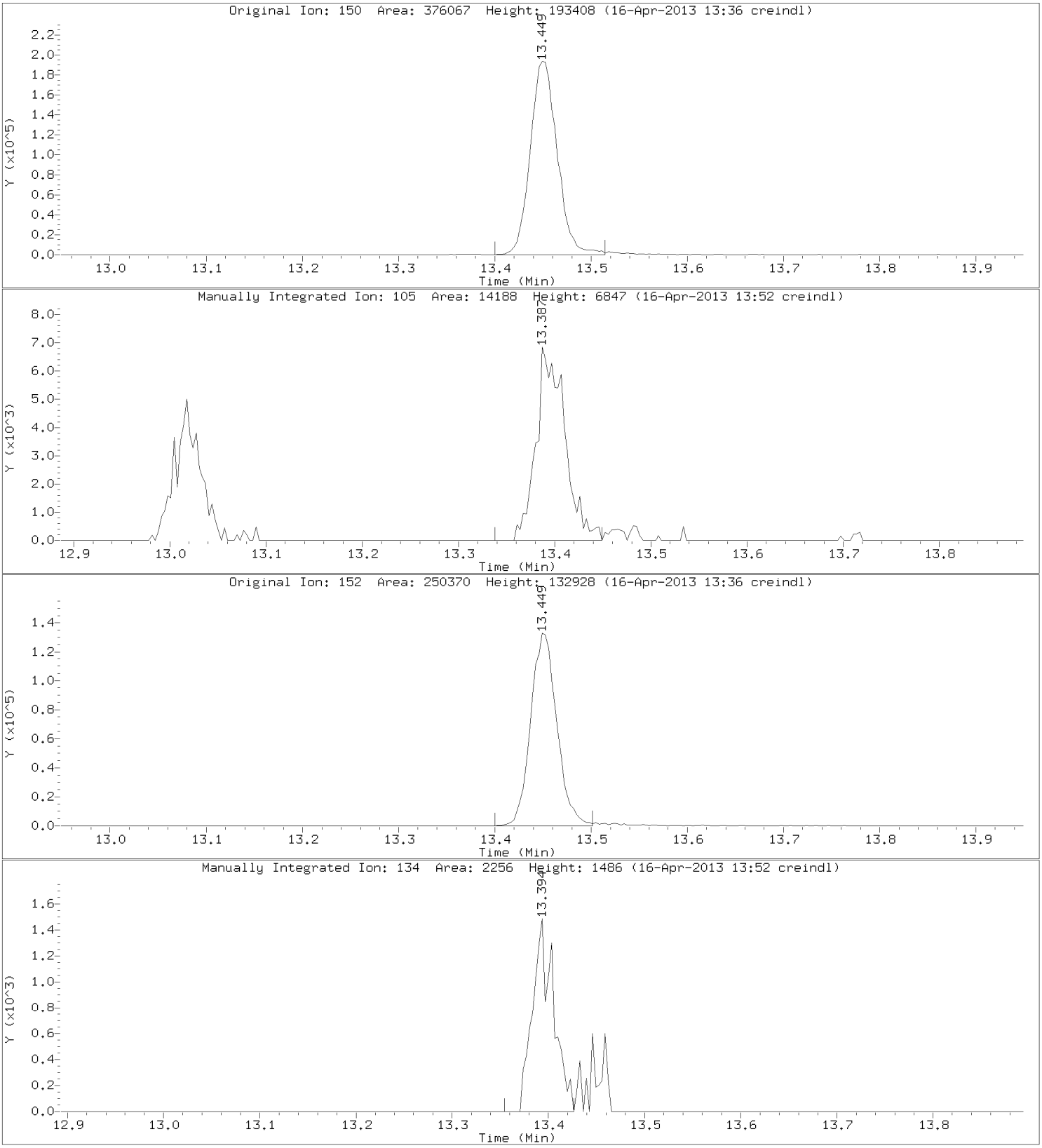


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Instrument: 10airD.i
Lab Sample ID: ICAL2



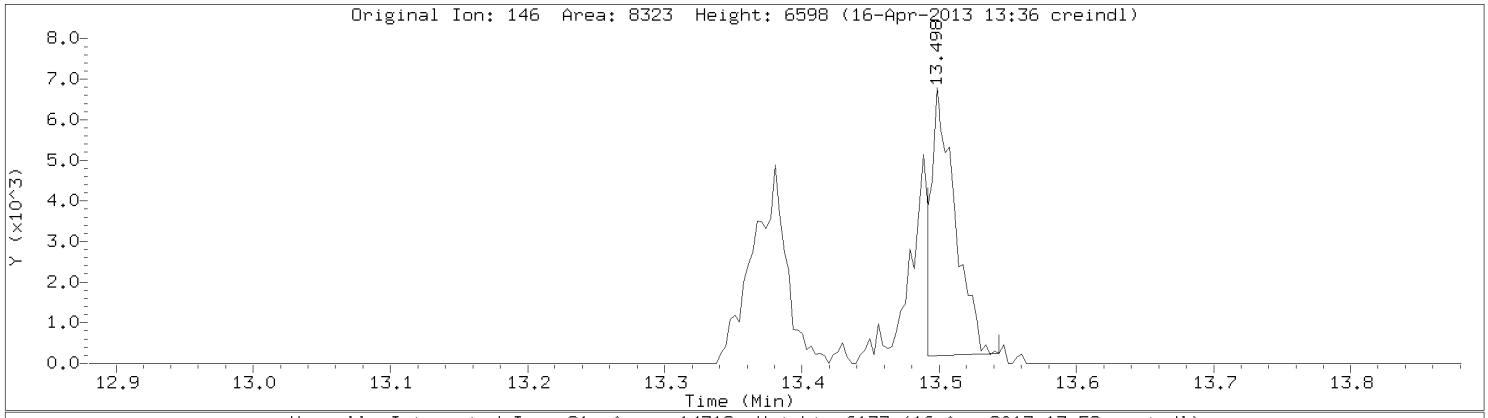
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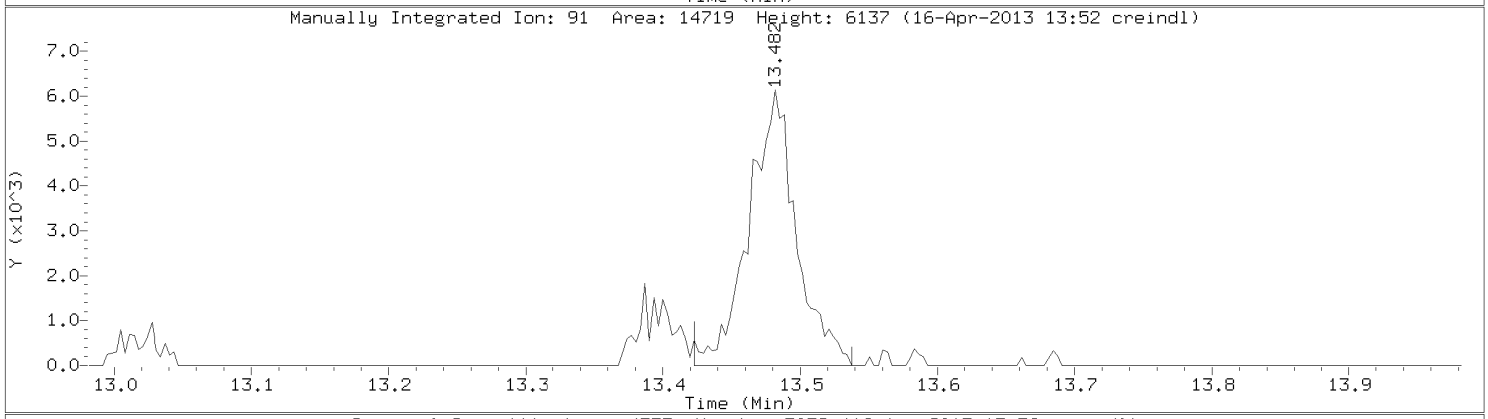
Compound: Sec- Butylbenzene
CAS Number: 135-98-8

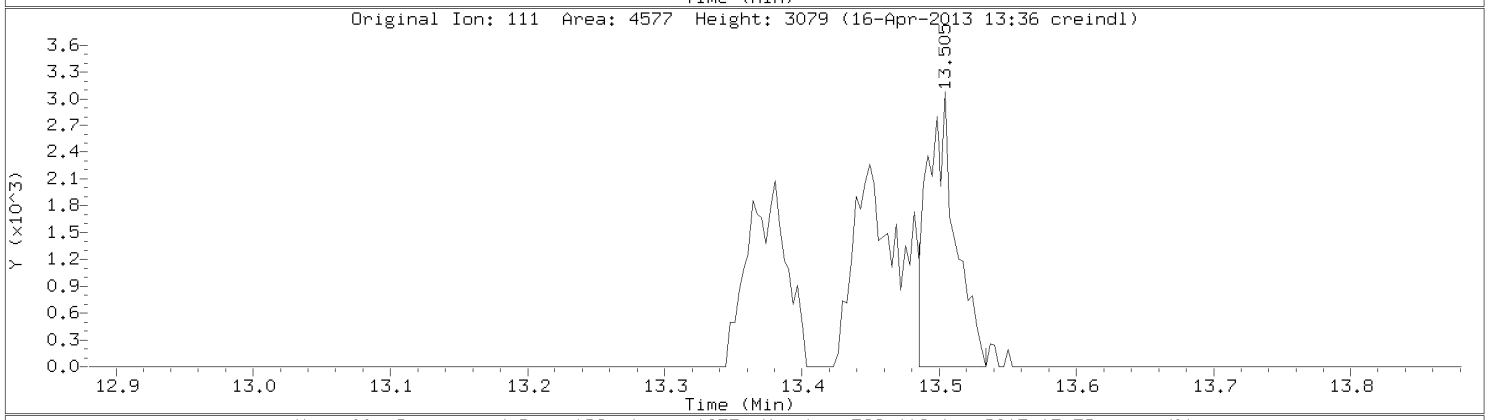


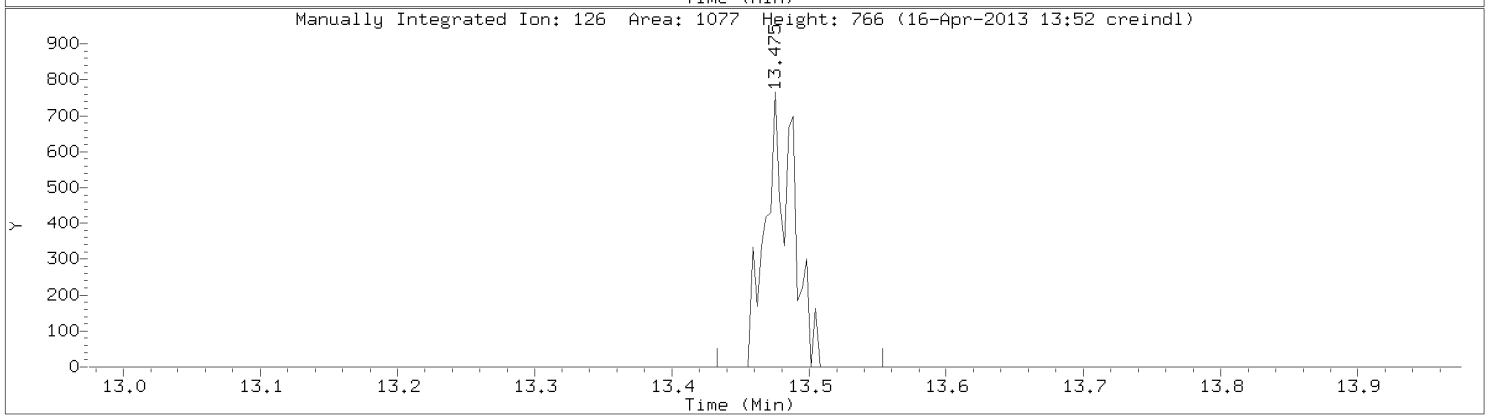
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Benzyl Chloride
CAS Number: 100-44-7



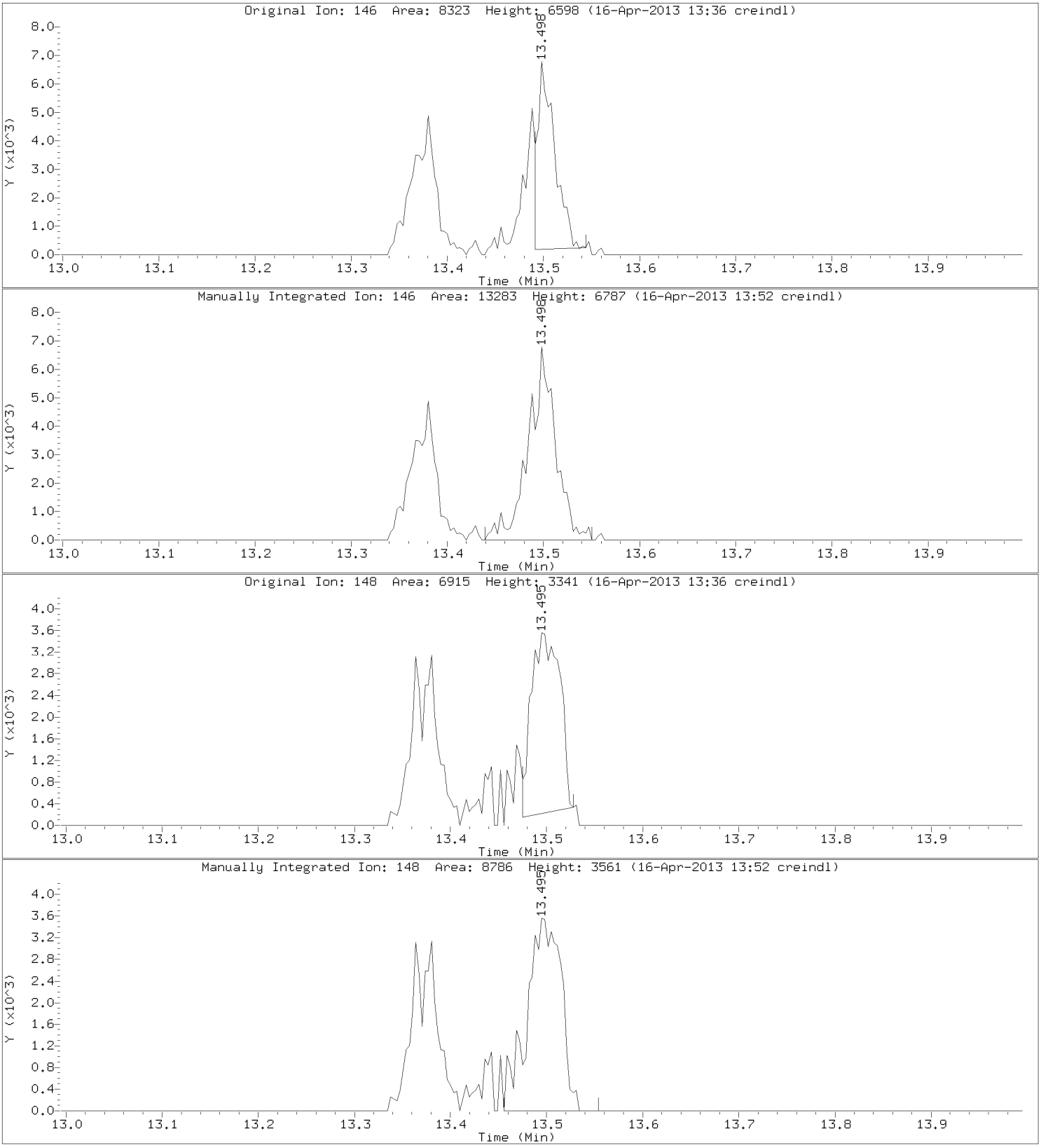




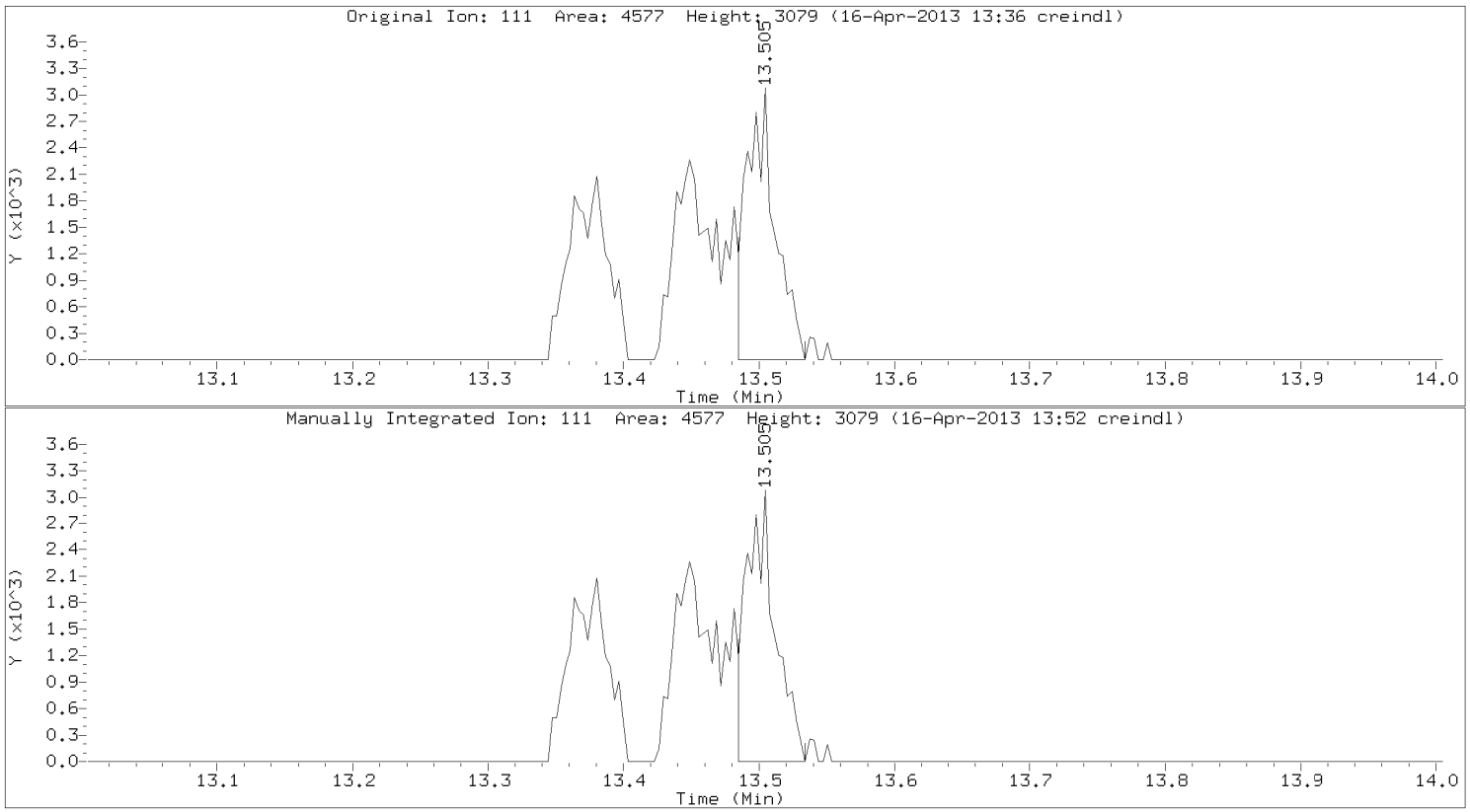


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7

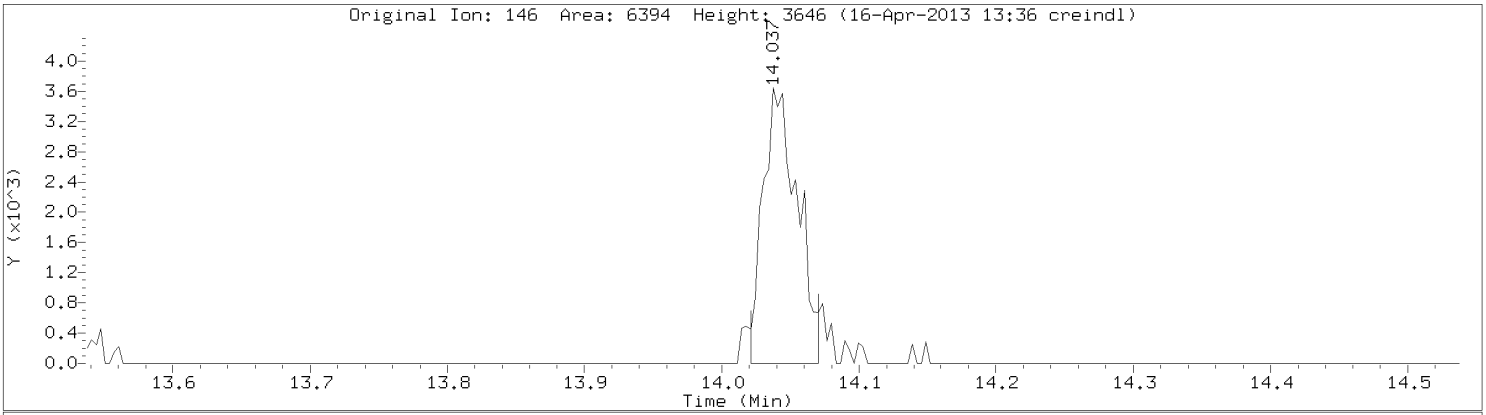


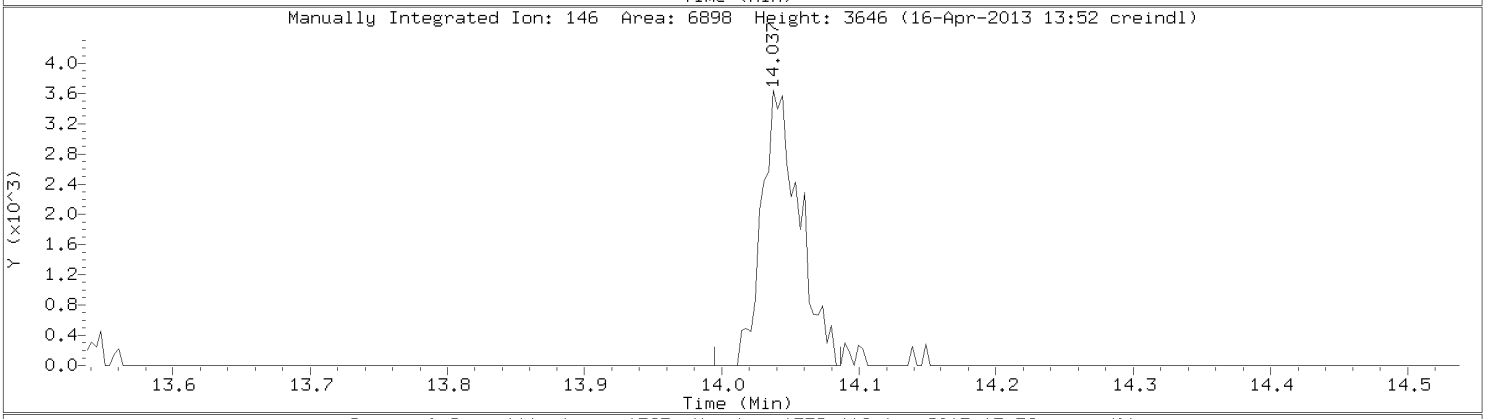
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Lab Sample ID: ICAL2

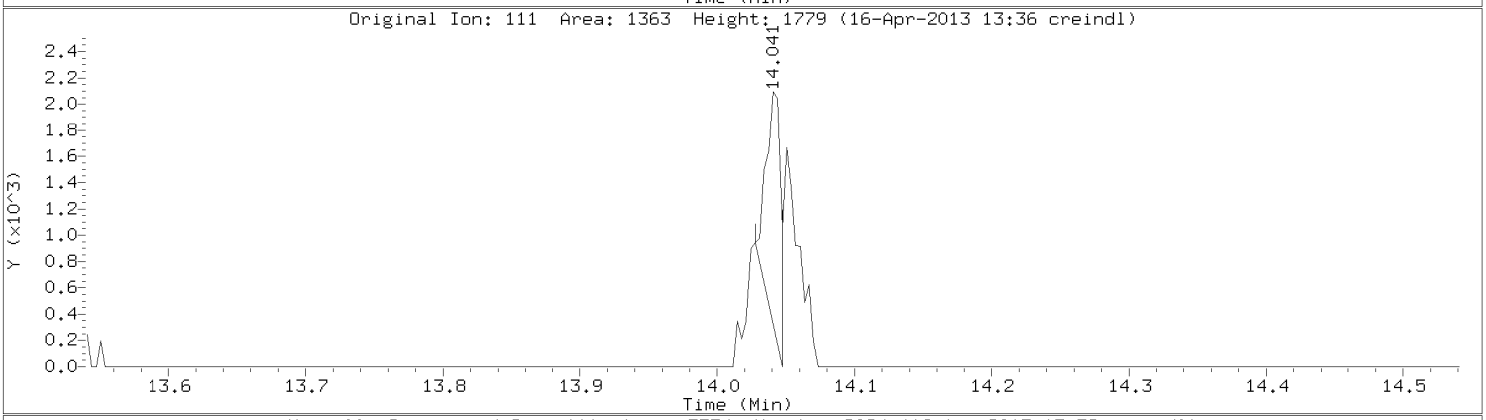


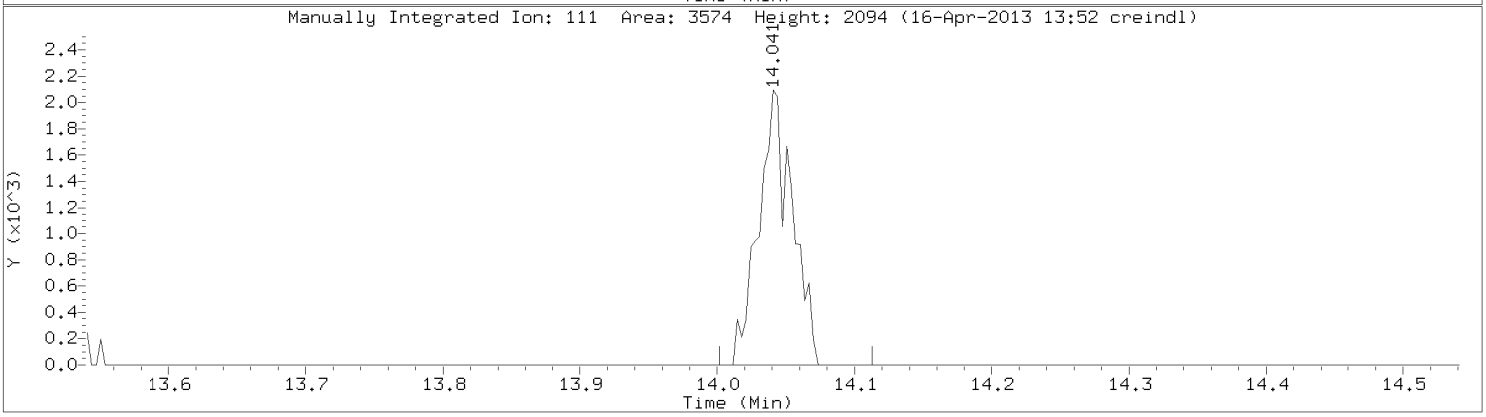
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1

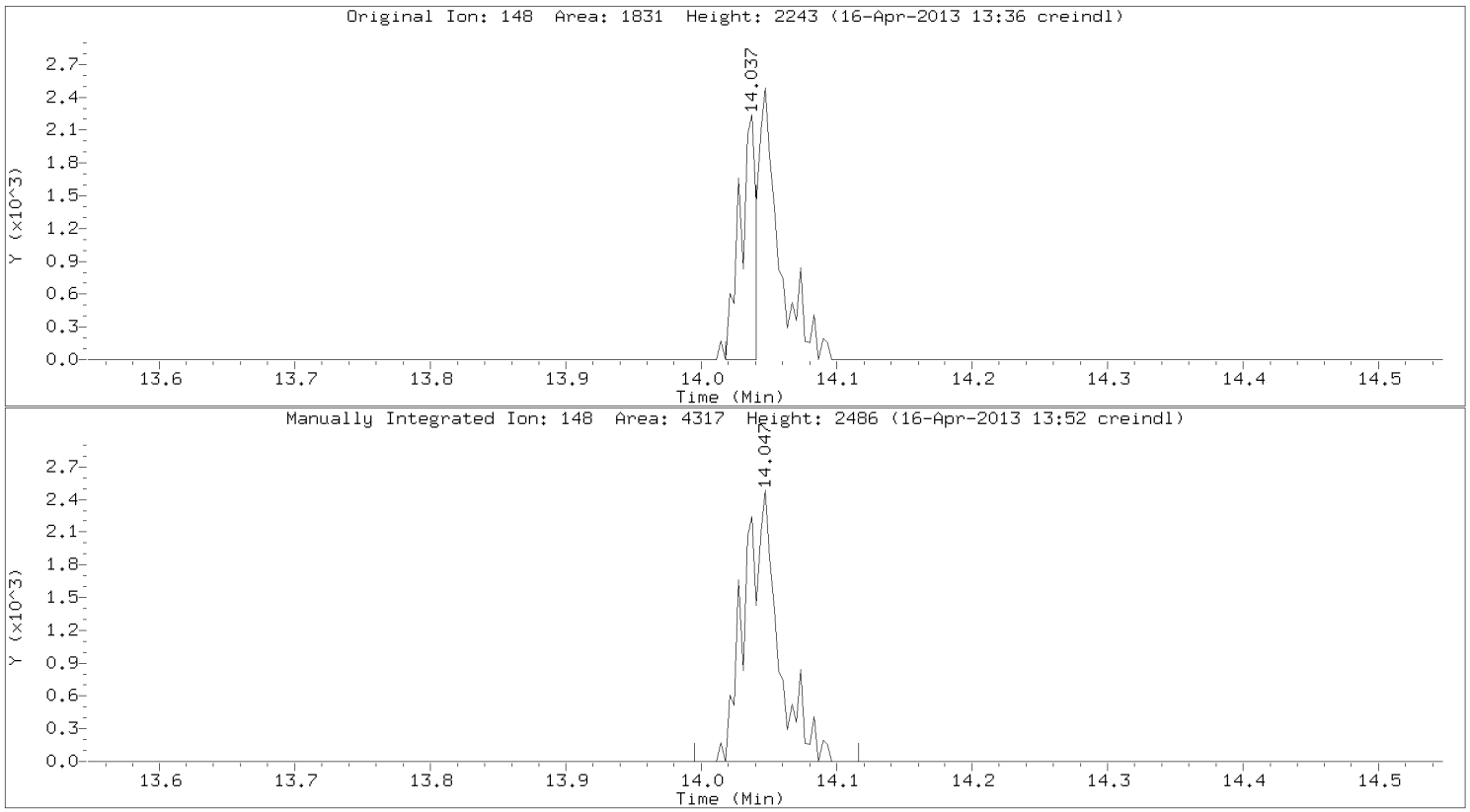






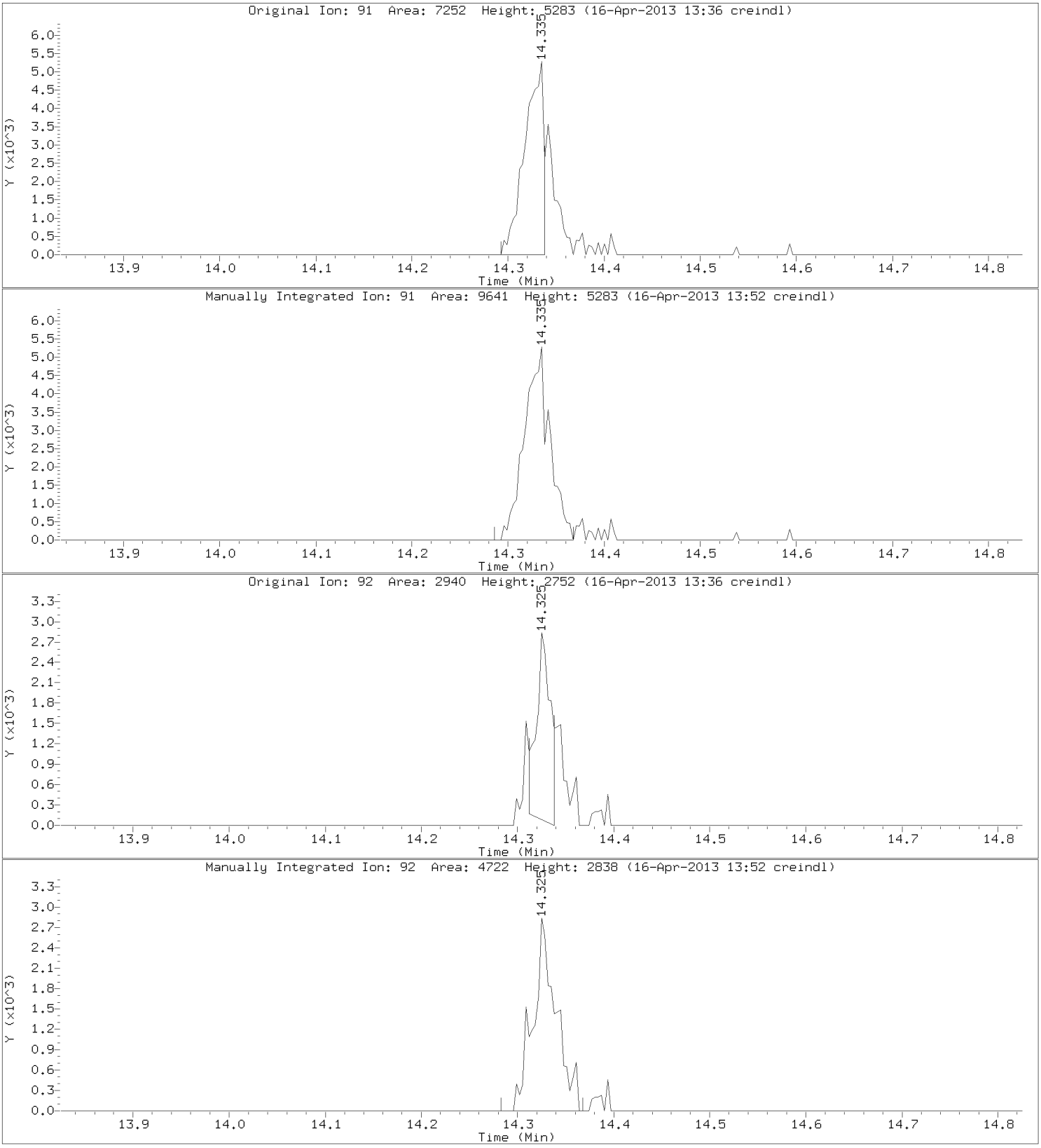


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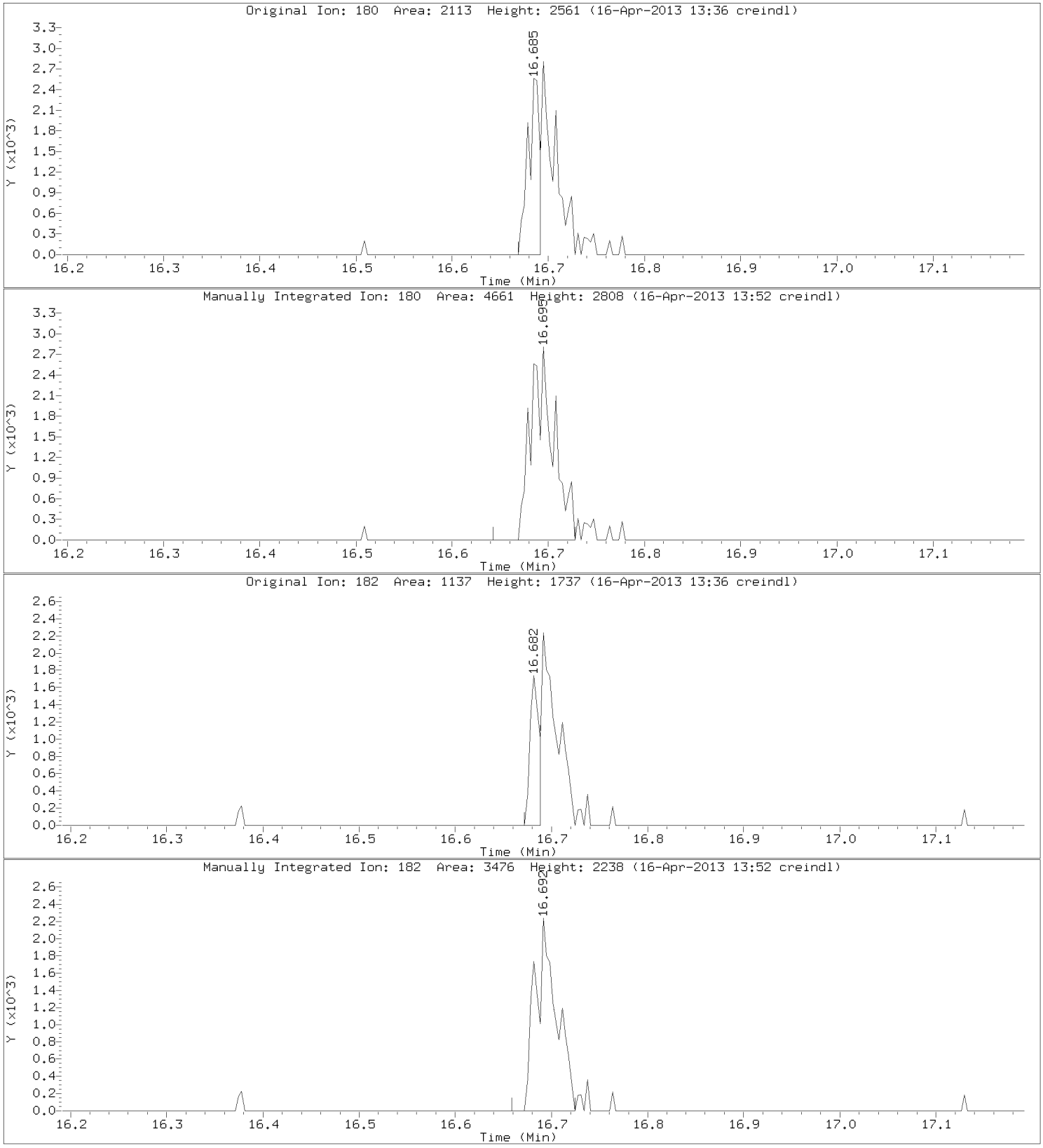
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: N-Butylbenzene
CAS Number: 104-51-8

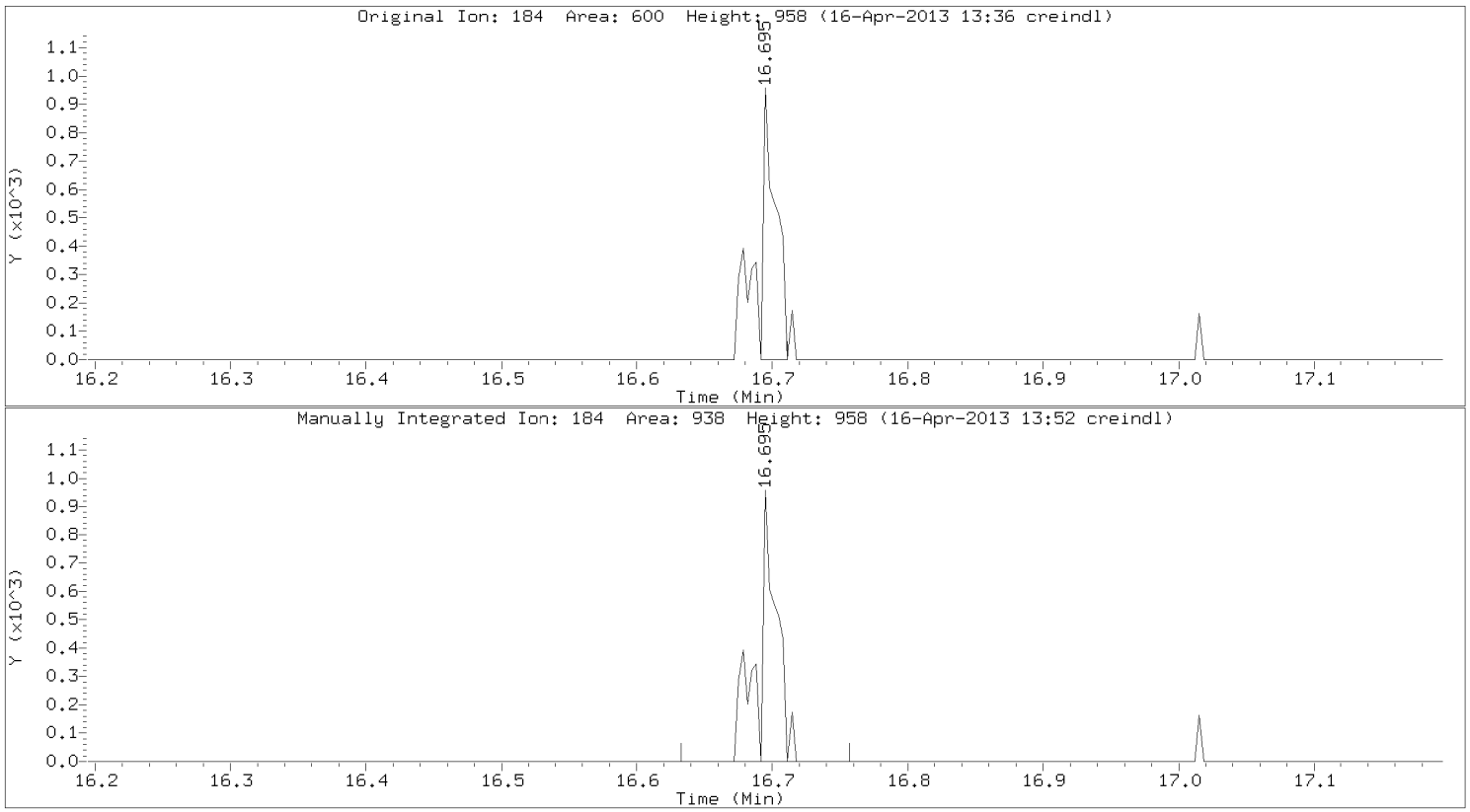


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,2,4-Trichlorobenzene
CAS Number: 95-63-6

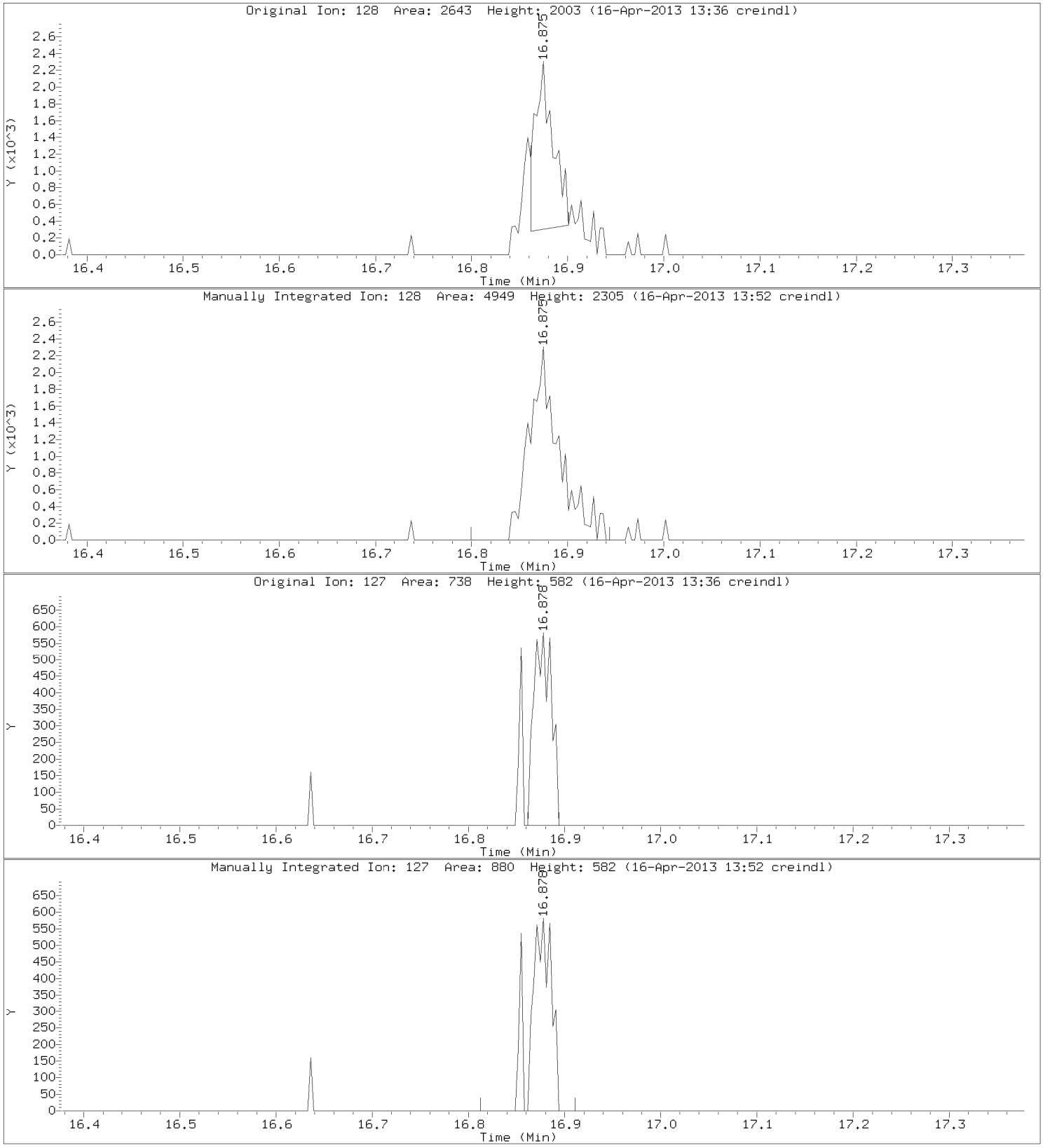


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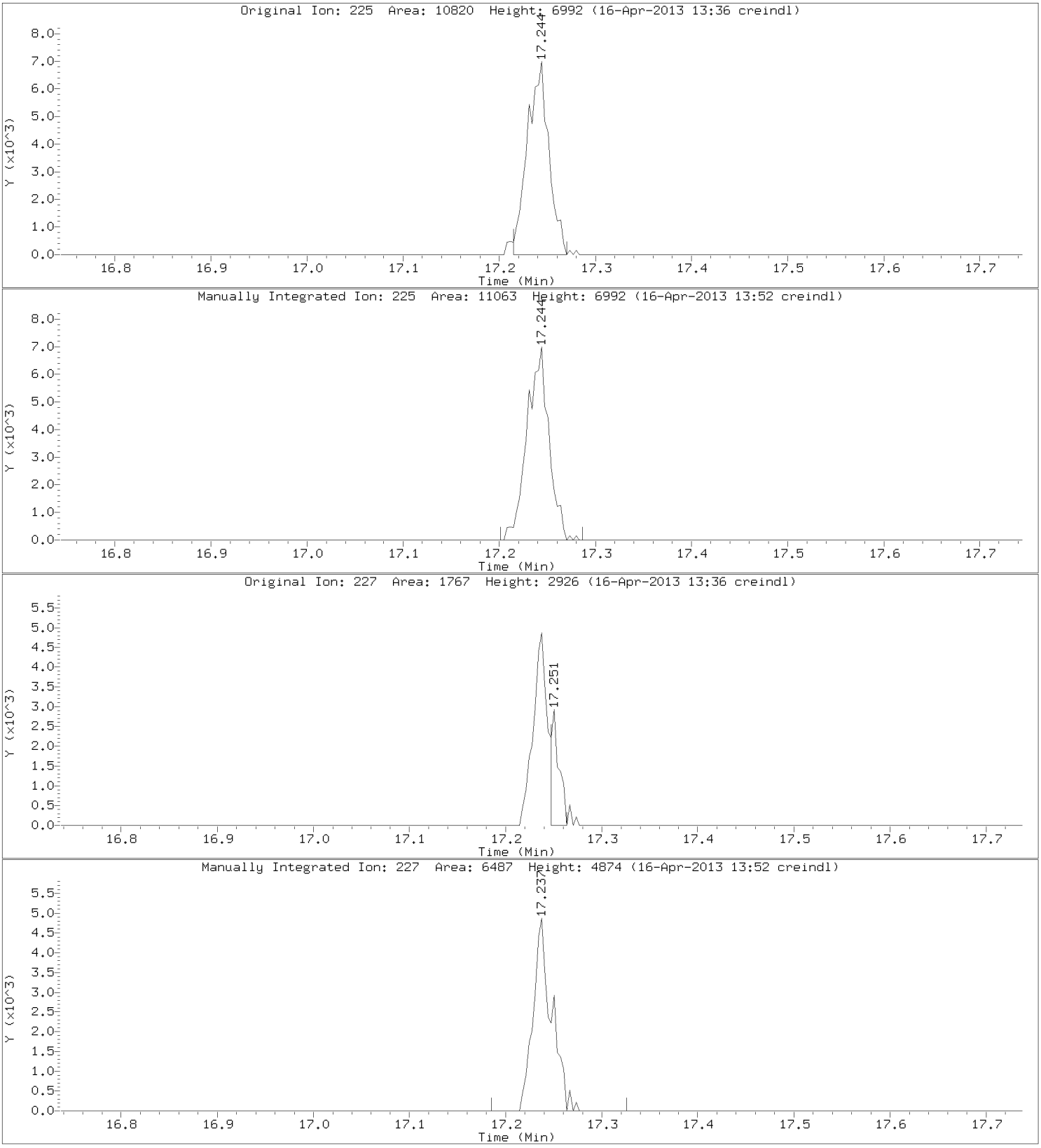
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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Naphthalene
CAS Number: 91-20-3

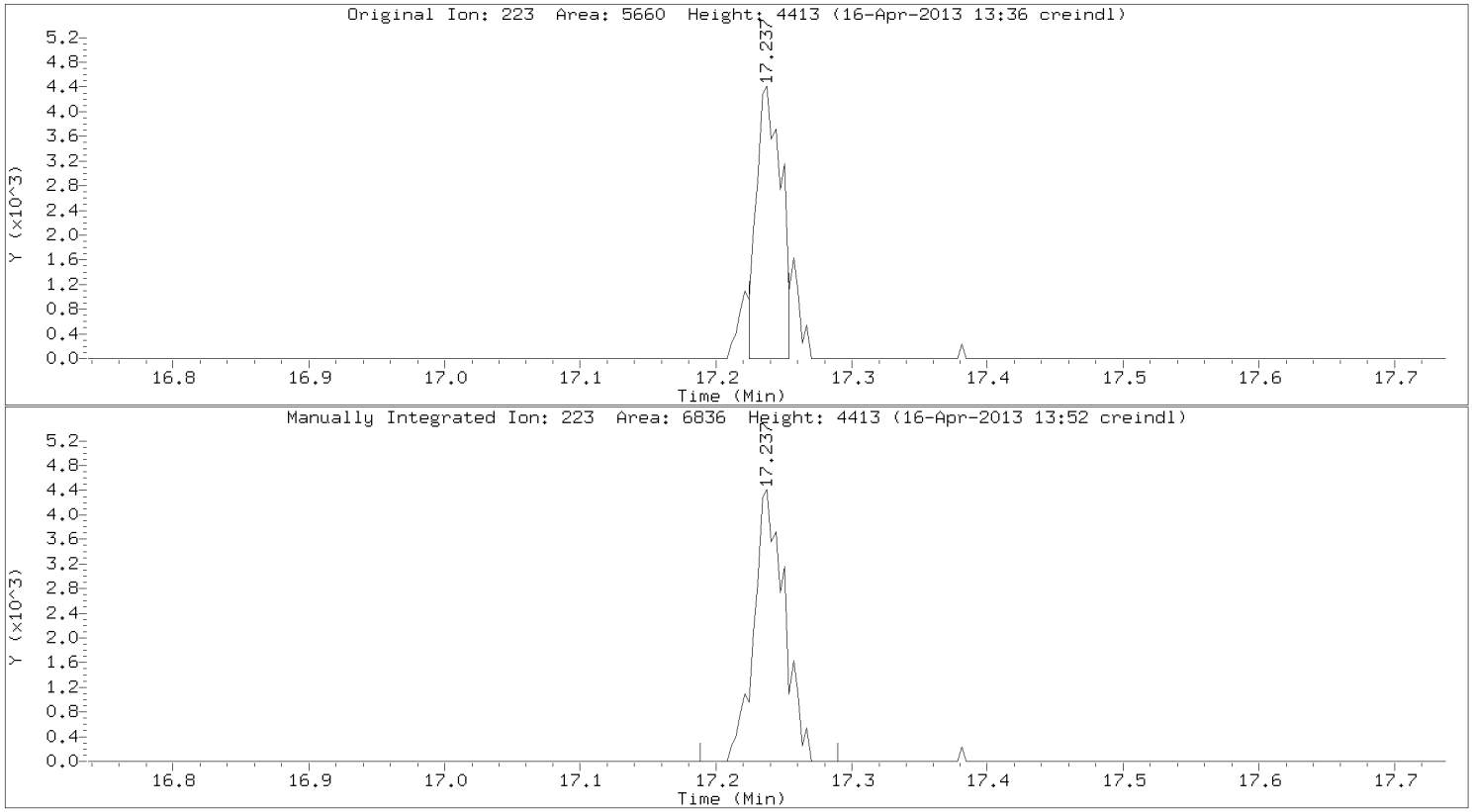


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Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Data File: \\192.168.10.12\chem\10airD.i\041613.B/10606.d
Injection Date: 16-APR-2013 11:10
Instrument: 10airD.i
Lab Sample ID: ICAL2



Data File: \\192.168.10.12\chem\10airD.i\041613.B\10607.d
Report Date: 16-Apr-2013 13:56

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041613.B\10607.d
Lab Smp Id: ICAL3
Inj Date : 16-APR-2013 11:40
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Meth Date : 16-Apr-2013 13:39 10airD.i Quant Type: ISTD
Cal Date : 16-APR-2013 11:40 Cal File: 10607.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.927	2.927	(0.483)	4085	0.50000	0.453(M)
2	Dichlorodifluoromethane	85	2.950	2.950	(0.487)	73411	0.50000	0.490
3	Dichlorotetrafluoroethane	85	3.045	3.045	(0.503)	56371	0.50000	0.474
4	Chloromethane	50	3.051	3.051	(0.504)	14860	0.50000	0.459(M)
5	Vinyl chloride	62	3.136	3.136	(0.518)	17056	0.50000	0.470
6	1,3-Butadiene	54	3.179	3.179	(0.525)	7885	0.50000	0.453
7	Bromomethane	94	3.339	3.339	(0.551)	19688	0.50000	0.490
8	Chloroethane	64	3.398	3.398	(0.561)	8176	0.50000	0.444(M)
9	Ethanol	31	3.437	3.437	(0.567)	13531	0.50000	0.547(M)
10	Vinyl Bromide	106	3.528	3.528	(0.582)	15721	0.50000	0.466
11	Acrolein	56	3.636	3.636	(0.600)	4181	0.50000	0.481(M)
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	68620	0.50000	0.498
13	Acetone	43	3.685	3.685	(0.608)	50954	0.50000	0.438(M)
14	Isopropyl Alcohol	45	3.708	3.708	(0.612)	19247	0.50000	0.486(M)
15	1,1-Dichloroethene	61	3.930	3.930	(0.649)	31724	0.50000	0.469
16	Acrylonitrile	53	3.940	3.940	(0.650)	10350	0.50000	0.470(M)
17	Tert Butyl Alcohol	59	3.937	3.937	(0.650)	27648	0.50000	0.474(M)
18	Freon 113	101	3.979	3.979	(0.657)	42093	0.50000	0.483
19	Methylene chloride	49	4.038	4.038	(0.667)	20436	0.50000	0.511
20	Allyl Chloride	76	4.058	4.058	(0.670)	7775	0.50000	0.457(M)
21	Carbon Disulfide	76	4.176	4.176	(0.689)	59610	0.50000	0.471
22	trans-1,2-dichloroethene	96	4.375	4.375	(0.722)	18706	0.50000	0.465(M)
23	Methyl Tert Butyl Ether	73	4.411	4.411	(0.728)	40181	0.50000	0.465(M)
24	Vinyl Acetate	43	4.535	4.535	(0.749)	33530	0.50000	0.478(M)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10607.d
Report Date: 16-Apr-2013 13:56

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	25 1,1-Dichloroethane	63	4.532	4.532	(0.748)	38497	0.50000	0.502
$	26 Hexane-d14(S)	66	4.656	4.656	(0.769)	613876	10.0000	10.1
	27 Methyl Ethyl Ketone	72	4.741	4.741	(0.783)	8926	0.50000	0.472(M)
	28 n-Hexane	57	4.774	4.774	(0.788)	31440	0.50000	0.518(M)
	29 cis-1,2-Dichloroethene	96	4.931	4.931	(0.814)	15587	0.50000	0.506
	30 Ethyl Acetate	43	4.960	4.960	(0.819)	23793	0.50000	0.464(M)
	31 Chloroform	83	5.074	5.074	(0.838)	51918	0.50000	0.489
	32 Tetrahydrofuran	42	5.297	5.297	(0.874)	8563	0.50000	0.571(M)
	33 1,1,1-Trichloroethane	97	5.561	5.561	(0.918)	46236	0.50000	0.450
	34 1,2-Dichloroethane	62	5.581	5.581	(0.921)	37730	0.50000	0.473
	35 Benzene	78	5.846	5.846	(0.965)	66225	0.50000	0.532
	36 Carbon tetrachloride	117	5.872	5.872	(0.969)	49649	0.50000	0.483
	37 Cyclohexane	56	5.879	5.879	(0.970)	15549	0.50000	0.557
*	38 1,4-Difluorobenzene	114	6.058	6.058	(1.000)	1357521	10.0000	
	39 2,2,4-Trimethylpentane	57	6.235	6.235	(1.029)	45305	0.50000	0.539(M)
	40 Heptane	43	6.415	6.415	(1.059)	14902	0.50000	0.580
	41 1,2-Dichloropropane	63	6.477	6.477	(1.069)	15953	0.50000	0.471(M)
	42 Trichloroethene	130	6.503	6.503	(1.073)	15439	0.50000	0.477(M)
	43 1,4-Dioxane	88	6.647	6.647	(1.097)	6233	0.50000	0.432(M)
	44 Bromodichloromethane	83	6.624	6.624	(1.093)	49794	0.50000	0.465
	45 Methyl Isobutyl Ketone	43	7.212	7.212	(1.190)	14124	0.50000	0.494(M)
	46 cis-1,3-Dichloropropene	75	7.255	7.255	(1.197)	20340	0.50000	0.508(M)
	47 trans-1,3-Dichloropropene	75	7.748	7.748	(1.279)	15026	0.50000	0.504(M)
$	48 Toluene-d8 (S)	98	7.827	7.827	(1.292)	1233820	10.0000	9.97
	49 Toluene	91	7.915	7.915	(1.306)	94290	0.50000	0.555
	50 1,1,2-Trichloroethane	97	7.928	7.928	(1.309)	19451	0.50000	0.505
	51 Methyl Butyl Ketone	43	8.242	8.242	(0.852)	16043	0.50000	0.464(M)
	52 Dibromochloromethane	129	8.542	8.542	(0.883)	28881	0.50000	0.451
	53 1,2-Dibromoethane	107	8.807	8.807	(0.910)	26495	0.50000	0.492
	54 Tetrachloroethene	166	8.905	8.905	(0.920)	25677	0.50000	0.458(M)
*	55 Chlorobenzene - d5	117	9.677	9.677	(1.000)	742909	10.0000	
	56 Chlorobenzene	112	9.726	9.726	(1.005)	36166	0.50000	0.446
	57 Ethyl Benzene	91	10.030	10.030	(1.036)	52426	0.50000	0.458
	58 m&p-Xylene	91	10.206	10.206	(1.055)	64368	0.50000	0.493
	59 Bromoform	173	10.644	10.644	(1.100)	28100	0.50000	0.414(M)
	60 Styrene	104	10.703	10.703	(1.106)	16825	0.50000	0.478(M)
	61 o-Xylene	91	10.772	10.772	(1.113)	61967	0.50000	0.495
	62 1,1,2,2-Tetrachloroethane	83	11.089	11.089	(1.146)	38219	0.50000	0.459
	63 Isopropylbenzene	105	11.452	11.452	(1.183)	67999	0.50000	0.439(M)
	64 N-Propylbenzene	91	12.122	12.122	(1.253)	55003	0.50000	0.387(M)
	65 4-Ethyltoluene	105	12.321	12.321	(1.273)	43638	0.50000	0.339(M)
	66 1,3,5-Trimethylbenzene	105	12.422	12.422	(1.284)	45775	0.50000	0.456
	67 1,2,4-Trimethylbenzene	105	13.021	13.021	(1.346)	32887	0.50000	0.436(M)
	68 1,3-Dichlorobenzene	146	13.370	13.370	(1.382)	24601	0.50000	0.440(MH)
	69 Sec- Butylbenzene	105	13.396	13.396	(1.384)	54138	0.50000	0.447
$	70 1,4-dichlorobenzene-d4 (S)	150	13.449	13.449	(1.390)	413361	10.0000	10.0
	71 Benzyl Chloride	91	13.481	13.481	(1.393)	33830	0.50000	0.518(M)
	72 1,4-Dichlorobenzene	146	13.498	13.498	(1.395)	29267	0.50000	0.478(M)
	73 1,2-Dichlorobenzene	146	14.040	14.040	(1.451)	20955	0.50000	0.497(M)
	74 N-Butylbenzene	91	14.328	14.328	(1.481)	35811	0.50000	0.438
	75 1,2,4-Trichlorobenzene	180	16.694	16.694	(1.725)	9345	0.50000	0.465(M)
	76 Naphthalene	128	16.868	16.868	(1.743)	10764	0.50000	0.464(M)
	77 Hexachlorobutadiene	225	17.237	17.237	(1.781)	21954	0.50000	0.635

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10607.d
Report Date: 16-Apr-2013 13:56

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10607.d
Report Date: 16-Apr-2013 13:56

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10607.d
Lab Smp Id: ICAL3
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Misc Info:

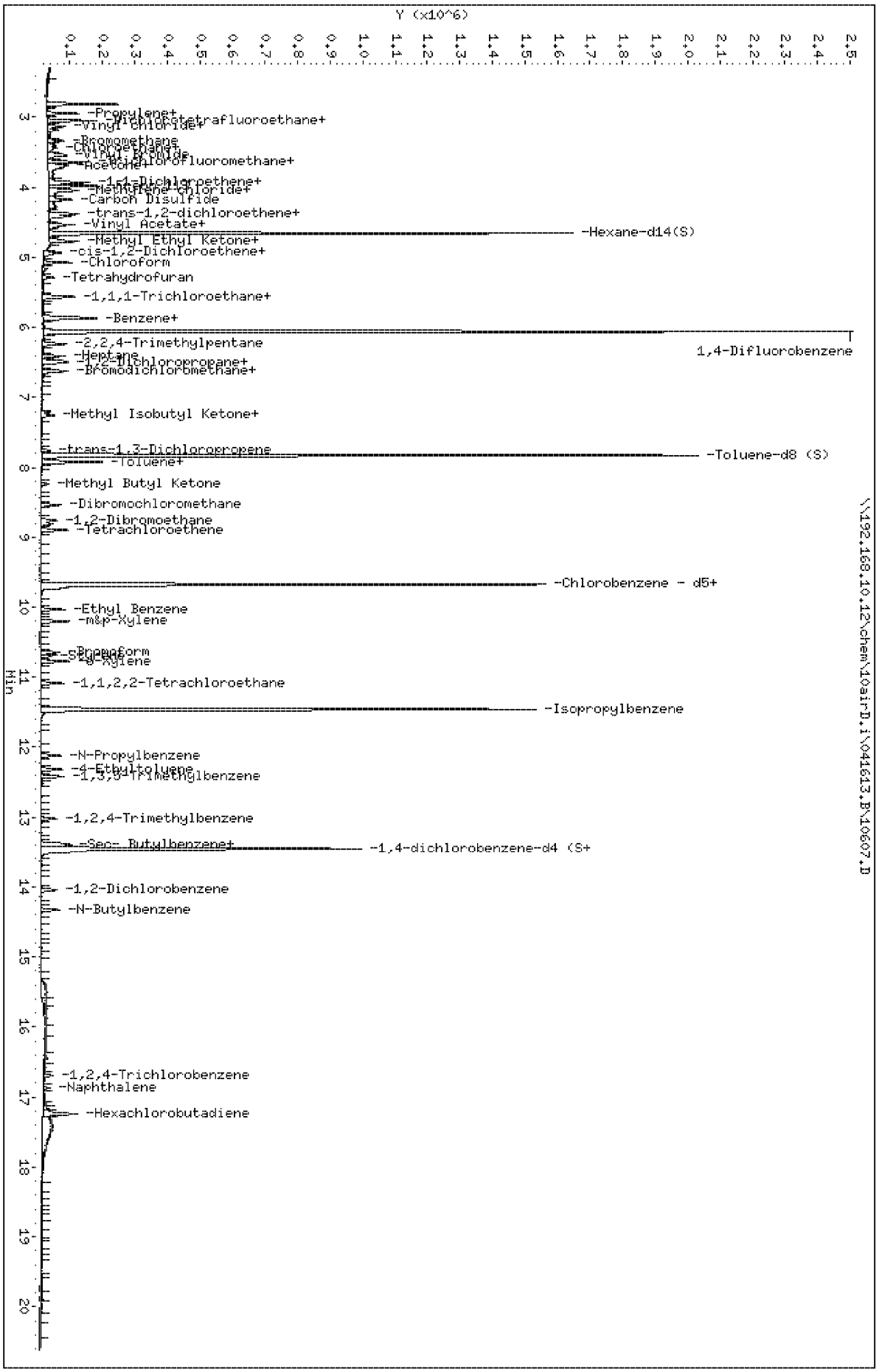
Calibration Date: 16-APR-2013
Calibration Time: 12:43
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1357521	-5.23
55 Chlorobenzene - d	825122	495073	1155171	742909	-9.96

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

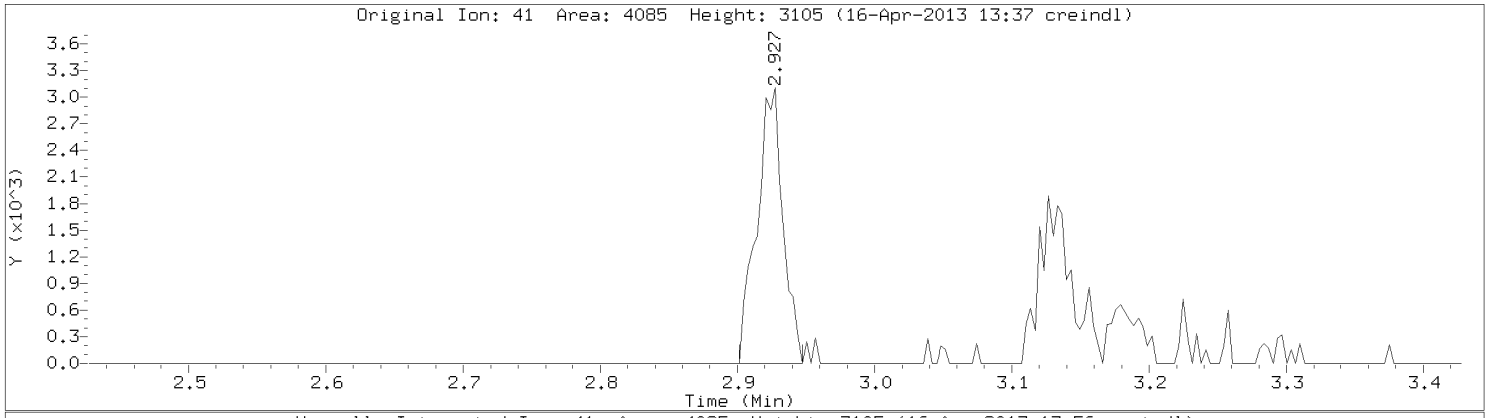


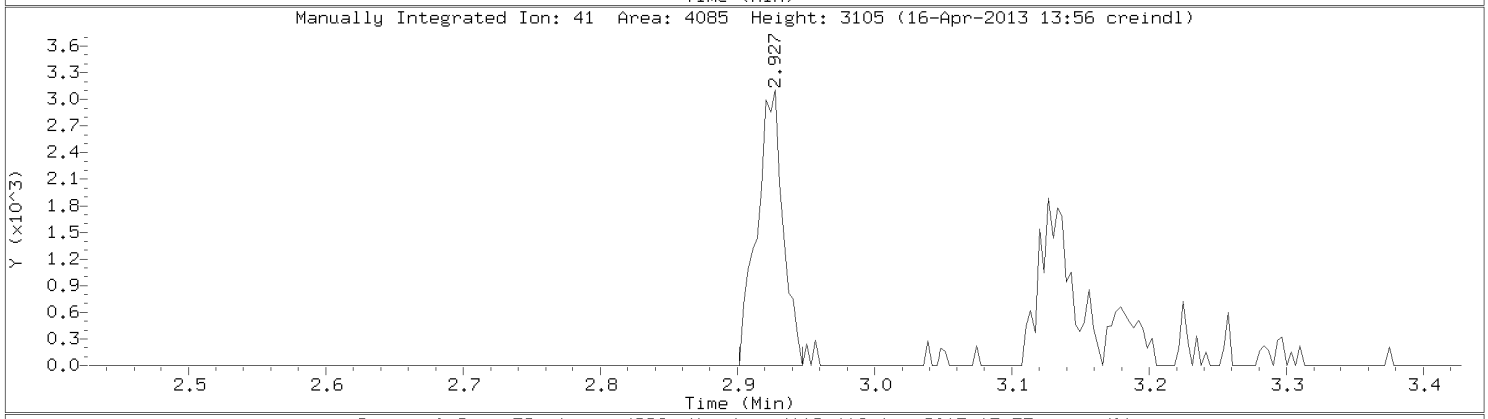
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Date : 16-APR-2013 11:40
Client ID:
Sample Info:
Column phase: J&W DB-5

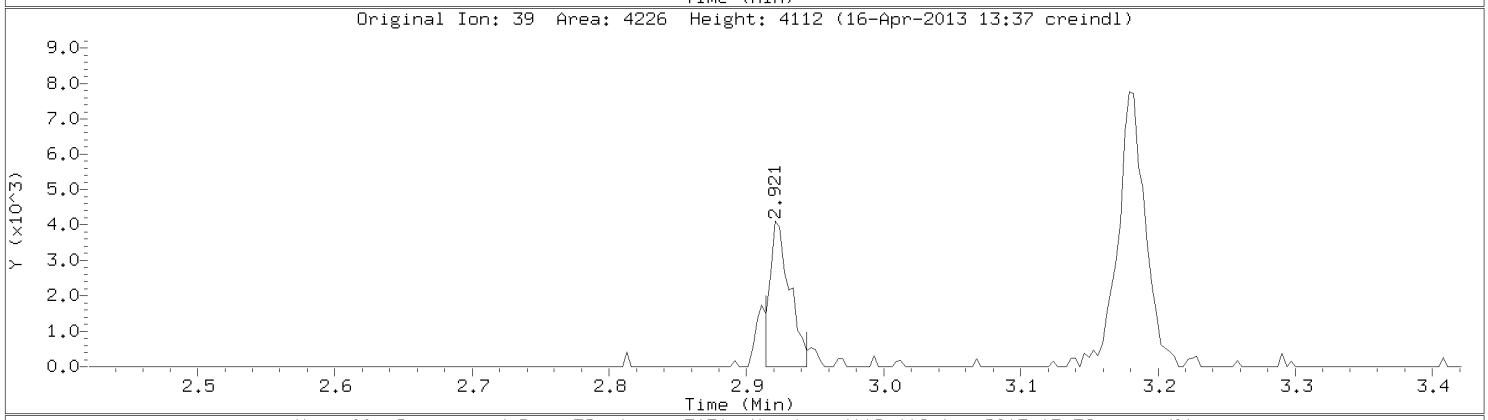
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Operator: CJR
Column diameter: 0.32

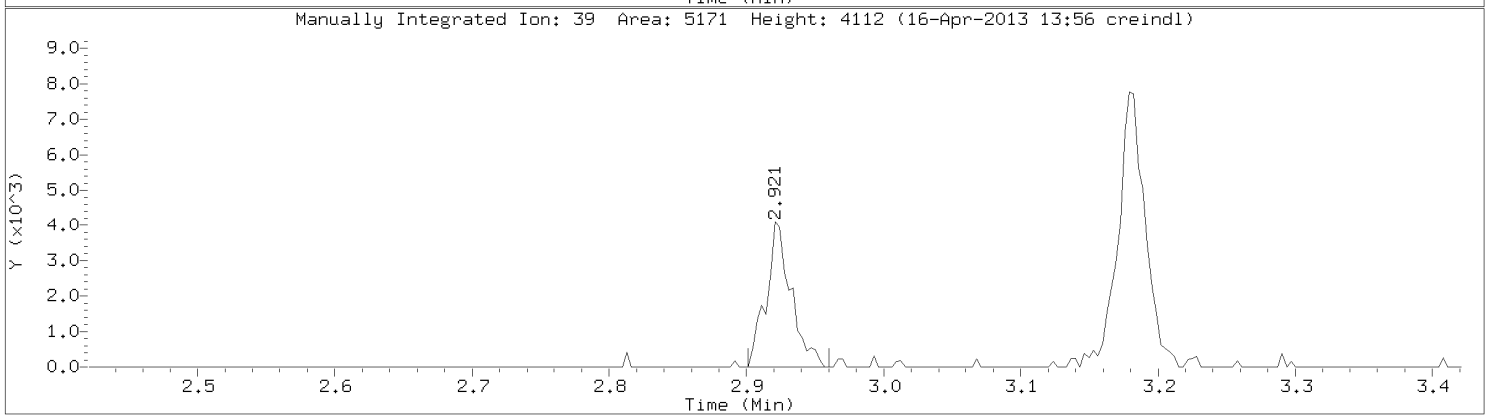
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Propylene
CAS Number: 76-14-2



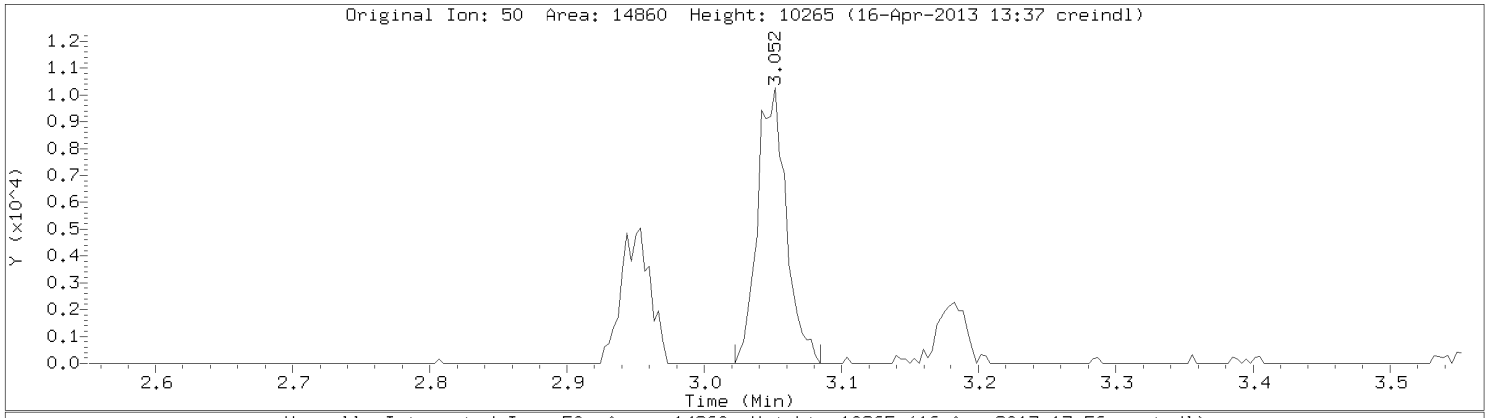


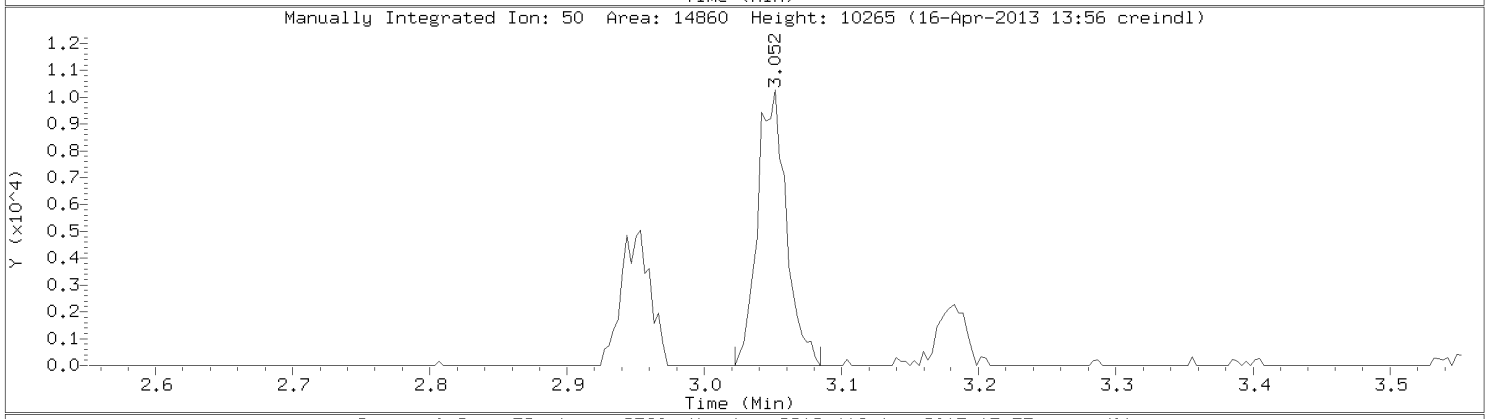


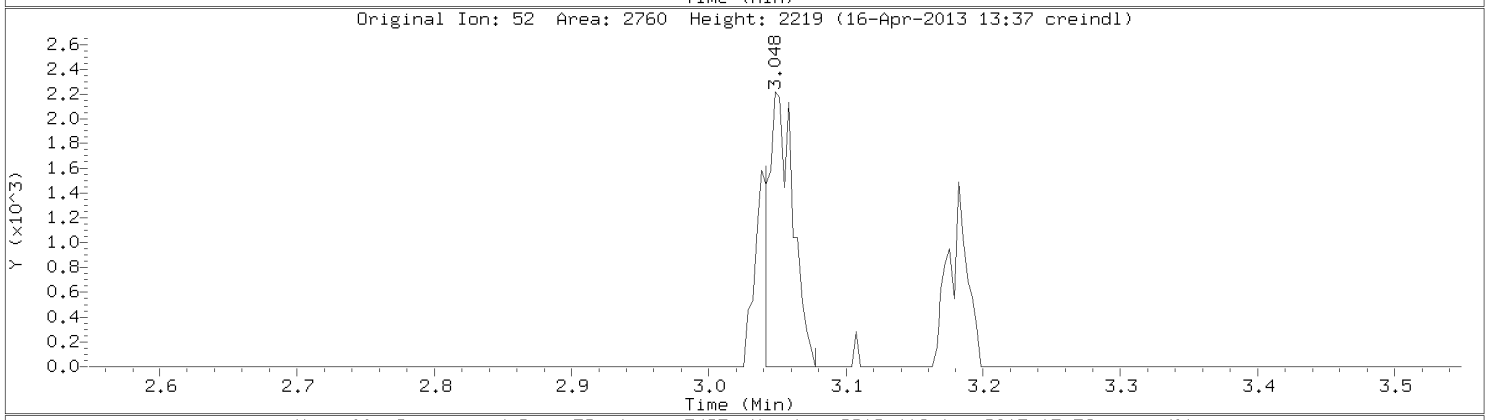


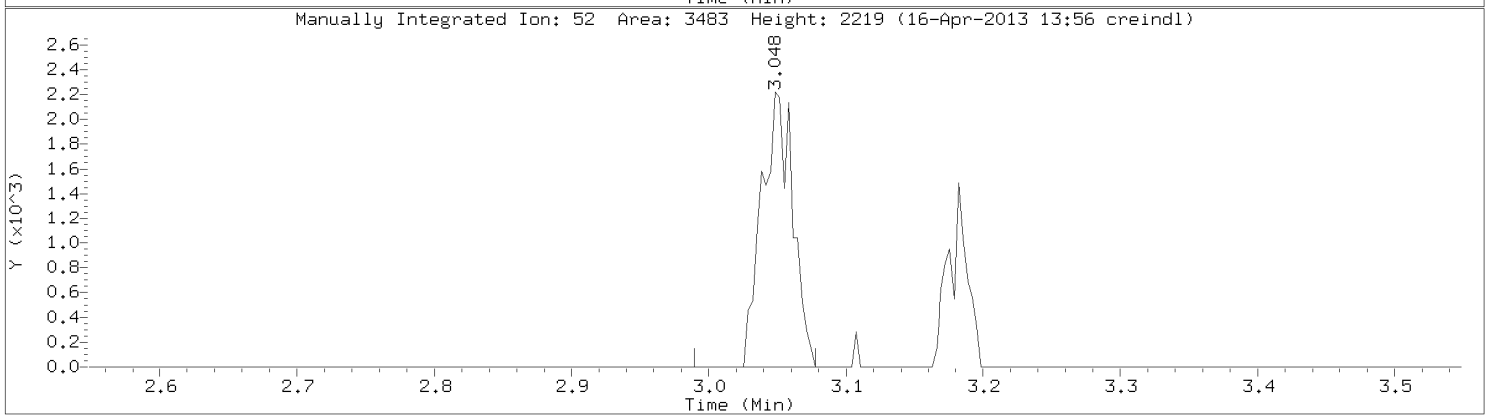
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Chloromethane
CAS Number: 74-87-3



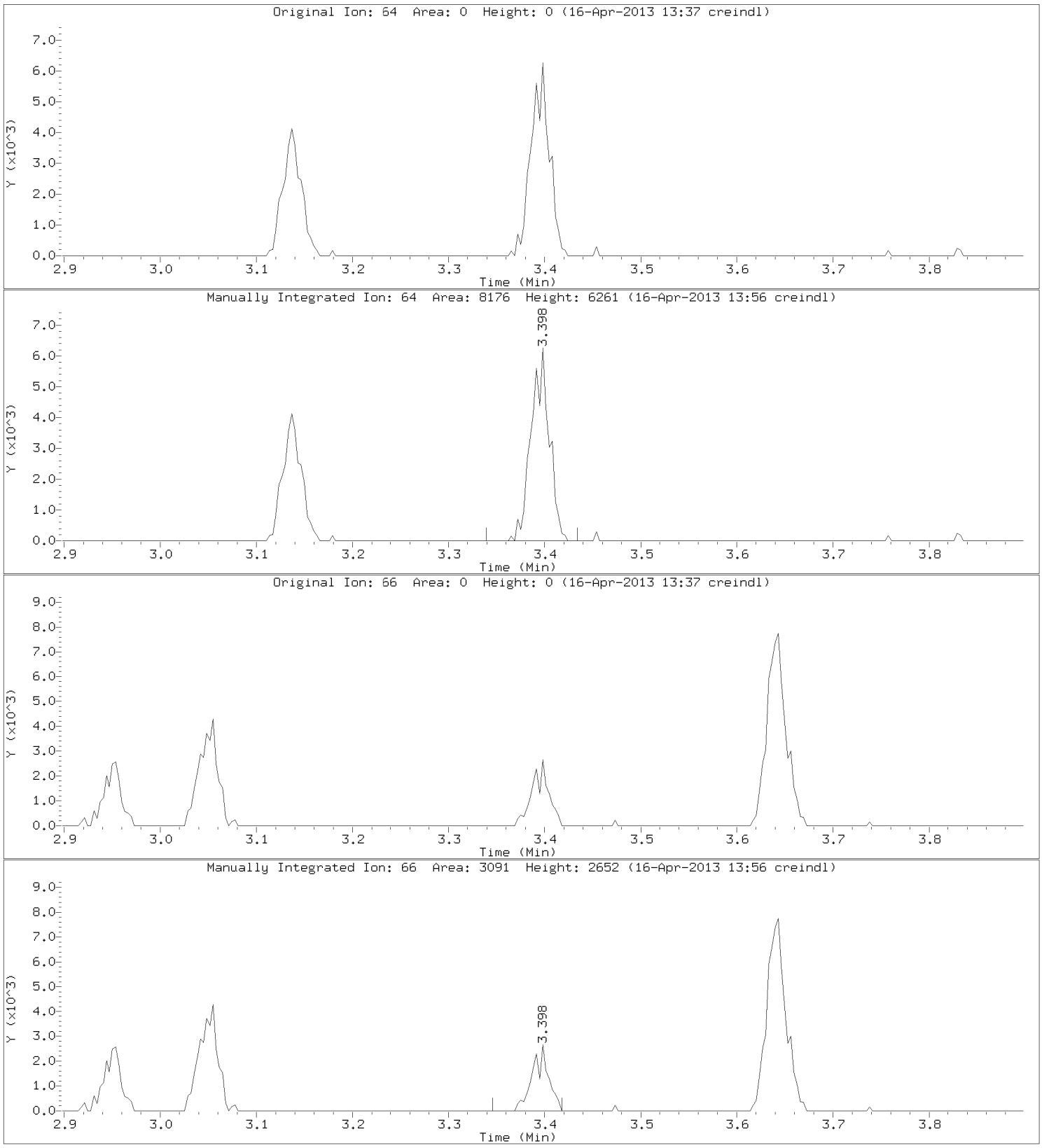






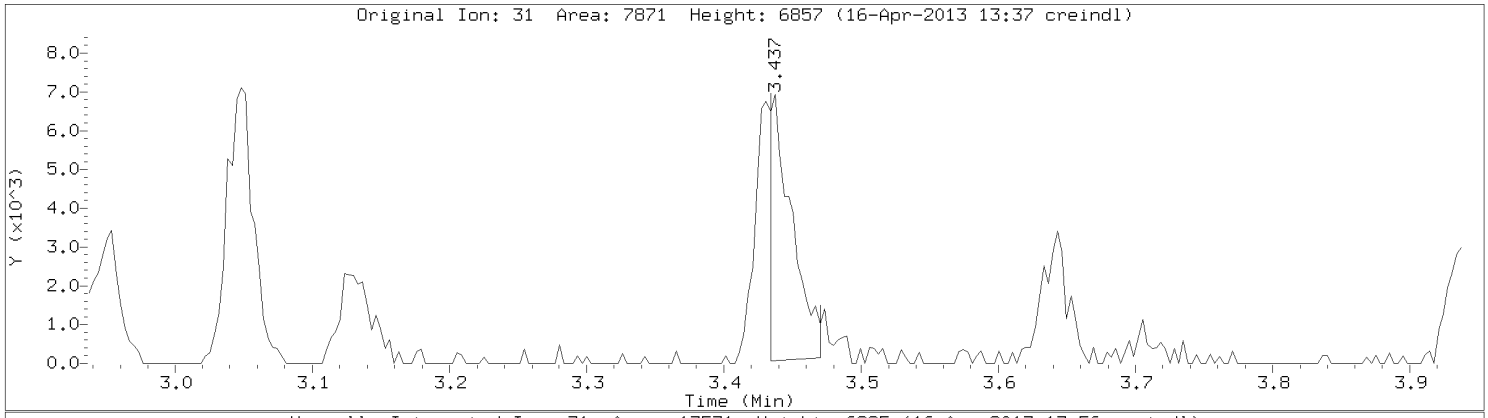
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Instrument: 10airD.i
Lab Sample ID: ICAL3

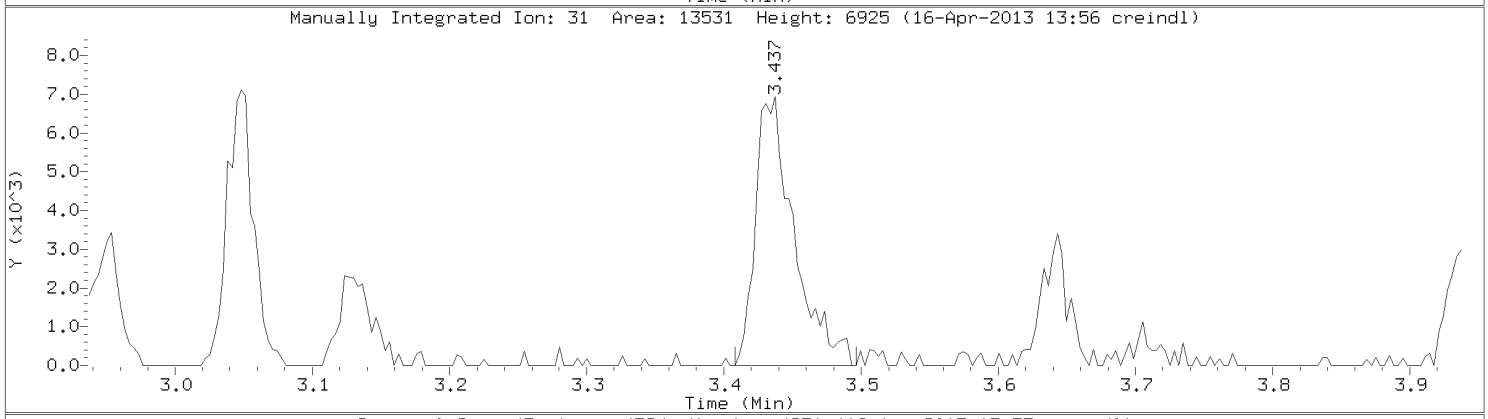
Compound: Chloroethane
CAS Number: 75-00-3

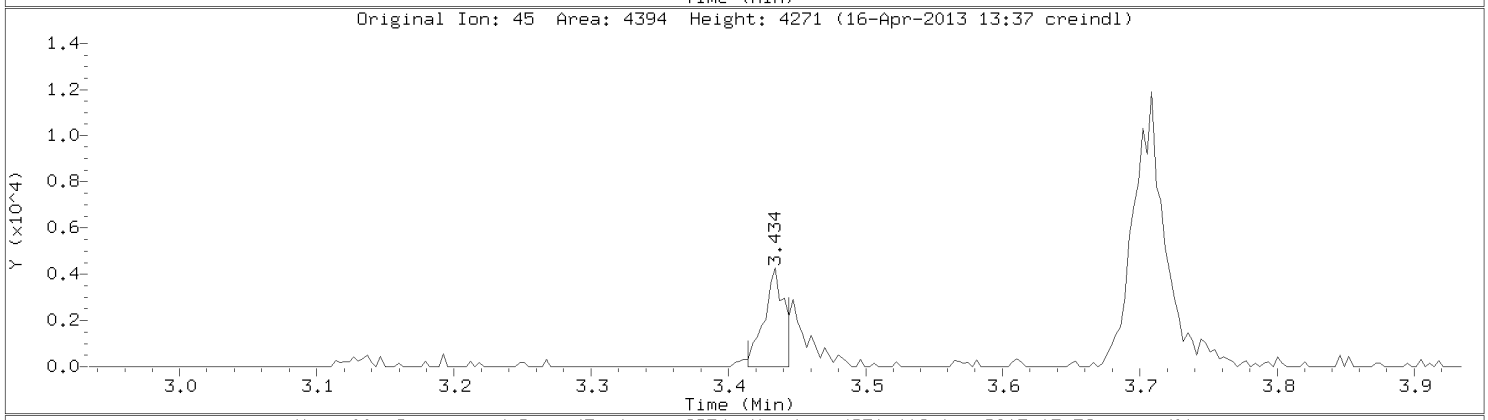


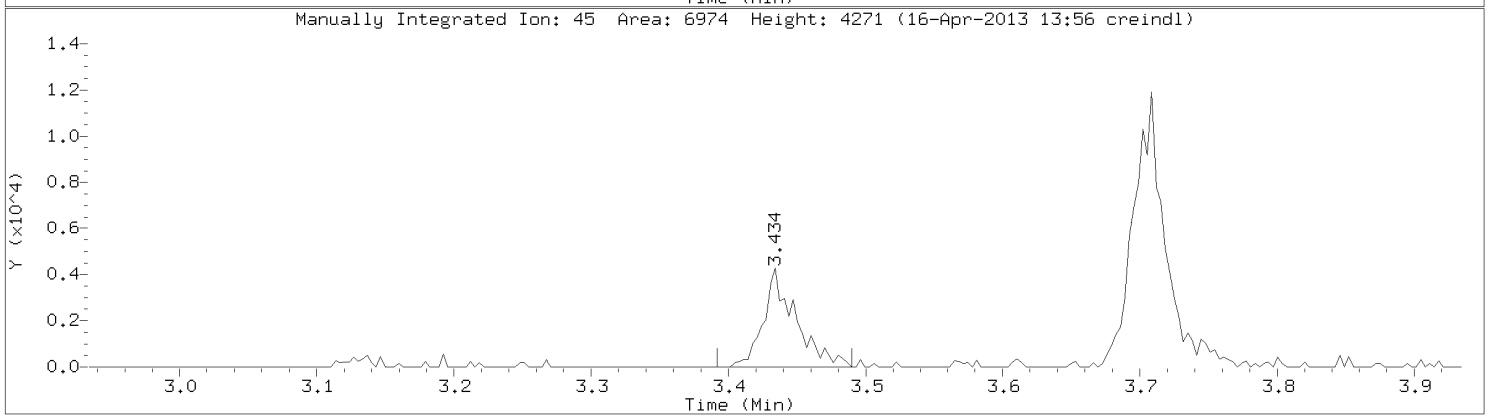
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Ethanol
CAS Number: 64-17-5



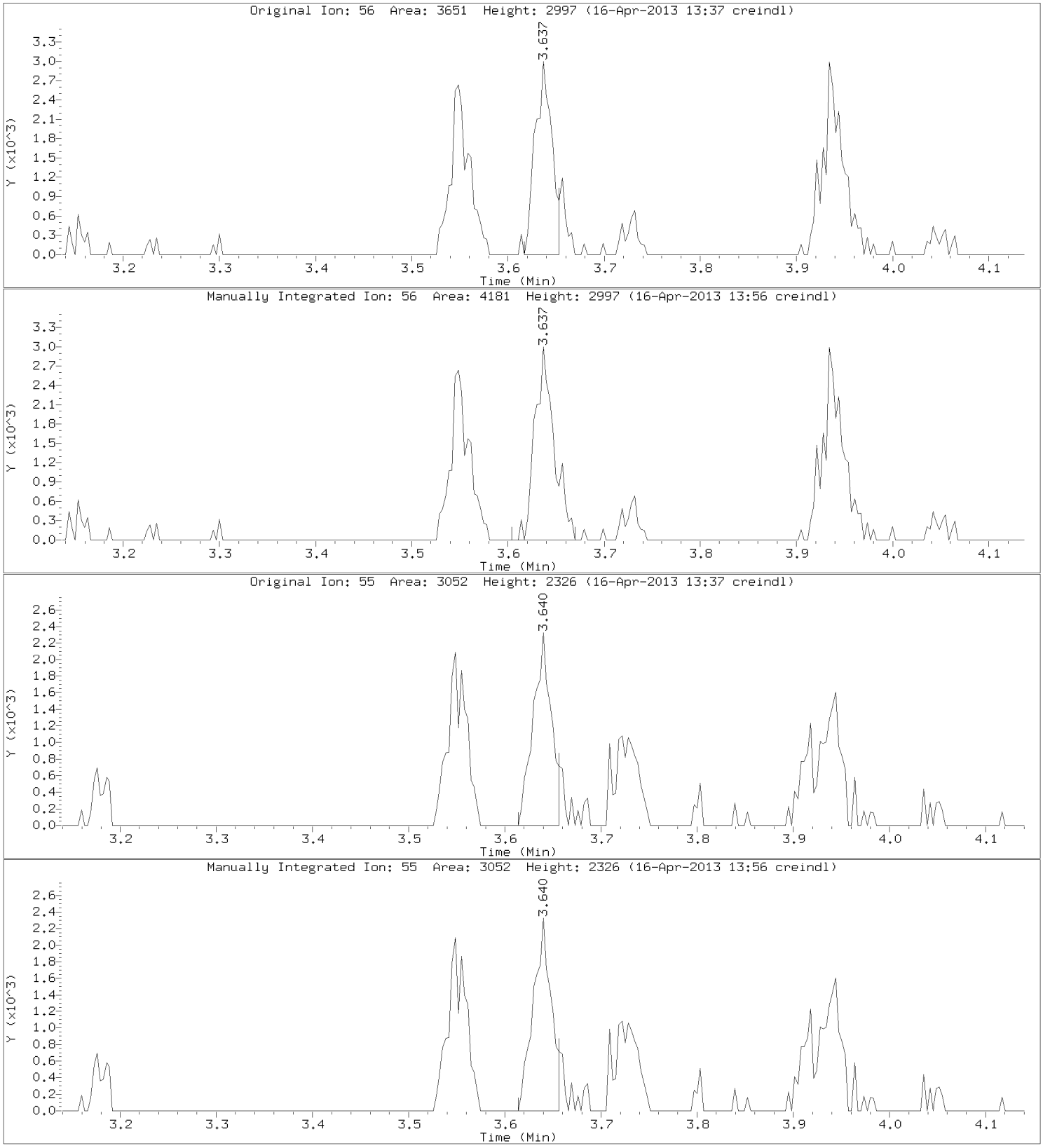






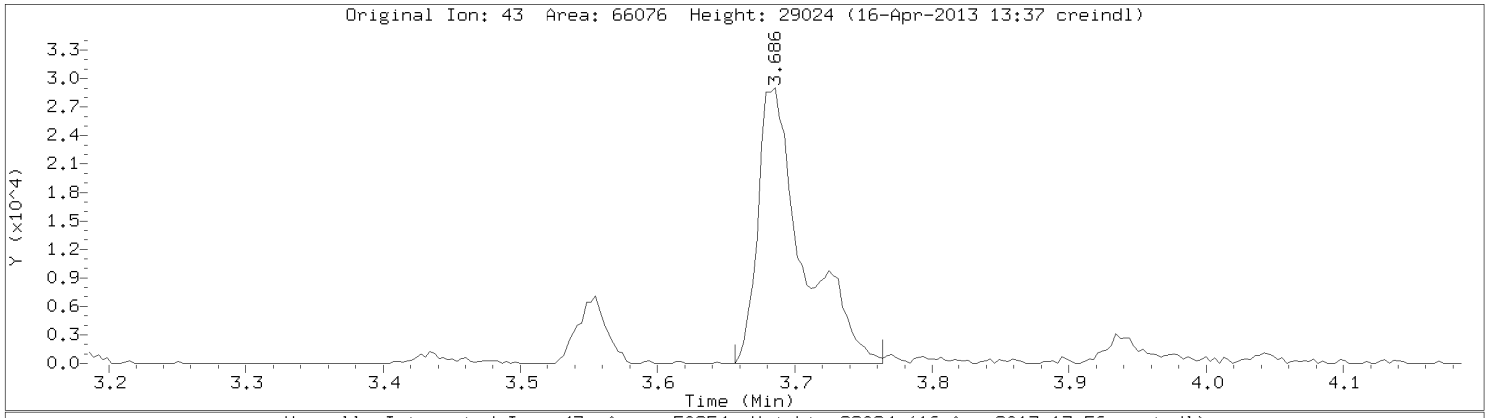
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Lab Sample ID: ICAL3

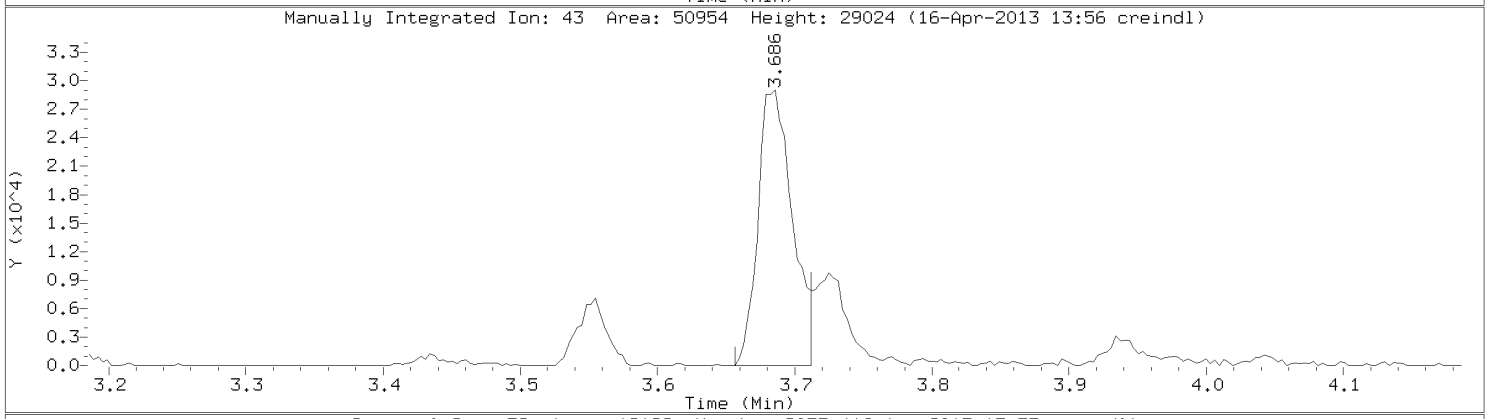
Compound: Acrolein
CAS Number: 107-02-08

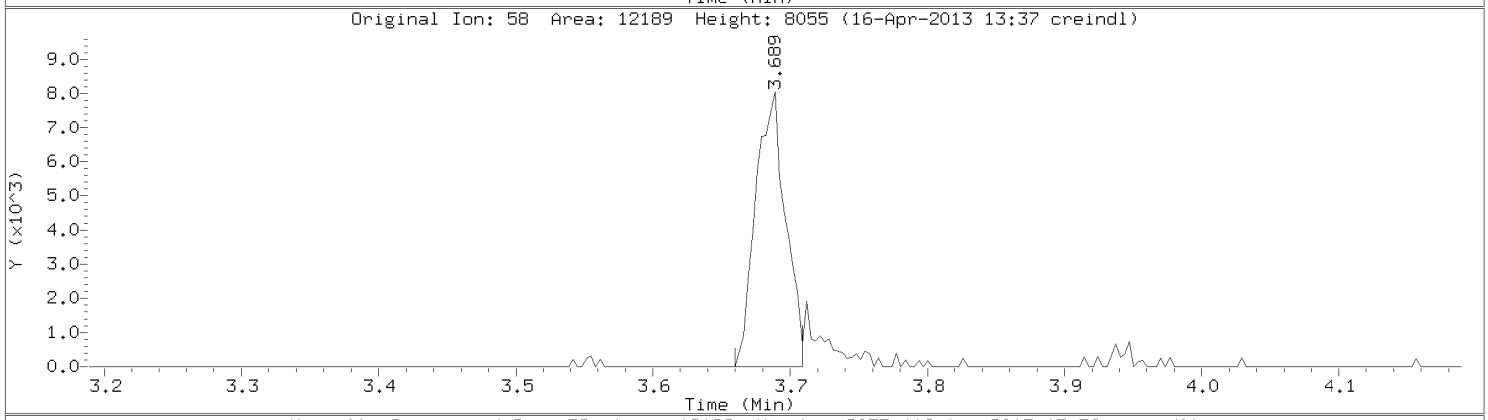


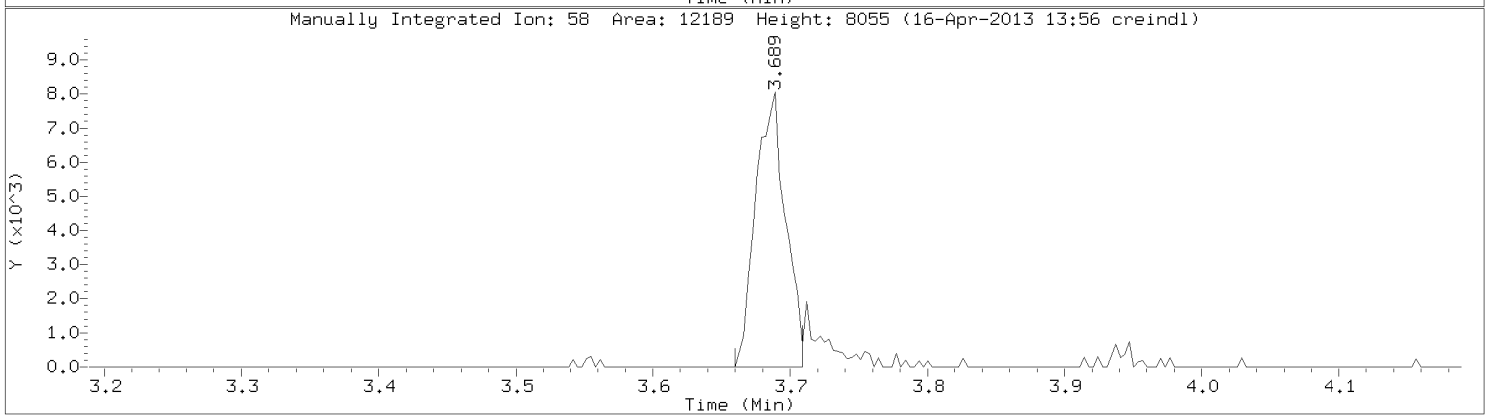
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Acetone
CAS Number: 67-64-1



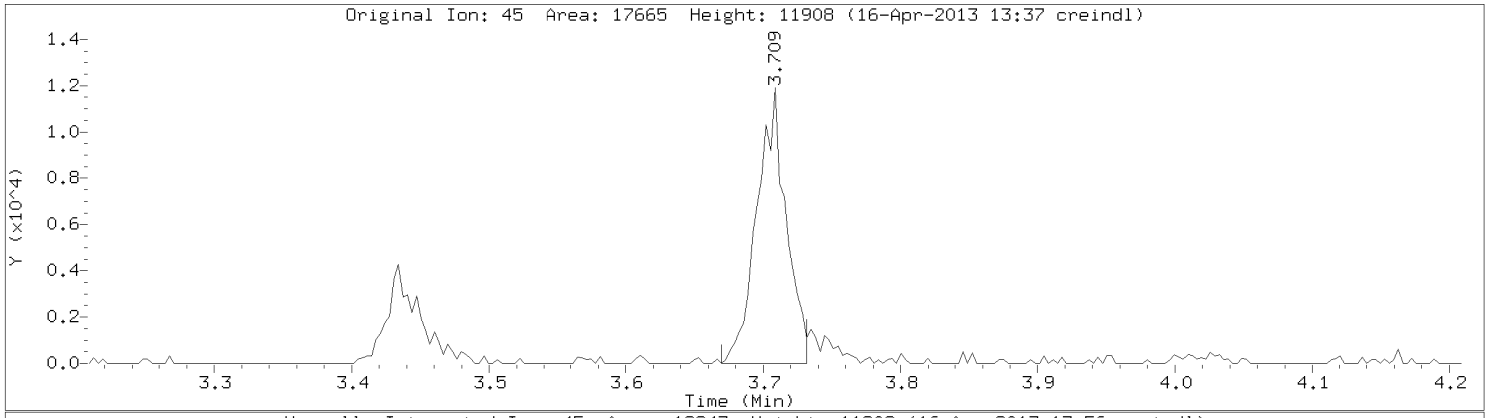


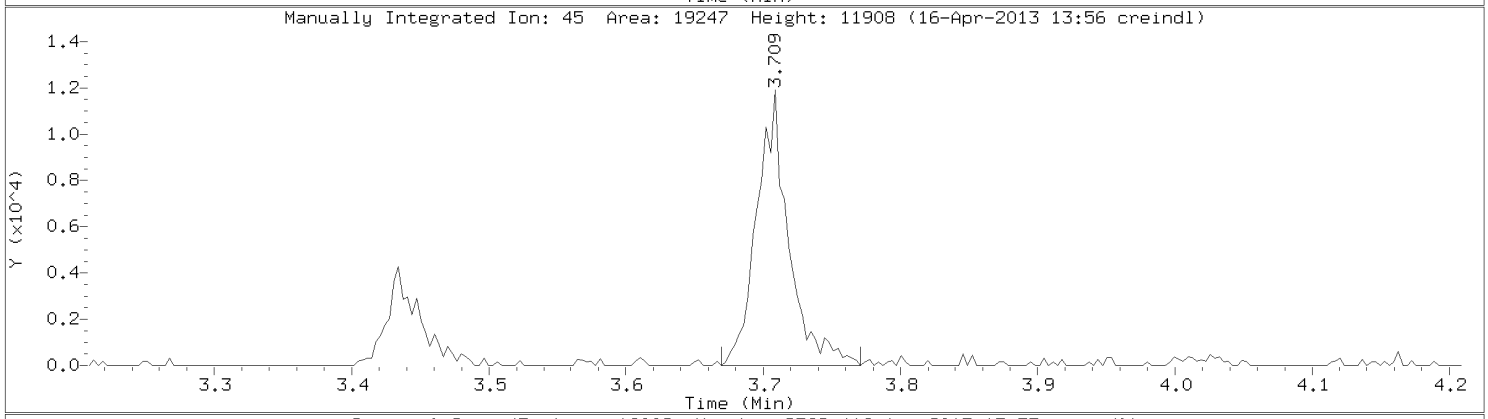


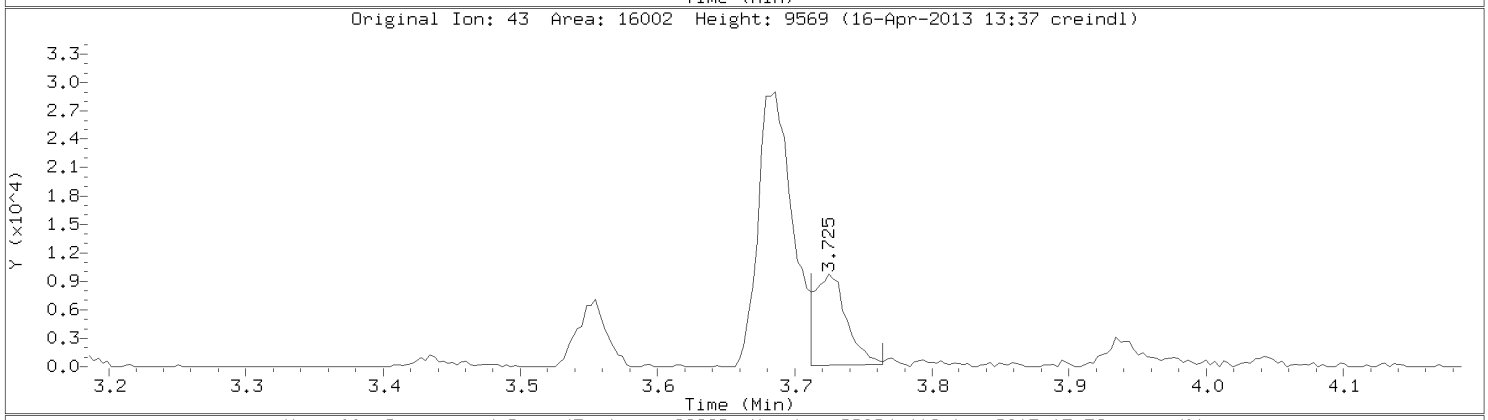


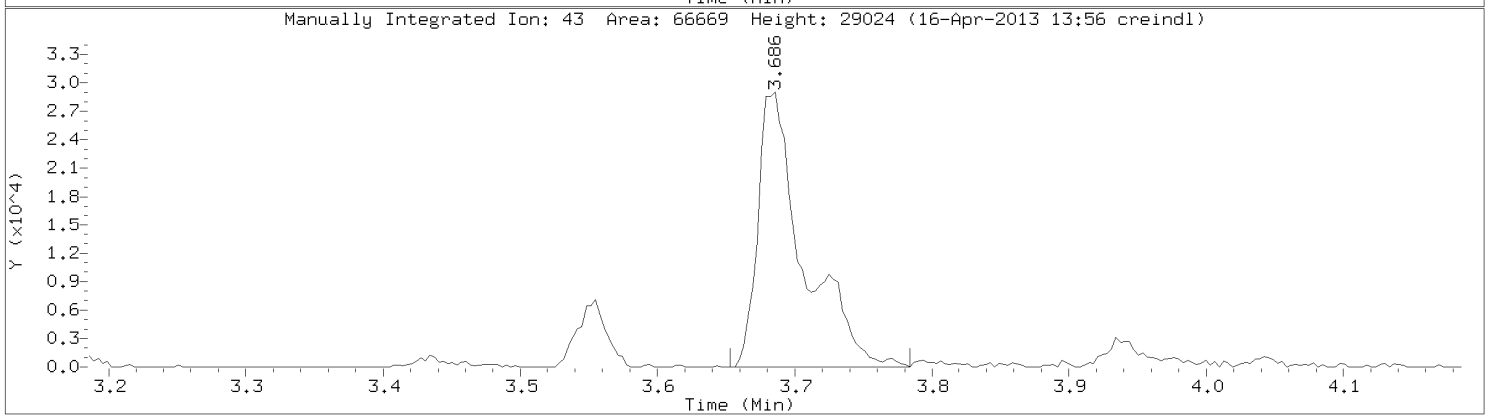
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Isopropyl Alcohol
CAS Number: 67-63-0



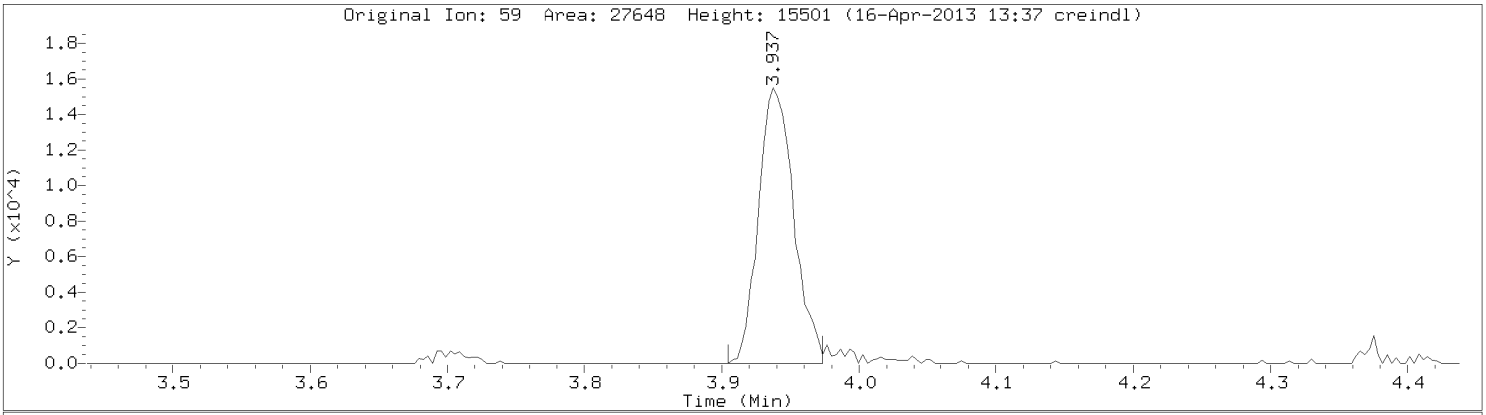


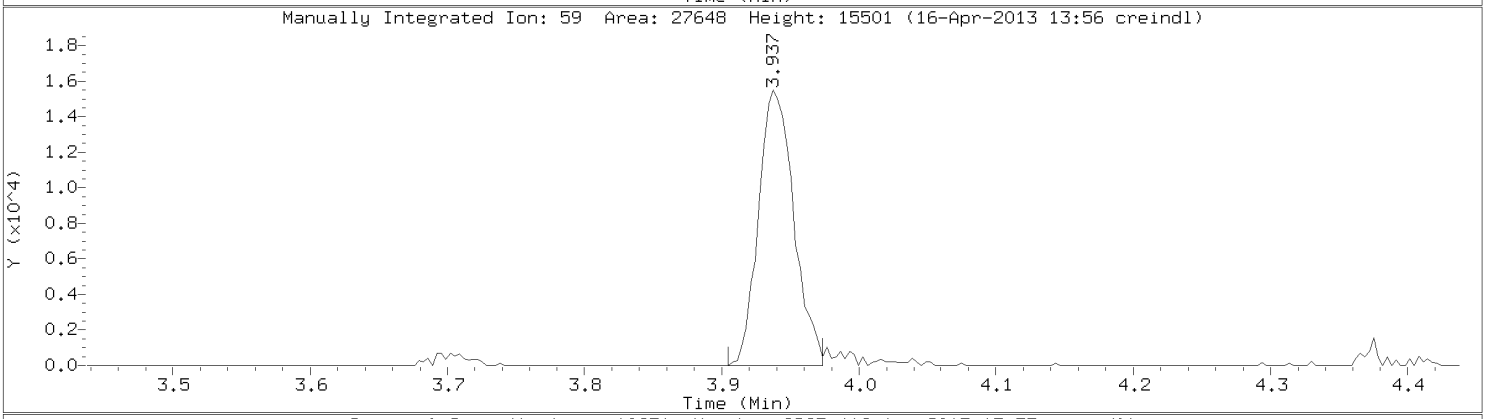


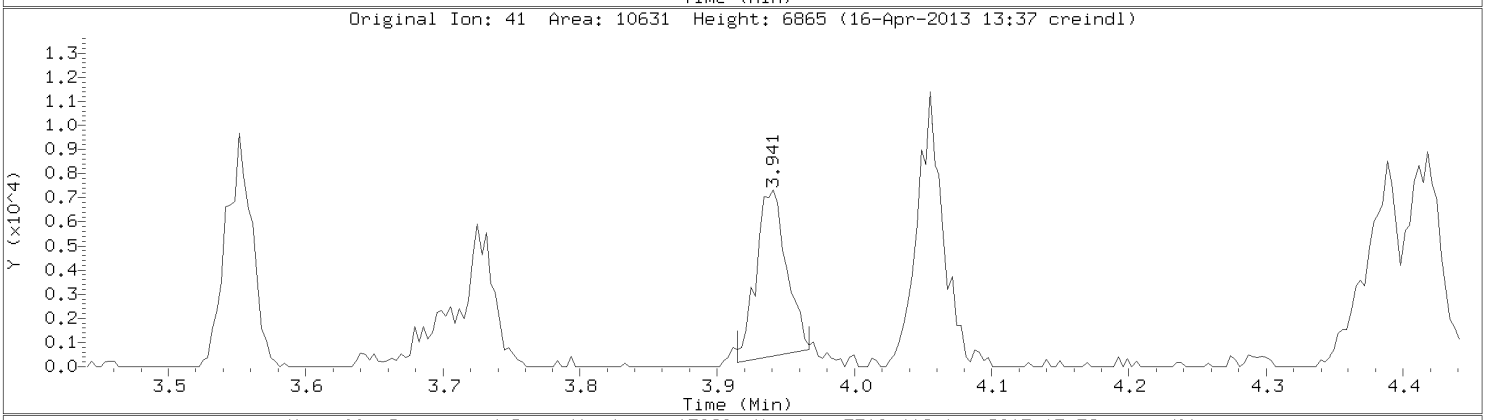


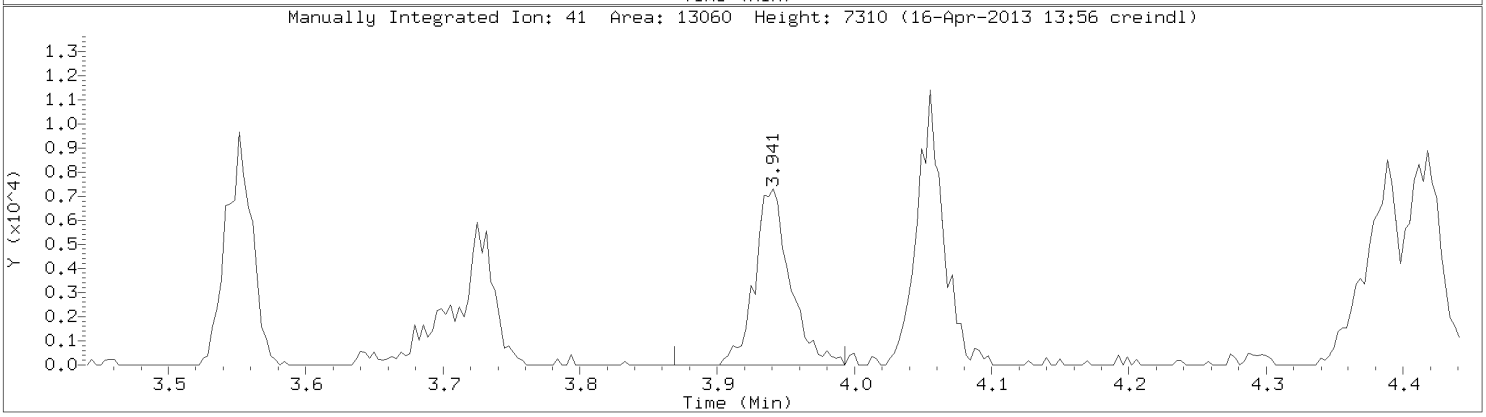
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



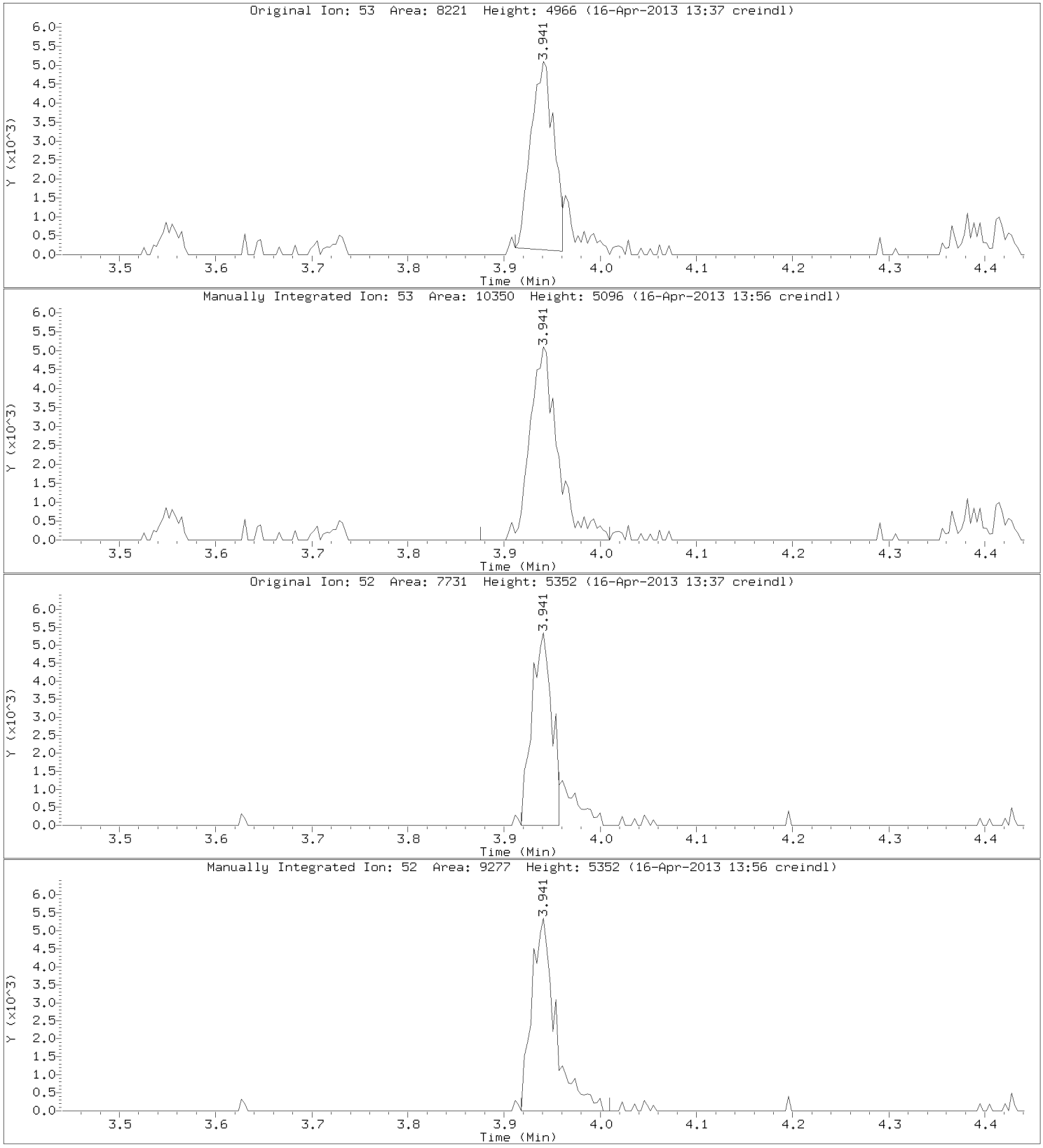






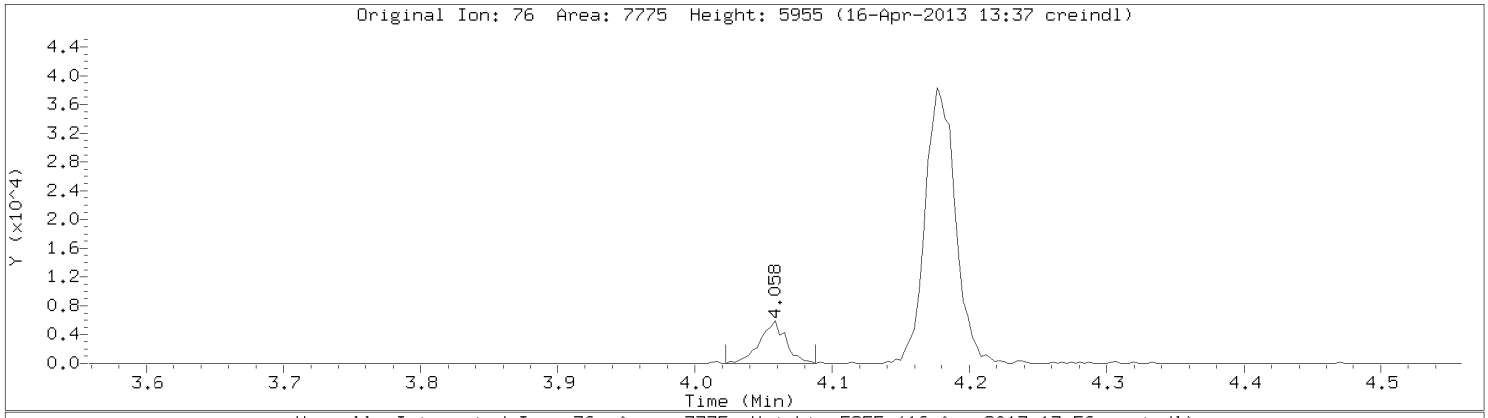
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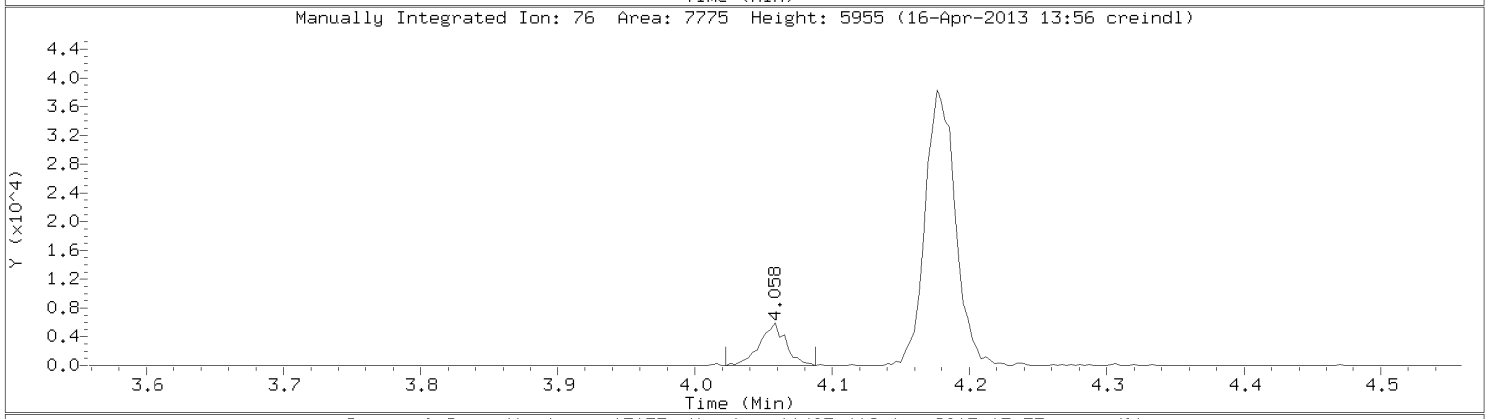
Compound: Acrylonitrile
CAS Number: 107-13-1

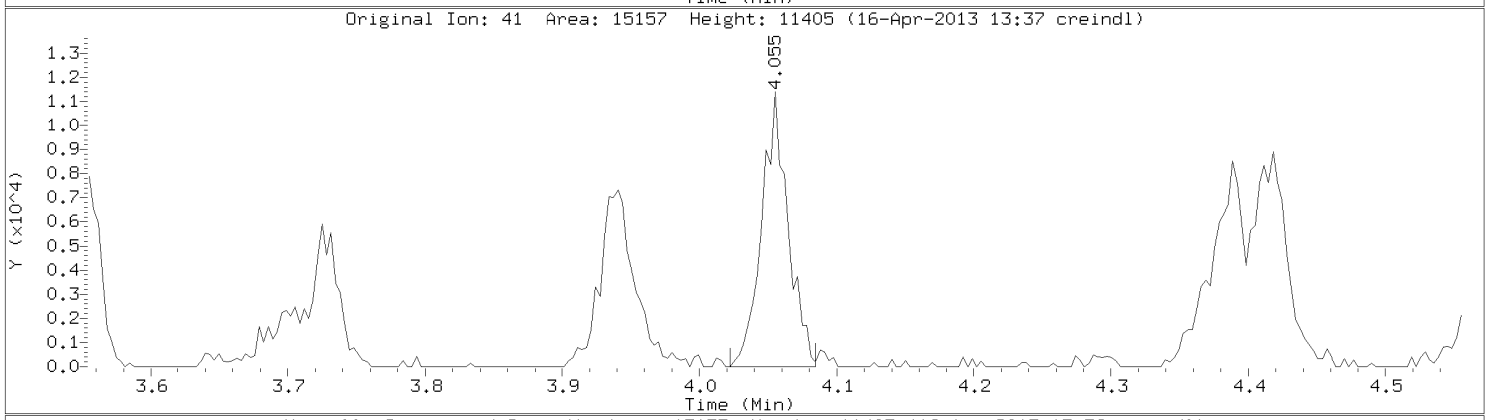


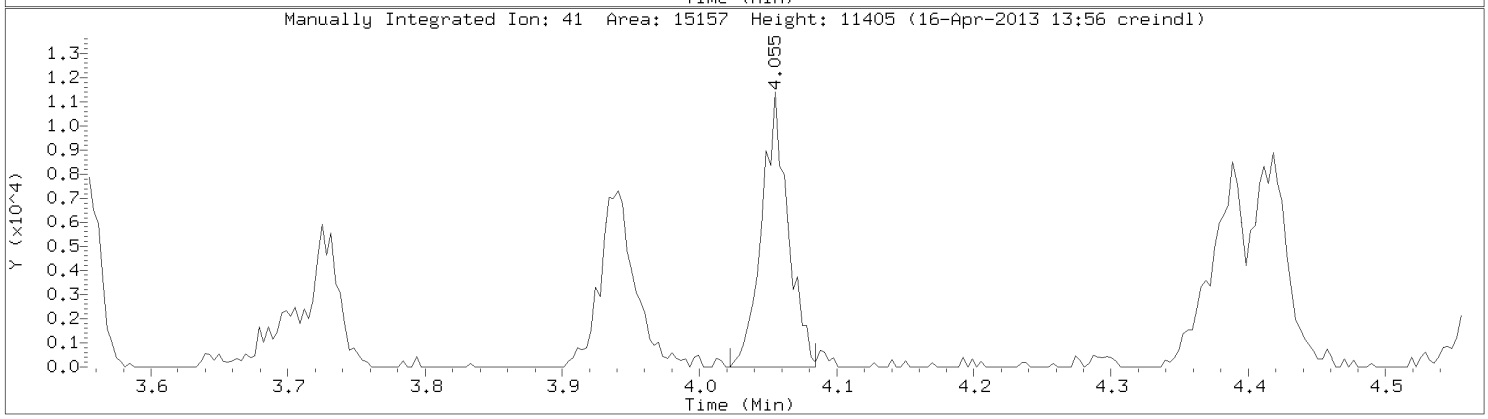
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Allyl Chloride
CAS Number: 107-05-1

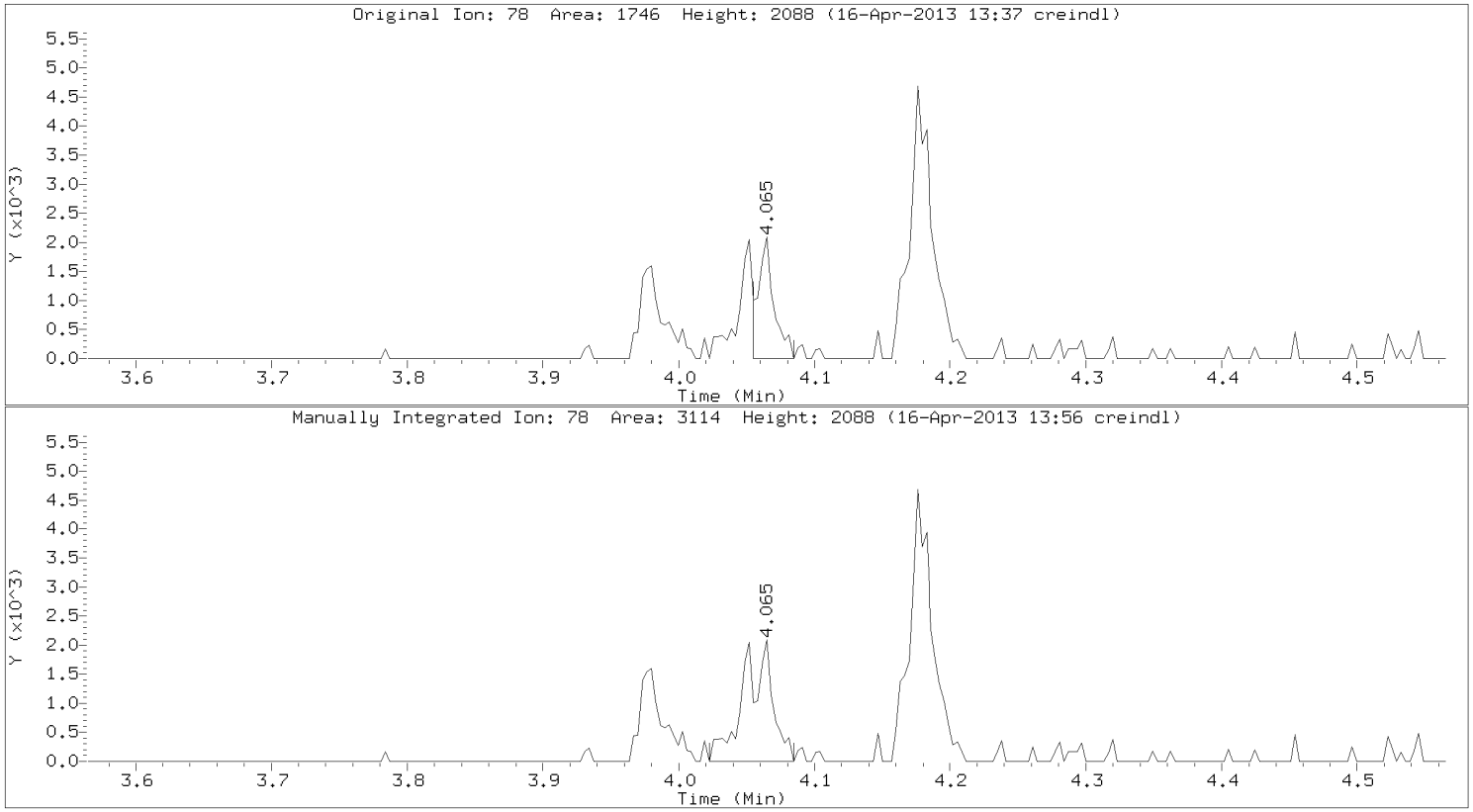






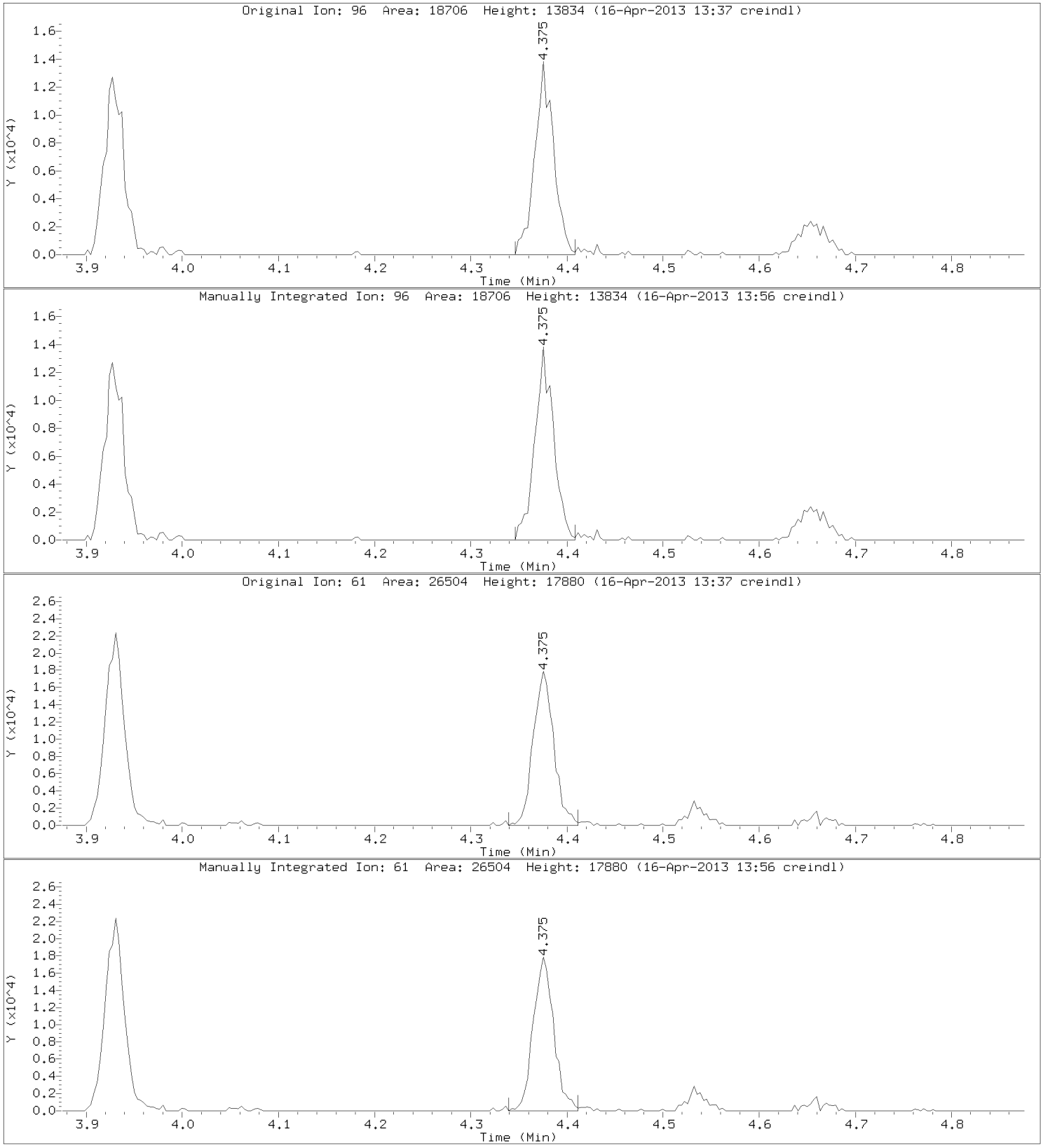


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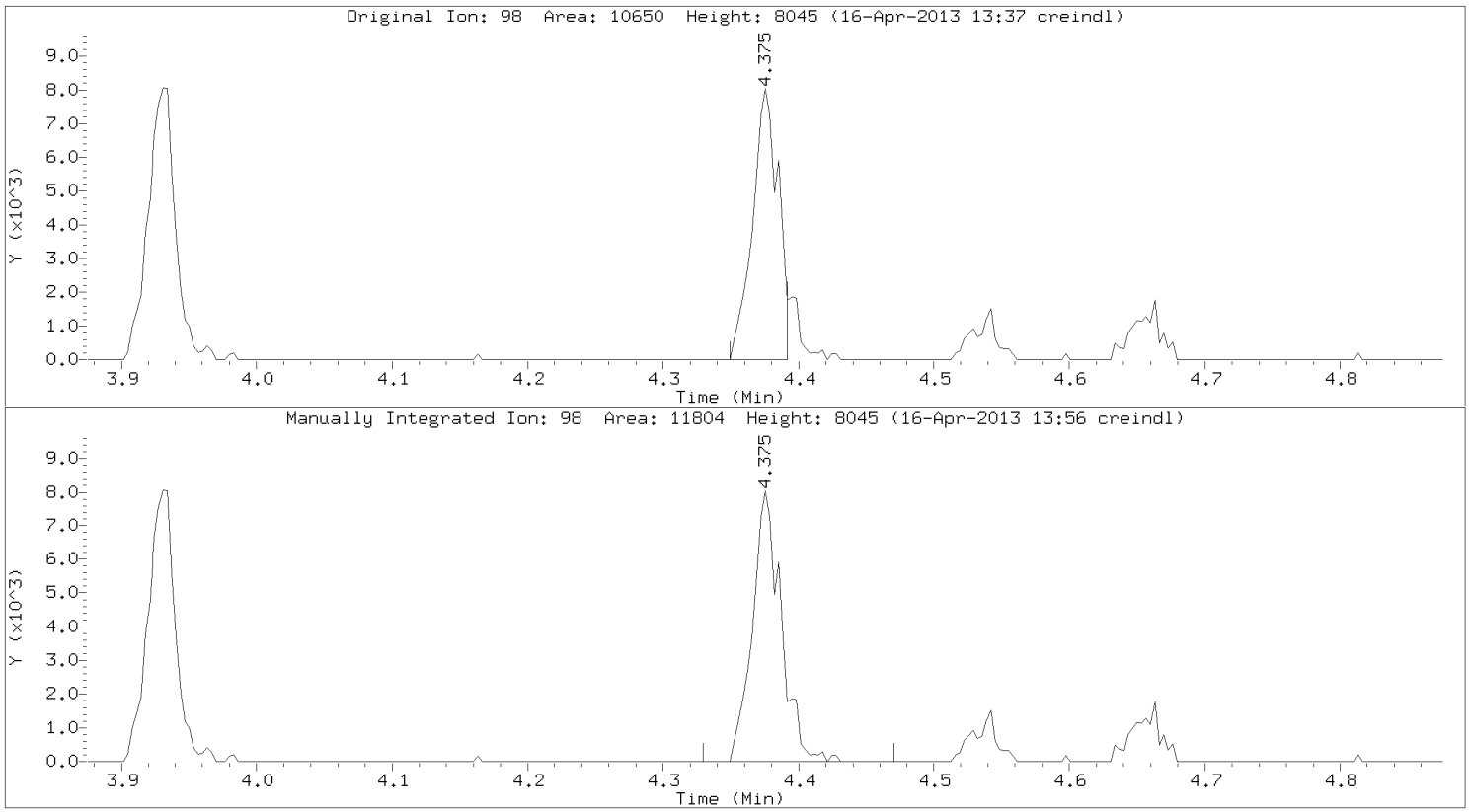


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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: trans-1,2-dichloroethene
CAS Number: 156-60-5

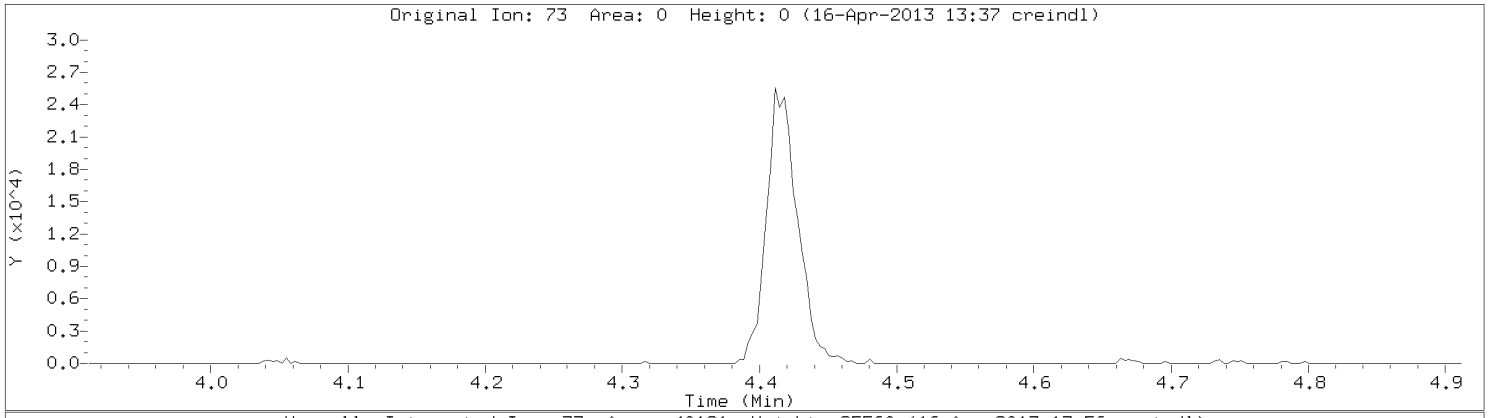


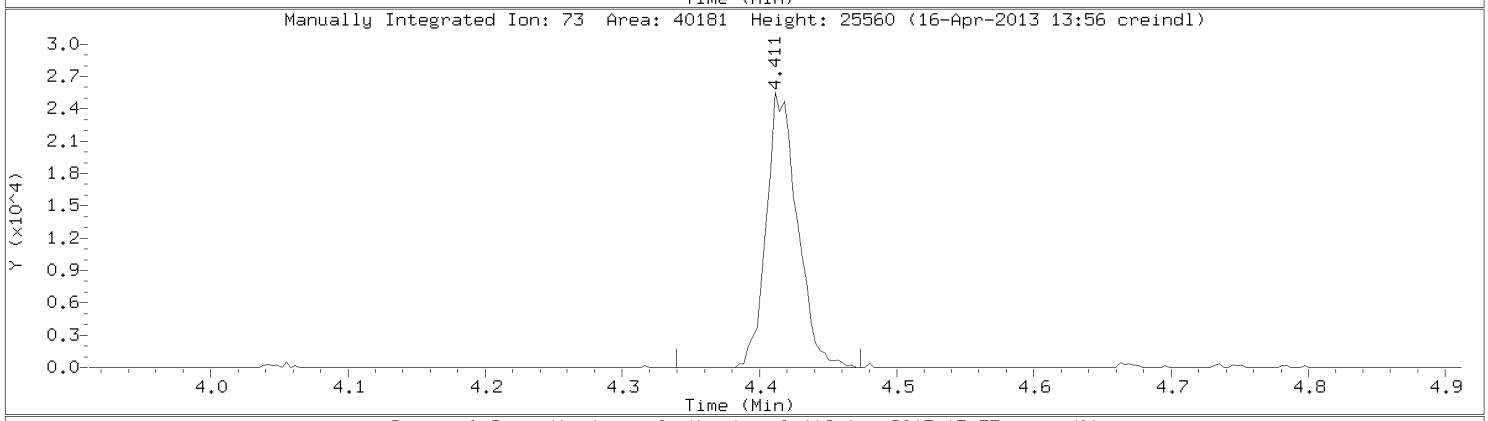
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Lab Sample ID: ICAL3

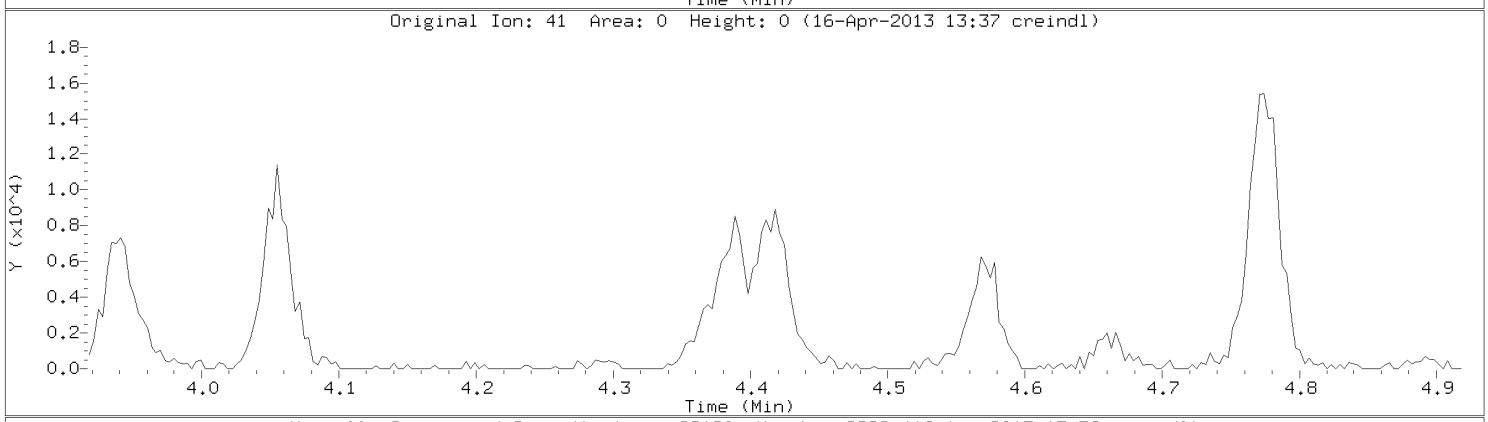


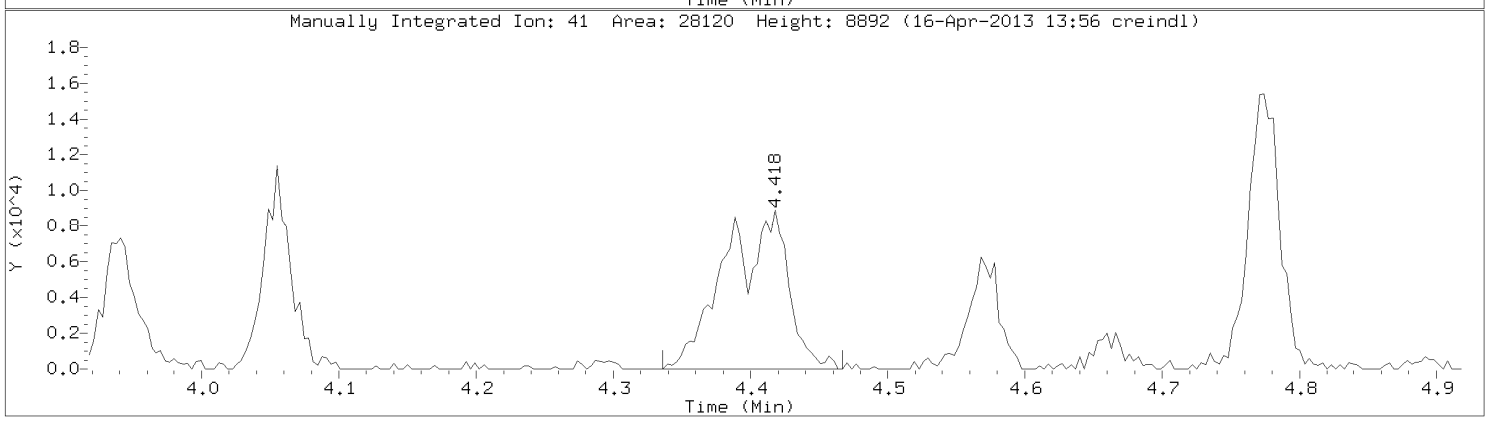
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



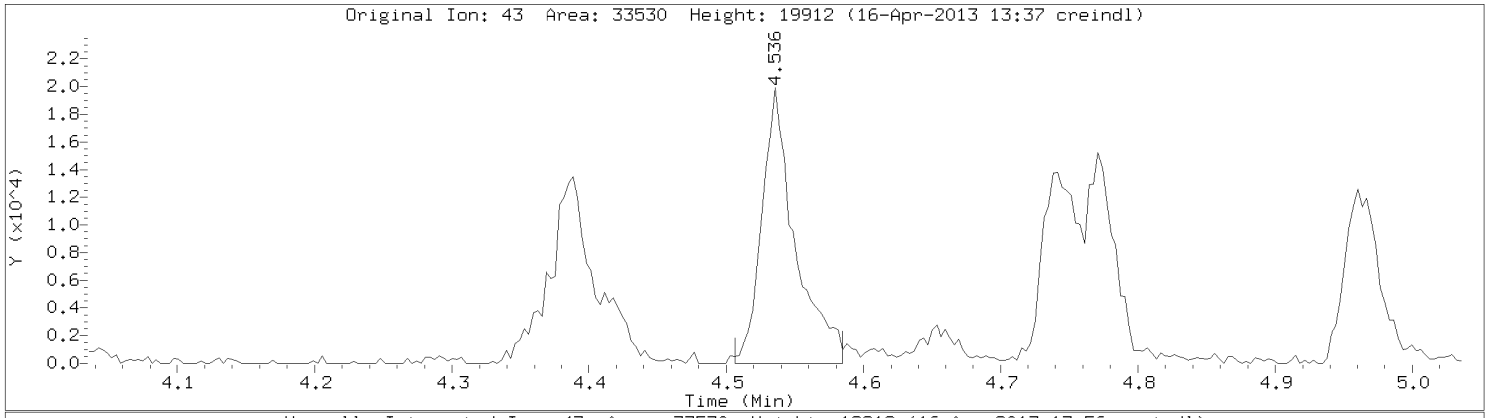


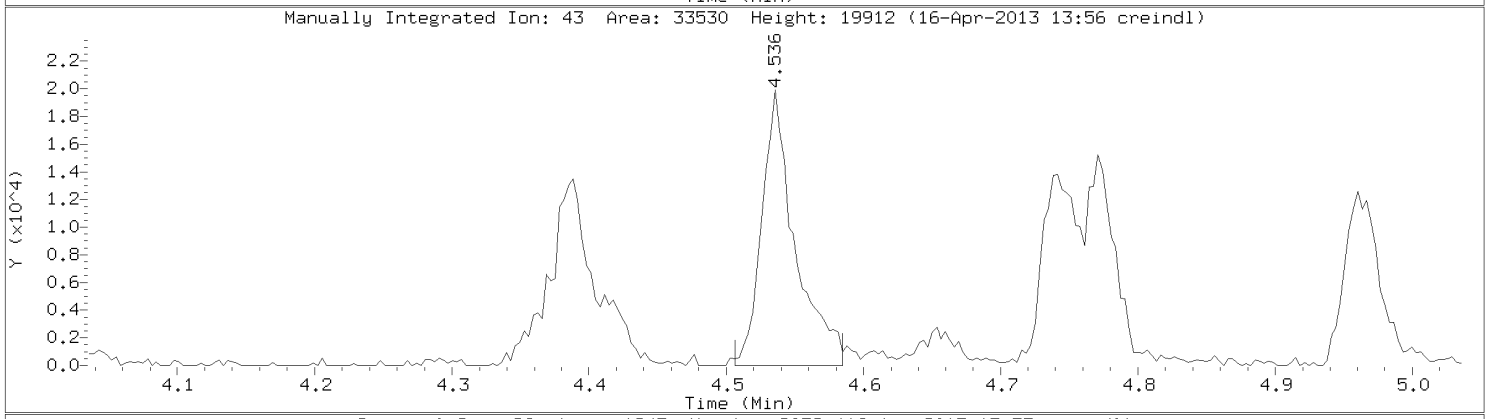


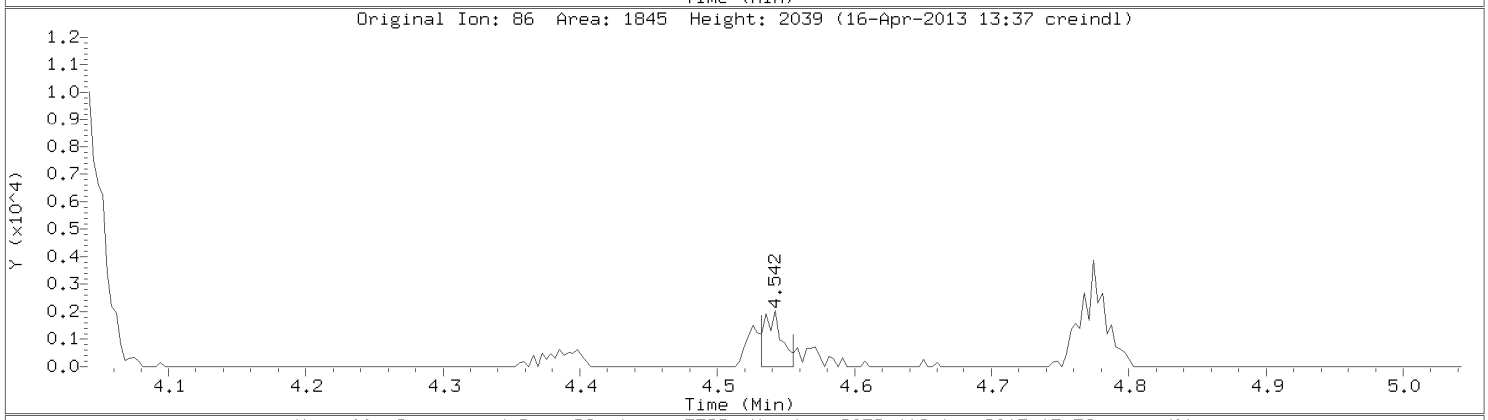


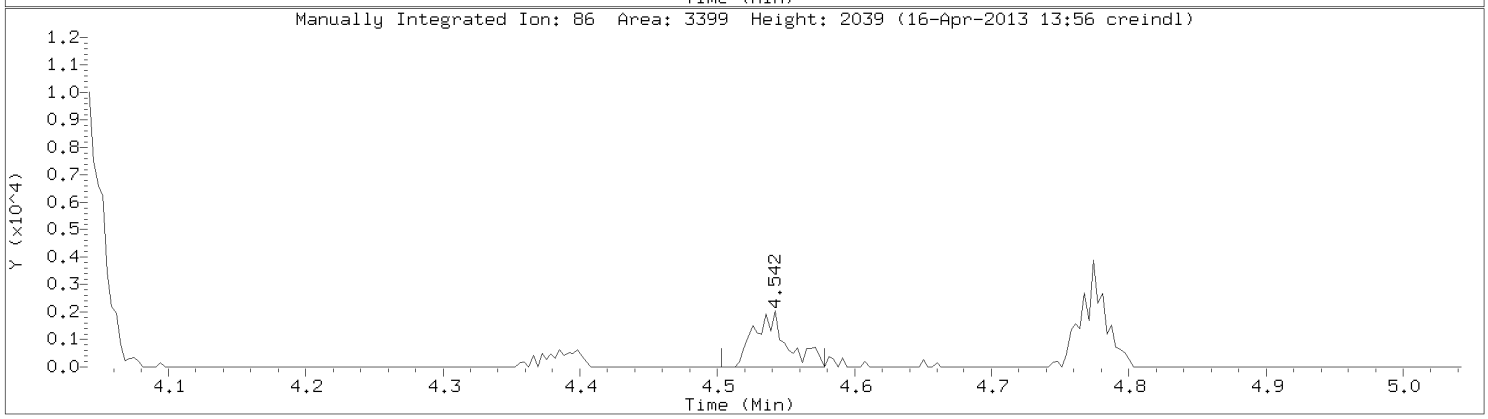
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Vinyl Acetate
CAS Number: 108-05-4



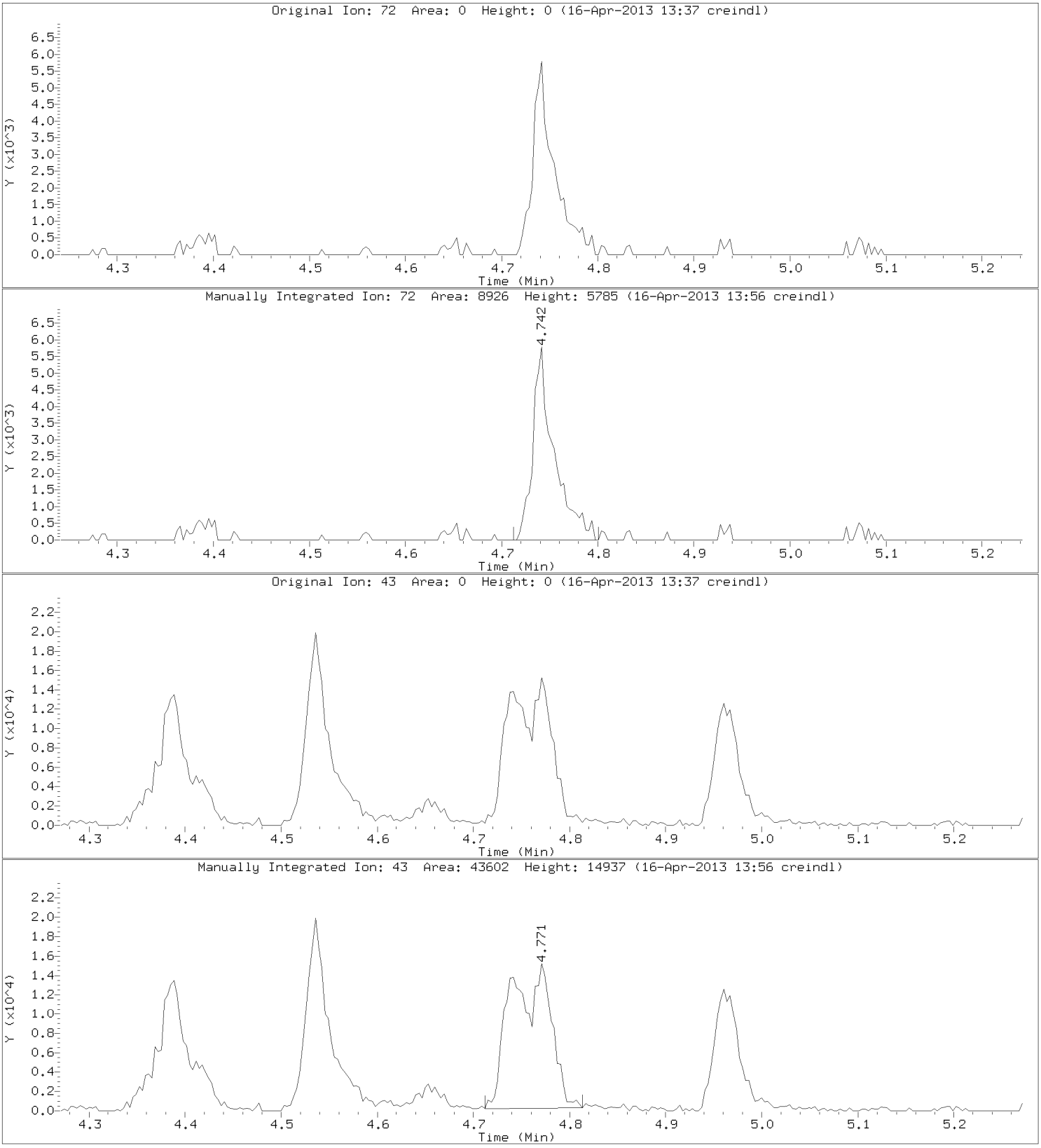






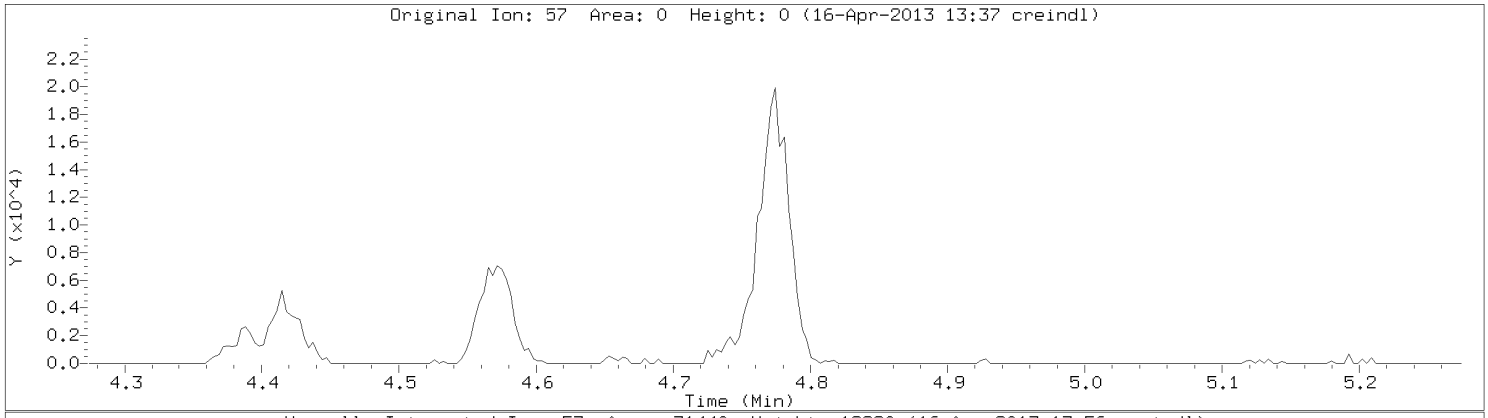
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Lab Sample ID: ICAL3

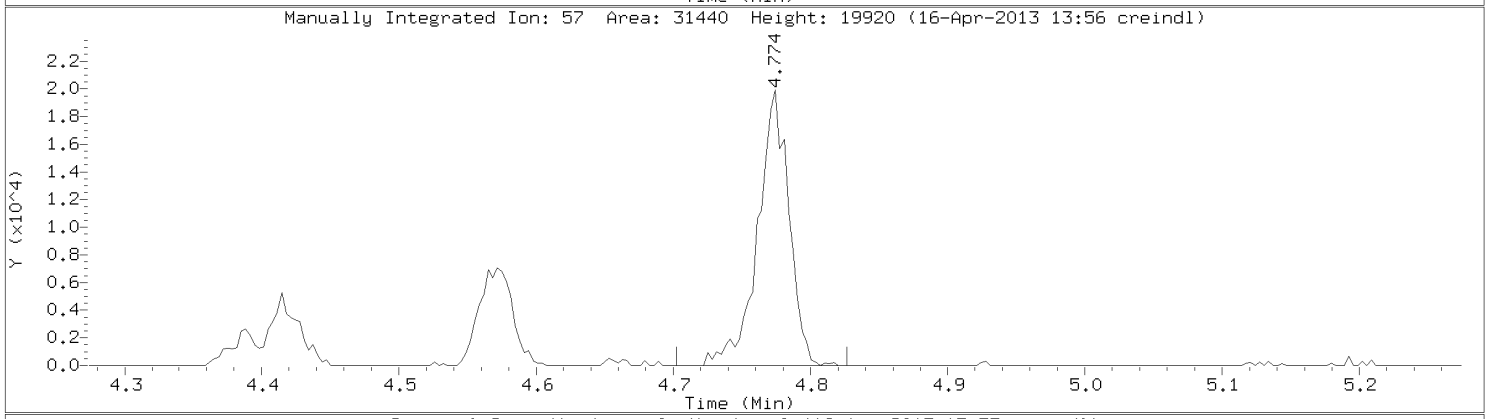
Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

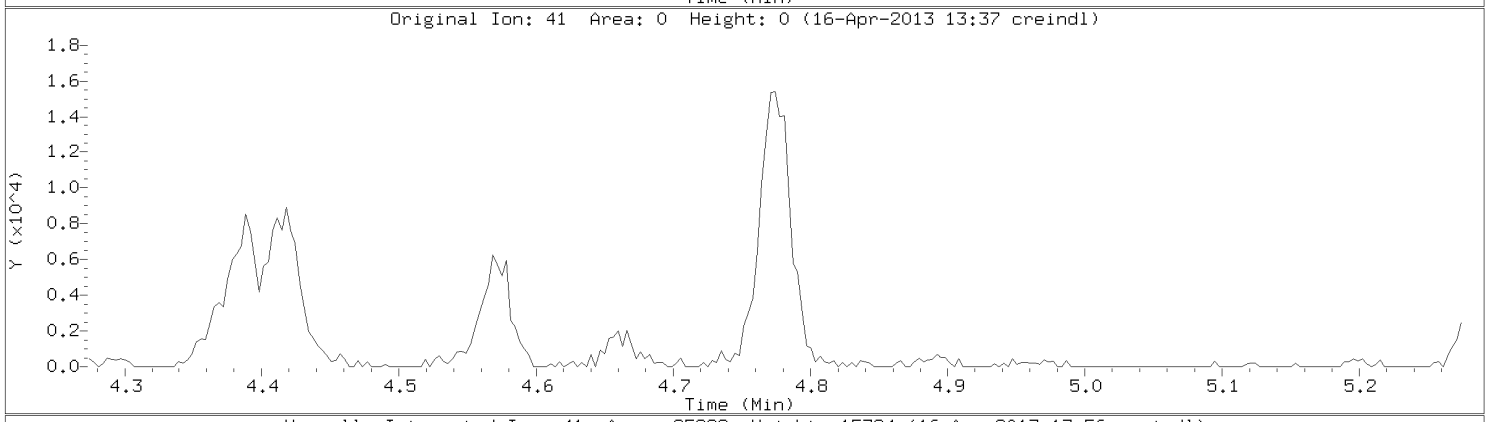


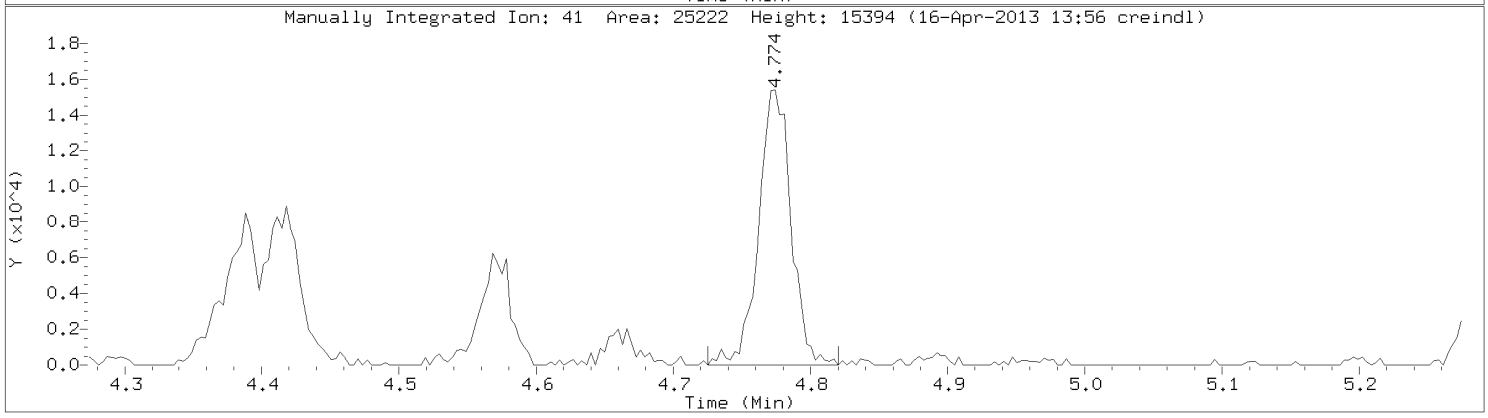
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: n-Hexane
CAS Number: 110-54-3

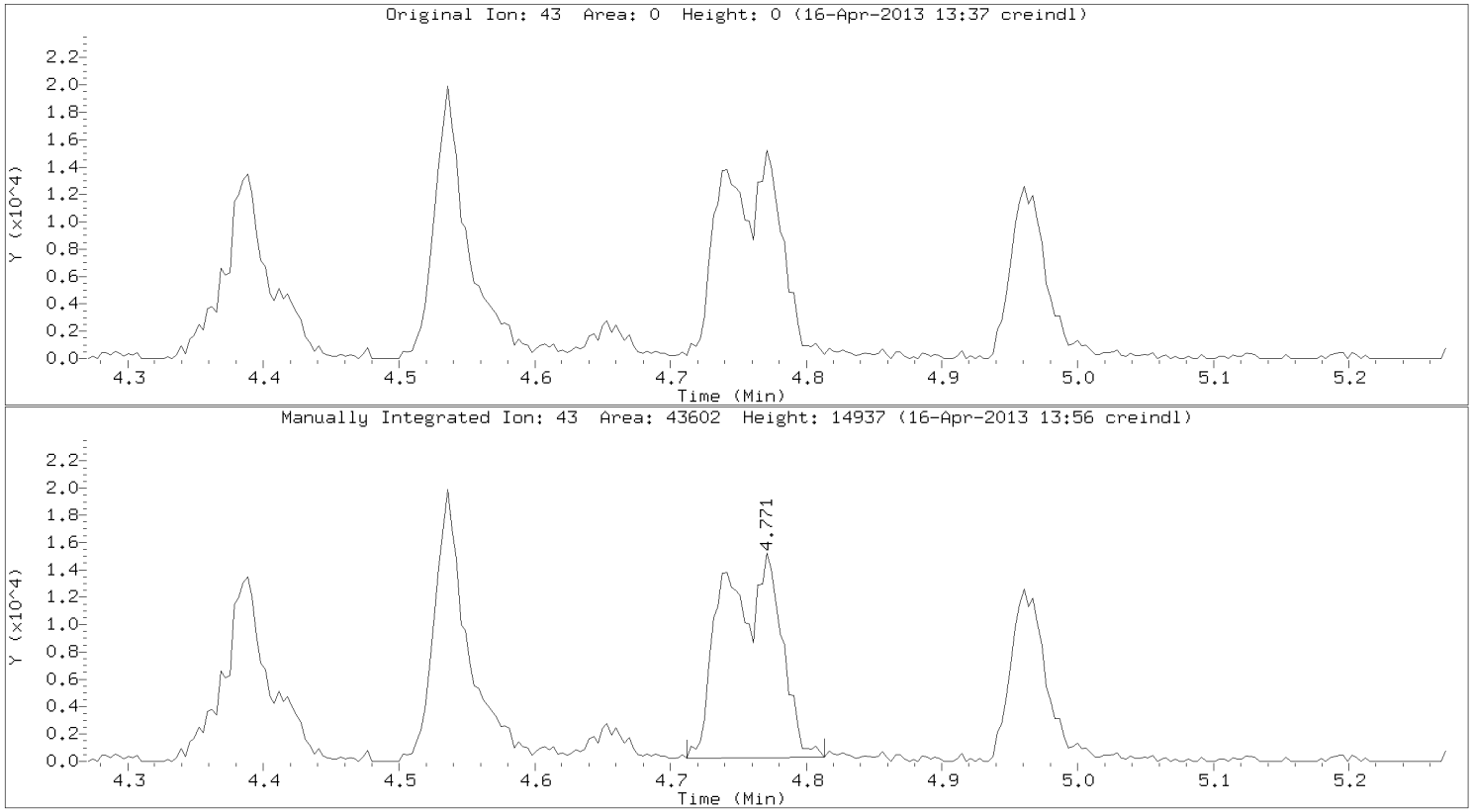






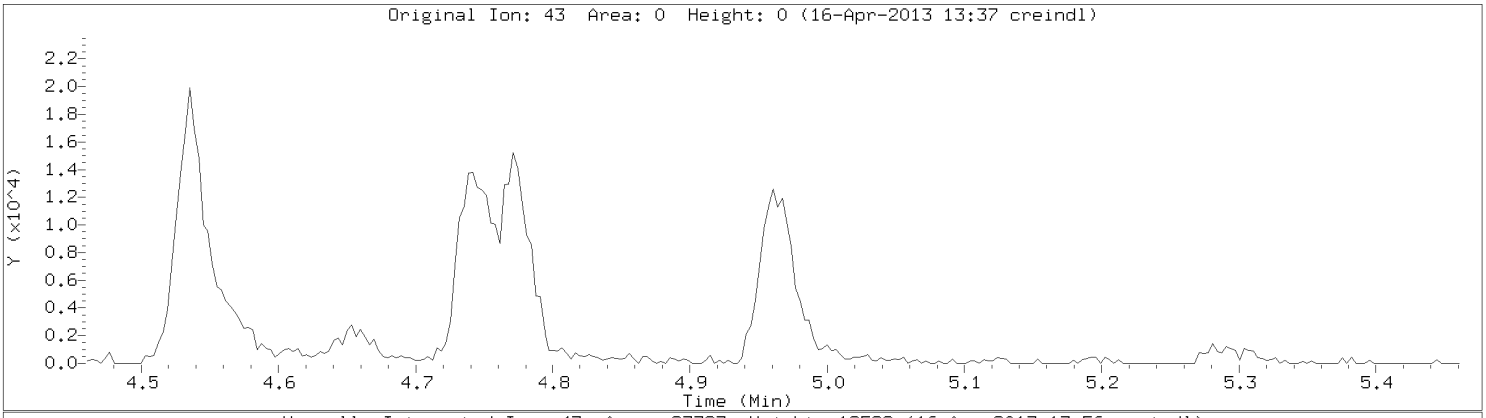


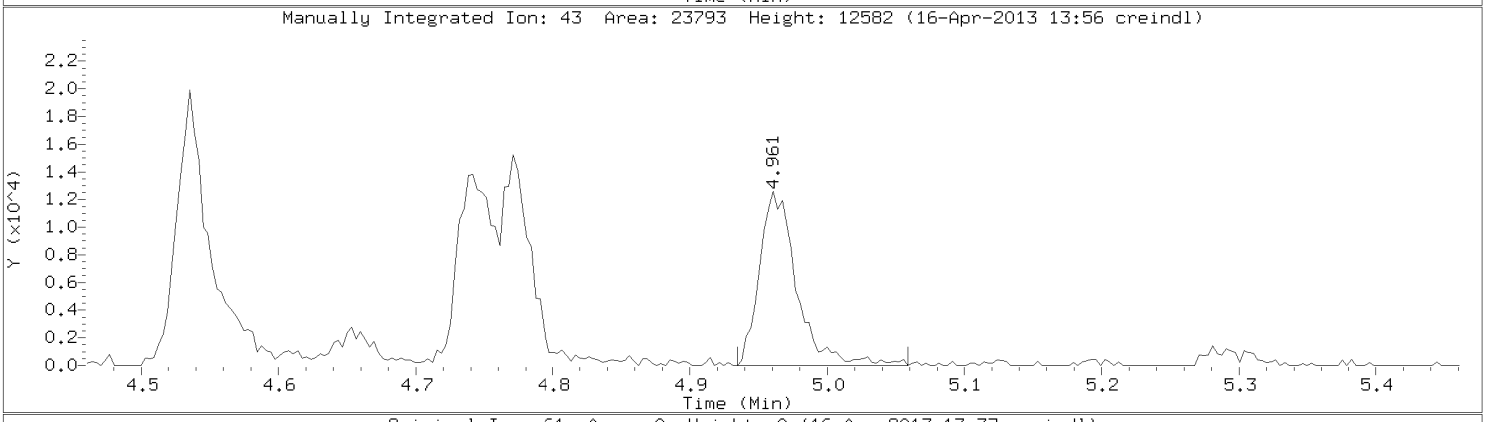
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Instrument: 10airD.i
Lab Sample ID: ICAL3

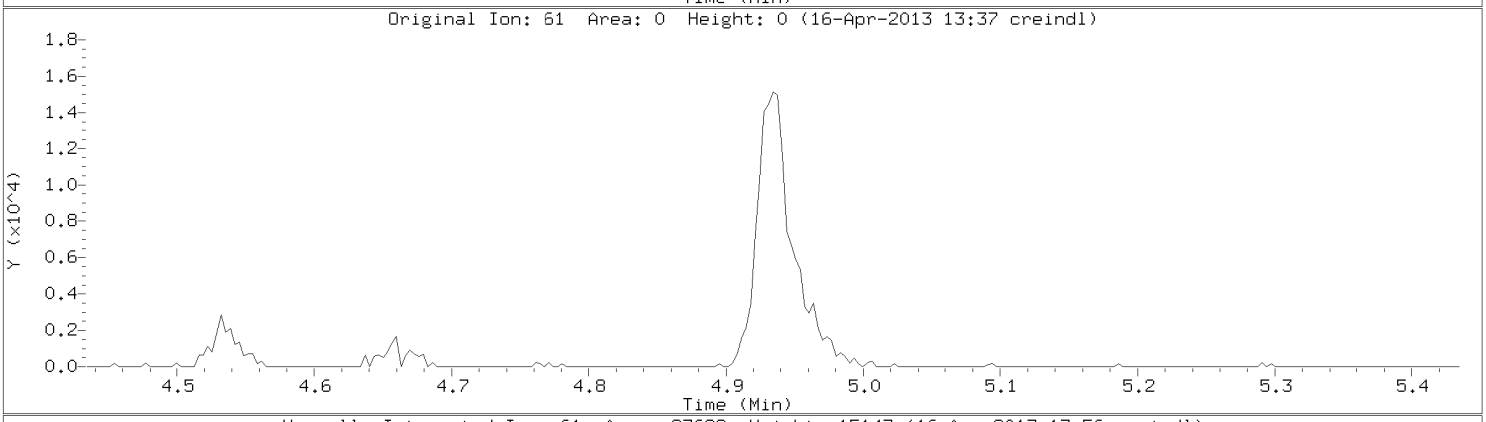


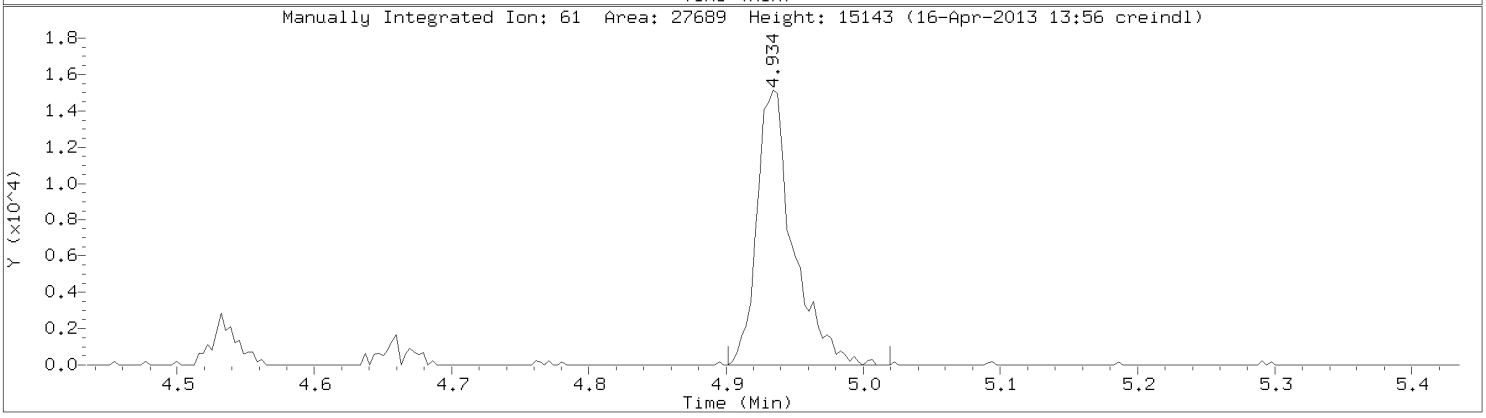
Data File: \\192.168.10.12\chem\10airD.i\041613.B/10607.d
Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Ethyl Acetate
CAS Number: 141-78-6

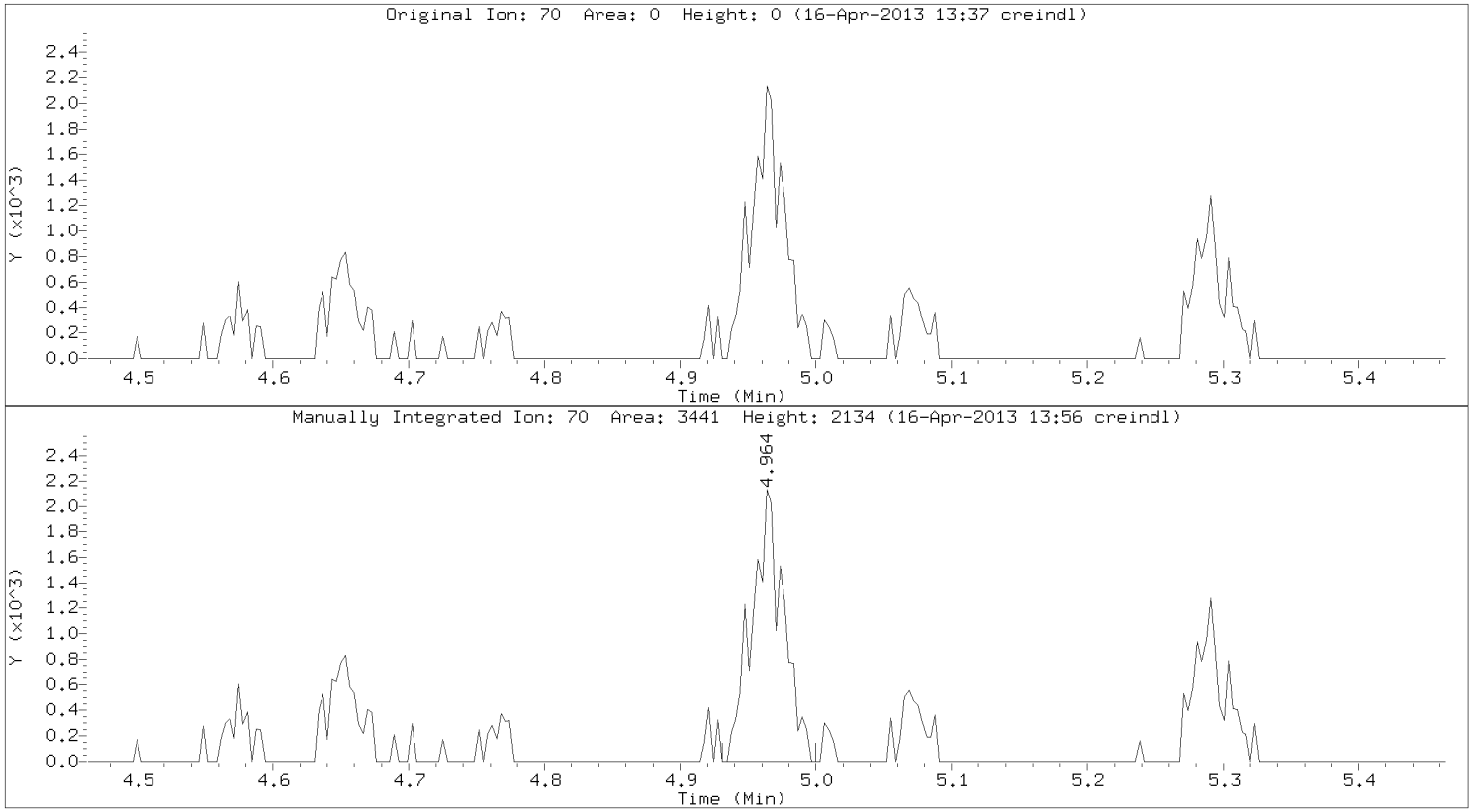






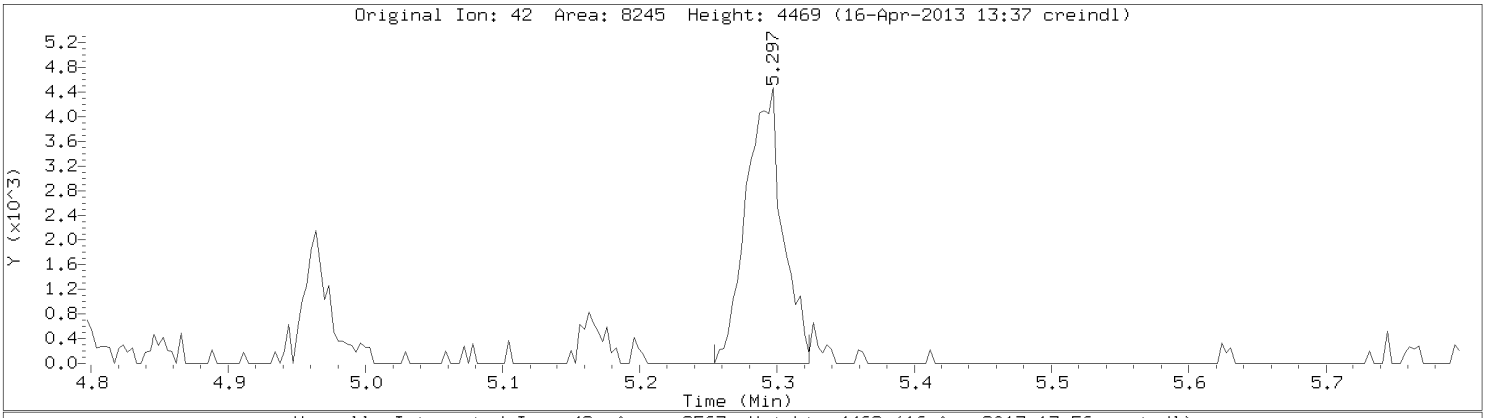


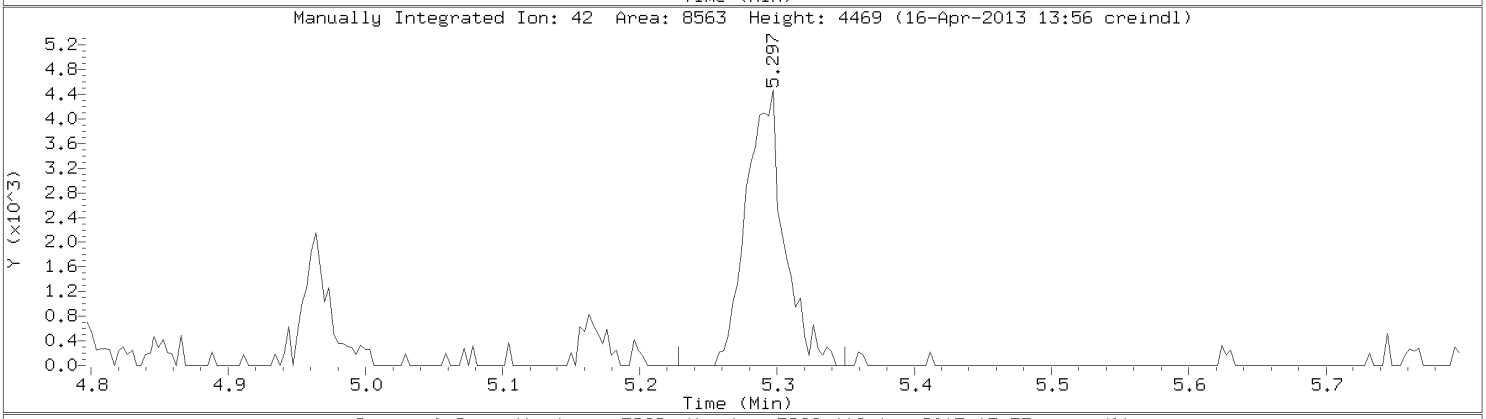
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Instrument: 10airD.i
Lab Sample ID: ICAL3

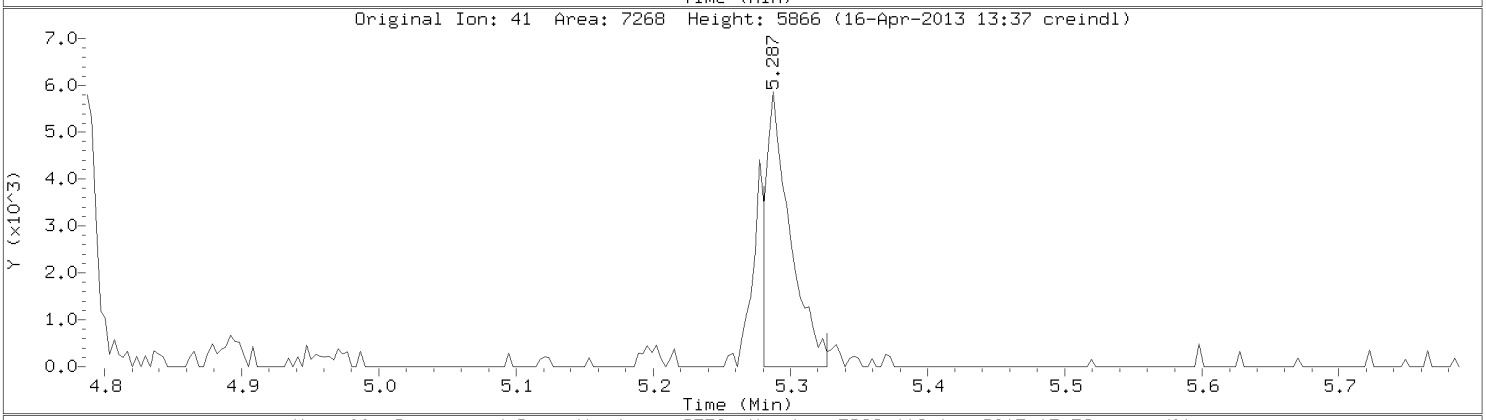


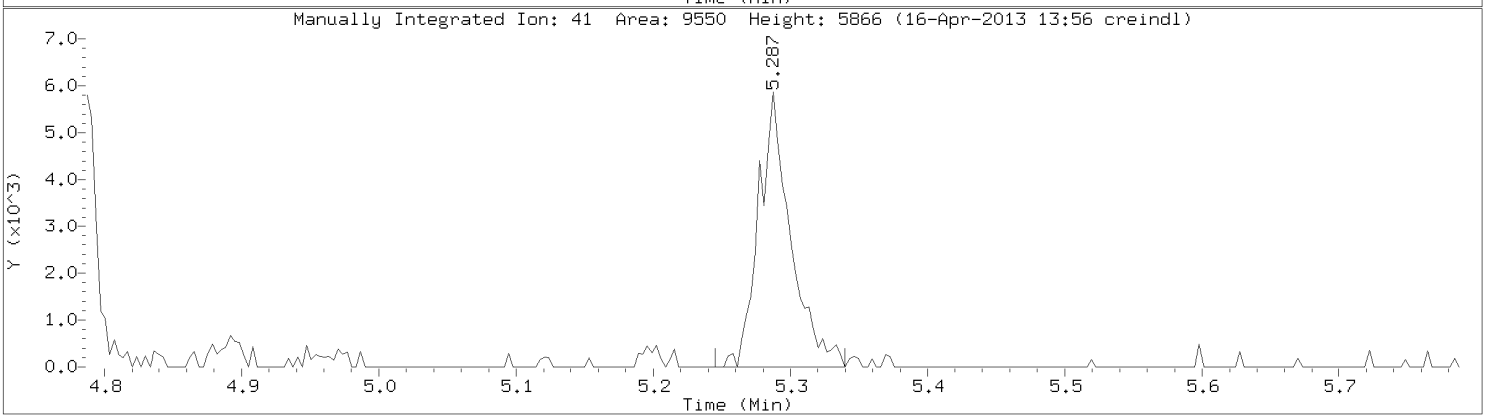
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Tetrahydrofuran
CAS Number: 109-99-9

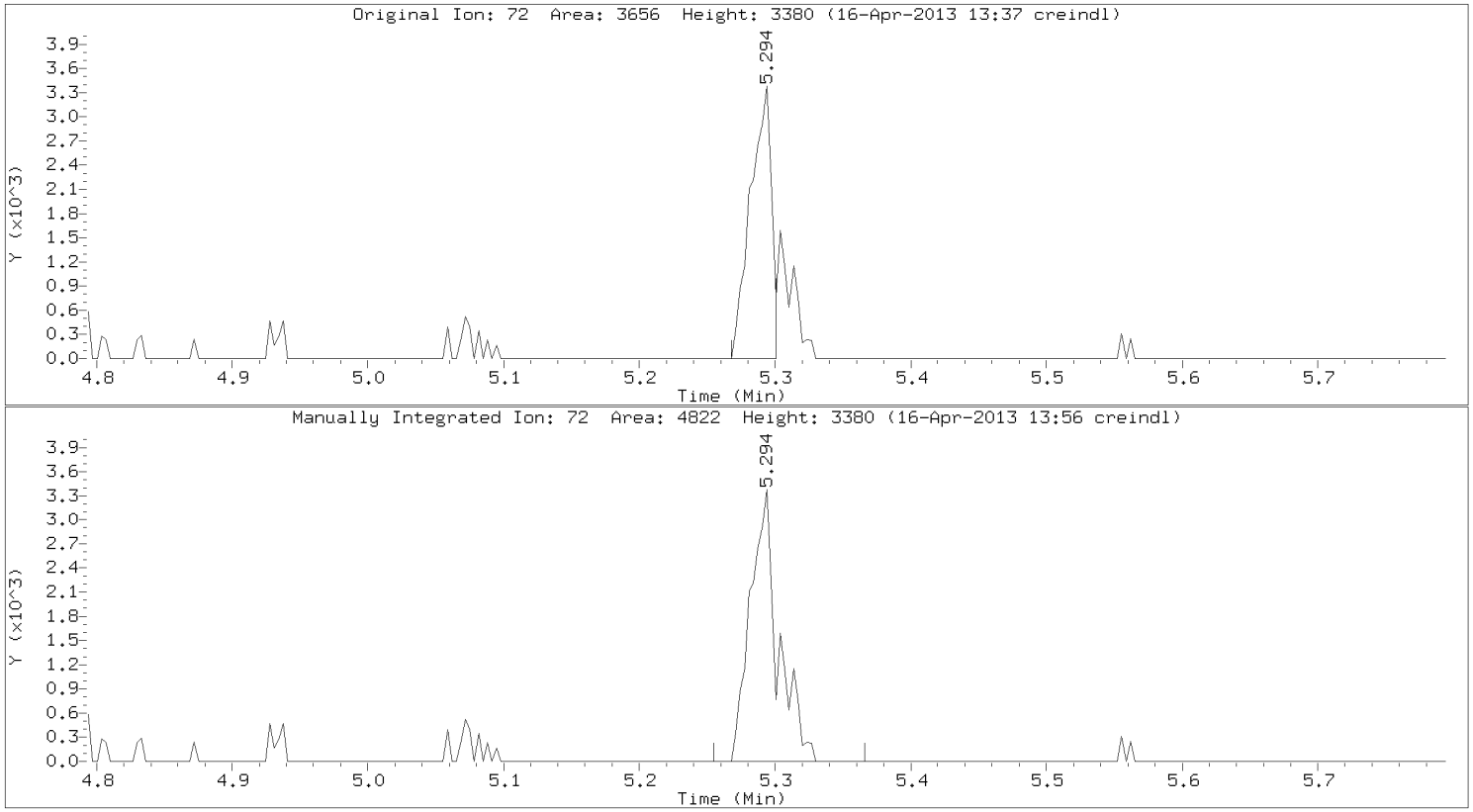






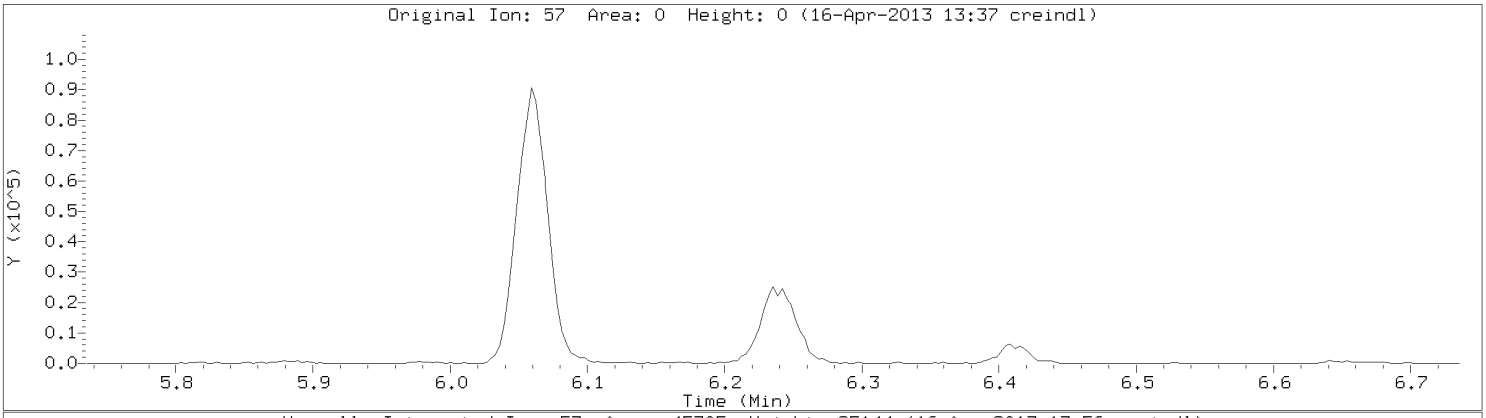


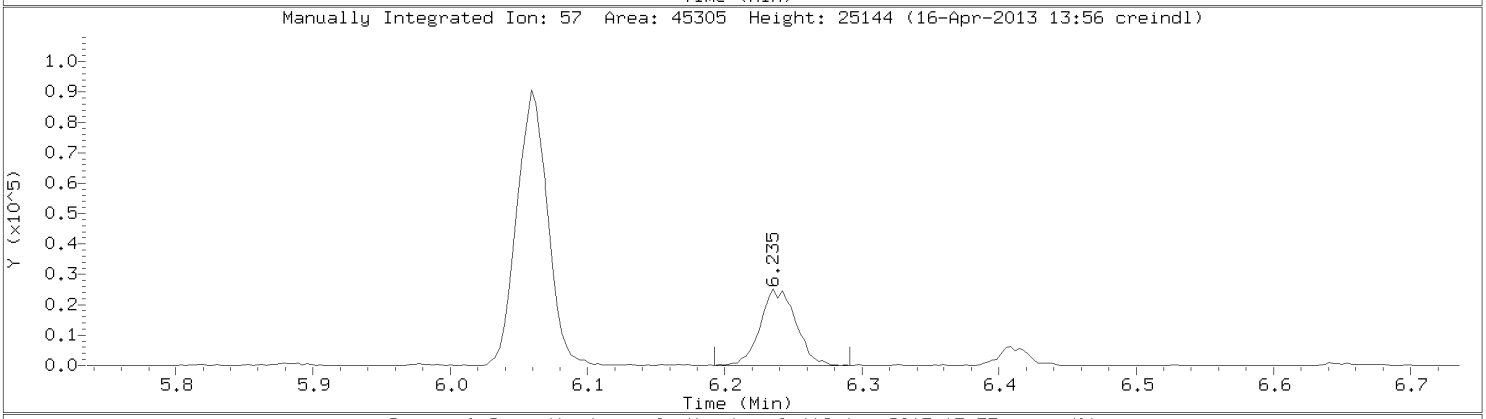
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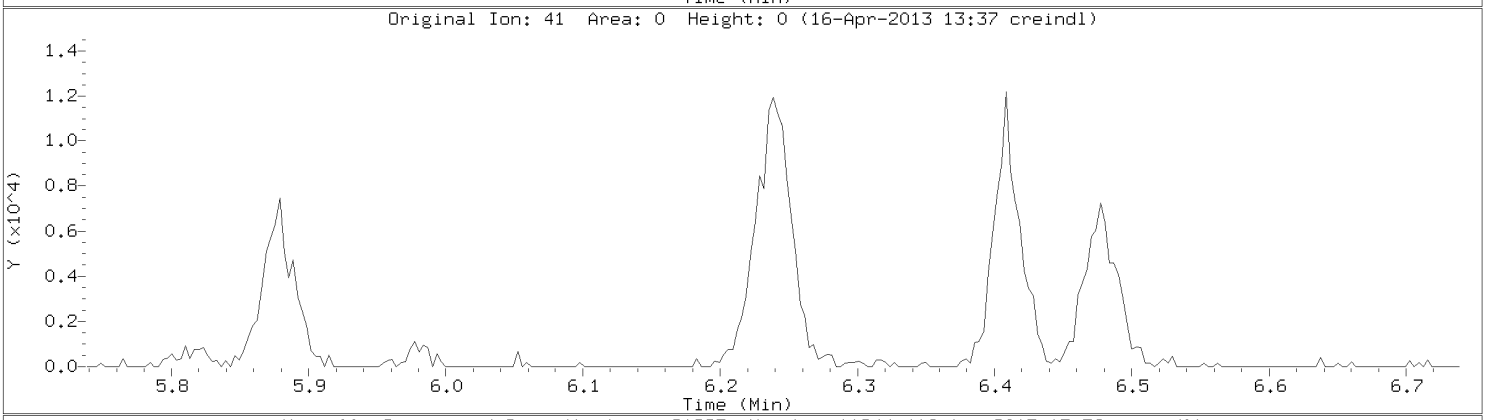


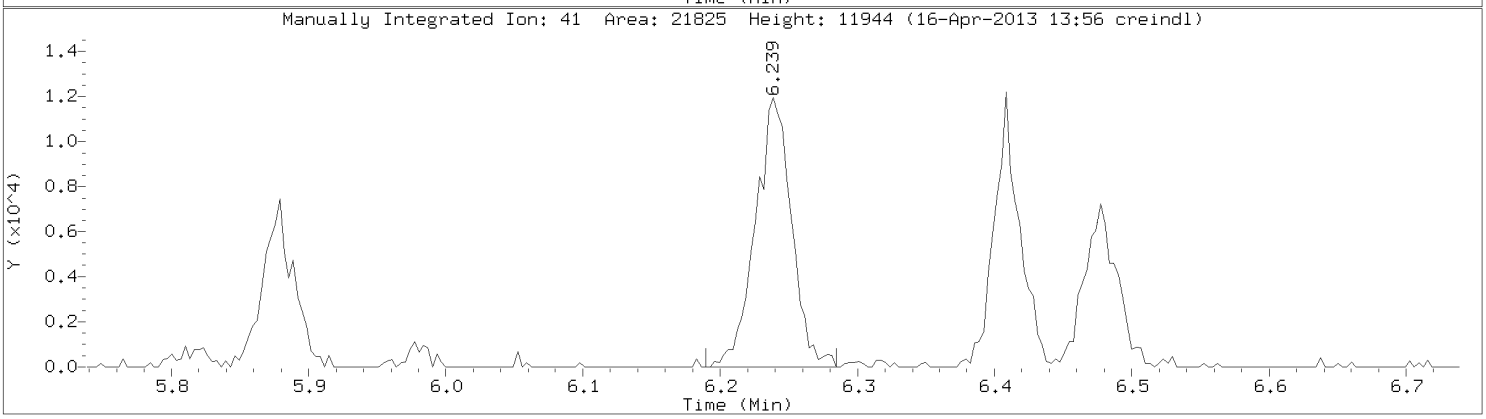
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

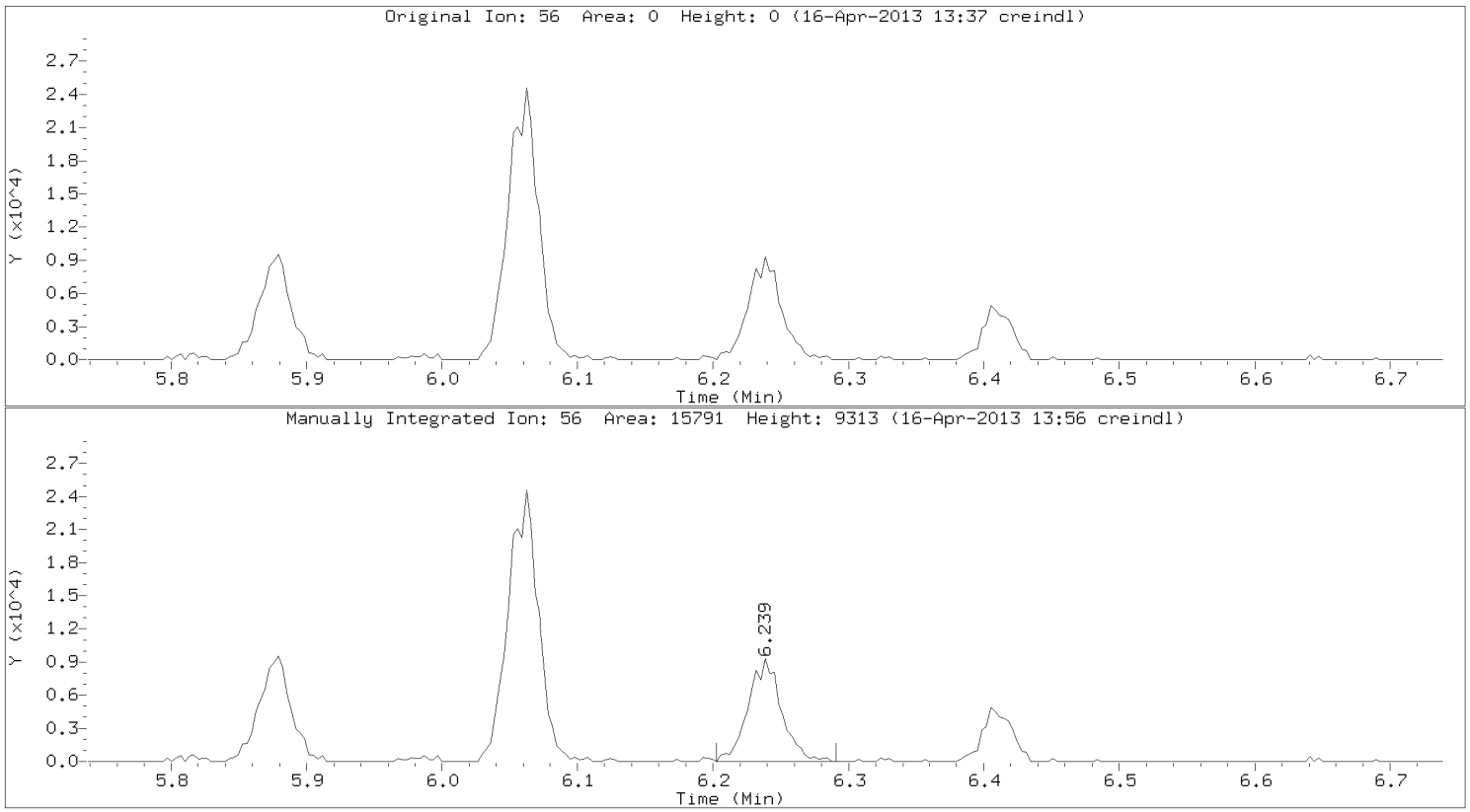






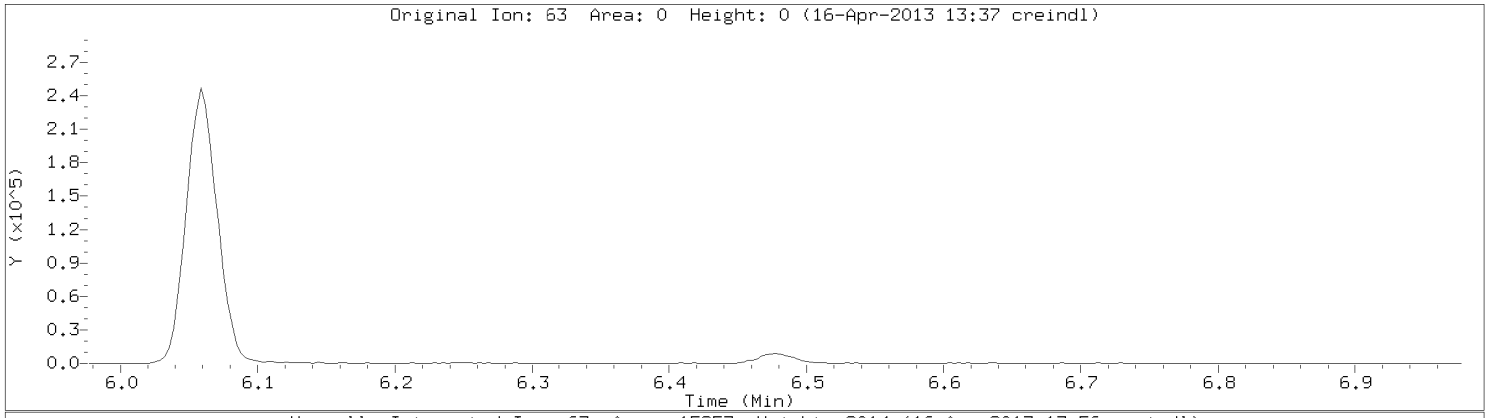


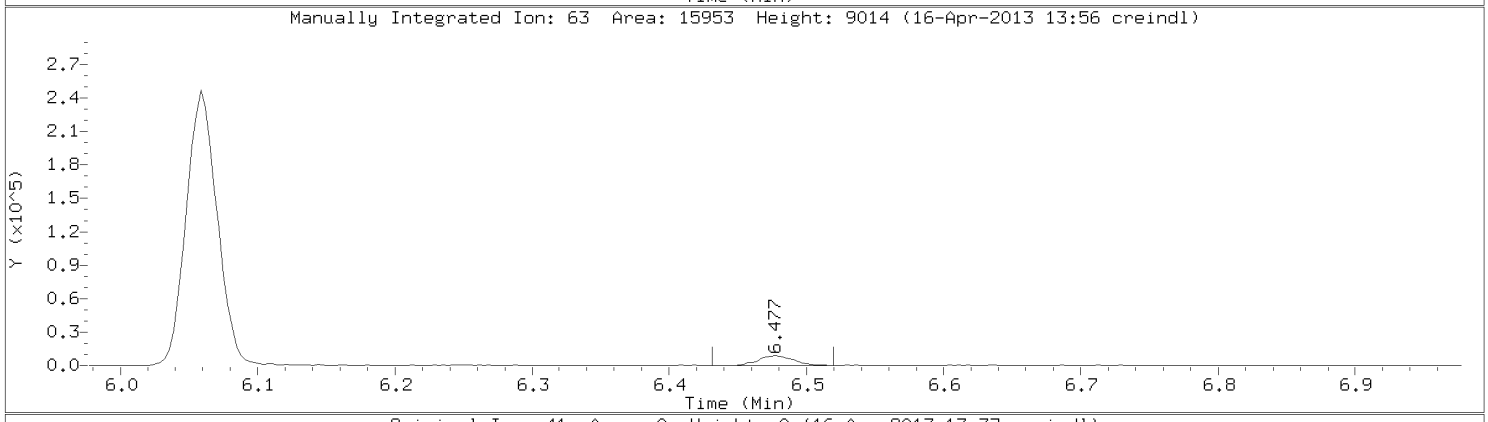
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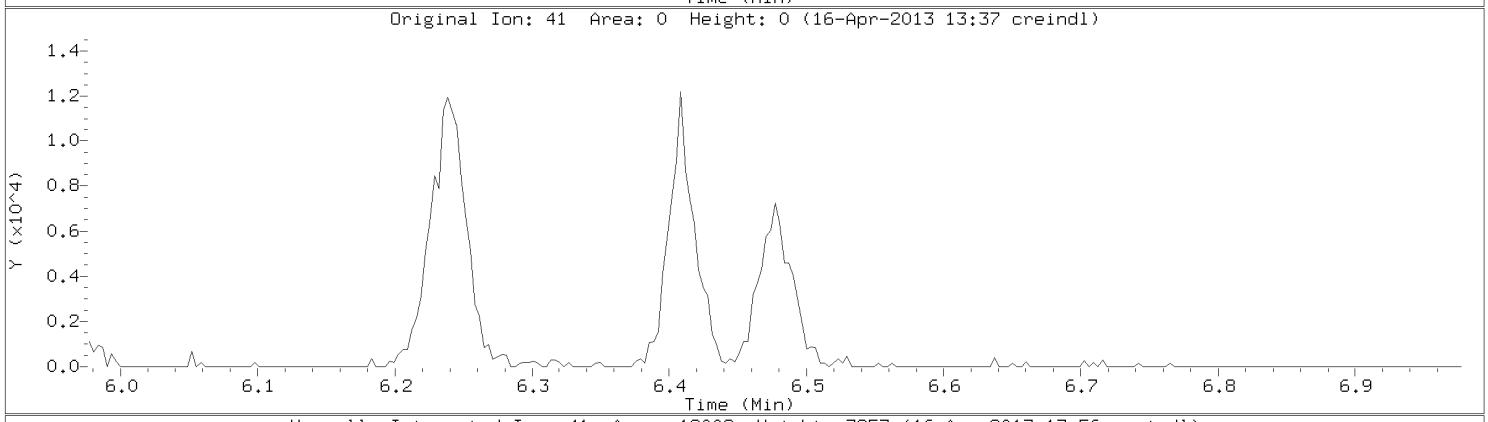


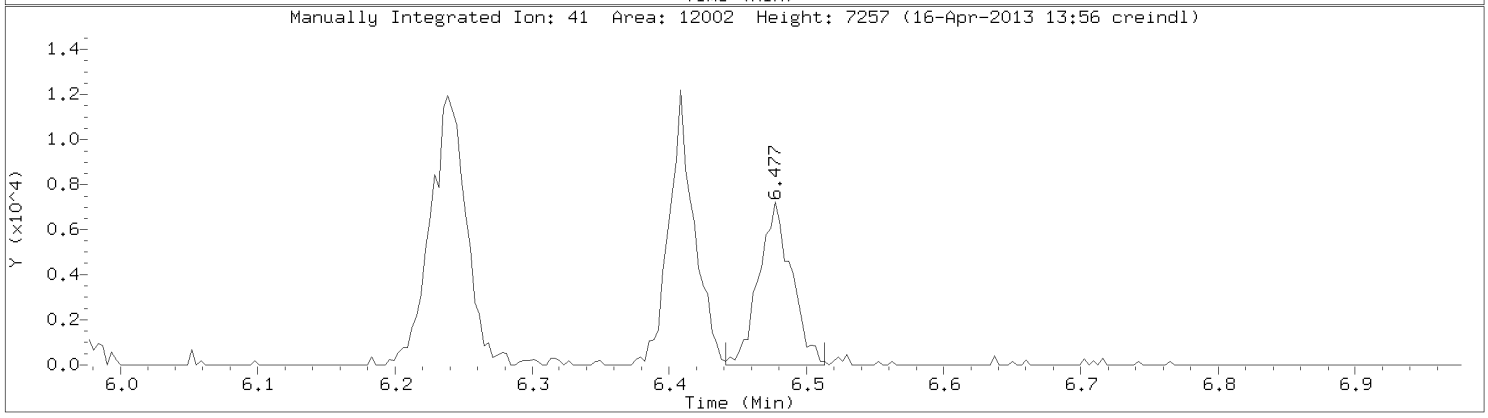
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

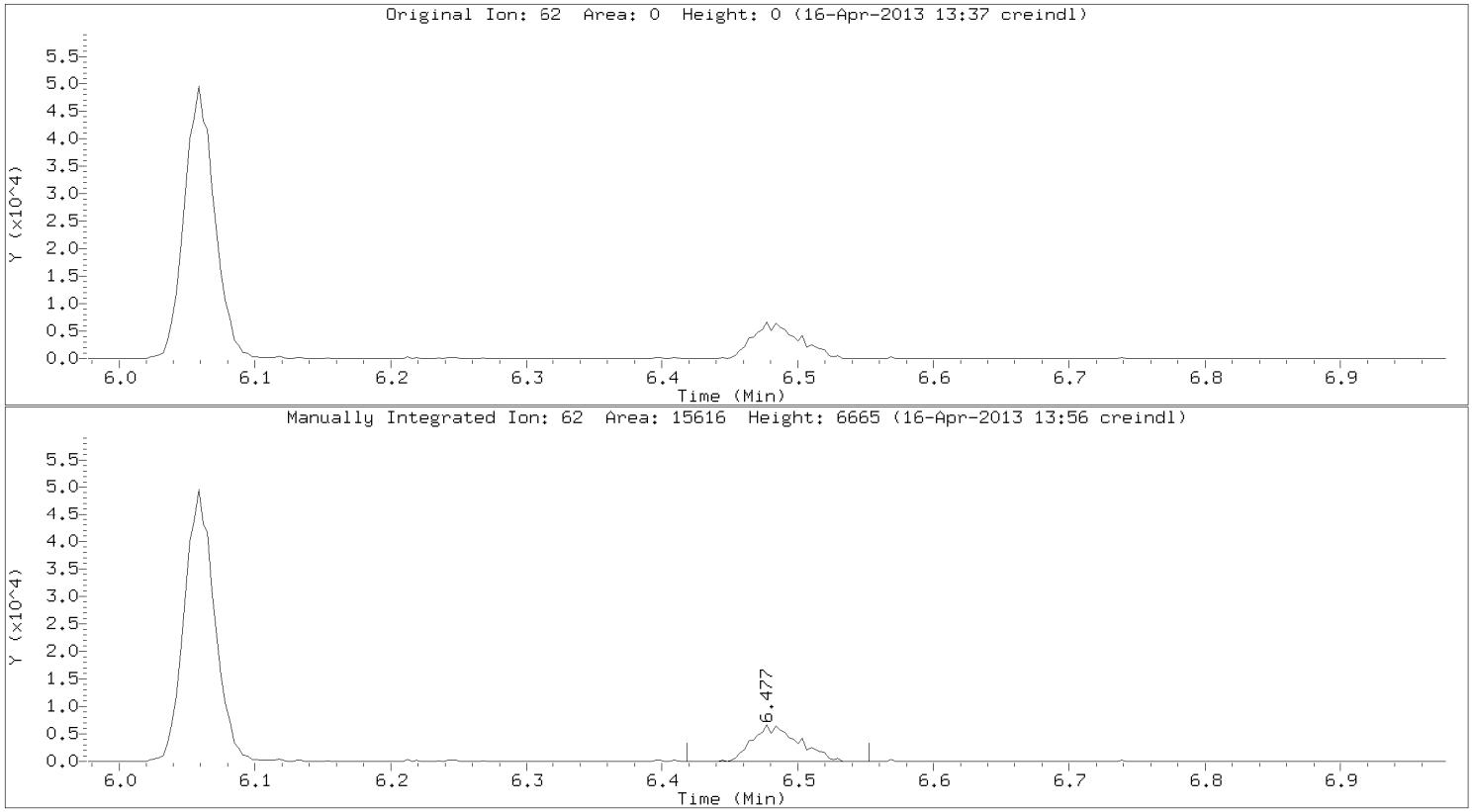






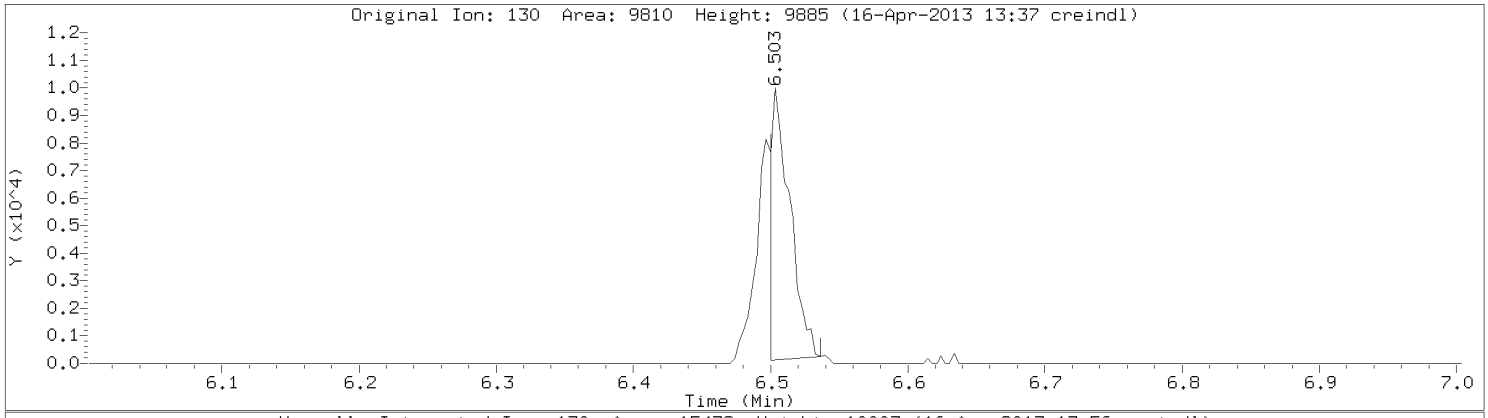


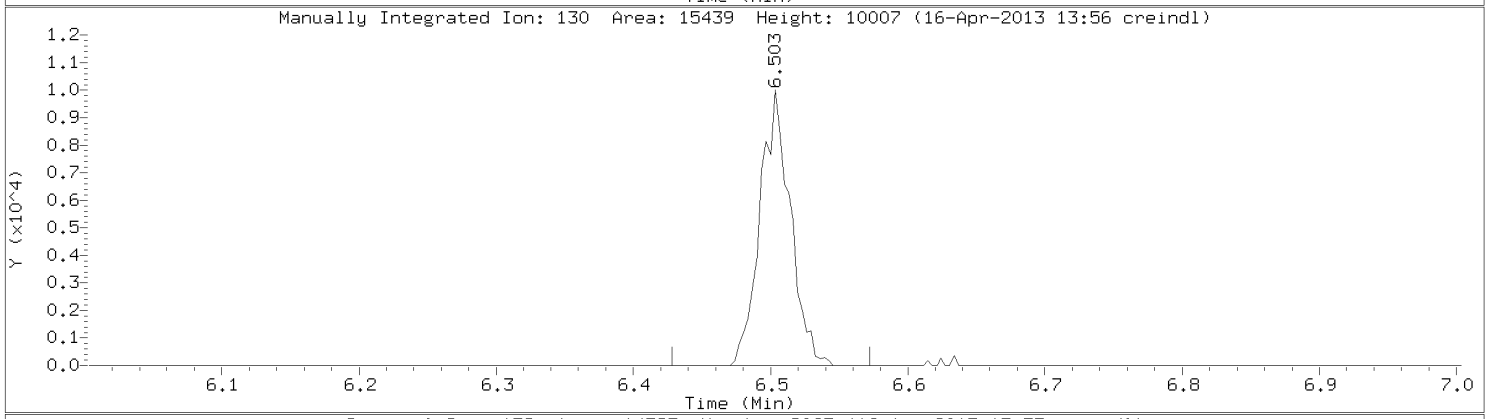
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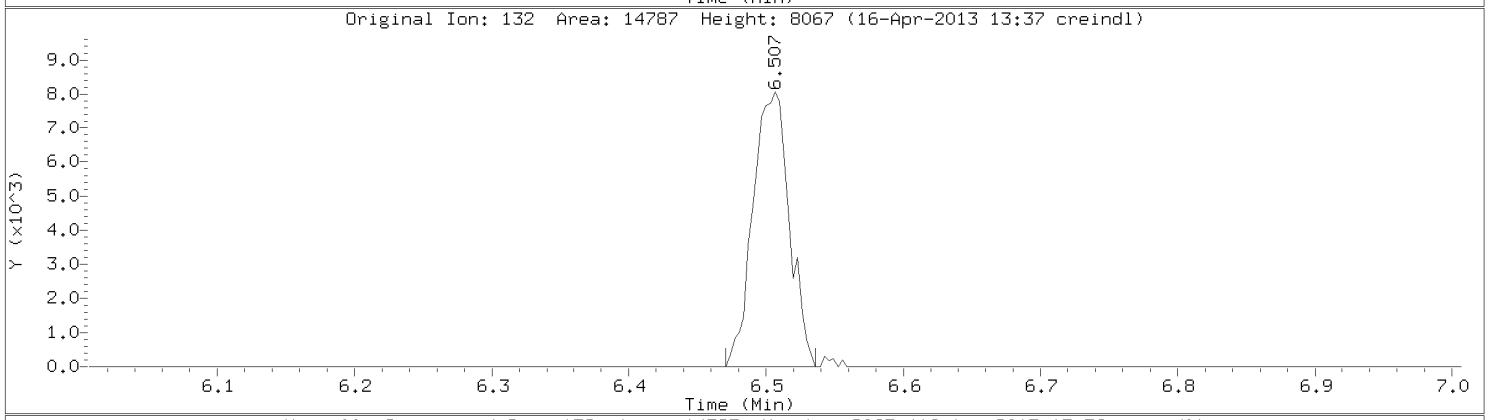


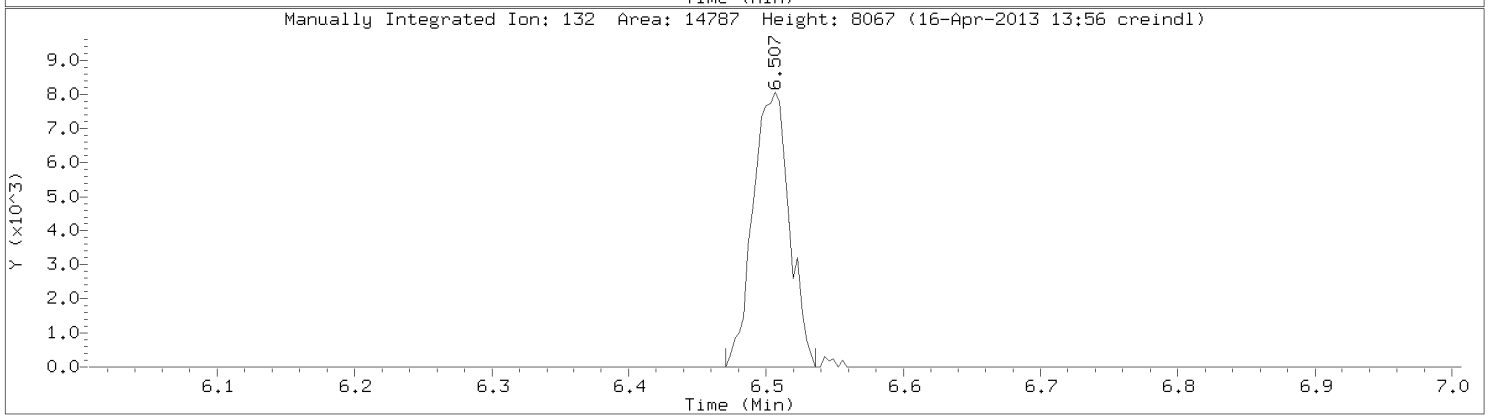
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Lab Sample ID: ICAL3

Compound: Trichloroethene
CAS Number: 79-01-6

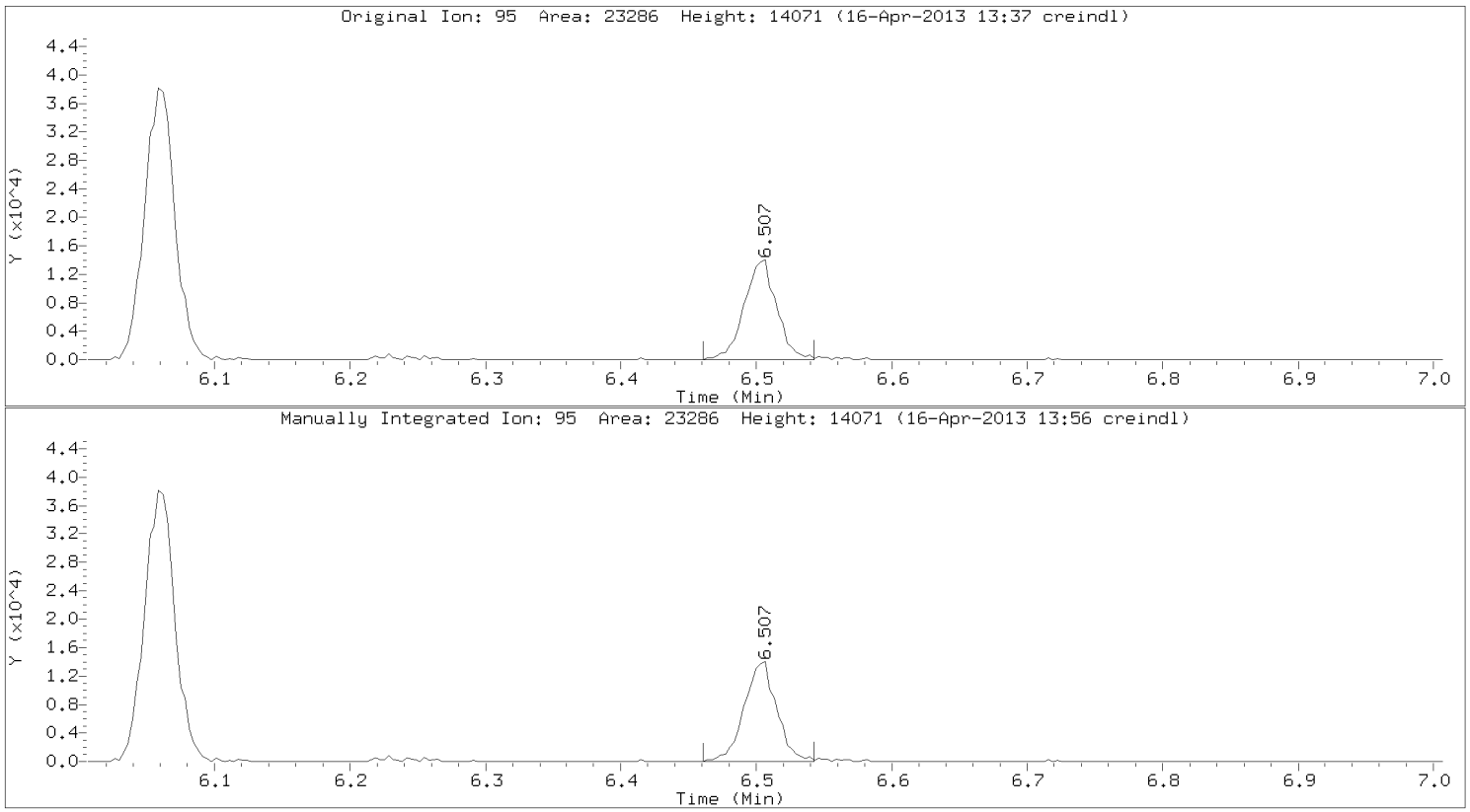






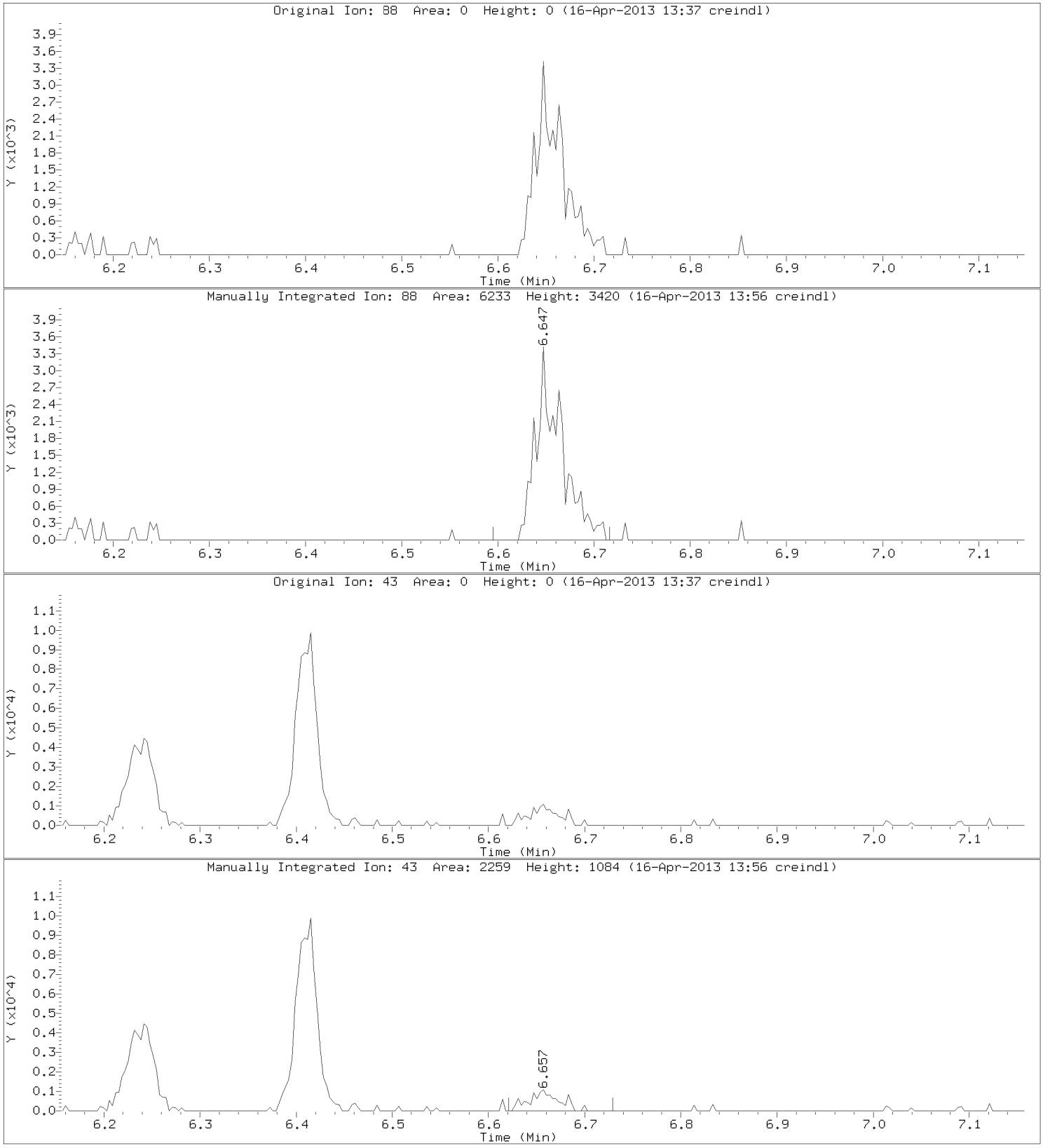


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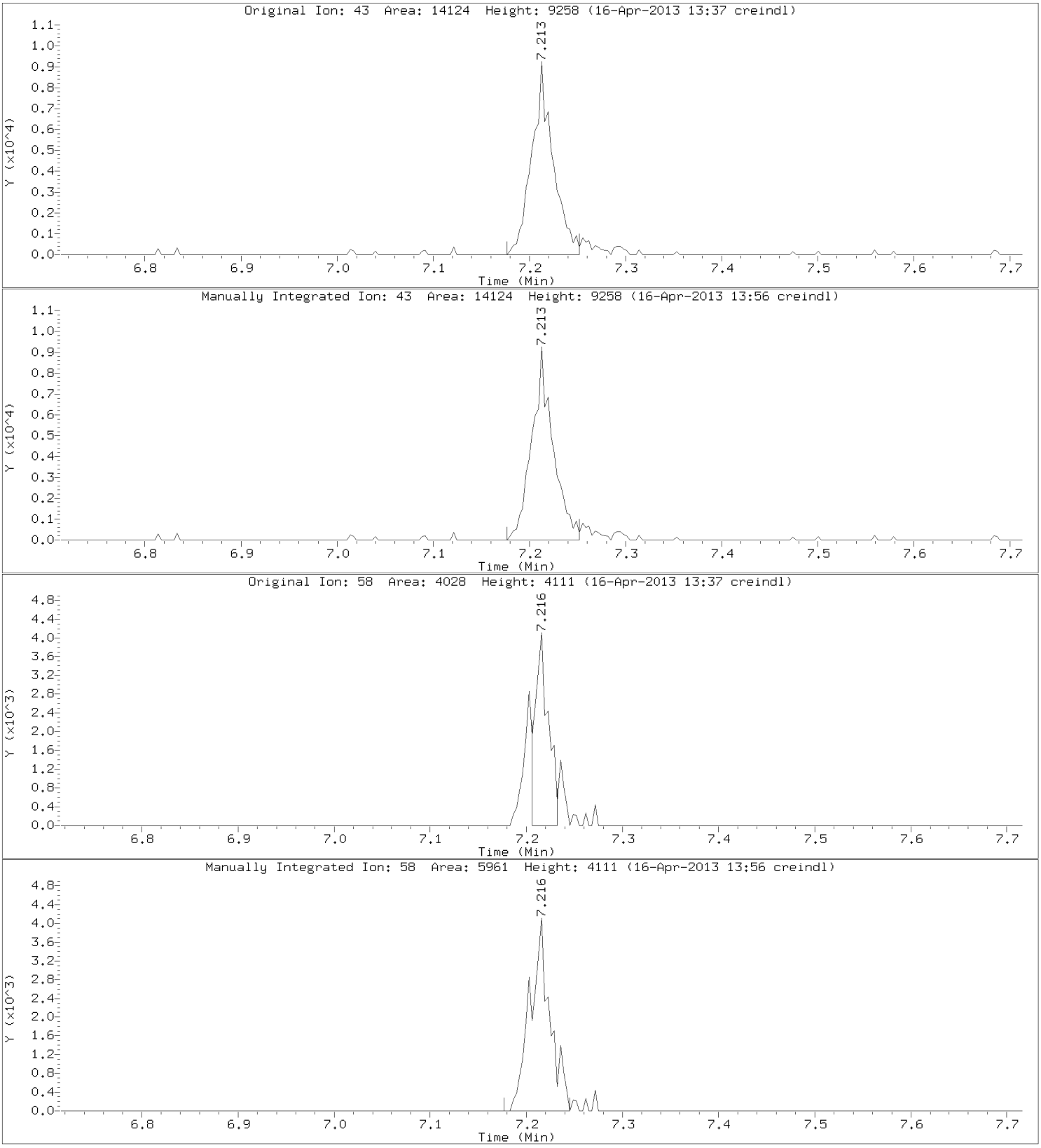
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,4-Dioxane
CAS Number: 123-91-1

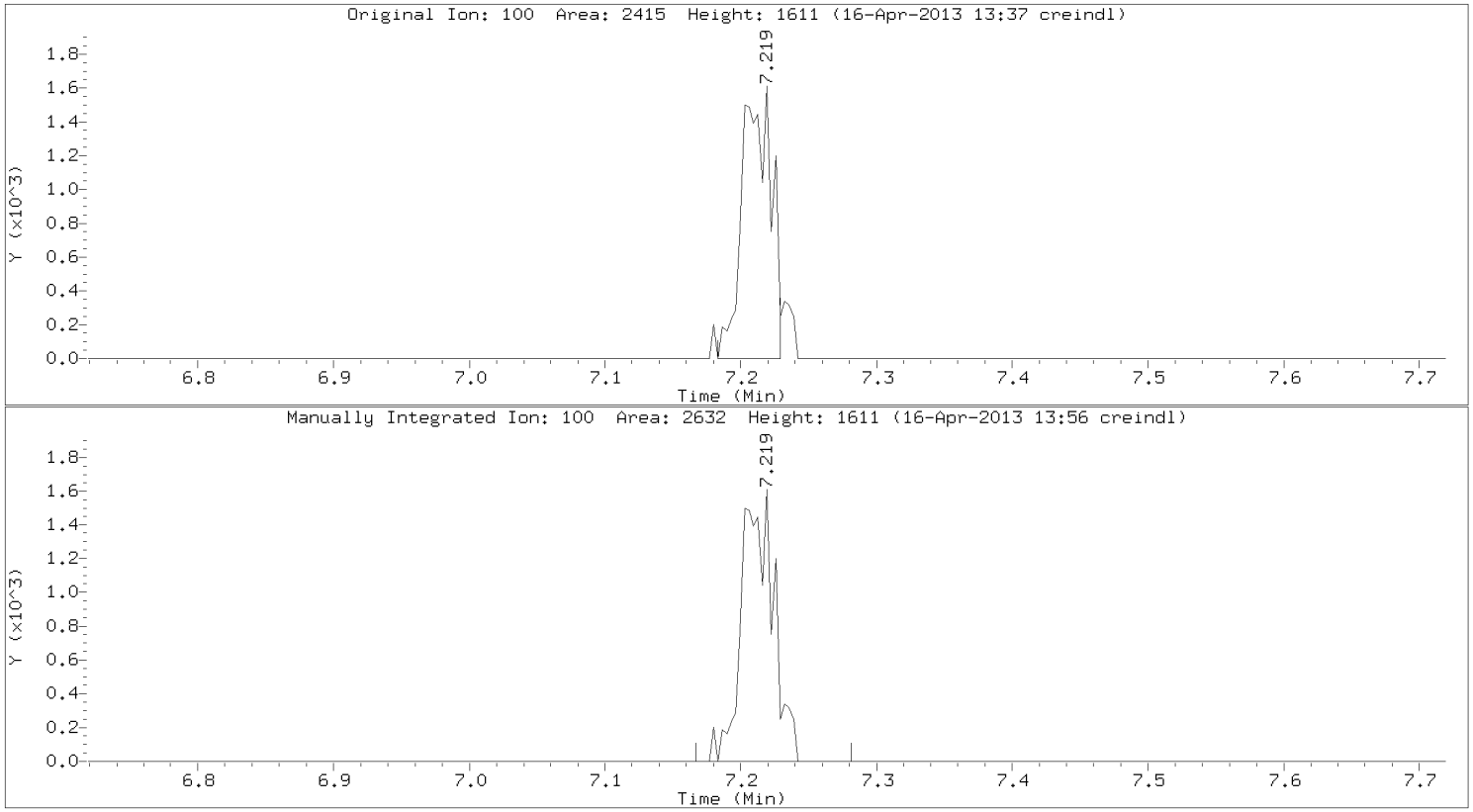


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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Methyl Isobutyl Ketone
CAS Number: 108-10-1

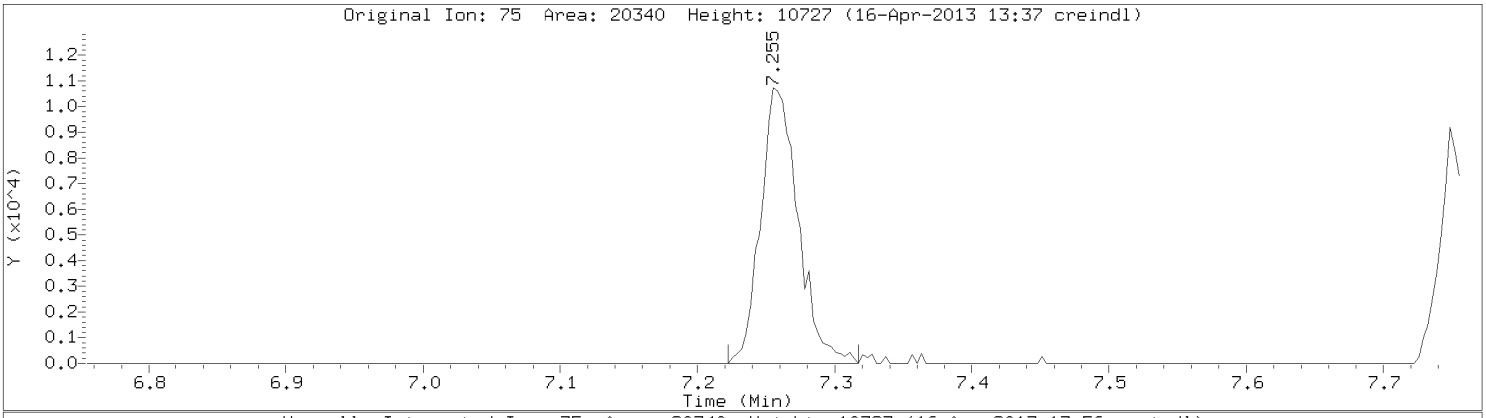


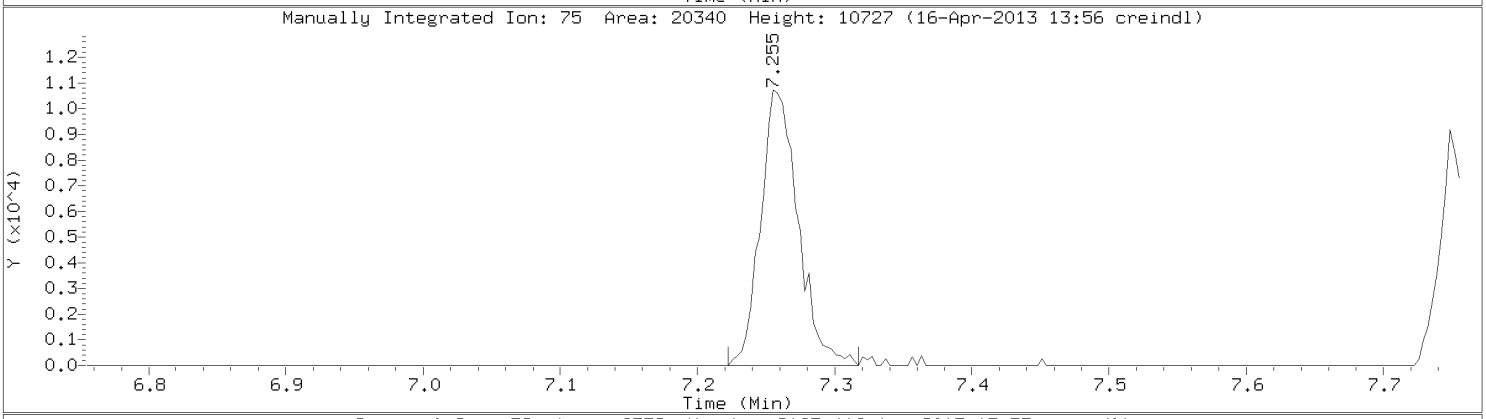
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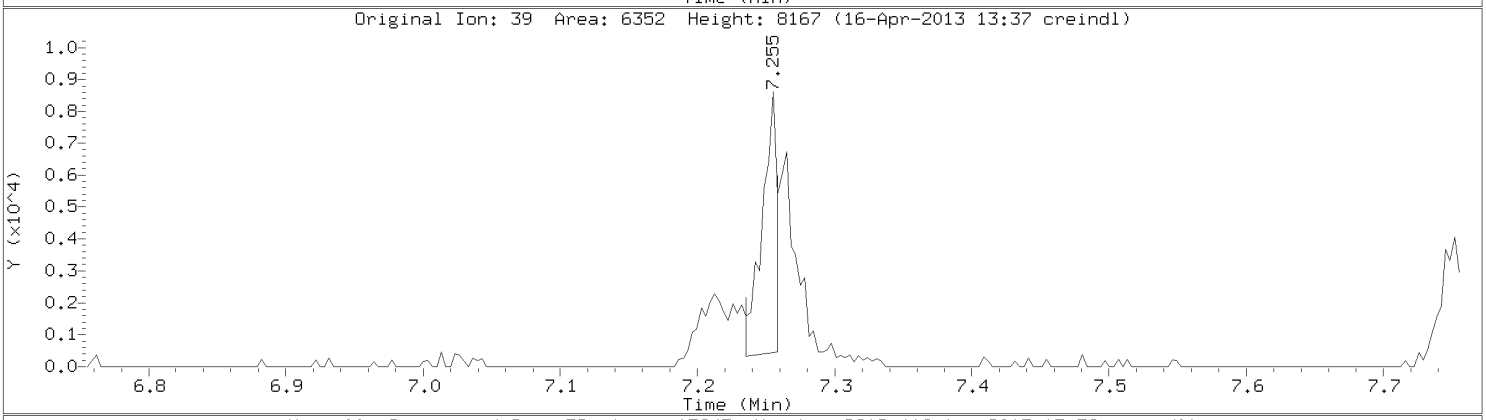


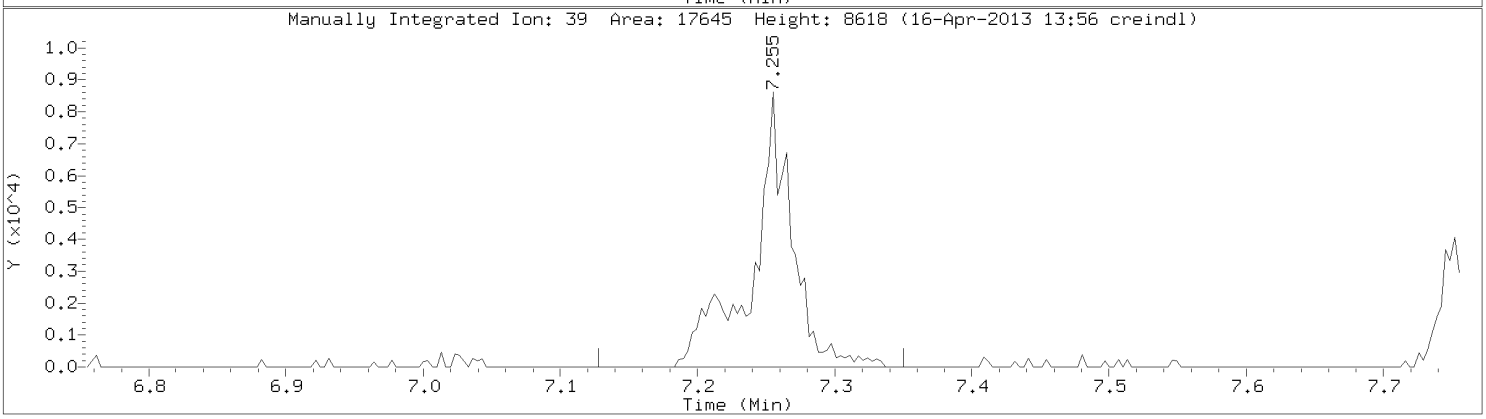
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5

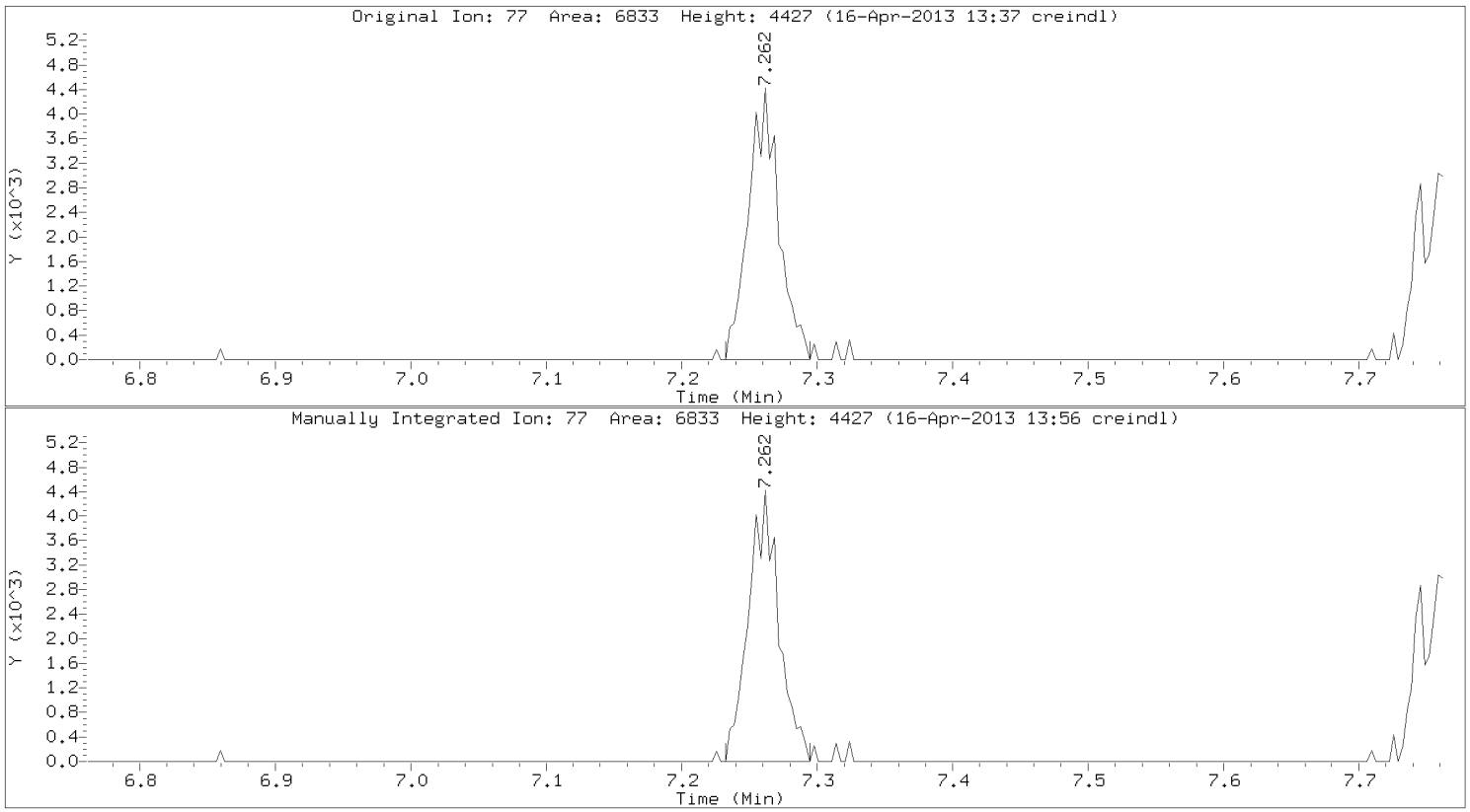






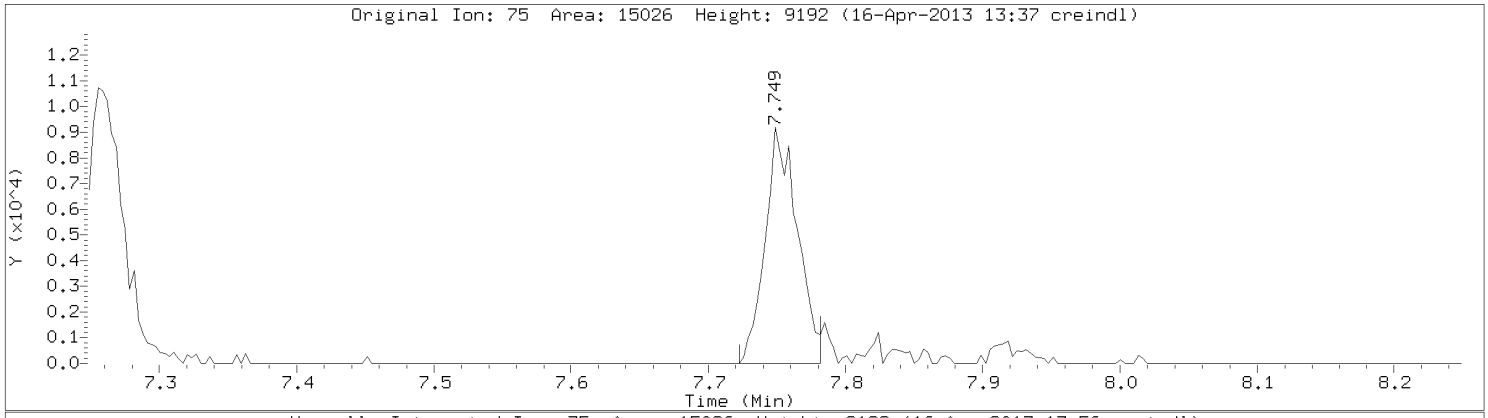


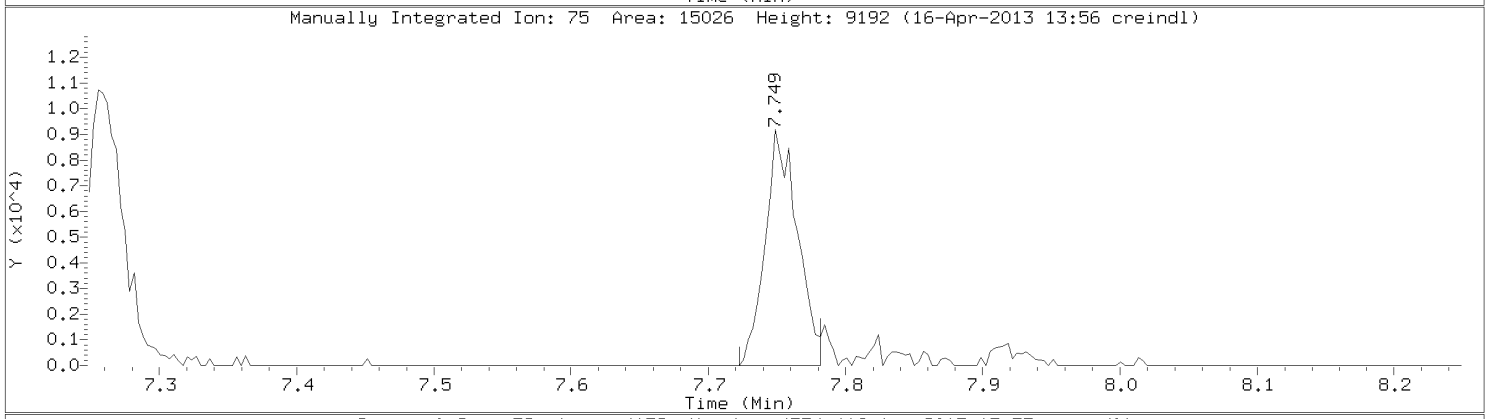
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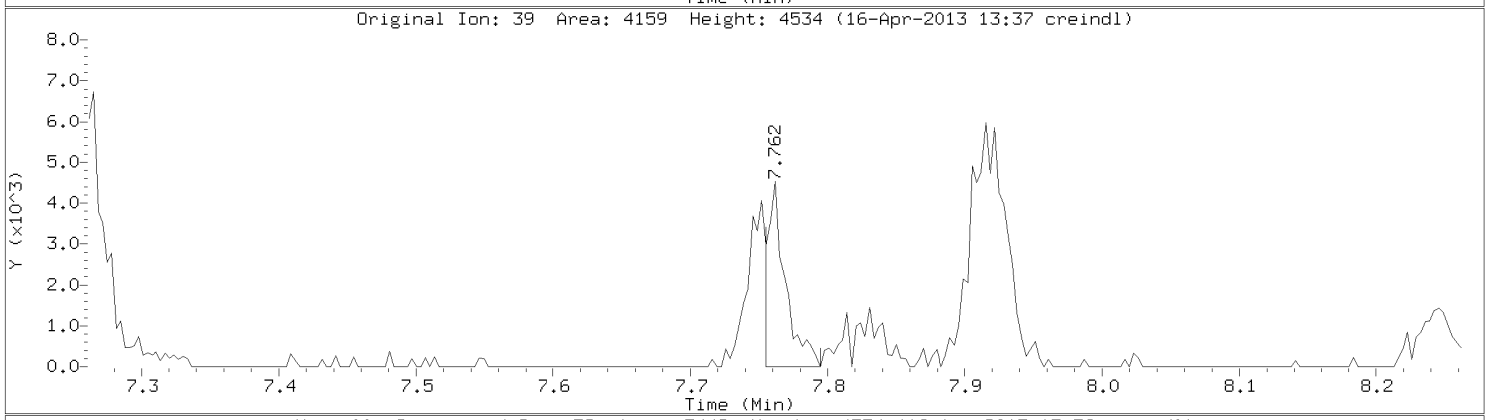


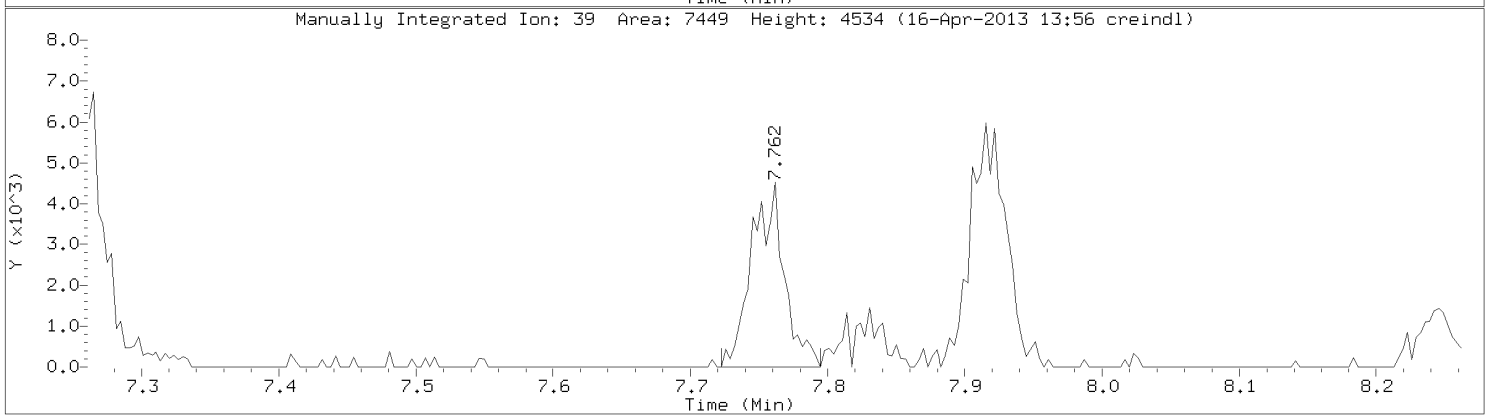
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: trans-1,3-Dichloropropene
CAS Number: 10061-02-6

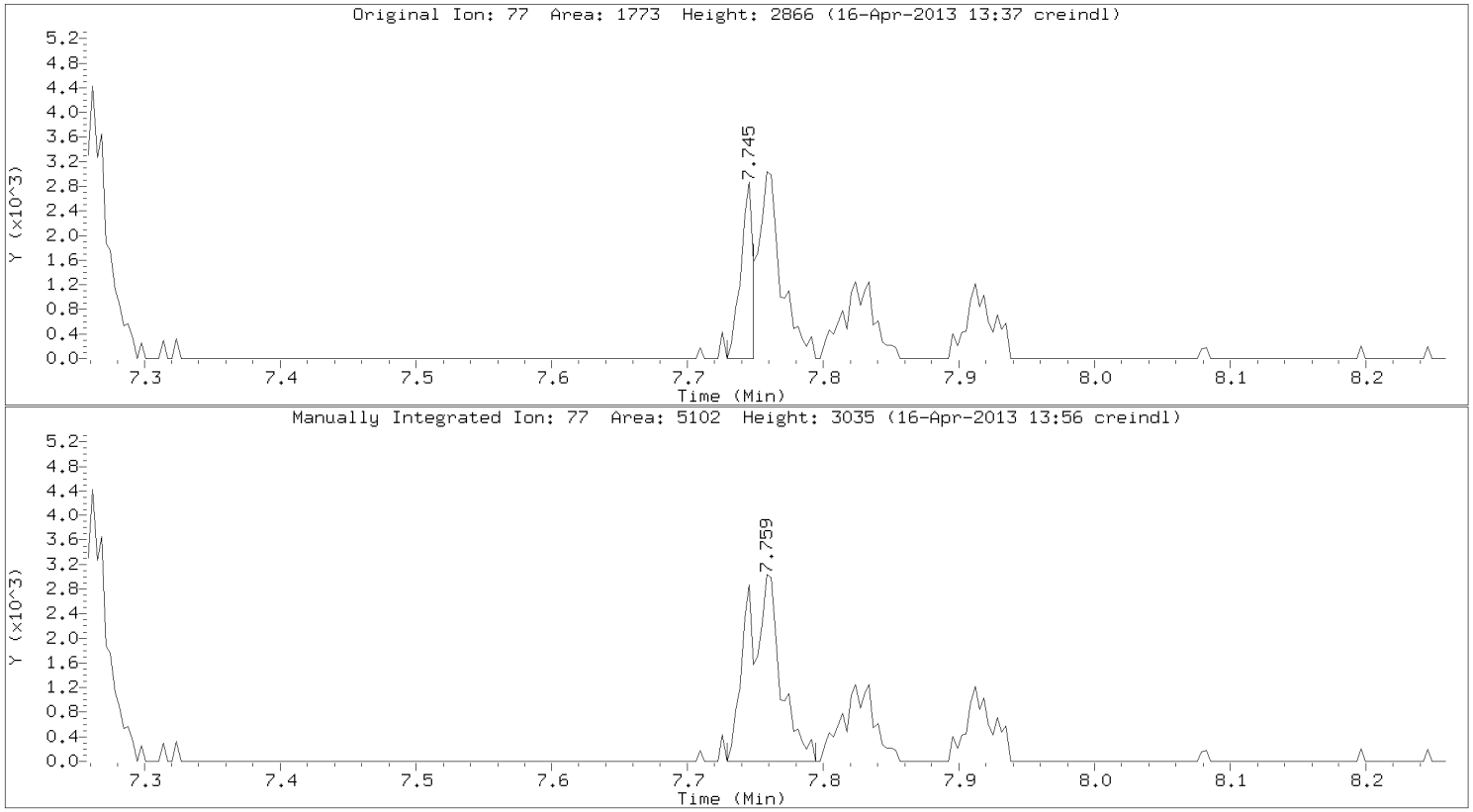






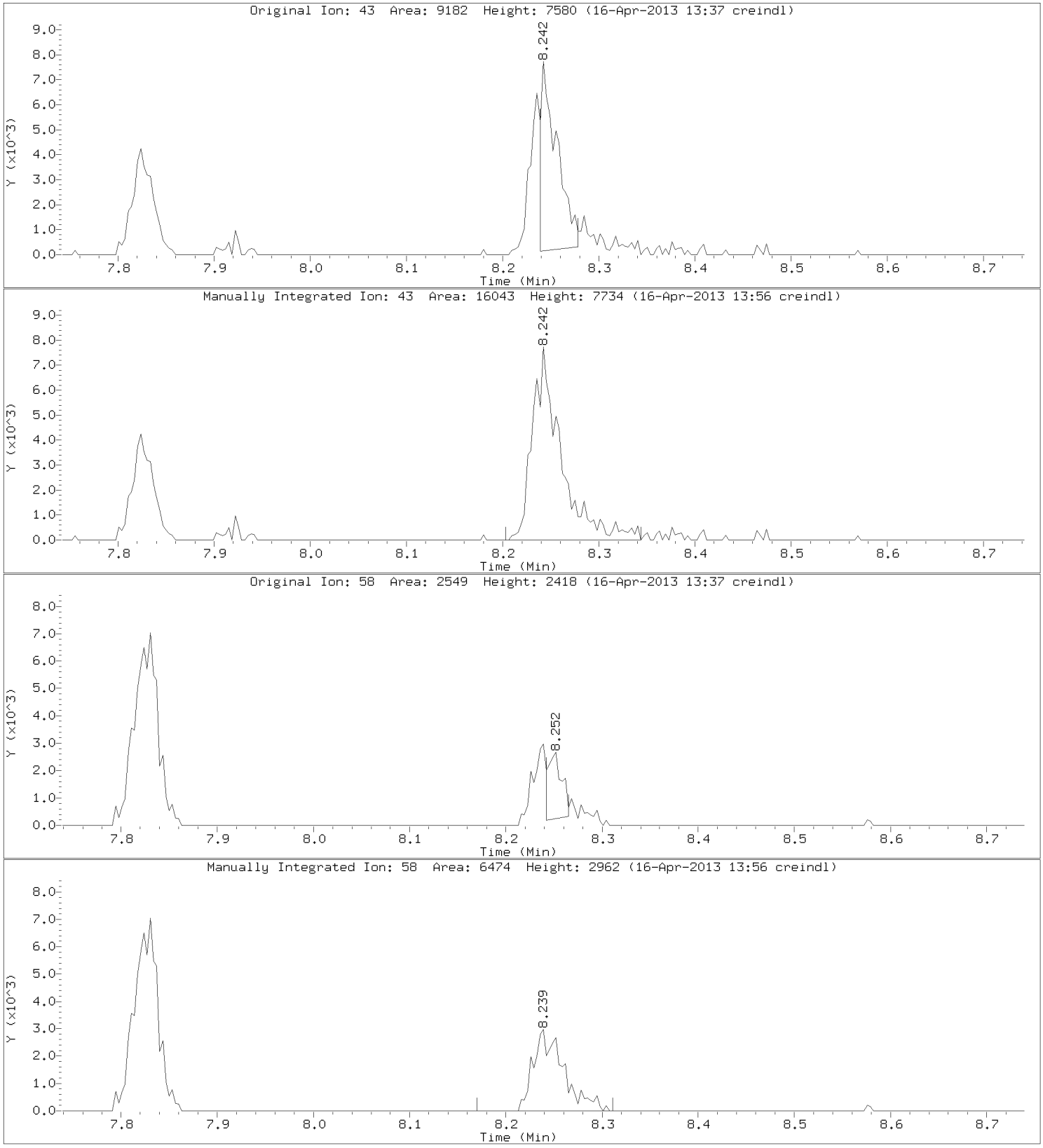


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Lab Sample ID: ICAL3



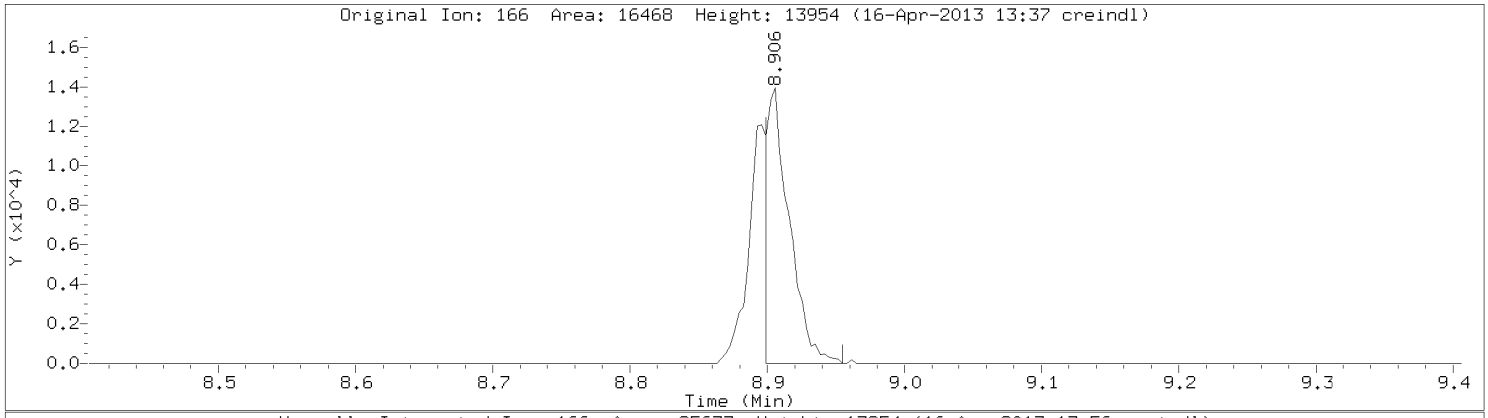
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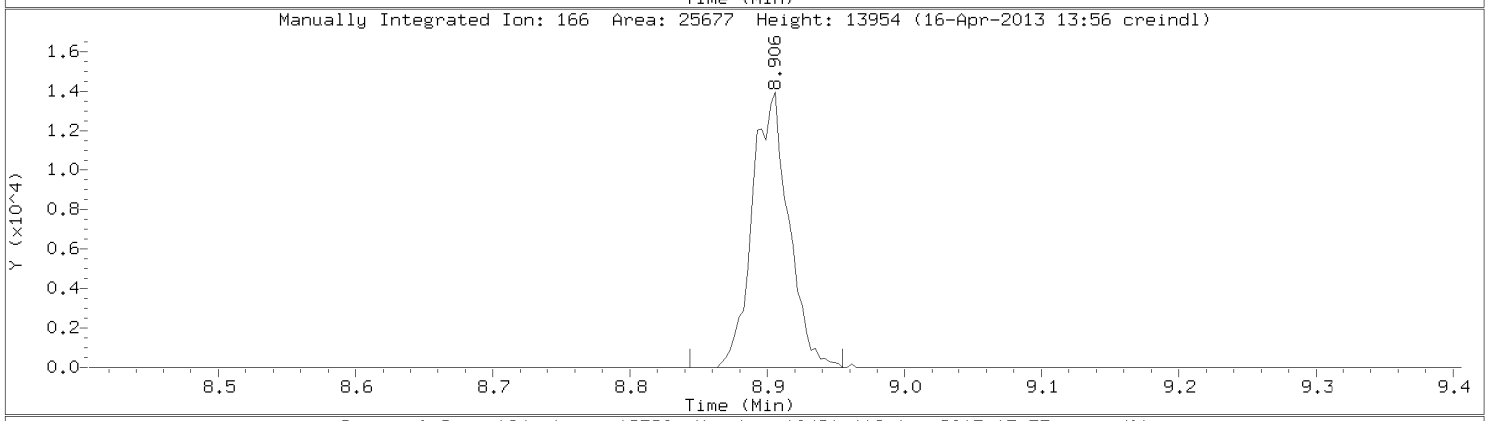
Compound: Methyl Butyl Ketone
CAS Number: 591-78-6

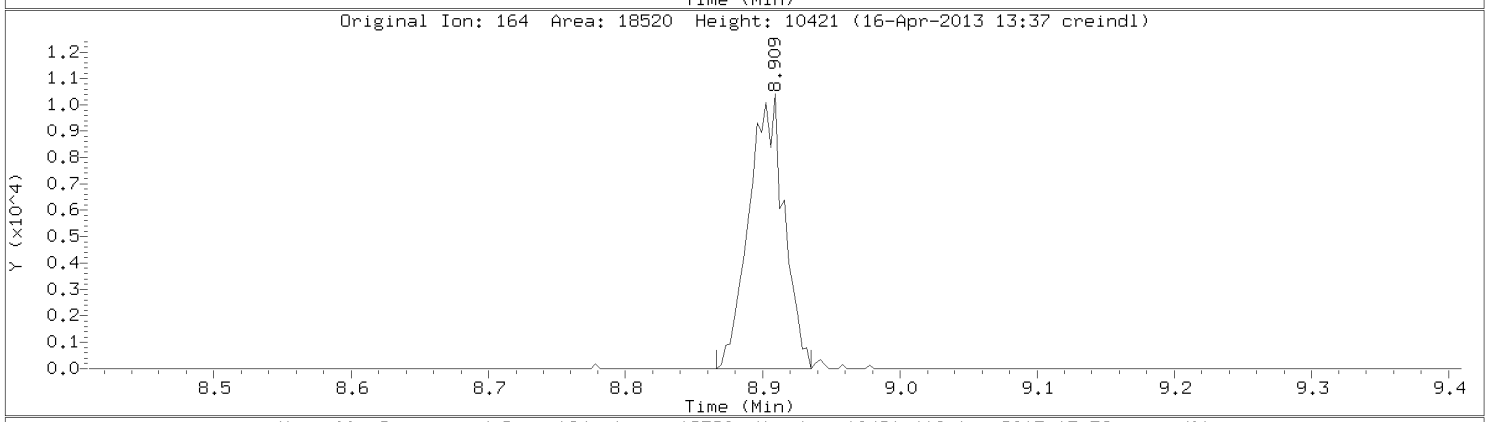


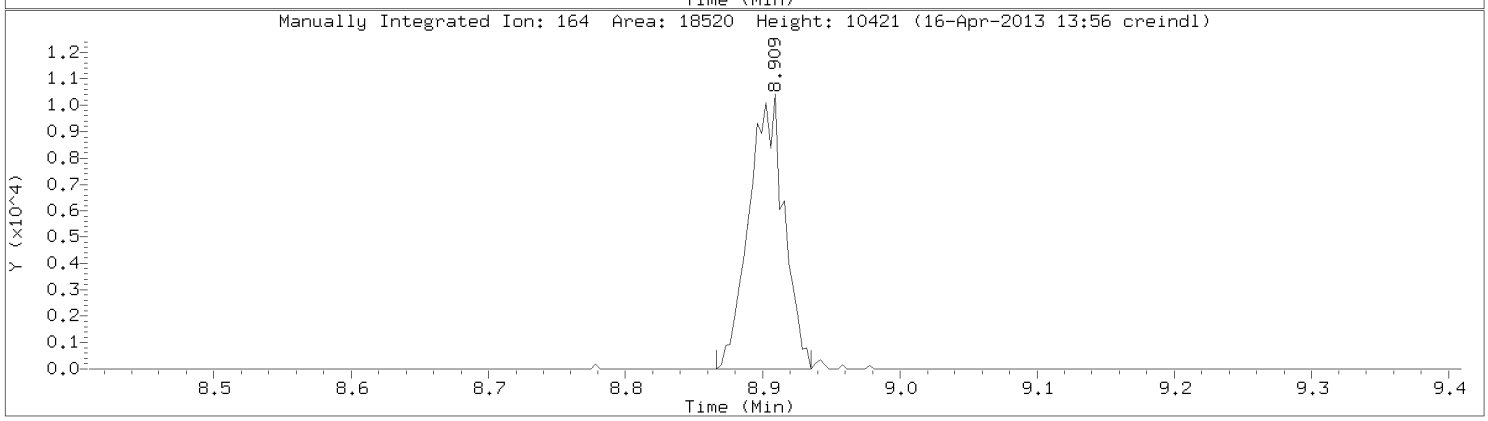
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Tetrachloroethene
CAS Number: 127-18-4

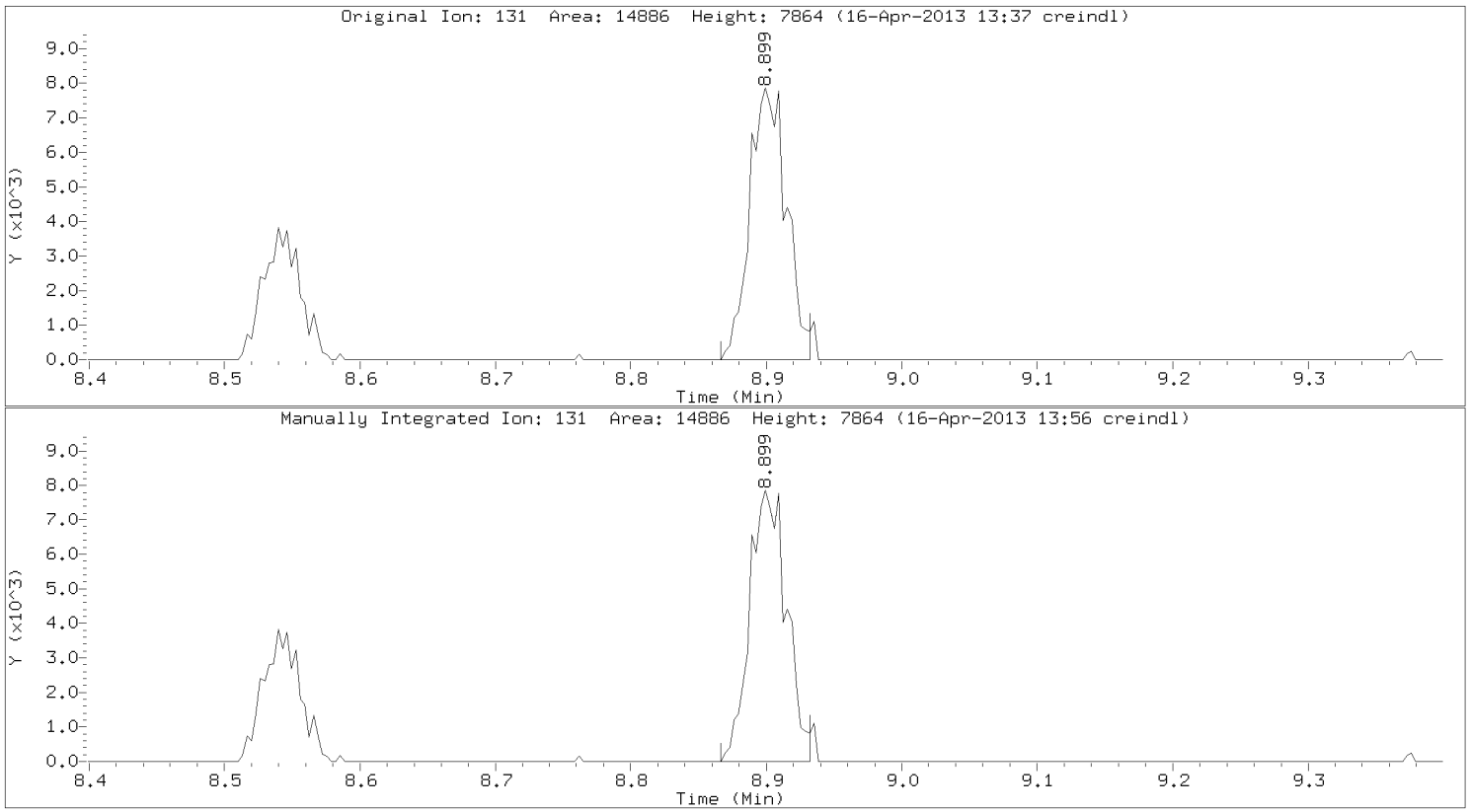






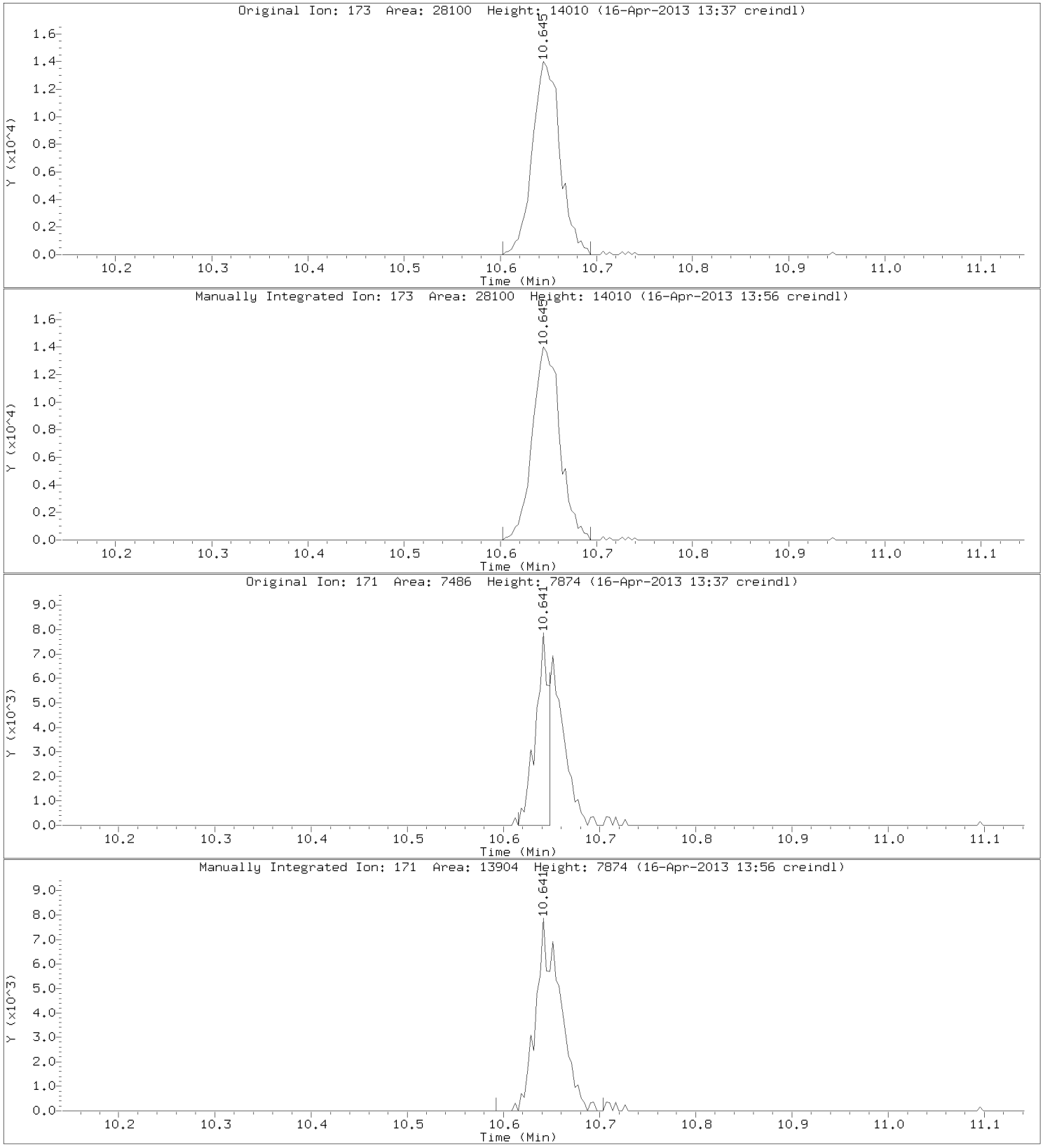


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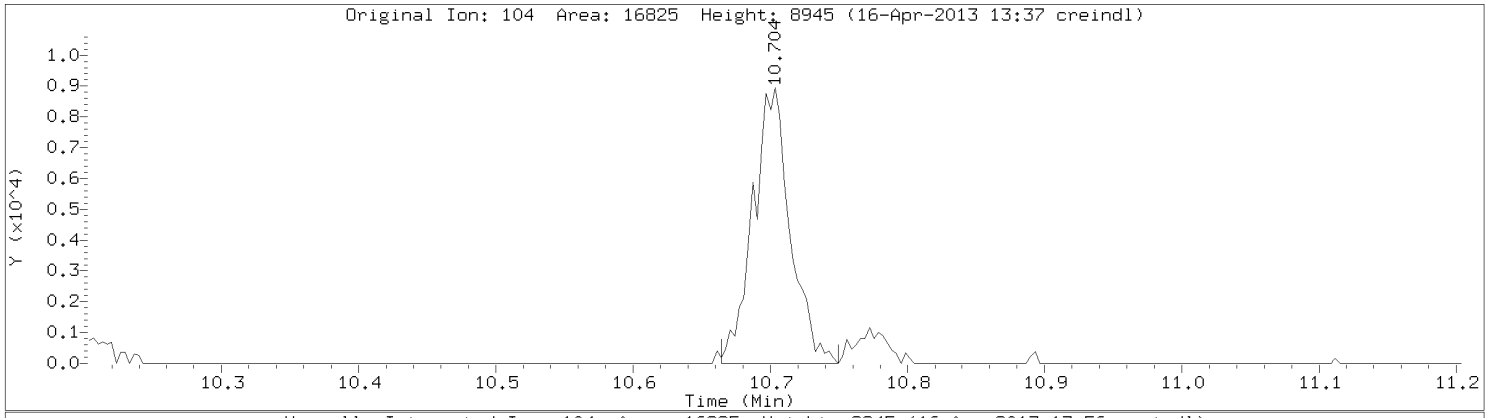
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

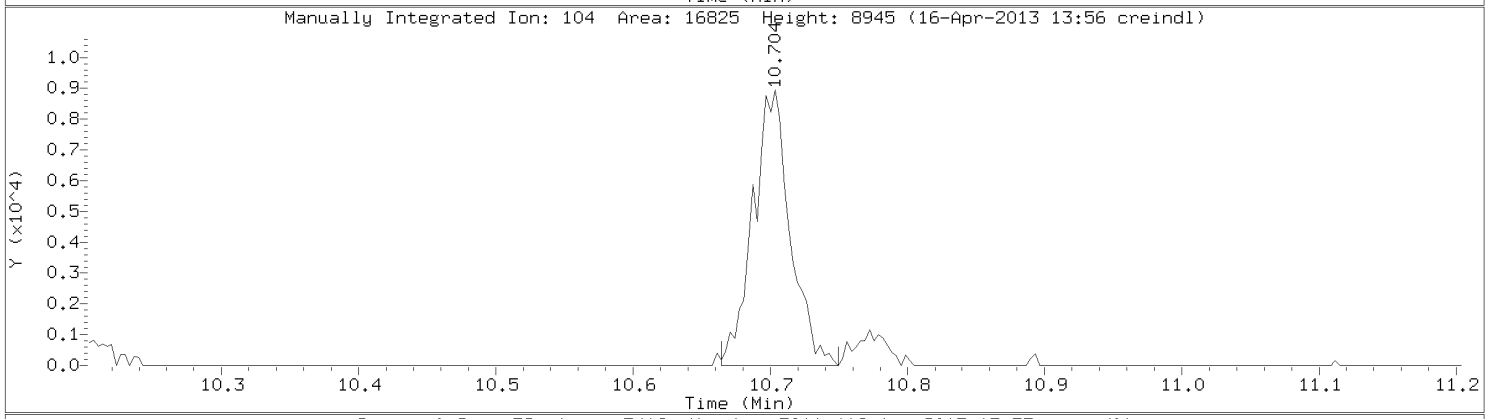
Compound: Bromoform
CAS Number: 75-25-2

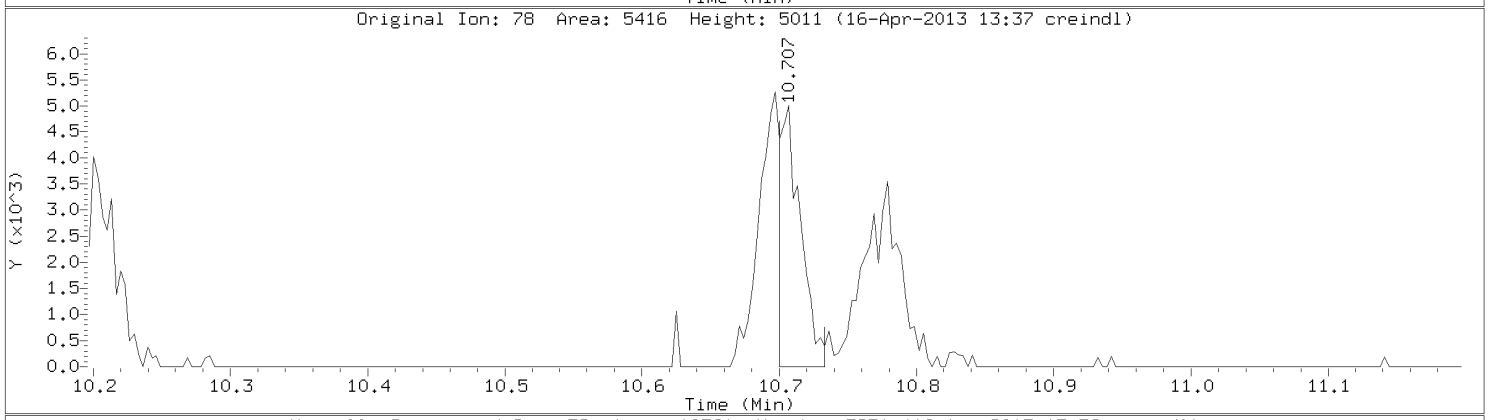


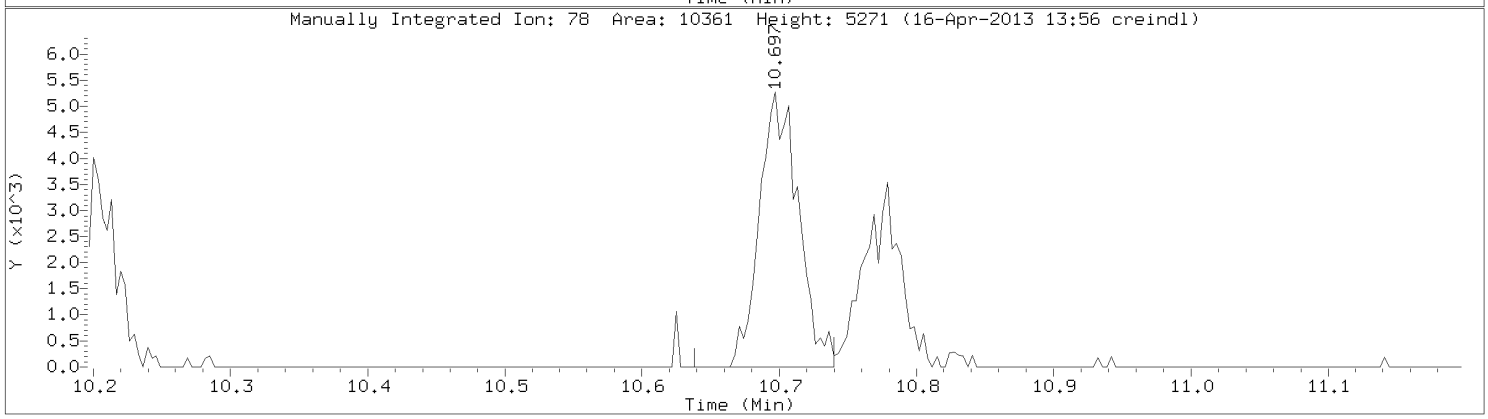
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Styrene
CAS Number: 100-42-5

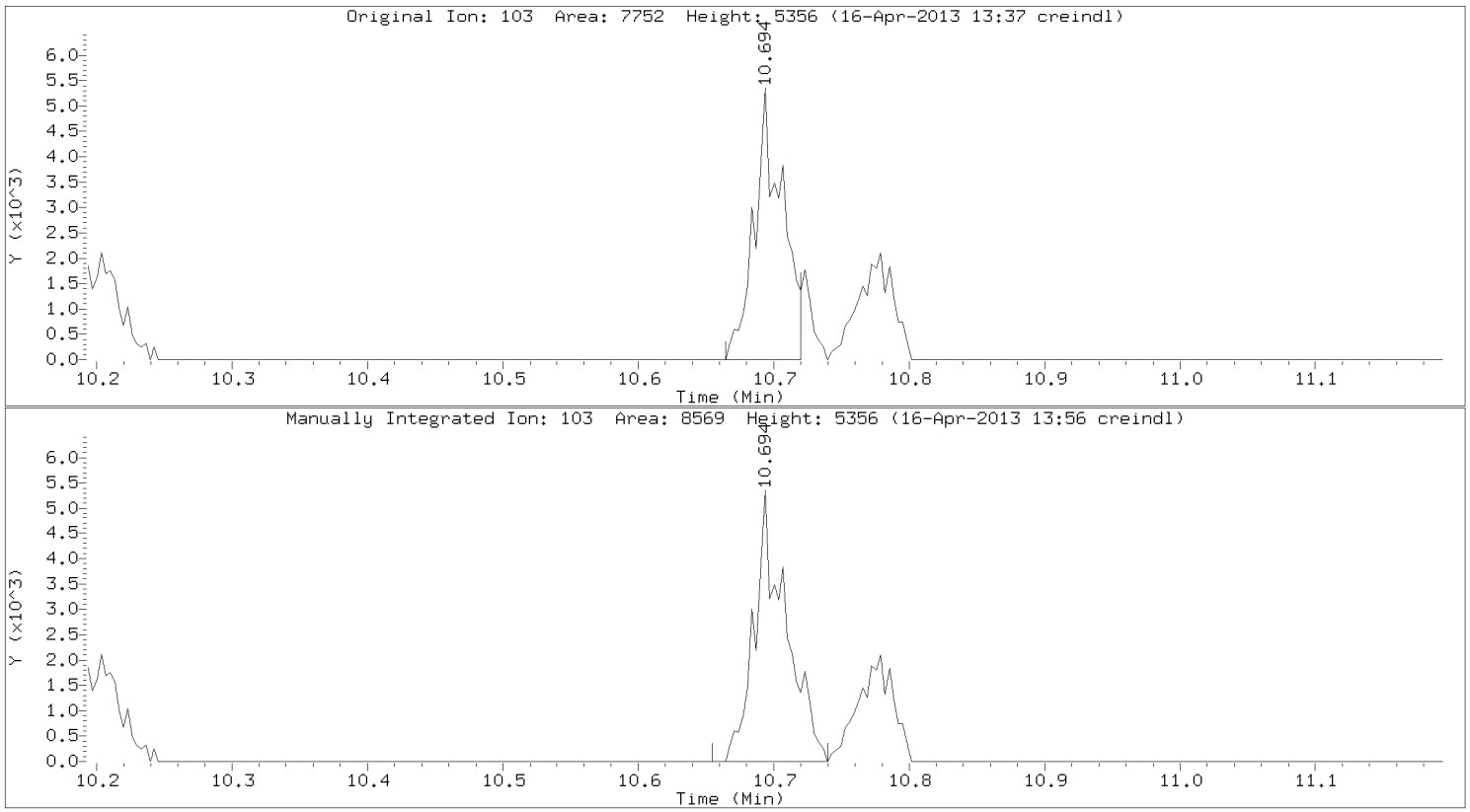






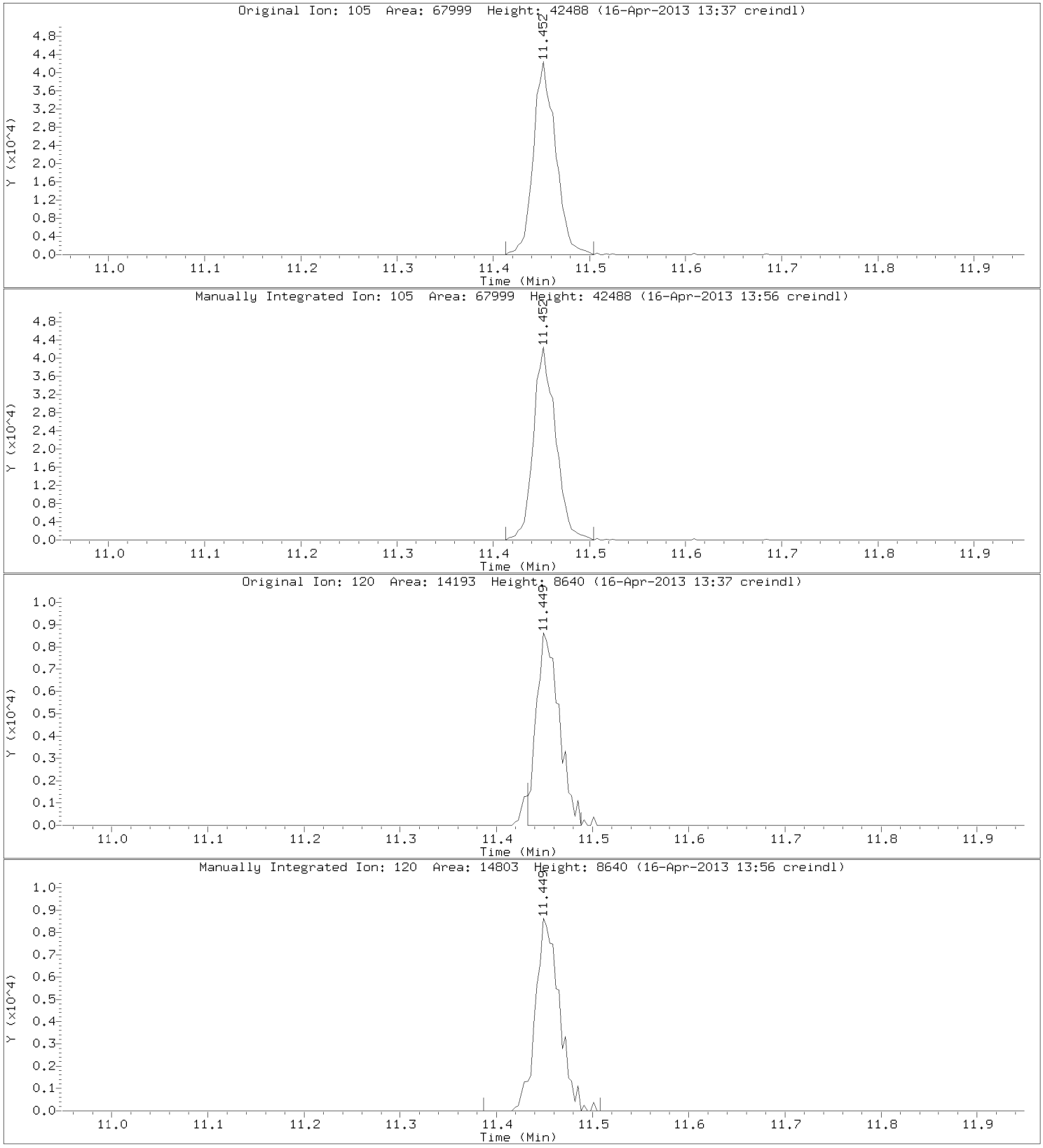


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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3



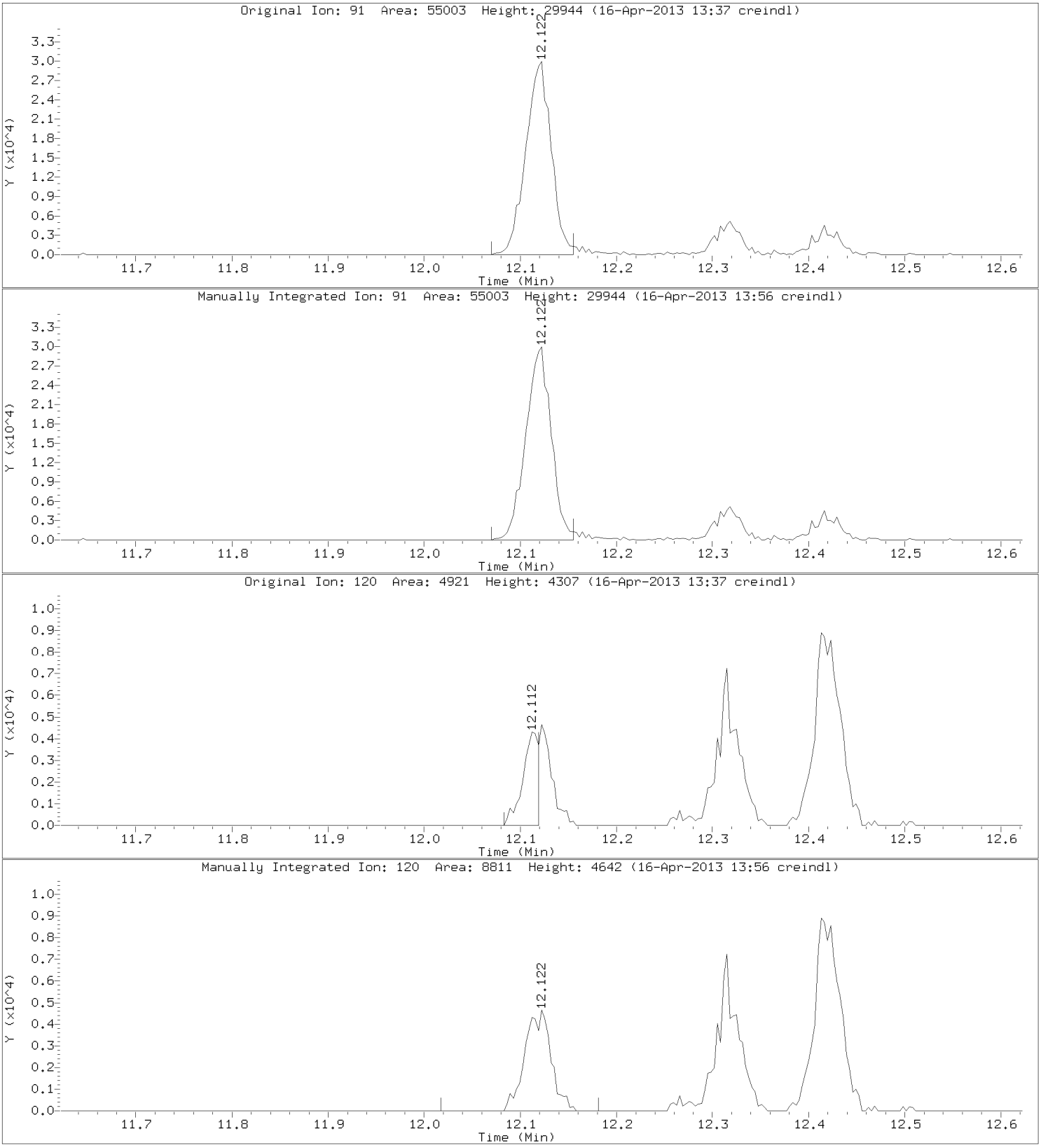
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Isopropylbenzene
CAS Number:



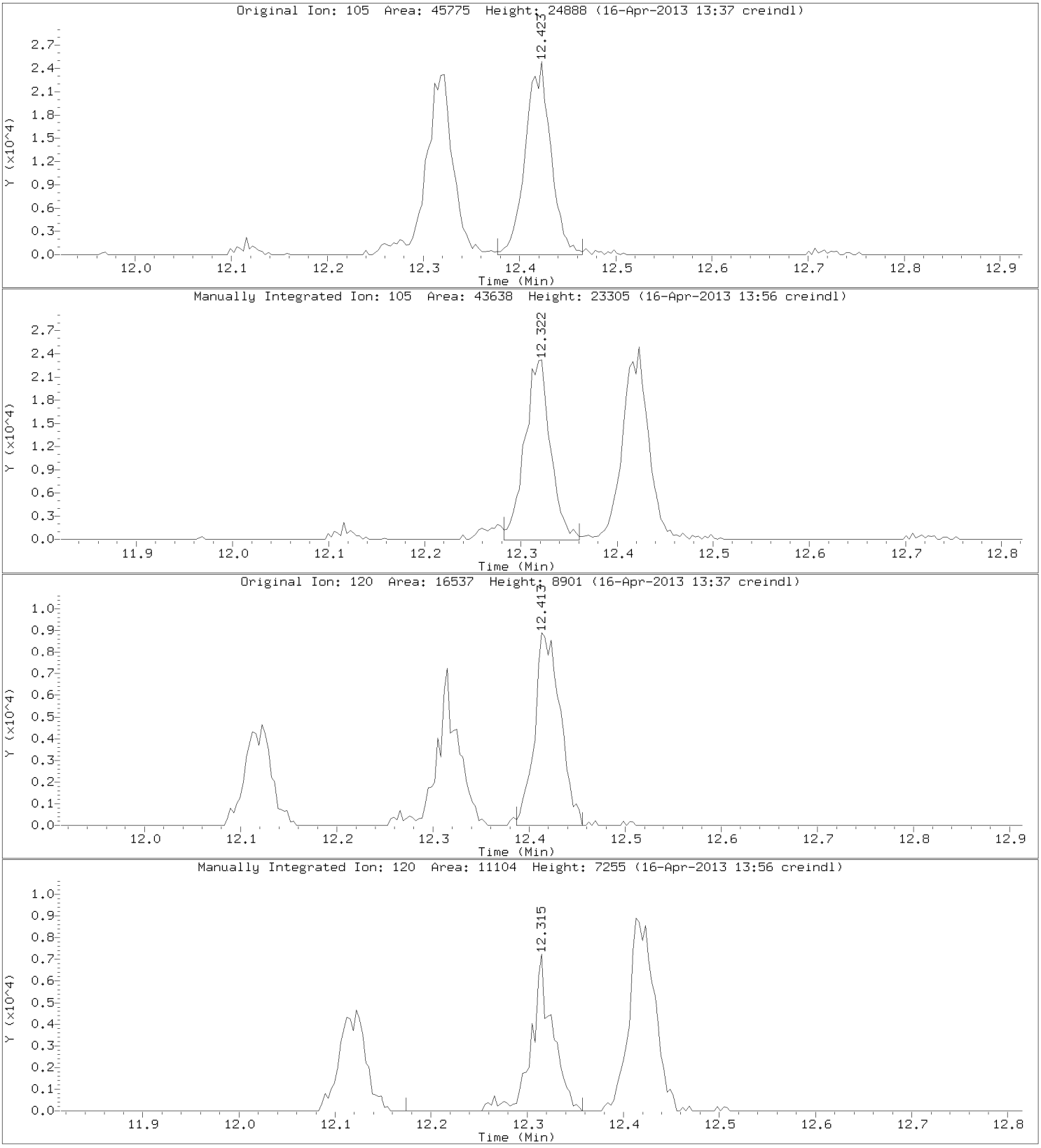
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: N-Propylbenzene
CAS Number: 103-65-1

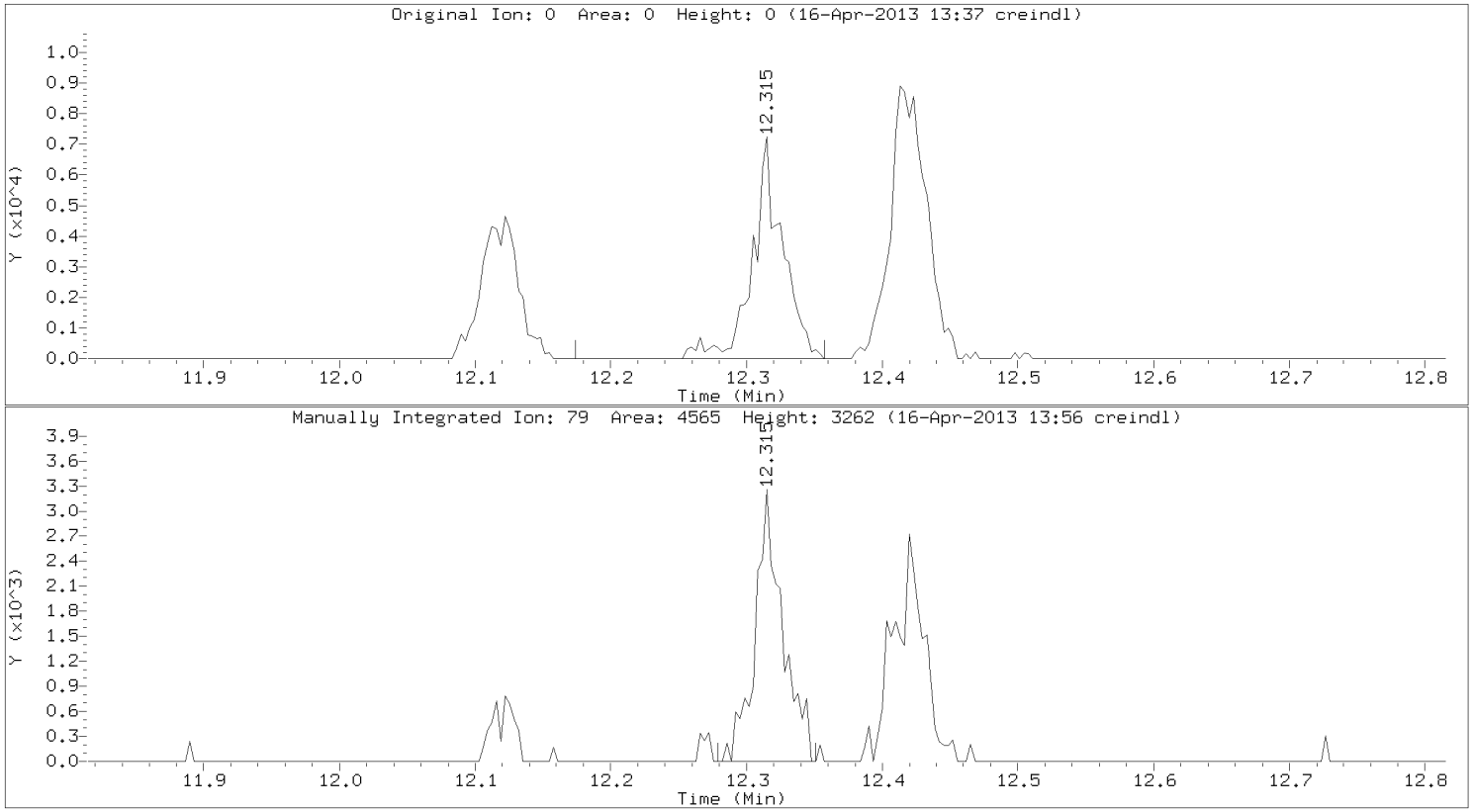


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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

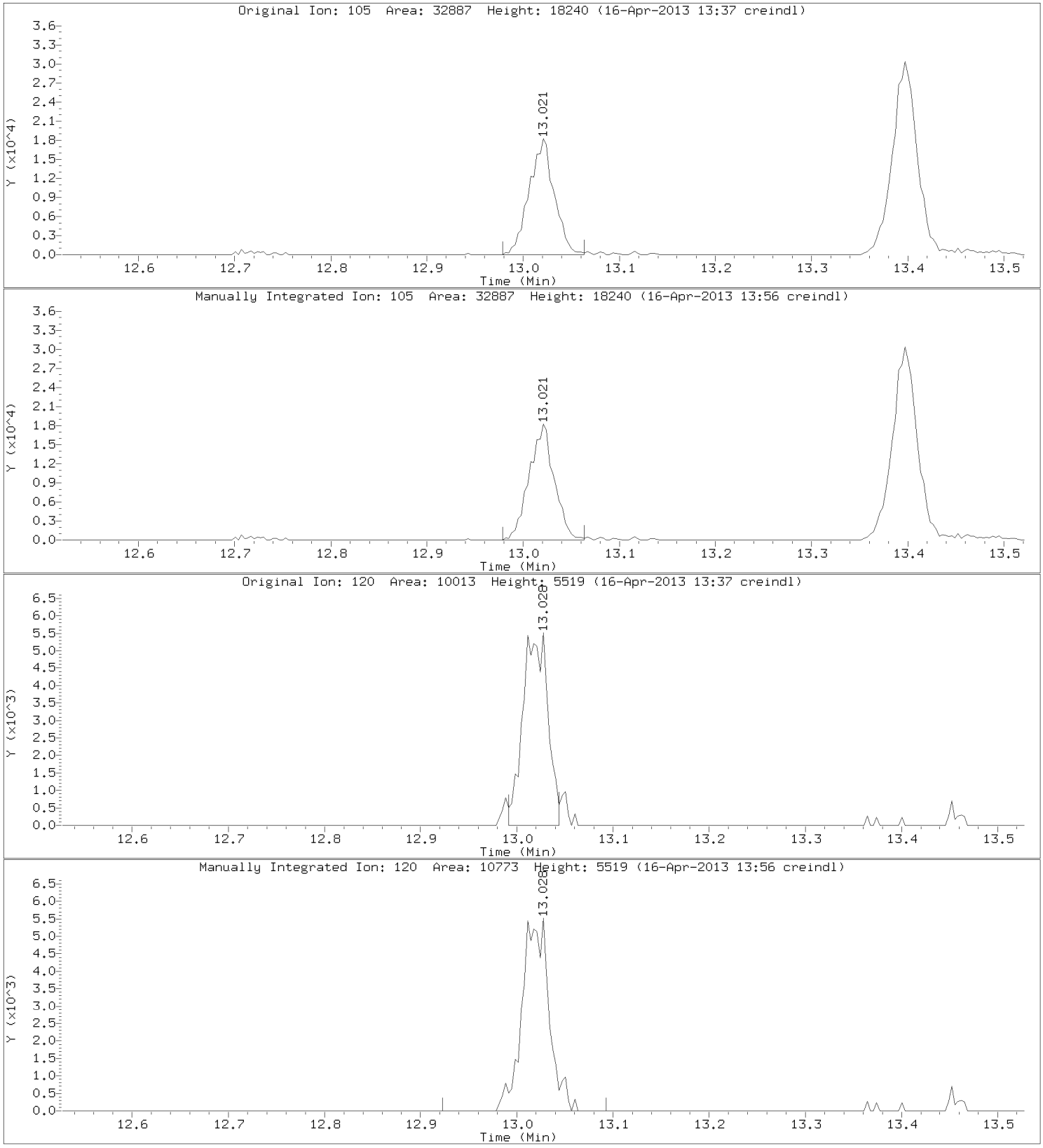


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Lab Sample ID: ICAL3



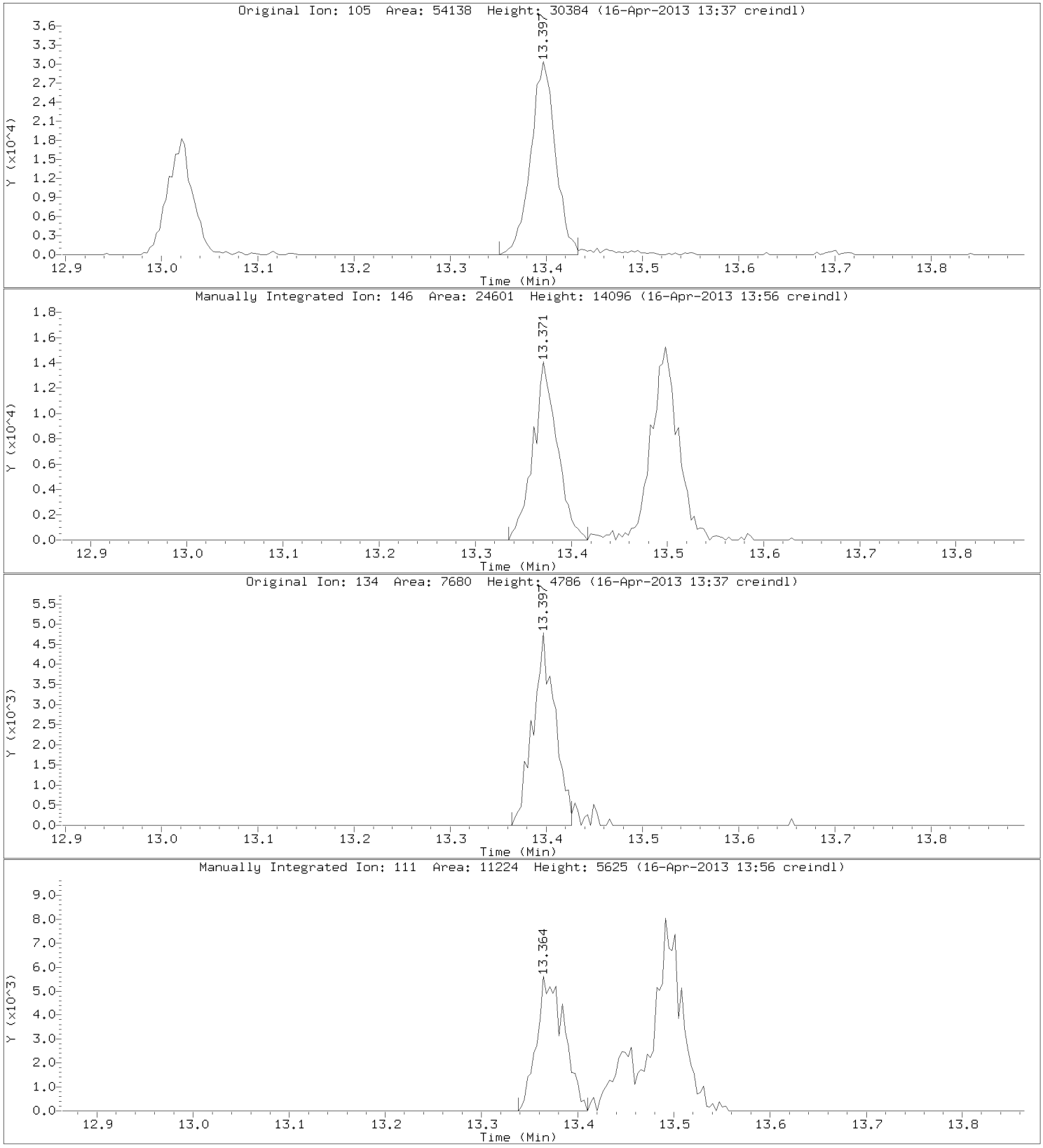
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6

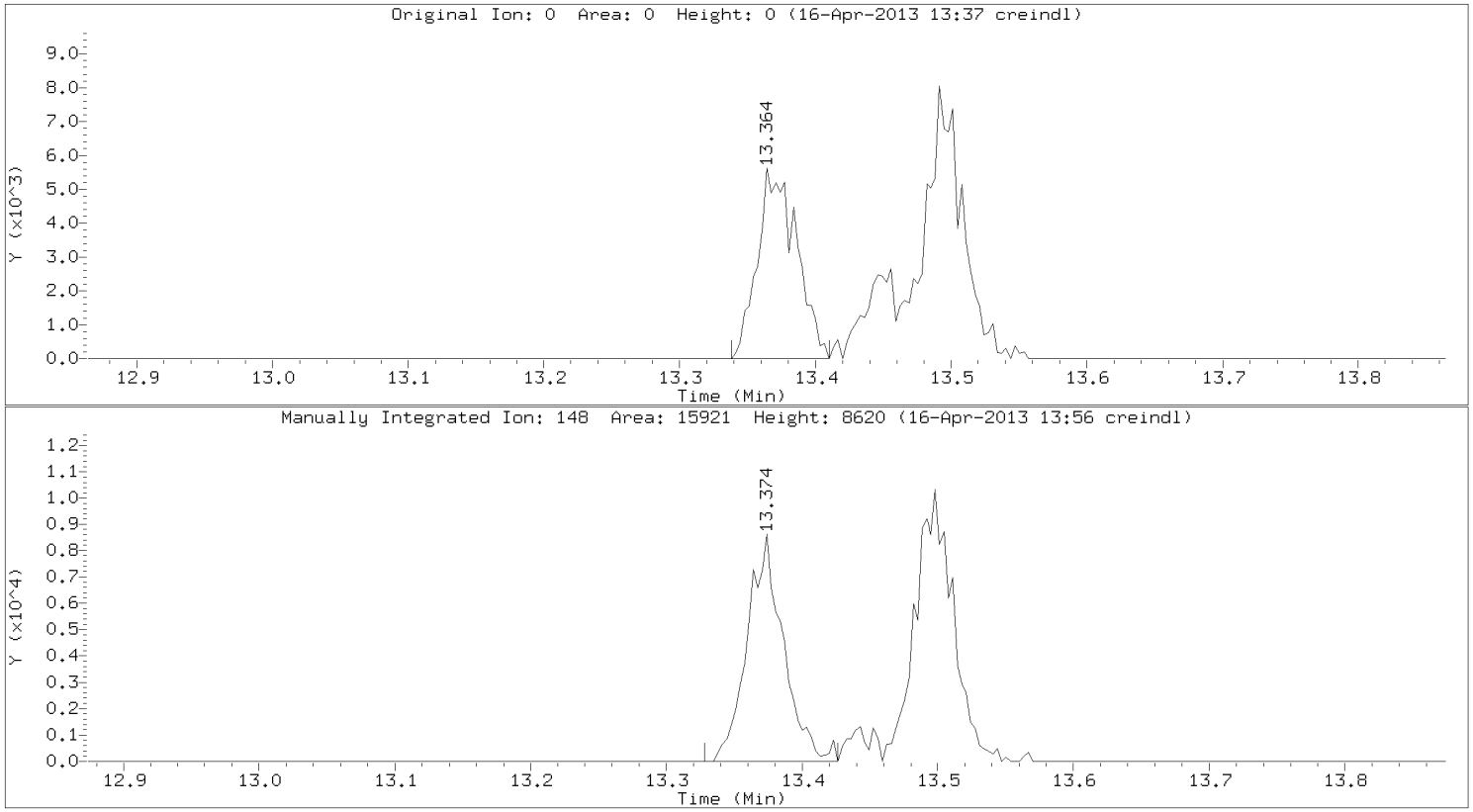


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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,3-Dichlorobenzene
CAS Number: 541-73-1

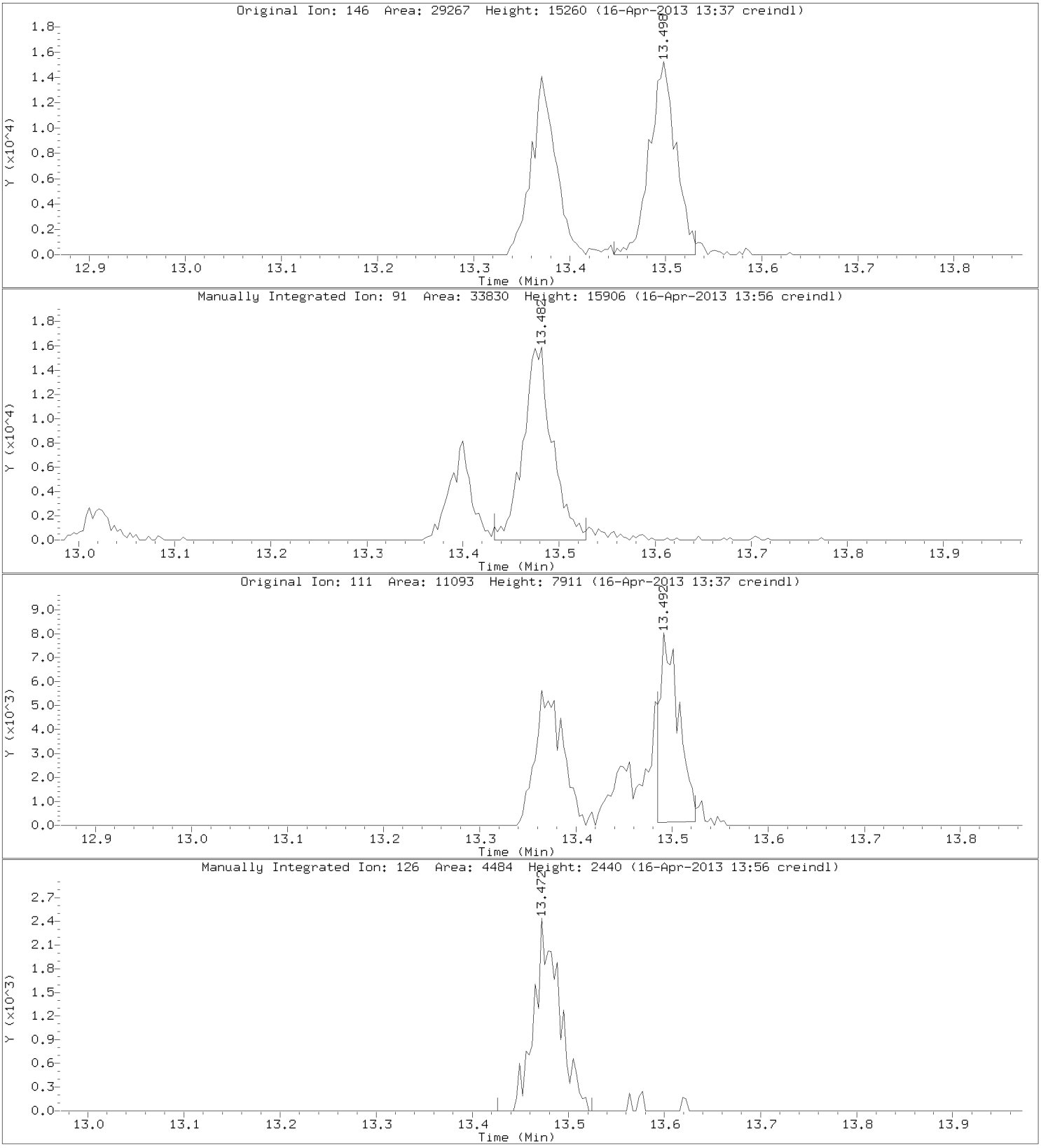


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Lab Sample ID: ICAL3



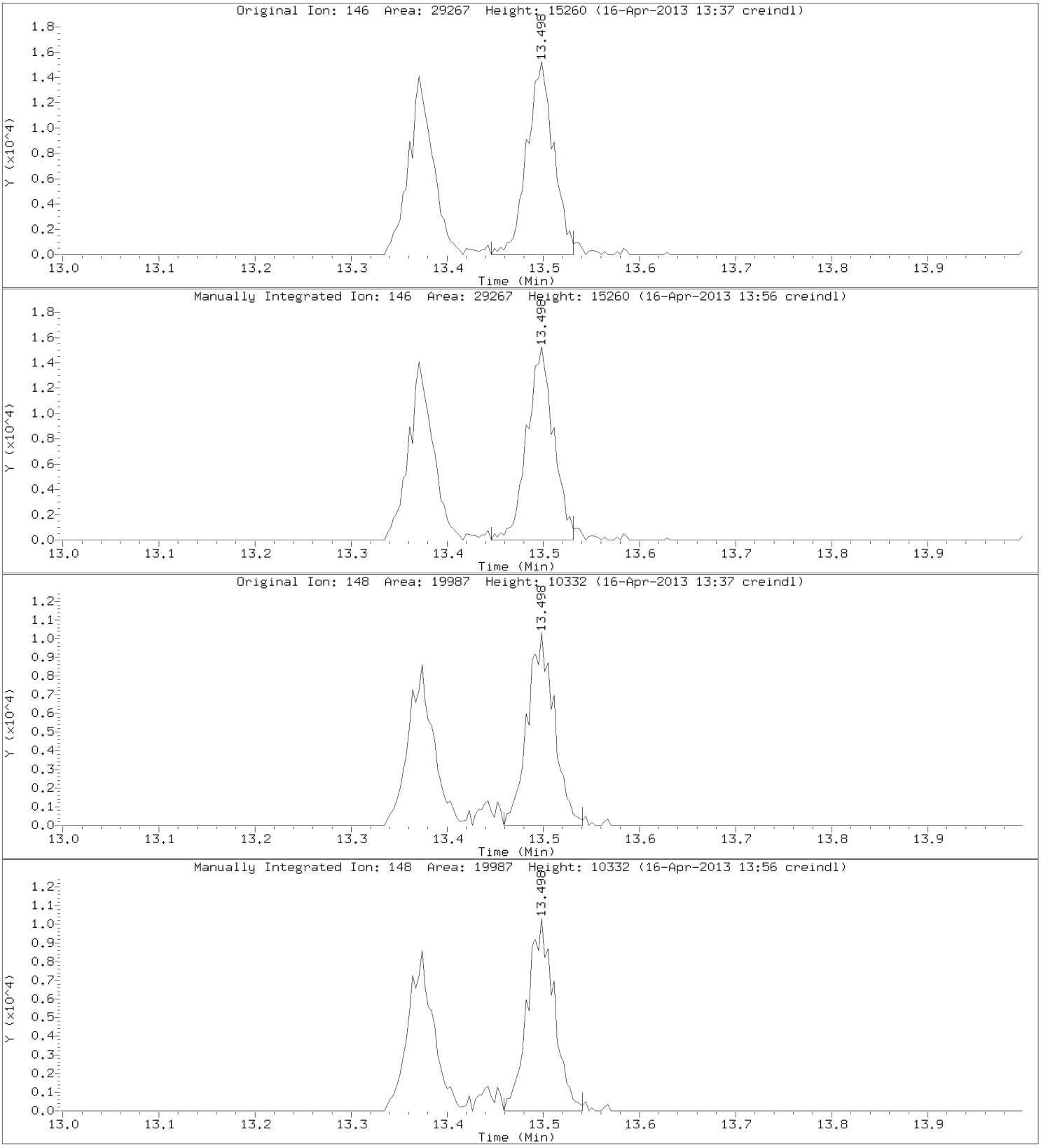
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Benzyl Chloride
CAS Number: 100-44-7

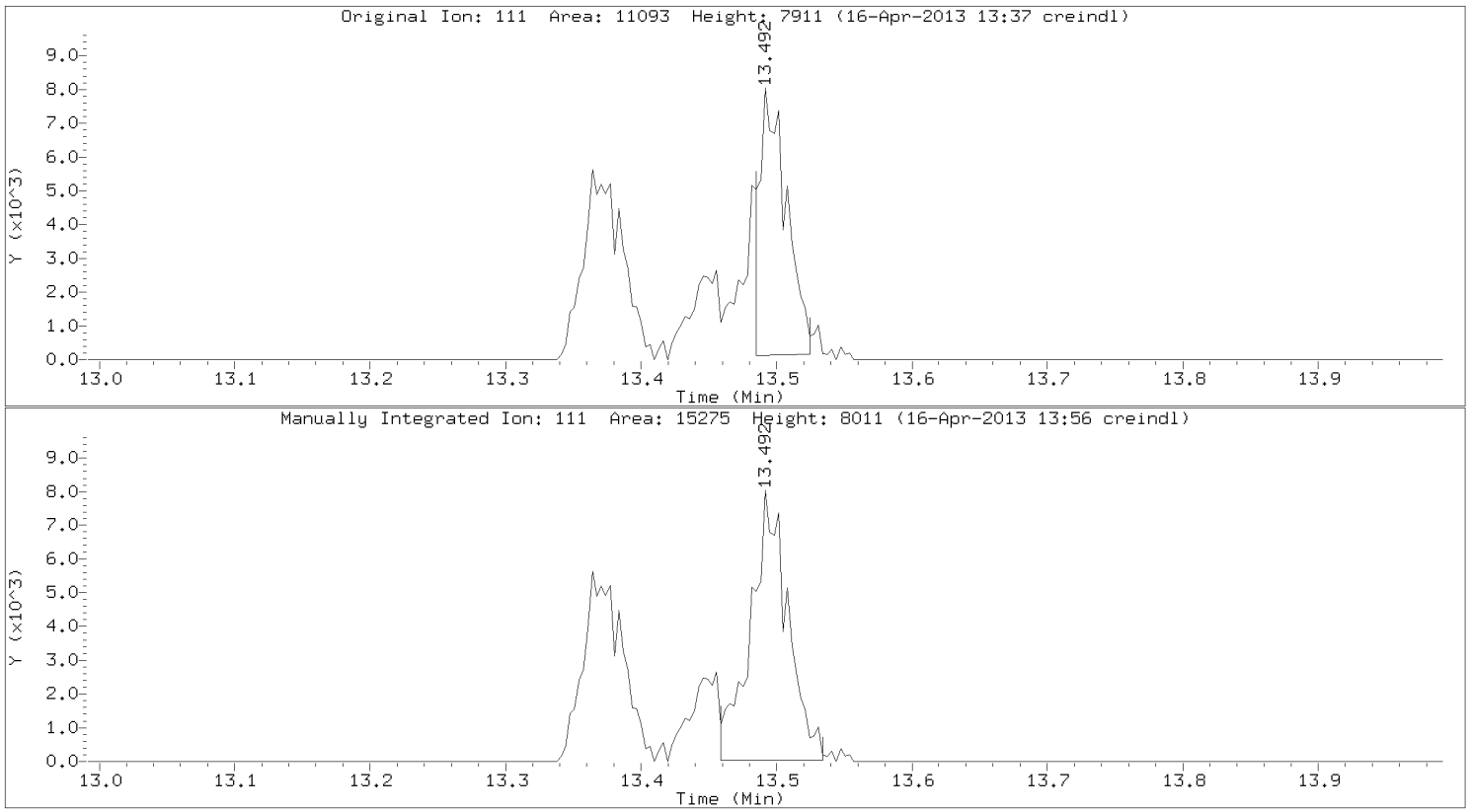


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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7

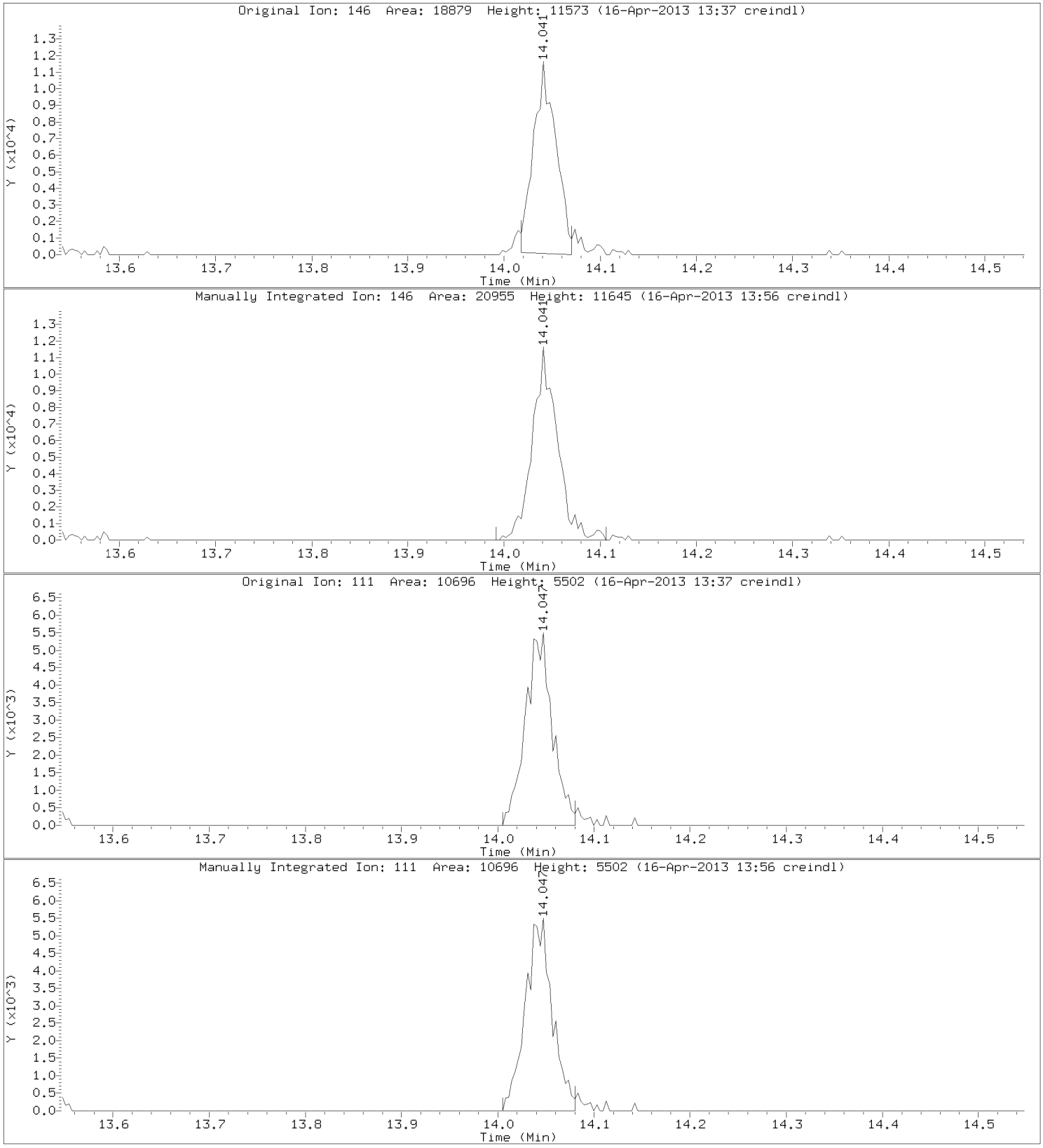


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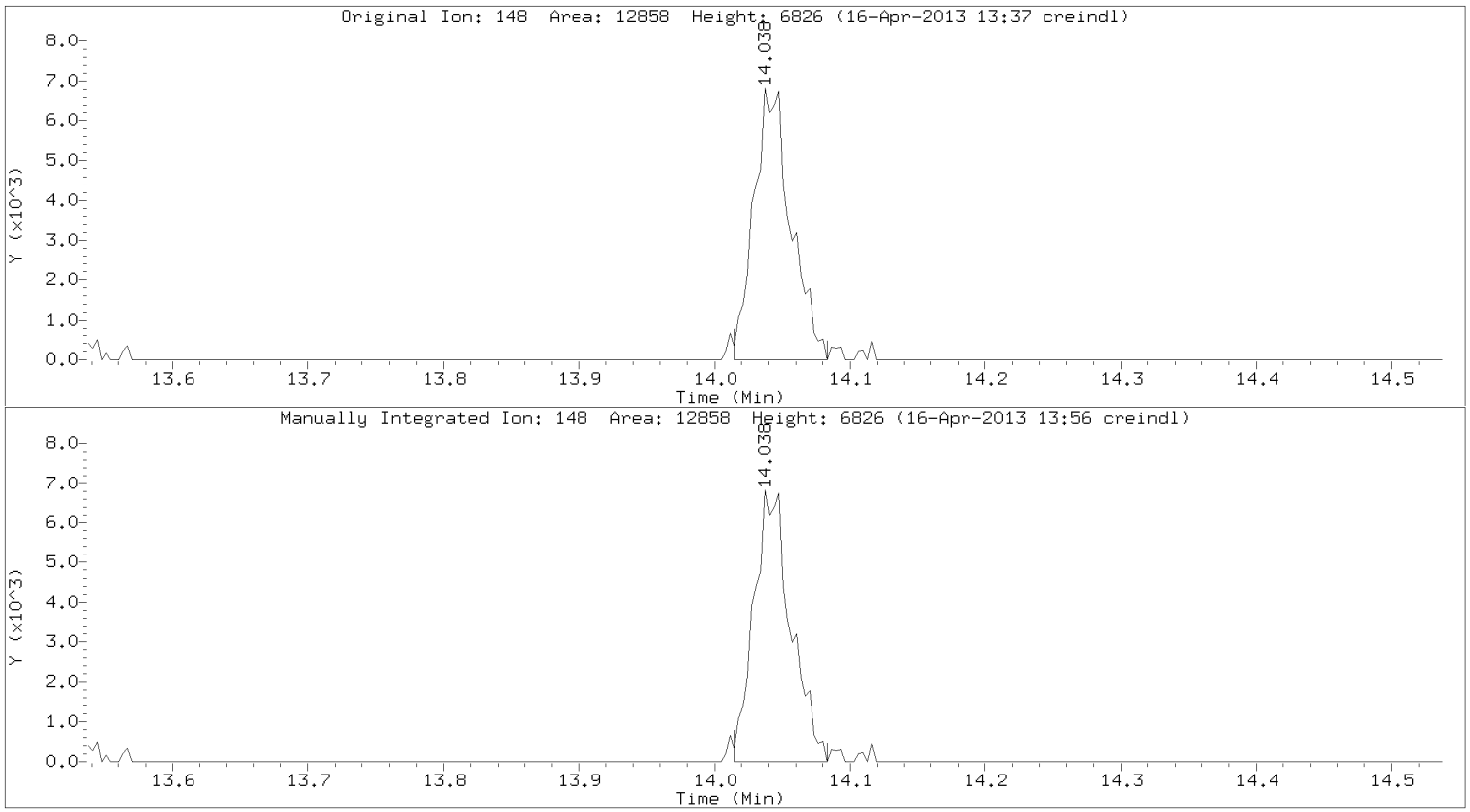


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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1

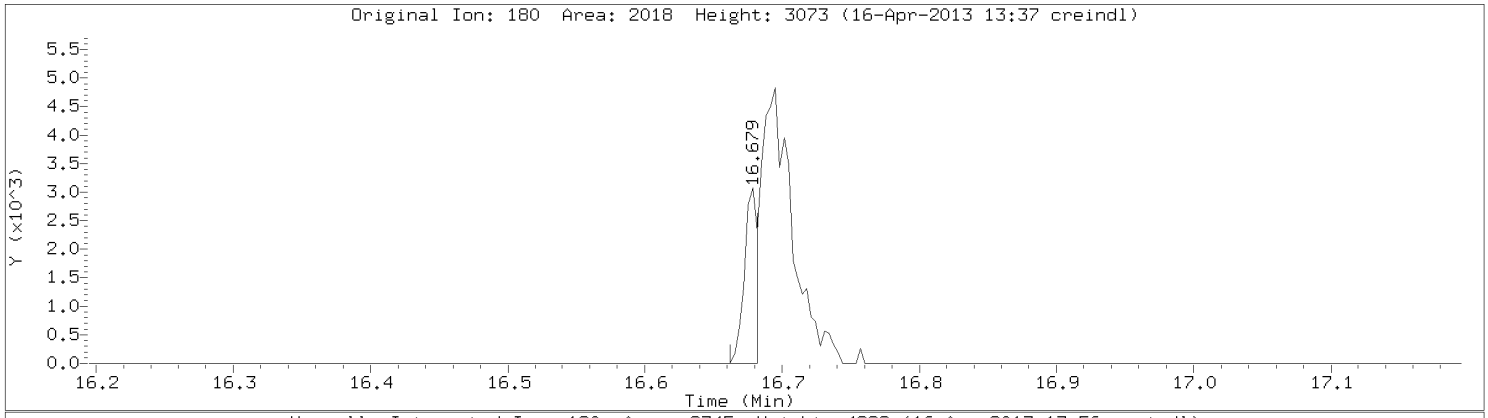


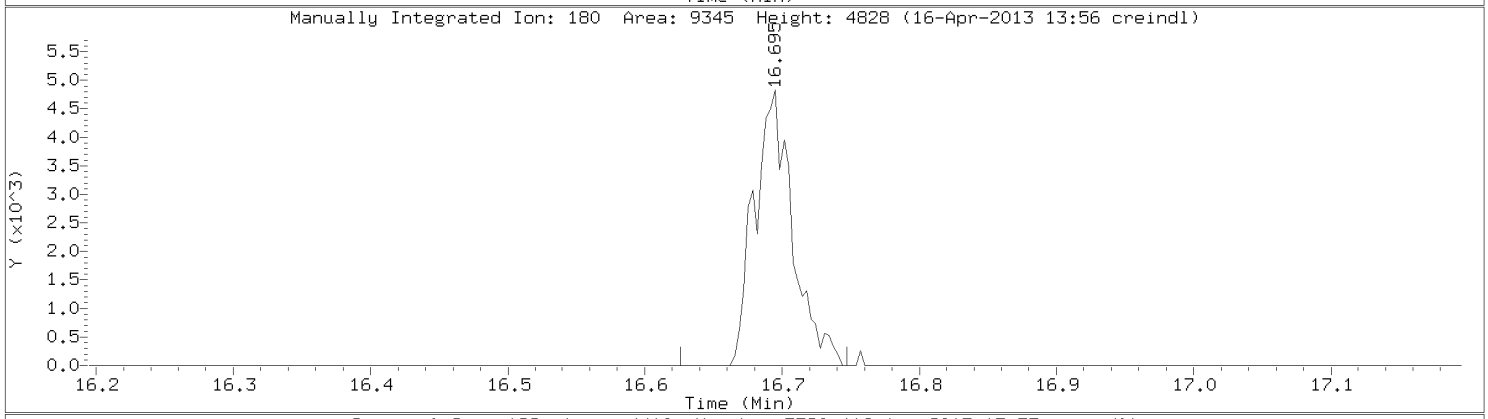
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Lab Sample ID: ICAL3

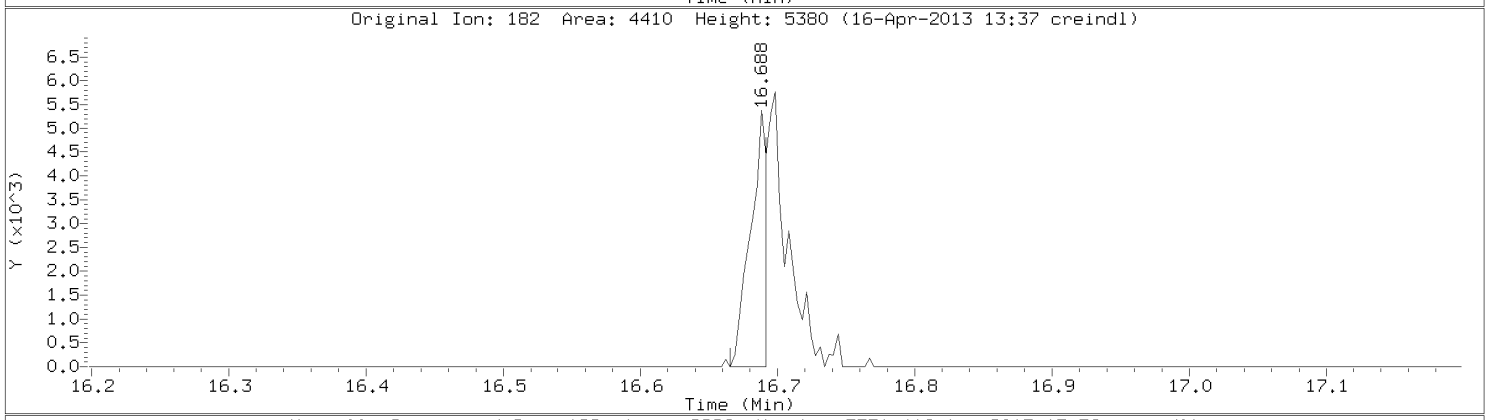


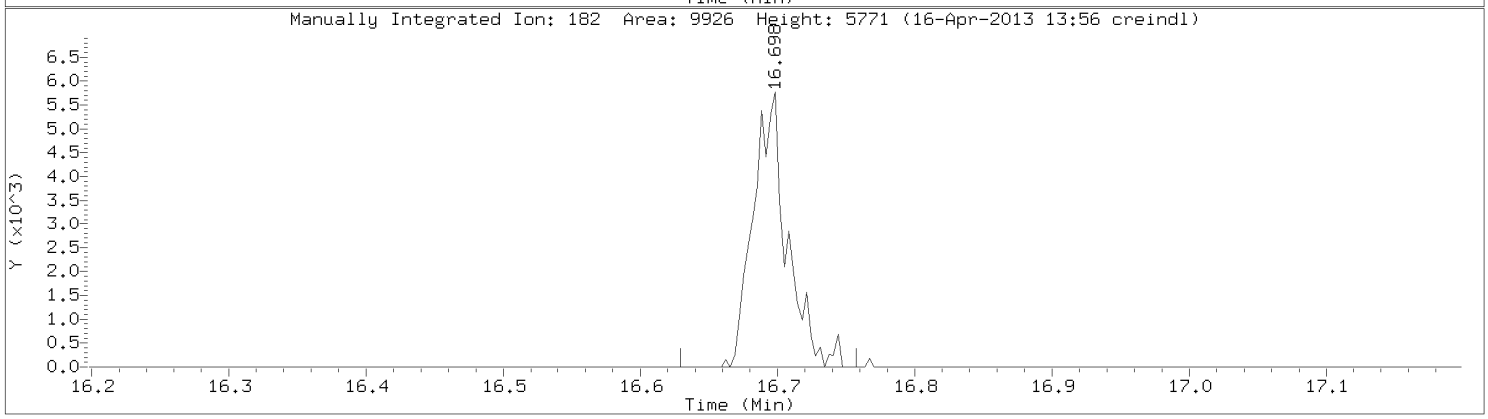
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,2,4-Trichlorobenzene
CAS Number: 95-63-6

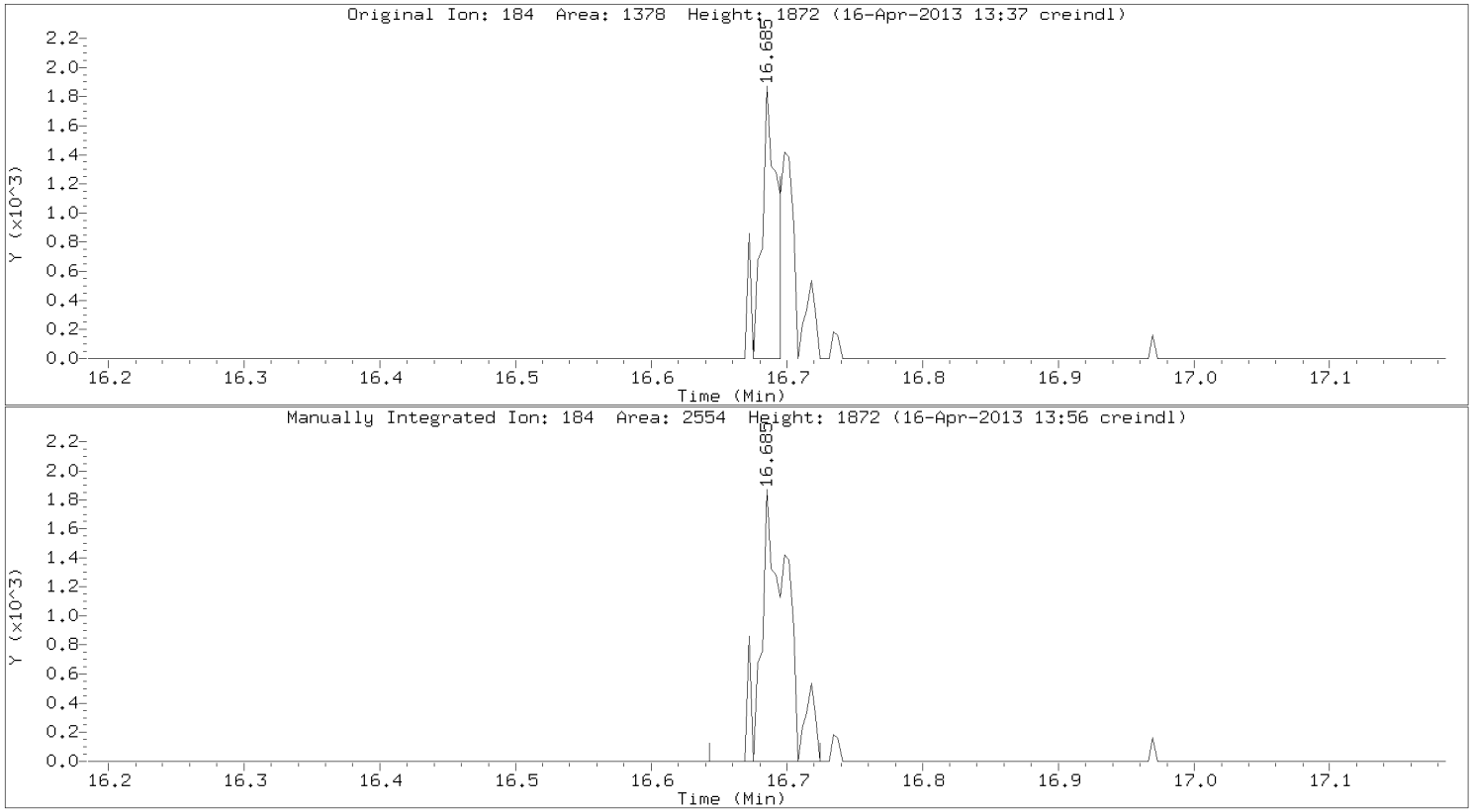






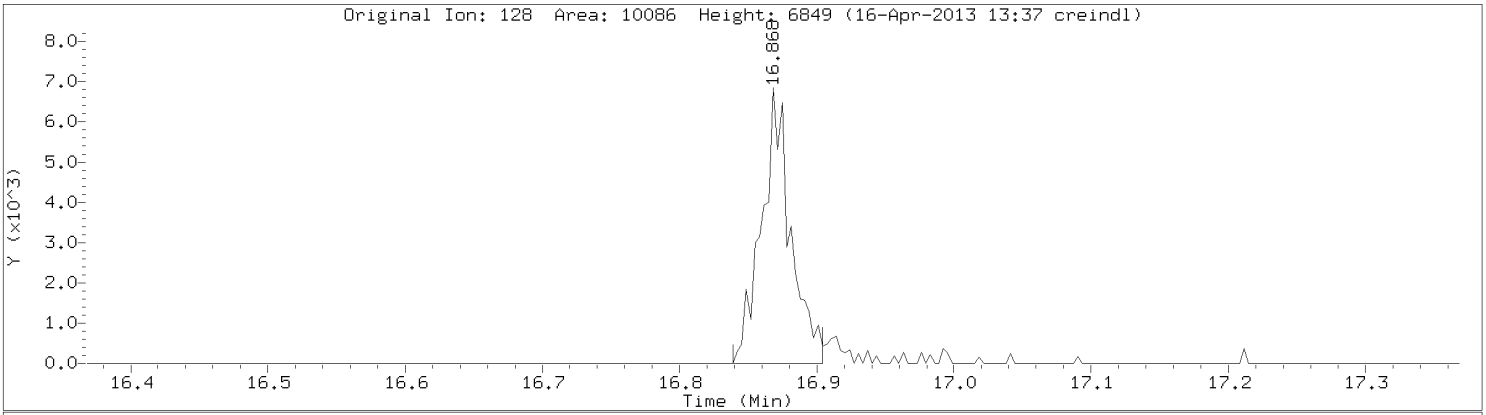


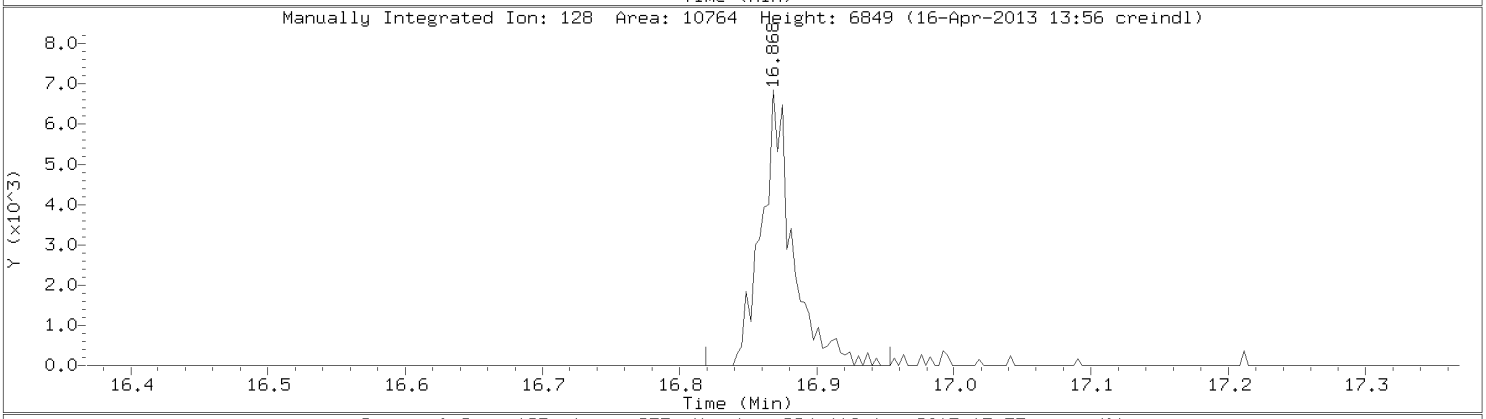
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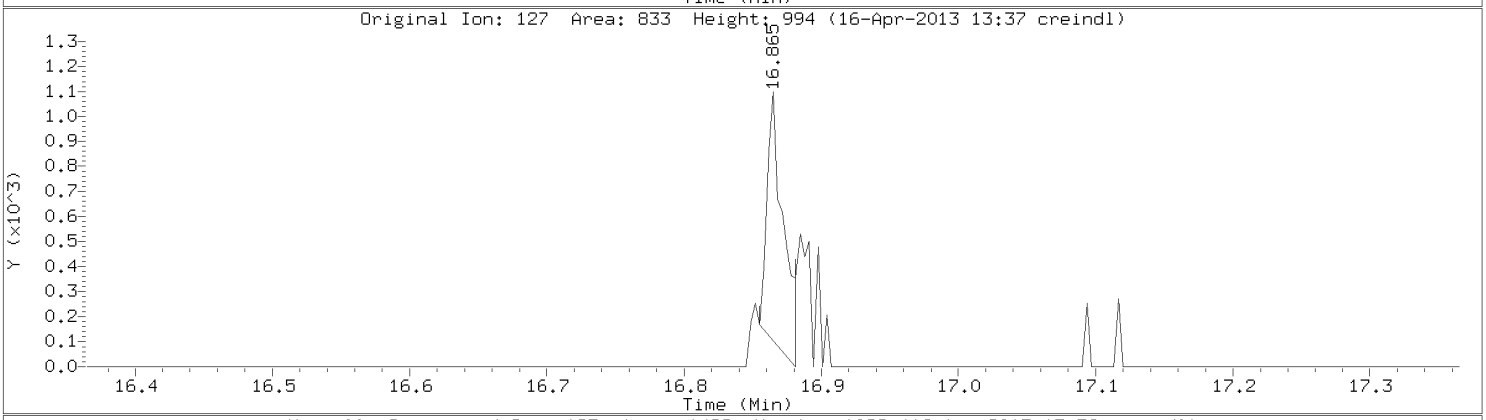


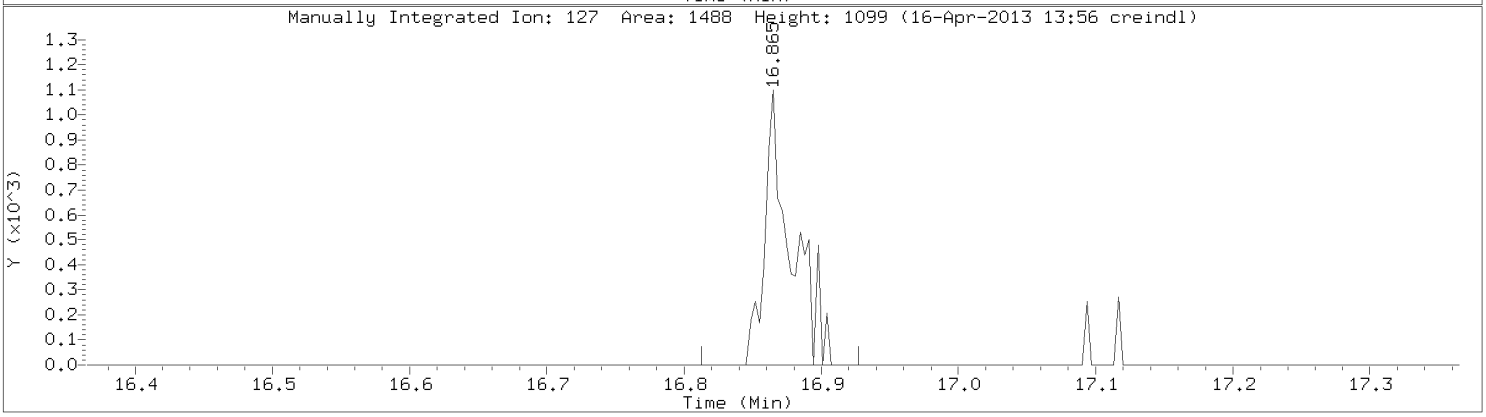
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Injection Date: 16-APR-2013 11:40
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Naphthalene
CAS Number: 91-20-3









Data File: \\192.168.10.12\chem\10airD.i\041613.B\10608.d
Report Date: 16-Apr-2013 13:59

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041613.B\10608.d
Lab Smp Id: ICAL4
Inj Date : 16-APR-2013 12:13
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Meth Date : 16-Apr-2013 13:39 10airD.i Quant Type: ISTD
Cal Date : 16-APR-2013 12:13 Cal File: 10608.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	9616	1.00000	0.869(M)
2	Dichlorodifluoromethane	85	2.950	2.950	(0.487)	149238	1.00000	0.986
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	115877	1.00000	0.965
4	Chloromethane	50	3.055	3.055	(0.504)	32125	1.00000	0.981
5	Vinyl chloride	62	3.140	3.140	(0.518)	37448	1.00000	1.02
6	1,3-Butadiene	54	3.182	3.182	(0.525)	17705	1.00000	1.00
7	Bromomethane	94	3.336	3.336	(0.550)	40588	1.00000	1.000
8	Chloroethane	64	3.394	3.394	(0.560)	17934	1.00000	0.970(M)
9	Ethanol	31	3.434	3.434	(0.566)	25902	1.00000	1.12(M)
10	Vinyl Bromide	106	3.532	3.532	(0.583)	31727	1.00000	0.929
11	Acrolein	56	3.548	3.548	(0.585)	7110	1.00000	0.807(M)
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	142295	1.00000	1.02
13	Acetone	43	3.679	3.679	(0.607)	103214	1.00000	1.25
14	Isopropyl Alcohol	45	3.705	3.705	(0.611)	37816	1.00000	0.893
15	1,1-Dichloroethene	61	3.931	3.931	(0.648)	67180	1.00000	0.983
16	Acrylonitrile	53	3.937	3.937	(0.650)	22307	1.00000	0.992(M)
17	Tert Butyl Alcohol	59	3.934	3.934	(0.649)	59013	1.00000	1.01(M)
18	Freon 113	101	3.983	3.983	(0.657)	90968	1.00000	1.03
19	Methylene chloride	49	4.042	4.042	(0.667)	40055	1.00000	0.990
20	Allyl Chloride	76	4.055	4.055	(0.669)	15148	1.00000	0.899(M)
21	Carbon Disulfide	76	4.179	4.179	(0.689)	122754	1.00000	0.959
22	trans-1,2-dichloroethene	96	4.375	4.375	(0.722)	38809	1.00000	0.954
23	Methyl Tert Butyl Ether	73	4.414	4.414	(0.728)	81993	1.00000	0.950(M)
24	Vinyl Acetate	43	4.535	4.535	(0.748)	70722	1.00000	0.998(M)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10608.d
Report Date: 16-Apr-2013 13:59

			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ppbv)	(ppbv)
	25	1,1-Dichloroethane	63	4.535	4.535	(0.748)	77899	1.00000	1.00
$	26	Hexane-d14(S)	66	4.653	4.653	(0.768)	629474	10.0000	10.2
	27	Methyl Ethyl Ketone	72	4.738	4.738	(0.782)	18522	1.00000	0.975(M)
	28	n-Hexane	57	4.774	4.774	(0.788)	66948	1.00000	1.07(M)
	29	cis-1,2-Dichloroethene	96	4.934	4.934	(0.814)	34229	1.00000	0.952
	30	Ethyl Acetate	43	4.963	4.963	(0.819)	53209	1.00000	1.02(M)
	31	Chloroform	83	5.075	5.075	(0.837)	104958	1.00000	0.977
	32	Tetrahydrofuran	42	5.284	5.284	(0.872)	20369	1.00000	0.992(M)
	33	1,1,1-Trichloroethane	97	5.562	5.562	(0.918)	101769	1.00000	0.979
	34	1,2-Dichloroethane	62	5.578	5.578	(0.920)	77438	1.00000	0.960
	35	Benzene	78	5.849	5.849	(0.965)	142272	1.00000	1.13
	36	Carbon tetrachloride	117	5.869	5.869	(0.968)	106771	1.00000	1.03
	37	Cyclohexane	56	5.872	5.872	(0.969)	37639	1.00000	1.03
*	38	1,4-Difluorobenzene	114	6.062	6.062	(1.000)	1372527	10.0000	
	39	2,2,4-Trimethylpentane	57	6.238	6.238	(1.029)	111559	1.00000	1.00(M)
	40	Heptane	43	6.411	6.411	(1.058)	32116	1.00000	0.960
	41	1,2-Dichloropropane	63	6.477	6.477	(1.068)	32769	1.00000	0.966(M)
	42	Trichloroethene	130	6.503	6.503	(1.073)	31692	1.00000	0.968
	43	1,4-Dioxane	88	6.644	6.644	(1.096)	15147	1.00000	0.858(M)
	44	Bromodichloromethane	83	6.624	6.624	(1.093)	106021	1.00000	0.979
	45	Methyl Isobutyl Ketone	43	7.209	7.209	(1.189)	38230	1.00000	0.871
	46	cis-1,3-Dichloropropene	75	7.261	7.261	(1.198)	48529	1.00000	0.908
	47	trans-1,3-Dichloropropene	75	7.755	7.755	(1.279)	38228	1.00000	0.799(M)
$	48	Toluene-d8 (S)	98	7.827	7.827	(1.291)	1228868	10.0000	9.82
	49	Toluene	91	7.918	7.918	(1.306)	209983	1.00000	1.34
	50	1,1,2-Trichloroethane	97	7.925	7.925	(1.307)	40949	1.00000	0.932
	51	Methyl Butyl Ketone	43	8.235	8.235	(0.851)	37094	1.00000	0.852
	52	Dibromochloromethane	129	8.539	8.539	(0.882)	61064	1.00000	0.982
	53	1,2-Dibromoethane	107	8.814	8.814	(0.911)	56344	1.00000	0.944
	54	Tetrachloroethene	166	8.899	8.899	(0.920)	54495	1.00000	1.00
*	55	Chlorobenzene - d5	117	9.677	9.677	(1.000)	721854	10.0000	
	56	Chlorobenzene	112	9.726	9.726	(1.005)	75169	1.00000	0.955
	57	Ethyl Benzene	91	10.030	10.030	(1.036)	136763	1.00000	0.956
	58	m&p-Xylene	91	10.197	10.197	(1.054)	159970	1.00000	1.19
	59	Bromoform	173	10.648	10.648	(1.100)	57536	1.00000	0.873
	60	Styrene	104	10.700	10.700	(1.106)	49768	1.00000	0.844(M)
	61	o-Xylene	91	10.775	10.775	(1.113)	148664	1.00000	1.09
	62	1,1,2,2-Tetrachloroethane	83	11.086	11.086	(1.146)	75815	1.00000	0.937
	63	Isopropylbenzene	105	11.452	11.452	(1.183)	141875	1.00000	0.942
	64	N-Propylbenzene	91	12.118	12.118	(1.252)	145467	1.00000	0.838(M)
	65	4-Ethyltoluene	105	12.315	12.315	(1.273)	119272	1.00000	0.834(H)
	66	1,3,5-Trimethylbenzene	105	12.416	12.416	(1.283)	113269	1.00000	0.916
	67	1,2,4-Trimethylbenzene	105	13.017	13.017	(1.345)	98340	1.00000	0.878
	68	1,3-Dichlorobenzene	146	13.374	13.374	(1.382)	54708	1.00000	0.815(H)
	69	Sec- Butylbenzene	105	13.400	13.400	(1.385)	142419	1.00000	0.878(M)
$	70	1,4-dichlorobenzene-d4 (S)	150	13.449	13.449	(1.390)	382721	10.0000	9.56
	71	Benzyl Chloride	91	13.475	13.475	(1.392)	69862	1.00000	0.794(M)
	72	1,4-Dichlorobenzene	146	13.495	13.495	(1.395)	59141	1.00000	0.841
	73	1,2-Dichlorobenzene	146	14.037	14.037	(1.451)	44401	1.00000	0.799
	74	N-Butylbenzene	91	14.325	14.325	(1.480)	101395	1.00000	0.807(M)
	75	1,2,4-Trichlorobenzene	180	16.688	16.688	(1.725)	17310	1.00000	0.792
	76	Naphthalene	128	16.865	16.865	(1.743)	20953	1.00000	0.777(M)
	77	Hexachlorobutadiene	225	17.244	17.244	(1.782)	28069	1.00000	0.872

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10608.d
Report Date: 16-Apr-2013 13:59

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10608.d
Report Date: 16-Apr-2013 13:59

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10608.d
Lab Smp Id: ICAL4
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Misc Info:

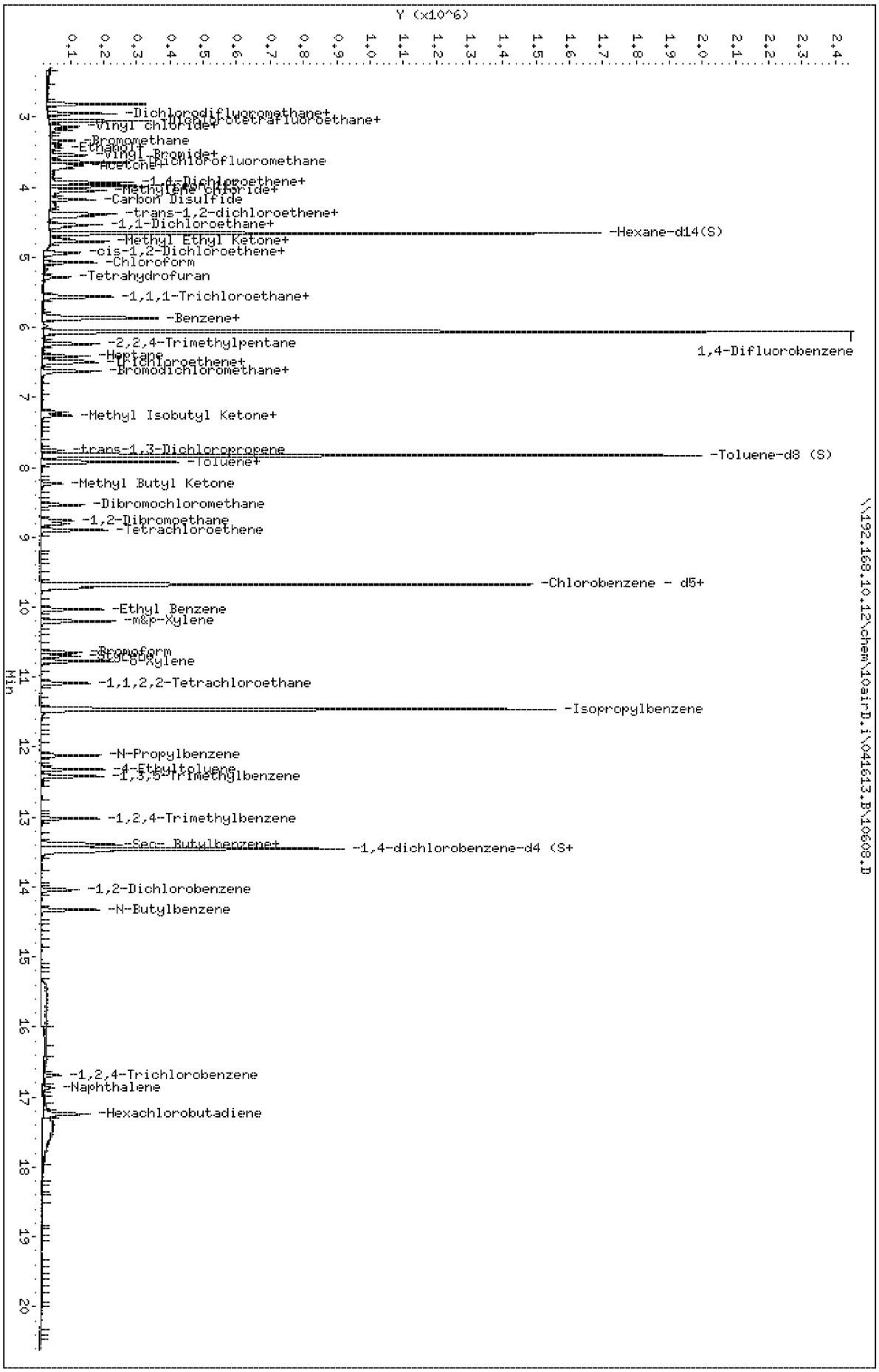
Calibration Date: 16-APR-2013
Calibration Time: 12:43
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1372527	-4.18
55 Chlorobenzene - d	825122	495073	1155171	721854	-12.52

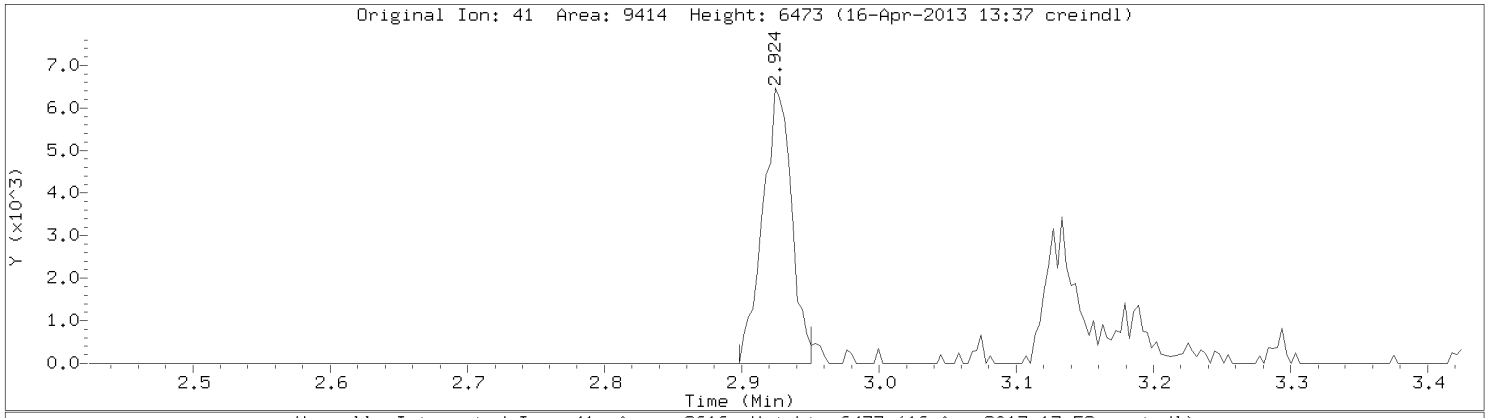
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

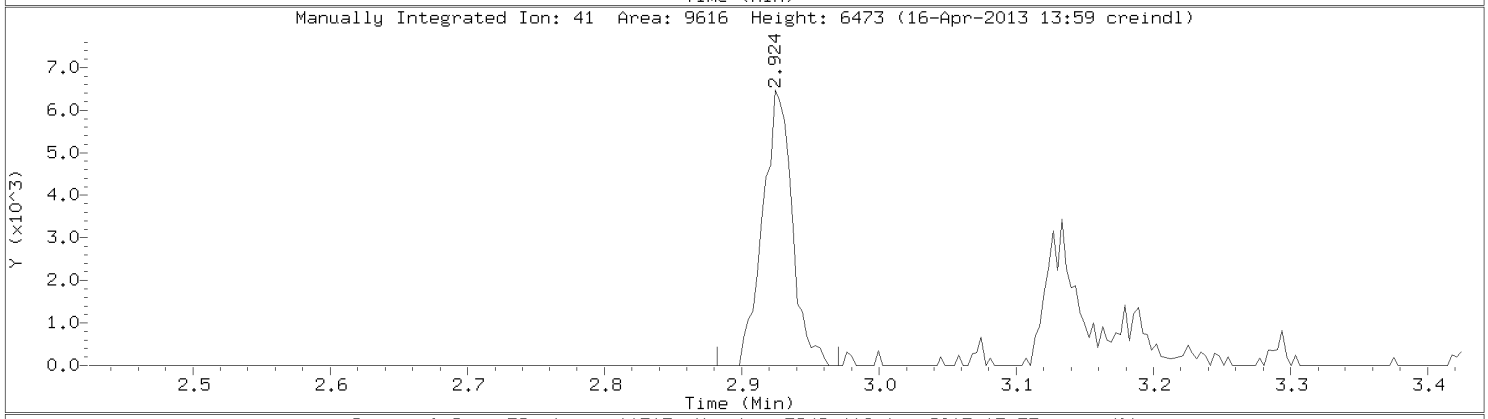
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

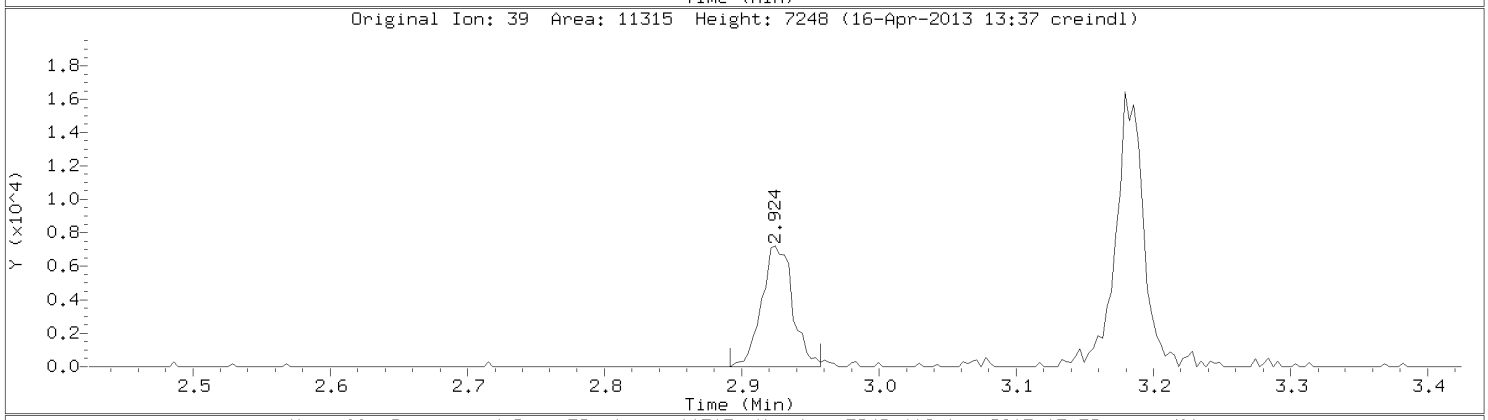

Y (x10^6)
0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4
Min
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
-Dichlorodifluoromethane+
-Vinyl chloride+
-Bromomethane
-Chloroethane+
-Vinyl Bromide+
-Trichlorofluoromethane
-Acetone+
-1,1-Dichloroethene+
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-1,1-Dichloroethane+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
1,4-Difluorobenzene
-Methyl Isobutyl Ketone+
-trans-1,3-Dichloropropene
-Toluene+
-Toluene-d8 (S)
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform
-o-Xylene
-1,1,2,2-Tetrachloroethane
-Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-Sec- Butylbenzene+
-1,4-dichlorobenzene-d4 (S+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene
\\192.168.10.12\chem\10airD.i\041613.B\10608.D
Data File: \\192.168.10.12\chem\10airD.i\041613.B\10608.D
Date : 16-APR-2013 12:13
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

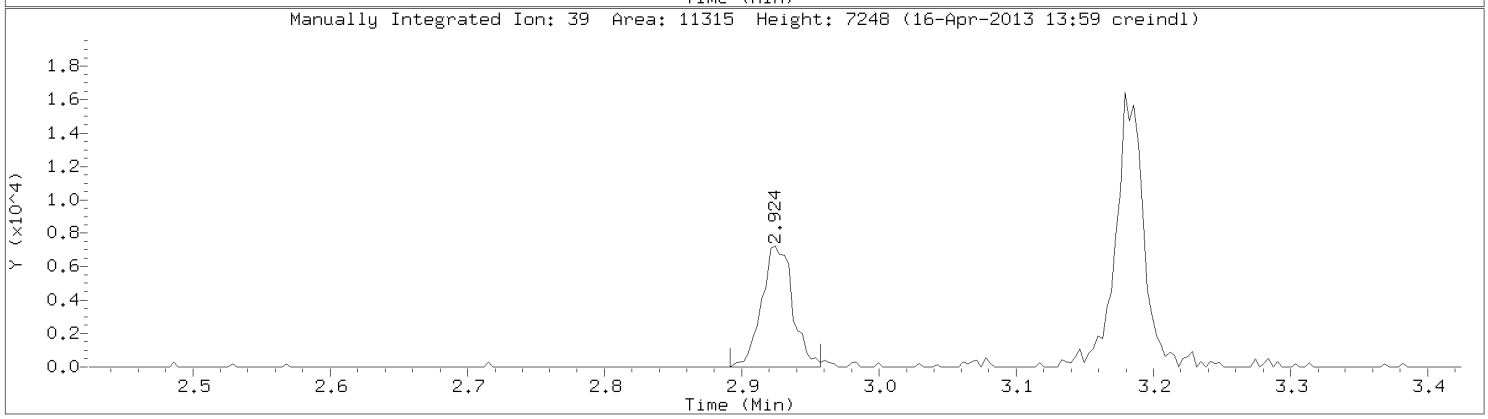
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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Propylene
CAS Number: 76-14-2



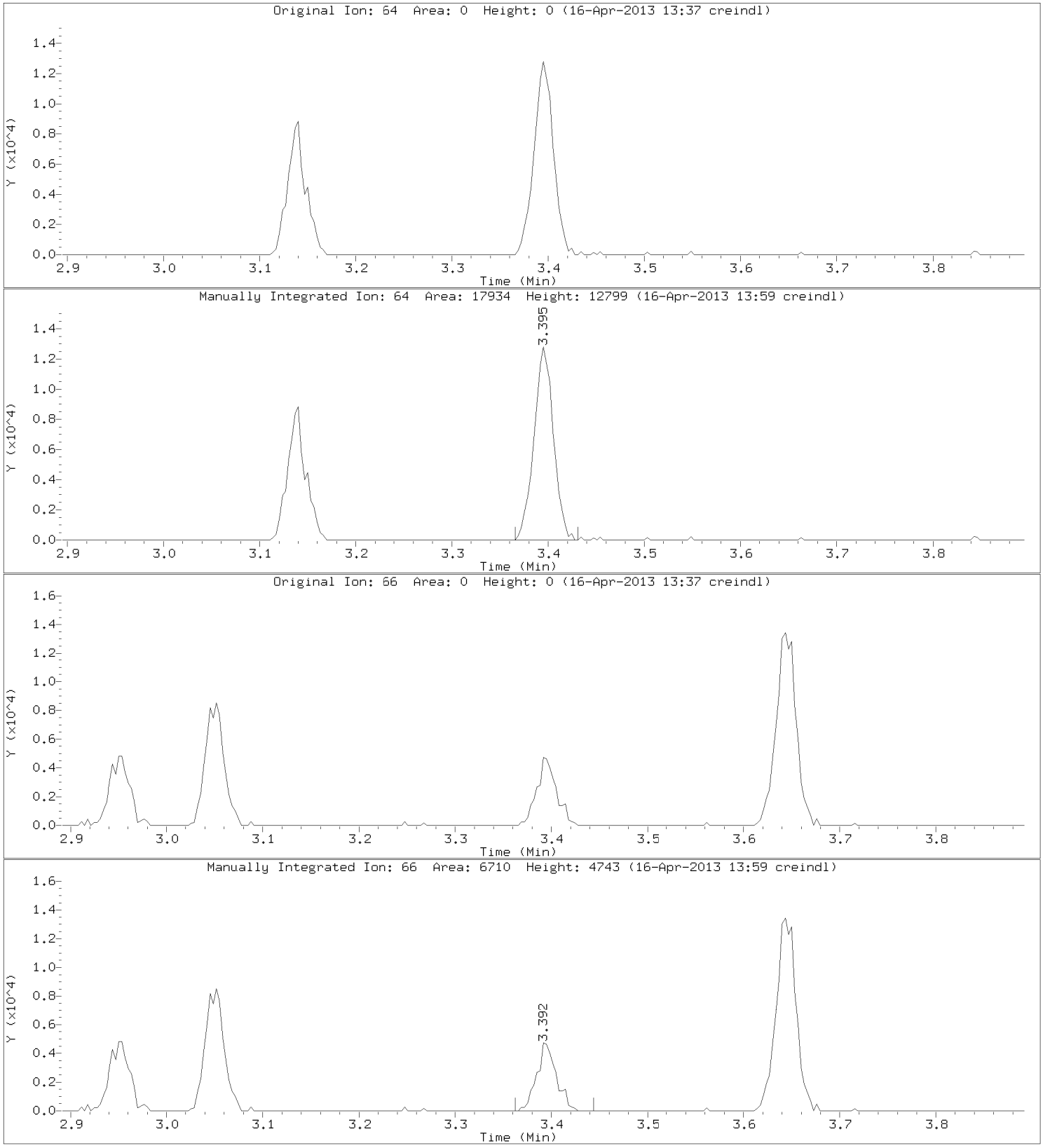






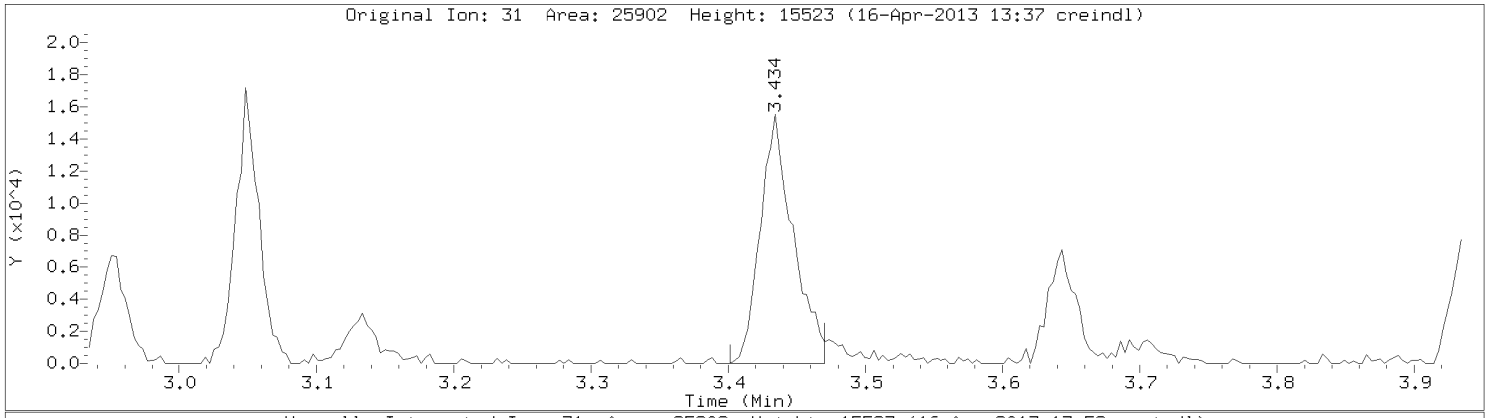
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Instrument: 10airD.i
Lab Sample ID: ICAL4

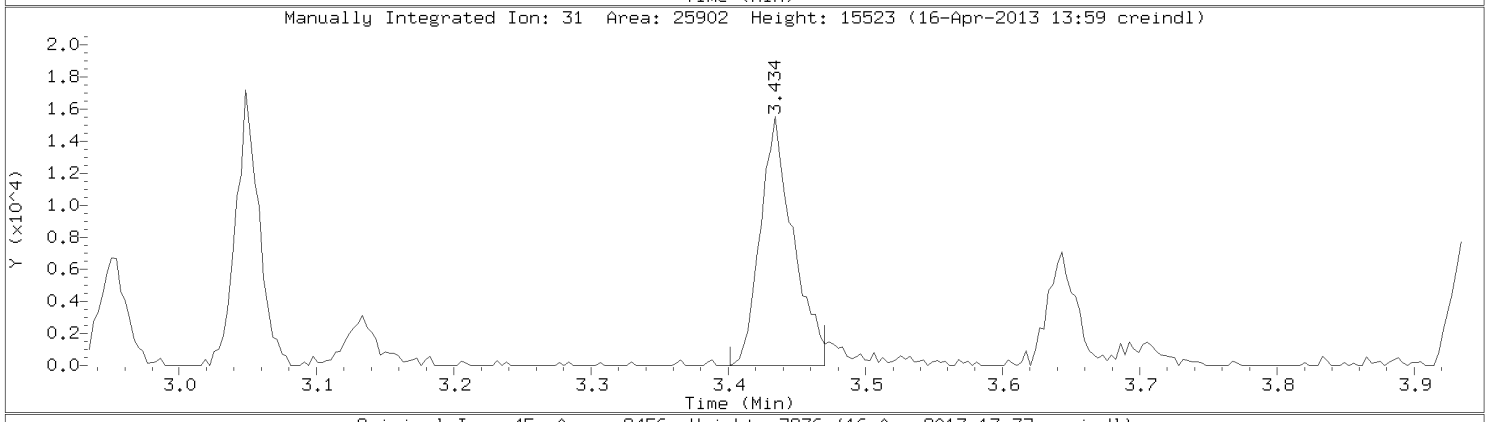
Compound: Chloroethane
CAS Number: 75-00-3

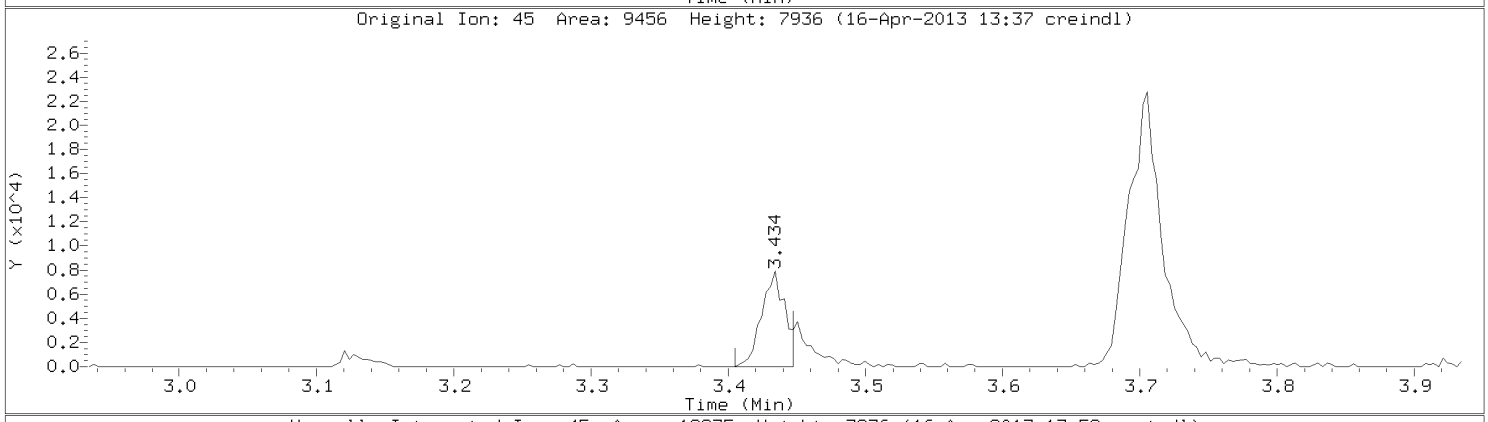


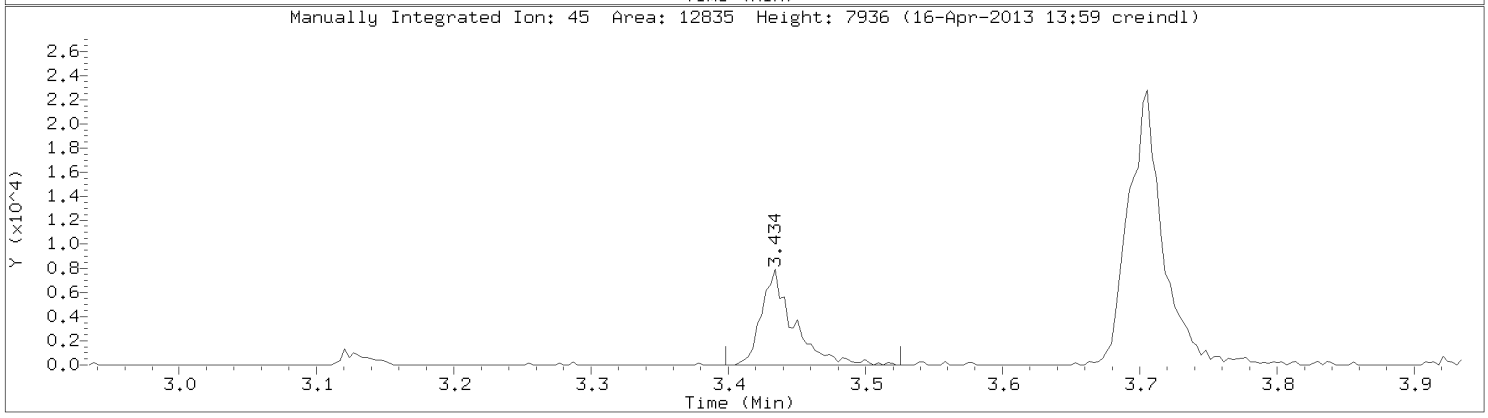
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Ethanol
CAS Number: 64-17-5



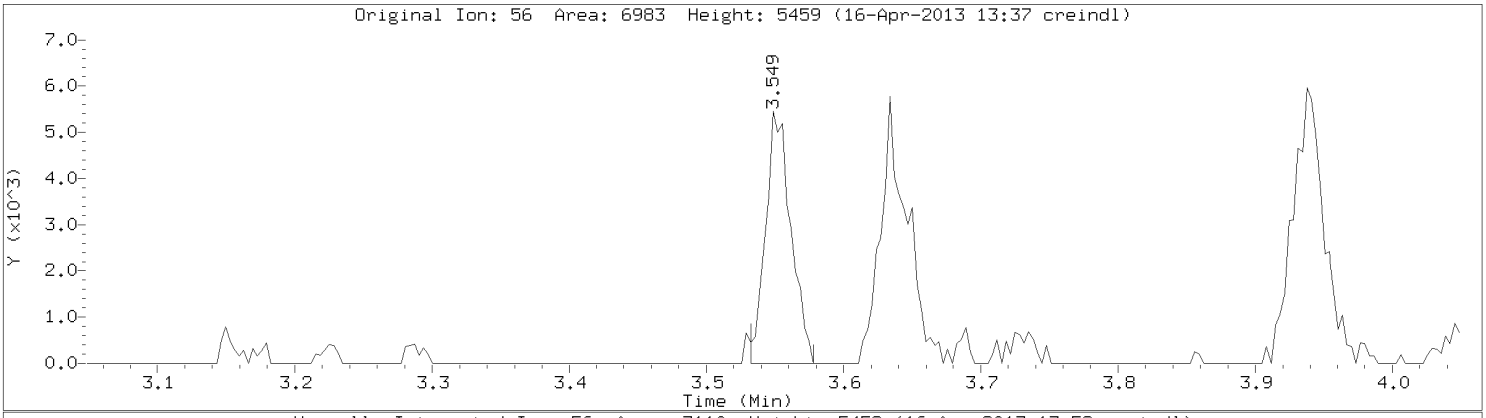


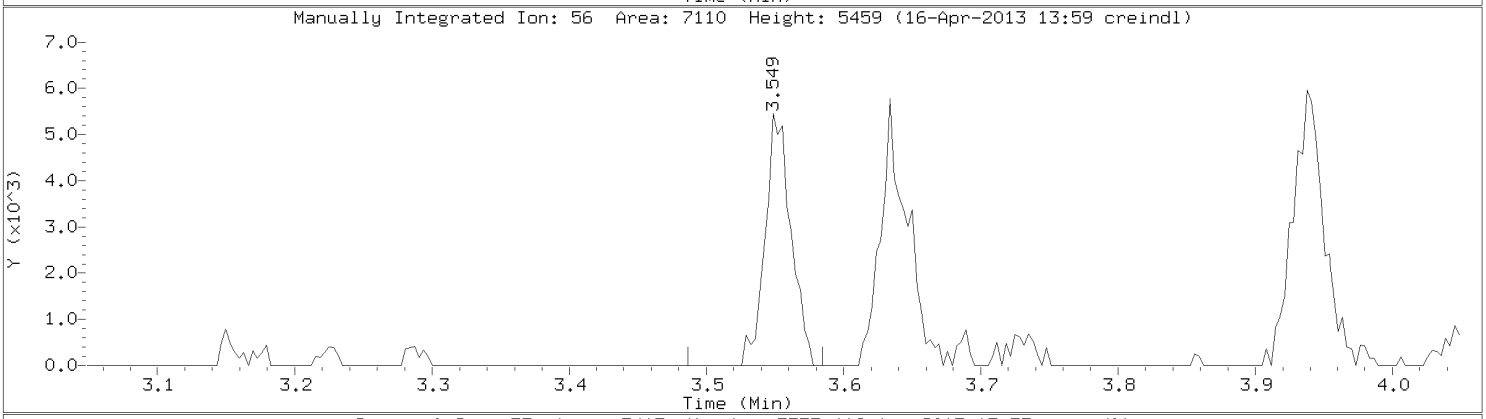


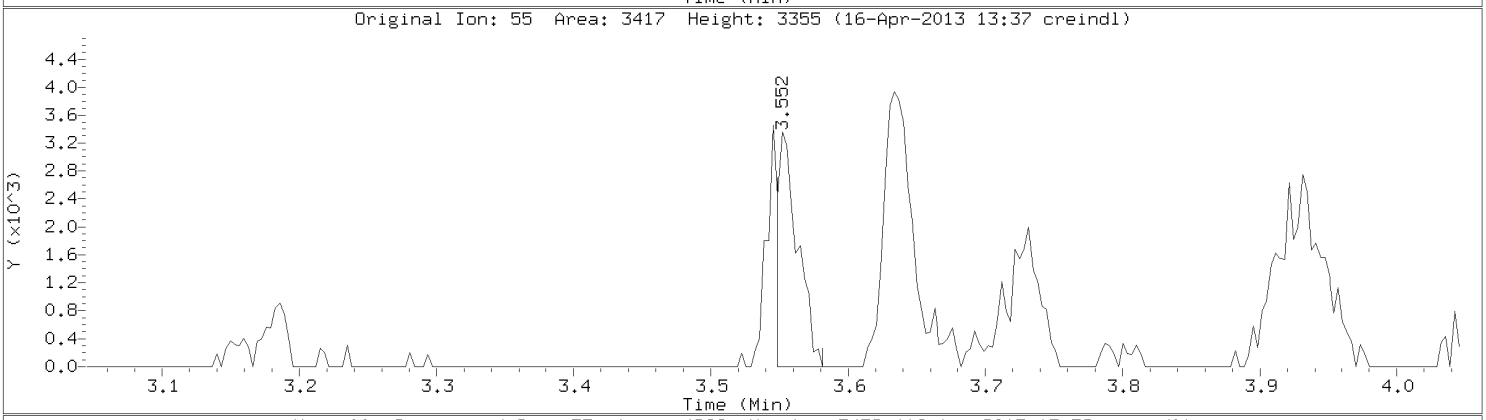


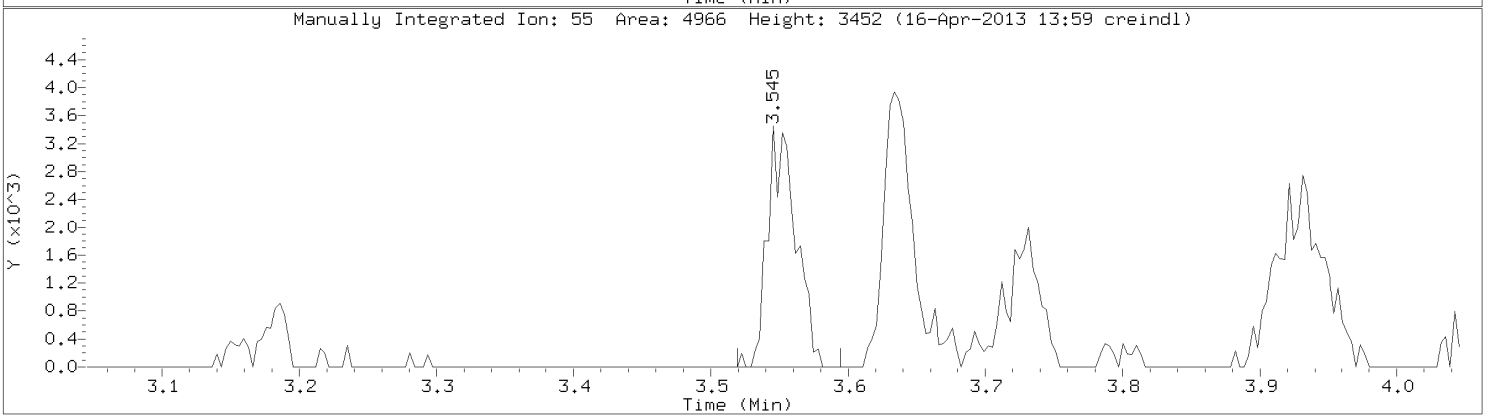
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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Acrolein
CAS Number: 107-02-08



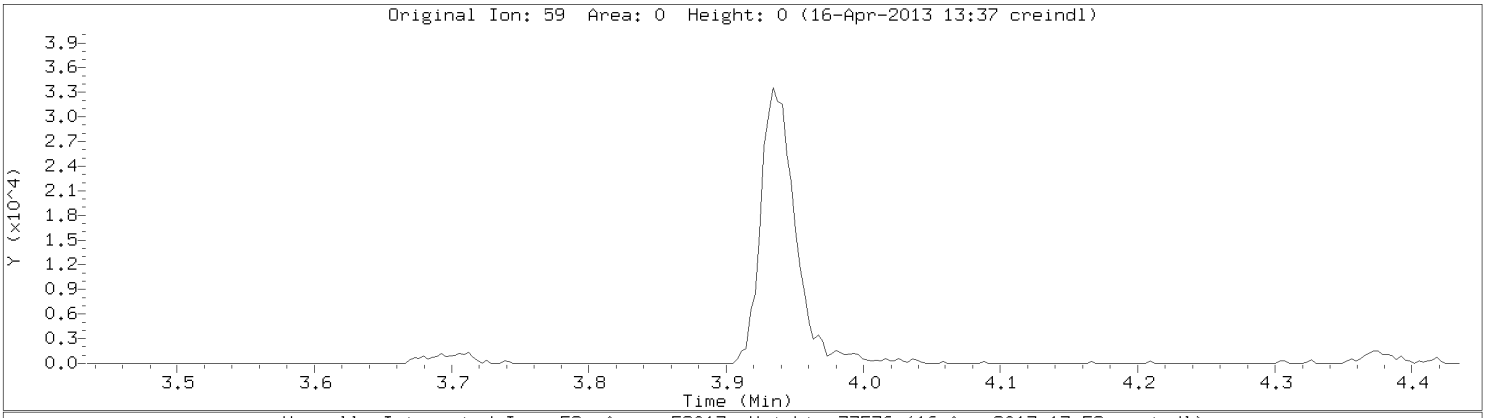


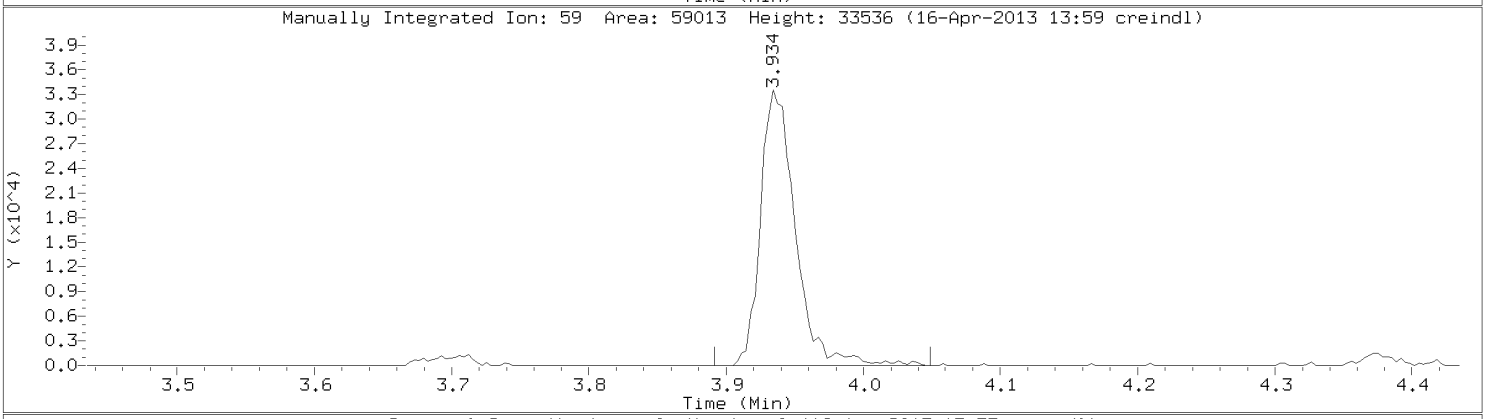


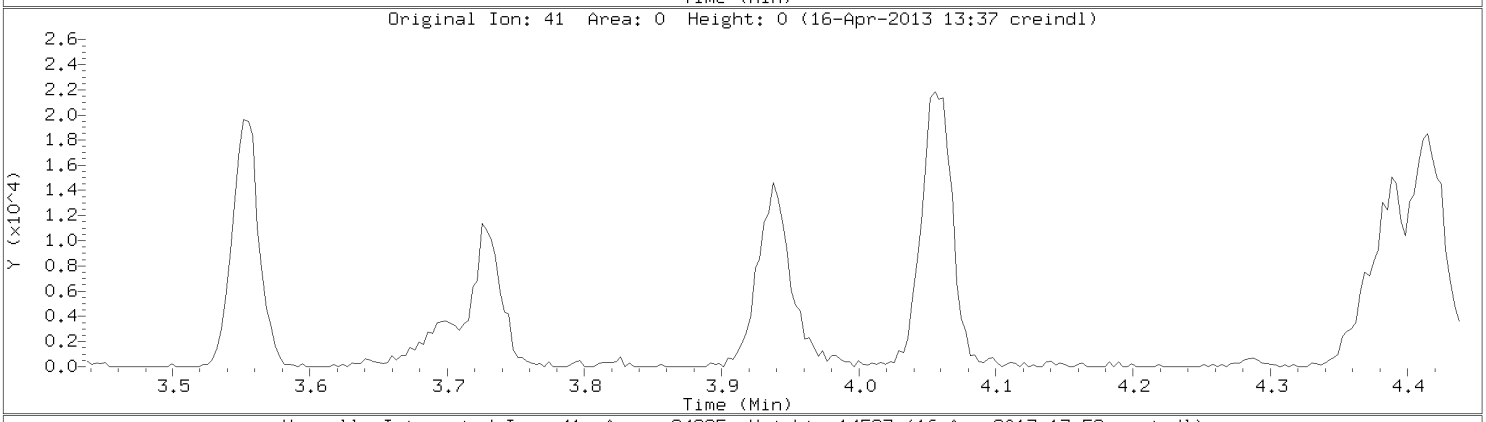


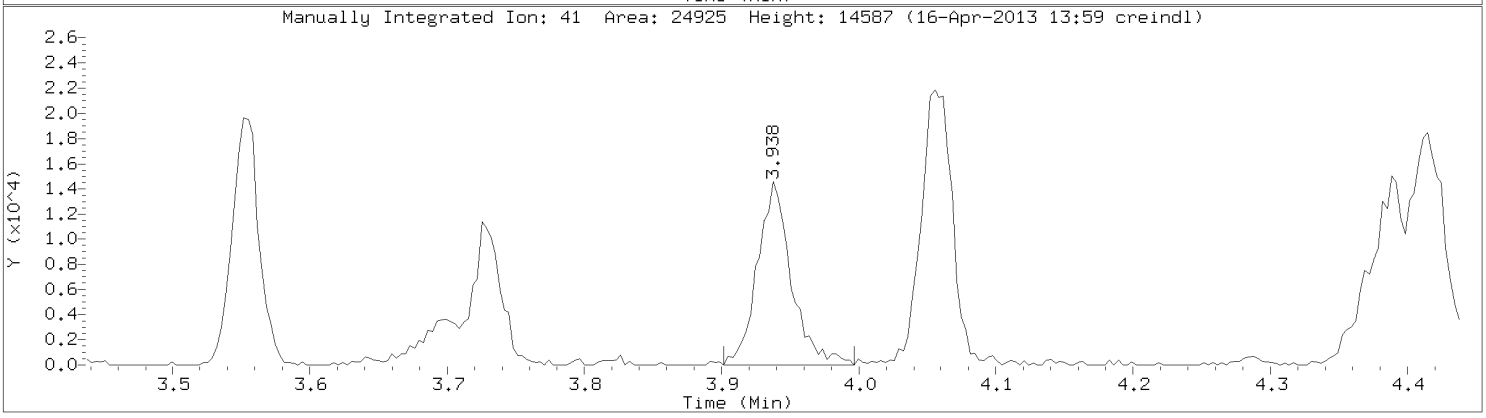
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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



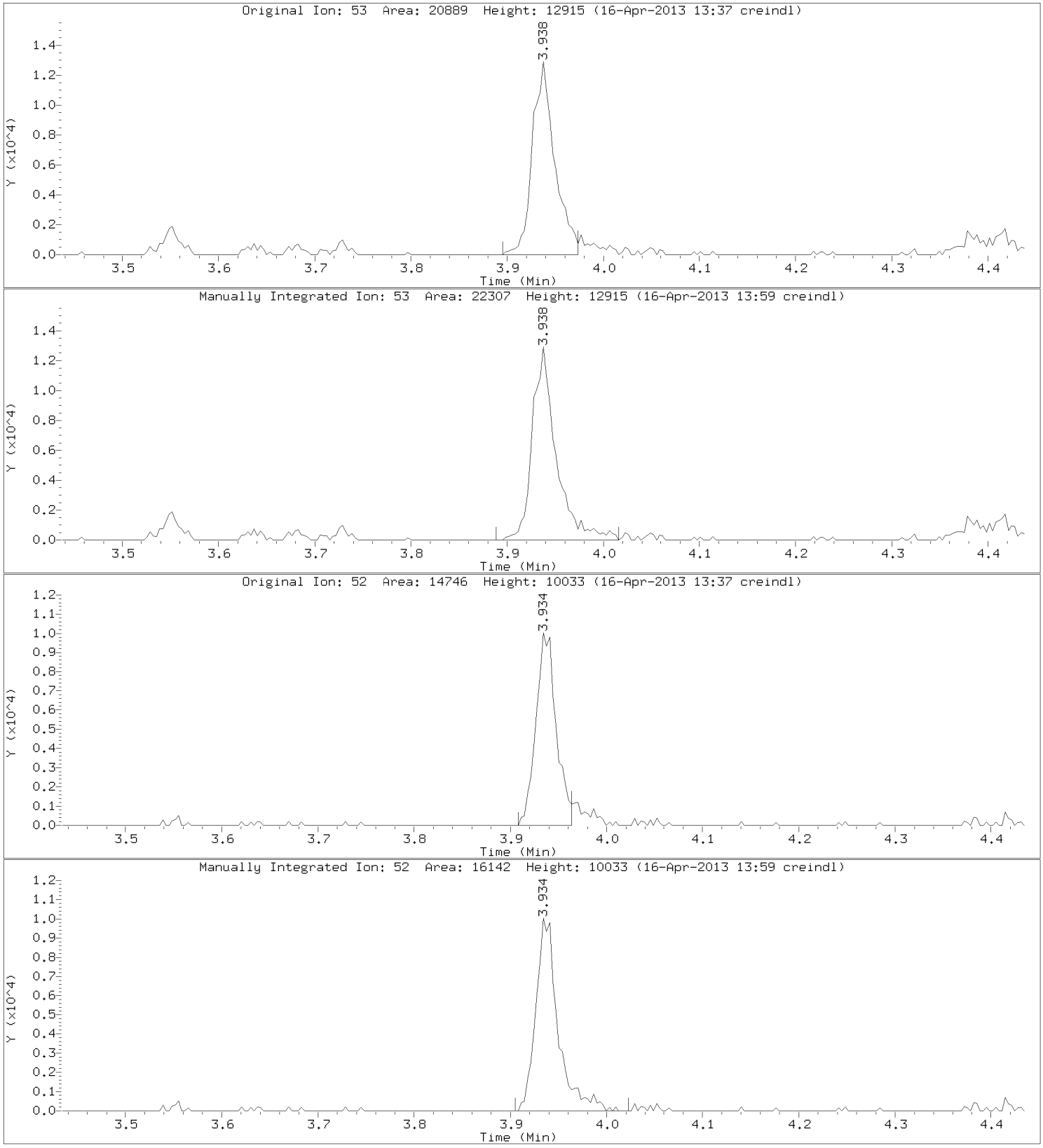






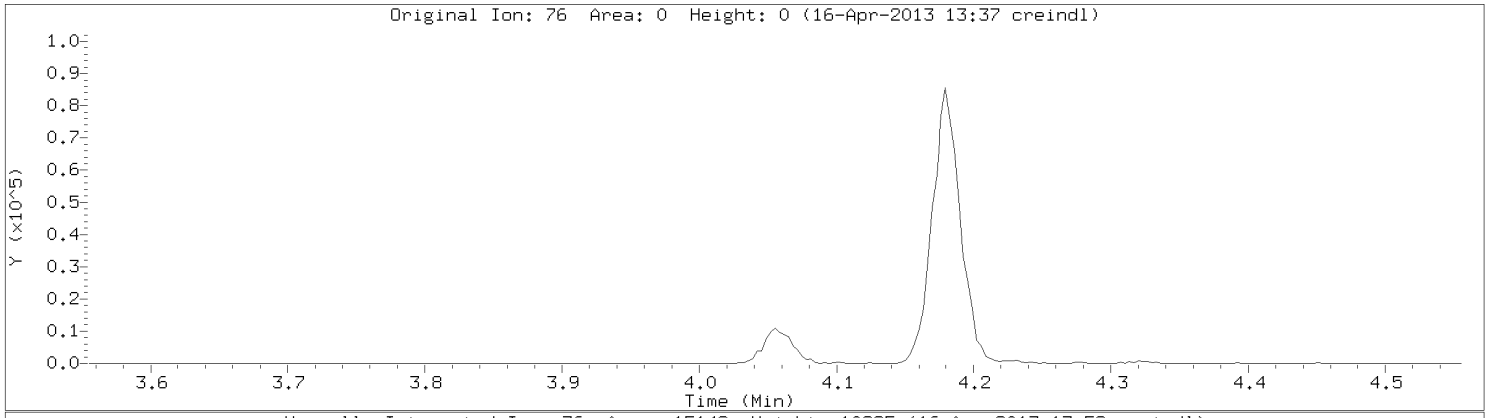
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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

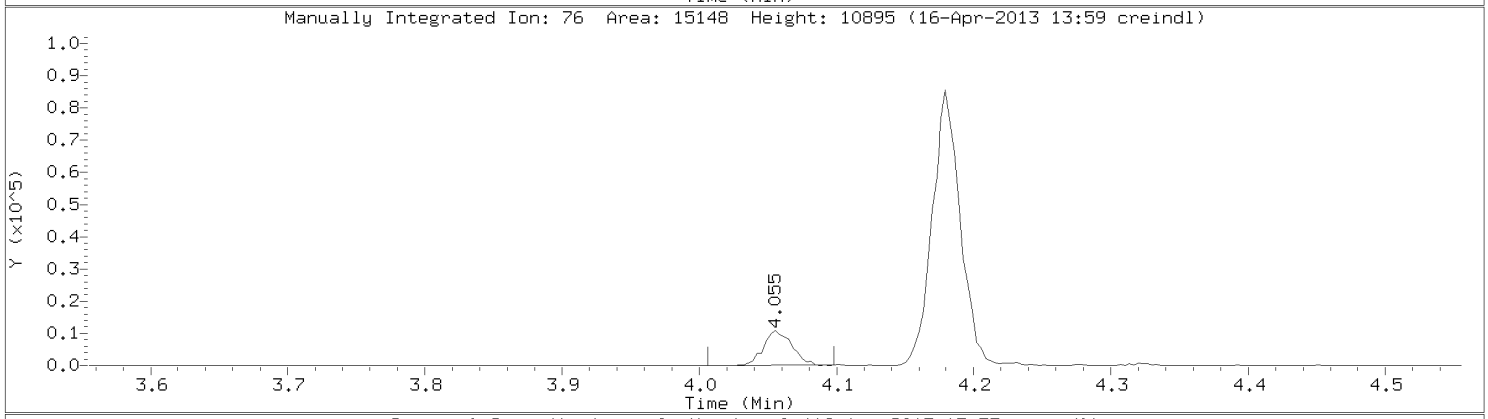
Compound: Acrylonitrile
CAS Number: 107-13-1

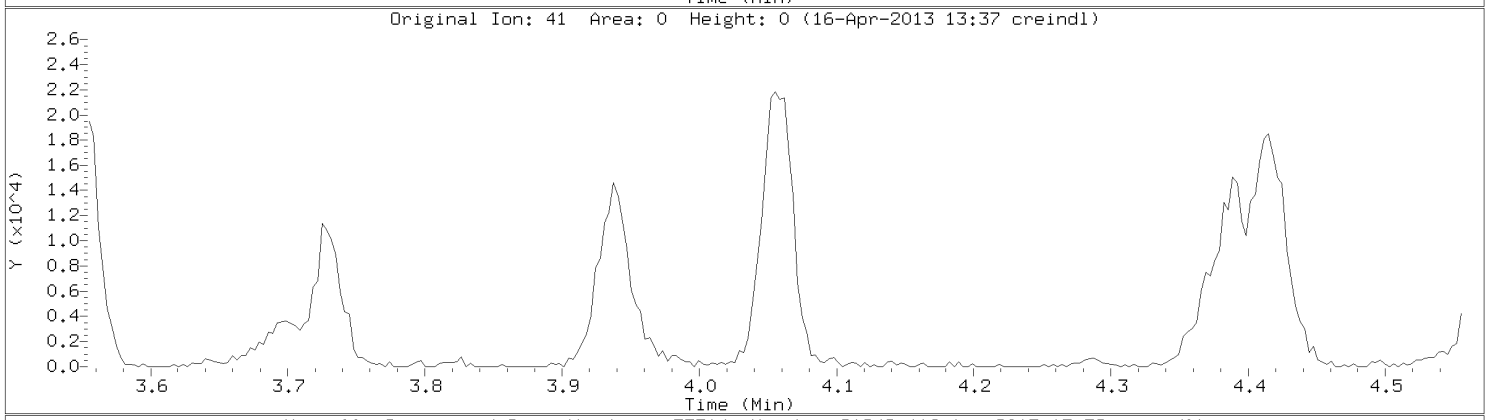


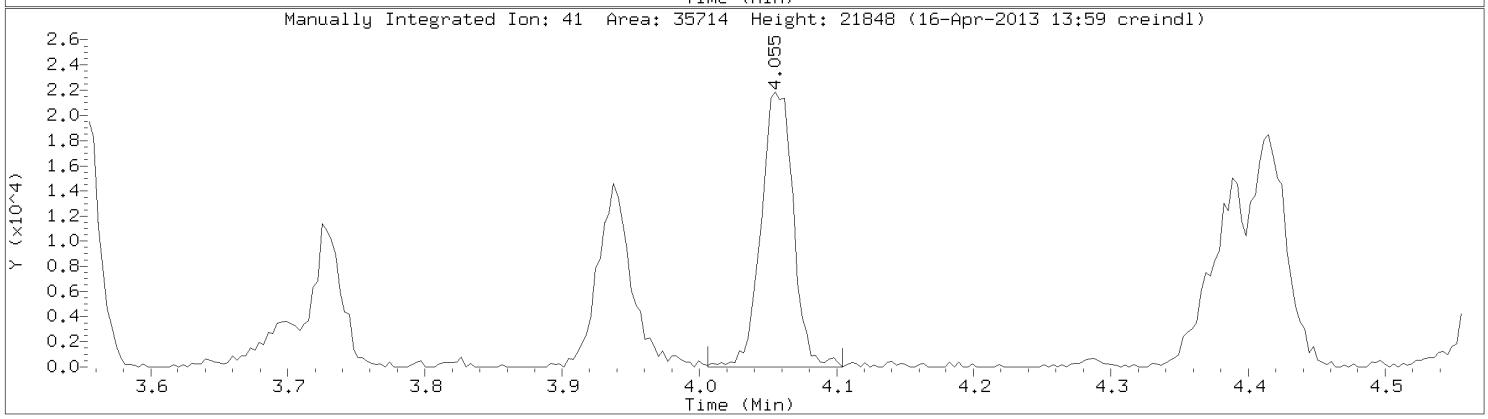
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Allyl Chloride
CAS Number: 107-05-1

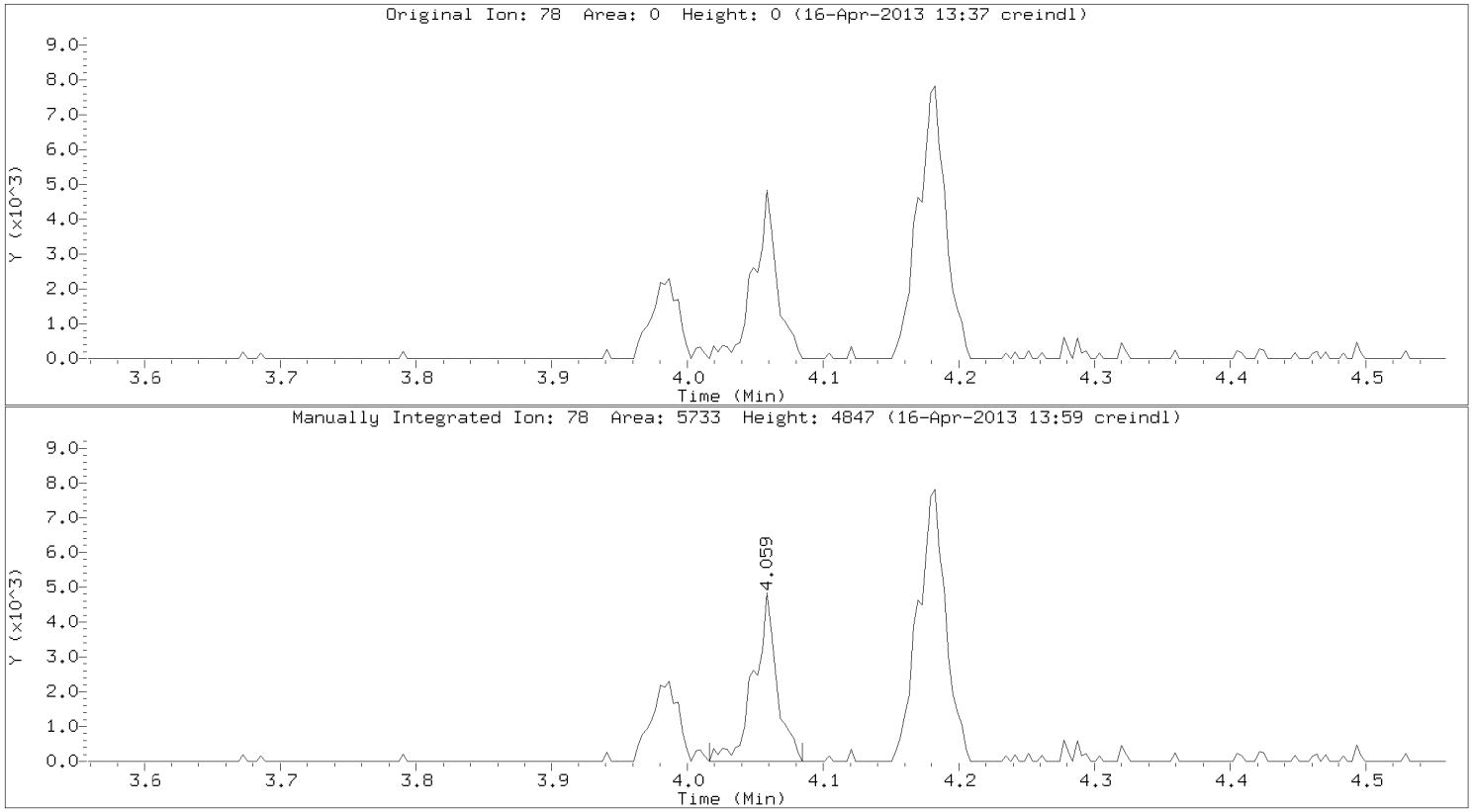






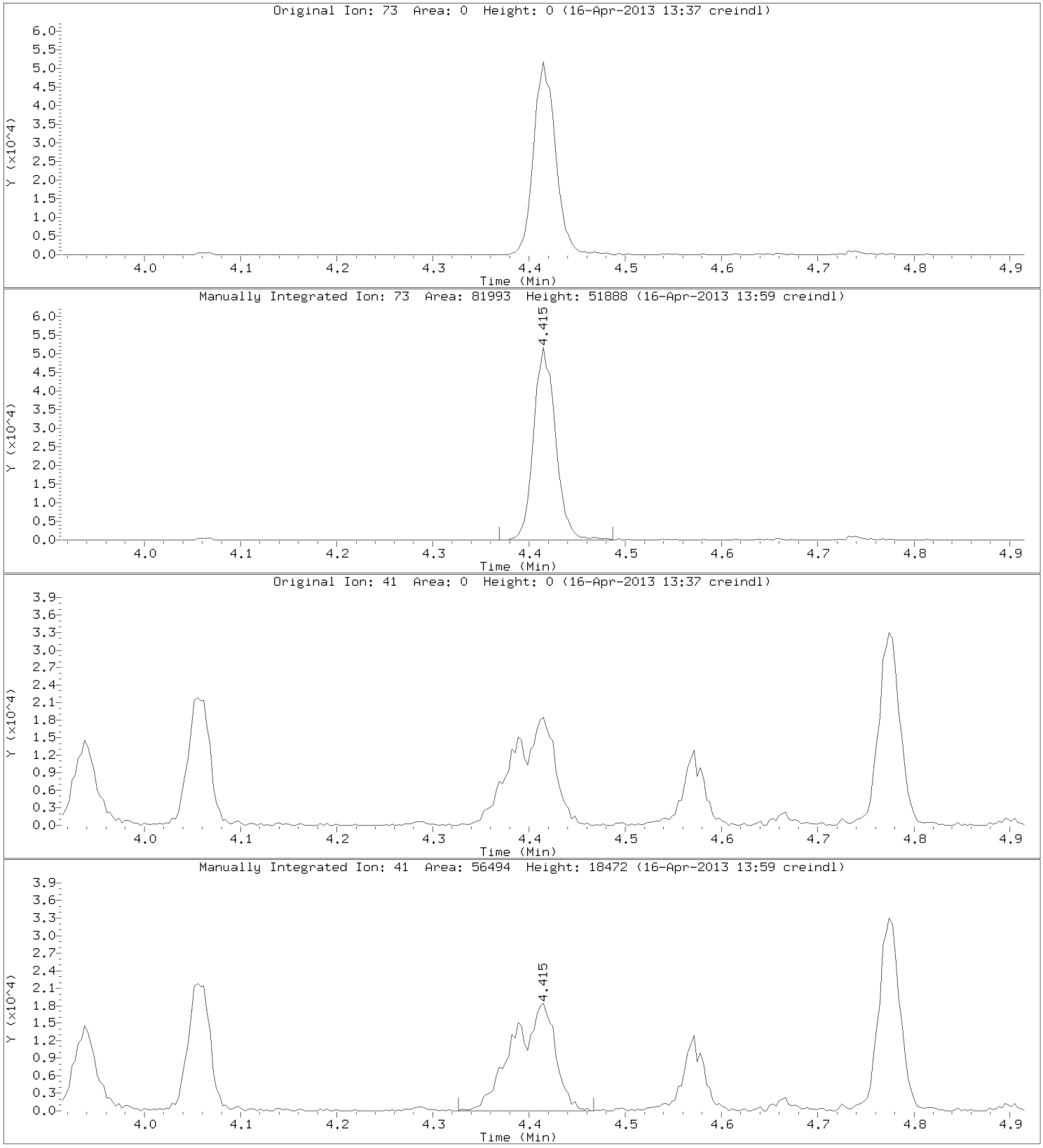


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Lab Sample ID: ICAL4



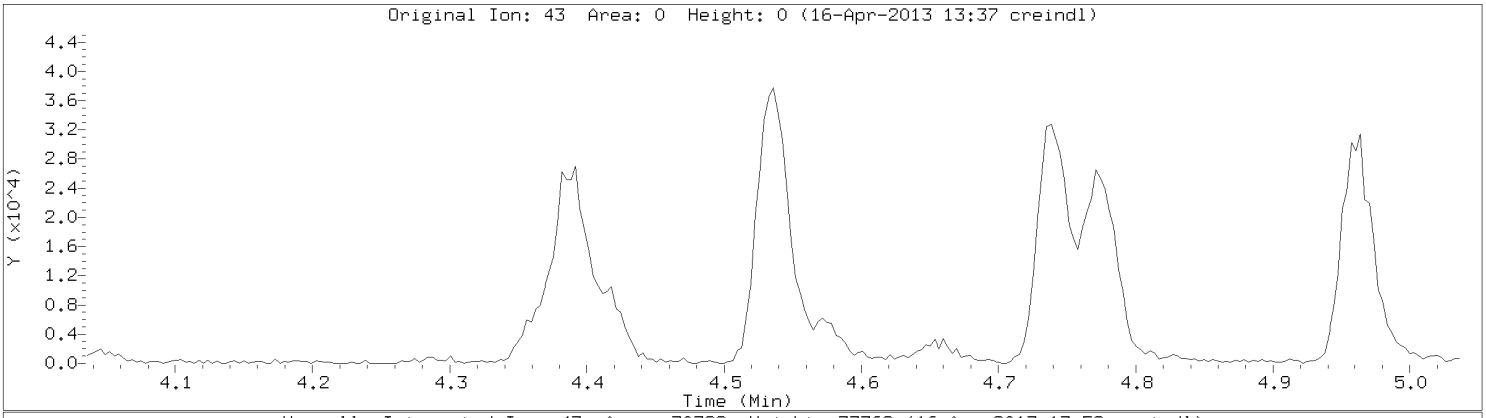
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Instrument: 10airD.i
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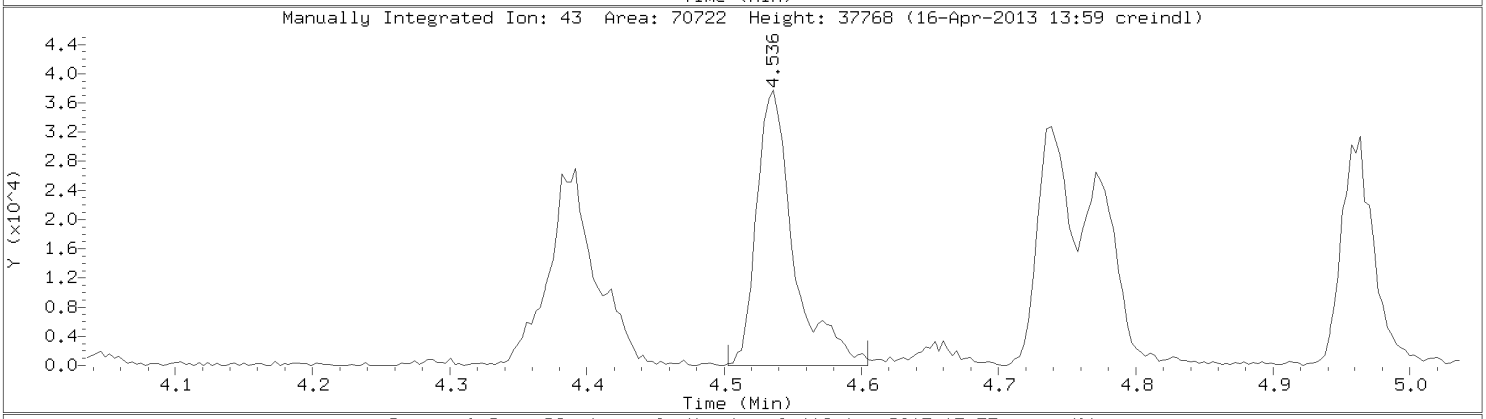
Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4

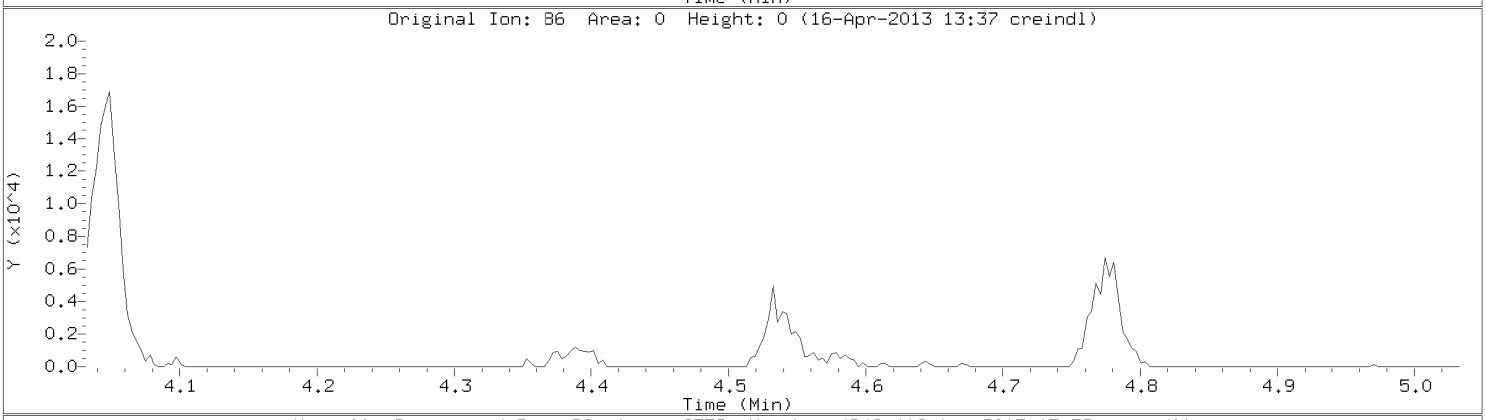


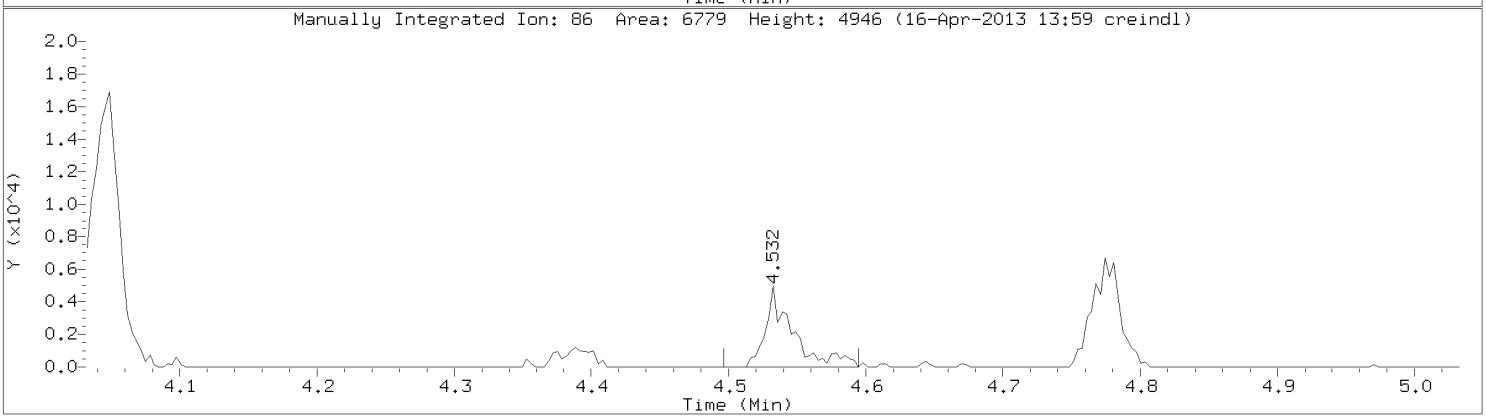
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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Vinyl Acetate
CAS Number: 108-05-4



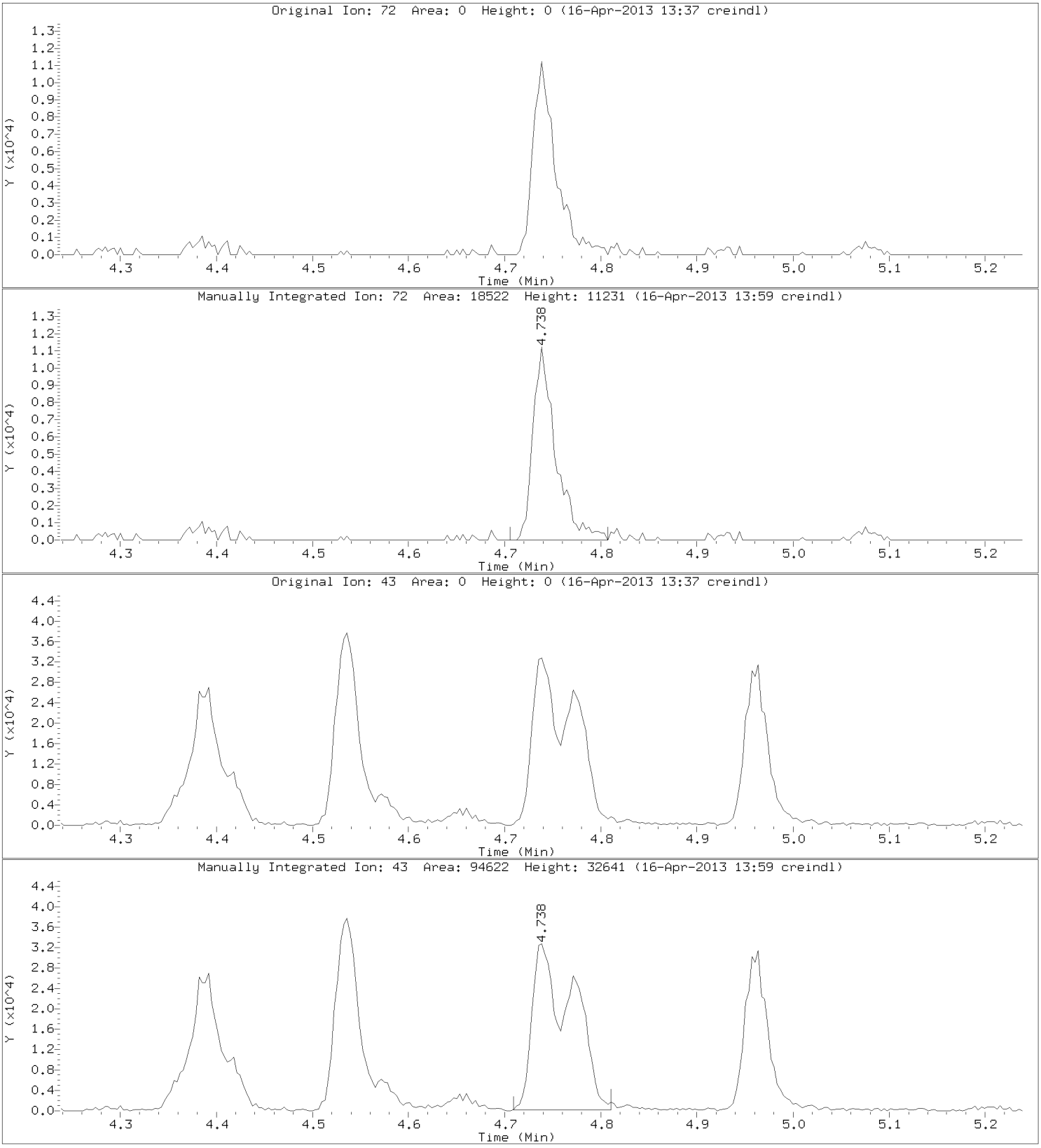






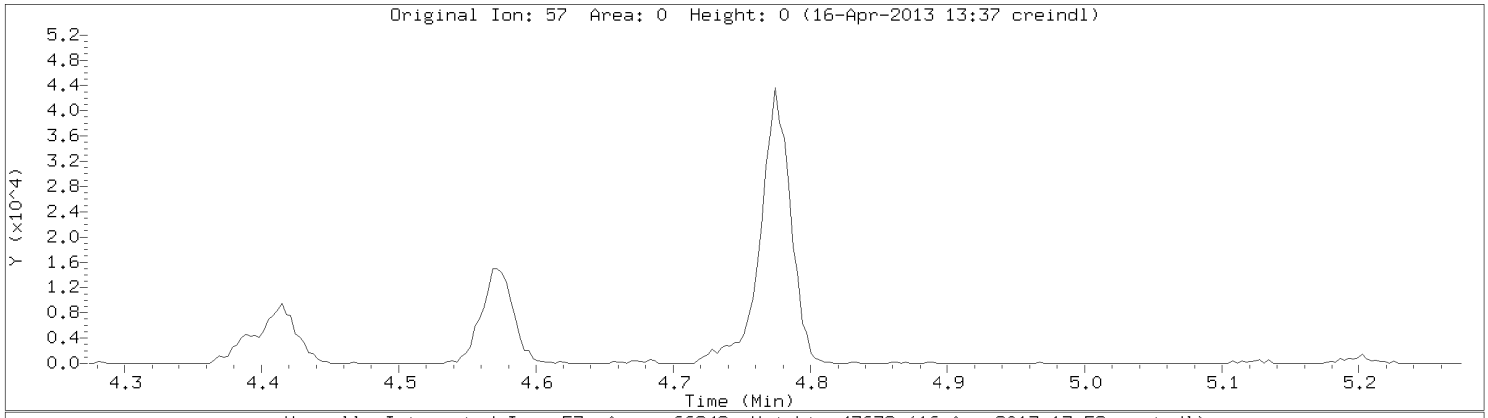
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Instrument: 10airD.i
Lab Sample ID: ICAL4

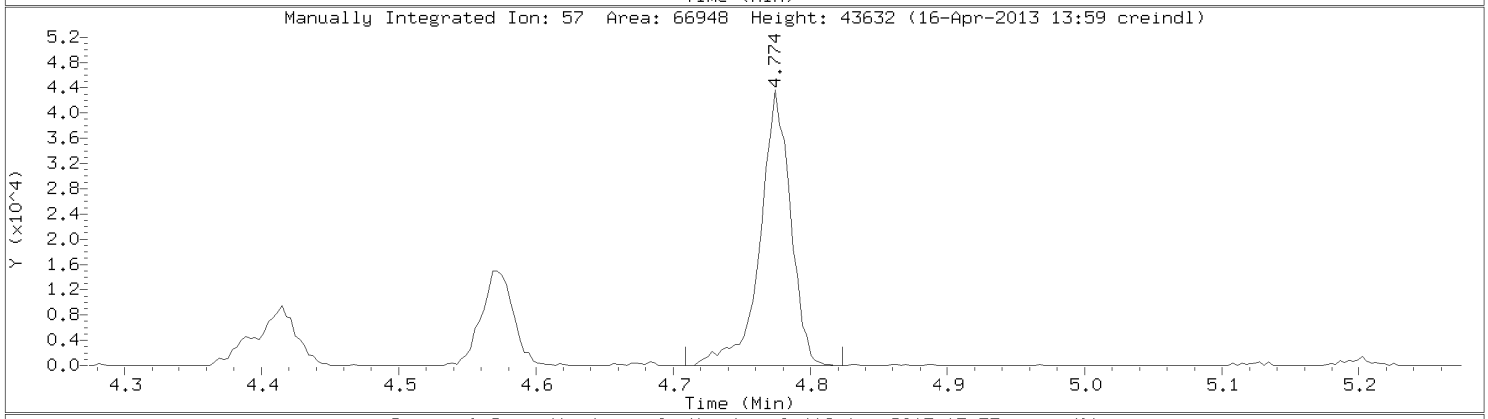
Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

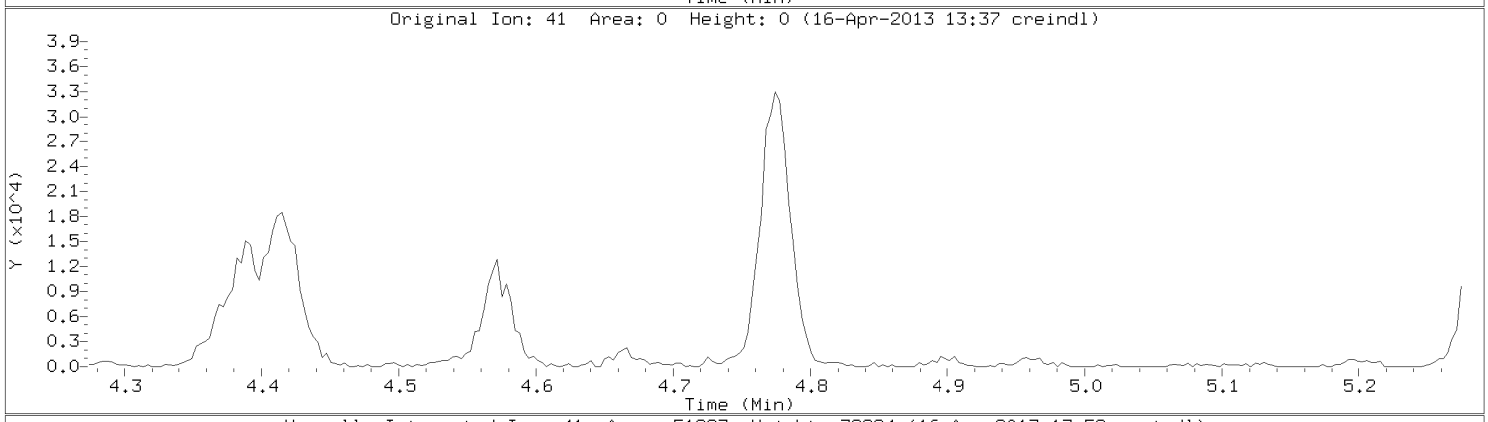


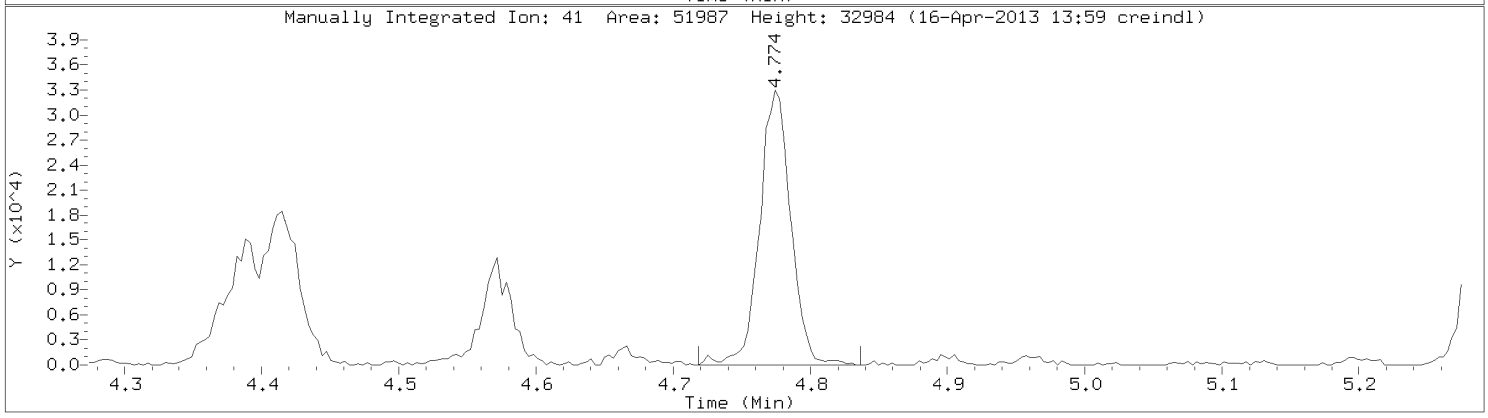
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: n-Hexane
CAS Number: 110-54-3

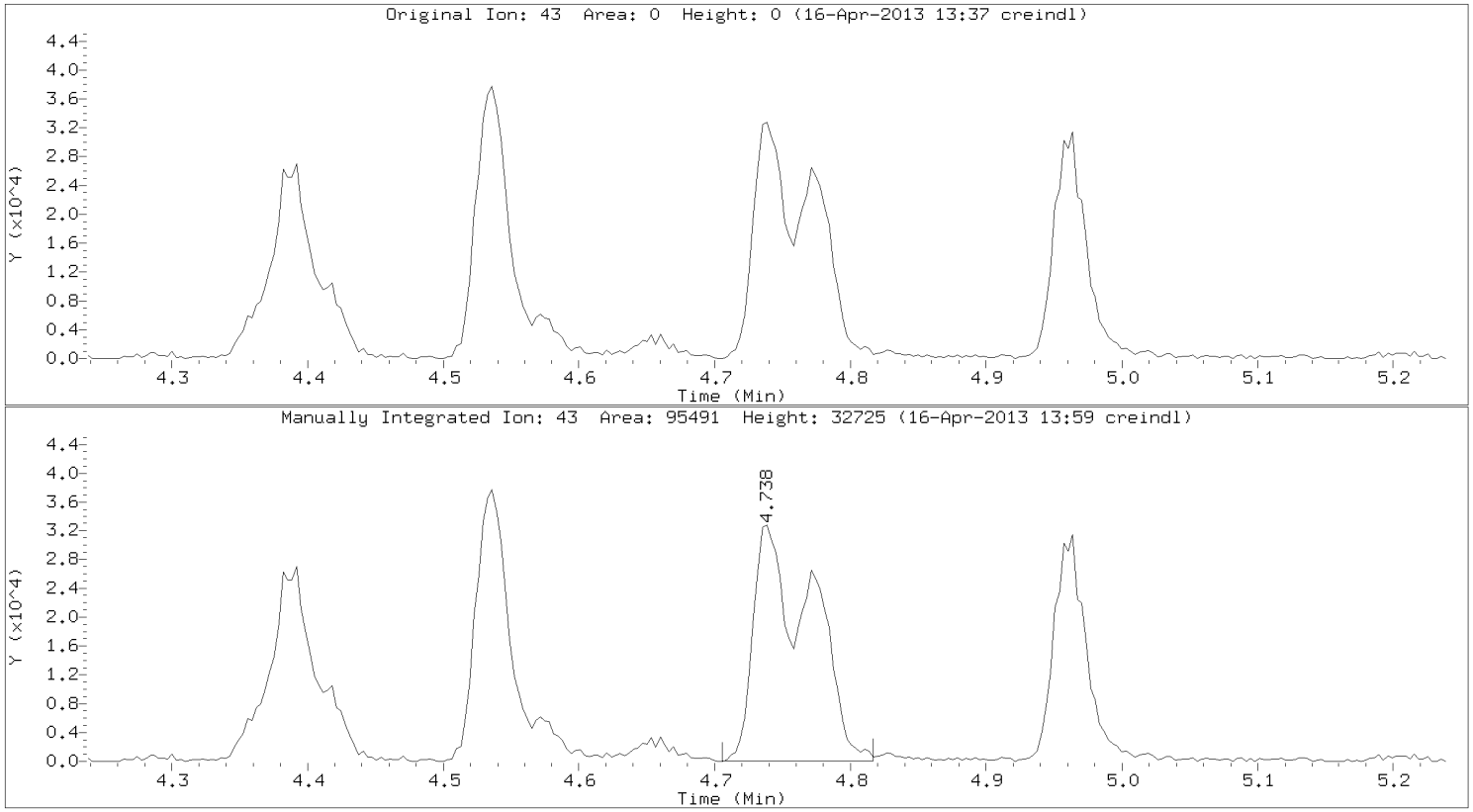






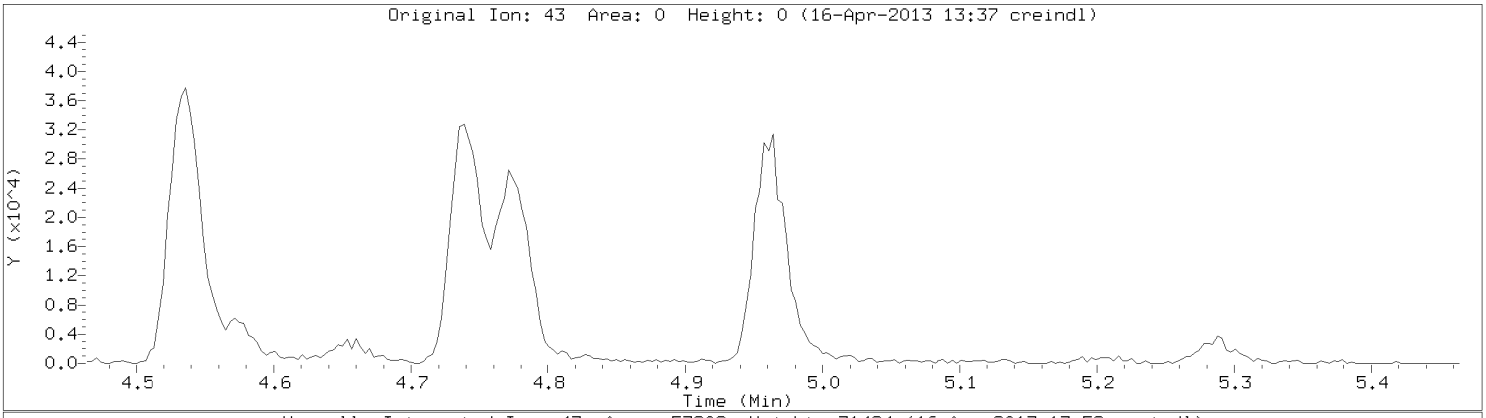


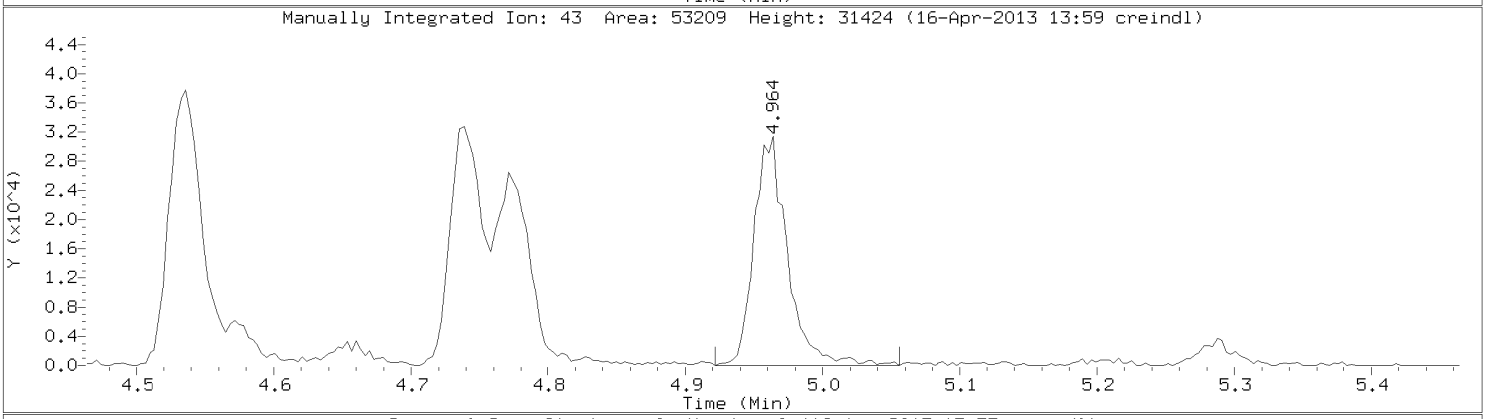
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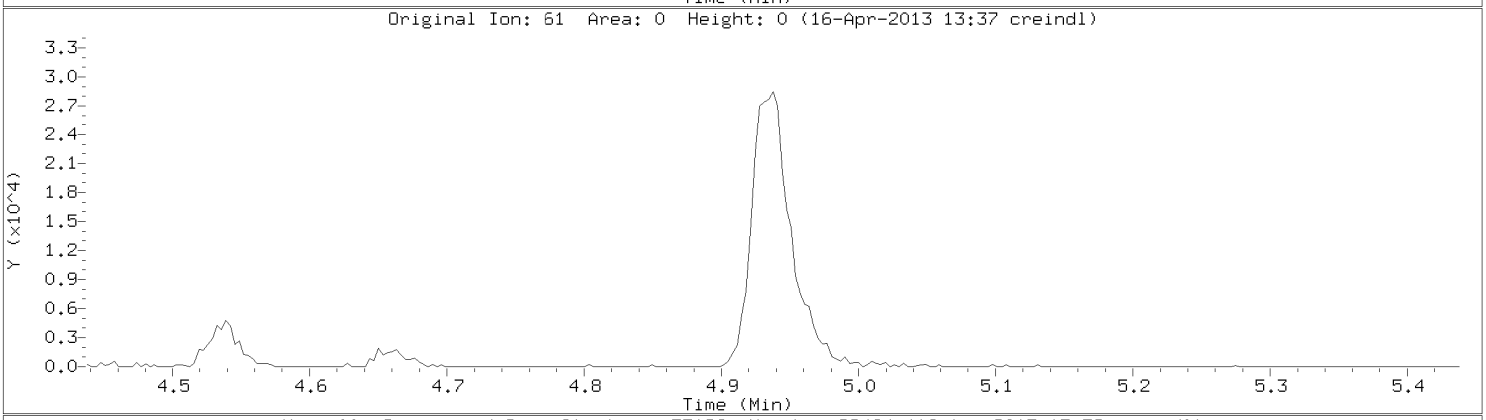


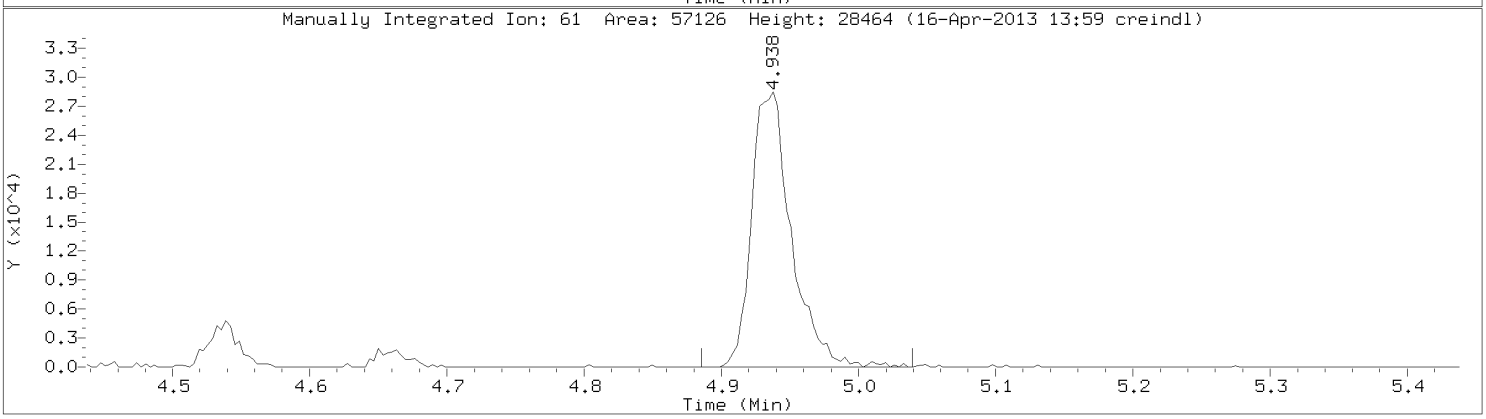
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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Ethyl Acetate
CAS Number: 141-78-6

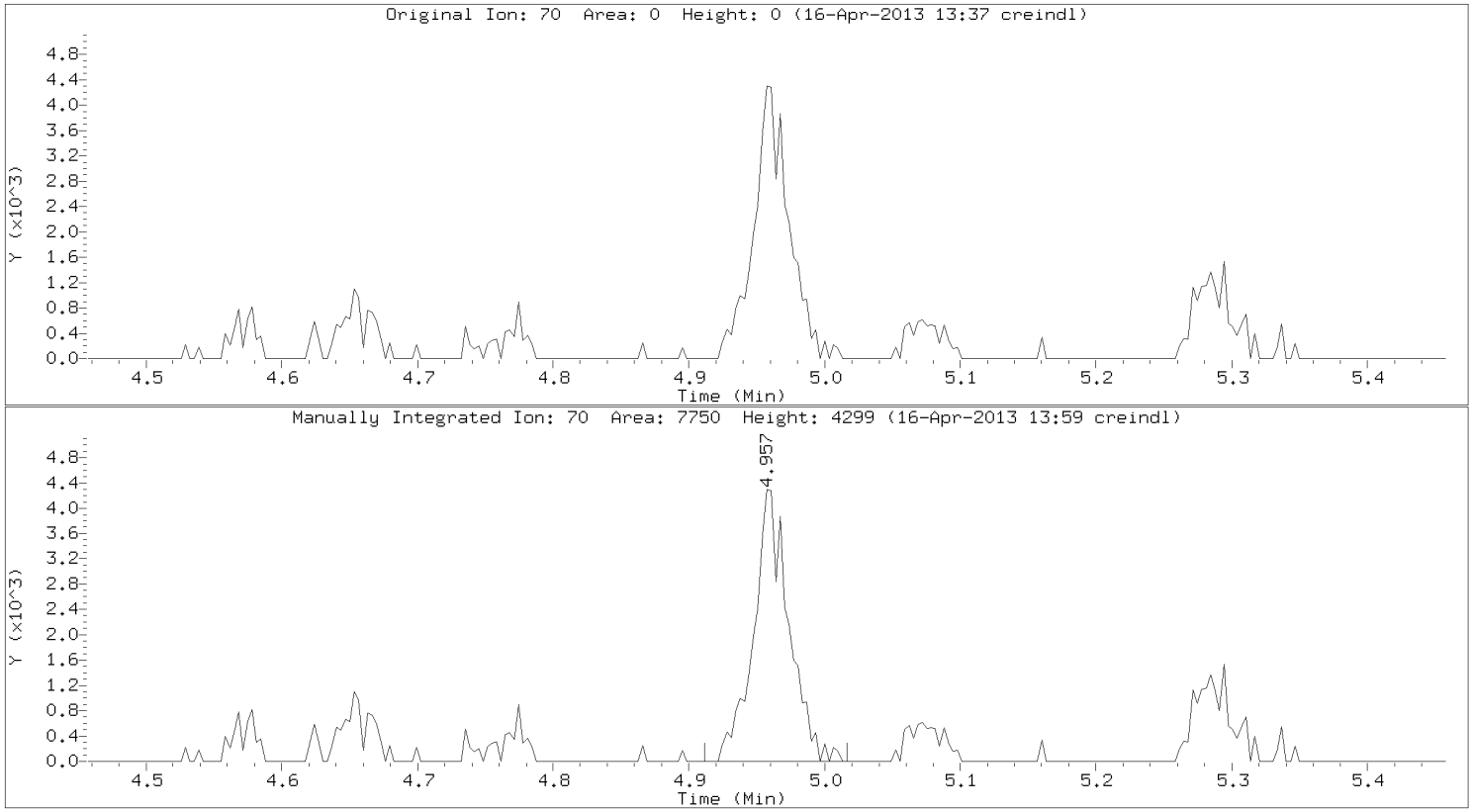






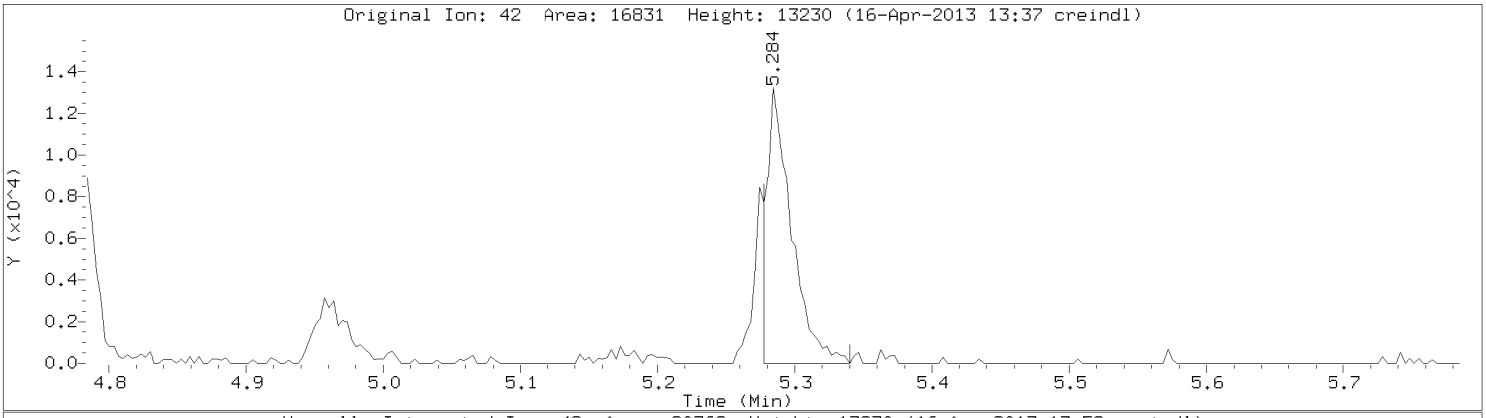


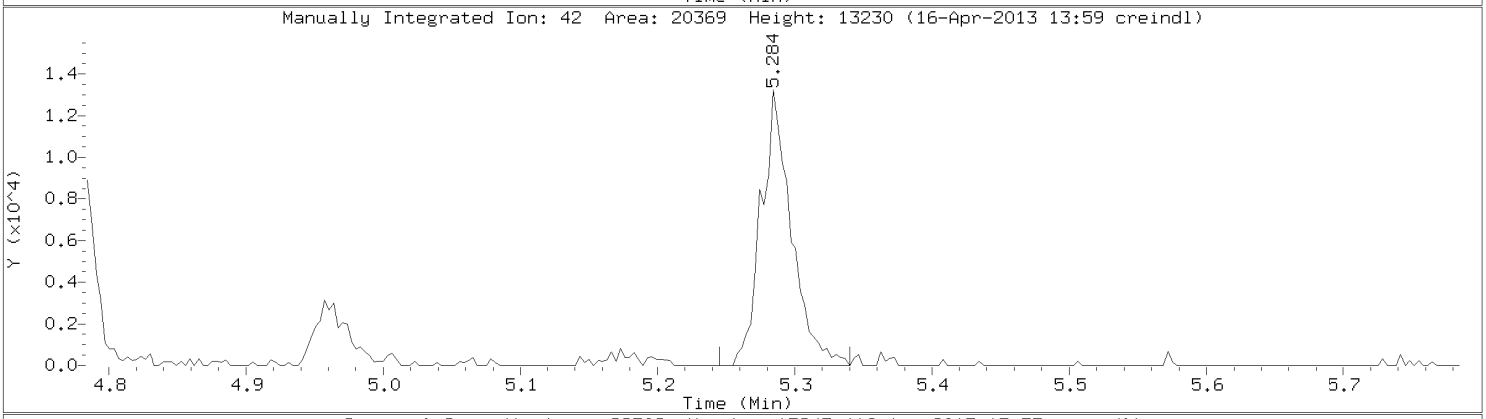
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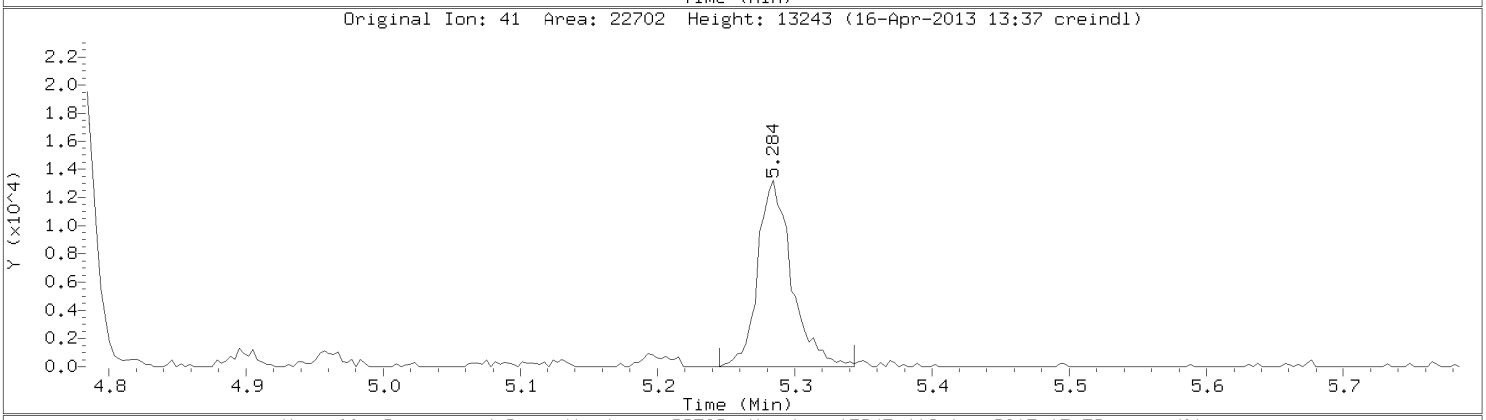


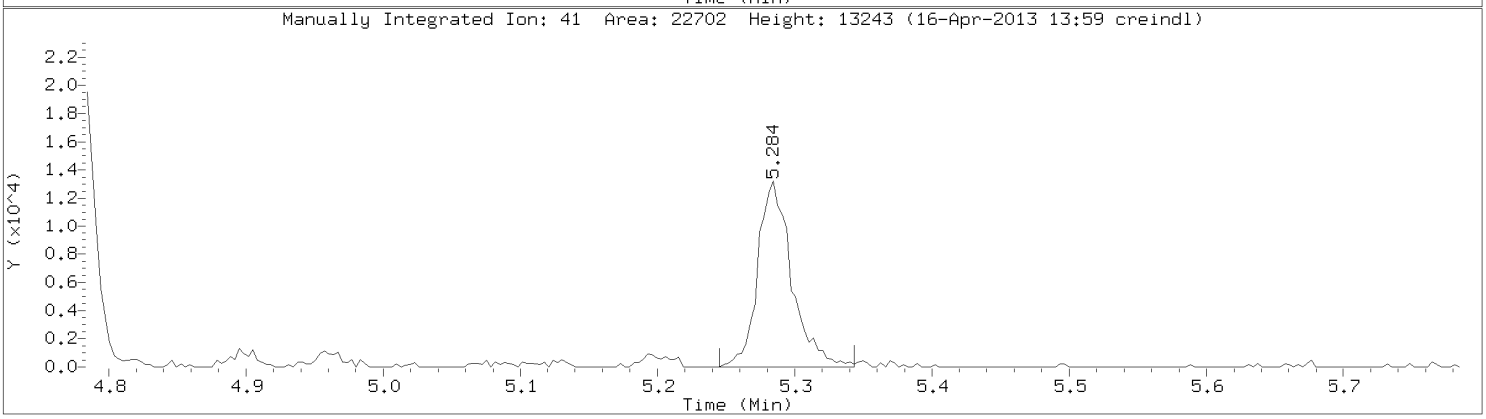
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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Tetrahydrofuran
CAS Number: 109-99-9

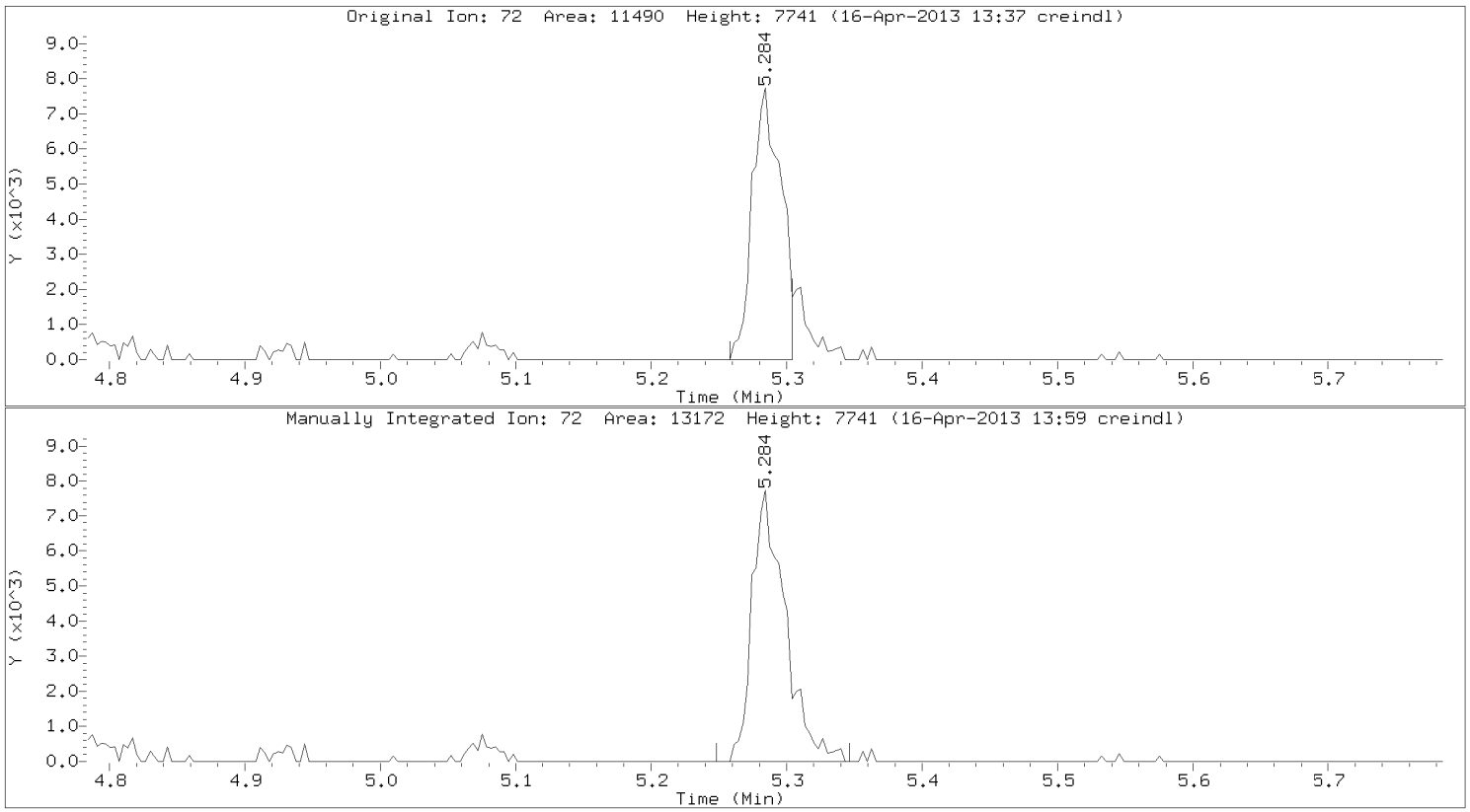






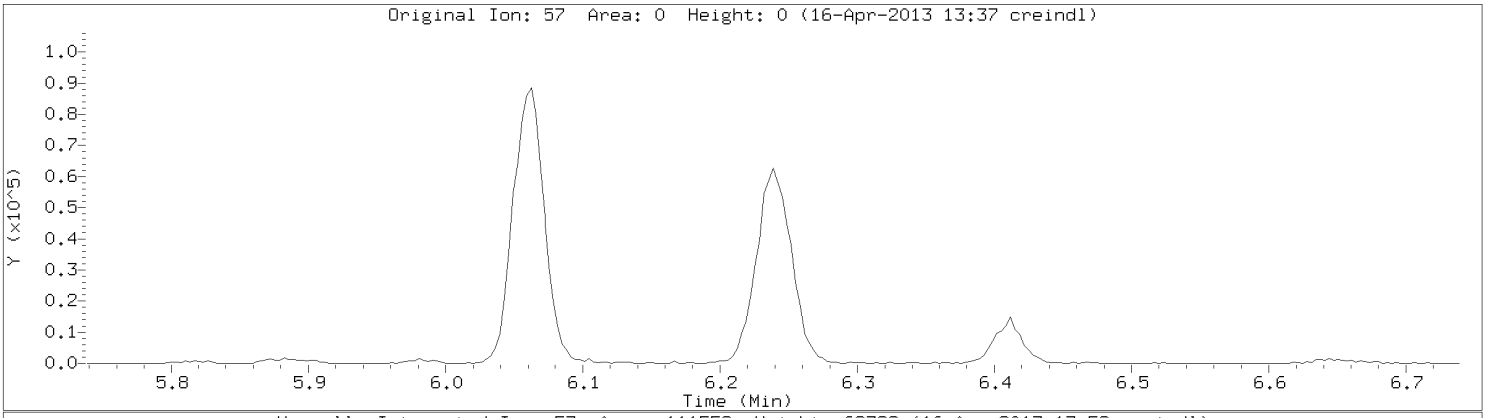


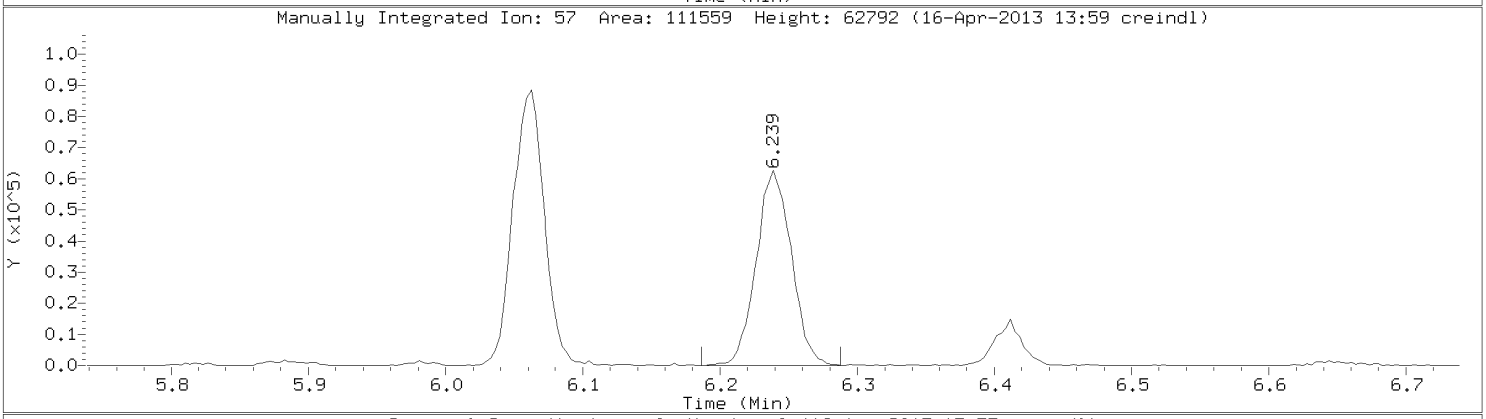
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Instrument: 10airD.i
Lab Sample ID: ICAL4

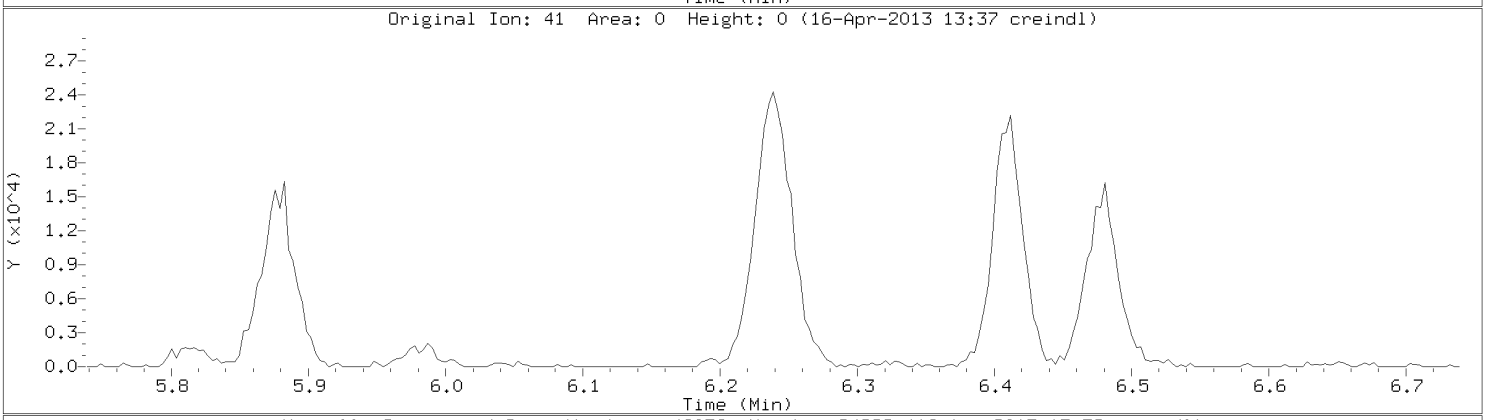


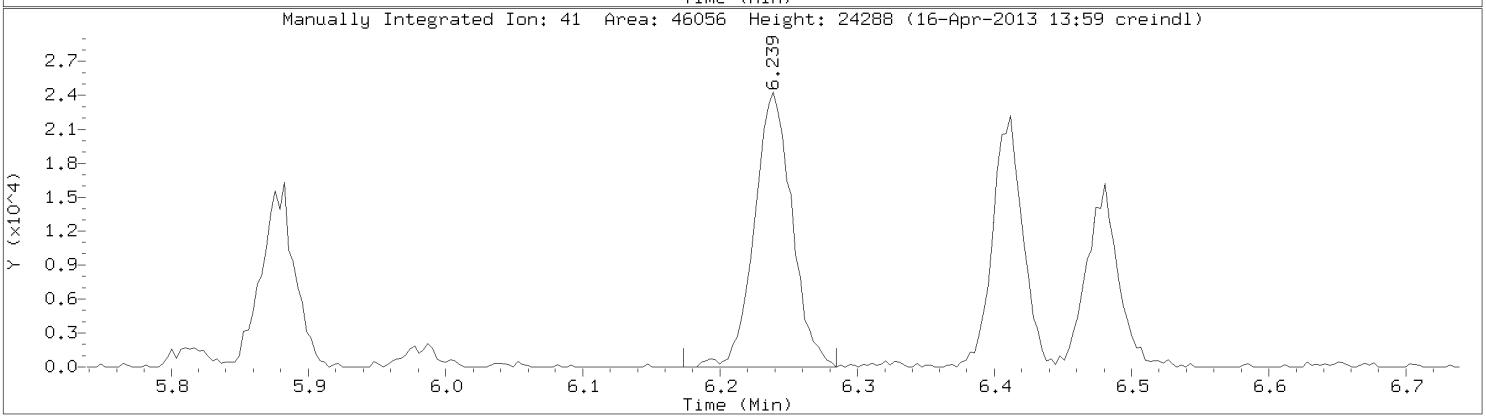
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

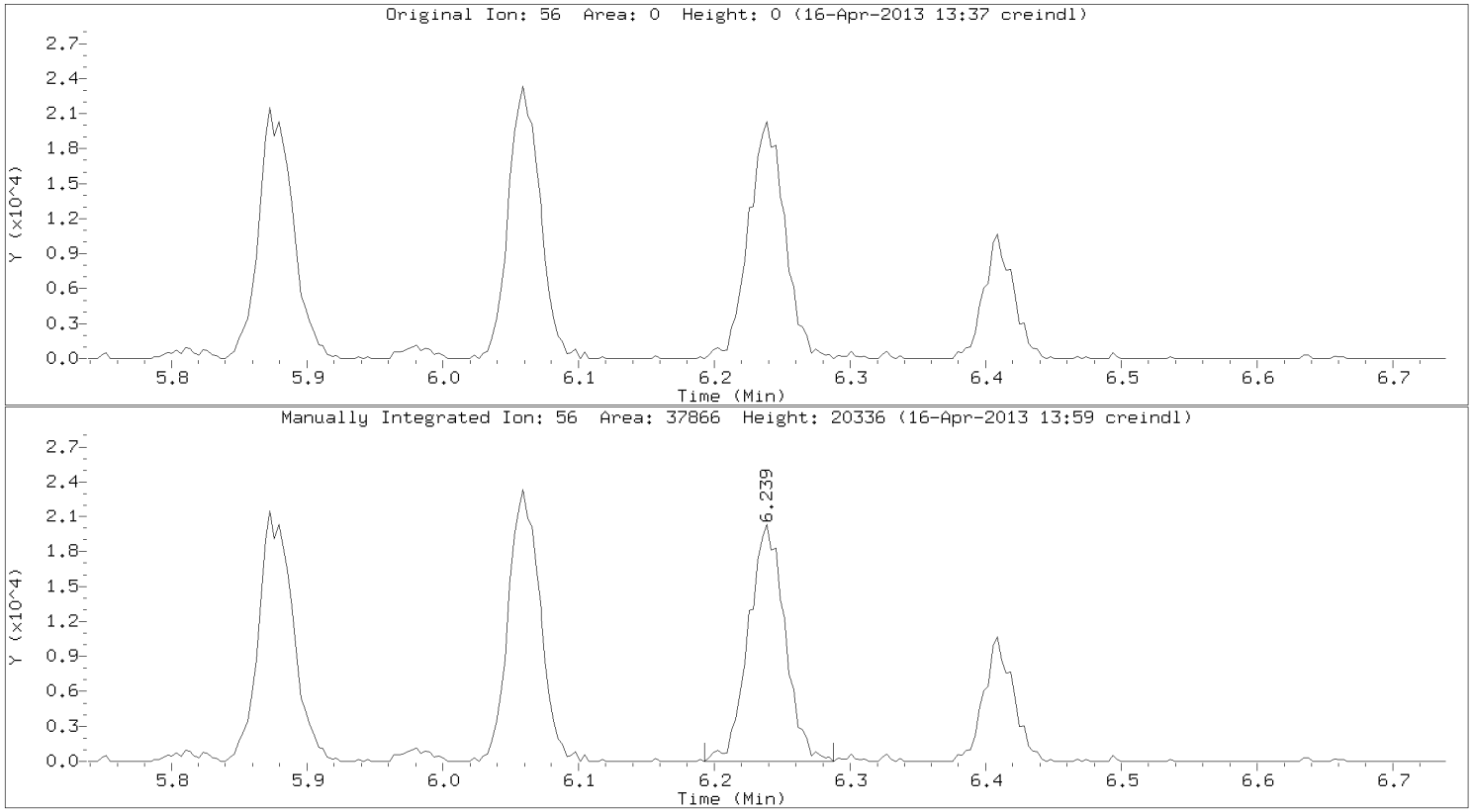






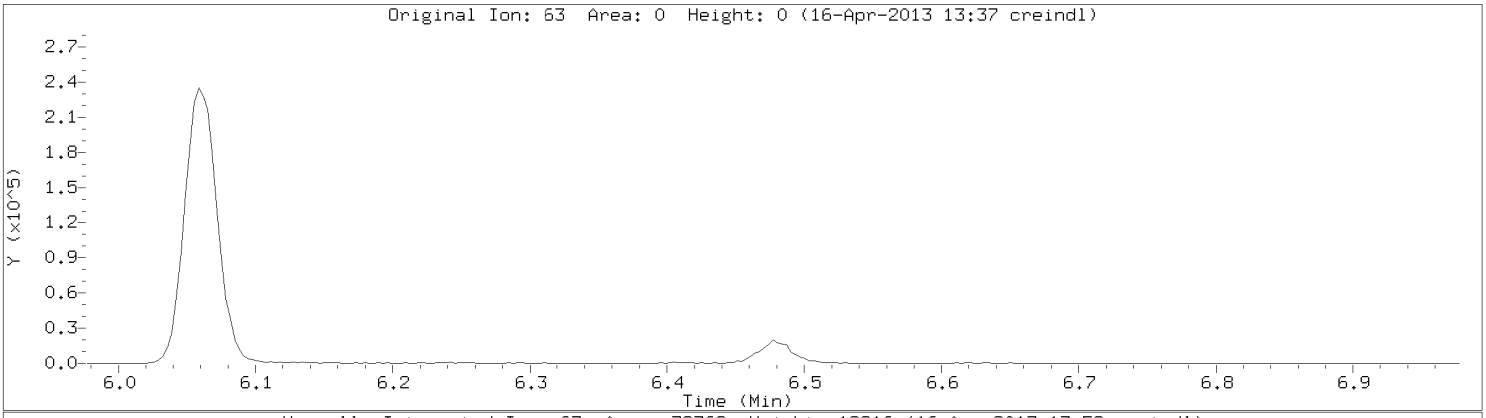


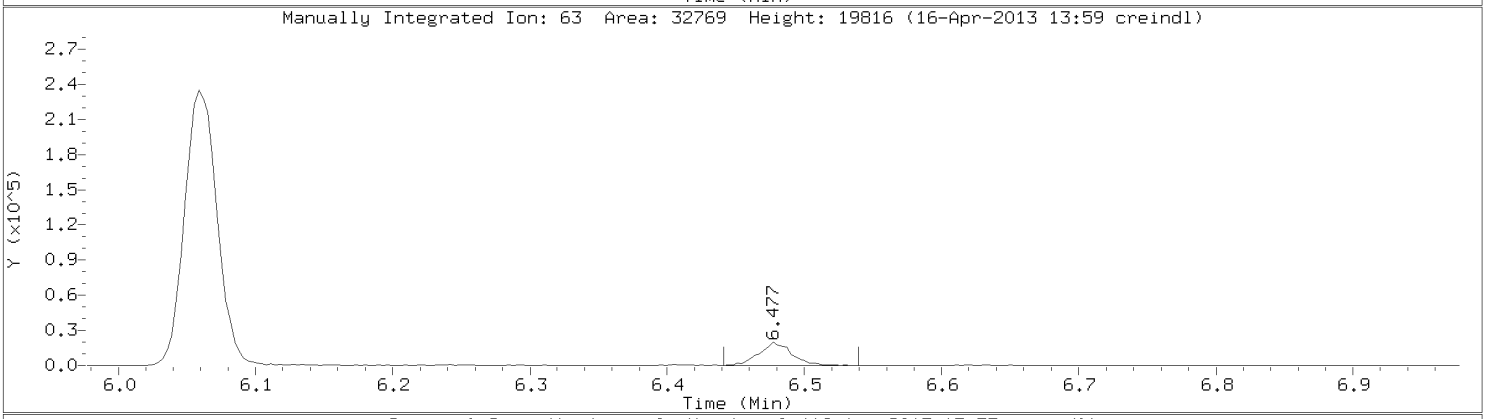
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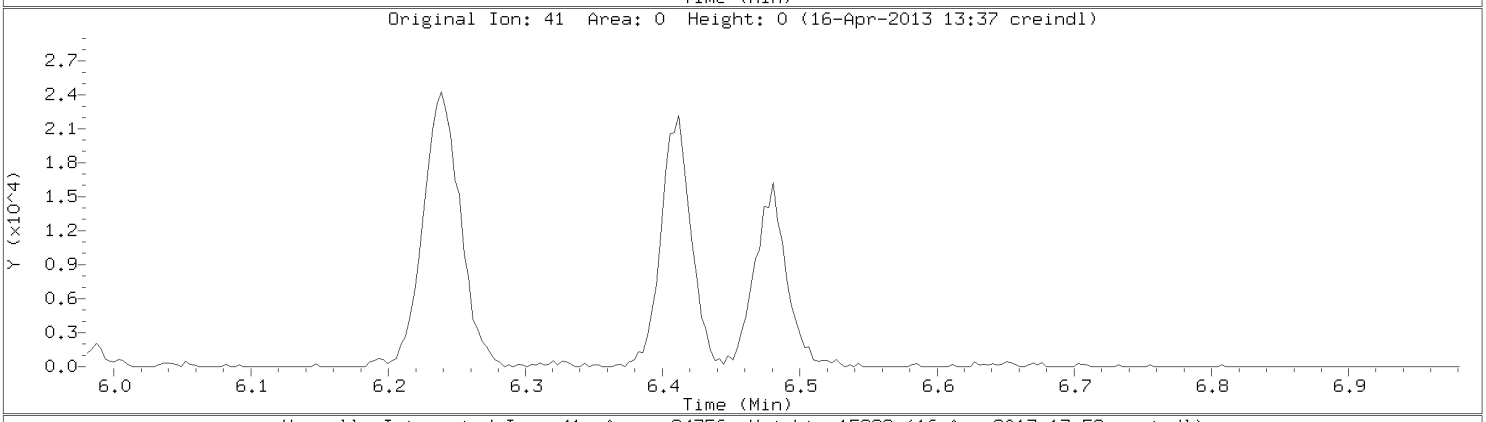


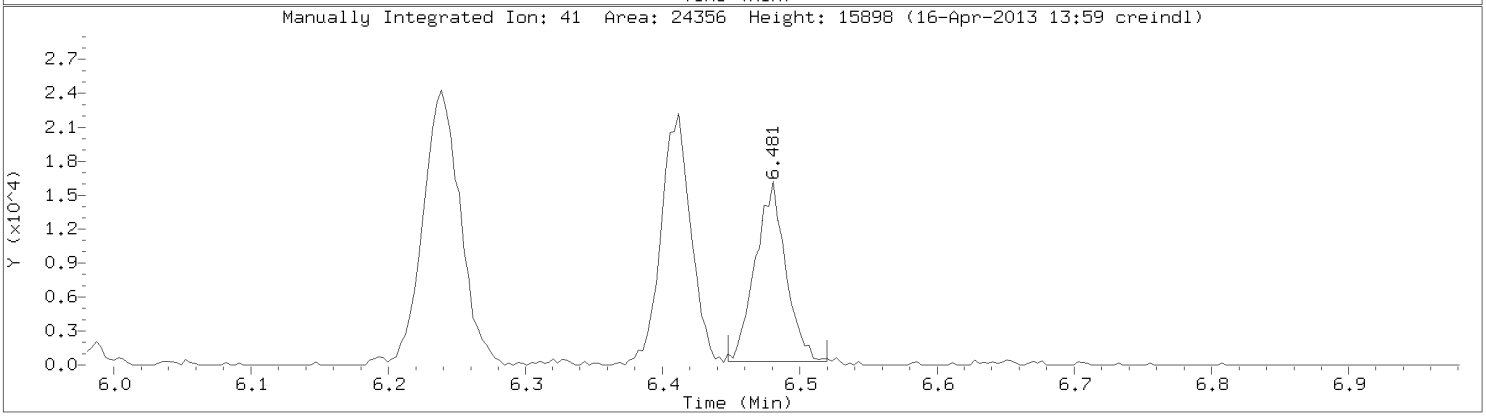
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

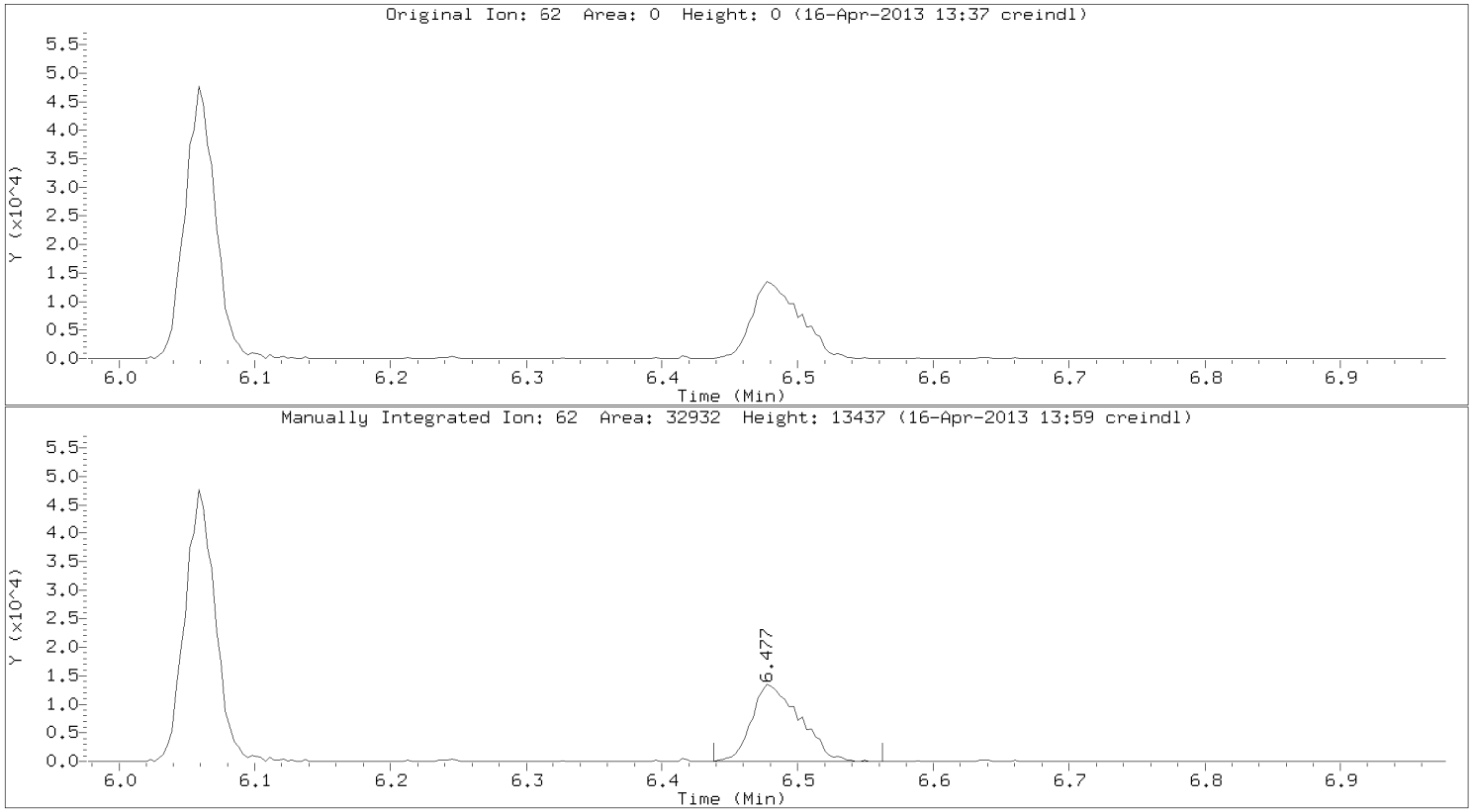






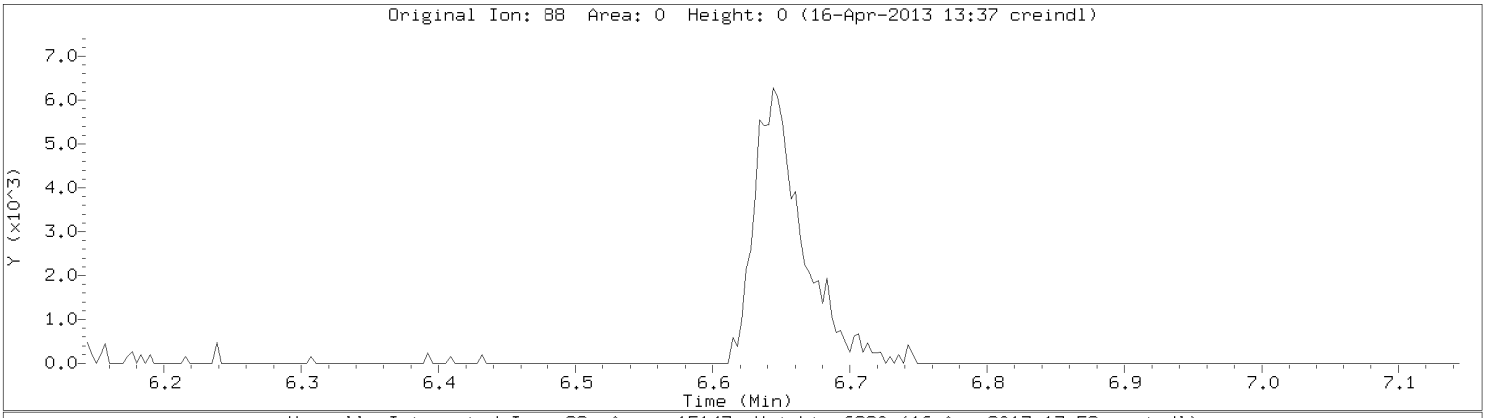


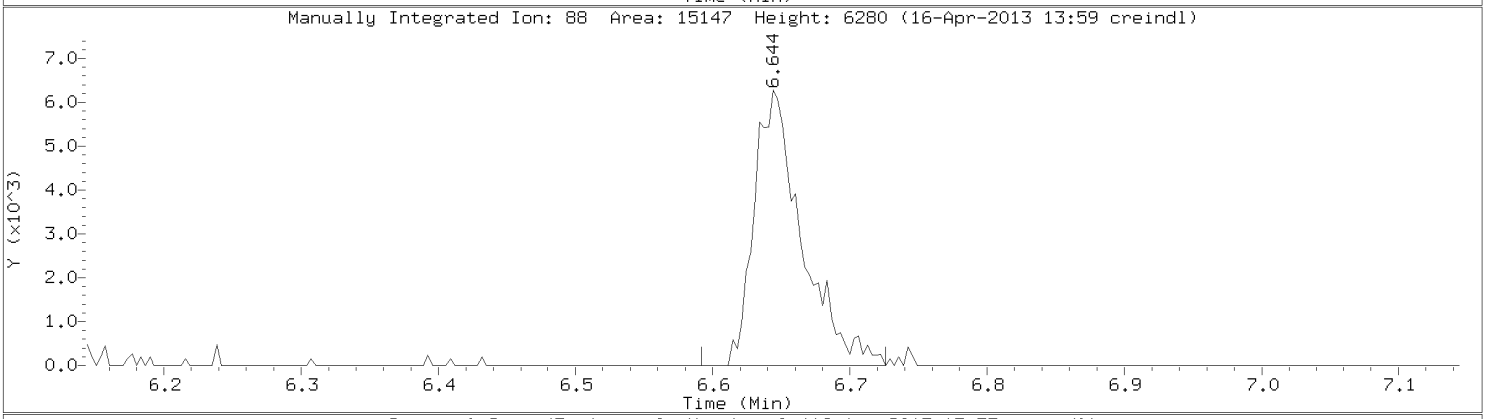
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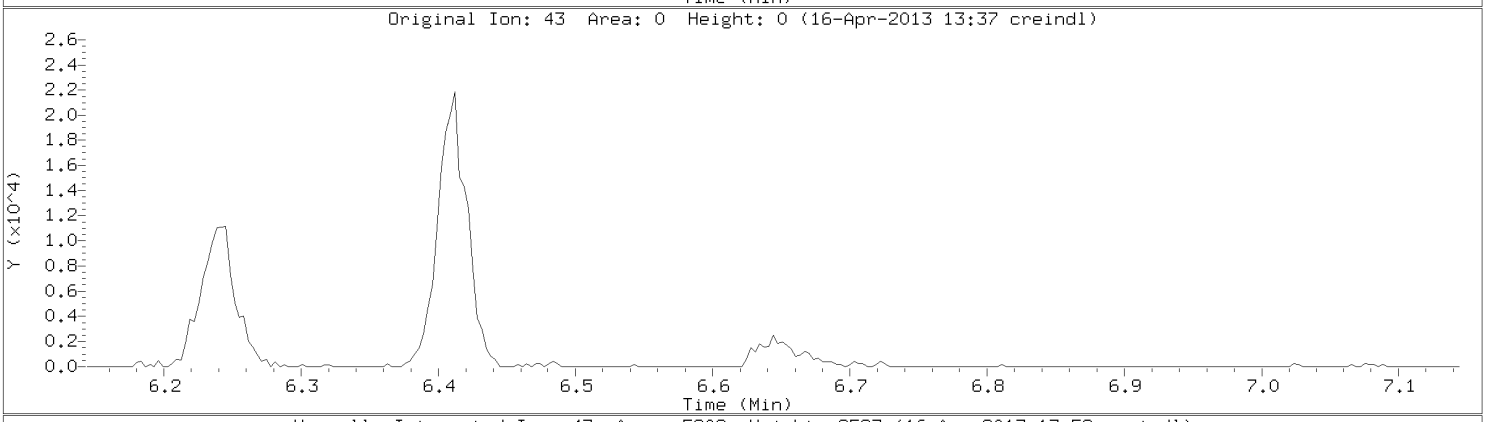


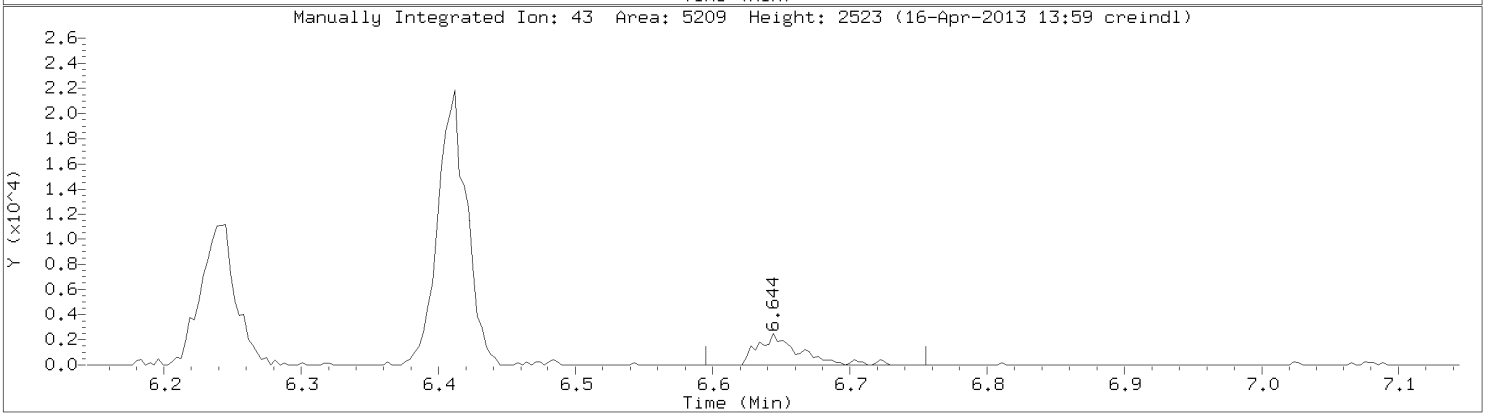
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: 1,4-Dioxane
CAS Number: 123-91-1



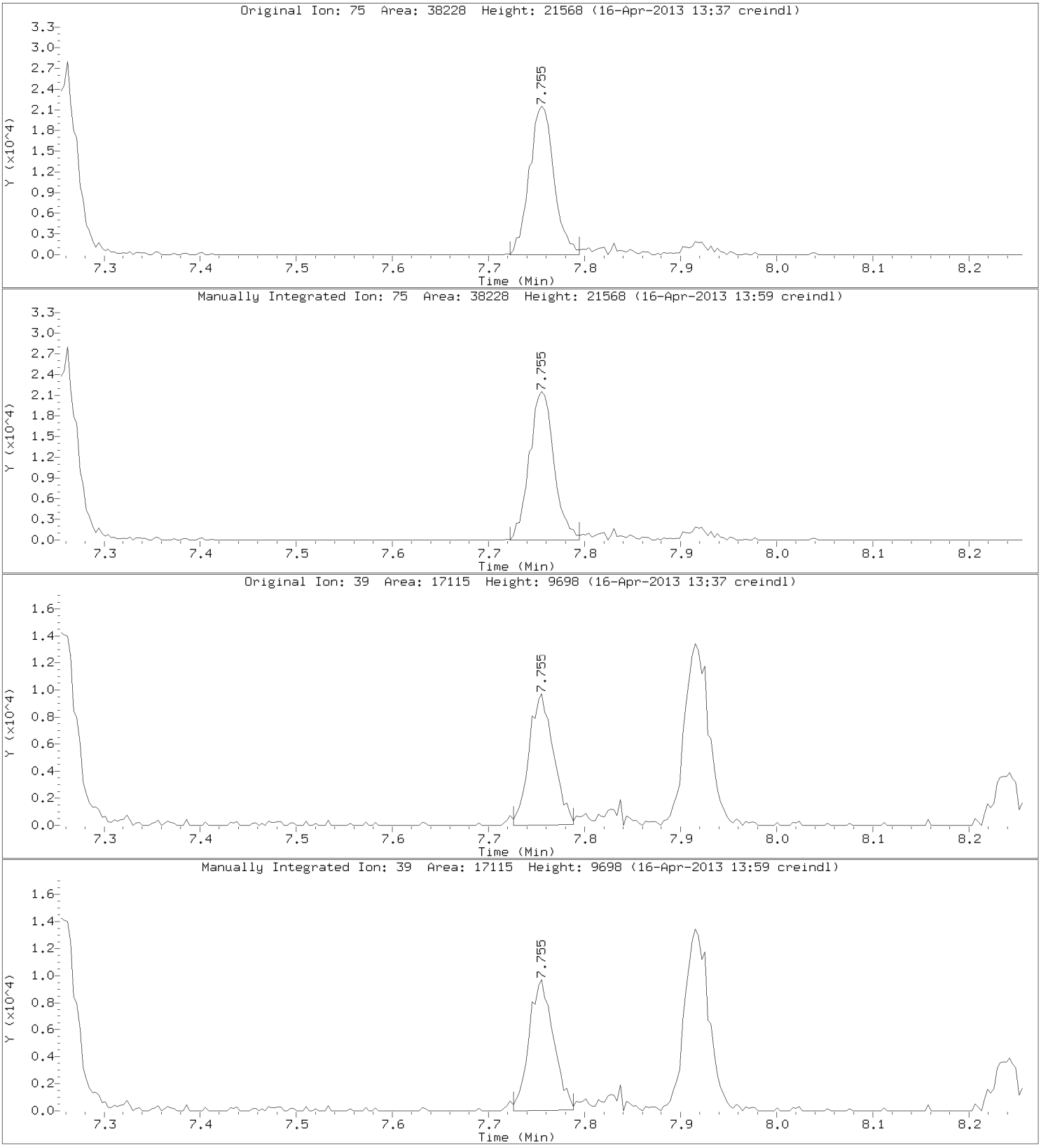




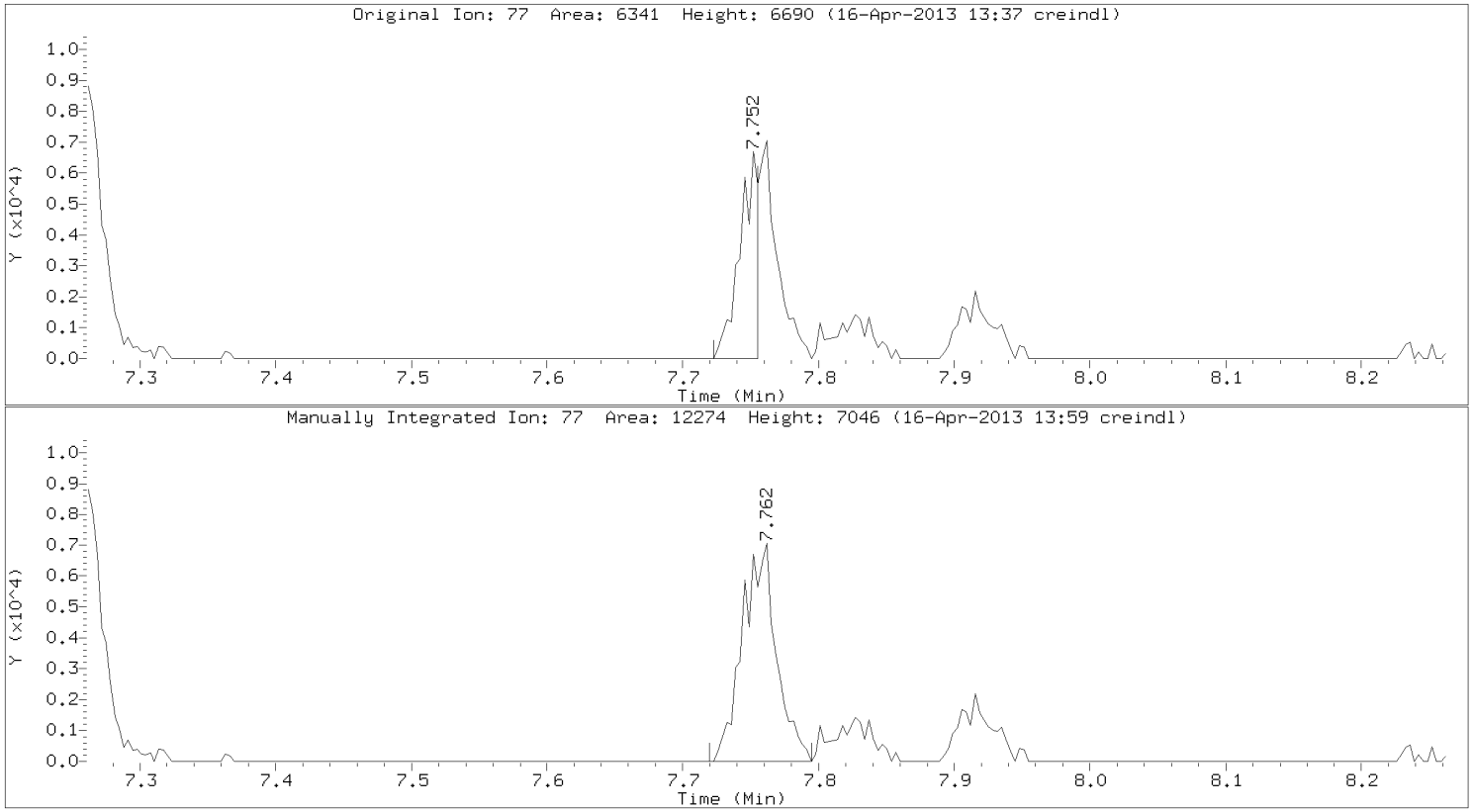


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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: trans-1,3-Dichloropropene
CAS Number: 10061-02-6

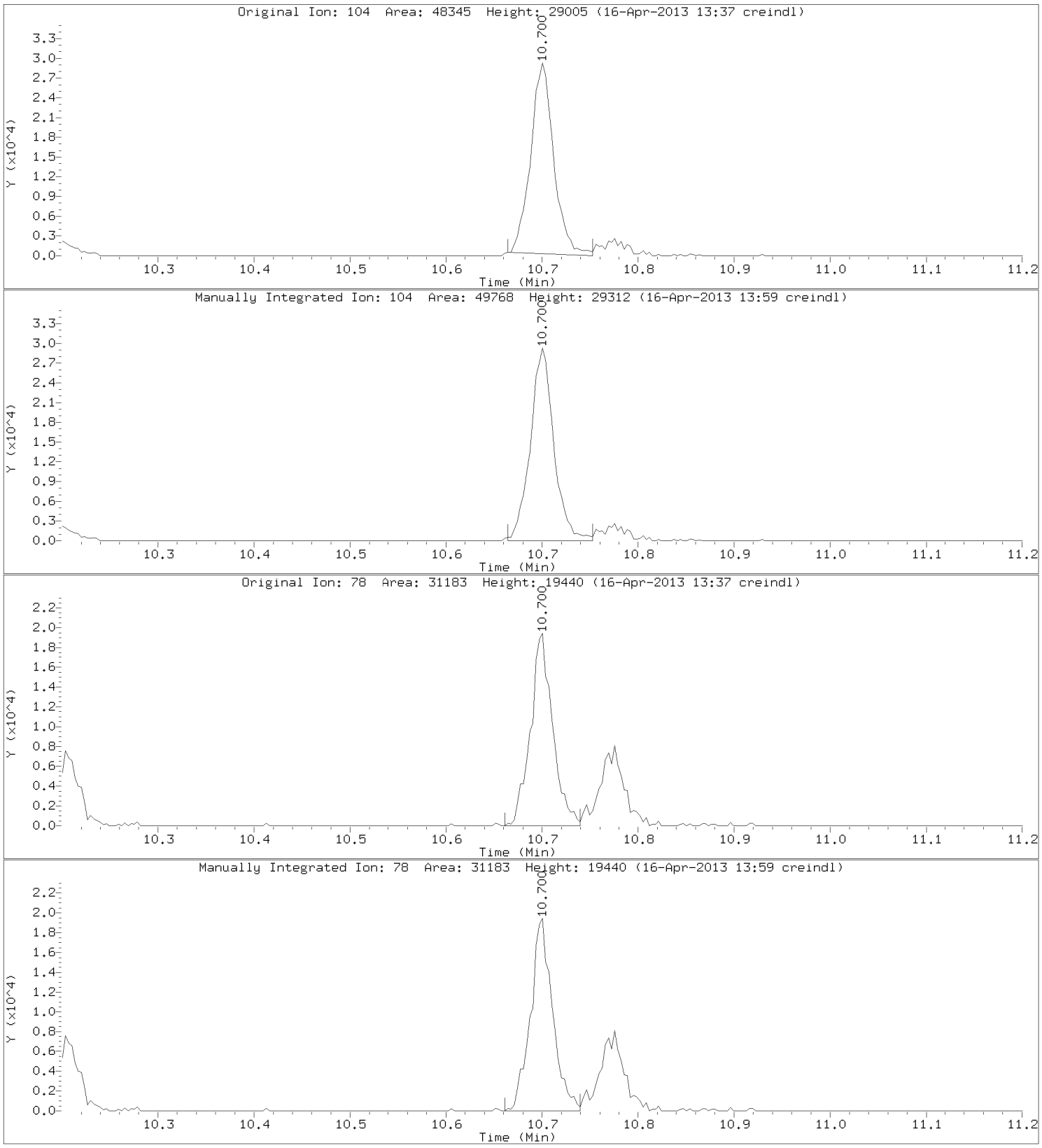


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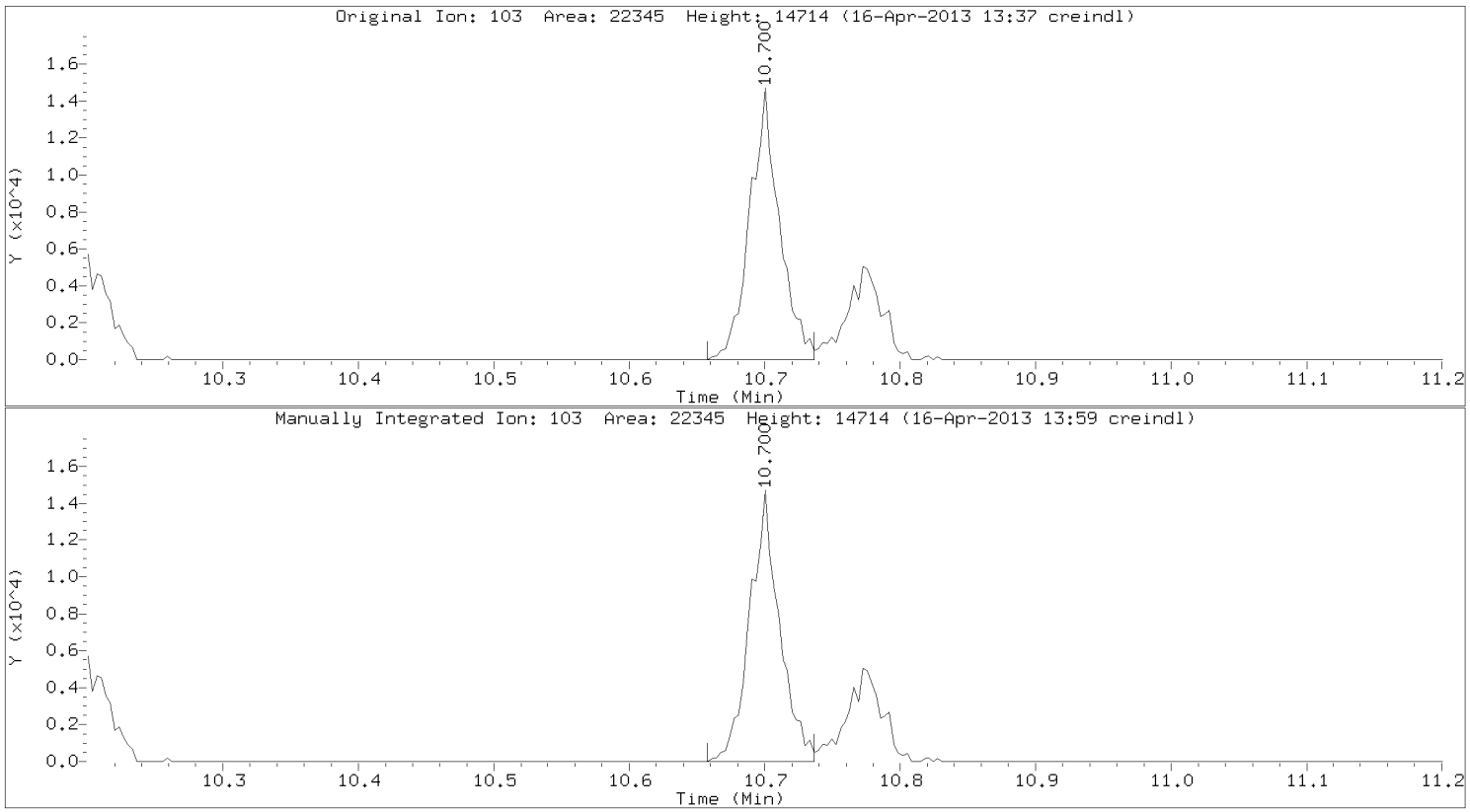


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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Styrene
CAS Number: 100-42-5

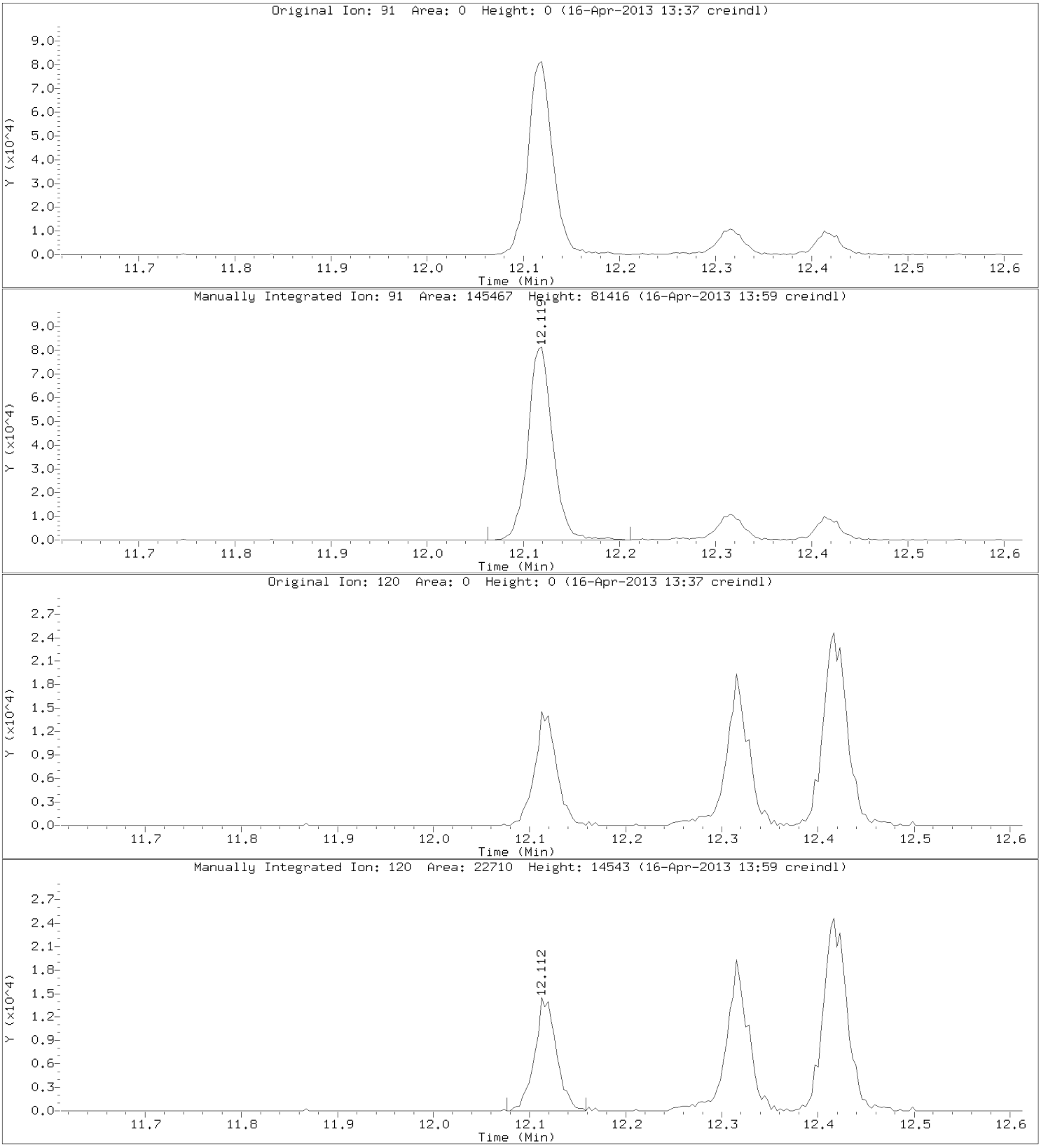


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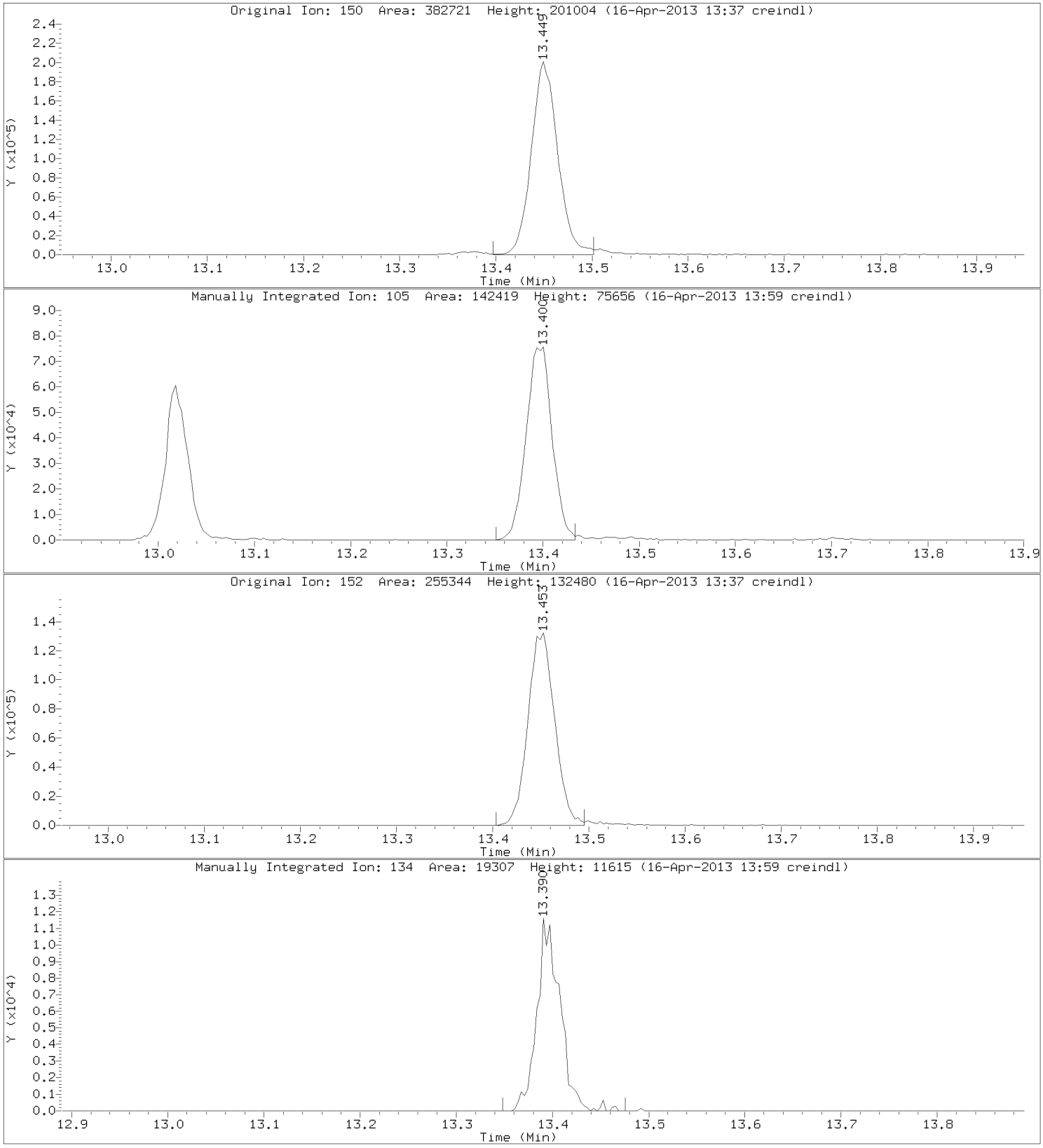
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: N-Propylbenzene
CAS Number: 103-65-1



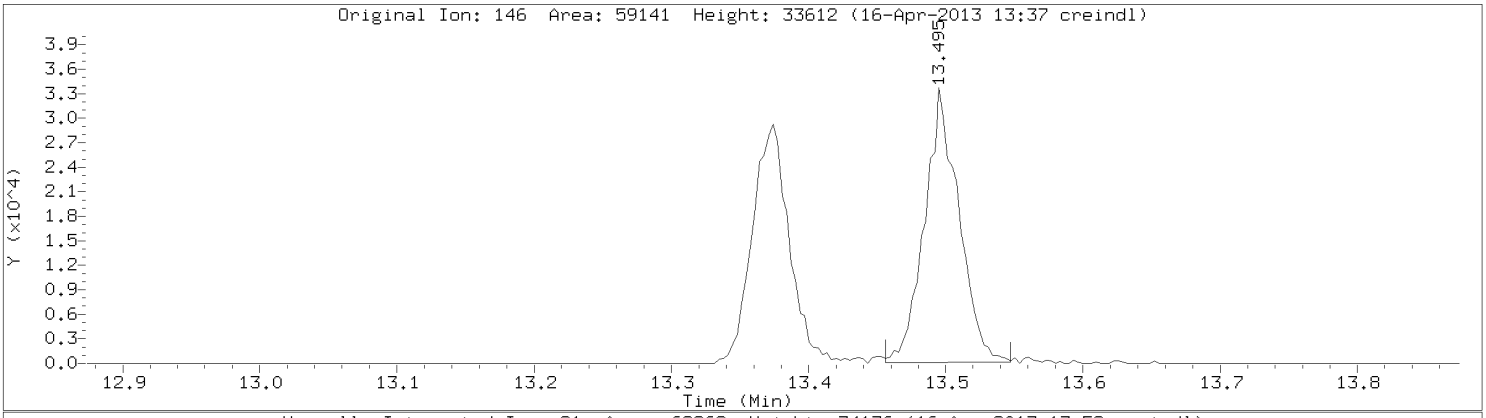
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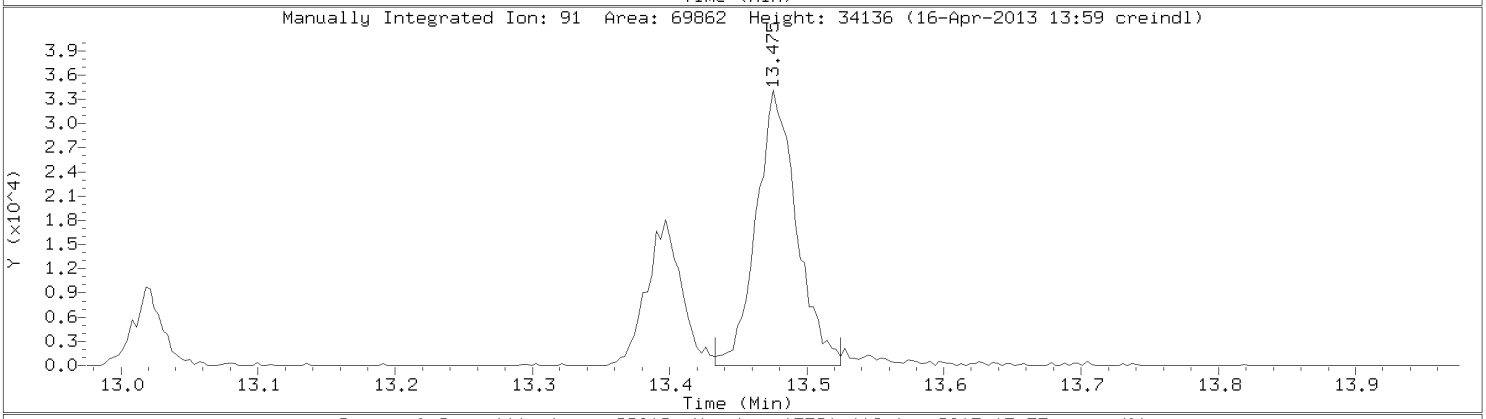
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CAS Number: 135-98-8

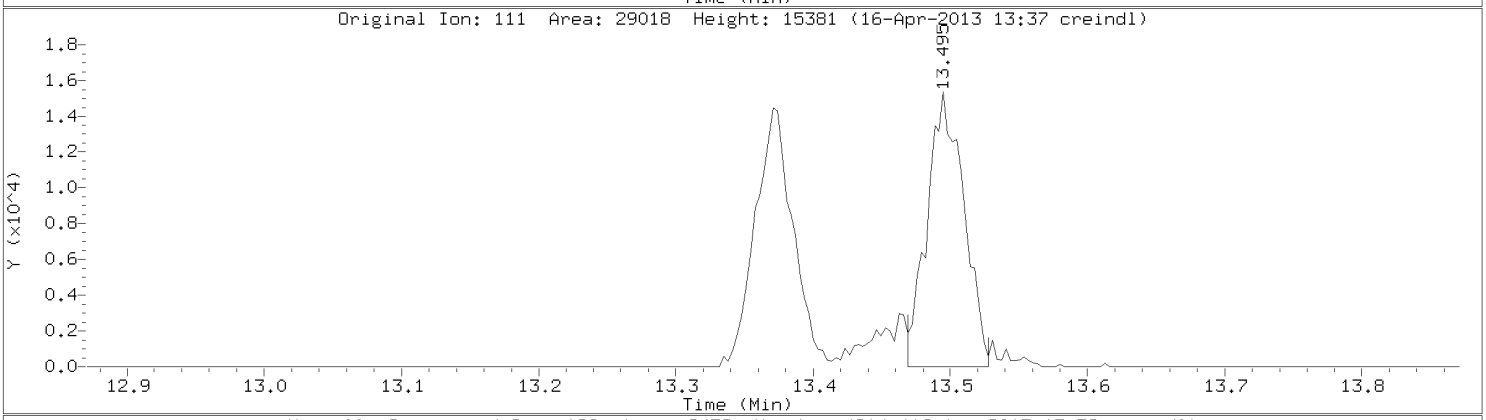


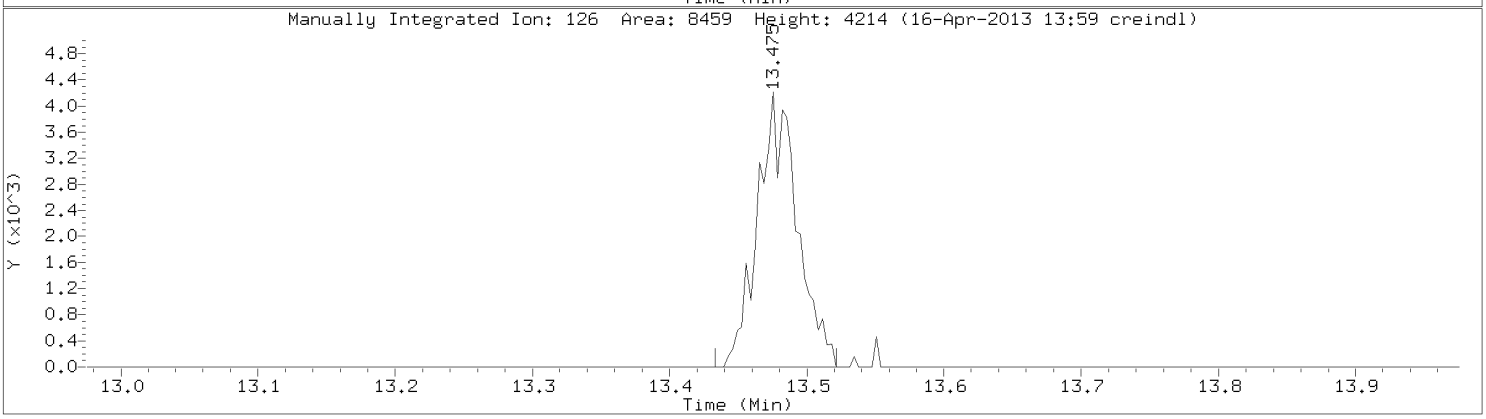
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Benzyl Chloride
CAS Number: 100-44-7



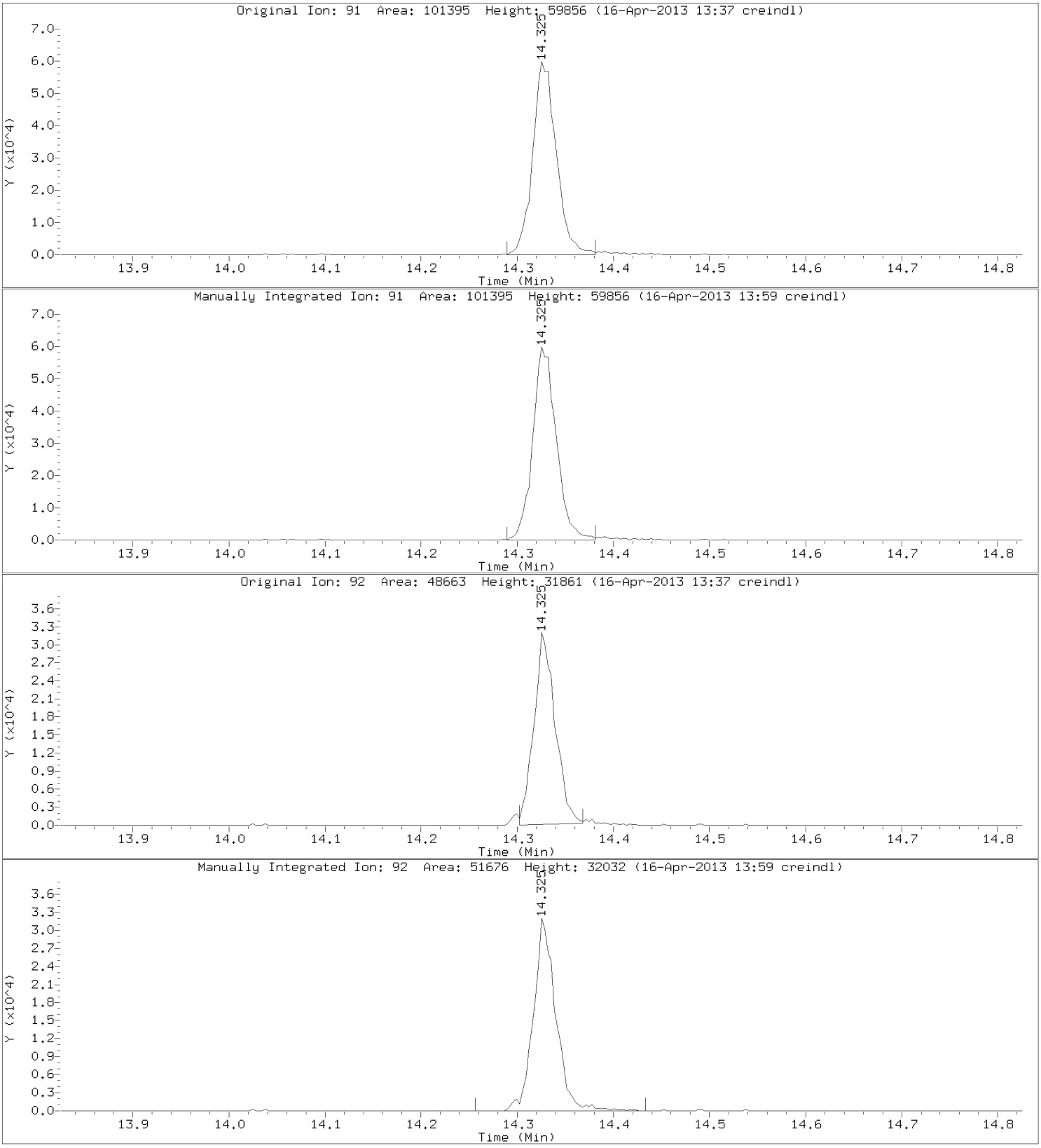






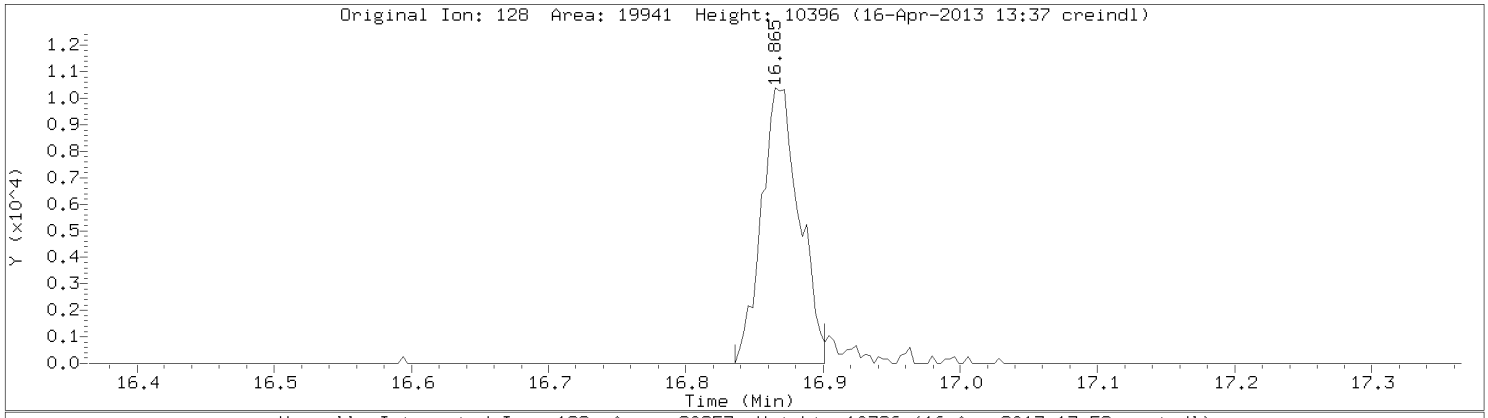
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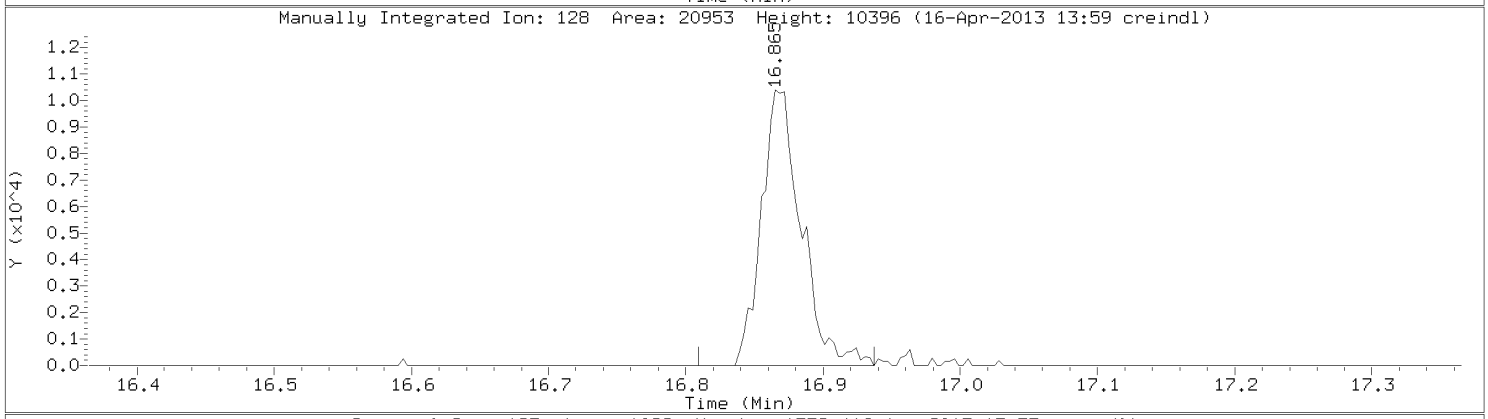
Compound: N-Butylbenzene
CAS Number: 104-51-8

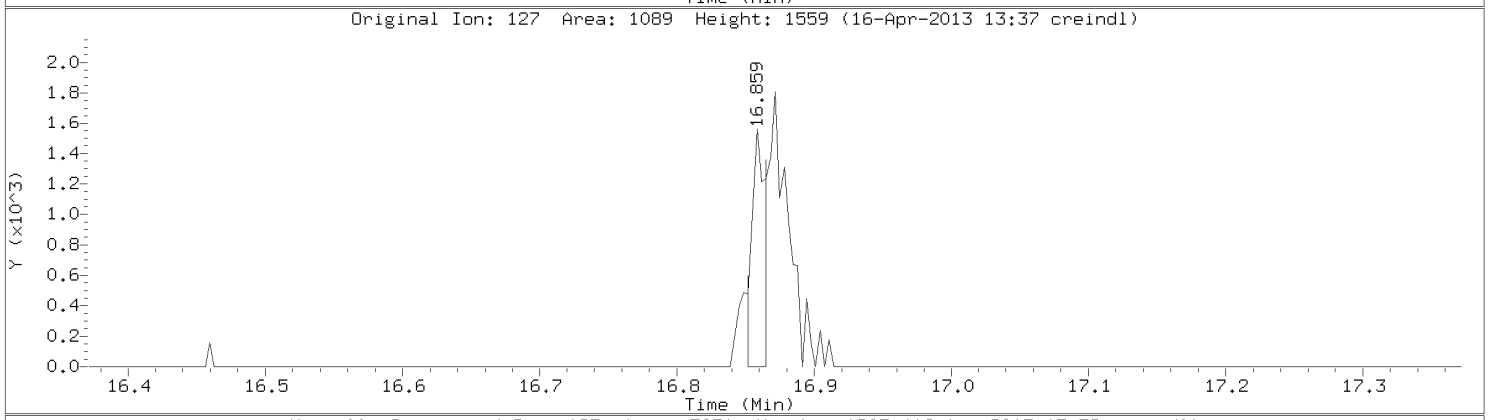


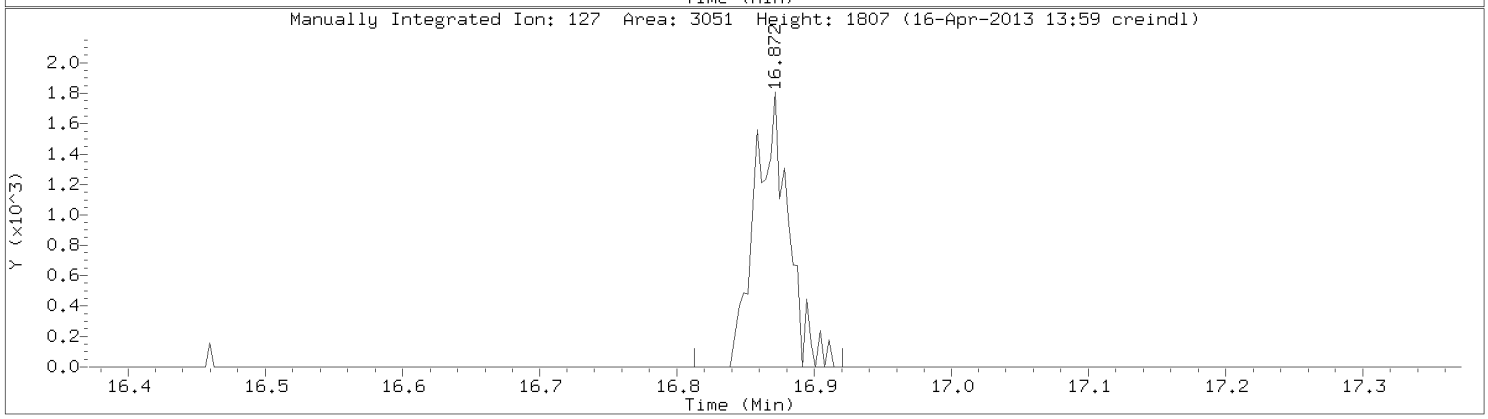
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Injection Date: 16-APR-2013 12:13
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Naphthalene
CAS Number: 91-20-3









Data File: \\192.168.10.12\chem\10airD.i\041613.B\10609.d
Report Date: 16-Apr-2013 13:38

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041613.B\10609.d
Lab Smp Id: ICAL5
Inj Date : 16-APR-2013 12:43
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Meth Date : 16-Apr-2013 13:38 10airD.i Quant Type: ISTD
Cal Date : 16-APR-2013 12:43 Cal File: 10609.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.920	2.920	(0.482)	134785	10.0000	10.0
2	Dichlorodifluoromethane	85	2.950	2.950	(0.486)	1447891	10.0000	10.0
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	1178879	10.0000	10.0
4	Chloromethane	50	3.048	3.048	(0.503)	329781	10.0000	10.0
5	Vinyl chloride	62	3.136	3.136	(0.517)	364112	10.0000	10.0
6	1,3-Butadiene	54	3.179	3.179	(0.524)	199631	10.0000	10.0
7	Bromomethane	94	3.336	3.336	(0.550)	392288	10.0000	10.0
8	Chloroethane	64	3.394	3.394	(0.560)	180665	10.0000	10.0(M)
9	Ethanol	31	3.420	3.420	(0.564)	218521	10.0000	10.0
10	Vinyl Bromide	106	3.532	3.532	(0.582)	351851	10.0000	10.0
11	Acrolein	56	3.626	3.626	(0.598)	107972	10.0000	10.0
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	1329366	10.0000	10.0
13	Acetone	43	3.669	3.669	(0.605)	700101	10.0000	10.0
14	Isopropyl Alcohol	45	3.695	3.695	(0.609)	469042	10.0000	10.0
15	1,1-Dichloroethene	61	3.927	3.927	(0.648)	682180	10.0000	10.0
16	Acrylonitrile	53	3.927	3.927	(0.648)	236813	10.0000	10.0
17	Tert Butyl Alcohol	59	3.934	3.934	(0.649)	607451	10.0000	10.0
18	Freon 113	101	3.983	3.983	(0.657)	865702	10.0000	10.0
19	Methylene chloride	49	4.042	4.042	(0.666)	398578	10.0000	10.0
20	Allyl Chloride	76	4.055	4.055	(0.669)	185009	10.0000	10.0
21	Carbon Disulfide	76	4.179	4.179	(0.689)	1236995	10.0000	10.0
22	trans-1,2-dichloroethene	96	4.375	4.375	(0.721)	393270	10.0000	10.0
23	Methyl Tert Butyl Ether	73	4.411	4.411	(0.727)	830243	10.0000	10.0(M)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10609.d
Report Date: 16-Apr-2013 13:38

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)	
	24 Vinyl Acetate	43	4.532	4.532	(0.747)	775768	10.0000	10.0	
	25 1,1-Dichloroethane	63	4.538	4.538	(0.748)	773140	10.0000	10.0	
$	26 Hexane-d14(S)	66	4.656	4.656	(0.768)	626541	10.0000	10.0	(M)
	27 Methyl Ethyl Ketone	72	4.731	4.731	(0.780)	199907	10.0000	10.0	(M)
	28 n-Hexane	57	4.777	4.777	(0.788)	475717	10.0000	10.0	(M)
	29 cis-1,2-Dichloroethene	96	4.934	4.934	(0.814)	412929	10.0000	10.0	
	30 Ethyl Acetate	43	4.957	4.957	(0.817)	631568	10.0000	10.0	
	31 Chloroform	83	5.078	5.078	(0.837)	1105213	10.0000	10.0	
	32 Tetrahydrofuran	42	5.274	5.274	(0.870)	249959	10.0000	10.0	
	33 1,1,1-Trichloroethane	97	5.565	5.565	(0.918)	1099579	10.0000	10.0	
	34 1,2-Dichloroethane	62	5.581	5.581	(0.920)	873271	10.0000	10.0	
	35 Benzene	78	5.852	5.852	(0.965)	1170298	10.0000	10.0	
	36 Carbon tetrachloride	117	5.875	5.875	(0.969)	1083657	10.0000	10.0	
	37 Cyclohexane	56	5.879	5.879	(0.969)	438709	10.0000	10.0	
*	38 1,4-Difluorobenzene	114	6.065	6.065	(1.000)	1432419	10.0000		
	39 2,2,4-Trimethylpentane	57	6.241	6.241	(1.029)	1346746	10.0000	10.0	
	40 Heptane	43	6.411	6.411	(1.057)	426160	10.0000	10.0	
	41 1,2-Dichloropropane	63	6.480	6.480	(1.068)	383376	10.0000	10.0	(M)
	42 Trichloroethene	130	6.503	6.503	(1.072)	386522	10.0000	10.0	
	43 1,4-Dioxane	88	6.620	6.620	(1.092)	251455	10.0000	10.0	(M)
	44 Bromodichloromethane	83	6.627	6.627	(1.093)	1224464	10.0000	10.0	
	45 Methyl Isobutyl Ketone	43	7.202	7.202	(1.188)	616060	10.0000	10.0	
	46 cis-1,3-Dichloropropene	75	7.261	7.261	(1.197)	686313	10.0000	10.0	
	47 trans-1,3-Dichloropropene	75	7.755	7.755	(1.279)	753340	10.0000	10.0	
$	48 Toluene-d8 (S)	98	7.830	7.830	(1.291)	1342678	10.0000	10.0	
	49 Toluene	91	7.921	7.921	(1.306)	1457360	10.0000	10.0	
	50 1,1,2-Trichloroethane	97	7.931	7.931	(1.308)	500563	10.0000	10.0	
	51 Methyl Butyl Ketone	43	8.229	8.229	(0.850)	621030	10.0000	10.0	
	52 Dibromochloromethane	129	8.542	8.542	(0.882)	839963	10.0000	10.0	
	53 1,2-Dibromoethane	107	8.814	8.814	(0.911)	751435	10.0000	10.0	
	54 Tetrachloroethene	166	8.902	8.902	(0.920)	684083	10.0000	10.0	
*	55 Chlorobenzene - d5	117	9.680	9.680	(1.000)	825122	10.0000		
	56 Chlorobenzene	112	9.729	9.729	(1.005)	952034	10.0000	10.0	
	57 Ethyl Benzene	91	10.030	10.030	(1.036)	1911466	10.0000	10.0	
	58 m&p-Xylene	91	10.206	10.206	(1.054)	1549483	10.0000	10.0	
	59 Bromoform	173	10.647	10.647	(1.100)	964711	10.0000	10.0	
	60 Styrene	104	10.696	10.696	(1.105)	964122	10.0000	10.0	
	61 o-Xylene	91	10.775	10.775	(1.113)	1652245	10.0000	10.0	
	62 1,1,2,2-Tetrachloroethane	83	11.089	11.089	(1.146)	1064650	10.0000	10.0	
	63 Isopropylbenzene	105	11.455	11.455	(1.183)	2017632	10.0000	10.0	
	64 N-Propylbenzene	91	12.115	12.115	(1.252)	2574500	10.0000	10.0	(M)
	65 4-Ethyltoluene	105	12.318	12.318	(1.272)	1896477	10.0000	10.0	
	66 1,3,5-Trimethylbenzene	105	12.422	12.422	(1.283)	1677212	10.0000	10.0	
	67 1,2,4-Trimethylbenzene	105	13.020	13.020	(1.345)	1659971	10.0000	10.0	
	68 1,3-Dichlorobenzene	146	13.373	13.373	(1.382)	961722	10.0000	10.0	
	69 Sec- Butylbenzene	105	13.400	13.400	(1.384)	2329420	10.0000	10.0	
$	70 1,4-dichlorobenzene-d4 (S)	150	13.455	13.455	(1.390)	513889	10.0000	10.0	
	71 Benzyl Chloride	91	13.481	13.481	(1.393)	1423487	10.0000	10.0	
	72 1,4-Dichlorobenzene	146	13.501	13.501	(1.395)	942604	10.0000	10.0	
	73 1,2-Dichlorobenzene	146	14.044	14.044	(1.451)	866582	10.0000	10.0	
	74 N-Butylbenzene	91	14.328	14.328	(1.480)	2004872	10.0000	10.0	
	75 1,2,4-Trichlorobenzene	180	16.685	16.685	(1.724)	284422	10.0000	10.0	
	76 Naphthalene	128	16.864	16.864	(1.742)	368833	10.0000	10.0	
	77 Hexachlorobutadiene	225	17.240	17.240	(1.781)	328894	10.0000	10.0	

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10609.d
Report Date: 16-Apr-2013 13:38

QC Flag Legend

M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10609.d
Report Date: 16-Apr-2013 13:38

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10609.d
Lab Smp Id: ICAL5
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Misc Info:

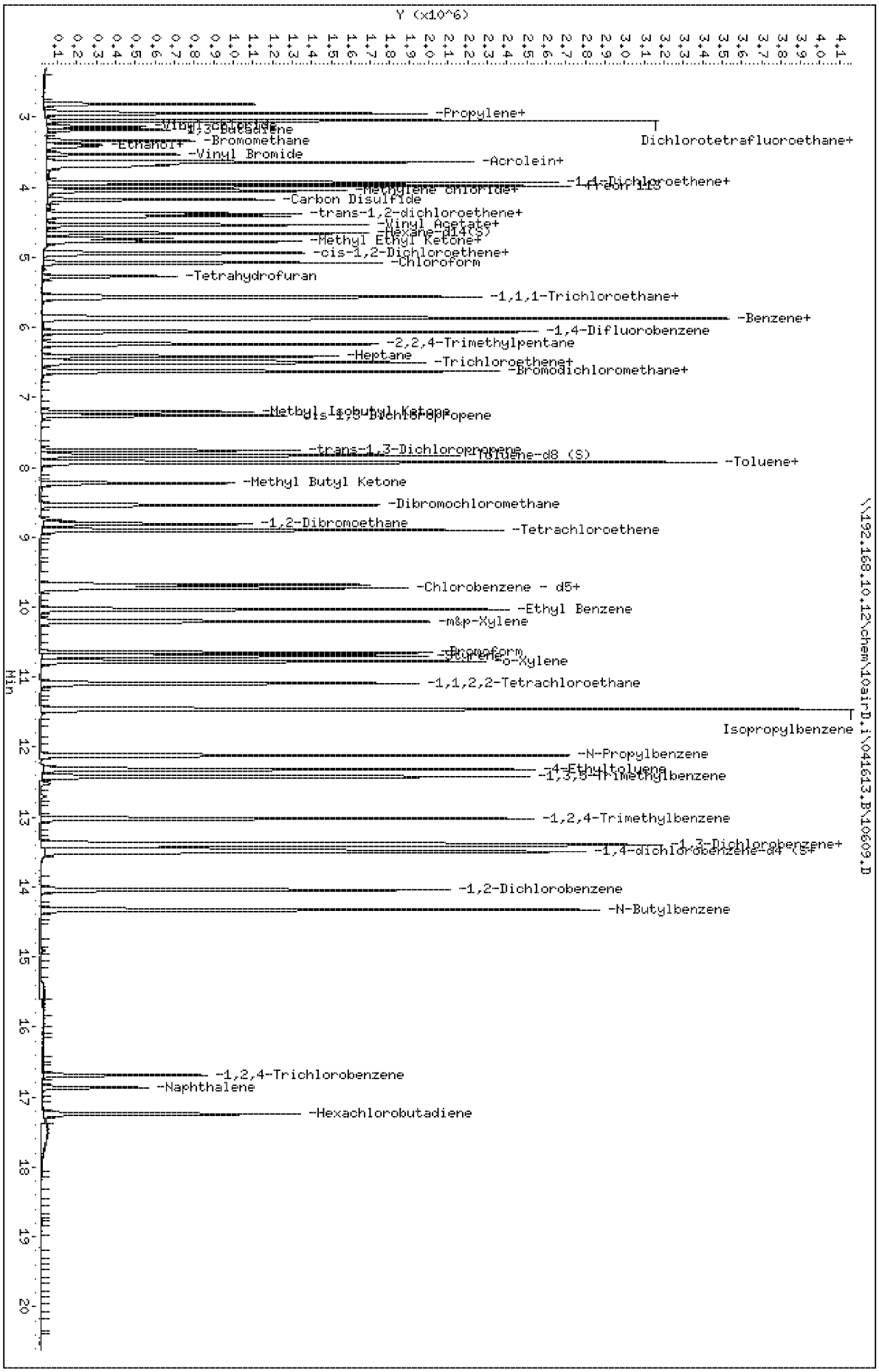
Calibration Date: 16-APR-2013
Calibration Time: 12:43
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1432419	0.00
55 Chlorobenzene - d	825122	495073	1155171	825122	0.00

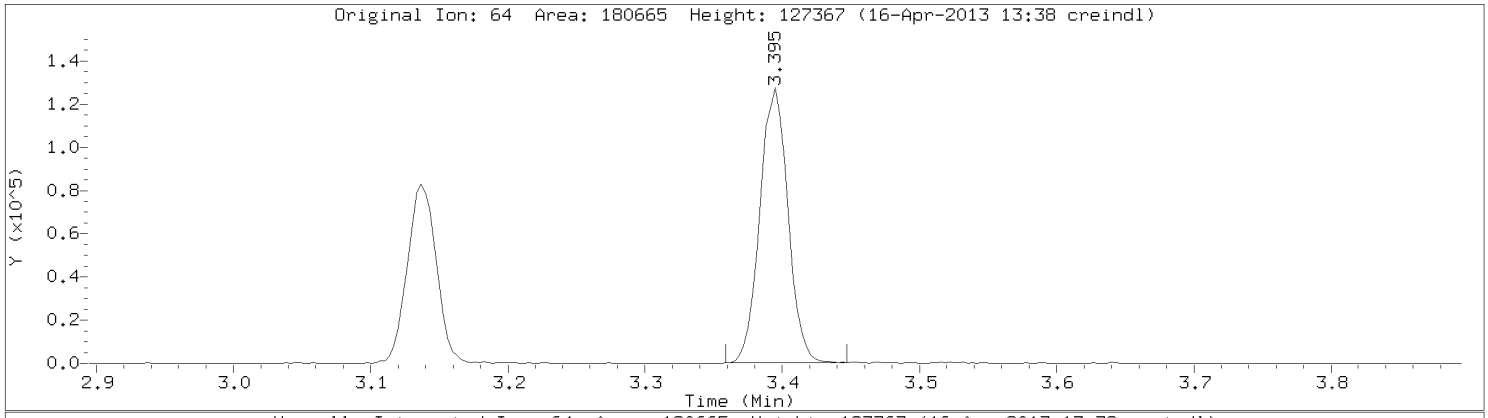
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

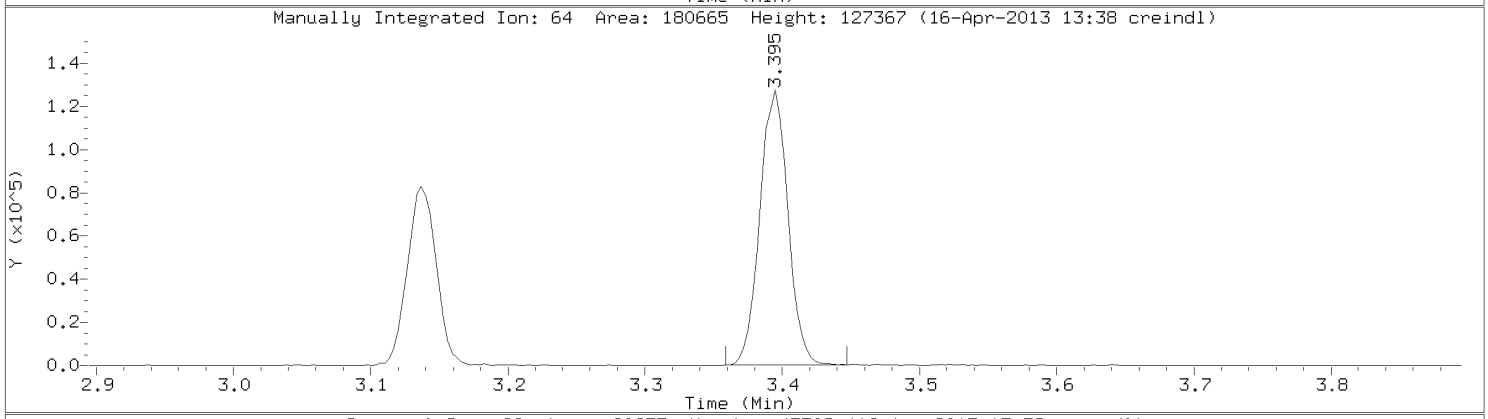
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

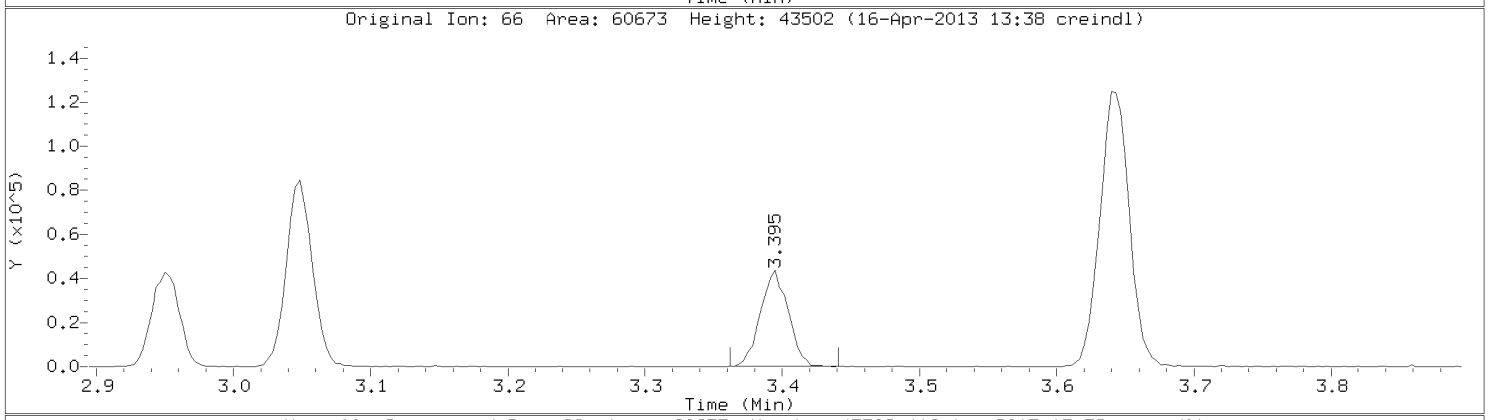

Y (x10^6)
Min
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Date : 16-APR-2013 12:43
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
\\192.168.10.12\chem\10airD.i\041613.B\10609.D
-Propylene+
-Ethanol+
-Bromomethane
-Vinyl Bromide
-Acrolein+
Dichlorotetrafluoroethane+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
-trans-1,3-Dichloropropene
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-1,2,4-Trimethylbenzene
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene

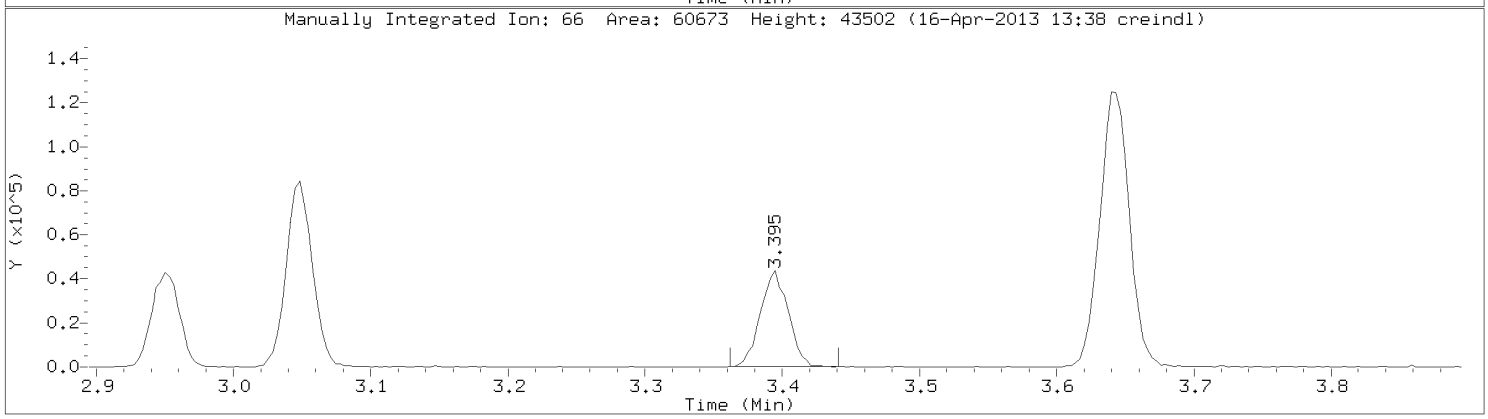
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Injection Date: 16-APR-2013 12:43
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: Chloroethane
CAS Number: 75-00-3



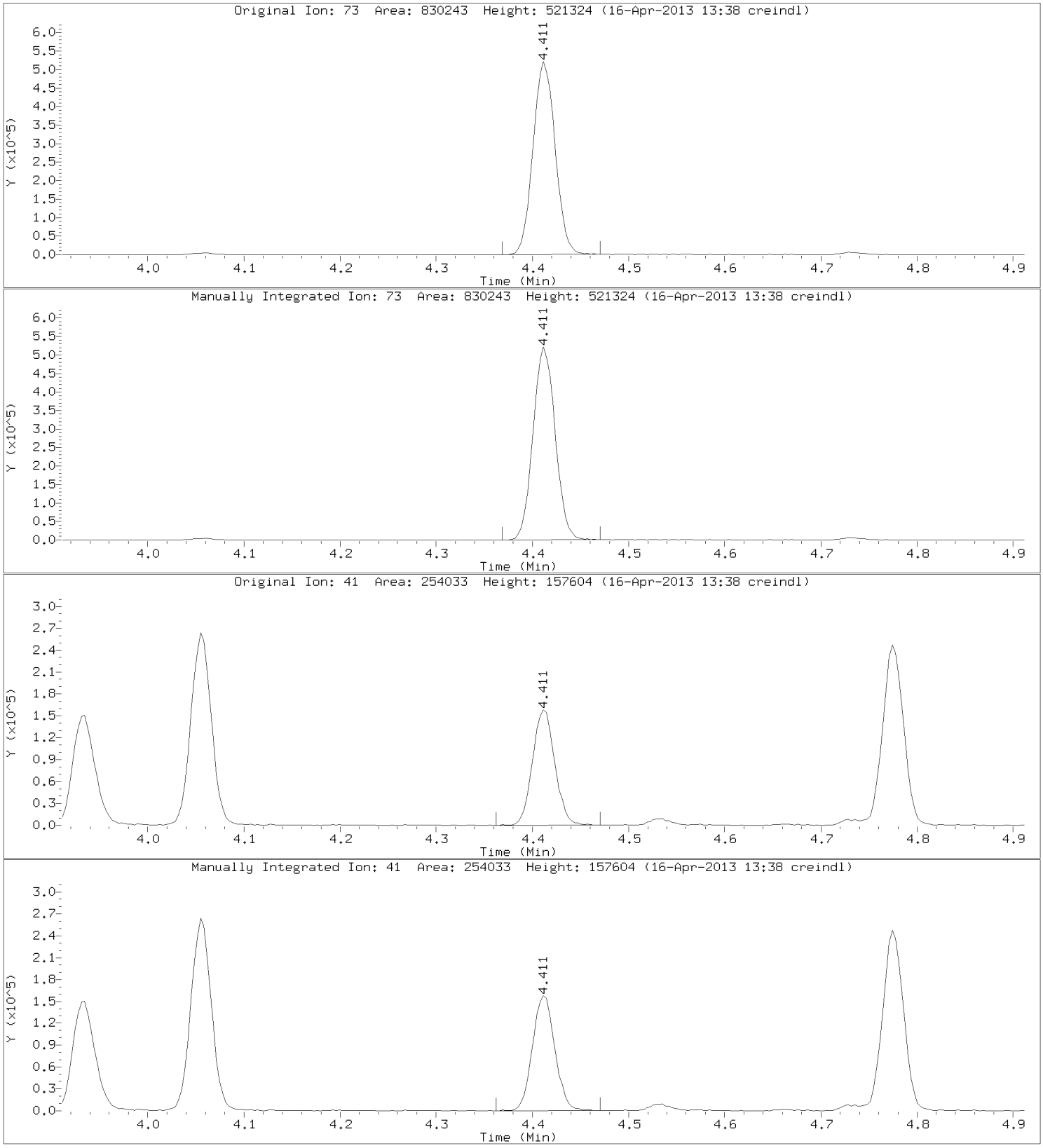






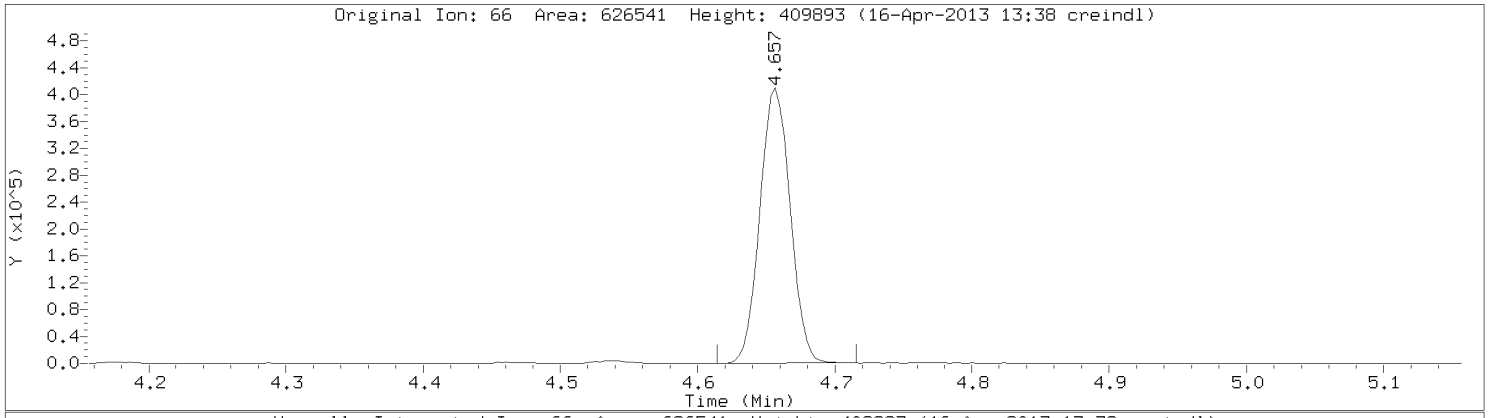
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Instrument: 10airD.i
Lab Sample ID: ICAL5

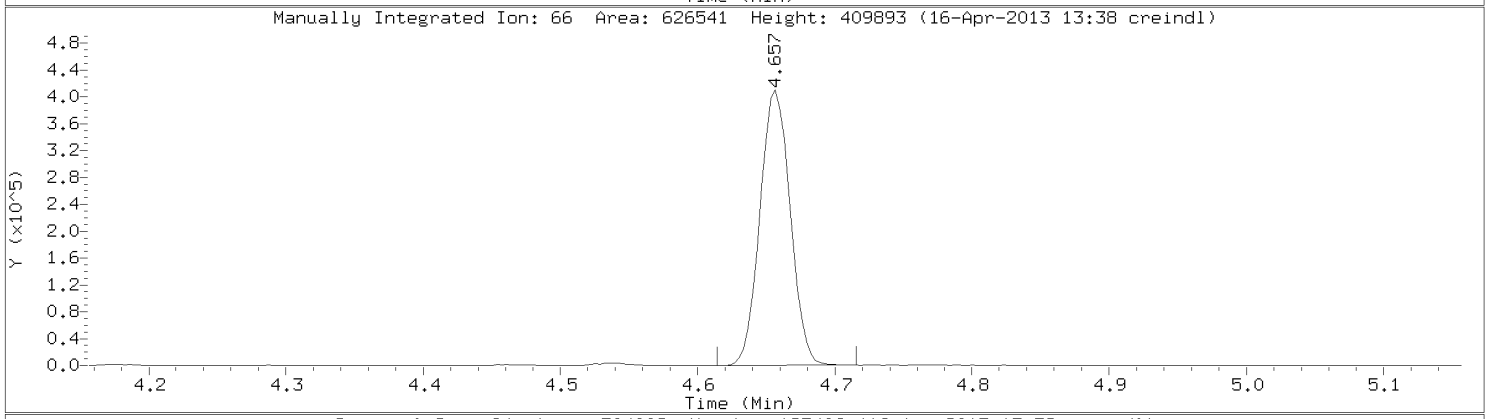
Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4

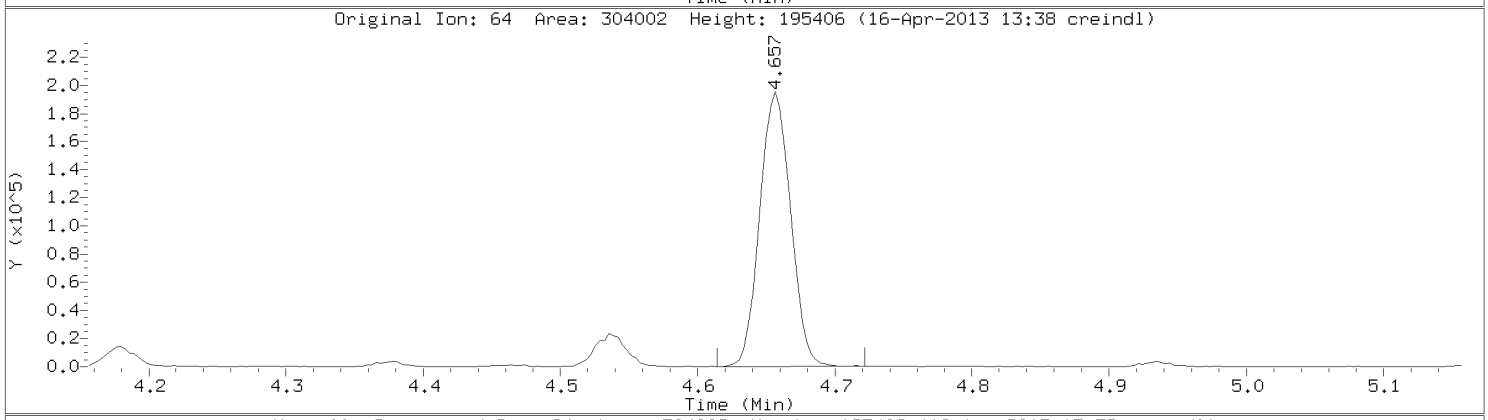


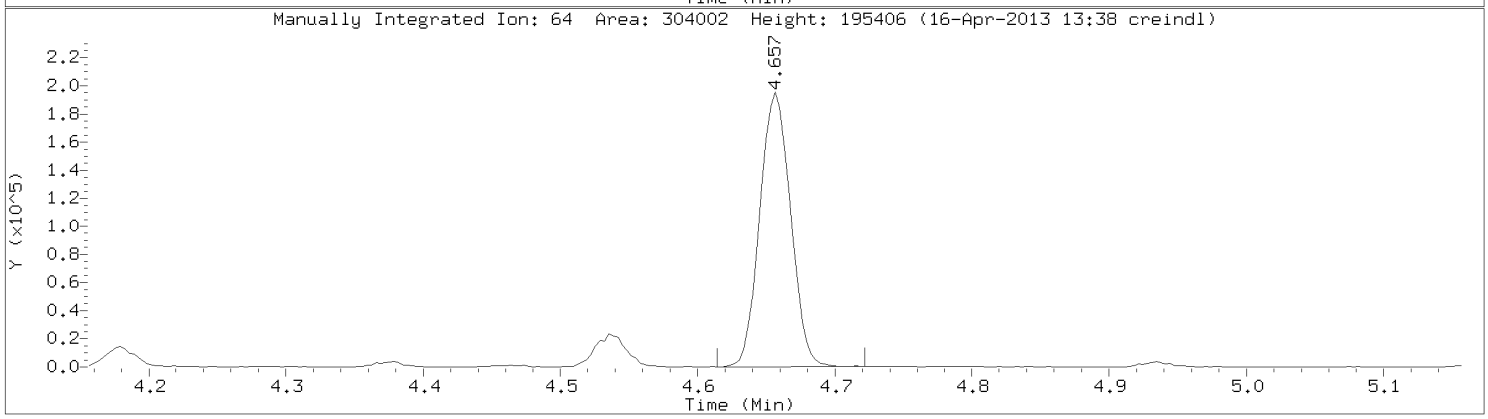
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Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: Hexane-d14(S)
CAS Number:



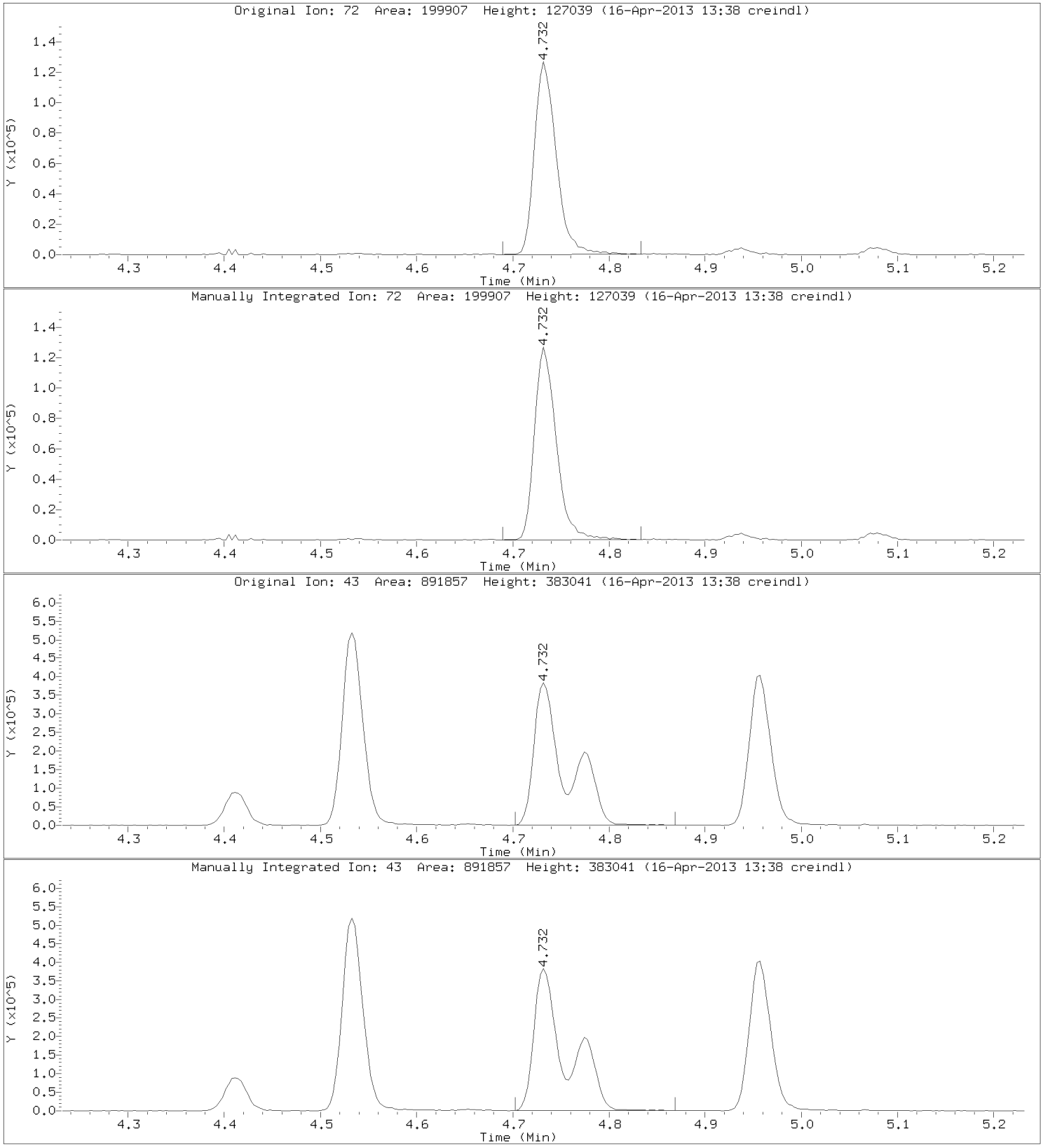






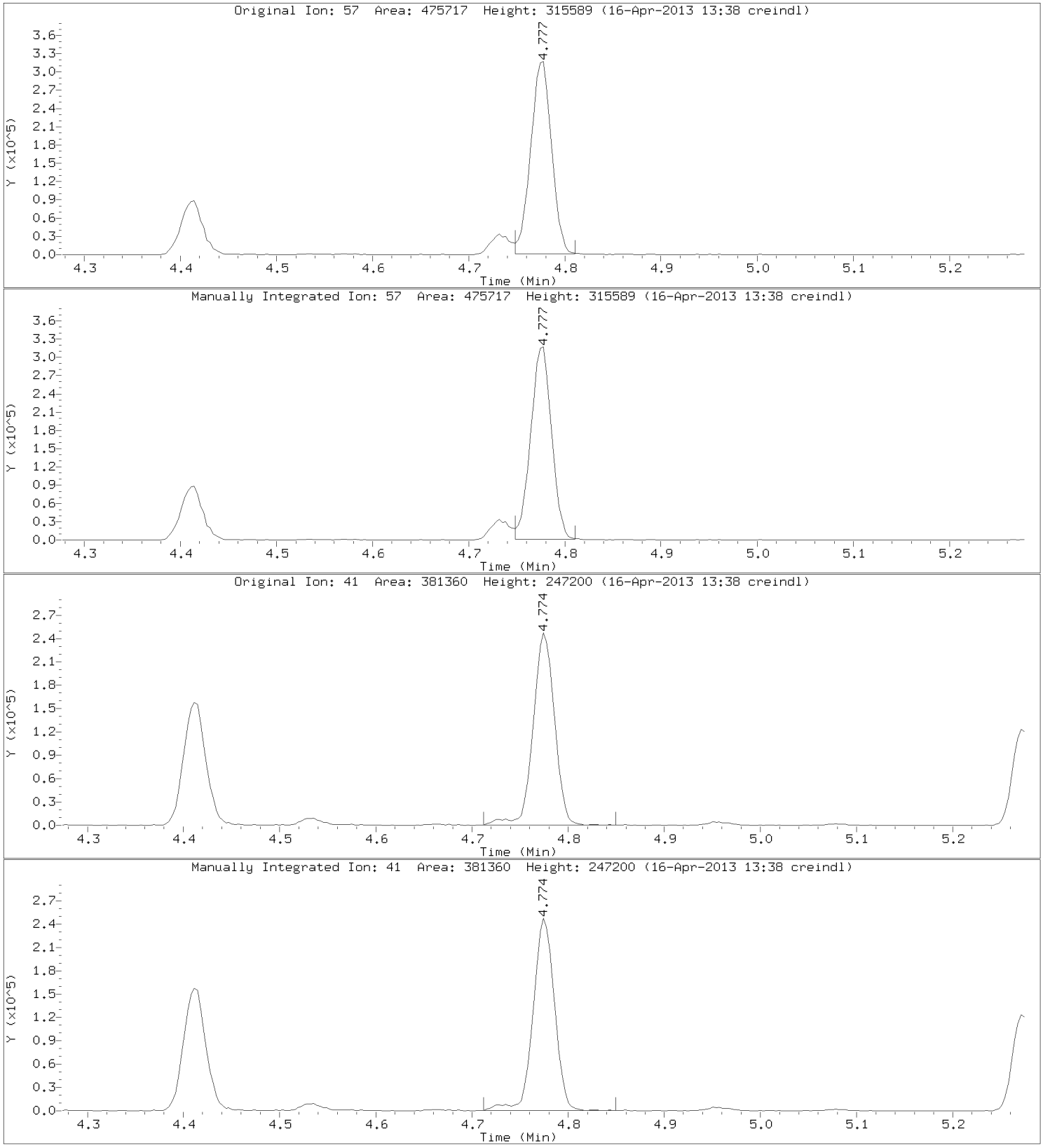
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Injection Date: 16-APR-2013 12:43
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

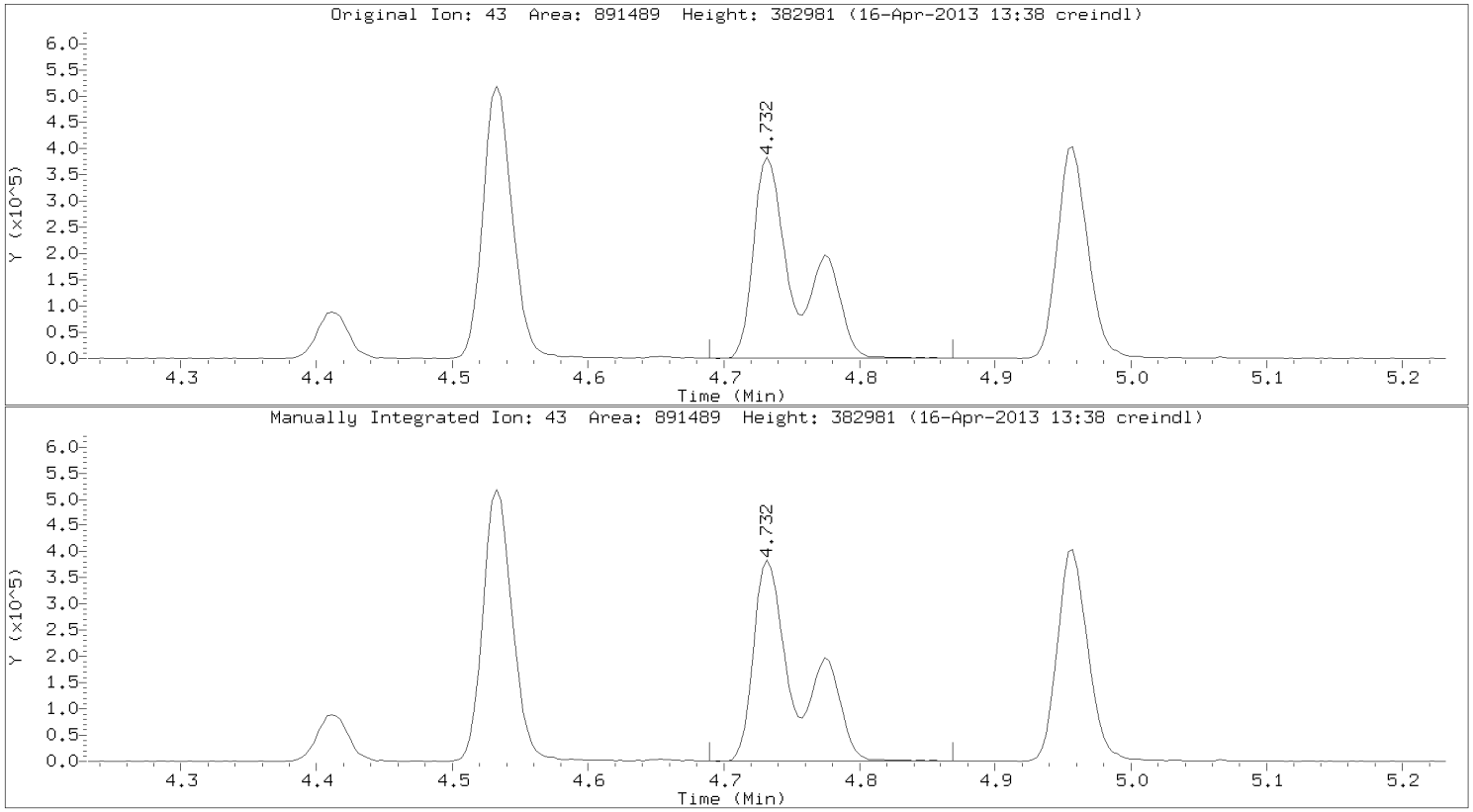


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Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: n-Hexane
CAS Number: 110-54-3

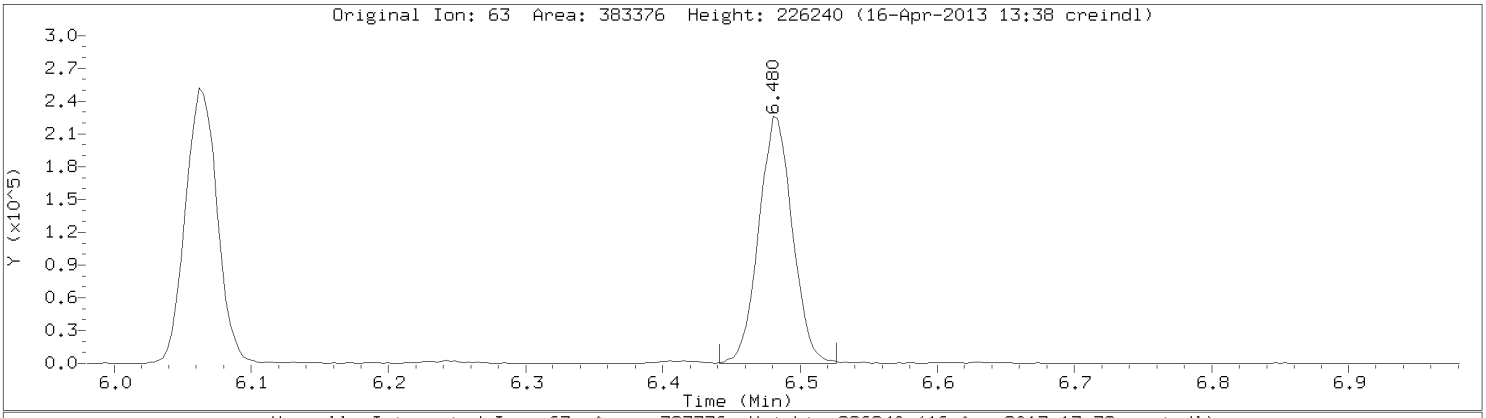


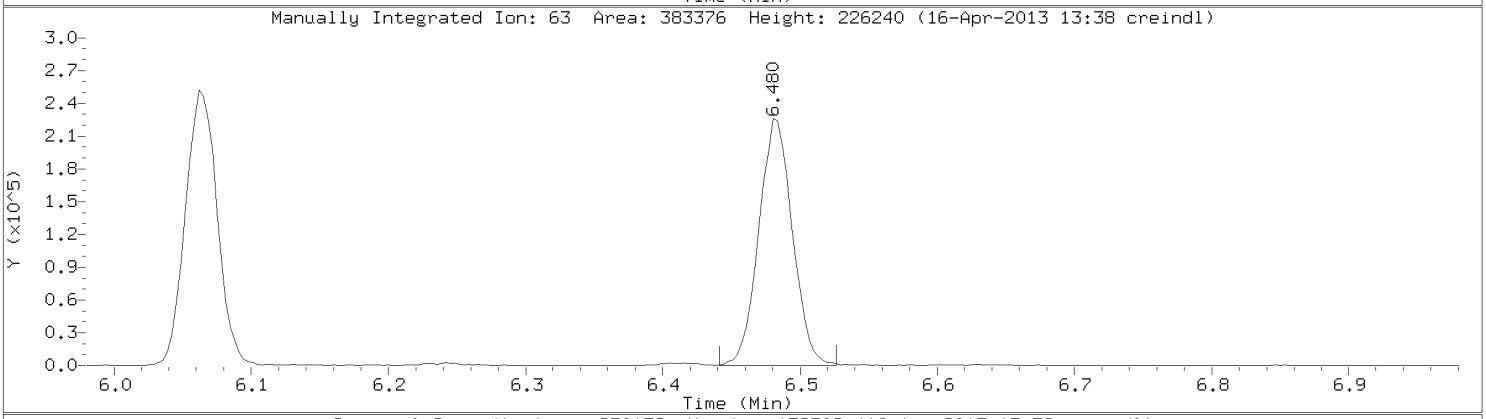
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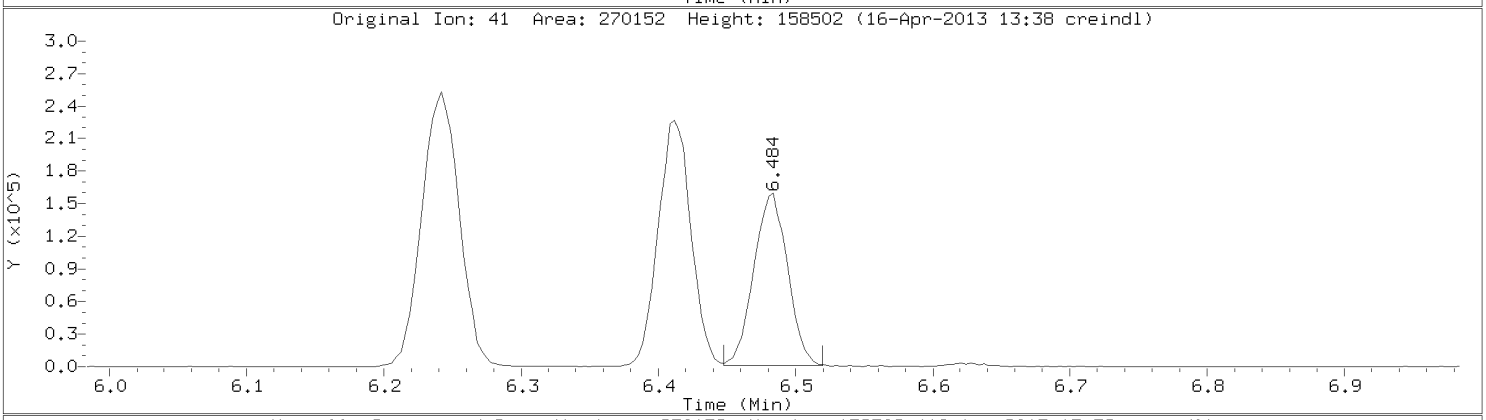


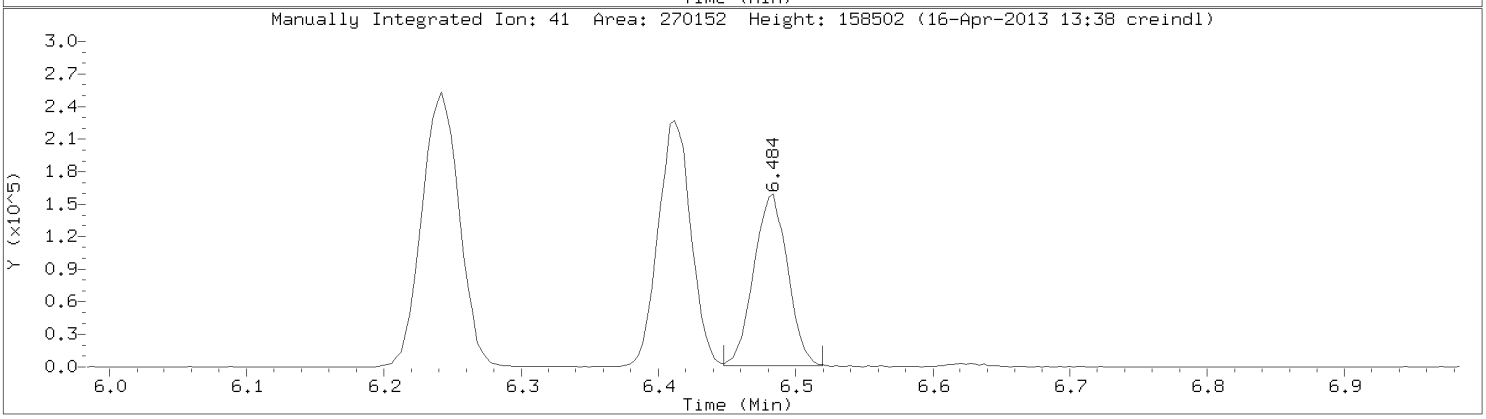
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Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

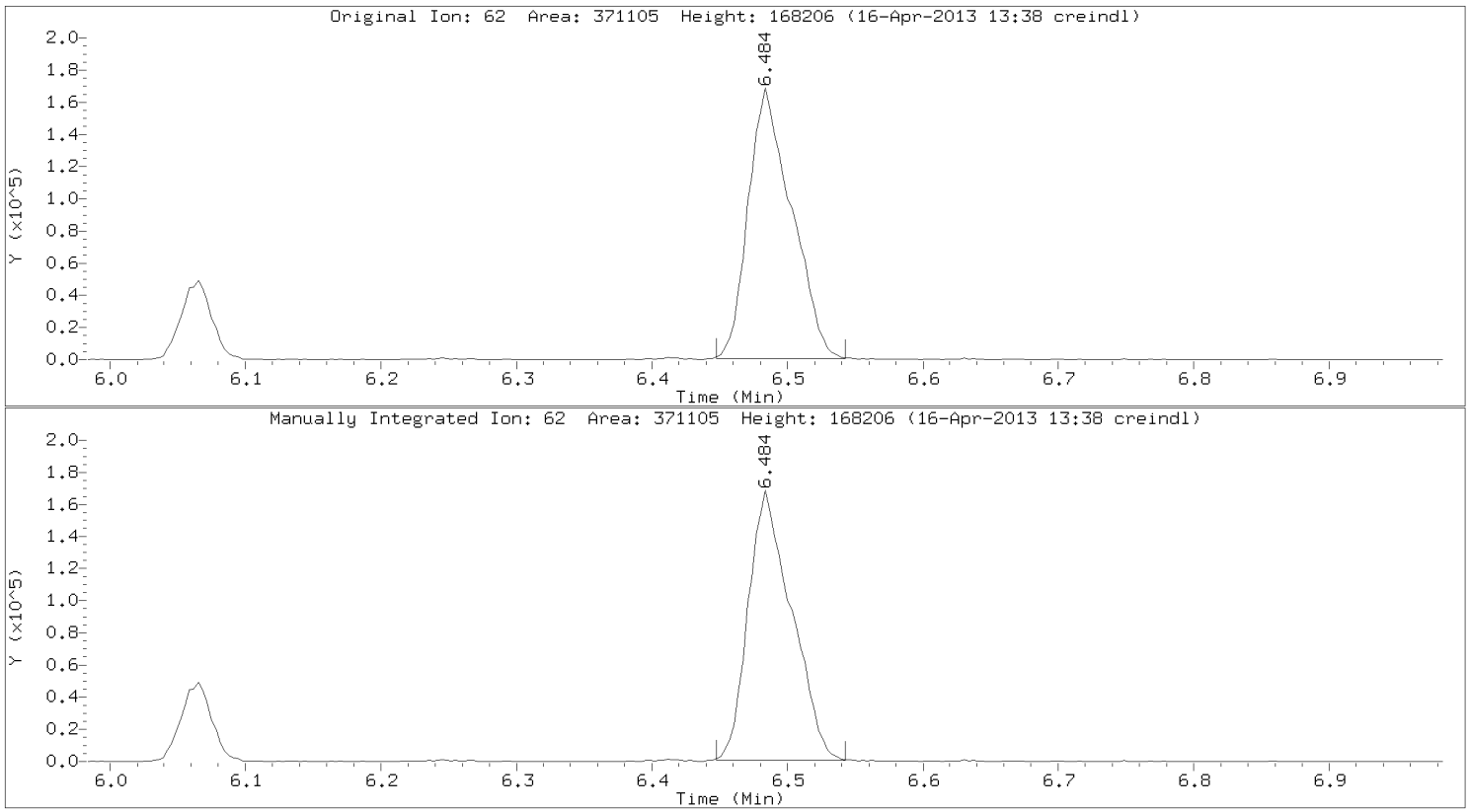






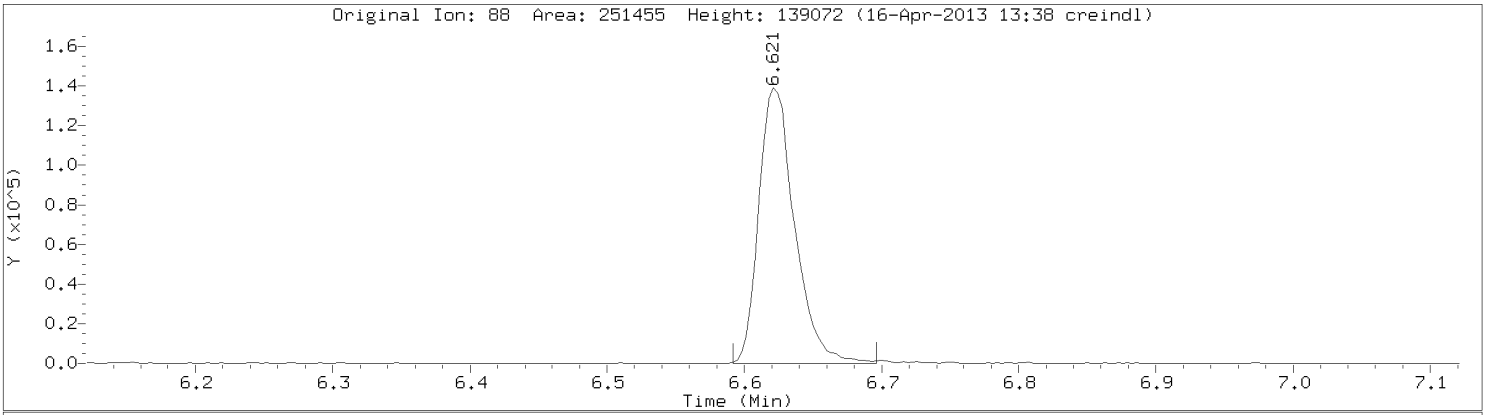


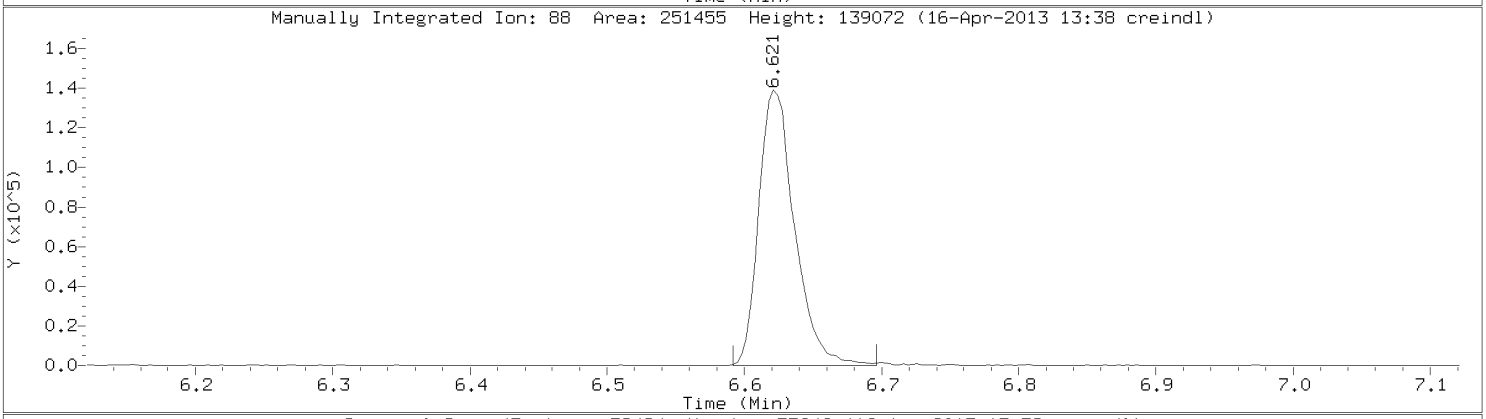
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Lab Sample ID: ICAL5

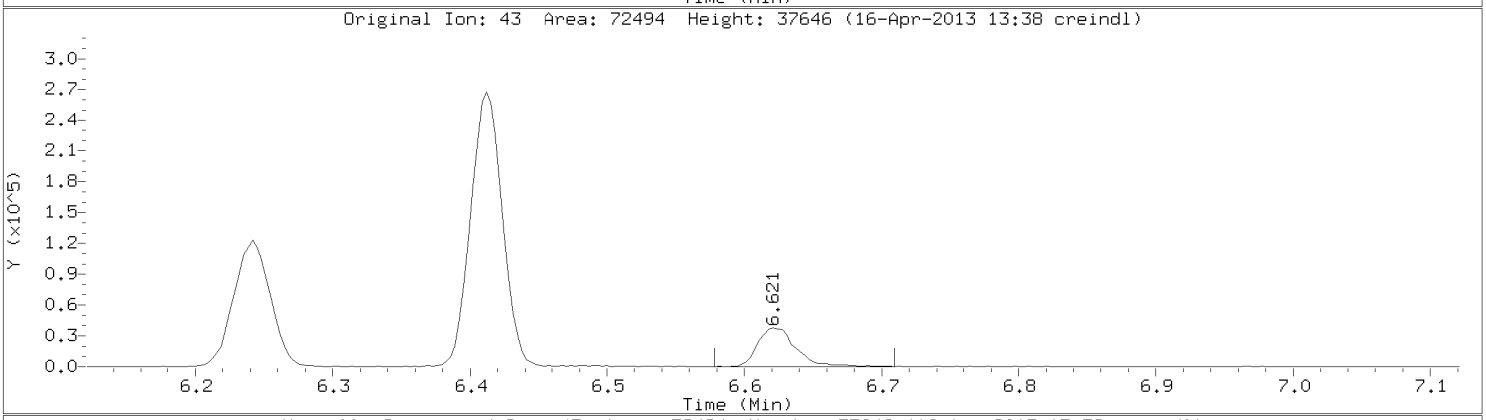


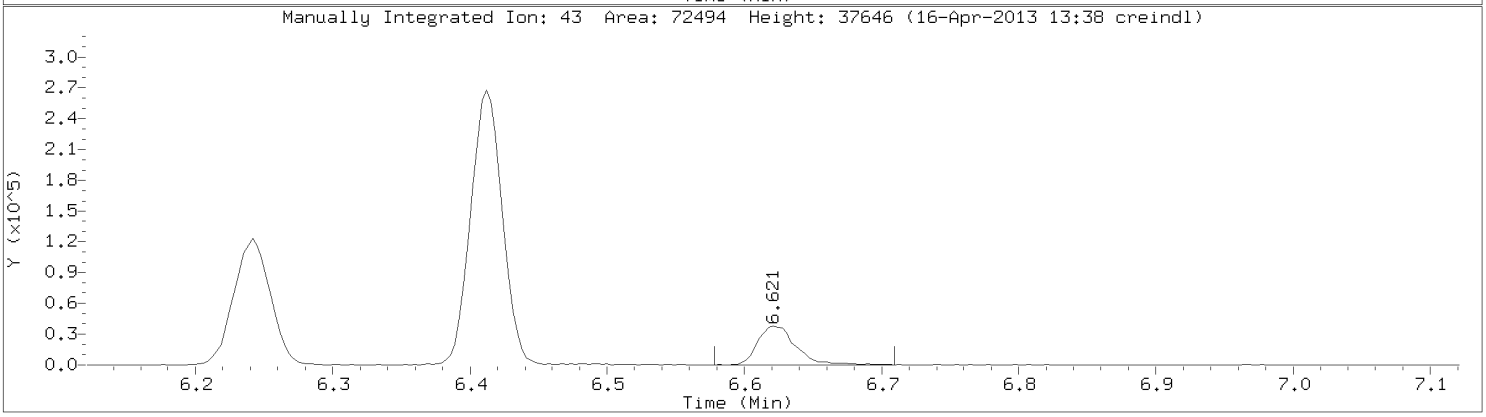
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Injection Date: 16-APR-2013 12:43
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: 1,4-Dioxane
CAS Number: 123-91-1



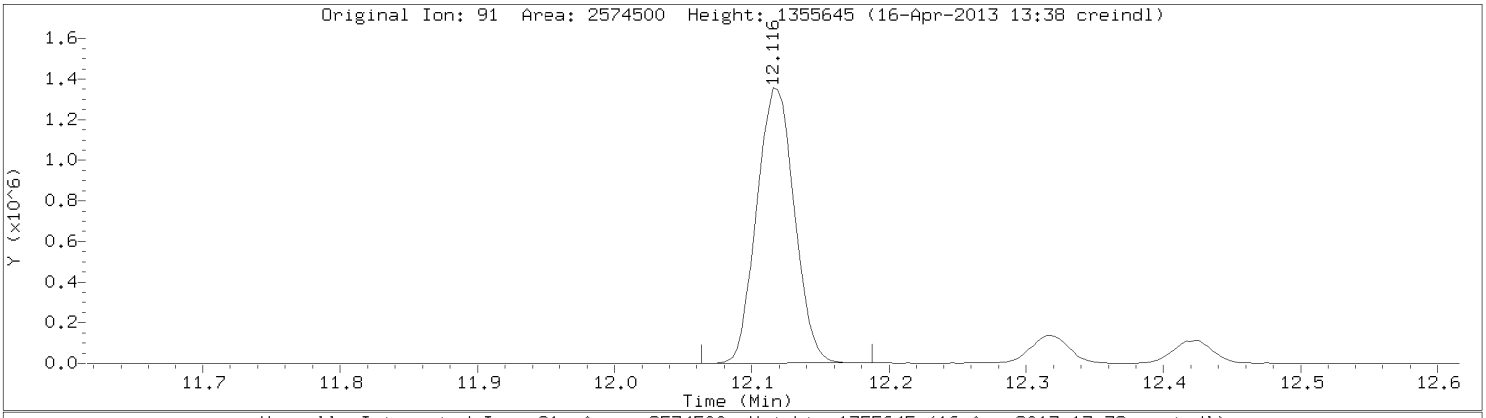


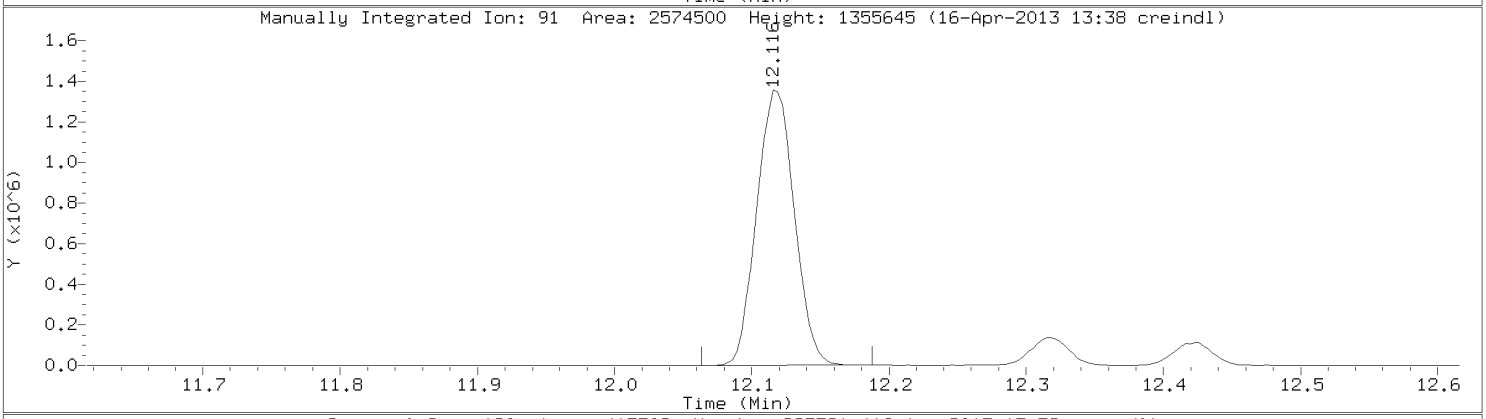


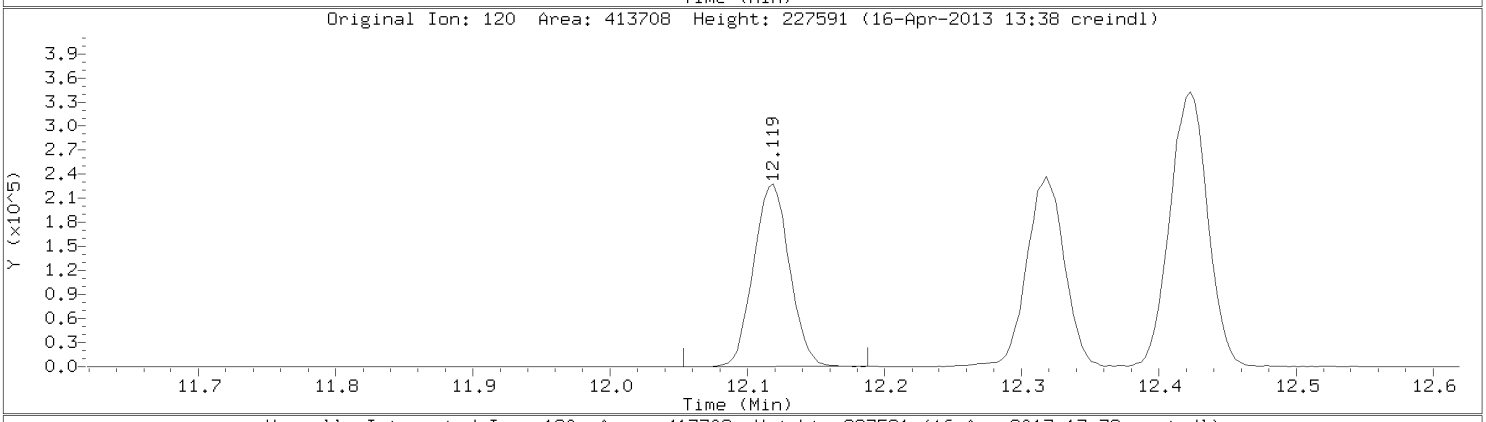


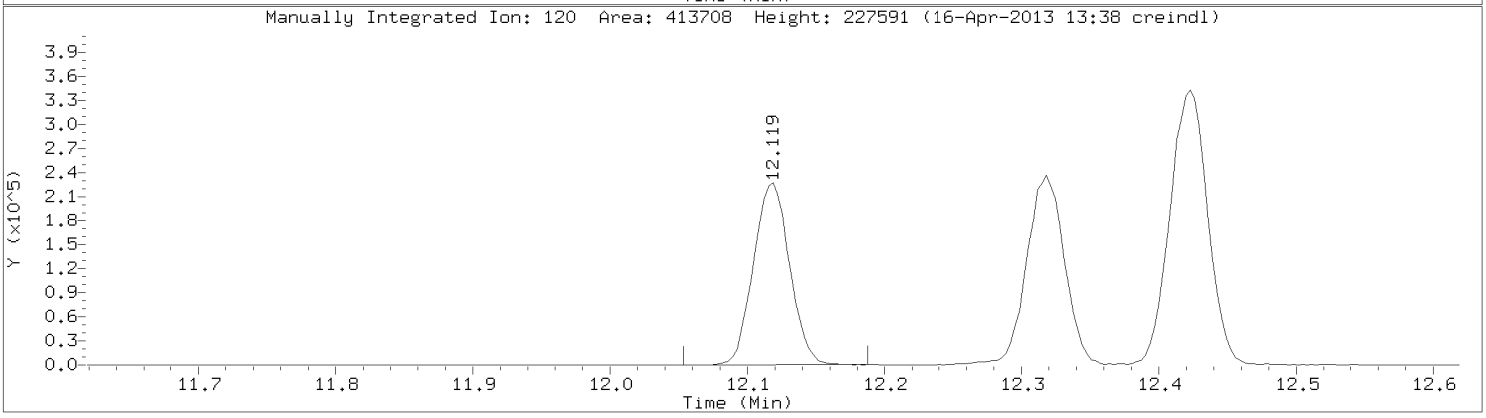
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Injection Date: 16-APR-2013 12:43
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: N-Propylbenzene
CAS Number: 103-65-1









Data File: \\192.168.10.12\chem\10airD.i\041613.B\10610.d
Report Date: 16-Apr-2013 14:03

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041613.B\10610.d
Lab Smp Id: ICAL6
Inj Date : 16-APR-2013 13:14
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Meth Date : 16-Apr-2013 13:39 10airD.i Quant Type: ISTD
Cal Date : 16-APR-2013 13:14 Cal File: 10610.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	313343	20.0000	22.1
2	Dichlorodifluoromethane	85	2.953	2.953	(0.487)	2886588	20.0000	17.5
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.502)	2384471	20.0000	18.2
4	Chloromethane	50	3.051	3.051	(0.503)	703930	20.0000	19.7
5	Vinyl chloride	62	3.139	3.139	(0.517)	773820	20.0000	19.4
6	1,3-Butadiene	54	3.182	3.182	(0.524)	433703	20.0000	22.6
7	Bromomethane	94	3.339	3.339	(0.550)	833480	20.0000	18.8
8	Chloroethane	64	3.394	3.394	(0.559)	385915	20.0000	19.3(M)
9	Ethanol	31	3.427	3.427	(0.565)	469019	20.0000	20.1
10	Vinyl Bromide	106	3.532	3.532	(0.582)	730090	20.0000	19.6
11	Acrolein	56	3.630	3.630	(0.598)	234109	20.0000	24.4
12	Trichlorofluoromethane	101	3.643	3.643	(0.600)	2509639	20.0000	16.5
13	Acetone	43	3.672	3.672	(0.605)	1397945	20.0000	19.9
14	Isopropyl Alcohol	45	3.702	3.702	(0.610)	1014877	20.0000	20.7
15	1,1-Dichloroethene	61	3.930	3.930	(0.648)	1366441	20.0000	18.4
16	Acrylonitrile	53	3.934	3.934	(0.648)	496293	20.0000	20.2
17	Tert Butyl Alcohol	59	3.940	3.940	(0.649)	1225526	20.0000	19.3
18	Freon 113	101	3.986	3.986	(0.657)	1679817	20.0000	17.5
19	Methylene chloride	49	4.045	4.045	(0.667)	824775	20.0000	18.7
20	Allyl Chloride	76	4.058	4.058	(0.669)	385473	20.0000	21.0
21	Carbon Disulfide	76	4.179	4.179	(0.689)	2532642	20.0000	18.2
22	trans-1,2-dichloroethene	96	4.378	4.378	(0.722)	799981	20.0000	18.0
23	Methyl Tert Butyl Ether	73	4.414	4.414	(0.727)	1716896	20.0000	18.5(M)
24	Vinyl Acetate	43	4.535	4.535	(0.747)	1619625	20.0000	21.0

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10610.d
Report Date: 16-Apr-2013 14:03

			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ppbv)	(ppbv)
	25	1,1-Dichloroethane	63	4.542	4.542	(0.748)	1518329	20.0000	18.0
$	26	Hexane-d14(S)	66	4.659	4.659	(0.768)	634704	10.0000	9.46
	27	Methyl Ethyl Ketone	72	4.738	4.738	(0.781)	409593	20.0000	19.8(M)
	28	n-Hexane	57	4.777	4.777	(0.787)	967761	20.0000	14.9(M)
	29	cis-1,2-Dichloroethene	96	4.937	4.937	(0.814)	904658	20.0000	20.2
	30	Ethyl Acetate	43	4.960	4.960	(0.817)	1358981	20.0000	23.9
	31	Chloroform	83	5.081	5.081	(0.837)	2294308	20.0000	19.6
	32	Tetrahydrofuran	42	5.274	5.274	(0.869)	565577	20.0000	20.2
	33	1,1,1-Trichloroethane	97	5.565	5.565	(0.917)	2238574	20.0000	19.8
	34	1,2-Dichloroethane	62	5.584	5.584	(0.920)	1752016	20.0000	19.9
	35	Benzene	78	5.856	5.856	(0.965)	2580731	20.0000	18.8
	36	Carbon tetrachloride	117	5.875	5.875	(0.968)	2040227	20.0000	18.0
	37	Cyclohexane	56	5.879	5.879	(0.969)	1011784	20.0000	20.3
*	38	1,4-Difluorobenzene	114	6.068	6.068	(1.000)	1495152	10.0000	
	39	2,2,4-Trimethylpentane	57	6.245	6.245	(1.029)	3074699	20.0000	20.3
	40	Heptane	43	6.415	6.415	(1.057)	980881	20.0000	20.3
	41	1,2-Dichloropropane	63	6.486	6.486	(1.069)	842948	20.0000	22.3(M)
	42	Trichloroethene	130	6.509	6.509	(1.073)	826897	20.0000	23.2
	43	1,4-Dioxane	88	6.624	6.624	(1.092)	561211	20.0000	20.2(M)
	44	Bromodichloromethane	83	6.630	6.630	(1.093)	2474351	20.0000	21.0
	45	Methyl Isobutyl Ketone	43	7.212	7.212	(1.189)	1379080	20.0000	20.2
	46	cis-1,3-Dichloropropene	75	7.264	7.264	(1.197)	1518462	20.0000	20.2
	47	trans-1,3-Dichloropropene	75	7.758	7.758	(1.278)	1692104	20.0000	20.2
$	48	Toluene-d8 (S)	98	7.833	7.833	(1.291)	1426480	10.0000	10.5
	49	Toluene	91	7.925	7.925	(1.306)	3209444	20.0000	20.2
	50	1,1,2-Trichloroethane	97	7.935	7.935	(1.308)	1088100	20.0000	20.1
	51	Methyl Butyl Ketone	43	8.235	8.235	(0.850)	1403978	20.0000	21.2
	52	Dibromochloromethane	129	8.549	8.549	(0.883)	1747744	20.0000	23.2
	53	1,2-Dibromoethane	107	8.820	8.820	(0.911)	1638589	20.0000	20.1
	54	Tetrachloroethene	166	8.905	8.905	(0.920)	1497649	20.0000	22.7
*	55	Chlorobenzene - d5	117	9.683	9.683	(1.000)	874286	10.0000	
	56	Chlorobenzene	112	9.732	9.732	(1.005)	2111606	20.0000	22.2
	57	Ethyl Benzene	91	10.036	10.036	(1.036)	4159125	20.0000	20.1
	58	m&p-Xylene	91	10.209	10.209	(1.054)	3404998	20.0000	20.1
	59	Bromoform	173	10.654	10.654	(1.100)	2042158	20.0000	25.6
	60	Styrene	104	10.703	10.703	(1.105)	2173192	20.0000	20.2
	61	o-Xylene	91	10.781	10.781	(1.113)	3608322	20.0000	20.1
	62	1,1,2,2-Tetrachloroethane	83	11.095	11.095	(1.146)	2328349	20.0000	23.8
	63	Isopropylbenzene	105	11.458	11.458	(1.183)	4274155	20.0000	23.4
	64	N-Propylbenzene	91	12.122	12.122	(1.252)	5535602	20.0000	20.0(M)
	65	4-Ethyltoluene	105	12.321	12.321	(1.272)	4156110	20.0000	20.1(H)
	66	1,3,5-Trimethylbenzene	105	12.426	12.426	(1.283)	3592578	20.0000	20.0(H)
	67	1,2,4-Trimethylbenzene	105	13.024	13.024	(1.345)	3608413	20.0000	20.0
	68	1,3-Dichlorobenzene	146	13.377	13.377	(1.381)	2116450	20.0000	20.1(H)
	69	Sec- Butylbenzene	105	13.406	13.406	(1.384)	5005180	20.0000	20.0
$	70	1,4-dichlorobenzene-d4 (S)	150	13.459	13.459	(1.390)	540315	10.0000	11.1
	71	Benzyl Chloride	91	13.488	13.488	(1.393)	3238385	20.0000	20.2
	72	1,4-Dichlorobenzene	146	13.511	13.511	(1.395)	2036094	20.0000	20.0
	73	1,2-Dichlorobenzene	146	14.047	14.047	(1.451)	1914955	20.0000	20.1
	74	N-Butylbenzene	91	14.331	14.331	(1.480)	4328236	20.0000	20.0
	75	1,2,4-Trichlorobenzene	180	16.691	16.691	(1.724)	553580	20.0000	18.3
	76	Naphthalene	128	16.868	16.868	(1.742)	759753	20.0000	19.3
	77	Hexachlorobutadiene	225	17.244	17.244	(1.781)	1168620	20.0000	33.8(A)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10610.d
Report Date: 16-Apr-2013 14:03

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10610.d
Report Date: 16-Apr-2013 14:03

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10610.d
Lab Smp Id: ICAL6
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Misc Info:

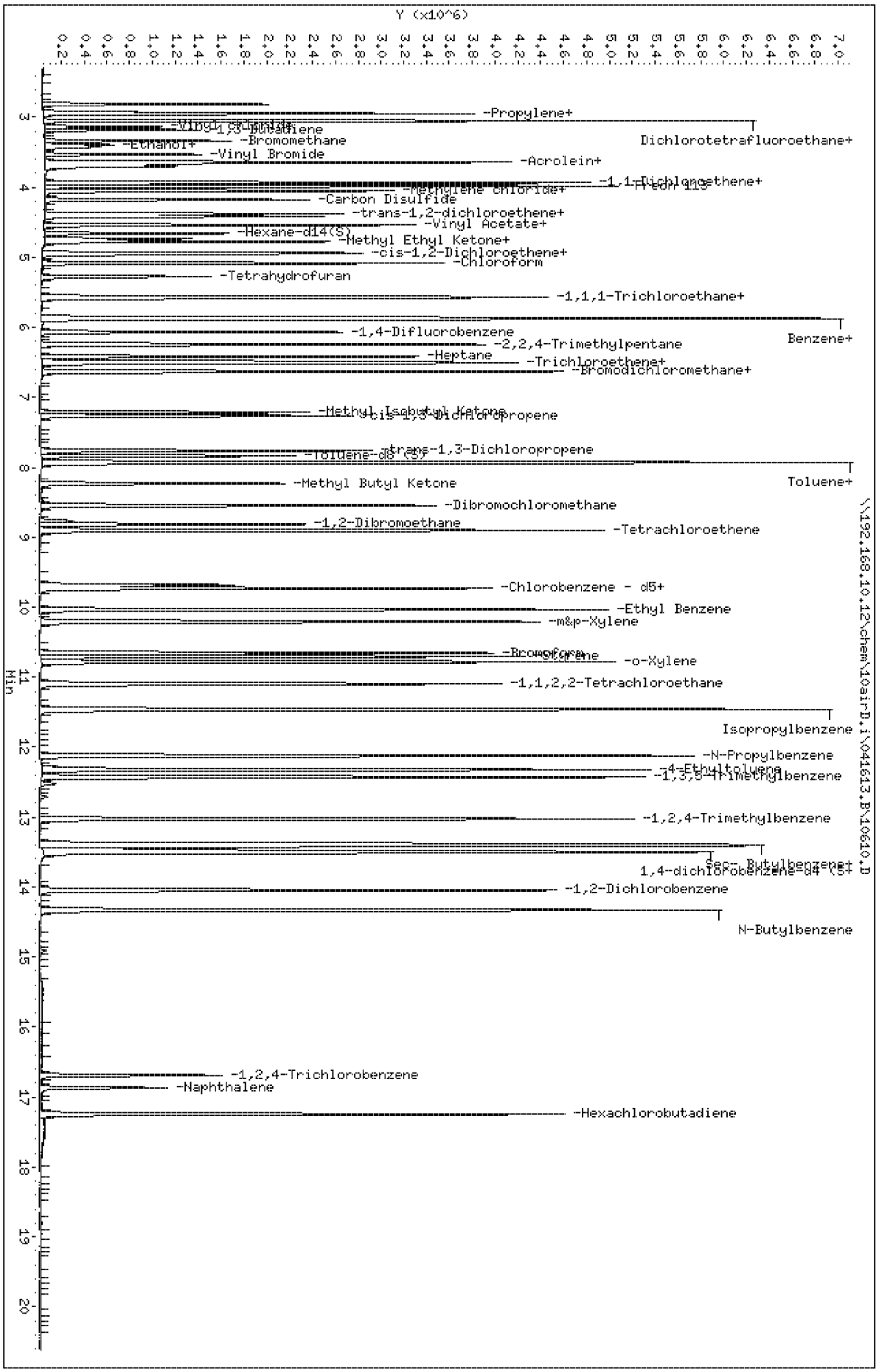
Calibration Date: 16-APR-2013
Calibration Time: 12:43
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1495152	4.38
55 Chlorobenzene - d	825122	495073	1155171	874286	5.96

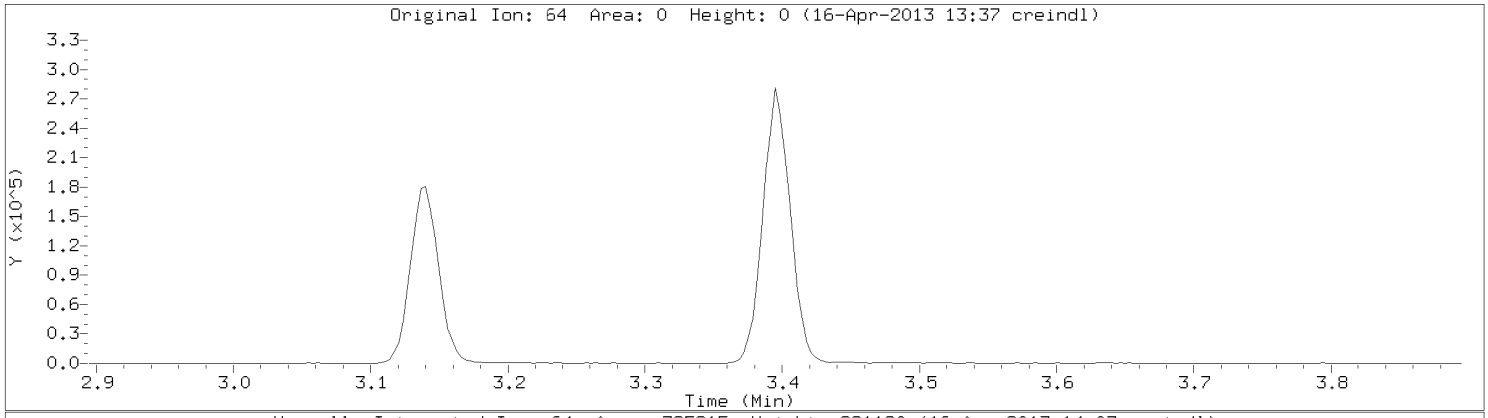
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.03

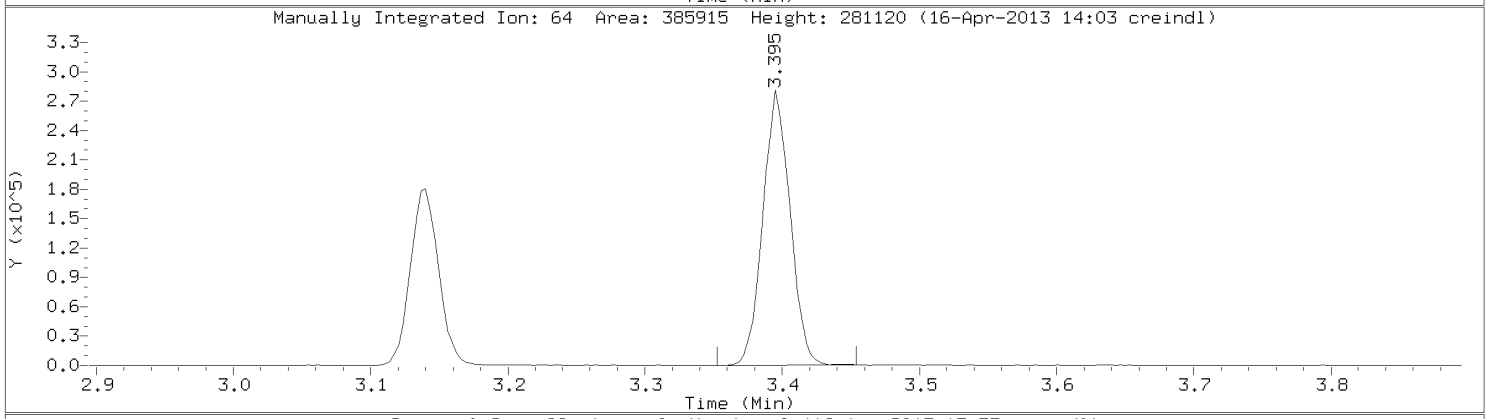
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

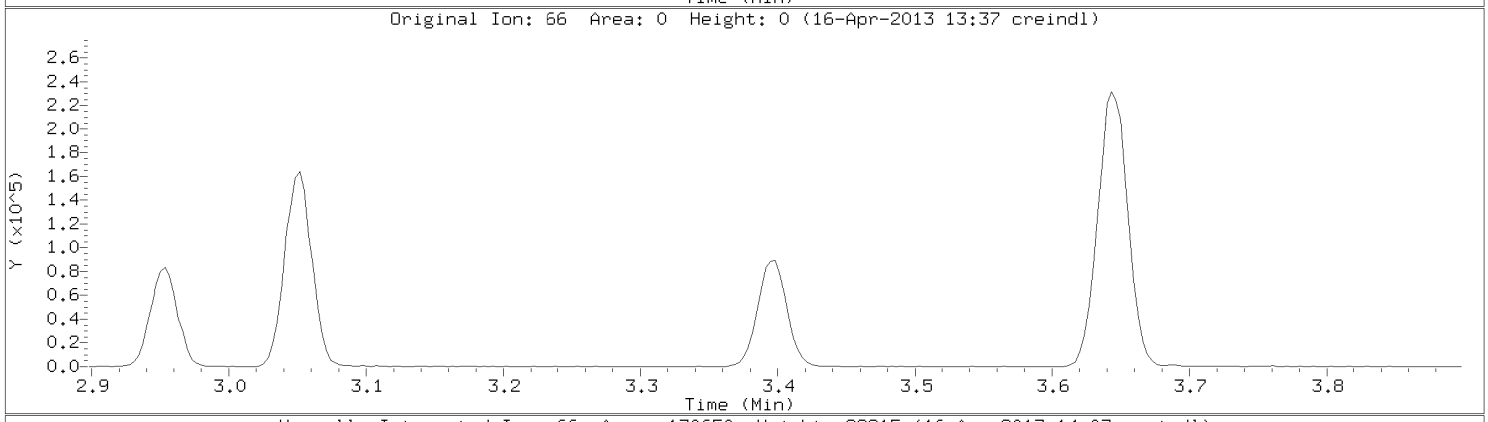

Y (x10^6)
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Data File: \\192.168.10.12\chem\10airD.i\041613.B\10610.D
Date : 16-APR-2013 13:14
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
\\192.168.10.12\chem\10airD.i\041613.B\10610.D
-Propylene+
-Vinyl Chloride
-Butadiene
-Ethanol+
-Bromomethane
-Vinyl Bromide
Dichlorotetrafluoroethane+
-Acrolein+
-Methylene Chloride+
-1,1-Dichloroethene+
Freon 113
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Hexane-d14(S)
-Vinyl Acetate+
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
Benzene+
-Heptane
-Trichloroethene+
-Bromodichloromethane
-Methyl Isobutyl Ketone
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-trans-1,3-Dichloropropene
Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform
Styrene
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
Sec-Butylbenzene+
1,4-dichlorobenzene-d4 (S)+
-1,2-Dichlorobenzene
N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene

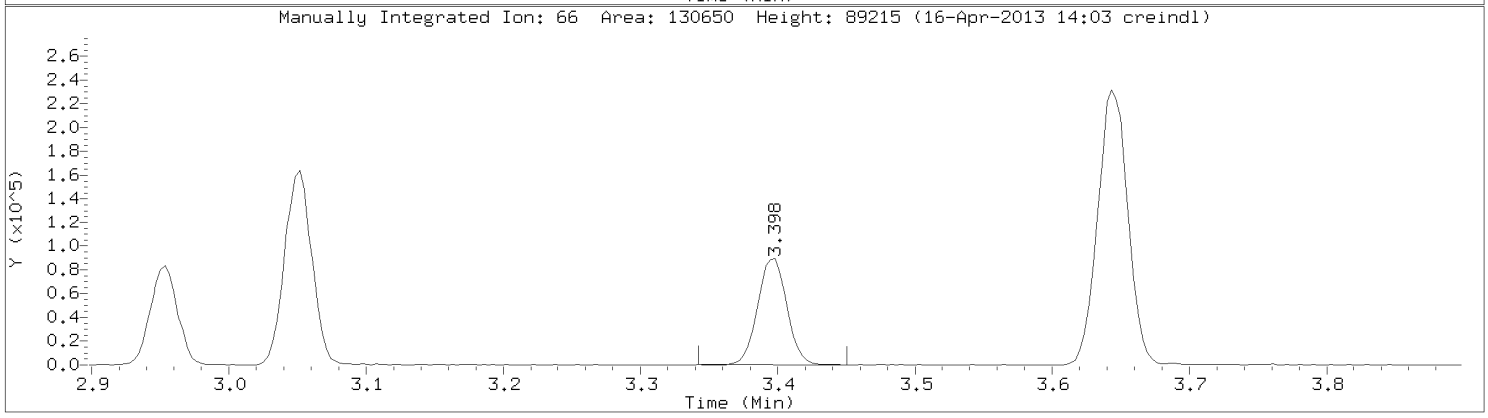
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Injection Date: 16-APR-2013 13:14
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: Chloroethane
CAS Number: 75-00-3



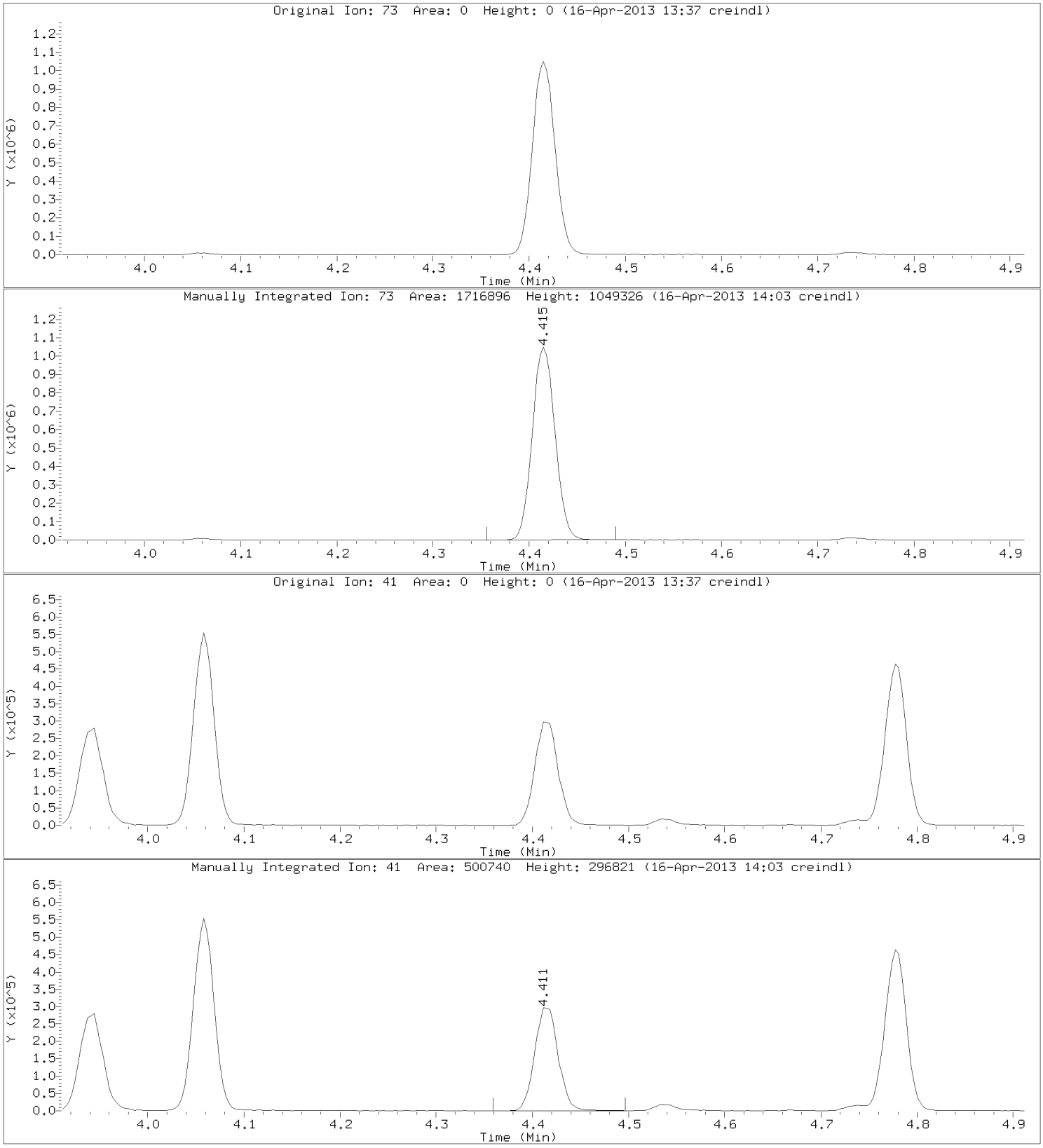






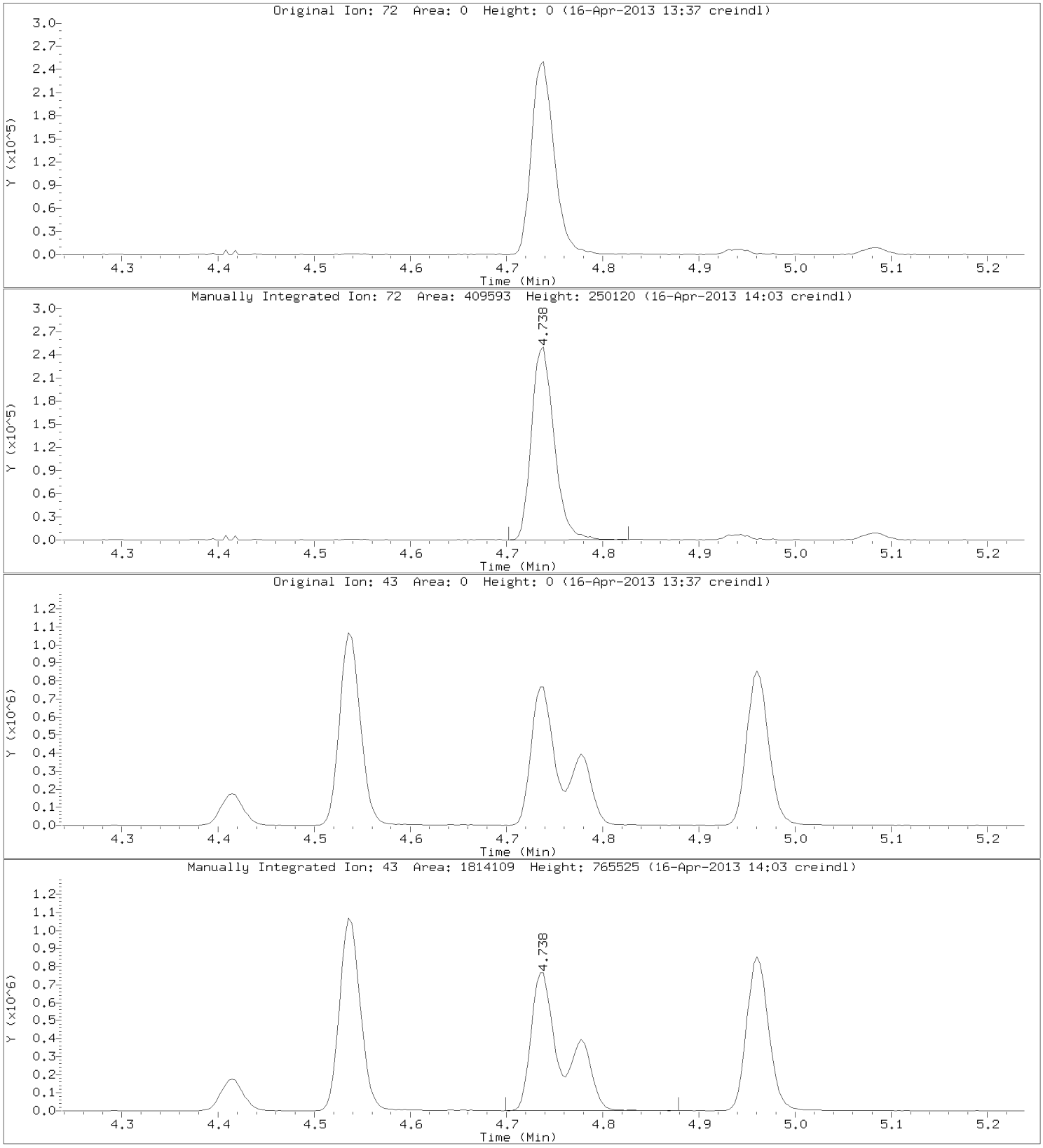
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Injection Date: 16-APR-2013 13:14
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



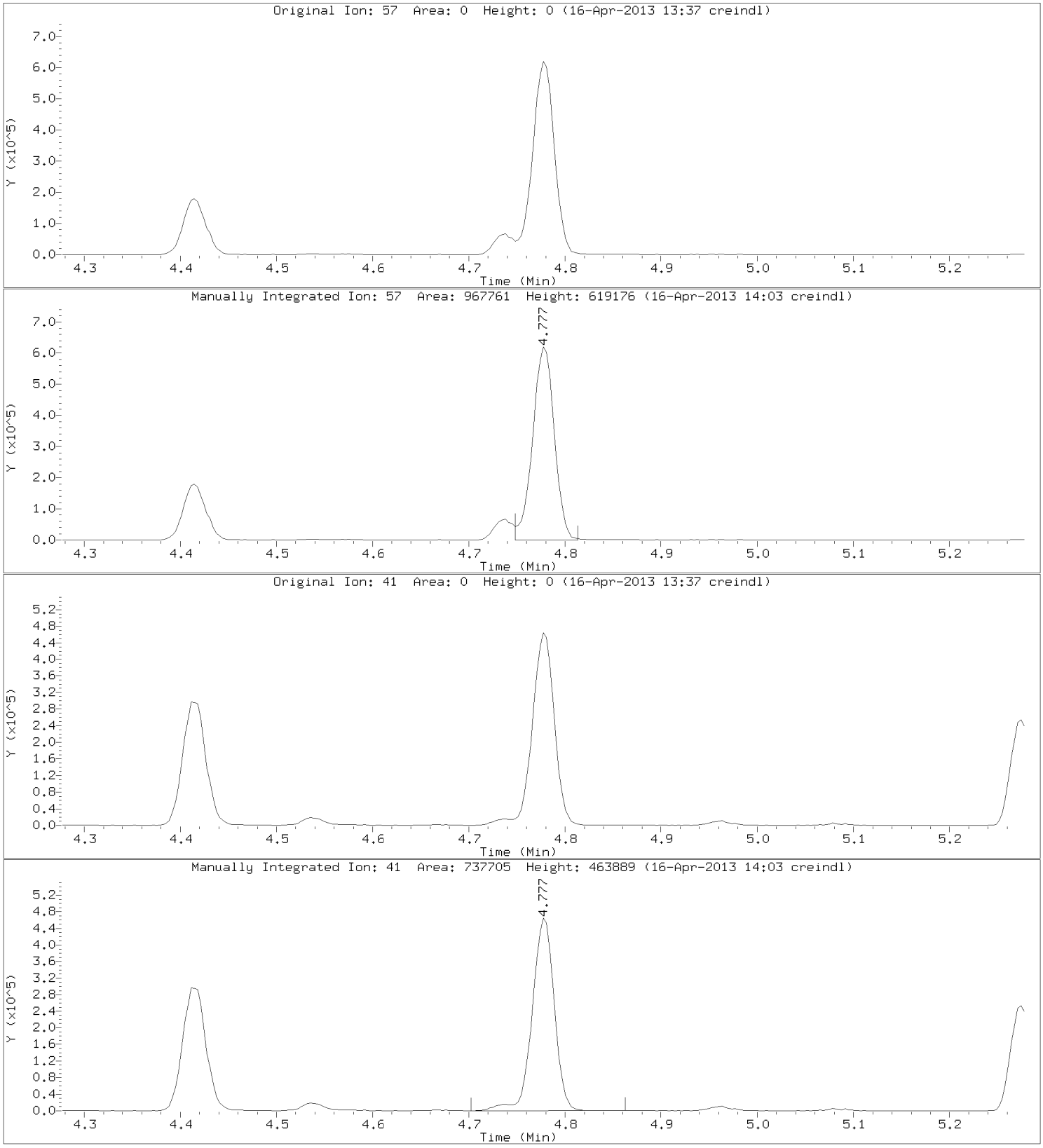
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Injection Date: 16-APR-2013 13:14
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

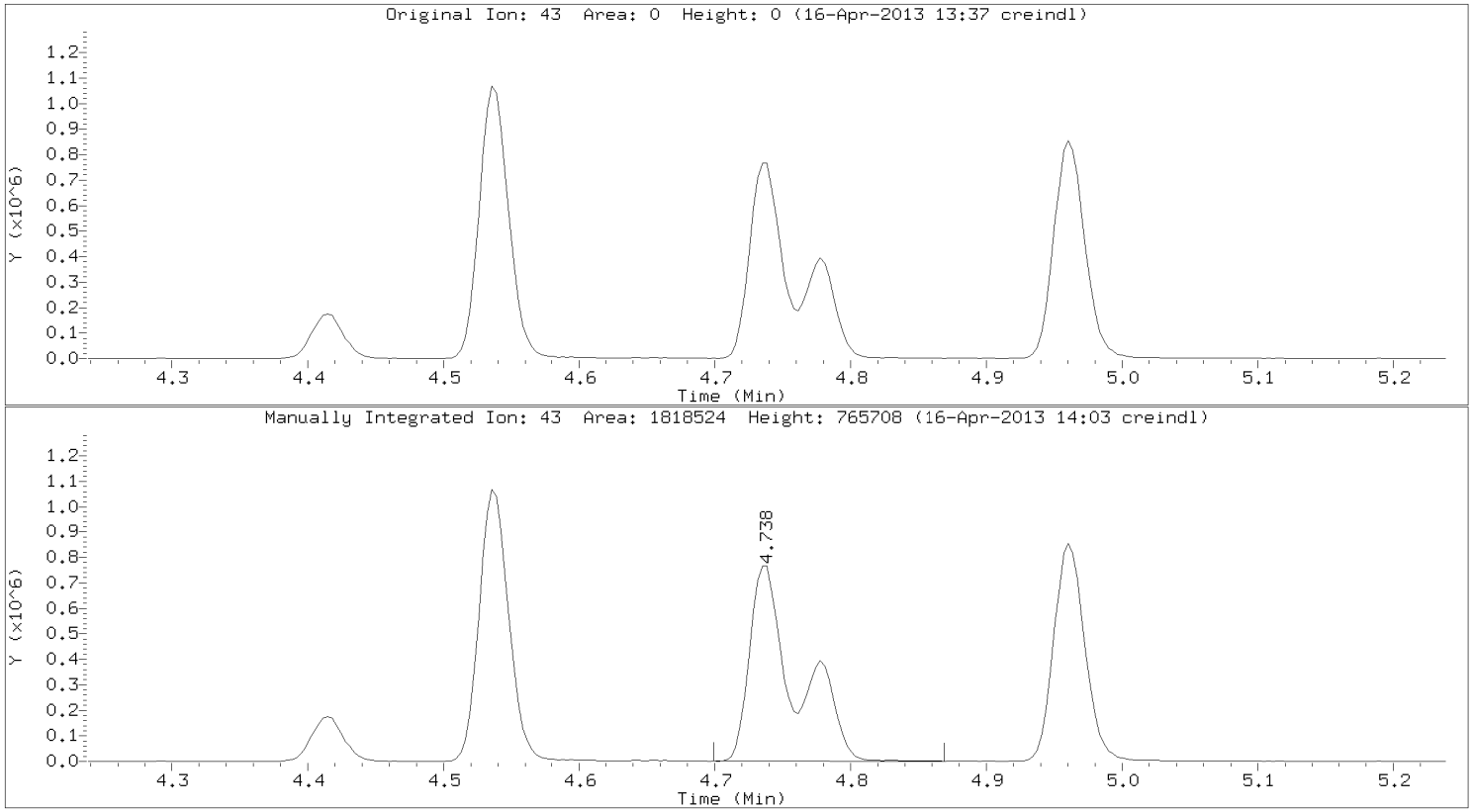


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Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: n-Hexane
CAS Number: 110-54-3

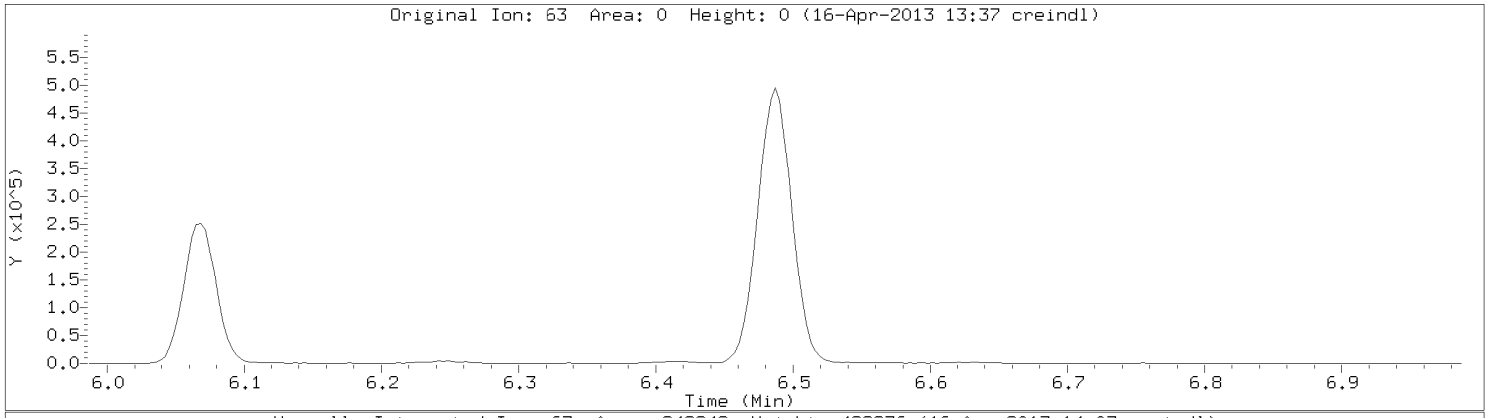


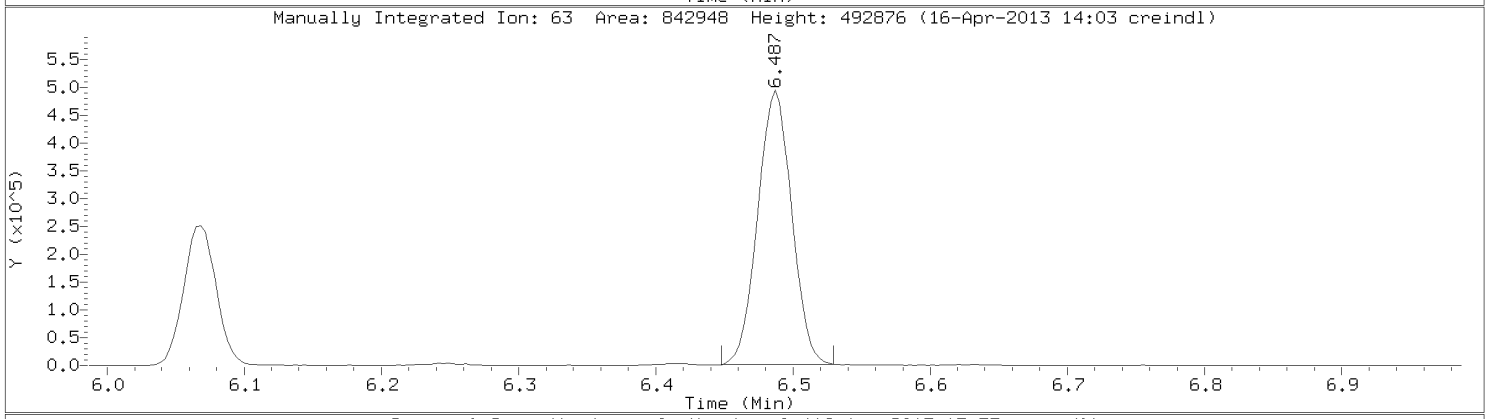
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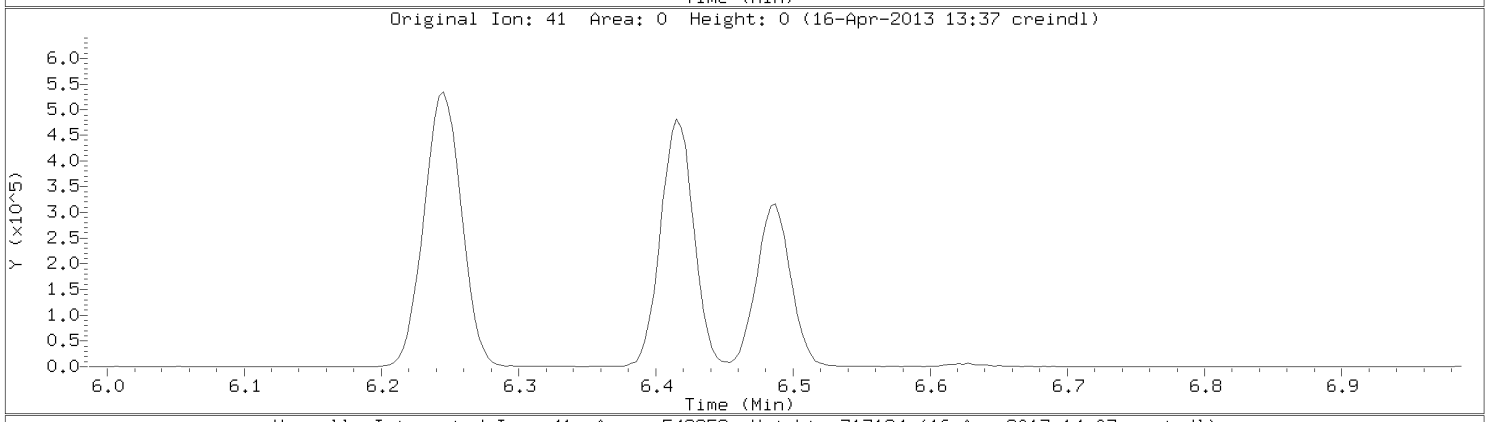


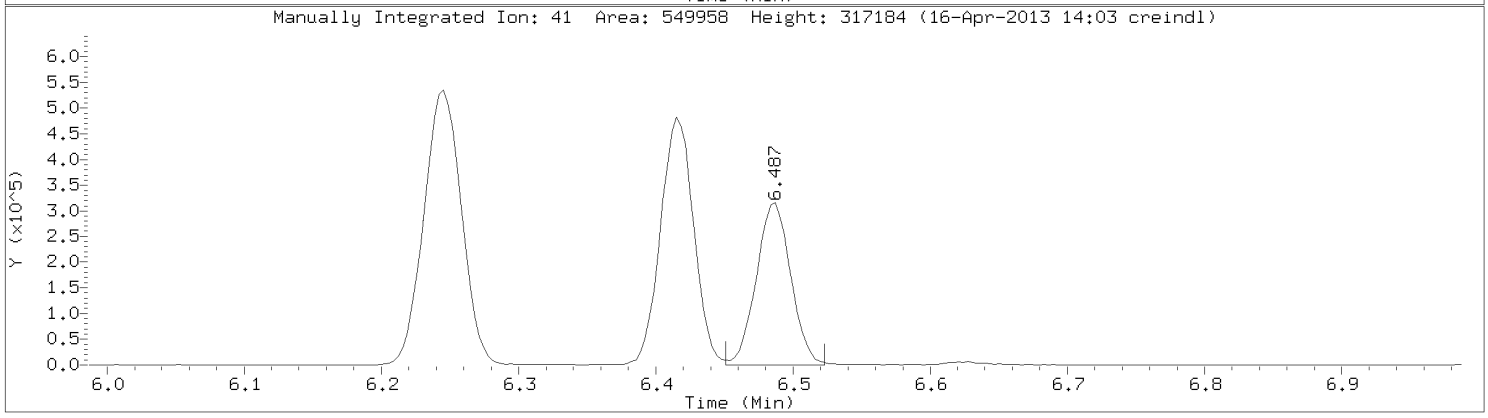
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Injection Date: 16-APR-2013 13:14
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

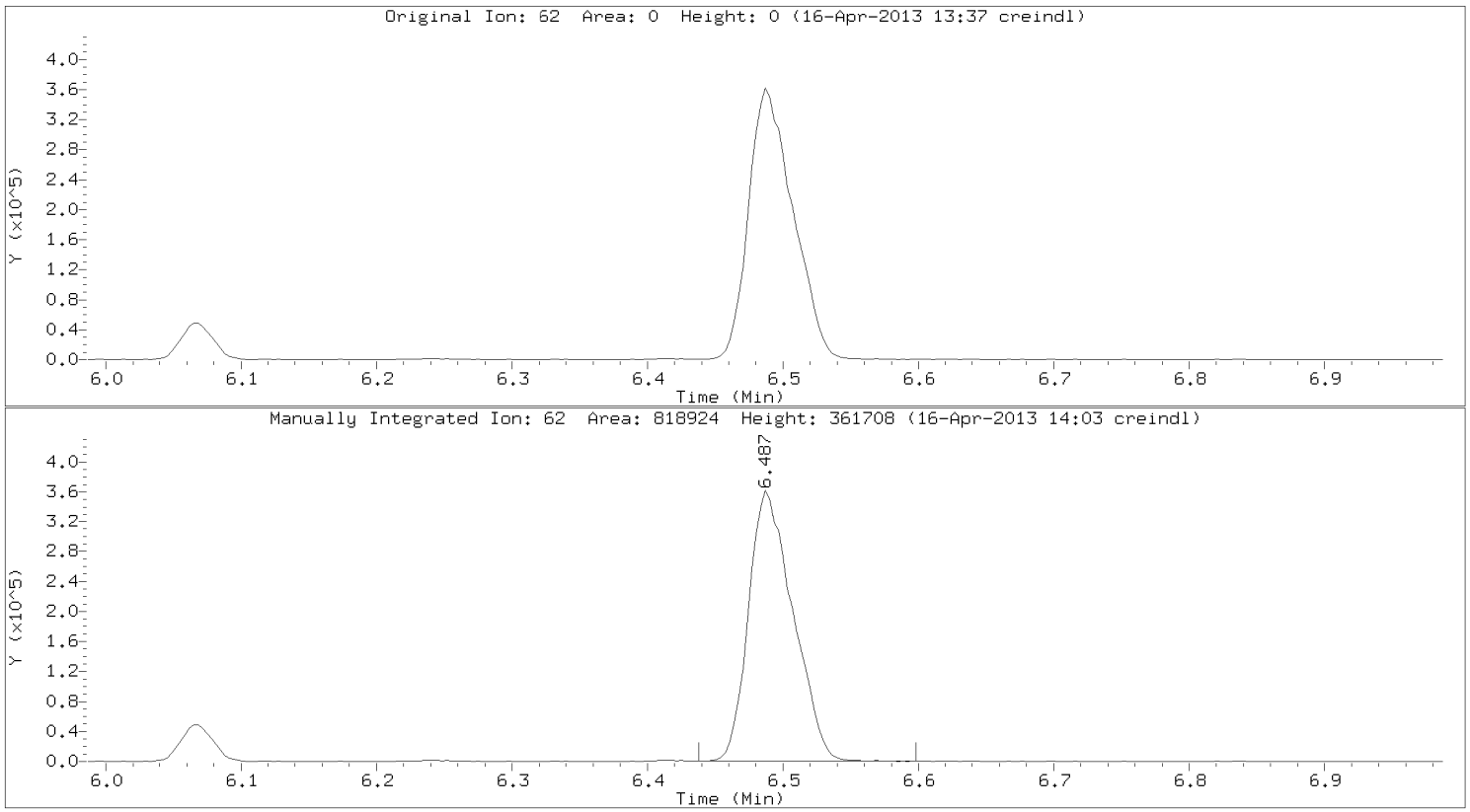






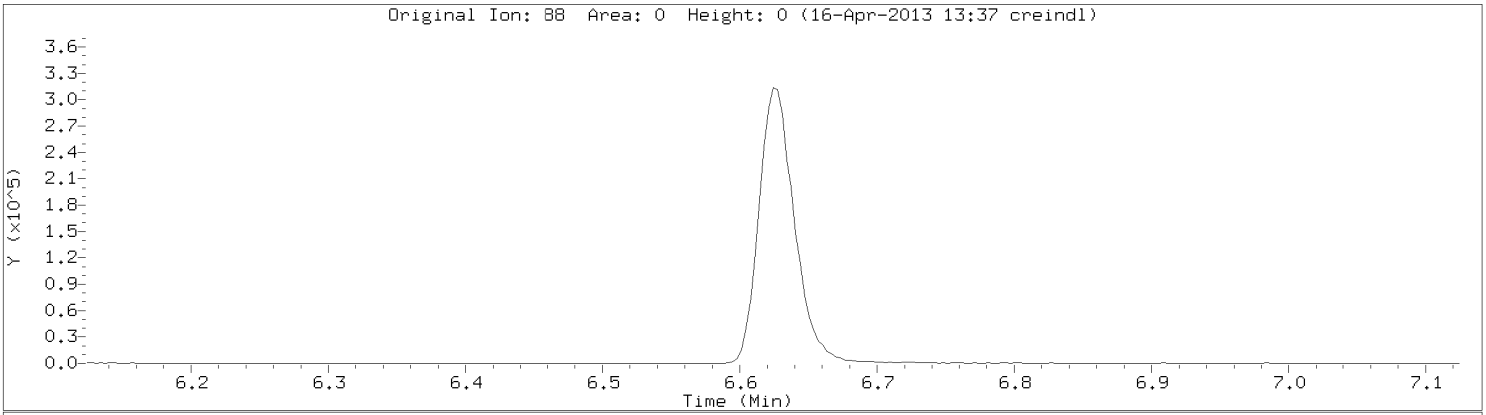


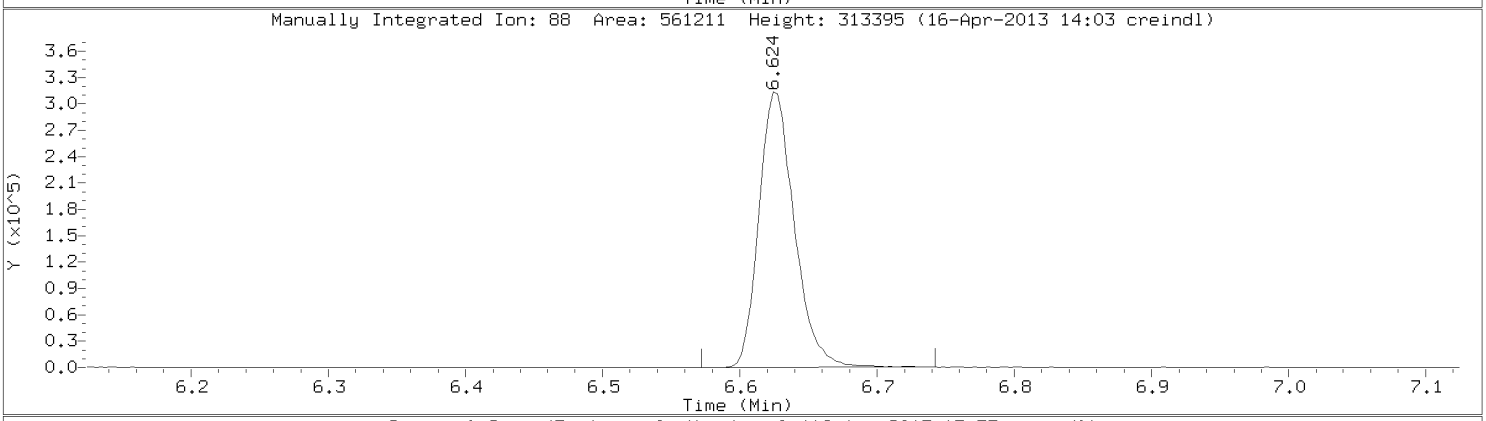
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Instrument: 10airD.i
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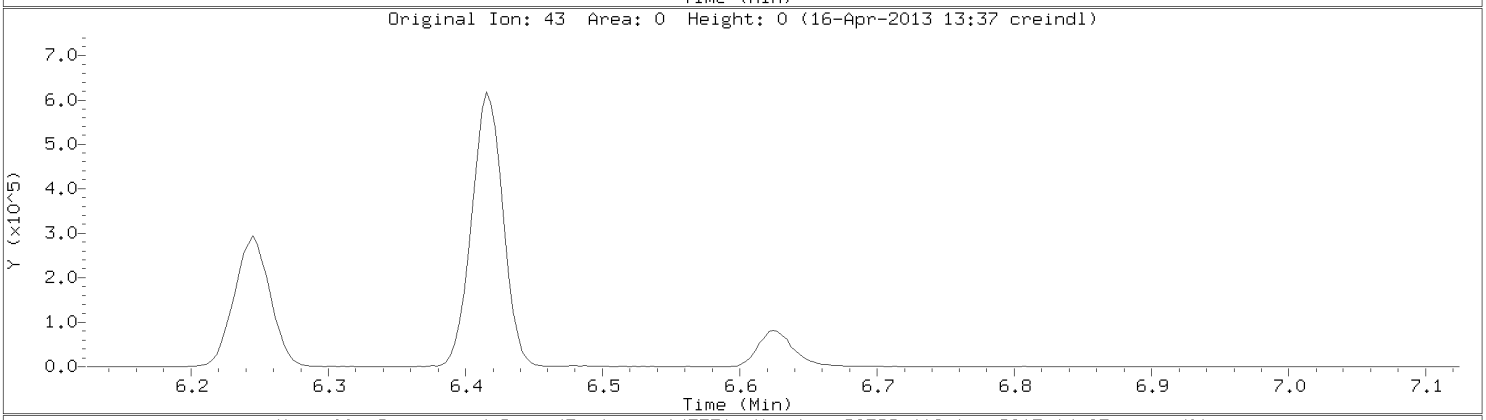


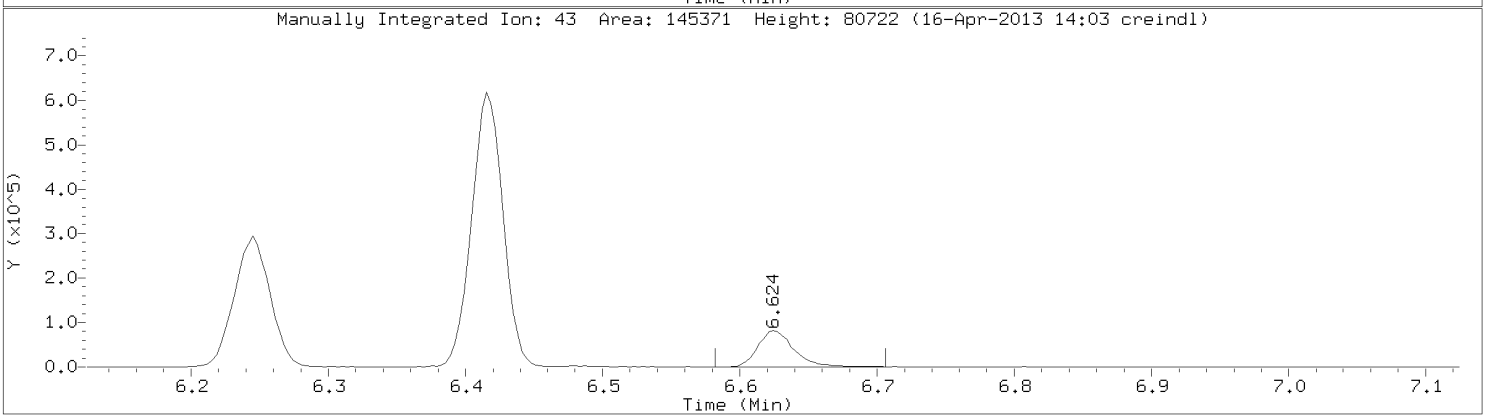
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Injection Date: 16-APR-2013 13:14
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: 1,4-Dioxane
CAS Number: 123-91-1



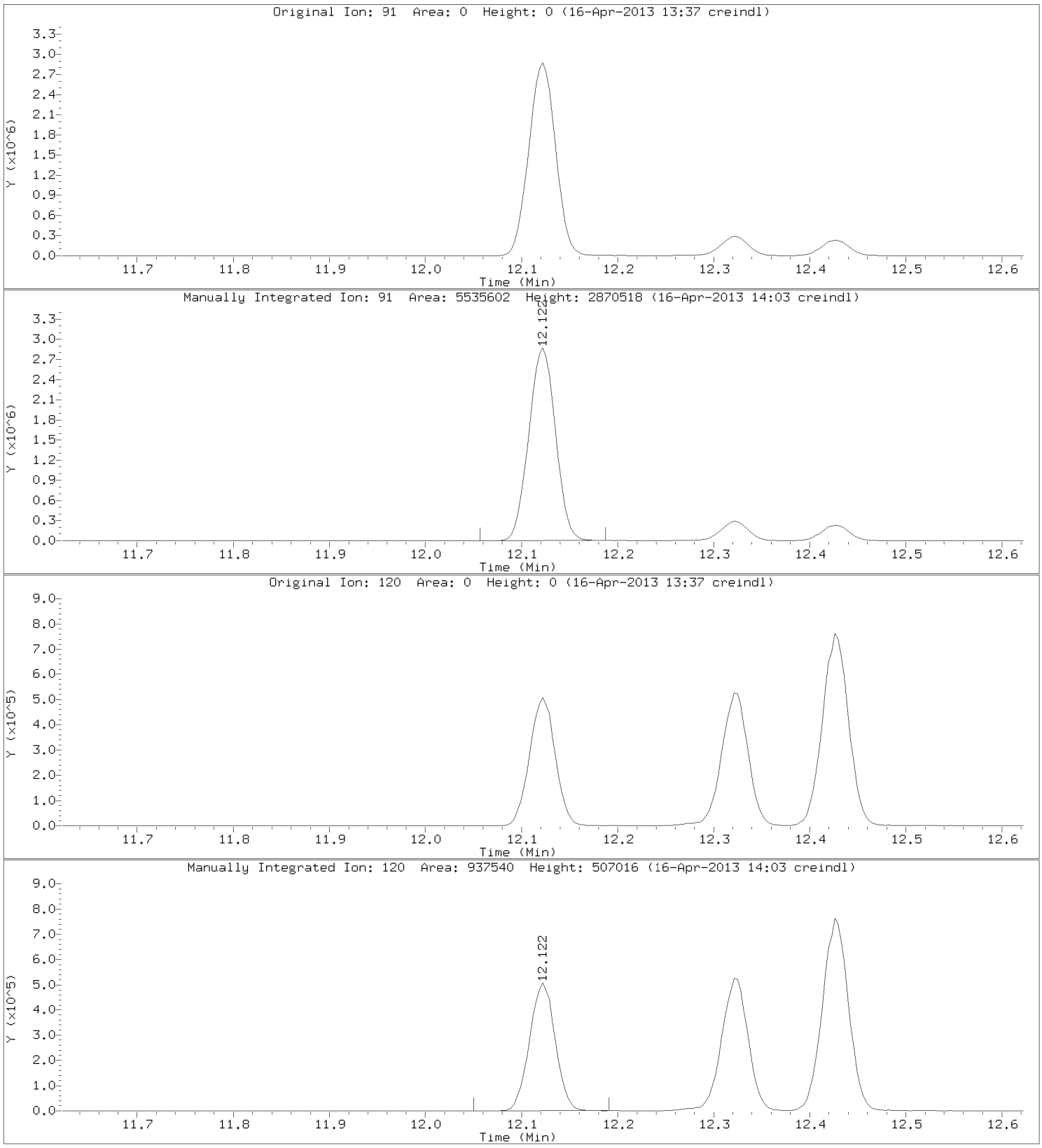






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Injection Date: 16-APR-2013 13:14
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: N-Propylbenzene
CAS Number: 103-65-1



Data File: \\192.168.10.12\chem\10airD.i\041613.B\10611.d
Report Date: 16-Apr-2013 14:10

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041613.B\10611.d
Lab Smp Id: ICAL7
Inj Date : 16-APR-2013 13:45
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Meth Date : 16-Apr-2013 14:08 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	525337	30.0000	36.0(A)
2	Dichlorodifluoromethane	85	2.950	2.950	(0.486)	4227679	30.0000	25.5
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.502)	3507309	30.0000	26.6
4	Chloromethane	50	3.051	3.051	(0.503)	1074476	30.0000	29.4
5	Vinyl chloride	62	3.136	3.136	(0.517)	1221822	30.0000	29.8
6	1,3-Butadiene	54	3.182	3.182	(0.524)	693977	30.0000	34.3(A)
7	Bromomethane	94	3.336	3.336	(0.550)	1292507	30.0000	28.6
8	Chloroethane	64	3.394	3.394	(0.559)	598918	30.0000	29.2(M)
9	Ethanol	31	3.424	3.424	(0.564)	746295	30.0000	30.4(A)
10	Vinyl Bromide	106	3.532	3.532	(0.582)	1133222	30.0000	29.7
11	Acrolein	56	3.626	3.626	(0.598)	366485	30.0000	35.9(A)
12	Trichlorofluoromethane	101	3.643	3.643	(0.600)	3529491	30.0000	23.4
13	Acetone	43	3.672	3.672	(0.605)	2117257	30.0000	29.8
14	Isopropyl Alcohol	45	3.702	3.702	(0.610)	1528344	30.0000	30.3(A)
15	1,1-Dichloroethene	61	3.930	3.930	(0.648)	2032942	30.0000	27.0
16	Acrylonitrile	53	3.934	3.934	(0.648)	752815	30.0000	29.9
17	Tert Butyl Alcohol	59	3.940	3.940	(0.649)	792207	30.0000	12.2(M)
18	Freon 113	101	3.983	3.983	(0.656)	2387884	30.0000	24.9
19	Methylene chloride	49	4.045	4.045	(0.667)	1221585	30.0000	27.4
20	Allyl Chloride	76	4.058	4.058	(0.669)	588421	30.0000	31.0(A)
21	Carbon Disulfide	76	4.179	4.179	(0.689)	3812784	30.0000	27.0
22	trans-1,2-dichloroethene	96	4.378	4.378	(0.722)	1205599	30.0000	26.9
23	Methyl Tert Butyl Ether	73	4.414	4.414	(0.727)	2637236	30.0000	28.0(M)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10611.d
Report Date: 16-Apr-2013 14:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	24 Vinyl Acetate	43	4.538	4.538	(0.748)	2405652	30.0000	30.3(A)
	25 1,1-Dichloroethane	63	4.542	4.542	(0.748)	2201723	30.0000	26.0
$	26 Hexane-d14(S)	66	4.659	4.659	(0.768)	654192	10.0000	9.55
	27 Methyl Ethyl Ketone	72	4.738	4.738	(0.781)	625595	30.0000	29.5(M)
	28 n-Hexane	57	4.777	4.777	(0.787)	1439995	30.0000	22.5(M)
	29 cis-1,2-Dichloroethene	96	4.940	4.940	(0.814)	1385695	30.0000	30.0
	30 Ethyl Acetate	43	4.963	4.963	(0.818)	2129306	30.0000	35.4(A)
	31 Chloroform	83	5.084	5.084	(0.838)	3437027	30.0000	28.8
	32 Tetrahydrofuran	42	5.274	5.274	(0.869)	923063	30.0000	30.6(A)
	33 1,1,1-Trichloroethane	97	5.568	5.568	(0.918)	3300115	30.0000	28.6
	34 1,2-Dichloroethane	62	5.588	5.588	(0.921)	2546025	30.0000	28.4
	35 Benzene	78	5.856	5.856	(0.965)	4024238	30.0000	28.7
	36 Carbon tetrachloride	117	5.875	5.875	(0.968)	2823638	30.0000	25.0
	37 Cyclohexane	56	5.882	5.882	(0.969)	1568551	30.0000	30.2(A)
*	38 1,4-Difluorobenzene	114	6.068	6.068	(1.000)	1537390	10.0000	
	39 2,2,4-Trimethylpentane	57	6.245	6.245	(1.029)	4836000	30.0000	30.3(A)
	40 Heptane	43	6.415	6.415	(1.057)	1610430	30.0000	30.7(A)
	41 1,2-Dichloropropane	63	6.486	6.486	(1.069)	1379111	30.0000	34.6(AM)
	42 Trichloroethene	130	6.509	6.509	(1.073)	1291621	30.0000	34.4(A)
	43 1,4-Dioxane	88	6.627	6.627	(1.092)	879166	30.0000	30.2(AM)
	44 Bromodichloromethane	83	6.634	6.634	(1.093)	3660010	30.0000	30.2(A)
	45 Methyl Isobutyl Ketone	43	7.212	7.212	(1.189)	2254104	30.0000	32.0(A)
	46 cis-1,3-Dichloropropene	75	7.264	7.264	(1.197)	2428681	30.0000	30.4(A)
	47 trans-1,3-Dichloropropene	75	7.761	7.761	(1.279)	2662229	30.0000	30.2(A)
$	48 Toluene-d8 (S)	98	7.836	7.836	(1.291)	1443559	10.0000	10.2
	49 Toluene	91	7.925	7.925	(1.306)	4873636	30.0000	30.0
	50 1,1,2-Trichloroethane	97	7.938	7.938	(1.308)	1675452	30.0000	30.0(A)
	51 Methyl Butyl Ketone	43	8.238	8.238	(0.851)	2274821	30.0000	32.9(A)
	52 Dibromochloromethane	129	8.549	8.549	(0.883)	2623516	30.0000	33.0(A)
	53 1,2-Dibromoethane	107	8.820	8.820	(0.911)	2552451	30.0000	30.0(A)
	54 Tetrachloroethene	166	8.909	8.909	(0.920)	2278468	30.0000	32.7(A)
*	55 Chlorobenzene - d5	117	9.683	9.683	(1.000)	908772	10.0000	
	56 Chlorobenzene	112	9.736	9.736	(1.005)	3313602	30.0000	32.9(A)
	57 Ethyl Benzene	91	10.039	10.039	(1.037)	6350749	30.0000	29.8
	58 m&p-Xylene	91	10.209	10.209	(1.054)	5207552	30.0000	29.8
	59 Bromoform	173	10.657	10.657	(1.101)	3112441	30.0000	36.2(A)
	60 Styrene	104	10.706	10.706	(1.106)	3427889	30.0000	30.2(A)
	61 o-Xylene	91	10.785	10.785	(1.114)	5420144	30.0000	29.6
	62 1,1,2,2-Tetrachloroethane	83	11.099	11.099	(1.146)	3653971	30.0000	34.9(A)
	63 Isopropylbenzene	105	11.461	11.461	(1.184)	6345419	30.0000	32.9(A)
	64 N-Propylbenzene	91	12.125	12.125	(1.252)	8302005	30.0000	29.6(M)
	65 4-Ethyltoluene	105	12.328	12.328	(1.273)	6266812	30.0000	29.7
	66 1,3,5-Trimethylbenzene	105	12.432	12.432	(1.284)	5399791	30.0000	29.6
	67 1,2,4-Trimethylbenzene	105	13.027	13.027	(1.345)	5360391	30.0000	29.5
	68 1,3-Dichlorobenzene	146	13.380	13.380	(1.382)	3195679	30.0000	29.7
	69 Sec- Butylbenzene	105	13.409	13.409	(1.385)	7207419	30.0000	29.1
$	70 1,4-dichlorobenzene-d4 (S)	150	13.465	13.465	(1.391)	550158	10.0000	10.8
	71 Benzyl Chloride	91	13.491	13.491	(1.393)	4952273	30.0000	29.9
	72 1,4-Dichlorobenzene	146	13.514	13.514	(1.396)	3000270	30.0000	29.4
	73 1,2-Dichlorobenzene	146	14.050	14.050	(1.451)	2984344	30.0000	30.0(A)
	74 N-Butylbenzene	91	14.334	14.334	(1.480)	6408566	30.0000	29.4
	75 1,2,4-Trichlorobenzene	180	16.691	16.691	(1.724)	692240	30.0000	22.0
	76 Naphthalene	128	16.868	16.868	(1.742)	930082	30.0000	22.7
	77 Hexachlorobutadiene	225	17.247	17.247	(1.781)	1088376	30.0000	30.3(A)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10611.d
Report Date: 16-Apr-2013 14:10

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10611.d
Report Date: 16-Apr-2013 14:10

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10611.d
Lab Smp Id: ICAL7
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Misc Info:

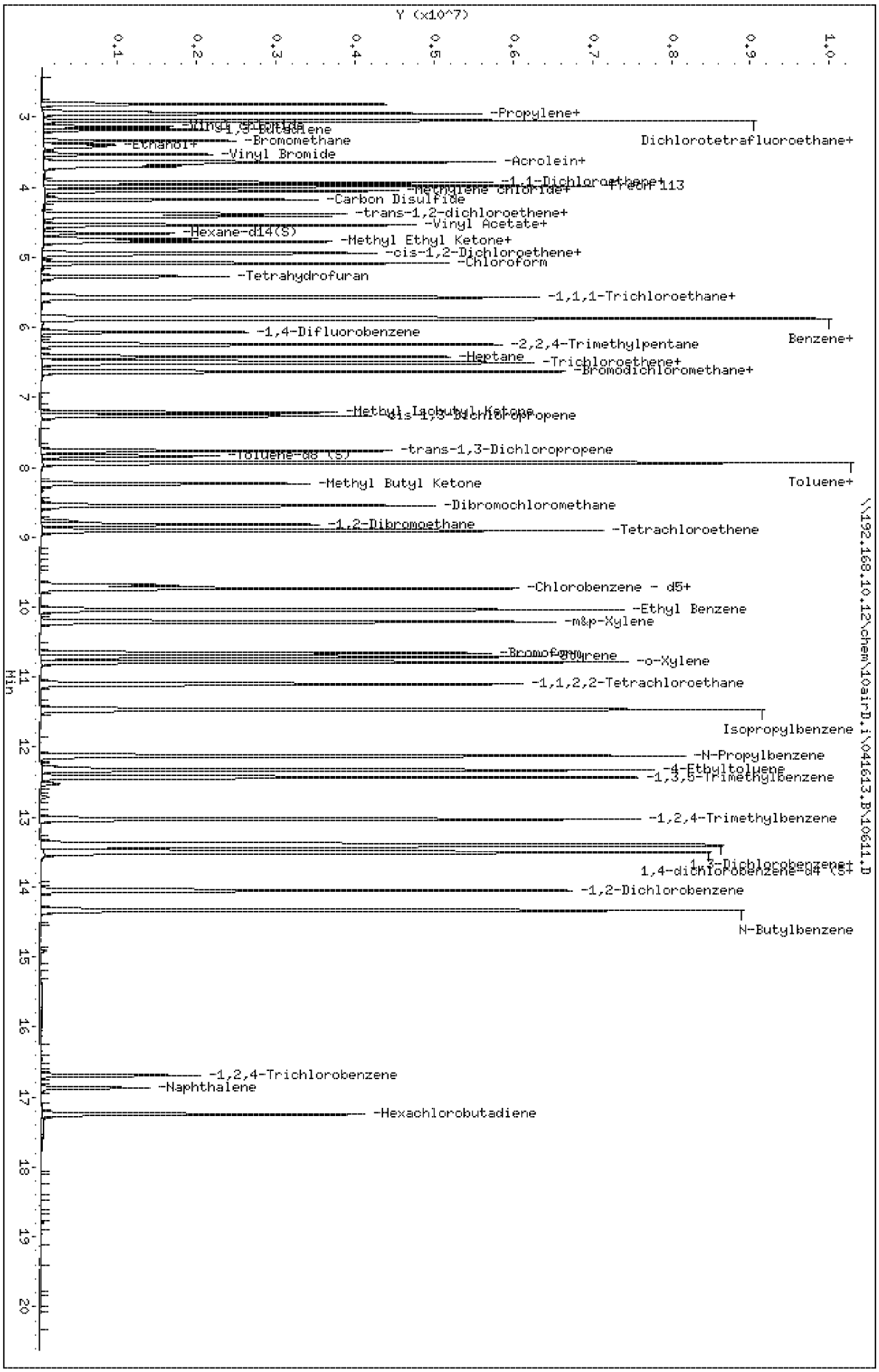
Calibration Date: 16-APR-2013
Calibration Time: 12:43
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1537390	7.33
55 Chlorobenzene - d	825122	495073	1155171	908772	10.14

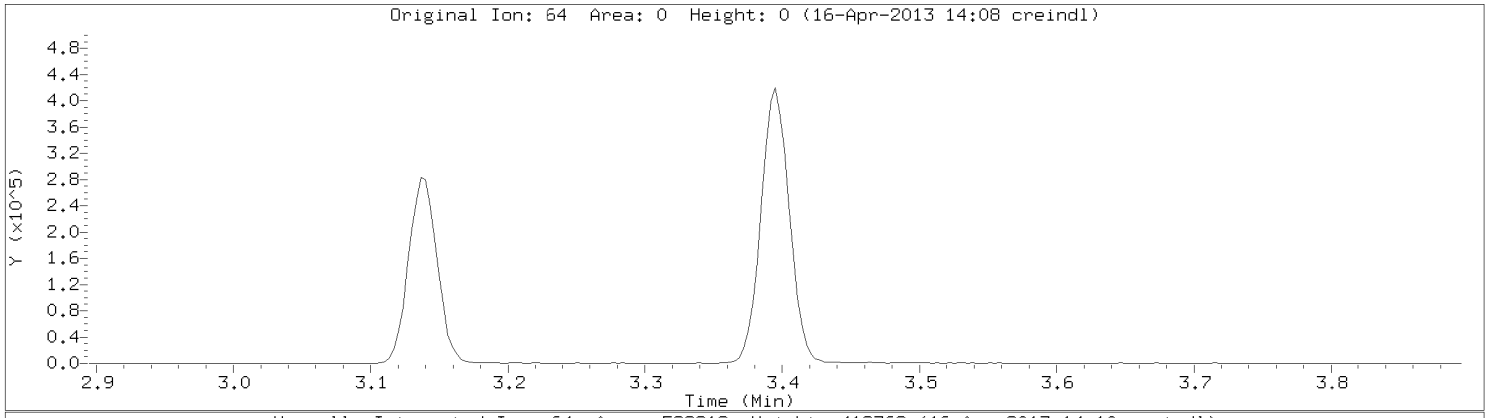
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.03

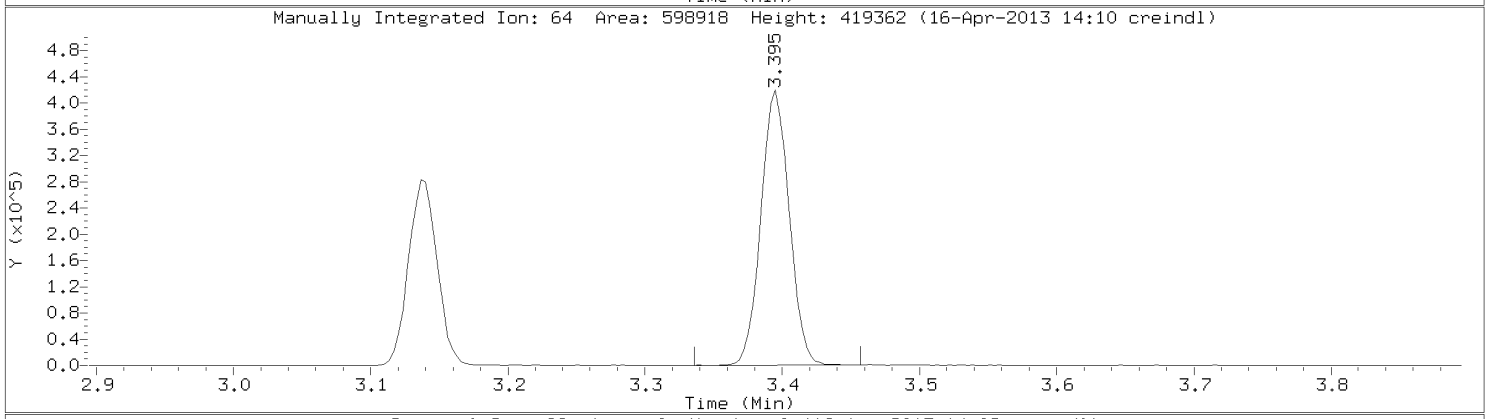
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

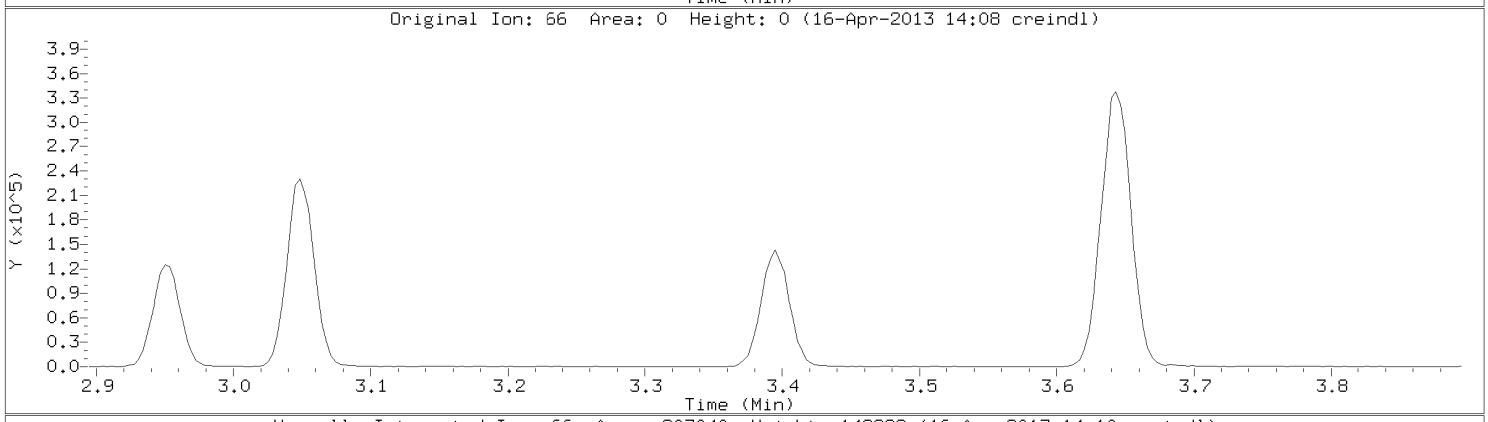

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Date : 16-APR-2013 13:45
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^7)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Min
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
-Propylene+
-Vinyl Acetylene
-1,3-Butadiene
-Ethanol+
-Bromomethane
-Vinyl Bromide
Dichlorotetrafluoroethane+
-Acrolein+
-1,1-Dichloroethene+
-Methylene Chloride+
Freon 113
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-1,4-Difluorobenzene
Benzene+
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-trans-1,3-Dichloropropene
Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform
-Styrene
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
1,3-Dichlorobenzene+
1,4-dichlorobenzene-d4 (S)+
-1,2-Dichlorobenzene
N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene
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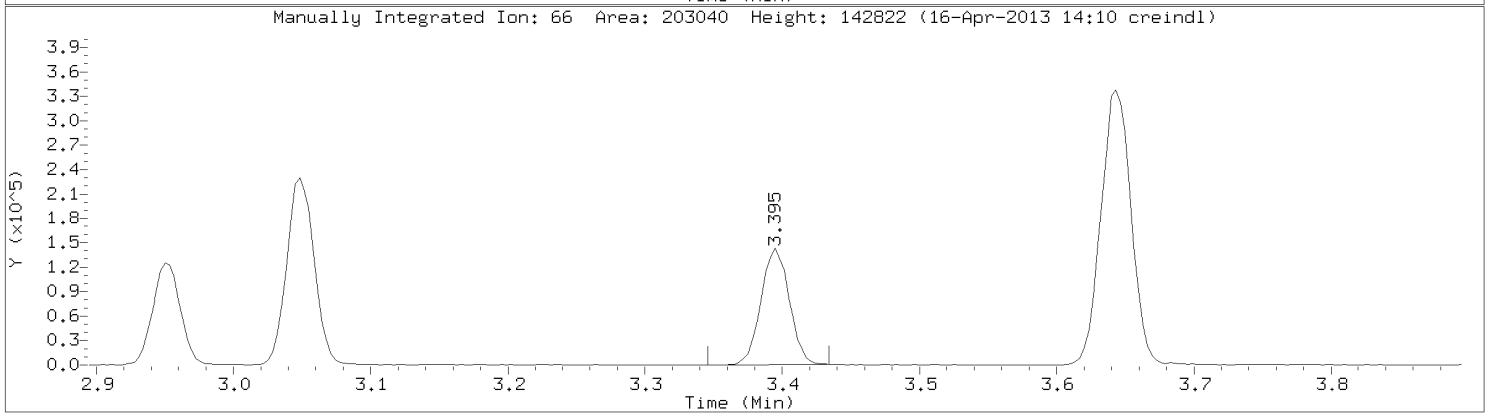
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Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: Chloroethane
CAS Number: 75-00-3



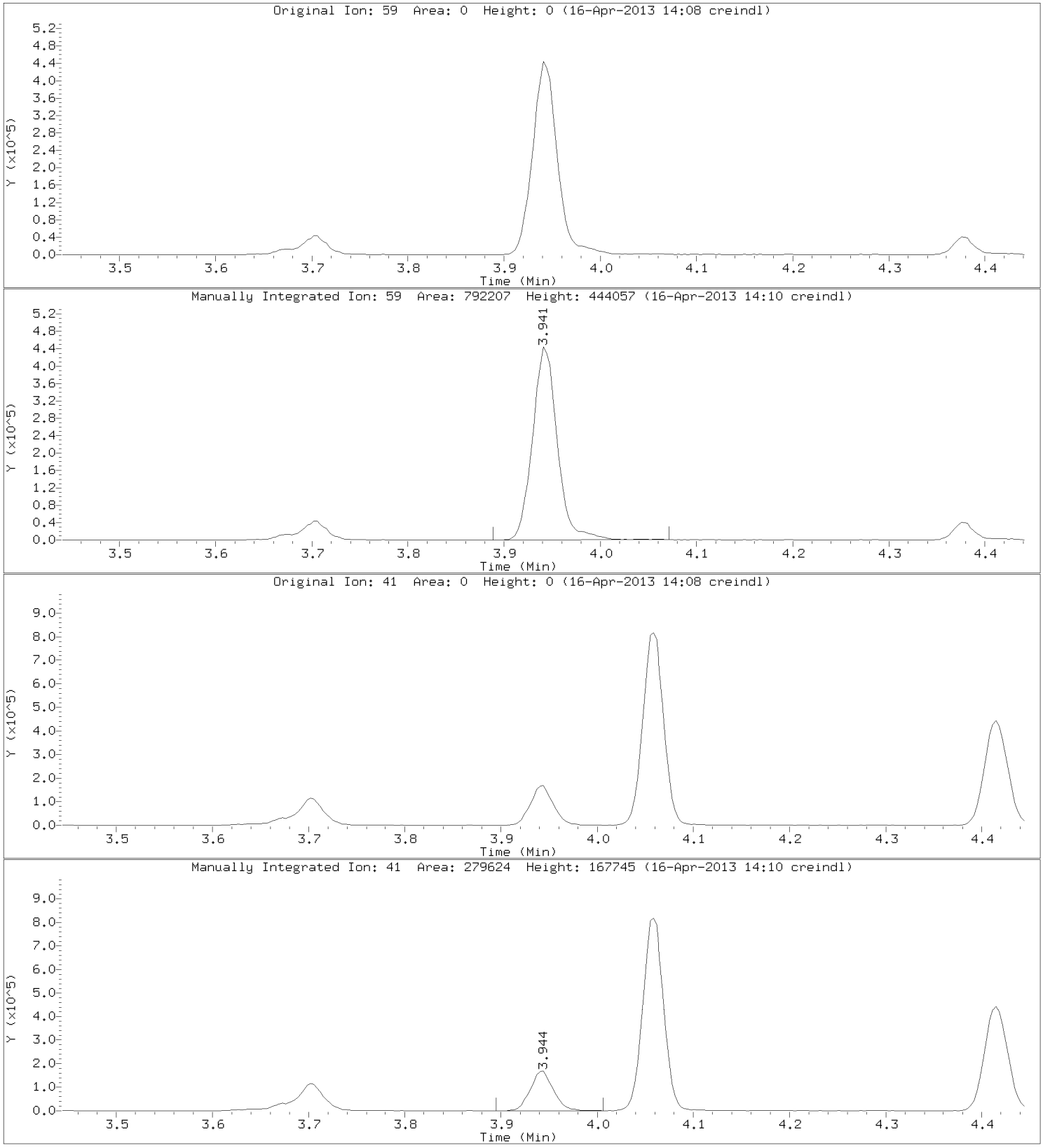






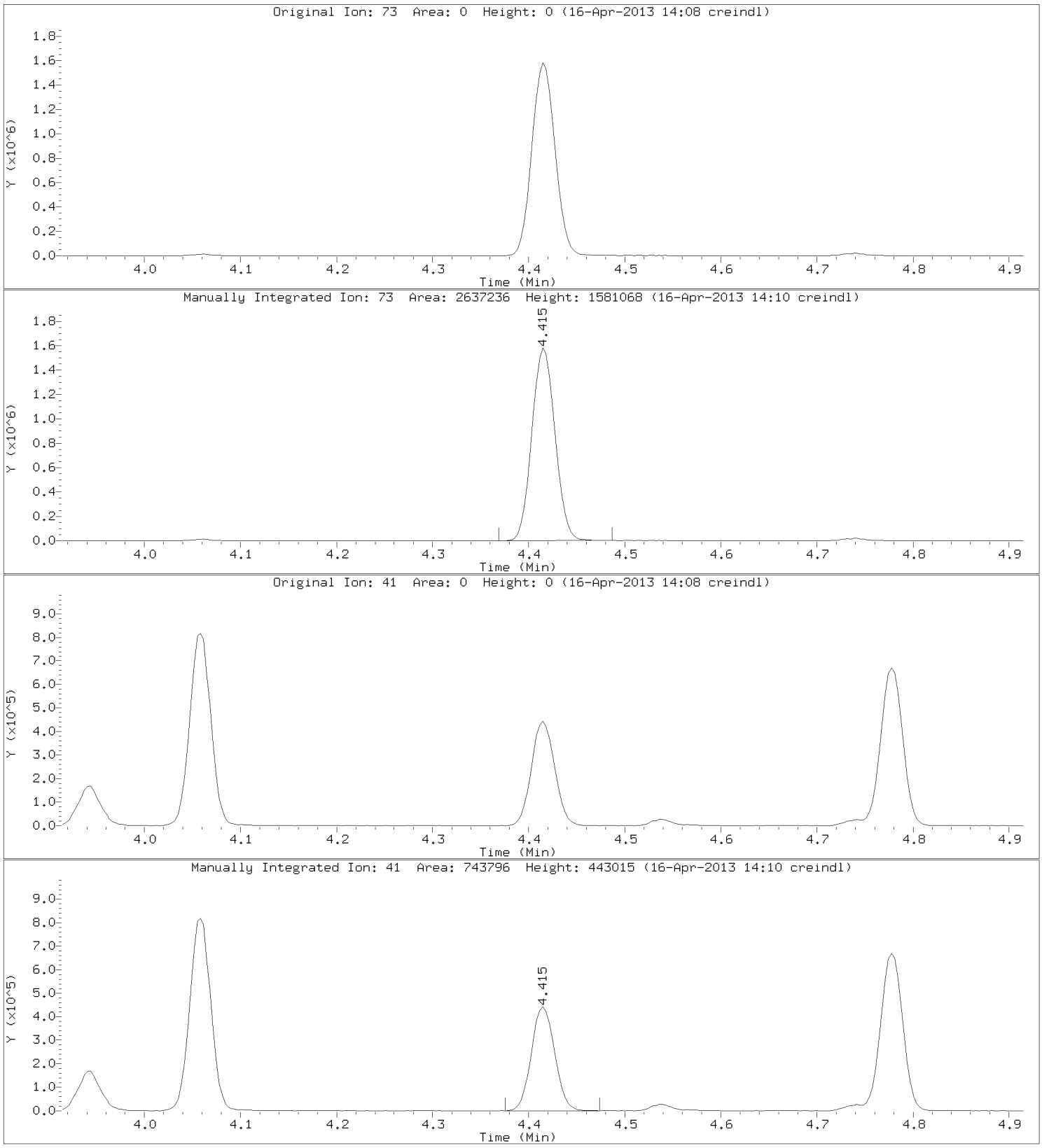
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Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



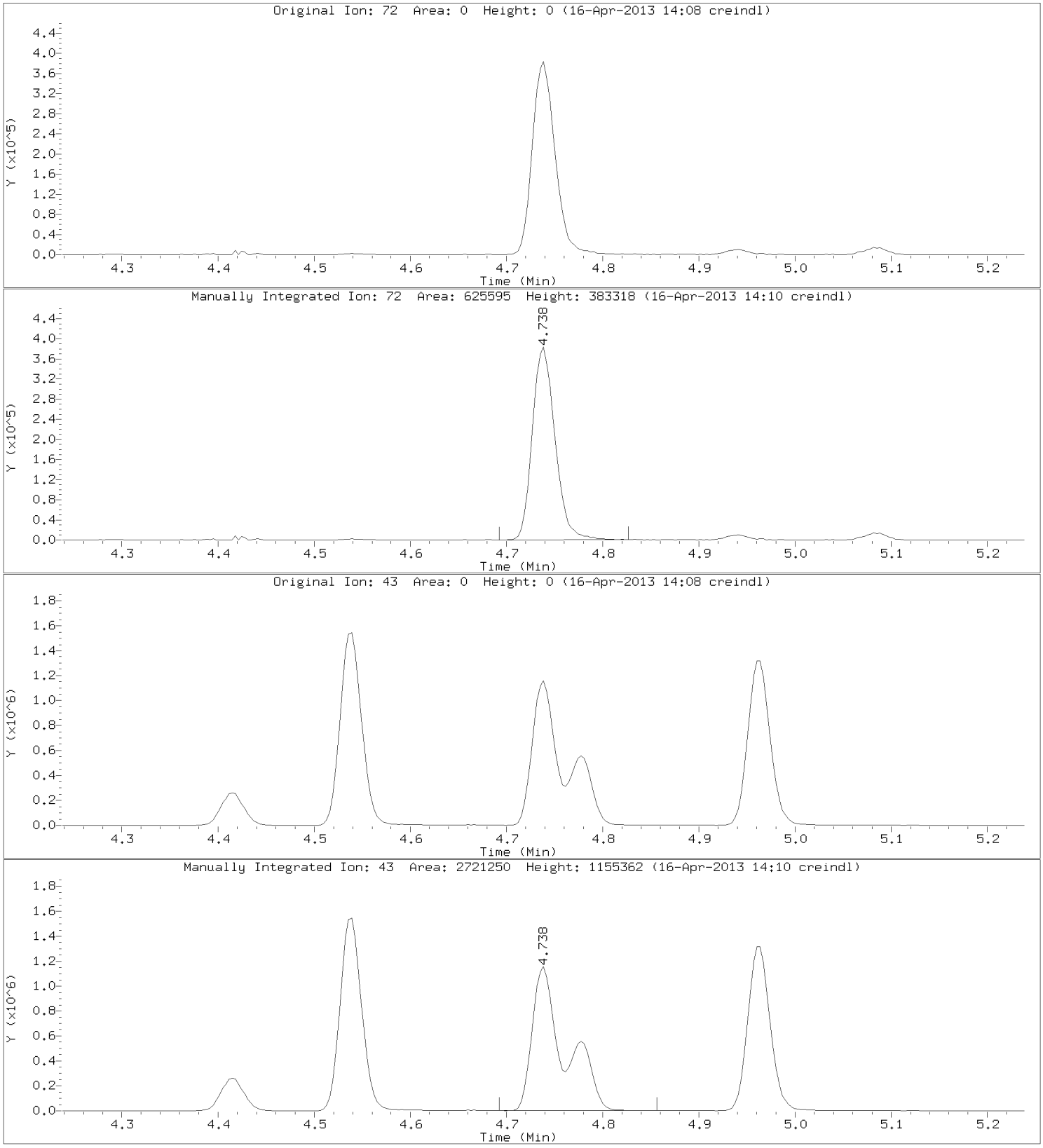
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Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



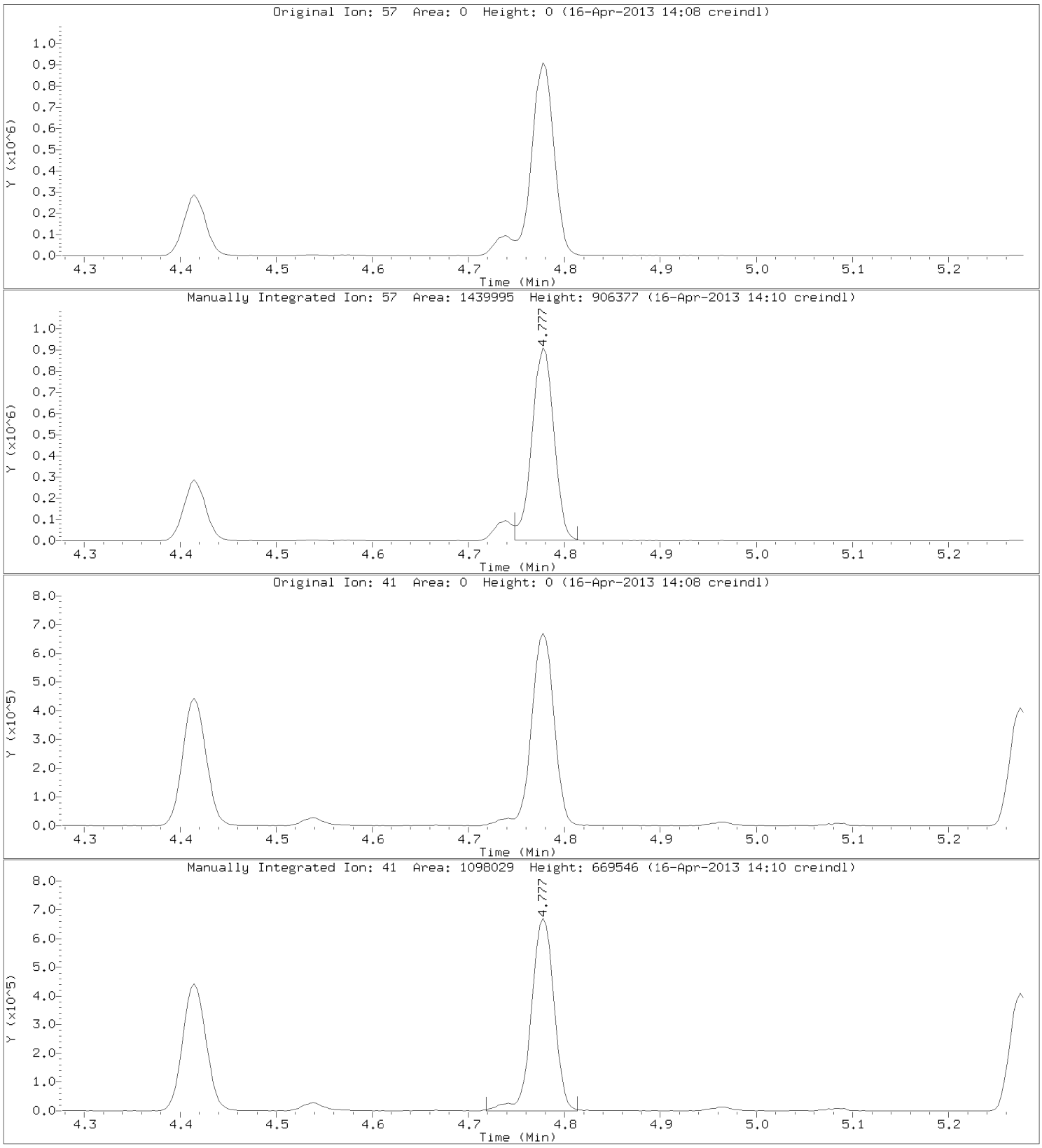
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Injection Date: 16-APR-2013 13:45
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

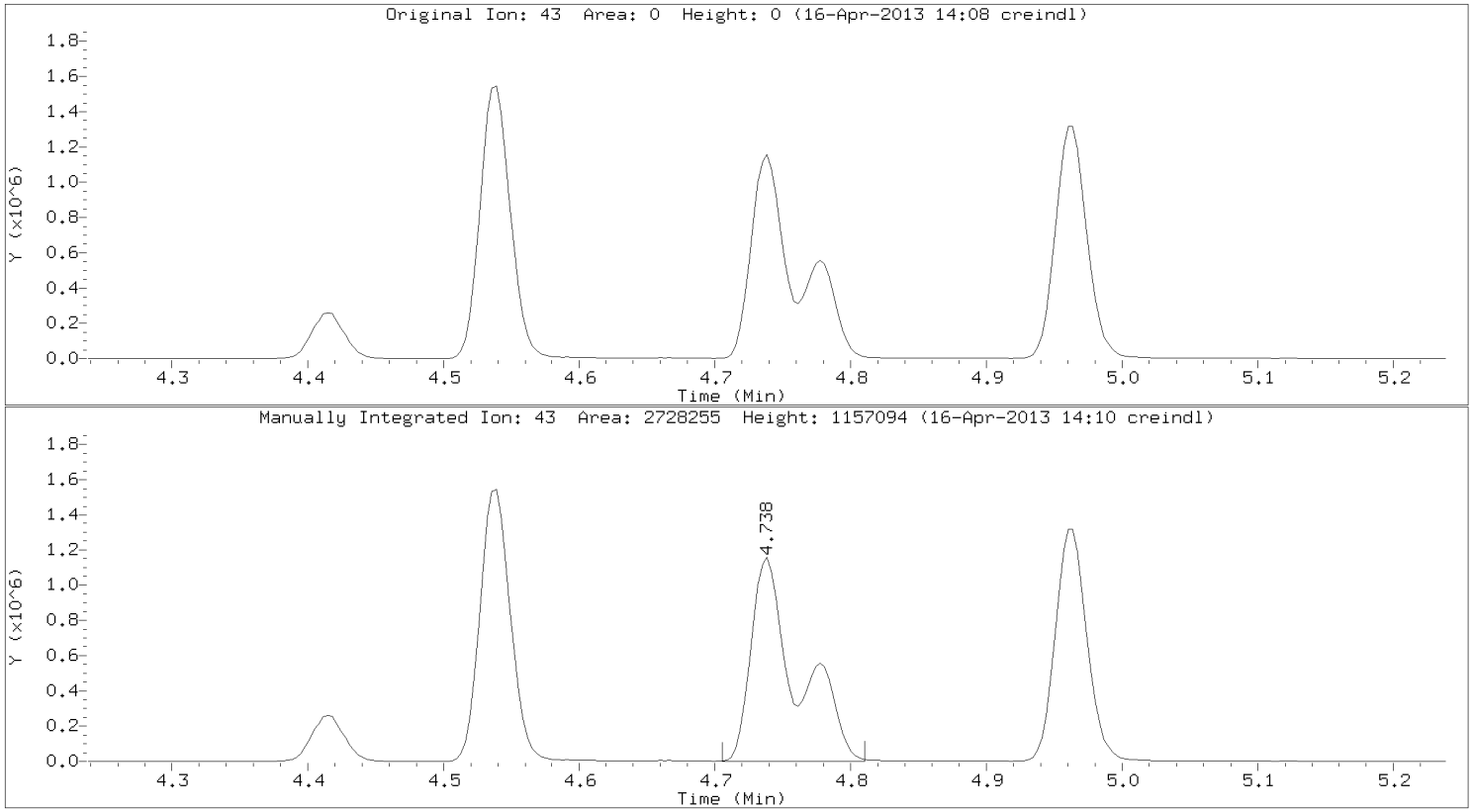


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Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: n-Hexane
CAS Number: 110-54-3

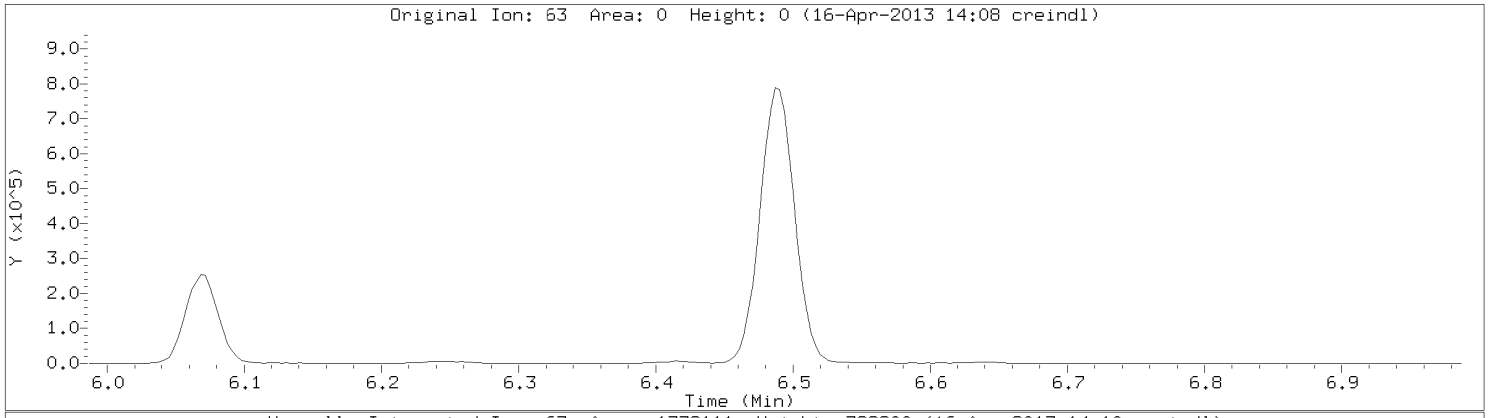


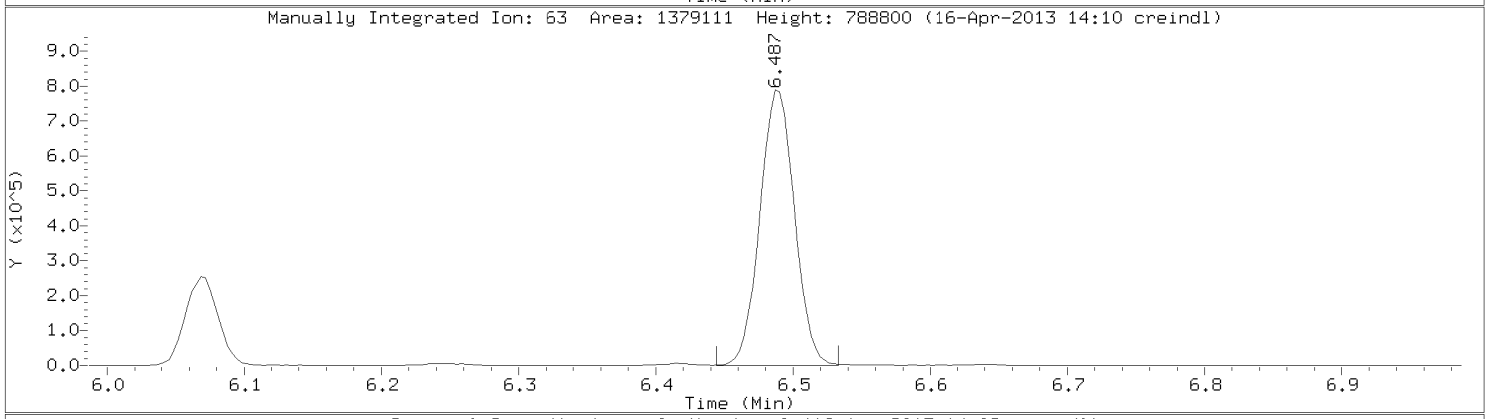
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Lab Sample ID: ICAL7

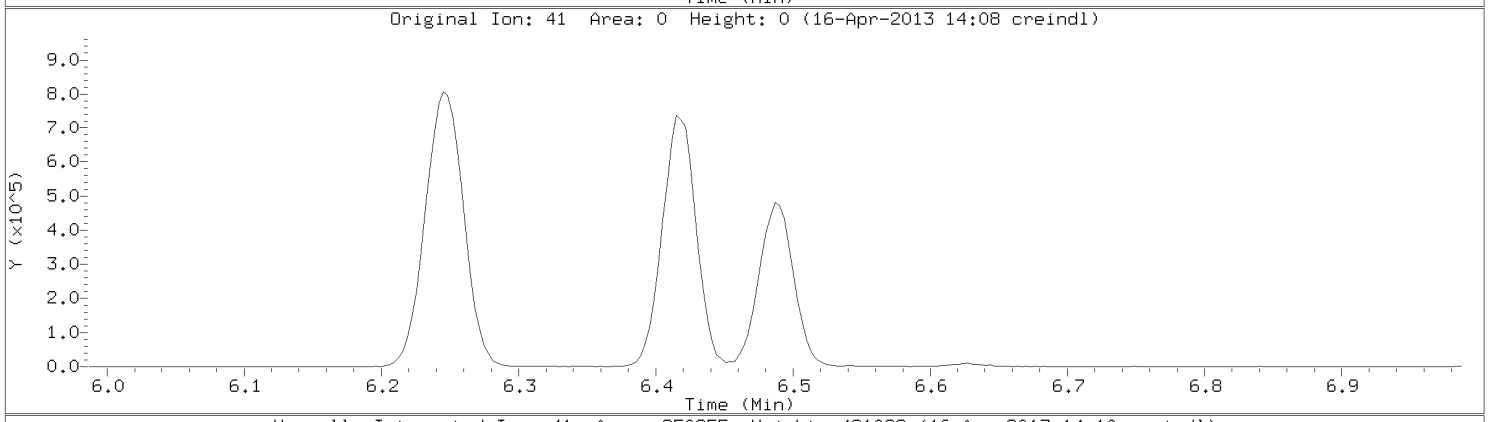


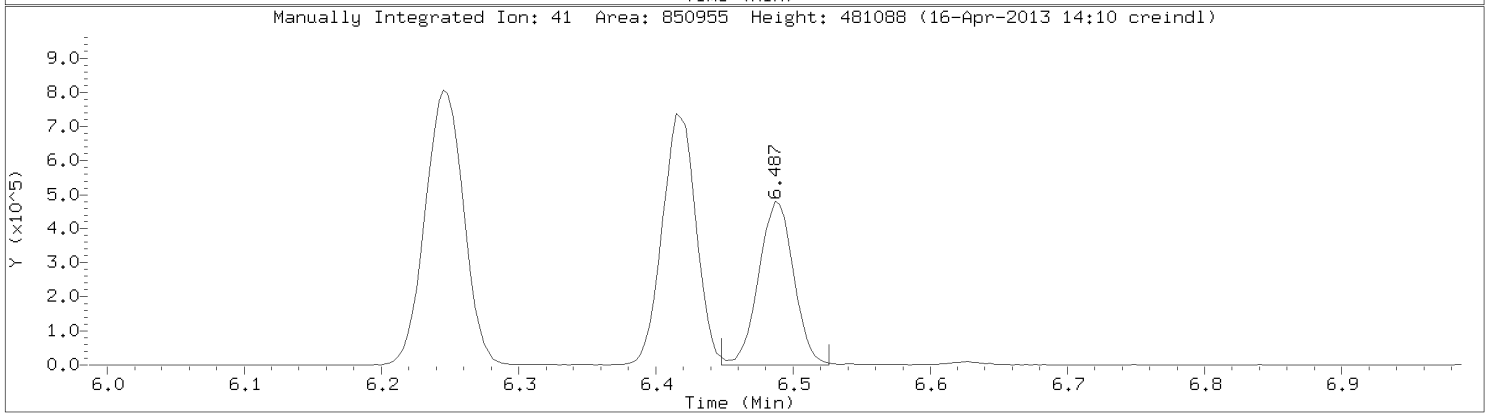
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Injection Date: 16-APR-2013 13:45
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

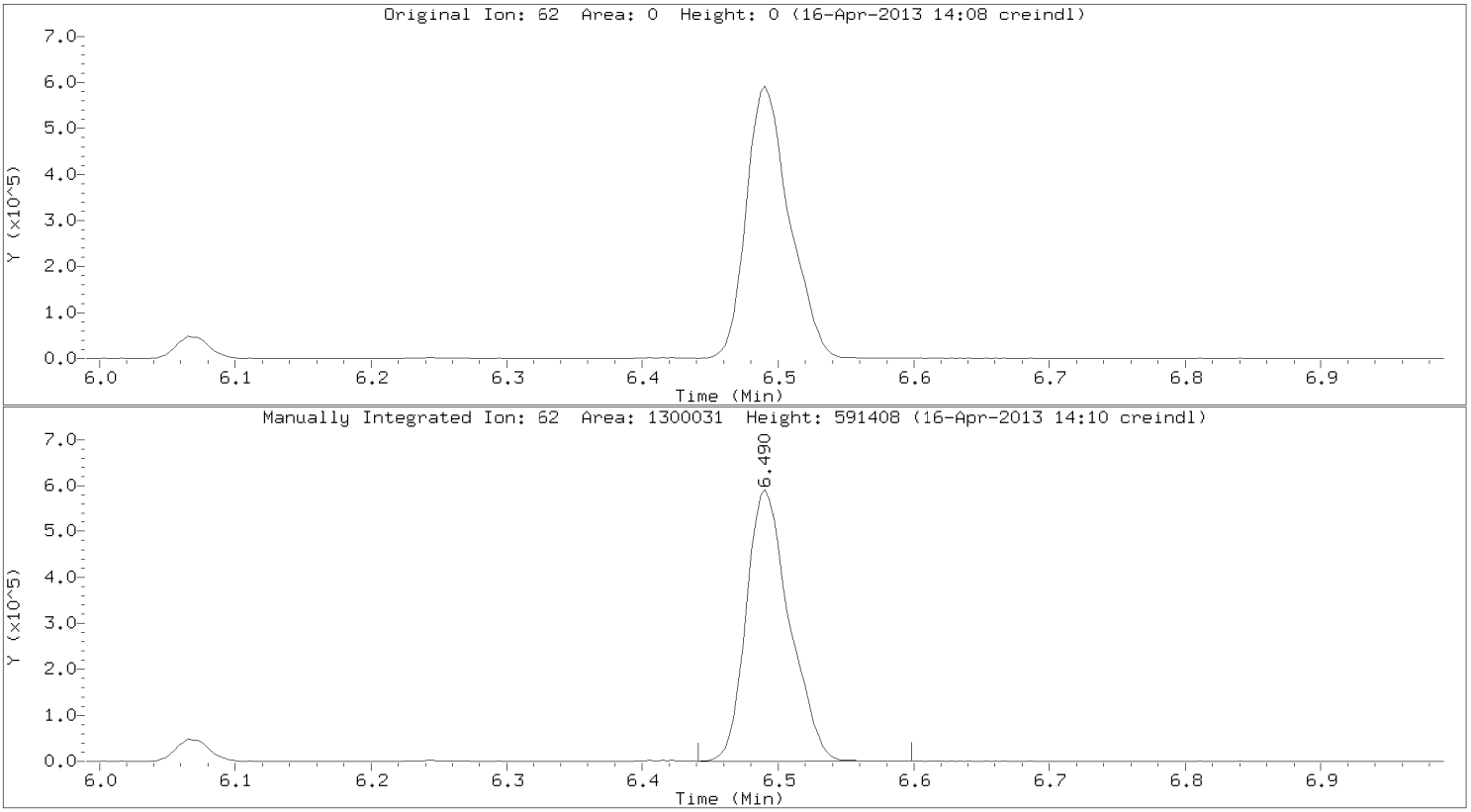






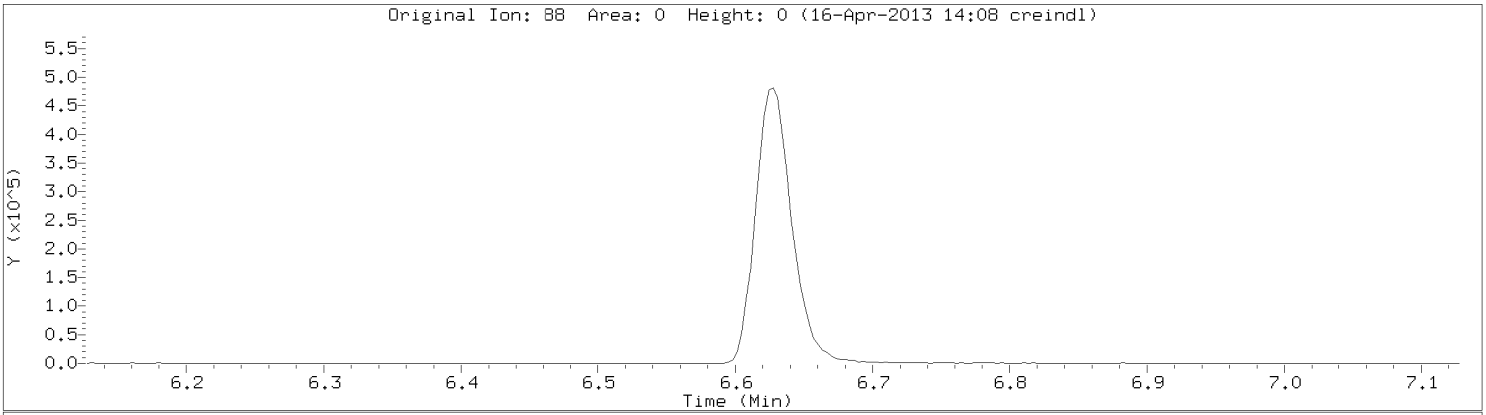


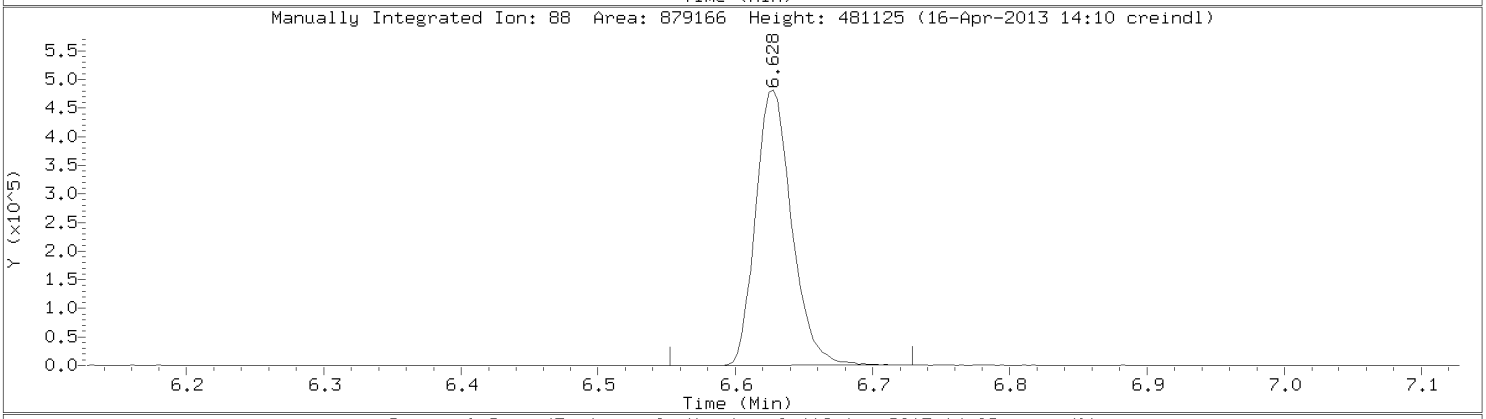
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Lab Sample ID: ICAL7

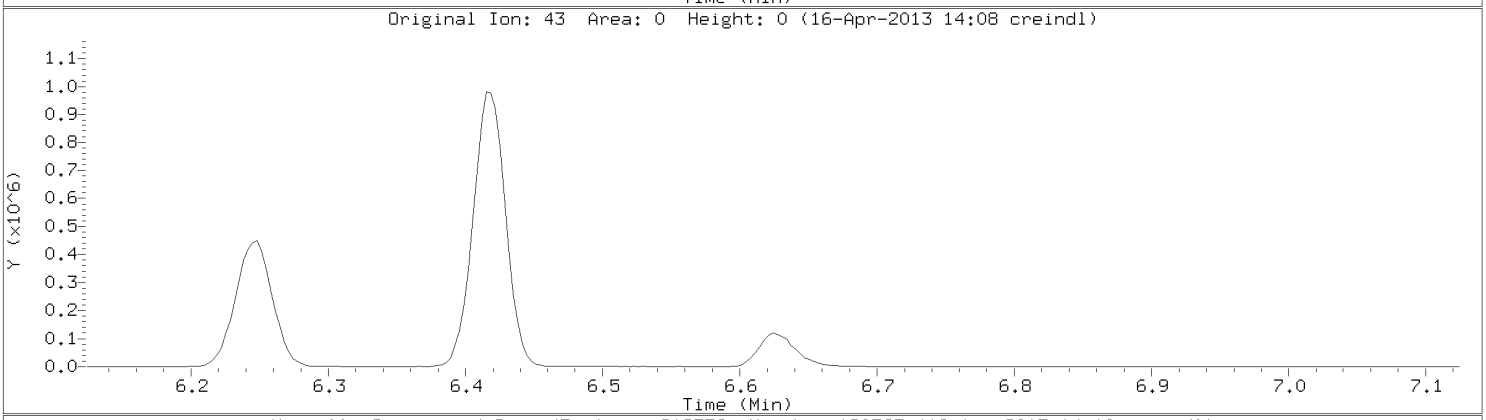


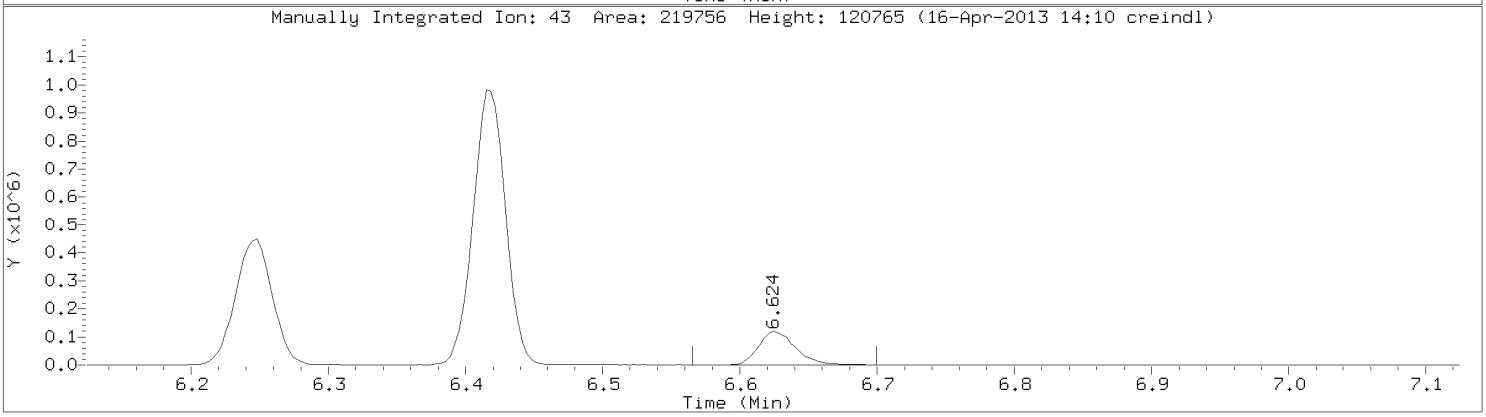
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Injection Date: 16-APR-2013 13:45
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: 1,4-Dioxane
CAS Number: 123-91-1



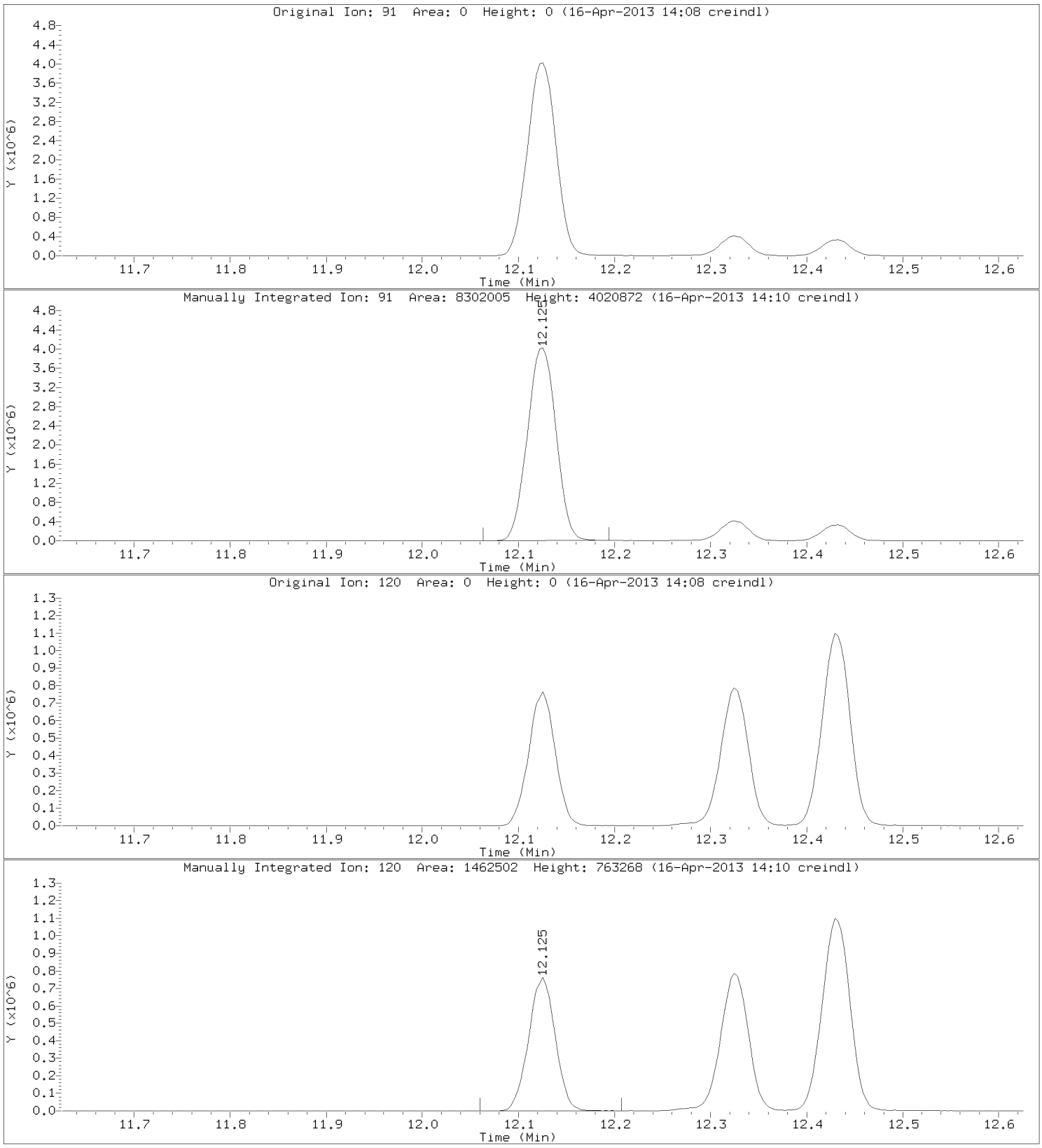






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Injection Date: 16-APR-2013 13:45
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: N-Propylbenzene
CAS Number: 103-65-1



Data File: \\192.168.10.12\chem\10airD.i\041613.B\10612.D
Report Date: 16-Apr-2013 14:49

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041613.B\10612.D
Lab Smp Id: SSV
Inj Date : 16-APR-2013 14:15
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Meth Date : 16-Apr-2013 14:13 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	148788	8.98697	8.99
2	Dichlorodifluoromethane	85	2.950	2.950	(0.486)	1419259	8.47820	8.48
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	1153627	8.64042	8.64
4	Chloromethane	50	3.048	3.052	(0.503)	354361	9.58191	9.58
5	Vinyl chloride	62	3.139	3.137	(0.518)	356424	8.58942	8.59
6	1,3-Butadiene	54	3.182	3.182	(0.525)	197323	9.65554	9.66
7	Bromomethane	94	3.339	3.336	(0.551)	290204	6.35757	6.36
8	Chloroethane	64	3.398	3.395	(0.560)	147360	7.11228	7.11(M)
9	Ethanol	31	3.424	3.424	(0.565)	167655	6.74595	6.74
10	Vinyl Bromide	106	3.535	3.532	(0.583)	355057	9.19548	9.20
11	Acrolein	56	3.630	3.627	(0.599)	79020	7.65444	7.65
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	1307044	8.58361	8.58
13	Acetone	43	3.672	3.673	(0.606)	693753	9.37445	9.37
14	Isopropyl Alcohol	45	3.698	3.702	(0.610)	459216	8.89394	8.89
15	1,1-Dichloroethene	61	3.930	3.931	(0.648)	803750	10.5538	10.6
16	Acrylonitrile	53	3.930	3.934	(0.648)	217206	8.52849	8.53
17	Tert Butyl Alcohol	59	3.934	3.941	(0.649)	582025	9.04529	9.04(M)
18	Freon 113	101	3.983	3.983	(0.657)	798742	8.23144	8.23
19	Methylene chloride	49	4.045	4.045	(0.667)	376516	8.35850	8.36
20	Allyl Chloride	76	4.058	4.058	(0.669)	129794	6.76255	6.76
21	Carbon Disulfide	76	4.179	4.179	(0.689)	868854	6.08920	6.09
22	trans-1,2-dichloroethene	96	4.375	4.379	(0.721)	426401	9.41150	9.41
23	Methyl Tert Butyl Ether	73	4.411	4.415	(0.727)	877260	9.20947	9.21(M)

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10612.D
Report Date: 16-Apr-2013 14:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	24 Vinyl Acetate	43	4.535	4.539	(0.748)	599745	7.46281	7.46
	25 1,1-Dichloroethane	63	4.538	4.542	(0.748)	808436	9.42108	9.42
$	26 Hexane-d14(S)	66	4.656	4.660	(0.768)	673086	9.71726	9.72
	27 Methyl Ethyl Ketone	72	4.731	4.738	(0.780)	196919	9.19093	9.19(M)
	28 n-Hexane	57	4.777	4.777	(0.788)	482278	7.45698	7.46(M)
	29 cis-1,2-Dichloroethene	96	4.937	4.941	(0.814)	414637	8.95924	8.96
	30 Ethyl Acetate	43	4.957	4.964	(0.817)	671826	11.0386	11.0
	31 Chloroform	83	5.078	5.085	(0.837)	1152464	9.53484	9.53
	32 Tetrahydrofuran	42	5.271	5.274	(0.869)	279953	9.42645	9.43(M)
	33 1,1,1-Trichloroethane	97	5.565	5.569	(0.918)	1090430	9.32977	9.33
	34 1,2-Dichloroethane	62	5.581	5.588	(0.920)	934072	10.3130	10.3
	35 Benzene	78	5.852	5.856	(0.965)	1245845	8.79410	8.79
	36 Carbon tetrachloride	117	5.875	5.876	(0.969)	984355	8.60123	8.60
	37 Cyclohexane	56	5.875	5.882	(0.969)	472402	9.16023	9.16
*	38 1,4-Difluorobenzene	114	6.065	6.069	(1.000)	1554915	10.0000	
	39 2,2,4-Trimethylpentane	57	6.245	6.245	(1.030)	1363179	8.64119	8.64
	40 Heptane	43	6.411	6.415	(1.057)	478001	9.29130	9.29
	41 1,2-Dichloropropane	63	6.480	6.487	(1.068)	382774	9.48393	9.48(M)
	42 Trichloroethene	130	6.506	6.510	(1.073)	413657	10.8787	10.9
	43 1,4-Dioxane	88	6.624	6.628	(1.092)	218641	7.70964	7.71(M)
	44 Bromodichloromethane	83	6.627	6.634	(1.093)	1214171	9.88951	9.89
	45 Methyl Isobutyl Ketone	43	7.206	7.213	(1.188)	623507	8.66468	8.66
	46 cis-1,3-Dichloropropene	75	7.261	7.265	(1.197)	772012	9.76207	9.76
	47 trans-1,3-Dichloropropene	75	7.755	7.762	(1.279)	682529	7.93645	7.94
$	48 Toluene-d8 (S)	98	7.830	7.837	(1.291)	1420151	9.97702	9.98
	49 Toluene	91	7.921	7.925	(1.306)	1441189	7.40289	7.40
	50 1,1,2-Trichloroethane	97	7.931	7.938	(1.308)	453536	8.72446	8.72
	51 Methyl Butyl Ketone	43	8.229	8.239	(0.850)	577437	8.23030	8.23
	52 Dibromochloromethane	129	8.546	8.550	(0.883)	741399	9.62088	9.62
	53 1,2-Dibromoethane	107	8.817	8.821	(0.911)	715456	9.93883	9.94
	54 Tetrachloroethene	166	8.905	8.909	(0.920)	654084	9.70707	9.71
*	55 Chlorobenzene - d5	117	9.680	9.684	(1.000)	879754	10.0000	
	56 Chlorobenzene	112	9.732	9.736	(1.005)	942926	9.67248	9.67
	57 Ethyl Benzene	91	10.030	10.040	(1.036)	1804307	8.83026	8.83
	58 m&p-Xylene	91	10.206	10.210	(1.054)	3087340	18.2918	18.3
	59 Bromoform	173	10.651	10.658	(1.100)	829915	9.97937	9.98
	60 Styrene	104	10.700	10.707	(1.105)	1081883	10.0487	10.0
	61 o-Xylene	91	10.778	10.785	(1.113)	1396686	7.90613	7.91
	62 1,1,2,2-Tetrachloroethane	83	11.092	11.099	(1.146)	980728	9.67413	9.67
	63 Isopropylbenzene	105	11.455	11.462	(1.183)	1861579	9.97967	9.98
	64 N-Propylbenzene	91	12.115	12.125	(1.252)	2241947	8.34182	8.34
	65 4-Ethyltoluene	105	12.318	12.328	(1.272)	1511164	7.50020	7.50(M)
	66 1,3,5-Trimethylbenzene	105	12.422	12.433	(1.283)	1524192	8.68742	8.69
	67 1,2,4-Trimethylbenzene	105	13.021	13.028	(1.345)	1409699	8.10311	8.10
	68 1,3-Dichlorobenzene	146	13.374	13.381	(1.382)	881168	8.56741	8.57
	69 Sec- Butylbenzene	105	13.400	13.410	(1.384)	2085474	8.73270	8.73
$	70 1,4-dichlorobenzene-d4 (S)	150	13.452	13.466	(1.390)	509401	10.3047	10.3(M)
	71 Benzyl Chloride	91	13.481	13.492	(1.393)	1219428	7.78008	7.78
	72 1,4-Dichlorobenzene	146	13.501	13.515	(1.395)	856564	8.69281	8.69
	73 1,2-Dichlorobenzene	146	14.044	14.051	(1.451)	772230	8.20082	8.20
	74 N-Butylbenzene	91	14.328	14.335	(1.480)	1687306	8.10736	8.11
	75 1,2,4-Trichlorobenzene	180	16.688	16.692	(1.724)	222854	7.85451	7.85
	76 Naphthalene	128	16.864	16.867	(1.742)	280844	7.35975	7.36
	77 Hexachlorobutadiene	225	17.237	17.247	(1.781)	216243	6.12285	6.12

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10612.D
Report Date: 16-Apr-2013 14:49

QC Flag Legend

M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10612.D
Report Date: 16-Apr-2013 14:49

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10612.D
Lab Smp Id: SSV
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Misc Info:

Calibration Date: 16-APR-2013
Calibration Time: 12:43
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1554915	8.55
55 Chlorobenzene - d	825122	495073	1155171	879754	6.62

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10612.D
Report Date: 16-Apr-2013 14:49

Pace Analytical Services, Inc.

RECOVERY REPORT

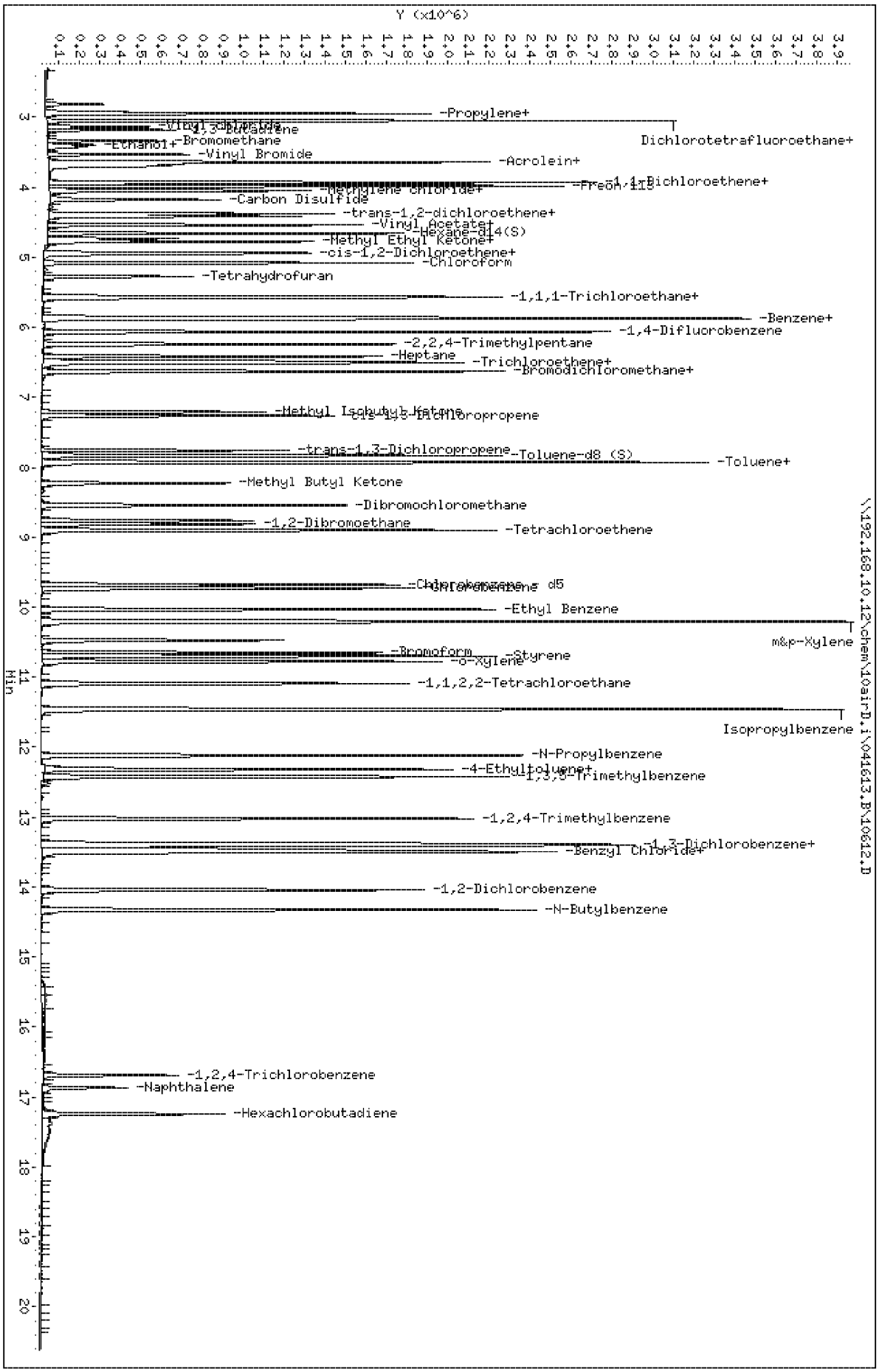
Client Name: Client SDG: 041613.B
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: SSV
Level: LOW Operator: CJR
Data Type: MS DATA SampleType: LCS
SpikeList File: SSV.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\192.168.10.12\chem\10airD.i\041613.B\TO15_106-13.m
Misc Info:

	SPIKE	COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
	1	Propylene	10.1	8.99	88.98	60-140
	2	Dichlorodifluorome	9.60	8.48	88.31	60-140
	3	Dichlorotetrafluor	9.70	8.64	89.08	60-140
	4	Chloromethane	10.8	9.58	88.72	60-140
	5	Vinyl chloride	9.60	8.59	89.47	60-140
	6	1,3-Butadiene	9.90	9.66	97.53	60-140
	7	Bromomethane	7.20	6.36	88.30	60-140
	8	Chloroethane	7.60	7.11	93.58	60-140
	9	Ethanol	7.90	6.74	85.39	60-140
	10	Vinyl Bromide	9.70	9.20	94.80	60-140
	12	Trichlorofluoromet	9.90	8.58	86.70	60-140
	13	Acetone	9.40	9.37	99.73	60-140
	14	Isopropyl Alcohol	10.2	8.89	87.20	60-140
	15	1,1-Dichloroethene	11.5	10.6	91.77	60-140
	18	Freon 113	9.30	8.23	88.51	60-140
	19	Methylene chloride	9.90	8.36	84.43	60-140
	21	Carbon Disulfide	10.0	6.09	60.89	60-140
	22	trans-1,2-dichloro	10.2	9.41	92.27	60-140
	23	Methyl Tert Butyl	9.60	9.21	95.93	60-140
	25	1,1-Dichloroethane	10.2	9.42	92.36	60-140
	24	Vinyl Acetate	10.3	7.46	72.45	60-140
	27	Methyl Ethyl Keton	10.2	9.19	90.11	60-140
	28	n-Hexane	10.1	7.46	73.83	60-140
	29	cis-1,2-Dichloroet	10.1	8.96	88.71	60-140
	30	Ethyl Acetate	10.7	11.0	103.16	60-140
	31	Chloroform	10.9	9.53	87.48	60-140
	32	Tetrahydrofuran	10.8	9.43	87.28	60-140
	33	1,1,1-Trichloroeth	9.90	9.33	94.24	60-140
	34	1,2-Dichloroethane	11.0	10.3	93.75	60-140
	35	Benzene	10.6	8.79	82.96	60-140
	36	Carbon tetrachlori	10.2	8.60	84.33	60-140
	37	Cyclohexane	10.5	9.16	87.24	60-140
*	38	1,4-Difluorobenzen	0.000	10.0	0.00	0-0
	39	2,2,4-Trimethylpen	10.0	8.64	86.41	60-140
	40	Heptane	11.3	9.29	82.22	60-140
	41	1,2-Dichloropropan	10.1	9.48	93.90	60-140
	42	Trichloroethene	9.50	10.9	114.51	60-140
	44	Bromodichlorometha	9.80	9.89	100.91	60-140
	43	1,4-Dioxane	9.70	7.71	79.48	60-140
	45	Methyl Isobutyl Ke	9.80	8.66	88.42	60-140

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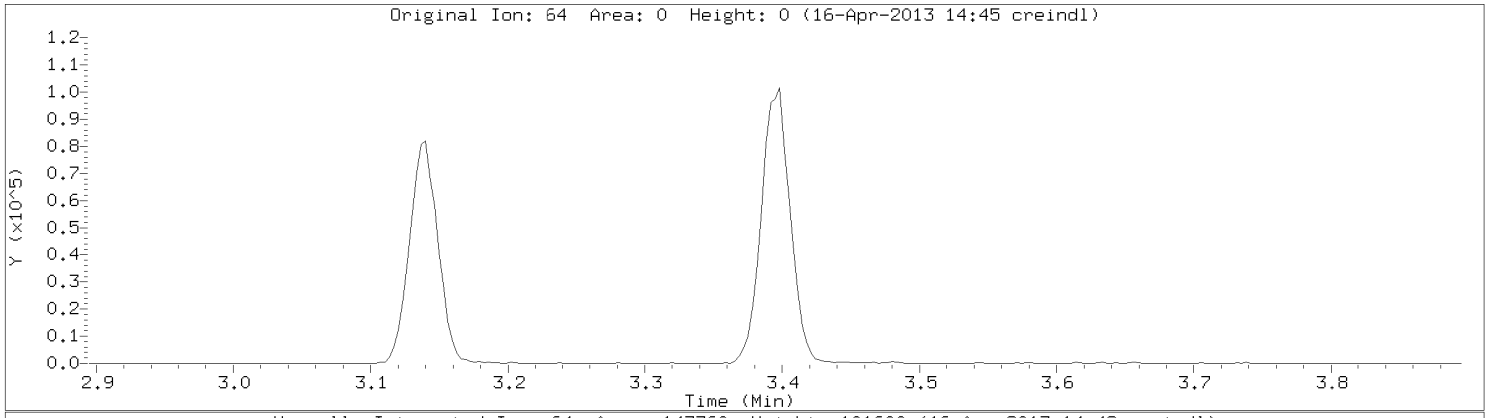
	SPIKE COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
	46 cis-1,3-Dichloropr	11.6	9.76	84.16	60-140
	47 trans-1,3-Dichloro	9.90	7.94	80.17	60-140
	49 Toluene	10.4	7.40	71.18	60-140
	50 1,1,2-Trichloroeth	9.60	8.72	90.88	60-140
	51 Methyl Butyl Keton	9.70	8.23	84.85	60-140
	52 Dibromochlorometha	9.30	9.62	103.45	60-140
	53 1,2-Dibromoethane	9.60	9.94	103.53	60-140
	54 Tetrachloroethene	9.60	9.71	101.12	60-140
*	55 Chlorobenzene - d5	0.000	10.0	0.00	0-0
	56 Chlorobenzene	10.3	9.67	93.91	60-140
	57 Ethyl Benzene	9.90	8.83	89.19	60-140
	58 m&p-Xylene	20.2	18.3	90.55	60-140
	59 Bromoform	9.80	9.98	101.83	60-140
	60 Styrene	11.6	10.0	86.63	60-140
	61 o-Xylene	9.30	7.91	85.01	60-140
	62 1,1,2,2-Tetrachlor	9.30	9.67	104.02	60-140
	63 Isopropylbenzene	9.30	9.98	107.31	60-140
	64 N-Propylbenzene	8.90	8.34	93.73	60-140
	65 4-Ethyltoluene	8.30	7.50	90.36	60-140
	66 1,3,5-Trimethylben	9.60	8.69	90.49	60-140
	67 1,2,4-Trimethylben	9.00	8.10	90.03	60-140
	69 Sec- Butylbenzene	9.40	8.73	92.90	60-140
	68 1,3-Dichlorobenzen	10.0	8.57	85.67	60-140
	71 Benzyl Chloride	9.80	7.78	79.39	60-140
	72 1,4-Dichlorobenzen	9.70	8.69	89.62	60-140
	73 1,2-Dichlorobenzen	9.70	8.20	84.54	60-140
	74 N-Butylbenzene	9.50	8.11	85.34	60-140
	75 1,2,4-Trichloroben	9.10	7.85	86.31	60-140
	76 Naphthalene	9.30	7.36	79.14	60-140
	77 Hexachlorobutadien	9.10	6.12	67.28	60-140

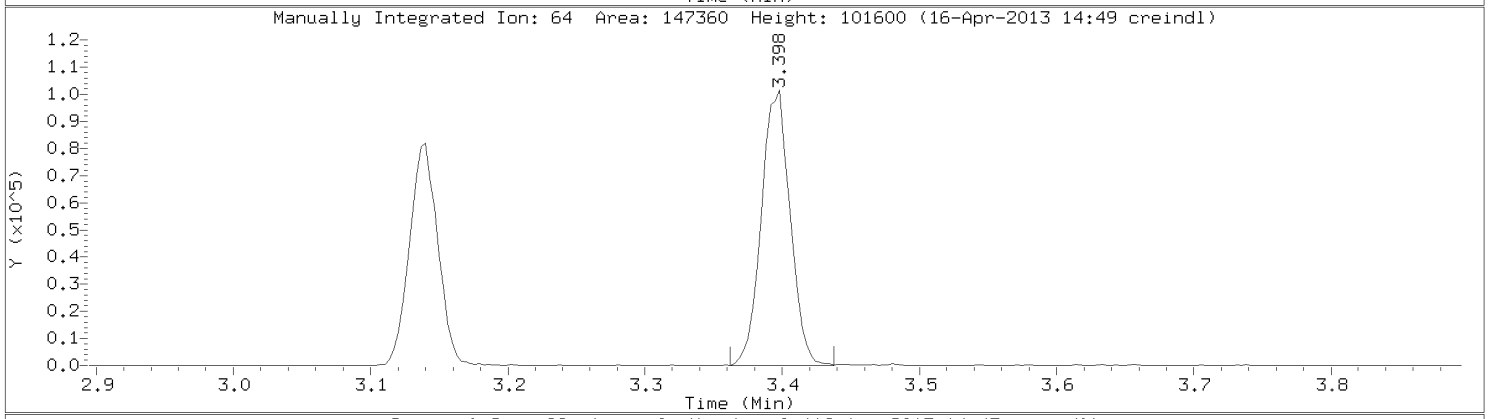
	SURROGATE COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
$	26 Hexane-d14(S)	10.0	9.72	97.17	70-130
$	48 Toluene-d8 (S)	10.0	9.98	99.77	70-130
$	70 1,4-dichlorobenzen	10.0	10.3	103.05	70-130

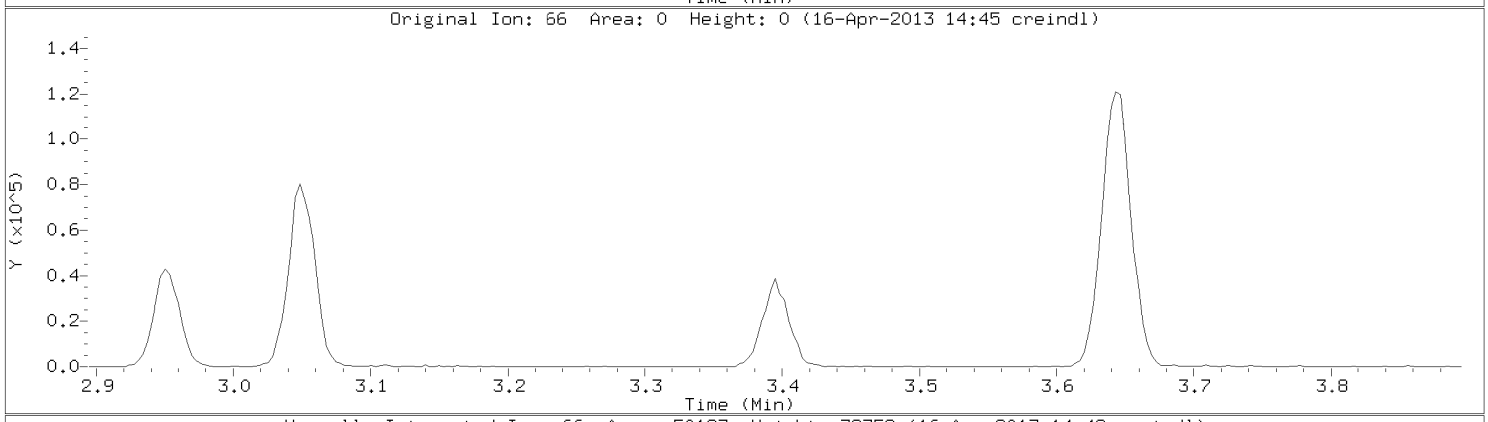

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Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^6)
Min
-Propylene+
-Vinyl Chloride
-1,3-Butadiene
-Bromomethane
-Ethanol+
-Vinyl Bromide
Dichlorotetrafluoroethane+
-Acrolein+
-1,1-Dichloroethene+
-Freon 113
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
cis-1,3-Dichloropropene
-trans-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene-d5
Chlorobenzene
-Ethyl Benzene
m&p-Xylene
-Bromoform
-Styrene
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene+
1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,3-Dichlorobenzene+
-Benzyl Chloride+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene
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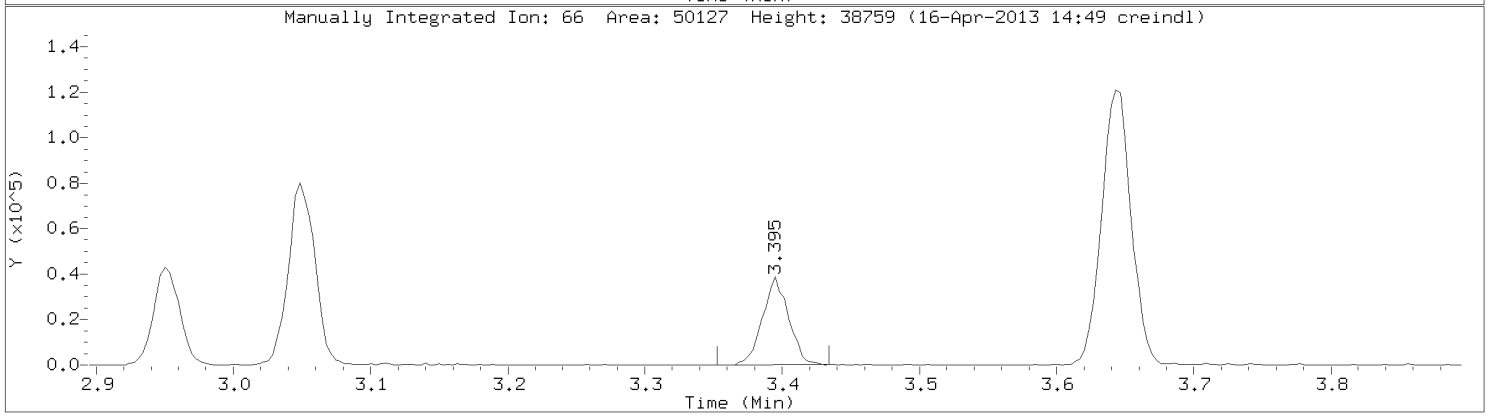
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Instrument: 10airD.i
Lab Sample ID: SSV

Compound: Chloroethane
CAS Number: 75-00-3



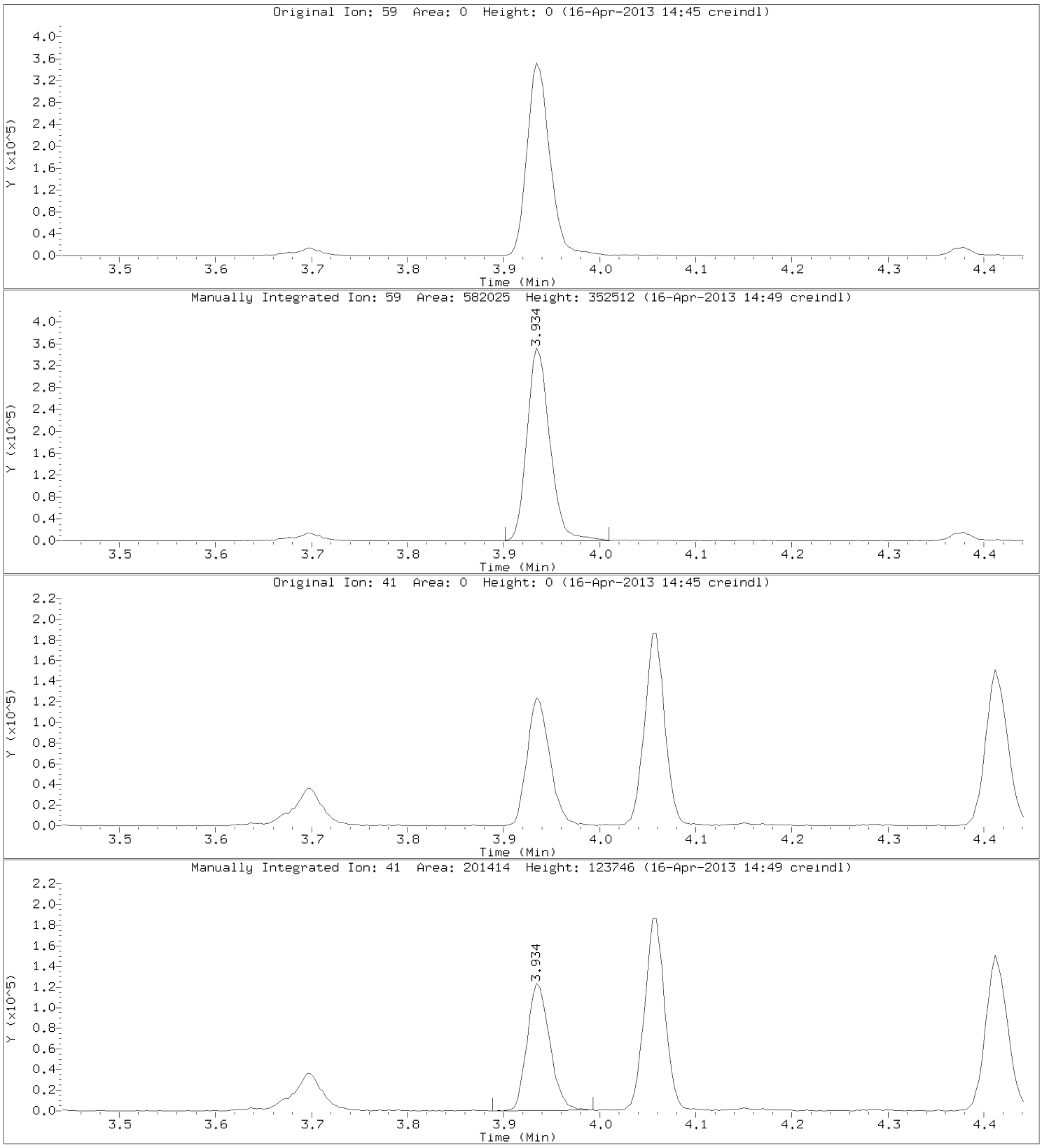






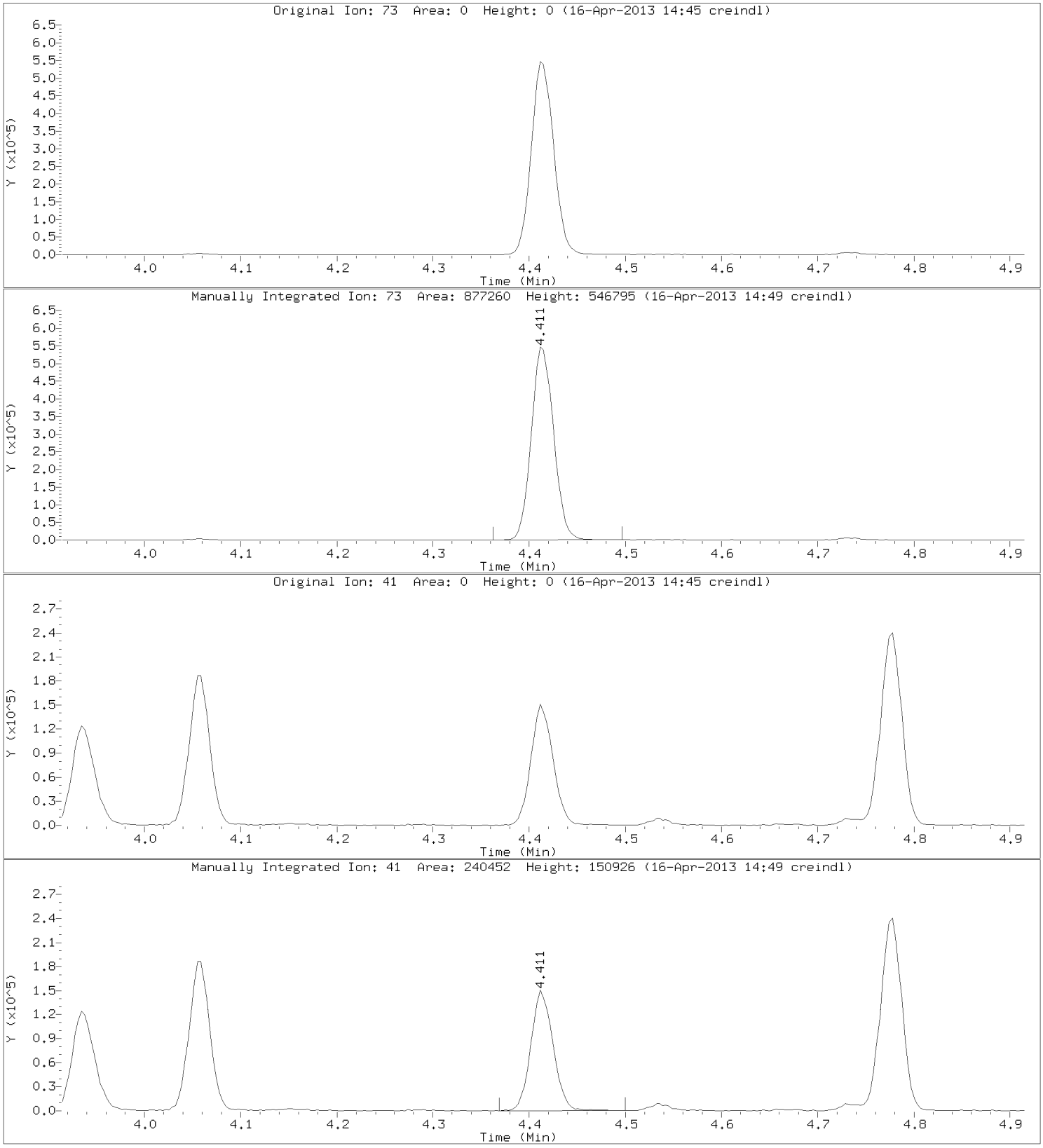
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Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



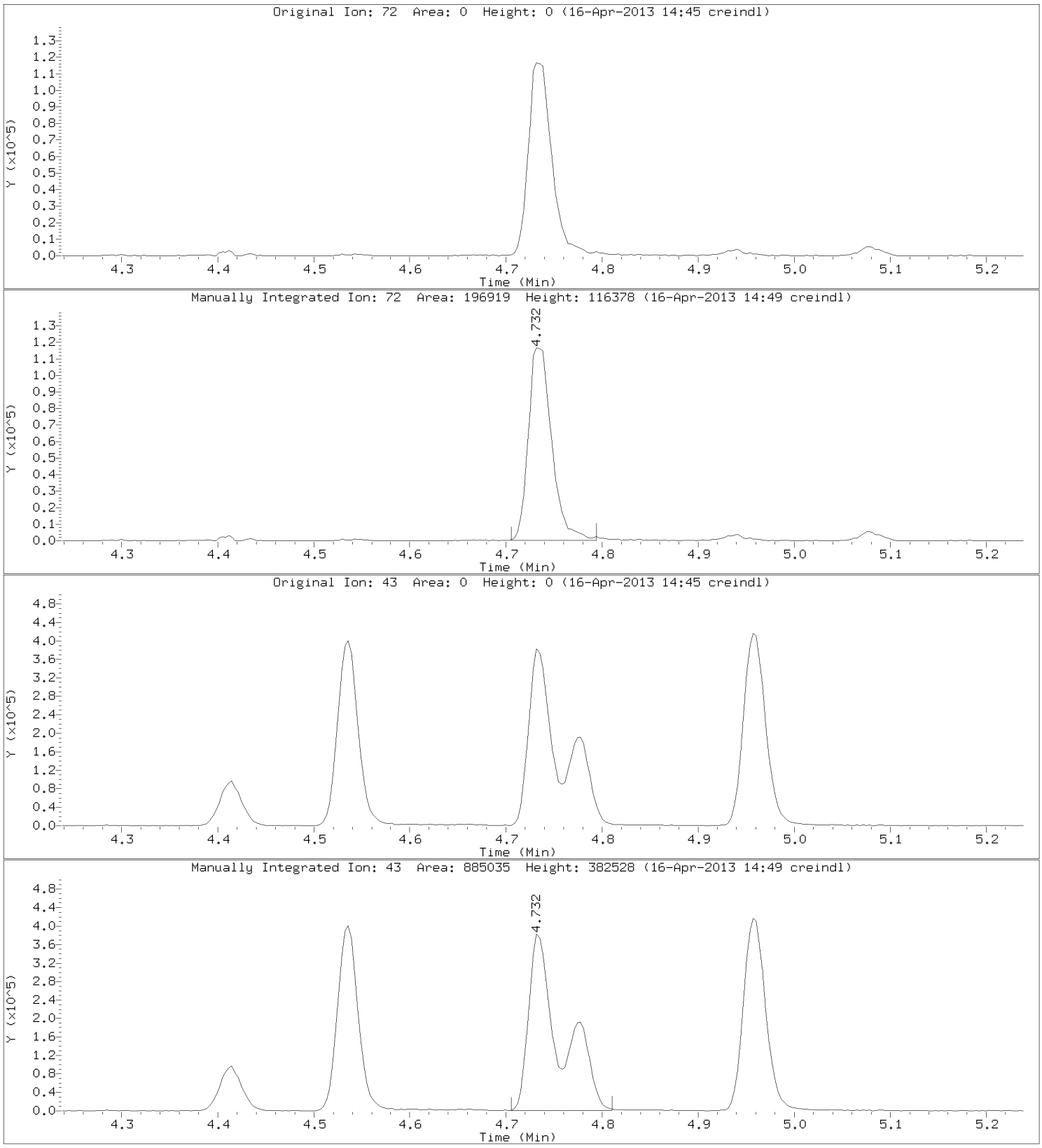
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Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



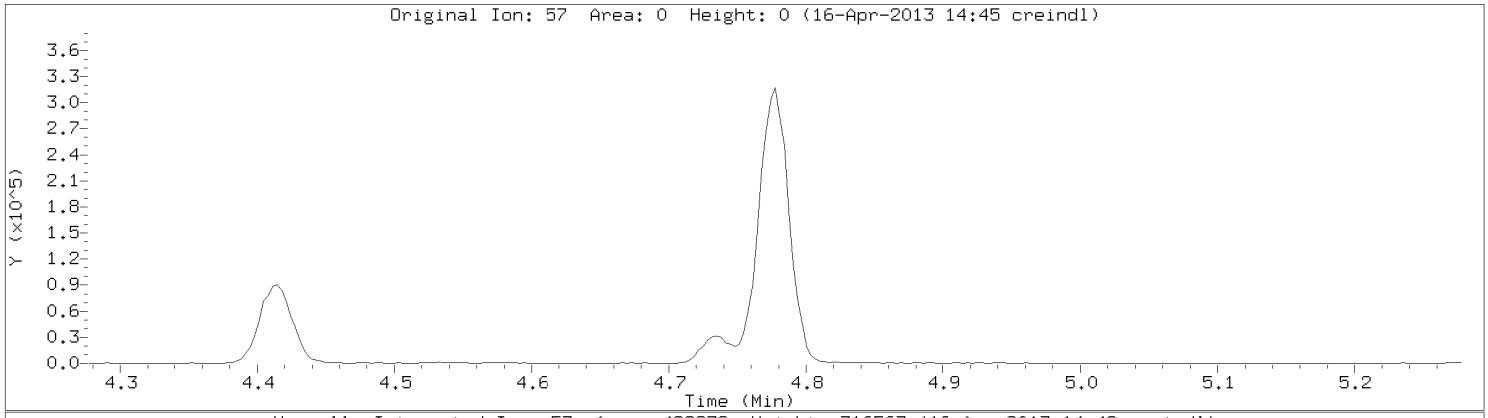
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Instrument: 10airD.i
Lab Sample ID: SSV

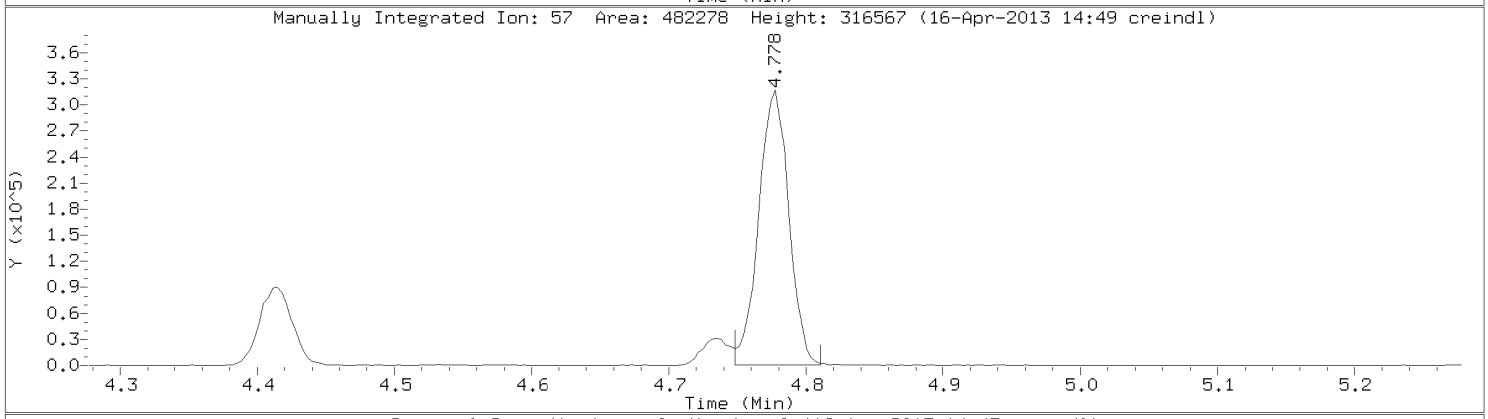
Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

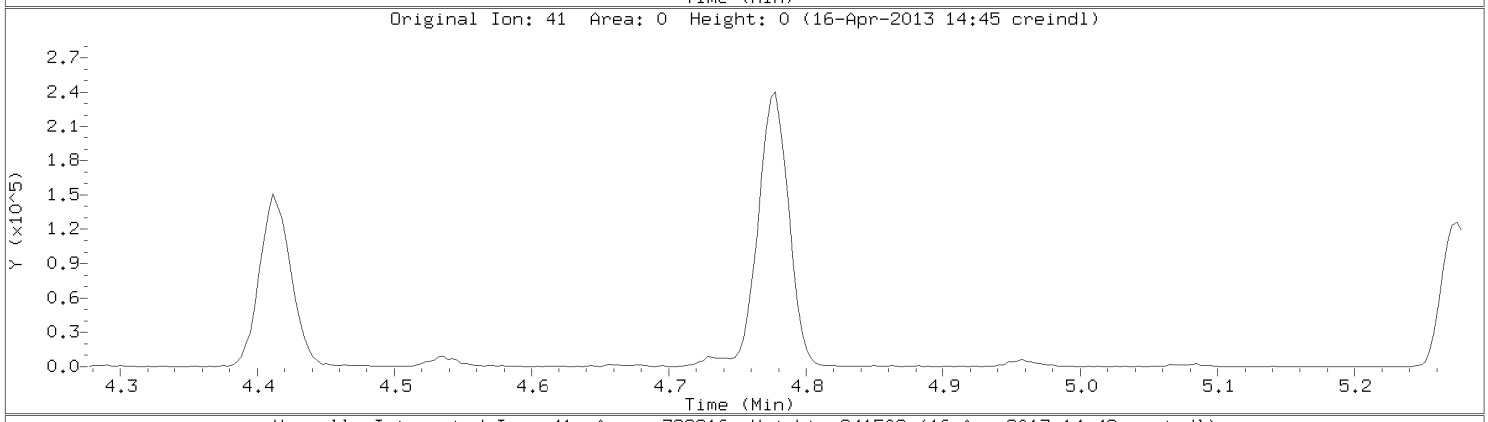


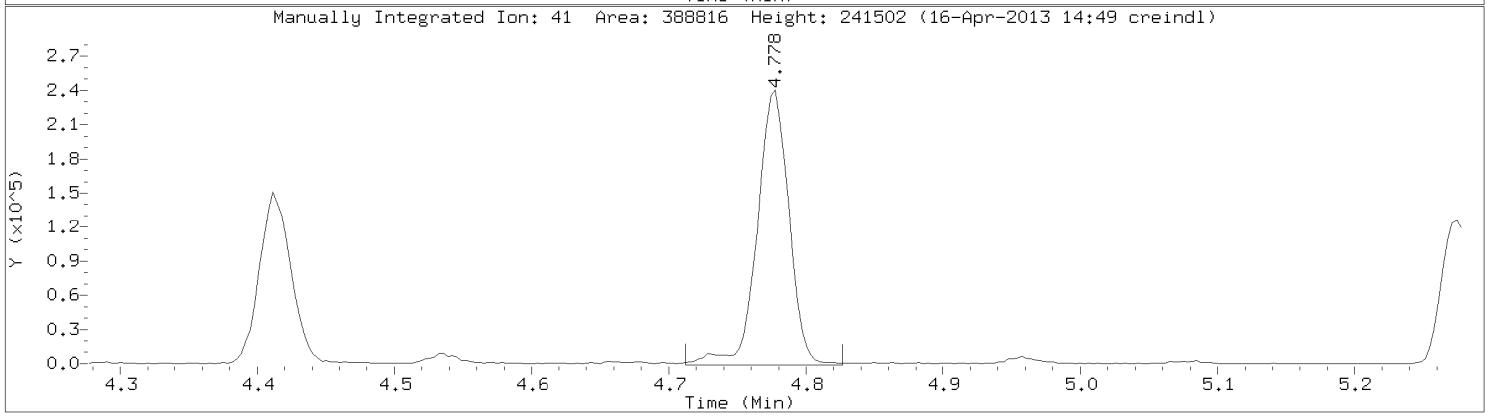
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Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: n-Hexane
CAS Number: 110-54-3

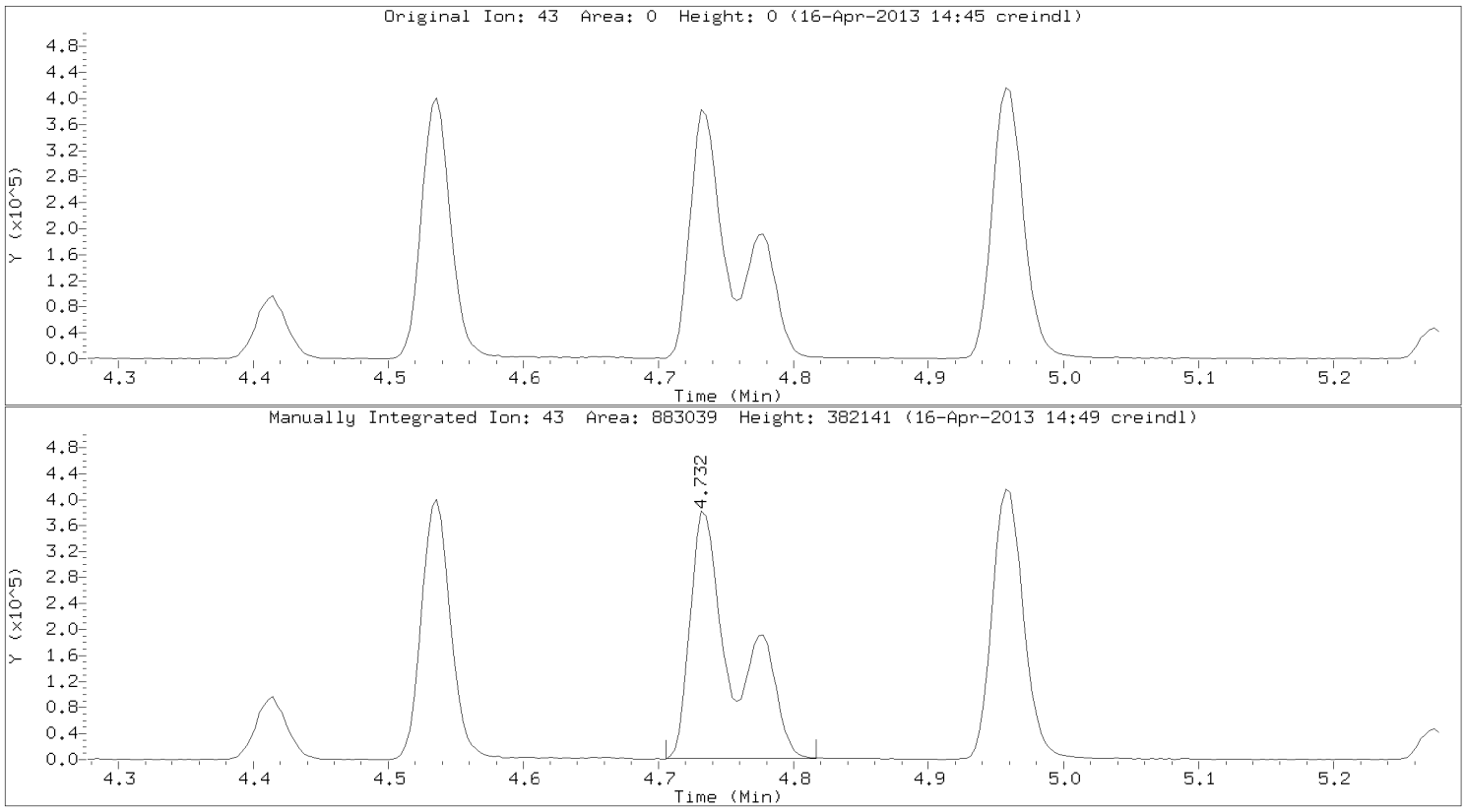






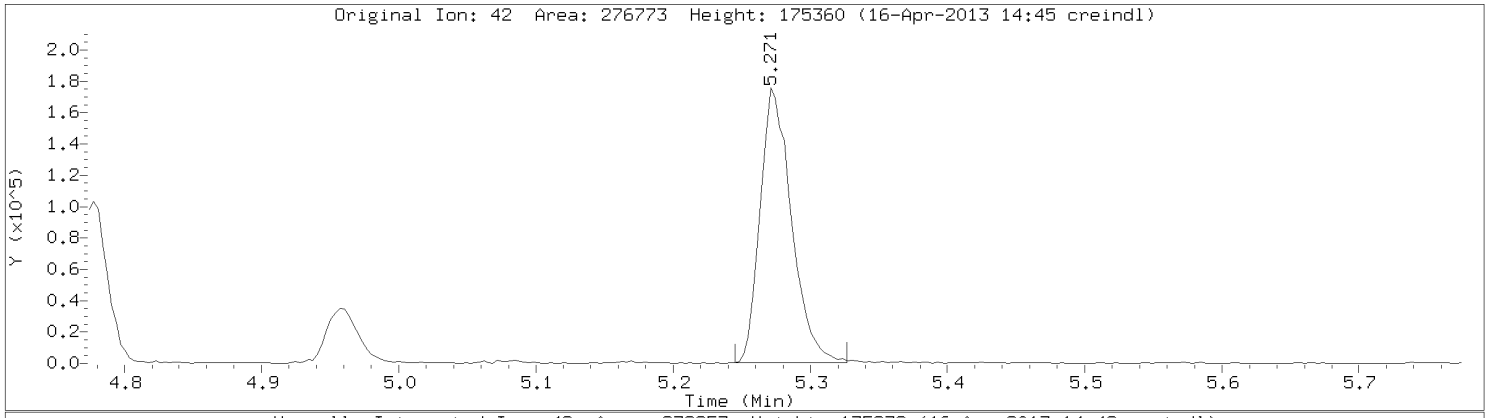


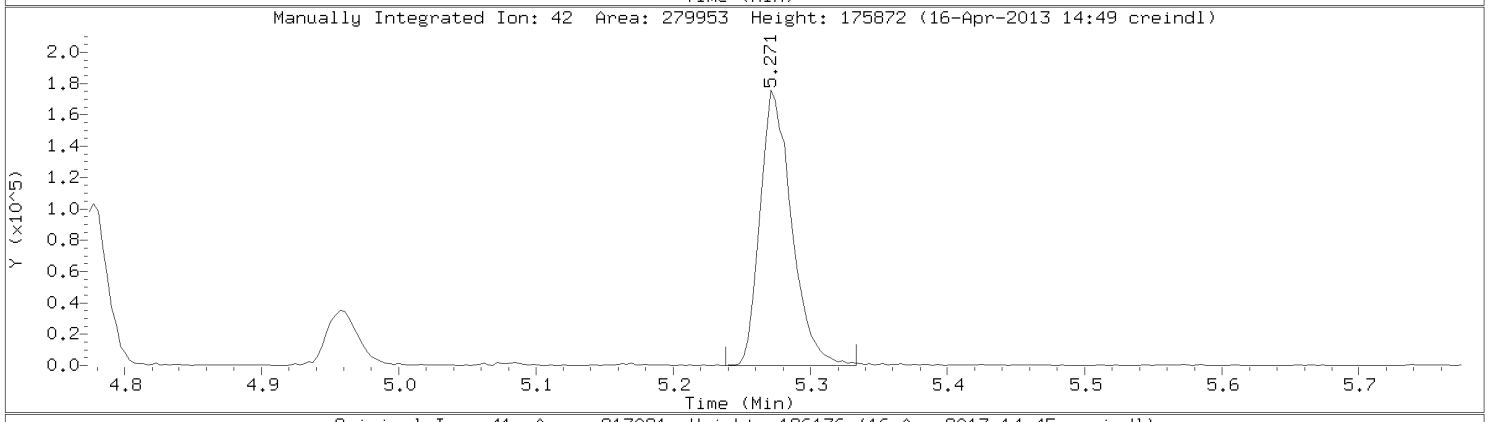
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Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

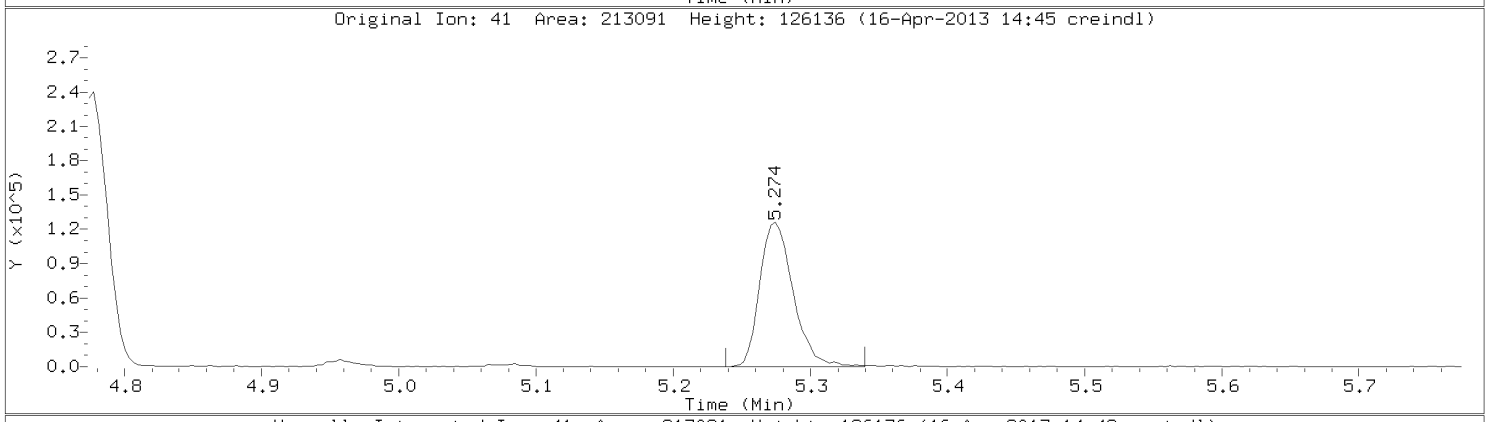


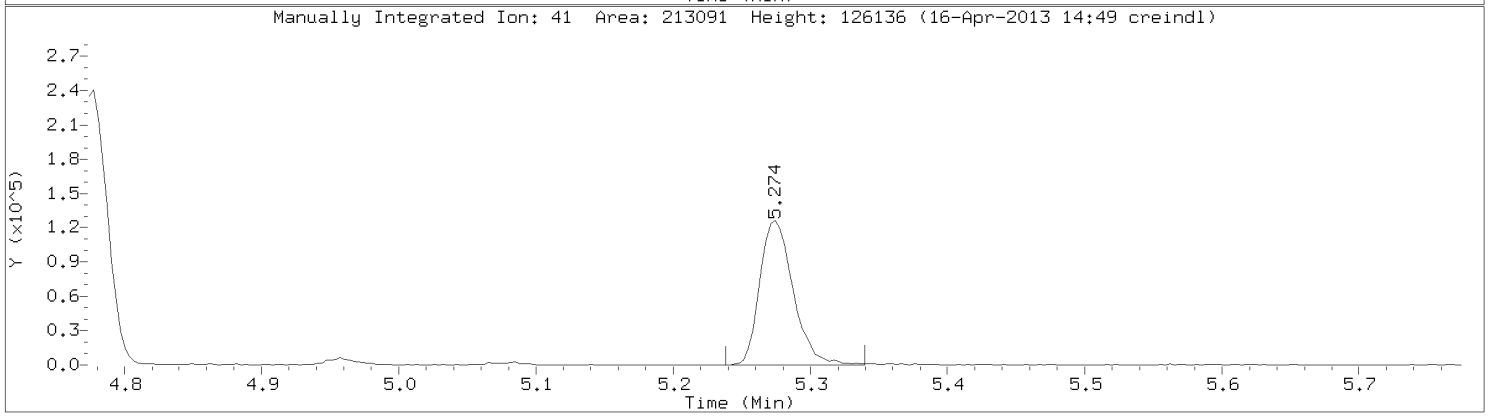
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Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: Tetrahydrofuran
CAS Number: 109-99-9

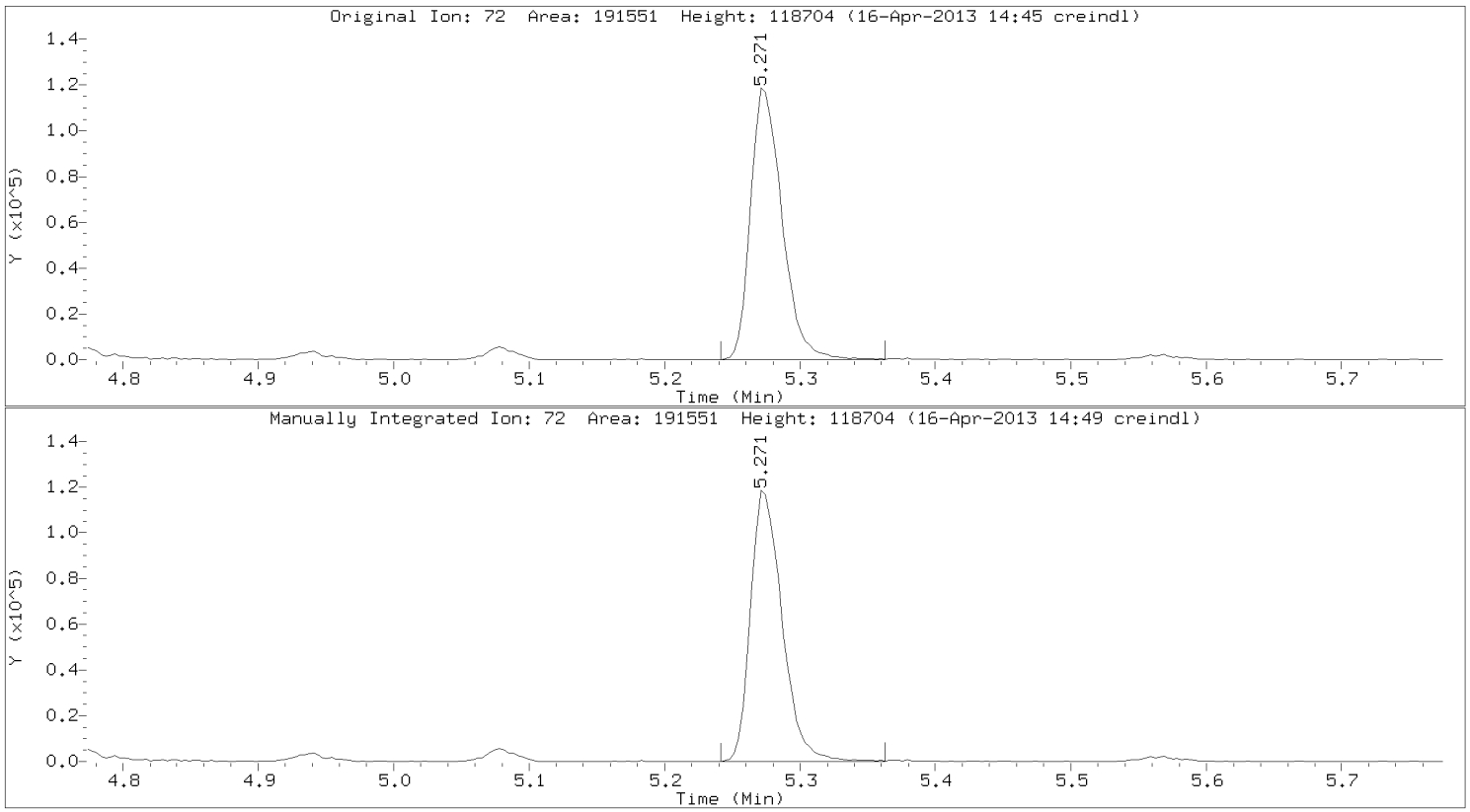






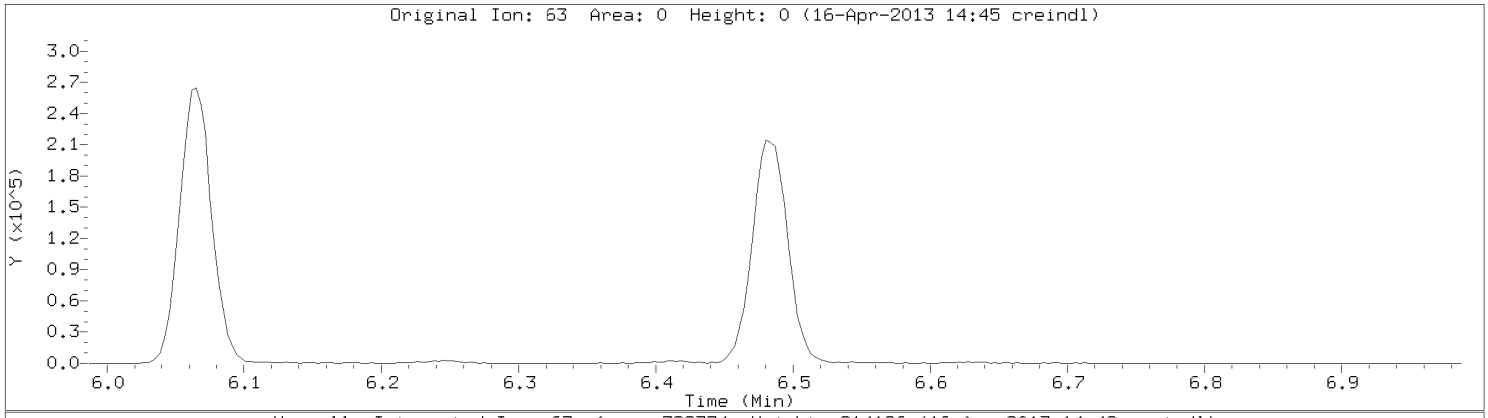


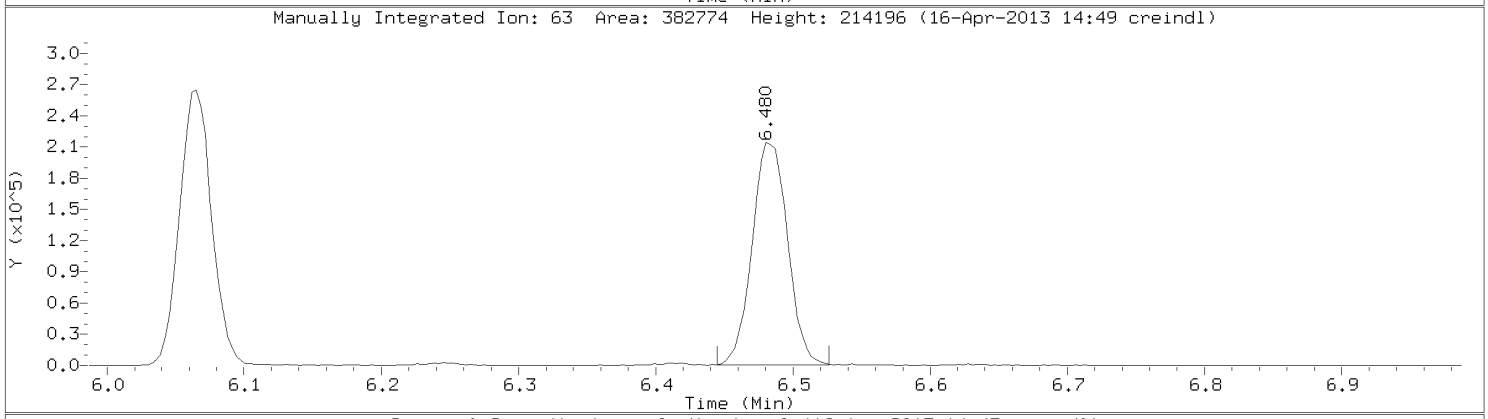
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Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

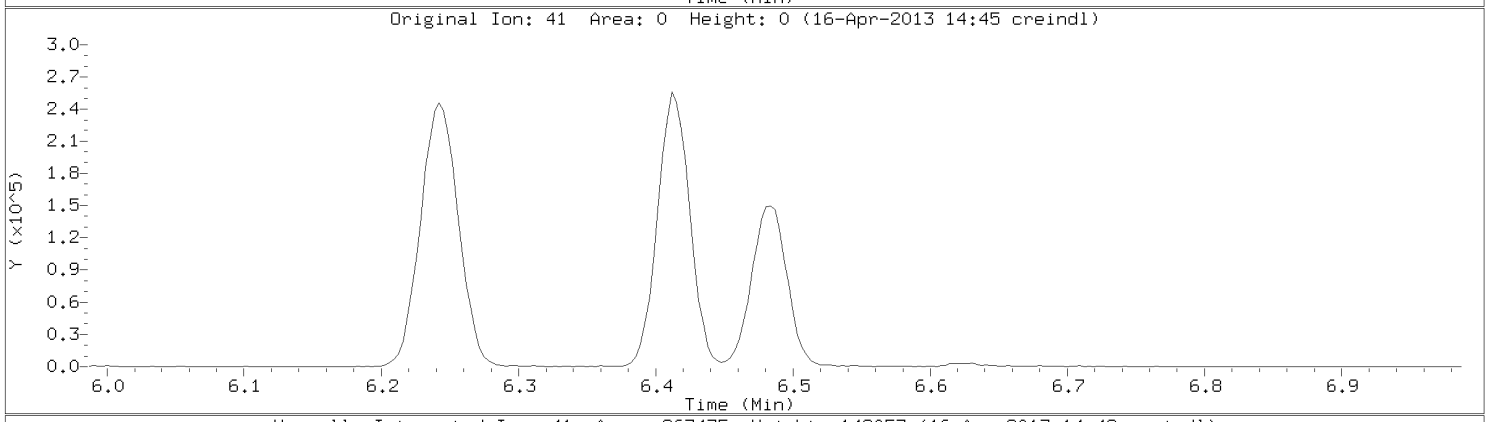


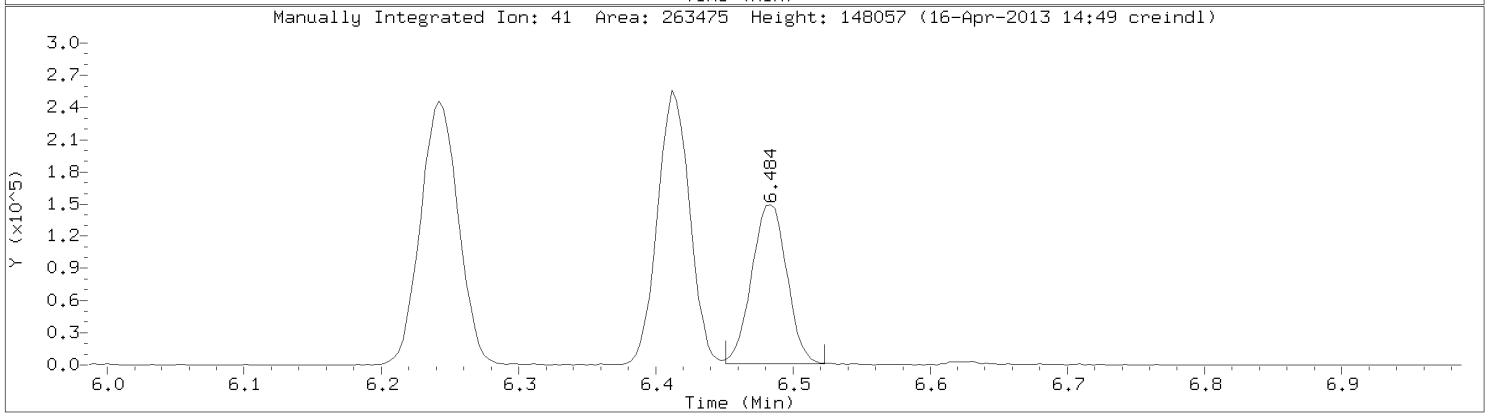
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Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

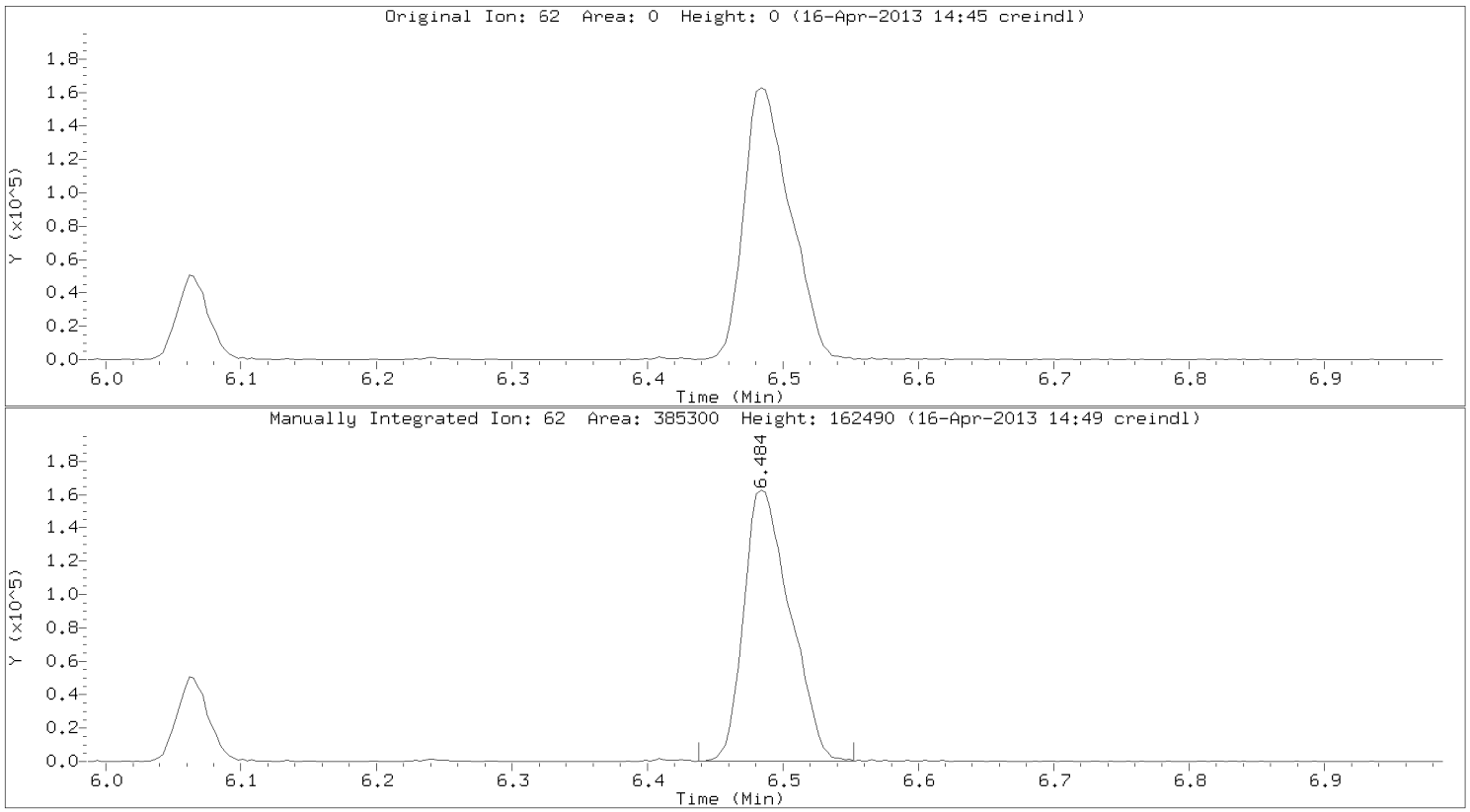






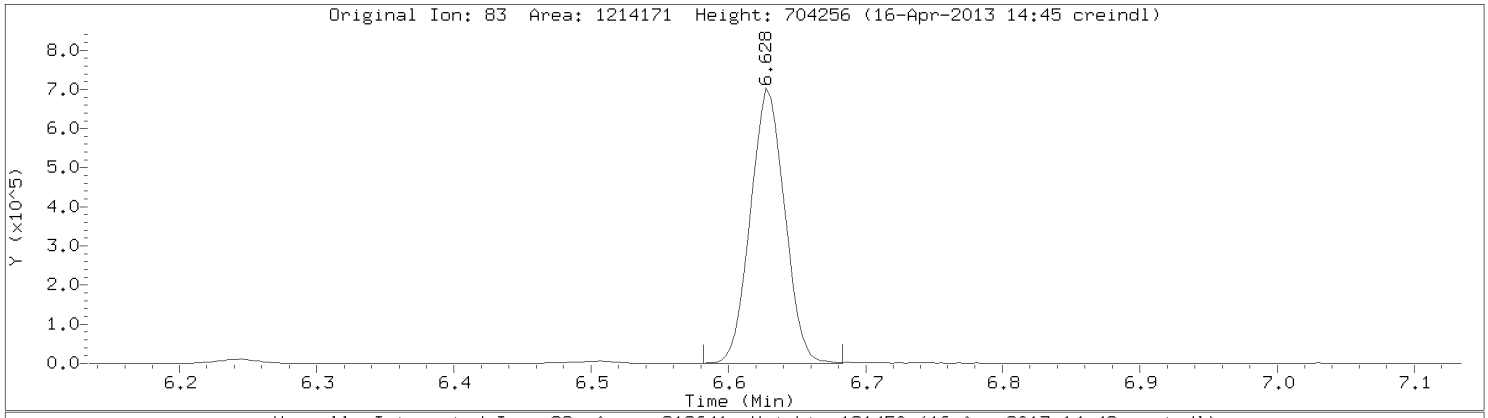


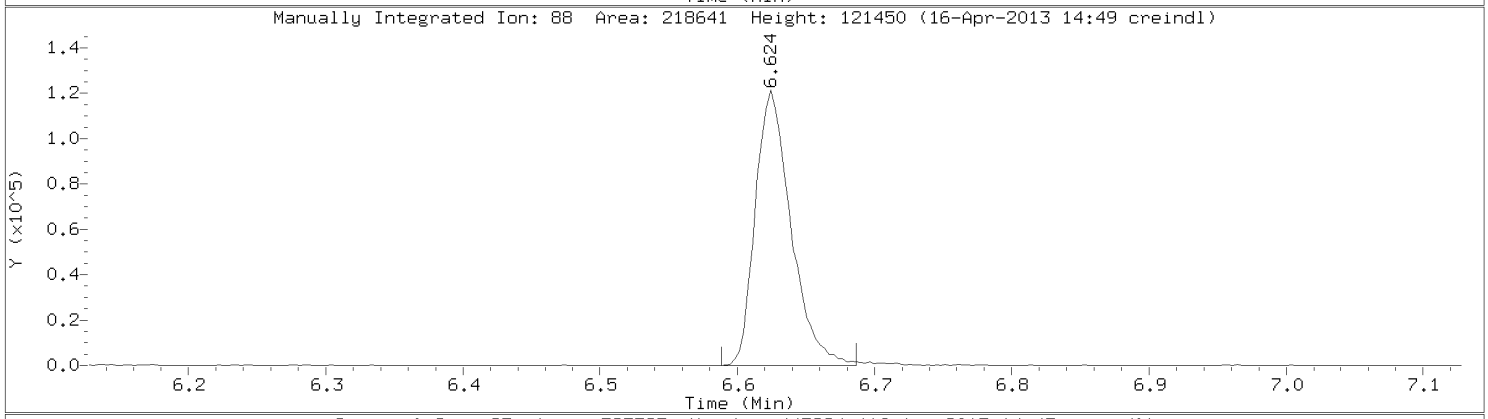
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Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

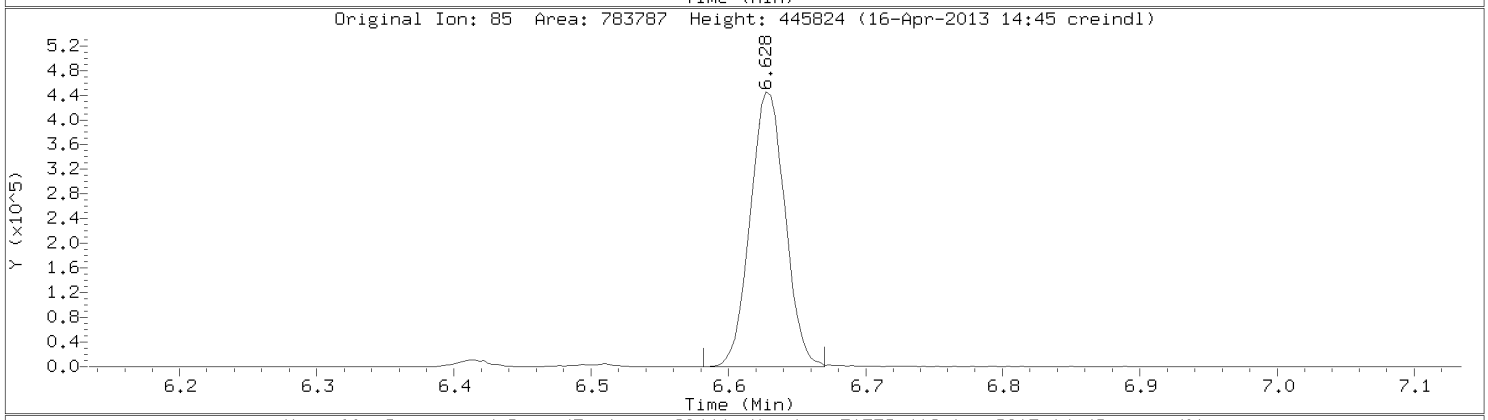


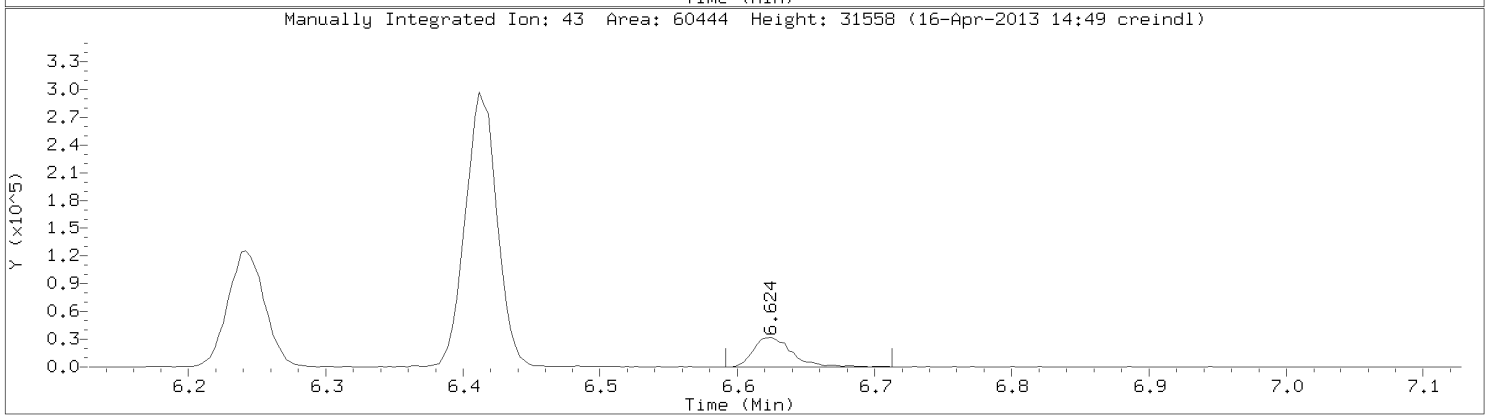
Data File: \\192.168.10.12\chem\10airD.i\041613.B/10612.D
Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: 1,4-Dioxane
CAS Number: 123-91-1



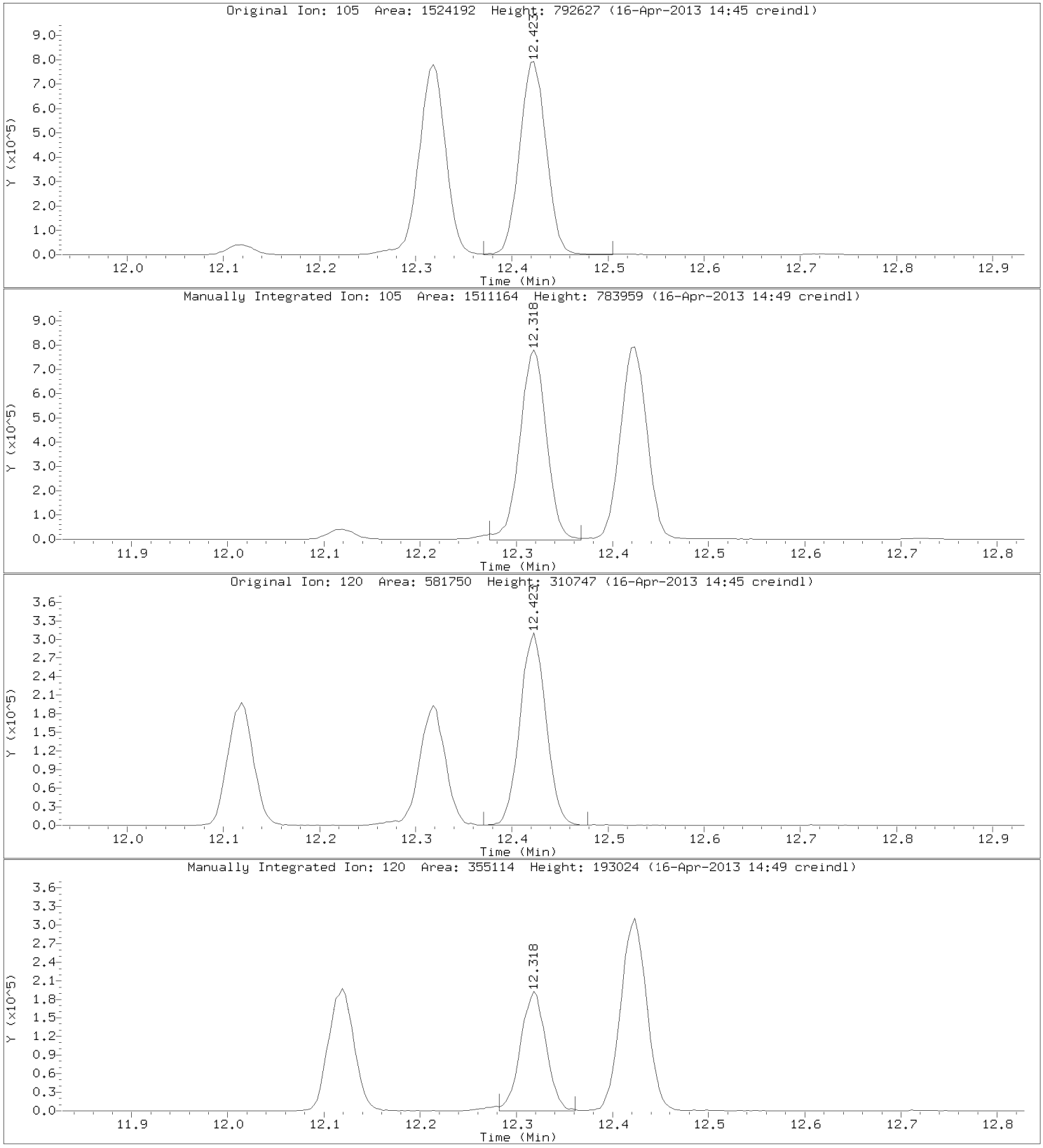




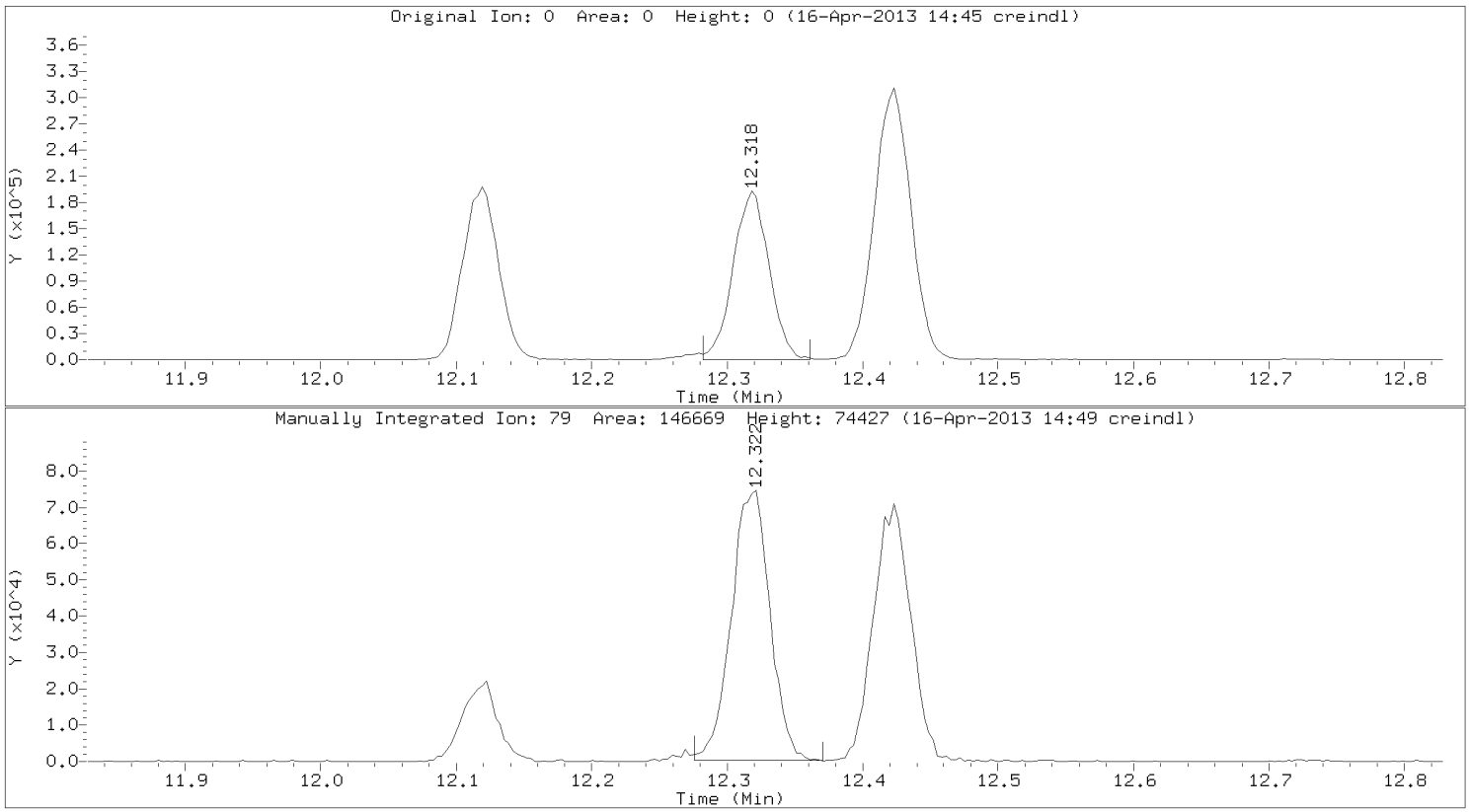


Data File: \\192.168.10.12\chem\10airD.i\041613.B/10612.D
Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

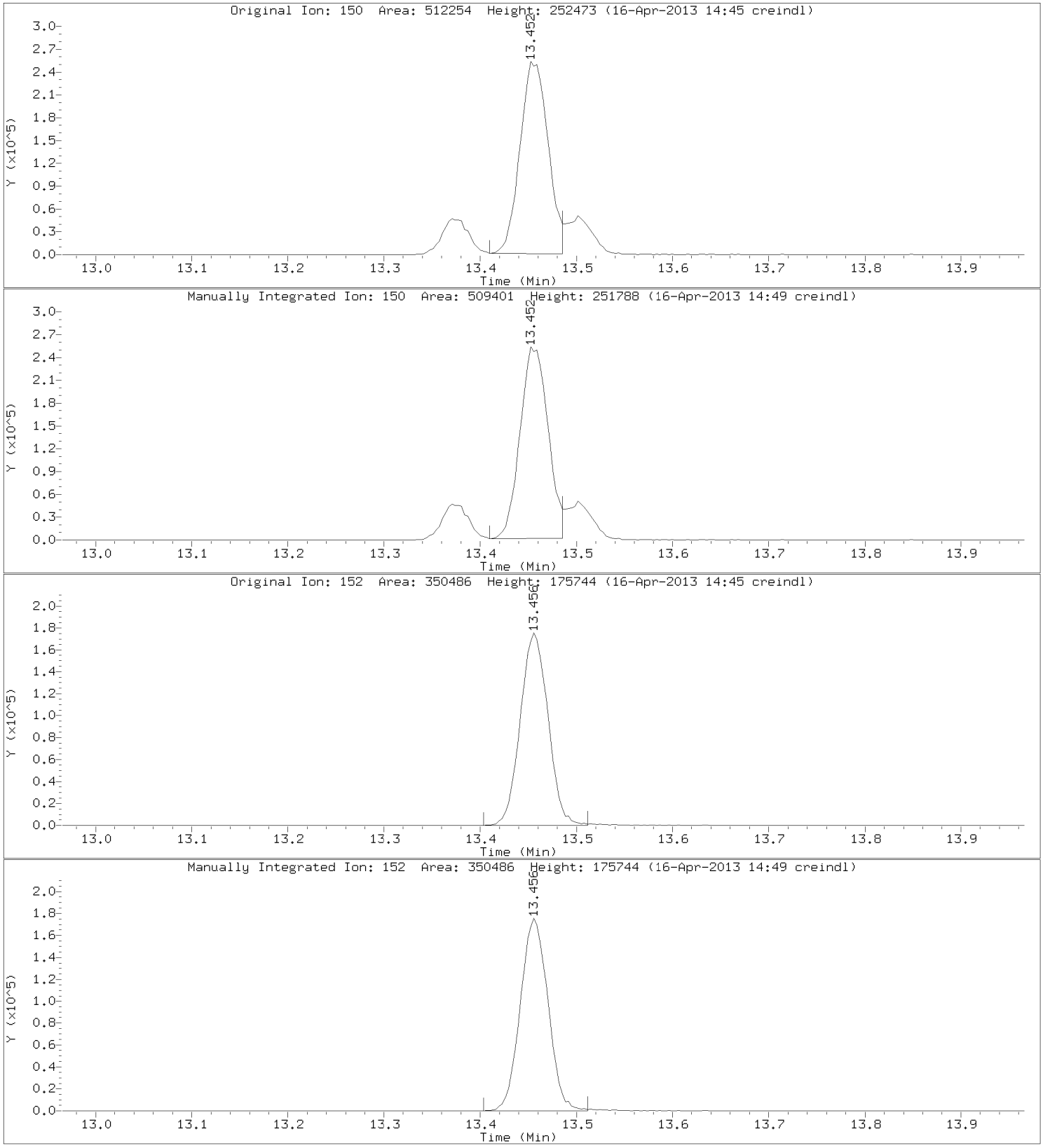


Data File: \\192.168.10.12\chem\10airD.i\041613.B/10612.D
Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV



Data File: \\192.168.10.12\chem\10airD.i\041613.B/10612.D
Injection Date: 16-APR-2013 14:15
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: 1,4-dichlorobenzene-d4 (S)
CAS Number:



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Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
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Calibration File Names:
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Level 2: \\192.168.10.12\chem\10airD.i\042113.b\11106.d
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Level 4: \\192.168.10.12\chem\10airD.i\042113.b\11108.d
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Level 6: \\192.168.10.12\chem\10airD.i\042113.b\11110.d
Level 7: \\192.168.10.12\chem\10airD.i\042113.b\11111.d

Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	30.0000 Level 7										
1 Propylene	2861	3543	5633	10642	146845	322169					
	417134						LINR	0.01527	0.12625		0.99655
2 Dichlorodifluoromethane	1.53412	1.15343	1.11530	1.44873	1.24135	1.05327					
	1.17861						AVRG		1.24640		14.33256
3 Dichlorotetrafluoroethane	1.13816	0.99445	0.84864	1.08975	0.93583	0.82314					
	1.02345						AVRG		0.97906		12.01016
4 Chloromethane	0.30772	0.22822	0.22616	0.27952	0.25964	0.23930					
	0.30387						AVRG		0.26349		13.03793

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Method file : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
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Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
5 Vinyl chloride	0.31991	0.25880	0.24583	0.27194	0.27010	0.26453					
	0.32885						AVRG		0.28000		11.29295
6 1,3-Butadiene	0.14659	0.11931	0.10969	0.13951	0.14495	0.14557					
	0.18050						AVRG		0.14088		16.08416
7 Bromomethane	0.48411	0.28512	0.29412	0.34363	0.29954	0.27983					
	0.36582						AVRG		0.33603		21.63548
8 Chloroethane	0.15571	0.15147	0.12306	0.15533	0.13925	0.12869					
	0.17299						AVRG		0.14664		11.83769
9 Ethanol	2231	3909	8220	14734	177754	418122					
	+++++						LINR	-0.00323	0.15019		0.99985
10 Vinyl Bromide	0.35131	0.25084	0.22950	0.25875	0.26558	0.24970					
	0.32619						AVRG		0.27598		16.26089
11 Acrolein	0.07955	0.07657	0.06599	0.07490	0.07792	0.07734					
	0.10304						AVRG		0.07933		14.30994

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Method file : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
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Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
12 Trichlorofluoromethane	1.59405	1.21819	1.08728	1.32921	1.07053	0.90589						
	1.08831						AVRG		1.18478		18.84586	
13 Acetone	9236	14358	30082	58303	578505	1292925						
	1646145						LINR	0.00310	0.49766		0.99727	
14 Isopropyl Alcohol	4225	6562	16275	31664	187068	684837						
	+++++						QUAD	-0.06551	7.78299	-7.28319	0.99522	
15 1,1-Dichloroethene	0.69339	0.52958	0.52960	0.60854	0.54192	0.49083						
	0.61556						AVRG		0.57278		12.14945	
16 Acrylonitrile	0.22052	0.12723	0.13984	0.19368	0.16321	0.16574						
	0.21024						AVRG		0.17435		20.14752	
17 Tert Butyl Alcohol	0.58191	0.45007	0.46779	0.52791	0.13047	+++++						
	+++++						AVRG		0.43163		40.82449	<-
18 Freon 113	1.02763	0.68893	0.70075	0.84430	0.69176	0.61124						
	0.75259						AVRG		0.75960		18.15695	

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Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	30.0000 Level 7										
19 Methylene chloride	0.54839	0.36482	0.31661	0.36919	0.30716	0.28589					
	0.36398						AVRG		0.36515		23.87384
20 Allyl Chloride	0.19634	0.13514	0.12680	0.15480	0.14514	0.13859					
	0.17925						AVRG		0.15372		16.46043
21 Carbon Disulfide	1.43961	1.07342	0.96097	1.12239	0.96847	0.88719					
	1.13536						AVRG		1.08392		16.75537
22 trans-1,2-dichloroethene	0.36298	0.30814	0.29986	0.36116	0.30528	0.28693					
	0.36583						AVRG		0.32717		10.54354
23 Methyl Tert Butyl Ether	0.74420	0.61959	0.59015	0.75037	0.67884	0.63013					
	0.83108						AVRG		0.69205		12.52674
24 Vinyl Acetate	0.58329	0.44193	0.40609	0.63767	0.61999	0.58038					
	0.73700						AVRG		0.57234		19.98281
25 1,1-Dichloroethane	0.77475	0.62751	0.58399	0.73907	0.63125	0.55661					
	0.70379						AVRG		0.65957		12.33060

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Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
27 Methyl Ethyl Ketone	0.14532	0.14021	0.14718	0.16360	0.15813	0.14757					
	0.18905						AVRG		0.15587		10.69365
28 n-Hexane	0.47383	0.37816	0.37659	0.45708	0.37488	0.34732					
	0.45752						AVRG		0.40934		12.55110
29 cis-1,2-Dichloroethene	3168	6453	14728	25704	405064	916668					
	+++++						LINR	0.00364	0.33306		0.99988
30 Ethyl Acetate	0.43468	0.31692	0.36884	0.41224	0.52007	0.50311					
	0.56916						AVRG		0.44643		19.99311
31 Chloroform	1.07833	0.79761	0.75429	0.92645	0.92071	0.84447					
	0.96757						AVRG		0.89849		12.21559
32 Tetrahydrofuran	818	2343	5130	11823	253938	573723					
	739313						LINR	0.03842	0.22585		0.99703
33 1,1,1-Trichloroethane	1.10188	0.81285	0.76380	0.88628	0.92106	0.82479					
	0.94493						AVRG		0.89366		12.50454

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Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 1,2-Dichloroethane	0.66200	0.64817	0.57445	0.70986	0.72071	0.65105					
	0.73108						AVRG		0.67105		8.14226
35 Benzene	0.77465	0.62769	0.65008	0.73562	0.96759	0.94899					
	1.11913						AVRG		0.83196		22.05076
36 Carbon tetrachloride	1.08088	0.96229	0.88797	1.00867	0.92522	0.76413					
	0.84164						AVRG		0.92440		11.42151
37 Cyclohexane	1522	3386	9655	21055	442872	1029794					
	+++++						LINR	0.01962	0.37571		0.99983
39 2,2,4-Trimethylpentane	6296	13588	35944	68684	1316779	3077759					
	+++++						LINR	0.01620	1.11946		0.99987
40 Heptane	1484	3326	10363	19812	416023	991214					
	+++++						LINR	0.02155	0.36039		0.99970
41 1,2-Dichloropropane	0.28035	0.22972	0.26311	0.26865	0.32507	0.32086					
	0.37649						AVRG		0.29489		16.61359

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Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
42 Trichloroethene	0.22806	0.24749	0.23488	0.25461	0.31269	0.31404					
	0.36445						AVRG		0.27946		18.35813
43 1,4-Dioxane	794	1362	4924	11951	208814	+++++					
	+++++						LINR	0.01598	0.17649		0.99969
44 Bromodichloromethane	0.97756	0.87310	0.86815	0.93330	1.02821	0.92884					
	1.05246						AVRG		0.95166		7.51585
45 Methyl Isobutyl Ketone	1539	3854	10399	25181	475107	+++++					
	+++++						LINR	0.01762	0.40212		0.99952
46 cis-1,3-Dichloropropene	2447	5997	18128	36160	687971	1601817					
	2093449						LINR	0.04352	0.63722		0.99581
47 trans-1,3-Dichloropropene	1783	5096	13103	26755	710141	1766751					
	2288470						LINR	0.05715	0.70000		0.99549
49 Toluene	0.74887	0.75469	0.81141	0.88911	1.21484	1.18696					
	1.37256						AVRG		0.99692		25.60503

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Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	30.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
50 1,1,2-Trichloroethane	0.32670	0.37617	0.35107	0.35859	0.42345	0.40992	0.47714	AVRG		0.38900		13.19257
51 Methyl Butyl Ketone	1449	3092	12045	25666	307822	+++++	+++++	LINR	-0.00006	0.48299		0.99934
52 Dibromochloromethane	1.08402	0.96137	0.94472	1.12793	1.30041	1.18412	1.38717	AVRG		1.14139		14.39986
53 1,2-Dibromoethane	0.88977	0.80220	0.93092	1.03167	1.15707	1.11625	1.28563	AVRG		1.03050		16.34906
54 Tetrachloroethene	0.95424	0.90351	0.81208	0.91489	1.07302	0.99944	1.19194	AVRG		0.97844		12.71607
56 Chlorobenzene	1.18518	1.25669	1.19390	1.19502	1.45916	1.41014	1.63783	AVRG		1.33399		13.01448
57 Ethyl Benzene	4898	12431	36955	83897	1871914	4218458	+++++	LINR	0.01262	2.80922		0.99861

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Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
58 m&p-Xylene	4171	9260	28843	73285	1512425	3427868					
	+++++						LINR	0.01223	2.27927		0.99884
59 Bromoform	0.99197	0.92285	1.00221	1.15808	1.46651	1.37265					
	1.60341						AVRG		1.21681		21.80952
60 Styrene	2054	4178	12751	34195	935573	2209608					
	+++++						LINR	0.02299	1.46557		0.99949
61 o-Xylene	4439	9808	38715	87677	1630028	3635056					
	+++++						LINR	0.00725	2.41891		0.99839
62 1,1,2,2-Tetrachloroethane	1.28220	1.12036	1.22132	1.36896	1.42109	1.52687					
	1.54416						AVRG		1.35500		11.59534
63 Isopropylbenzene	2.09630	1.94782	2.16712	2.38744	3.03777	2.82683					
	3.22835						AVRG		2.52738		19.86638
64 N-Propylbenzene	6359	12986	42635	110393	2428568	5567357					
	6975671						LINR	0.03758	3.98220		0.99669

Report Date : 22-Apr-2013 08:16

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2013 10:16
End Cal Date : 21-APR-2013 13:15
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Last Edit : 22-Apr-2013 07:41 creindl

Compound	0.1000000 Level 1 / 30.0000 Level 7	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
65 4-Ethyltoluene	3689 / 5216310	8292	33238	82252	1768870	4166691	LINR	0.04105	2.97786		0.99665
66 1,3,5-Trimethylbenzene	4712 / 4332224	8103	36344	85455	1546895	3669078	LINR	0.02351	2.49812		0.99932
67 1,2,4-Trimethylbenzene	4060 / 3897286	6754	23968	67642	1416232	3557435	LINR	0.02027	2.29442		0.99964
68 1,3-Dichlorobenzene	3724 / 2338211	7077	23453	46421	771885	2119741	LINR	0.02694	1.37007		0.99870
69 Sec- Butylbenzene	5689 / 5452870	10548	51174	114306	2024827	4963419	LINR	0.01208	3.20099		0.99977
71 Benzyl Chloride	6656 / +++++	10528	31746	65950	849445	+++++	LINR	0.00053	1.33228		0.99972
72 1,4-Dichlorobenzene	5617 / 2241289	10103	28694	53821	759422	2078681	LINR	0.01543	1.31792		0.99848

Report Date : 22-Apr-2013 08:16

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2013 10:16
End Cal Date : 21-APR-2013 13:15
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Last Edit : 22-Apr-2013 07:41 creindl

Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	30.0000 Level 7											
73 1,2-Dichlorobenzene	3592	5330	20040	39189	520308	#####						
	#####						LINR	0.00197	0.81712		0.99980	
74 N-Butylbenzene	4206	6048	33369	83846	1045215	#####						
	#####						LINR	0.00475	1.64770		0.99931	
75 1,2,4-Trichlorobenzene	0.42312	0.15218	0.36493	0.49299	0.09664	#####						
	#####						AVRG		0.30597		56.52435	<-
76 Naphthalene	0.56222	0.11671	0.35672	0.50943	0.10485	#####						
	#####						AVRG		0.32999		64.82181	<-
77 Hexachlorobutadiene	1.13937	0.33894	0.54053	0.63462	0.20895	#####						
	#####						AVRG		0.57248		62.55213	<-
$ 26 Hexane-d14(S)	0.53985	0.43552	0.44519	0.55068	0.43663	0.42535						
	0.50933						AVRG		0.47751		11.29496	
$ 48 Toluene-d8 (S)	0.85587	0.86288	0.88577	0.90694	0.94042	0.94890						
	0.92208						AVRG		0.90327		4.04585	

Report Date : 22-Apr-2013 08:16

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2013 10:16
End Cal Date : 21-APR-2013 13:15
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Last Edit : 22-Apr-2013 07:41 creindl

Compound	0.1000000 Level 1	0.2000000 Level 2	0.5000000 Level 3	1.0000 Level 4	10.0000 Level 5	20.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	30.0000 Level 7										
$ 70 1,4-dichlorobenzene-d4 (S)	0.40994	0.34769	0.44566	0.49599	0.40350	0.58979					
	0.39774						AVRG		0.44147		18.05773

Report Date : 22-Apr-2013 08:16

Pace Analytical Services, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 21-APR-2013 10:16
End Cal Date : 21-APR-2013 13:15
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Last Edit : 22-Apr-2013 07:41 creindl

Average %RSD Results.
Calculated Average %RSD = 14.73066
Maximun Average %RSD = 40.00000
* Passed Average %RSD Test.

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11105.d
Report Date: 22-Apr-2013 07:49

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11105.d
Lab Smp Id: ICAL1
Inj Date : 21-APR-2013 10:16
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 07:41 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 10:16 Cal File: 11105.d
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	2861	0.10000	0.439(M)
2	Dichlorodifluoromethane	85	2.956	2.956	(0.488)	14463	0.10000	0.123(M)
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	10730	0.10000	0.116(M)
4	Chloromethane	50	3.058	3.058	(0.504)	2901	0.10000	0.120(M)
5	Vinyl chloride	62	3.143	3.143	(0.519)	3016	0.10000	0.114(M)
6	1,3-Butadiene	54	3.182	3.182	(0.525)	1382	0.10000	0.105(M)
7	Bromomethane	94	3.339	3.339	(0.551)	4564	0.10000	0.144(M)
8	Chloroethane	64	3.391	3.391	(0.559)	1468	0.10000	0.100(M)
9	Ethanol	31	3.447	3.447	(0.569)	2231	0.10000	(M)
10	Vinyl Bromide	106	3.532	3.532	(0.583)	3312	0.10000	0.137(M)
11	Acrolein	56	3.653	3.653	(0.603)	750	0.10000	0.112(M)
12	Trichlorofluoromethane	101	3.646	3.646	(0.602)	15028	0.10000	0.134
13	Acetone	43	3.705	3.705	(0.611)	9236	0.10000	0.248(M)
14	Isopropyl Alcohol	45	3.725	3.725	(0.614)	4225	0.10000	4.85(M)
15	1,1-Dichloroethene	61	3.934	3.934	(0.649)	6537	0.10000	0.121(M)
16	Acrylonitrile	53	3.957	3.957	(0.653)	2079	0.10000	0.149(M)
17	Tert Butyl Alcohol	59	3.960	3.960	(0.653)	5486	0.10000	(M)
18	Freon 113	101	3.983	3.983	(0.657)	9688	0.10000	0.135(M)
19	Methylene chloride	49	4.048	4.048	(0.668)	5170	0.10000	0.164(M)
20	Allyl Chloride	76	4.055	4.055	(0.669)	1851	0.10000	0.129(M)
21	Carbon Disulfide	76	4.179	4.179	(0.689)	13572	0.10000	0.435(MH)
22	trans-1,2-dichloroethene	96	4.382	4.382	(0.723)	3422	0.10000	0.111(M)
23	Methyl Tert Butyl Ether	73	4.427	4.427	(0.730)	7016	0.10000	0.100(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11105.d
Report Date: 22-Apr-2013 07:49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	24 Vinyl Acetate	43	4.538	4.538	(0.749)	5499	0.10000	0.0996(M)
	25 1,1-Dichloroethane	63	4.529	4.529	(0.747)	7304	0.10000	0.118(M)
$	26 Hexane-d14(S)	66	4.656	4.656	(0.768)	508945	10.0000	11.3
	27 Methyl Ethyl Ketone	72	4.757	4.757	(0.785)	1370	0.10000	0.101(M)
	28 n-Hexane	57	4.780	4.780	(0.789)	4467	0.10000	0.112
	29 cis-1,2-Dichloroethene	96	4.937	4.937	(0.815)	3168	0.10000	0.491(M)
	30 Ethyl Acetate	43	4.976	4.976	(0.821)	4098	0.10000	0.0858(M)
	31 Chloroform	83	5.075	5.075	(0.837)	10166	0.10000	0.120(M)
	32 Tetrahydrofuran	42	5.303	5.303	(0.875)	818	0.10000	0.447(M)
	33 1,1,1-Trichloroethane	97	5.562	5.562	(0.918)	10388	0.10000	0.123(M)
	34 1,2-Dichloroethane	62	5.578	5.578	(0.920)	6241	0.10000	0.100(M)
	35 Benzene	78	5.846	5.846	(0.964)	7303	0.10000	0.0931
	36 Carbon tetrachloride	117	5.866	5.866	(0.968)	10190	0.10000	0.117
	37 Cyclohexane	56	5.882	5.882	(0.970)	1522	0.10000	0.890(M)
*	38 1,4-Difluorobenzene	114	6.062	6.062	(1.000)	942753	10.0000	
	39 2,2,4-Trimethylpentane	57	6.245	6.245	(1.030)	6296	0.10000	0.644(M)
	40 Heptane	43	6.405	6.405	(1.057)	1484	0.10000	0.710(M)
	41 1,2-Dichloropropane	63	6.480	6.480	(1.069)	2643	0.10000	0.110(M)
	42 Trichloroethene	130	6.500	6.500	(1.072)	2150	0.10000	0.0816(M)
	43 1,4-Dioxane	88	6.692	6.692	(1.104)	794	0.10000	(M)
	44 Bromodichloromethane	83	6.621	6.621	(1.092)	9216	0.10000	0.103(M)
	45 Methyl Isobutyl Ketone	43	7.219	7.219	(1.191)	1539	0.10000	2.96(M)
	46 cis-1,3-Dichloropropene	75	7.261	7.261	(1.198)	2447	0.10000	0.476(M)
	47 trans-1,3-Dichloropropene	75	7.755	7.755	(1.279)	1783	0.10000	0.723(M)
$	48 Toluene-d8 (S)	98	7.827	7.827	(1.291)	806876	10.0000	9.48
	49 Toluene	91	7.915	7.915	(1.306)	7060	0.10000	0.0758(M)
	50 1,1,2-Trichloroethane	97	7.928	7.928	(1.308)	3080	0.10000	0.0891(M)
	51 Methyl Butyl Ketone	43	8.255	8.255	(0.853)	1449	0.10000	6.11(M)
	52 Dibromochloromethane	129	8.539	8.539	(0.882)	5229	0.10000	0.0981(M)
	53 1,2-Dibromoethane	107	8.817	8.817	(0.911)	4292	0.10000	0.0897(M)
	54 Tetrachloroethene	166	8.902	8.902	(0.920)	4603	0.10000	0.0996(M)
*	55 Chlorobenzene - d5	117	9.680	9.680	(1.000)	482373	10.0000	
	56 Chlorobenzene	112	9.736	9.736	(1.006)	5717	0.10000	0.0916(M)
	57 Ethyl Benzene	91	10.030	10.030	(1.036)	4898	0.10000	0.492(M)
	58 m&p-Xylene	91	10.213	10.213	(1.055)	4171	0.10000	0.478(M)
	59 Bromoform	173	10.651	10.651	(1.100)	4785	0.10000	0.0820(M)
	60 Styrene	104	10.700	10.700	(1.105)	2054	0.10000	0.604(M)
	61 o-Xylene	91	10.775	10.775	(1.113)	4439	0.10000	0.411(M)
	62 1,1,2,2-Tetrachloroethane	83	11.089	11.089	(1.146)	6185	0.10000	0.0967(M)
	63 Isopropylbenzene	105	11.455	11.455	(1.183)	10112	0.10000	0.0829(M)
	64 N-Propylbenzene	91	12.115	12.115	(1.252)	6359	0.10000	0.161(M)
	65 4-Ethyltoluene	105	12.318	12.318	(1.272)	3689	0.10000	0.269(M)
	66 1,3,5-Trimethylbenzene	105	12.419	12.419	(1.283)	4712	0.10000	0.275(M)
	67 1,2,4-Trimethylbenzene	105	13.021	13.021	(1.345)	4060	0.10000	0.239(M)
	68 1,3-Dichlorobenzene	146	13.367	13.367	(1.381)	3724	0.10000	0.220(M)
	69 Sec- Butylbenzene	105	13.403	13.403	(1.385)	5689	0.10000	0.159(M)
$	70 1,4-dichlorobenzene-d4 (S)	150	13.449	13.449	(1.389)	197745	10.0000	9.28
	71 Benzyl Chloride	91	13.472	13.472	(1.392)	6656	0.10000	0.518(M)
	72 1,4-Dichlorobenzene	146	13.495	13.495	(1.394)	5617	0.10000	0.243(M)
	73 1,2-Dichlorobenzene	146	14.044	14.044	(1.451)	3592	0.10000	0.413(M)
	74 N-Butylbenzene	91	14.328	14.328	(1.480)	4206	0.10000	0.747(M)
	75 1,2,4-Trichlorobenzene	180	16.698	16.698	(1.725)	2041	0.10000	0.413(M)
	76 Naphthalene	128	16.871	16.871	(1.743)	2712	0.10000	1.30(M)
	77 Hexachlorobutadiene	225	17.240	17.240	(1.781)	5496	0.10000	(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11105.d
Report Date: 22-Apr-2013 07:49

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11105.d
Report Date: 22-Apr-2013 07:49

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11105.d
Lab Smp Id: ICAL1
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info:

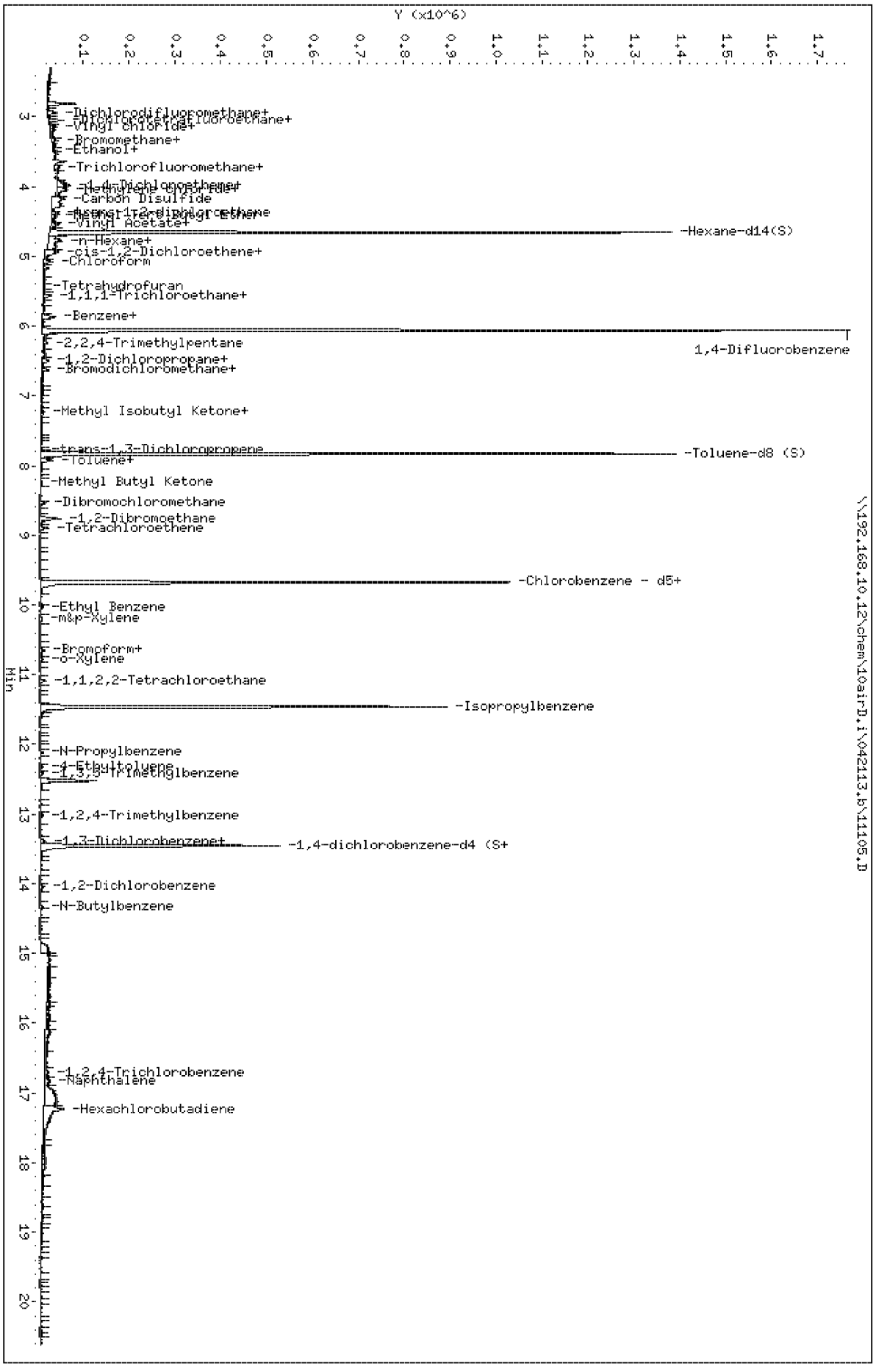
Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	942753	-21.54
55 Chlorobenzene - d	638533	383120	893946	482373	-24.46

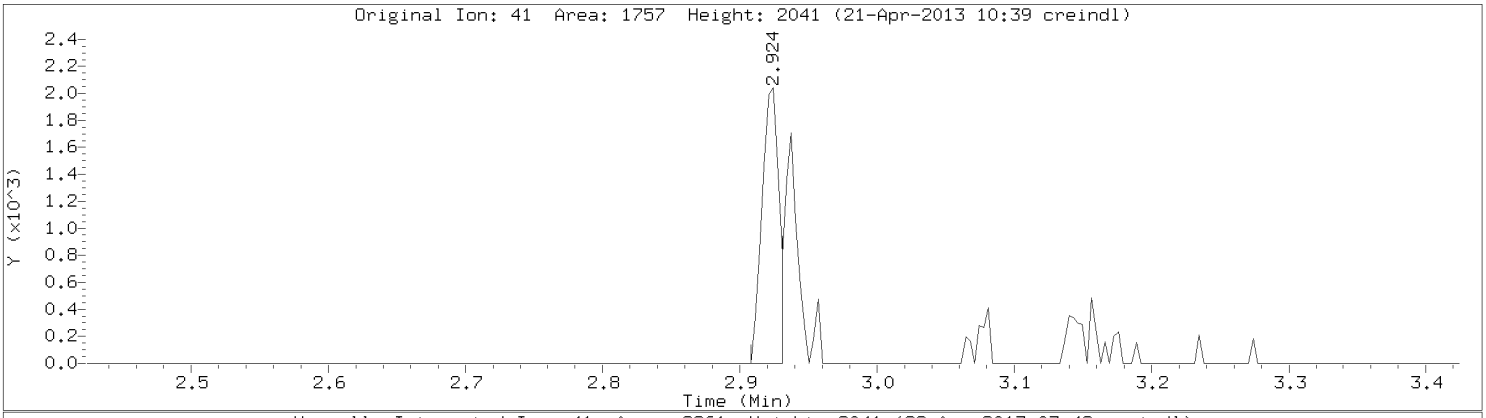
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

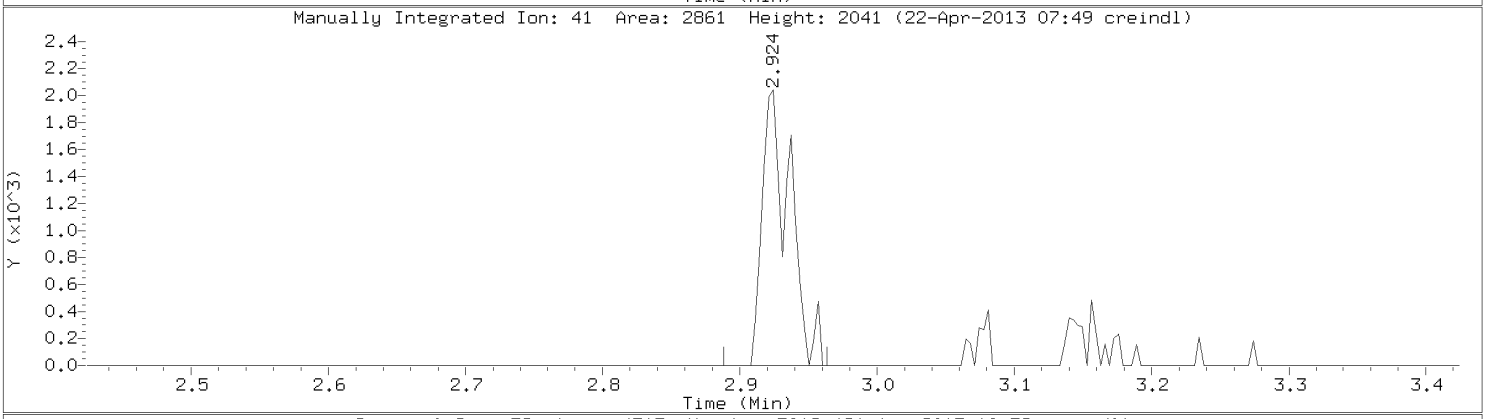
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

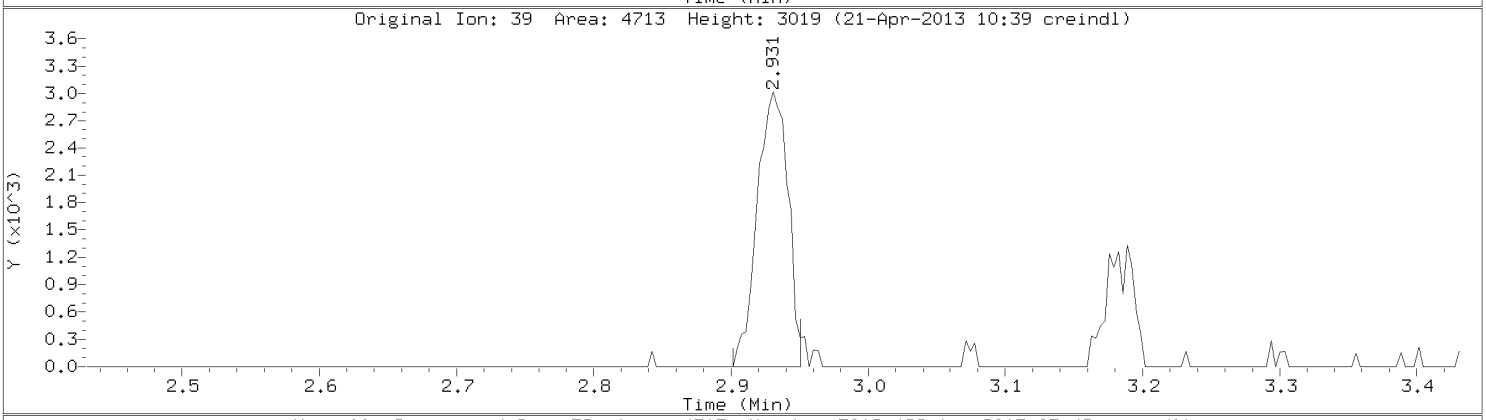

Y (x10^6)
0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7
-Dichlorodifluoromethane+
-Vinyl chloride+
-Bromomethane+
-Ethanol+
-Trichlorofluoromethane+
-1,1-Dichloroethene+
-Methylene chloride+
-Carbon Disulfide
-trans-1,2-Dichloroethene
-Vinyl Acetate+
-Hexane-d14(S)
-n-Hexane+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-2,2,4-Trimethylpentane
1,4-Difluorobenzene
-1,2-Dichloropropane+
-Bromodichloromethane+
-Methyl Isobutyl Ketone+
-trans-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform+
-o-Xylene
-1,1,2,2-Tetrachloroethane
-Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,3-Dichlorobenzene+
-1,4-dichlorobenzene-d4 (S+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene
Min
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
\\192.168.10.12\chem\10airD.i\042113.b\11105.D
Data File: \\192.168.10.12\chem\10airD.i\042113.b\11105.D
Date : 24-APR-2013 10:16
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

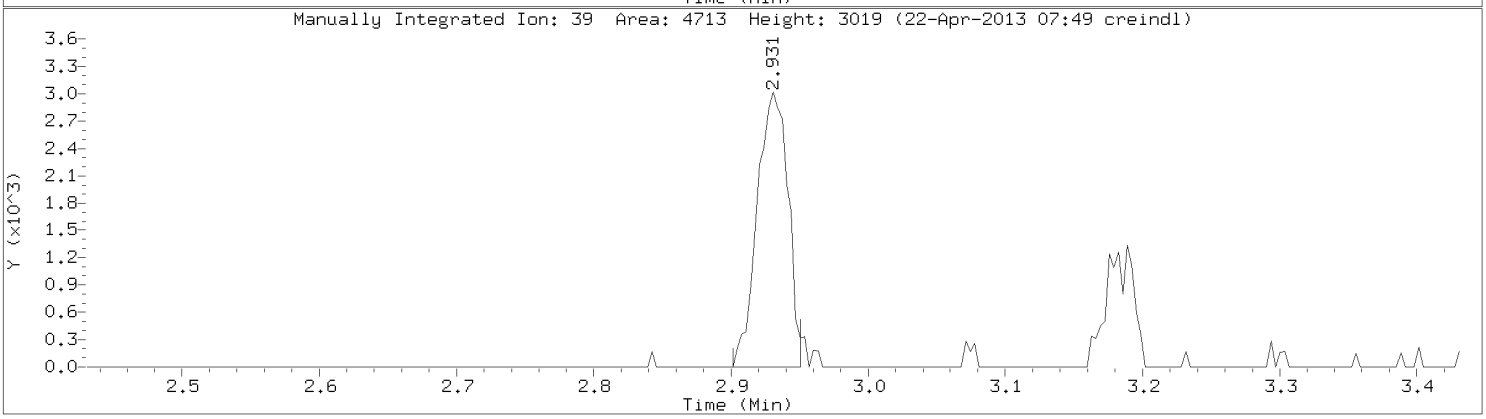
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11105.d
Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Propylene
CAS Number: 76-14-2



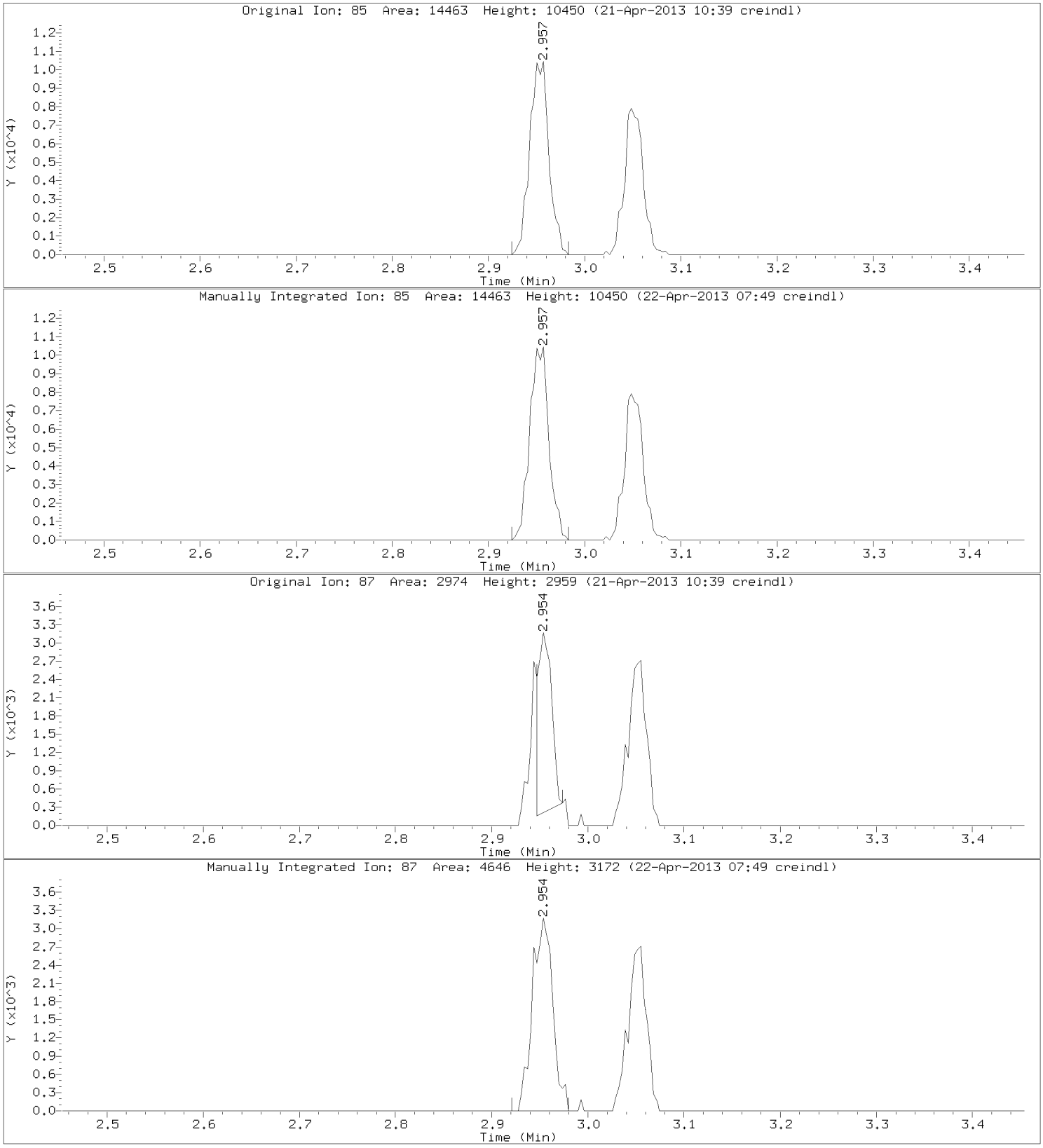






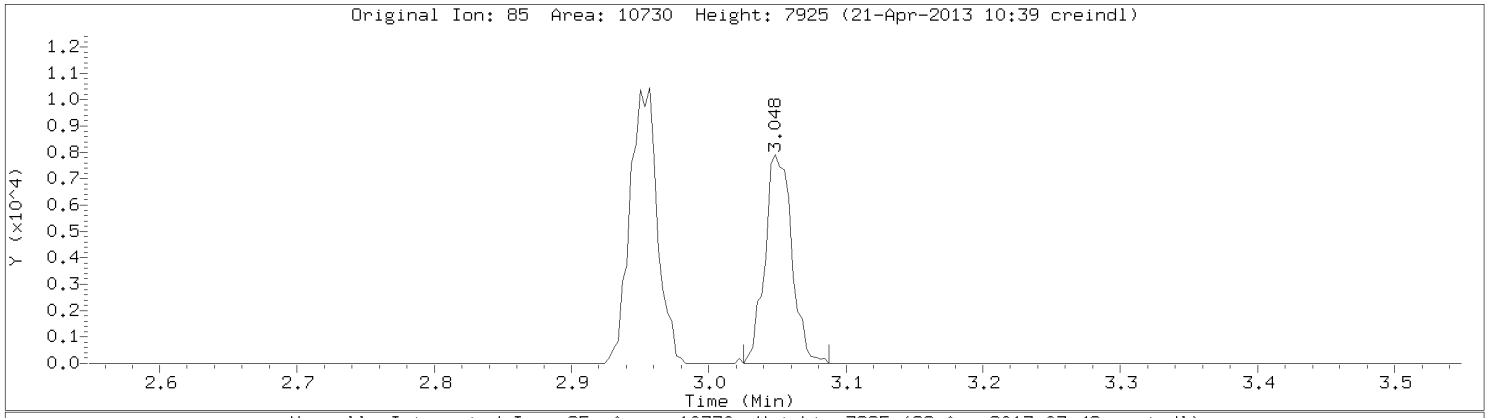
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

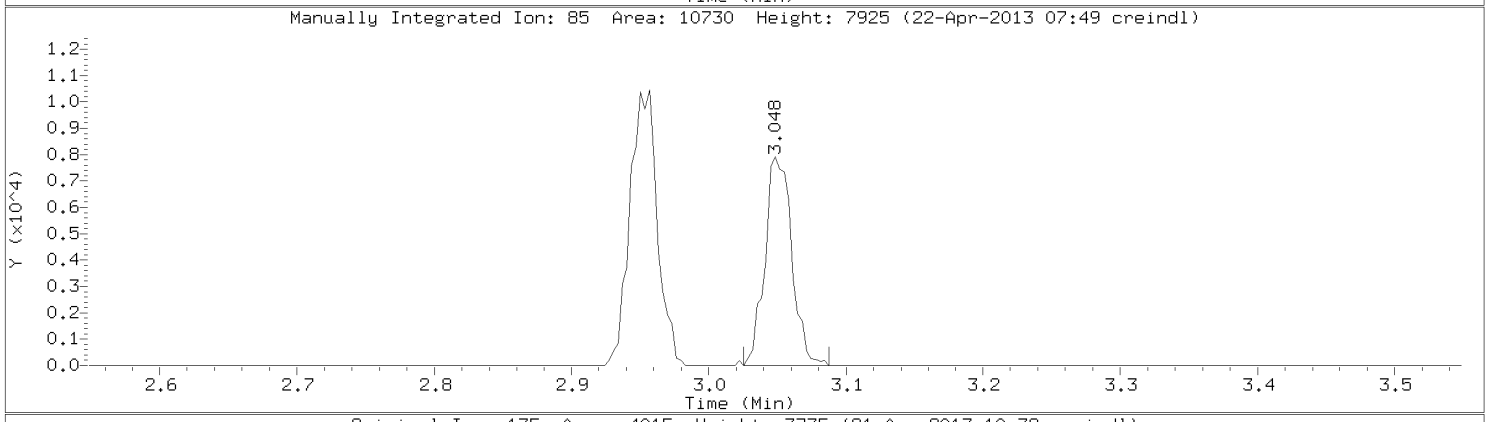
Compound: Dichlorodifluoromethane
CAS Number: 79-34-5

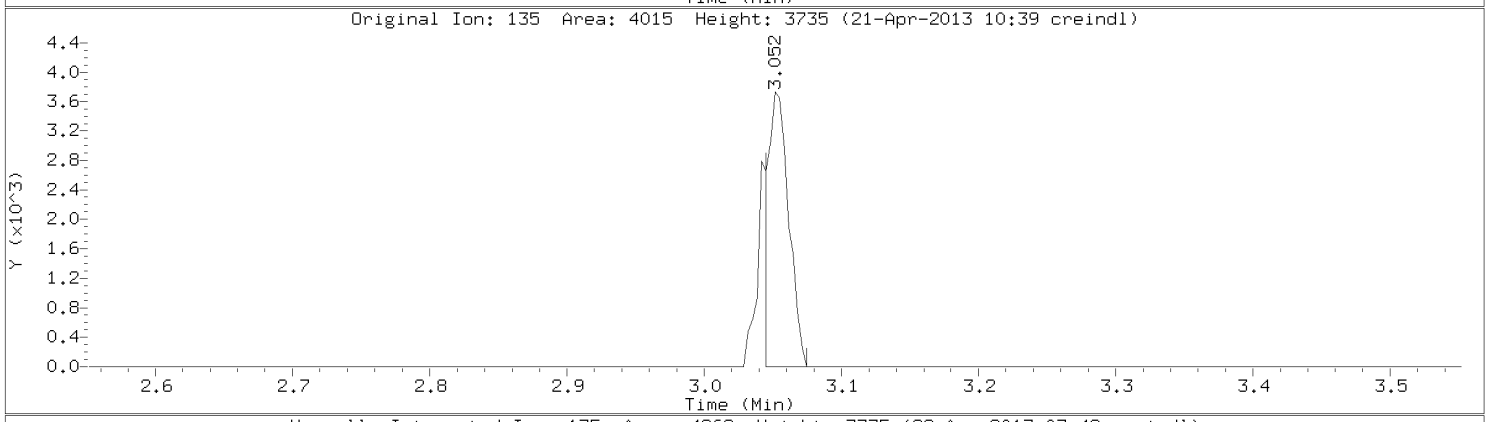


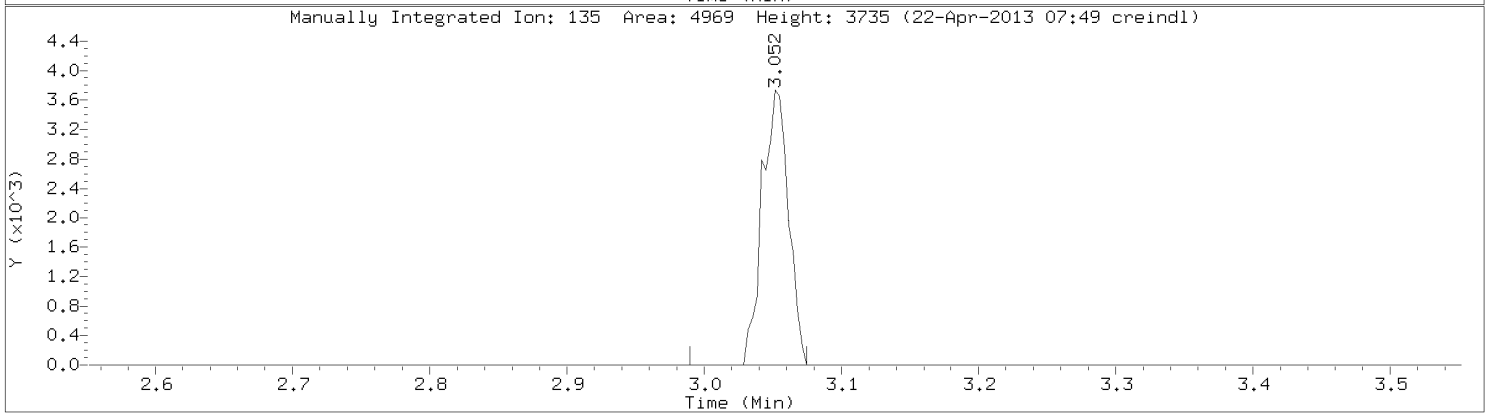
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Dichlorotetrafluoroethane
CAS Number: 76-14-2

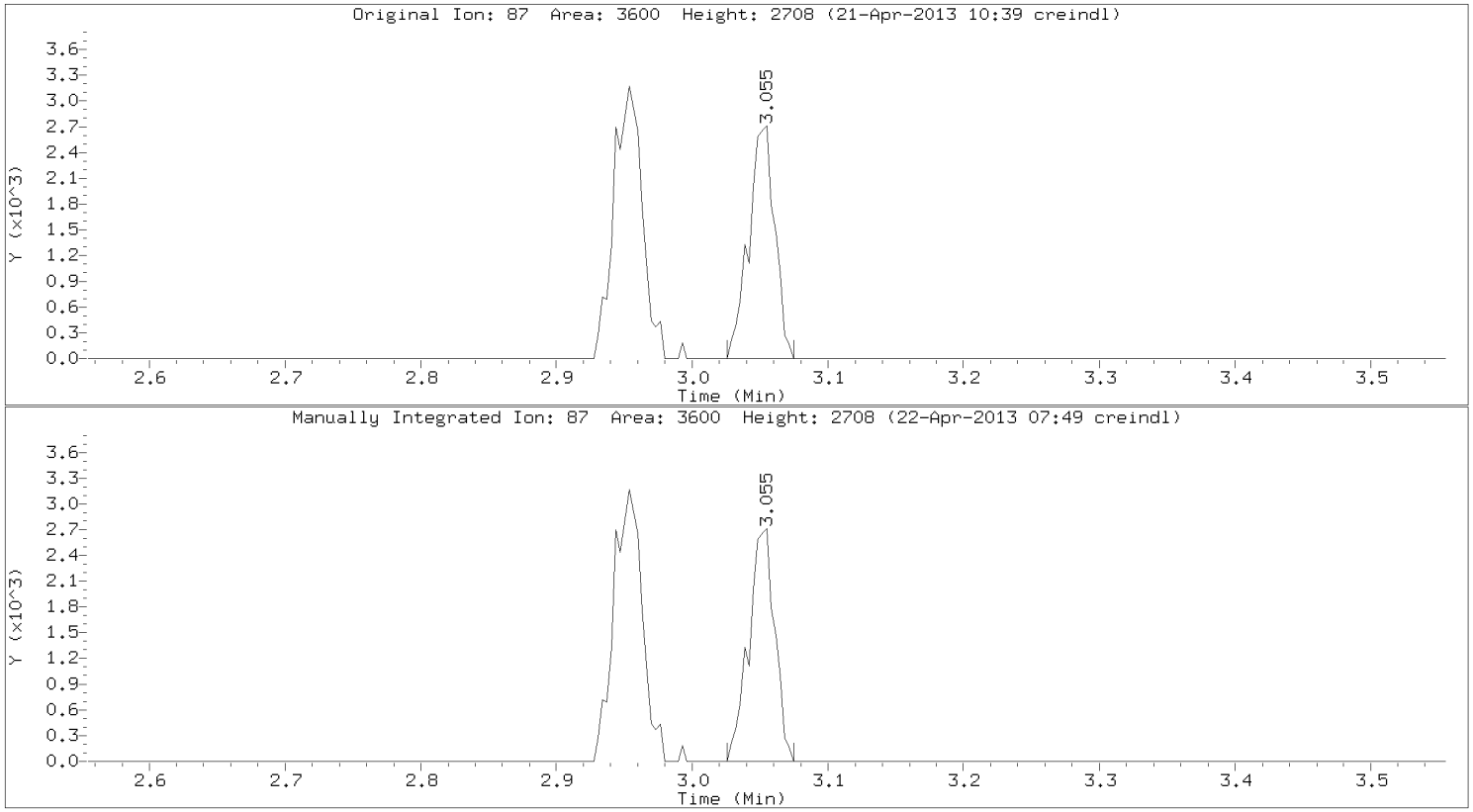






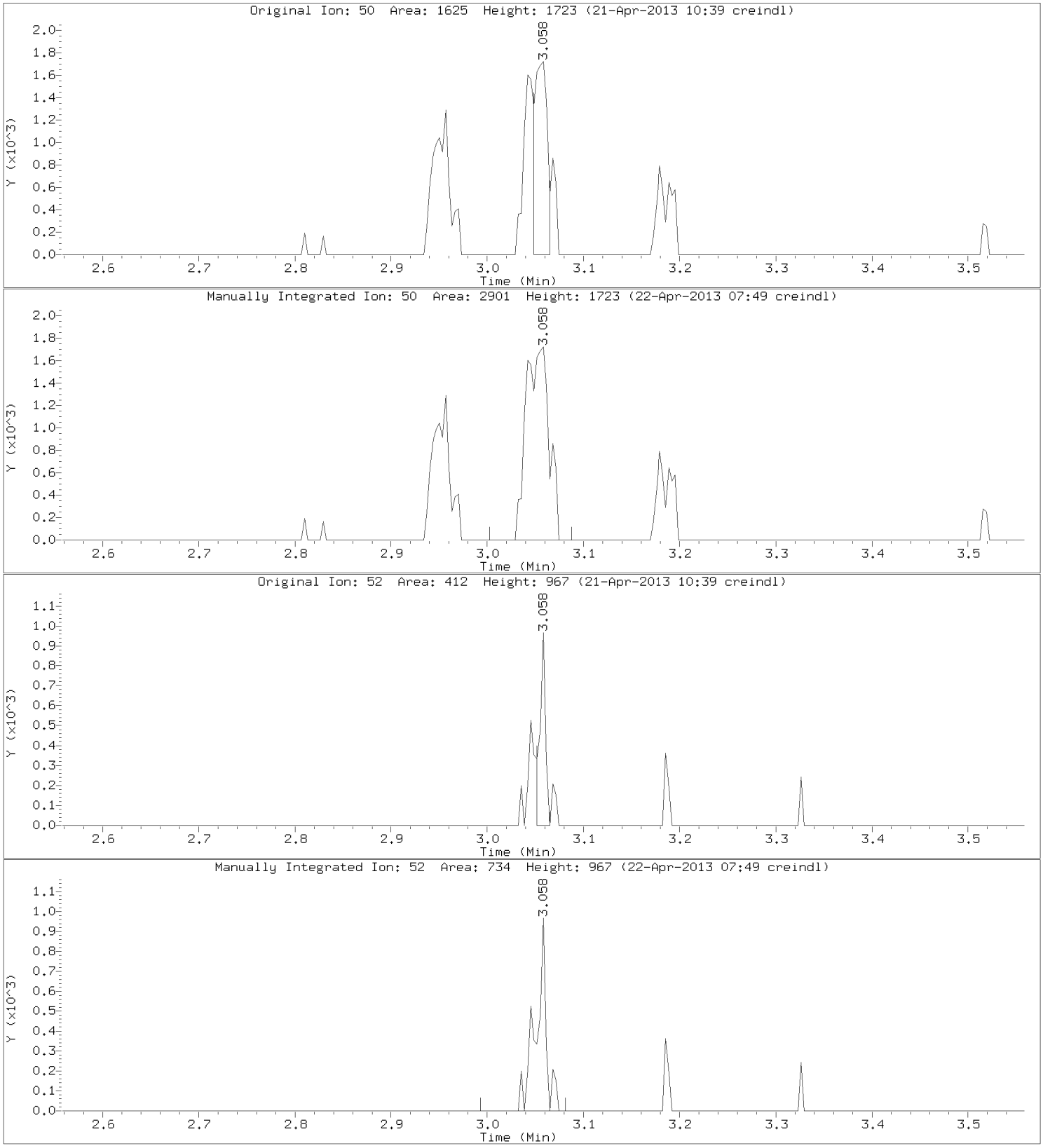


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Lab Sample ID: ICAL1



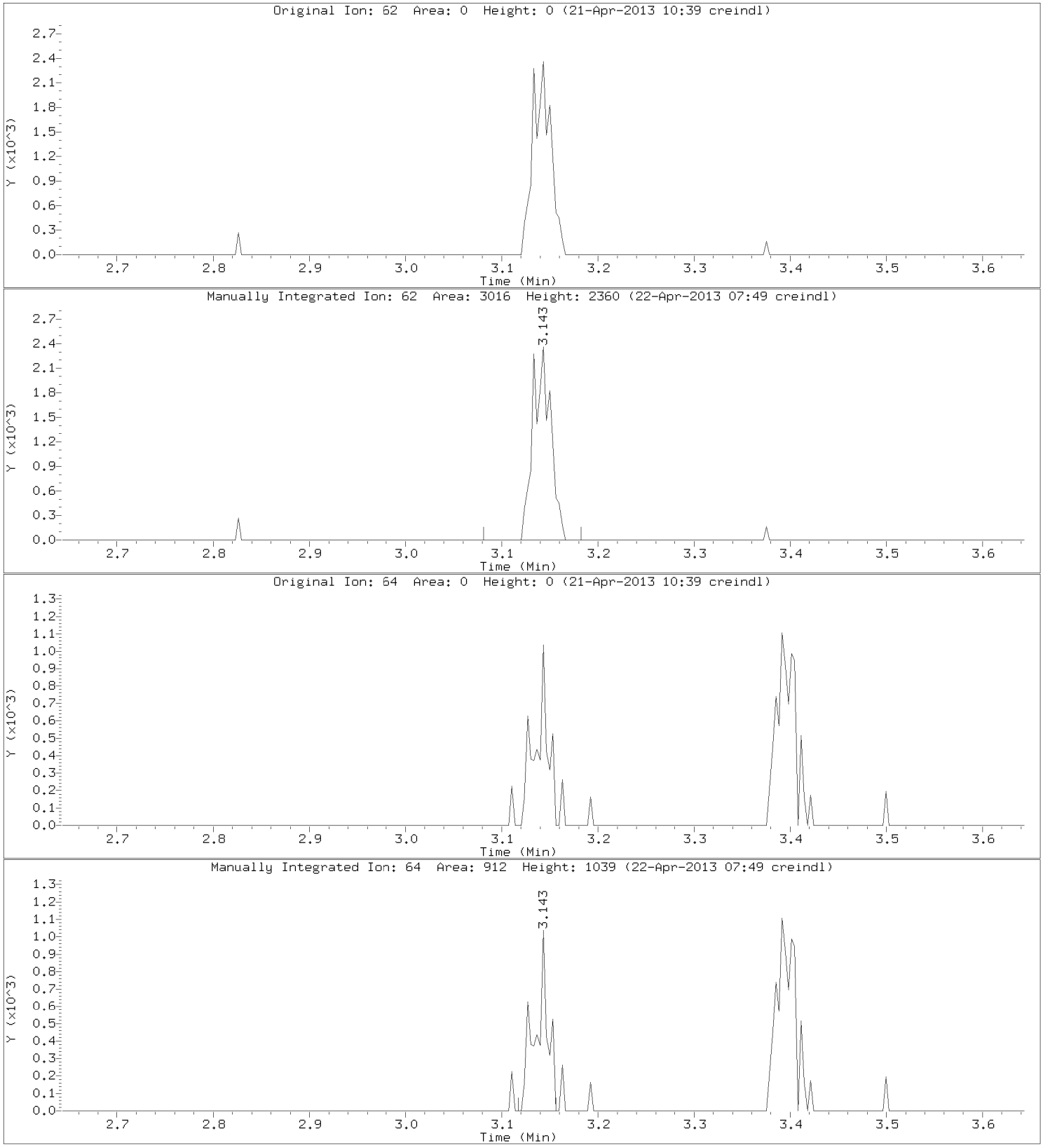
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Chloromethane
CAS Number: 74-87-3



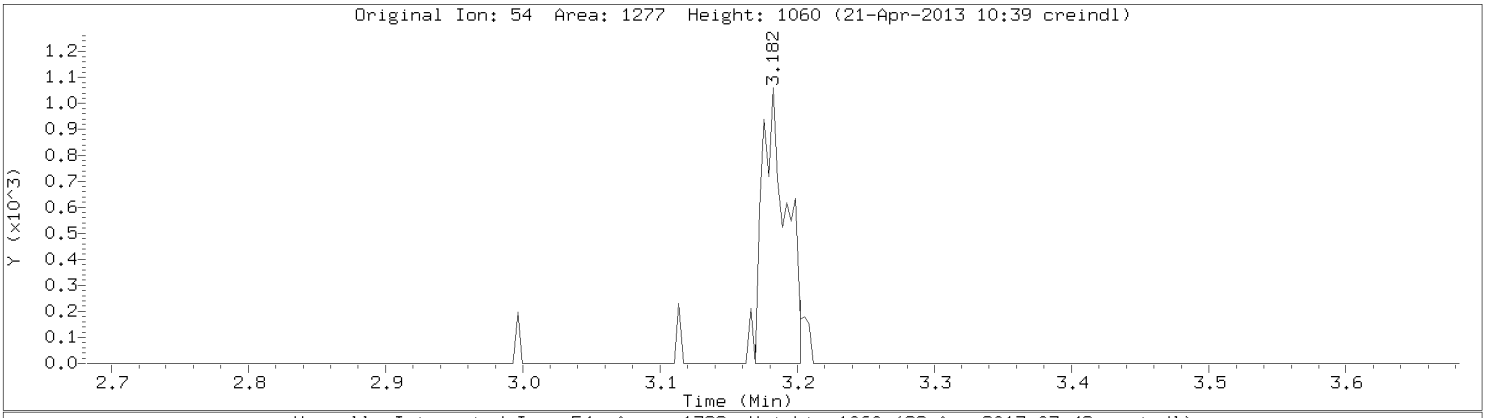
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Lab Sample ID: ICAL1

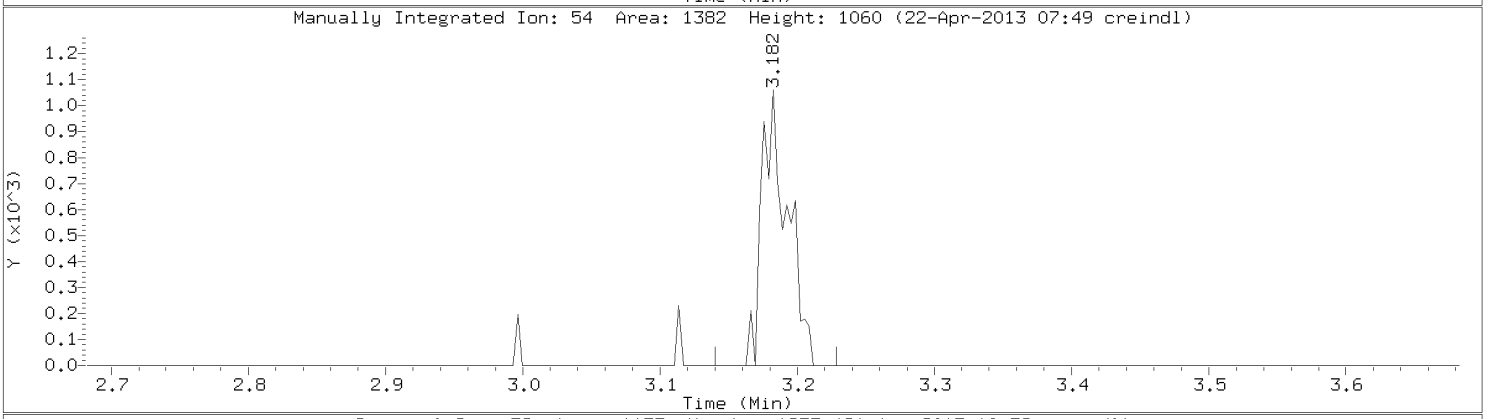
Compound: Vinyl chloride
CAS Number: 75-01-4

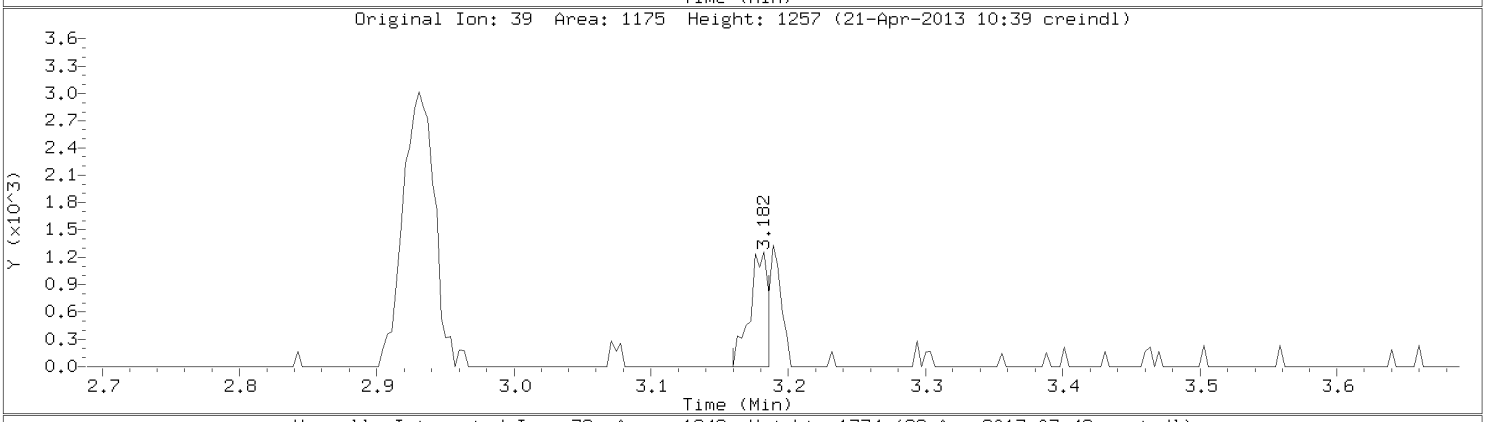


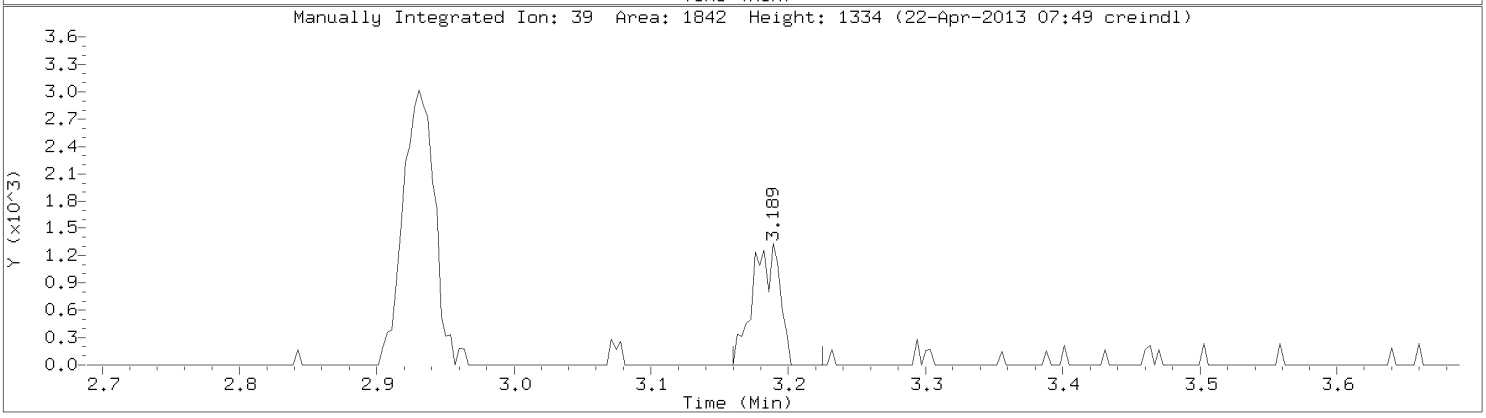
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,3-Butadiene
CAS Number: 106-99-0



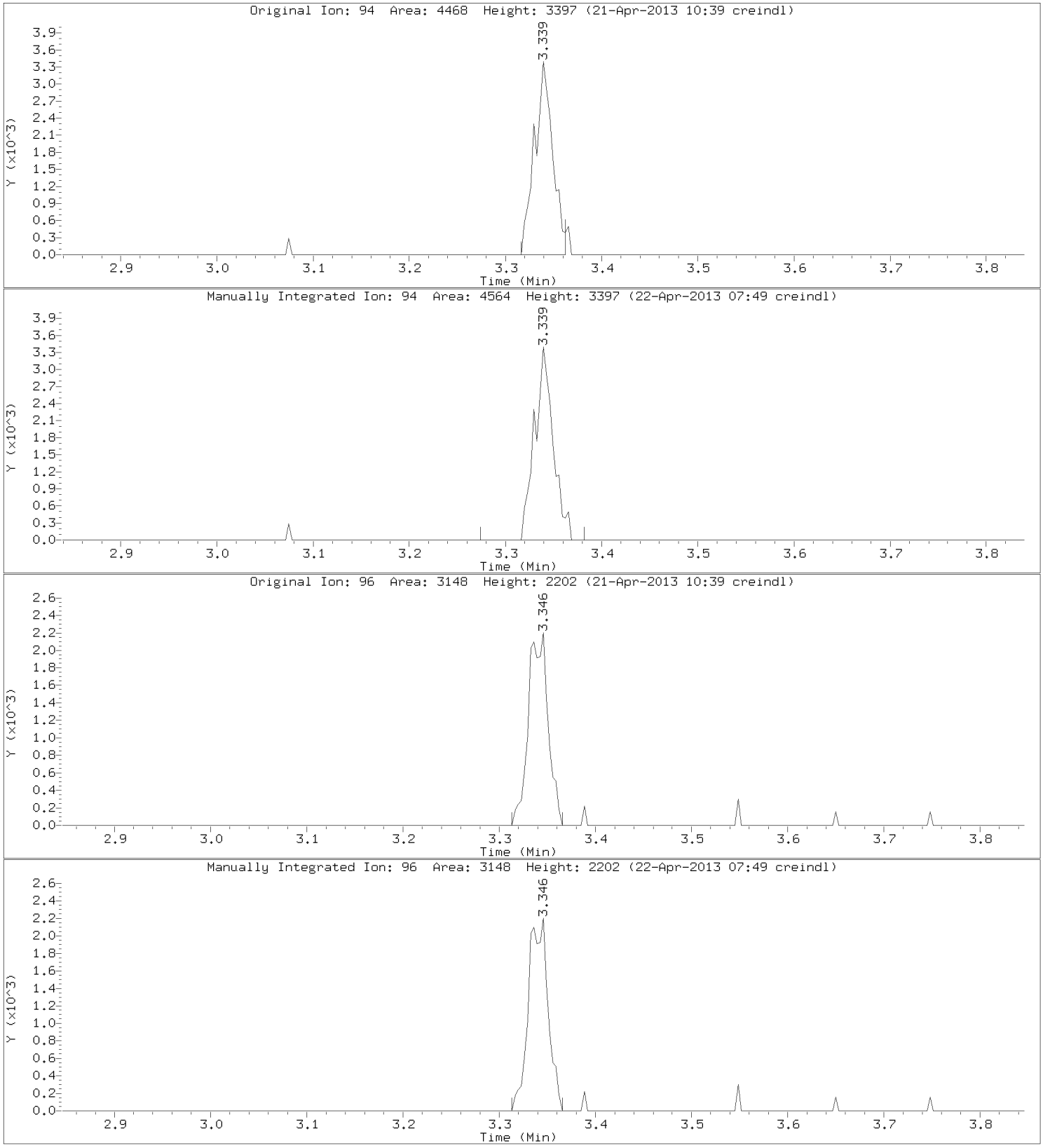






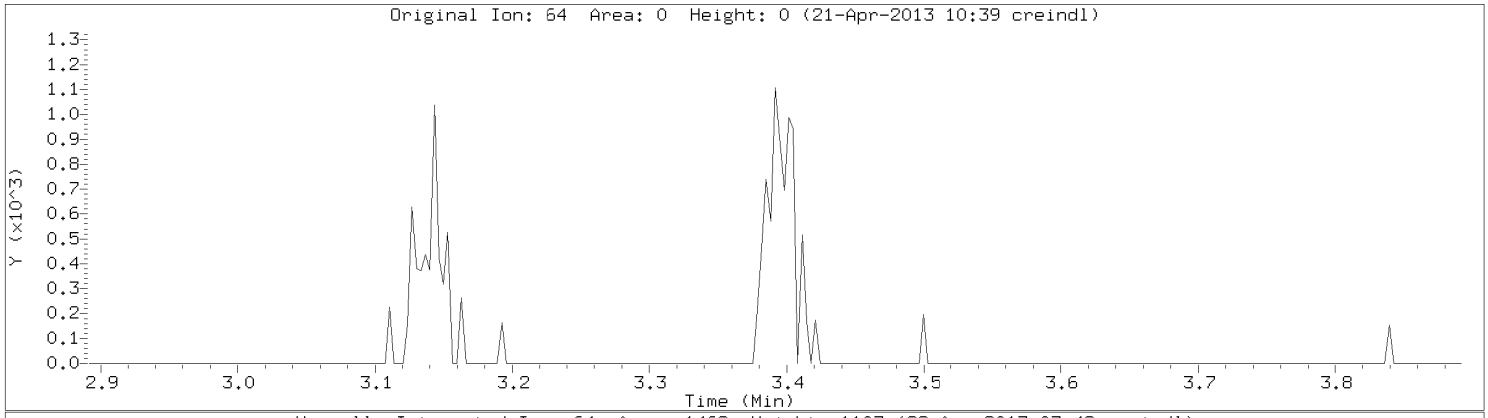
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Lab Sample ID: ICAL1

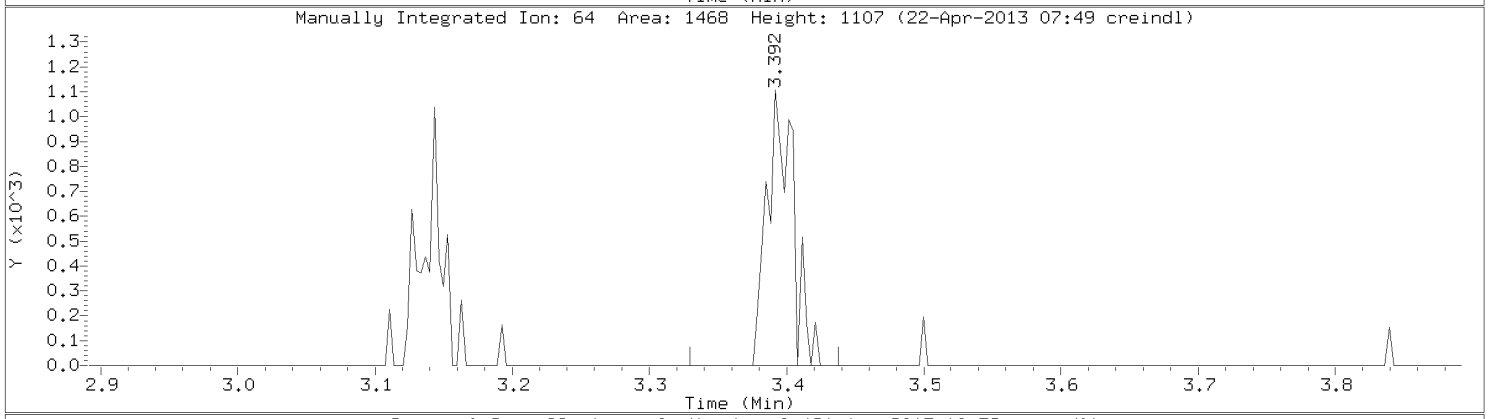
Compound: Bromomethane
CAS Number: 74-83-9

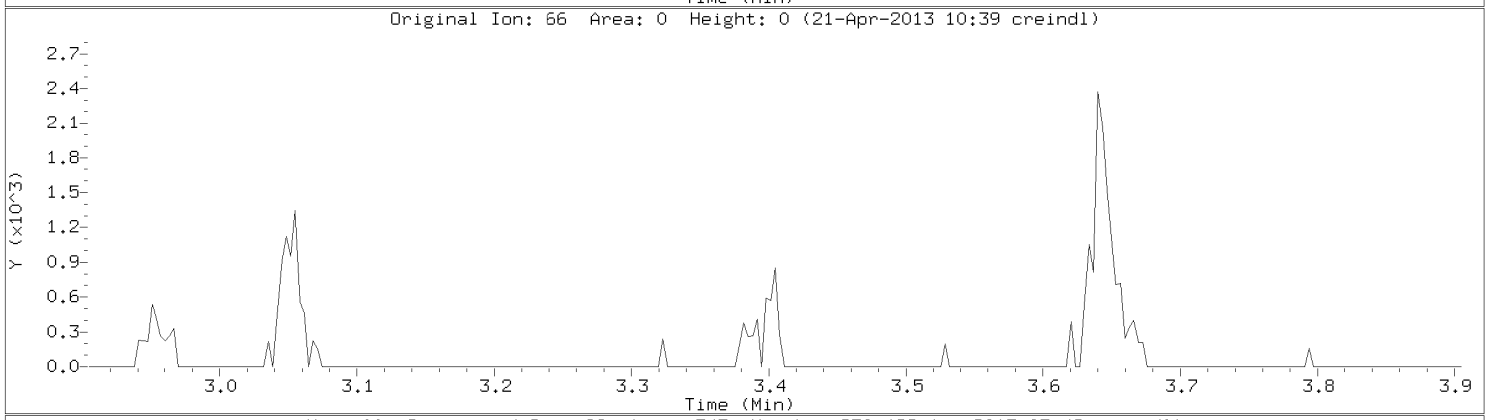


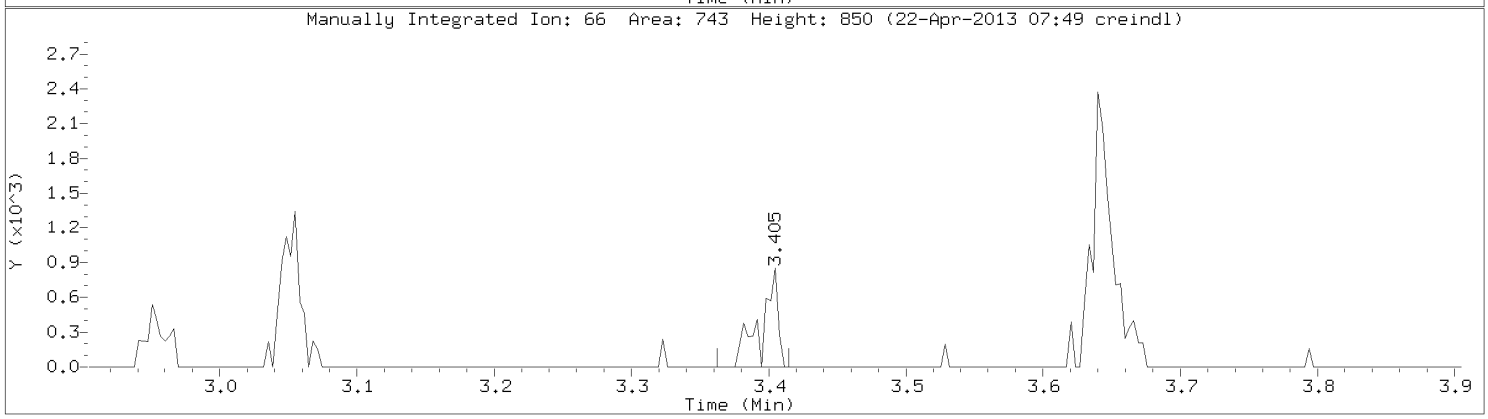
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Chloroethane
CAS Number: 75-00-3



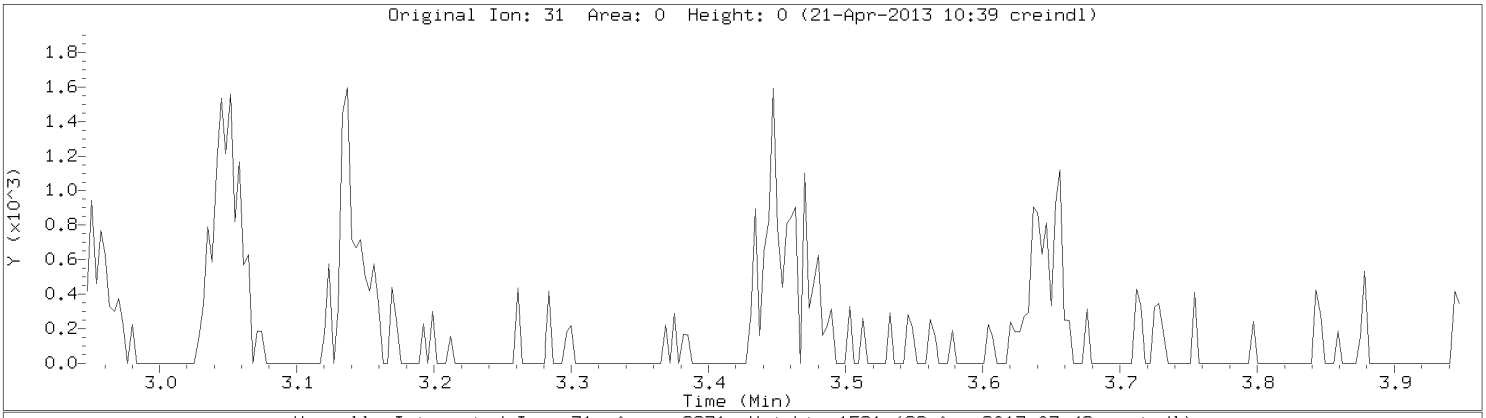


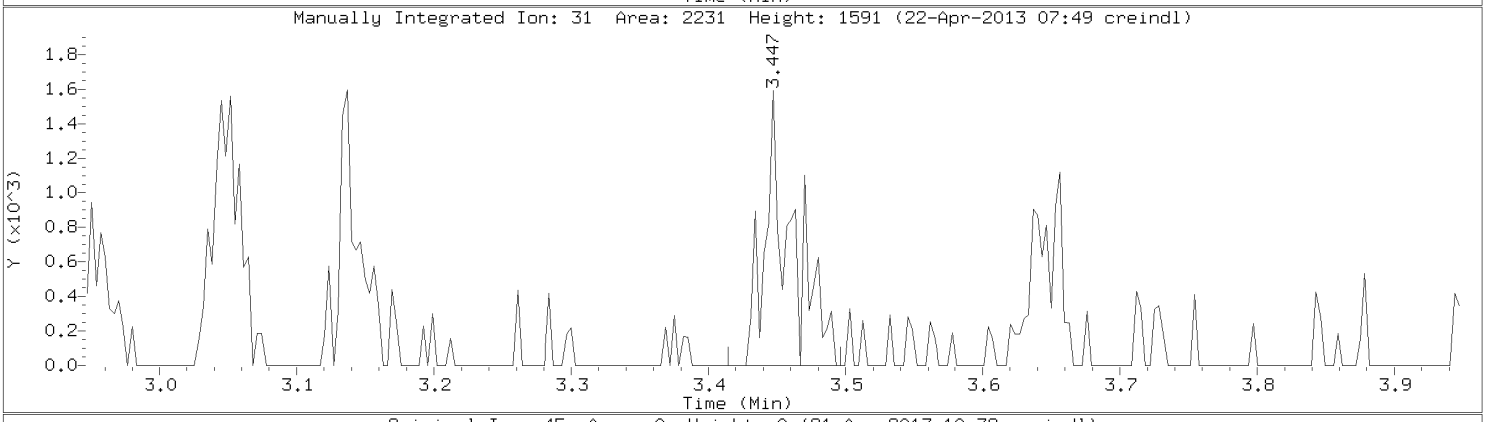


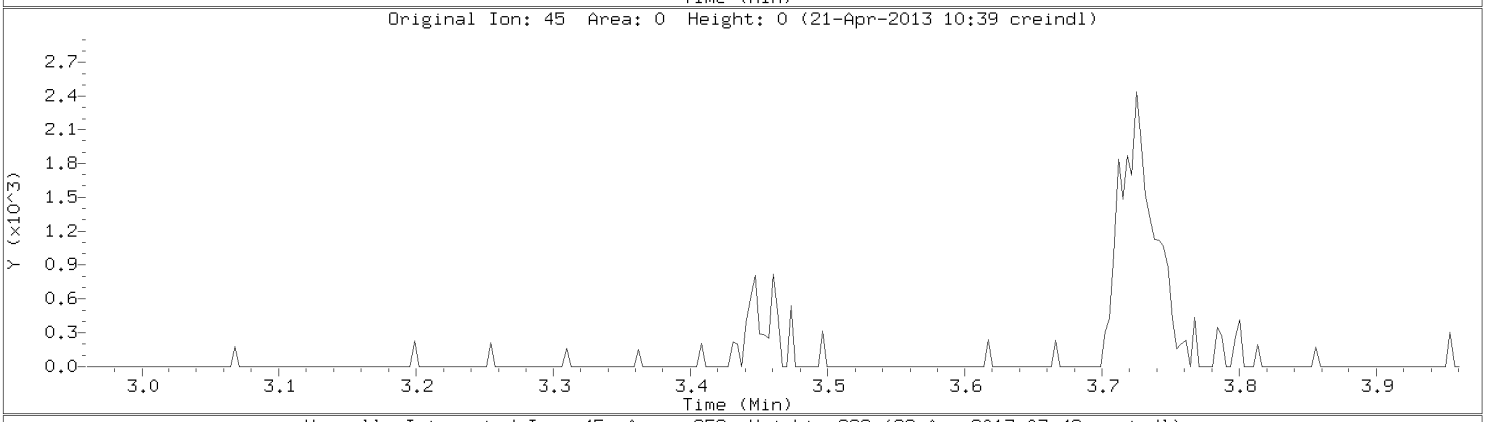


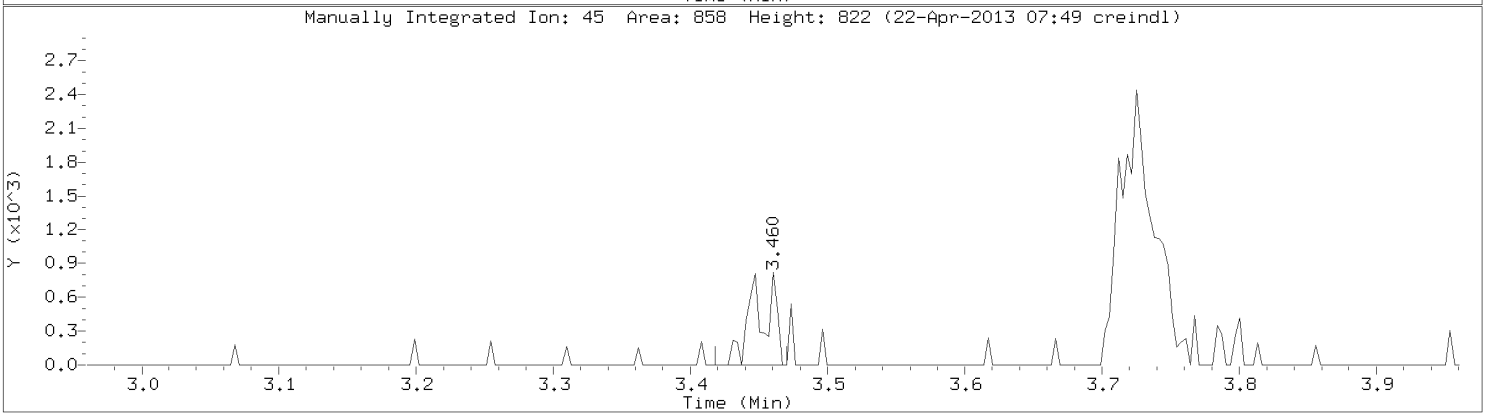
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Ethanol
CAS Number: 64-17-5



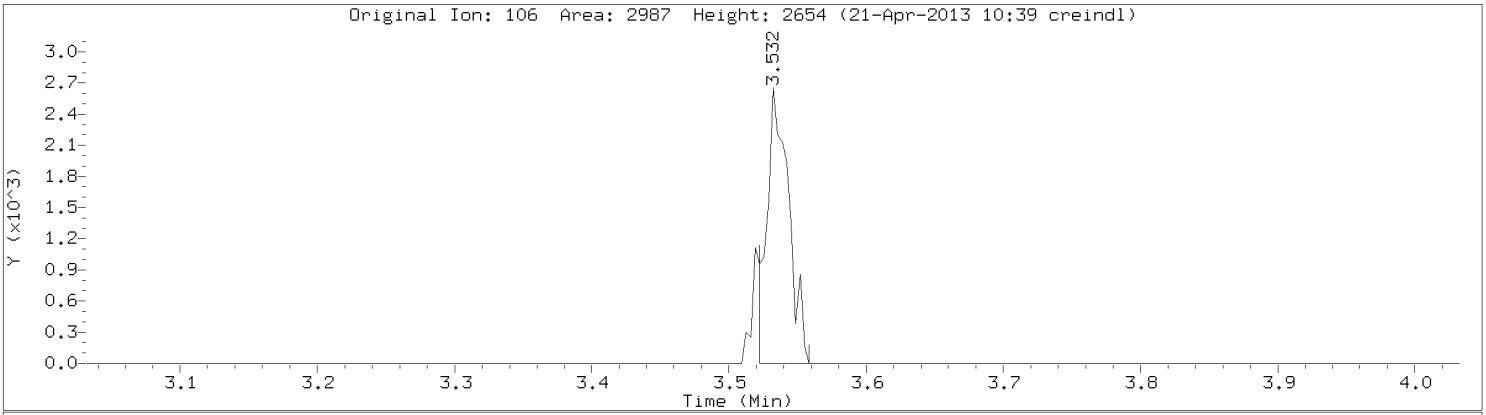


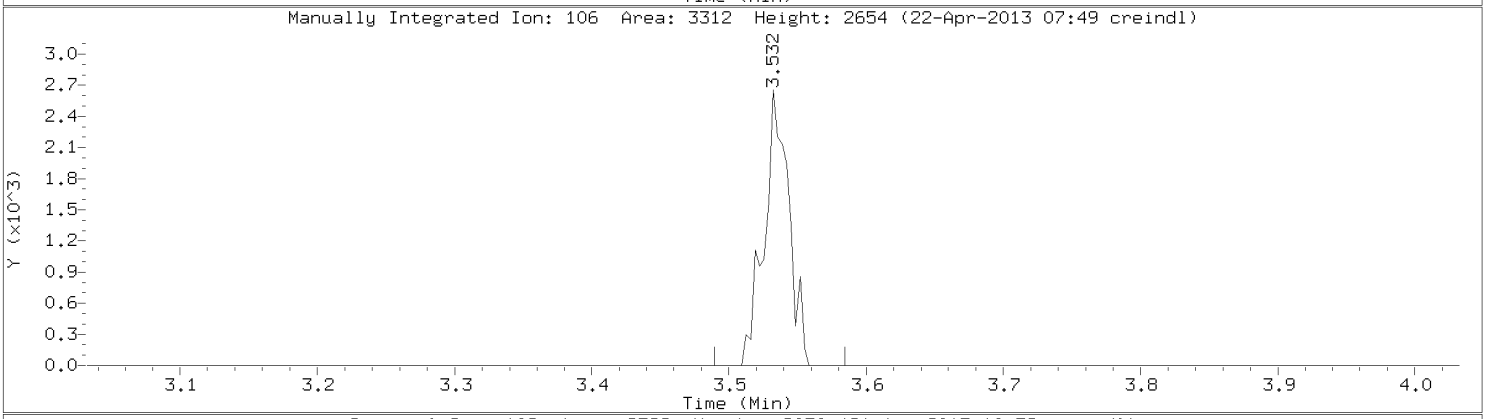


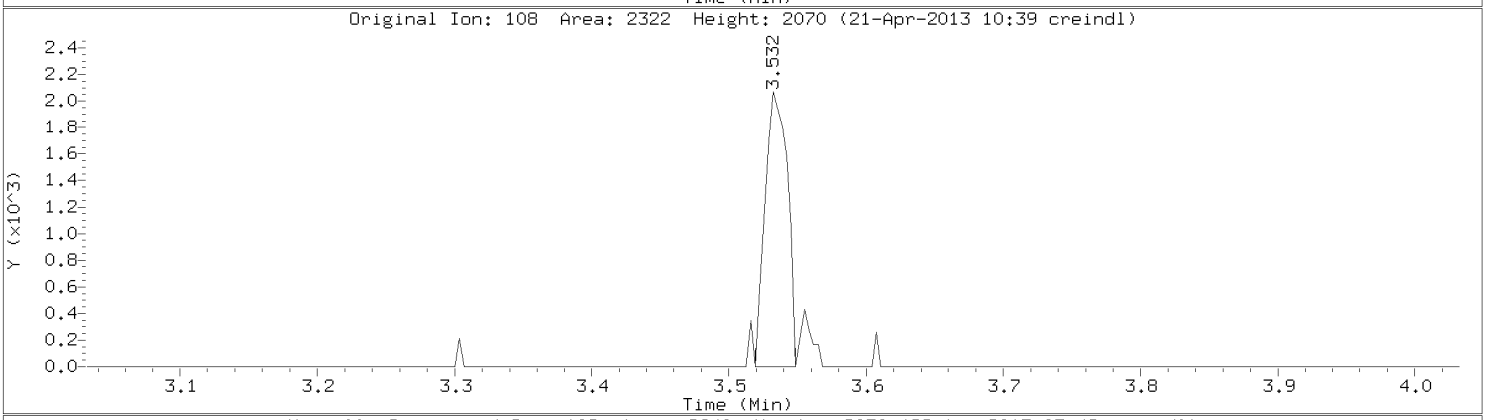


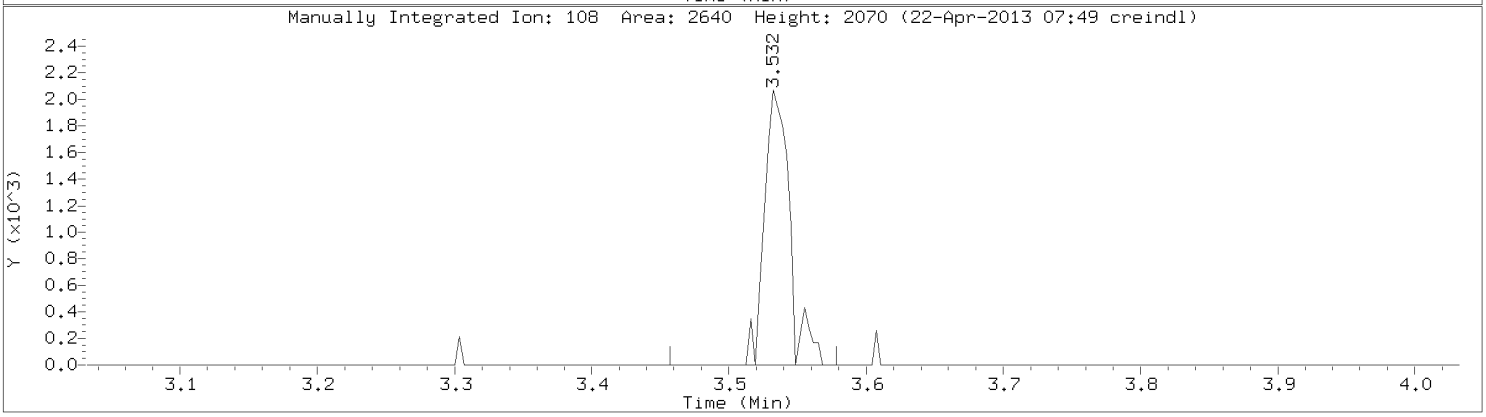
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Vinyl Bromide
CAS Number: 593-60-2



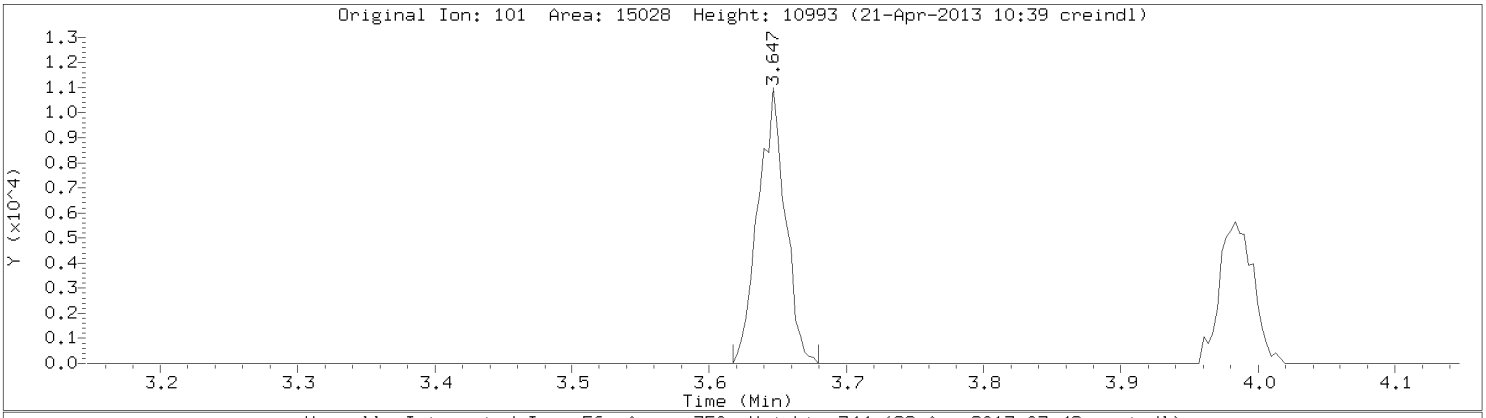


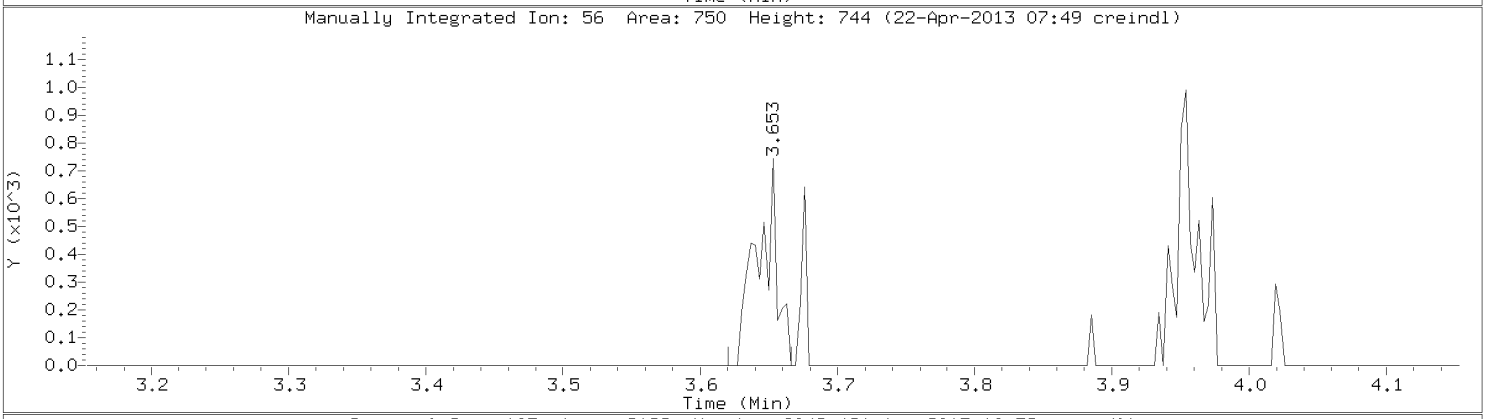


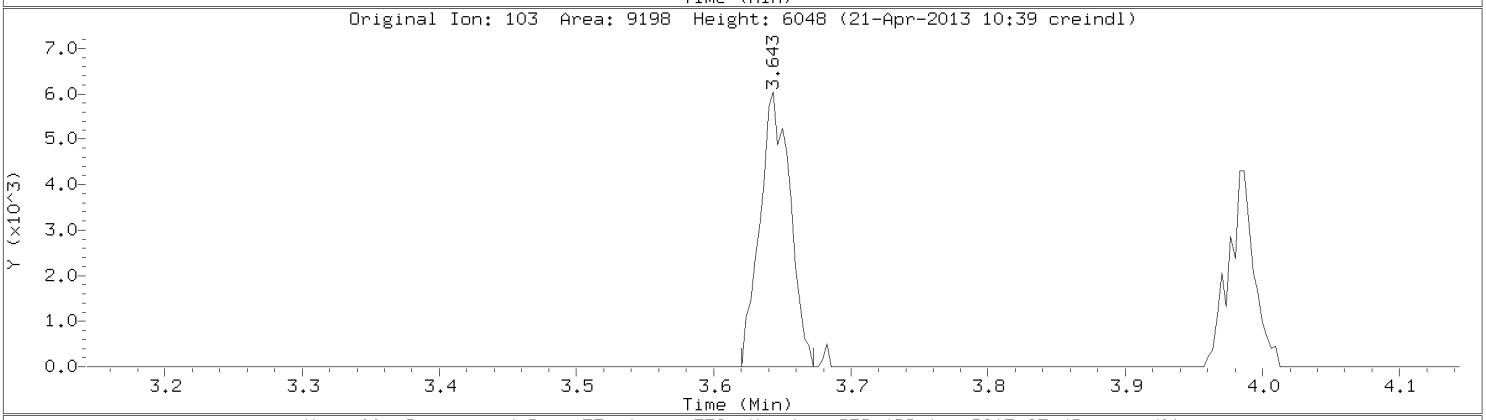


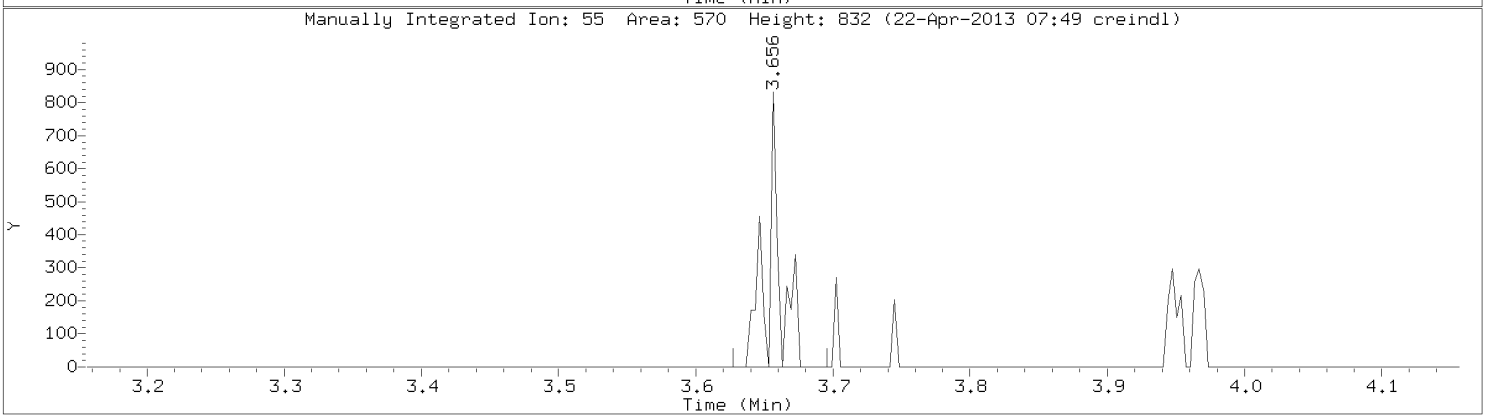
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Acrolein
CAS Number: 107-02-08



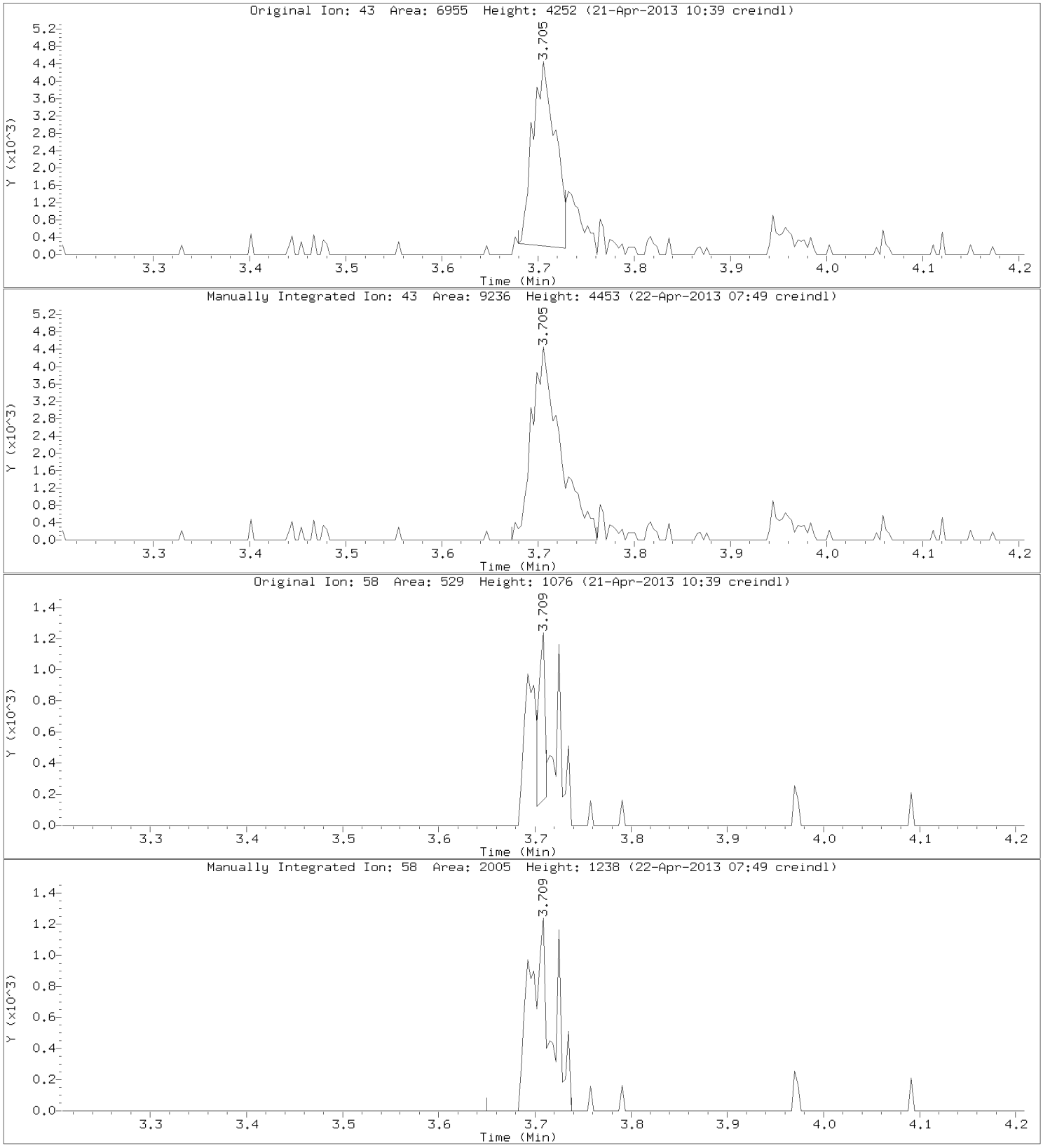






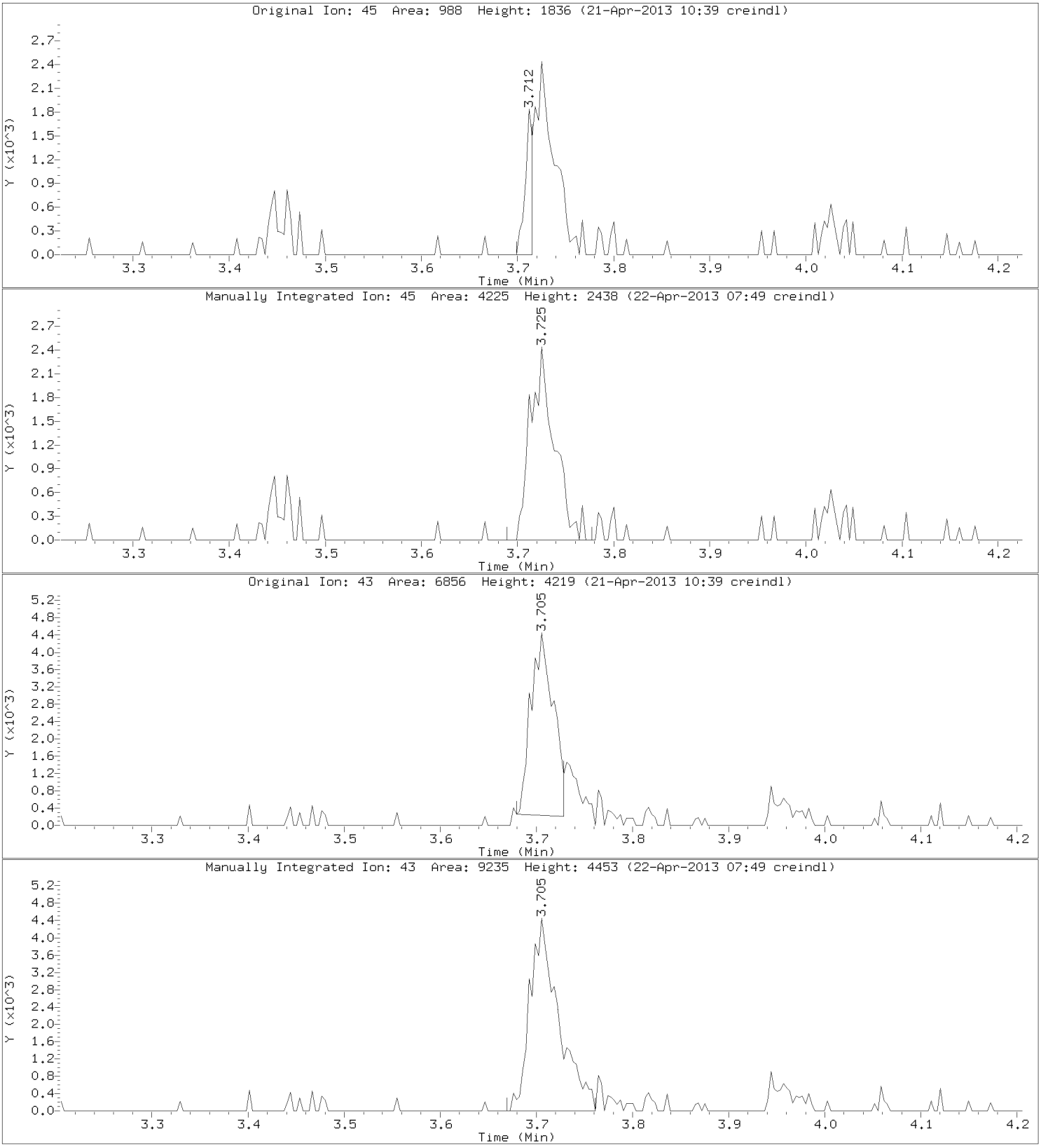
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Acetone
CAS Number: 67-64-1



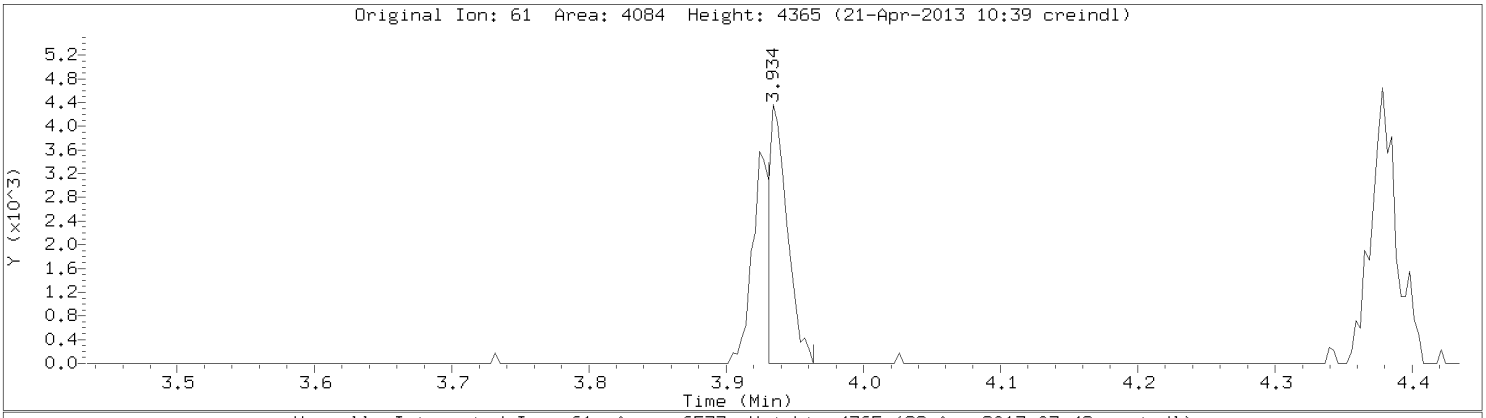
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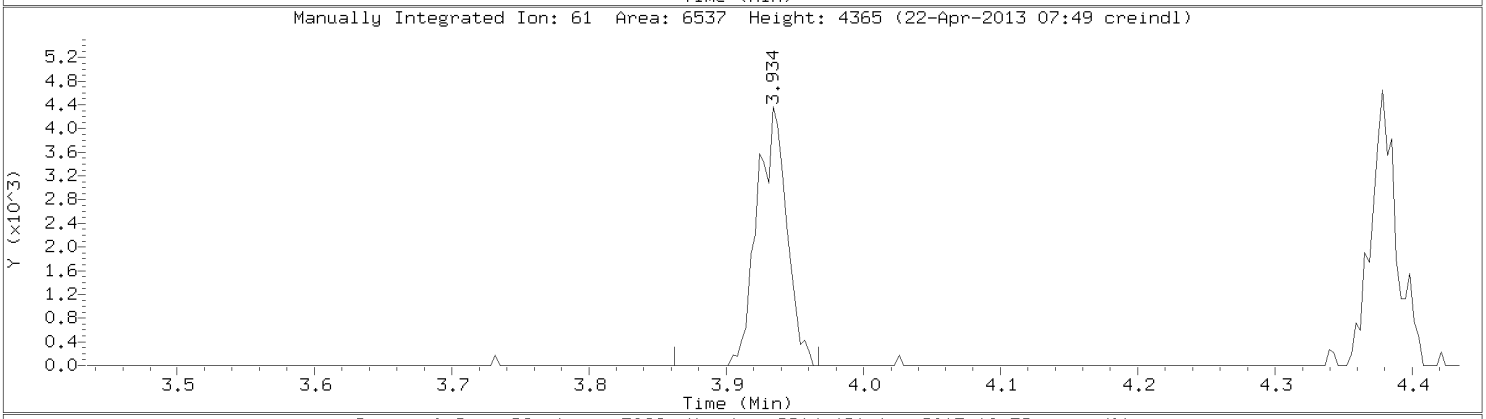
Compound: Isopropyl Alcohol
CAS Number: 67-63-0

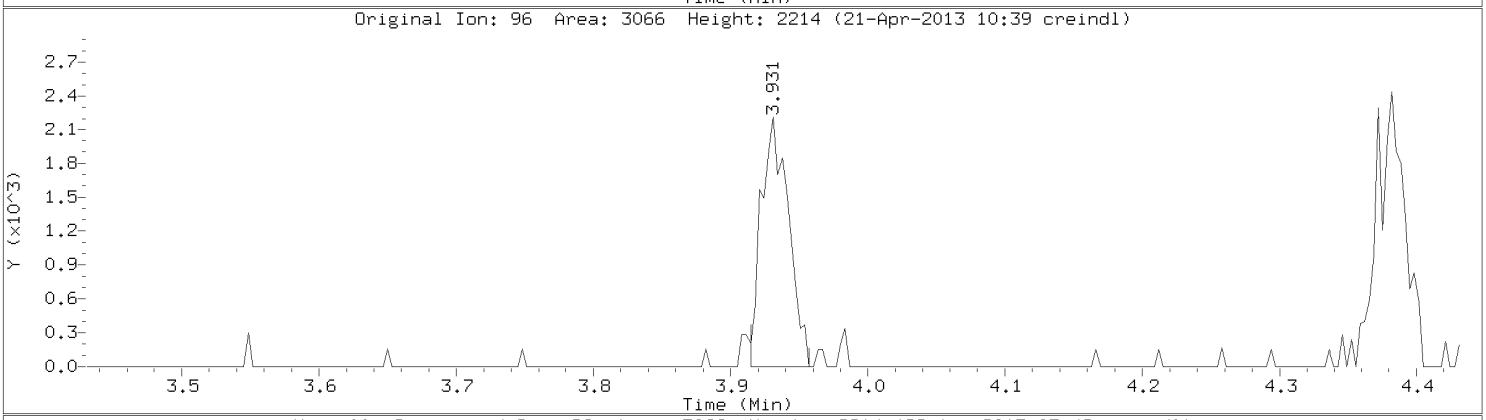


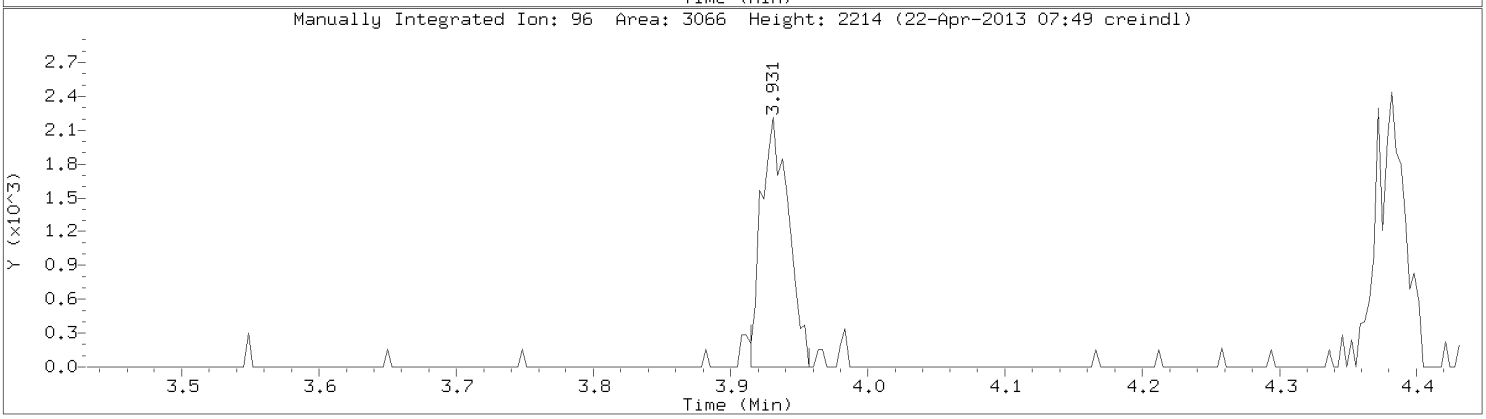
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,1-Dichloroethene
CAS Number: 75-35-4



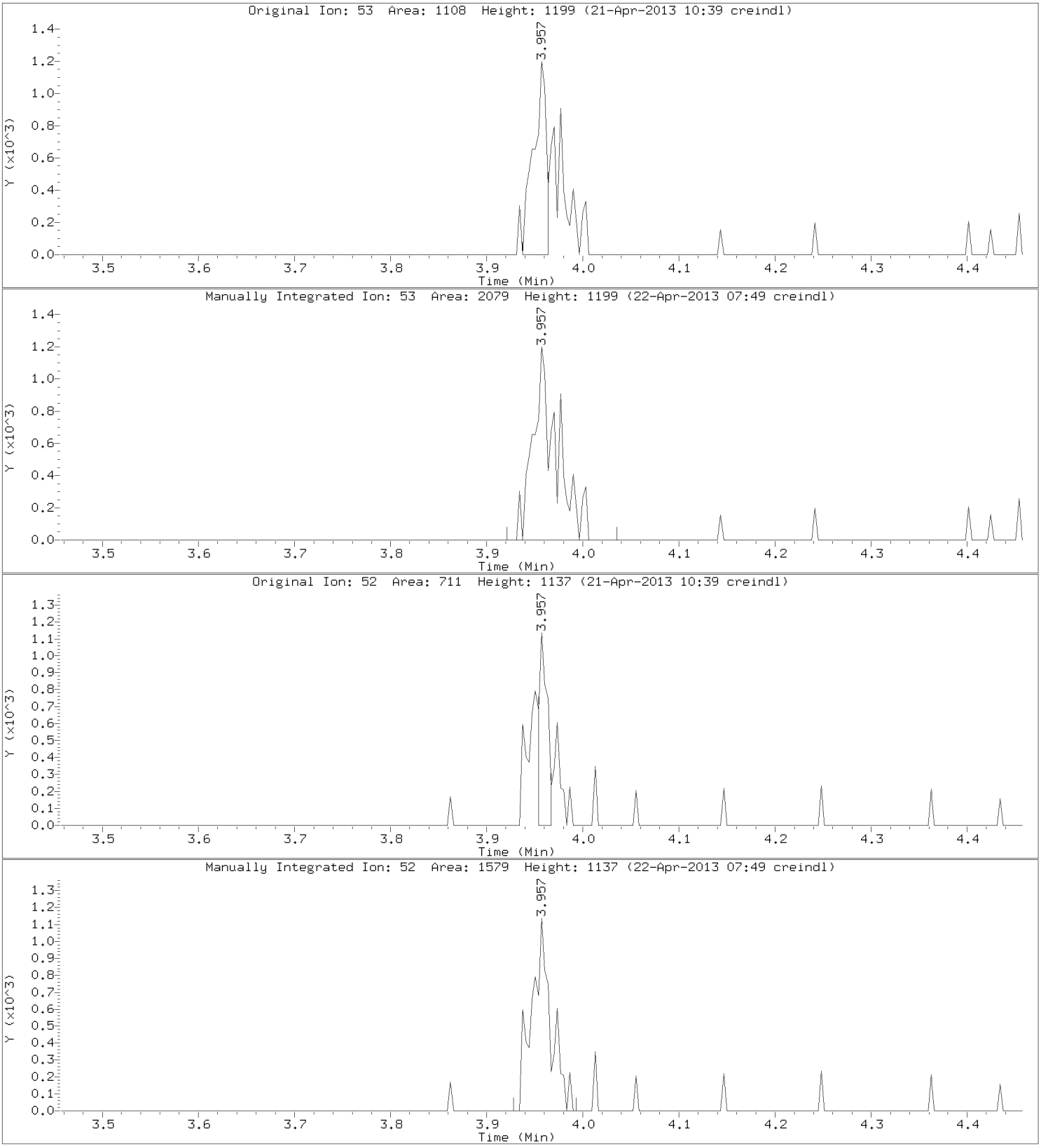






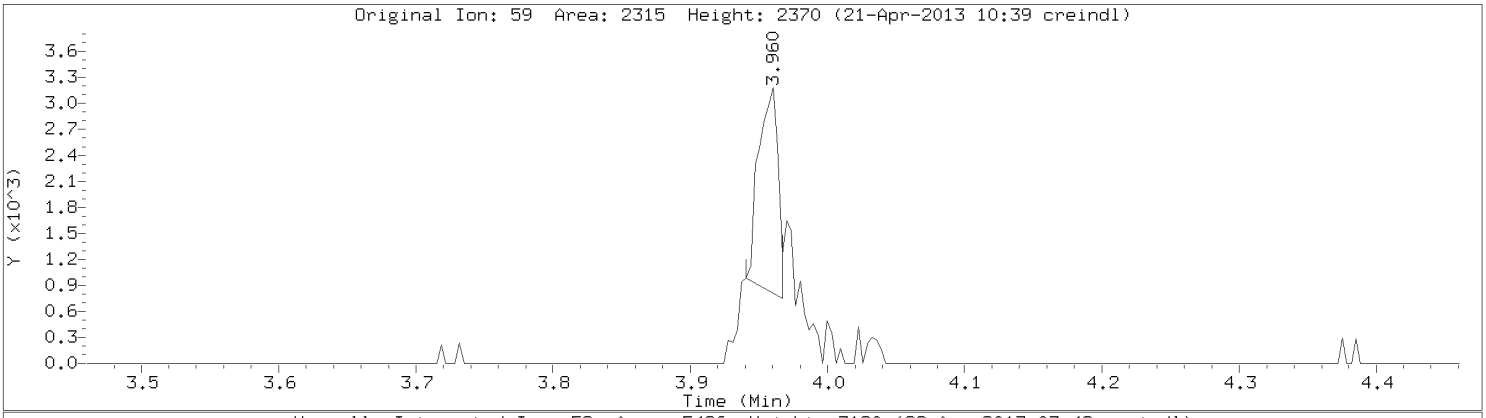
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Lab Sample ID: ICAL1

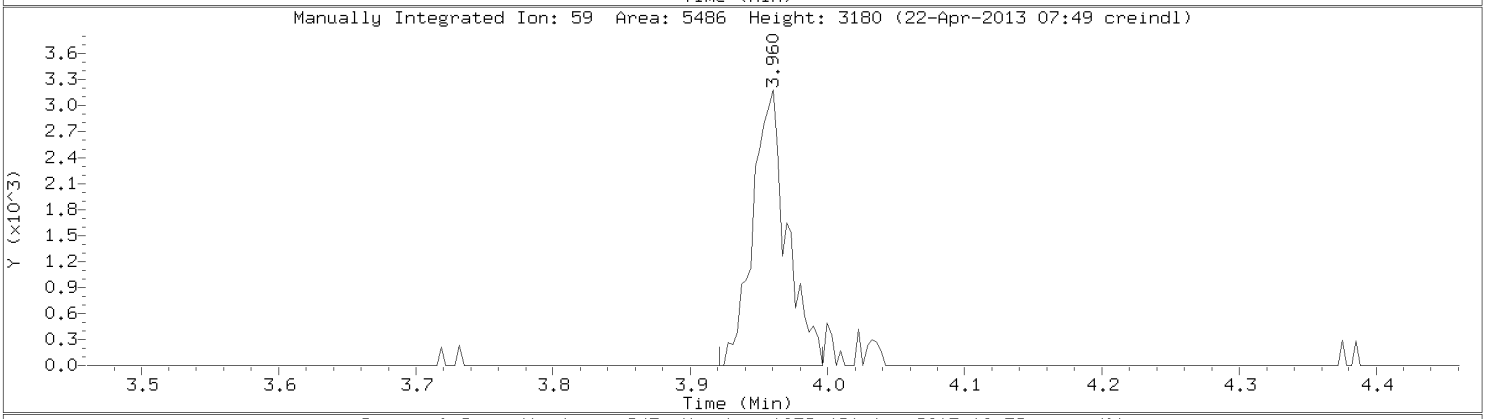
Compound: Acrylonitrile
CAS Number: 107-13-1

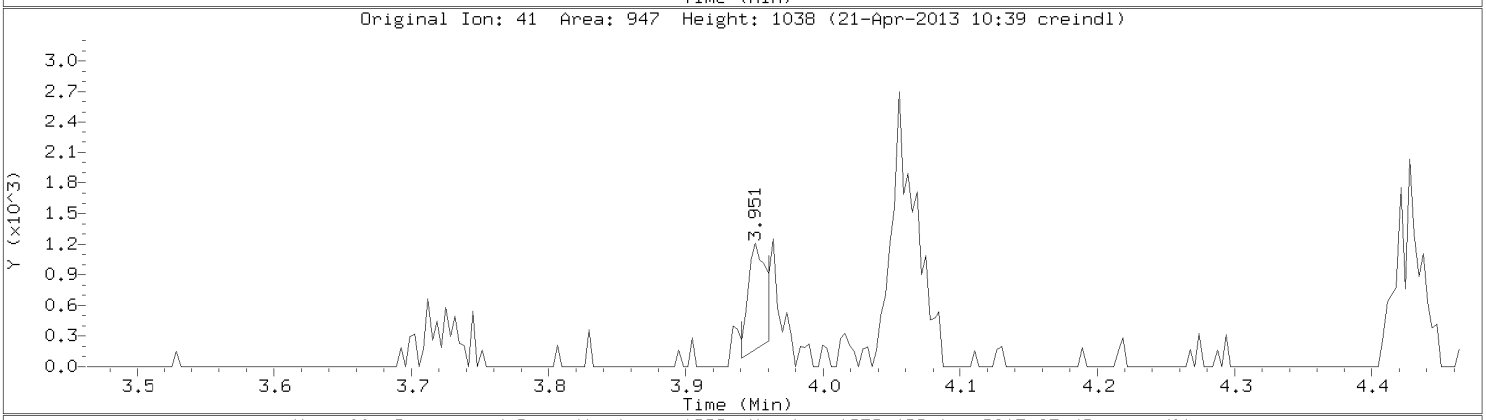


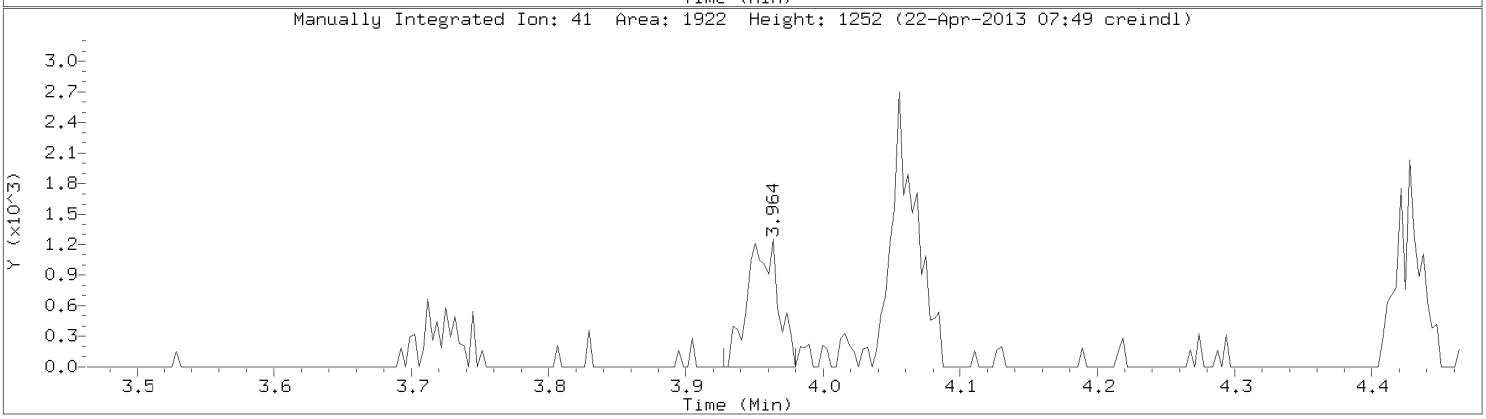
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



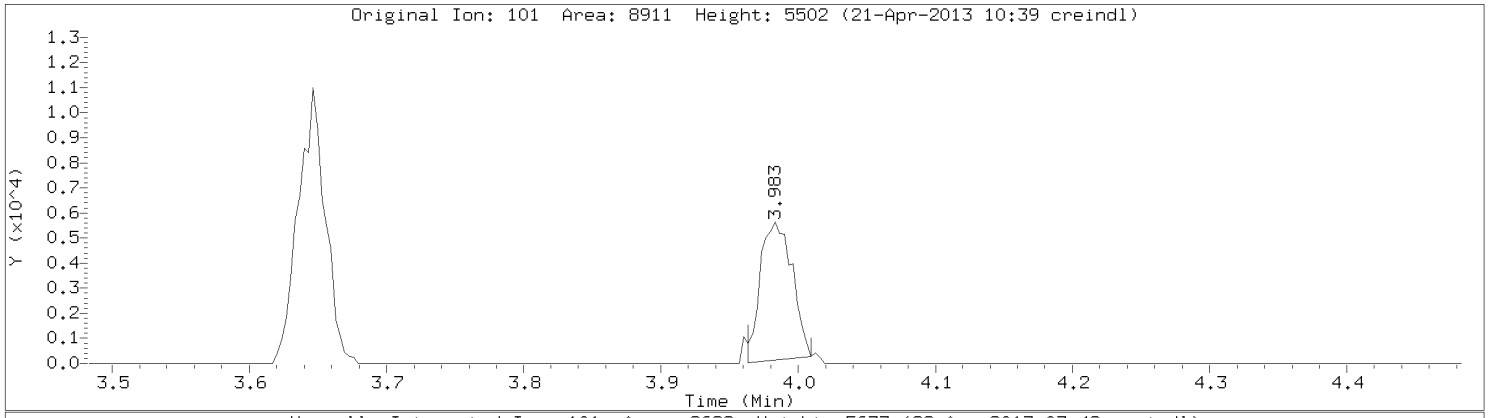


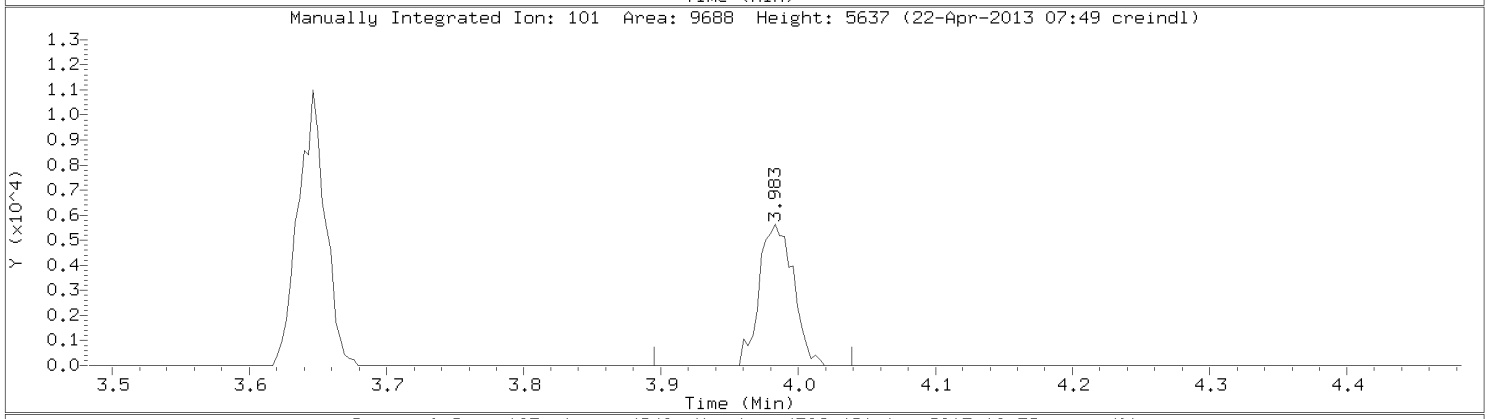


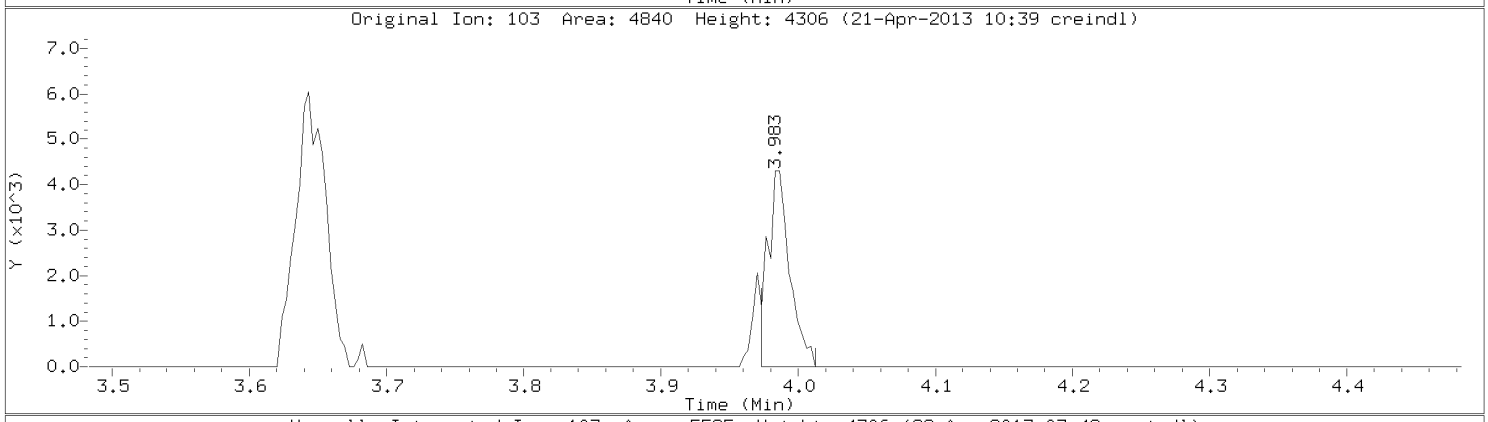


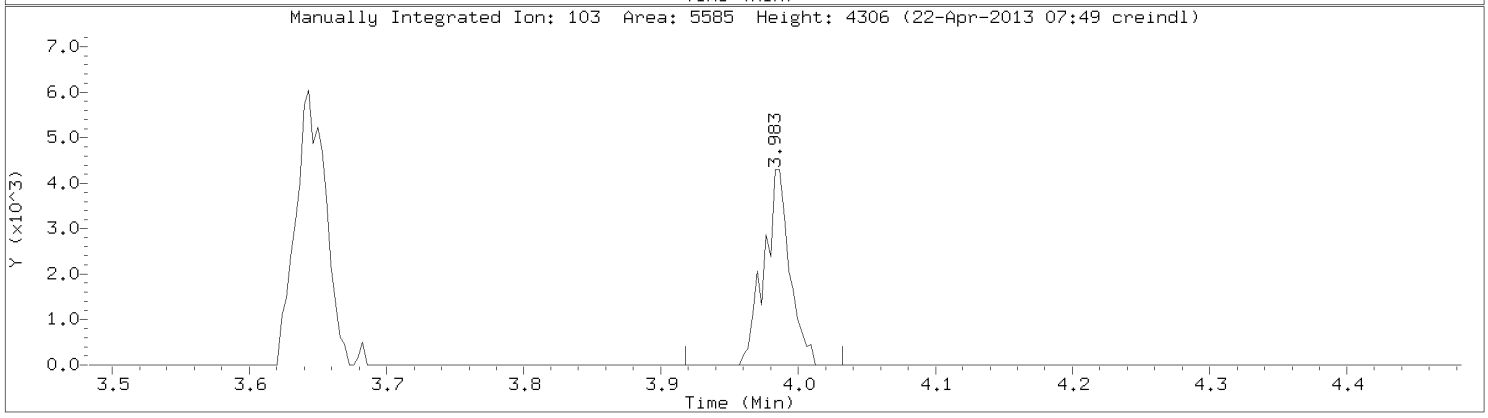
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Freon 113
CAS Number: 76-13-1

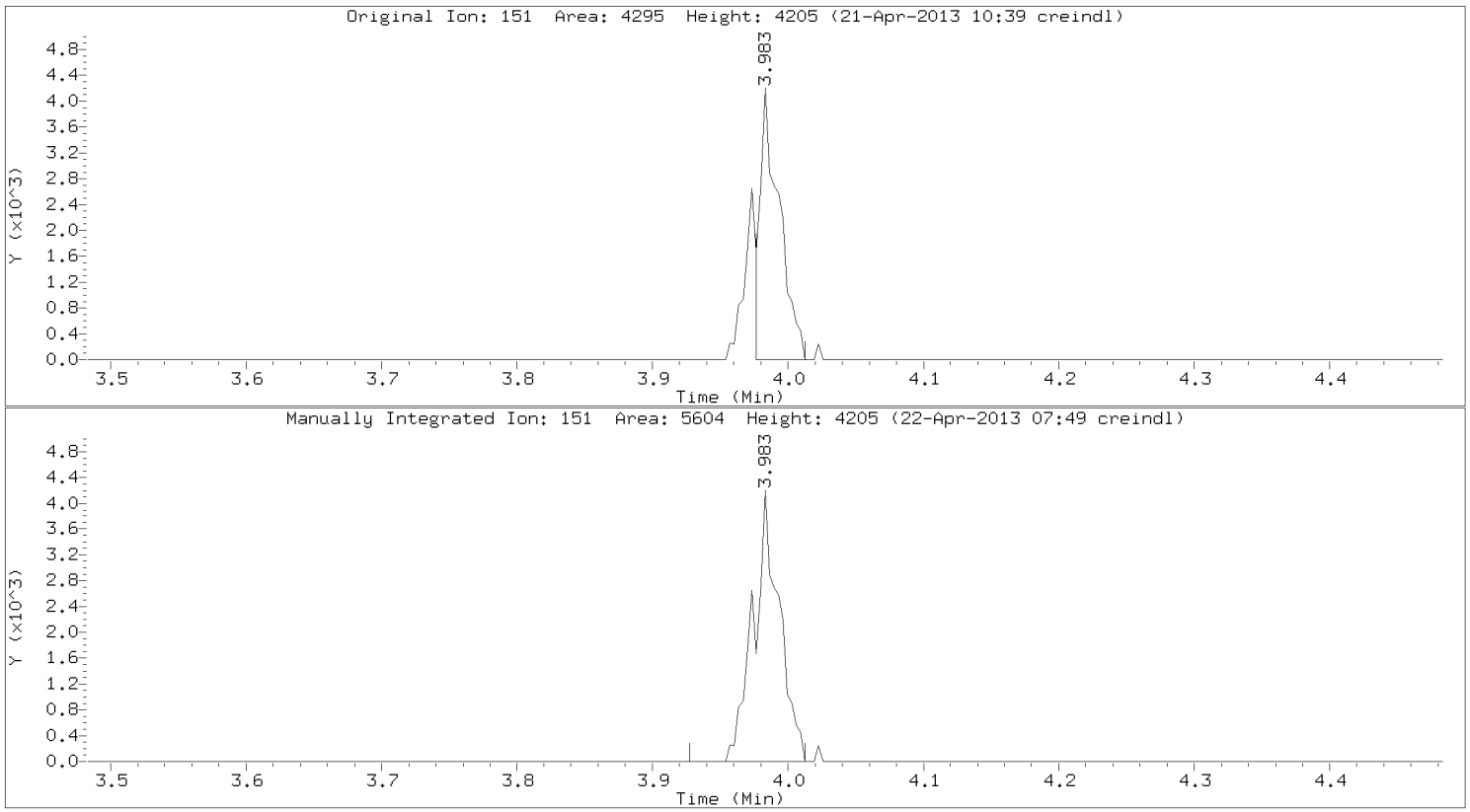






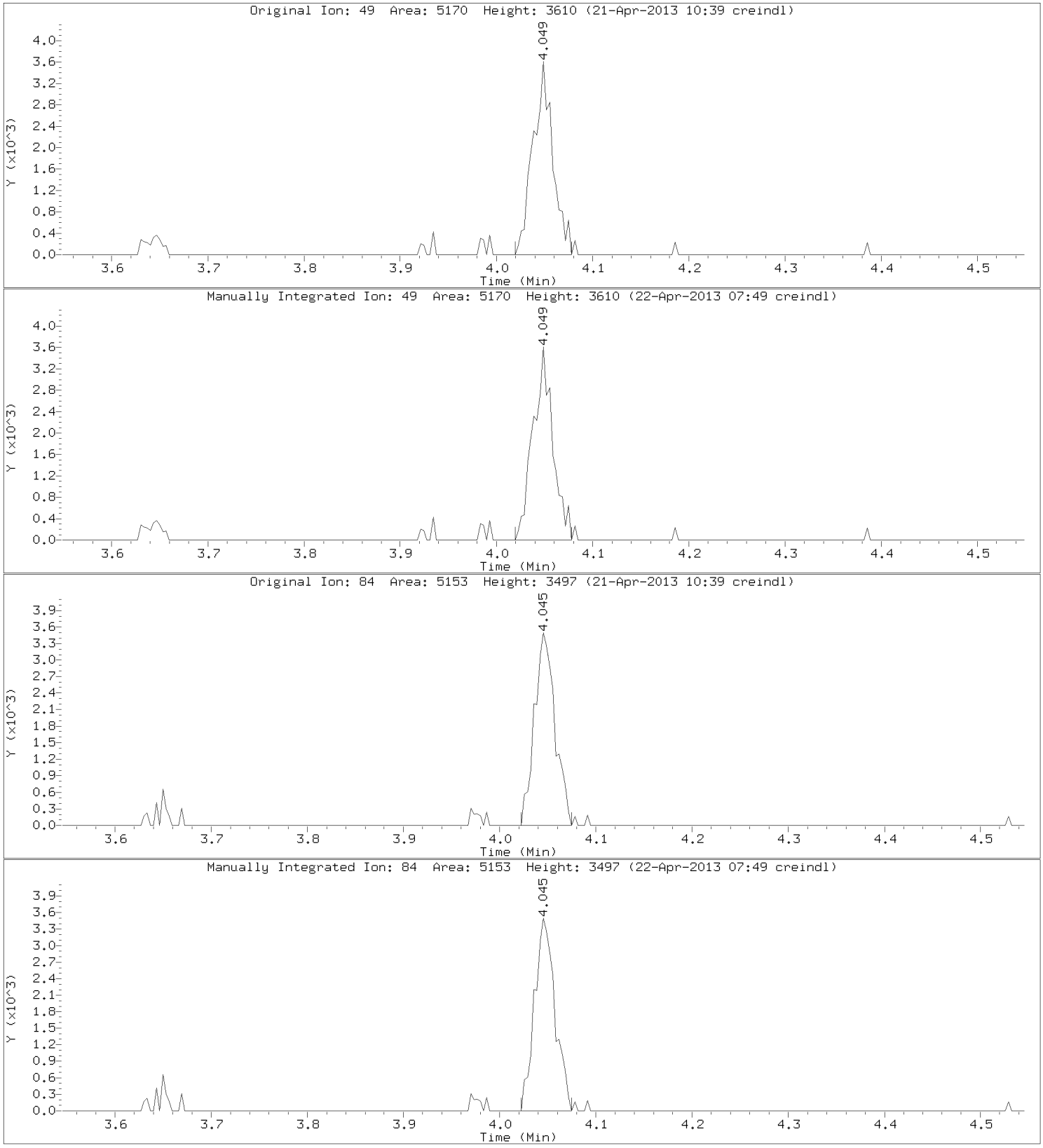


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Instrument: 10airD.i
Lab Sample ID: ICAL1

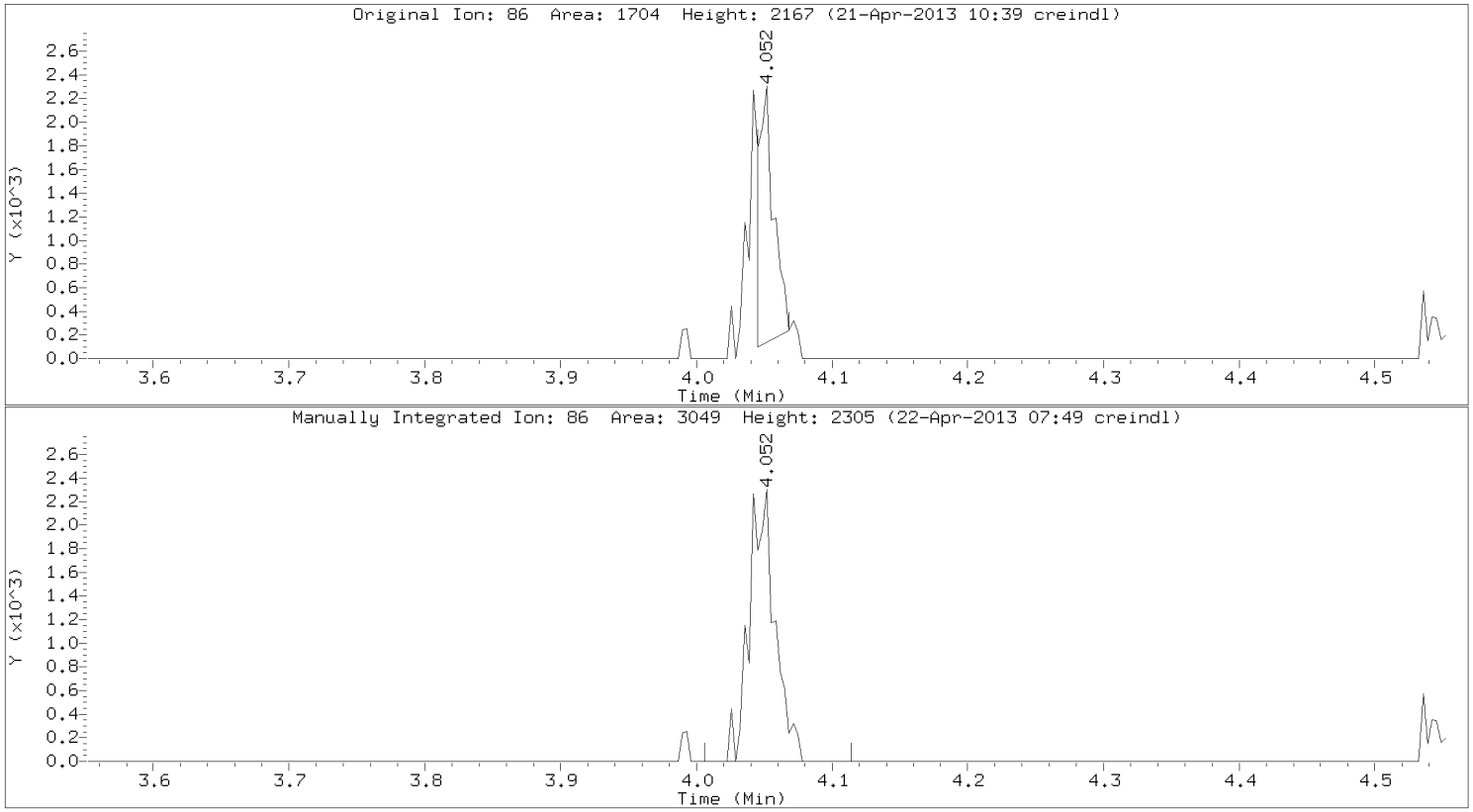


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11105.d
Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Methylene chloride
CAS Number: 75-09-2

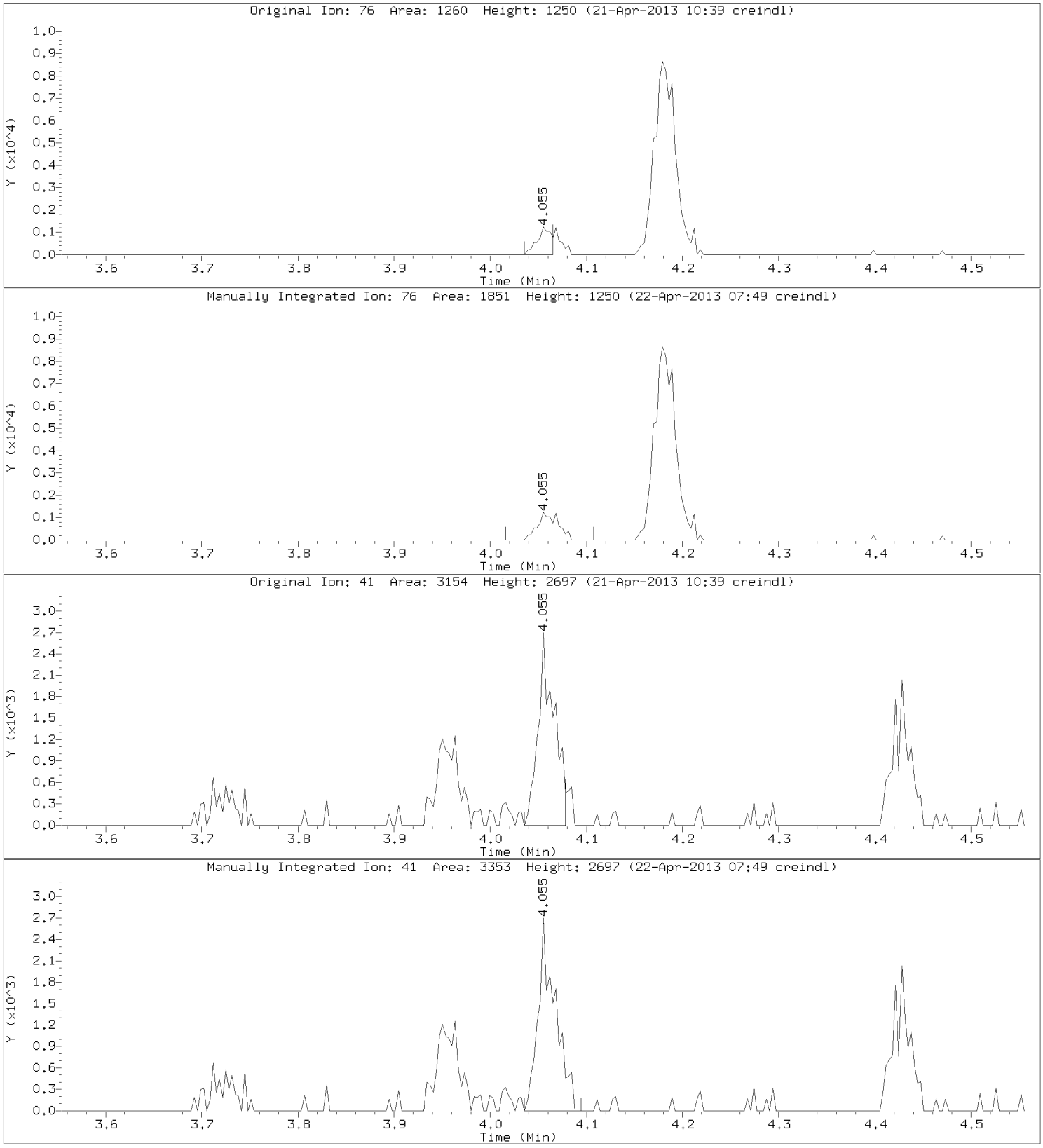


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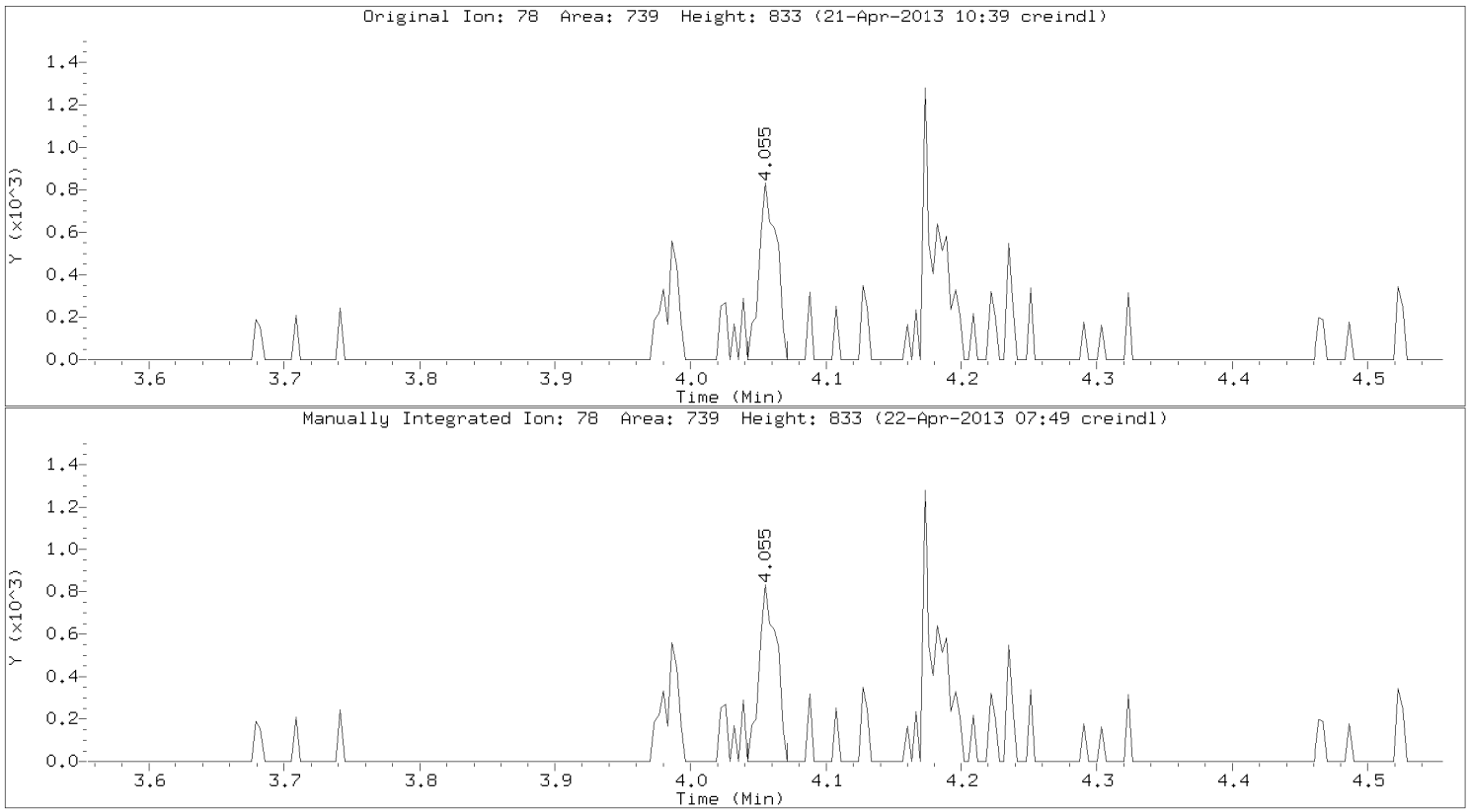


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11105.d
Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Allyl Chloride
CAS Number: 107-05-1

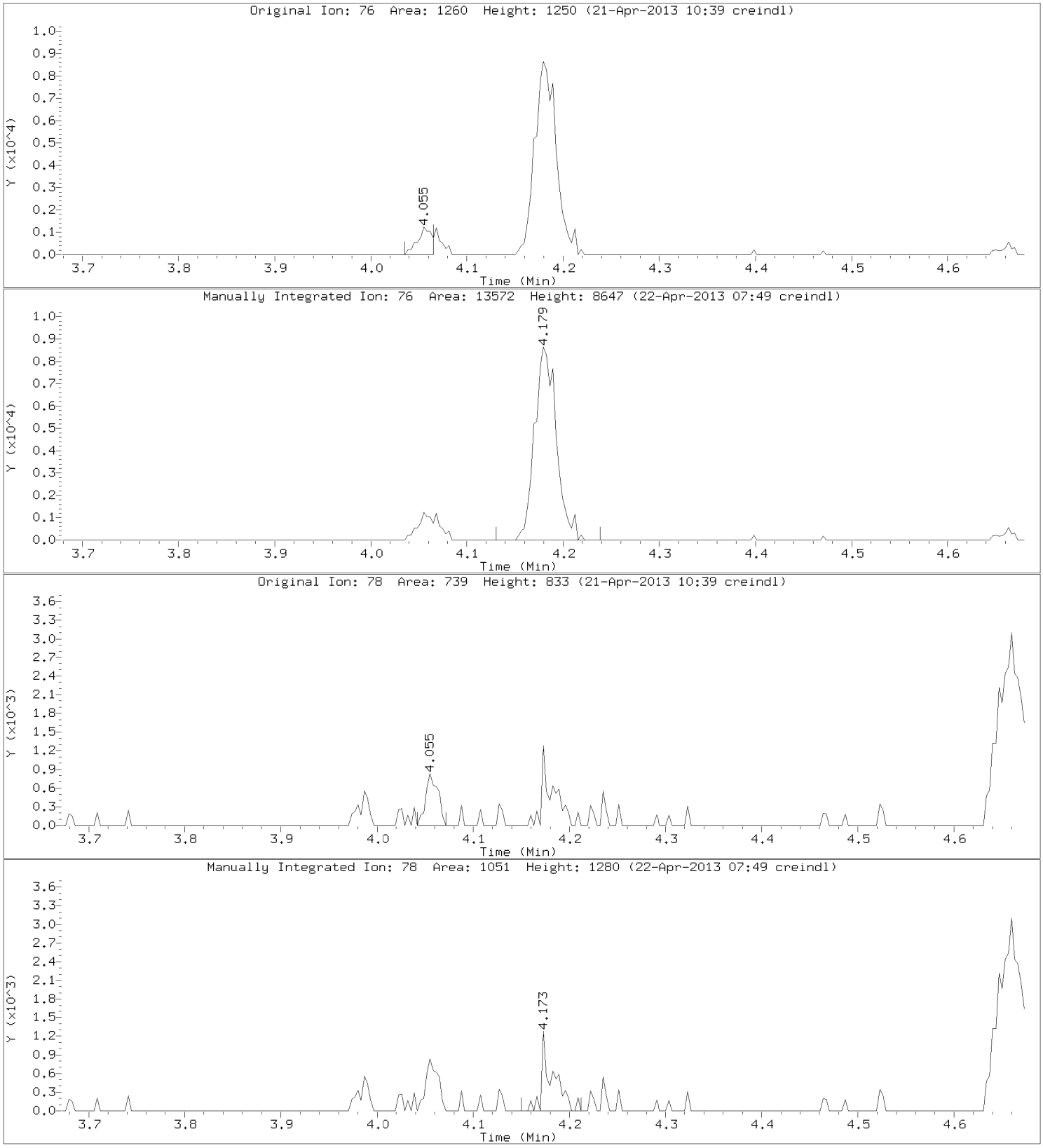


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Instrument: 10airD.i
Lab Sample ID: ICAL1



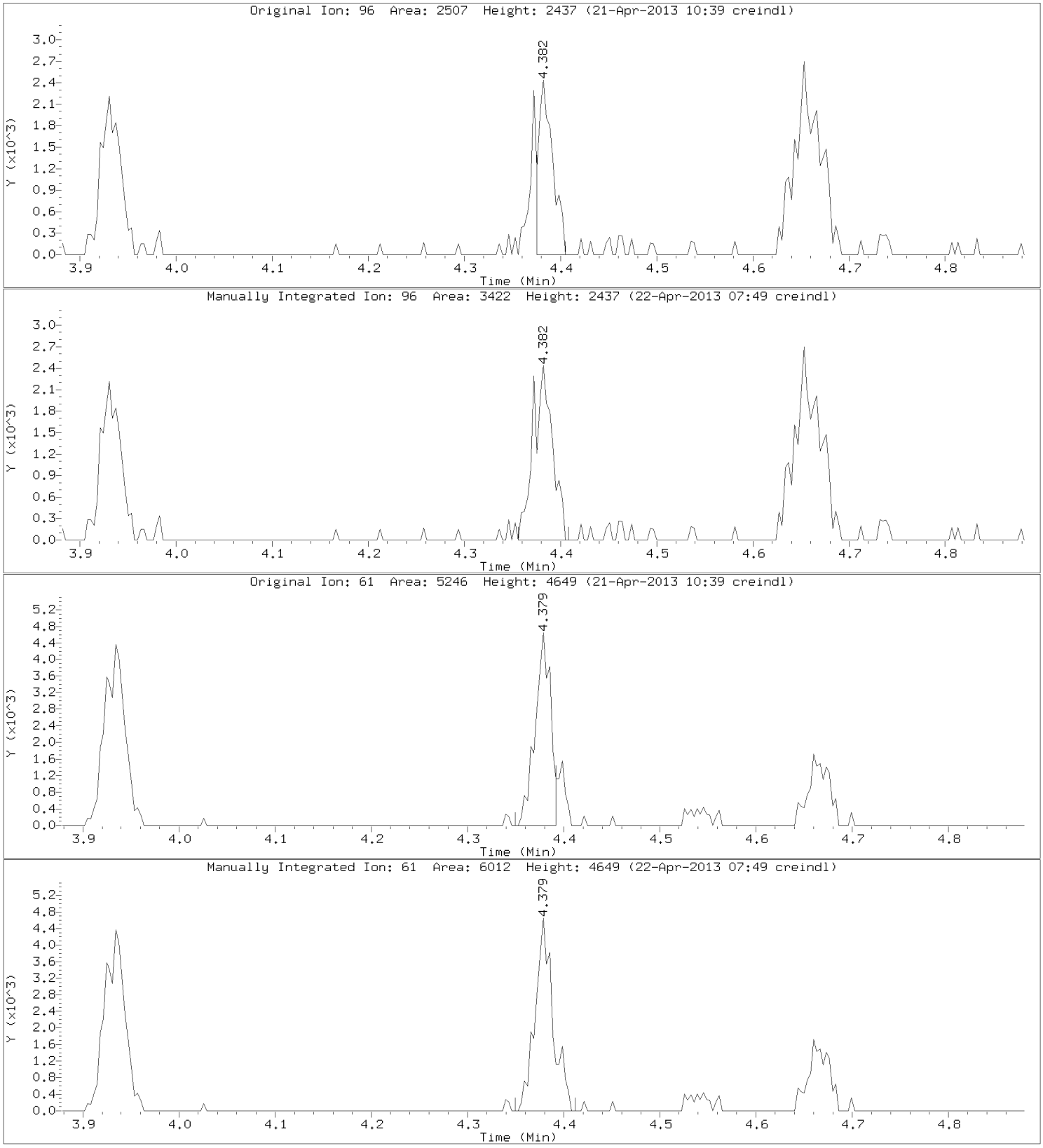
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Carbon Disulfide
CAS Number: 75-15-0

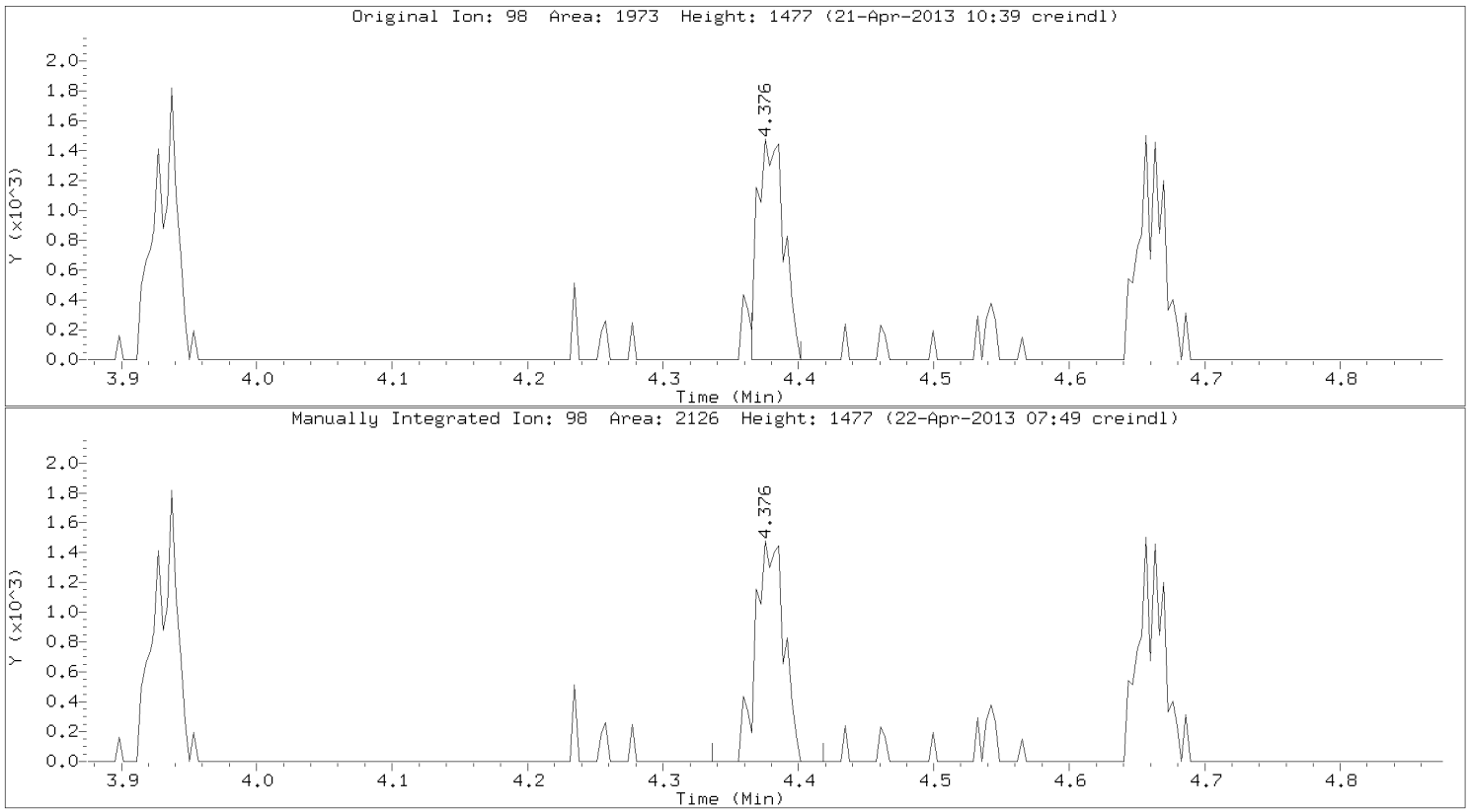


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: trans-1,2-dichloroethene
CAS Number: 156-60-5

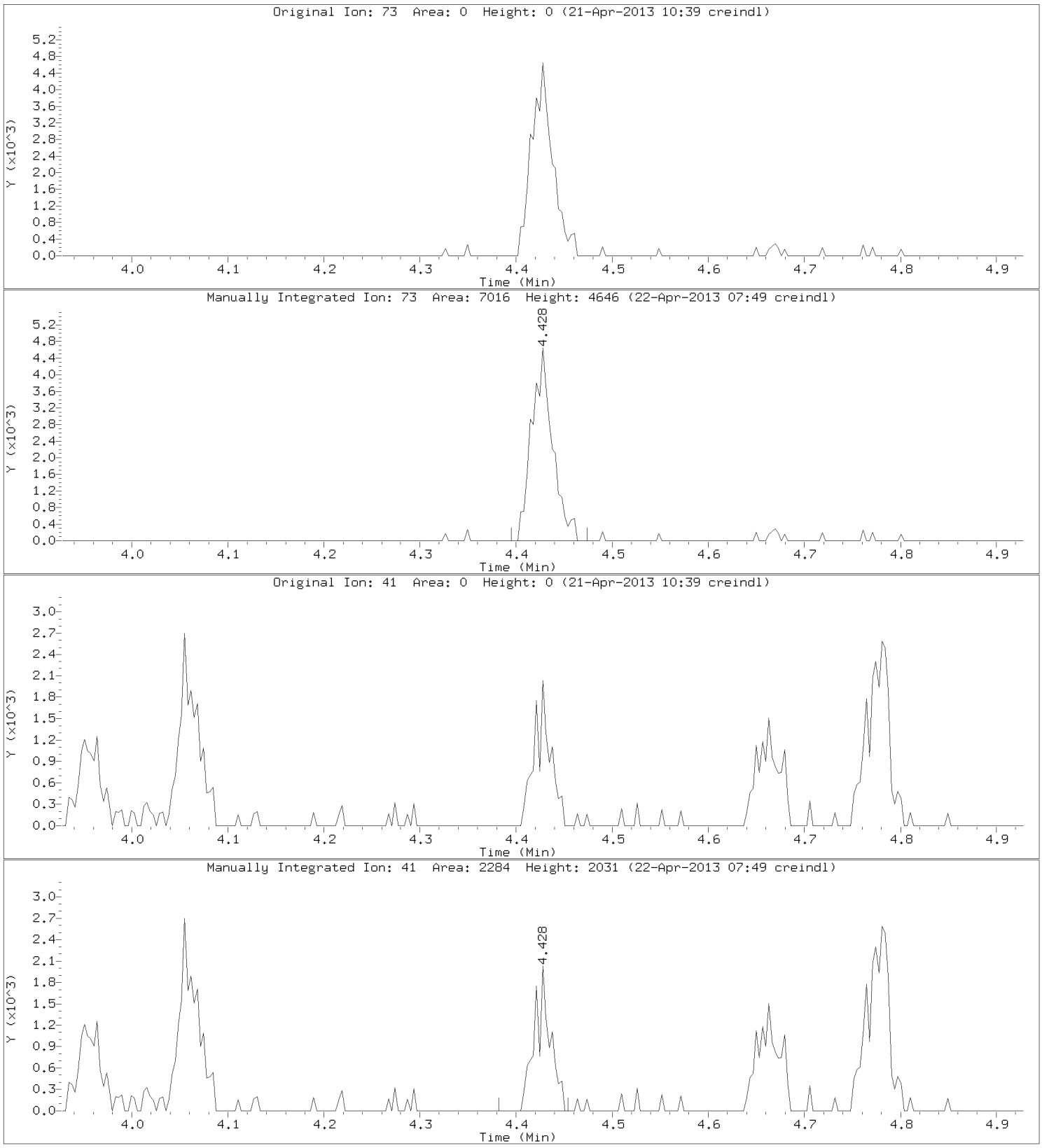


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Instrument: 10airD.i
Lab Sample ID: ICAL1



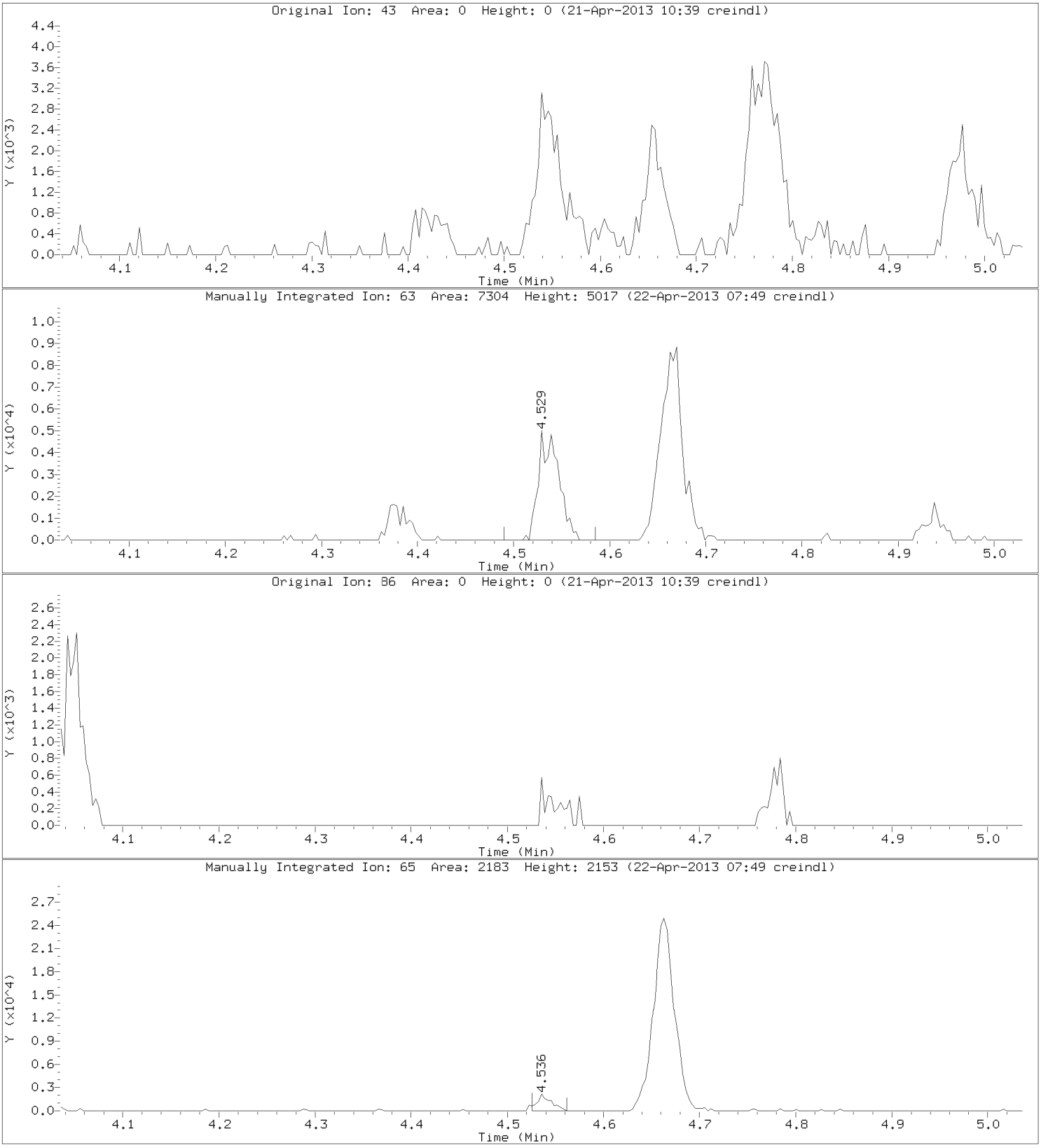
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



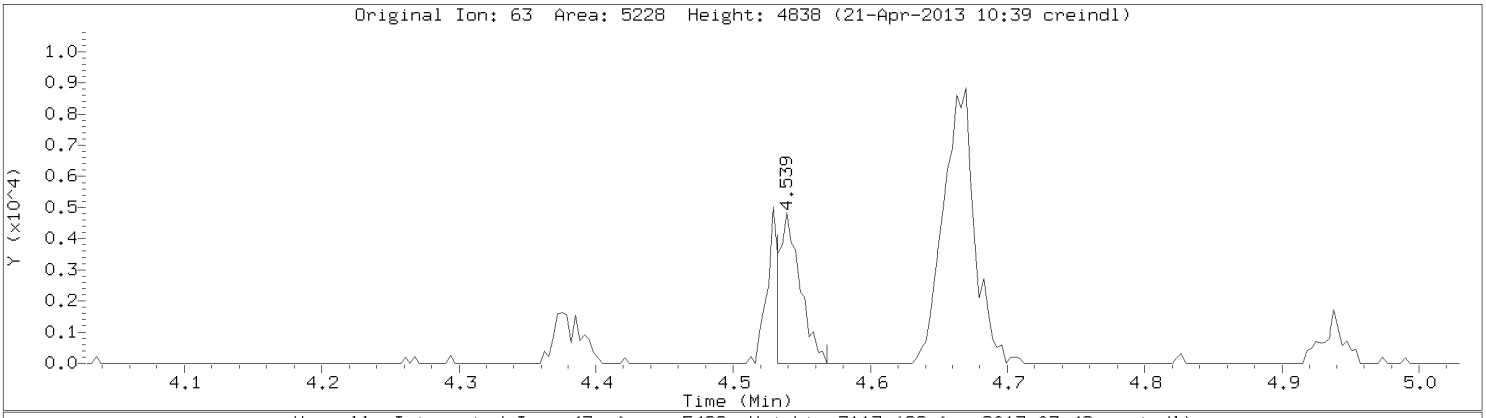
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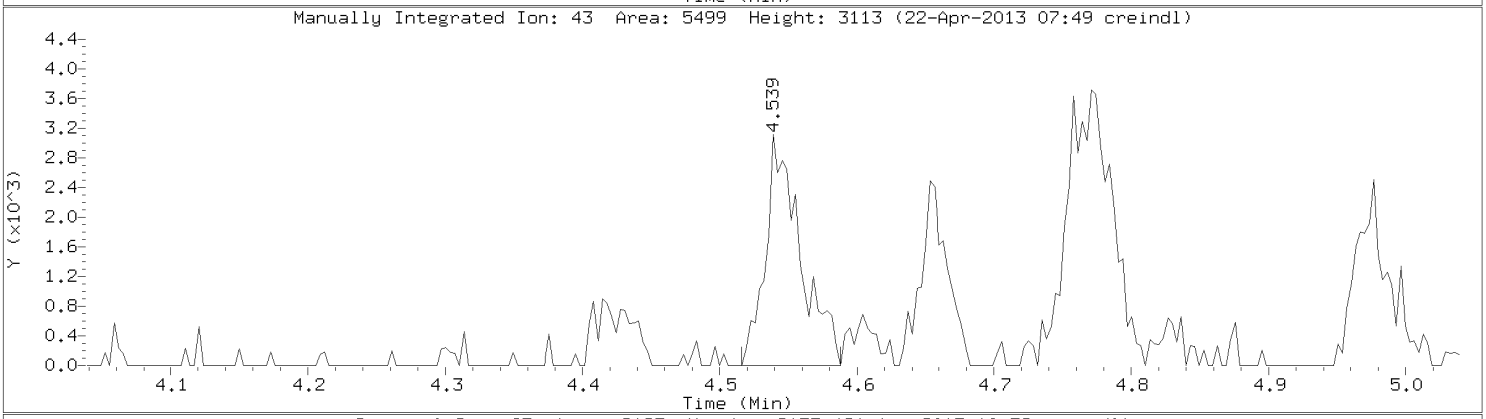
Compound: 1,1-Dichloroethane
CAS Number: 75-34-3

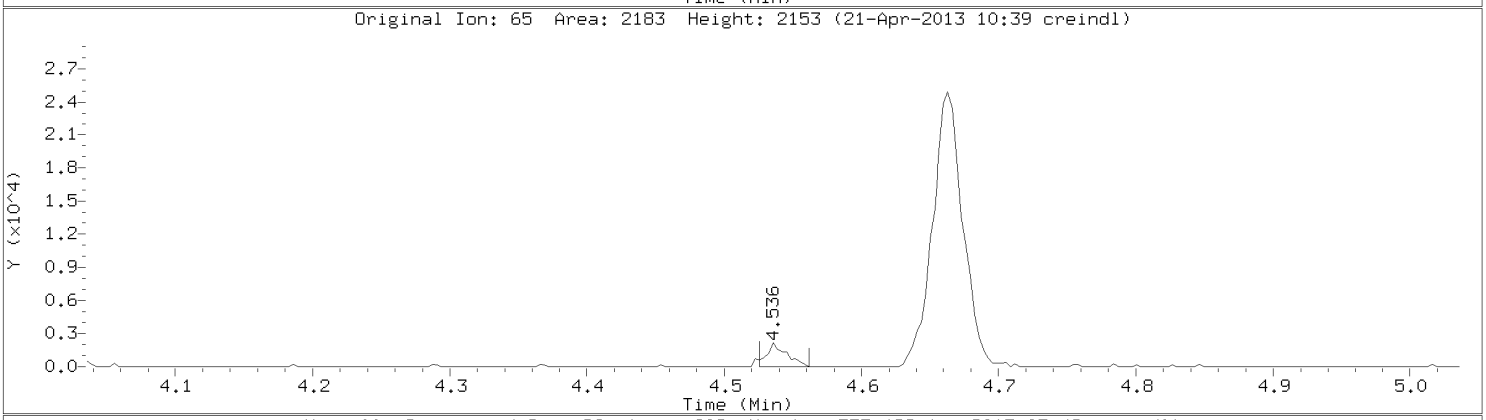


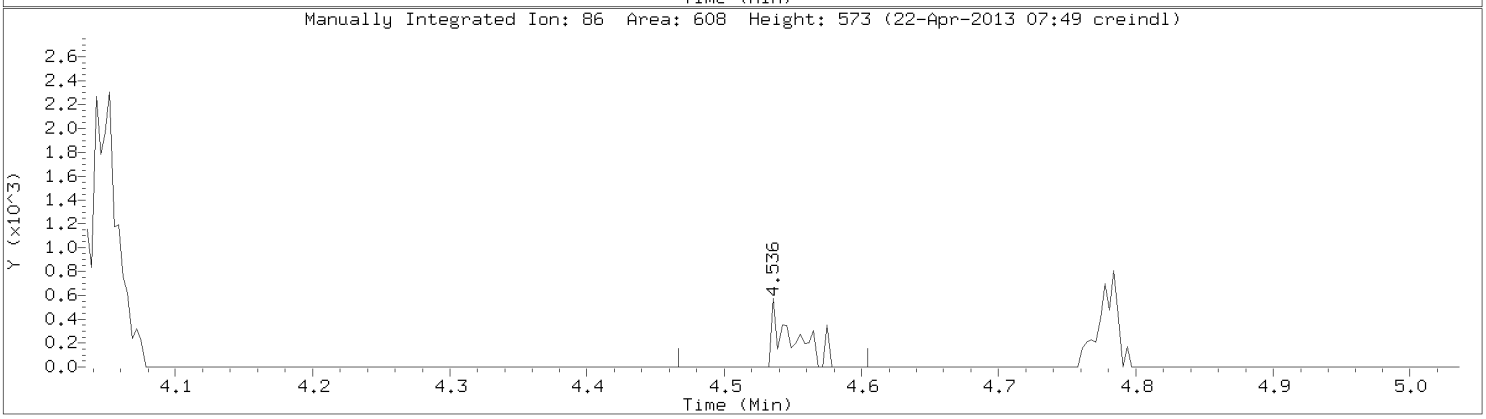
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Vinyl Acetate
CAS Number: 108-05-4



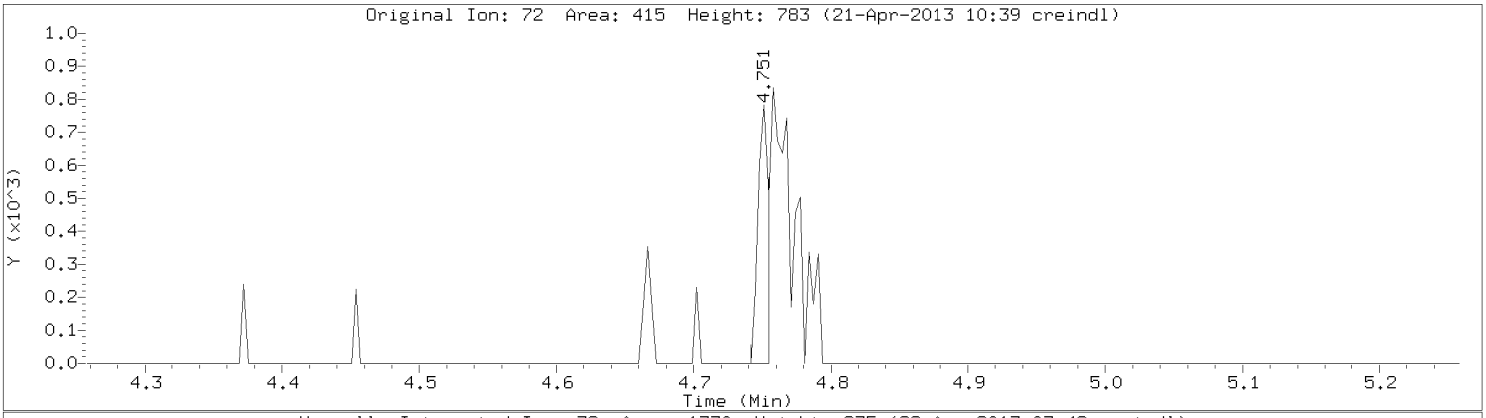


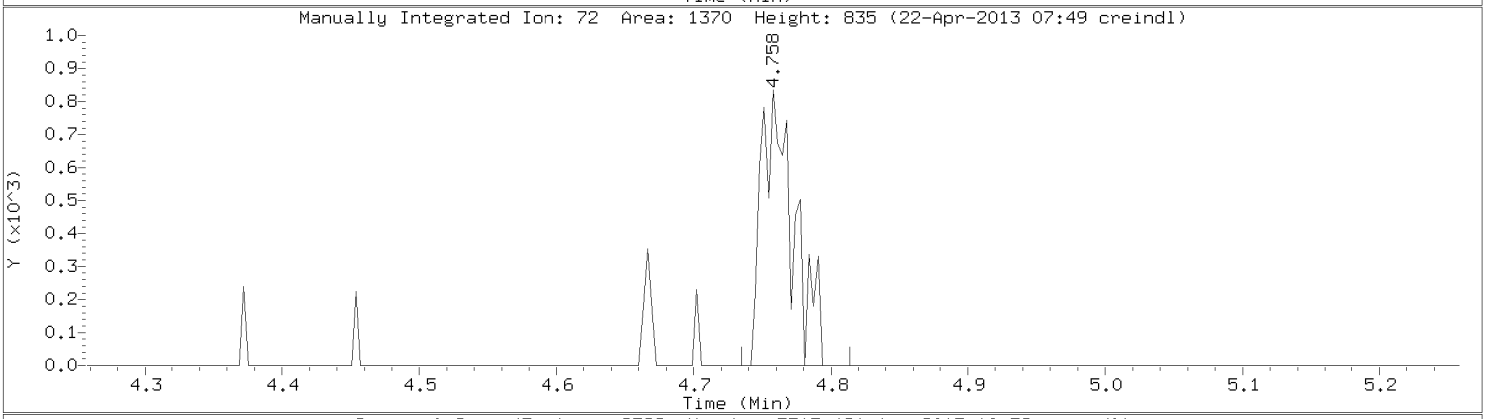


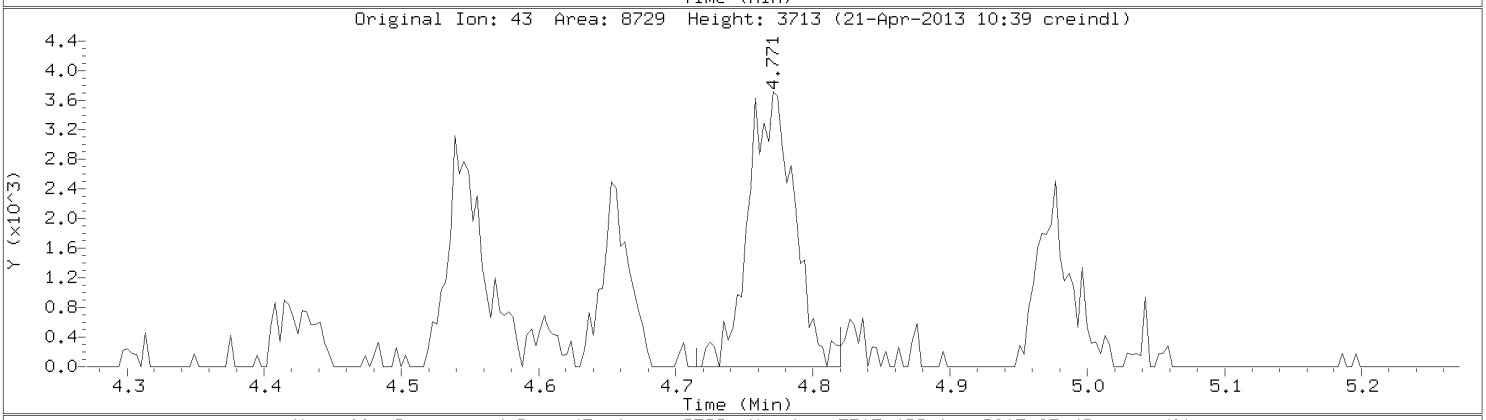


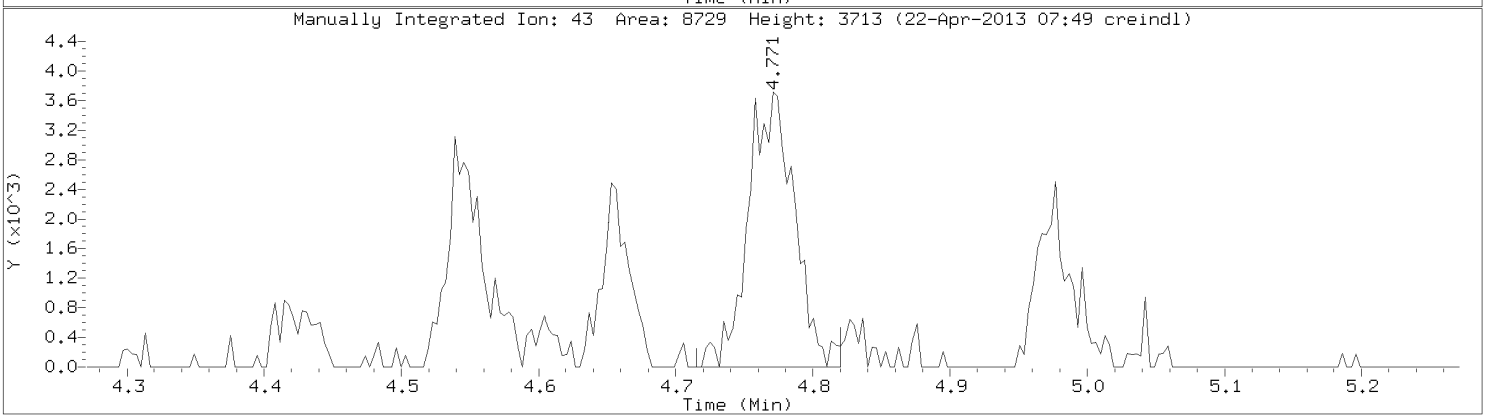
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3



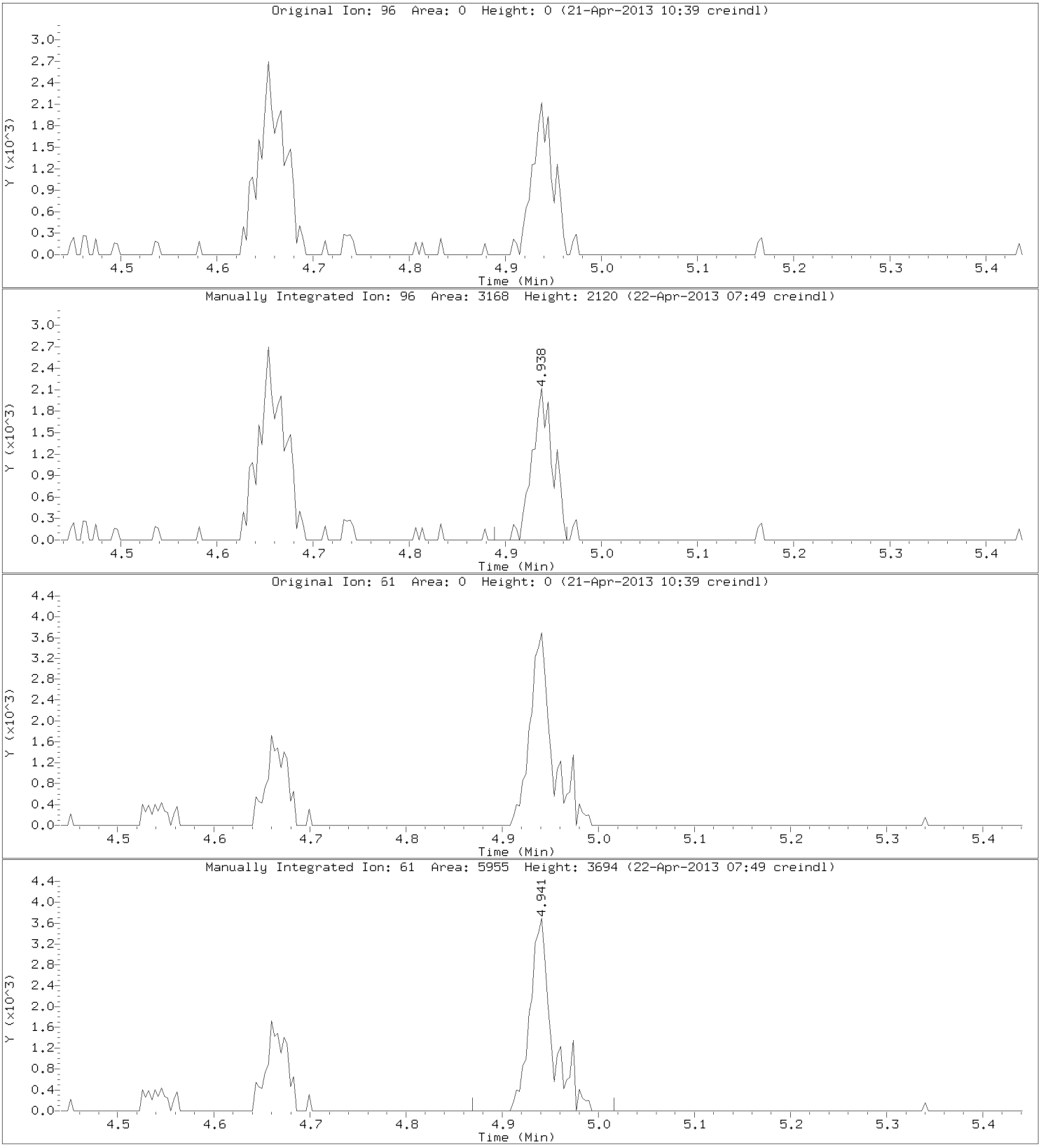




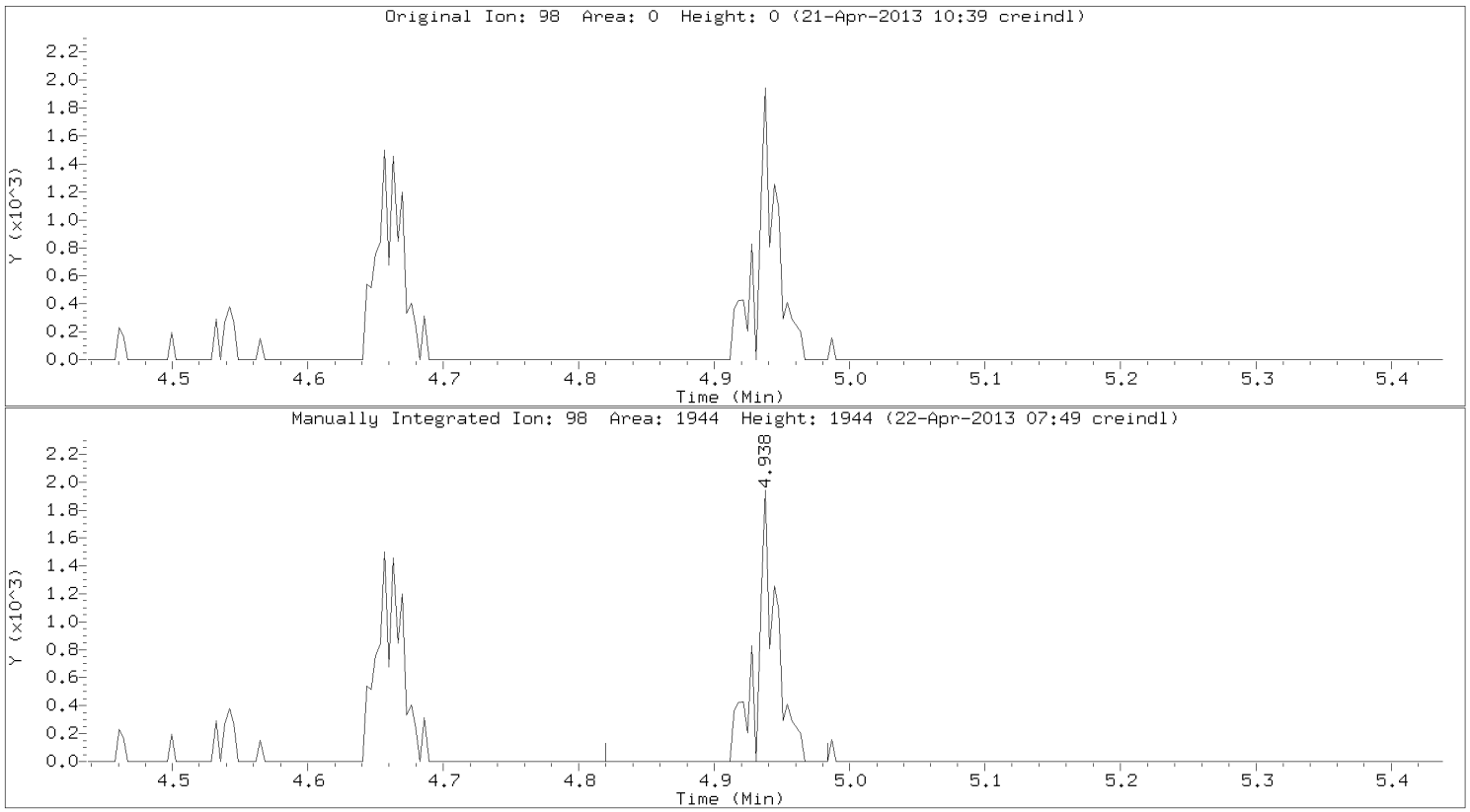


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2

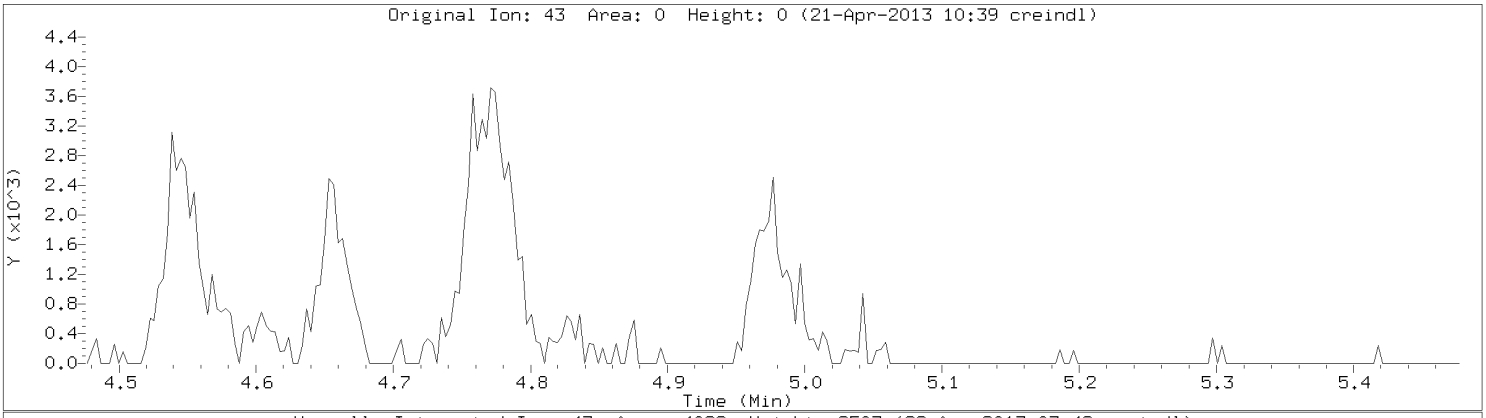


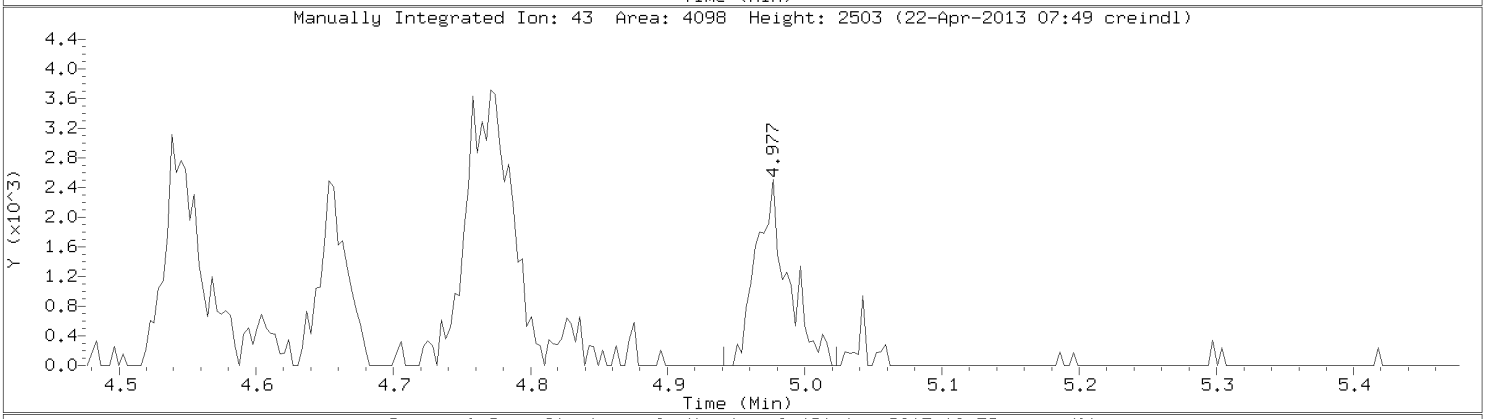
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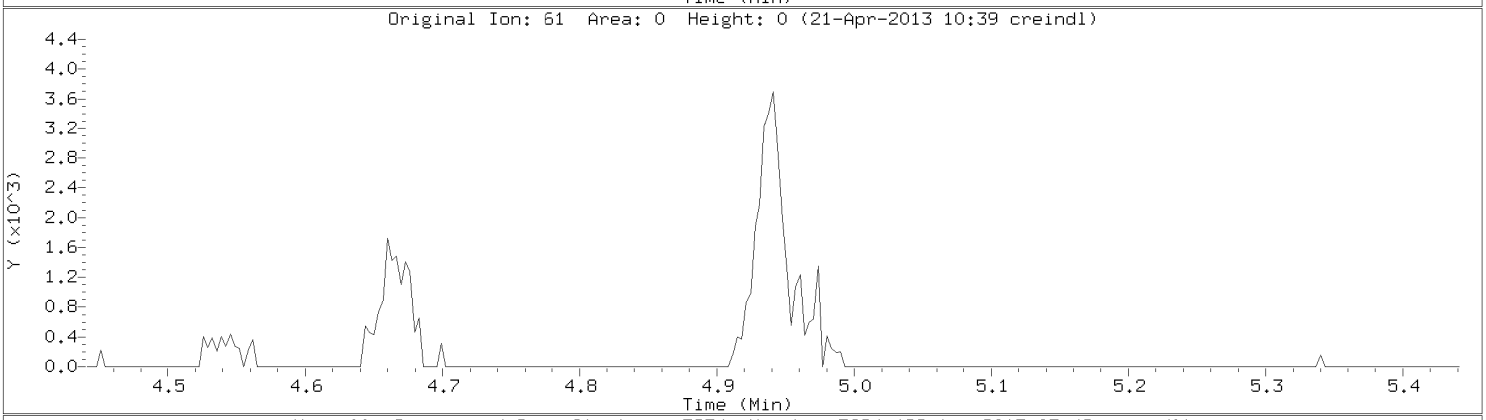


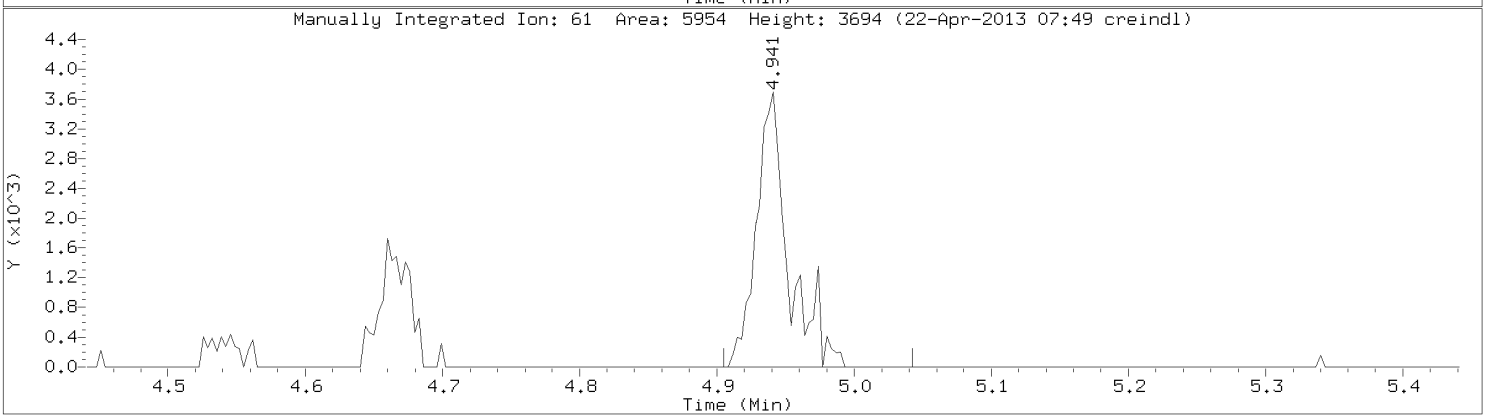
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Ethyl Acetate
CAS Number: 141-78-6

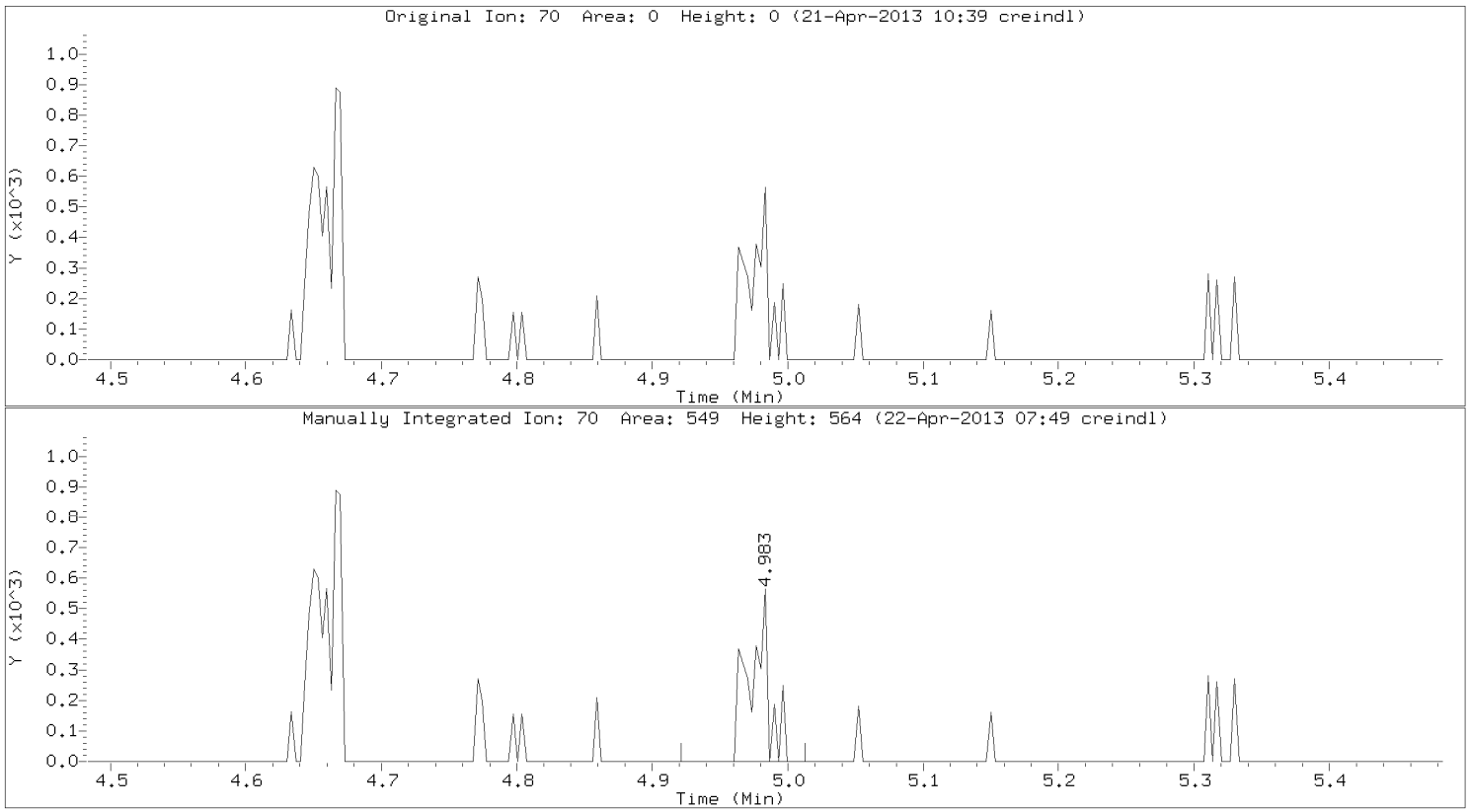






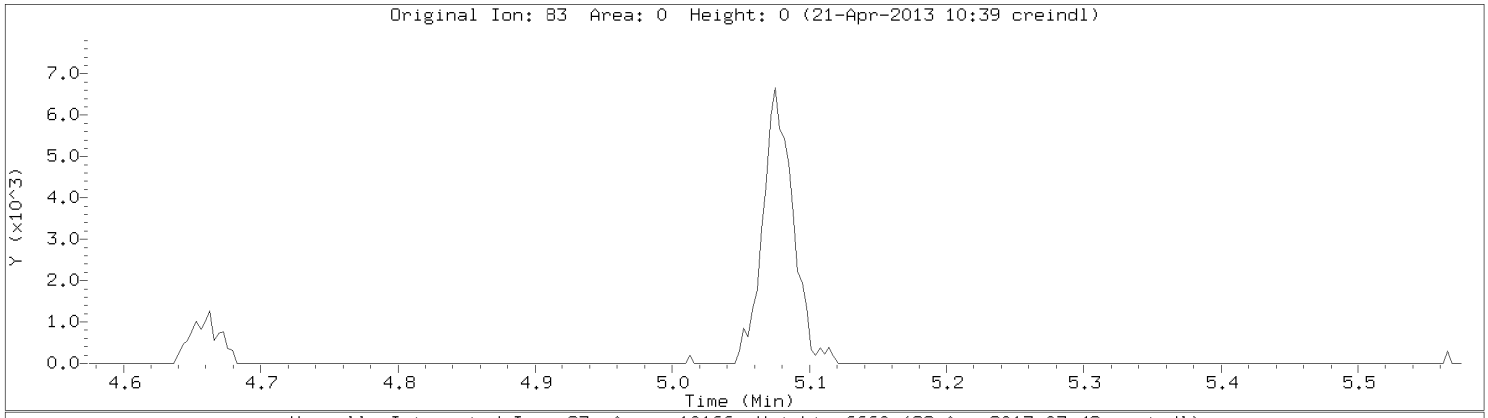


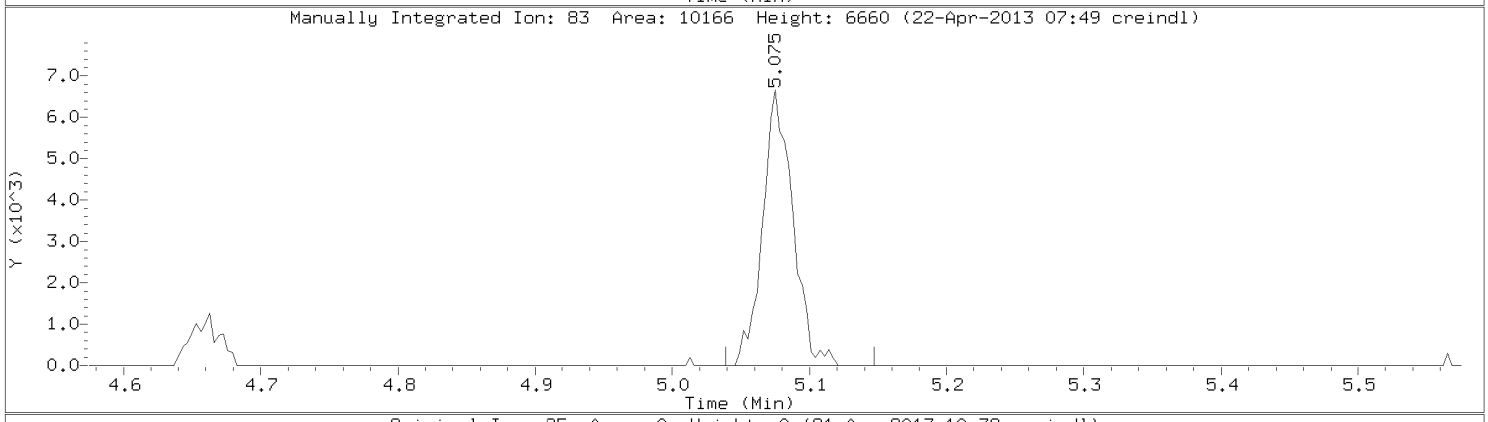
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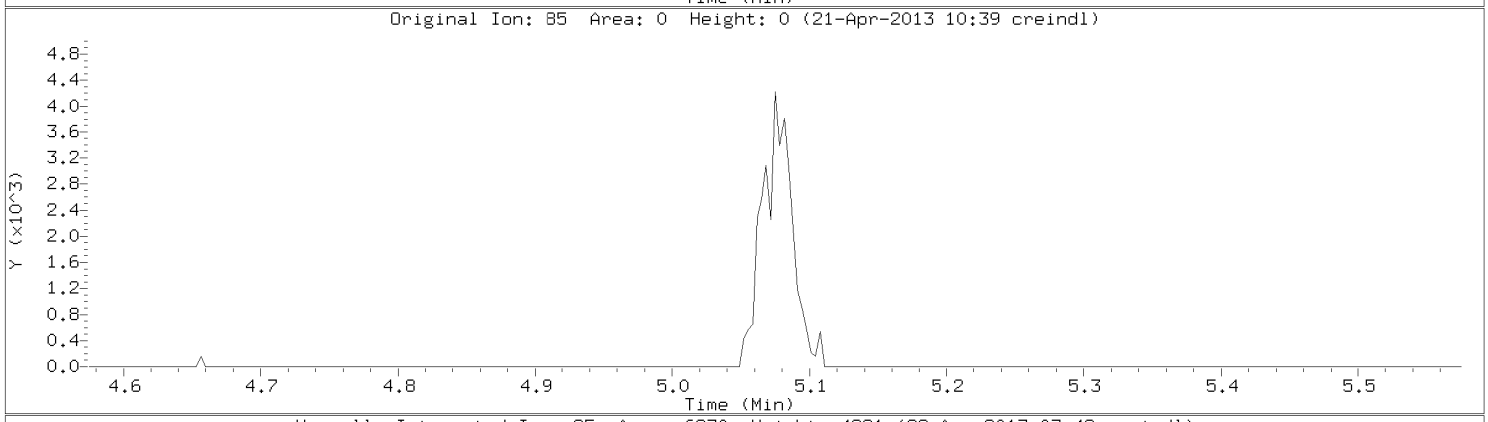


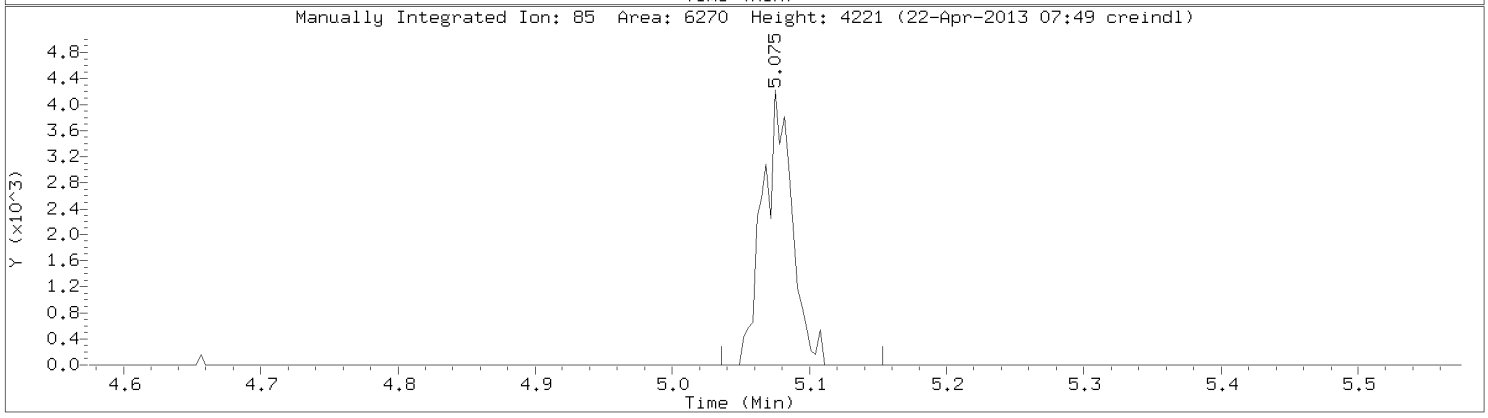
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Chloroform
CAS Number: 67-66-3

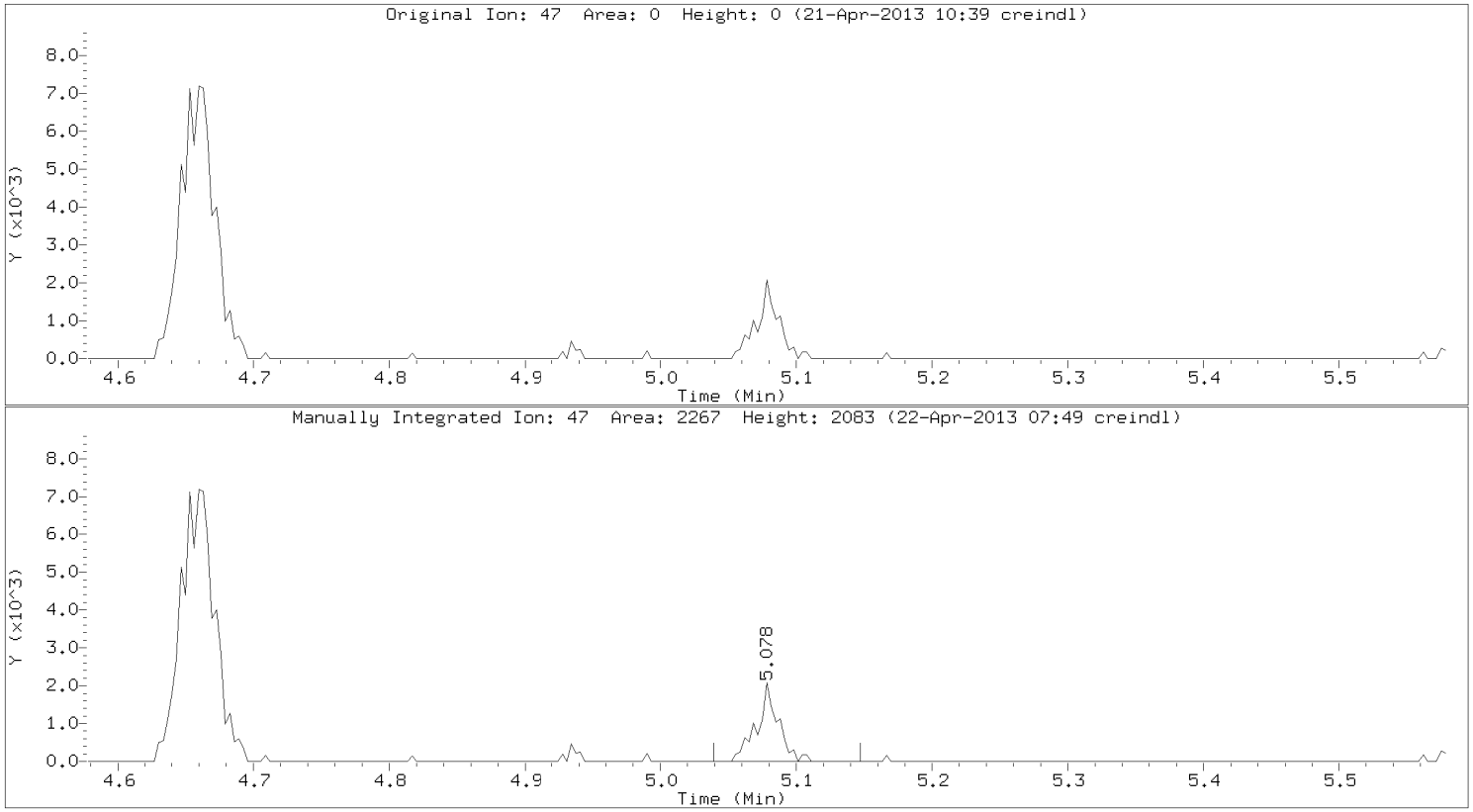






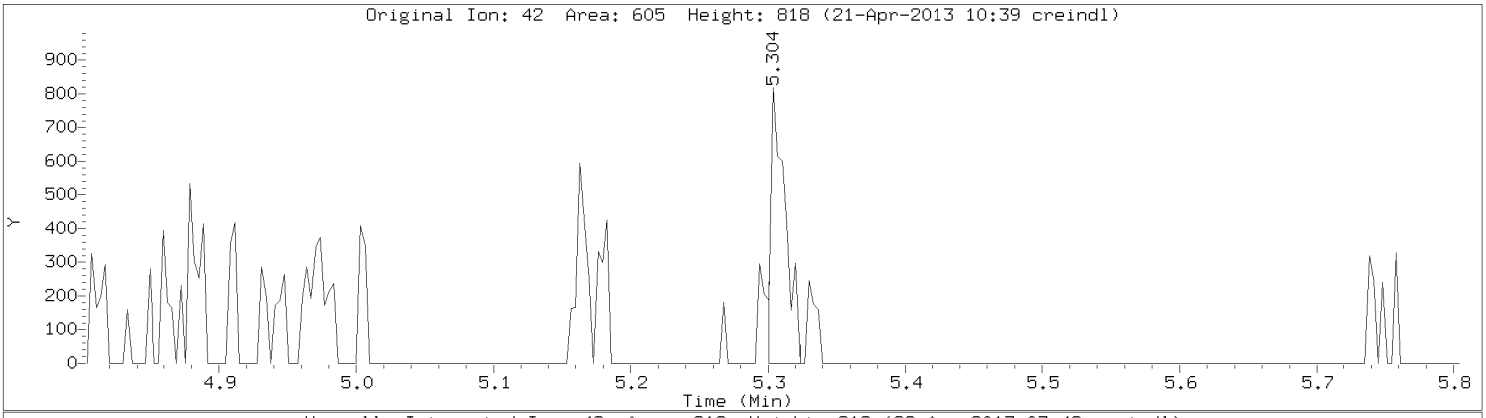


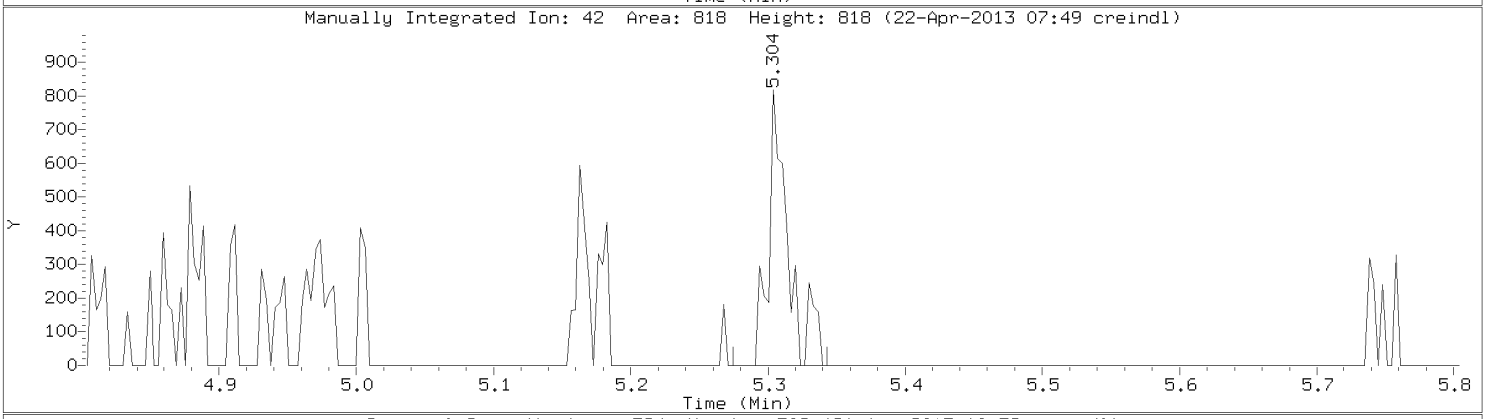
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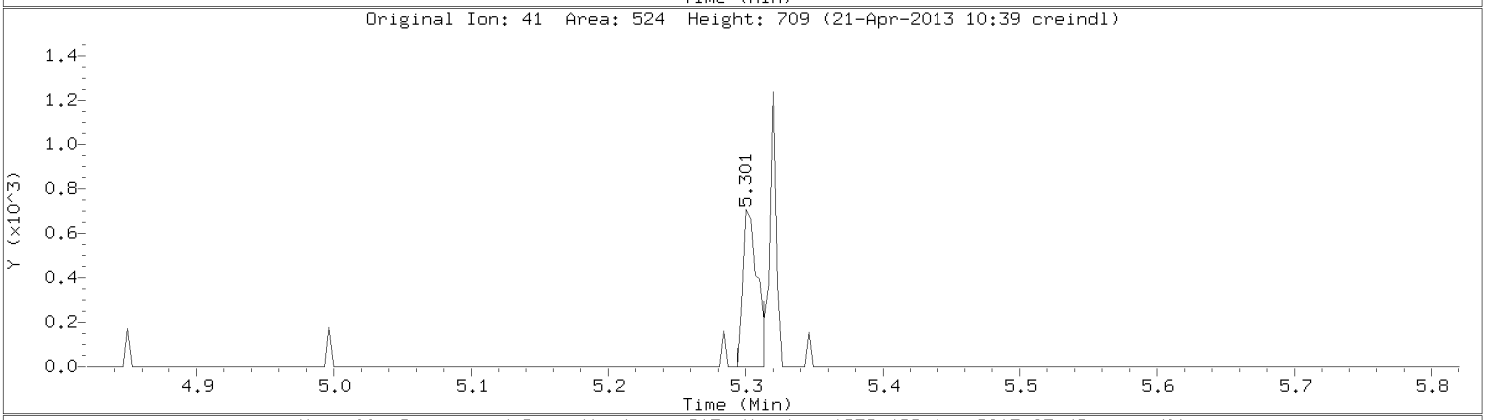


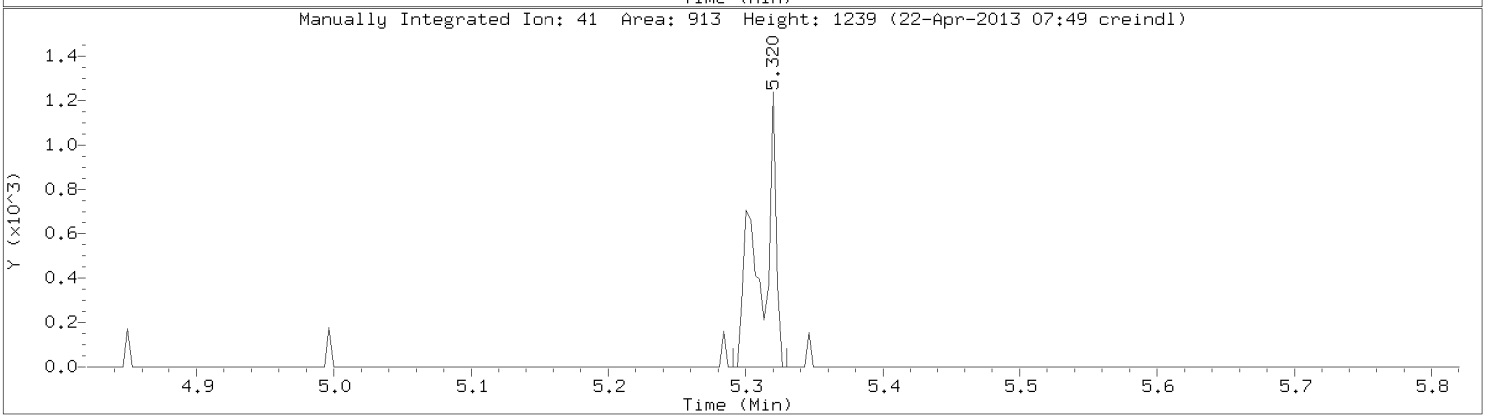
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Tetrahydrofuran
CAS Number: 109-99-9

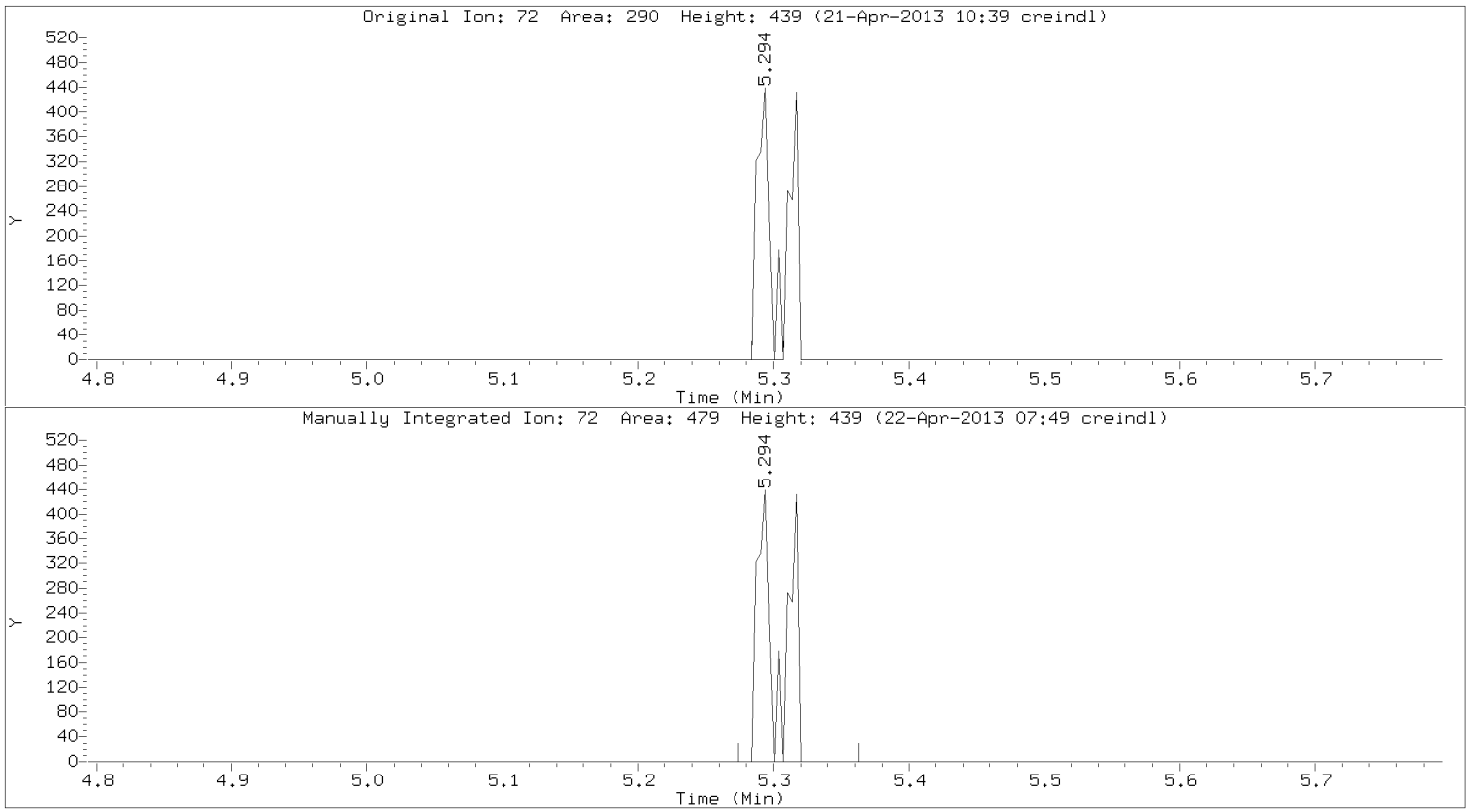






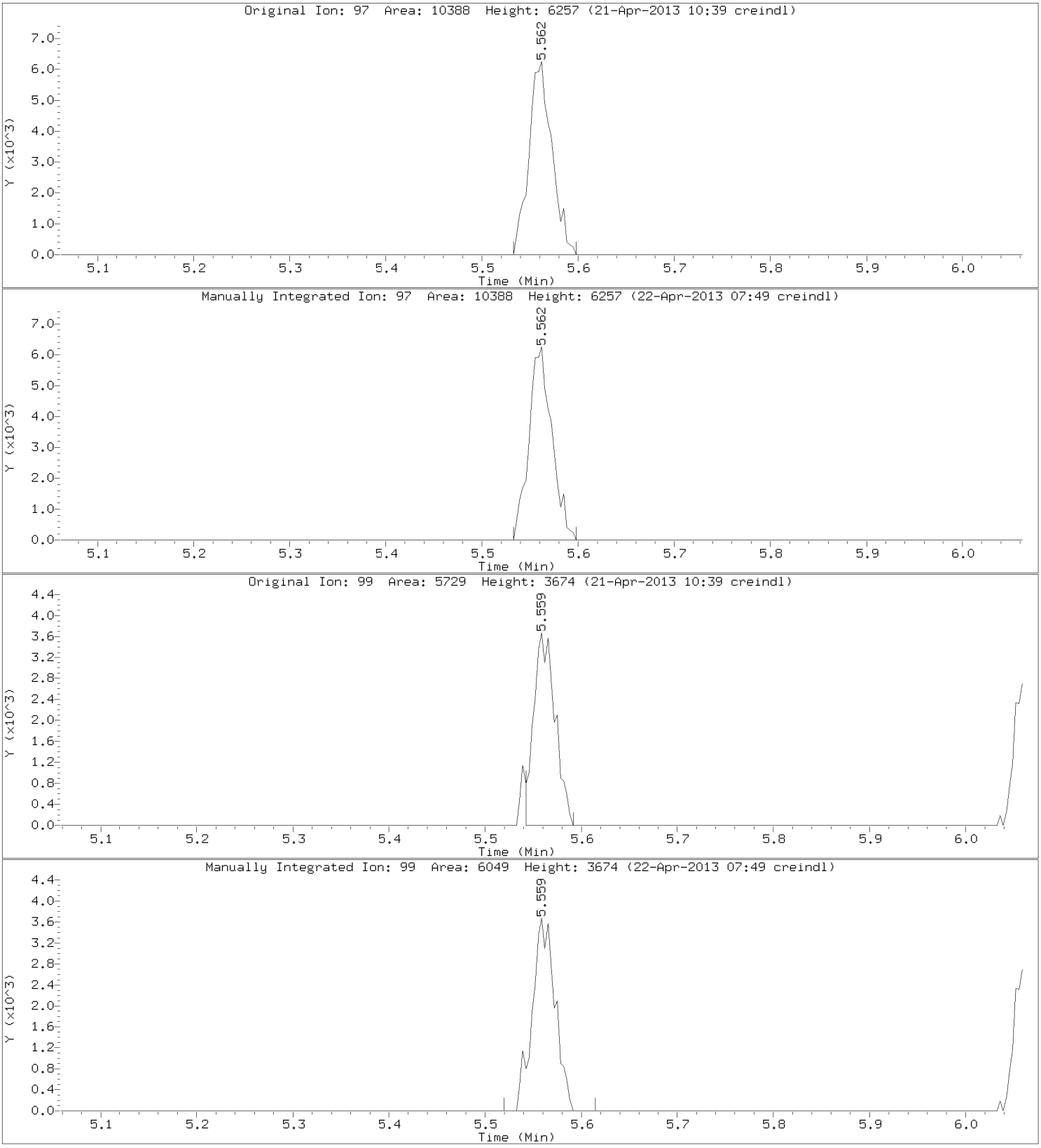


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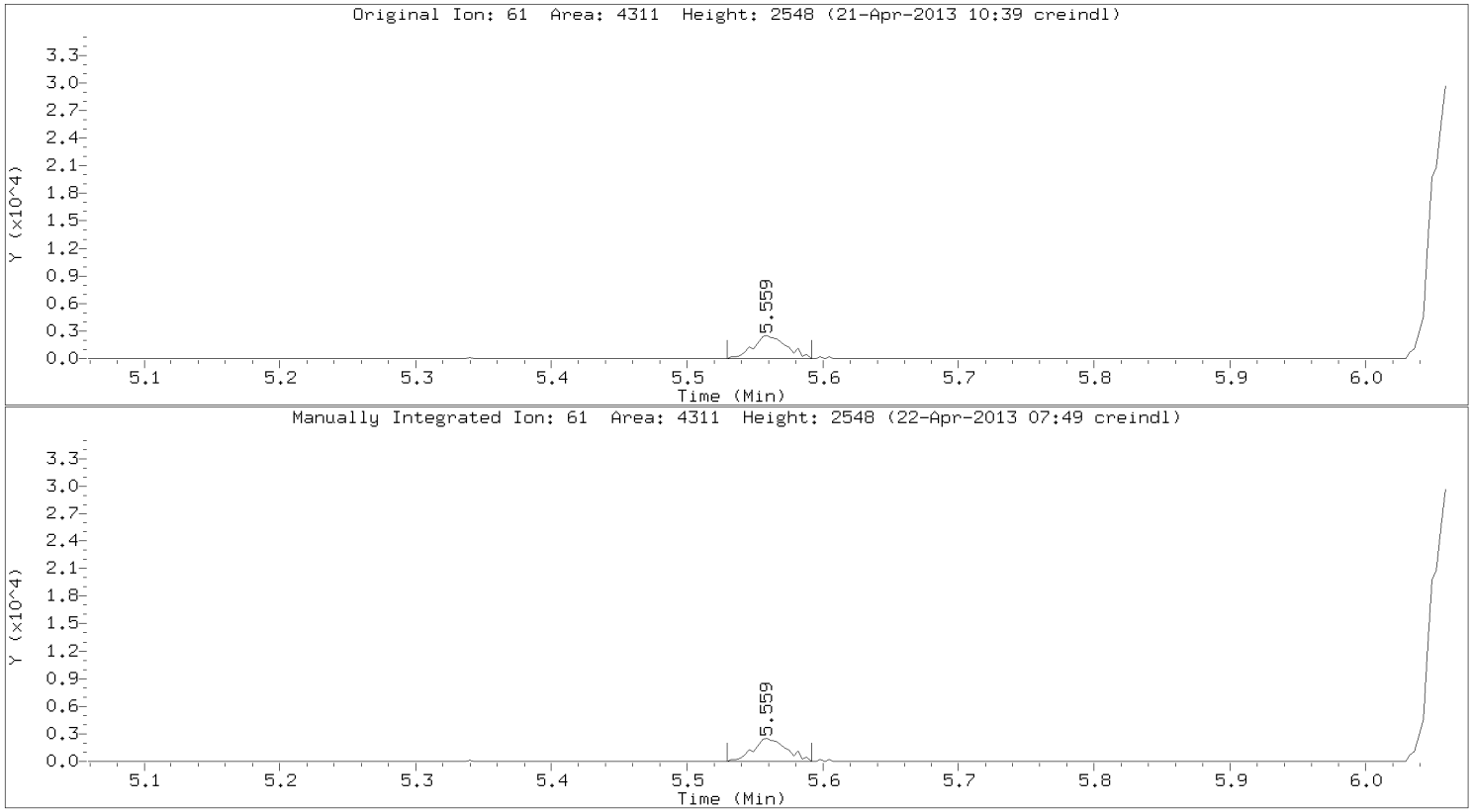


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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,1,1-Trichloroethane
CAS Number: 71-55-6

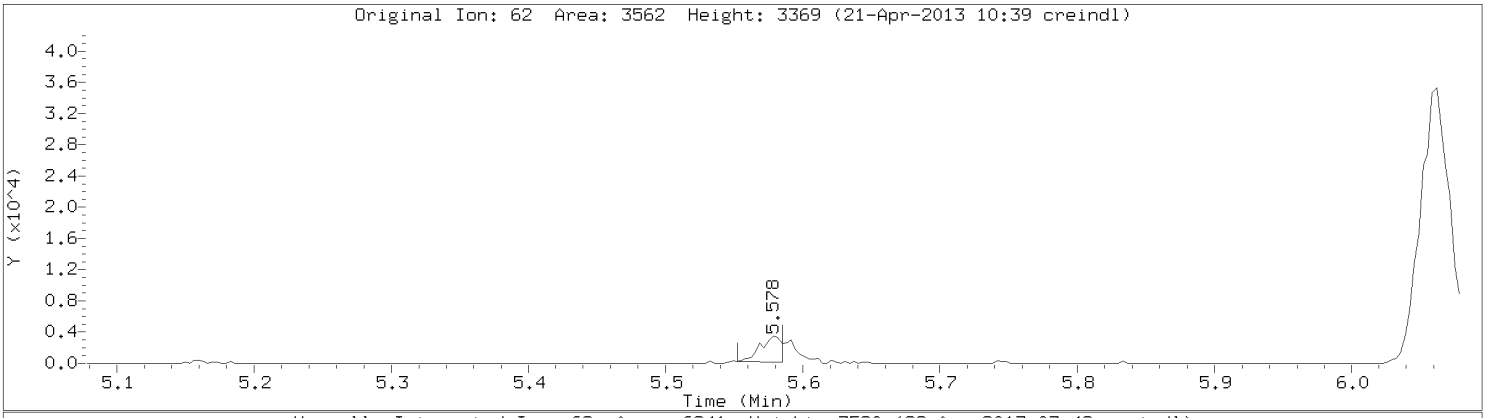


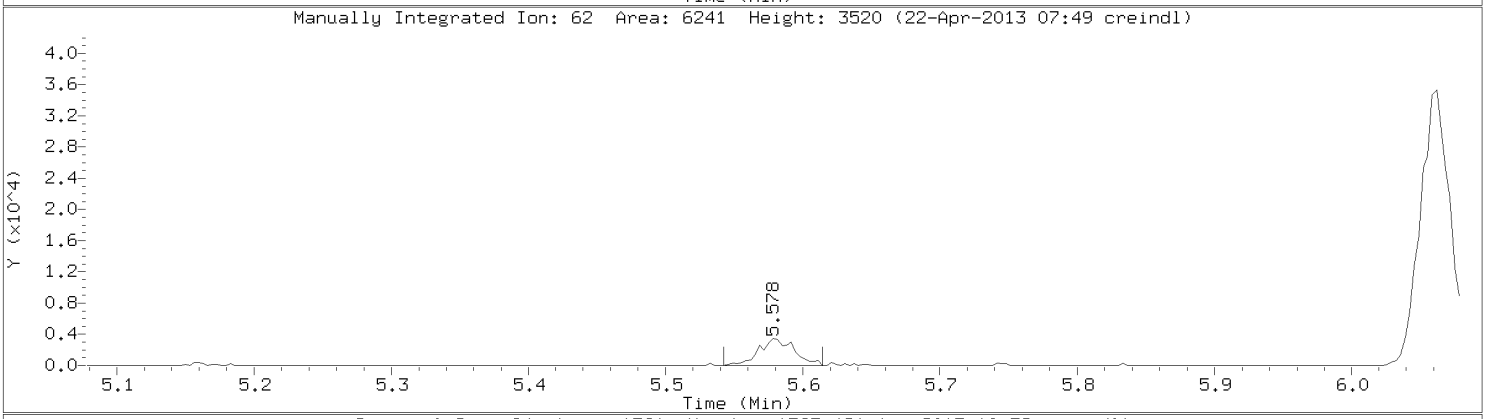
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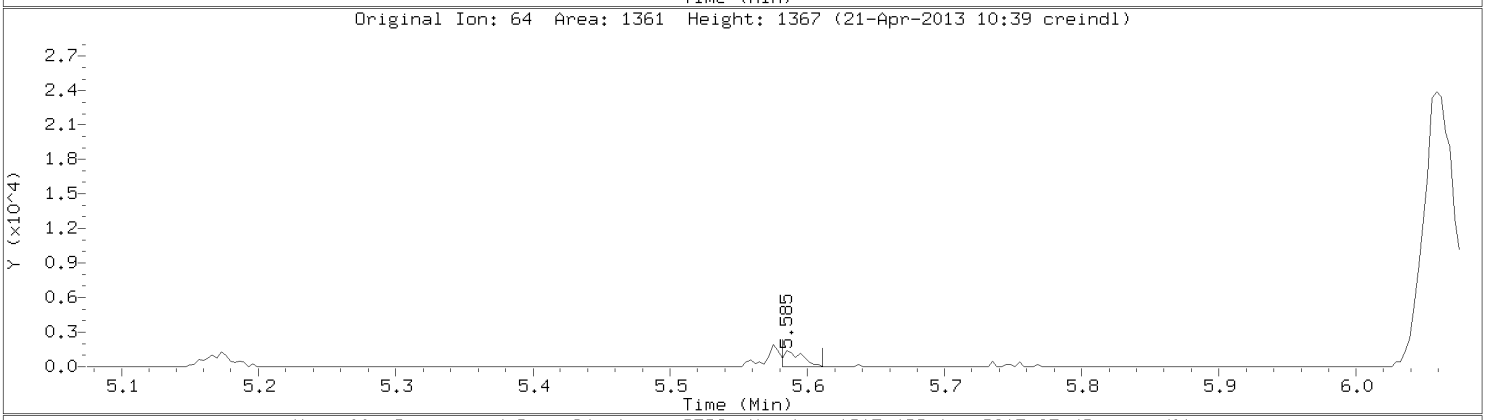


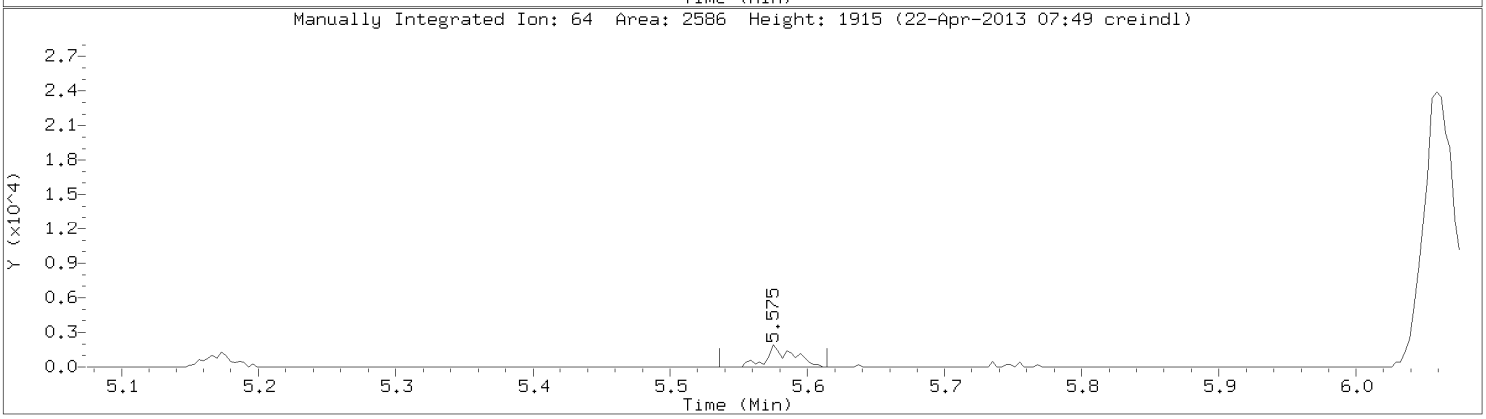
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,2-Dichloroethane
CAS Number: 107-06-2



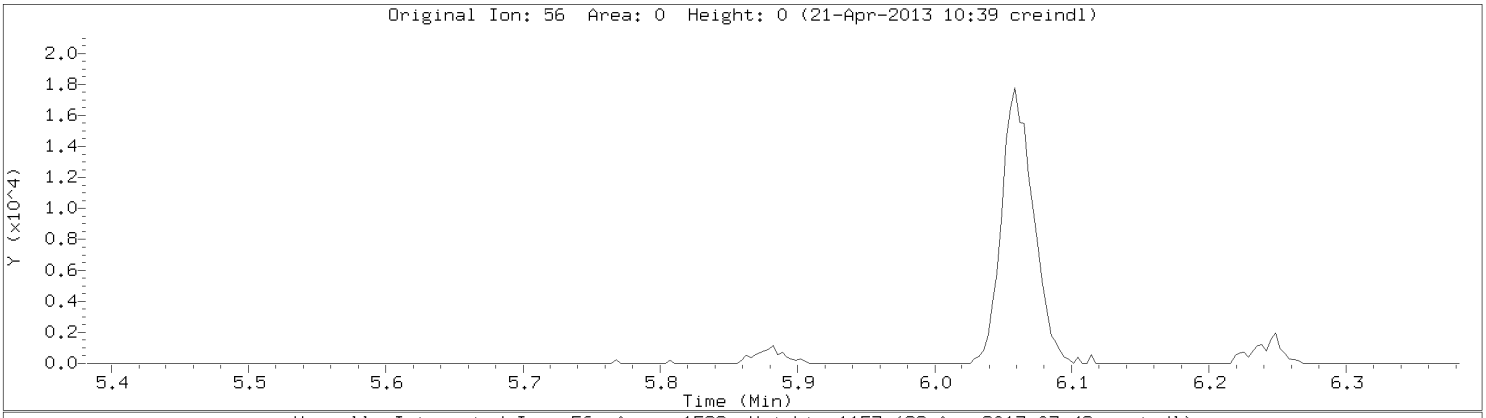


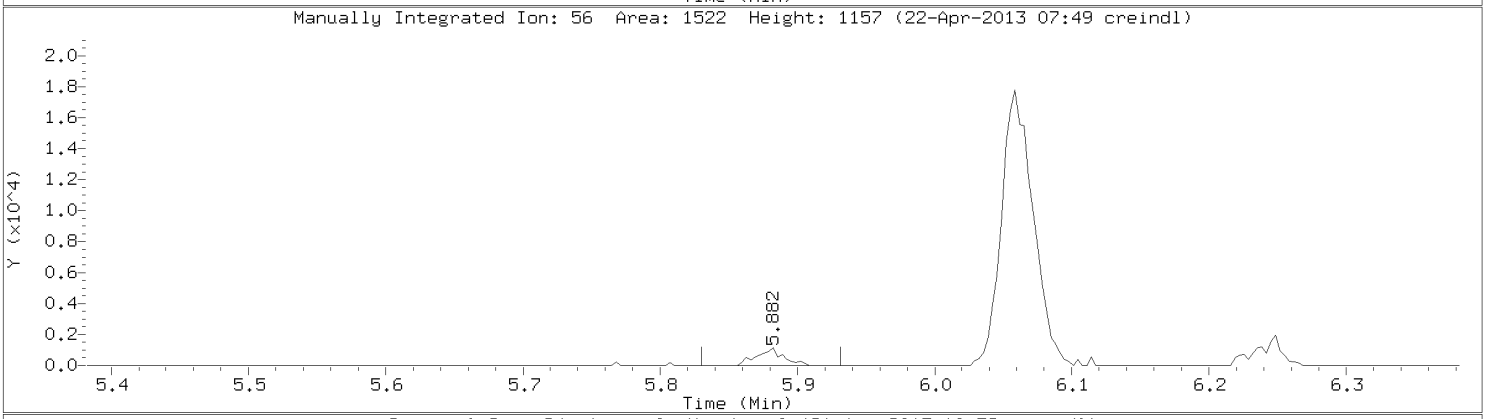


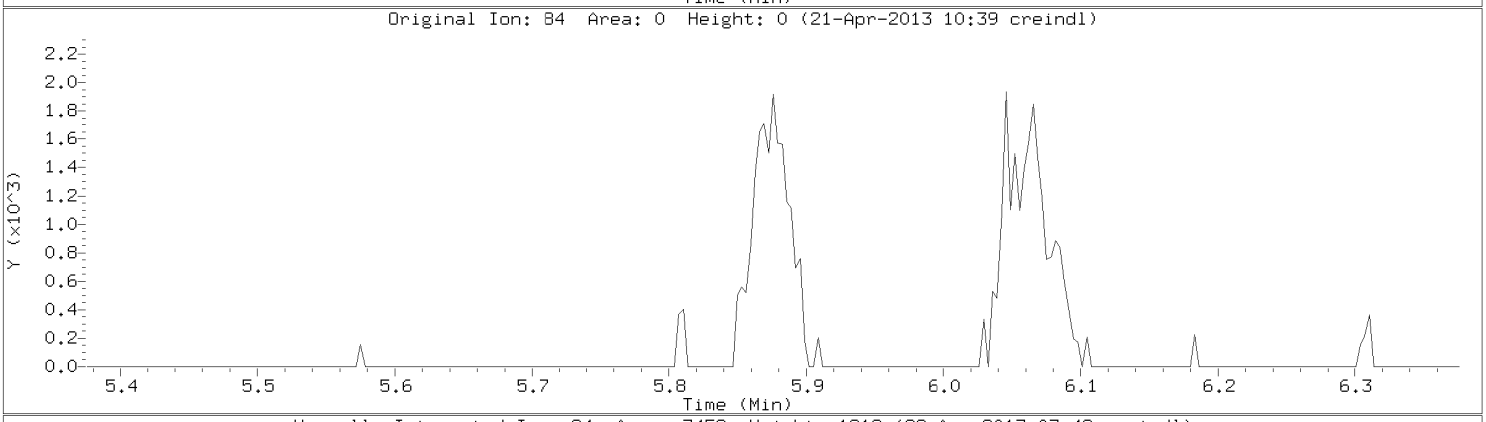


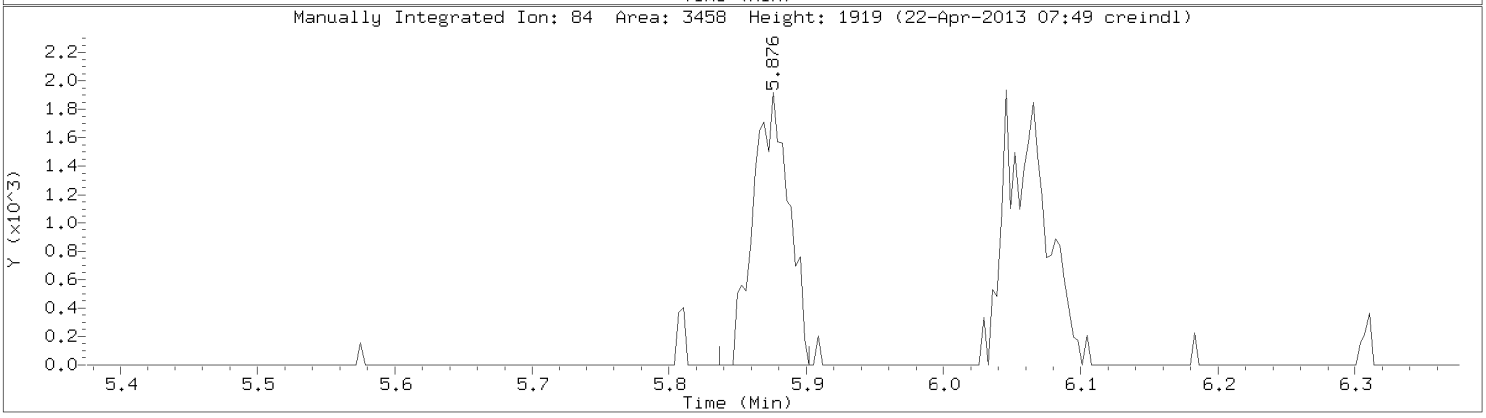
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Cyclohexane
CAS Number: 110-82-7

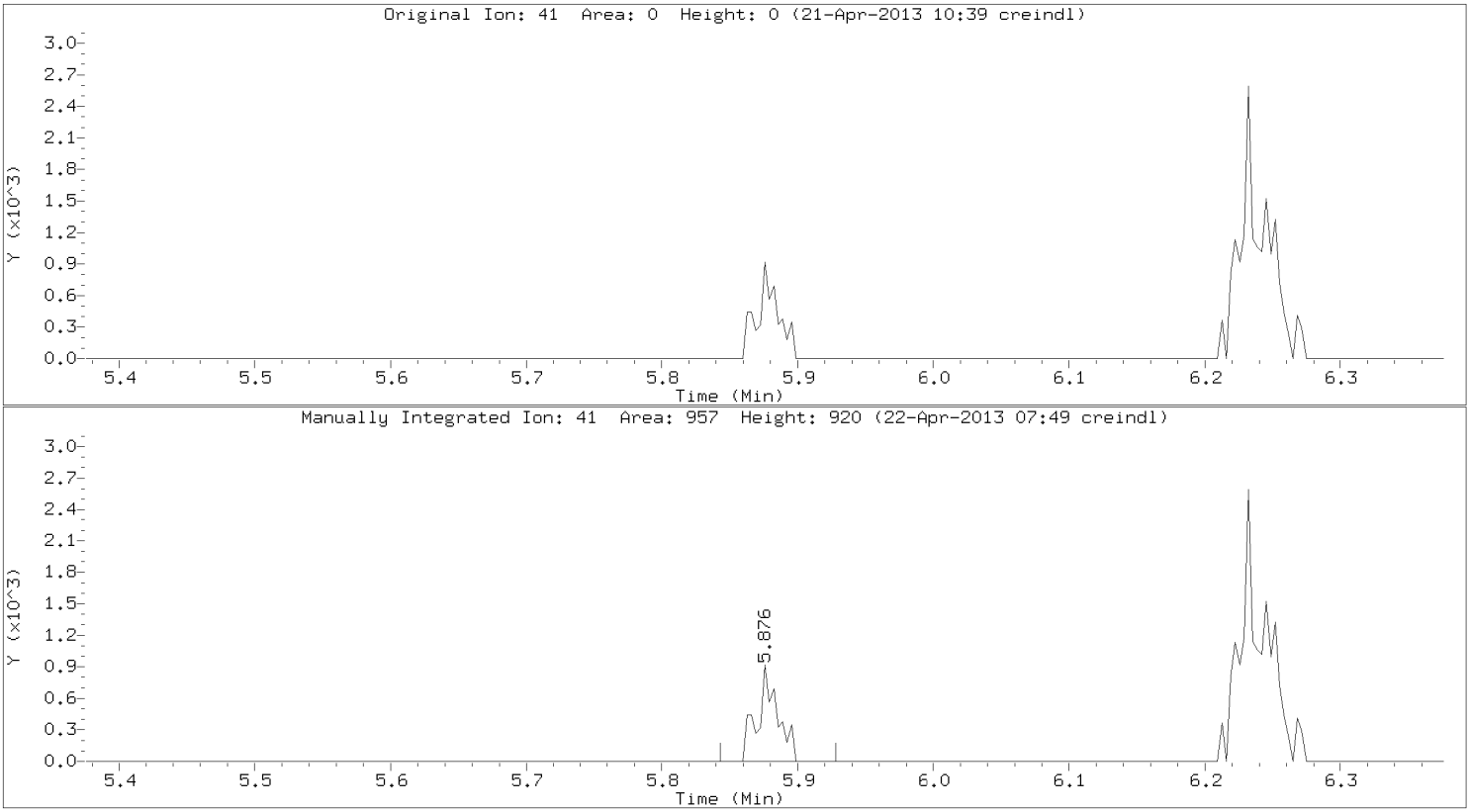






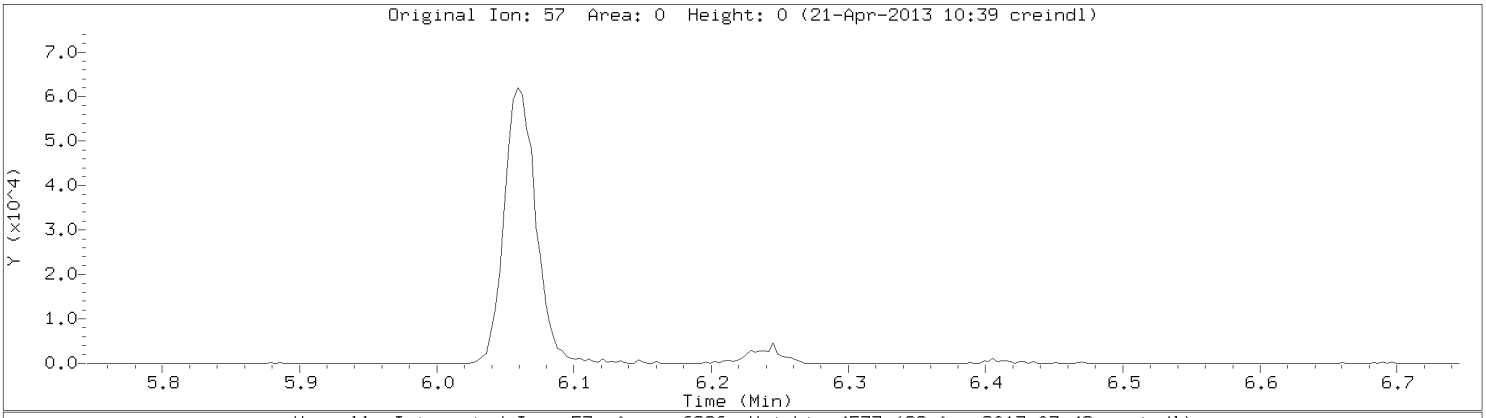


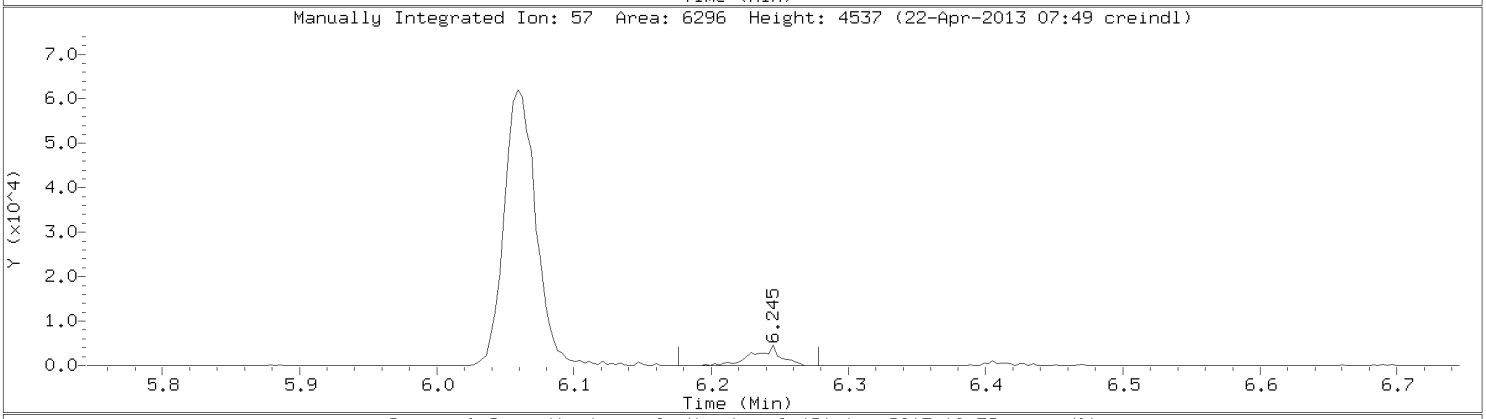
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Lab Sample ID: ICAL1

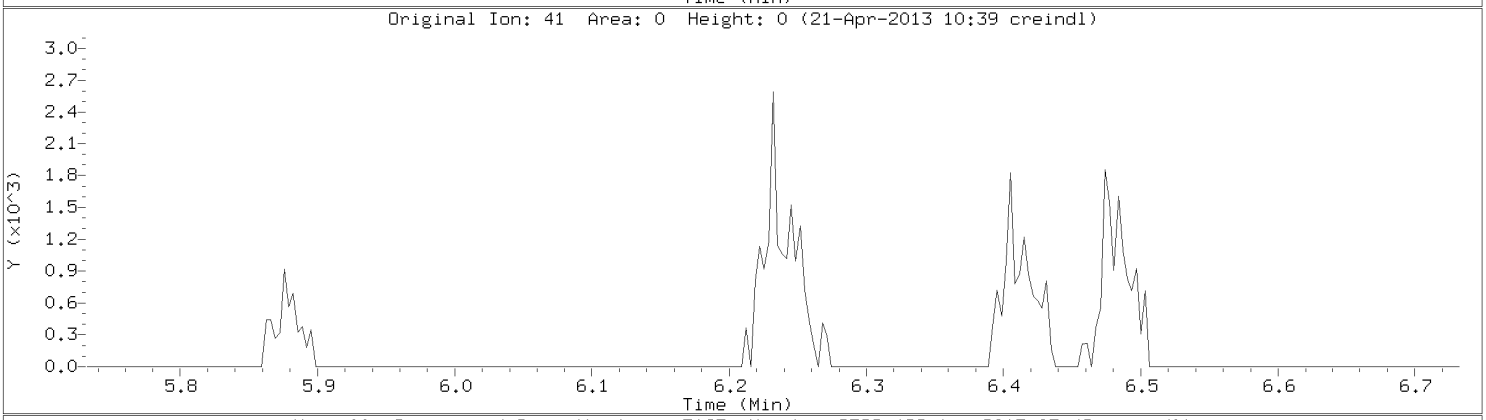


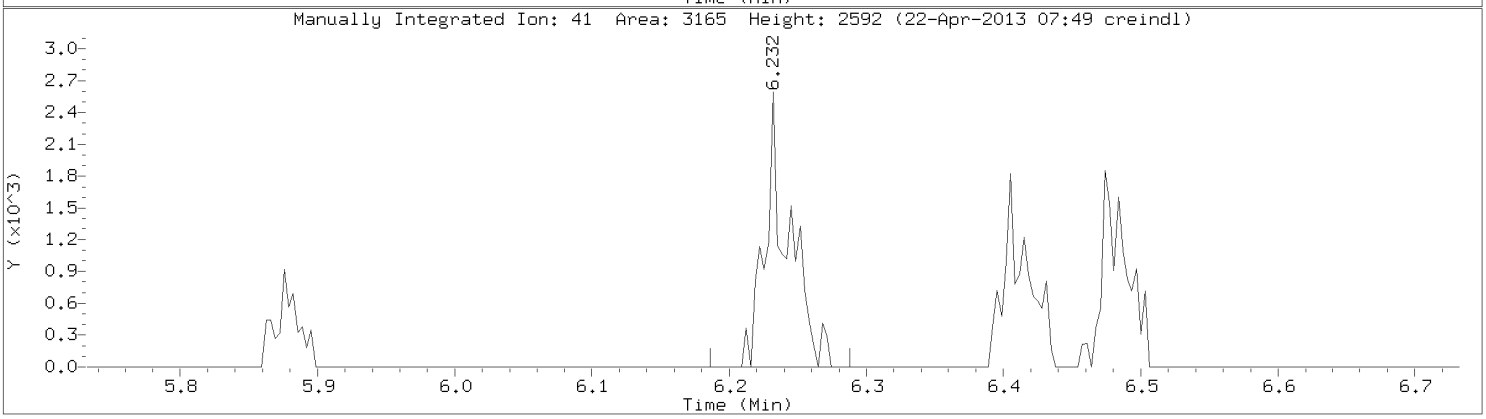
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

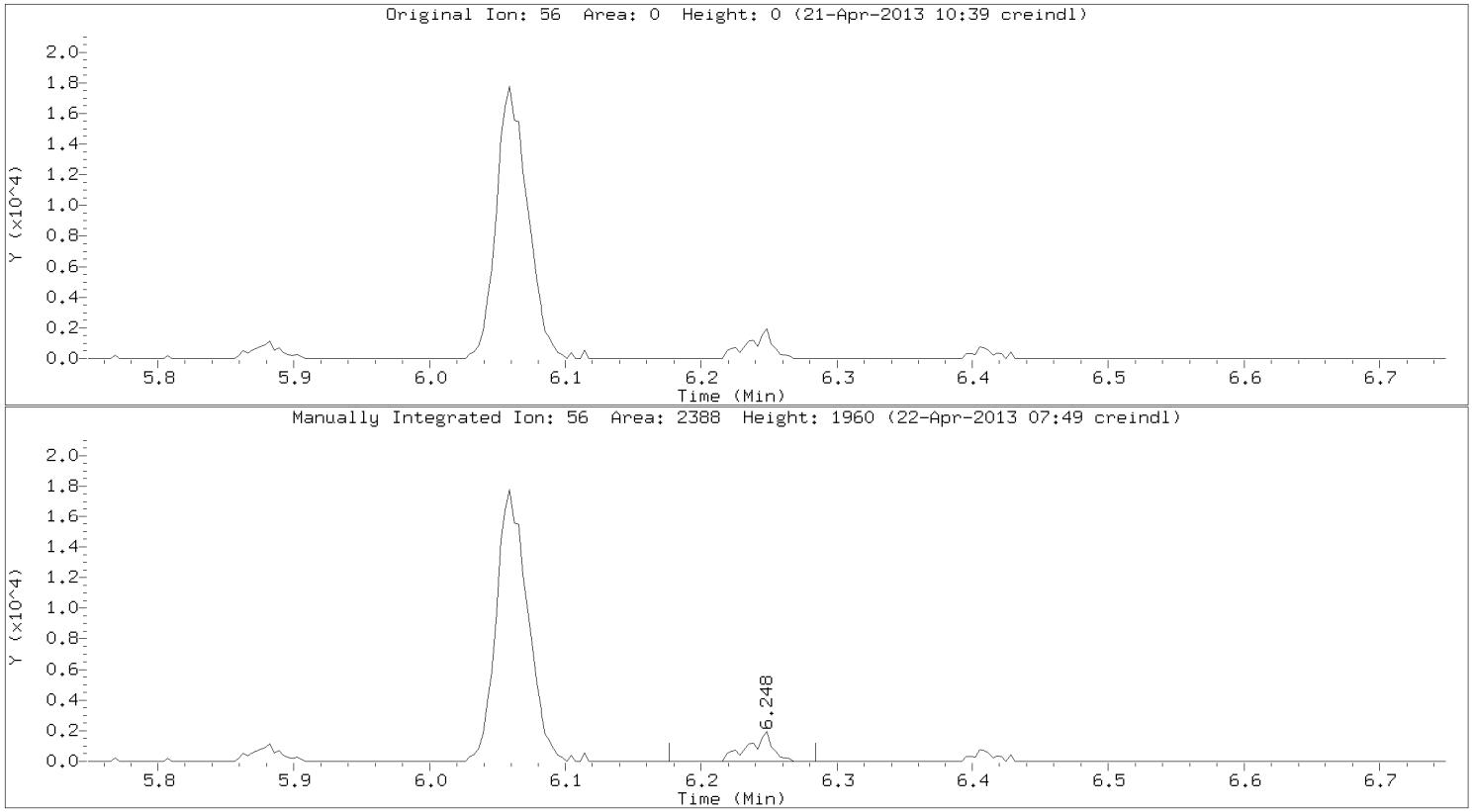






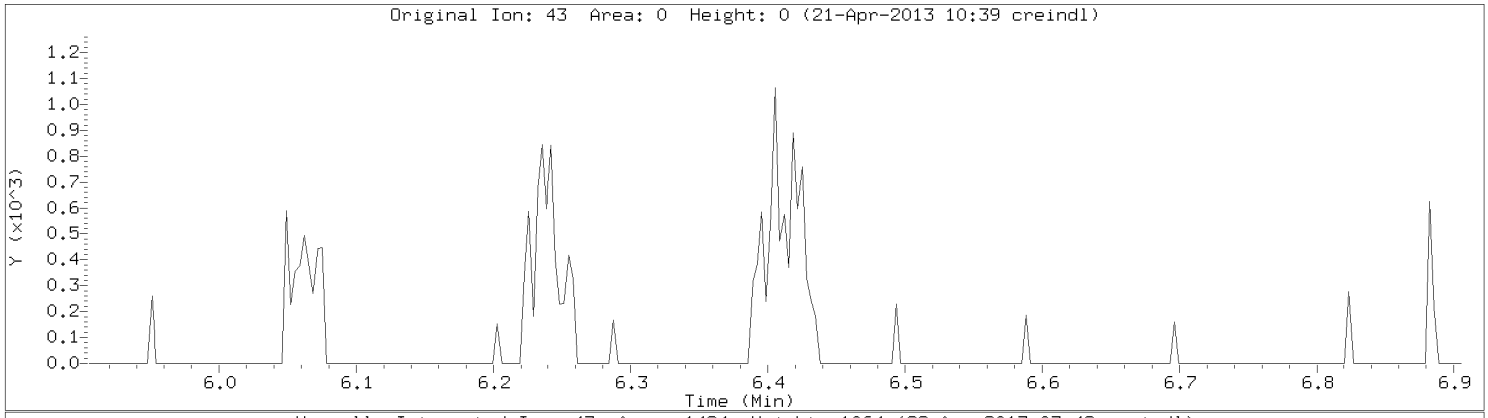


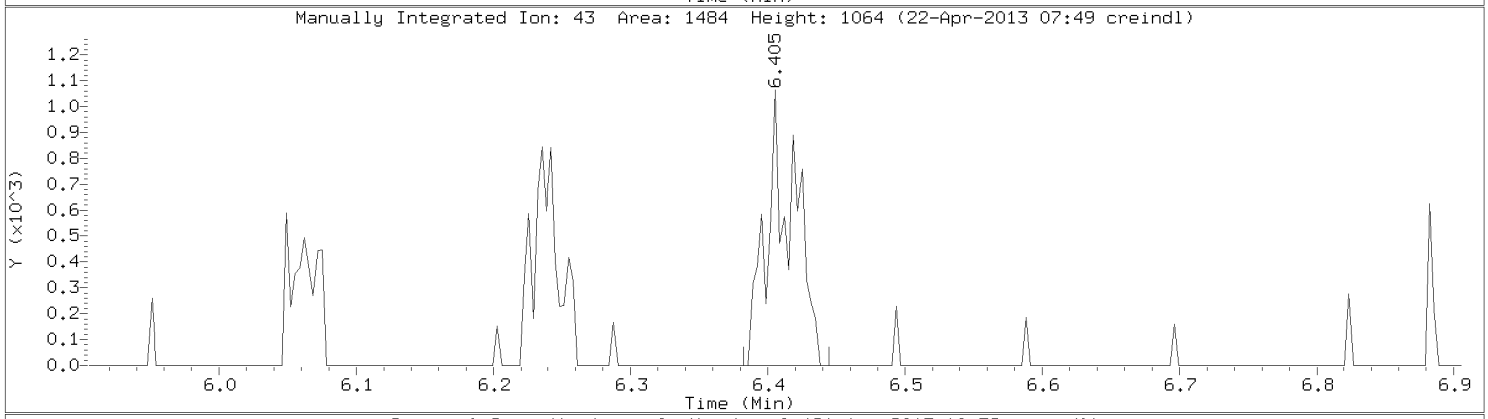
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

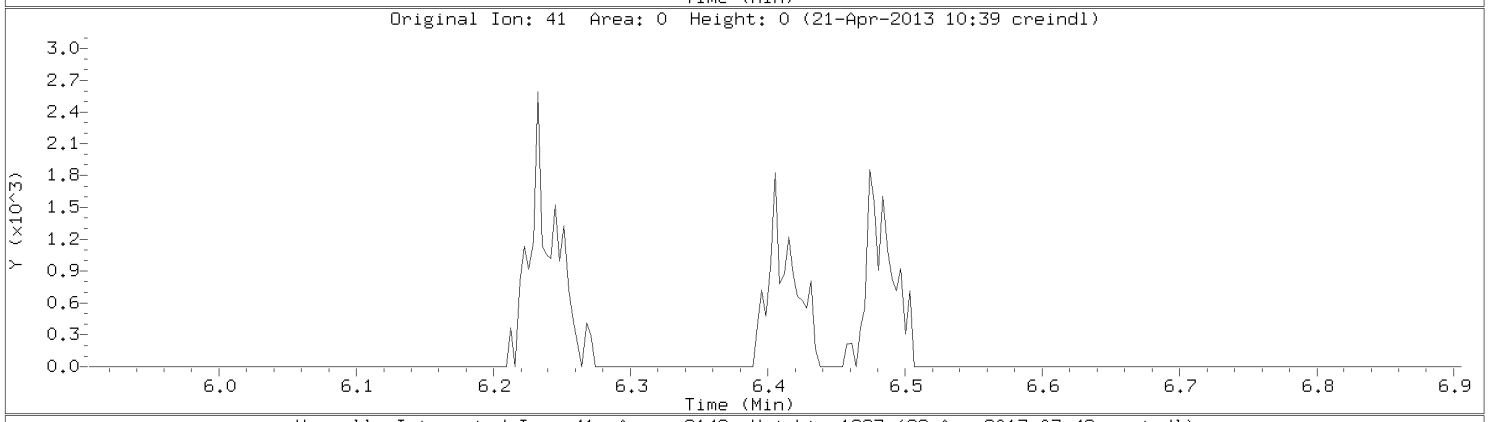


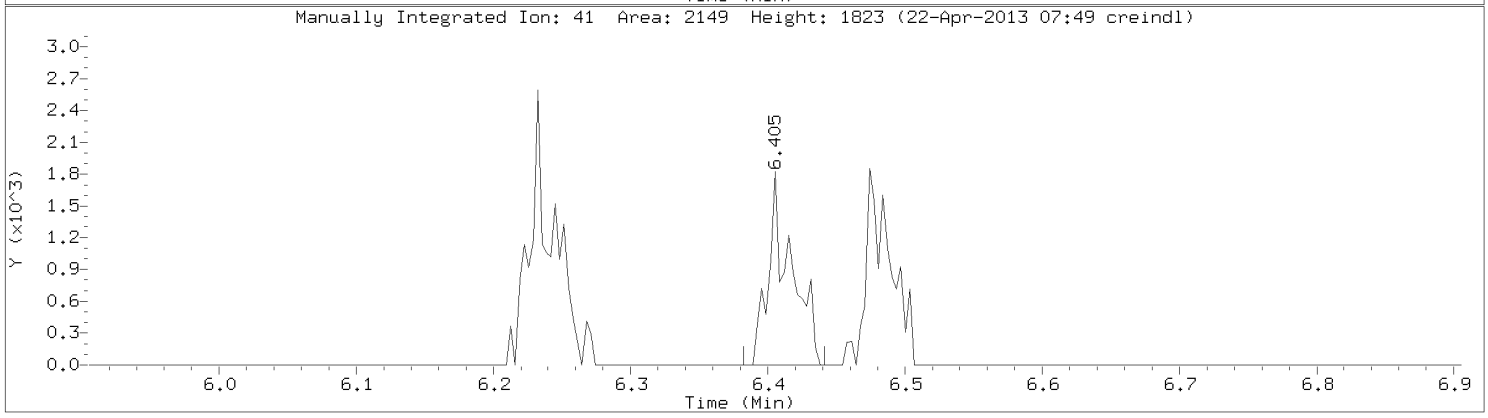
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Heptane
CAS Number: 142-82-5



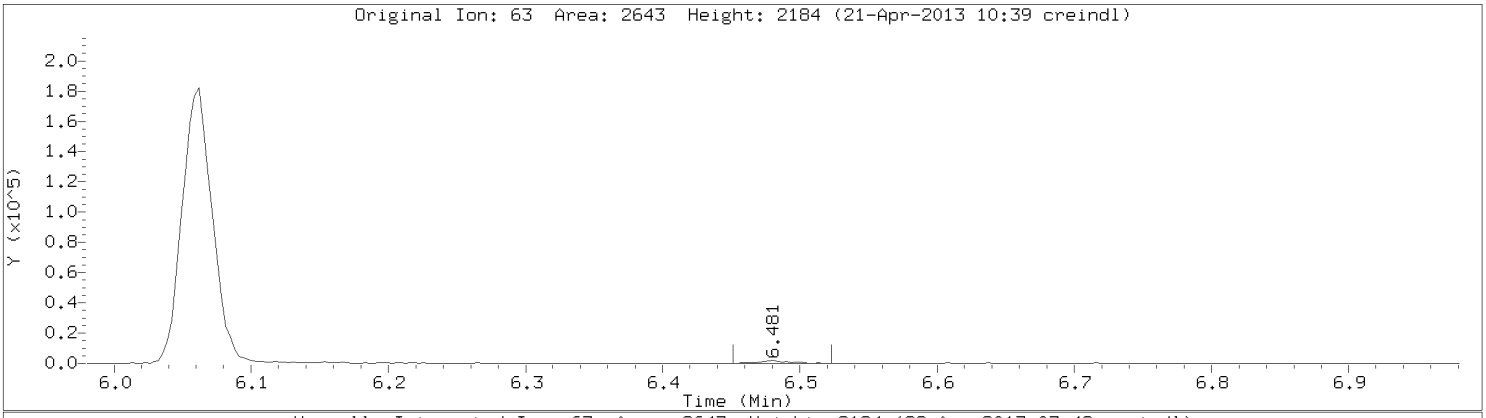


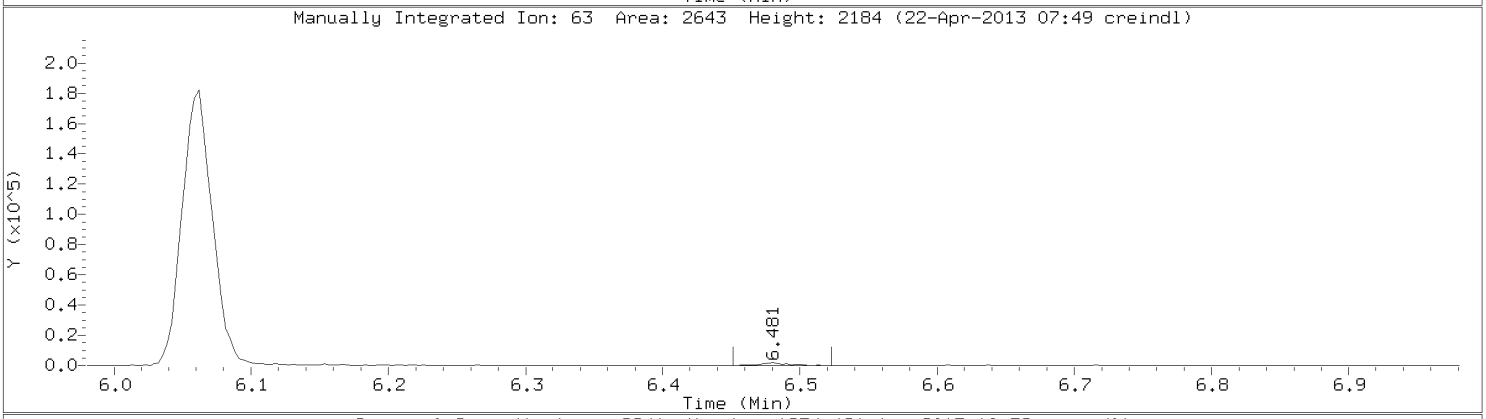


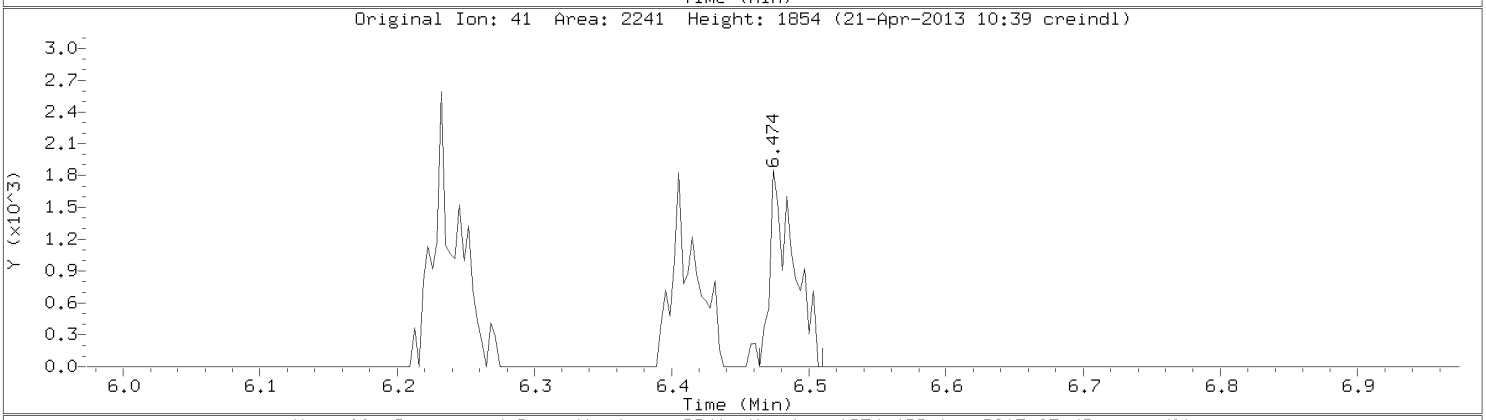


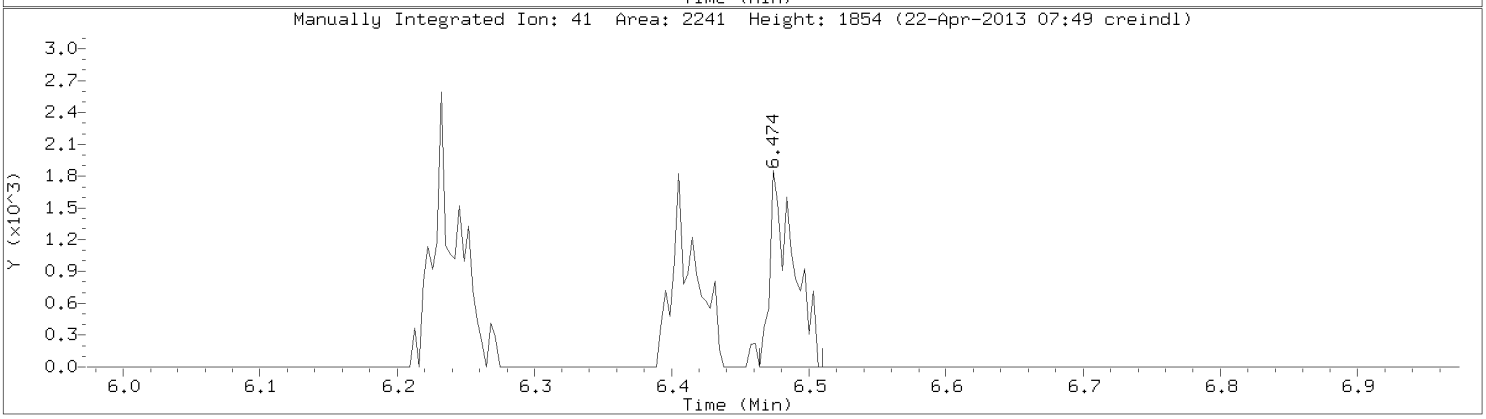
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

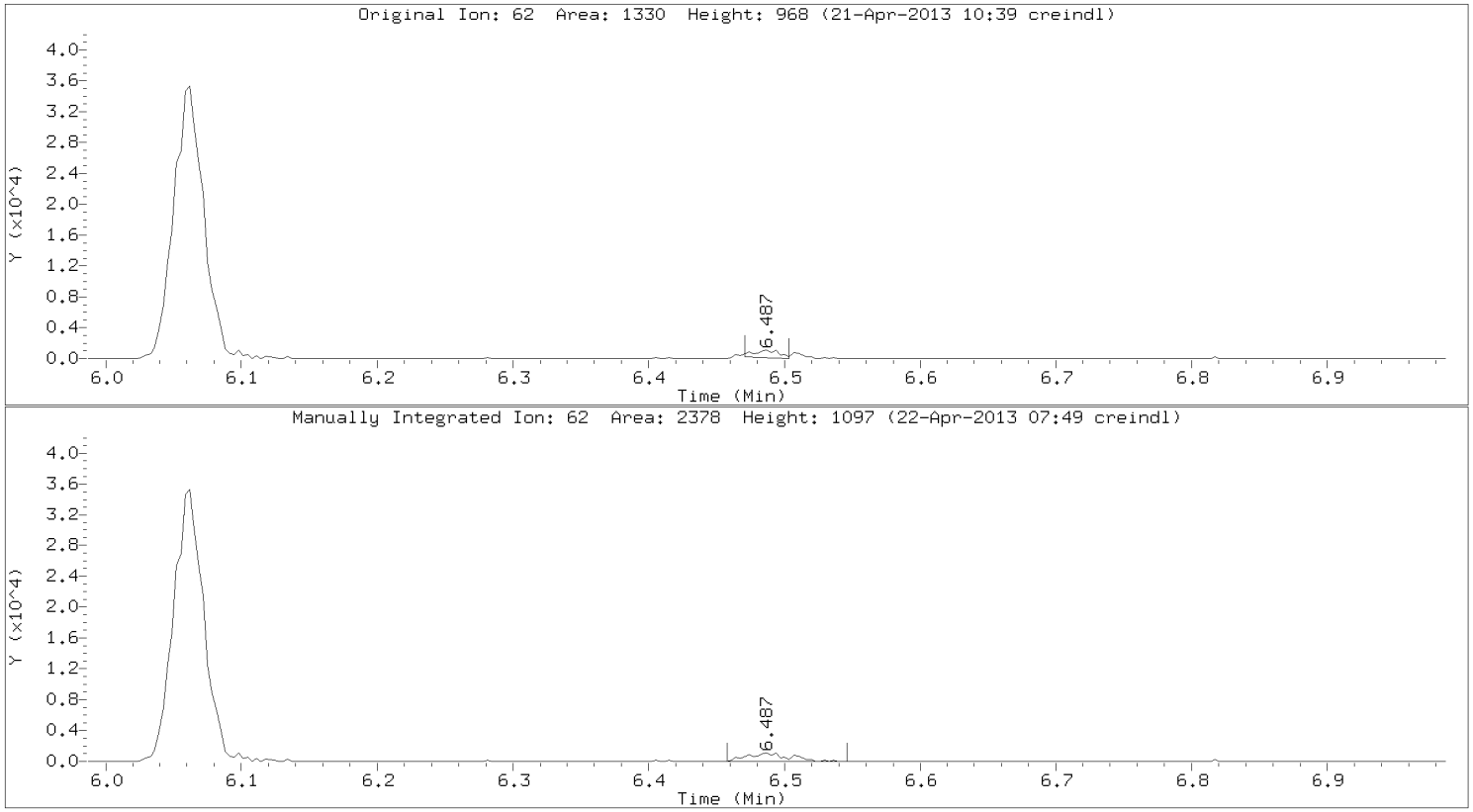






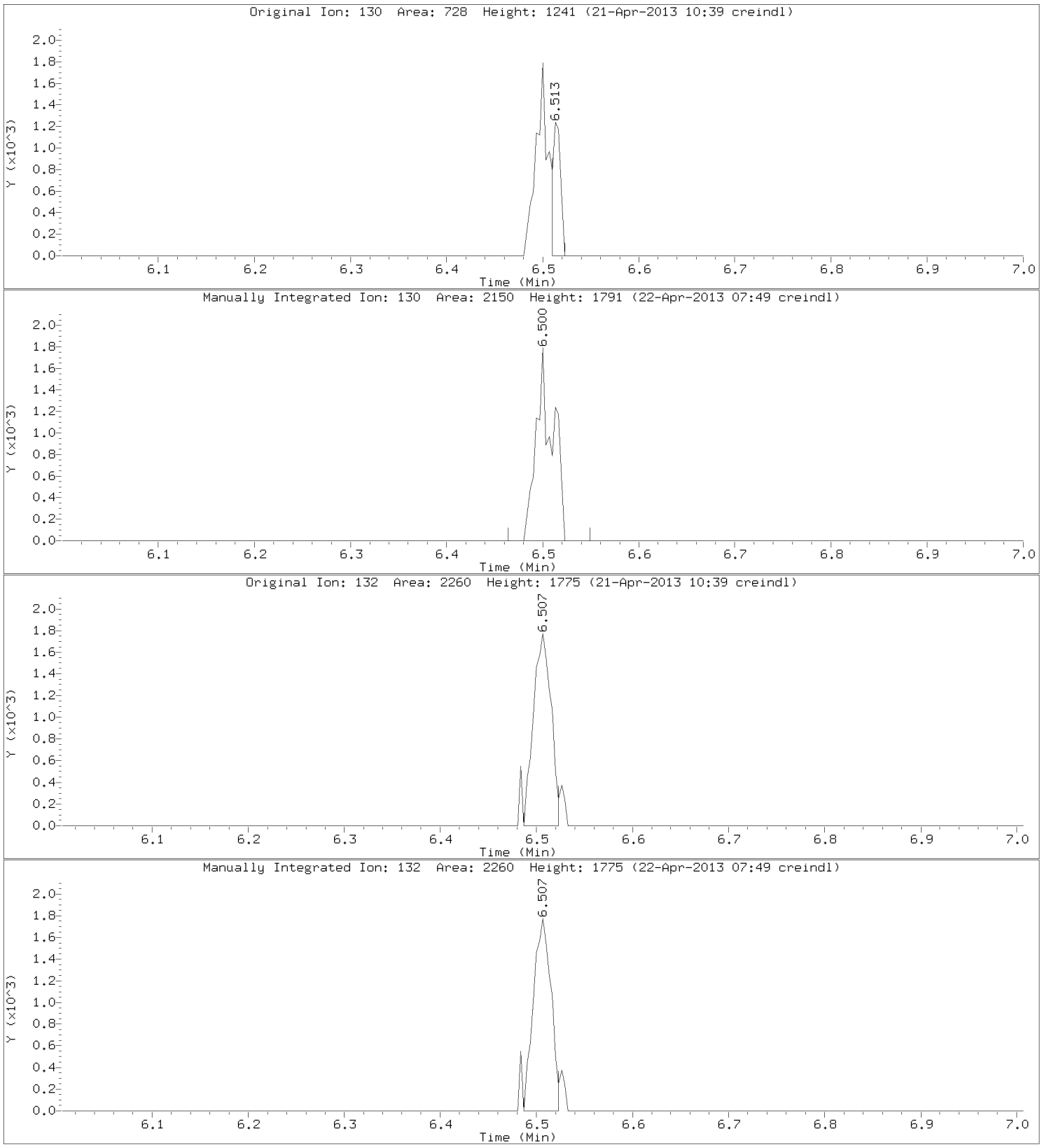


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Lab Sample ID: ICAL1

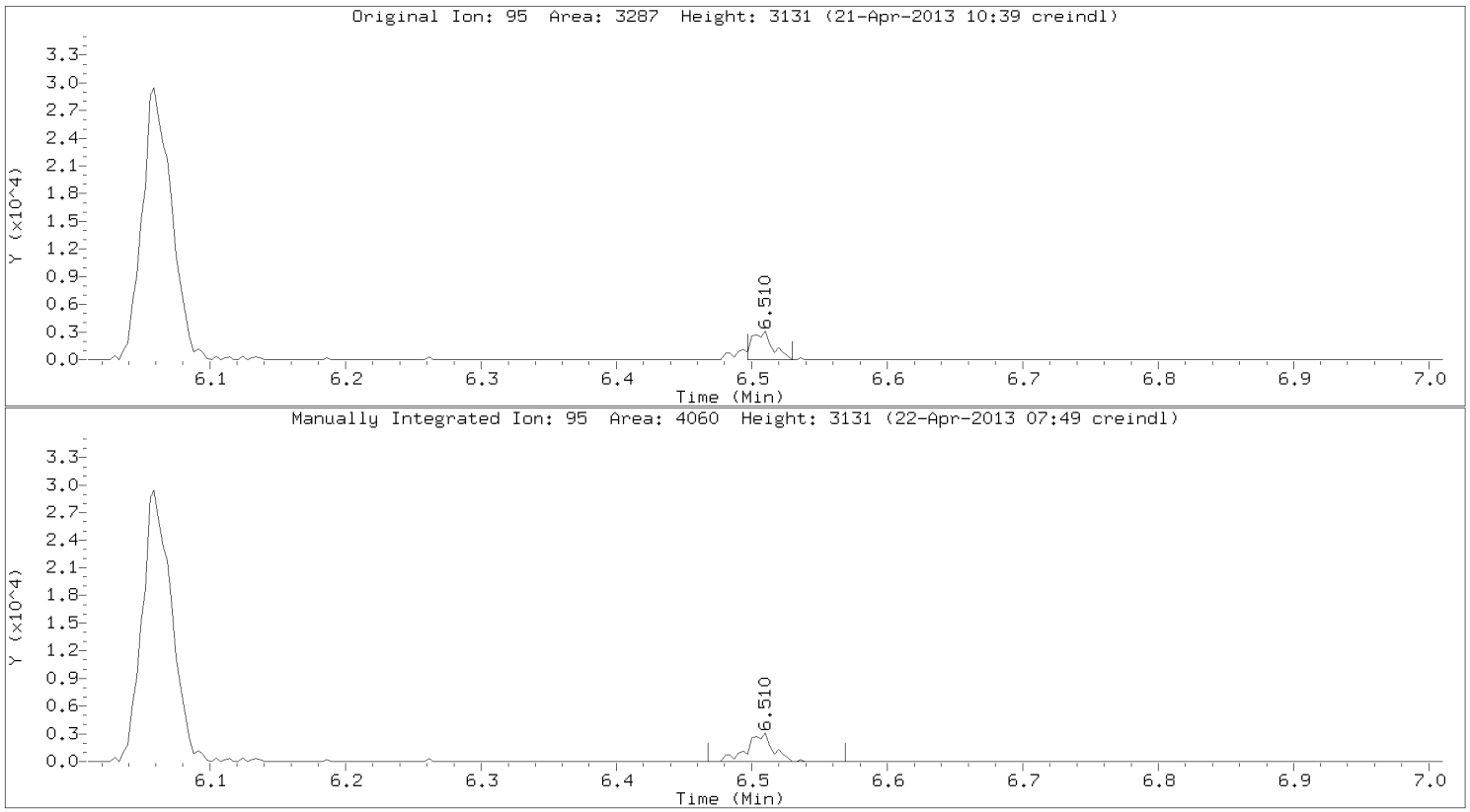


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Trichloroethene
CAS Number: 79-01-6

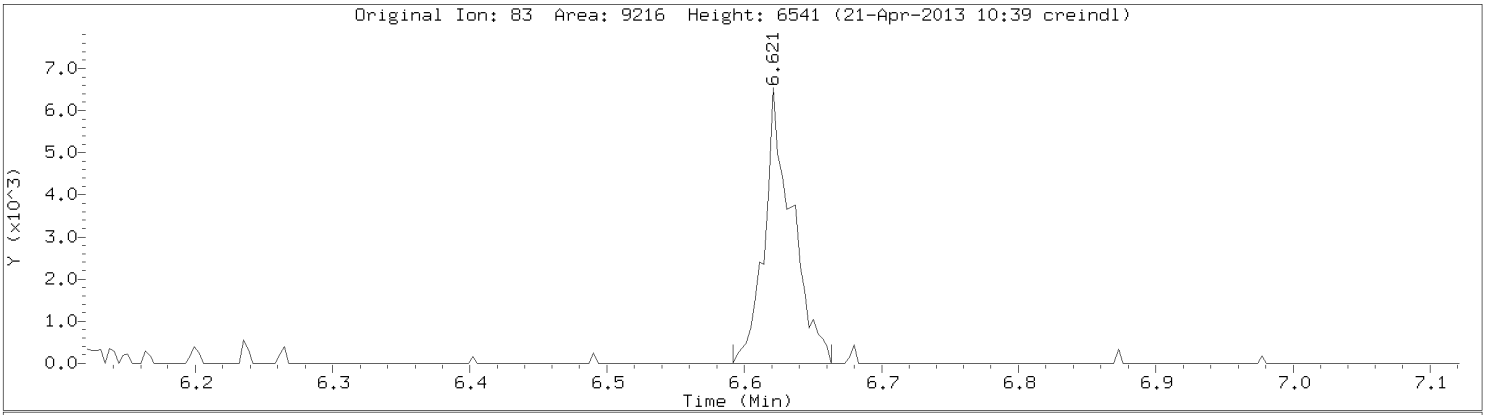


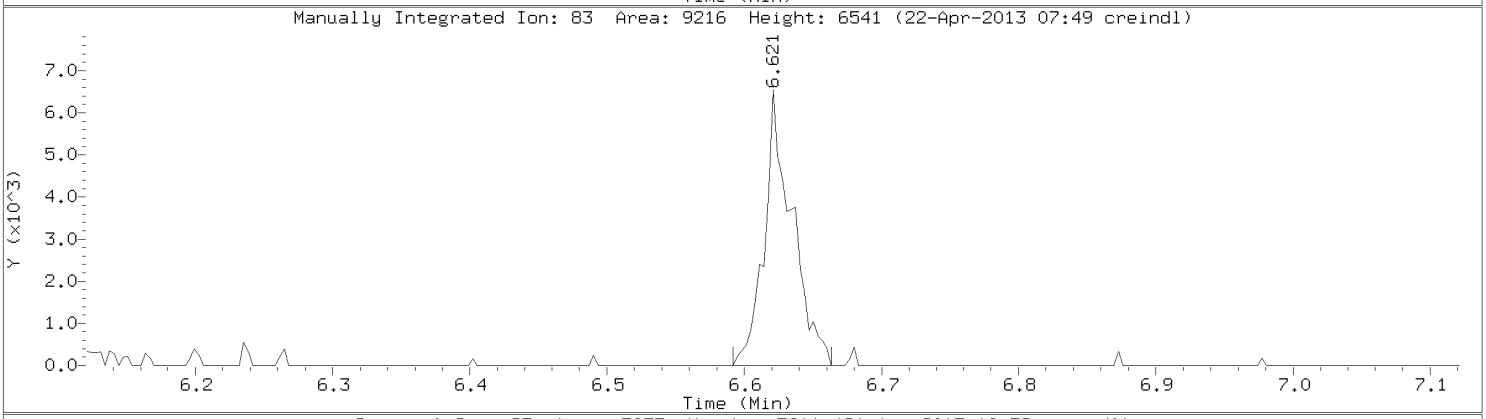
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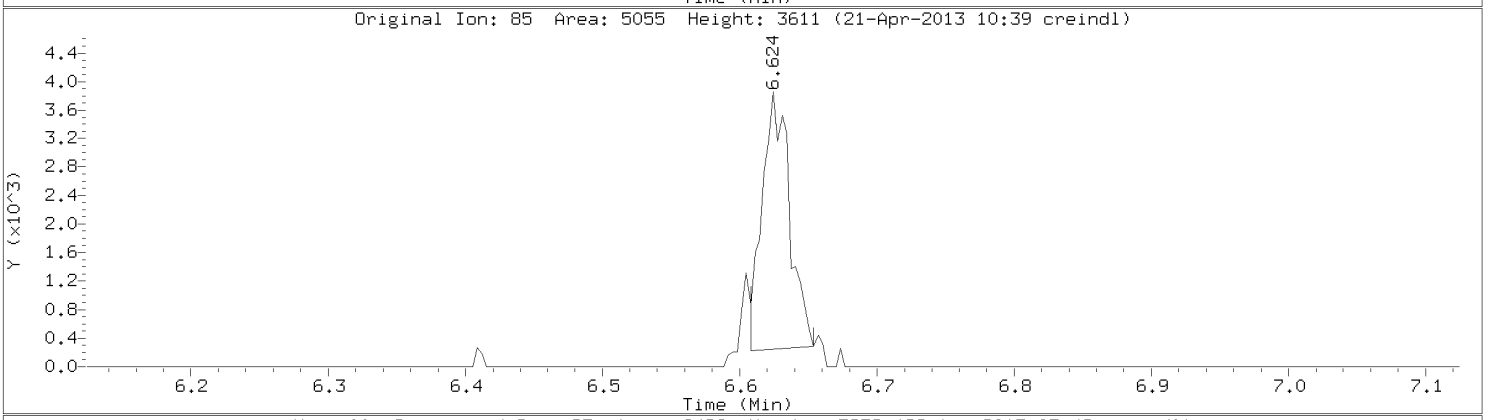


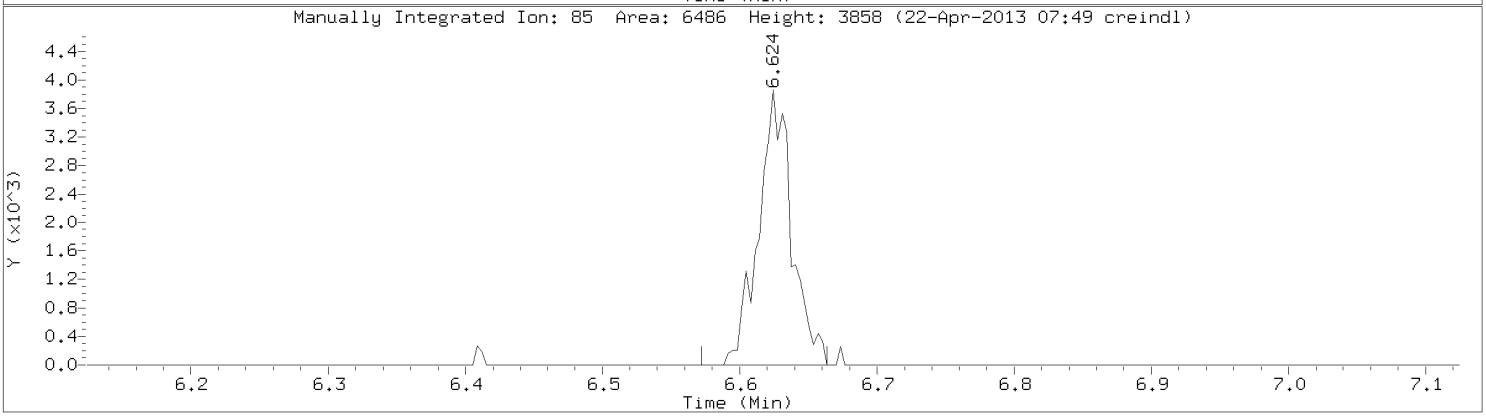
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Bromodichloromethane
CAS Number: 75-27-4



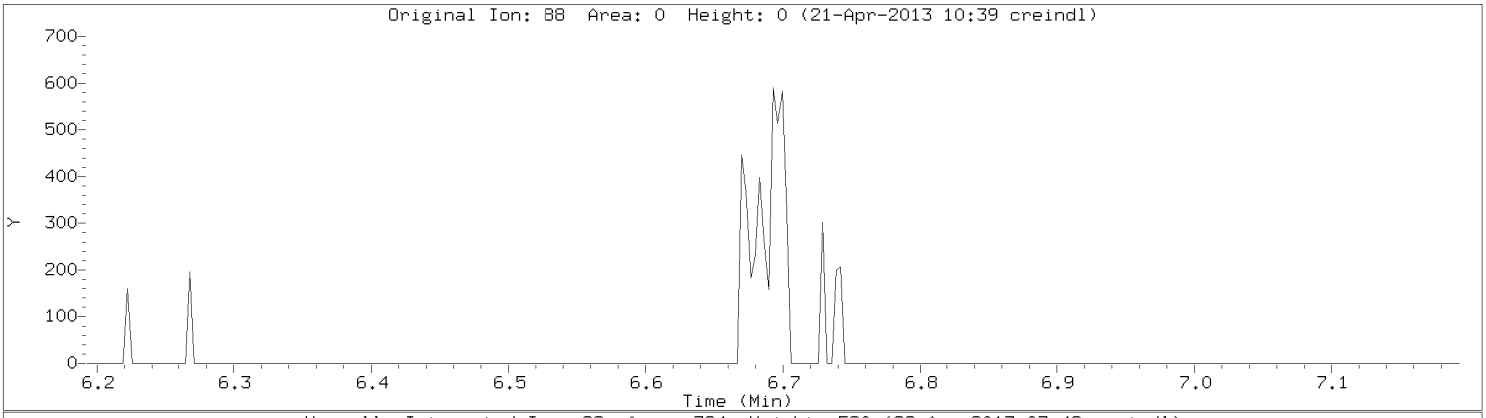


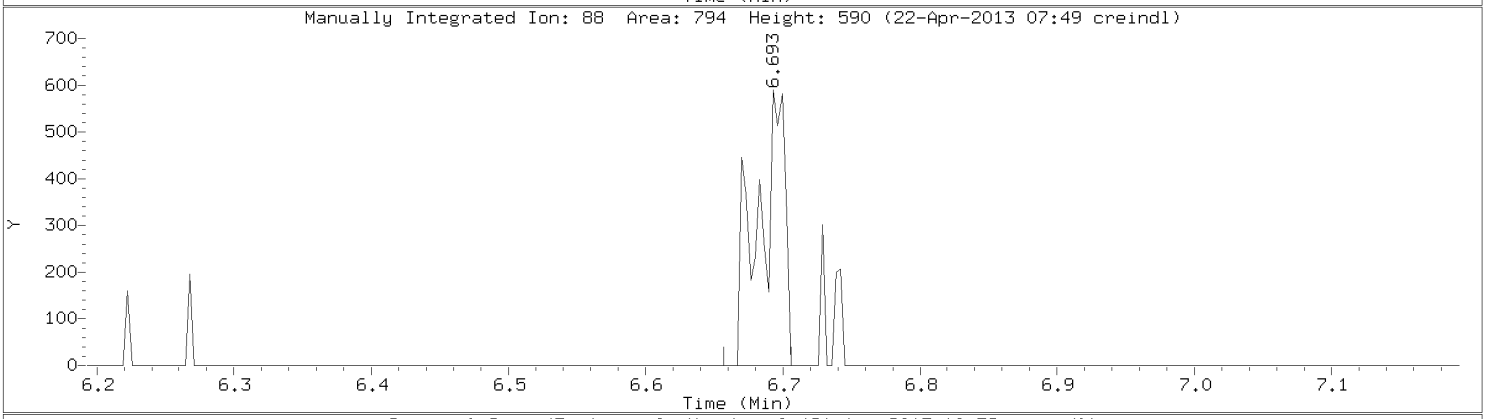


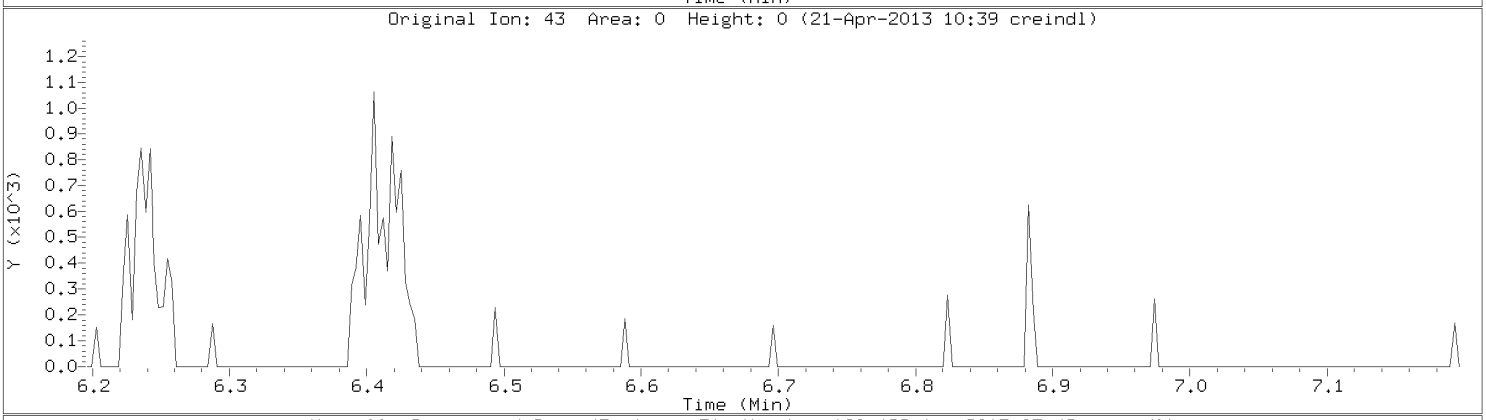


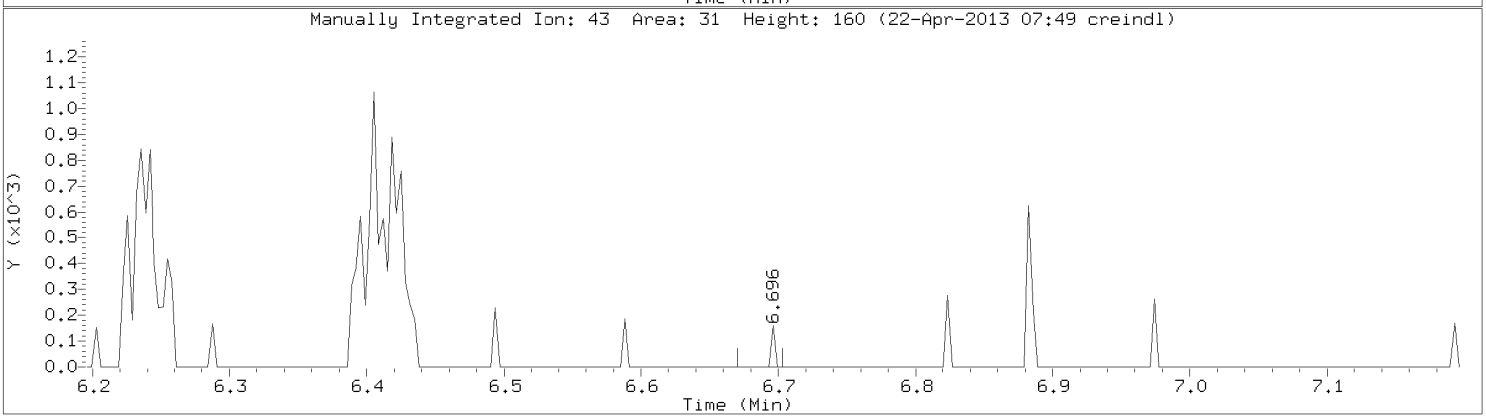
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,4-Dioxane
CAS Number: 123-91-1



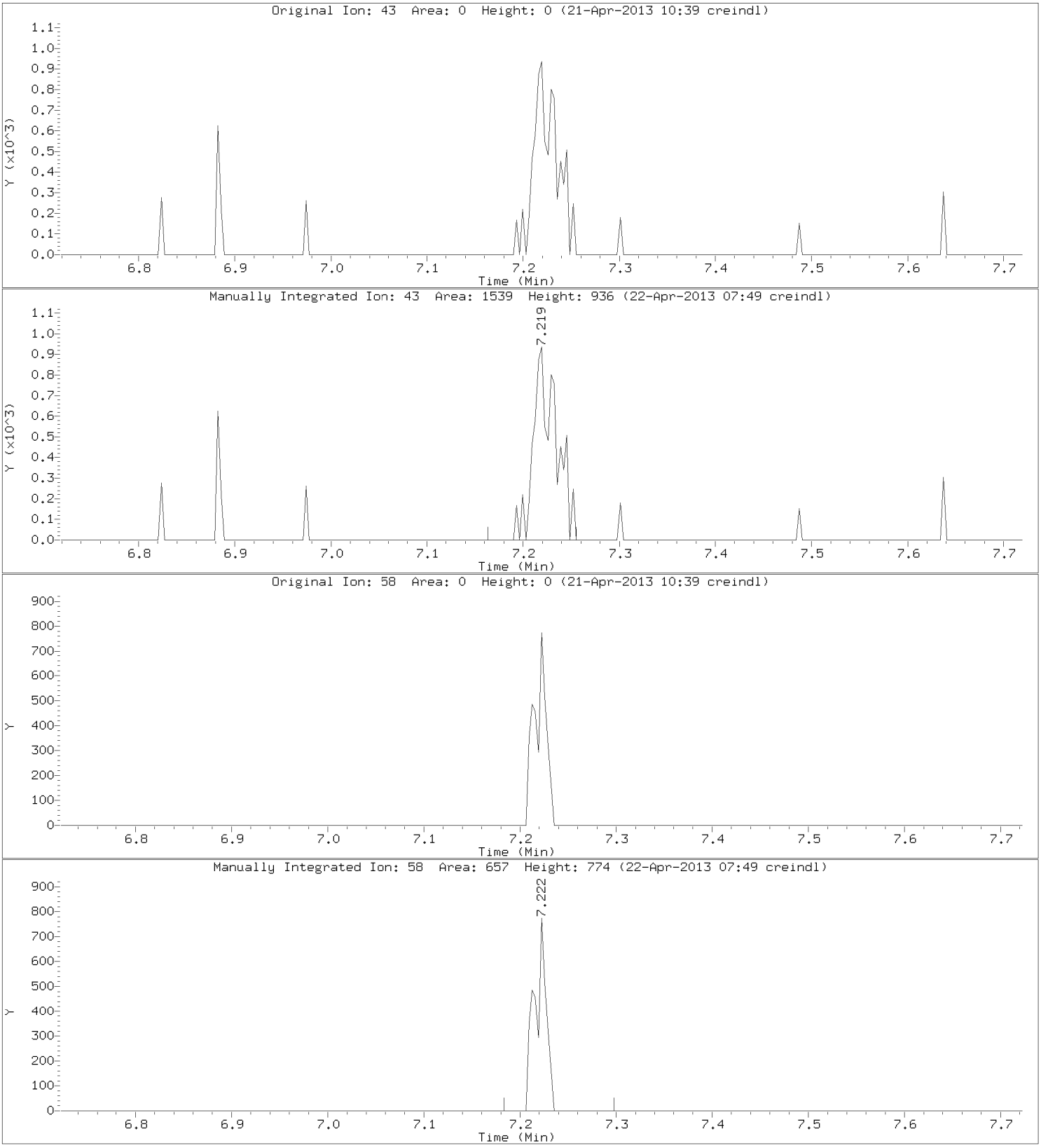




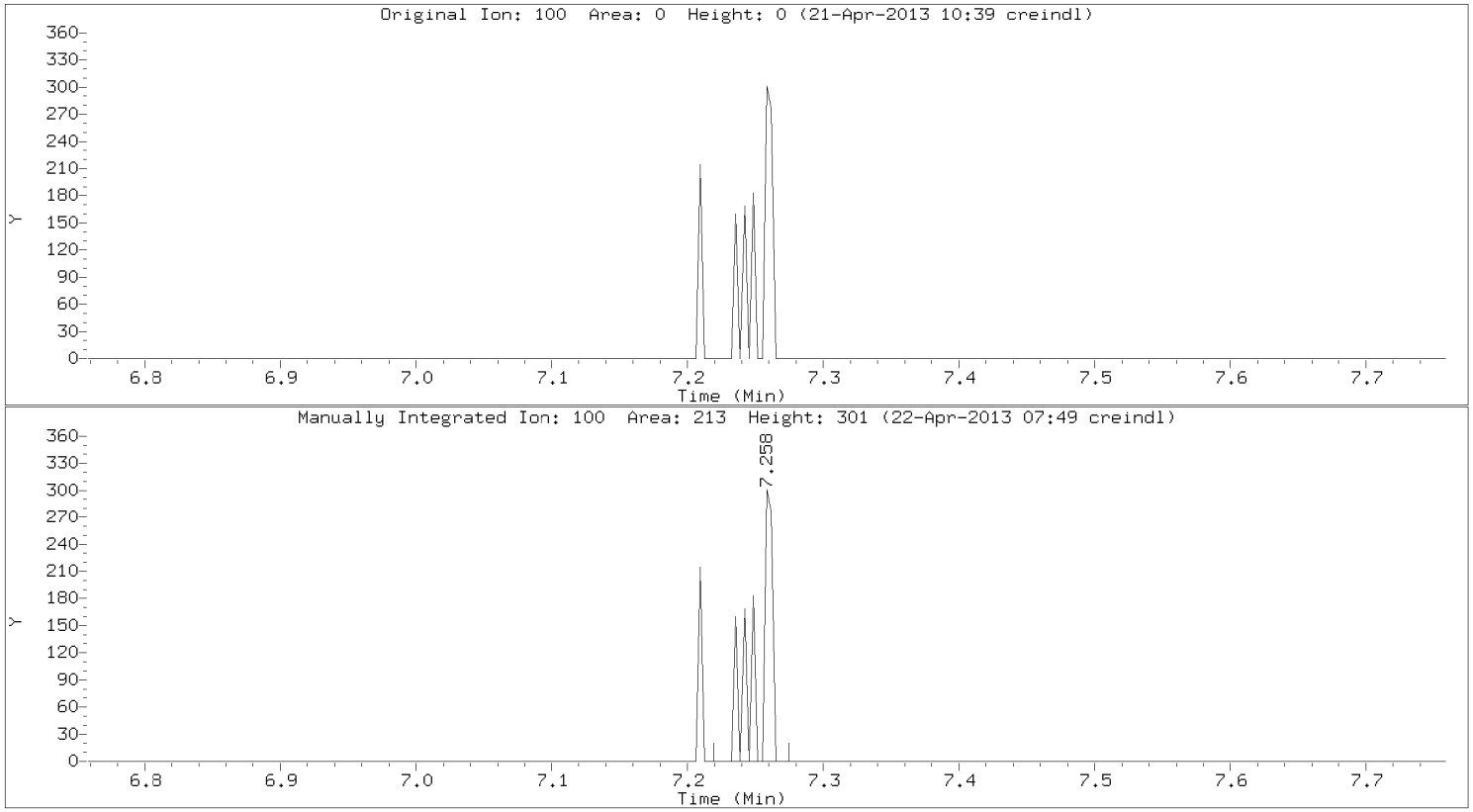


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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Methyl Isobutyl Ketone
CAS Number: 108-10-1

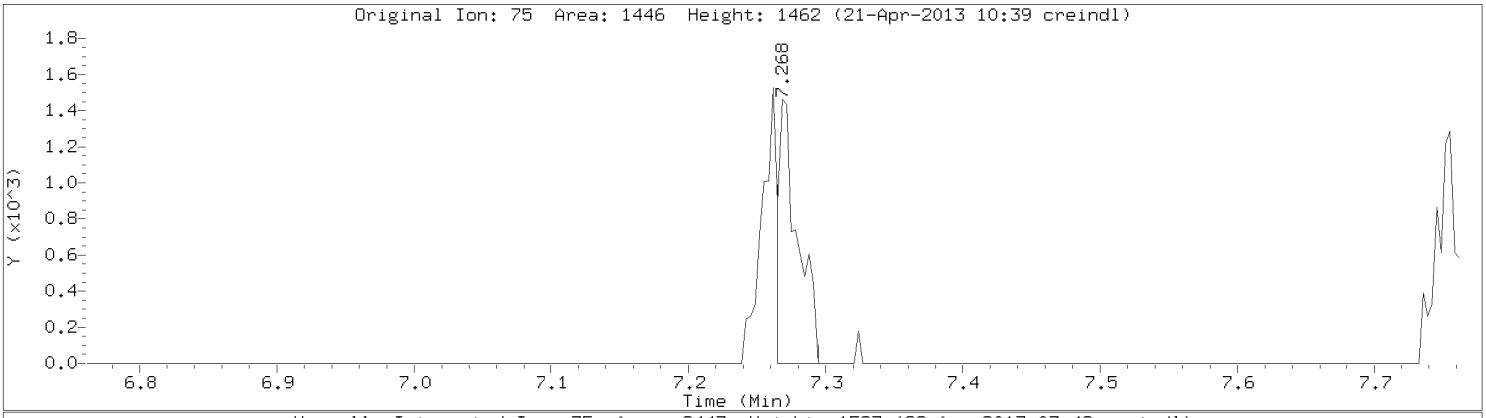


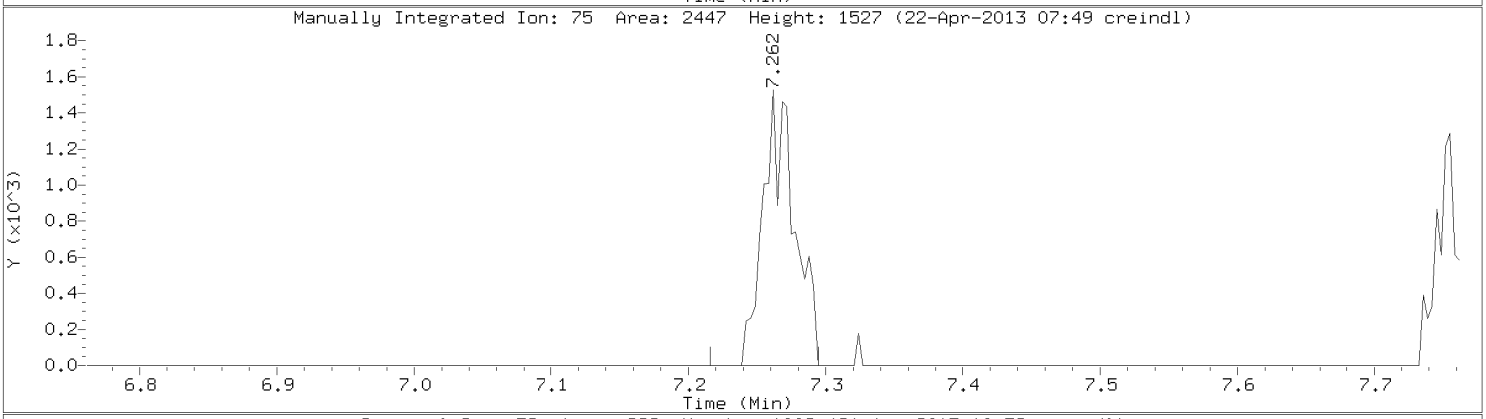
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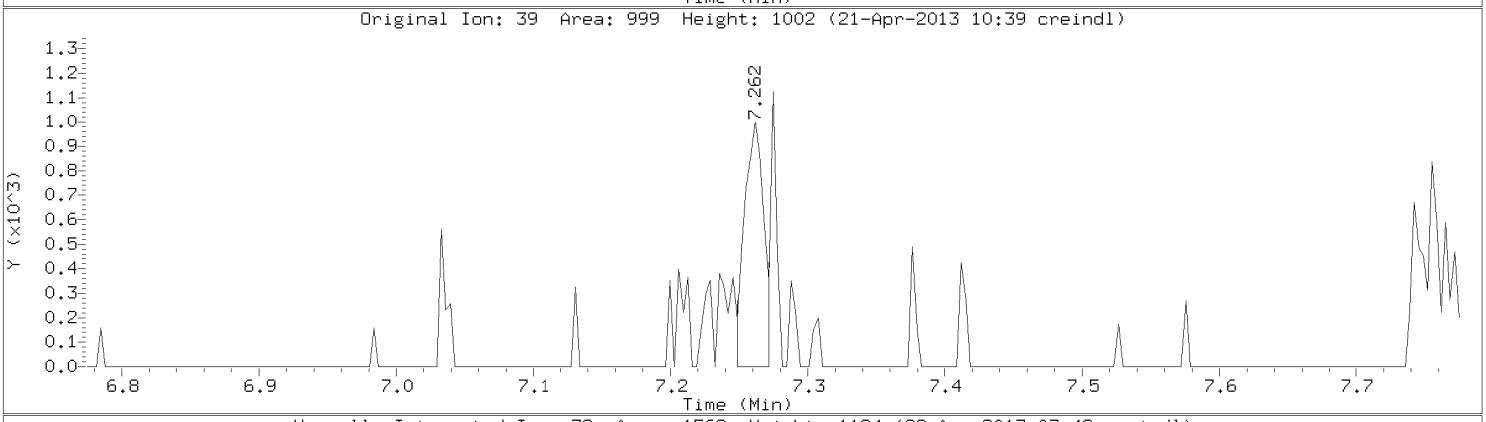


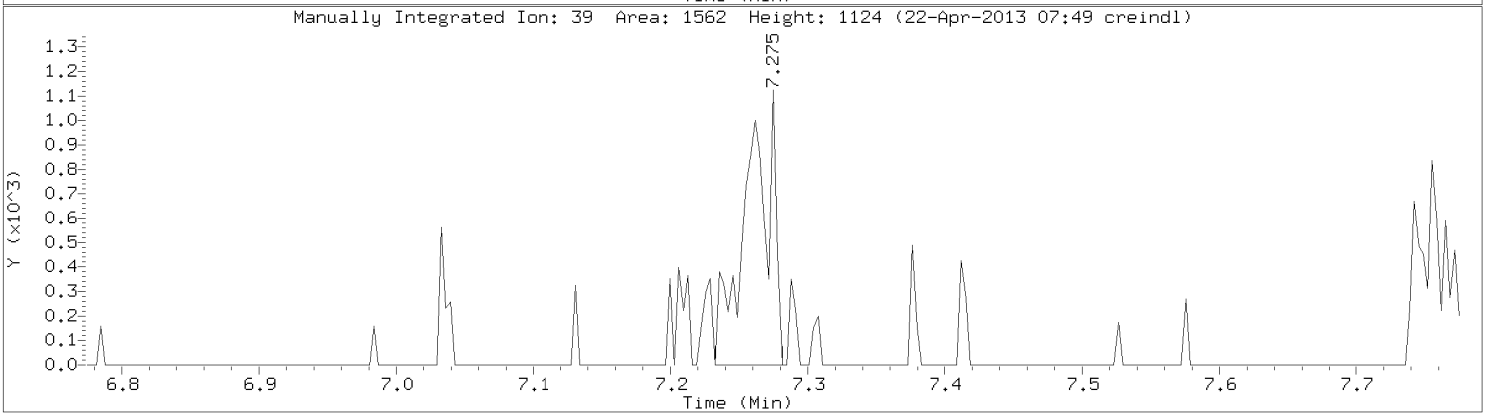
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5

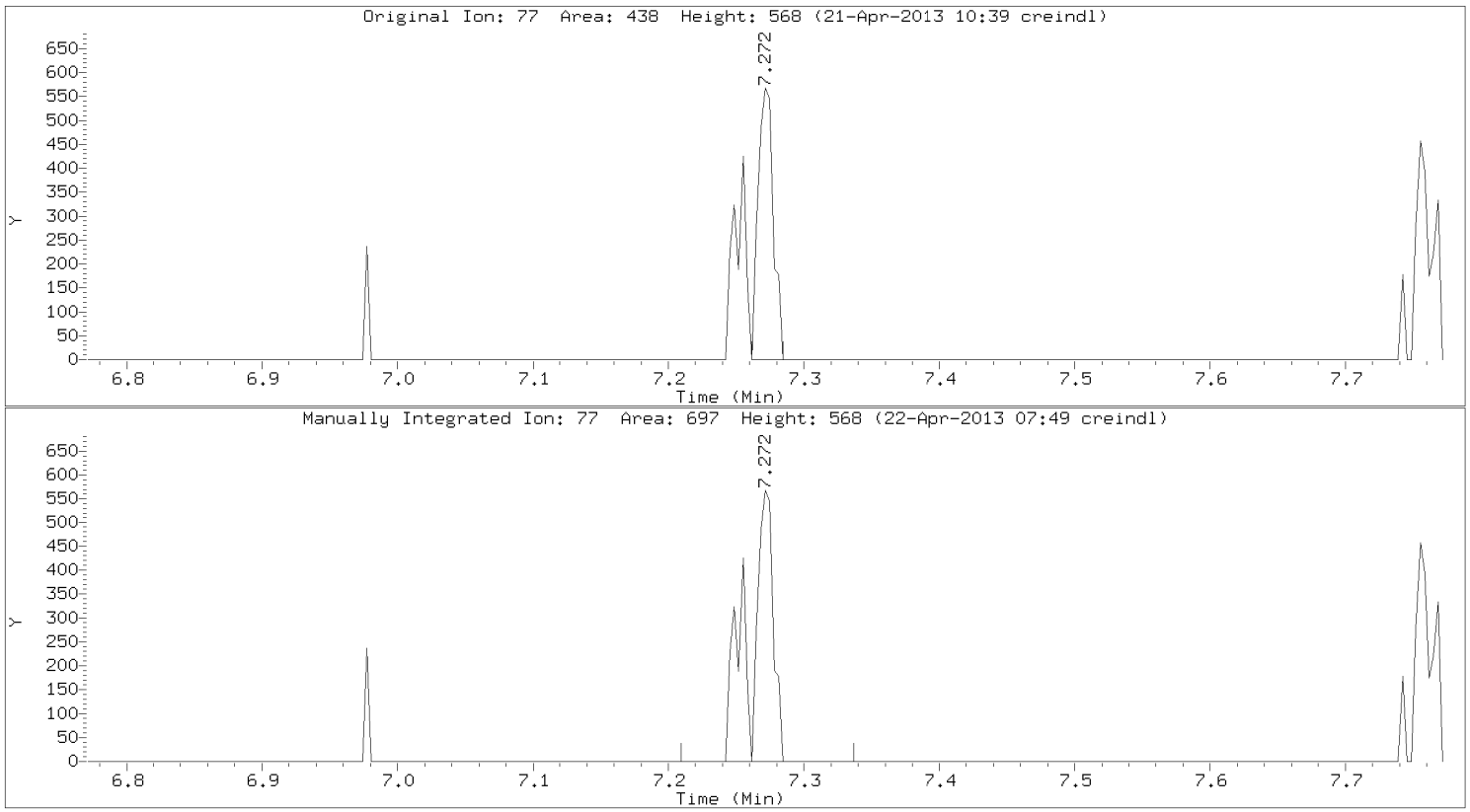






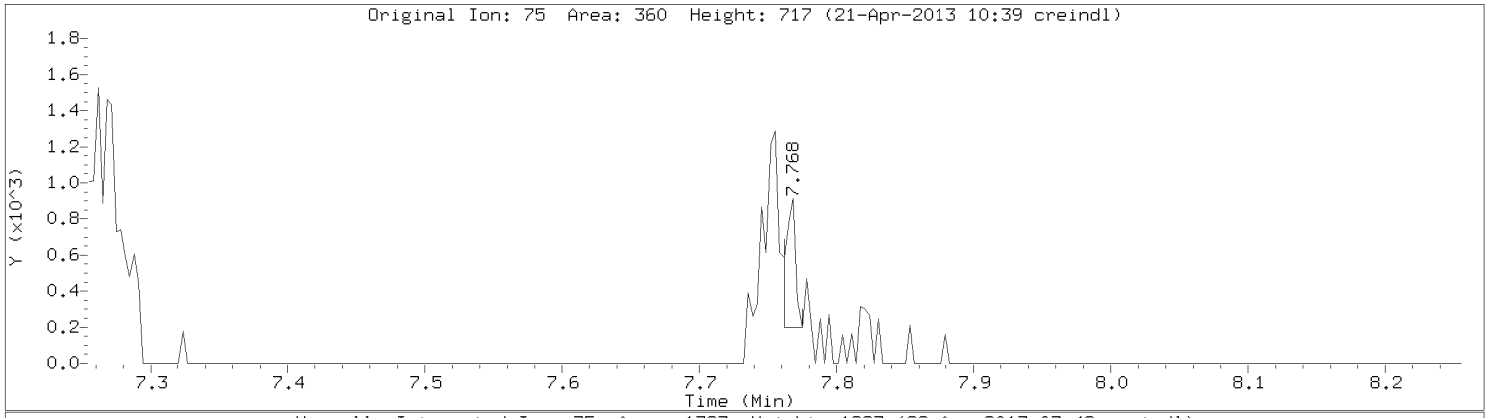


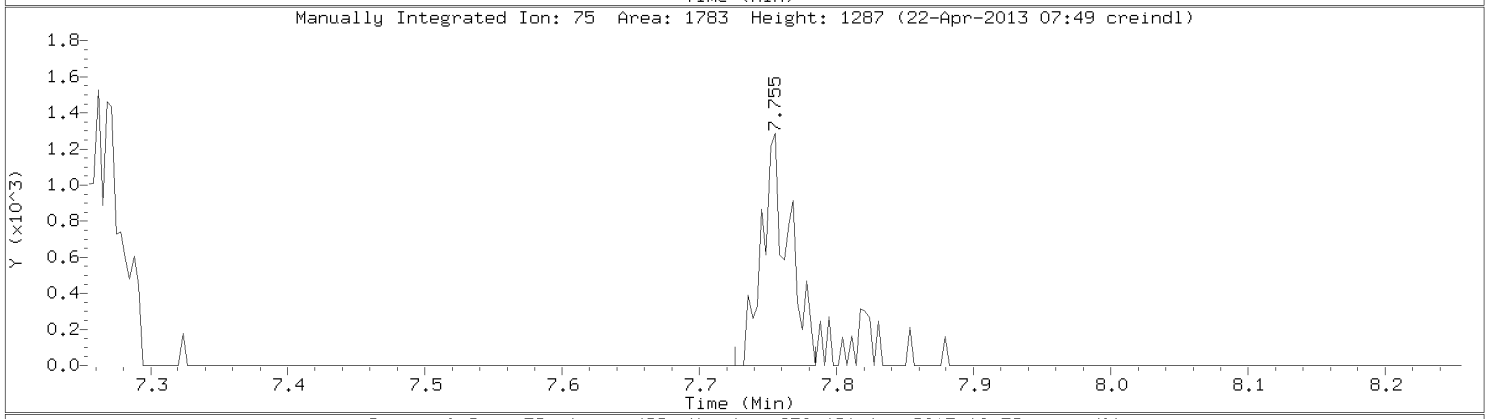
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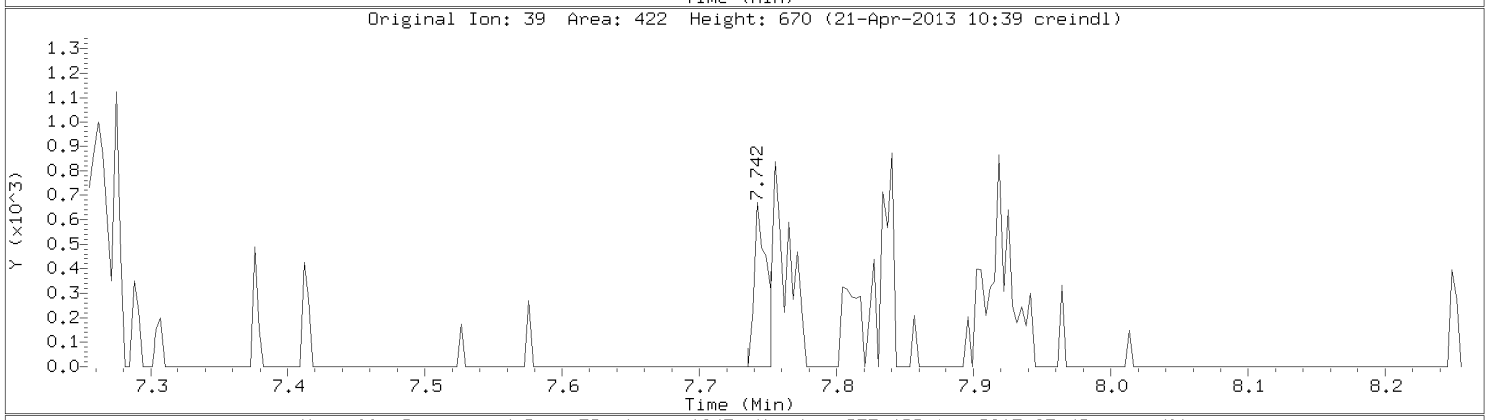


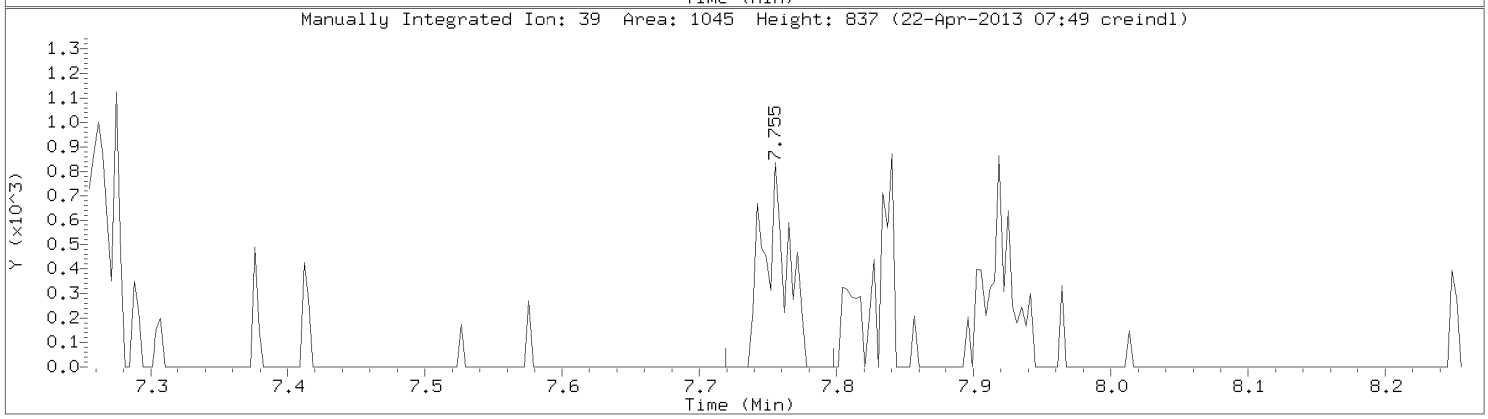
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: trans-1,3-Dichloropropene
CAS Number: 10061-02-6

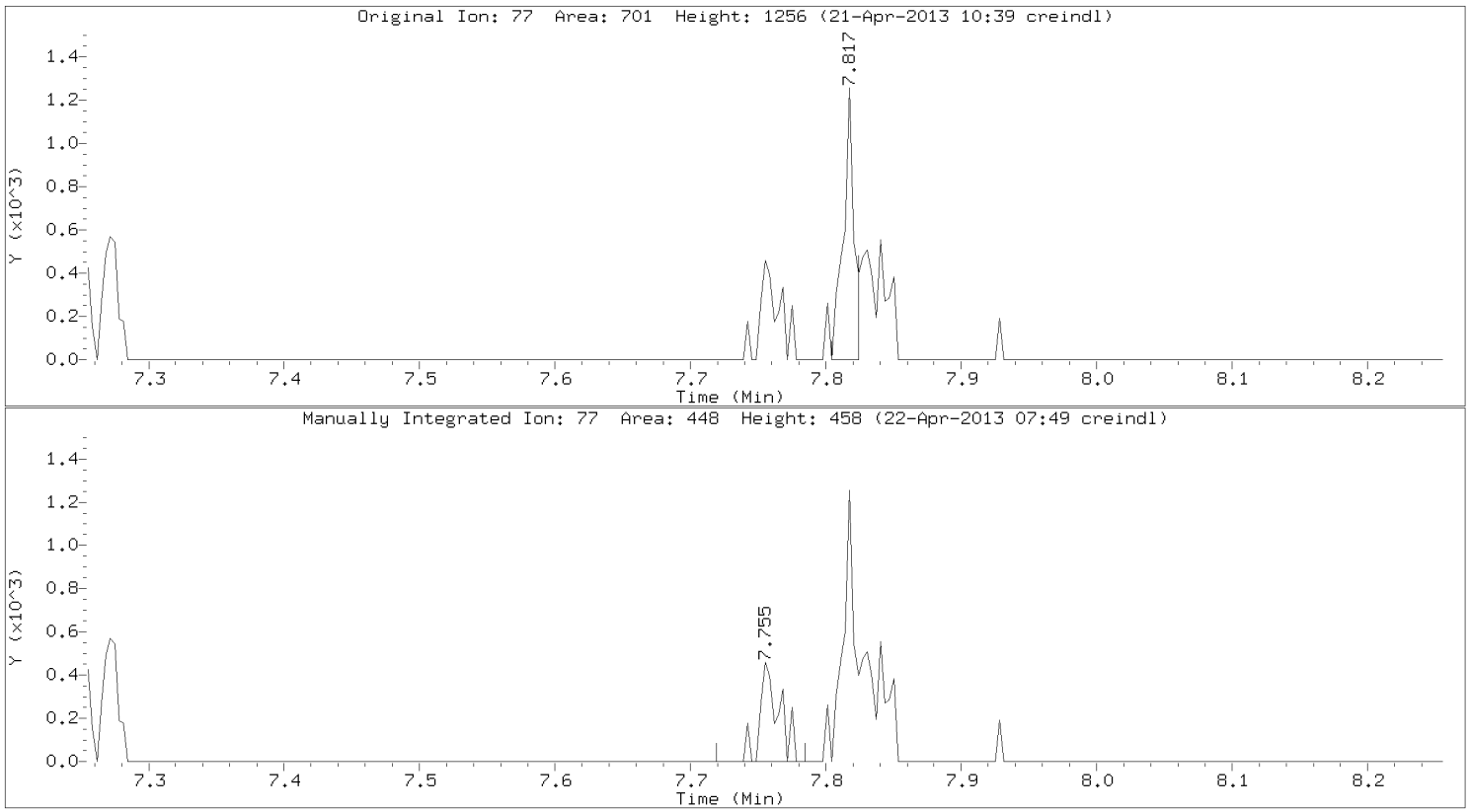






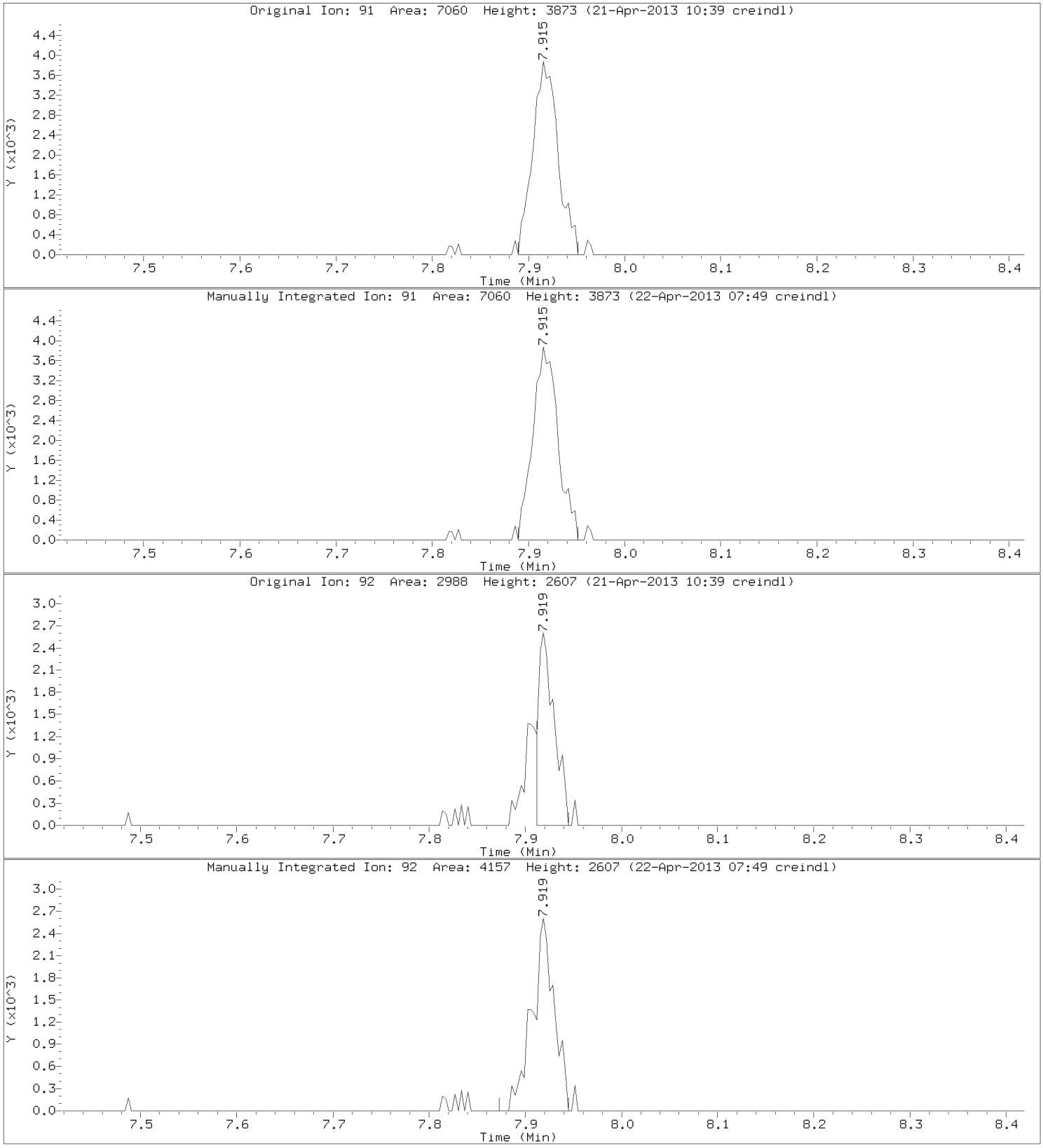


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Lab Sample ID: ICAL1



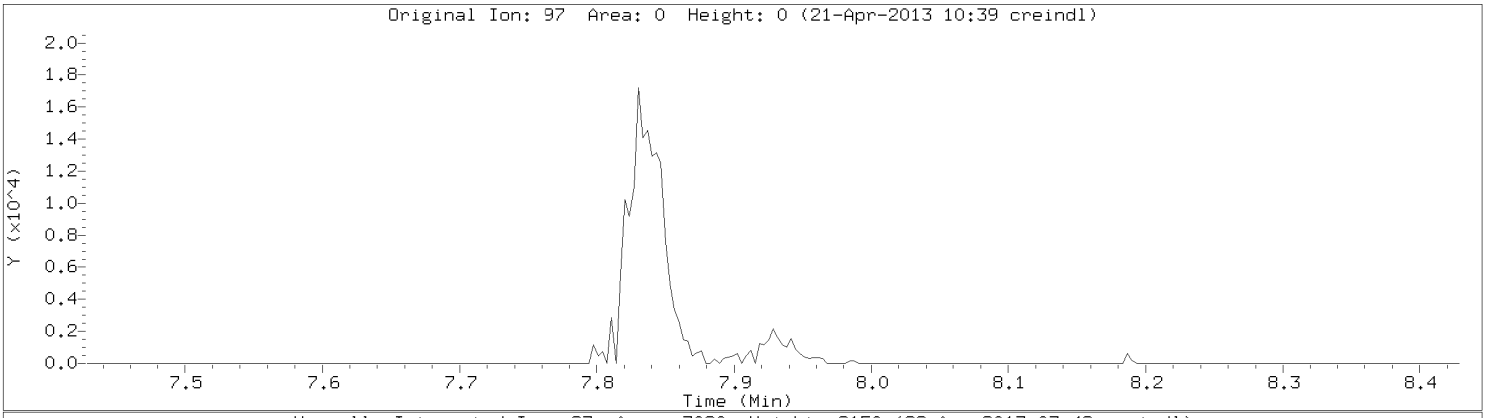
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Instrument: 10airD.i
Lab Sample ID: ICAL1

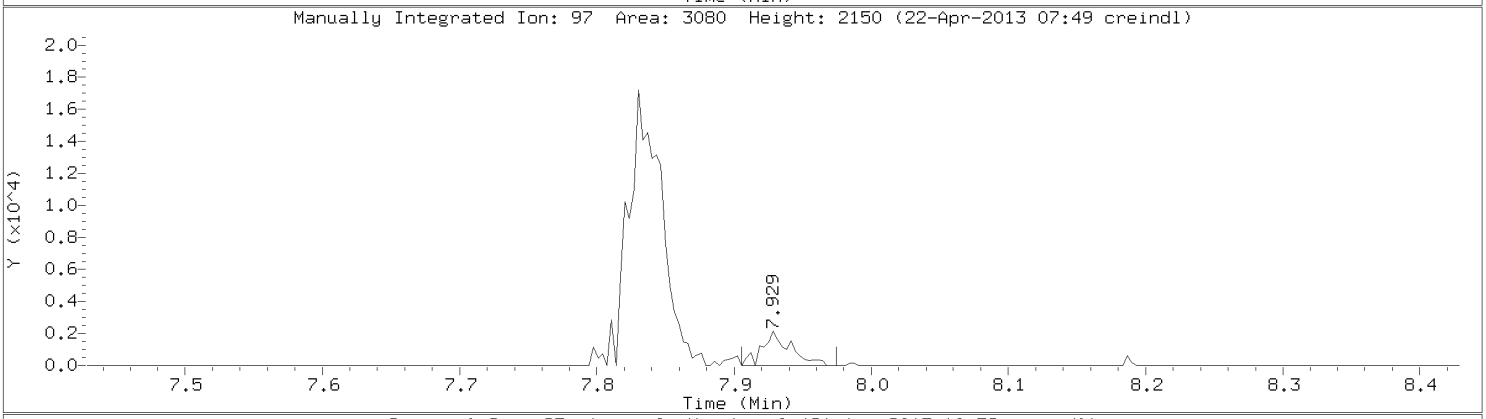
Compound: Toluene
CAS Number: 108-88-3

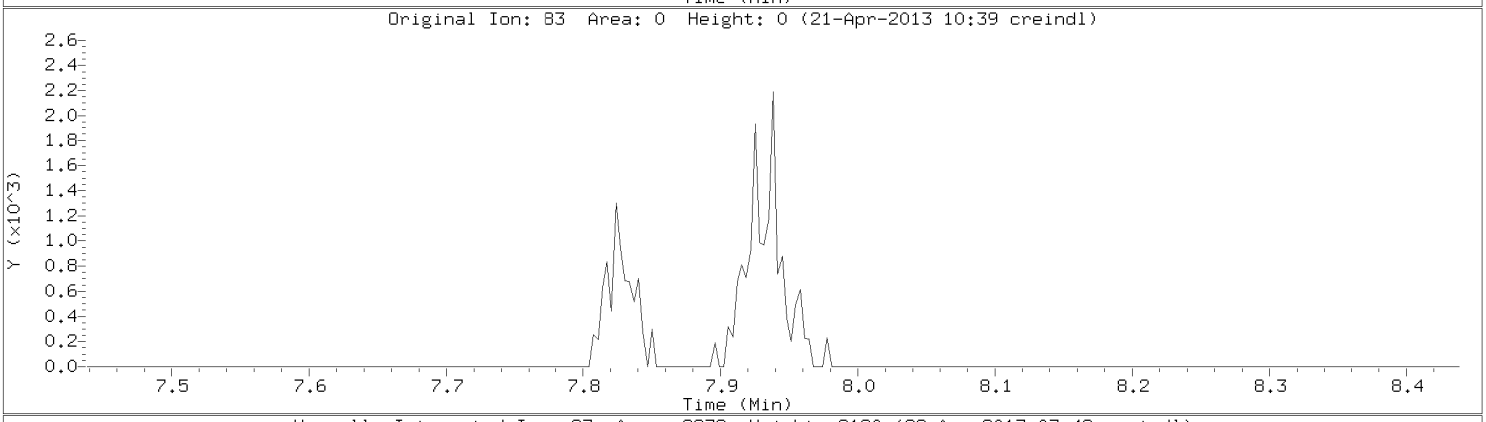


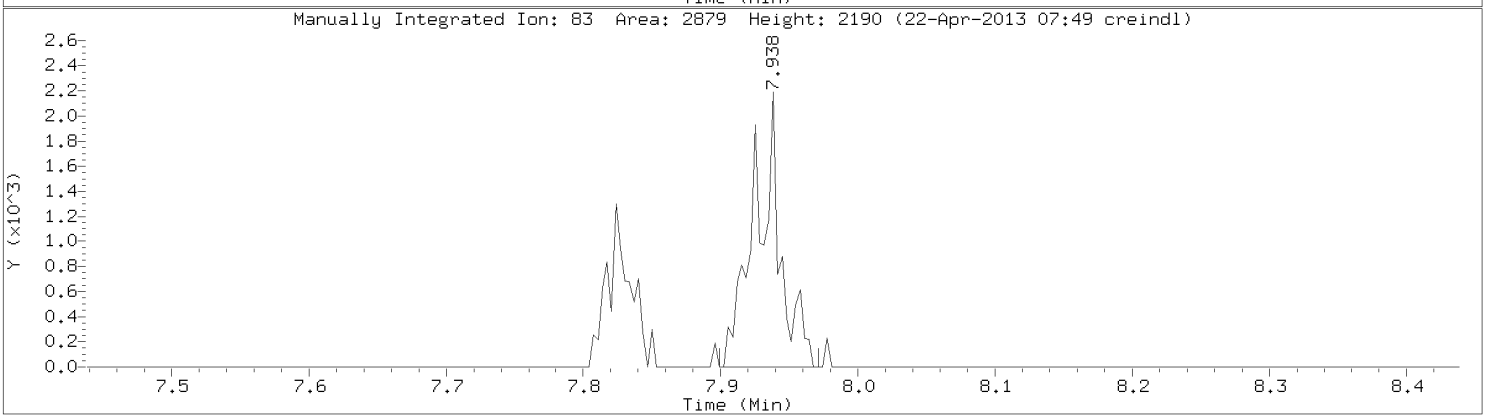
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,1,2-Trichloroethane
CAS Number: 79-00-5

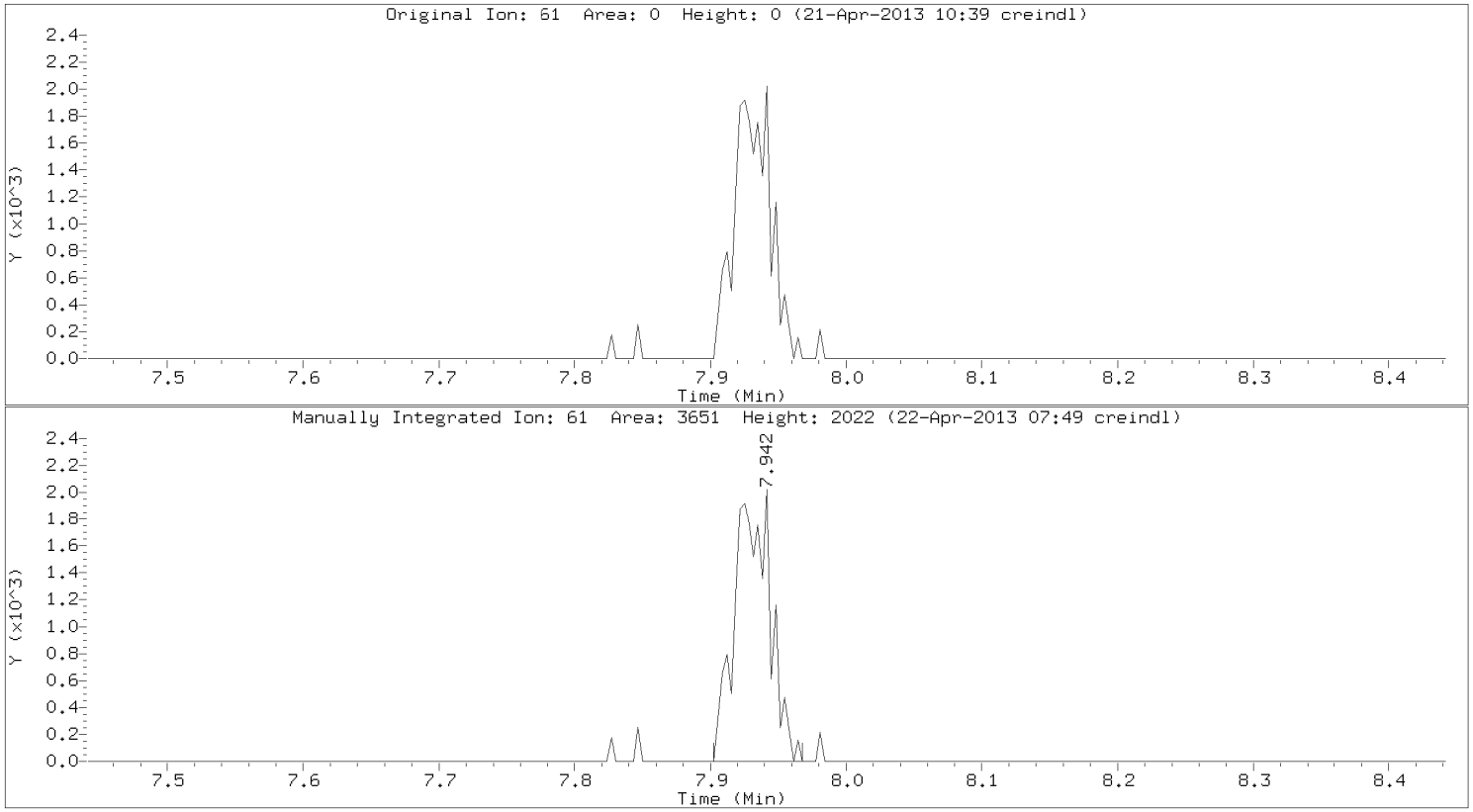






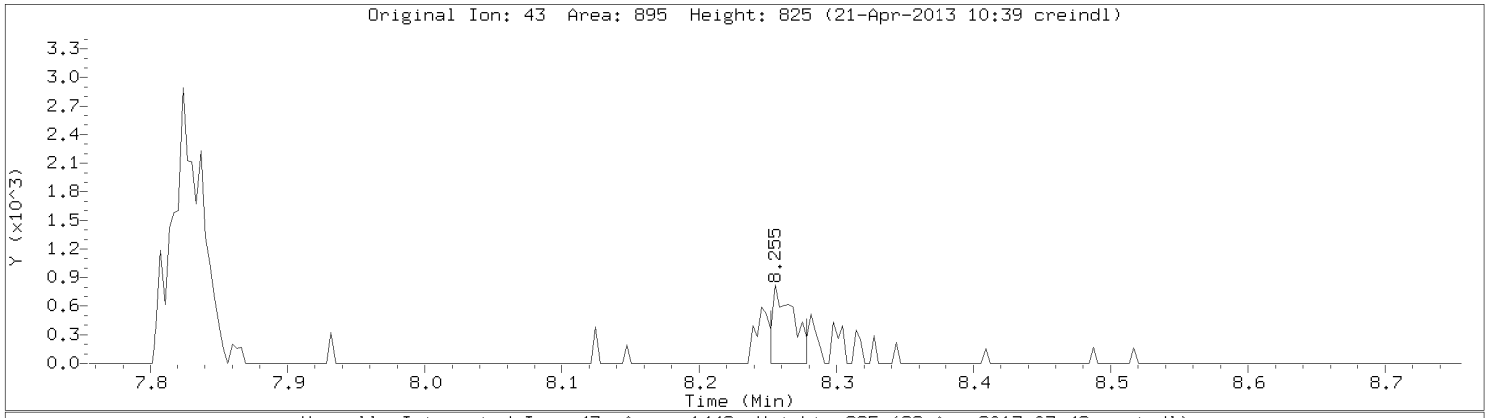


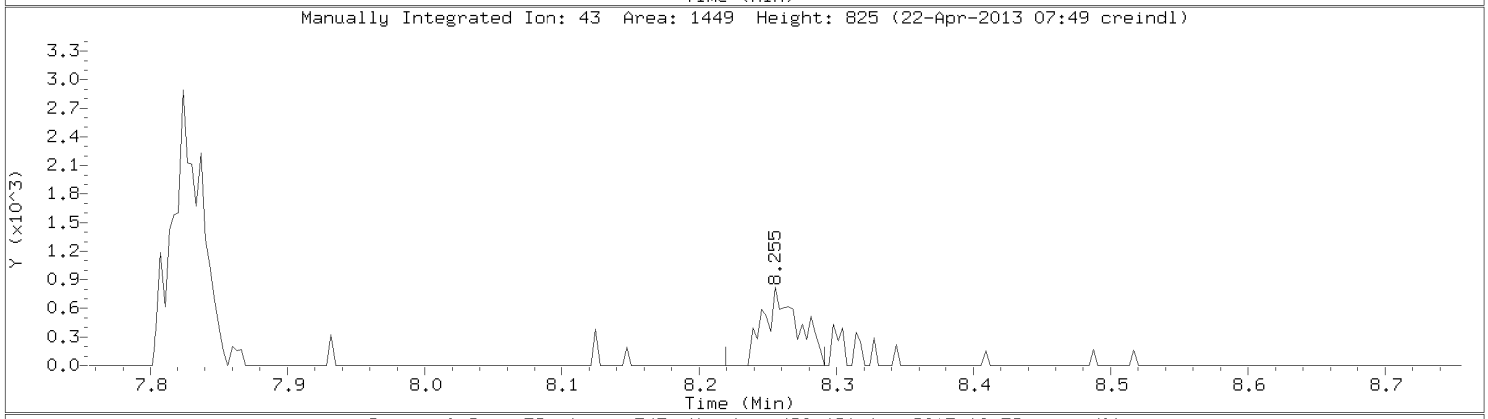
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Instrument: 10airD.i
Lab Sample ID: ICAL1

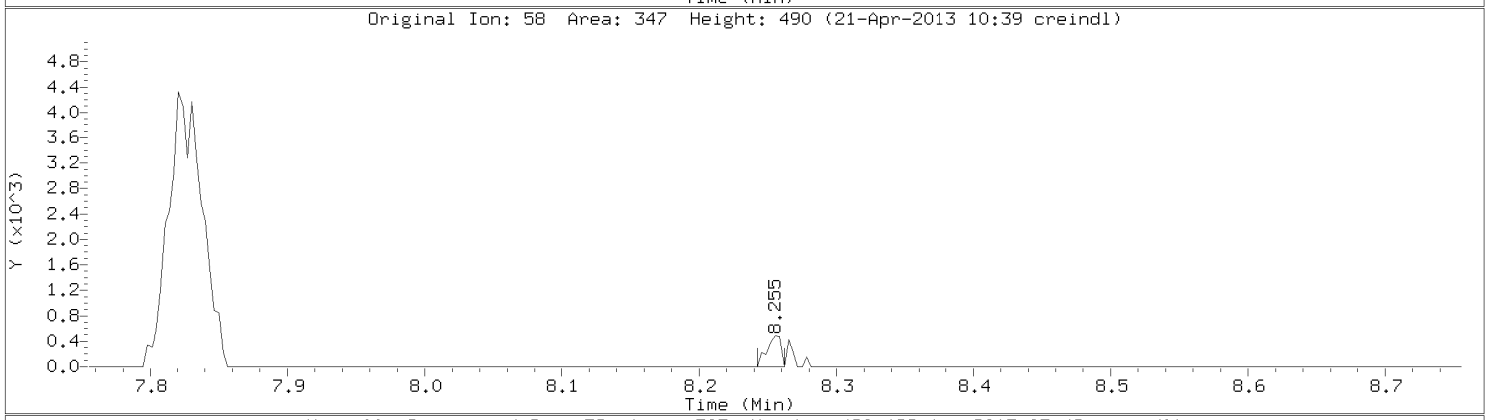


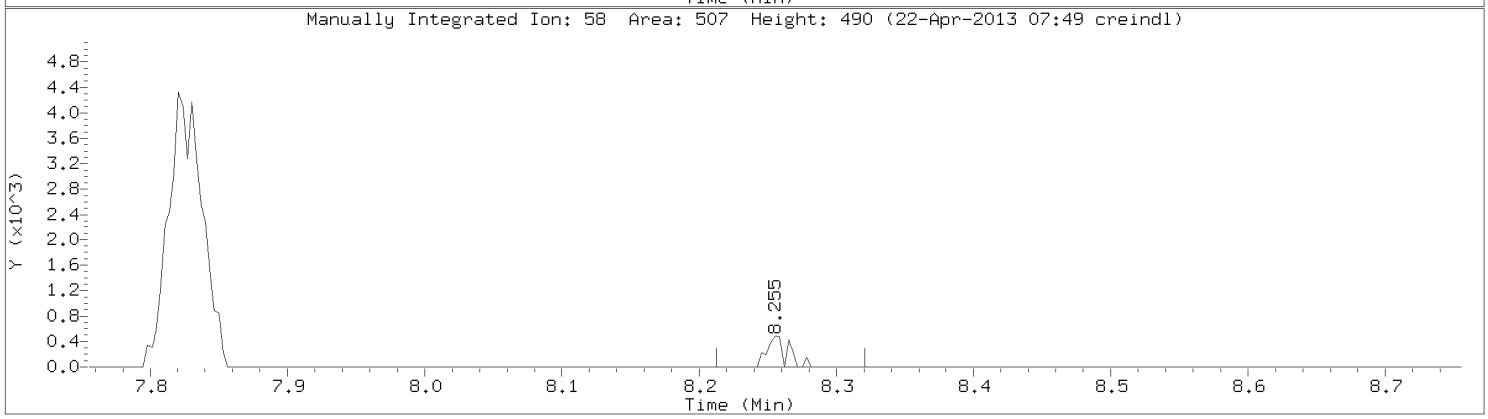
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Methyl Butyl Ketone
CAS Number: 591-78-6



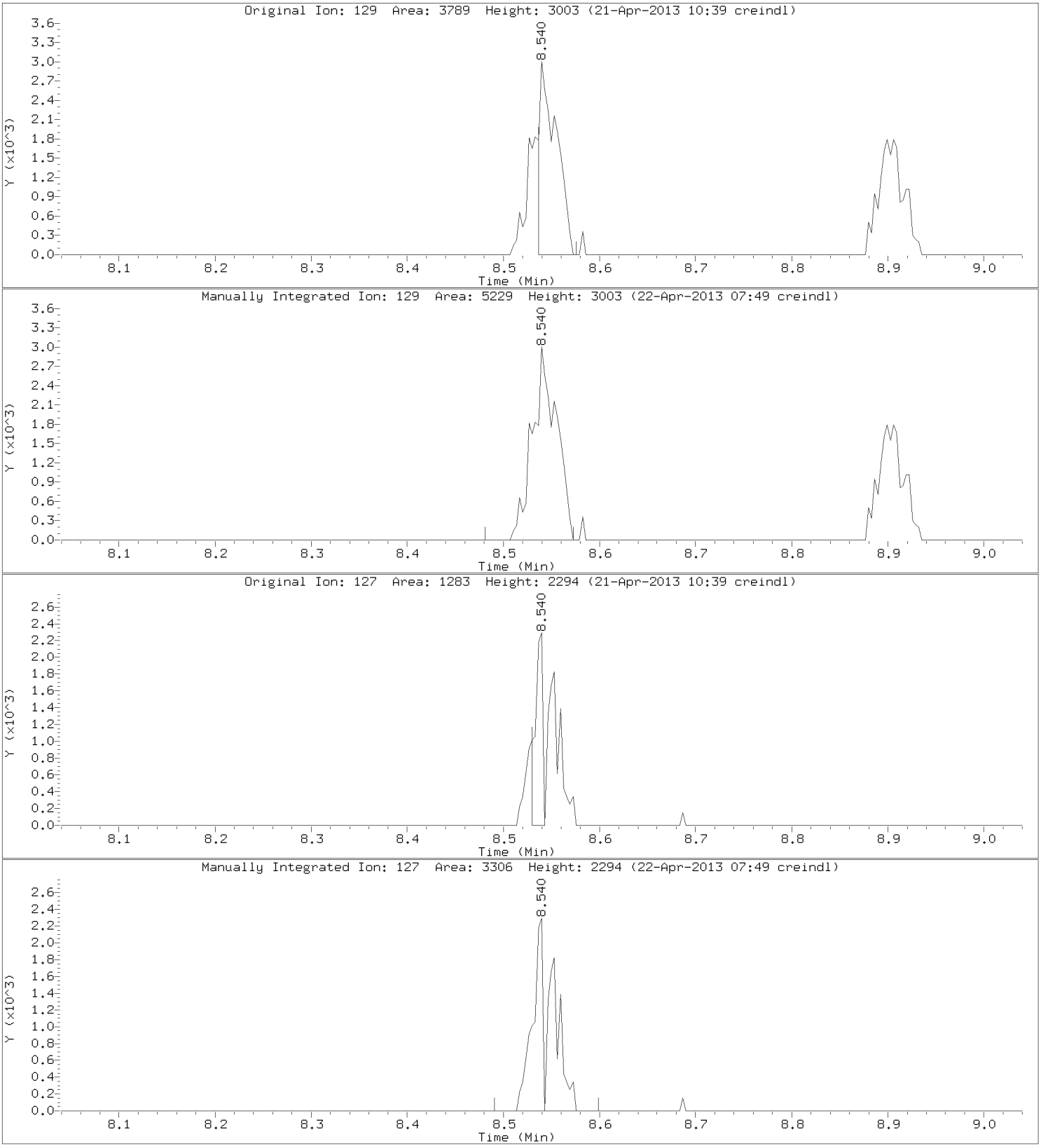






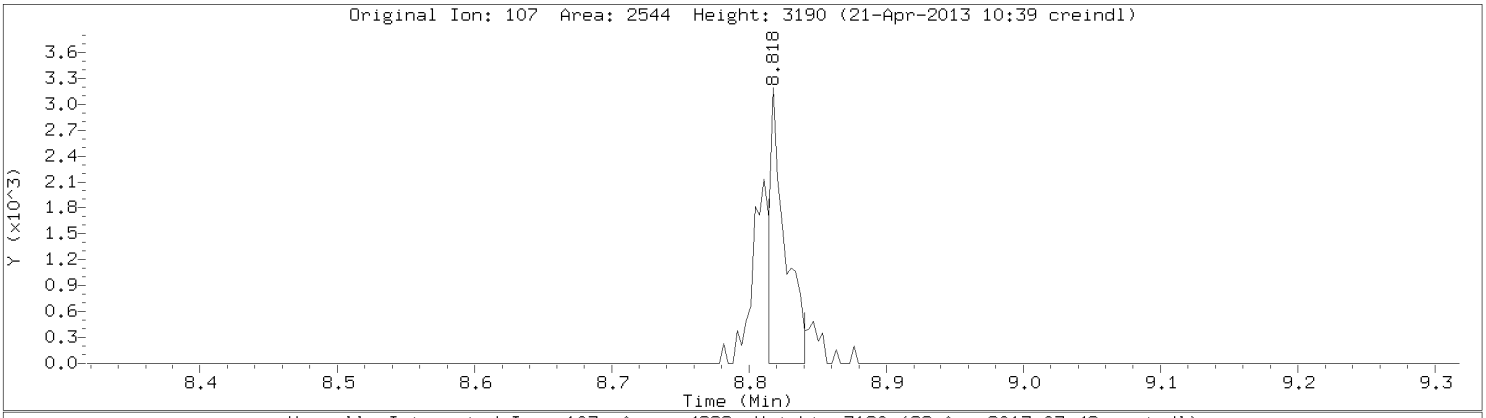
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Lab Sample ID: ICAL1

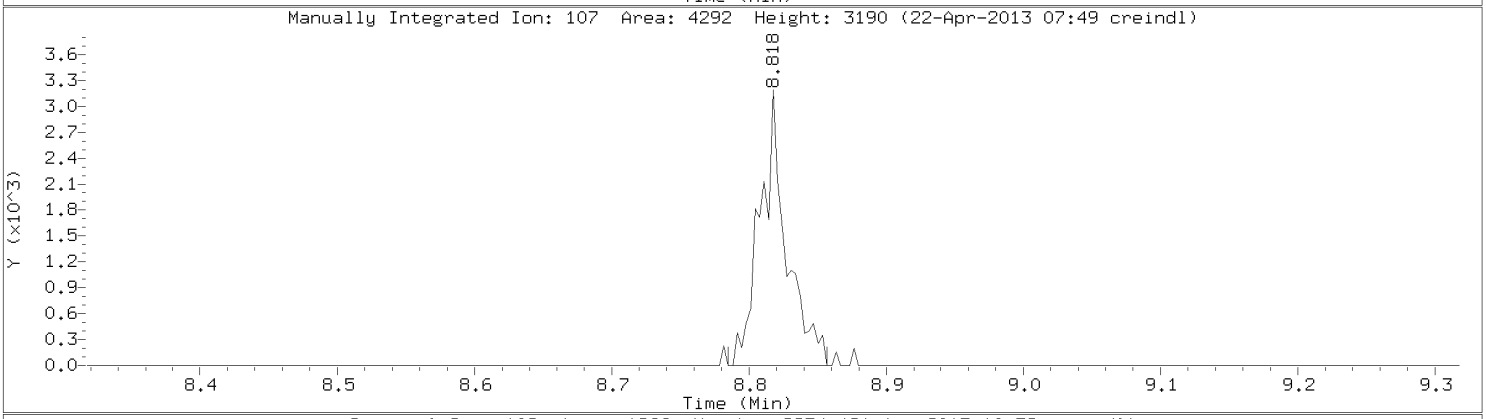
Compound: Dibromochloromethane
CAS Number: 124-48-1

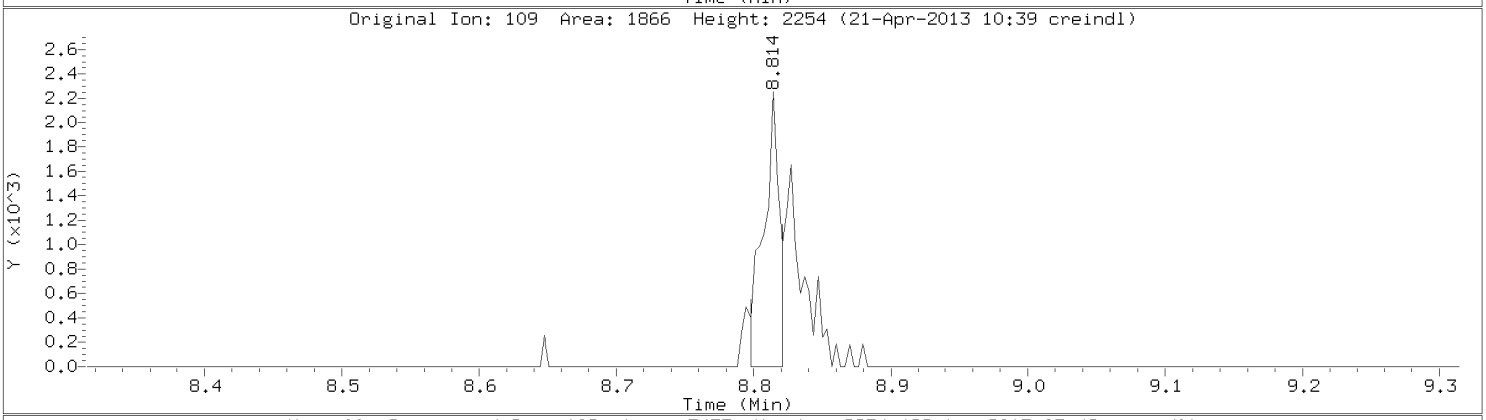


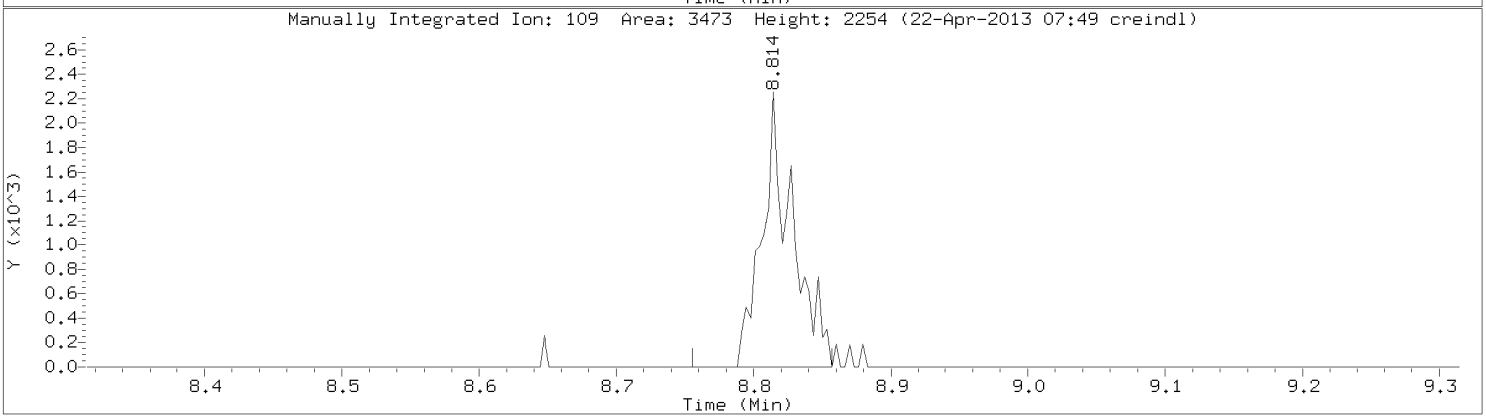
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11105.d
Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,2-Dibromoethane
CAS Number: 106-93-4



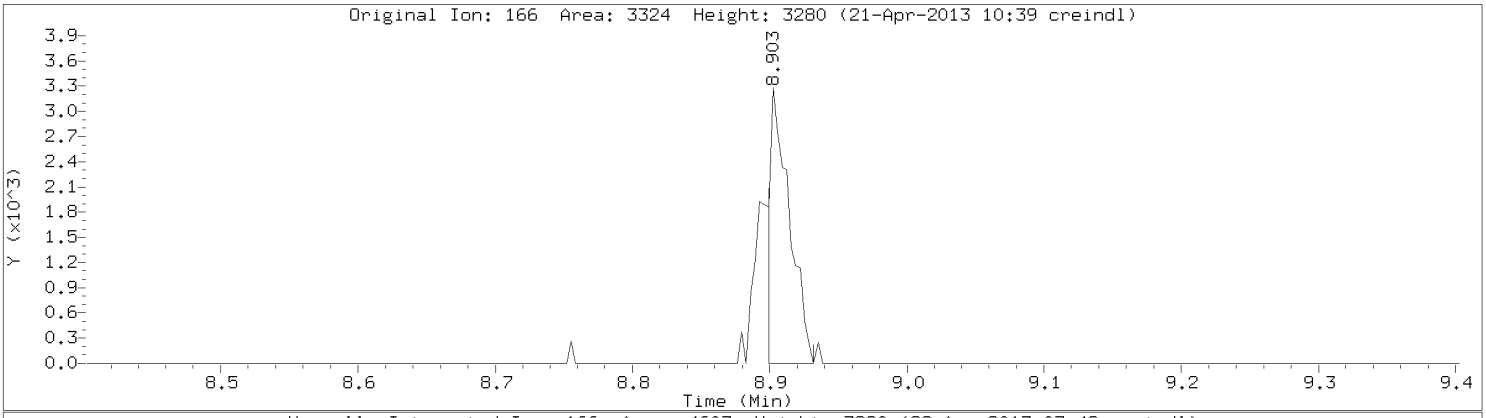


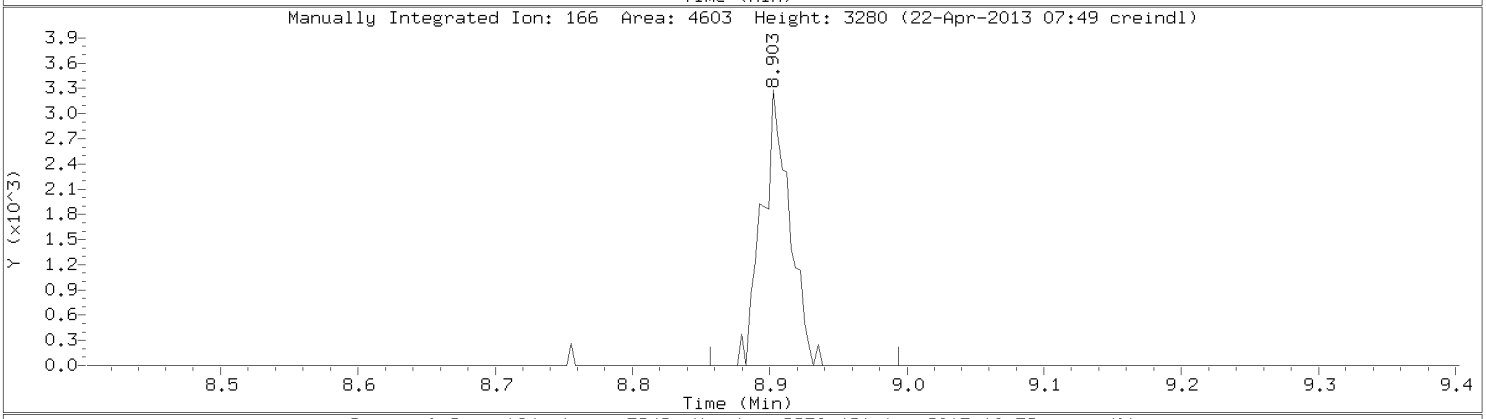


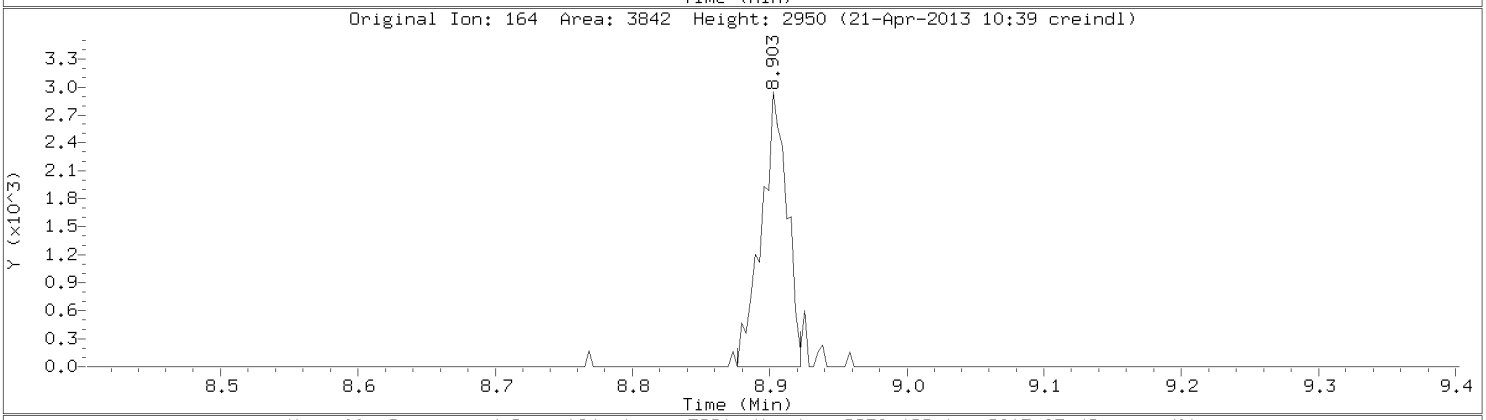


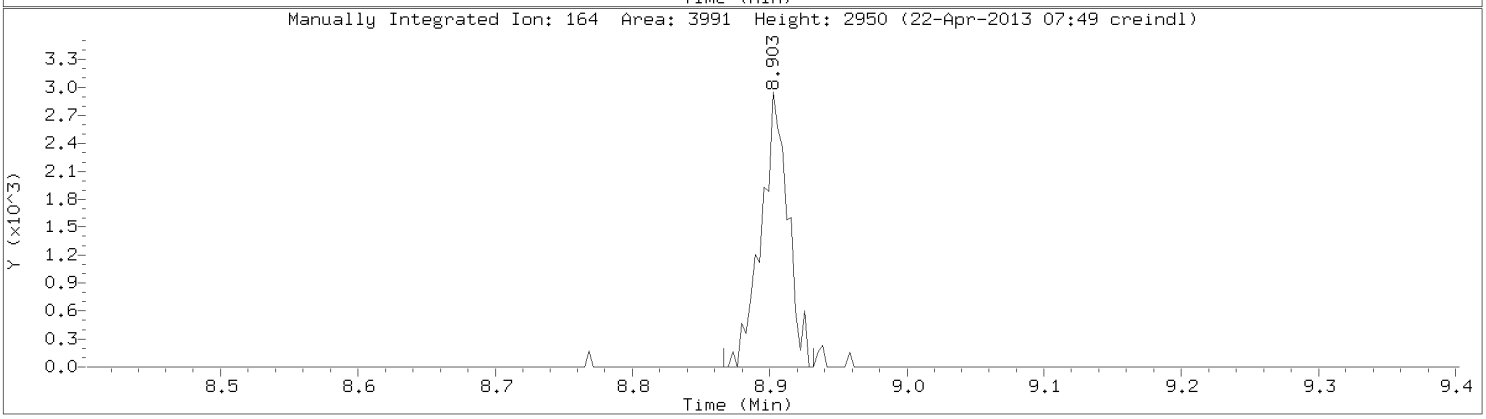
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Tetrachloroethene
CAS Number: 127-18-4

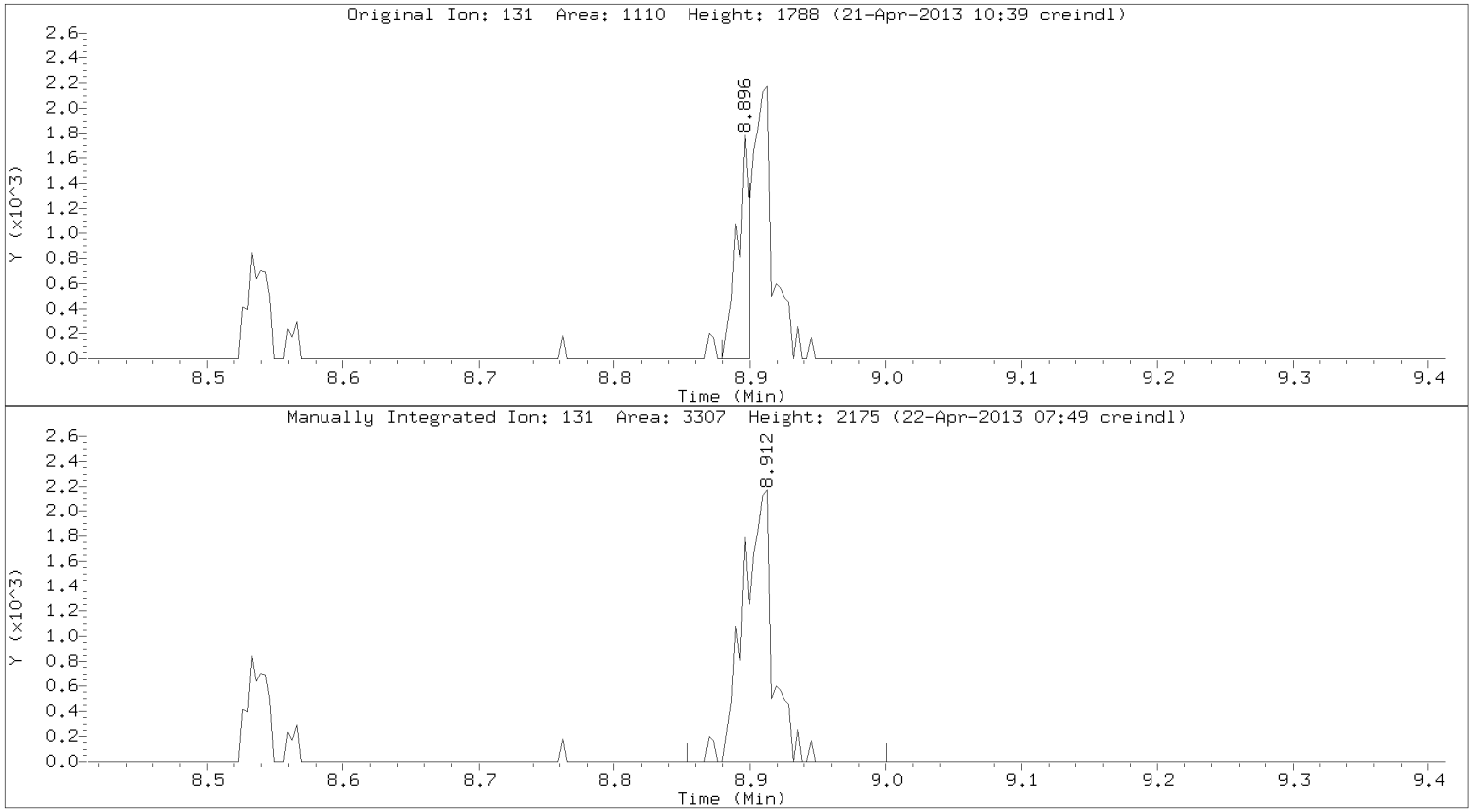






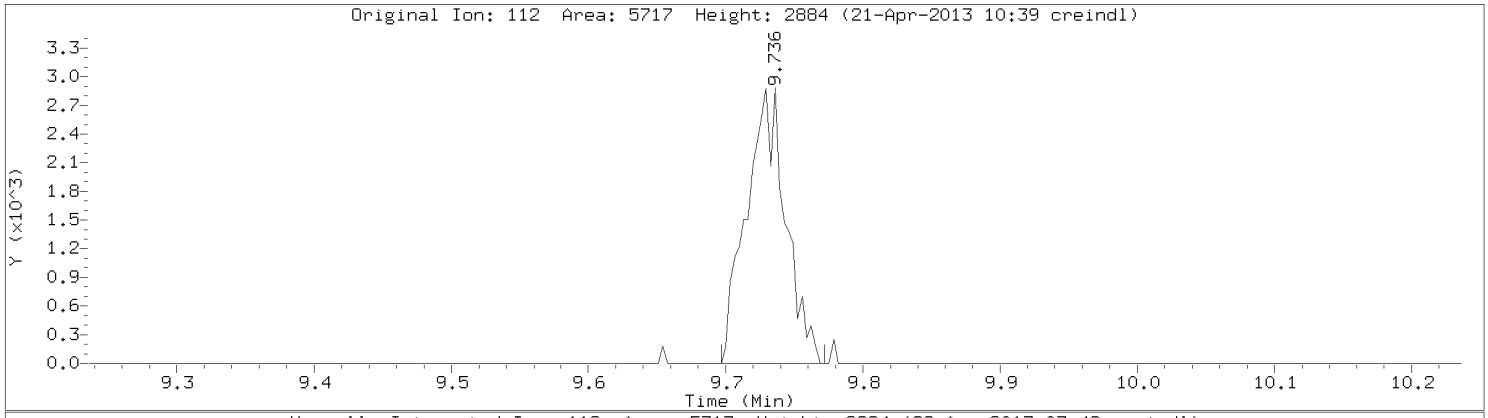


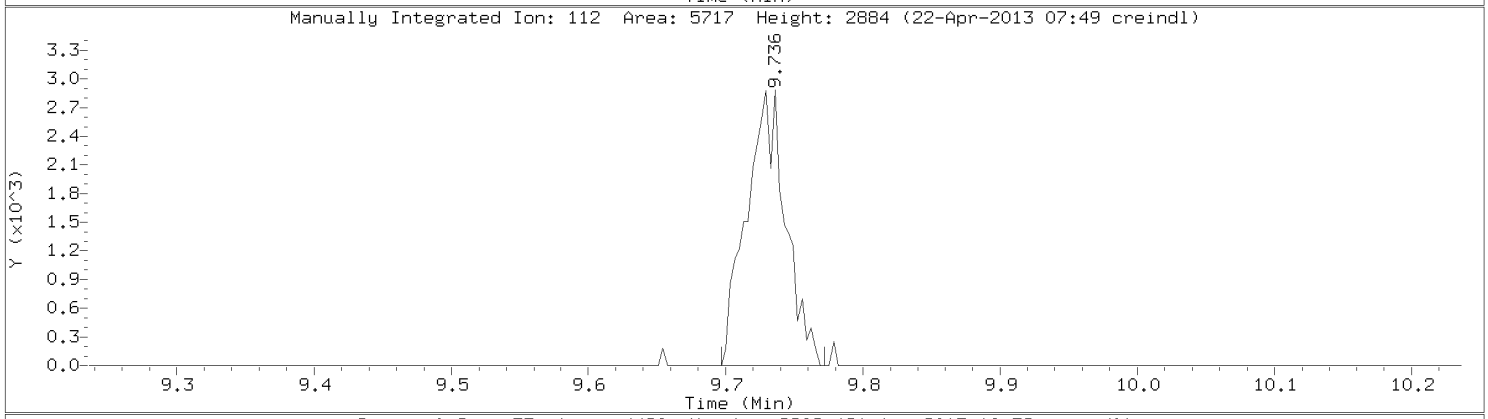
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Instrument: 10airD.i
Lab Sample ID: ICAL1

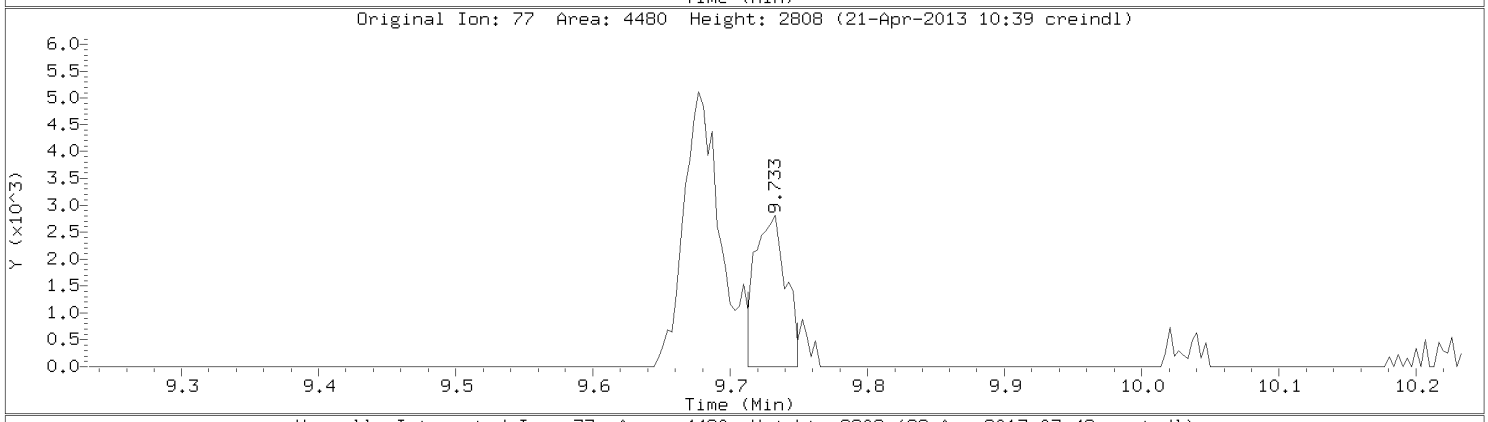


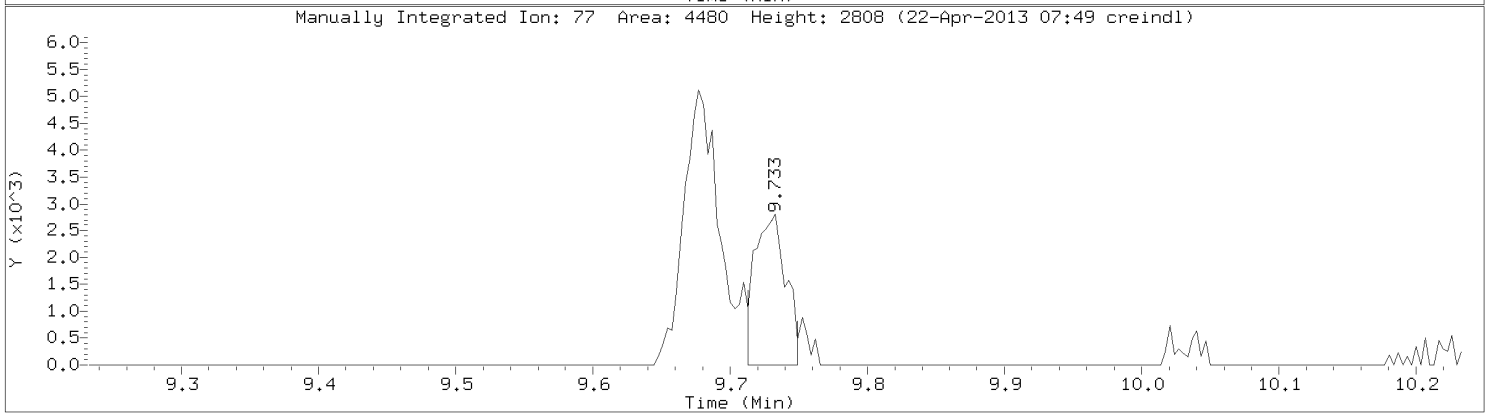
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Chlorobenzene
CAS Number: 108-90-7

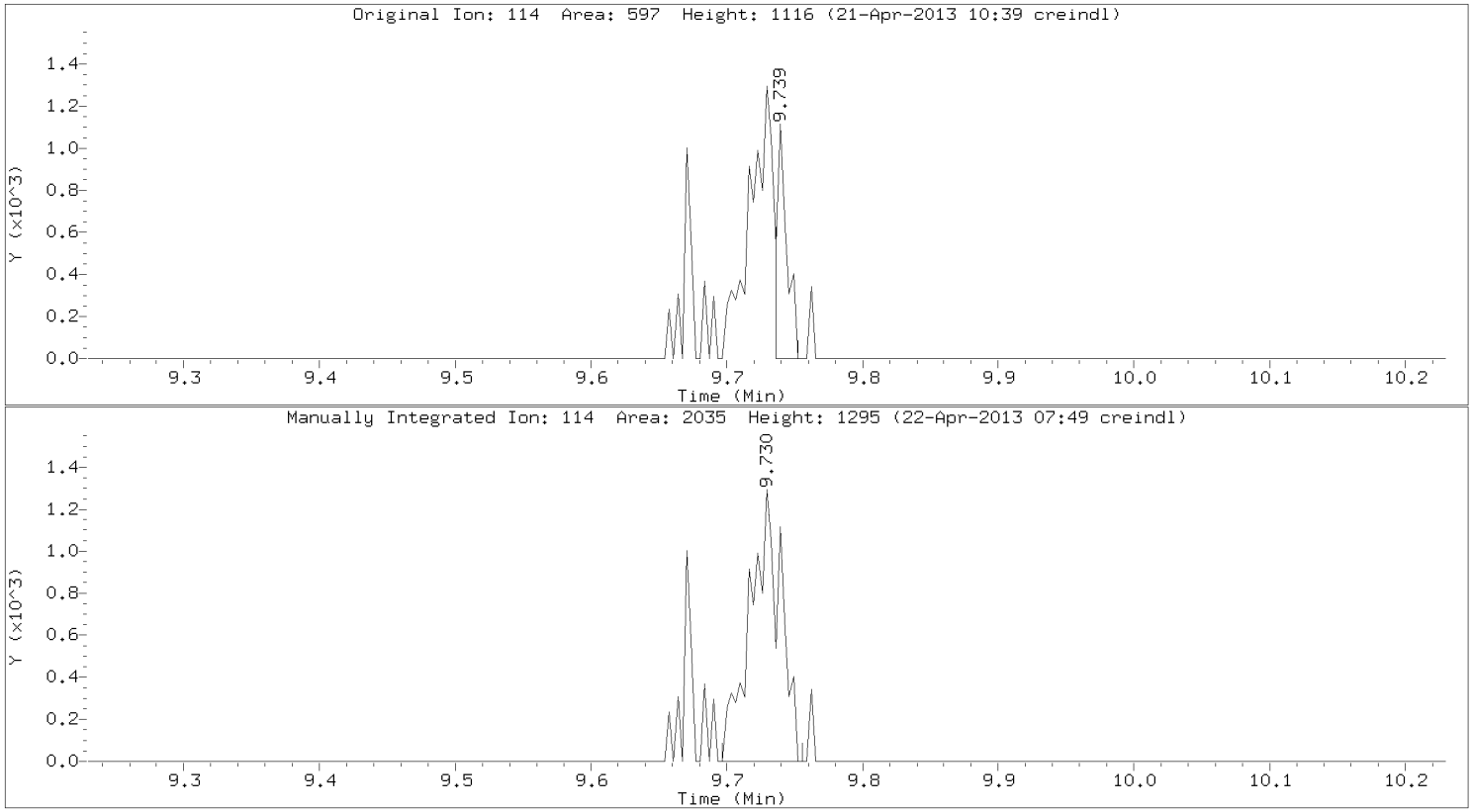






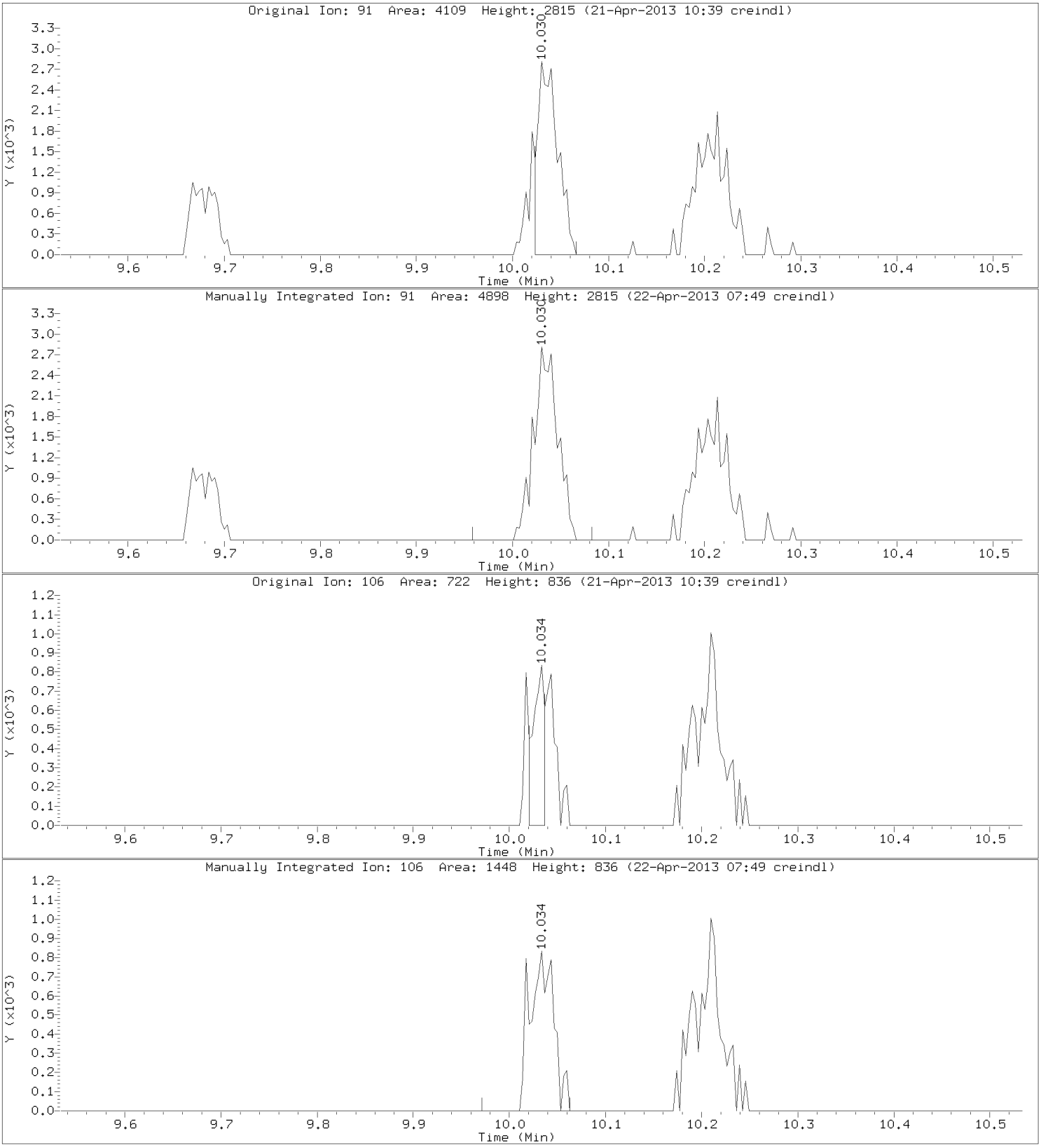


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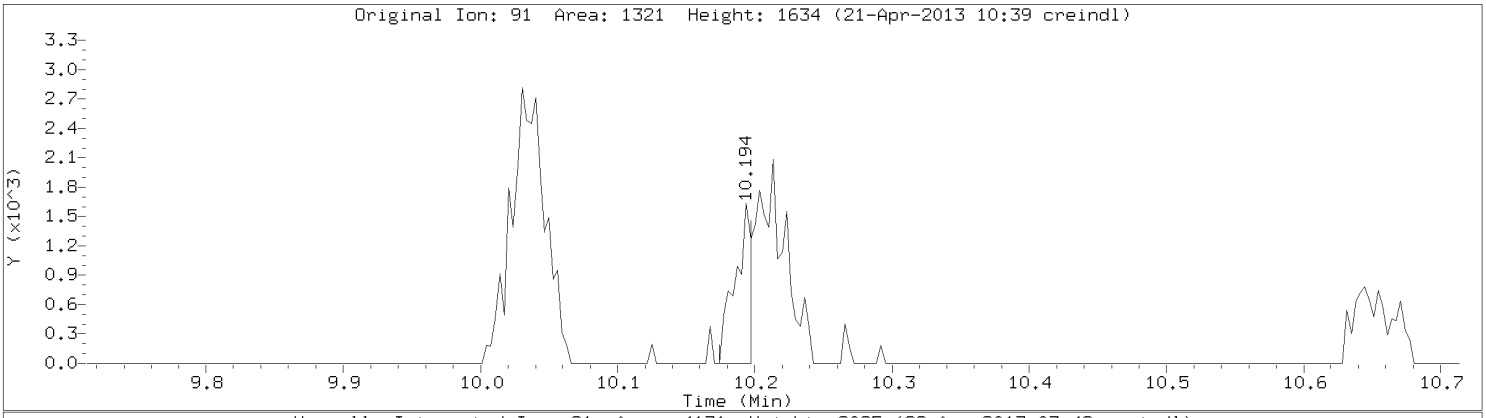
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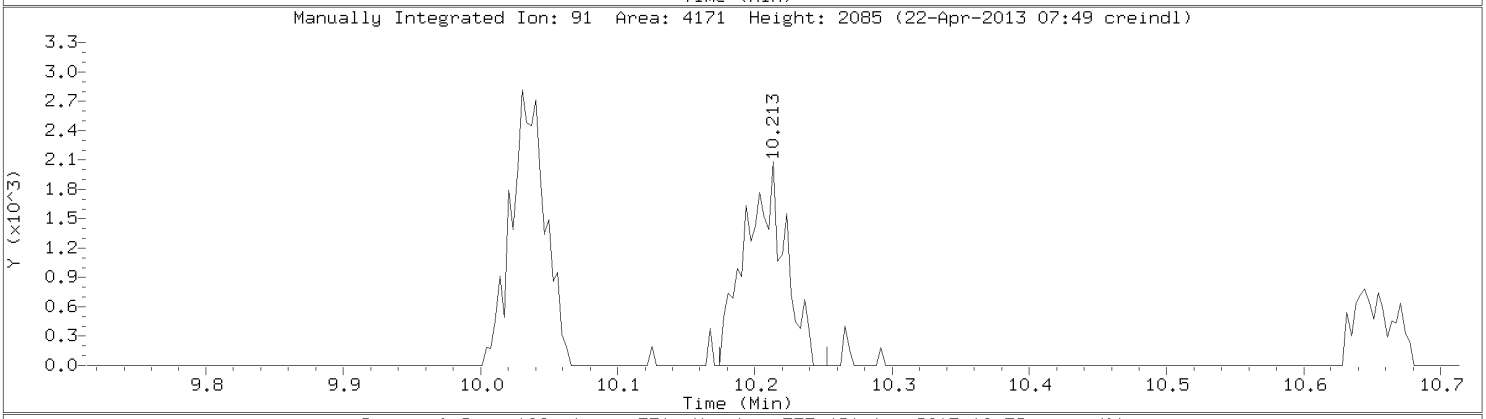
Compound: Ethyl Benzene
CAS Number: 100-41-4

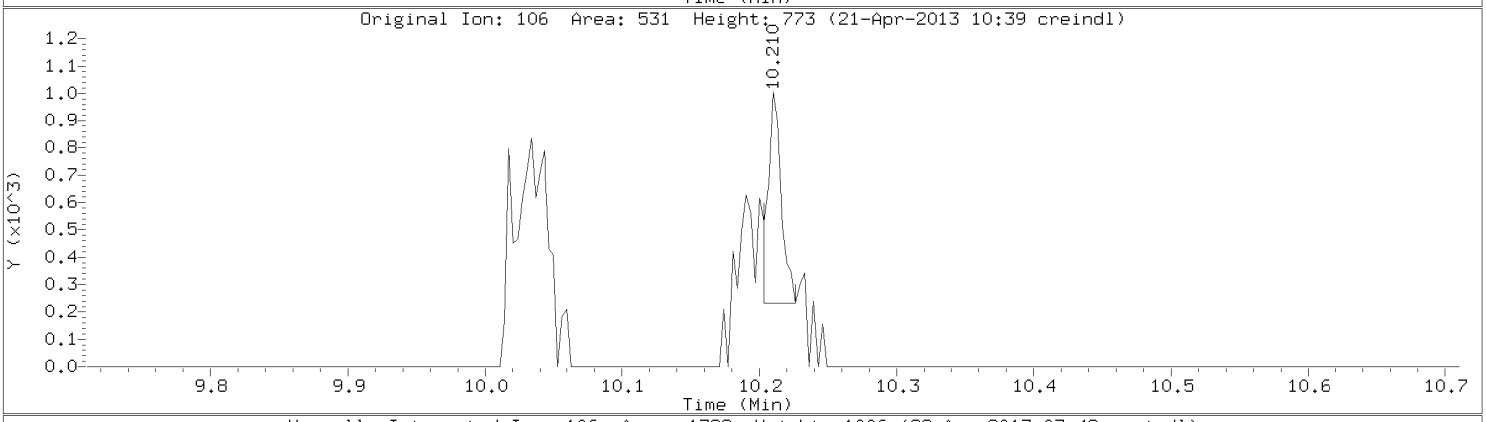


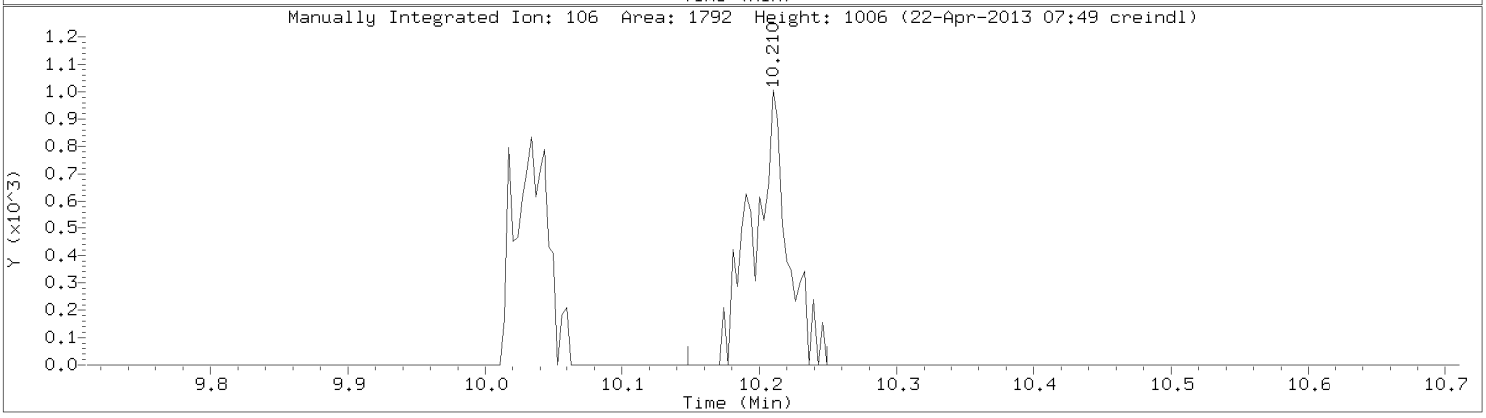
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: m&p-Xylene
CAS Number: 7816-60-0



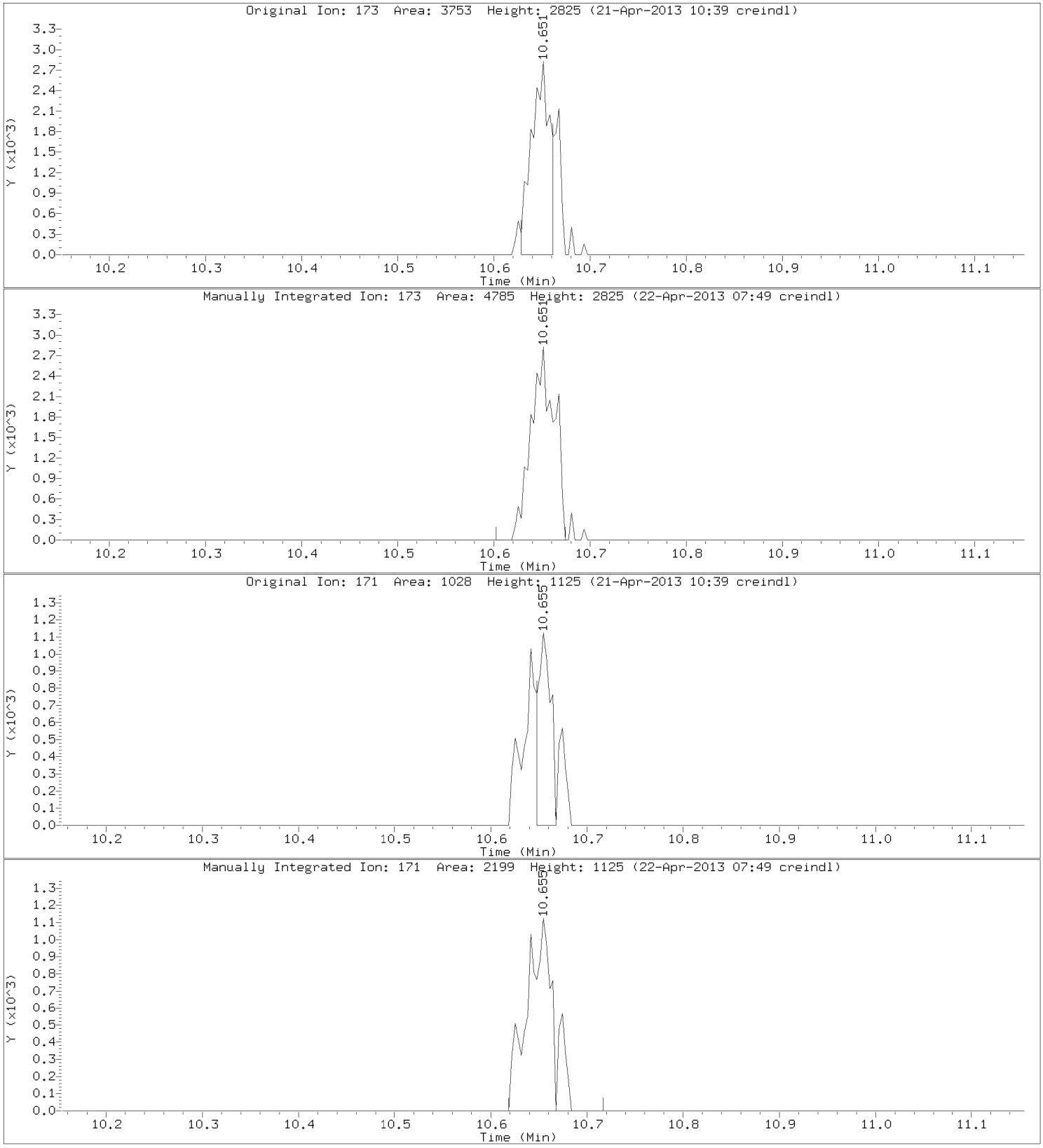






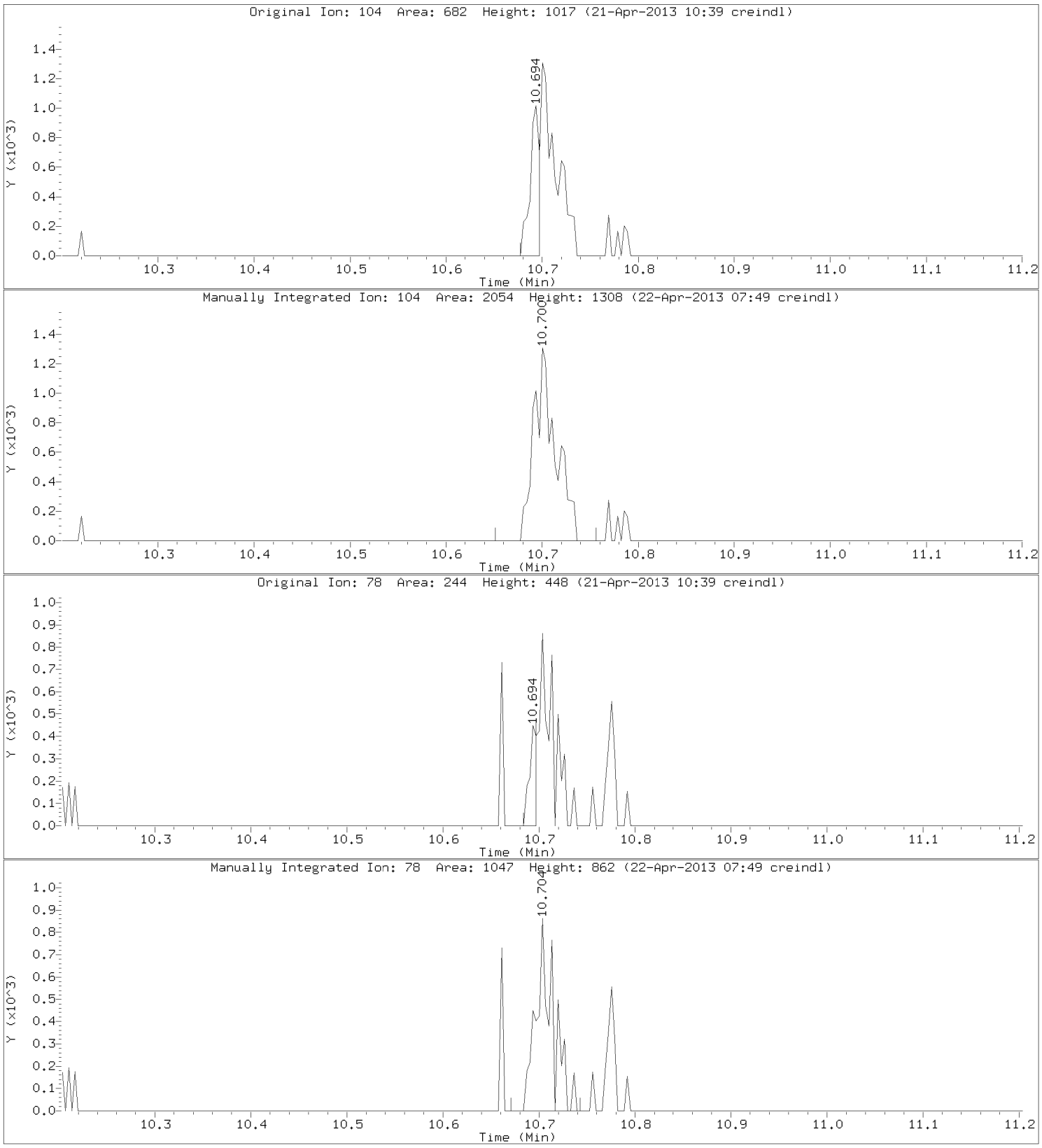
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Compound: Bromoform
CAS Number: 75-25-2

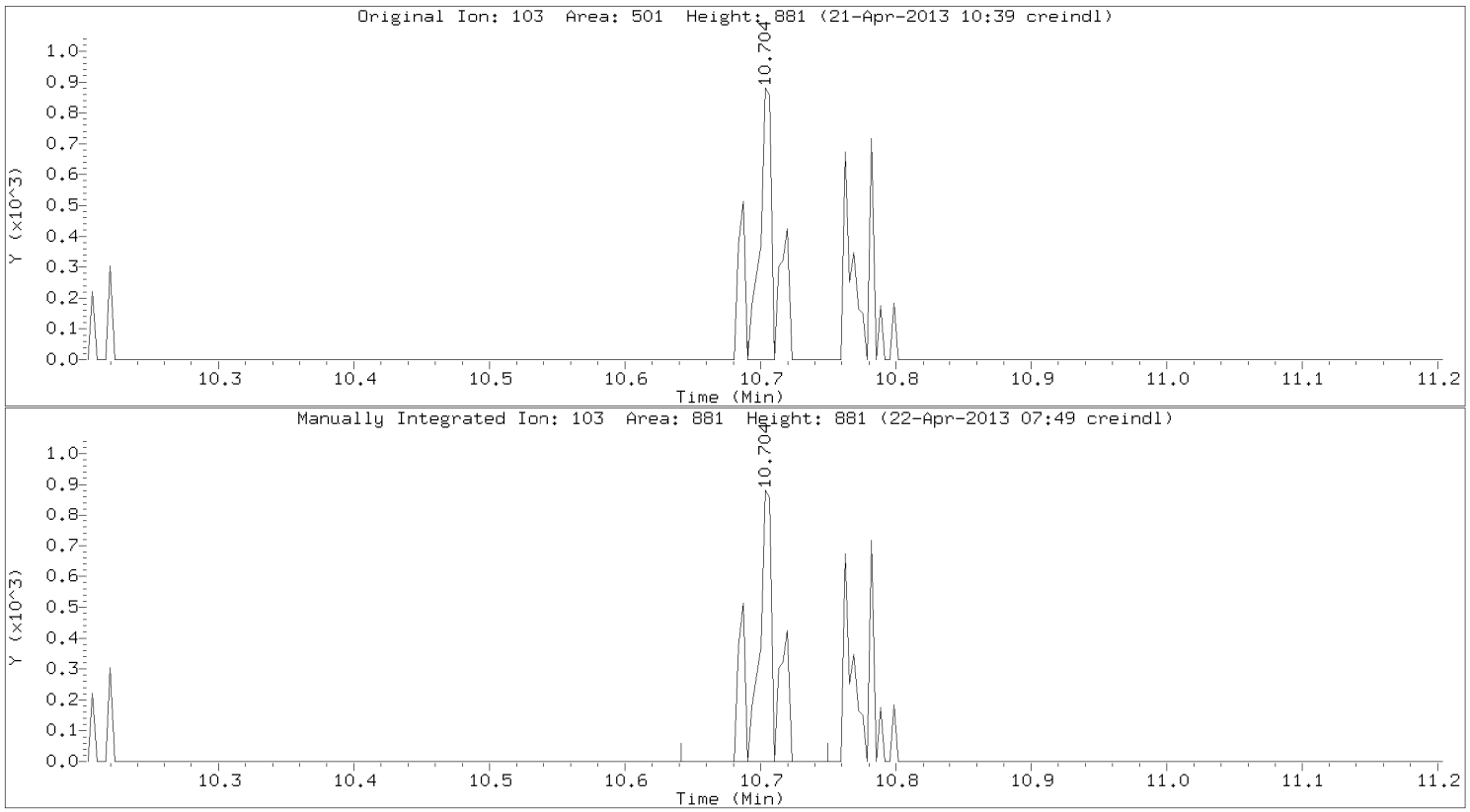


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Styrene
CAS Number: 100-42-5

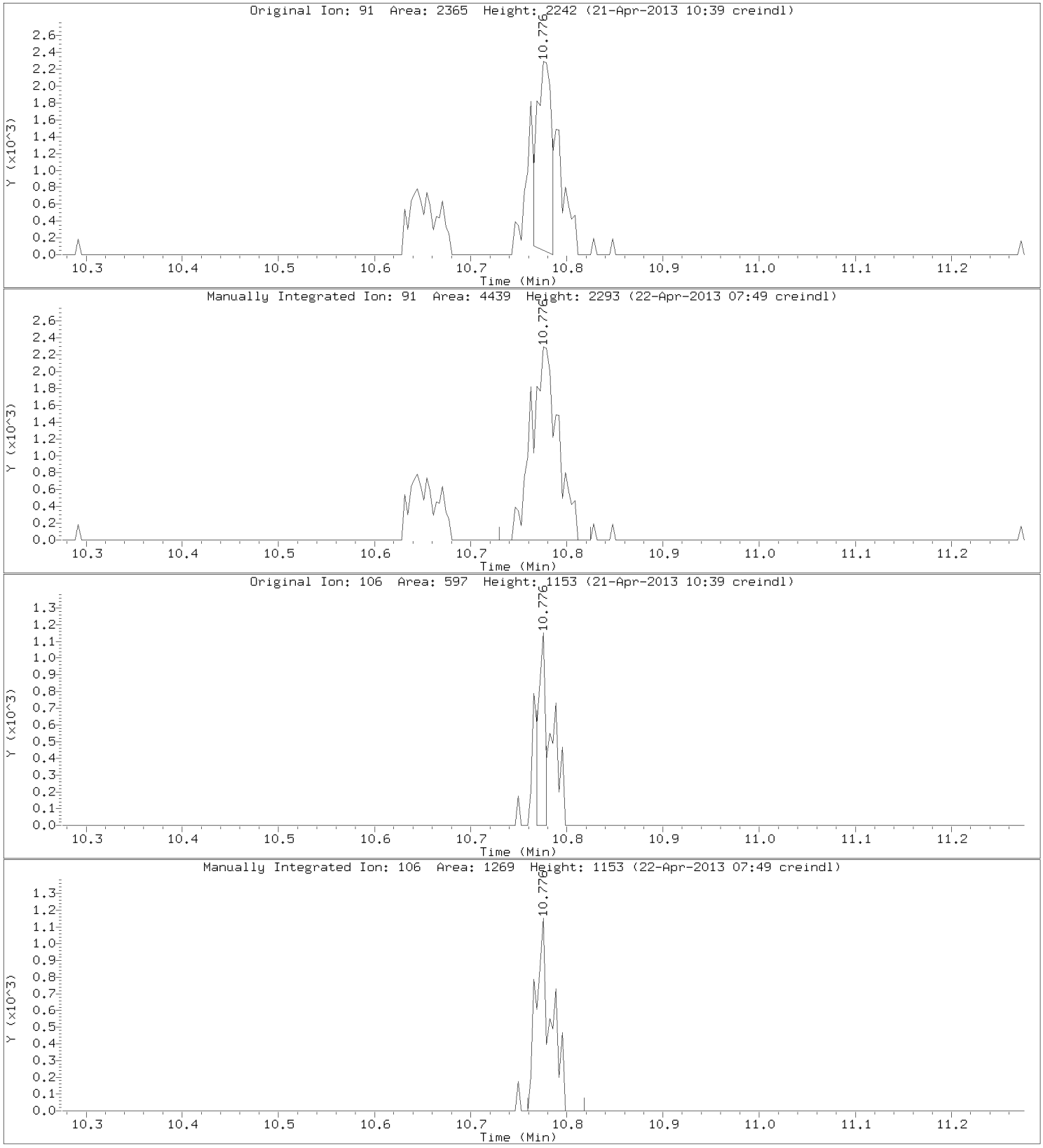


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Lab Sample ID: ICAL1



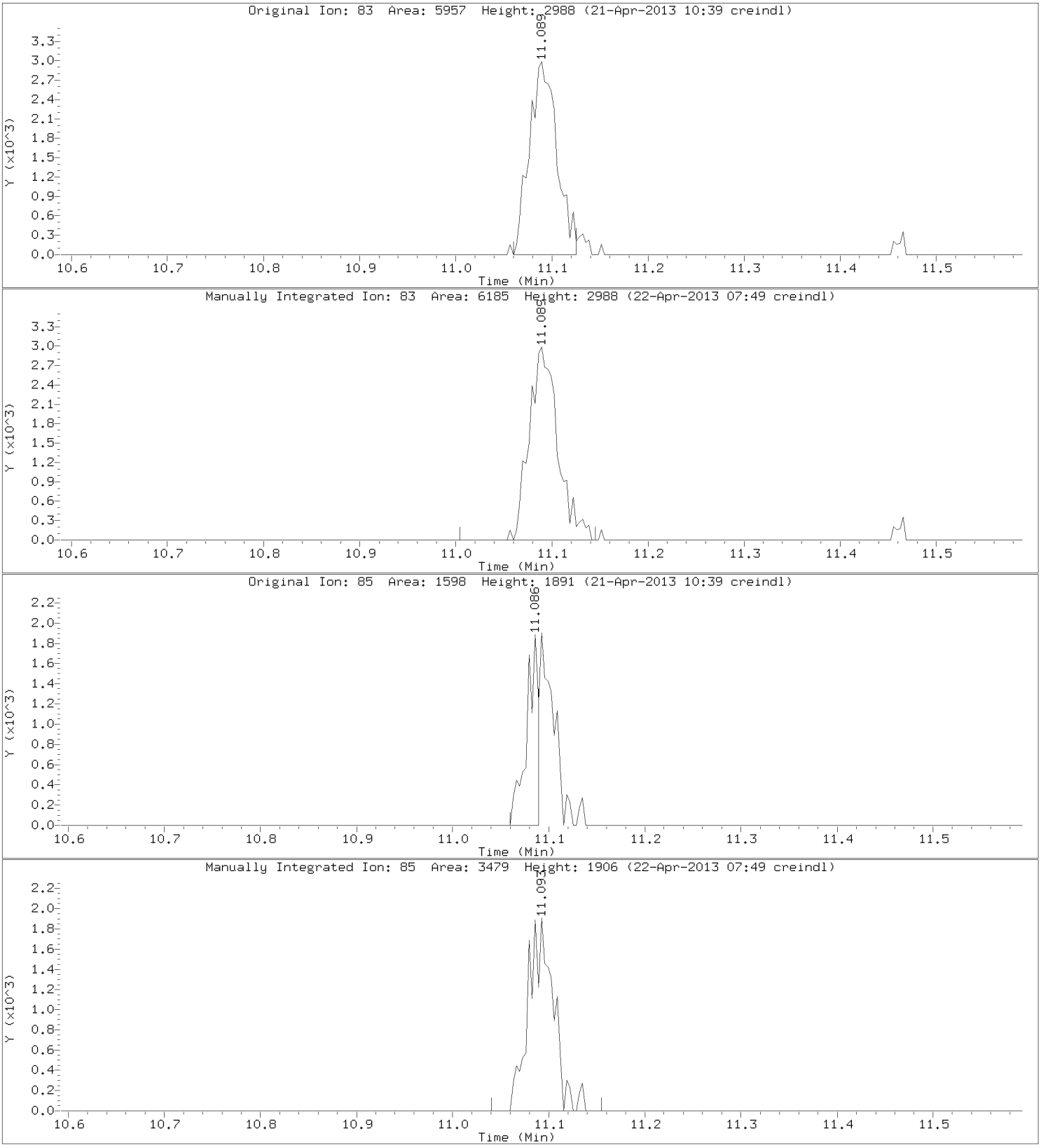
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: o-Xylene
CAS Number: 95-47-6



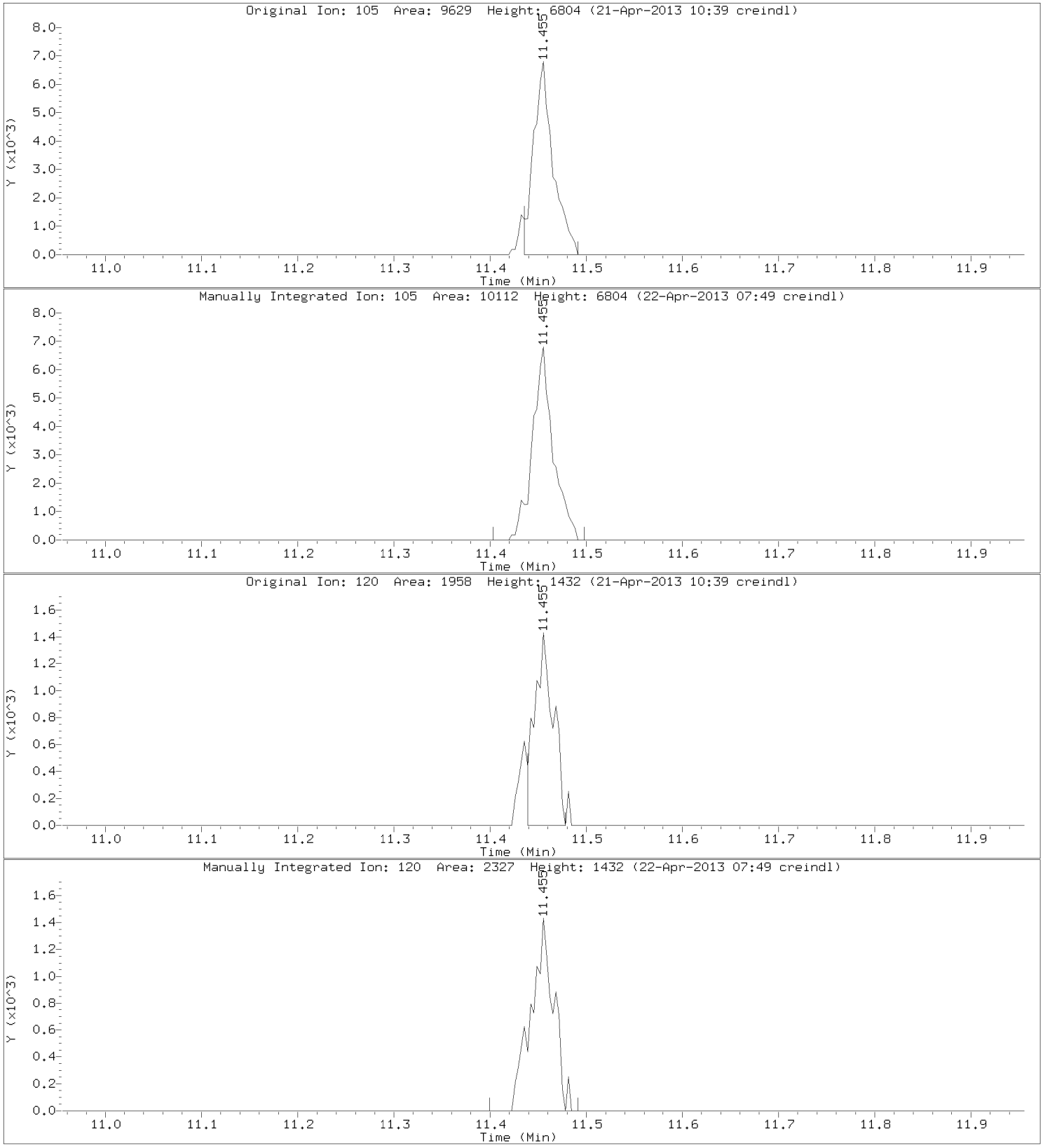
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



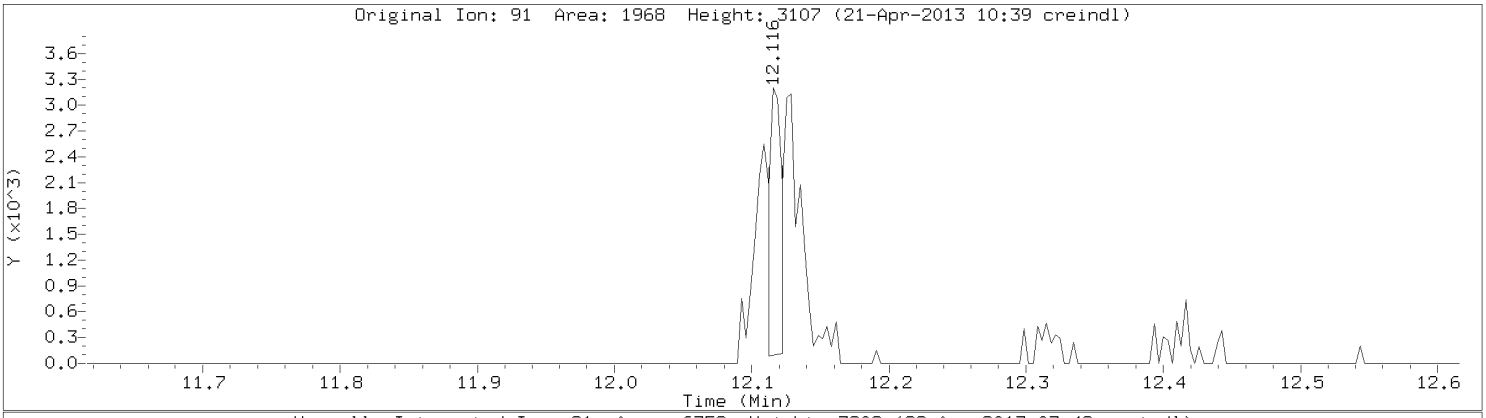
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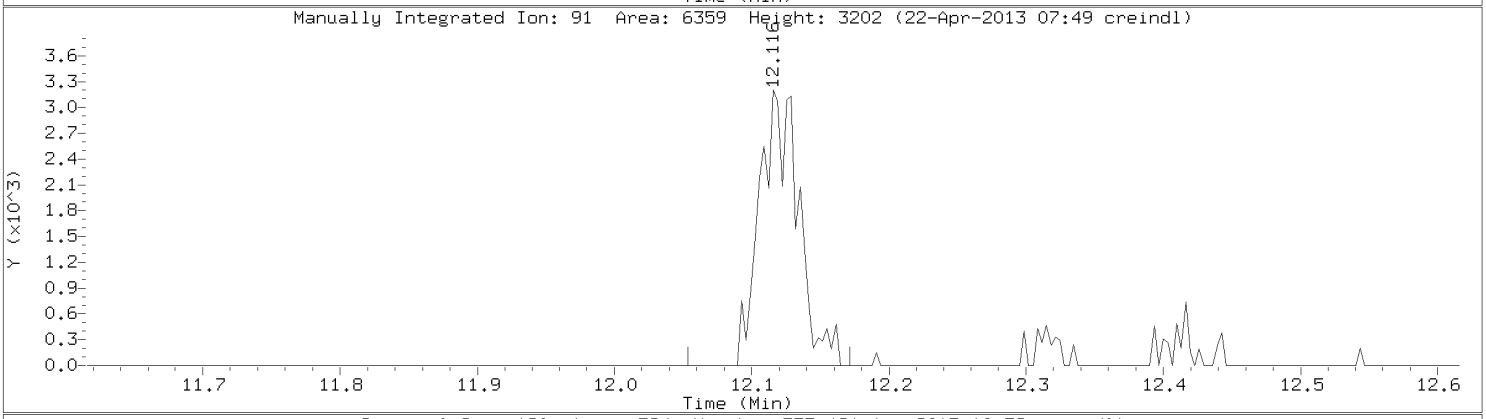
Compound: Isopropylbenzene
CAS Number:

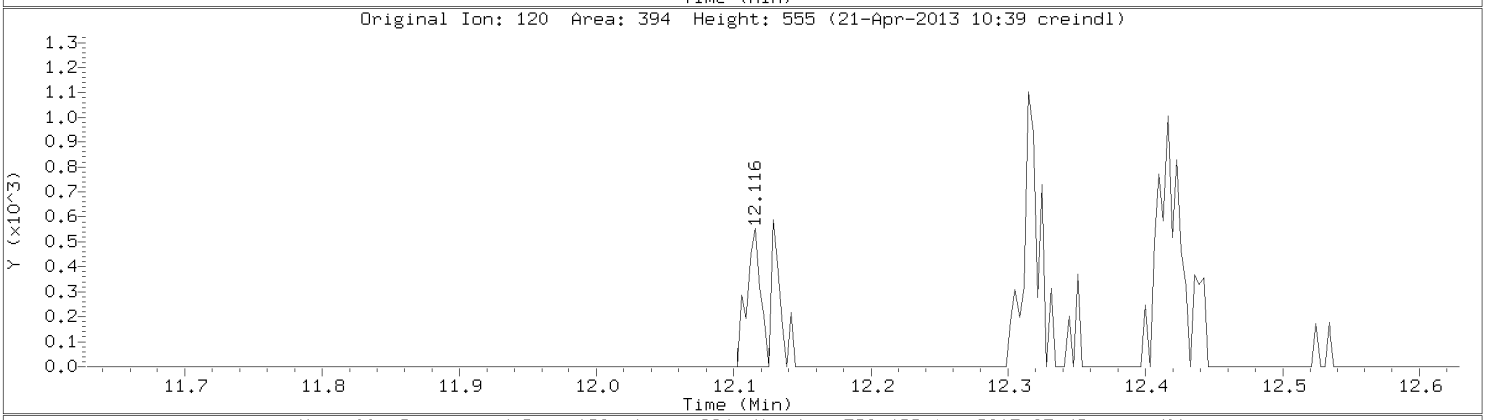


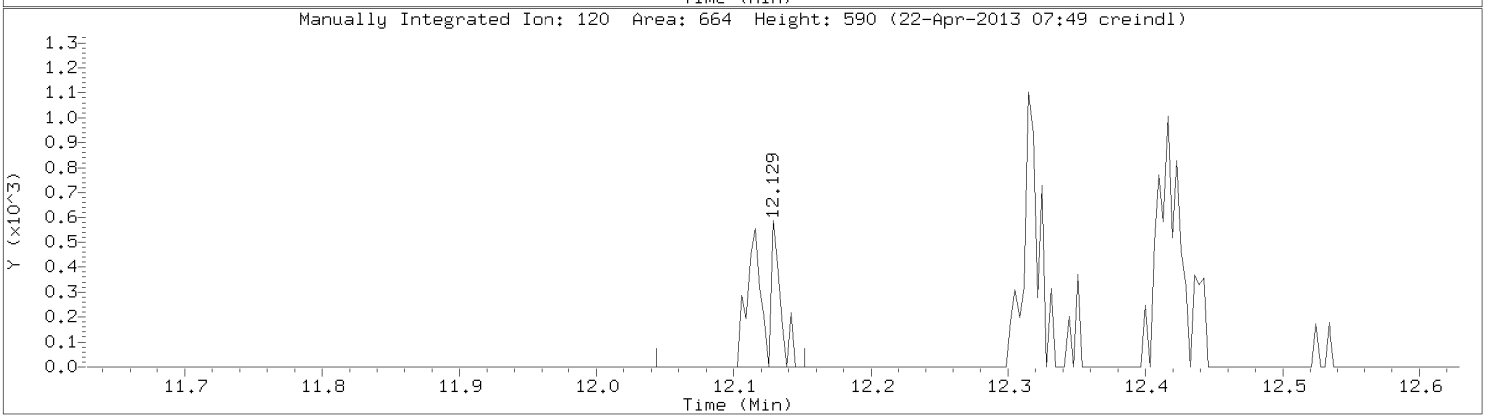
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: N-Propylbenzene
CAS Number: 103-65-1



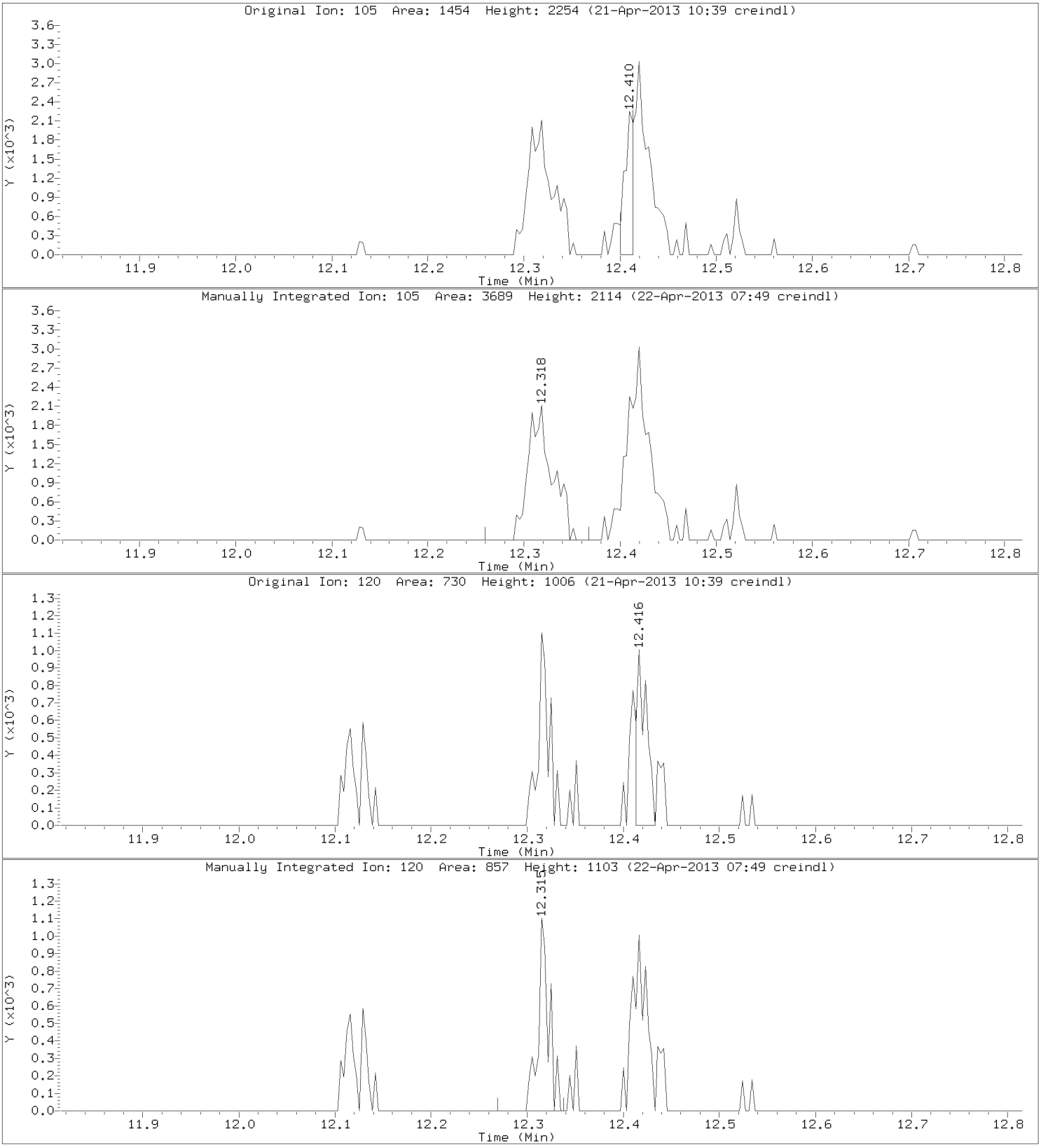




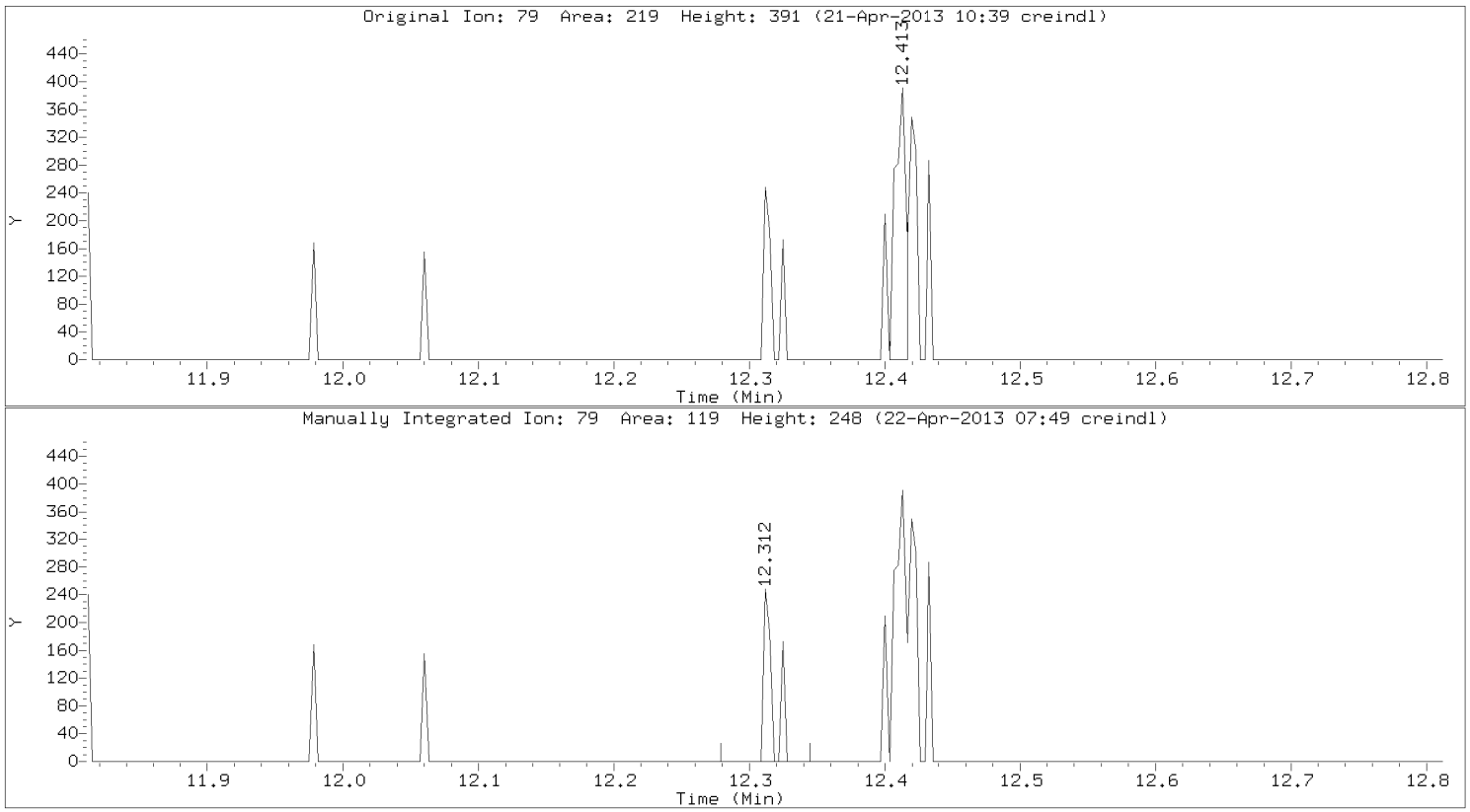


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

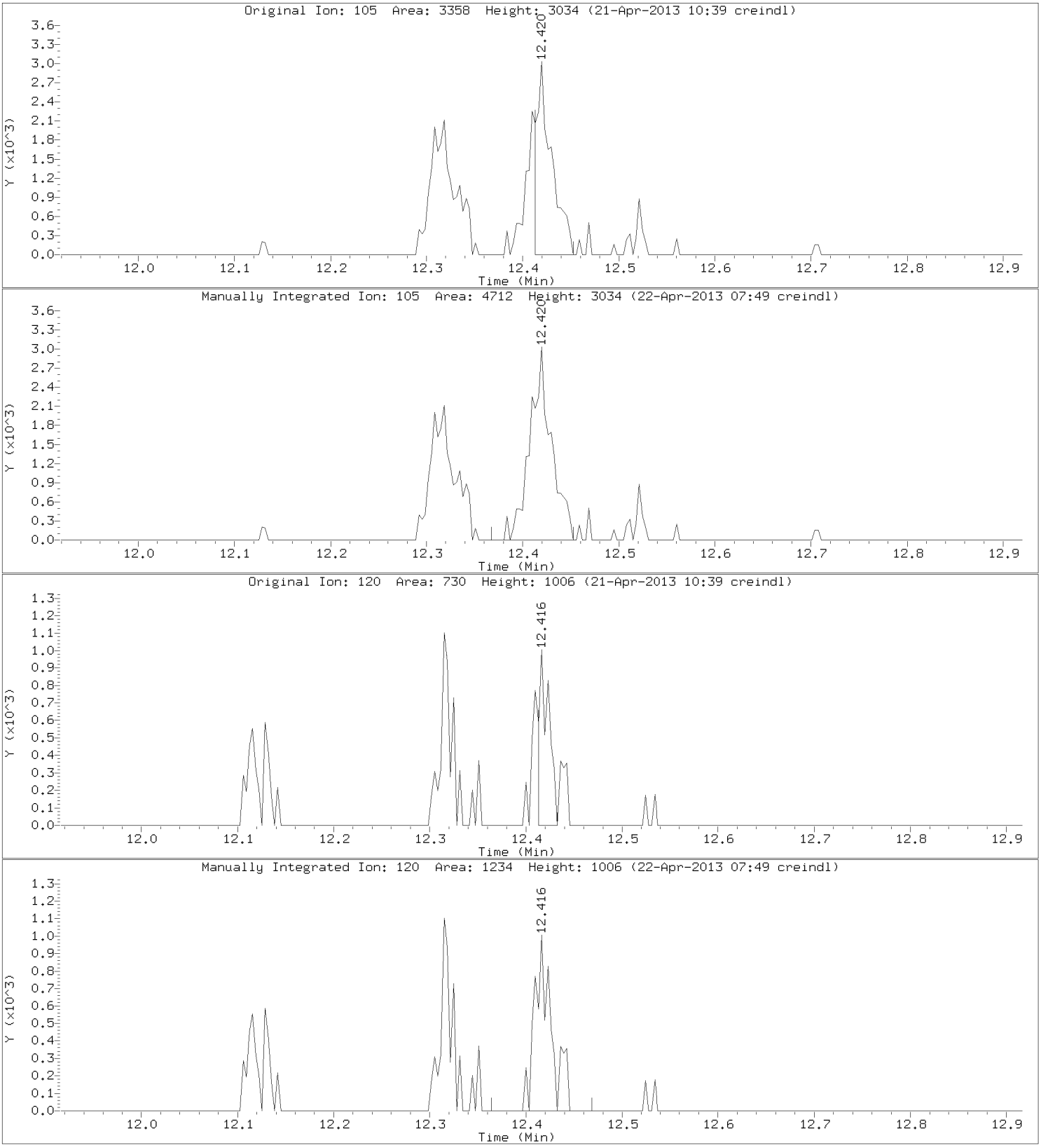


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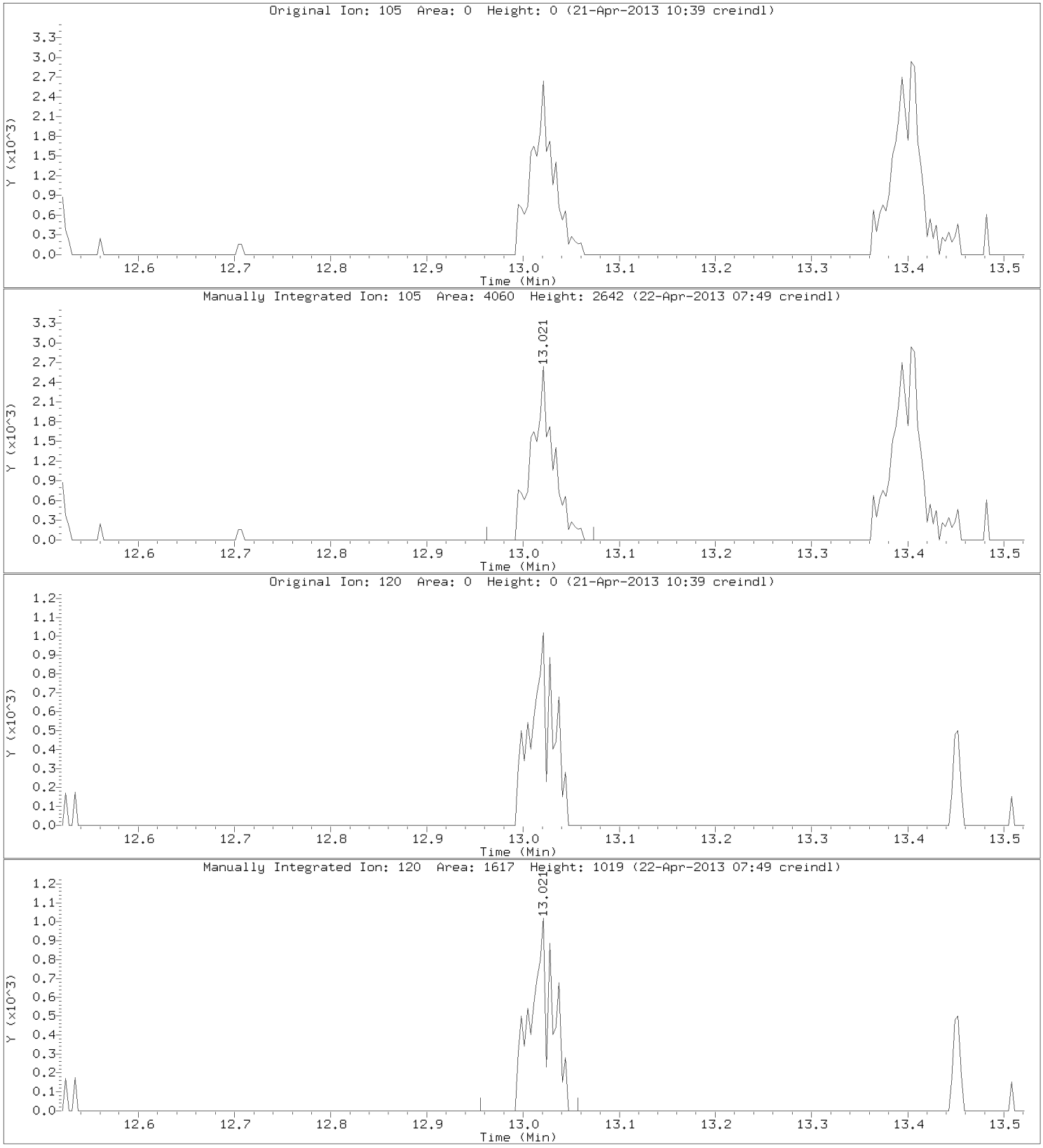
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,3,5-Trimethylbenzene
CAS Number: 108-67-8



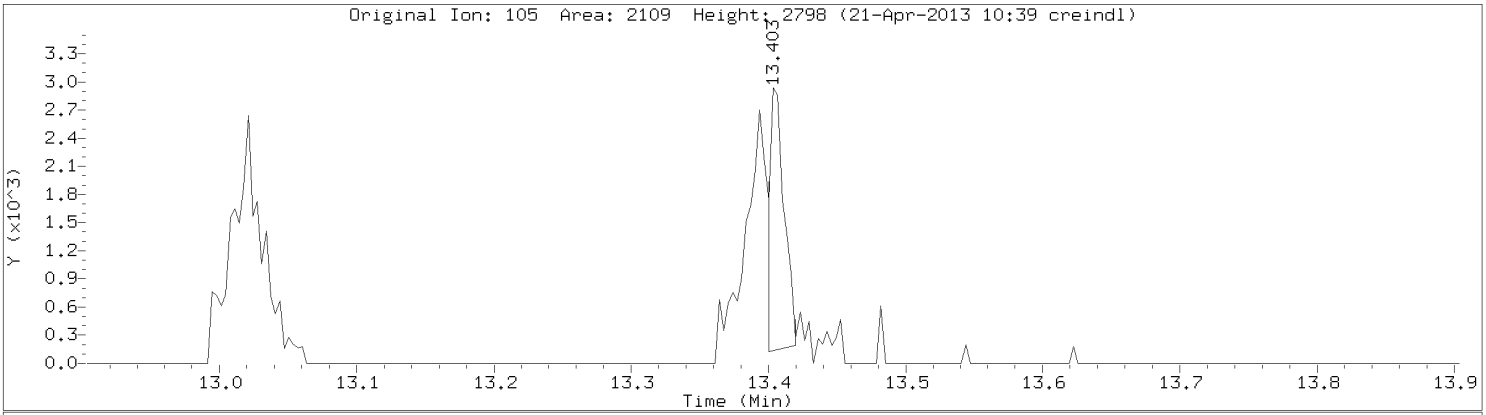
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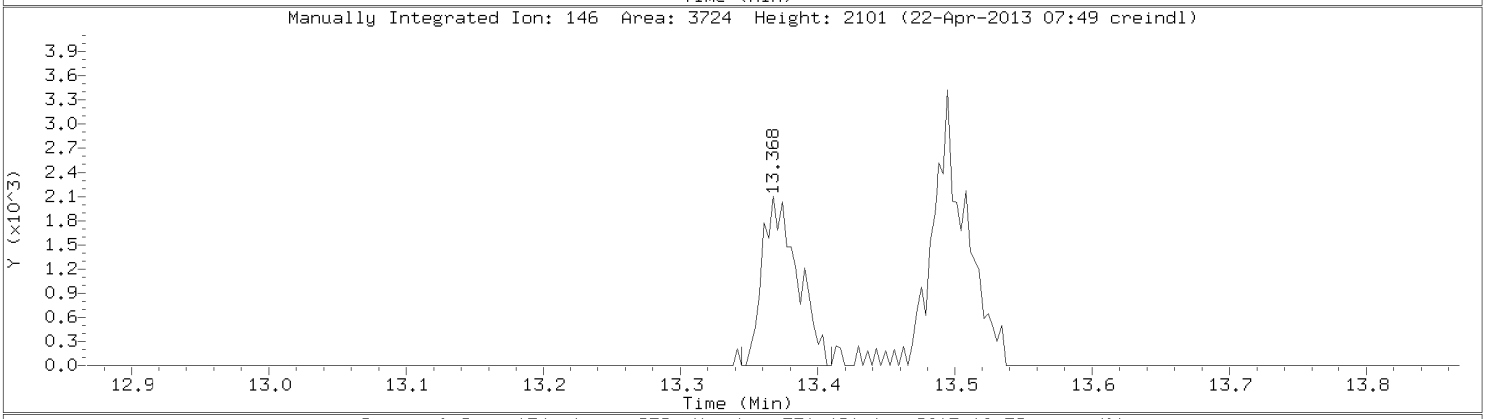
Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6

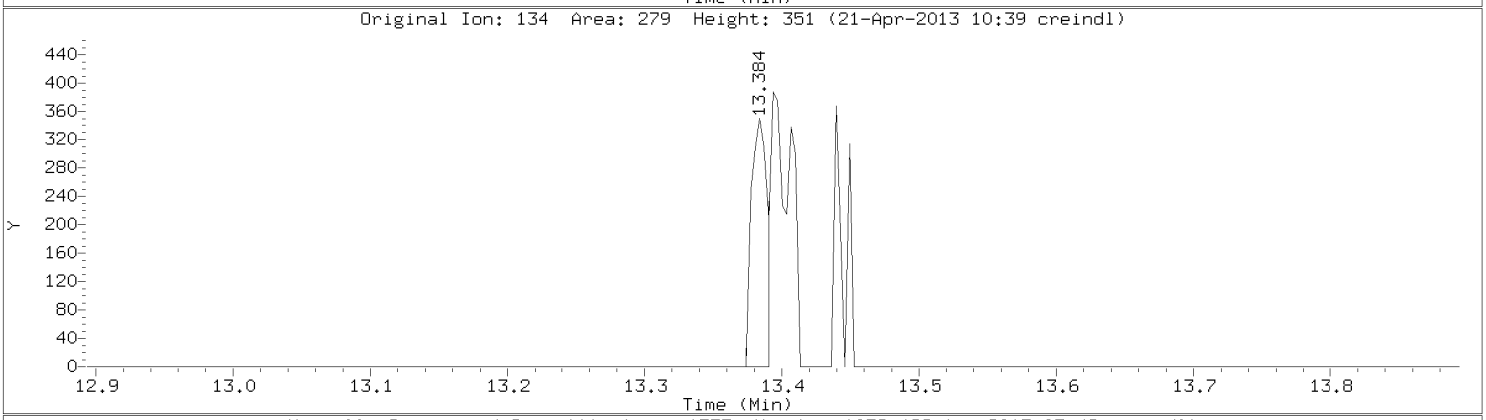


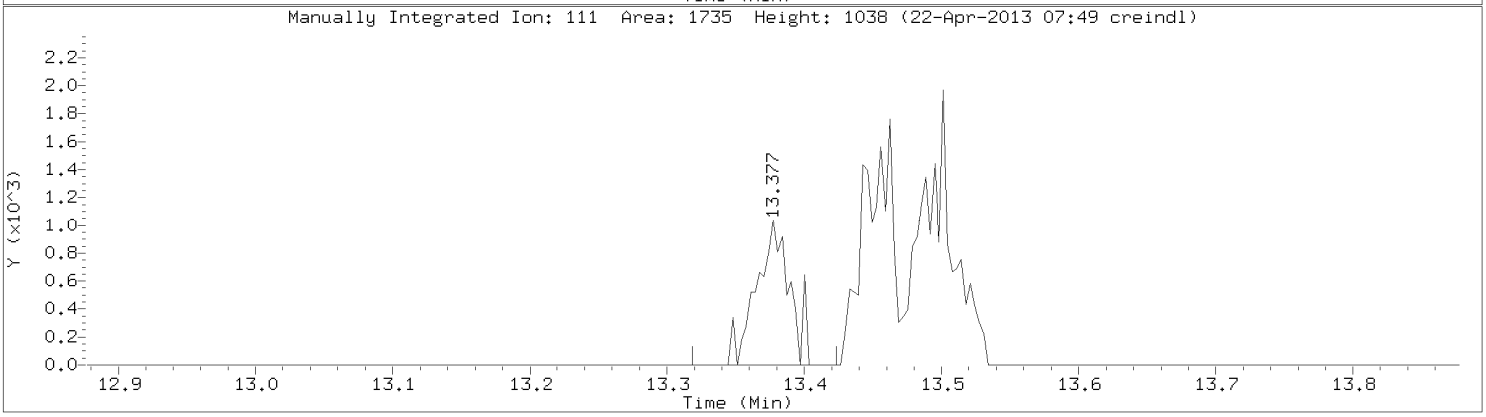
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,3-Dichlorobenzene
CAS Number: 541-73-1

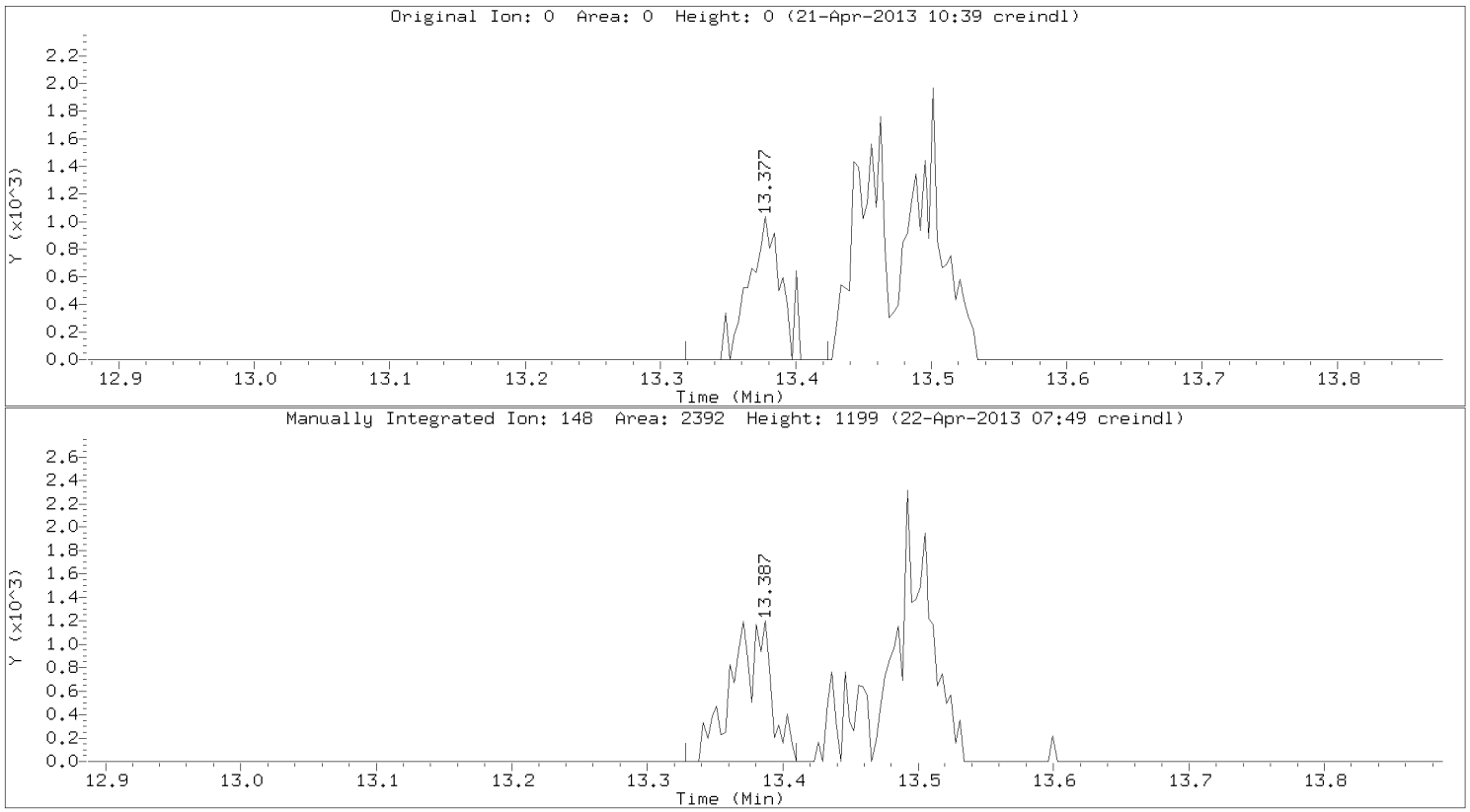






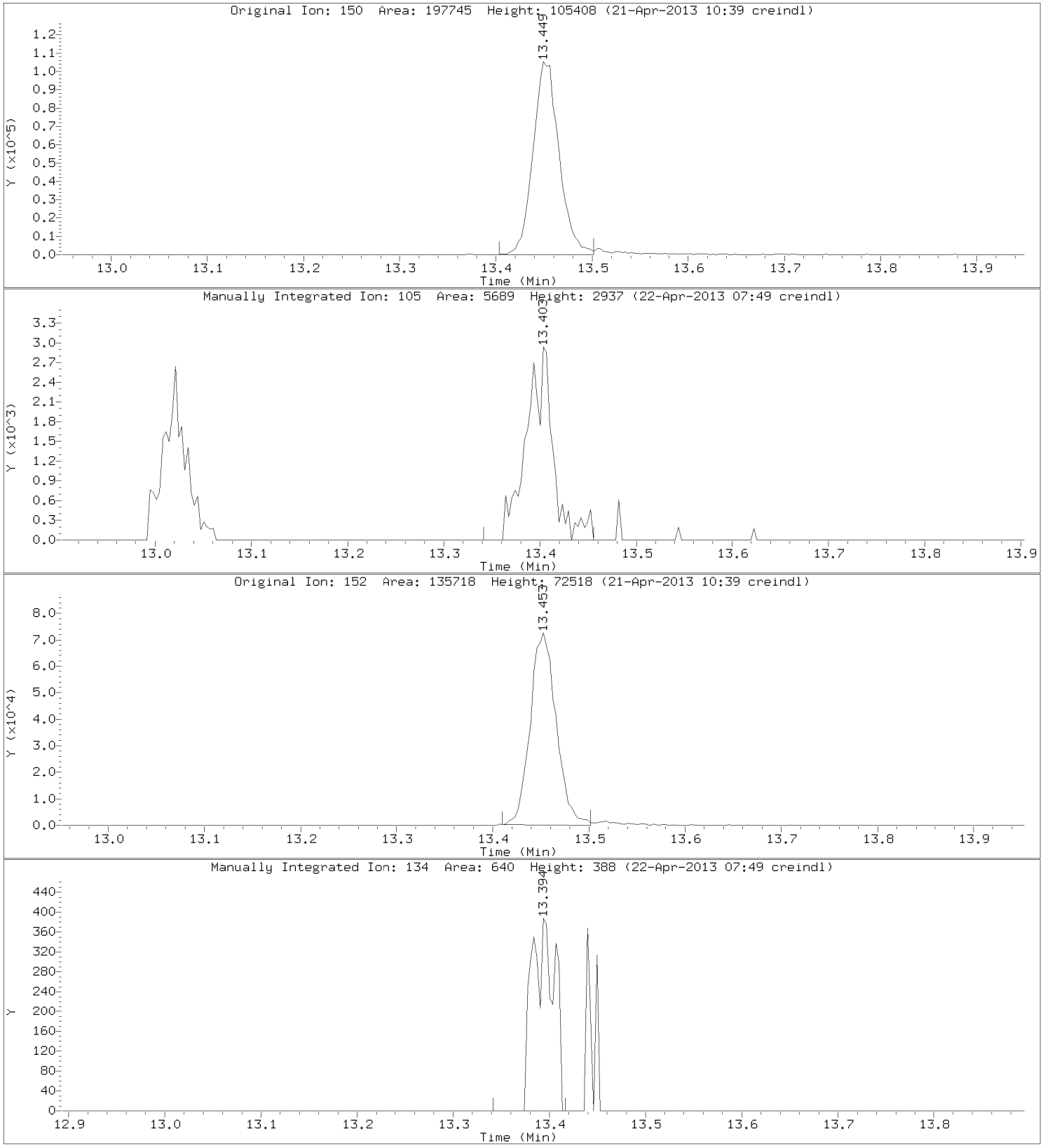


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Lab Sample ID: ICAL1



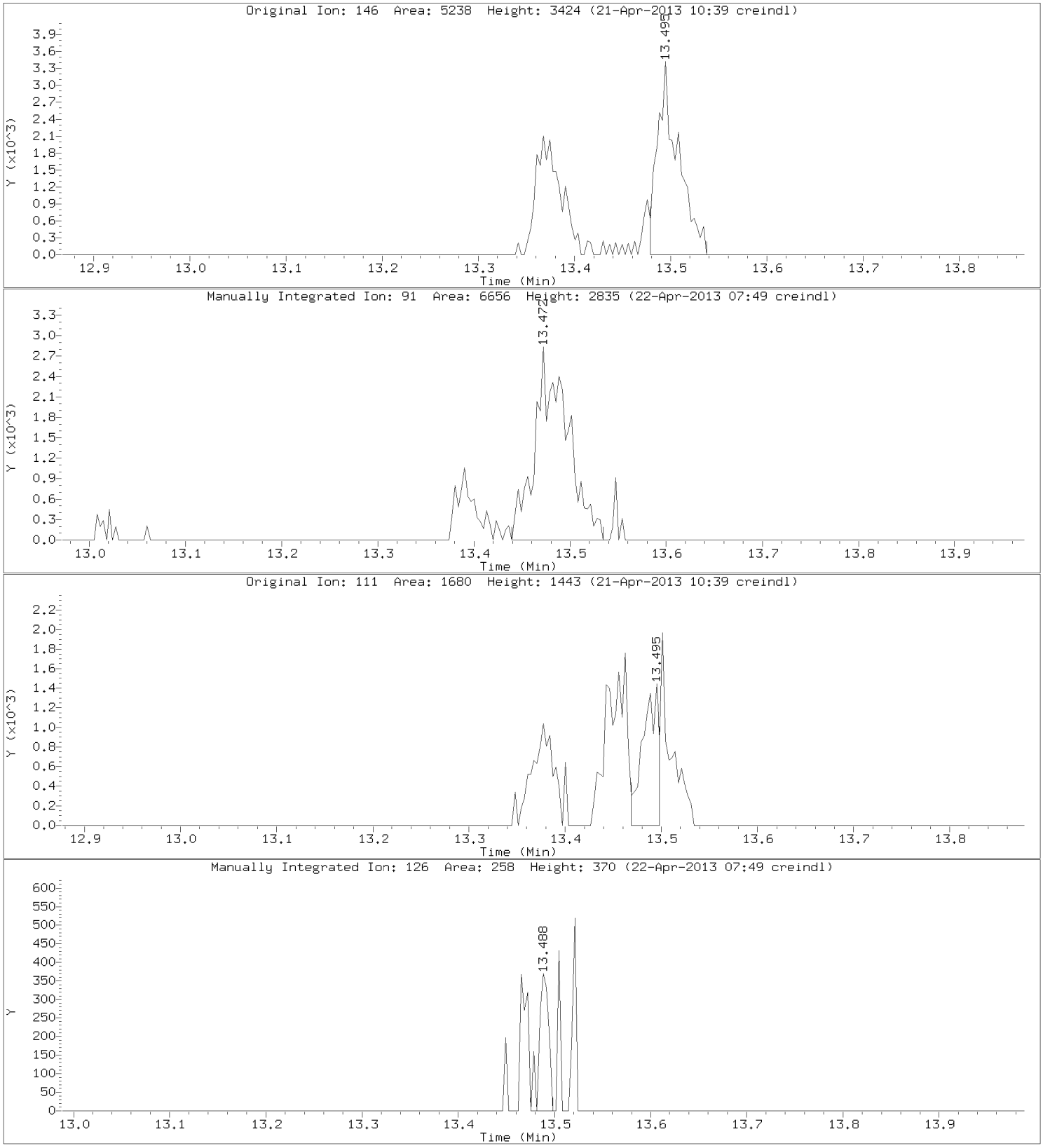
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Sec- Butylbenzene
CAS Number: 135-98-8



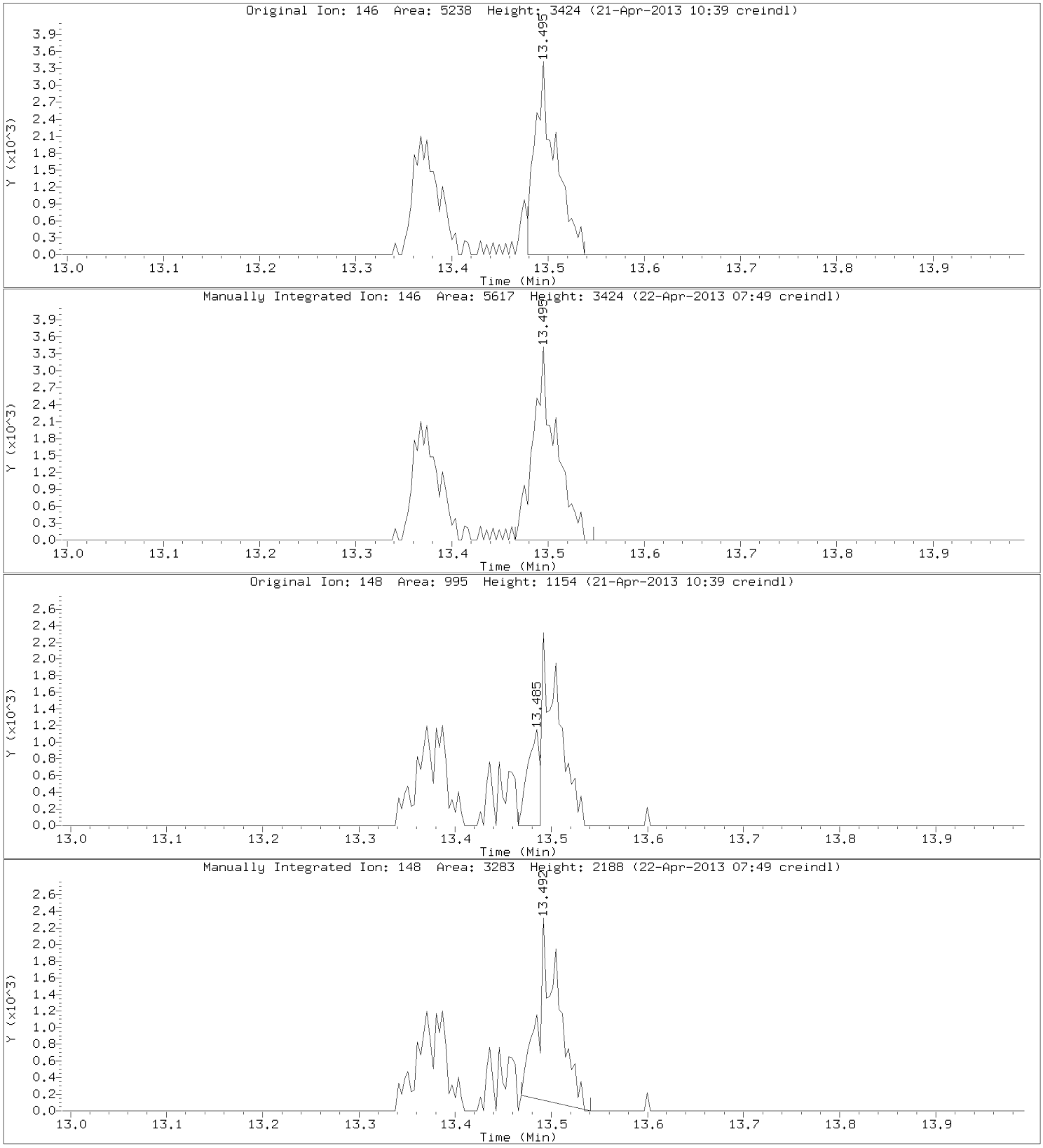
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Benzyl Chloride
CAS Number: 100-44-7

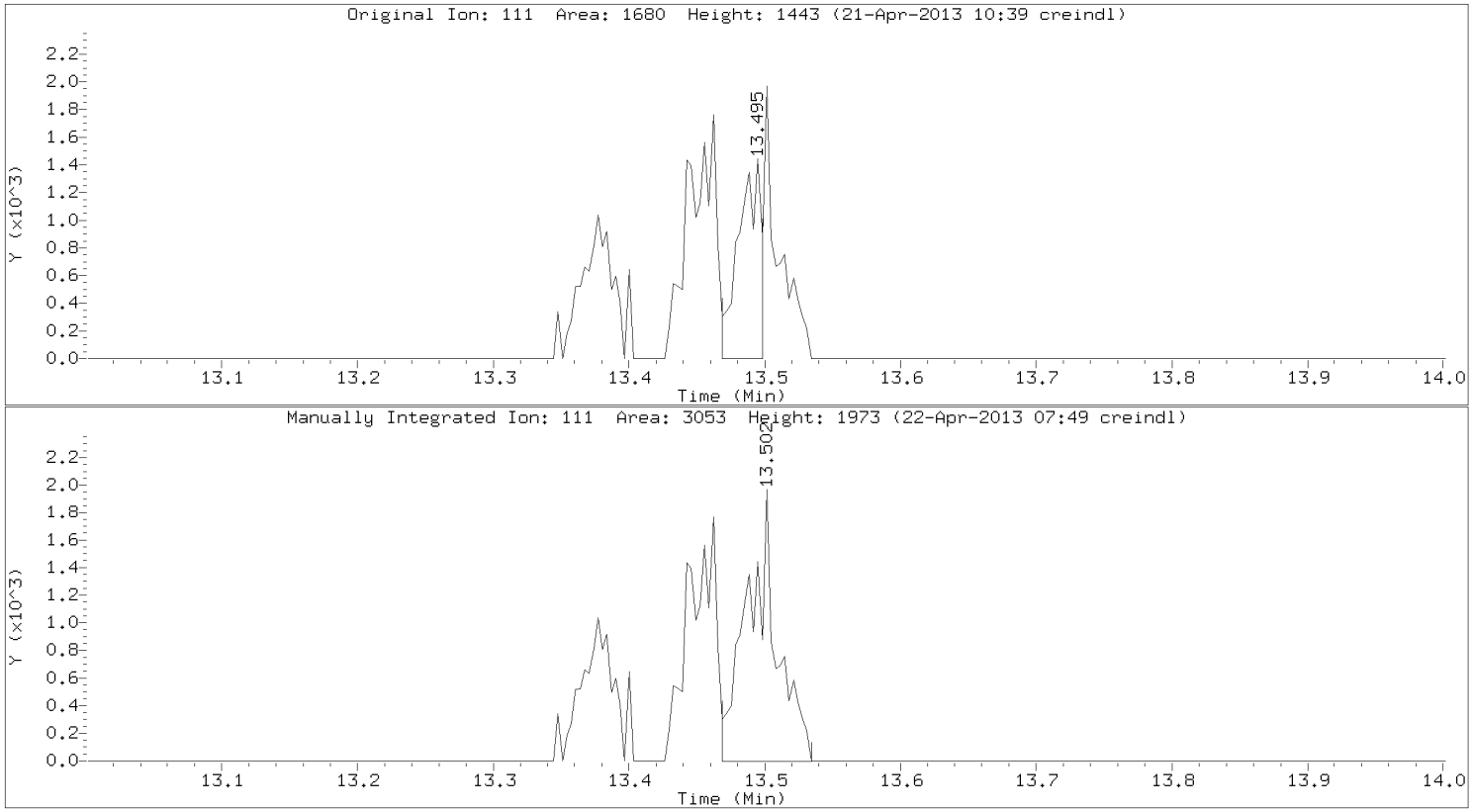


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7

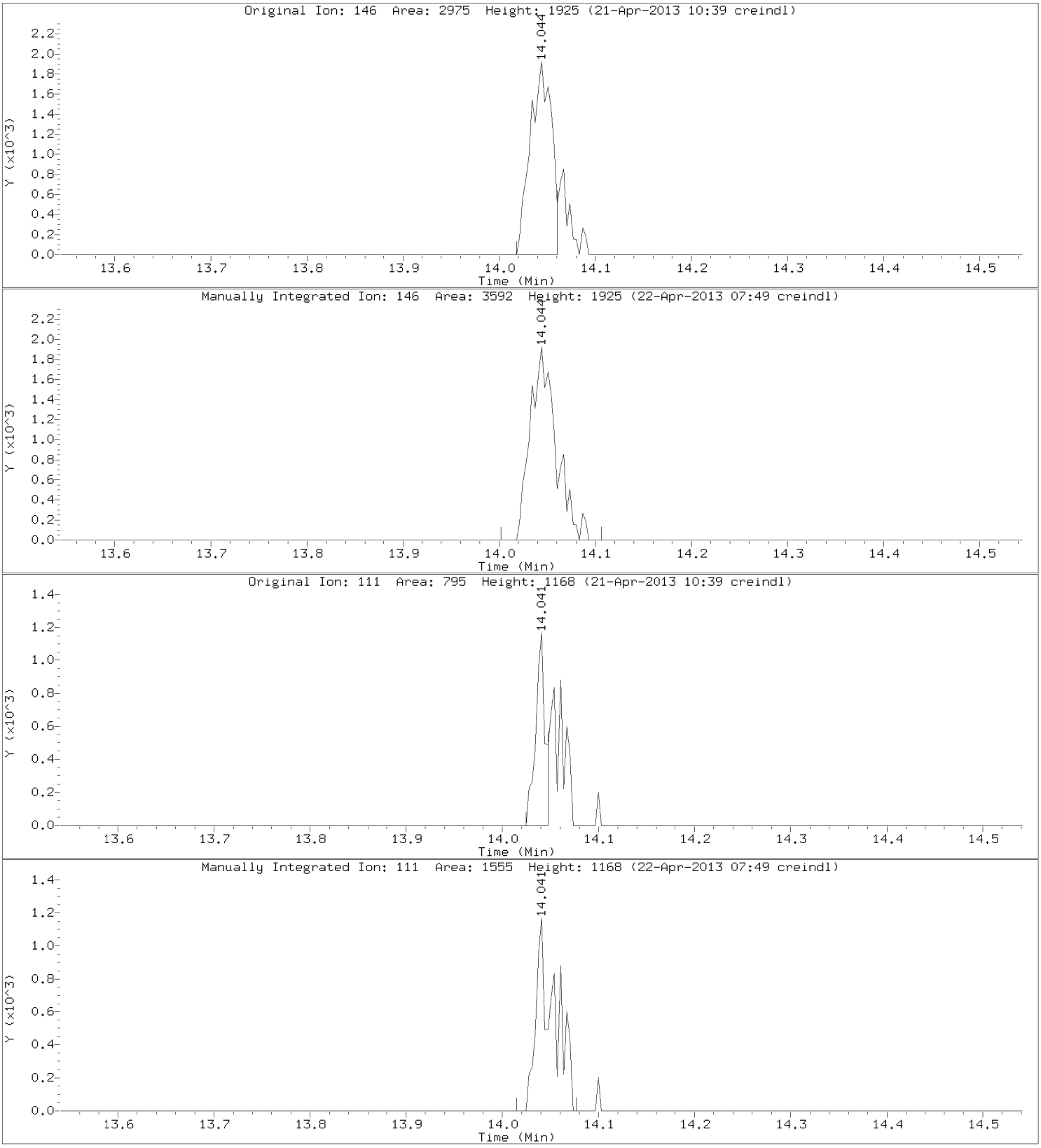


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Instrument: 10airD.i
Lab Sample ID: ICAL1

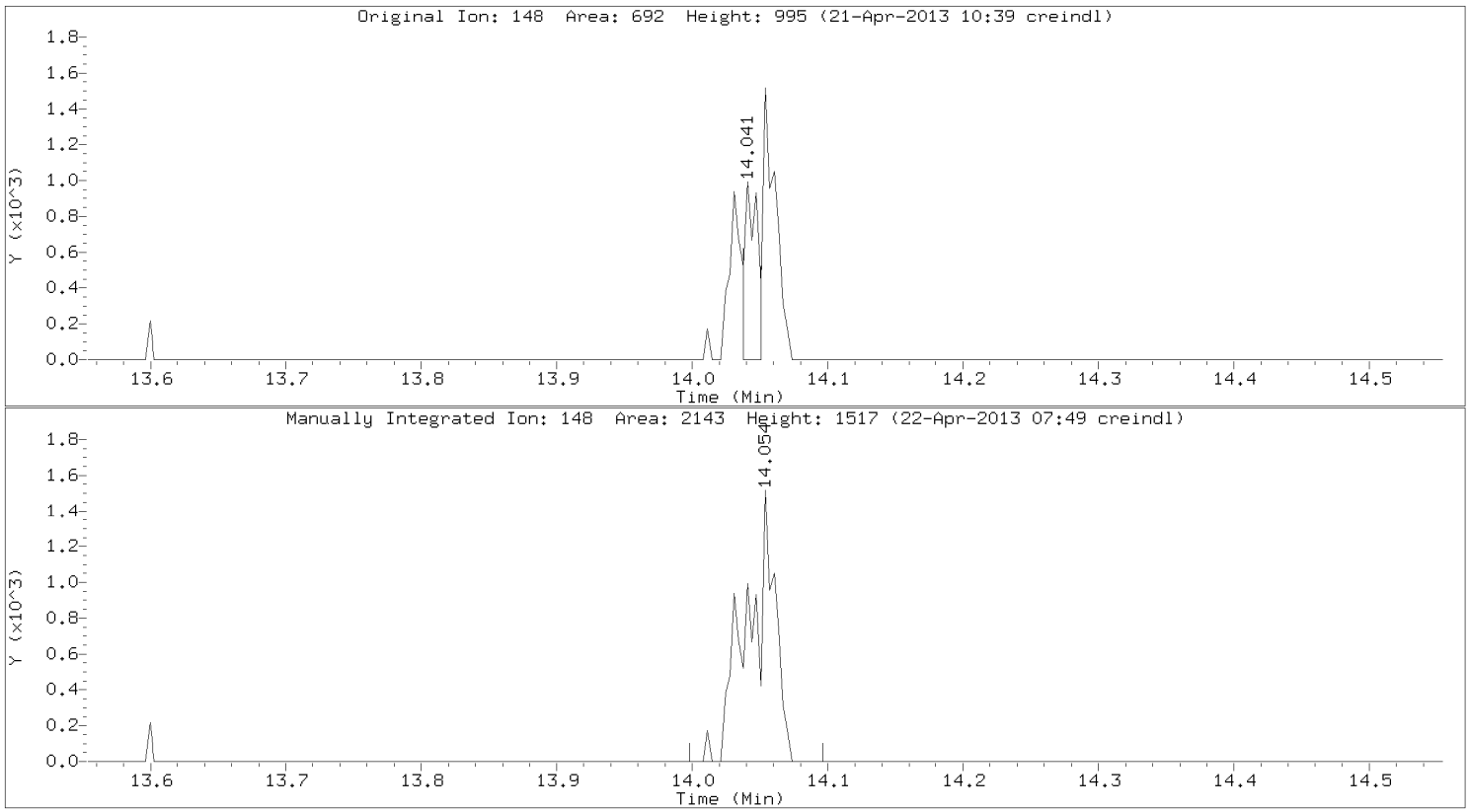


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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1

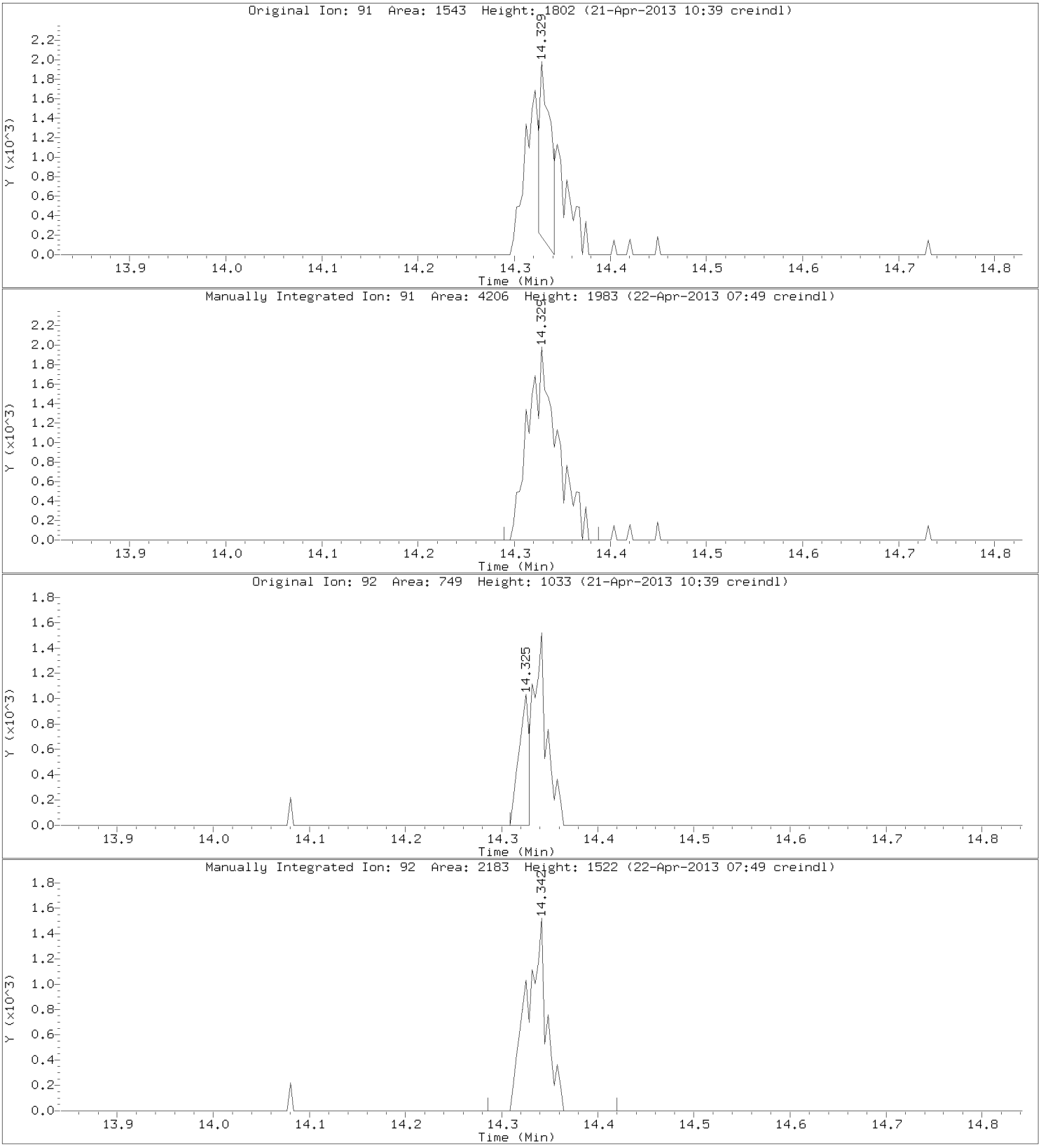


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Lab Sample ID: ICAL1



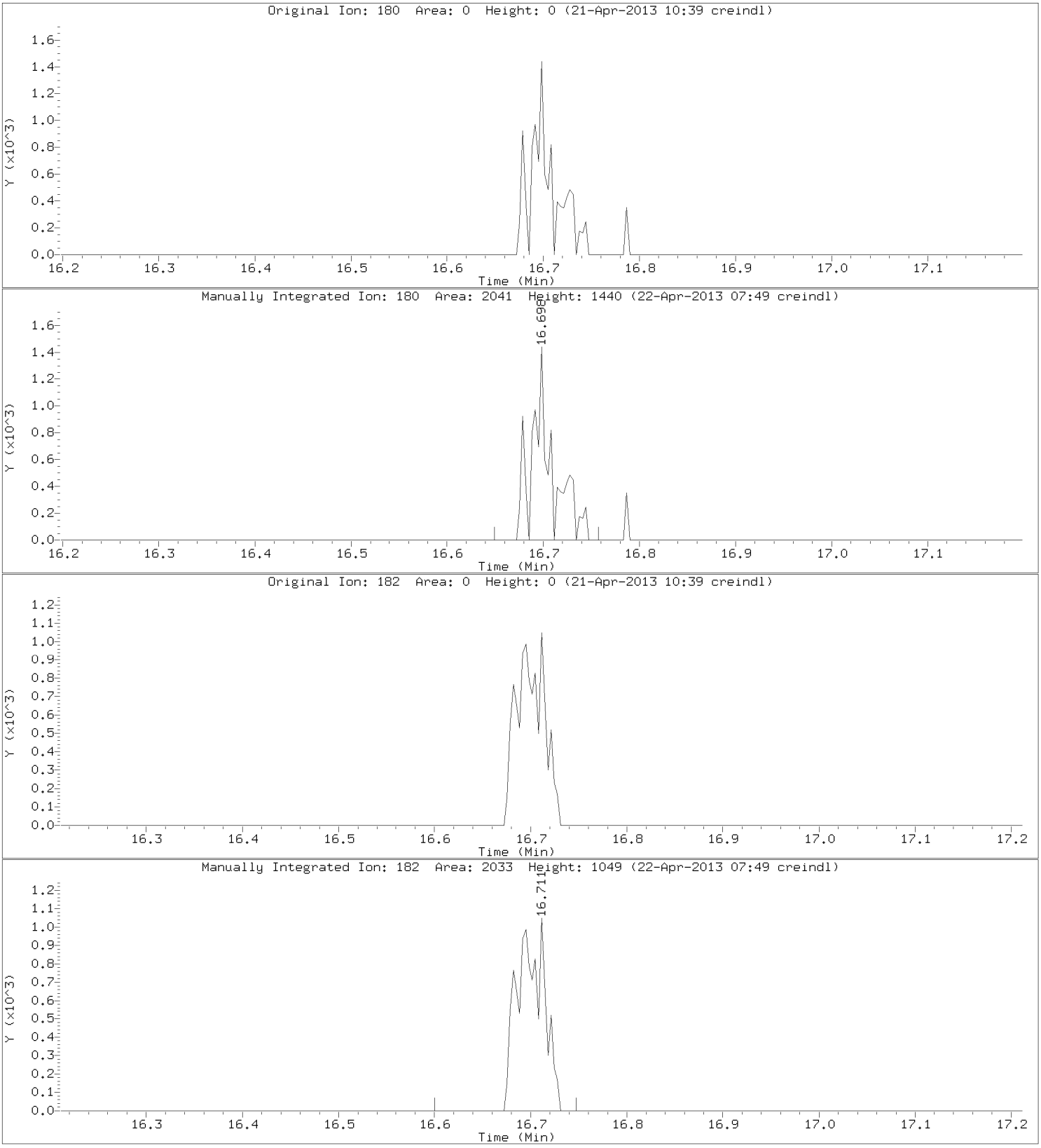
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Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: N-Butylbenzene
CAS Number: 104-51-8

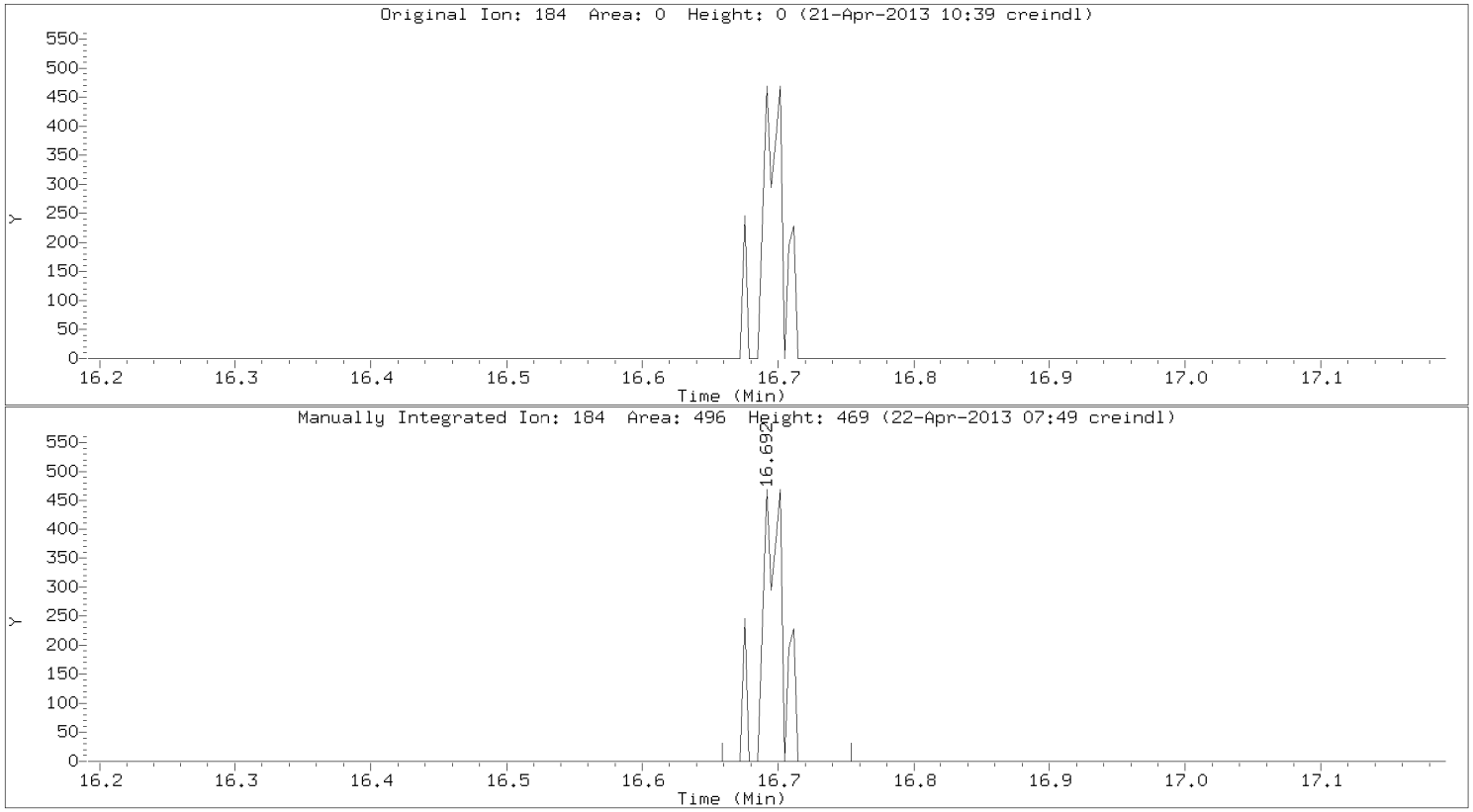


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11105.d
Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: 1,2,4-Trichlorobenzene
CAS Number: 95-63-6

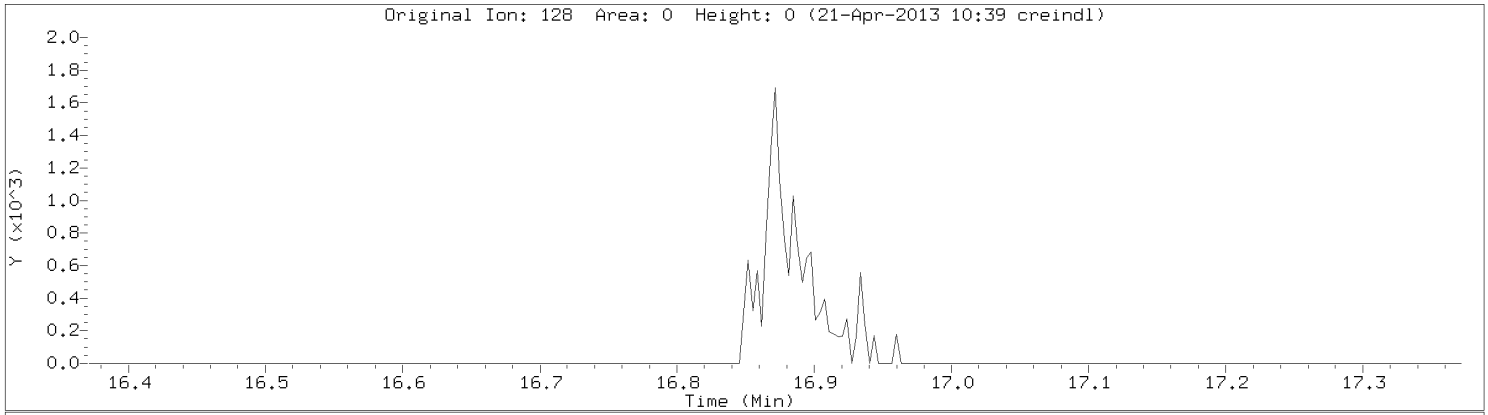


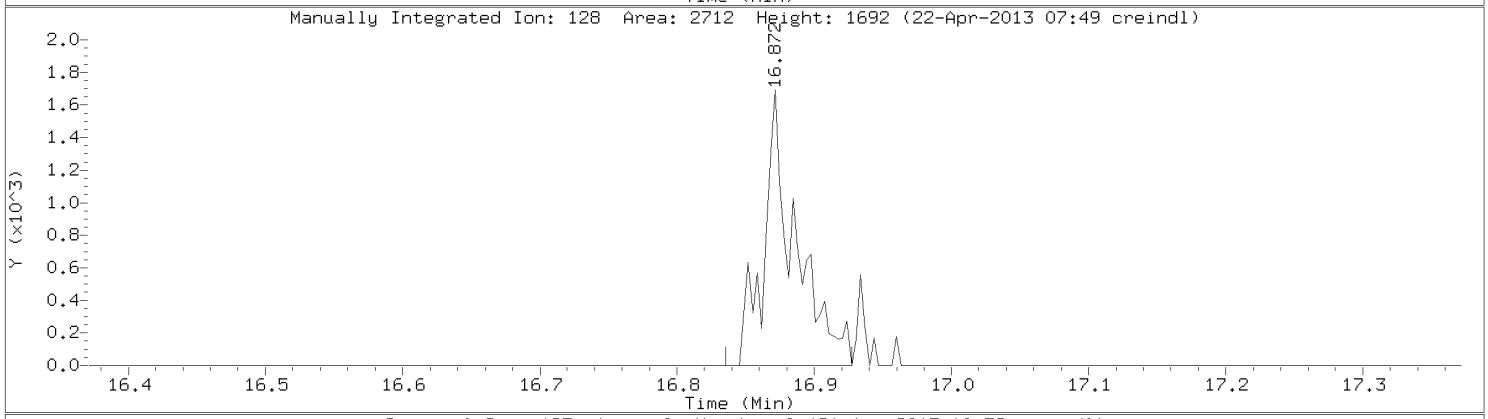
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

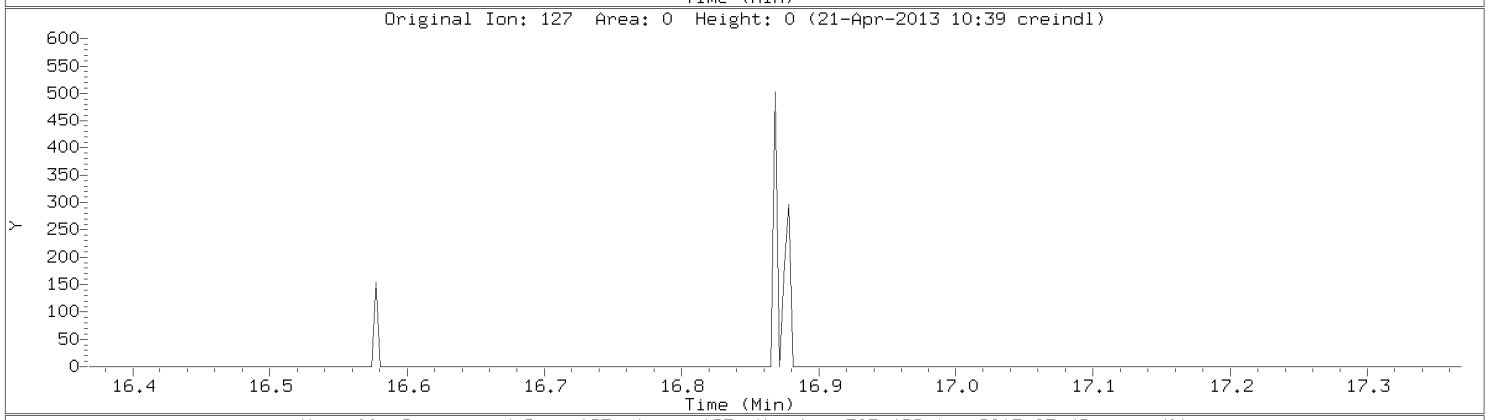


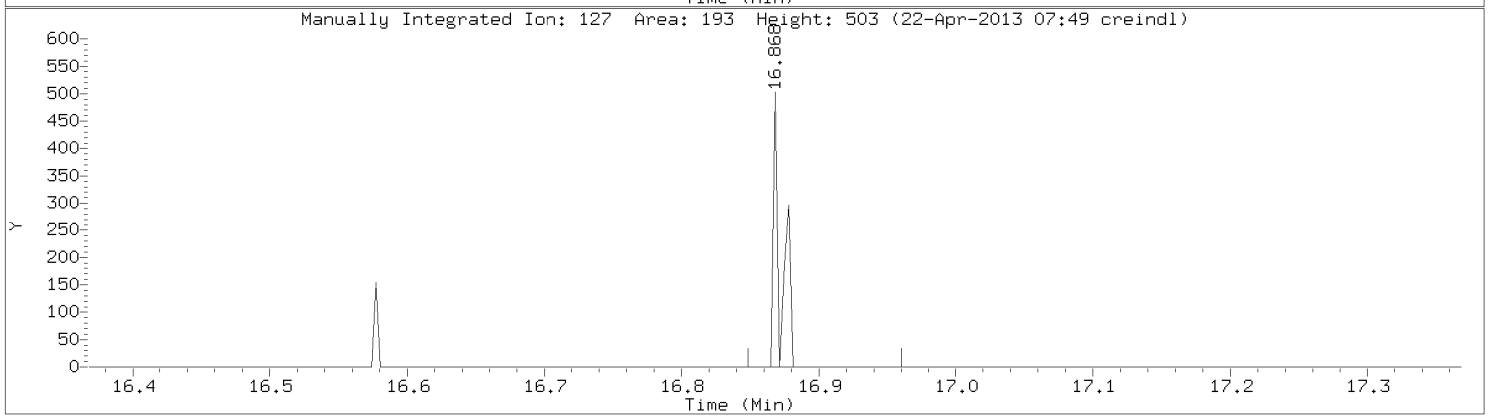
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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Naphthalene
CAS Number: 91-20-3



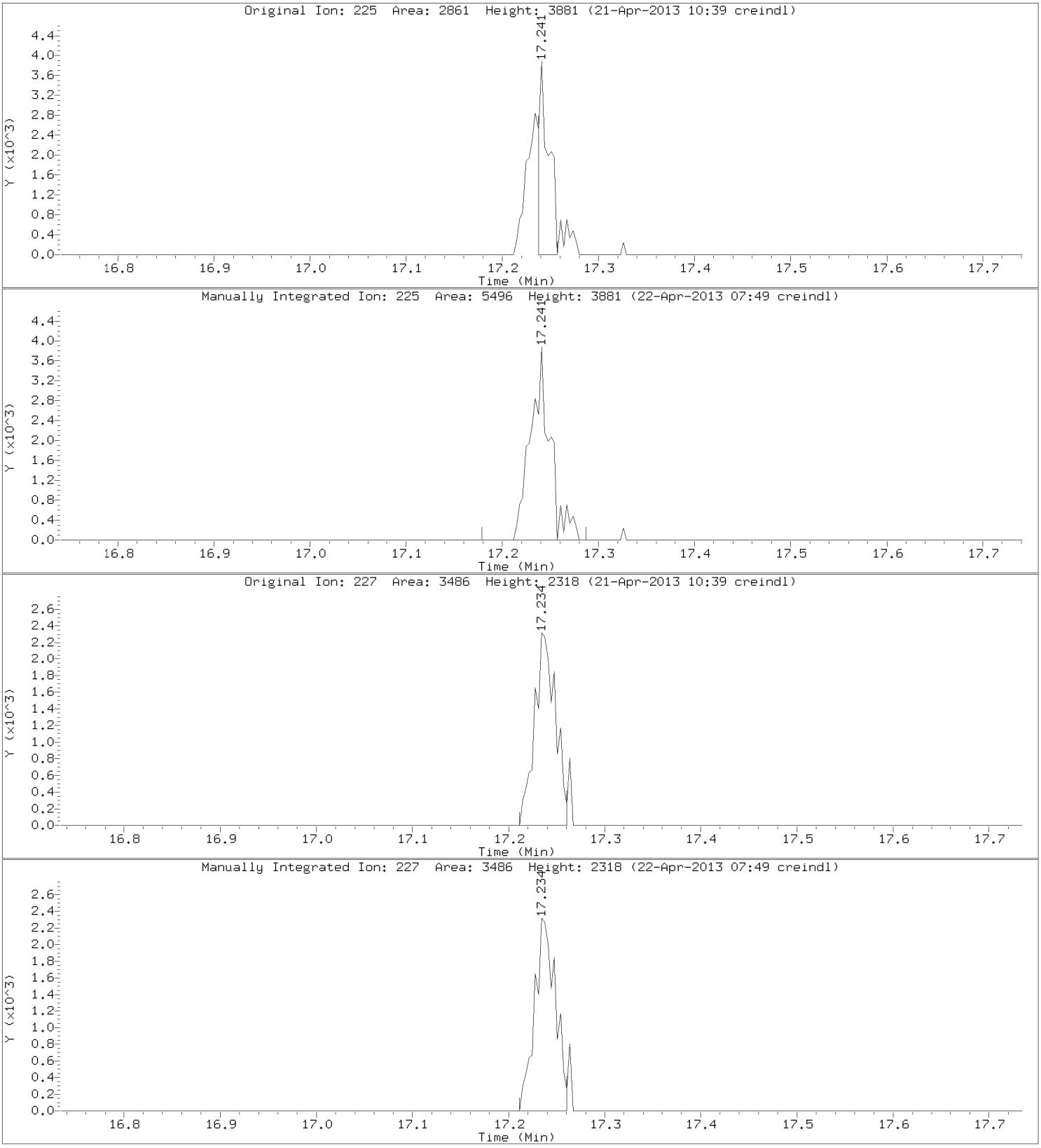




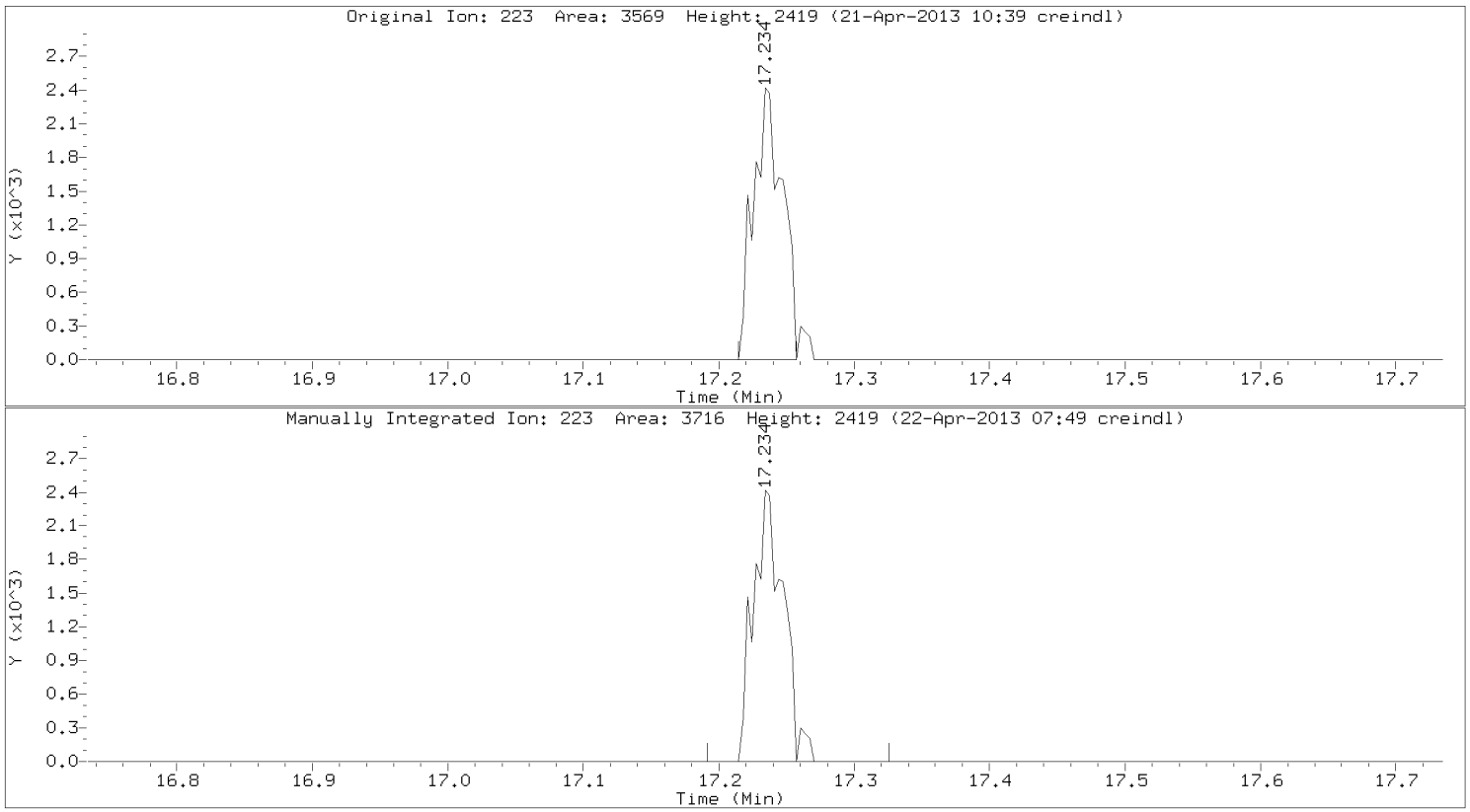


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Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Data File: \\192.168.10.12\chem\10airD.i\042113.b/11105.d
Injection Date: 21-APR-2013 10:16
Instrument: 10airD.i
Lab Sample ID: ICAL1



Data File: \\192.168.10.12\chem\10airD.i\042113.b\11106.d
Report Date: 22-Apr-2013 07:54

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11106.d
Lab Smp Id: ICAL2
Inj Date : 21-APR-2013 10:45
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 07:41 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 10:45 Cal File: 11106.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.483)	3543	0.20000	0.441(M)
2	Dichlorodifluoromethane	85	2.950	2.950	(0.487)	25502	0.20000	0.185
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	21987	0.20000	0.203
4	Chloromethane	50	3.051	3.051	(0.504)	5046	0.20000	0.173(M)
5	Vinyl chloride	62	3.139	3.139	(0.518)	5722	0.20000	0.185(M)
6	1,3-Butadiene	54	3.179	3.179	(0.525)	2638	0.20000	0.169(M)
7	Bromomethane	94	3.335	3.335	(0.551)	6304	0.20000	0.170
8	Chloroethane	64	3.398	3.398	(0.561)	3349	0.20000	0.197(M)
9	Ethanol	31	3.450	3.450	(0.569)	3909	0.20000	(M)
10	Vinyl Bromide	106	3.532	3.532	(0.583)	5546	0.20000	0.189(M)
11	Acrolein	56	3.636	3.636	(0.600)	1693	0.20000	0.204(M)
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	26934	0.20000	0.206(M)
13	Acetone	43	3.695	3.695	(0.610)	14358	0.20000	0.303(M)
14	Isopropyl Alcohol	45	3.718	3.718	(0.614)	6562	0.20000	4.90(M)
15	1,1-Dichloroethene	61	3.927	3.927	(0.648)	11709	0.20000	0.185
16	Acrylonitrile	53	3.940	3.940	(0.650)	2813	0.20000	0.158(M)
17	Tert Butyl Alcohol	59	3.947	3.947	(0.651)	9951	0.20000	0.200(M)
18	Freon 113	101	3.983	3.983	(0.657)	15232	0.20000	0.181
19	Methylene chloride	49	4.045	4.045	(0.668)	8066	0.20000	0.218(M)
20	Allyl Chloride	76	4.058	4.058	(0.670)	2988	0.20000	0.178
21	Carbon Disulfide	76	4.182	4.182	(0.690)	23733	0.20000	0.462(MH)
22	trans-1,2-dichloroethene	96	4.375	4.375	(0.722)	6813	0.20000	0.188(M)
23	Methyl Tert Butyl Ether	73	4.424	4.424	(0.730)	13699	0.20000	0.182(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11106.d
Report Date: 22-Apr-2013 07:54

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ppbv)	ON-COL (ppbv)
	24	Vinyl Acetate	43	4.545	4.545	(0.750)	9771	0.20000	0.157(M)
	25	1,1-Dichloroethane	63	4.535	4.535	(0.749)	13874	0.20000	0.190(M)
$	26	Hexane-d14(S)	66	4.656	4.656	(0.769)	481462	10.0000	9.12
	27	Methyl Ethyl Ketone	72	4.751	4.751	(0.784)	3100	0.20000	0.195
	28	n-Hexane	57	4.774	4.774	(0.788)	8361	0.20000	0.179
	29	cis-1,2-Dichloroethene	96	4.934	4.934	(0.814)	6453	0.20000	0.554(M)
	30	Ethyl Acetate	43	4.970	4.970	(0.820)	7007	0.20000	0.135(M)
	31	Chloroform	83	5.071	5.071	(0.837)	17635	0.20000	0.178
	32	Tetrahydrofuran	42	5.303	5.303	(0.875)	2343	0.20000	0.490(M)
	33	1,1,1-Trichloroethane	97	5.561	5.561	(0.918)	17972	0.20000	0.182
	34	1,2-Dichloroethane	62	5.578	5.578	(0.921)	14331	0.20000	0.193(M)
	35	Benzene	78	5.849	5.849	(0.965)	13878	0.20000	0.151
	36	Carbon tetrachloride	117	5.869	5.869	(0.969)	21276	0.20000	0.208
	37	Cyclohexane	56	5.875	5.875	(0.970)	3386	0.20000	0.720(M)
*	38	1,4-Difluorobenzene	114	6.058	6.058	(1.000)	1105489	10.0000	
	39	2,2,4-Trimethylpentane	57	6.238	6.238	(1.030)	13588	0.20000	0.677(M)
	40	Heptane	43	6.408	6.408	(1.058)	3326	0.20000	0.624(M)
	41	1,2-Dichloropropane	63	6.480	6.480	(1.070)	5079	0.20000	0.180
	42	Trichloroethene	130	6.506	6.506	(1.074)	5472	0.20000	0.177
	43	1,4-Dioxane	88	6.669	6.669	(1.101)	1362	0.20000	0.200(M)
	44	Bromodichloromethane	83	6.624	6.624	(1.093)	19304	0.20000	0.183
	45	Methyl Isobutyl Ketone	43	7.212	7.212	(1.190)	3854	0.20000	3.00(M)
	46	cis-1,3-Dichloropropene	75	7.264	7.264	(1.199)	5997	0.20000	0.520(M)
	47	trans-1,3-Dichloropropene	75	7.758	7.758	(1.281)	5096	0.20000	0.637(M)
$	48	Toluene-d8 (S)	98	7.827	7.827	(1.292)	953909	10.0000	9.55
	49	Toluene	91	7.918	7.918	(1.307)	16686	0.20000	0.151(M)
	50	1,1,2-Trichloroethane	97	7.921	7.921	(1.308)	8317	0.20000	0.193(M)
	51	Methyl Butyl Ketone	43	8.261	8.261	(0.853)	3092	0.20000	4.96(M)
	52	Dibromochloromethane	129	8.539	8.539	(0.882)	10733	0.20000	0.168(M)
	53	1,2-Dibromoethane	107	8.814	8.814	(0.911)	8956	0.20000	0.156(M)
	54	Tetrachloroethene	166	8.902	8.902	(0.920)	10087	0.20000	0.185(M)
*	55	Chlorobenzene - d5	117	9.680	9.680	(1.000)	558214	10.0000	
	56	Chlorobenzene	112	9.726	9.726	(1.005)	14030	0.20000	0.188(M)
	57	Ethyl Benzene	91	10.036	10.036	(1.037)	12431	0.20000	0.528(M)
	58	m&p-Xylene	91	10.203	10.203	(1.054)	9260	0.20000	0.503(M)
	59	Bromoform	173	10.654	10.654	(1.101)	10303	0.20000	0.152(M)
	60	Styrene	104	10.693	10.693	(1.105)	4178	0.20000	0.616(M)
	61	o-Xylene	91	10.778	10.778	(1.113)	9808	0.20000	0.442(M)
	62	1,1,2,2-Tetrachloroethane	83	11.085	11.085	(1.145)	12508	0.20000	0.165(M)
	63	Isopropylbenzene	105	11.458	11.458	(1.184)	21746	0.20000	0.154
	64	N-Propylbenzene	91	12.122	12.122	(1.252)	12986	0.20000	0.178(M)
	65	4-Ethyltoluene	105	12.324	12.324	(1.273)	8292	0.20000	0.296(M)
	66	1,3,5-Trimethylbenzene	105	12.422	12.422	(1.283)	8103	0.20000	0.293(M)
	67	1,2,4-Trimethylbenzene	105	13.014	13.014	(1.344)	6754	0.20000	0.255(M)
	68	1,3-Dichlorobenzene	146	13.377	13.377	(1.382)	7077	0.20000	0.267(M)
	69	Sec- Butylbenzene	105	13.396	13.396	(1.384)	10548	0.20000	0.180(M)
$	70	1,4-dichlorobenzene-d4 (S)	150	13.452	13.452	(1.390)	194085	10.0000	7.88(M)
	71	Benzyl Chloride	91	13.475	13.475	(1.392)	10528	0.20000	0.529(M)
	72	1,4-Dichlorobenzene	146	13.491	13.491	(1.394)	10103	0.20000	0.292(M)
	73	1,2-Dichlorobenzene	146	14.044	14.044	(1.451)	5330	0.20000	0.425(M)
	74	N-Butylbenzene	91	14.321	14.321	(1.479)	6048	0.20000	0.752(M)
	75	1,2,4-Trichlorobenzene	180	16.698	16.698	(1.725)	1699	0.20000	0.306(M)
	76	Naphthalene	128	16.874	16.874	(1.743)	1303	0.20000	0.958(M)
	77	Hexachlorobutadiene	225	17.240	17.240	(1.781)	3784	0.20000	(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11106.d
Report Date: 22-Apr-2013 07:54

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11106.d
Report Date: 22-Apr-2013 07:54

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11106.d
Lab Smp Id: ICAL2
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info:

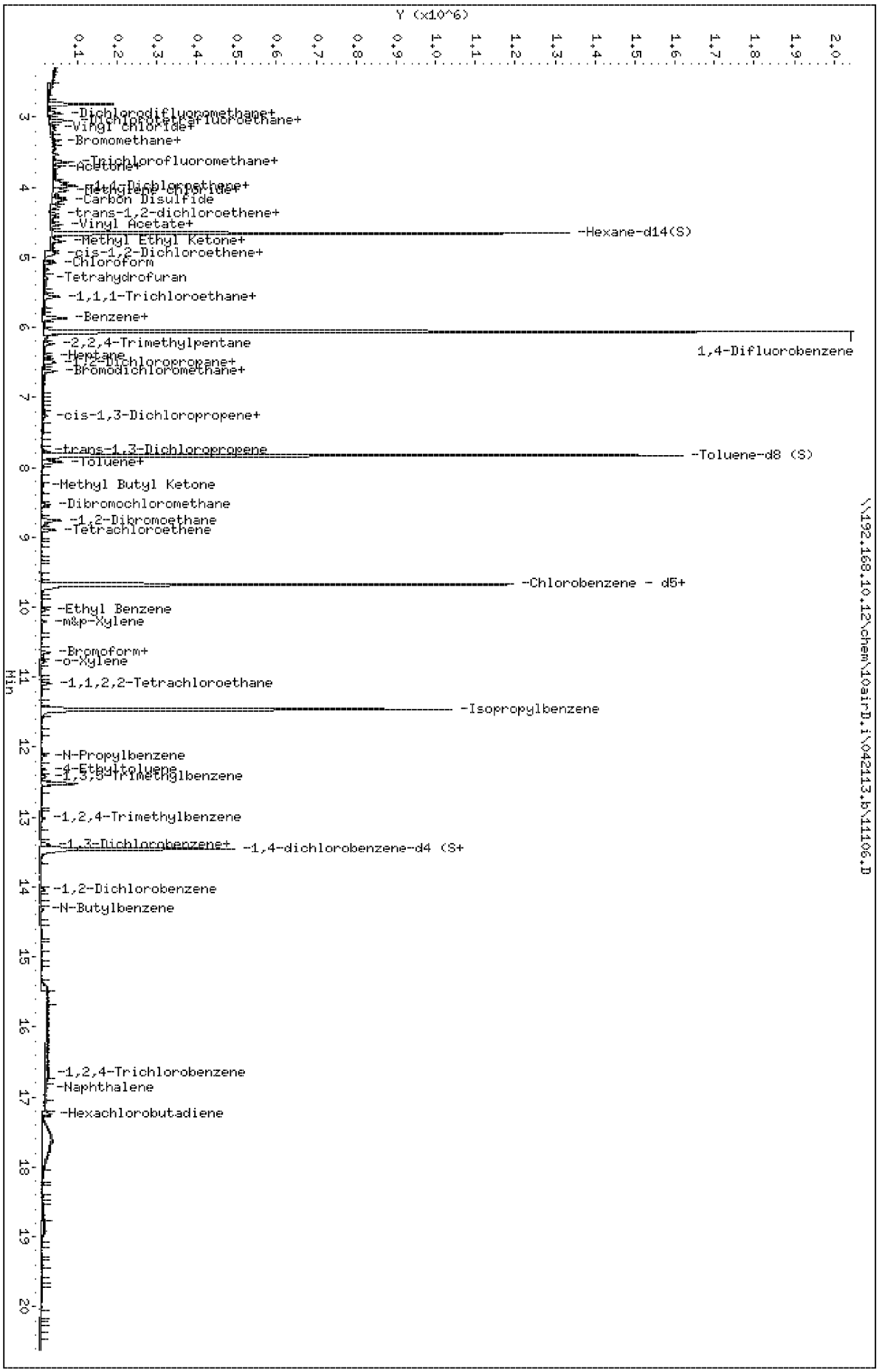
Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	1105489	-8.00
55 Chlorobenzene - d	638533	383120	893946	558214	-12.58

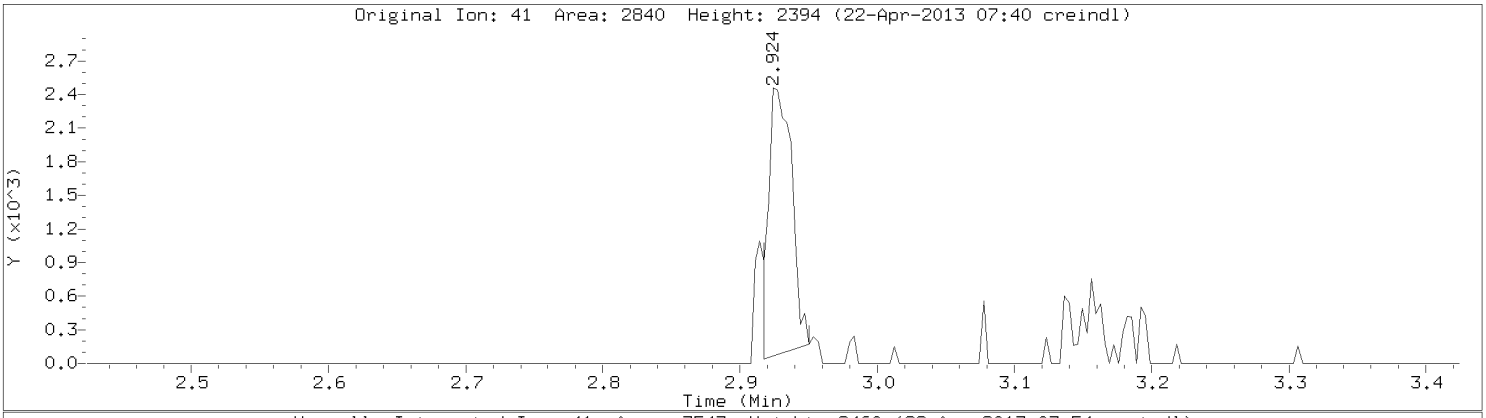
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.00

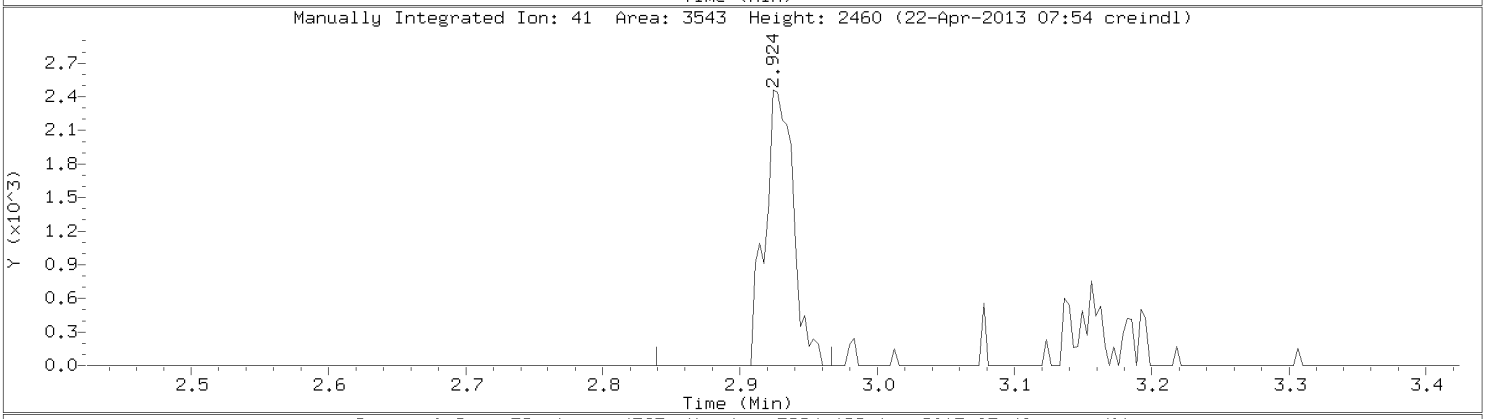
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

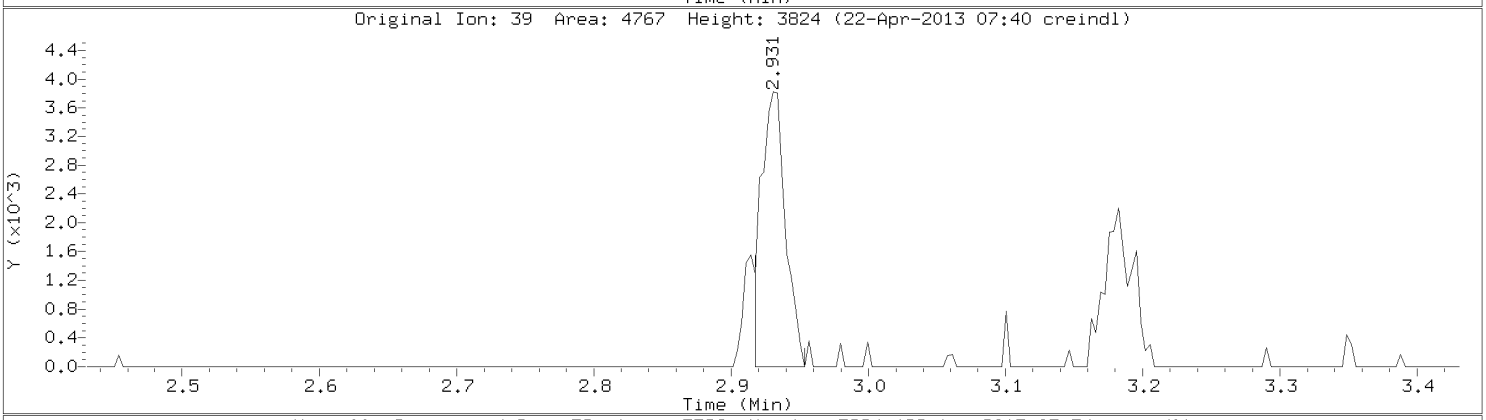

Y (x10^6)
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-Dichlorodifluoromethane+
-Trichlorofluoroethane+
-Vinyl Chloride+
-Bromomethane+
-Trichlorofluoromethane+
-Acetone+
-1,1-Dichloroethene+
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-2,2,4-Trimethylpentane
-Heptane
-1,2-Dichloropropane+
-Bromodichloromethane+
1,4-Difluorobenzene
-cis-1,3-Dichloropropene+
-trans-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform+
-o-Xylene
-1,1,2,2-Tetrachloroethane
-Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,3-Dichlorobenzene+
-1,4-dichlorobenzene-d4 (S+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene
Min
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
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Date : 24-APR-2013 10:45
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Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

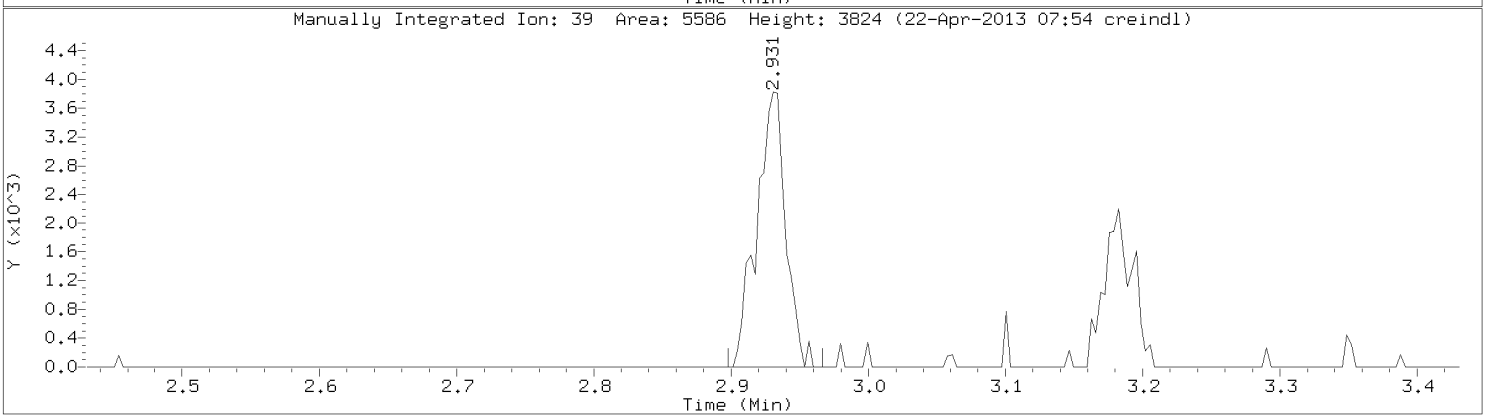
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Propylene
CAS Number: 76-14-2



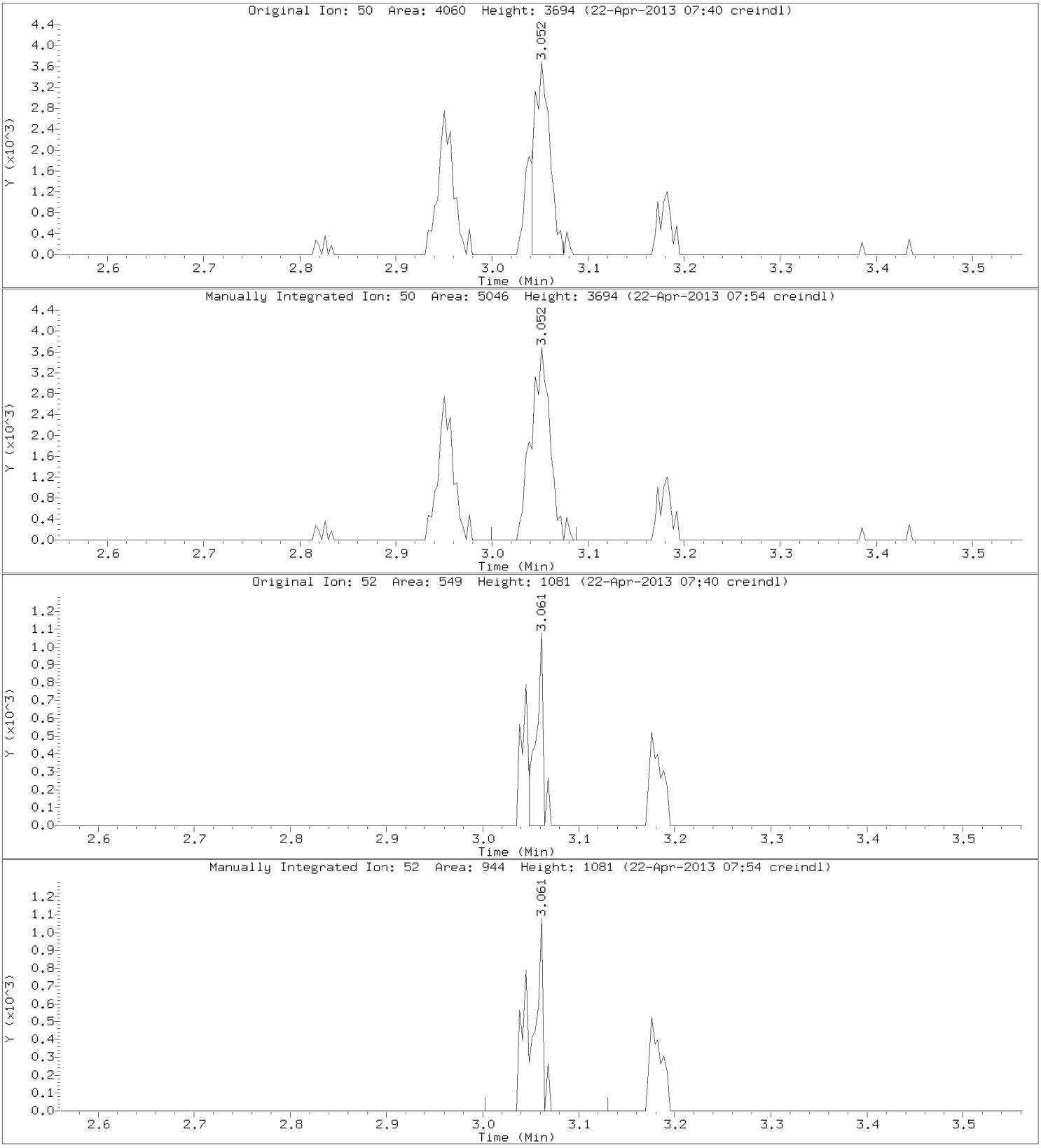






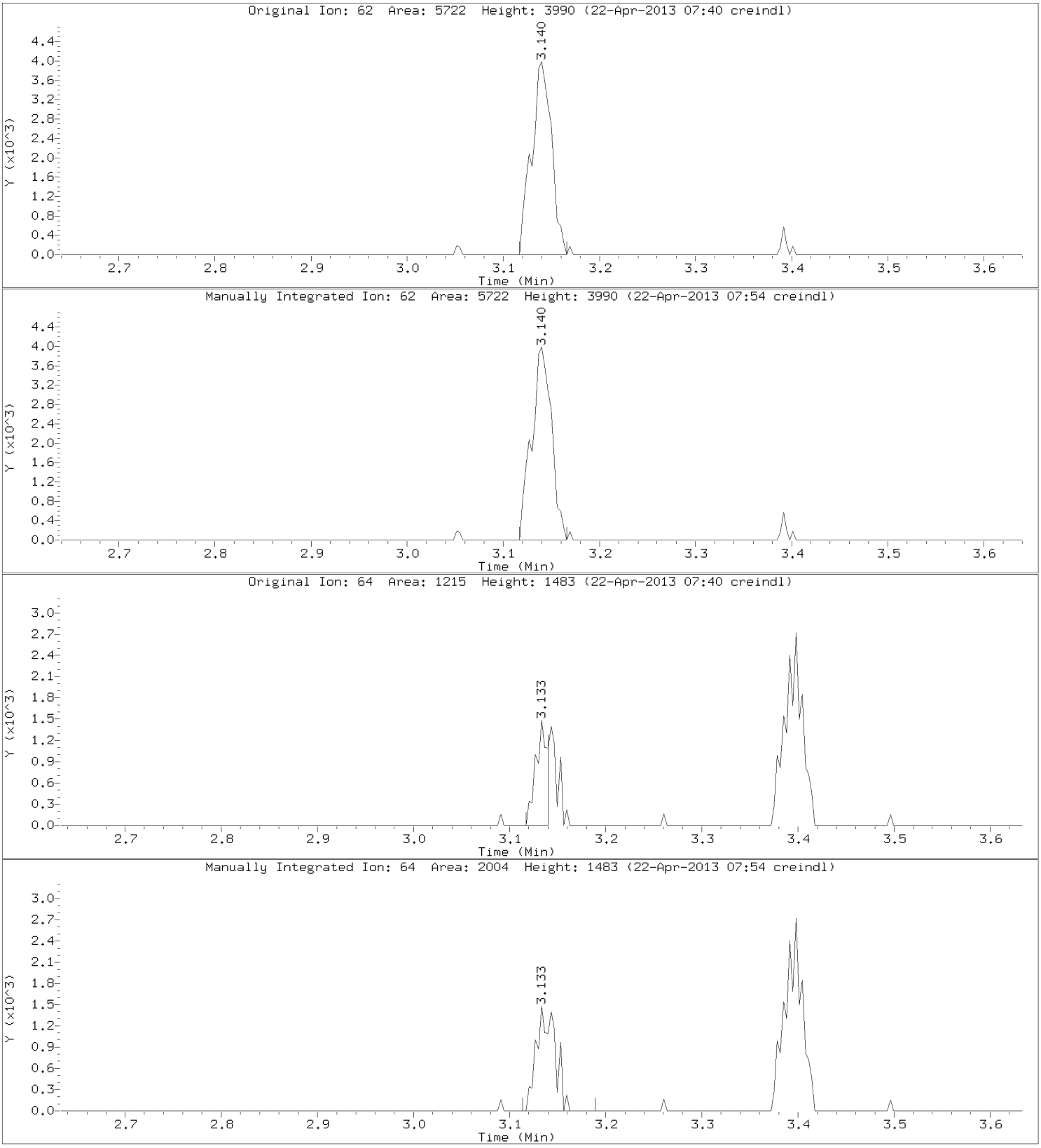
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Chloromethane
CAS Number: 74-87-3



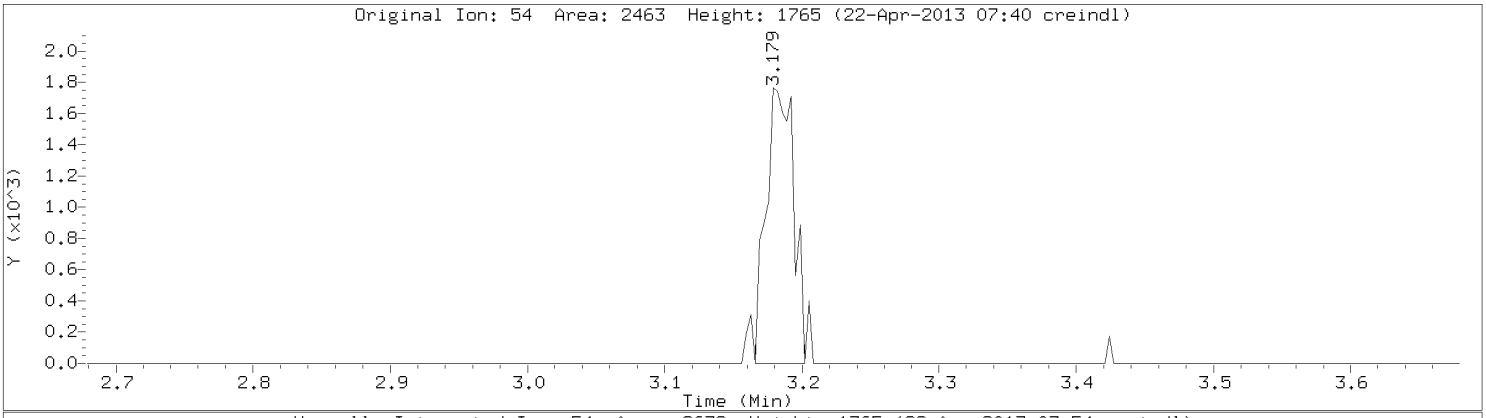
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

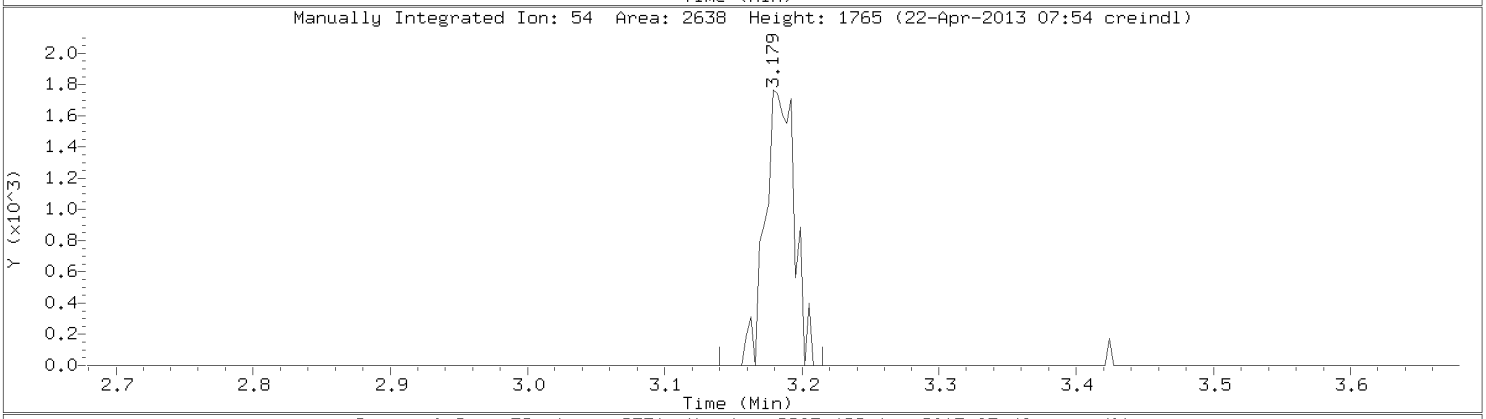
Compound: Vinyl chloride
CAS Number: 75-01-4

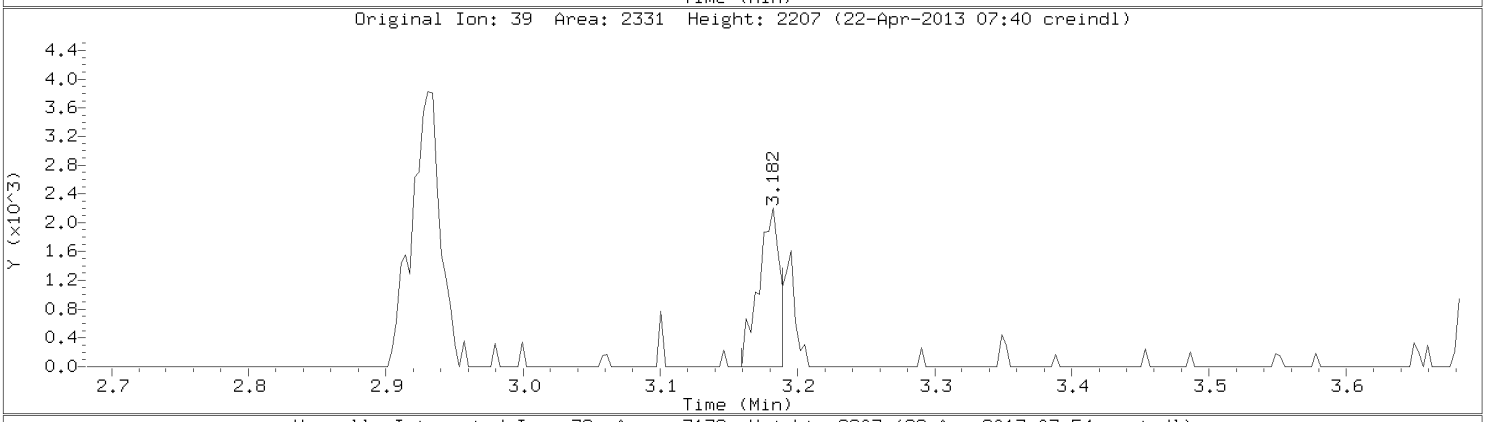


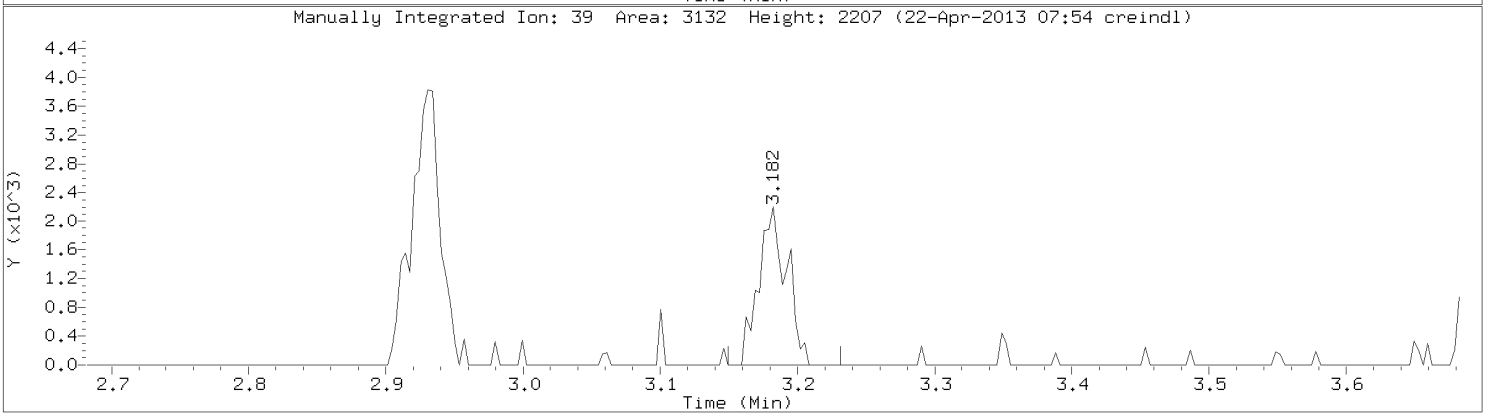
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,3-Butadiene
CAS Number: 106-99-0



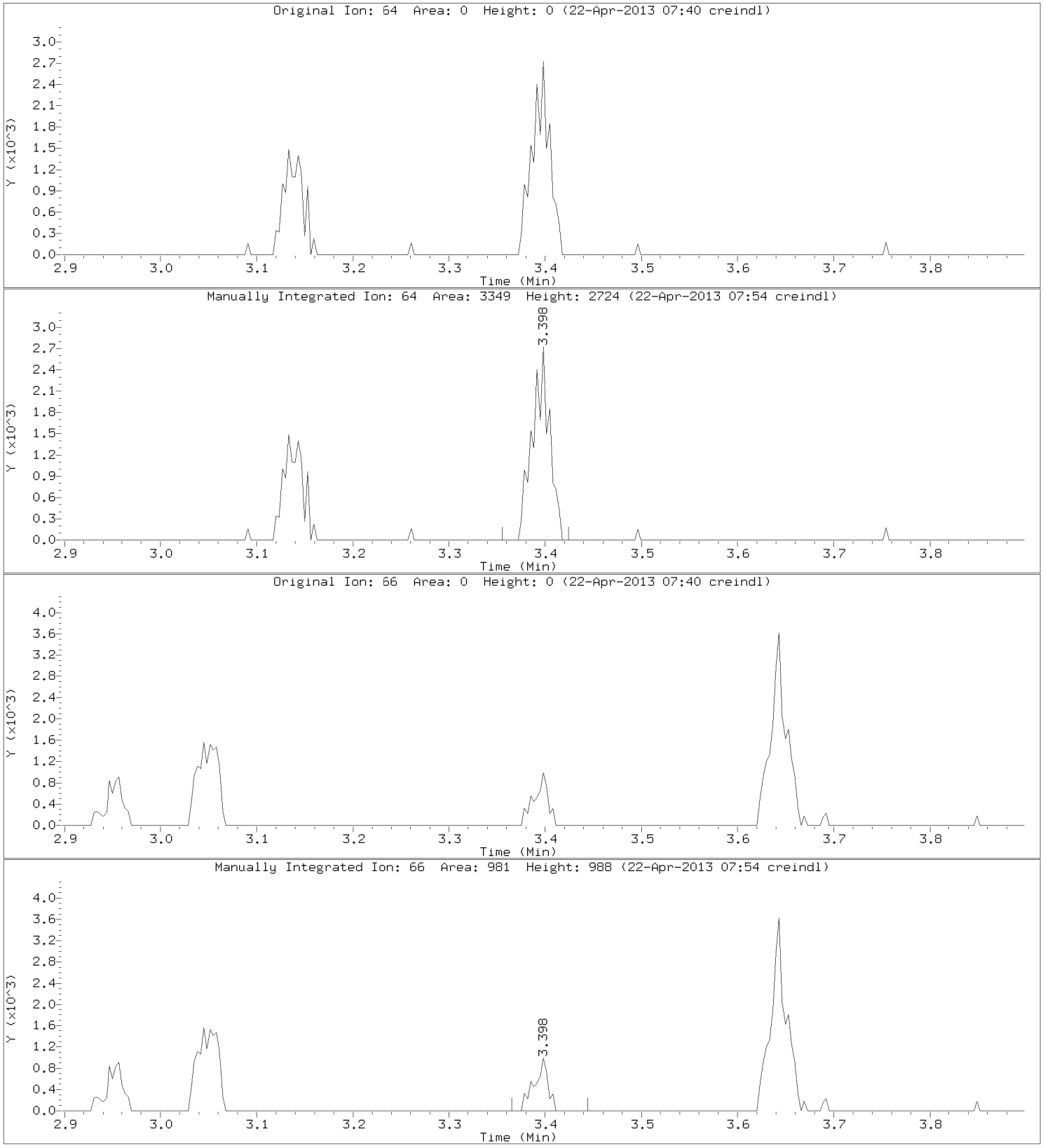






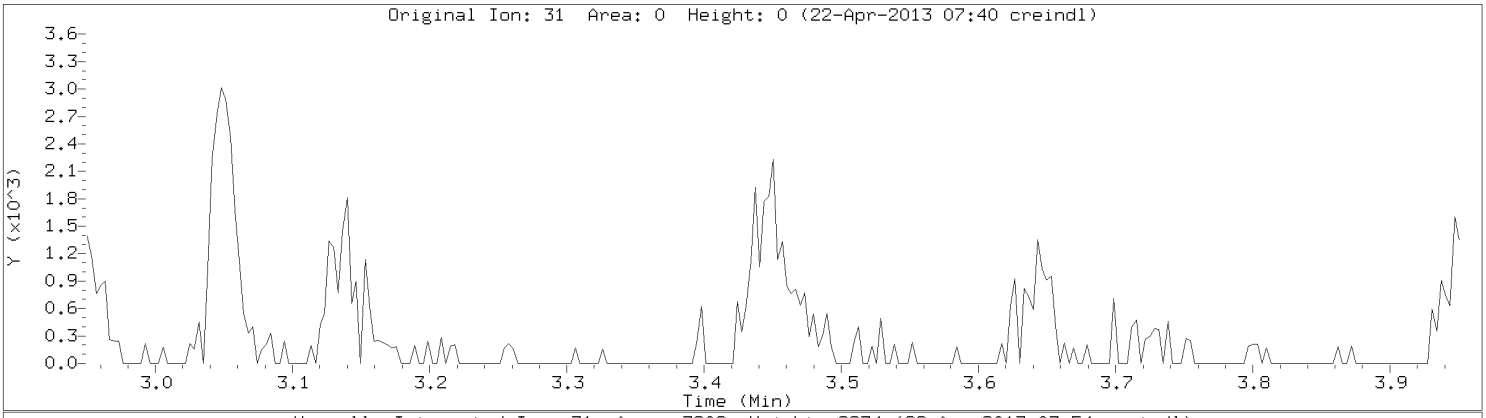
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Instrument: 10airD.i
Lab Sample ID: ICAL2

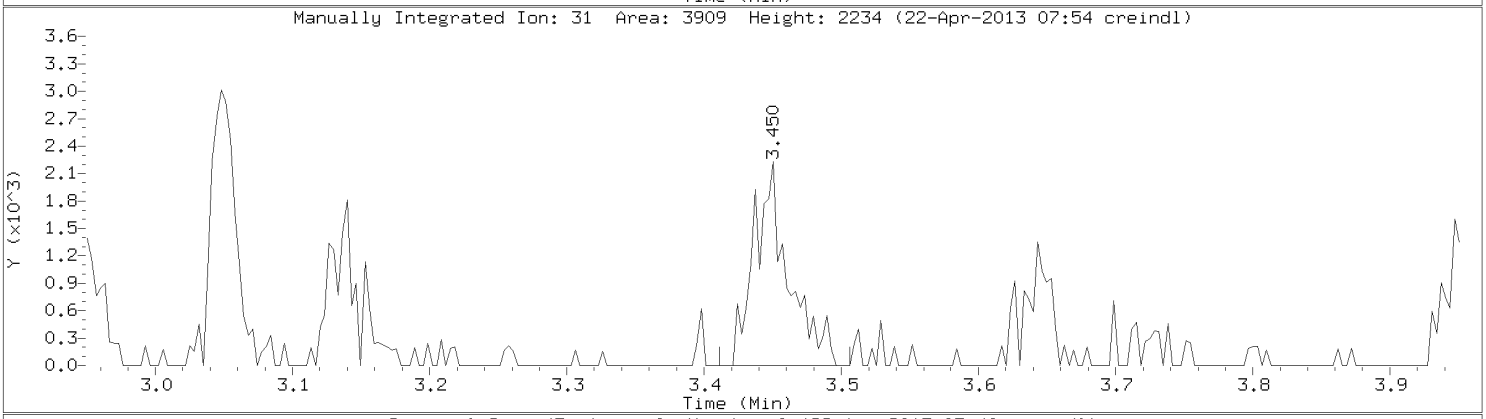
Compound: Chloroethane
CAS Number: 75-00-3

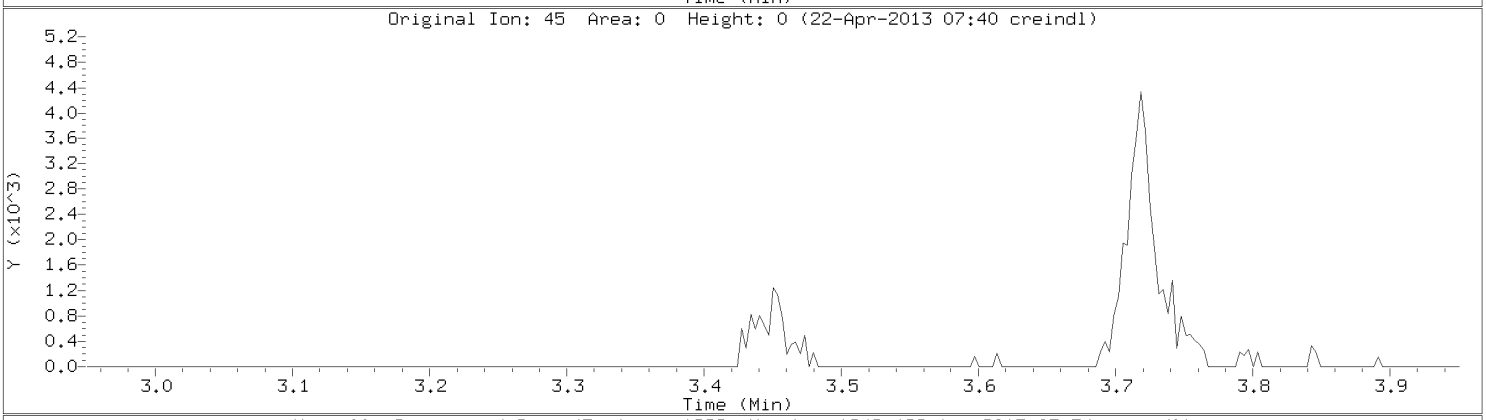


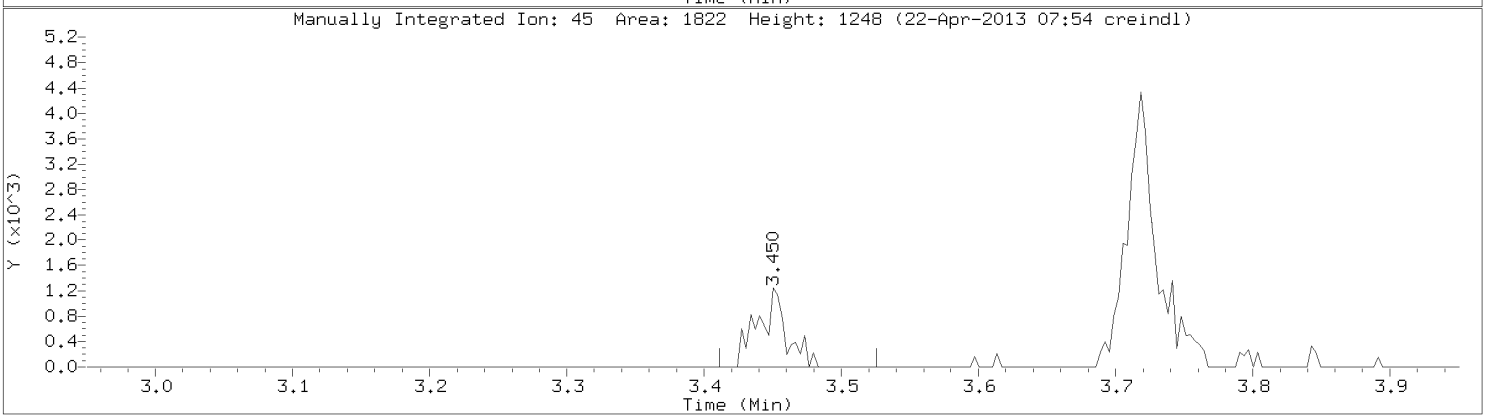
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Ethanol
CAS Number: 64-17-5



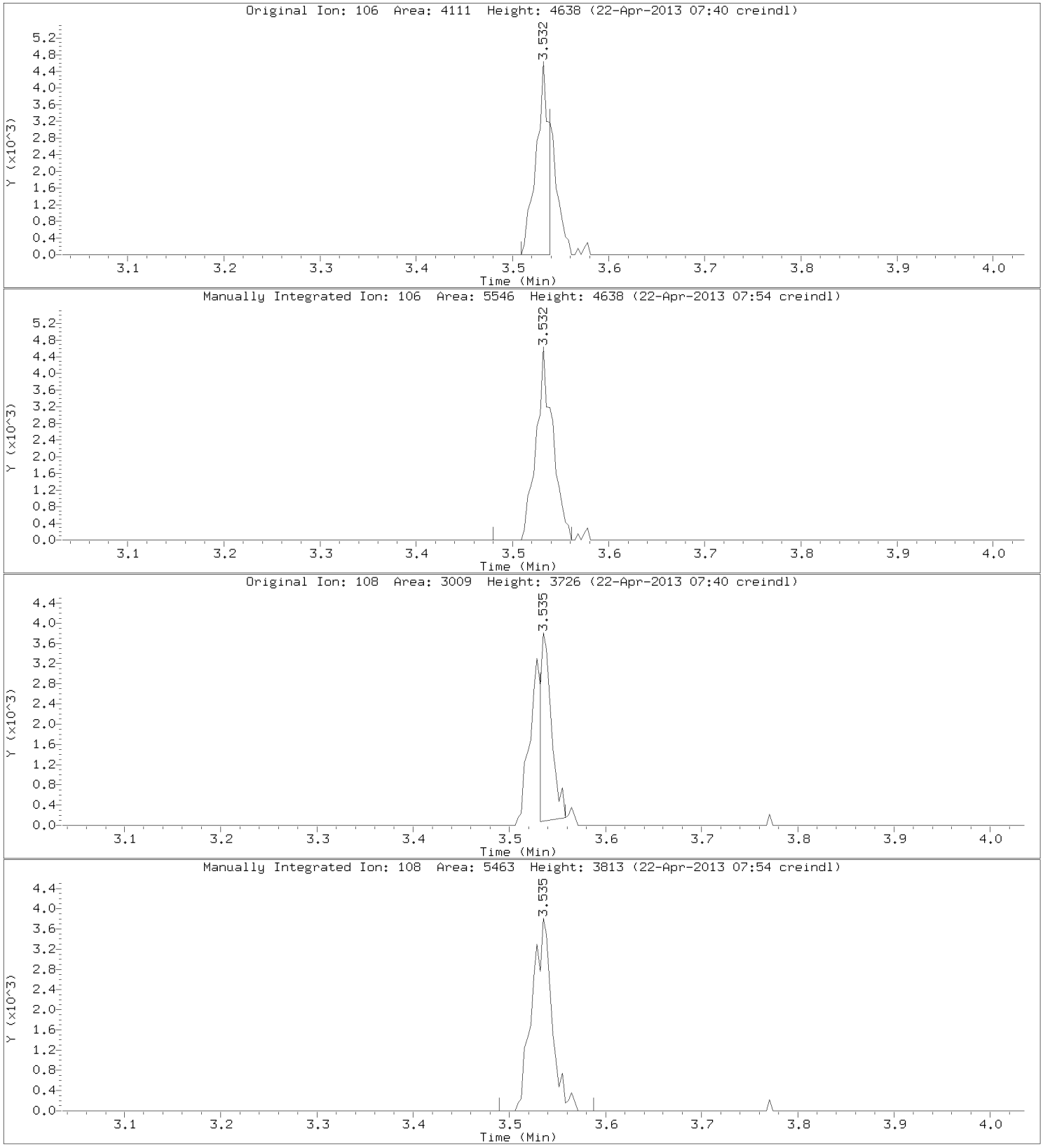






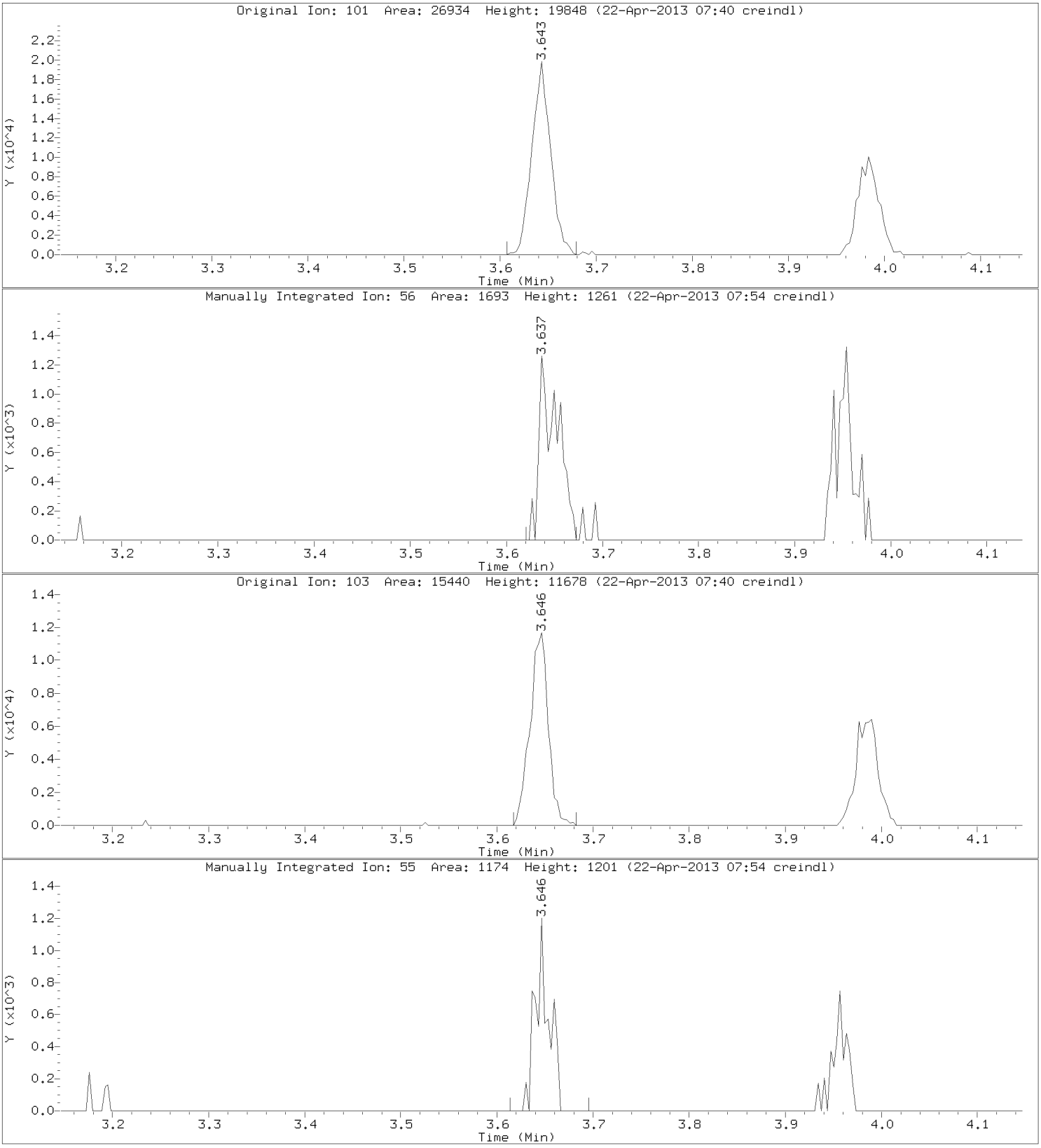
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Vinyl Bromide
CAS Number: 593-60-2



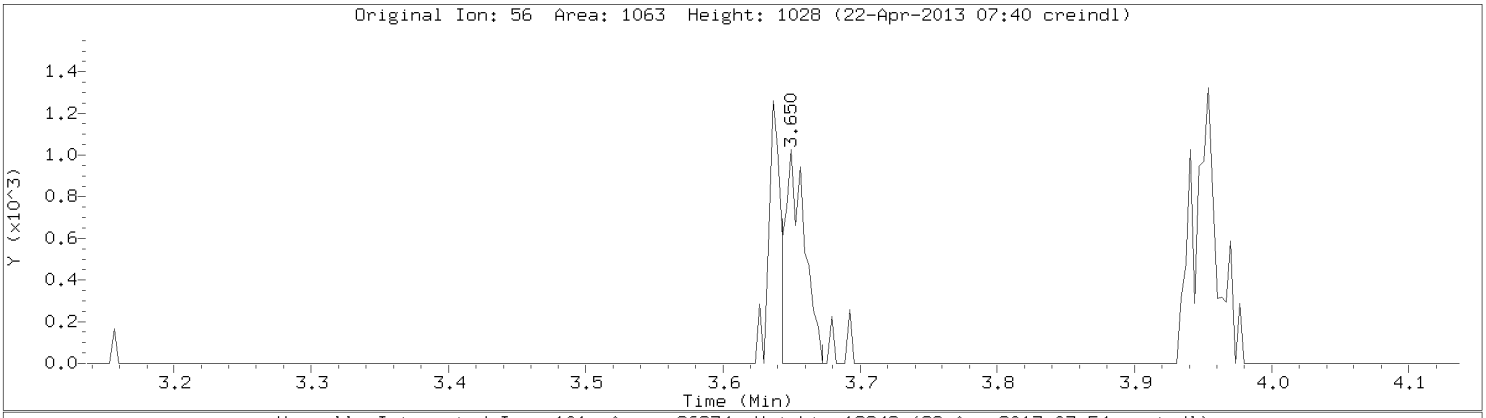
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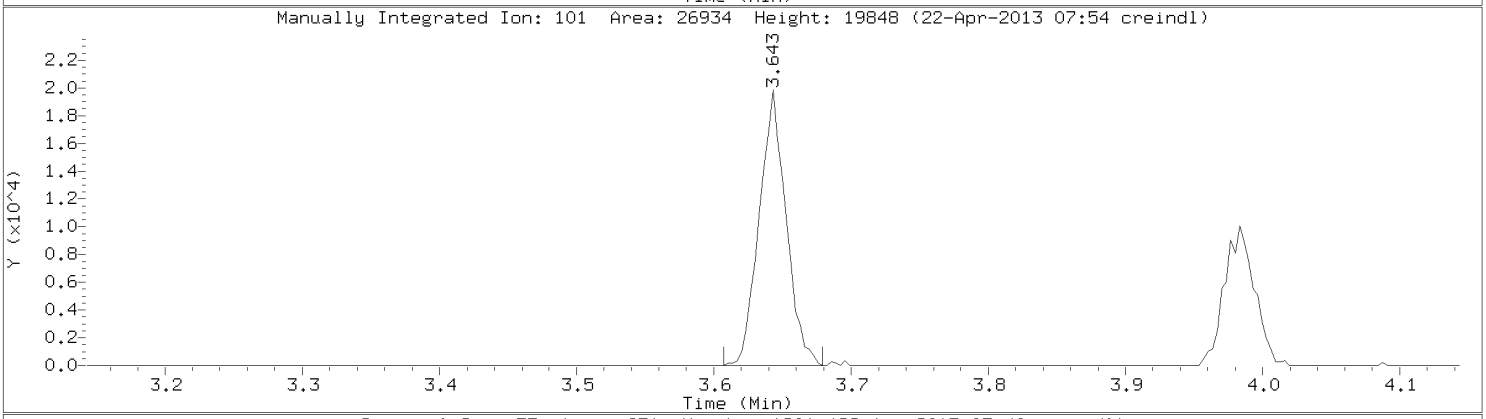
Compound: Acrolein
CAS Number: 107-02-08

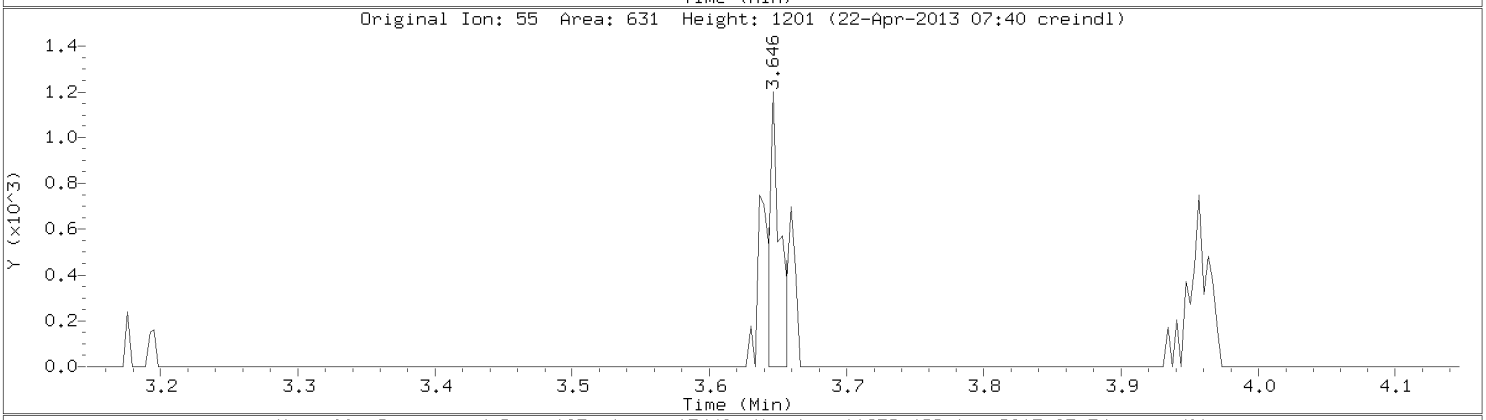


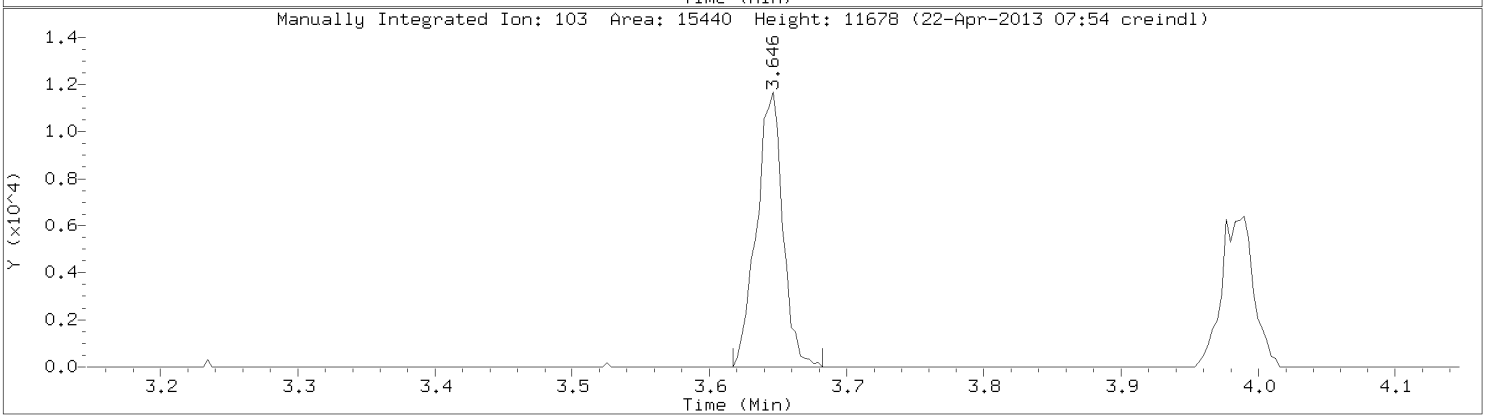
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Trichlorofluoromethane
CAS Number: 75-69-4

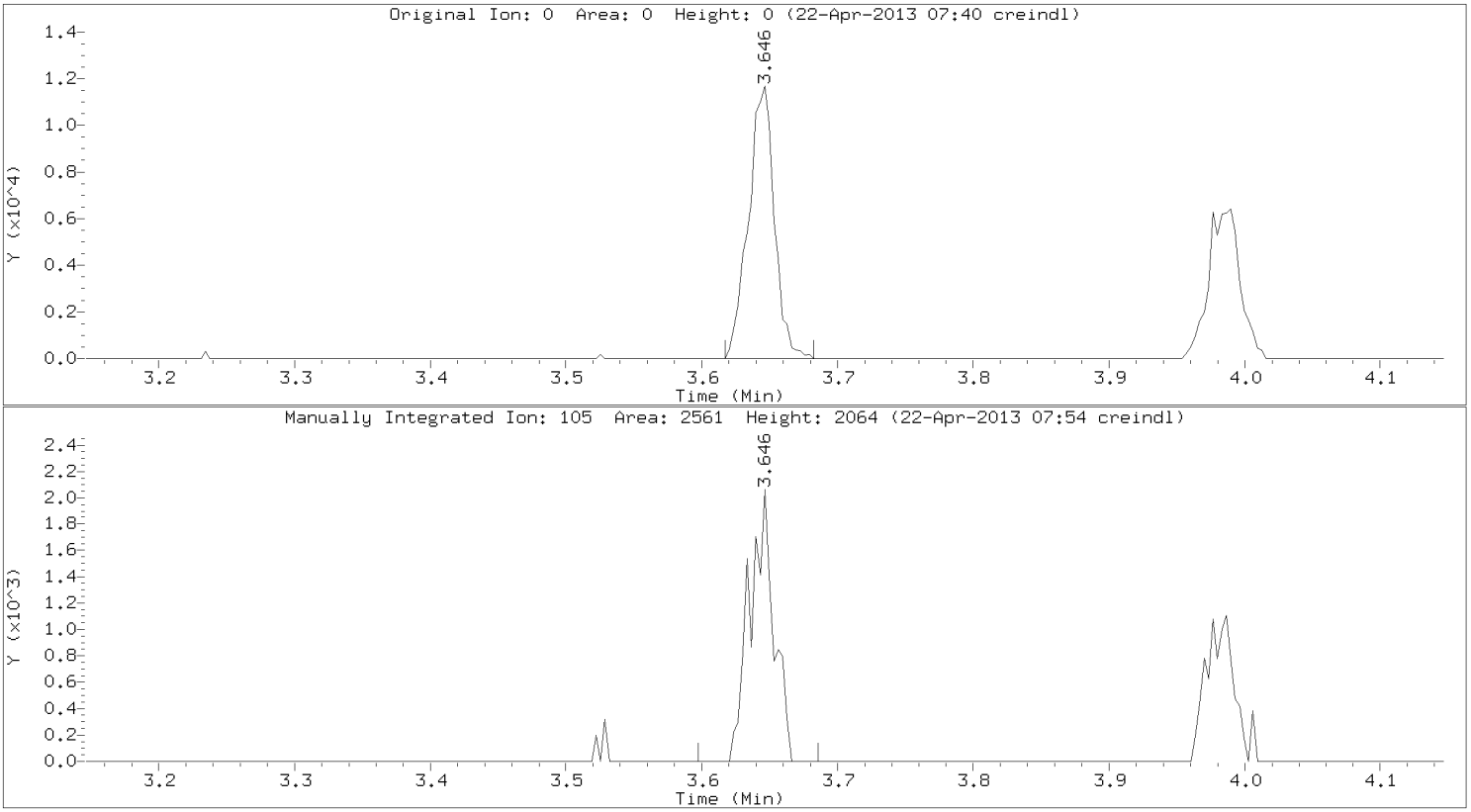






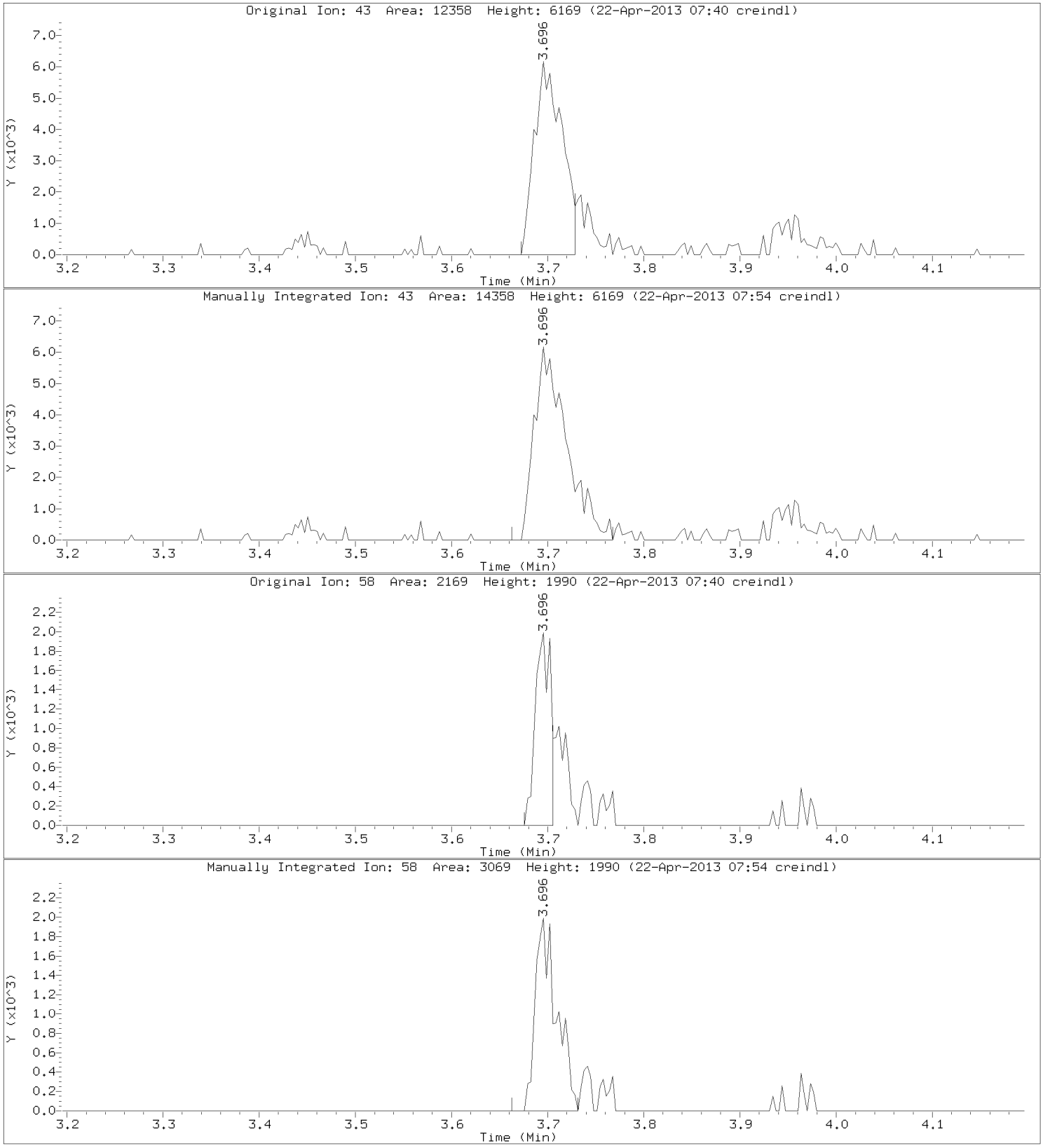


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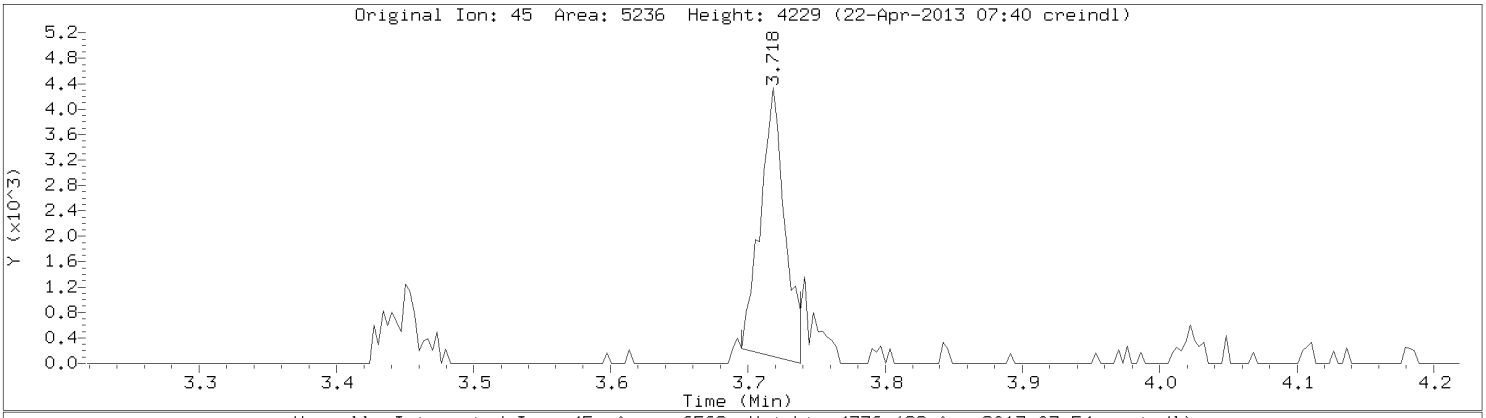
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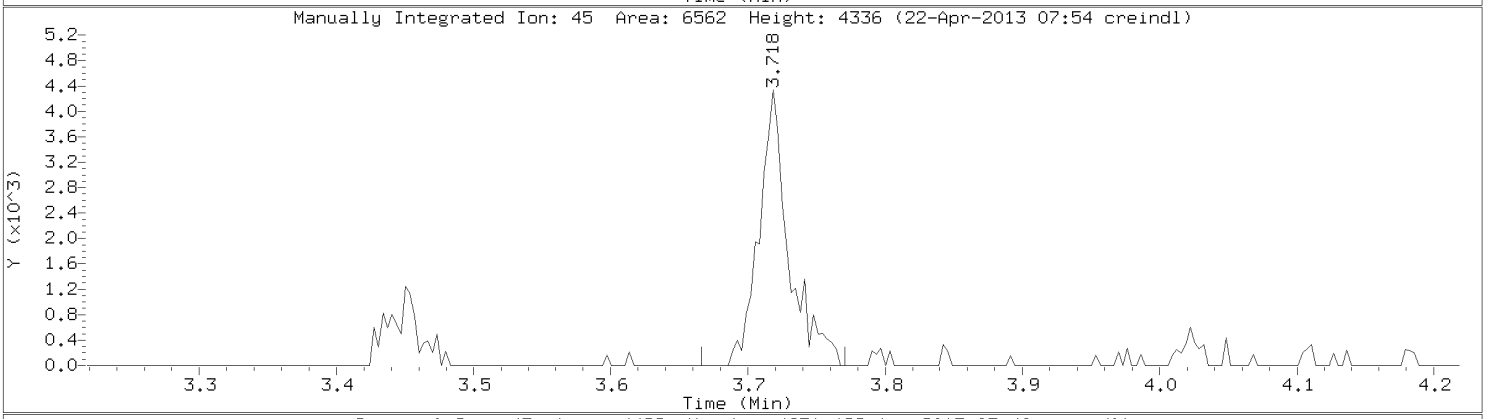
Compound: Acetone
CAS Number: 67-64-1

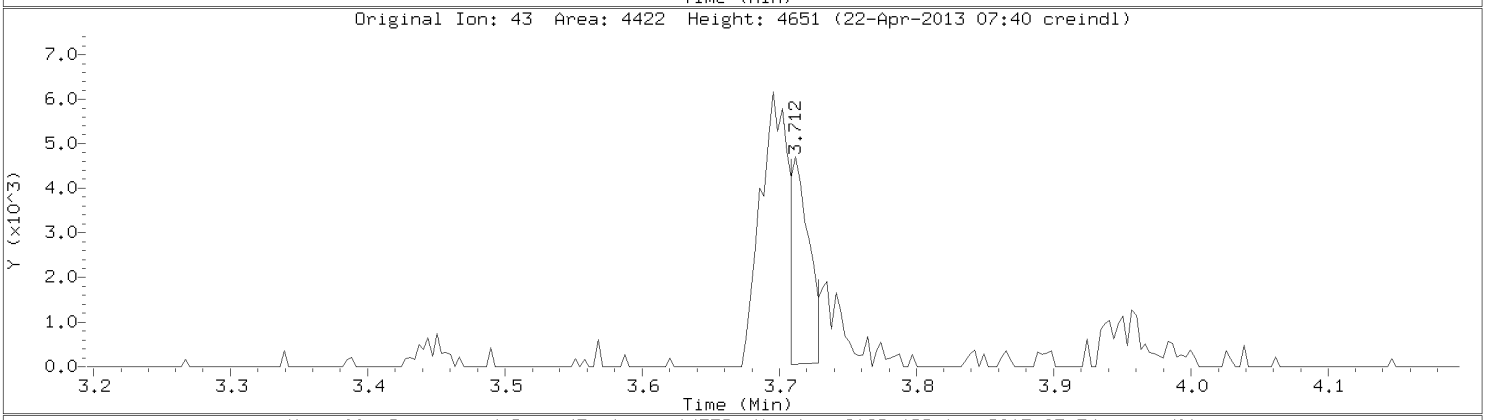


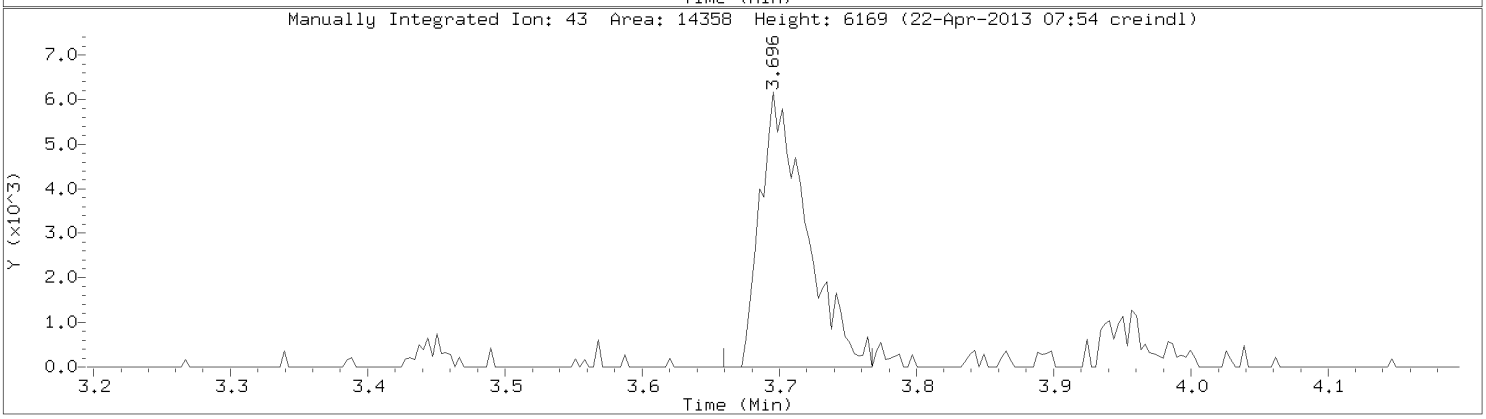
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Isopropyl Alcohol
CAS Number: 67-63-0



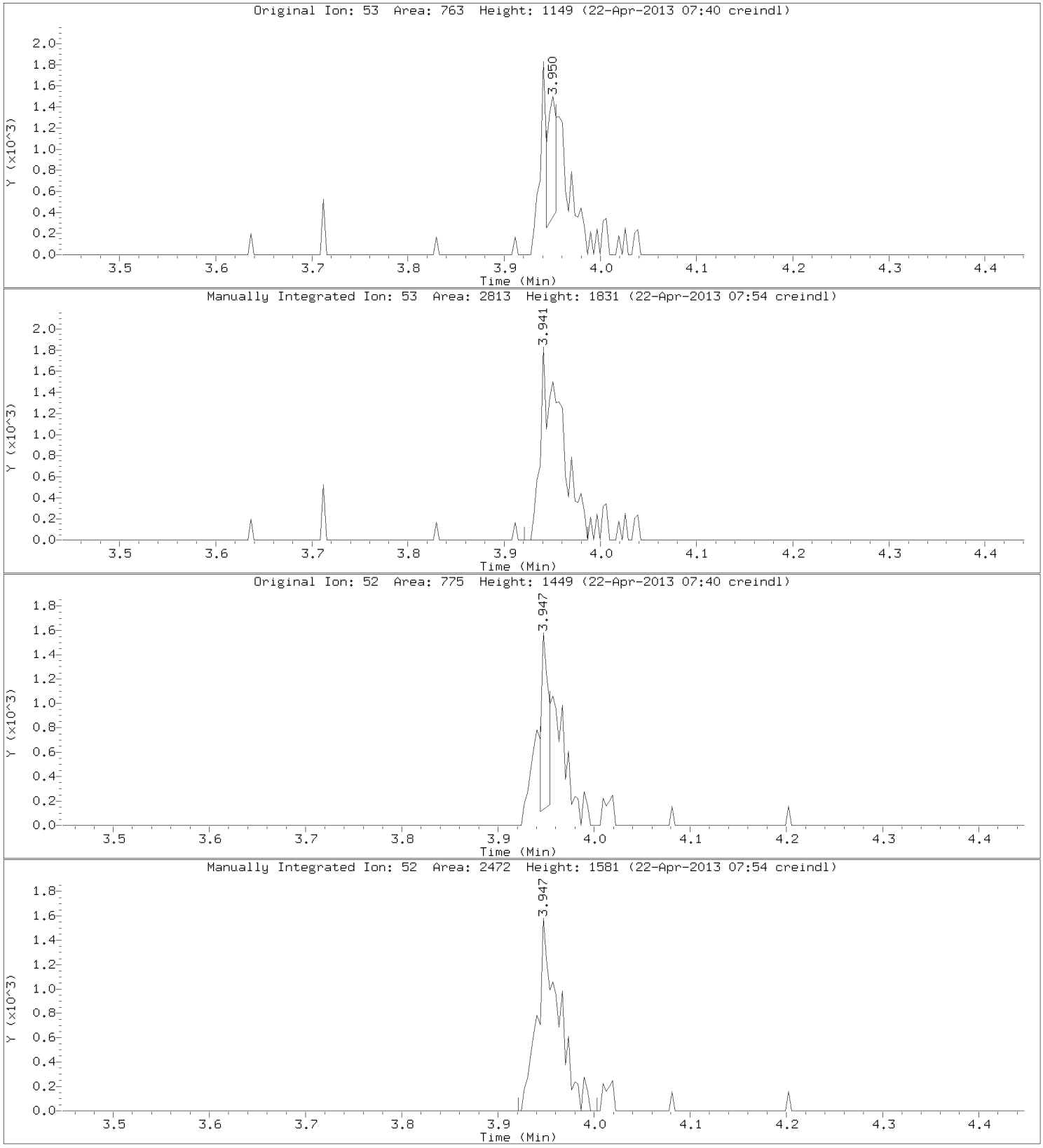






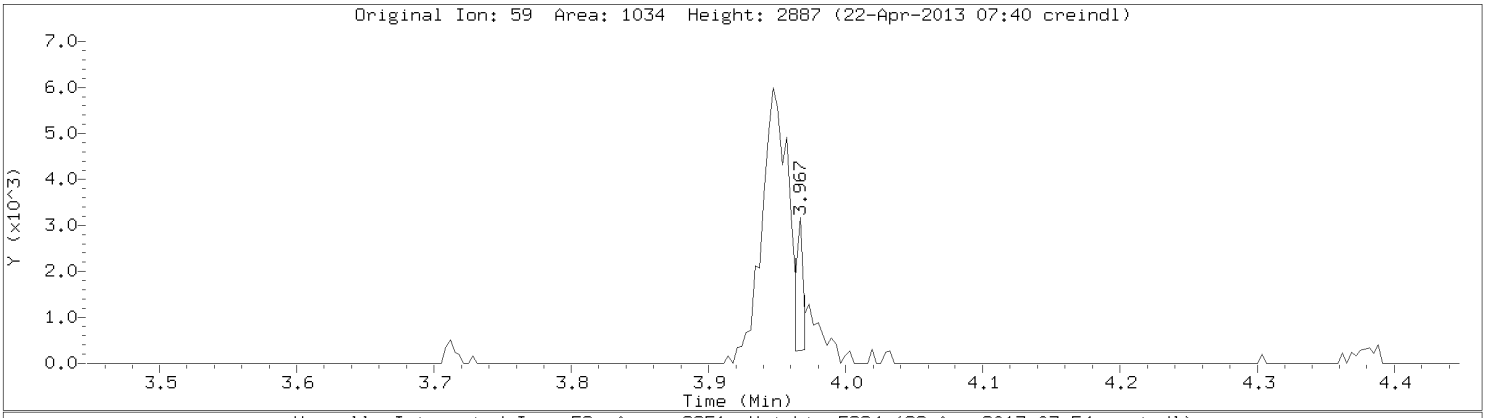
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Lab Sample ID: ICAL2

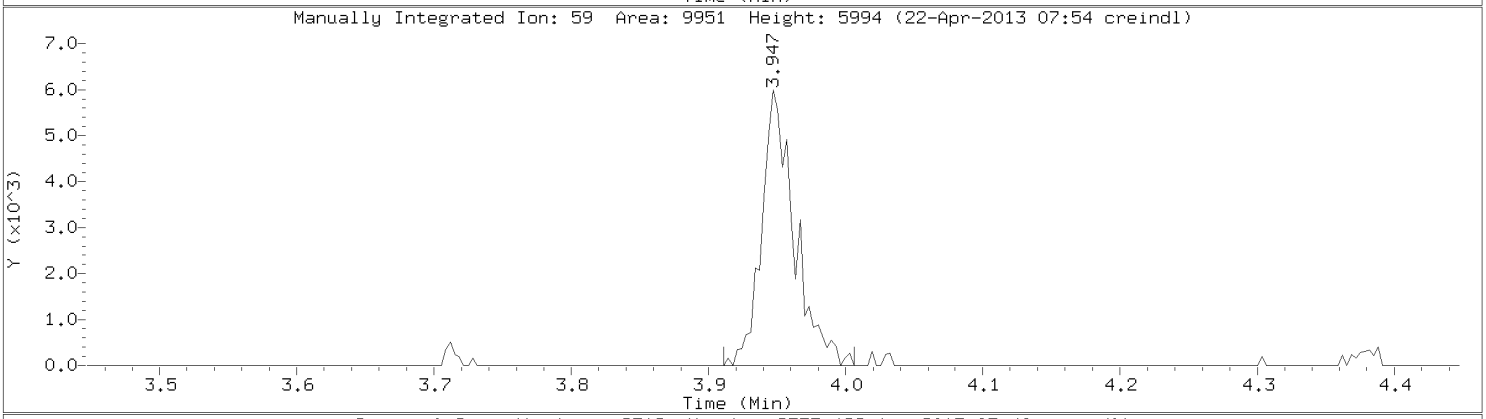
Compound: Acrylonitrile
CAS Number: 107-13-1

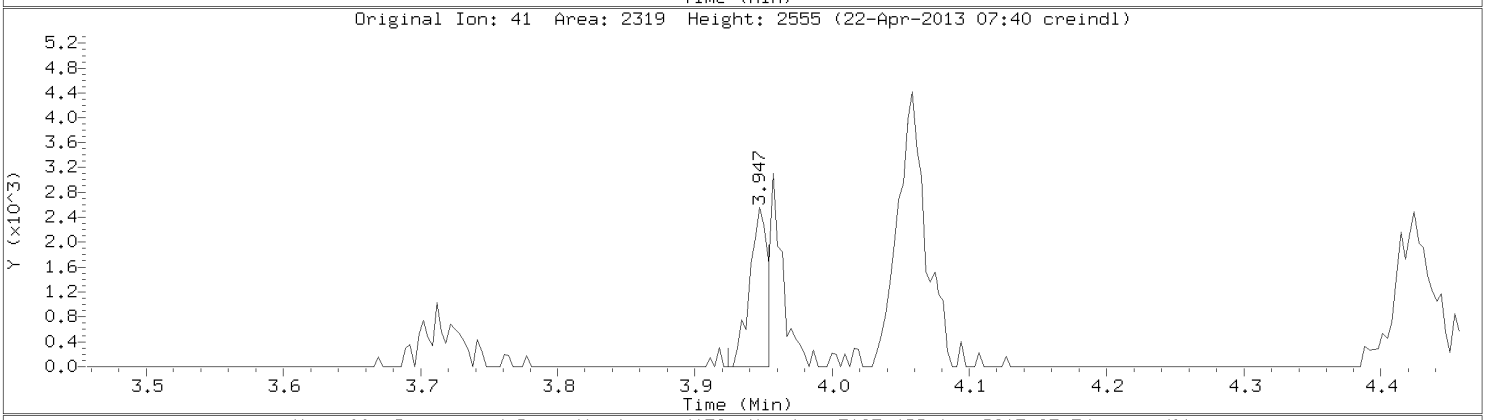


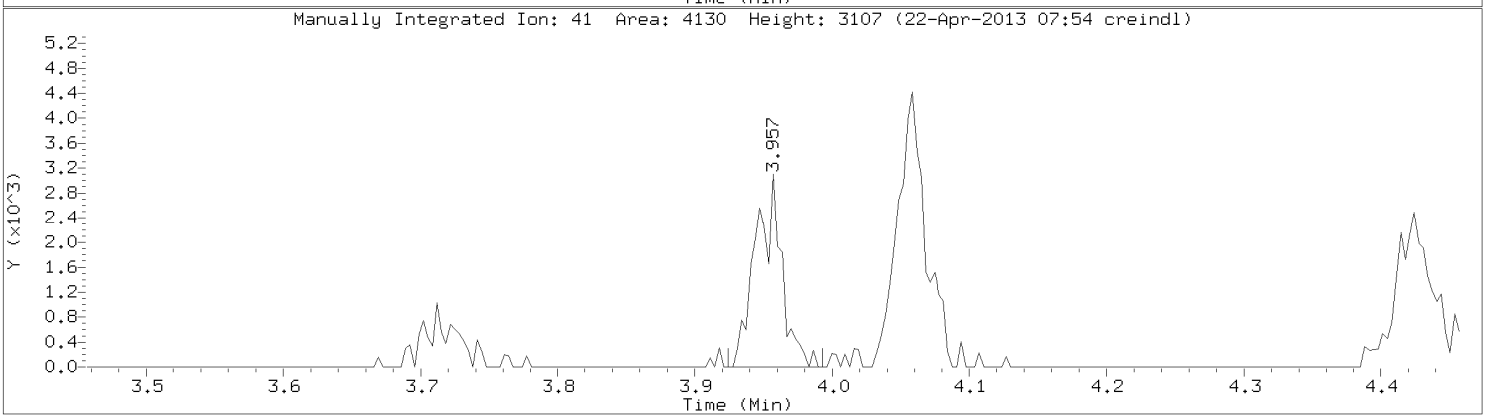
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



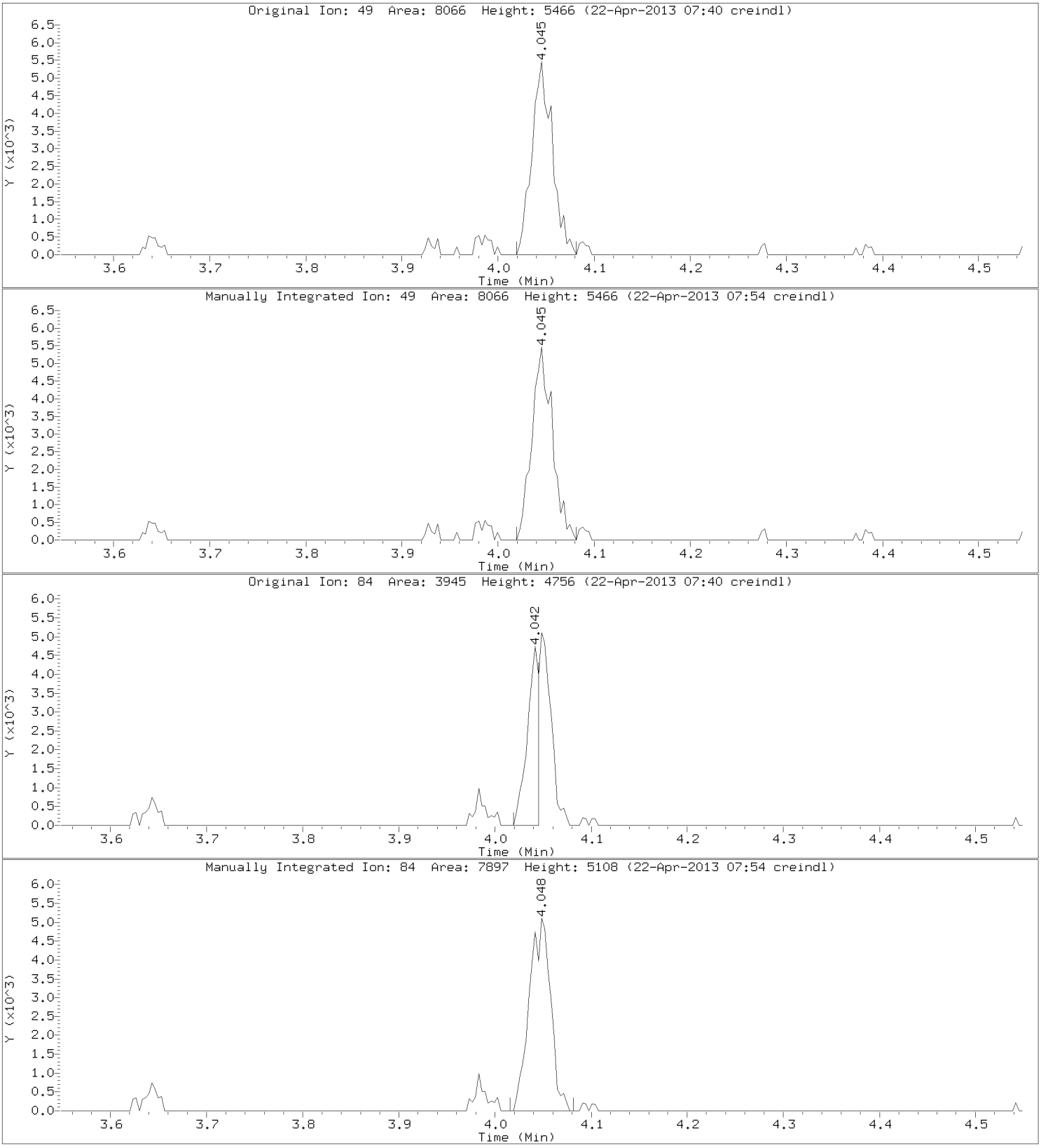




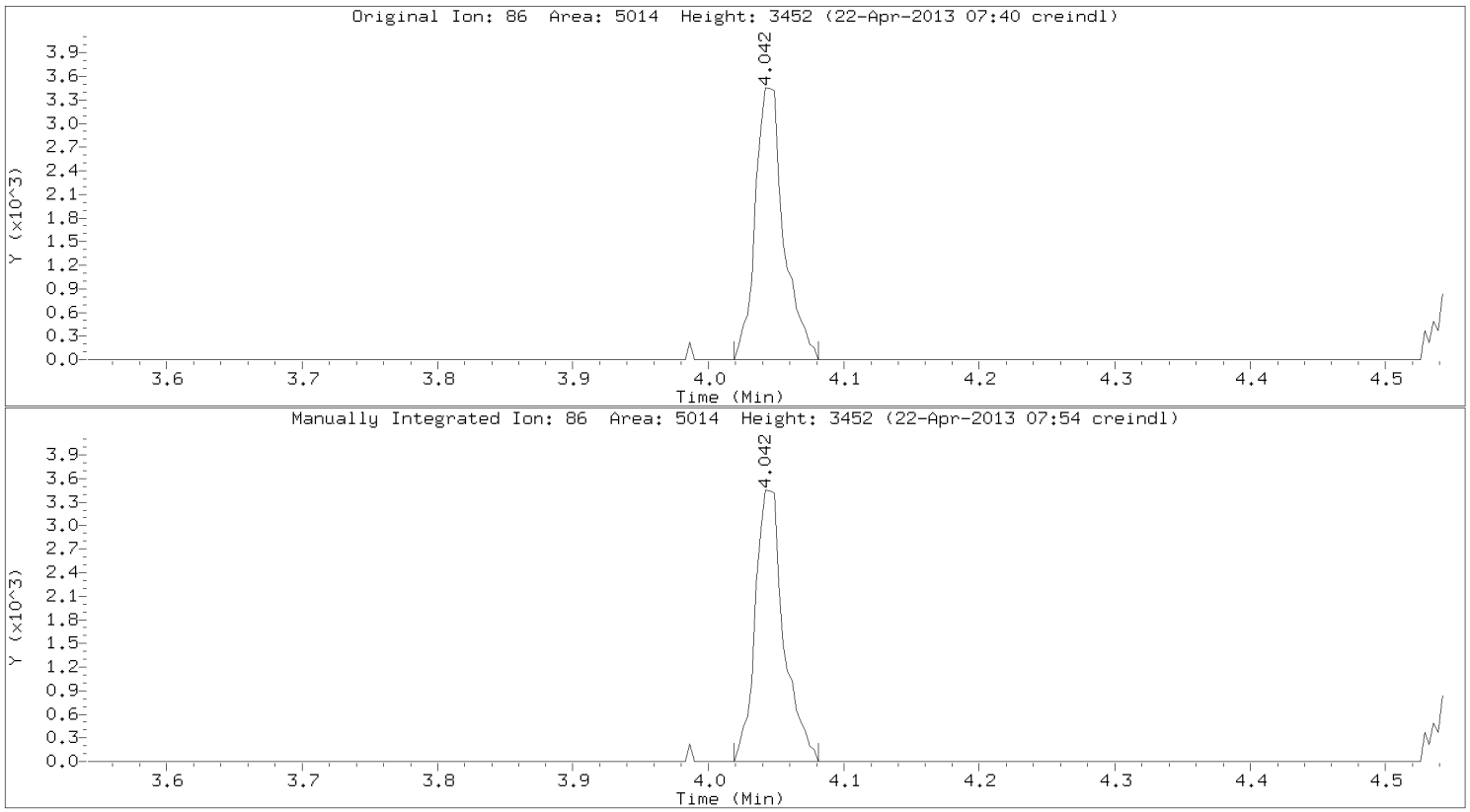


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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Methylene chloride
CAS Number: 75-09-2

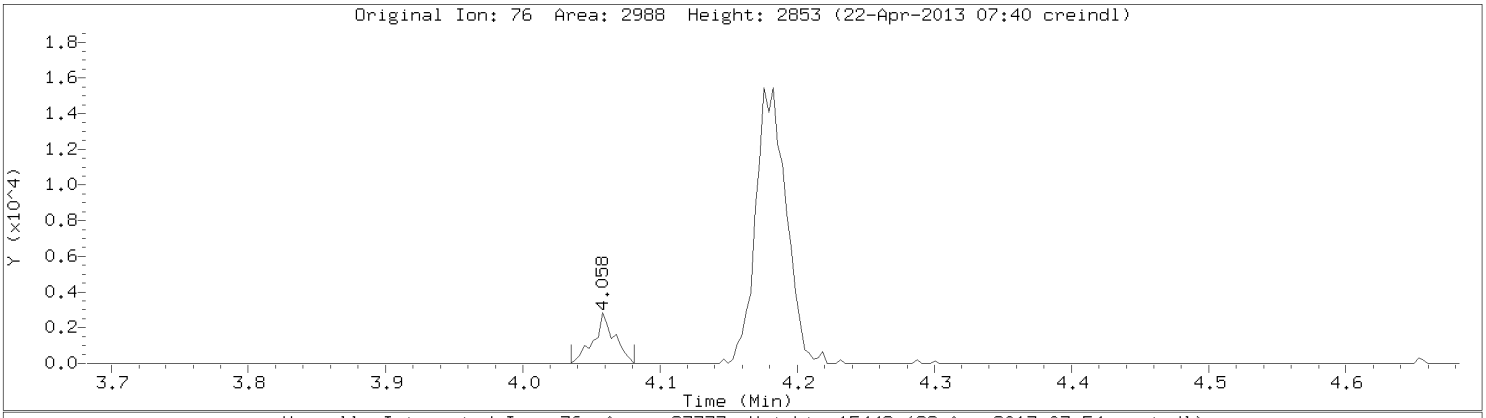


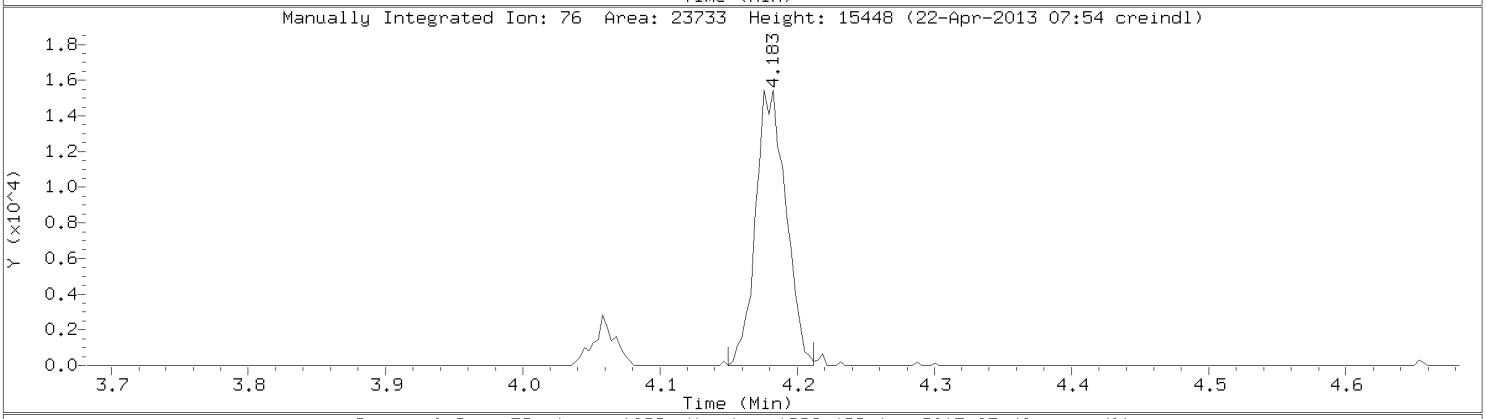
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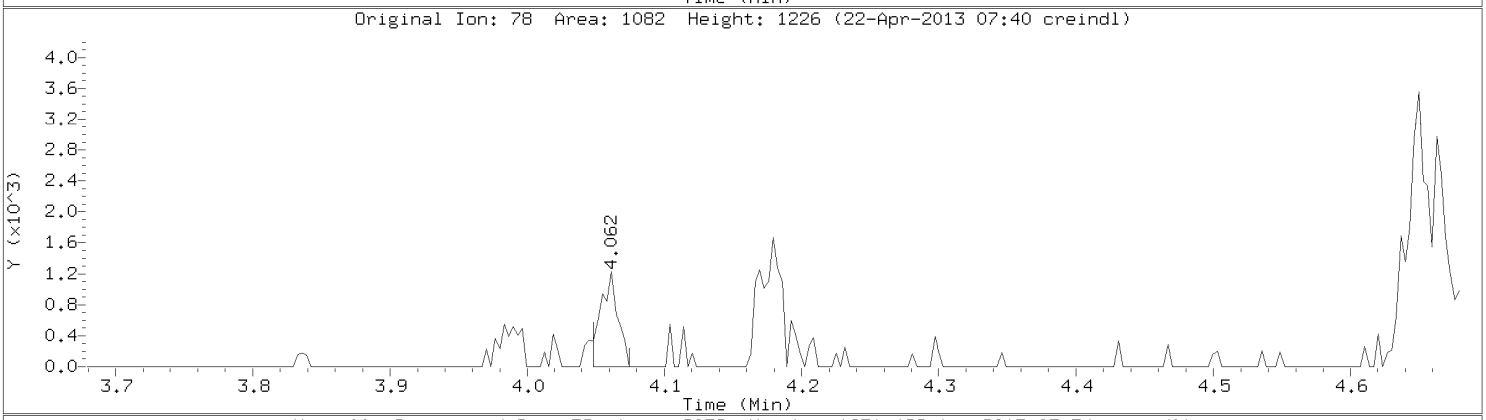


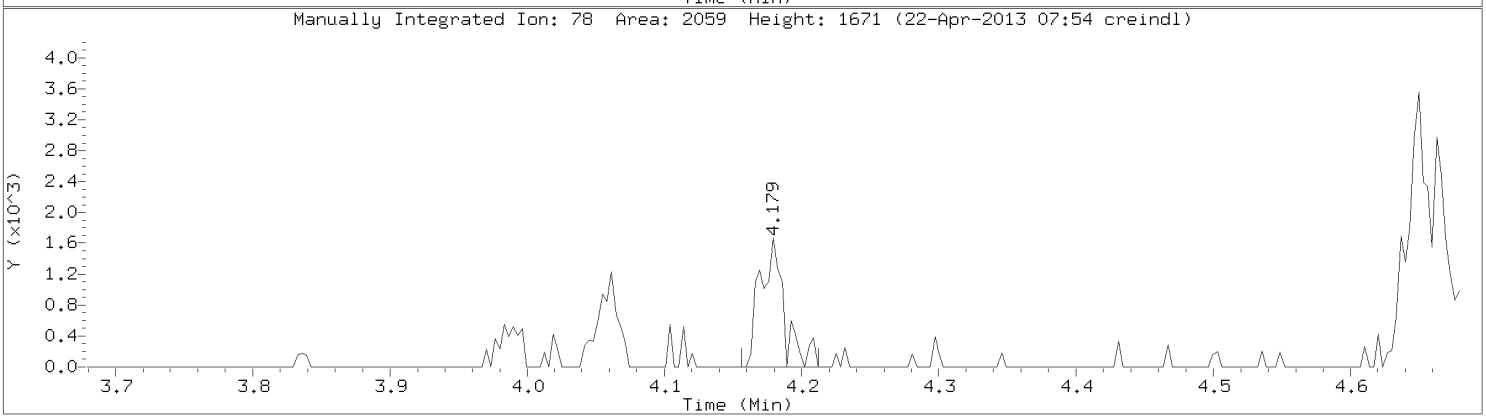
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Carbon Disulfide
CAS Number: 75-15-0



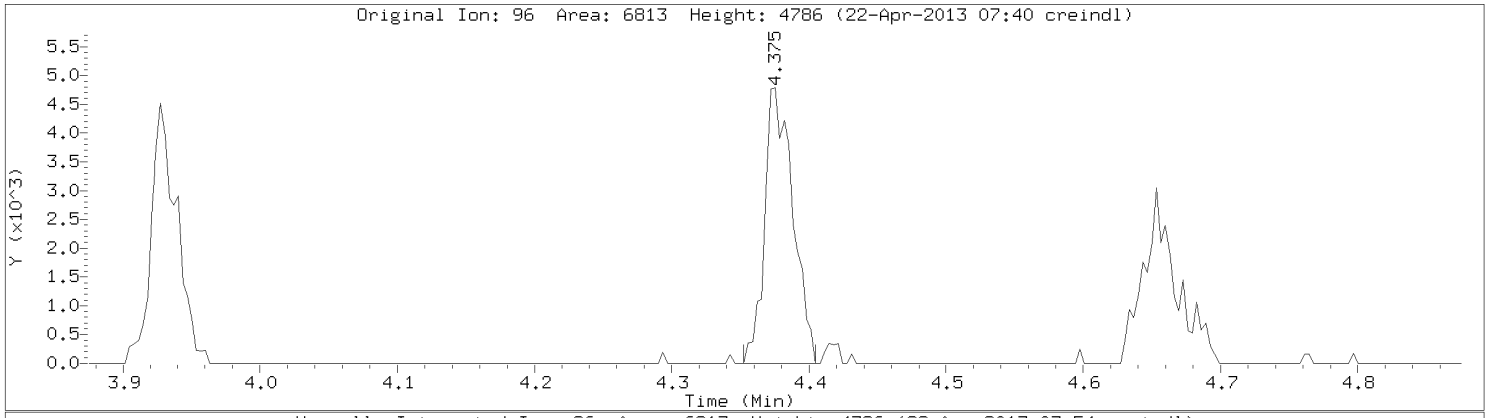


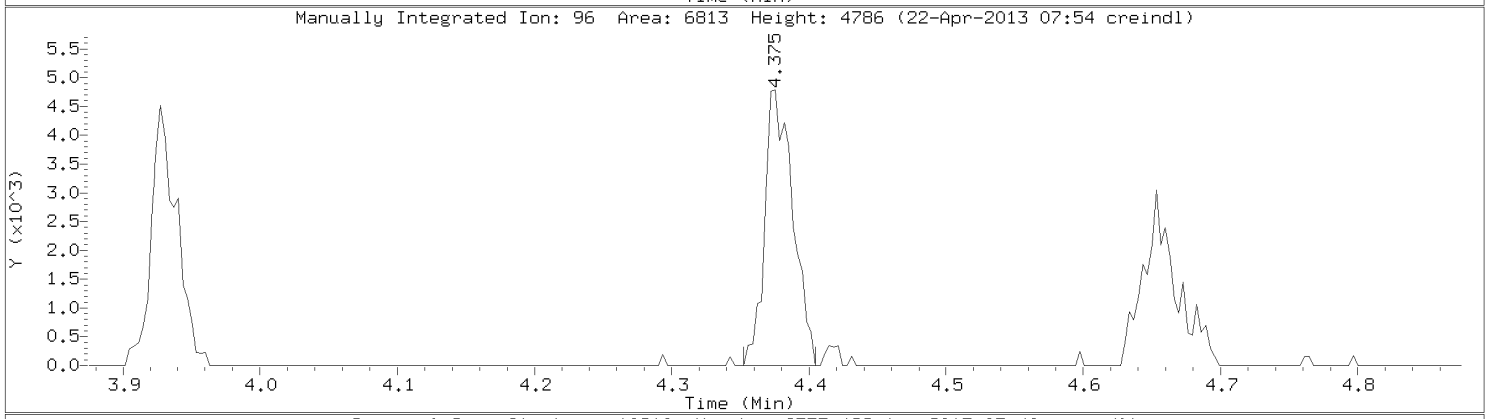


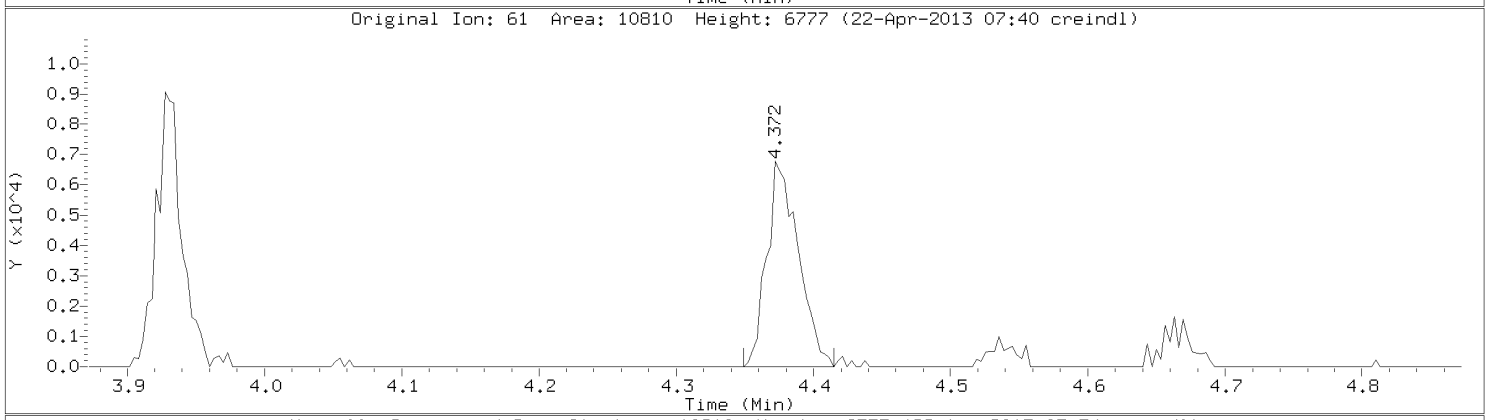


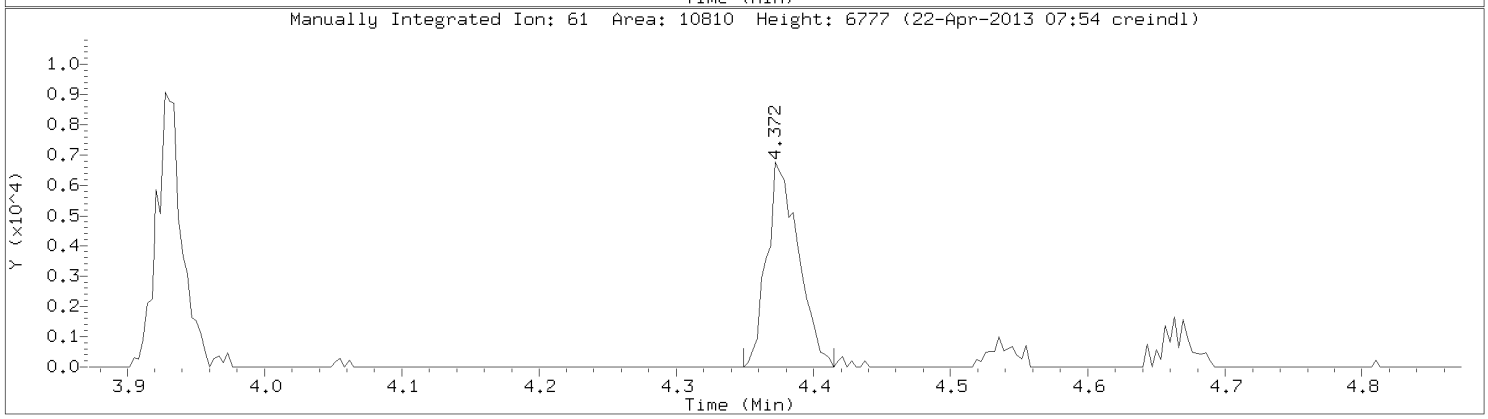
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: trans-1,2-dichloroethene
CAS Number: 156-60-5

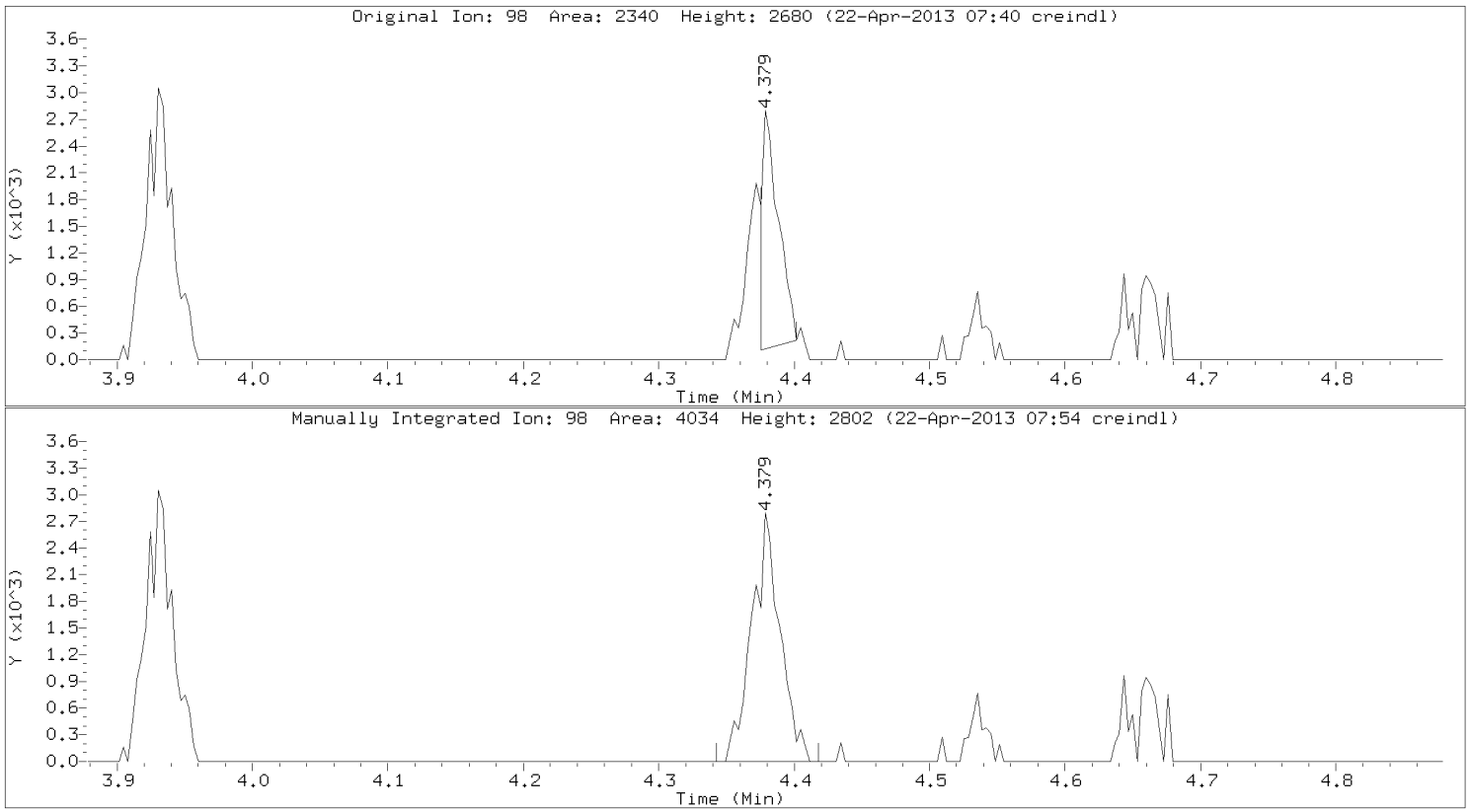






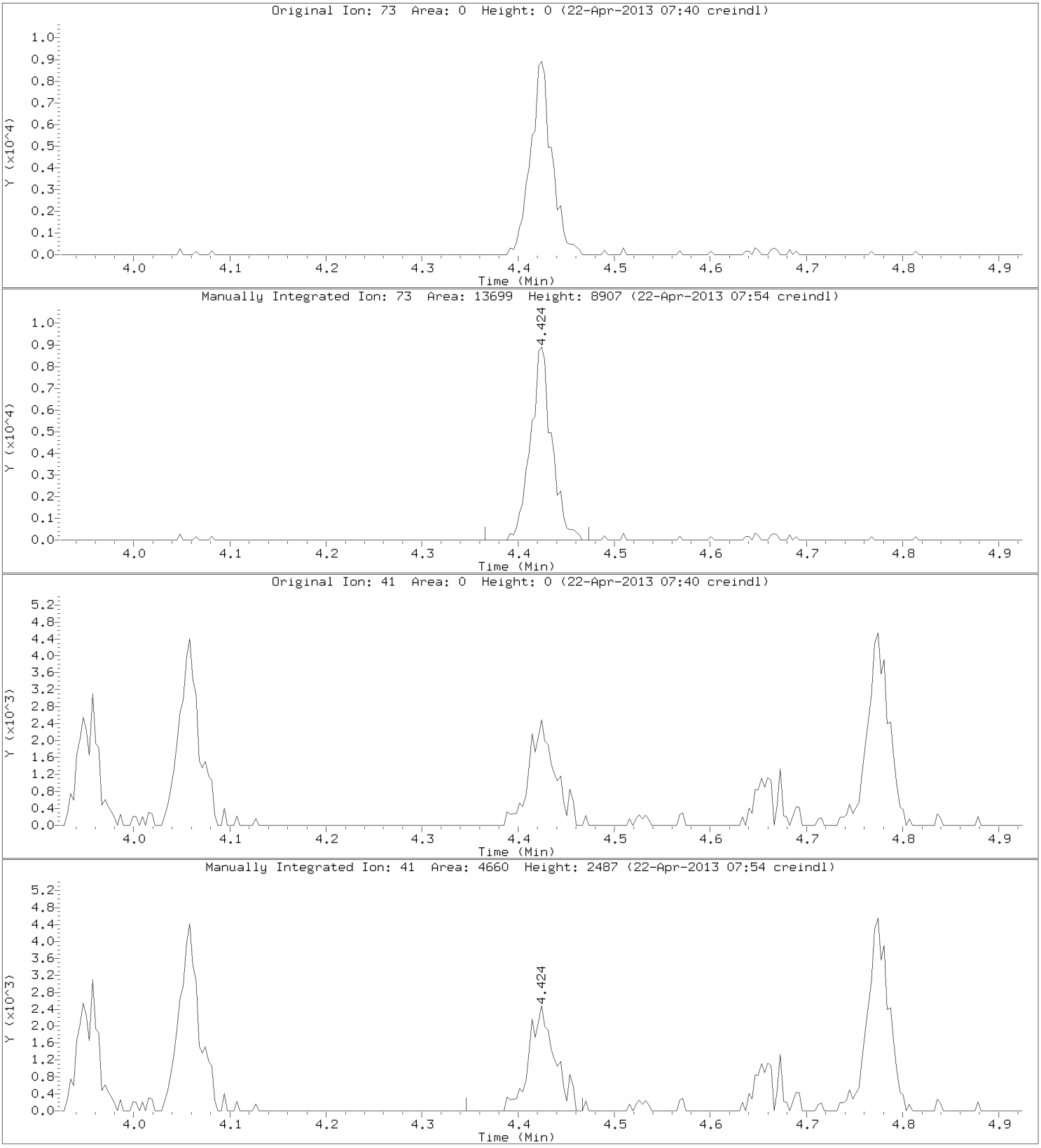


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Lab Sample ID: ICAL2



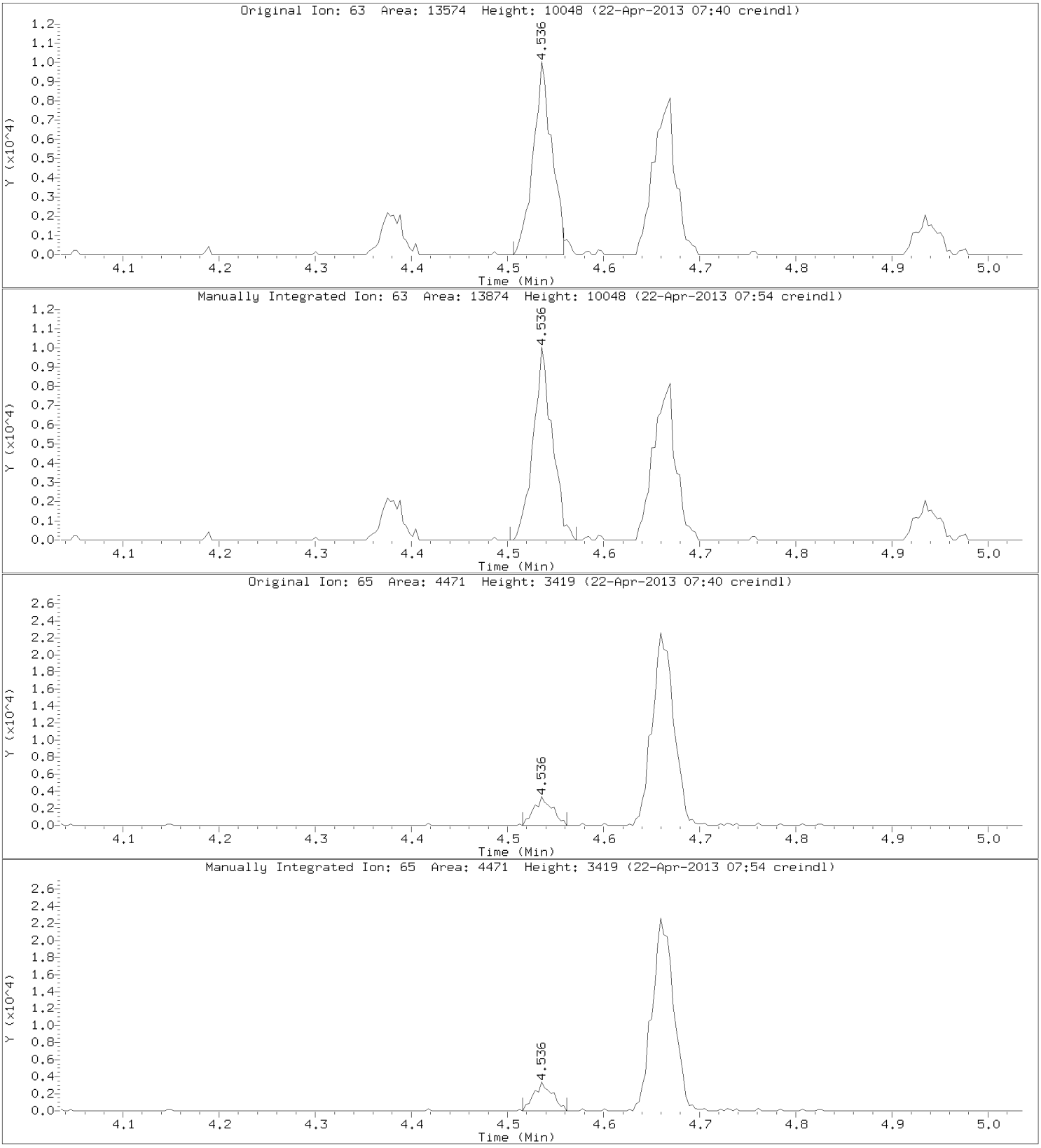
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



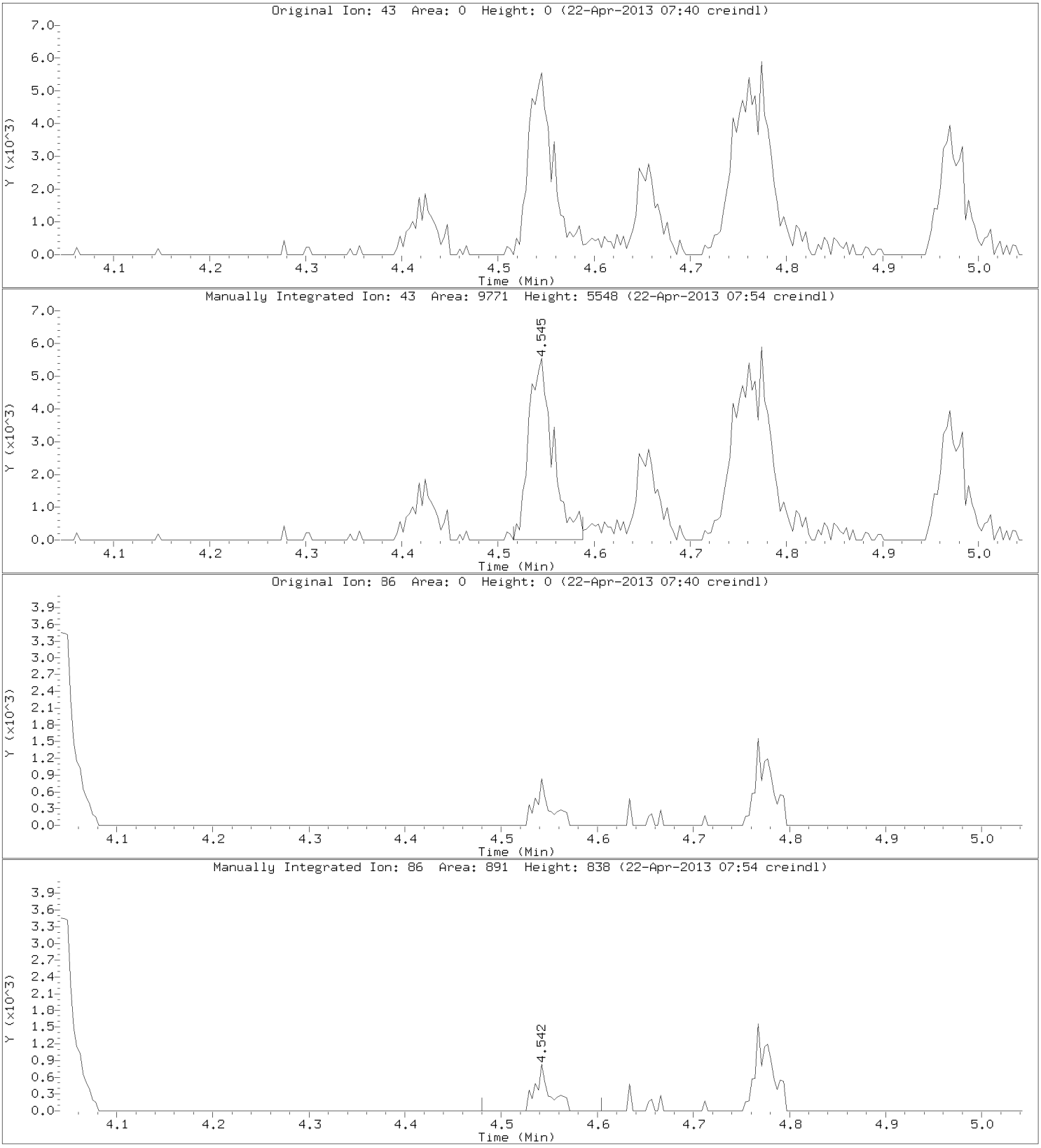
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,1-Dichloroethane
CAS Number: 75-34-3



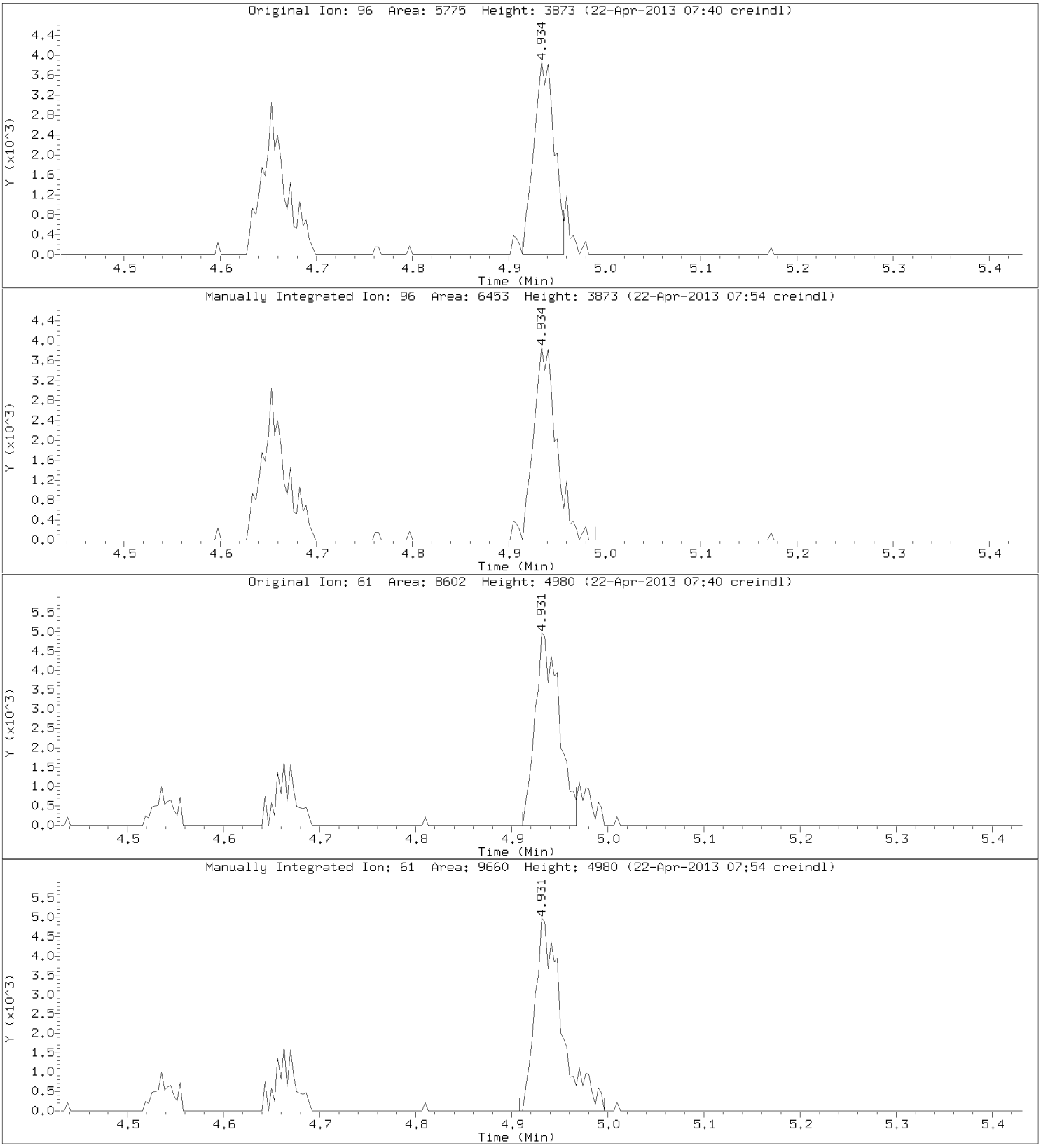
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Vinyl Acetate
CAS Number: 108-05-4

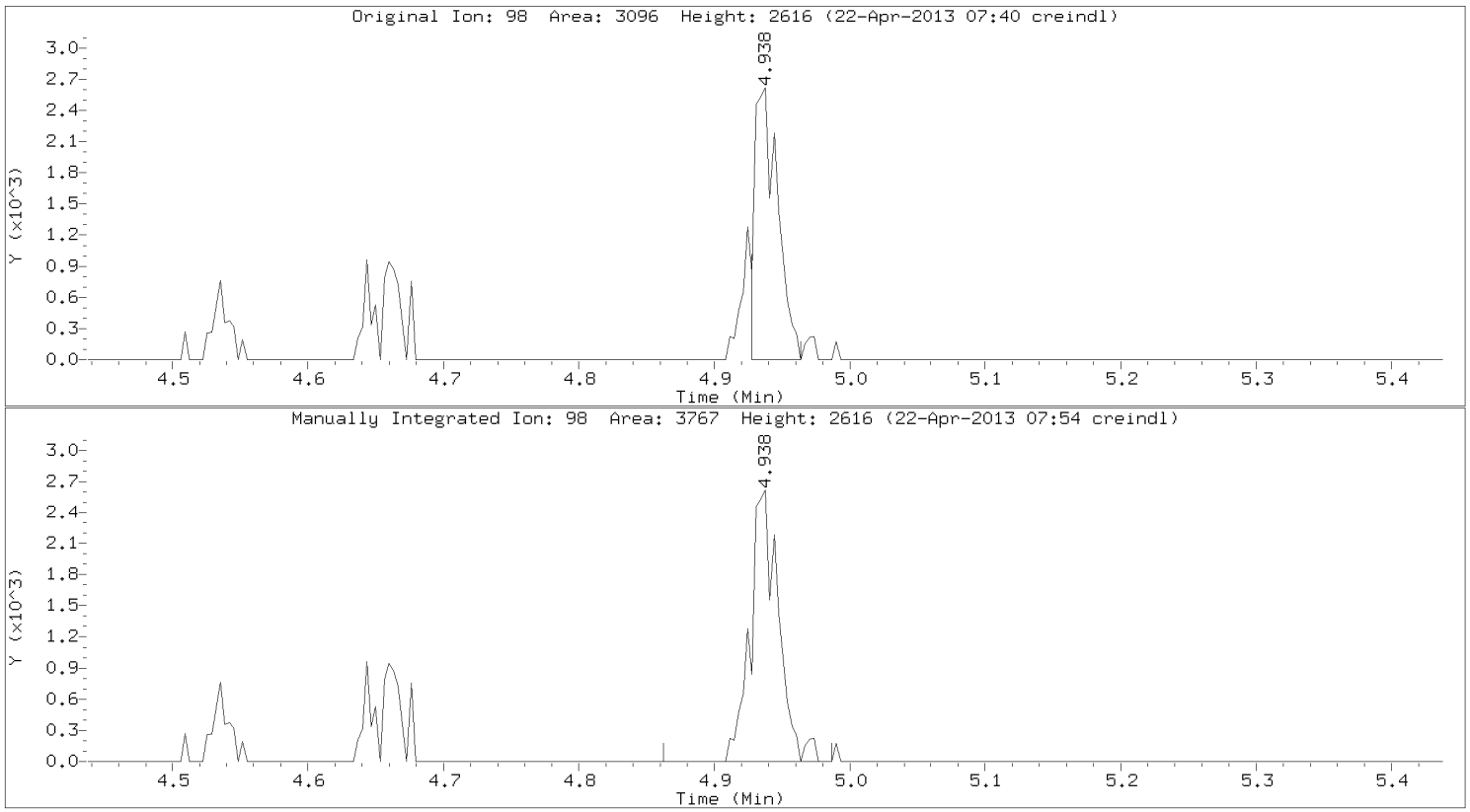


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: cis-1,2-Dichloroethene
CAS Number: 156-59-2

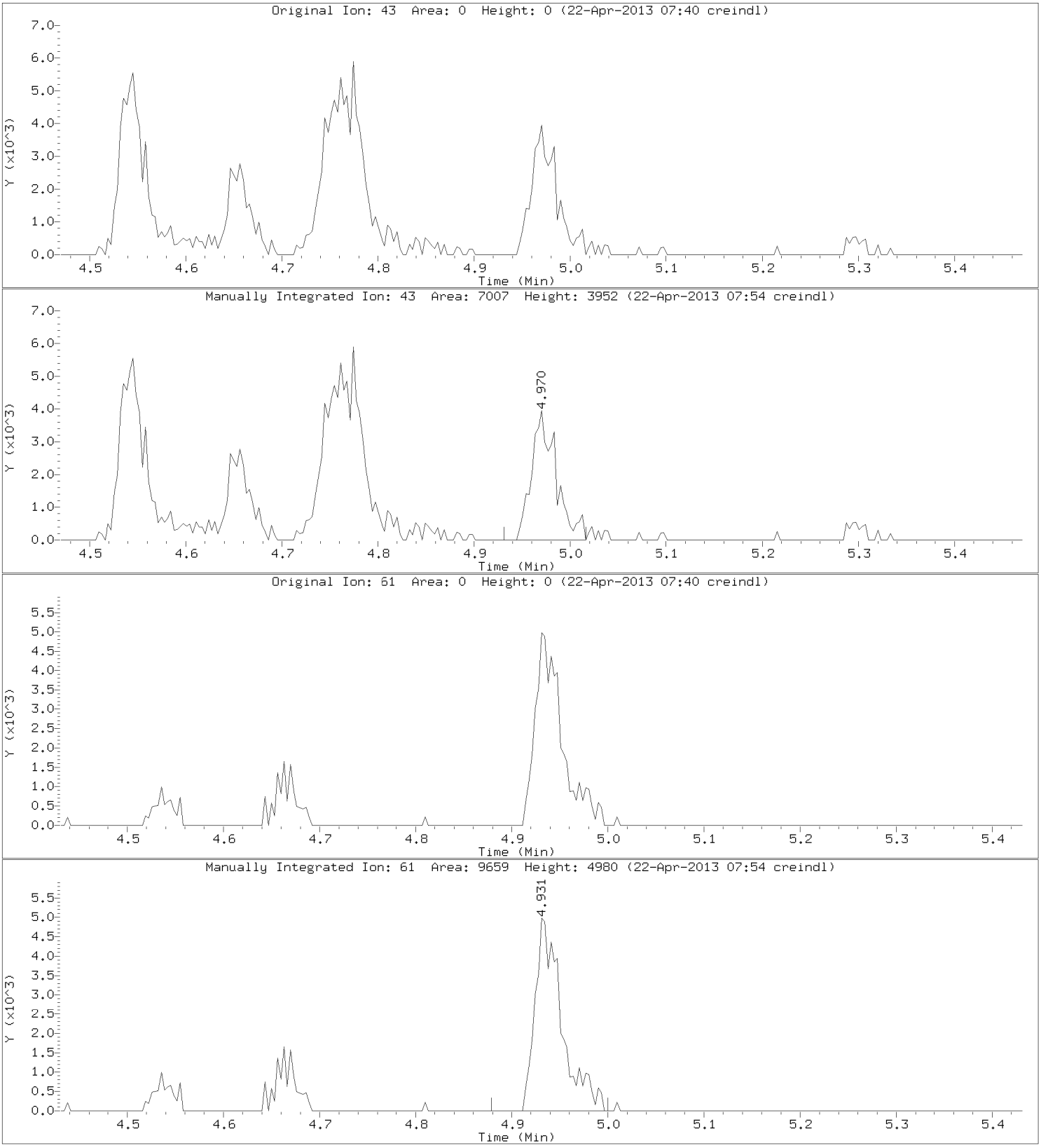


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Instrument: 10airD.i
Lab Sample ID: ICAL2

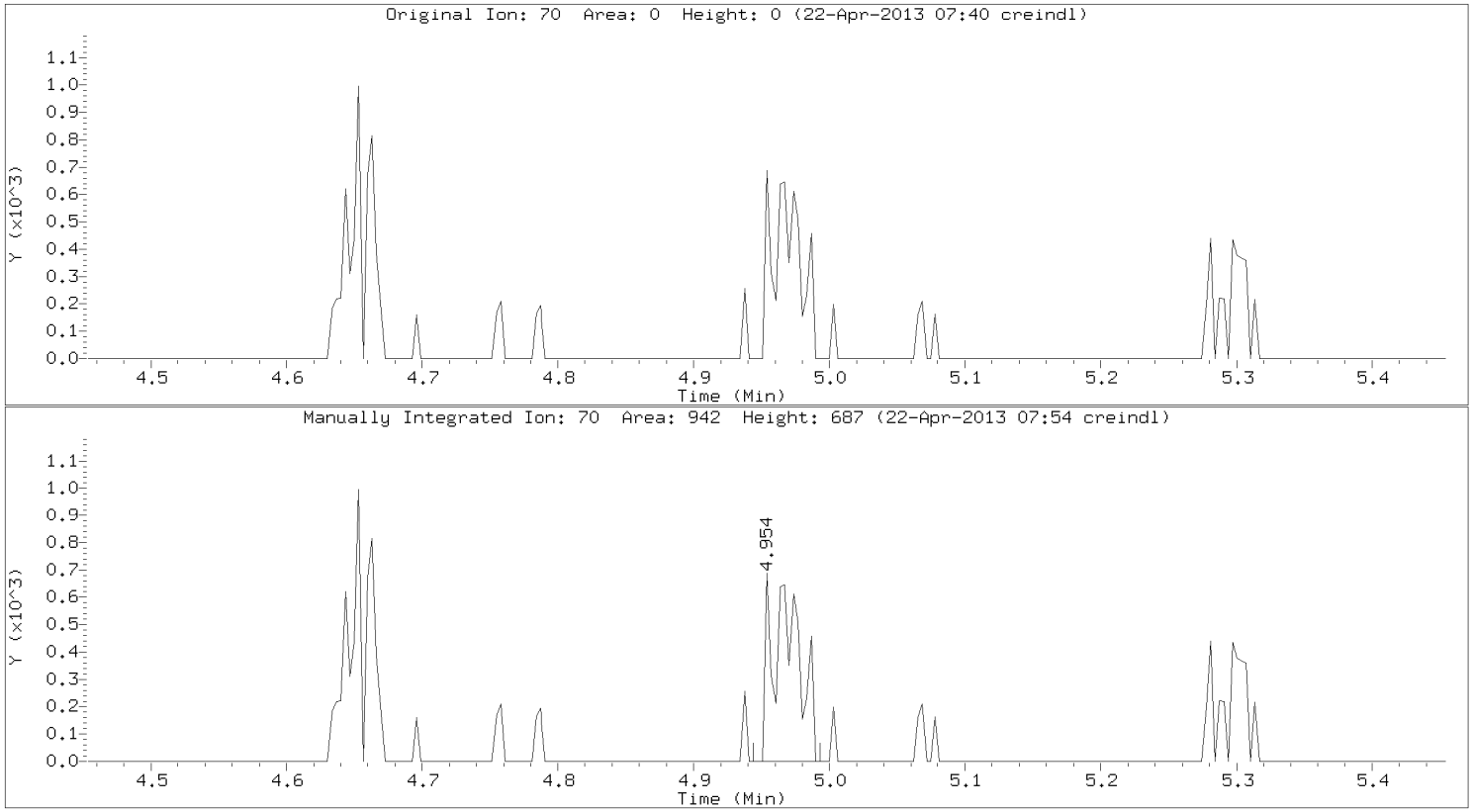


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Instrument: 10airD.i
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Compound: Ethyl Acetate
CAS Number: 141-78-6

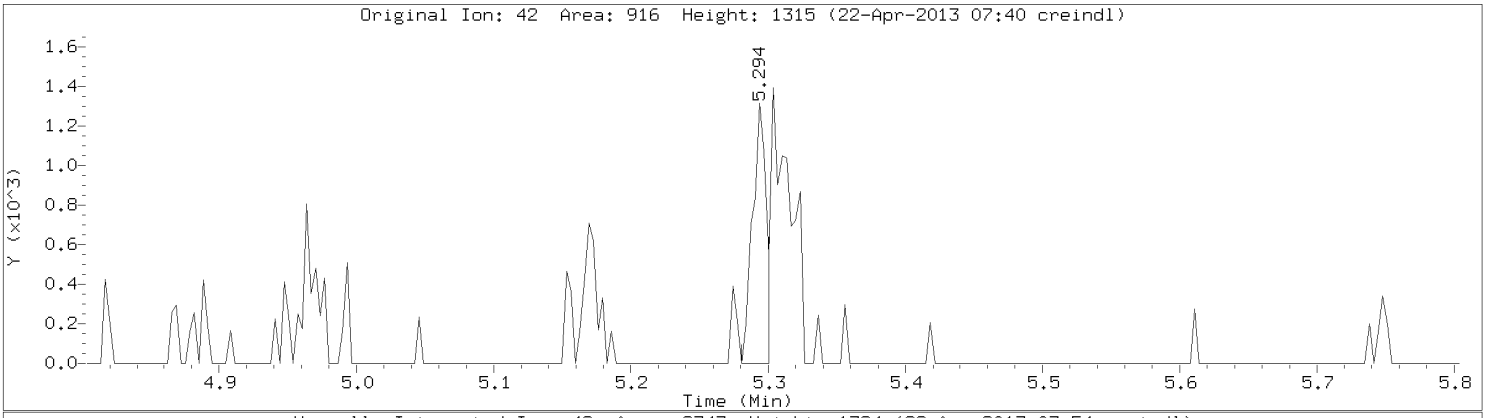


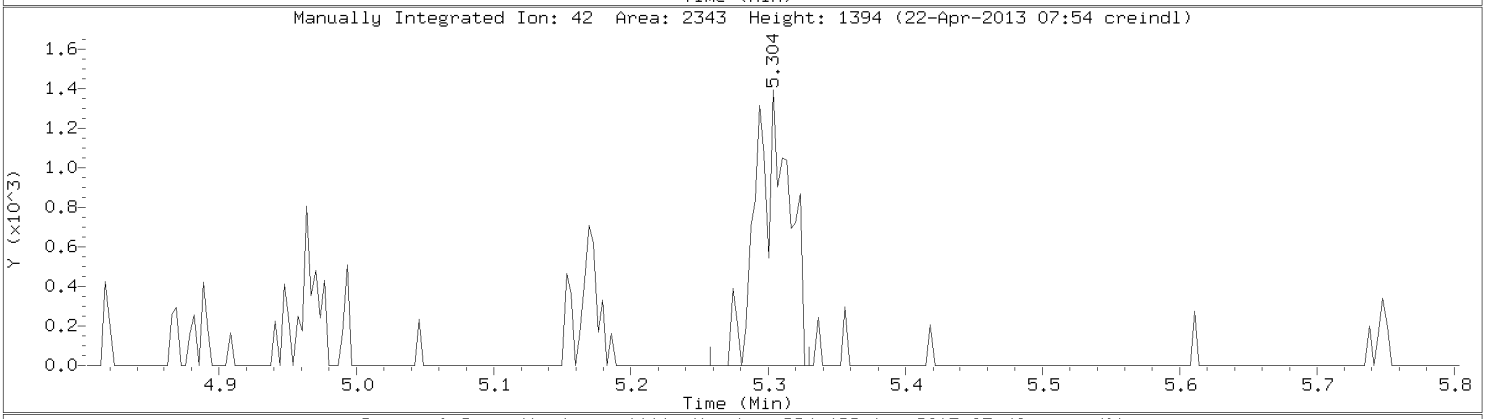
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Instrument: 10airD.i
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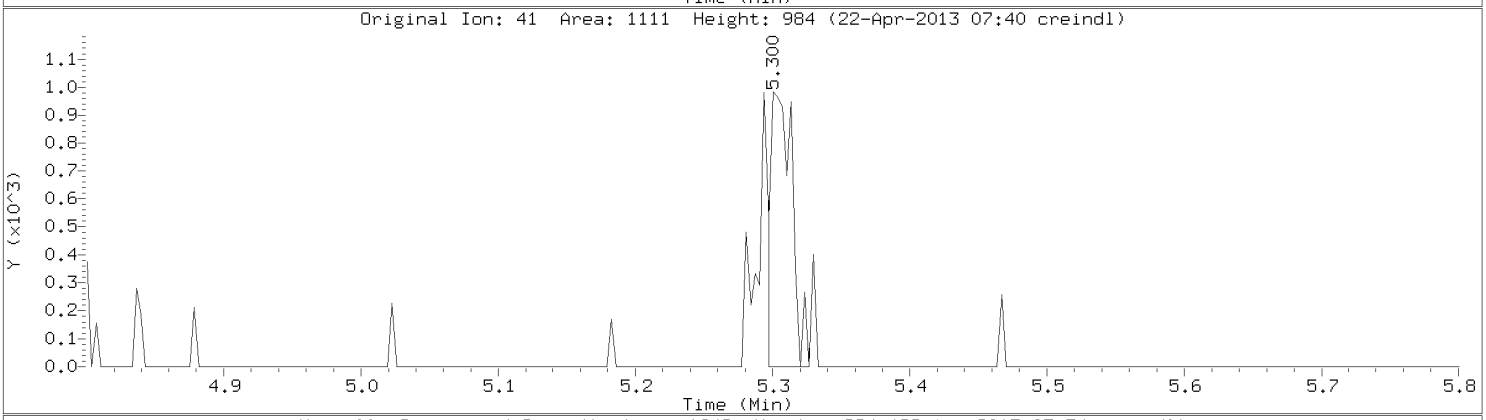


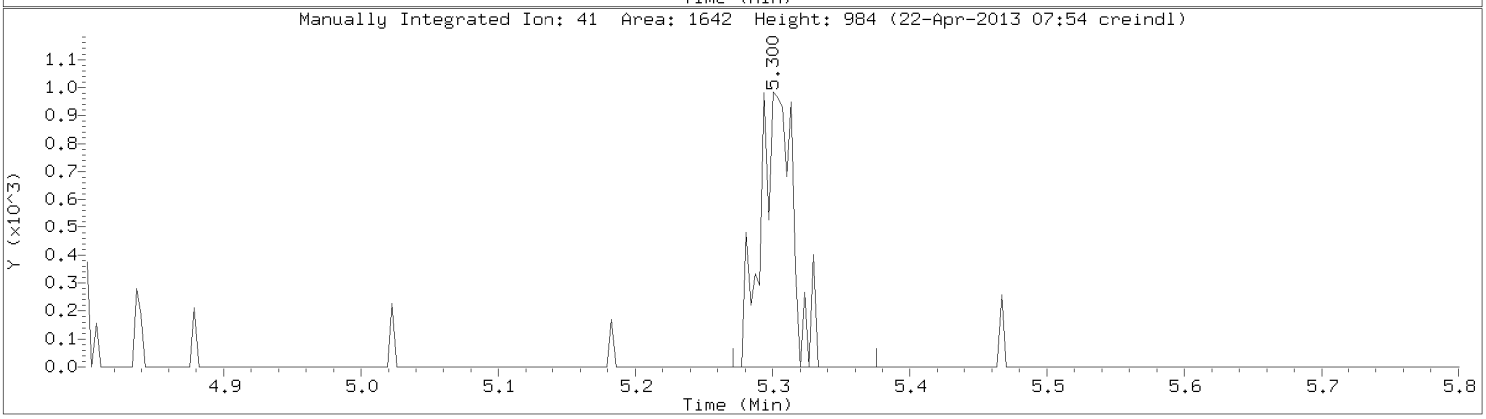
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Tetrahydrofuran
CAS Number: 109-99-9

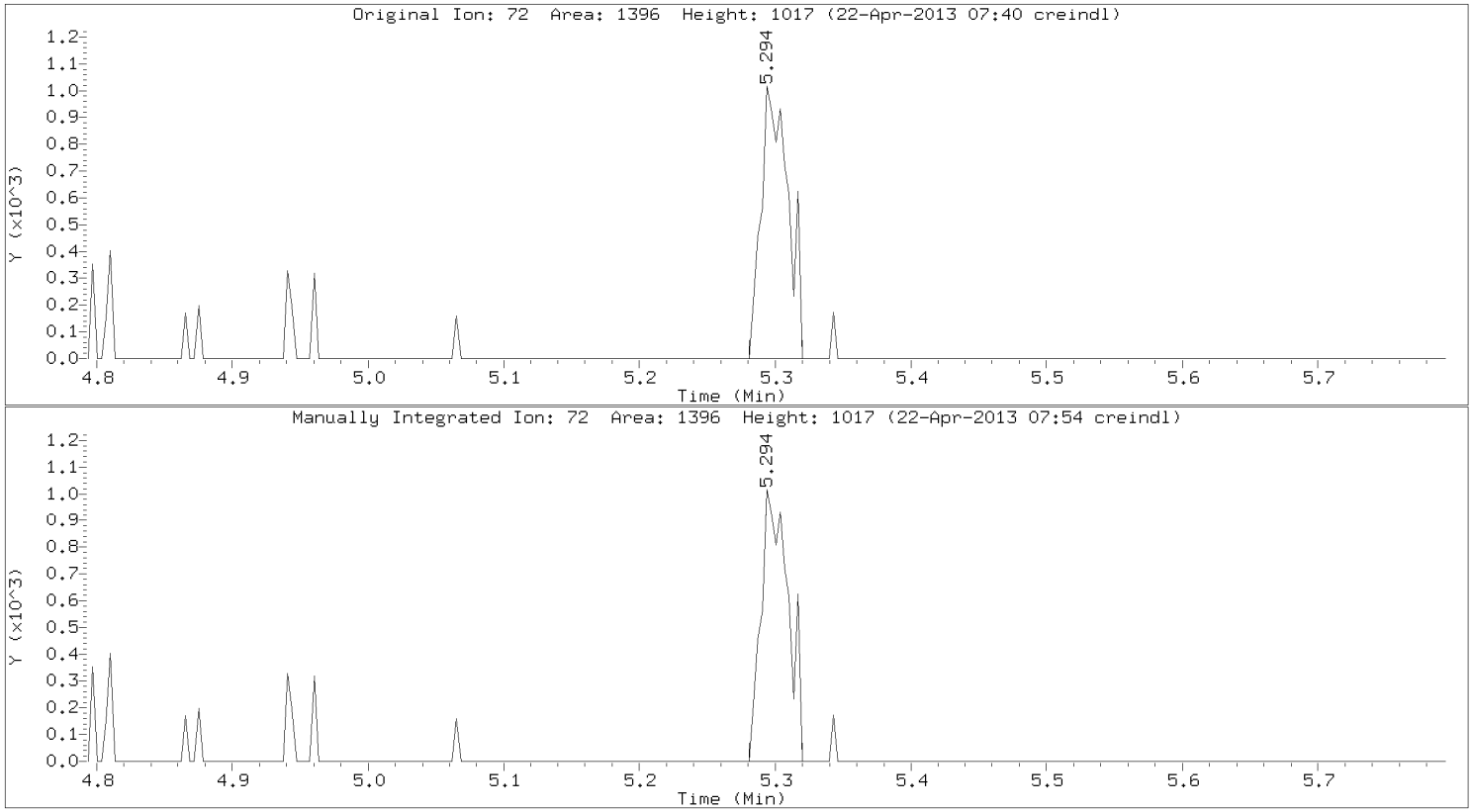






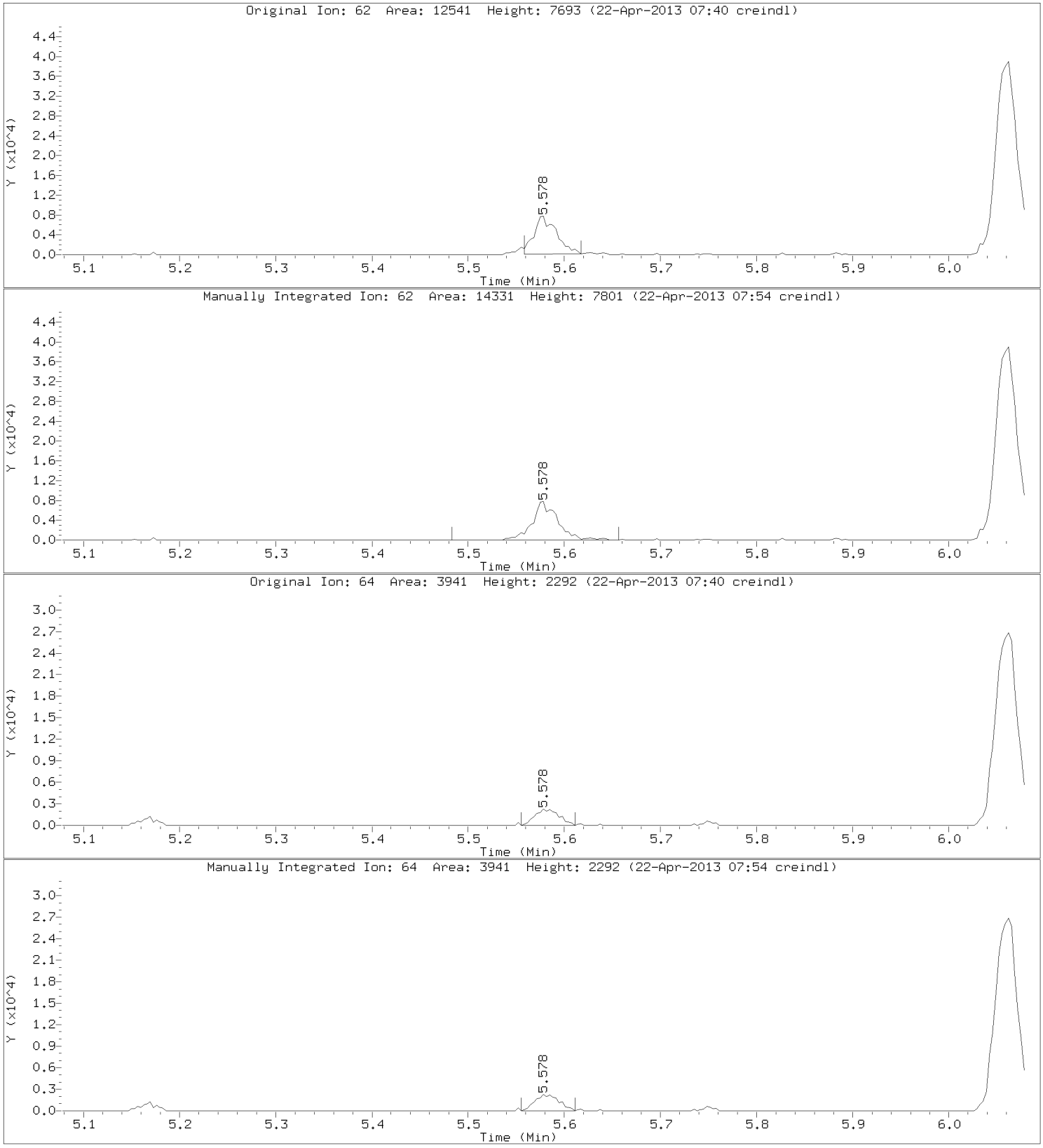


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Lab Sample ID: ICAL2



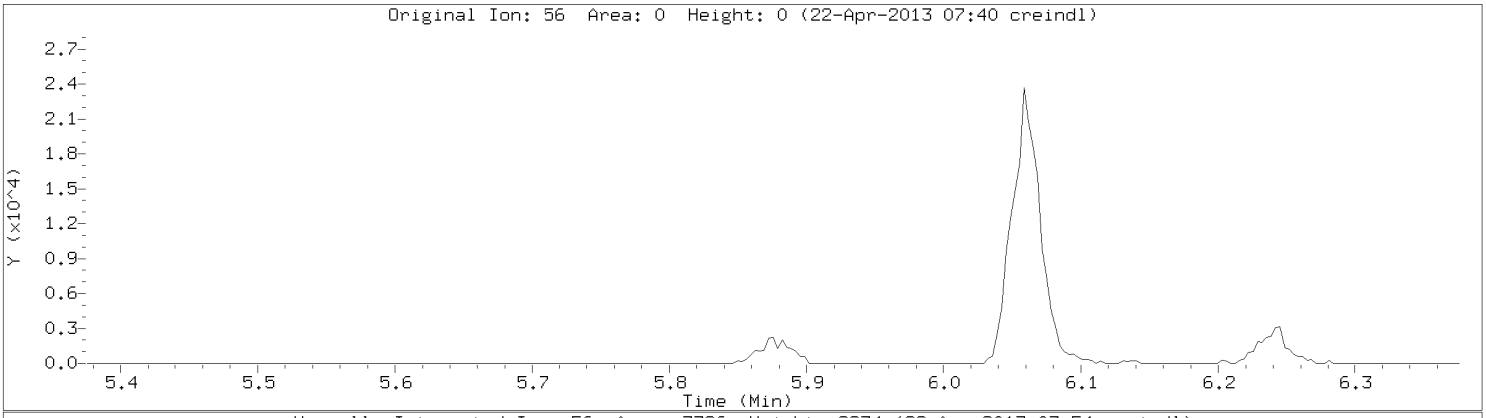
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Lab Sample ID: ICAL2

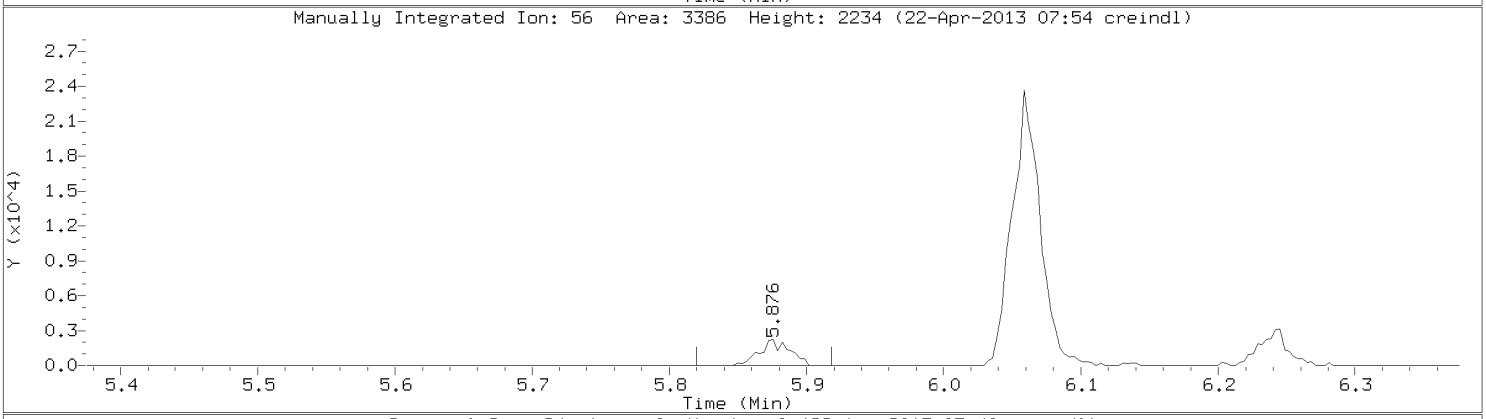
Compound: 1,2-Dichloroethane
CAS Number: 107-06-2

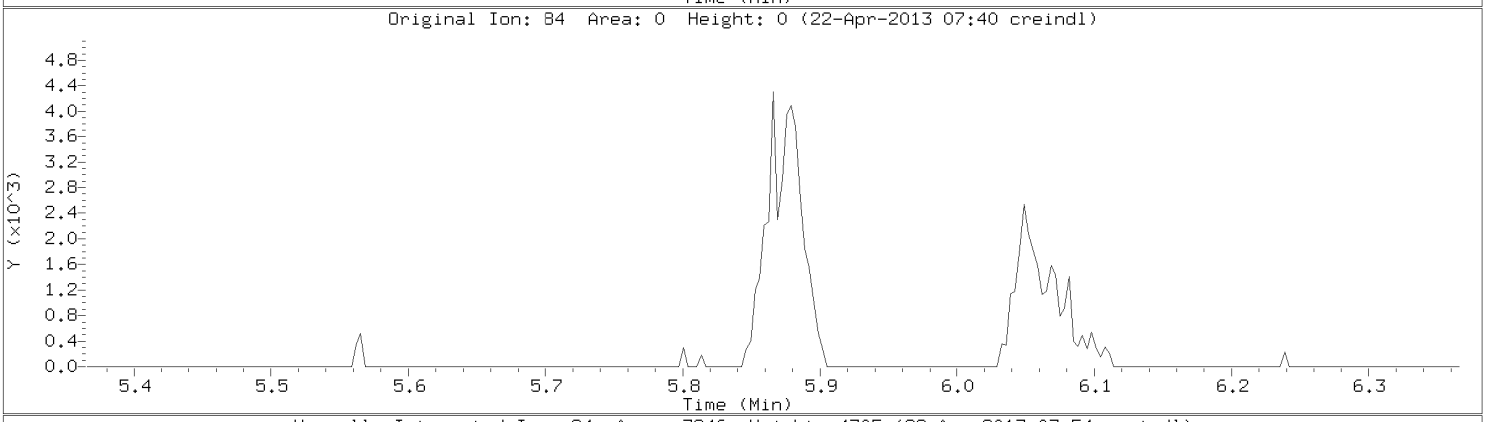


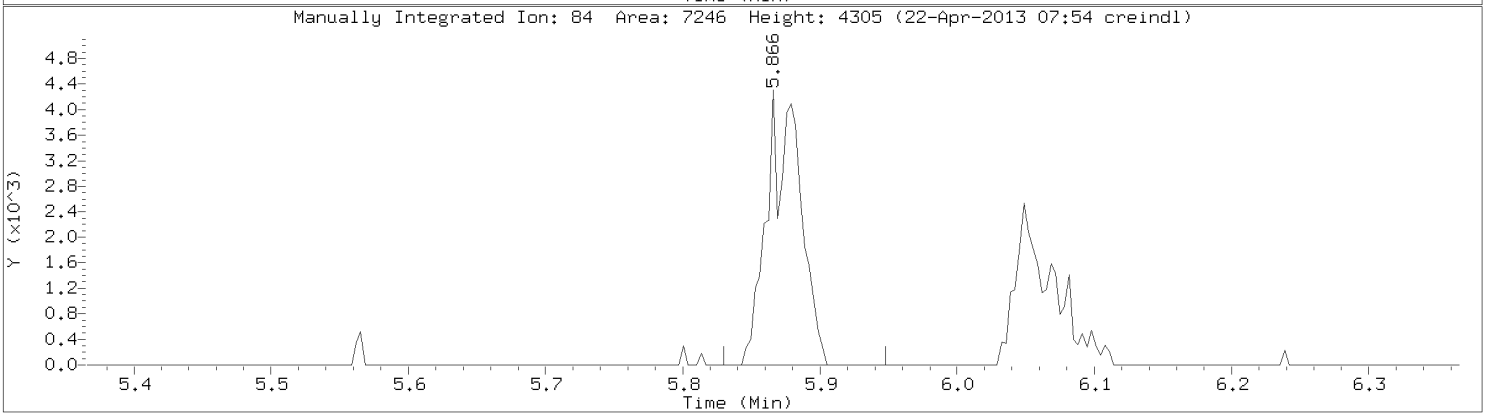
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Cyclohexane
CAS Number: 110-82-7

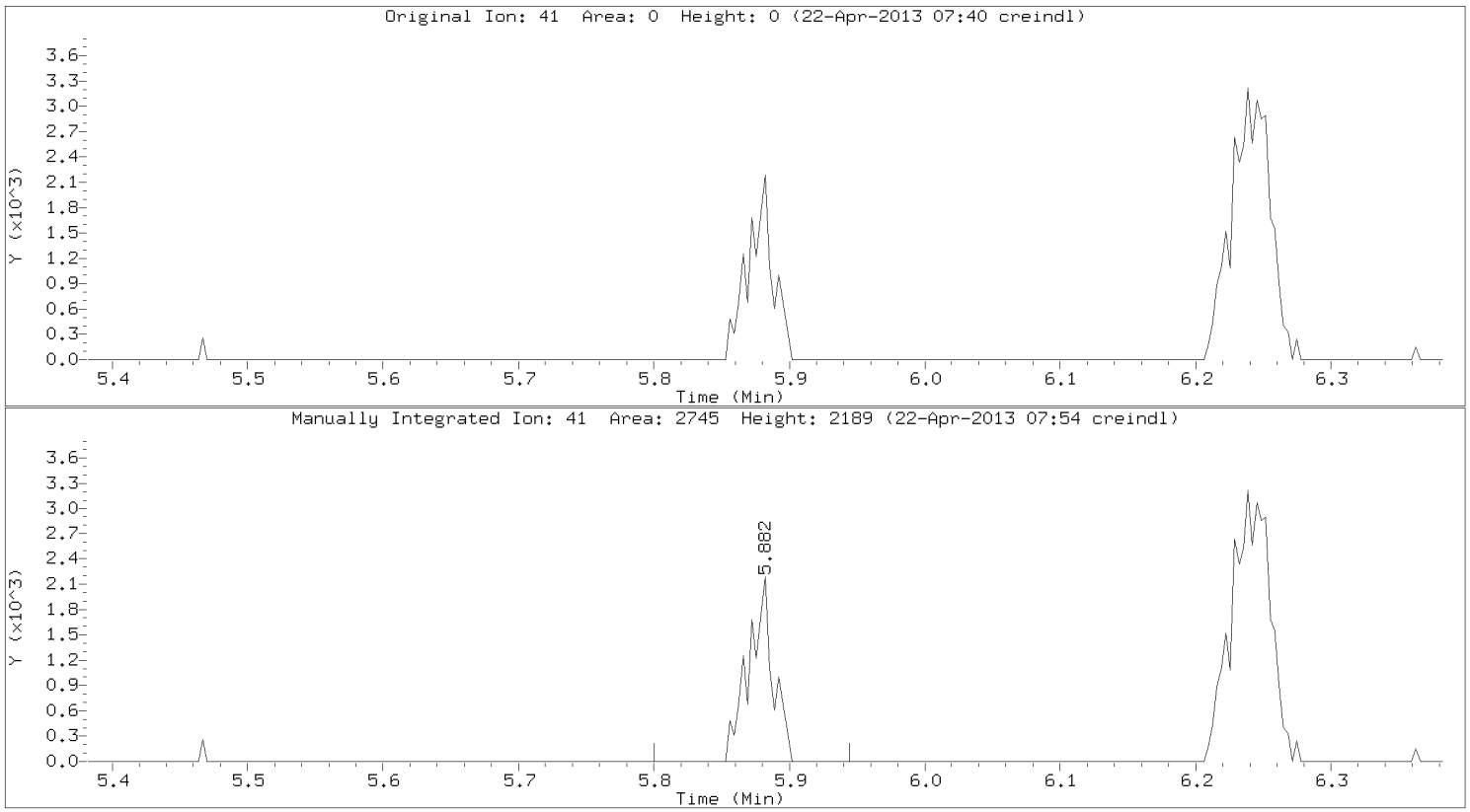






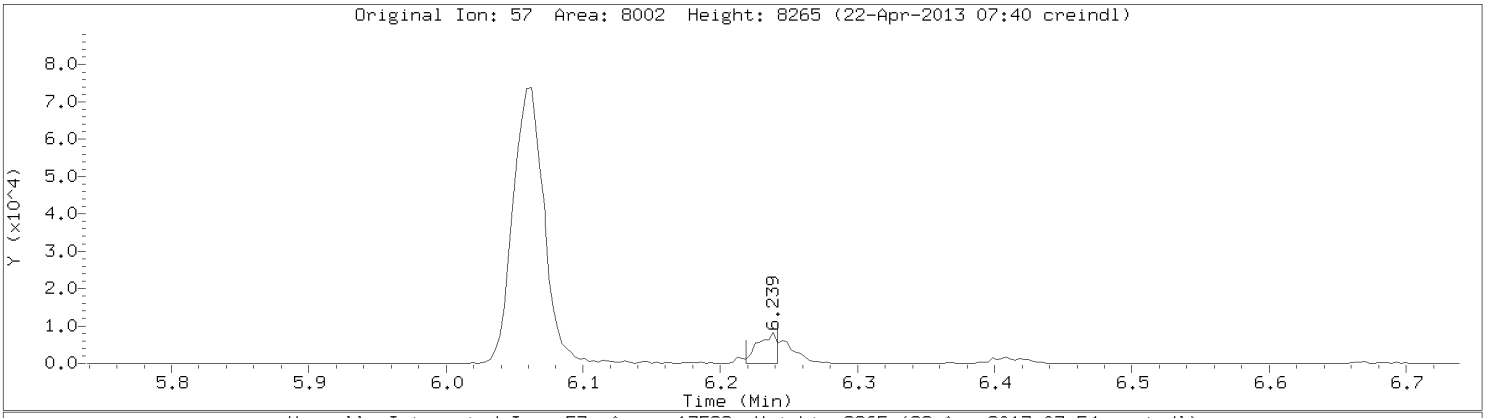


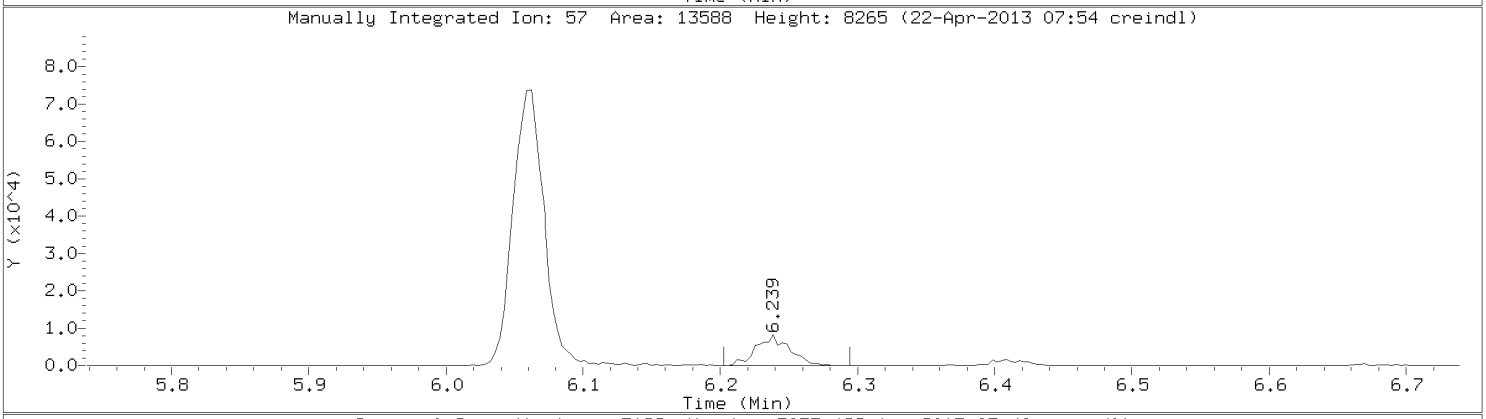
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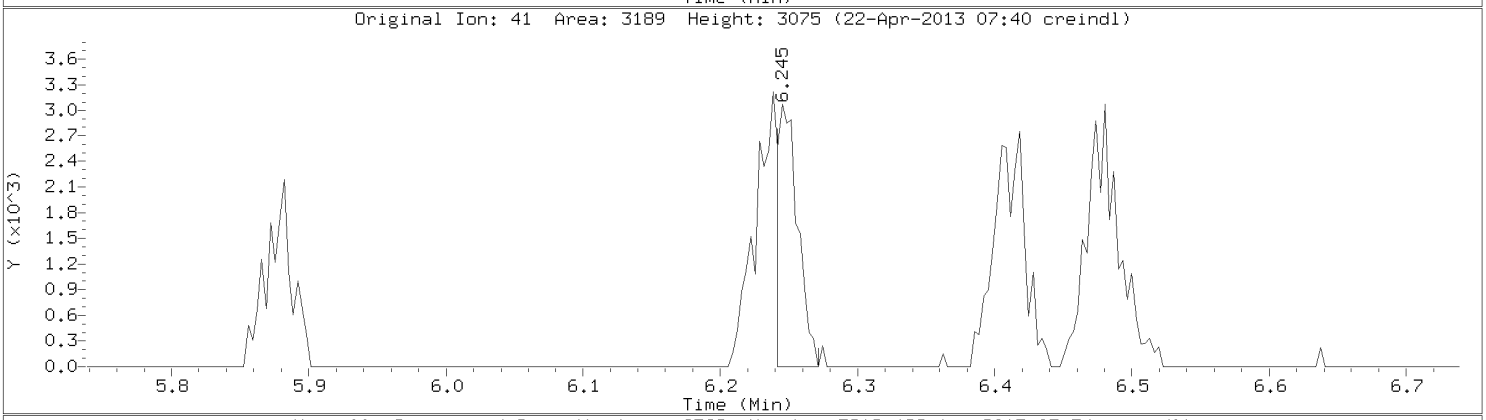


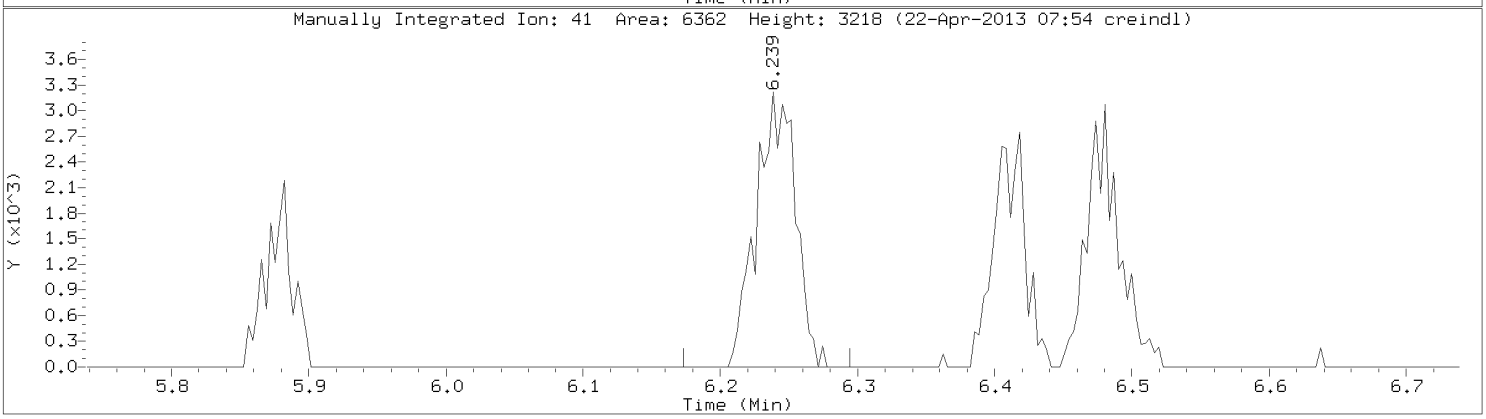
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

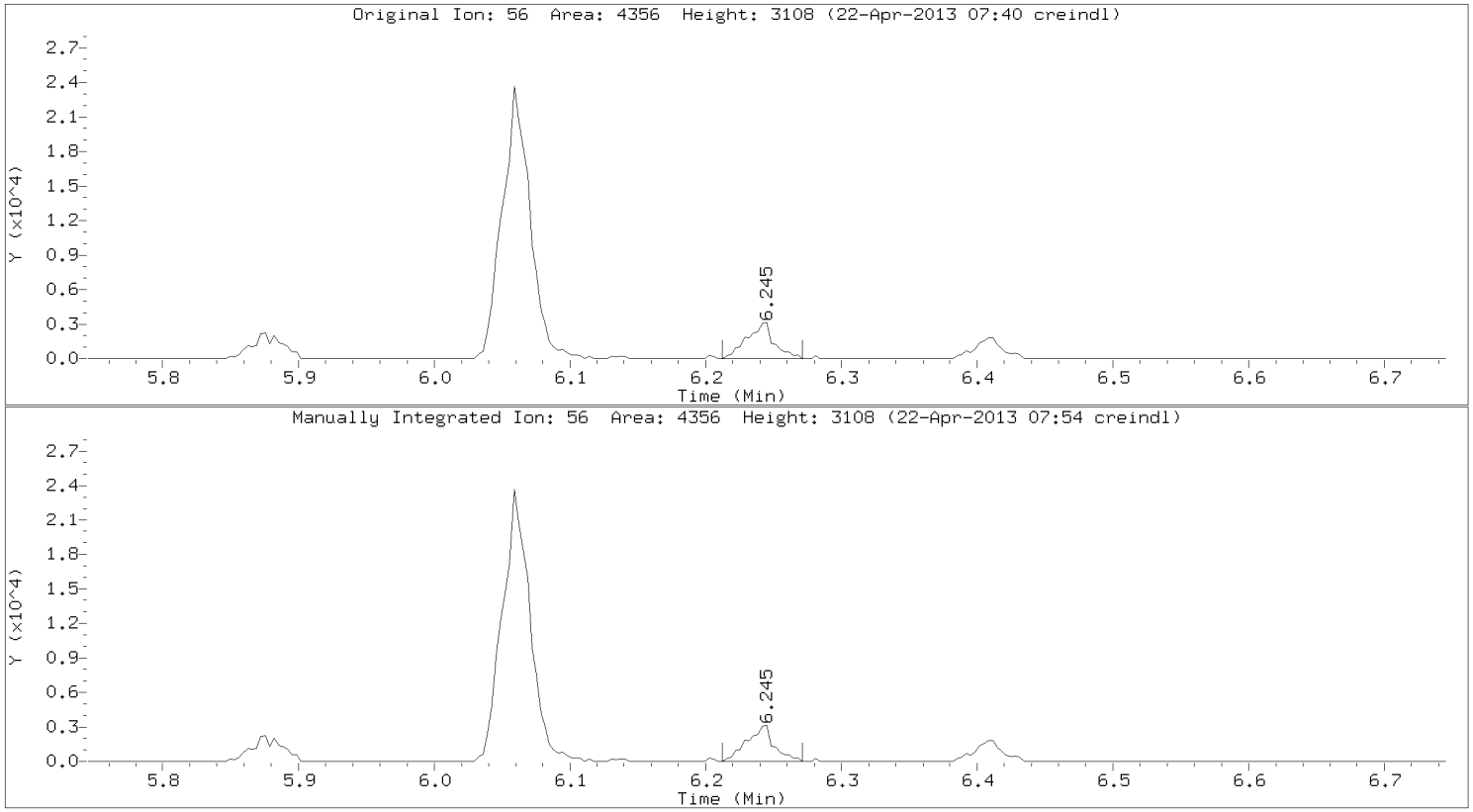






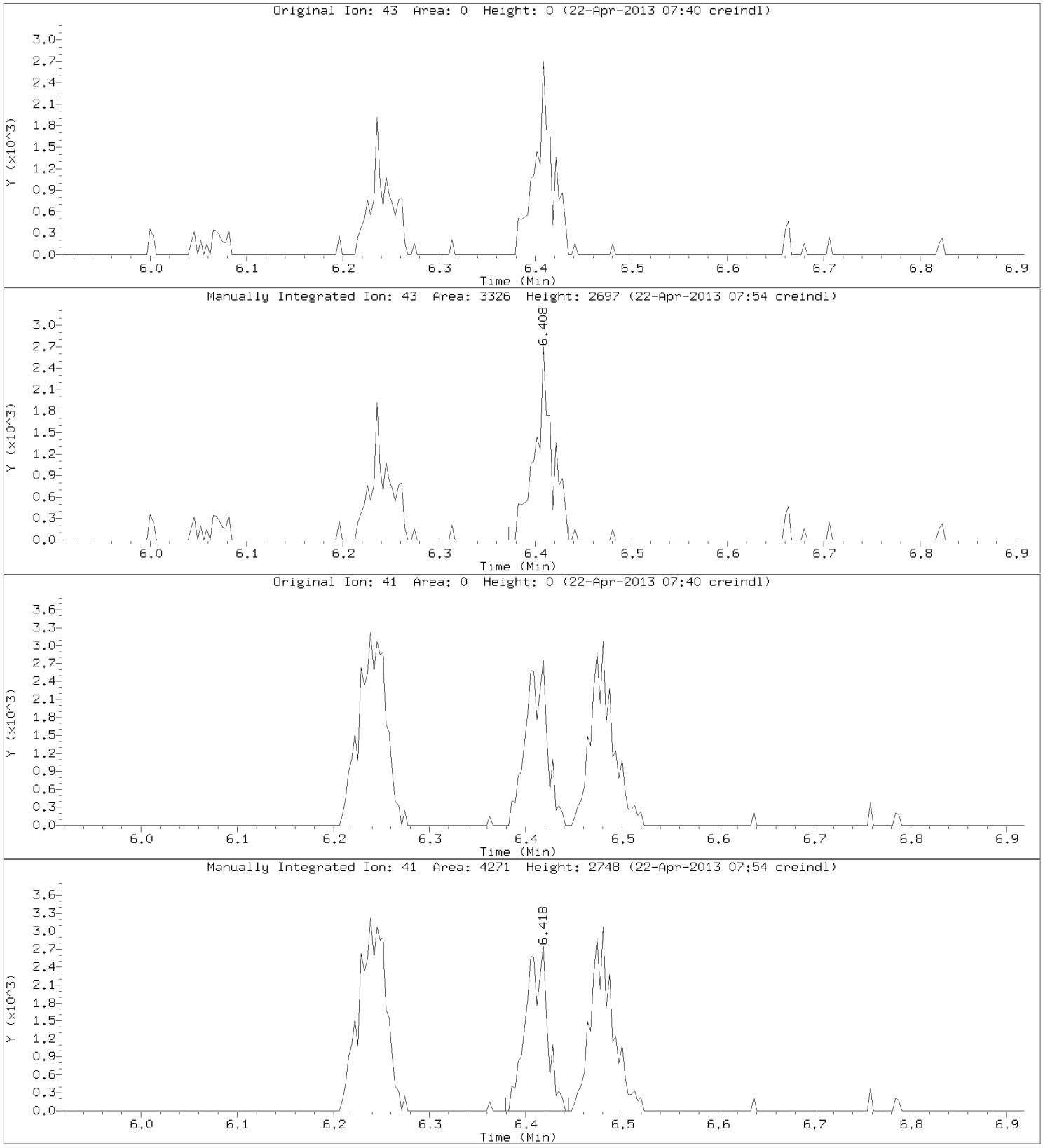


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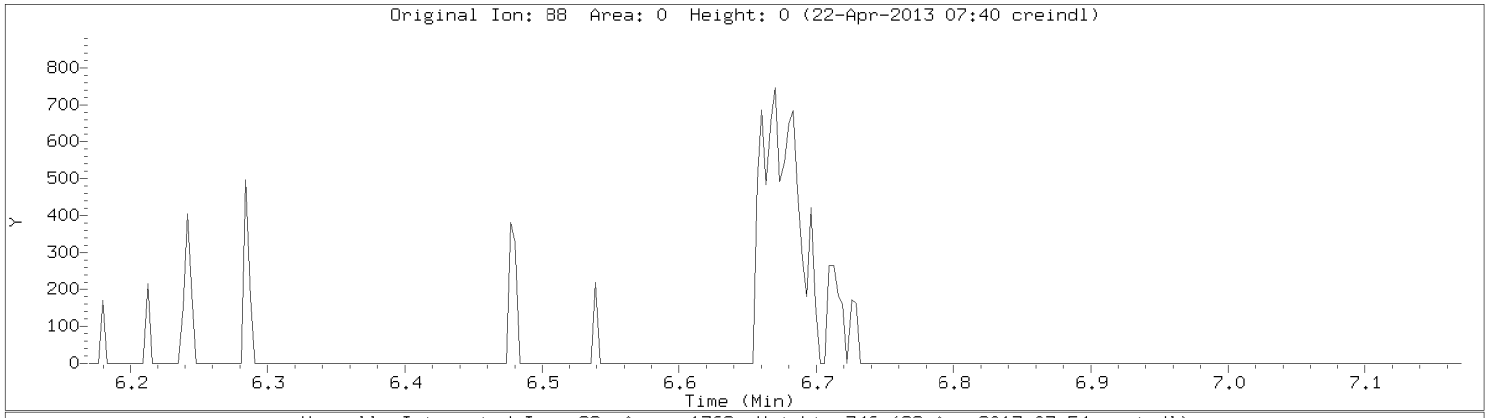
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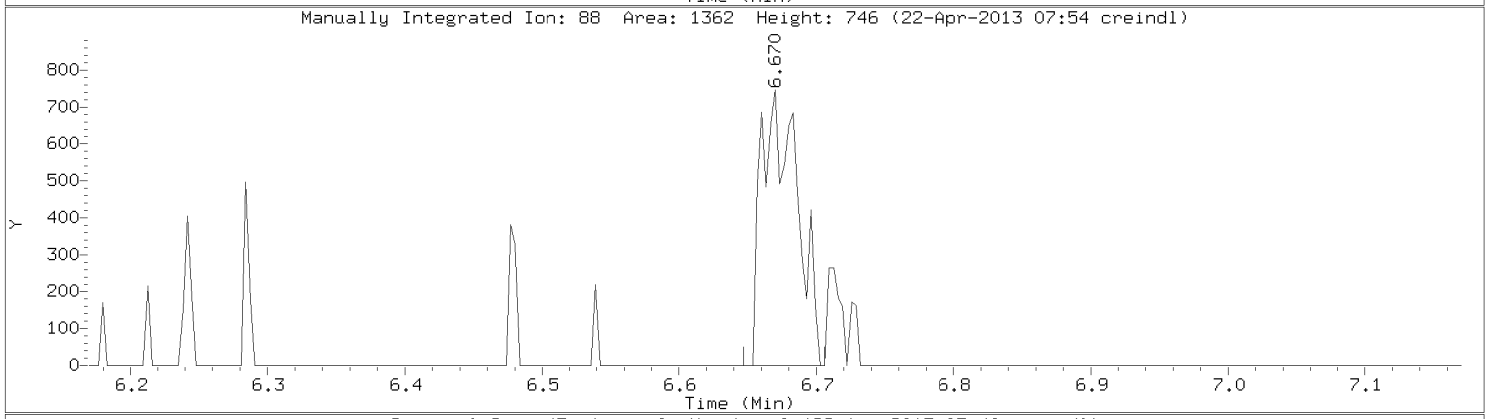
Compound: Heptane
CAS Number: 142-82-5

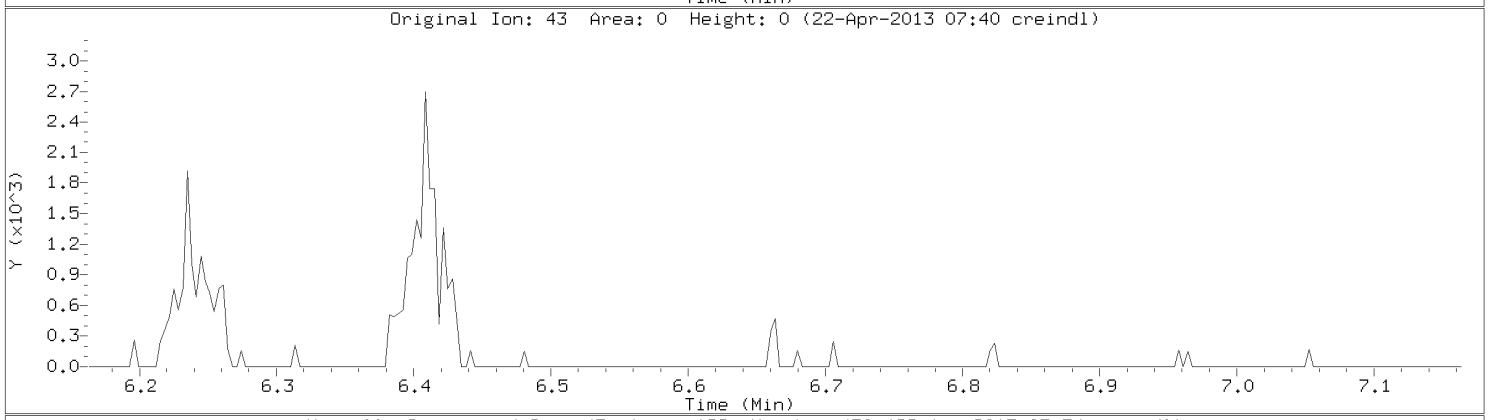


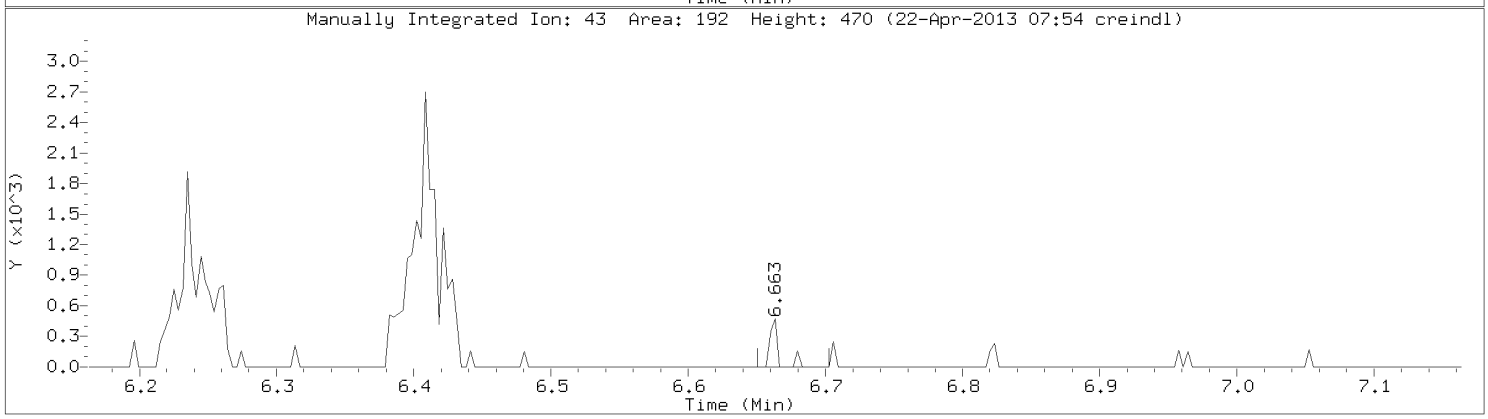
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Injection Date: 21-APR-2013 10:45
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Lab Sample ID: ICAL2

Compound: 1,4-Dioxane
CAS Number: 123-91-1



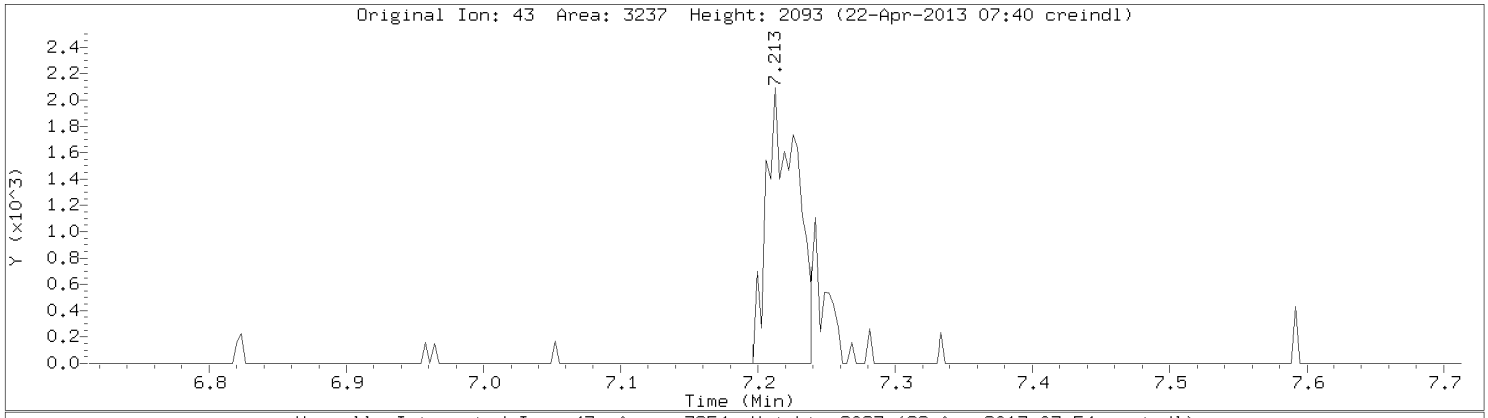


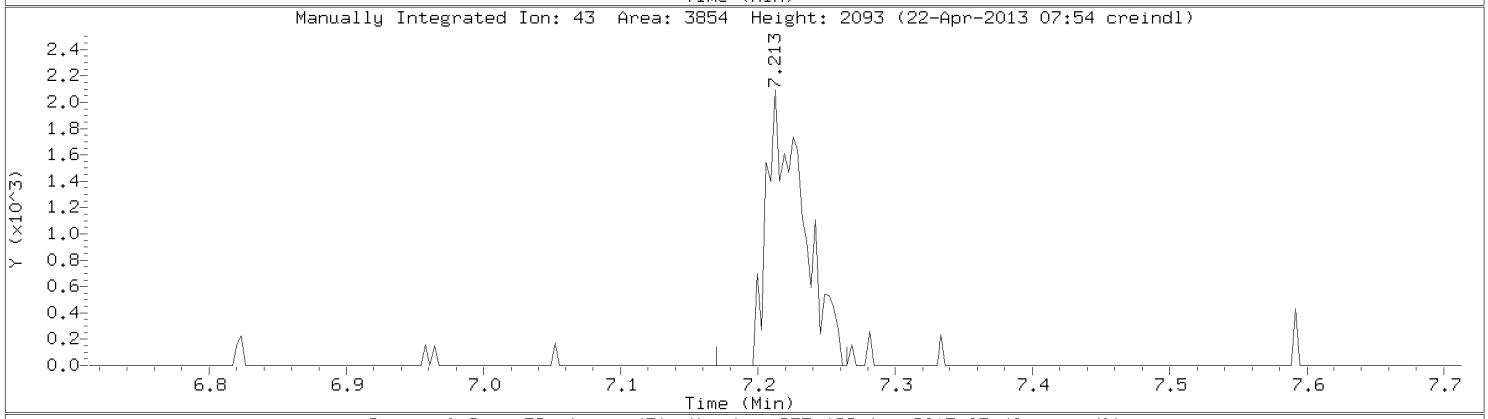


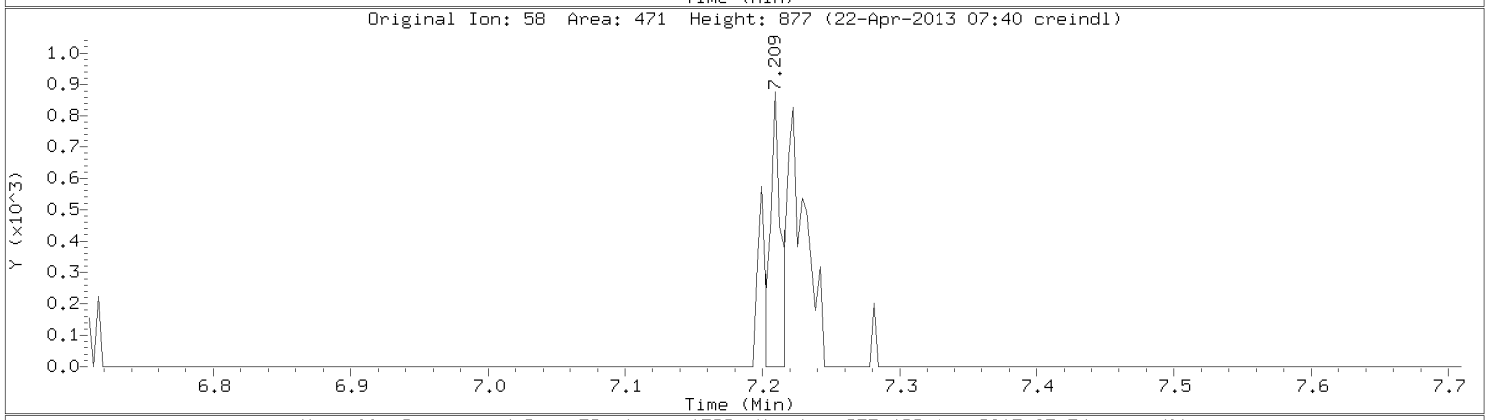


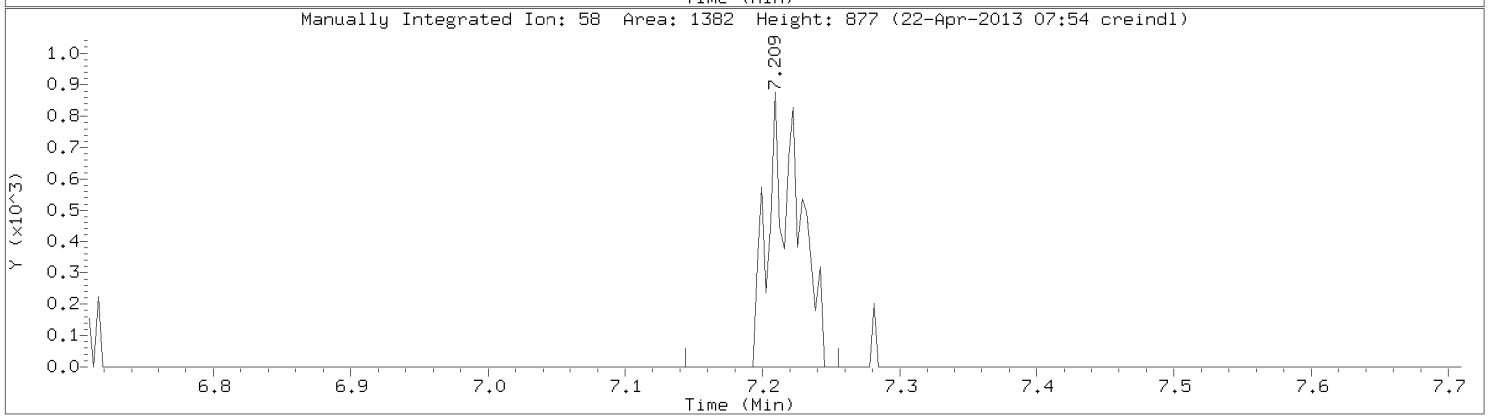
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Methyl Isobutyl Ketone
CAS Number: 108-10-1

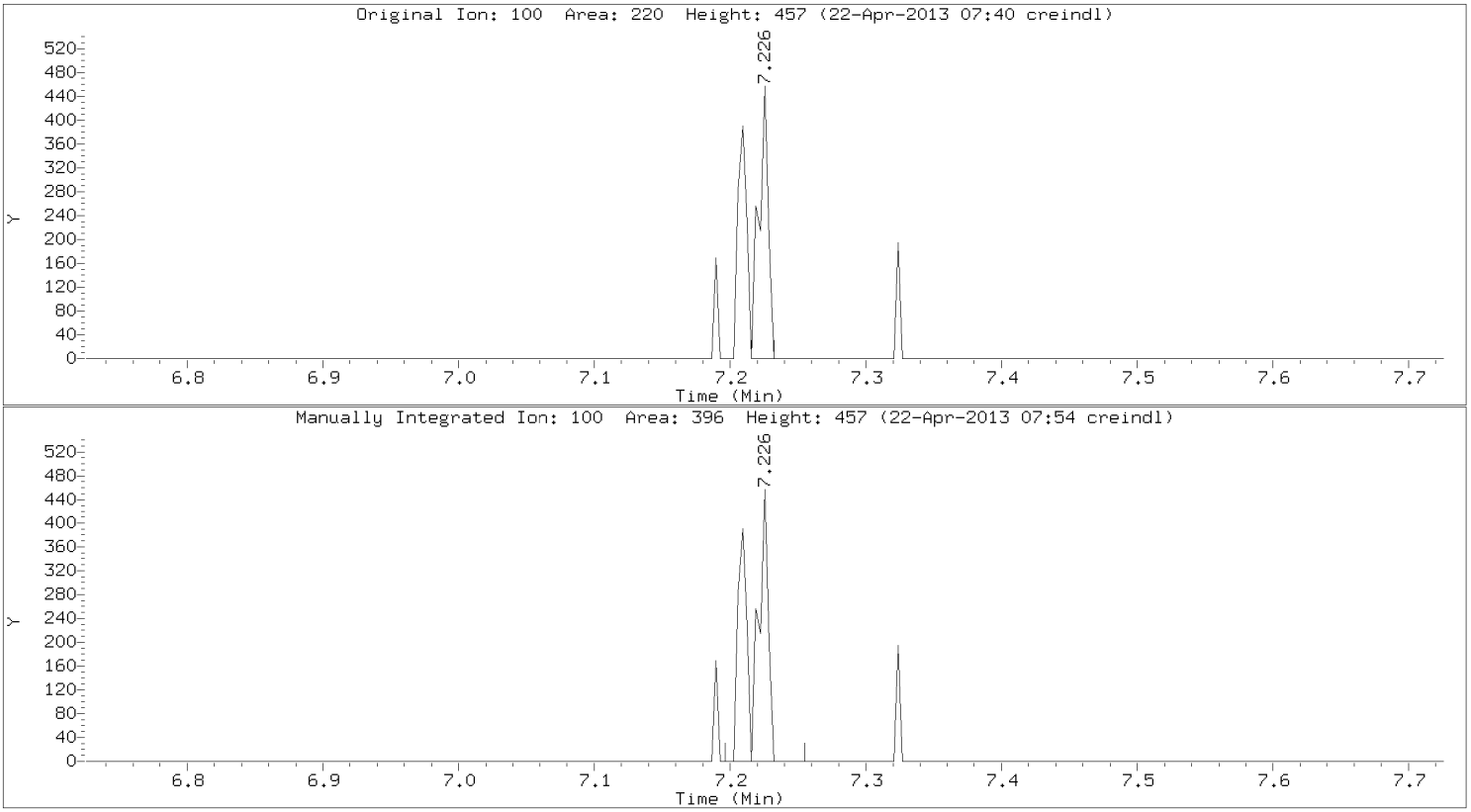






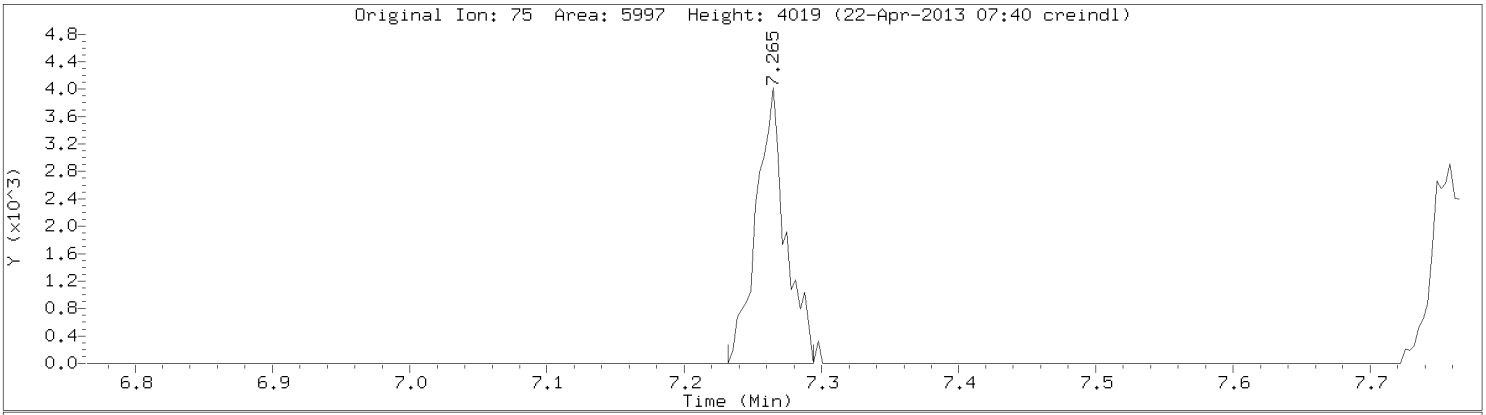


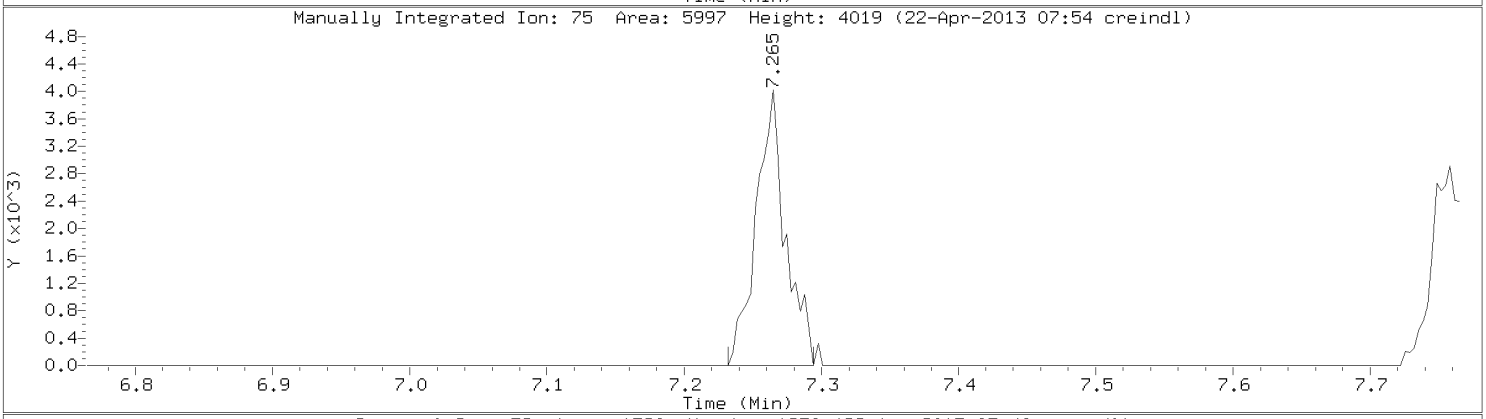
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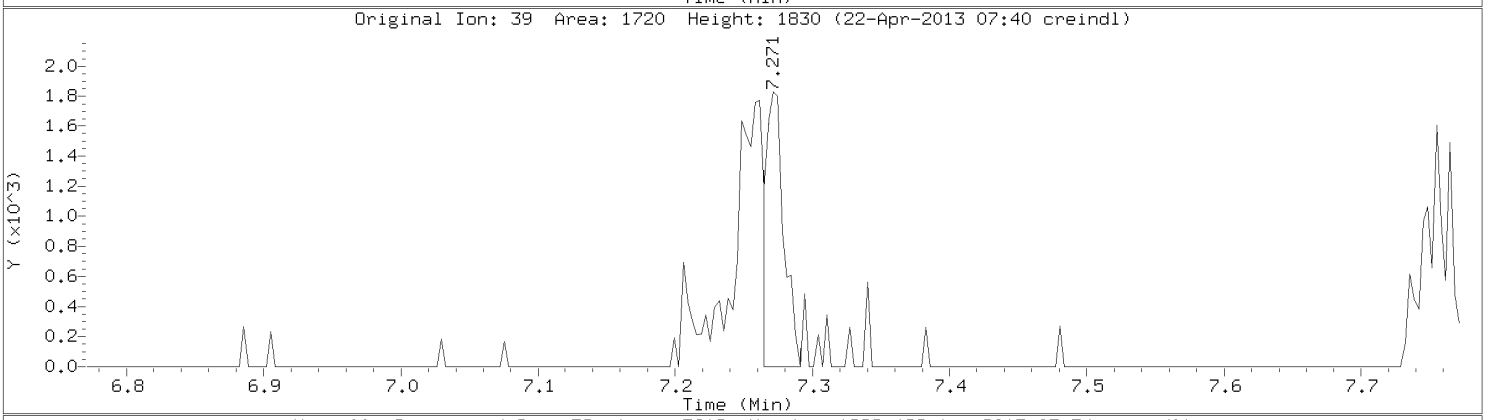


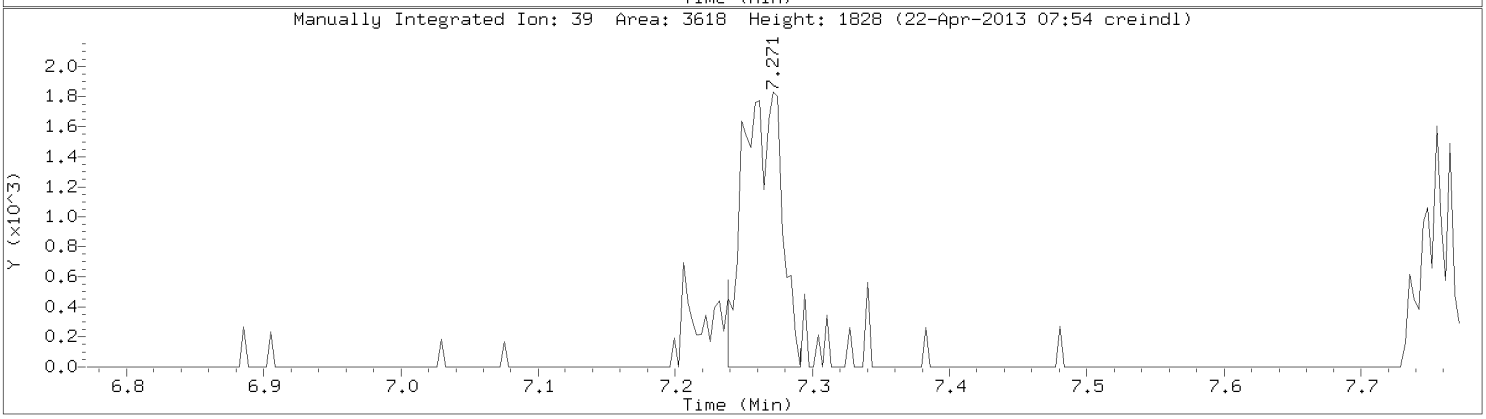
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5

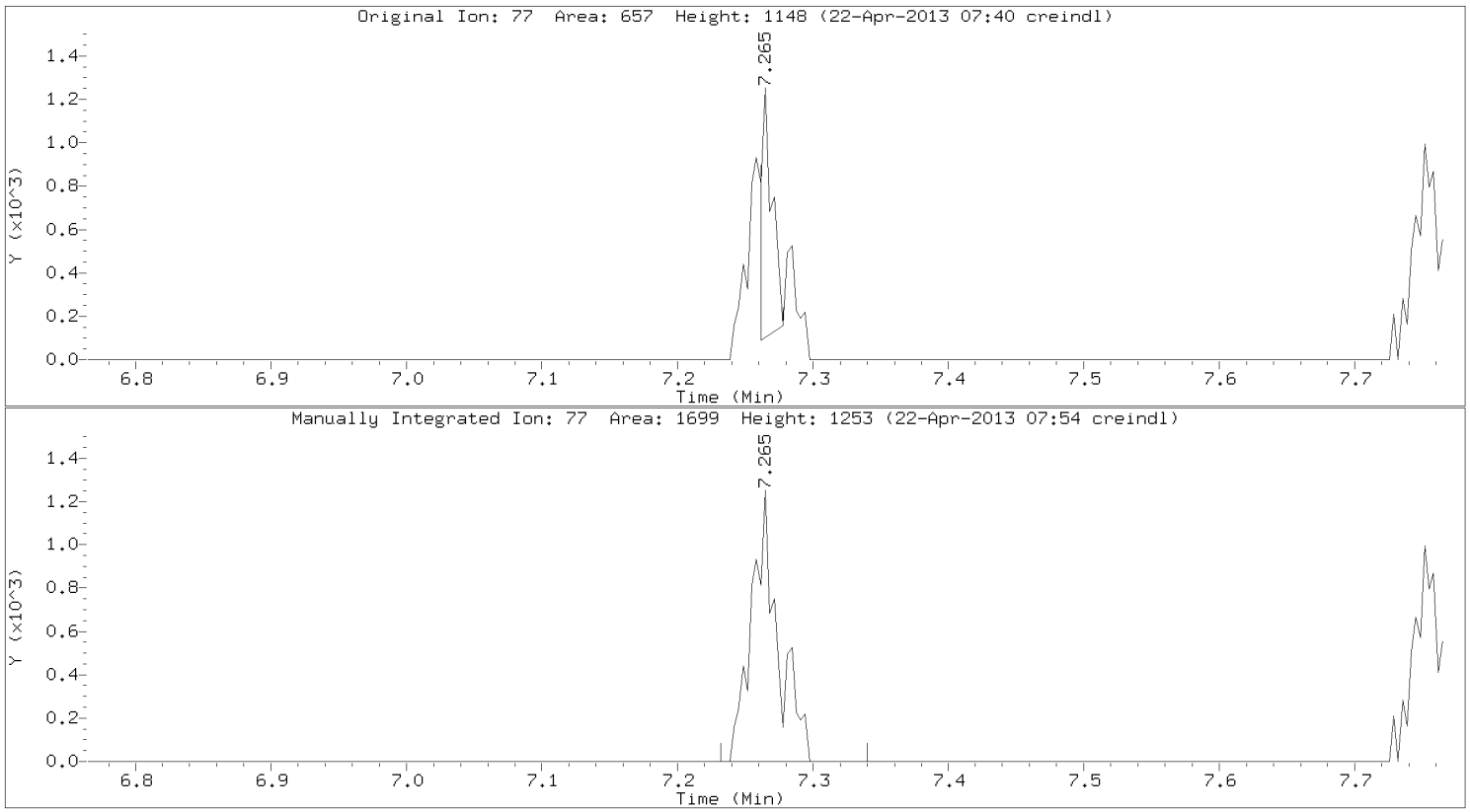






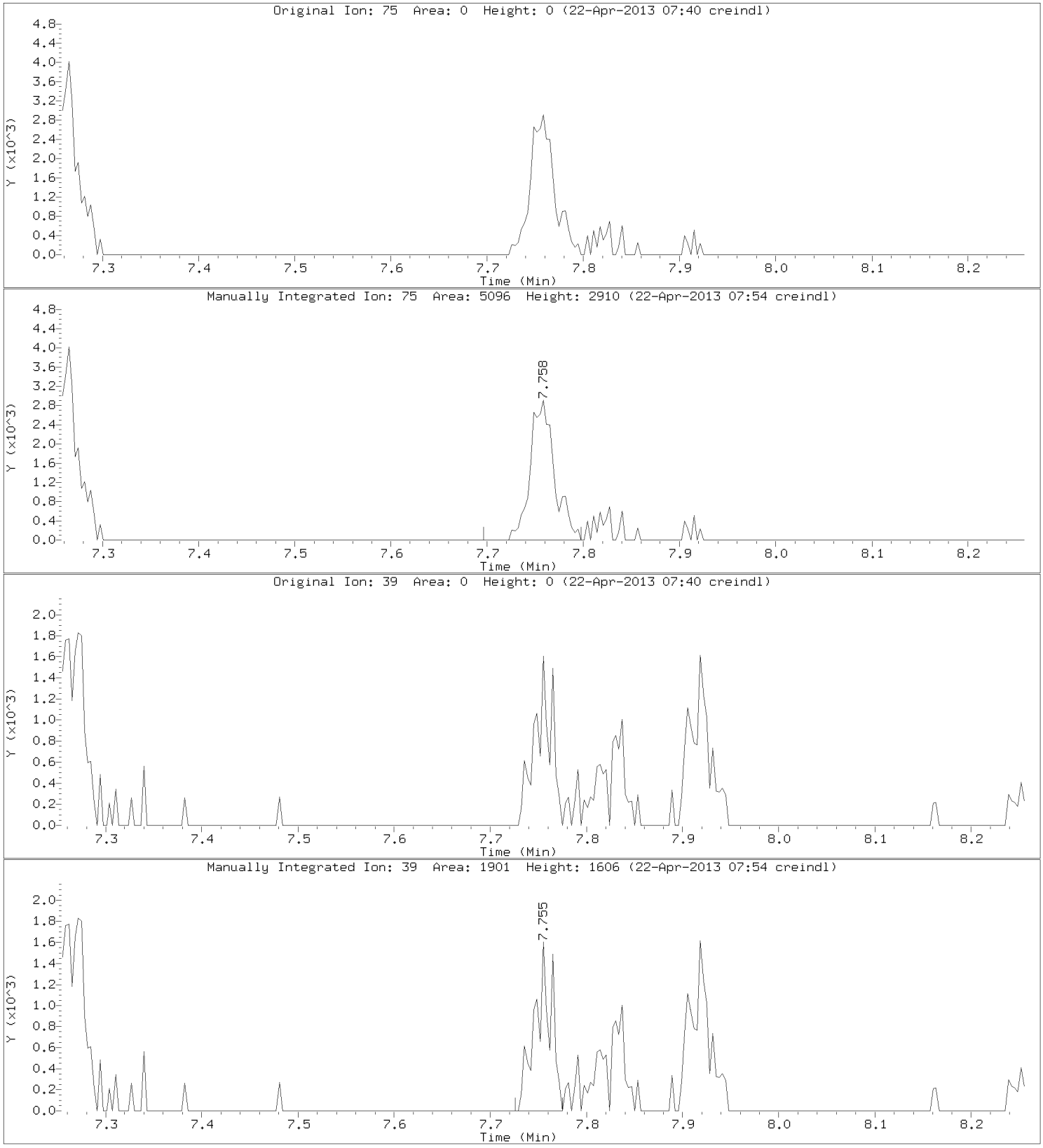


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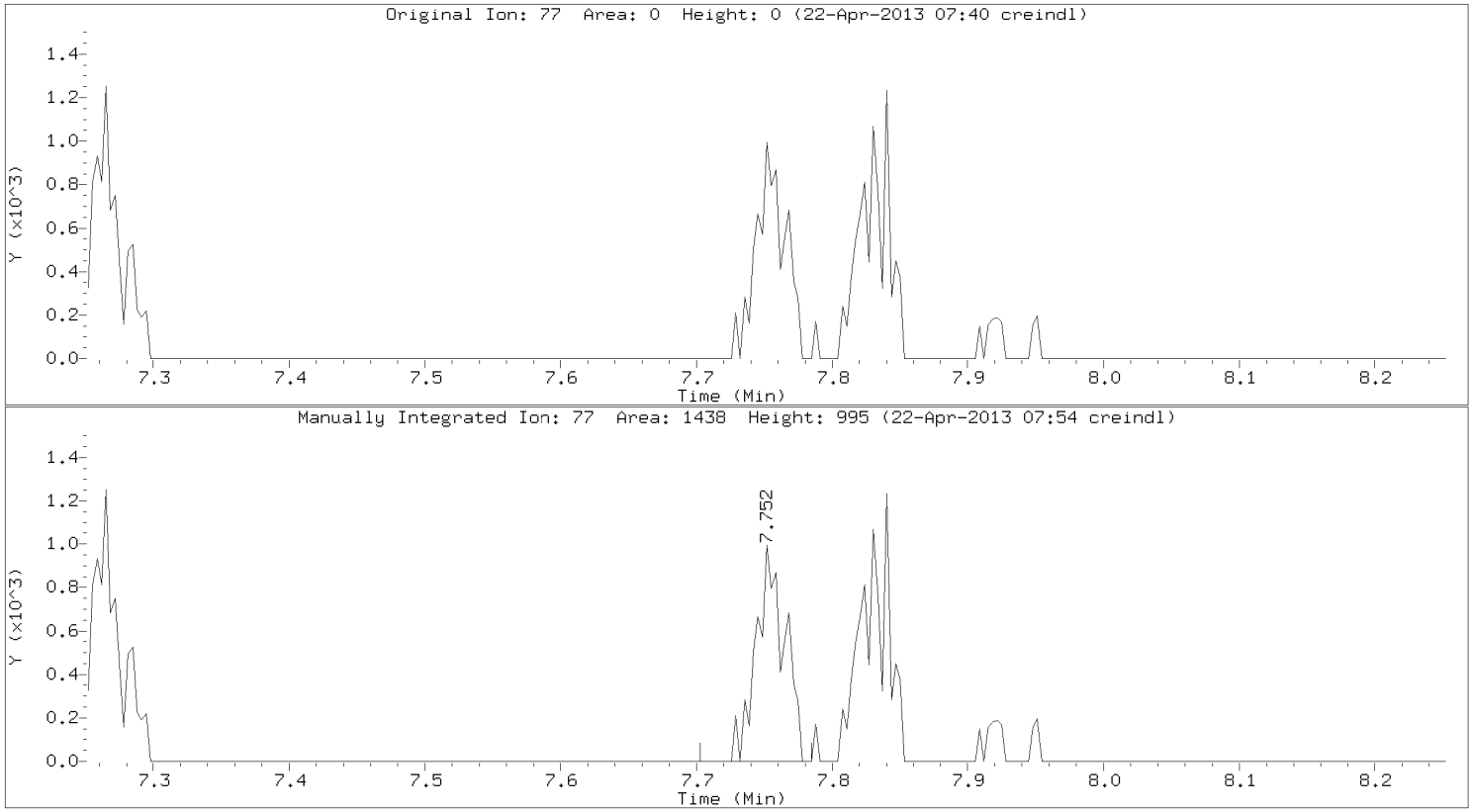


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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: trans-1,3-Dichloropropene
CAS Number: 10061-02-6

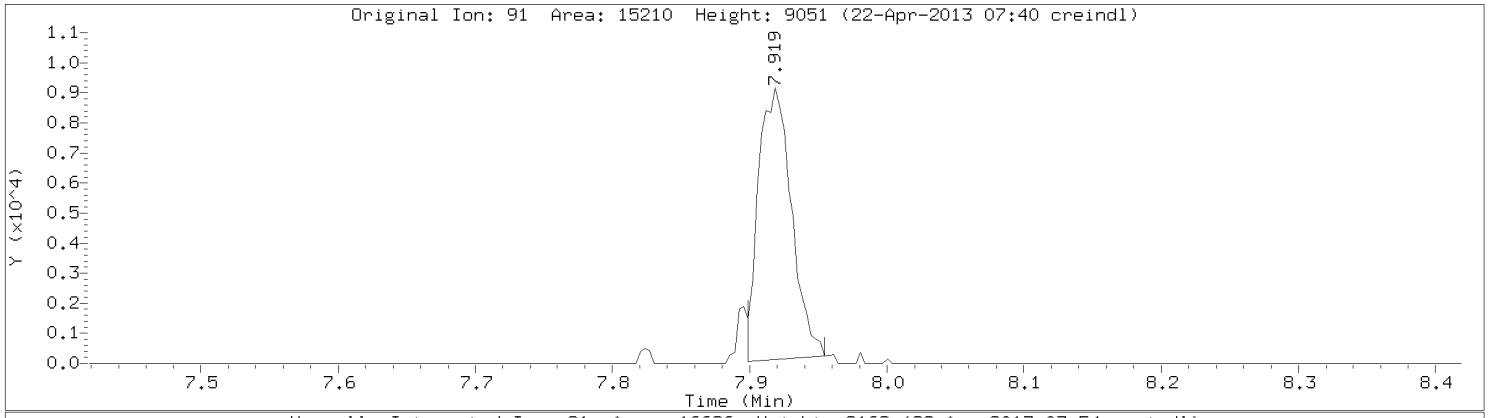


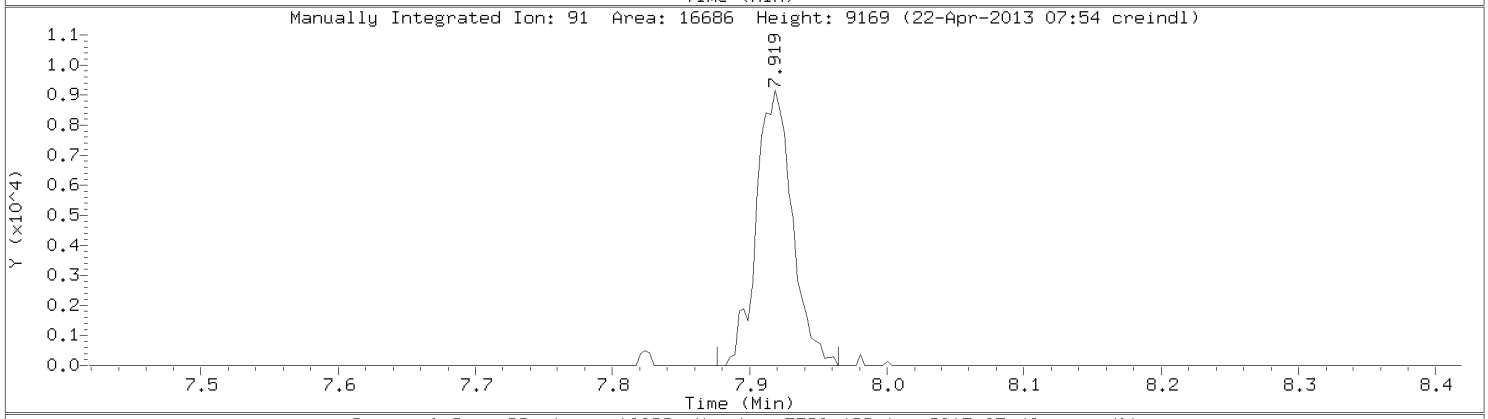
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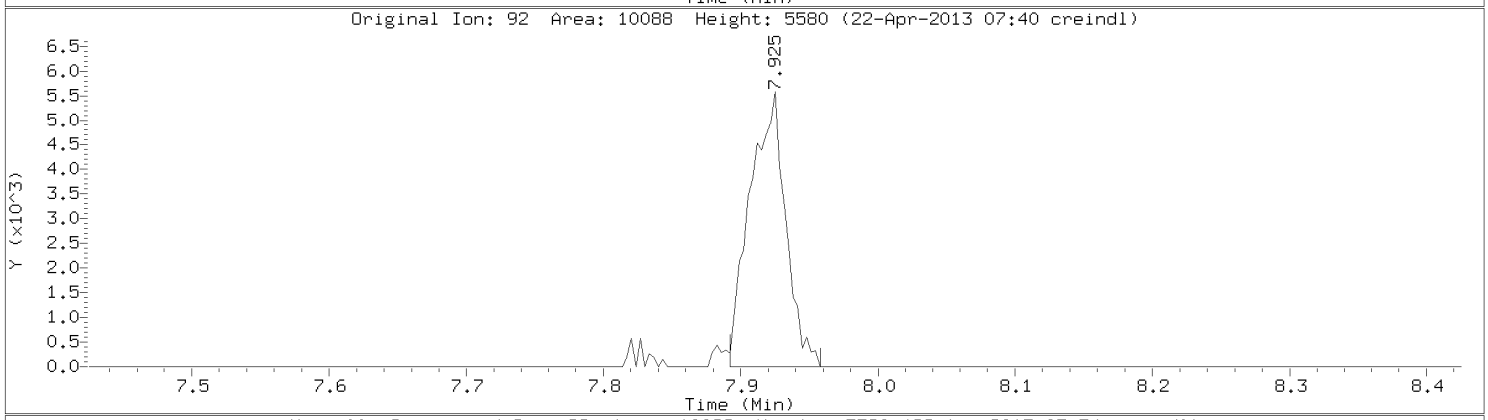


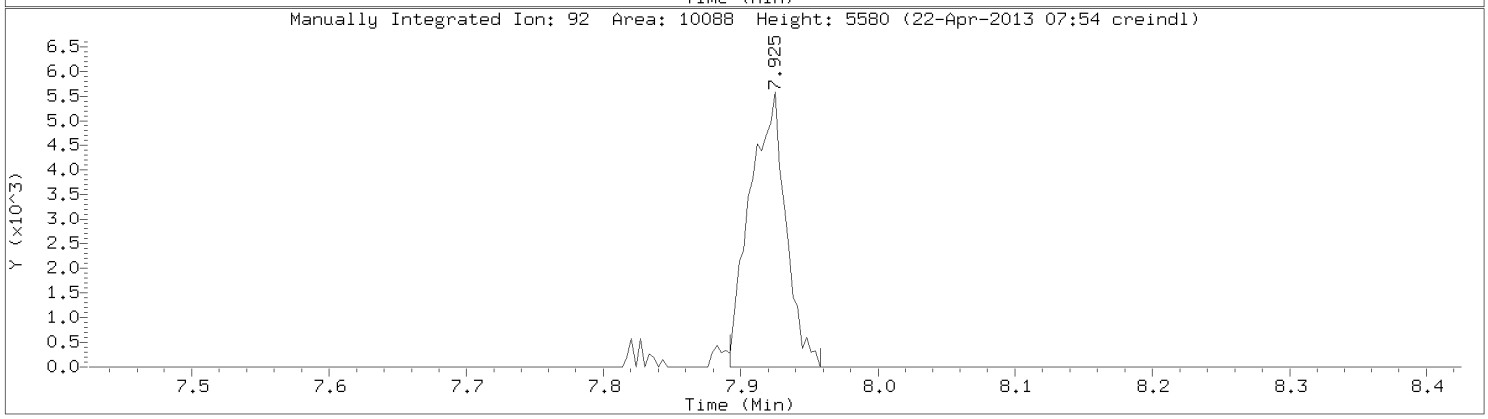
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Toluene
CAS Number: 108-88-3



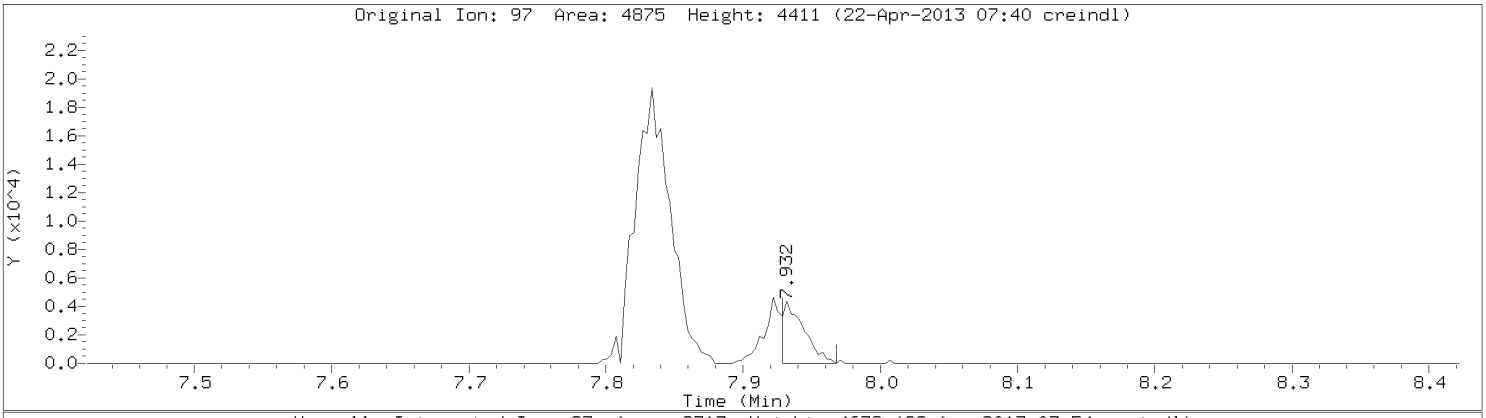


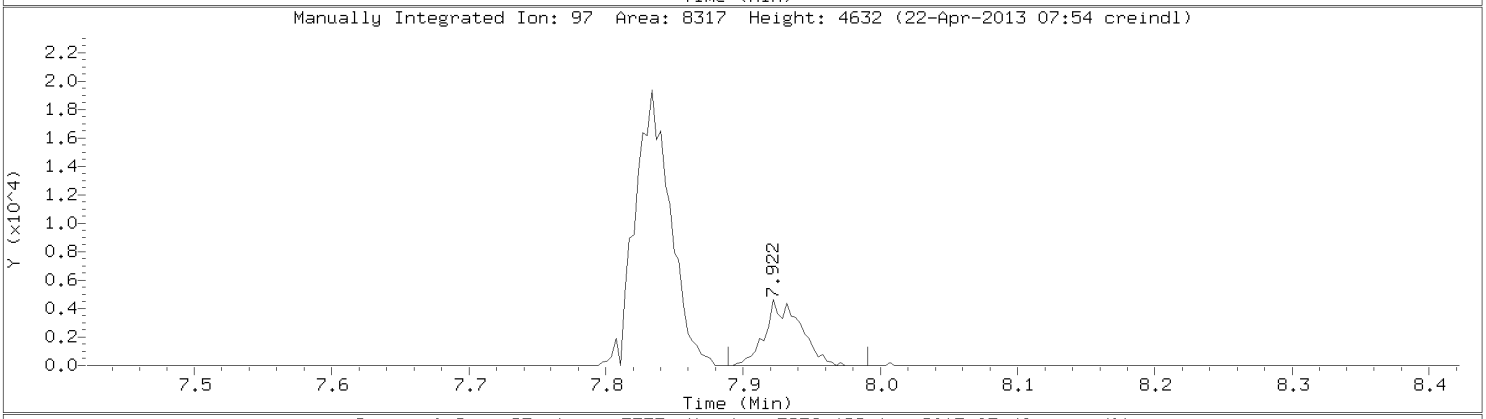


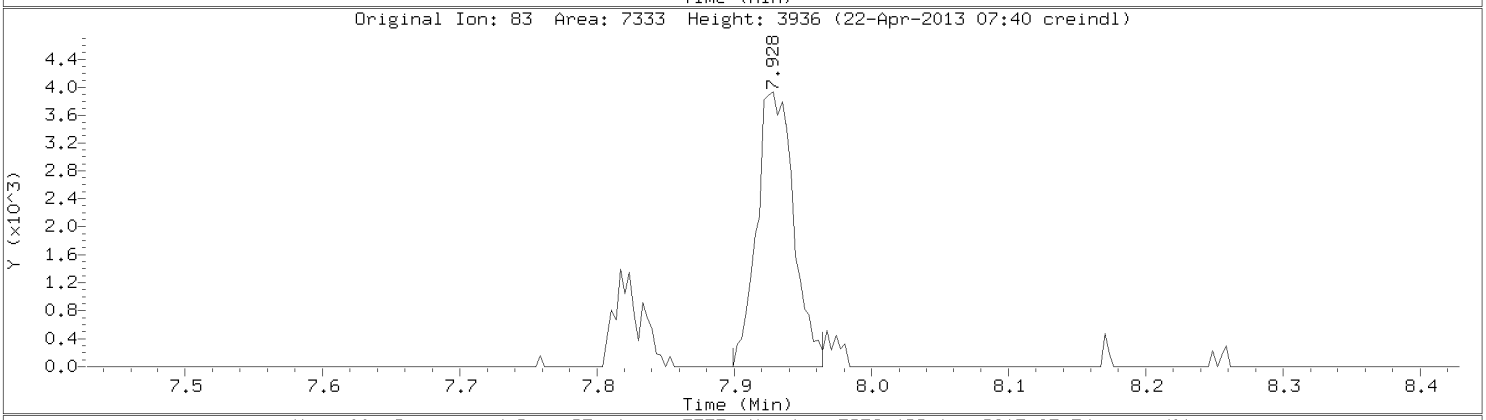


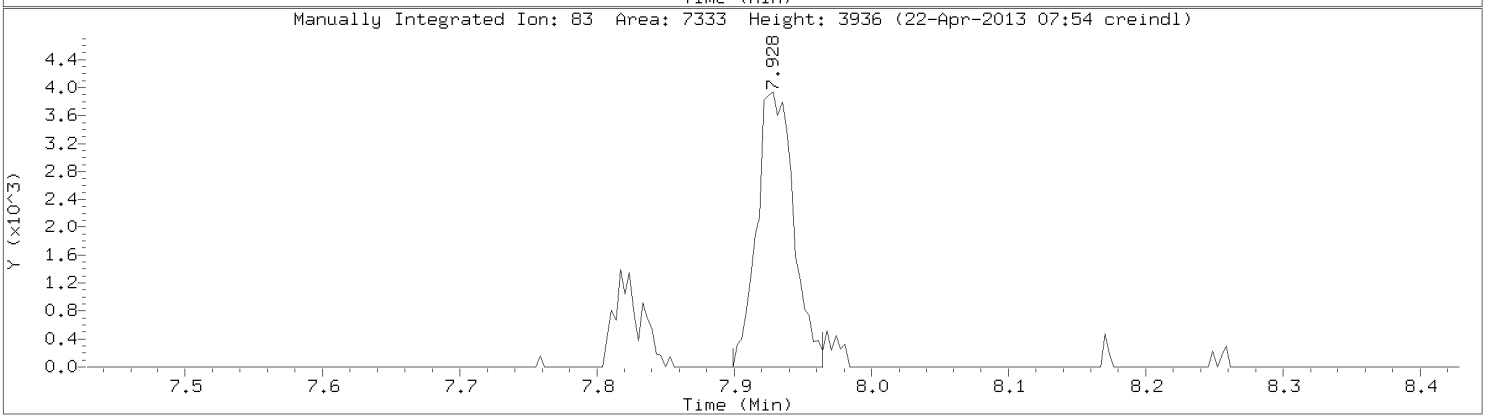
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,1,2-Trichloroethane
CAS Number: 79-00-5

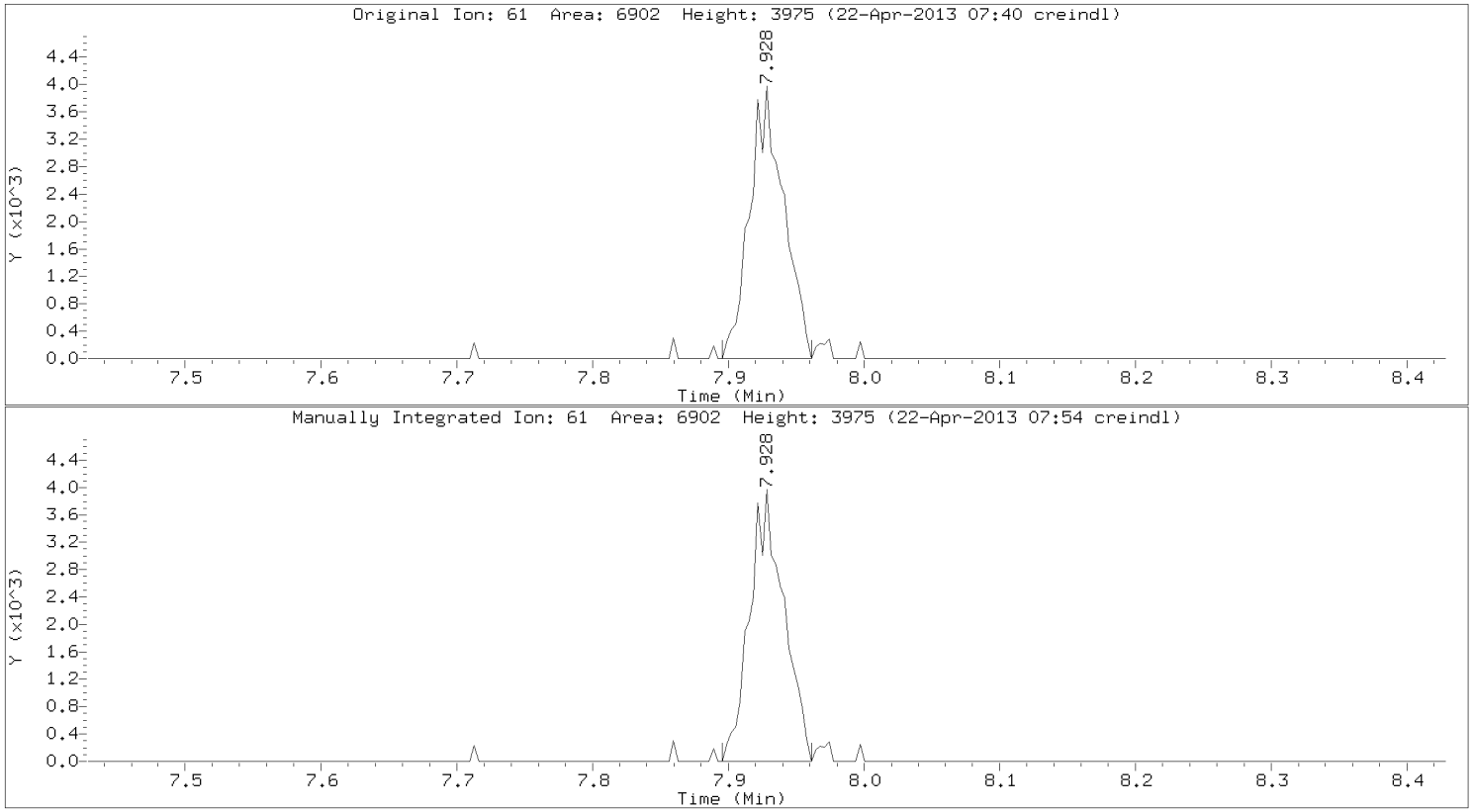






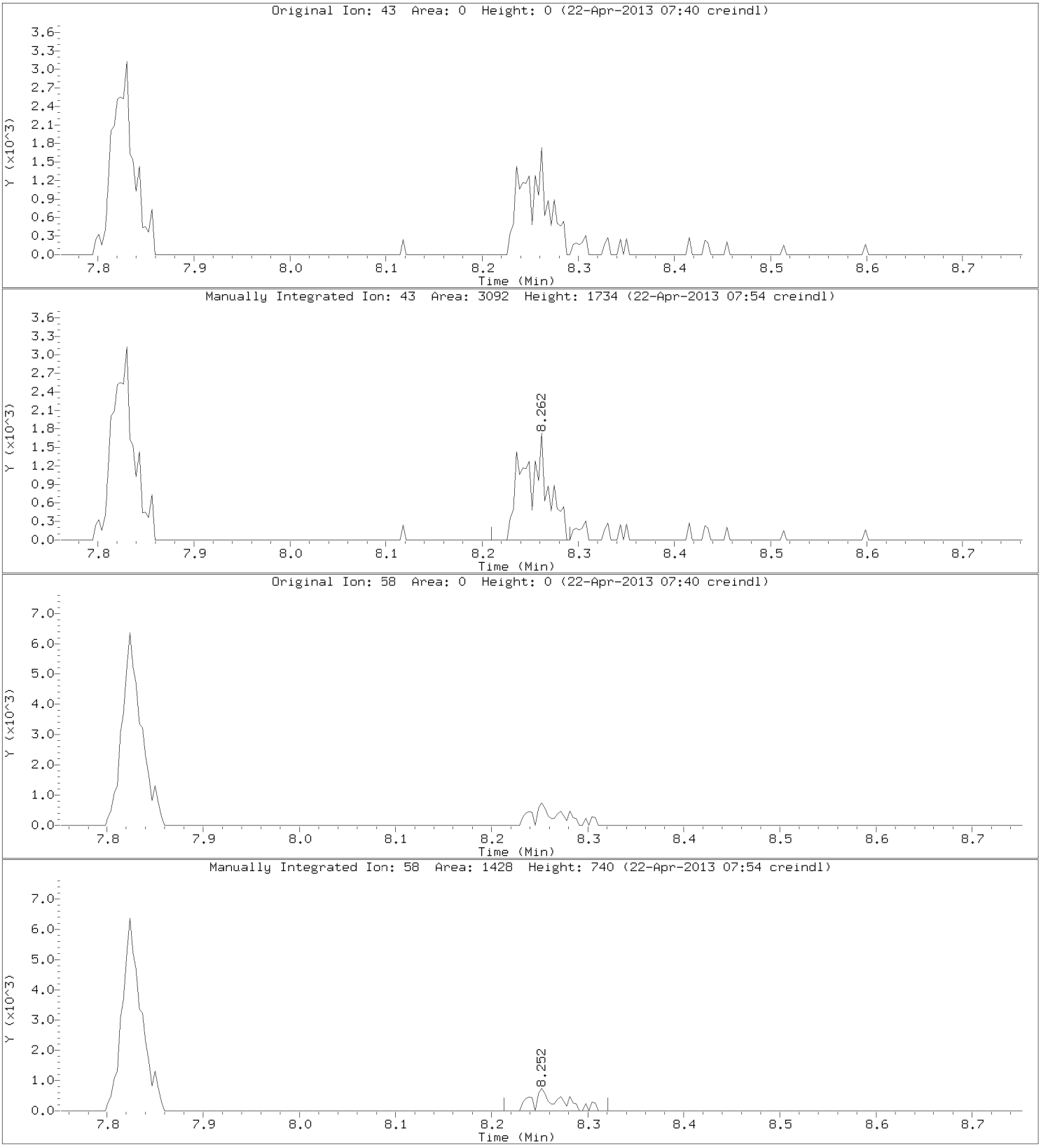


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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2



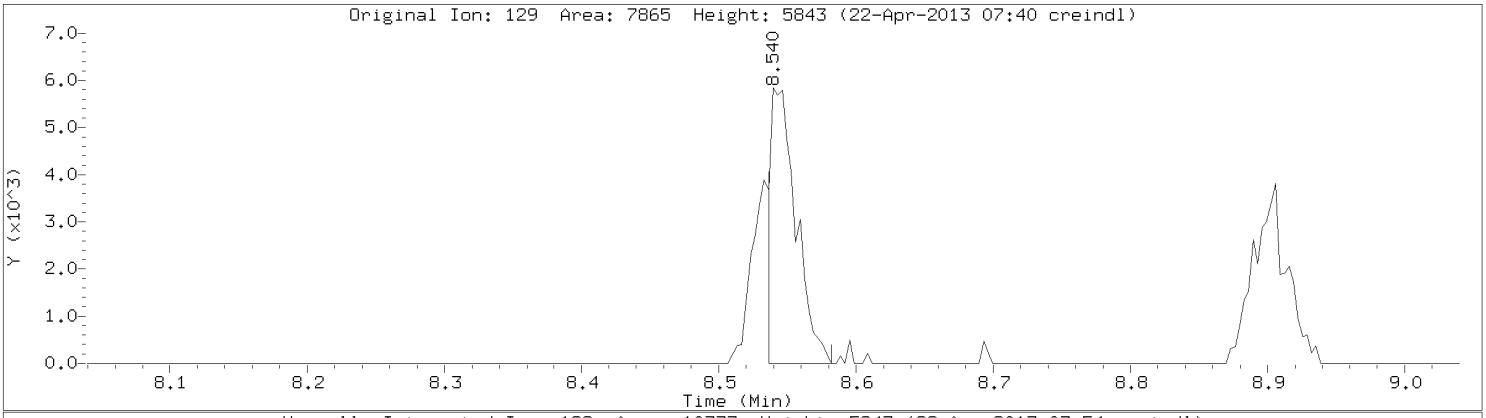
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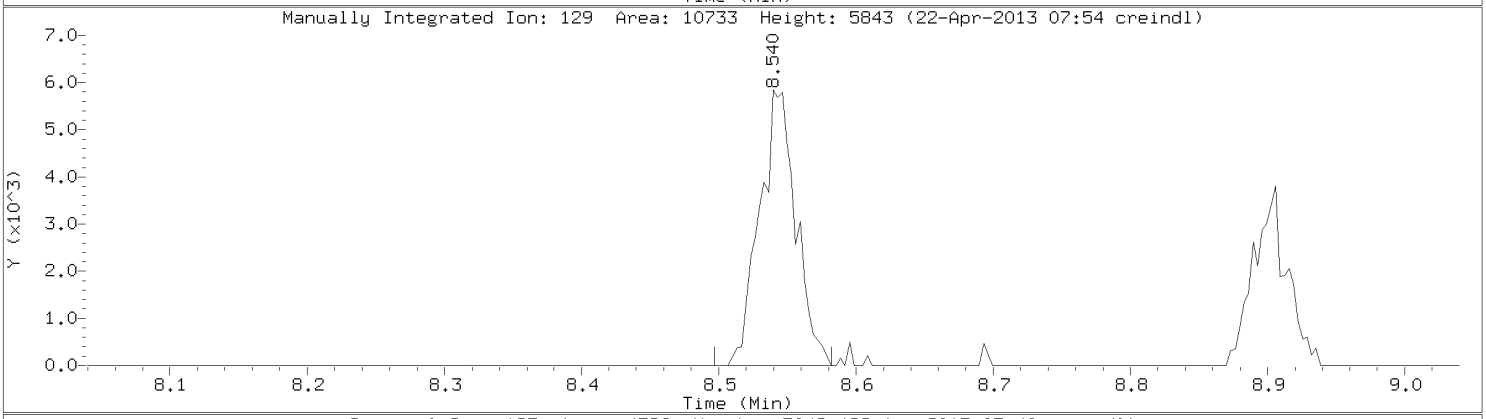
Compound: Methyl Butyl Ketone
CAS Number: 591-78-6

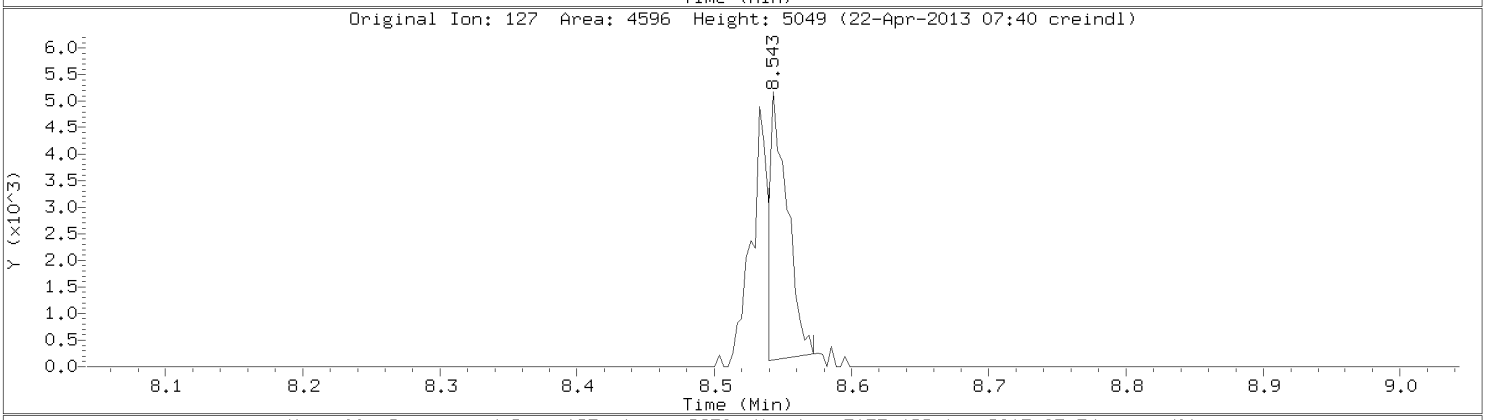


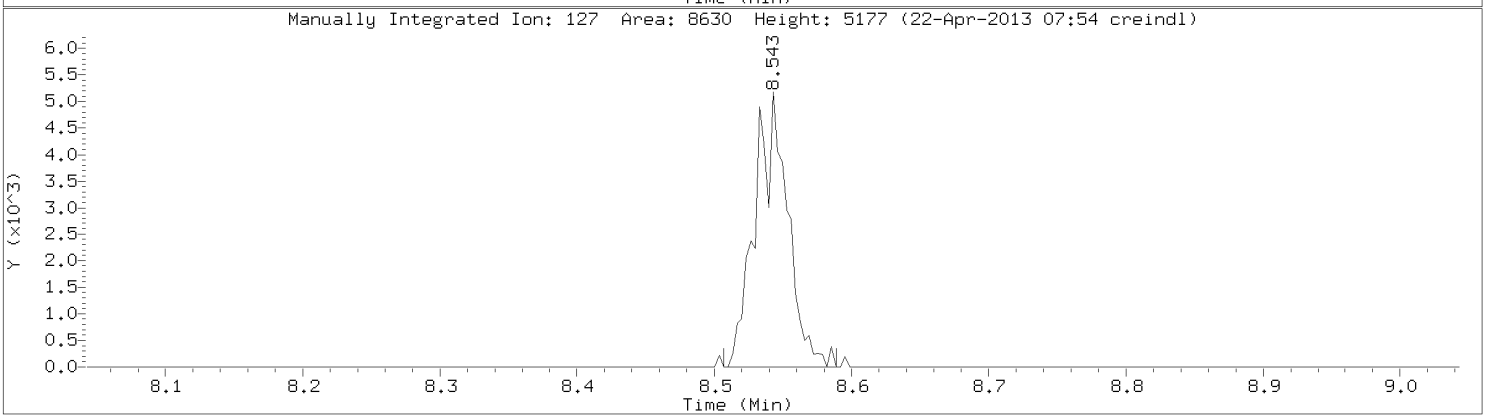
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Dibromochloromethane
CAS Number: 124-48-1



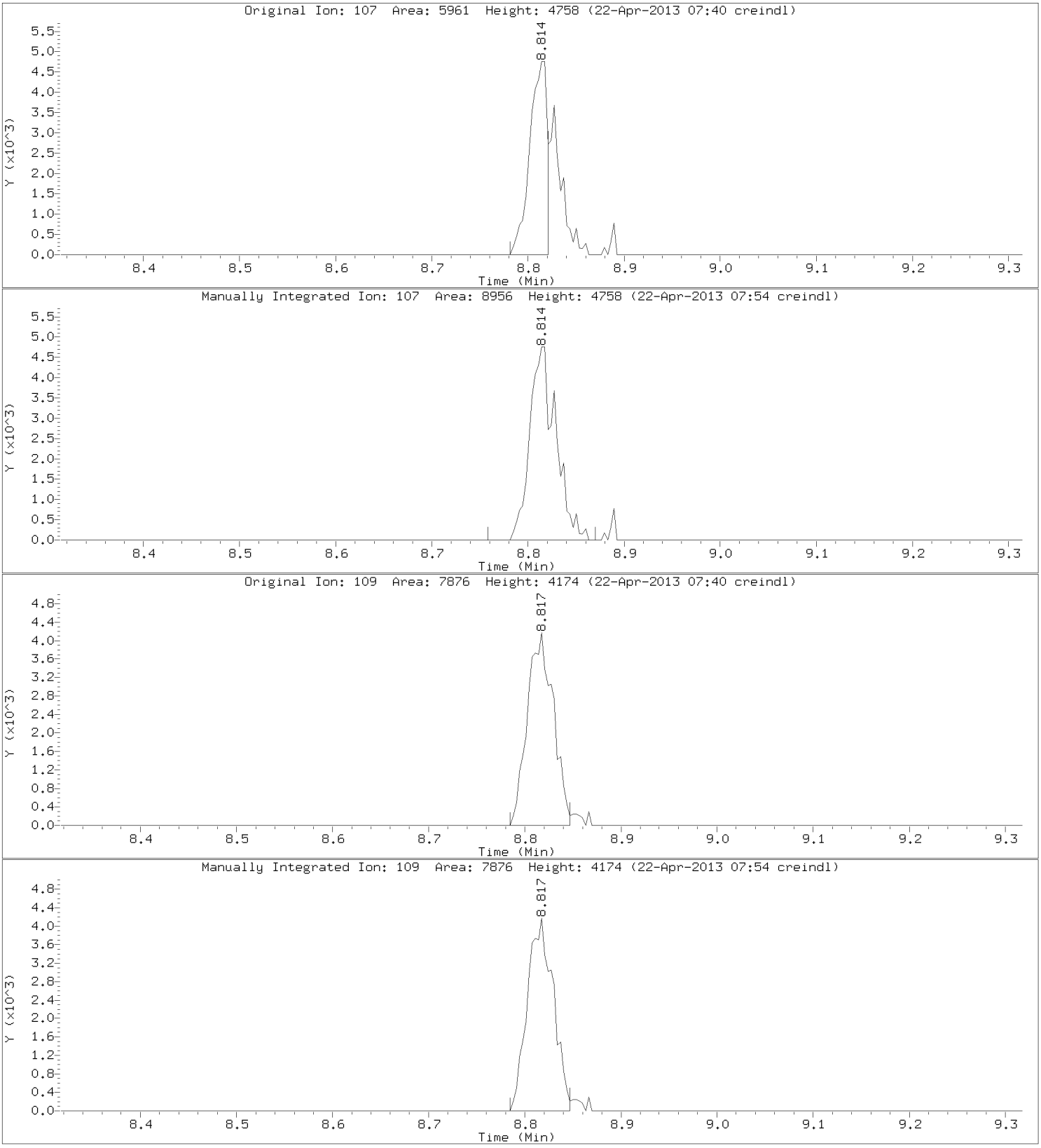






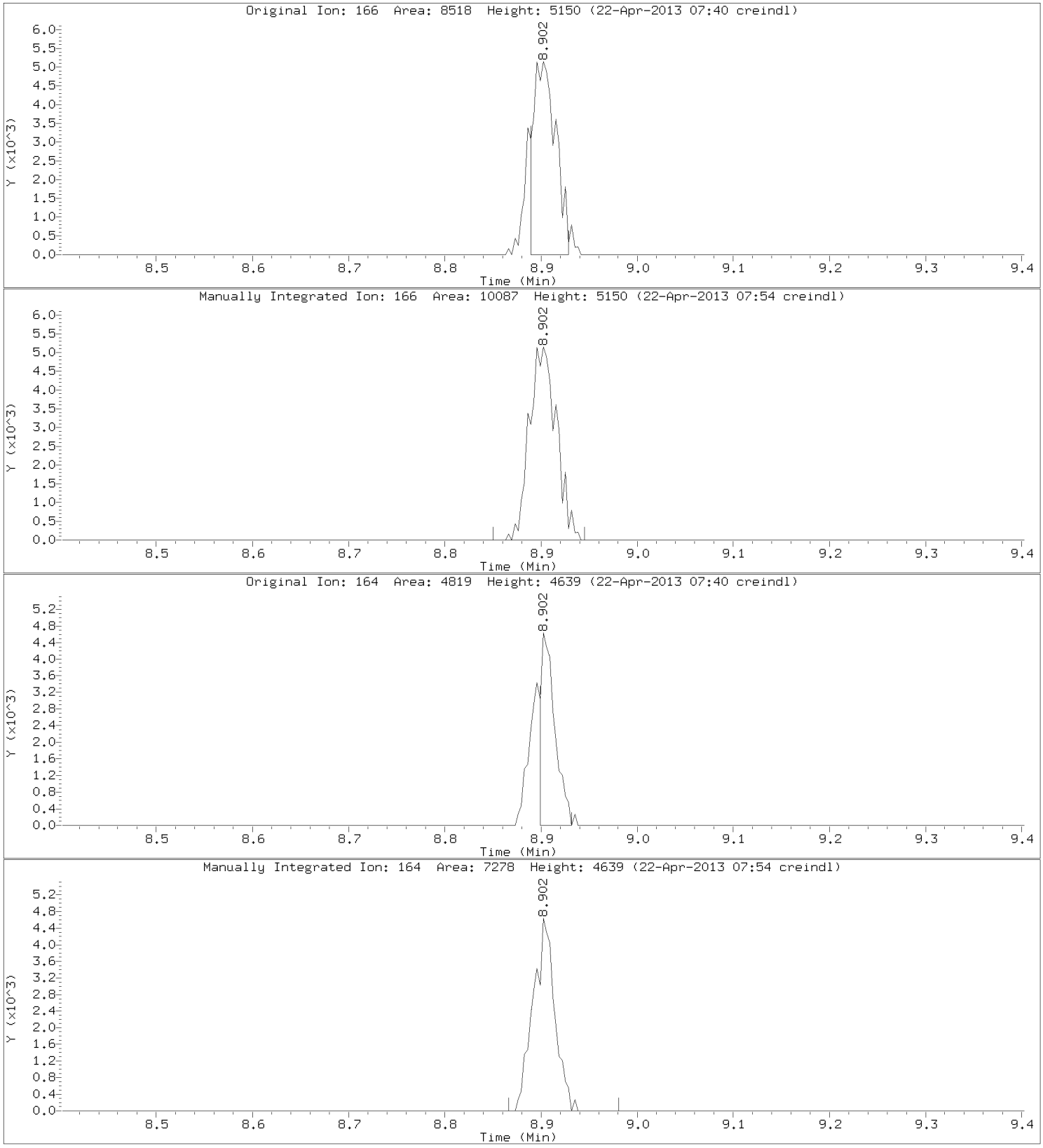
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,2-Dibromoethane
CAS Number: 106-93-4

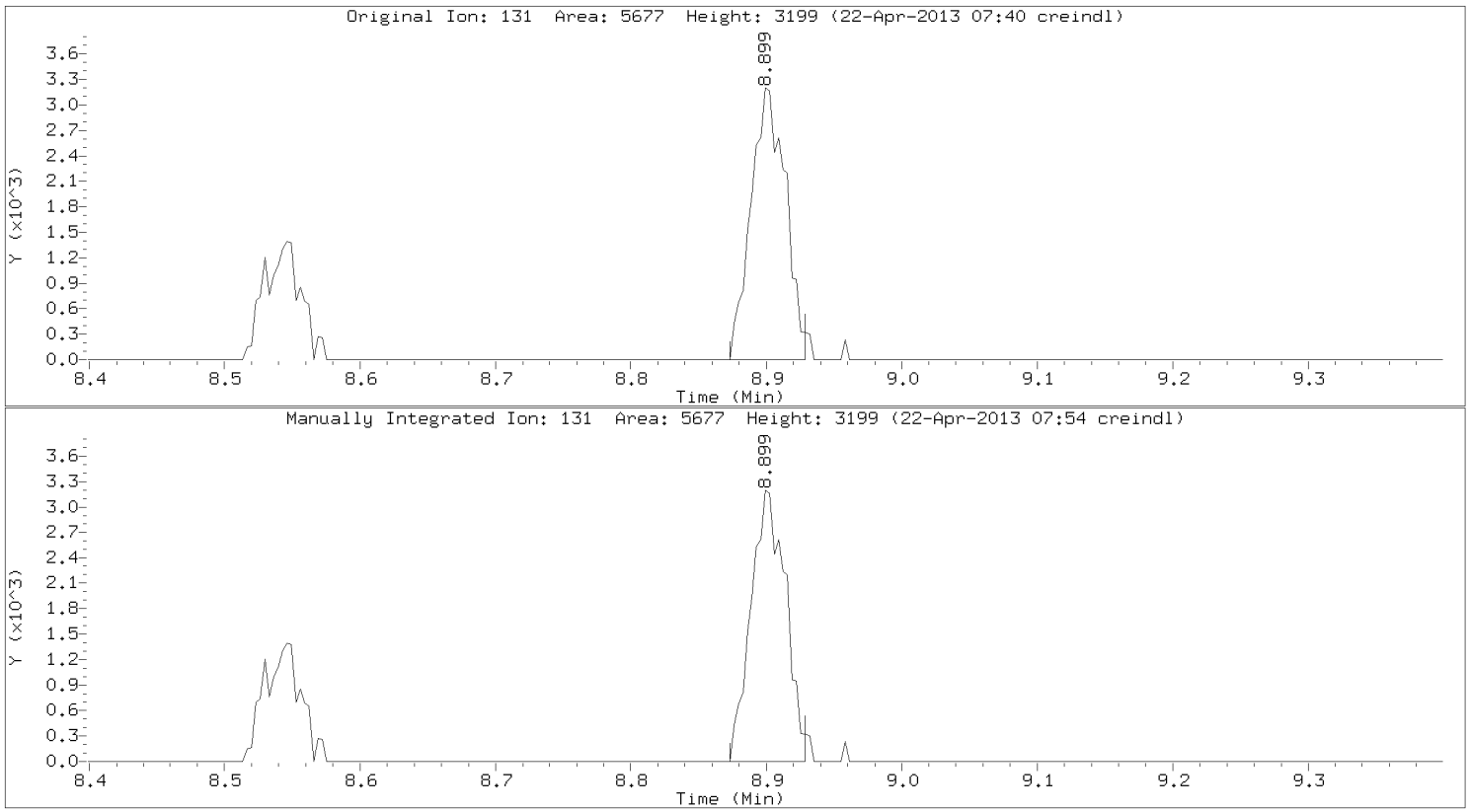


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11106.d
Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Tetrachloroethene
CAS Number: 127-18-4

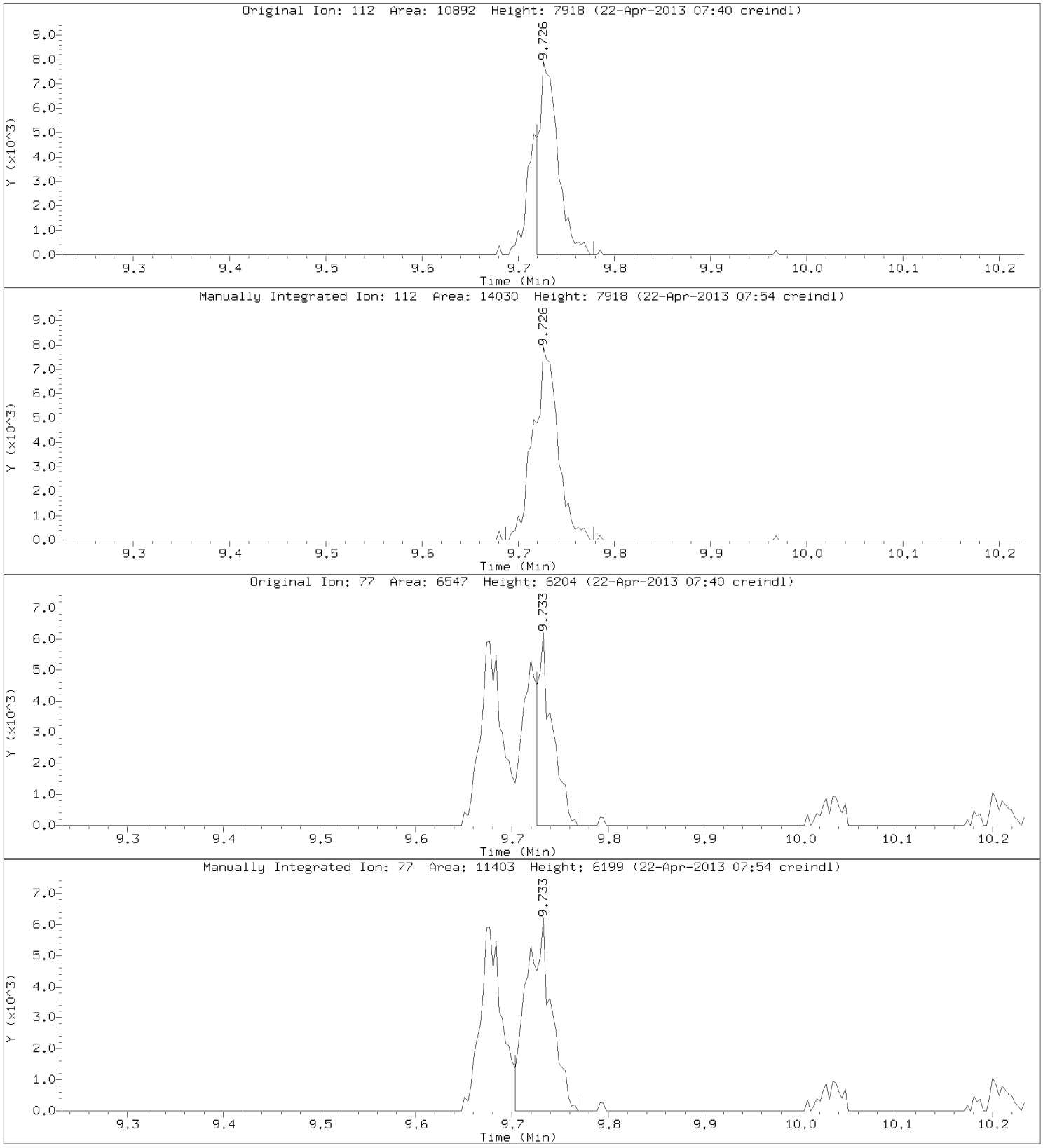


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Instrument: 10airD.i
Lab Sample ID: ICAL2

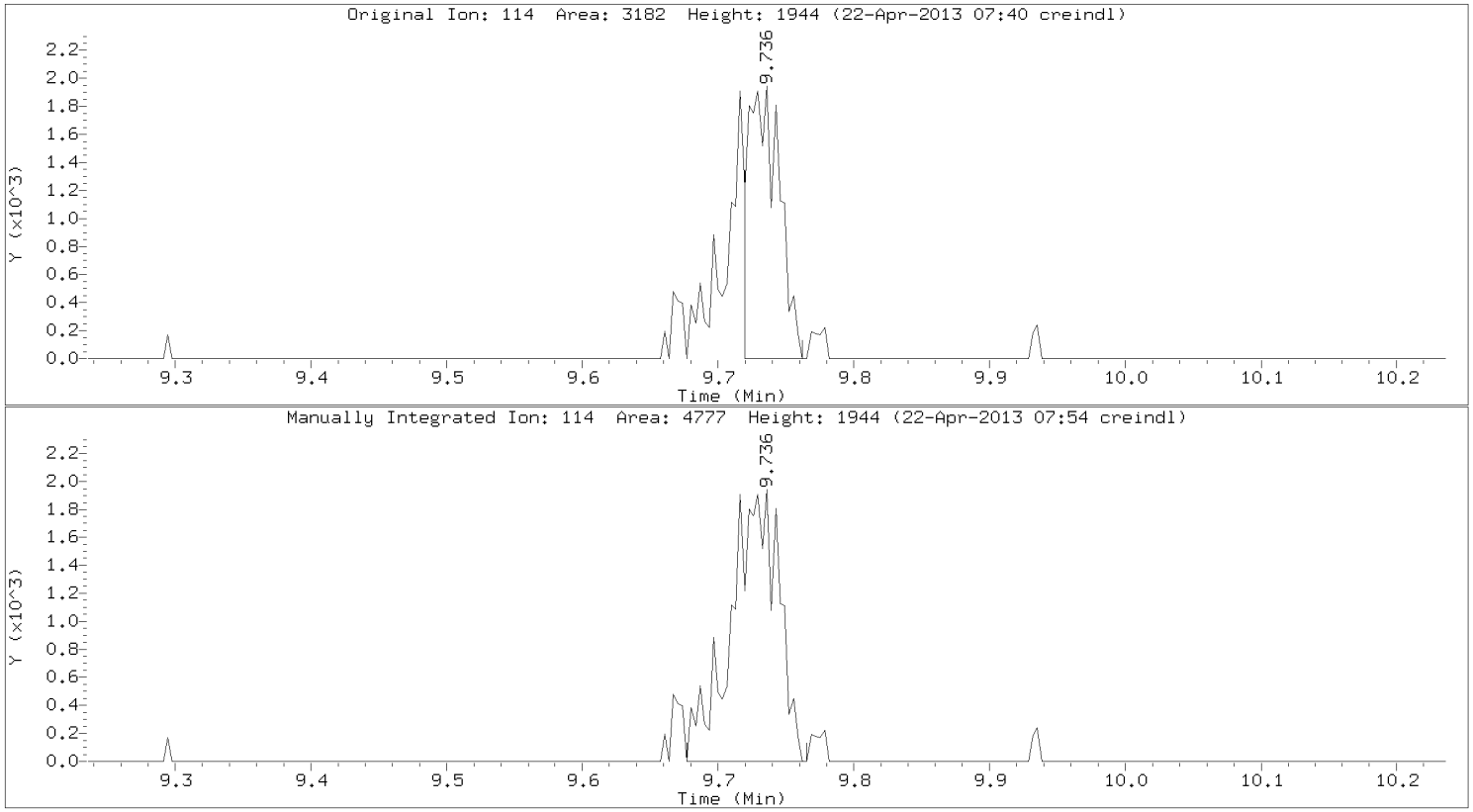


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Chlorobenzene
CAS Number: 108-90-7

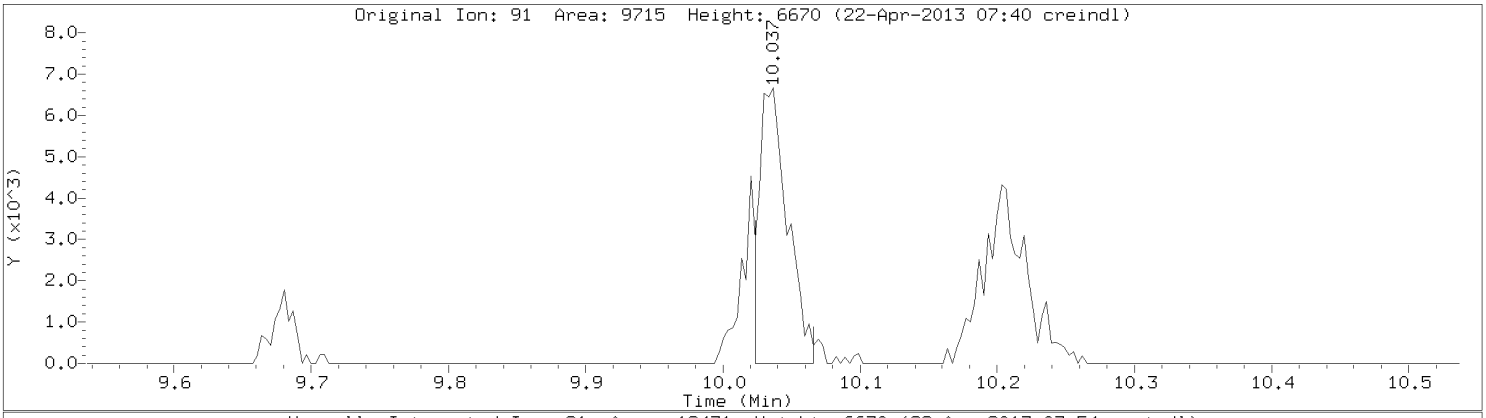


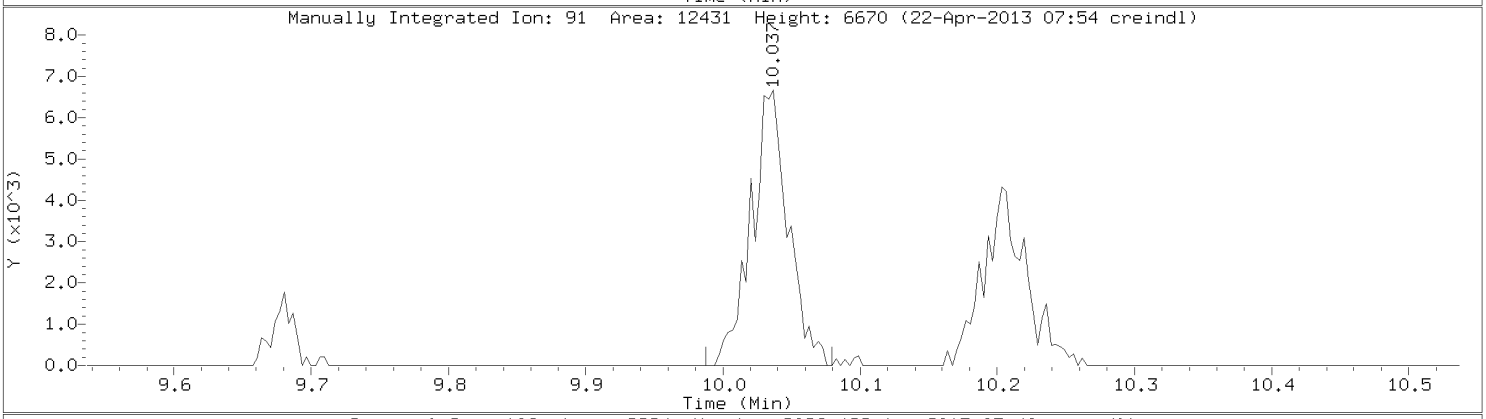
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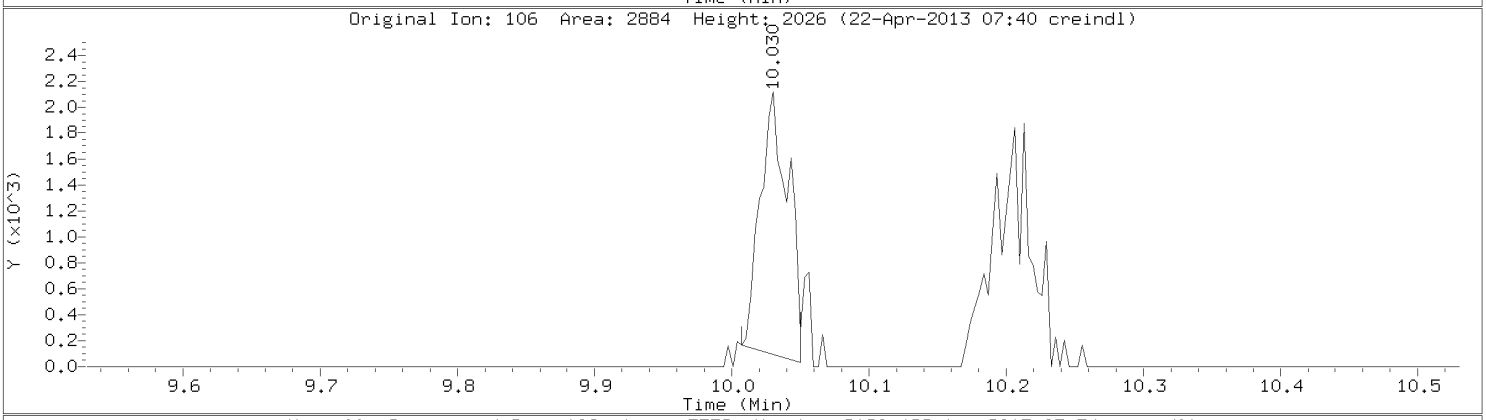


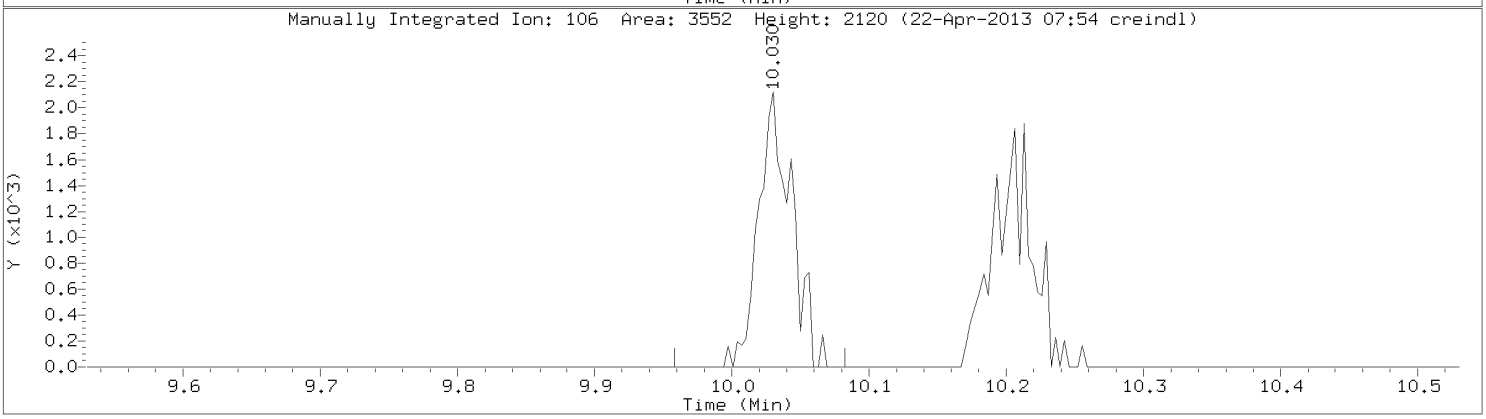
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Ethyl Benzene
CAS Number: 100-41-4



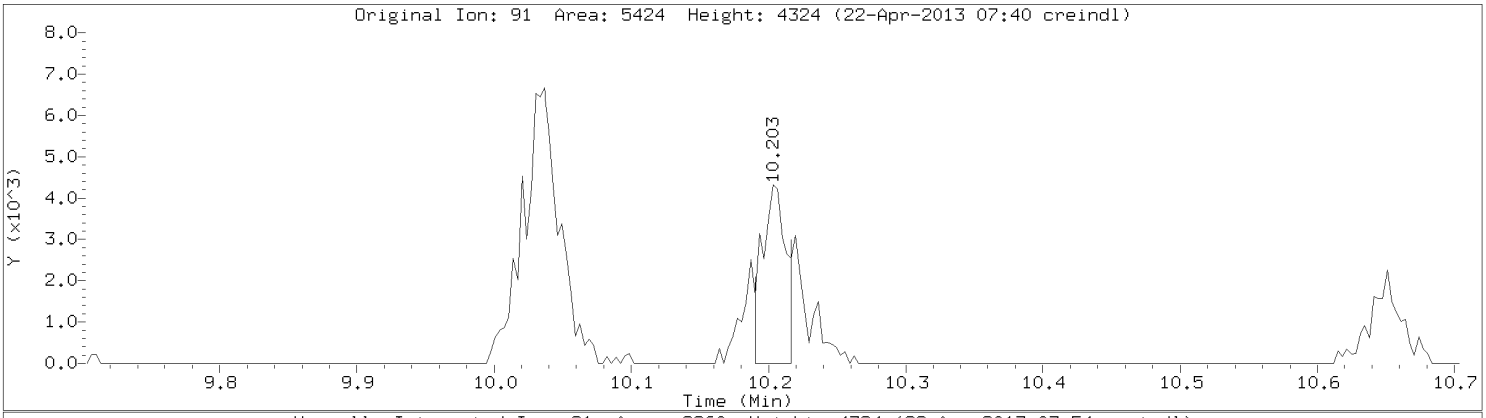


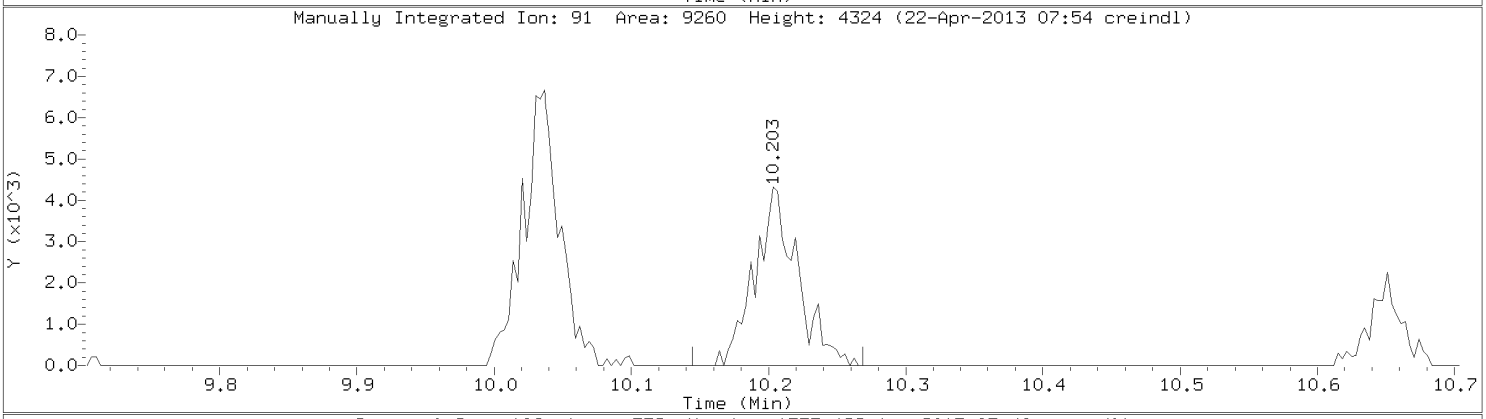


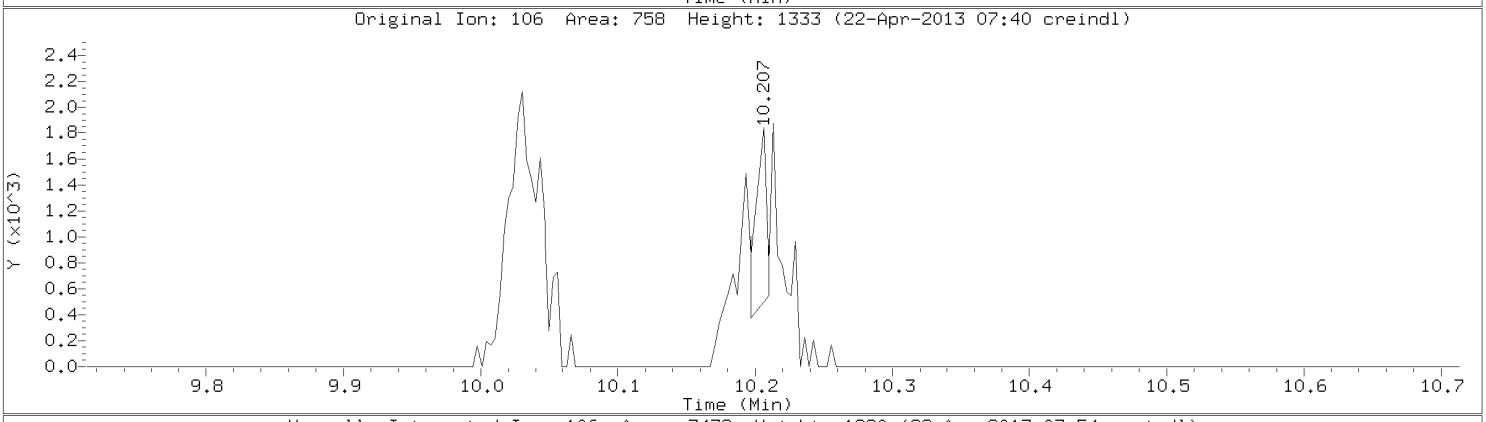


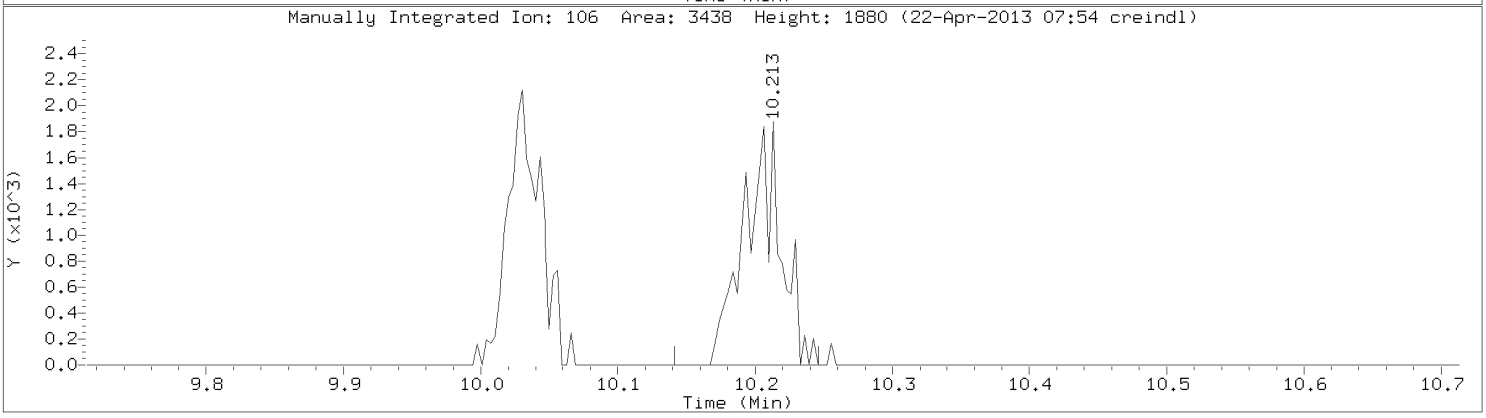
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: m&p-Xylene
CAS Number: 7816-60-0



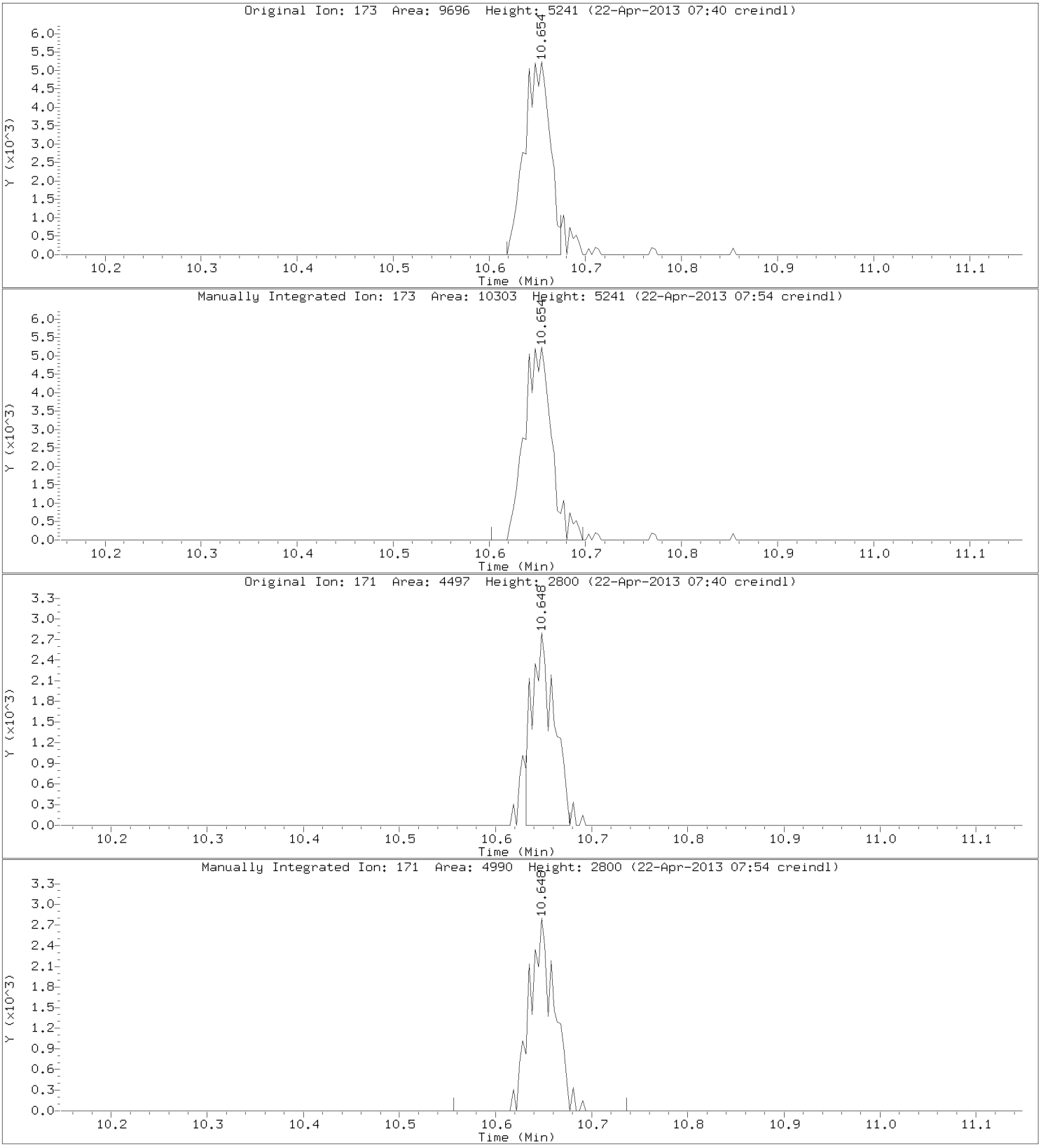






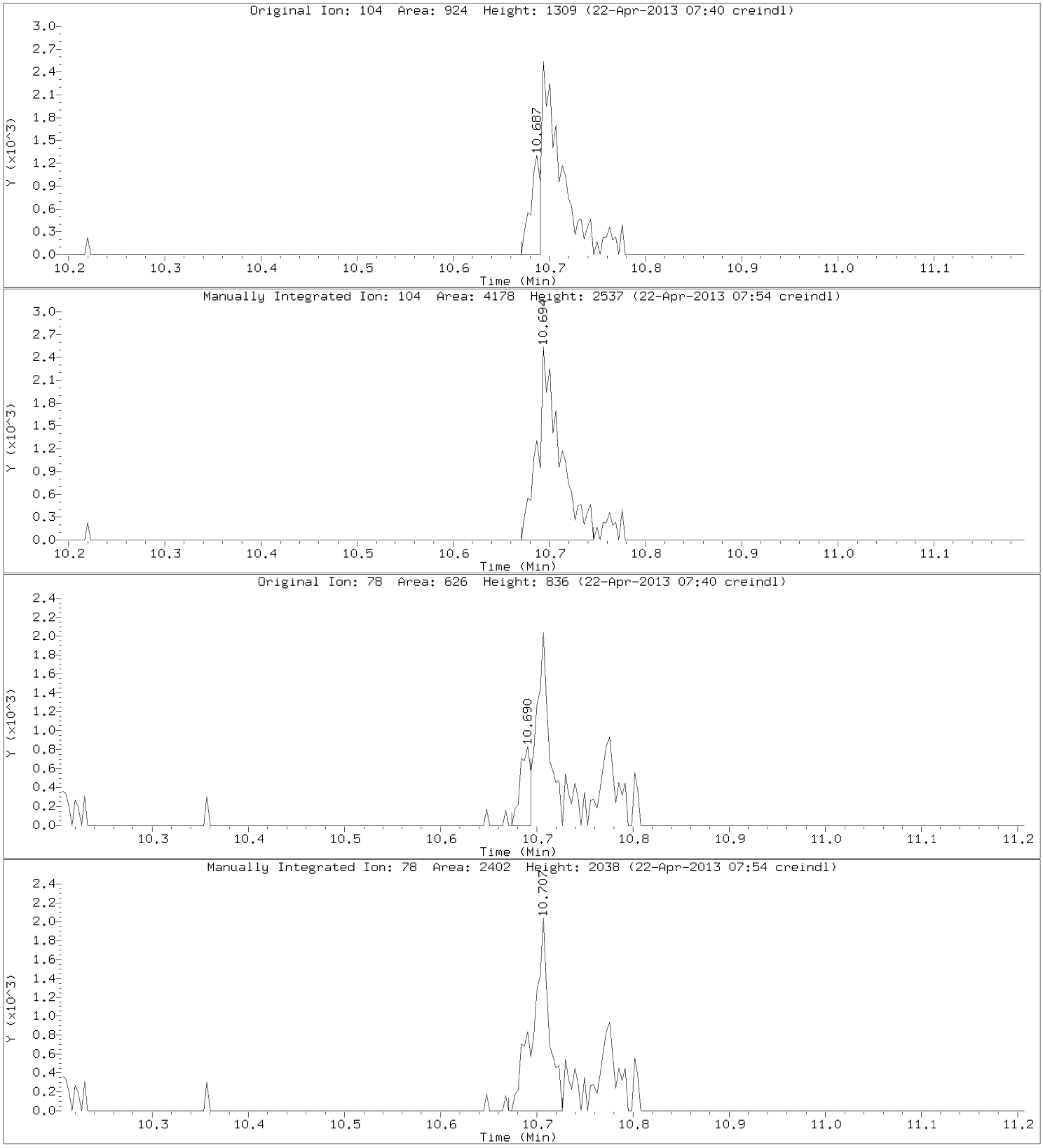
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Bromoform
CAS Number: 75-25-2

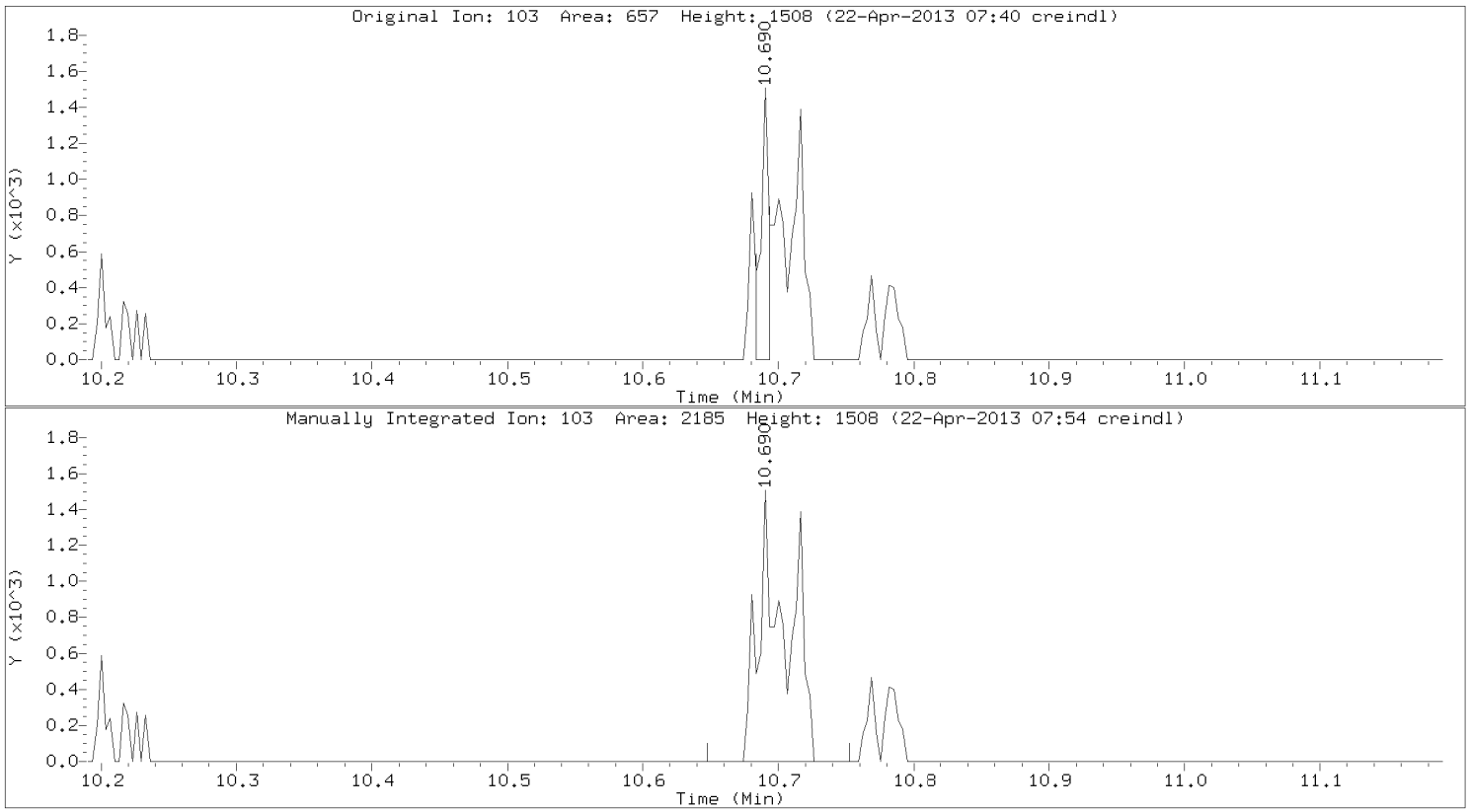


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Lab Sample ID: ICAL2

Compound: Styrene
CAS Number: 100-42-5

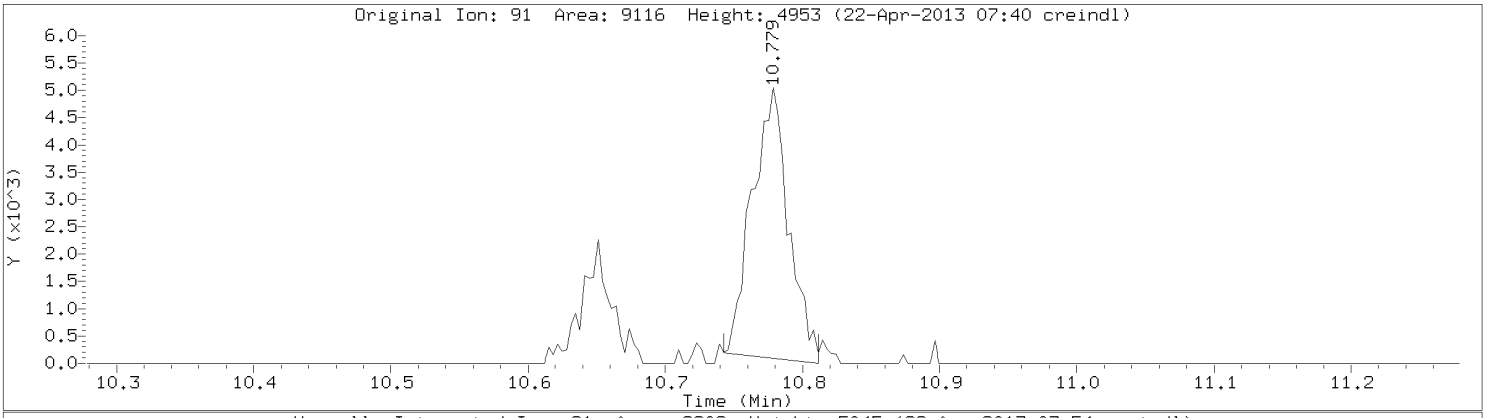


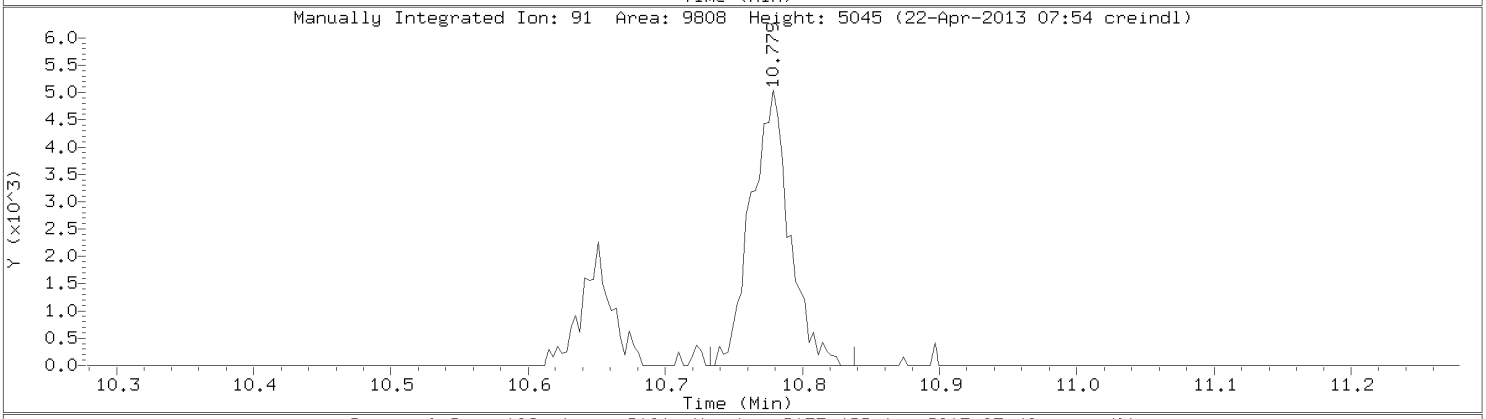
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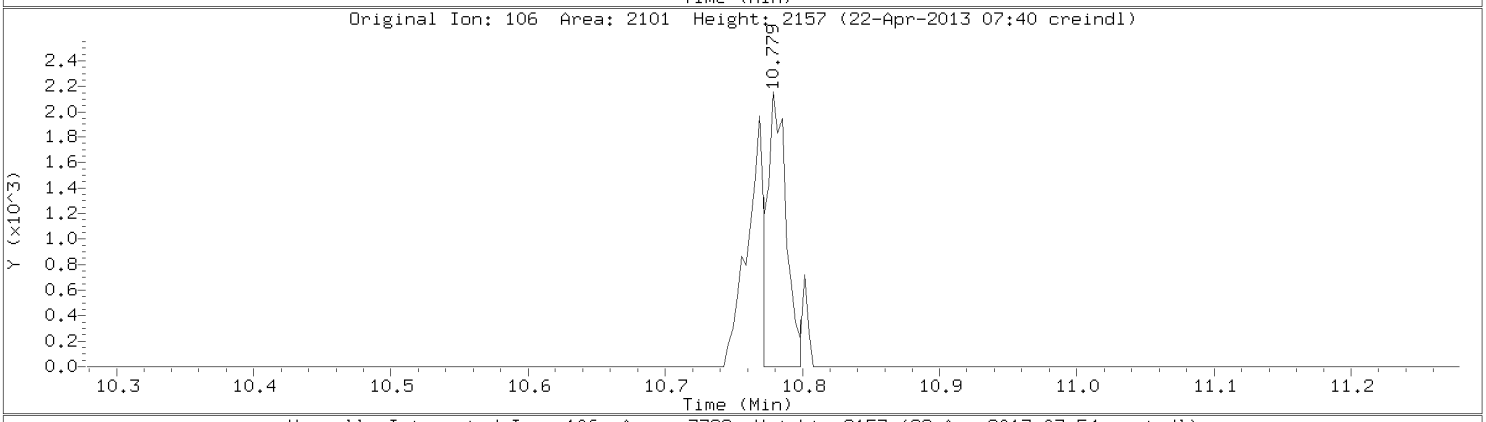


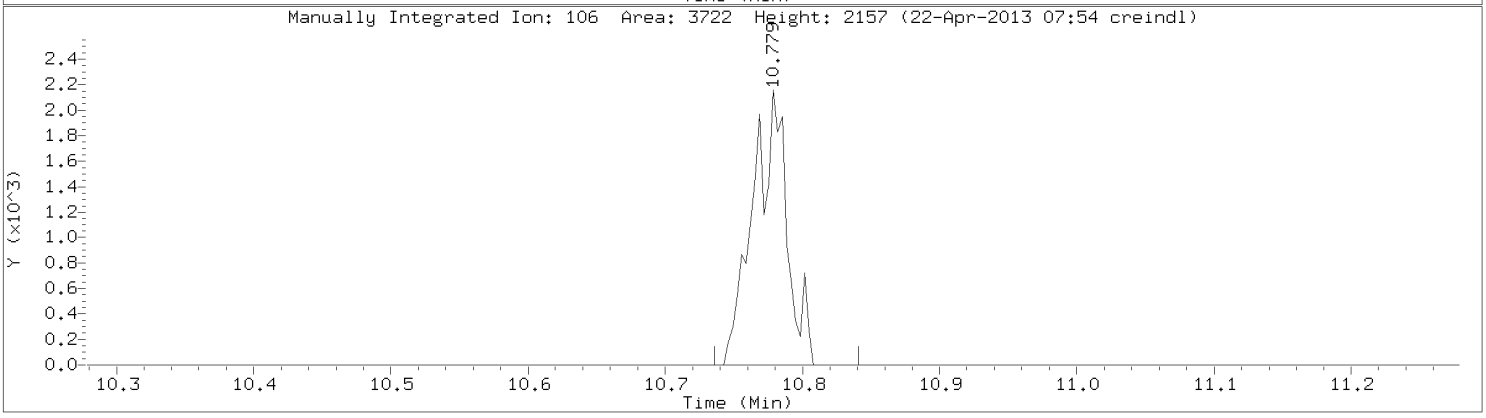
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: o-Xylene
CAS Number: 95-47-6



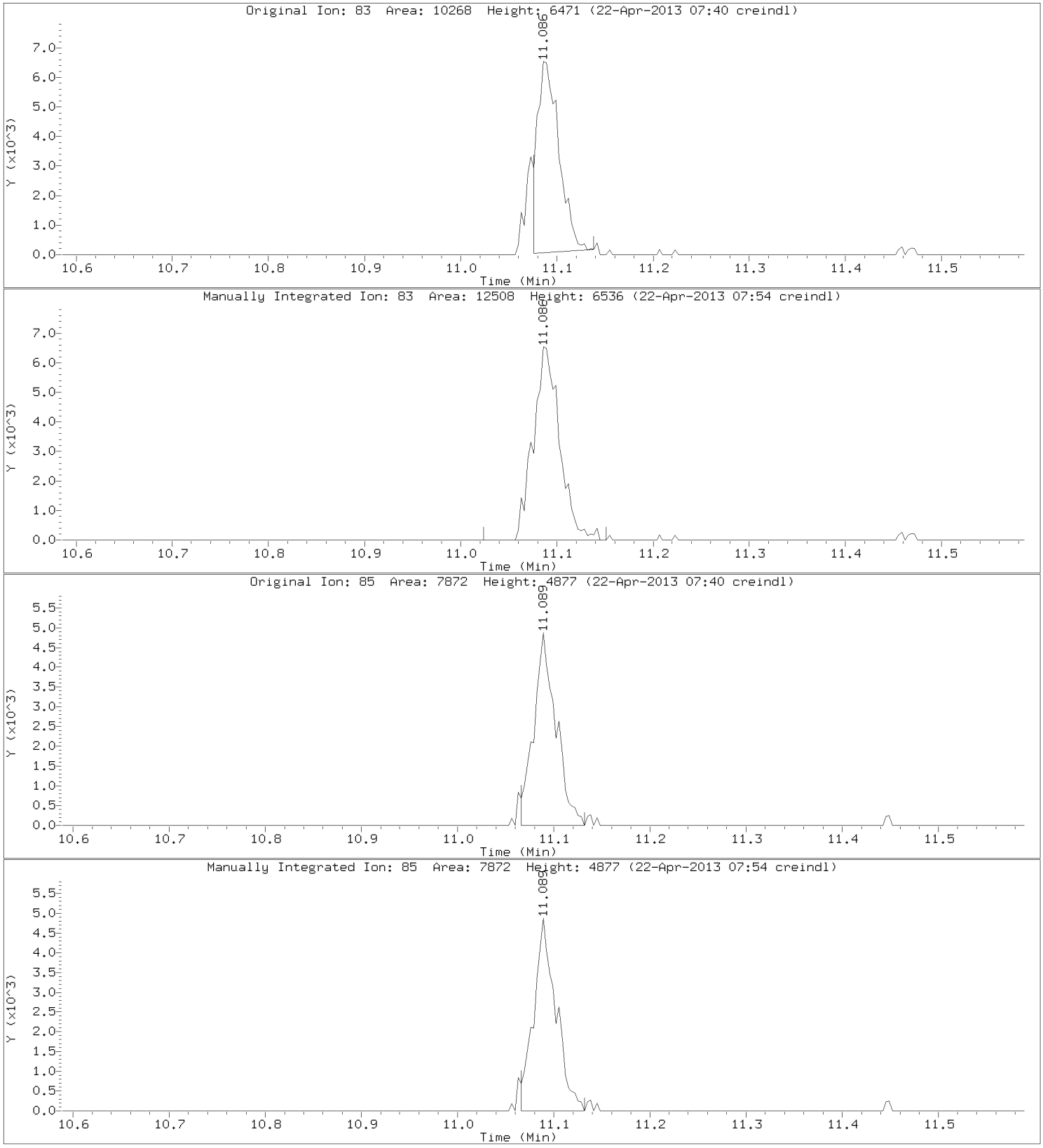






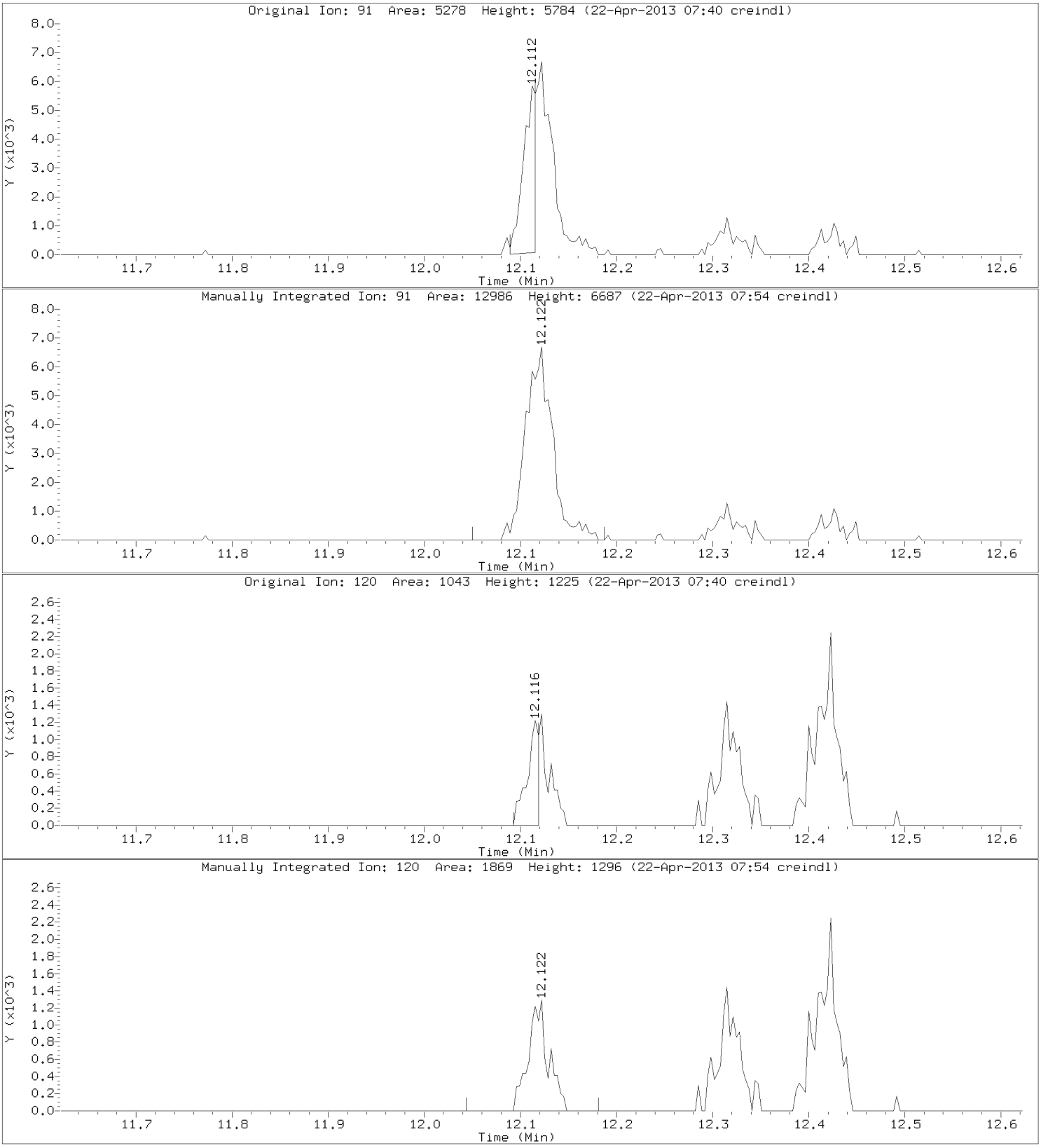
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Injection Date: 21-APR-2013 10:45
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Lab Sample ID: ICAL2

Compound: 1,1,2,2-Tetrachloroethane
CAS Number: 79-34-5



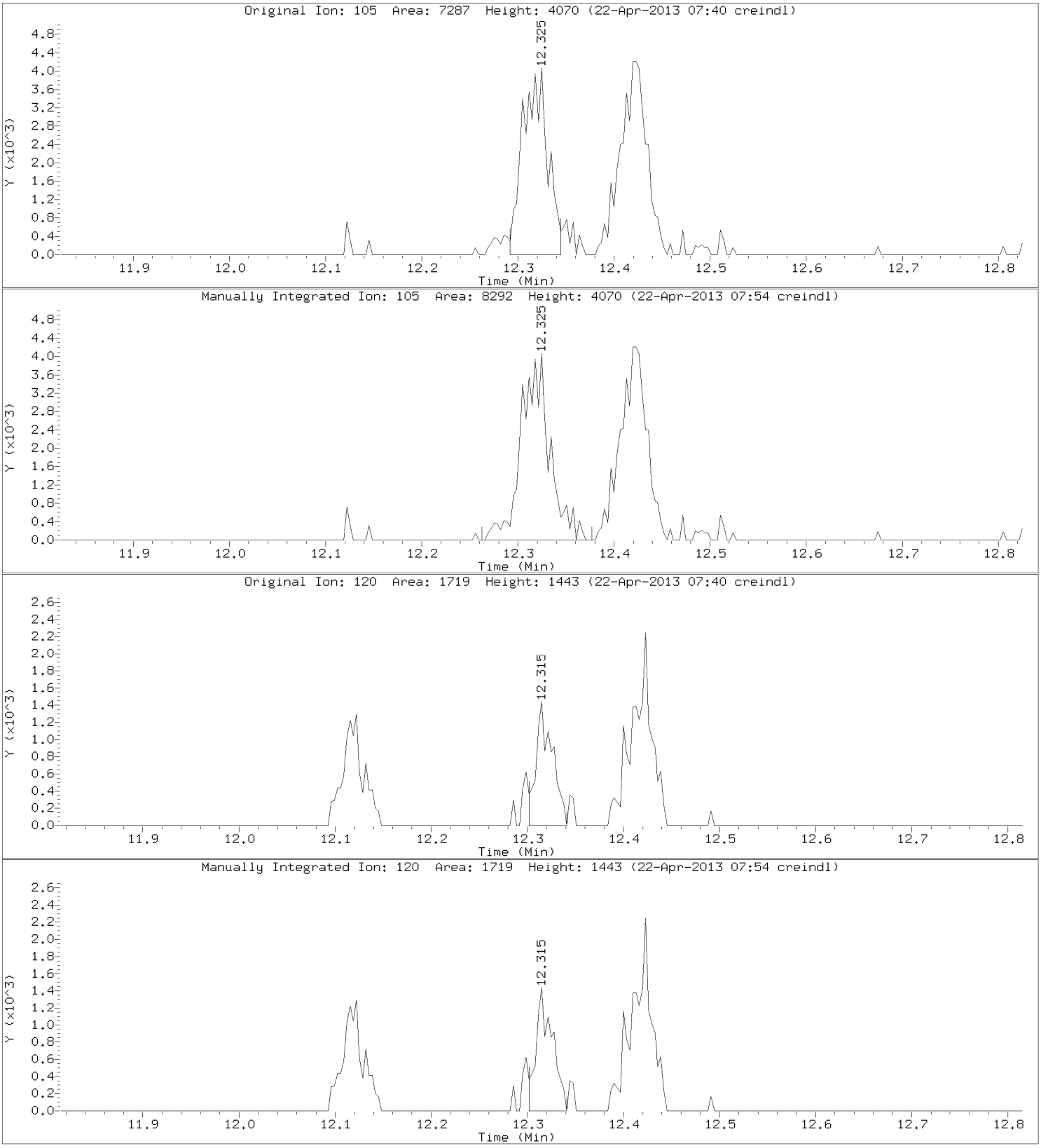
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: N-Propylbenzene
CAS Number: 103-65-1

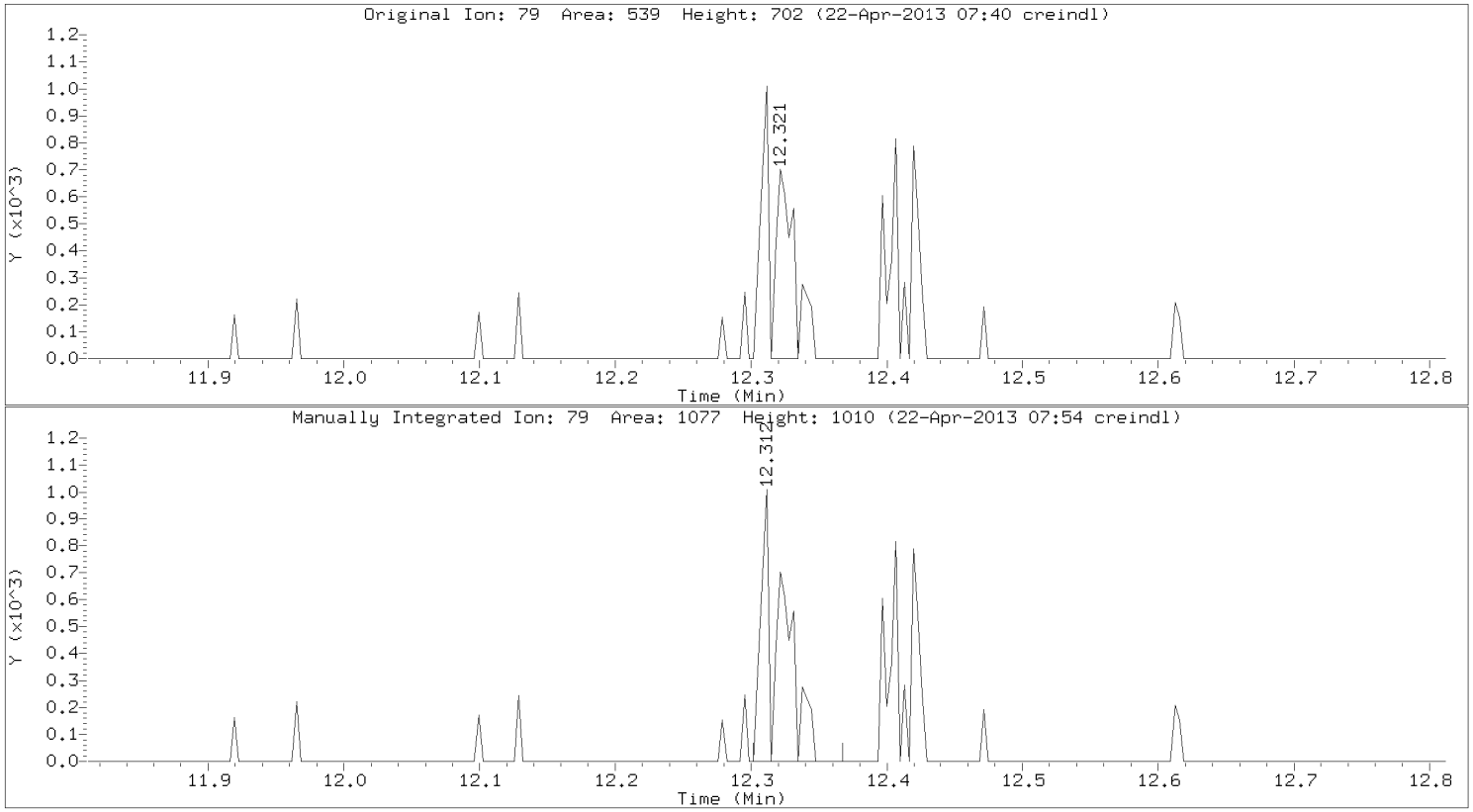


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Instrument: 10airD.i
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Compound: 4-Ethyltoluene
CAS Number: 622-96-8

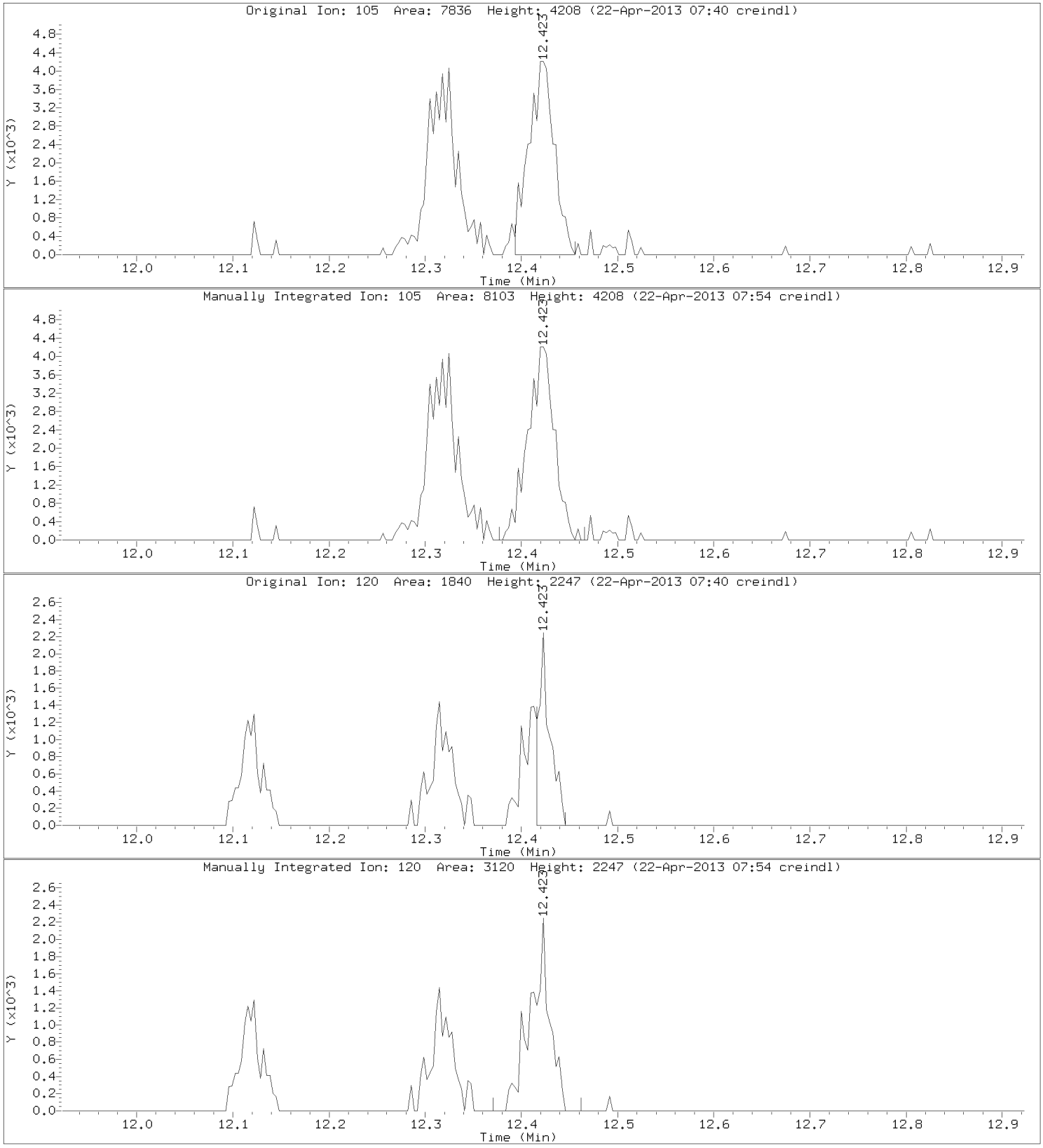


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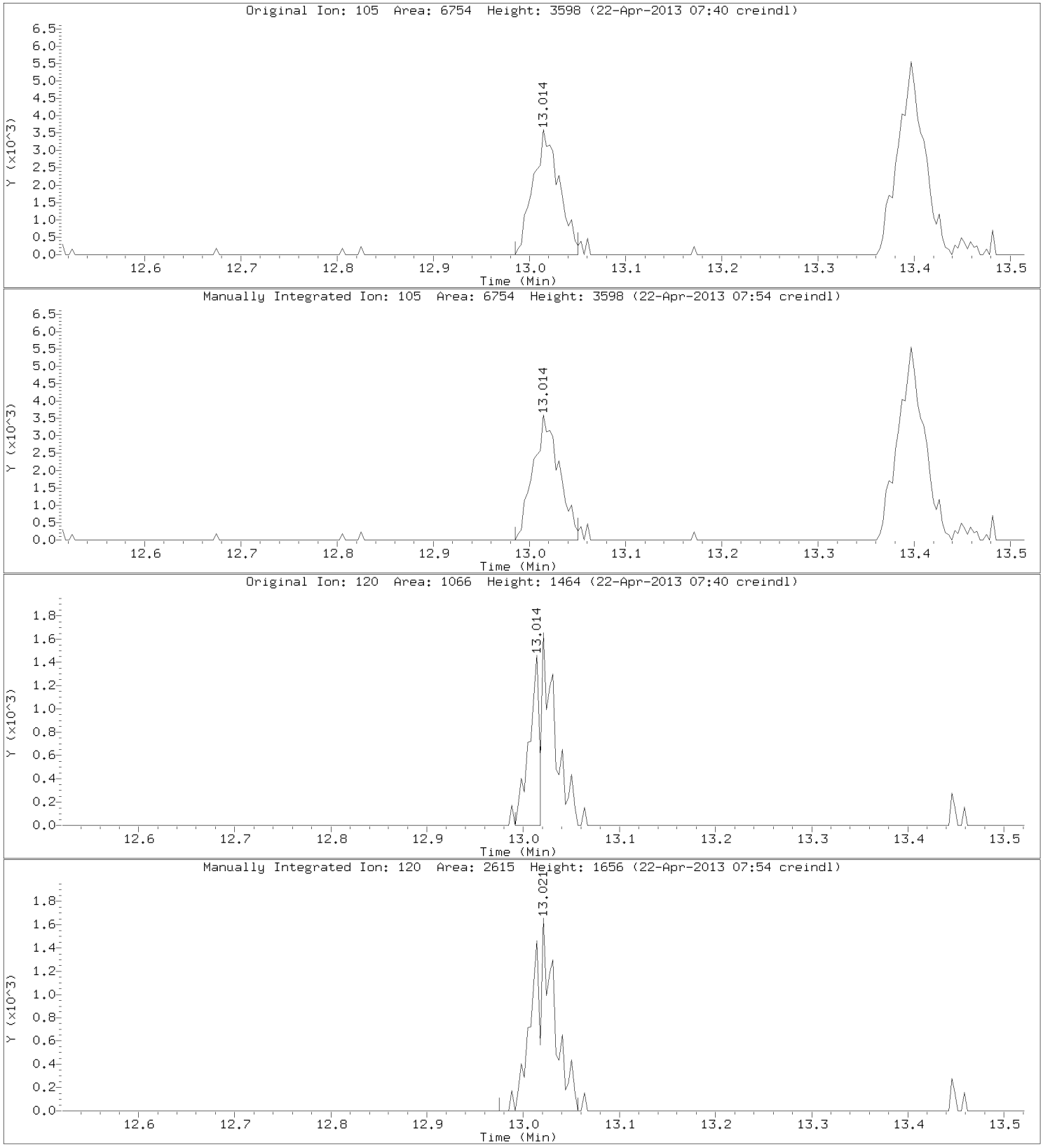
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,3,5-Trimethylbenzene
CAS Number: 108-67-8



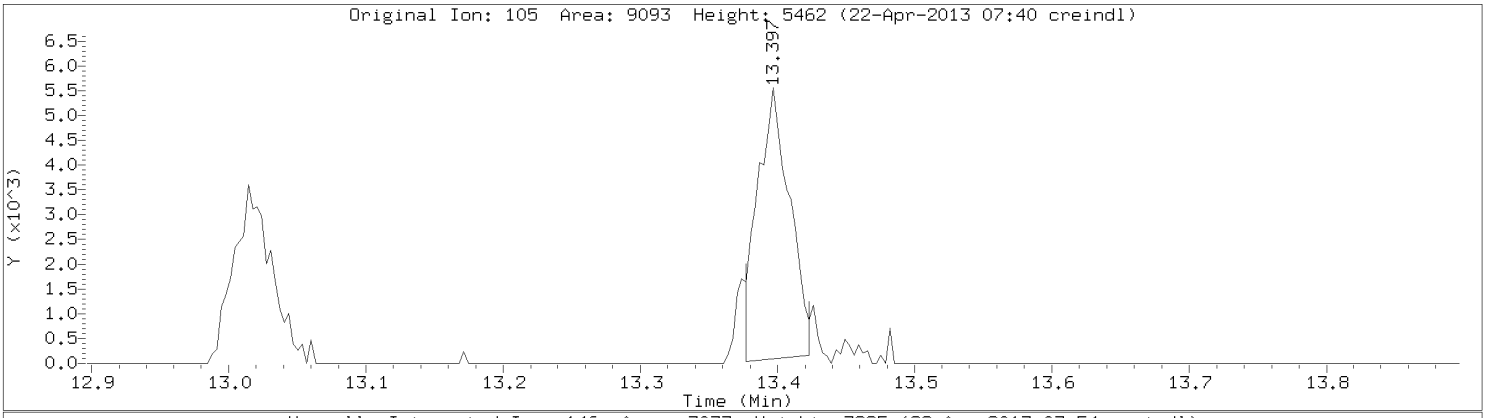
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Lab Sample ID: ICAL2

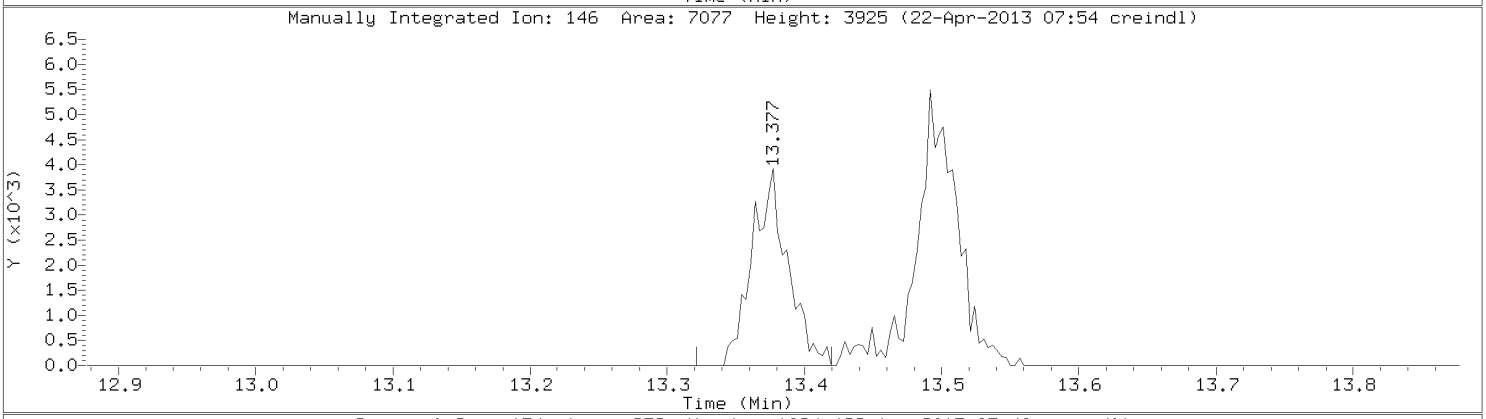
Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6

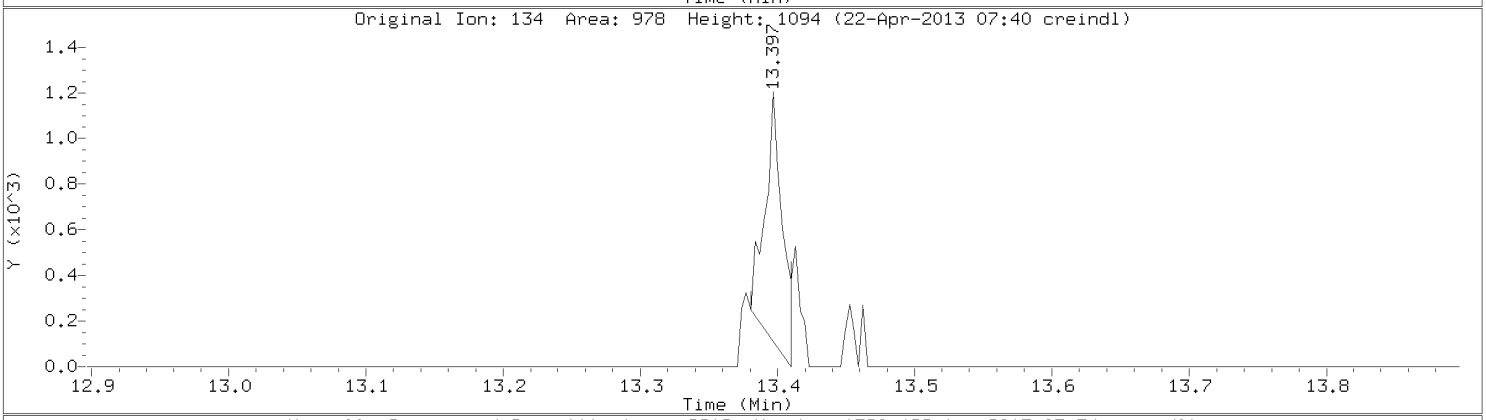


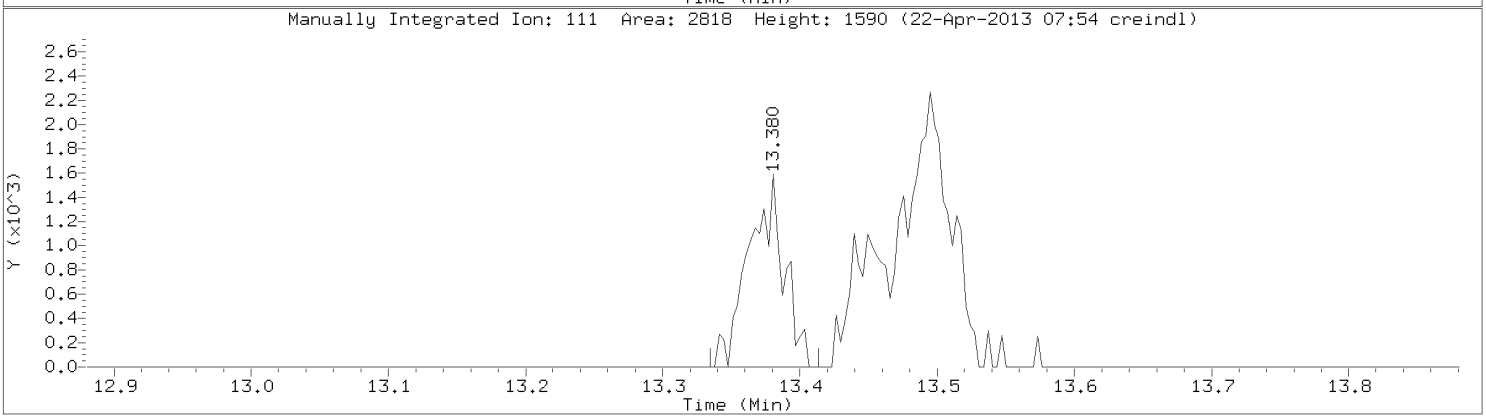
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,3-Dichlorobenzene
CAS Number: 541-73-1

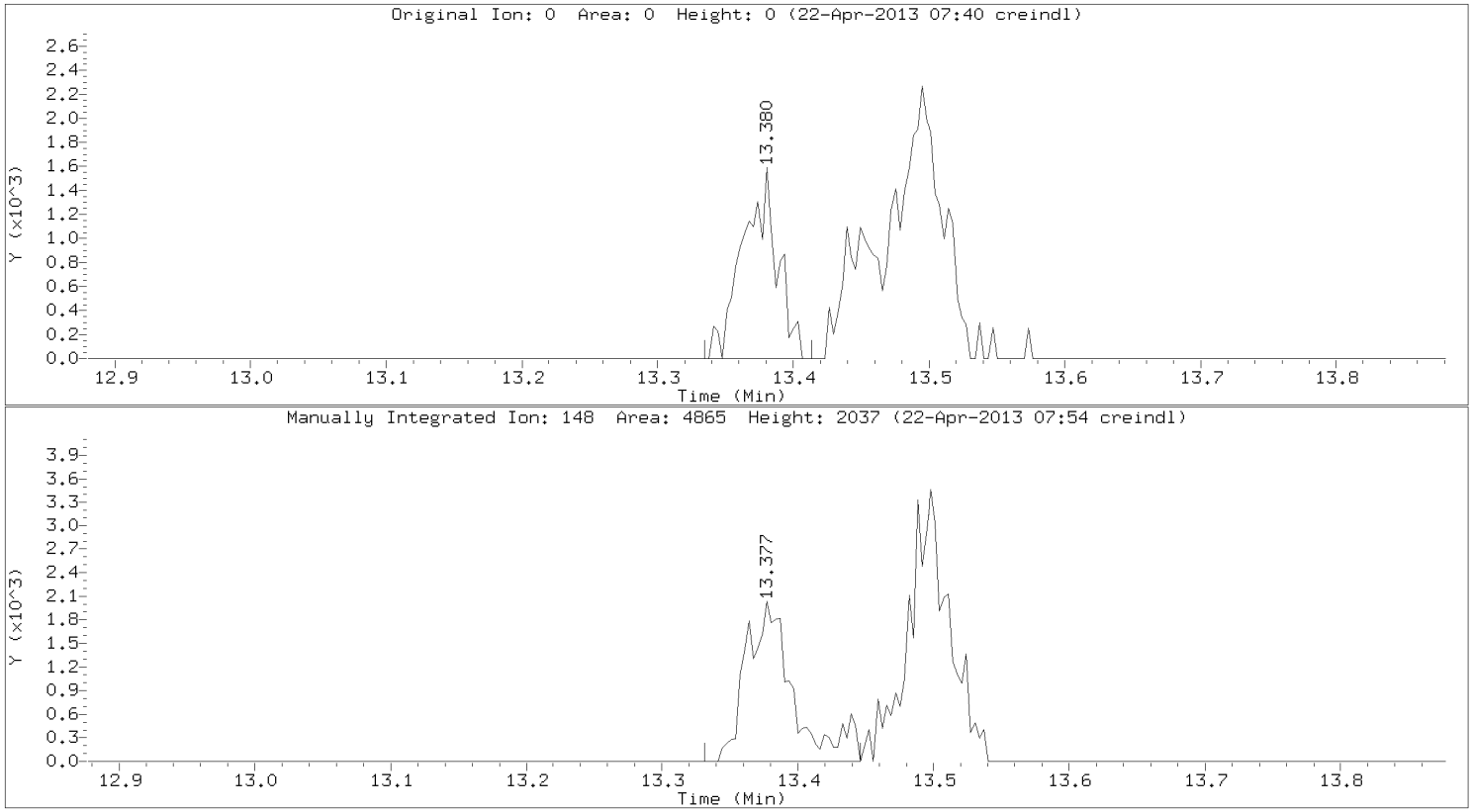






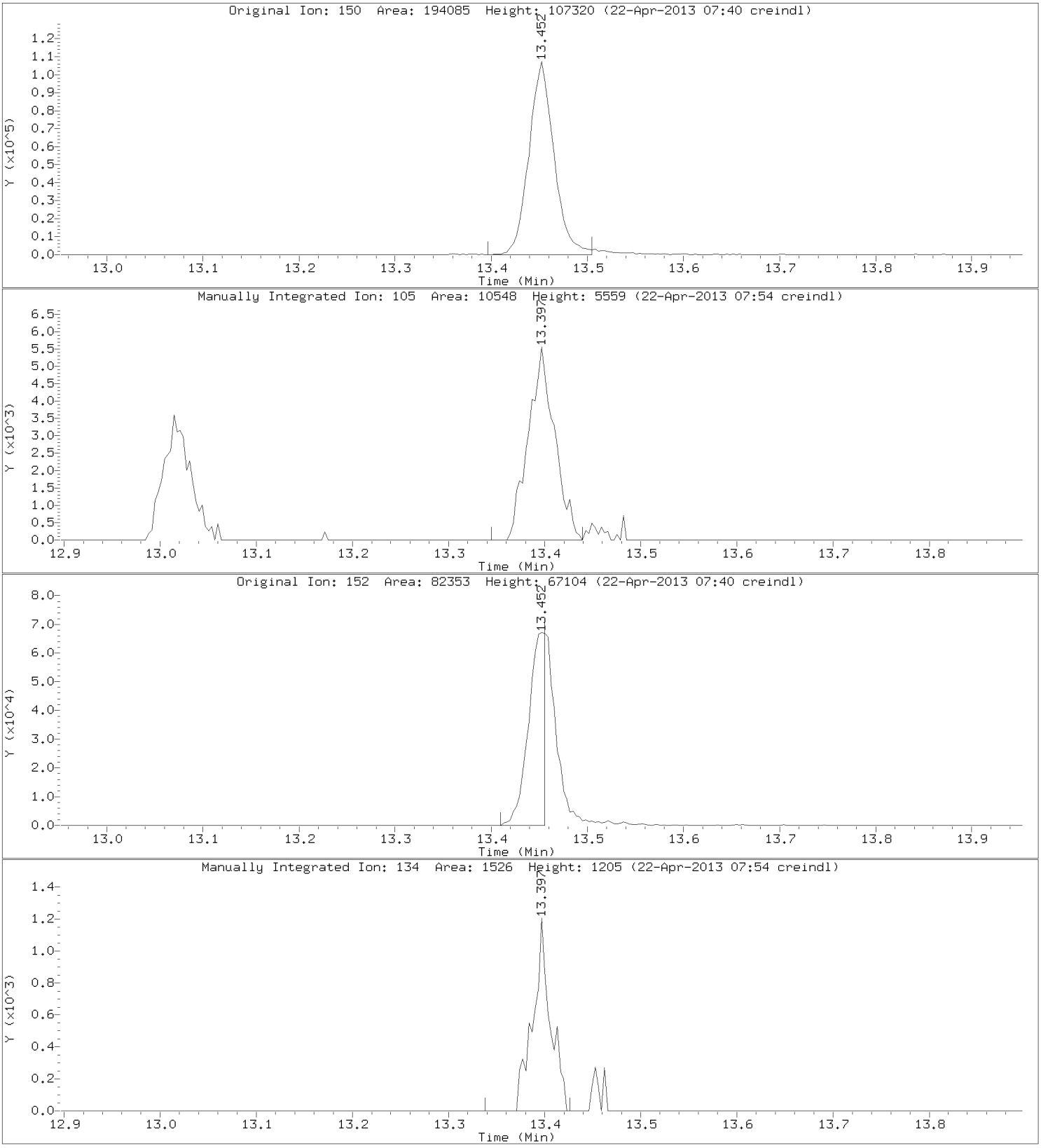


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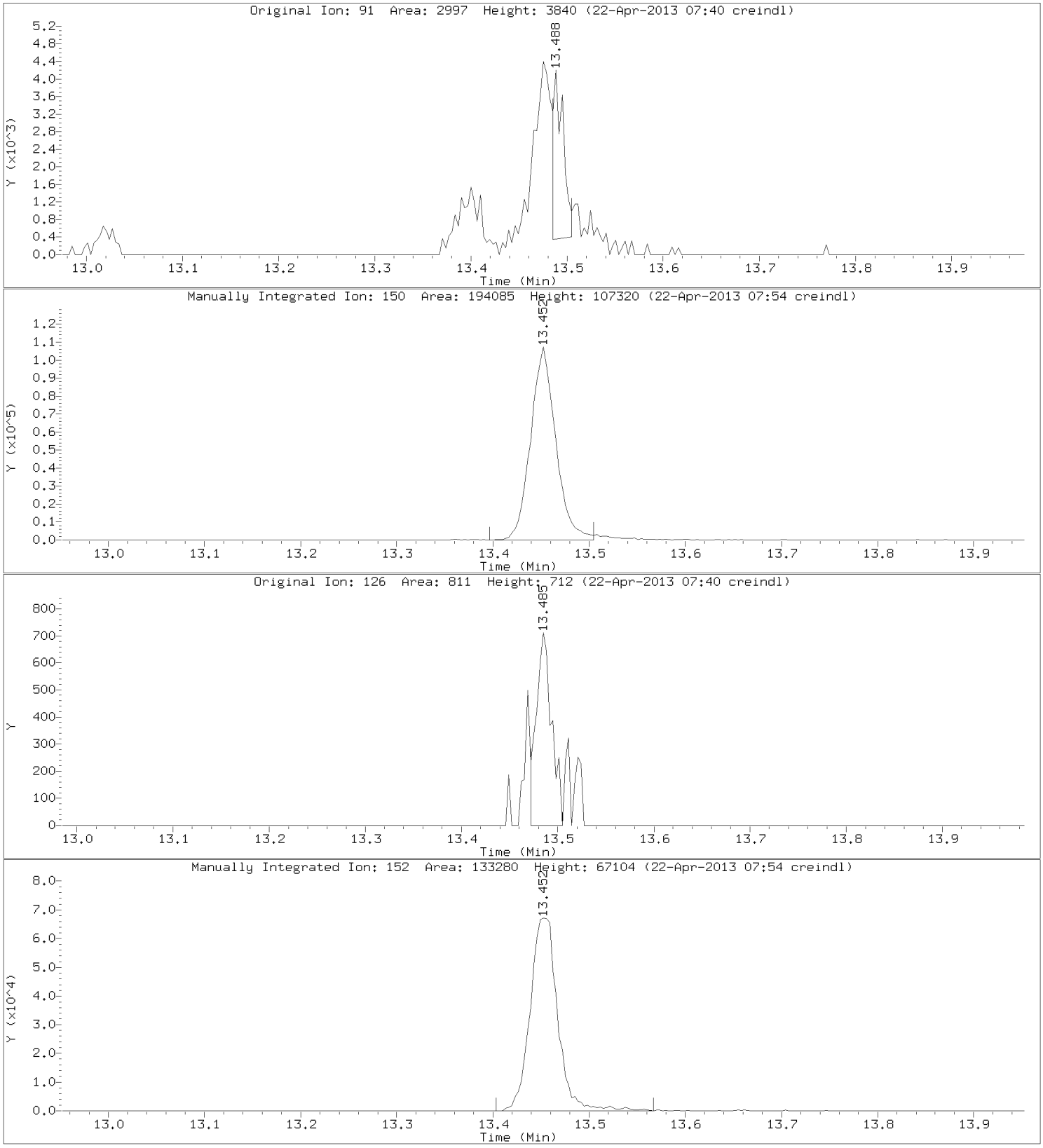
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Sec- Butylbenzene
CAS Number: 135-98-8



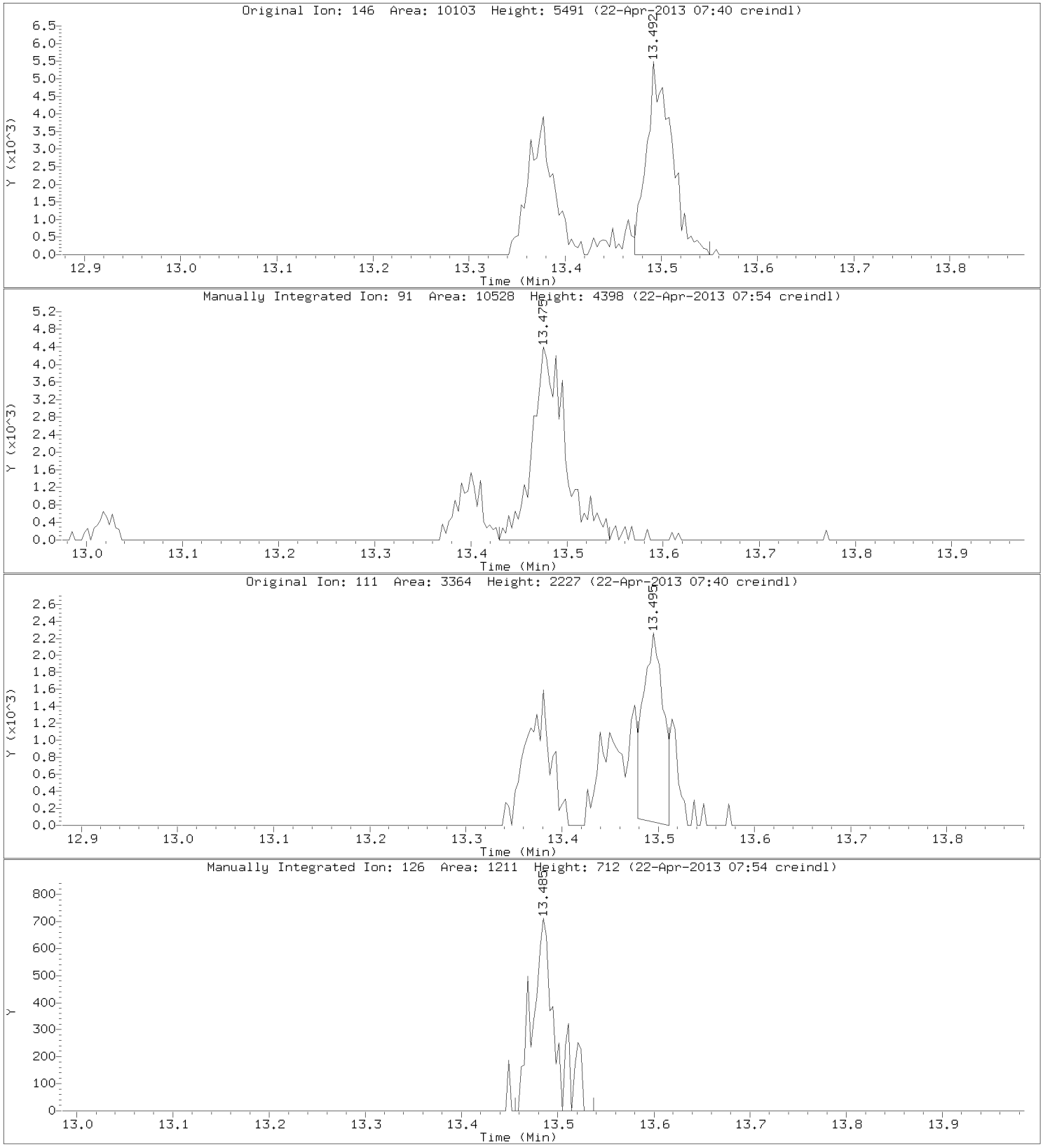
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Lab Sample ID: ICAL2

Compound: 1,4-dichlorobenzene-d4 (S)
CAS Number:



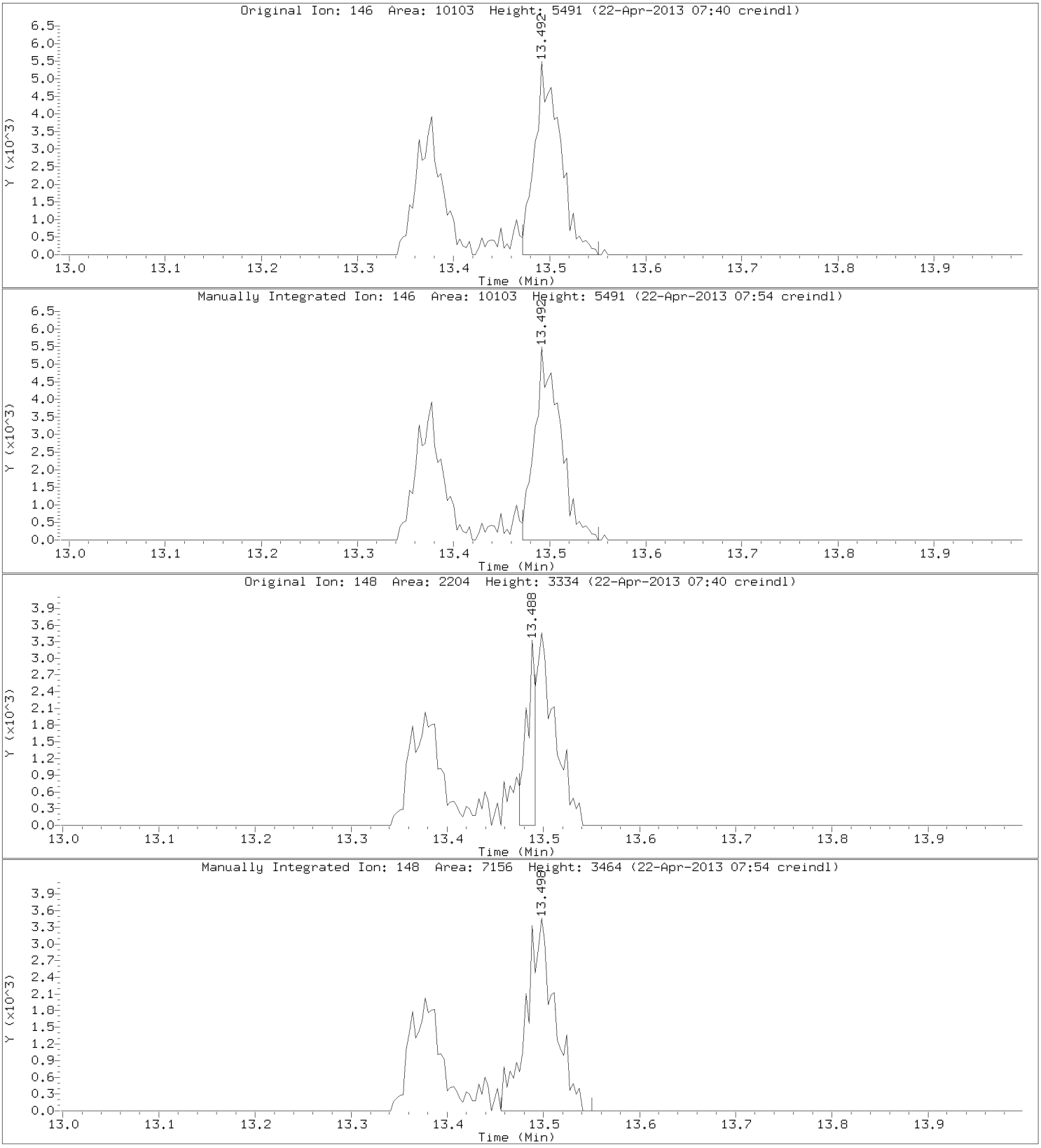
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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Benzyl Chloride
CAS Number: 100-44-7

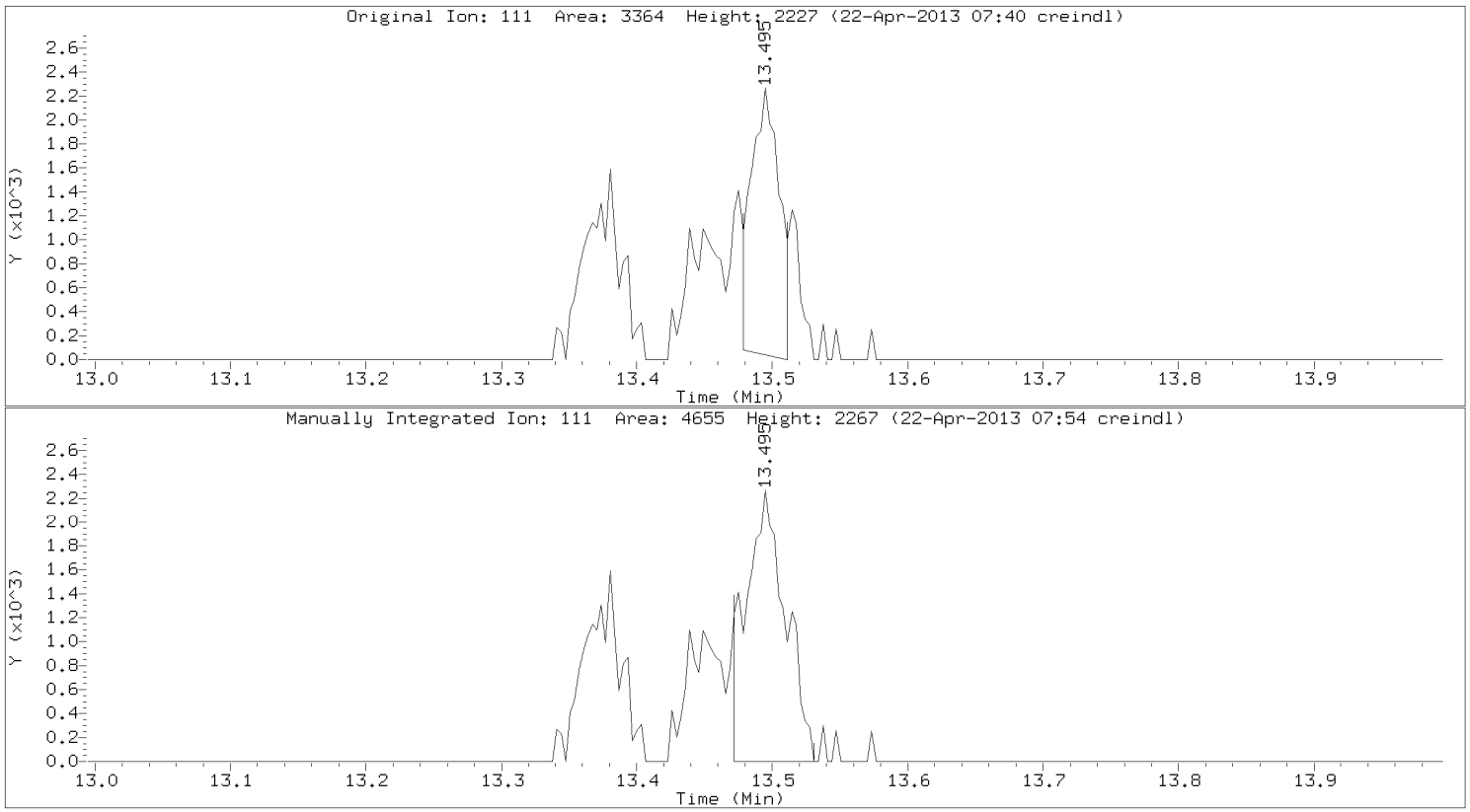


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7

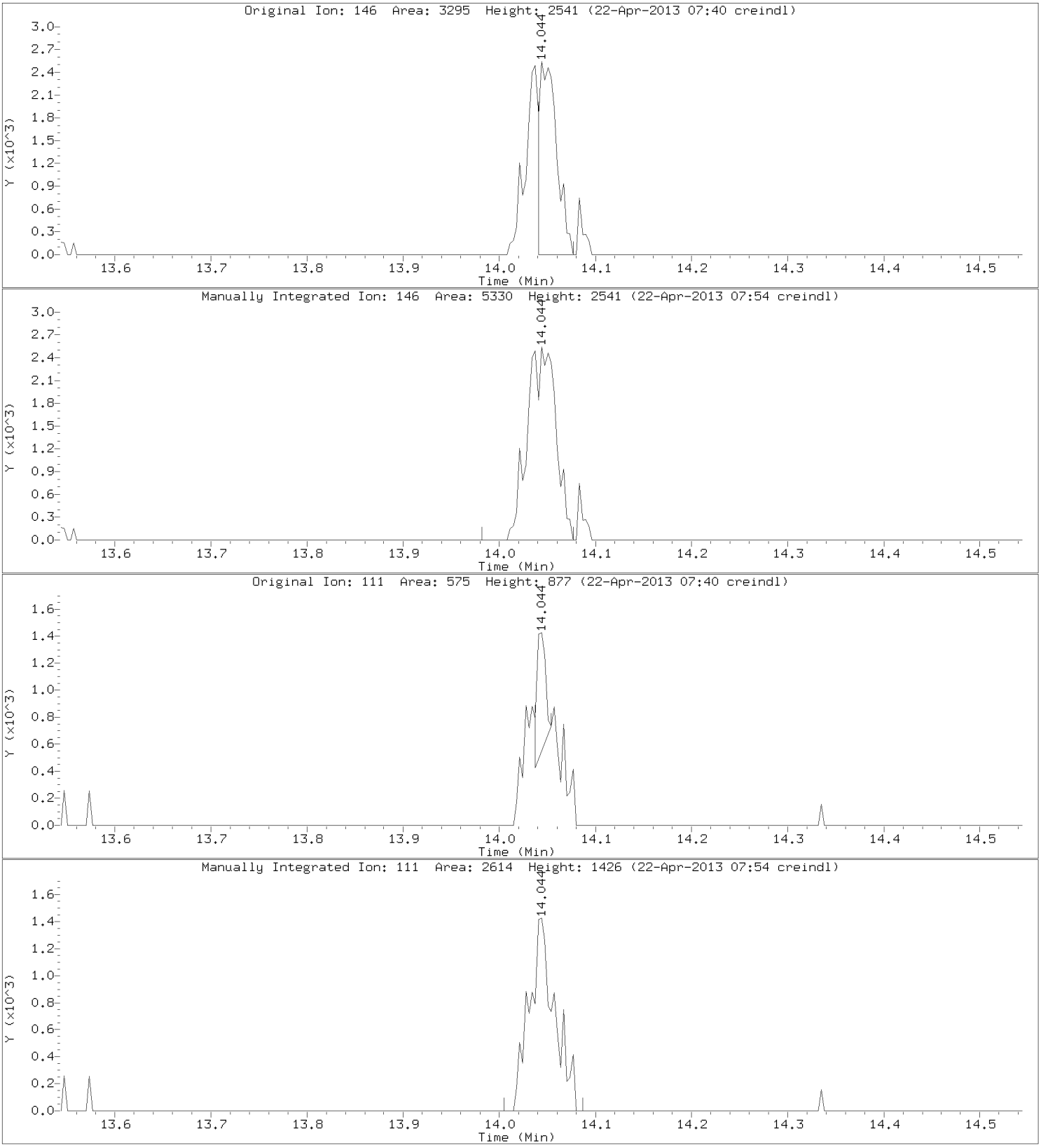


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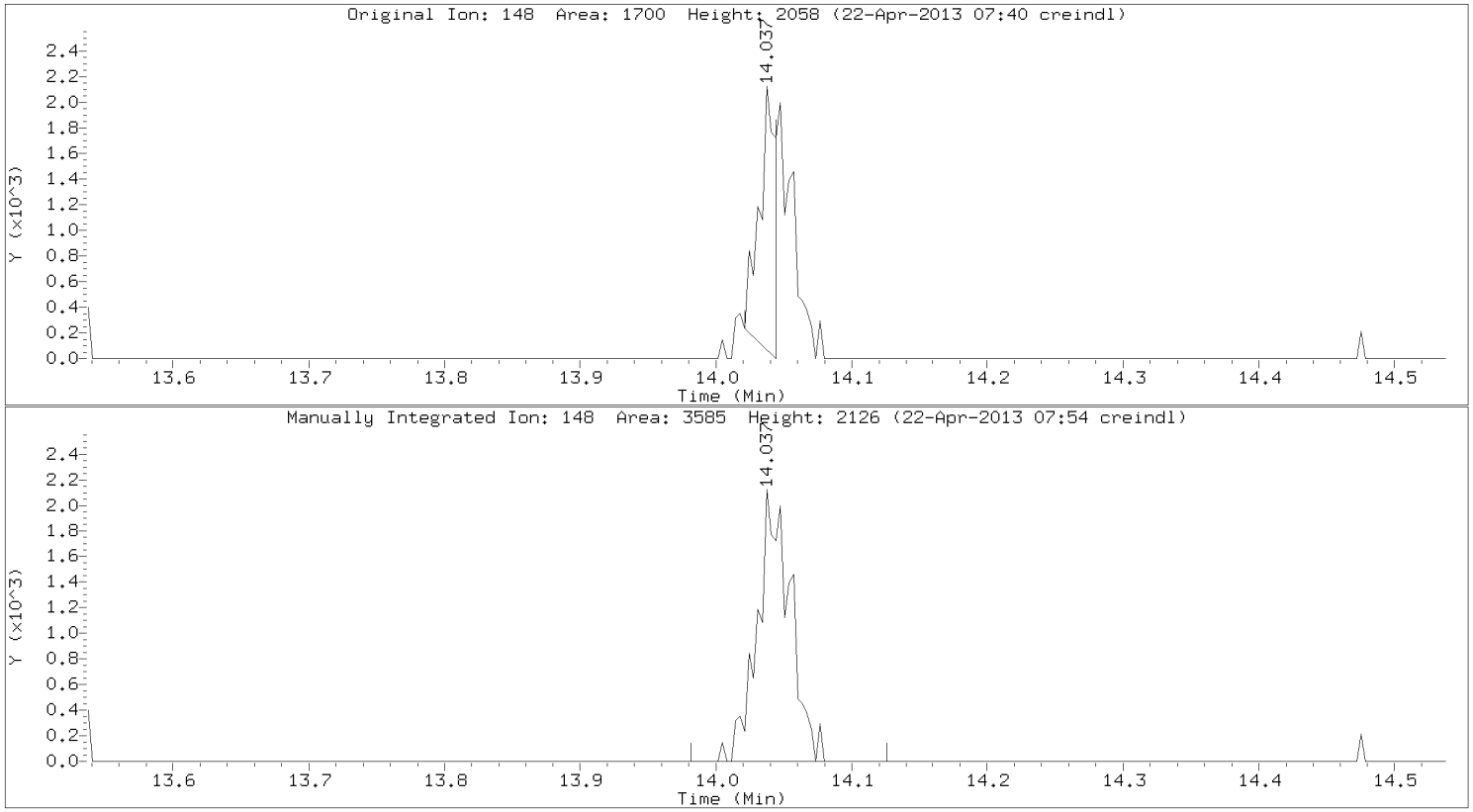


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1

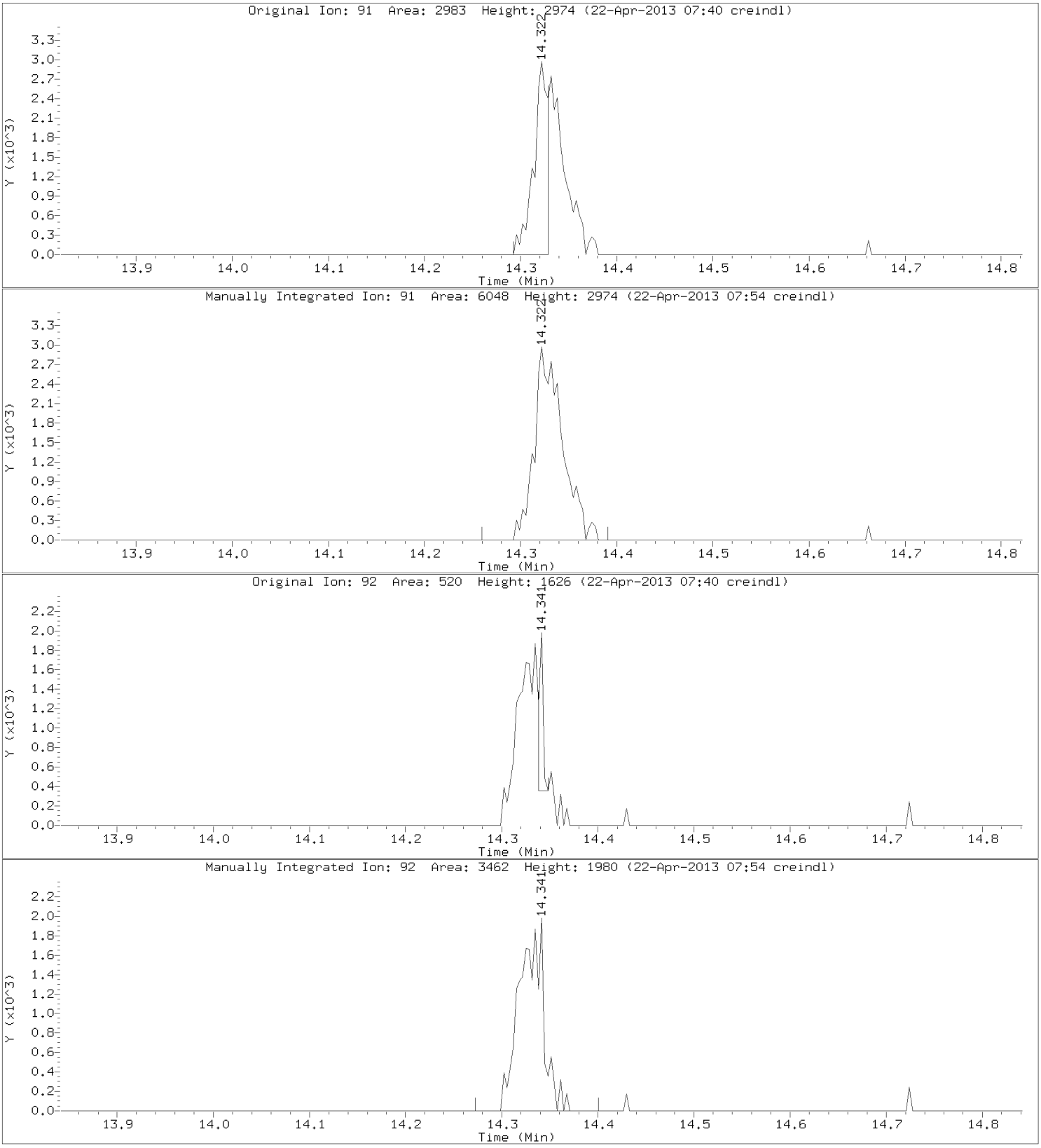


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Lab Sample ID: ICAL2



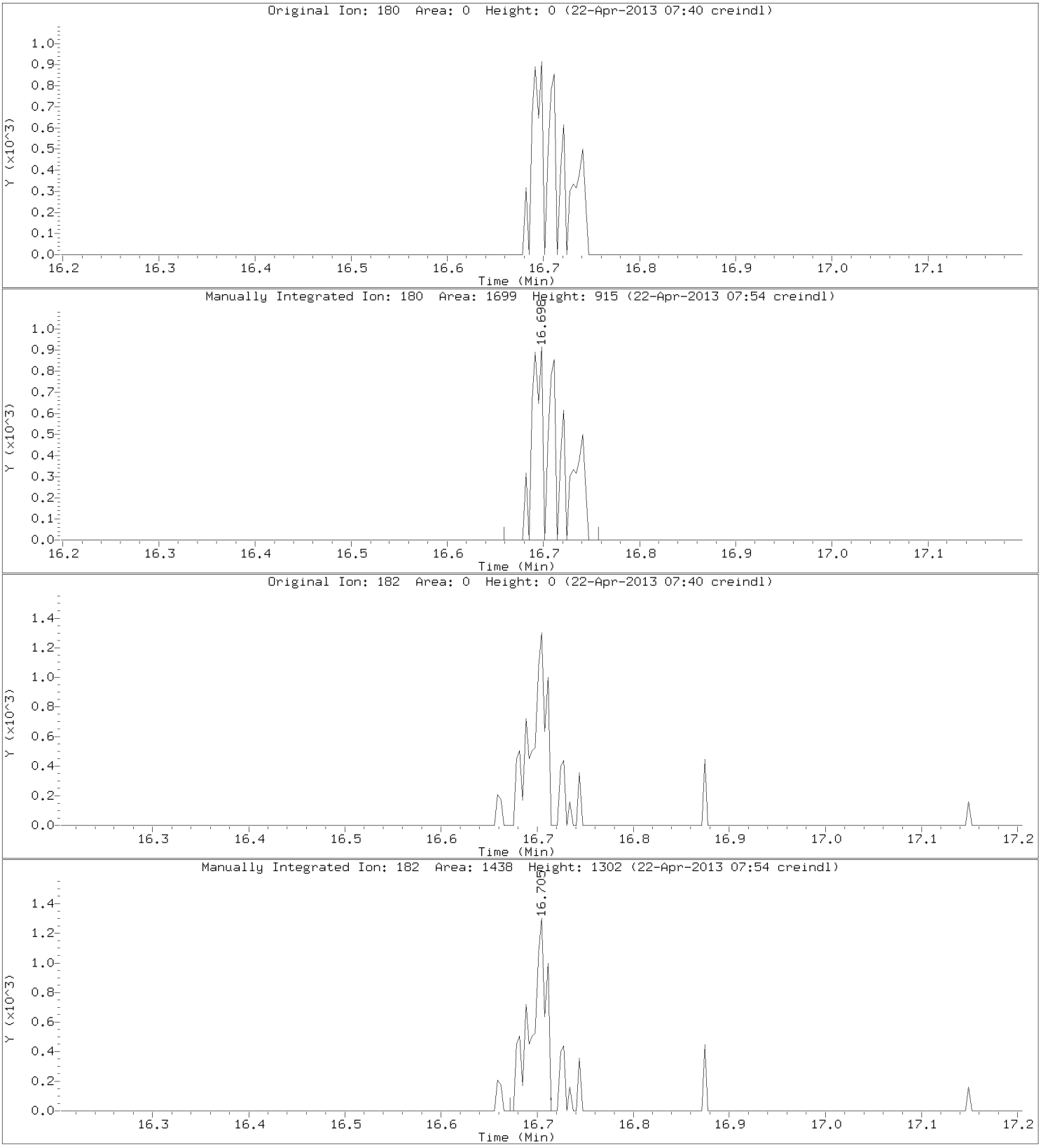
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: N-Butylbenzene
CAS Number: 104-51-8

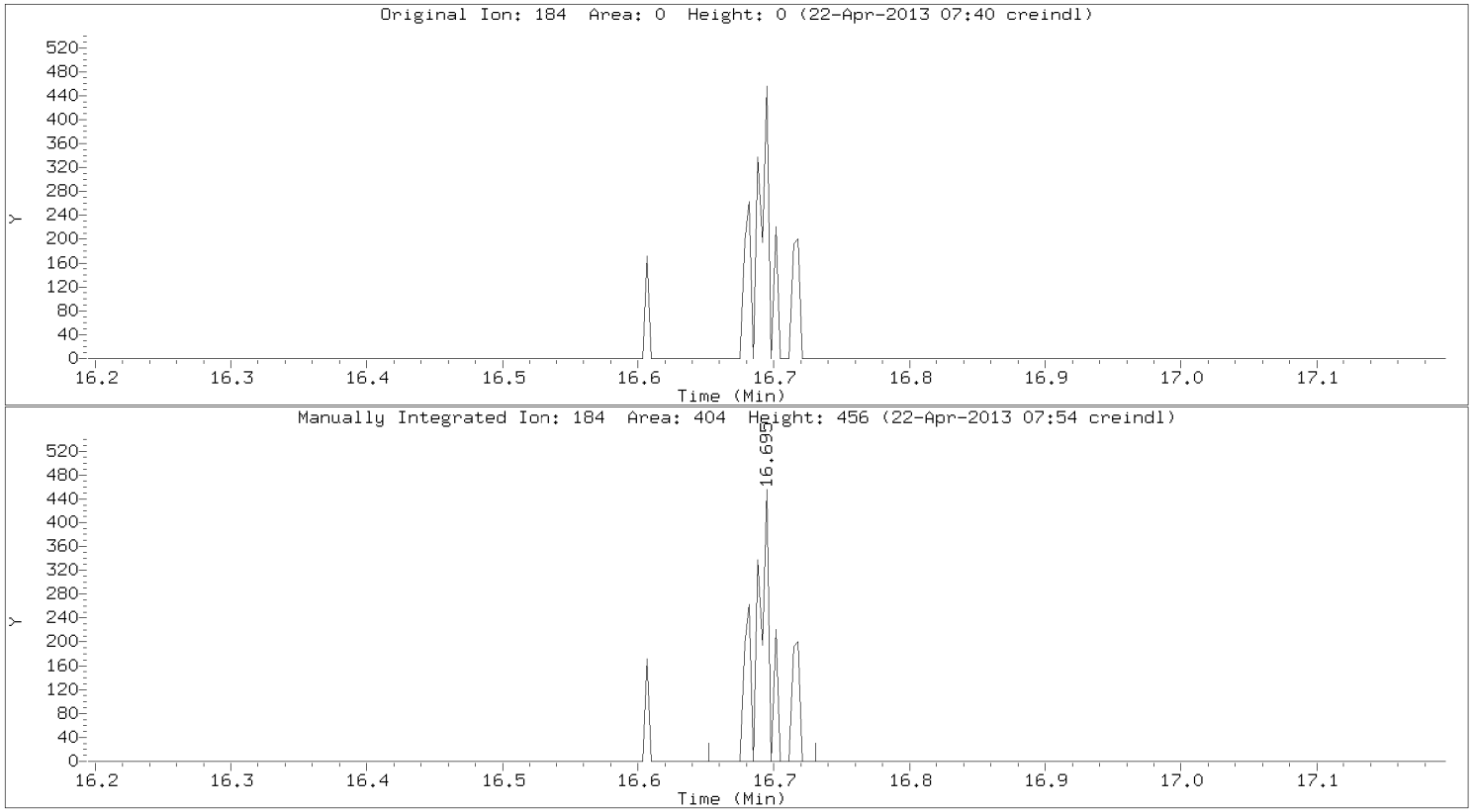


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Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: 1,2,4-Trichlorobenzene
CAS Number: 95-63-6

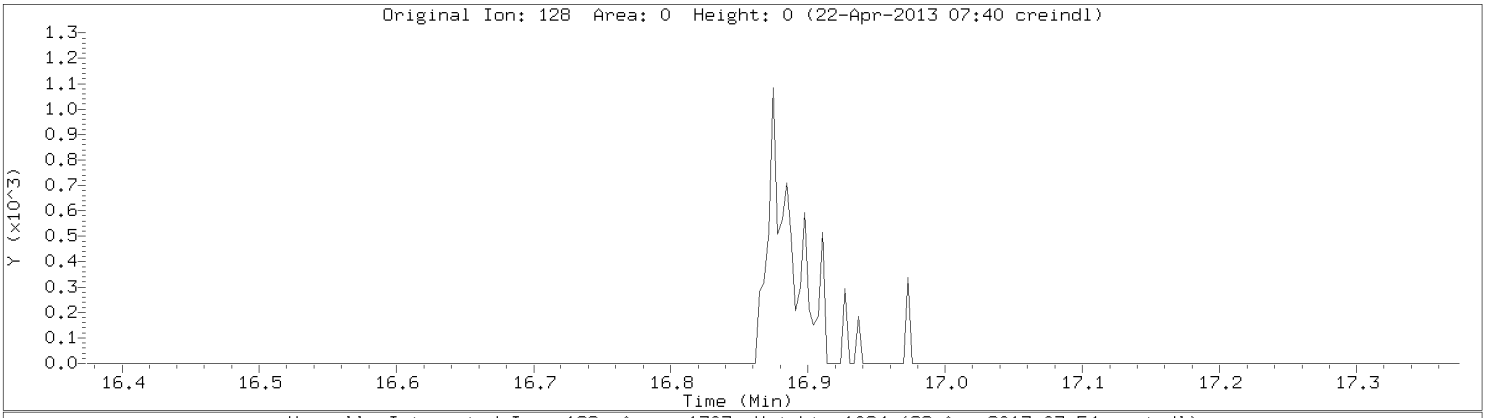


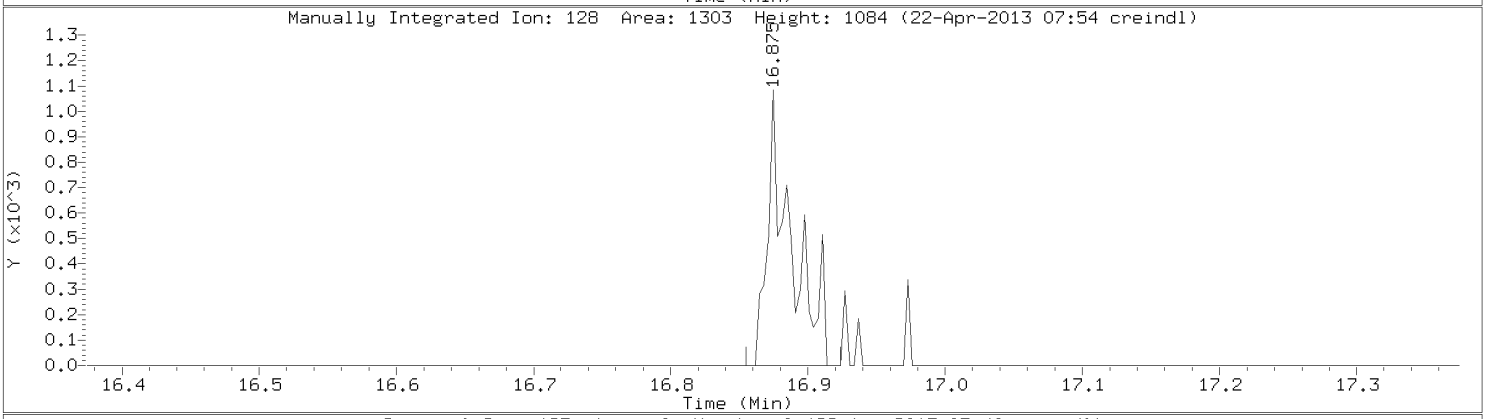
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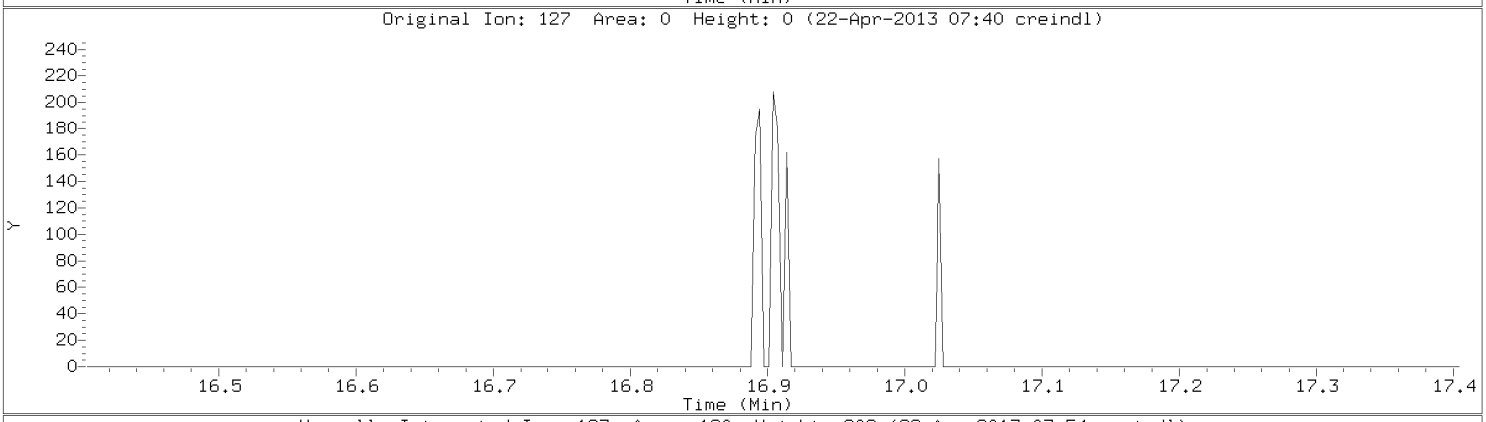


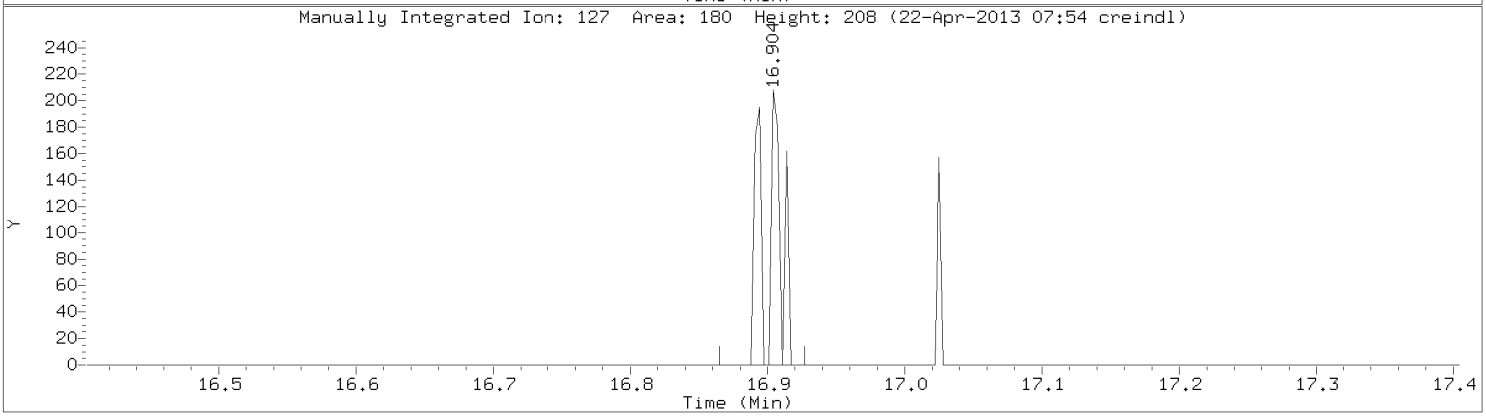
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Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Naphthalene
CAS Number: 91-20-3



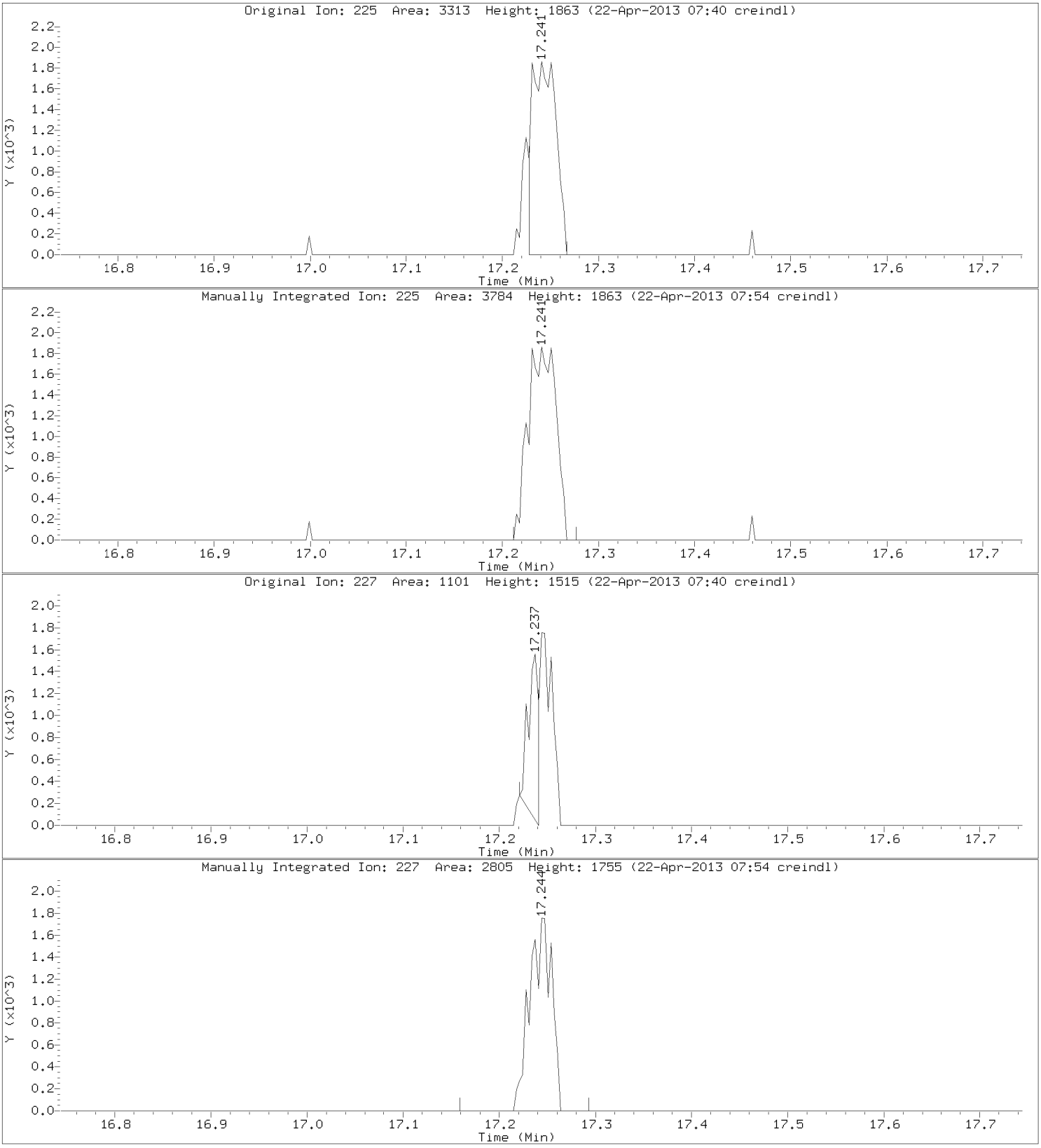




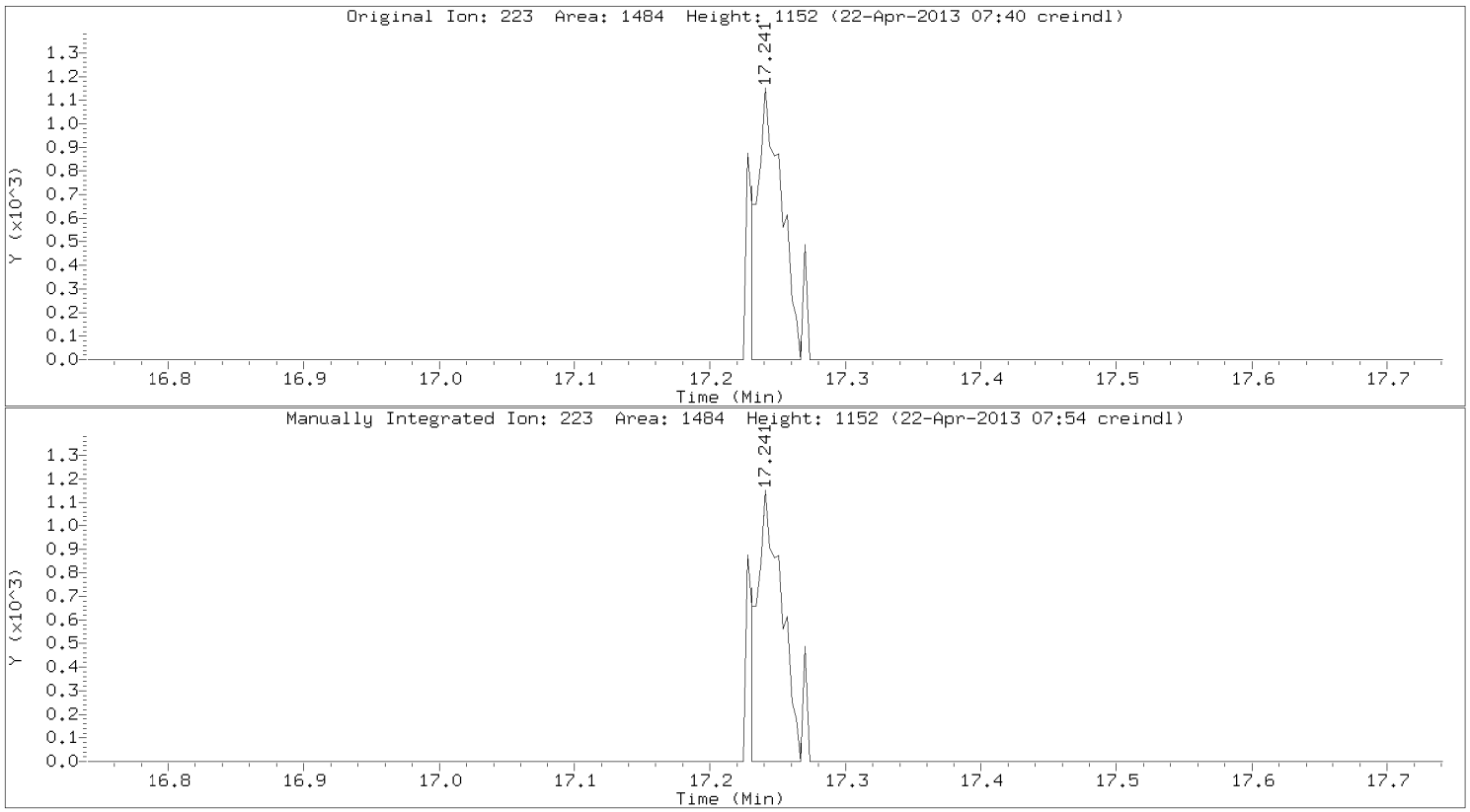


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11106.d
Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Data File: \\192.168.10.12\chem\10airD.i\042113.b/11106.d
Injection Date: 21-APR-2013 10:45
Instrument: 10airD.i
Lab Sample ID: ICAL2



Data File: \\192.168.10.12\chem\10airD.i\042113.b\11107.d
Report Date: 22-Apr-2013 07:59

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11107.d
Lab Smp Id: ICAL3
Inj Date : 21-APR-2013 11:15
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 07:41 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 11:15 Cal File: 11107.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.930	2.930	(0.484)	5633	0.50000	0.565(M)
2	Dichlorodifluoromethane	85	2.950	2.950	(0.487)	60303	0.50000	0.447
3	Dichlorotetrafluoroethane	85	3.051	3.051	(0.504)	45885	0.50000	0.433
4	Chloromethane	50	3.048	3.048	(0.503)	12228	0.50000	0.429(M)
5	Vinyl chloride	62	3.139	3.139	(0.518)	13292	0.50000	0.439
6	1,3-Butadiene	54	3.182	3.182	(0.525)	5931	0.50000	0.389
7	Bromomethane	94	3.335	3.335	(0.551)	15903	0.50000	0.438
8	Chloroethane	64	3.394	3.394	(0.560)	6654	0.50000	0.429(M)
9	Ethanol	31	3.437	3.437	(0.567)	8220	0.50000	0.348(M)
10	Vinyl Bromide	106	3.532	3.532	(0.583)	12409	0.50000	0.416(M)
11	Acrolein	56	3.643	3.643	(0.601)	3568	0.50000	0.427(M)
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	58788	0.50000	0.459
13	Acetone	43	3.692	3.692	(0.609)	30082	0.50000	0.590(M)
14	Isopropyl Alcohol	45	3.711	3.711	(0.613)	16275	0.50000	5.19(M)
15	1,1-Dichloroethene	61	3.930	3.930	(0.649)	28635	0.50000	0.462
16	Acrylonitrile	53	3.943	3.943	(0.651)	7561	0.50000	0.422(M)
17	Tert Butyl Alcohol	59	3.943	3.943	(0.651)	25293	0.50000	0.503(M)
18	Freon 113	101	3.983	3.983	(0.657)	37889	0.50000	0.461
19	Methylene chloride	49	4.045	4.045	(0.668)	17119	0.50000	0.473
20	Allyl Chloride	76	4.061	4.061	(0.670)	6856	0.50000	0.412(M)
21	Carbon Disulfide	76	4.179	4.179	(0.690)	51959	0.50000	0.822(H)
22	trans-1,2-dichloroethene	96	4.375	4.375	(0.722)	16213	0.50000	0.458
23	Methyl Tert Butyl Ether	73	4.417	4.417	(0.729)	31909	0.50000	0.453(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11107.d
Report Date: 22-Apr-2013 07:59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	24 Vinyl Acetate	43	4.535	4.535	(0.749)	21957	0.50000	0.362(M)
	25 1,1-Dichloroethane	63	4.535	4.535	(0.749)	31576	0.50000	0.443
$	26 Hexane-d14(S)	66	4.656	4.656	(0.769)	481425	10.0000	9.32
	27 Methyl Ethyl Ketone	72	4.748	4.748	(0.784)	7958	0.50000	0.511
	28 n-Hexane	57	4.774	4.774	(0.788)	20362	0.50000	0.447
	29 cis-1,2-Dichloroethene	96	4.934	4.934	(0.814)	14728	0.50000	0.762
	30 Ethyl Acetate	43	4.963	4.963	(0.819)	19943	0.50000	0.408(M)
	31 Chloroform	83	5.074	5.074	(0.838)	40784	0.50000	0.420
	32 Tetrahydrofuran	42	5.290	5.290	(0.873)	5130	0.50000	0.594(M)
	33 1,1,1-Trichloroethane	97	5.561	5.561	(0.918)	41298	0.50000	0.427
	34 1,2-Dichloroethane	62	5.578	5.578	(0.921)	31060	0.50000	0.428
	35 Benzene	78	5.856	5.856	(0.967)	35149	0.50000	0.391
	36 Carbon tetrachloride	117	5.872	5.872	(0.969)	48012	0.50000	0.480
	37 Cyclohexane	56	5.875	5.875	(0.970)	9655	0.50000	0.856
*	38 1,4-Difluorobenzene	114	6.058	6.058	(1.000)	1081382	10.0000	
	39 2,2,4-Trimethylpentane	57	6.241	6.241	(1.030)	35944	0.50000	0.769(M)
	40 Heptane	43	6.408	6.408	(1.058)	10363	0.50000	0.788
	41 1,2-Dichloropropane	63	6.477	6.477	(1.069)	14226	0.50000	0.510(M)
	42 Trichloroethene	130	6.506	6.506	(1.074)	12700	0.50000	0.420(M)
	43 1,4-Dioxane	88	6.660	6.660	(1.099)	4924	0.50000	0.500(M)
	44 Bromodichloromethane	83	6.620	6.620	(1.093)	46940	0.50000	0.456
	45 Methyl Isobutyl Ketone	43	7.219	7.219	(1.192)	10399	0.50000	3.14(M)
	46 cis-1,3-Dichloropropene	75	7.261	7.261	(1.199)	18128	0.50000	0.698(M)
	47 trans-1,3-Dichloropropene	75	7.755	7.755	(1.280)	13103	0.50000	0.745(M)
$	48 Toluene-d8 (S)	98	7.827	7.827	(1.292)	957858	10.0000	9.81
	49 Toluene	91	7.918	7.918	(1.307)	43872	0.50000	0.407
	50 1,1,2-Trichloroethane	97	7.925	7.925	(1.308)	18982	0.50000	0.451(M)
	51 Methyl Butyl Ketone	43	8.235	8.235	(0.851)	12045	0.50000	5.12(M)
	52 Dibromochloromethane	129	8.539	8.539	(0.882)	26012	0.50000	0.414
	53 1,2-Dibromoethane	107	8.810	8.810	(0.910)	25632	0.50000	0.452
	54 Tetrachloroethene	166	8.899	8.899	(0.920)	22360	0.50000	0.415(M)
*	55 Chlorobenzene - d5	117	9.677	9.677	(1.000)	550684	10.0000	
	56 Chlorobenzene	112	9.726	9.726	(1.005)	32873	0.50000	0.447(M)
	57 Ethyl Benzene	91	10.033	10.033	(1.037)	36955	0.50000	0.671(M)
	58 m&p-Xylene	91	10.200	10.200	(1.054)	28843	0.50000	0.645(M)
	59 Bromoform	173	10.644	10.644	(1.100)	27595	0.50000	0.412(M)
	60 Styrene	104	10.703	10.703	(1.106)	12751	0.50000	0.711(M)
	61 o-Xylene	91	10.775	10.775	(1.113)	38715	0.50000	0.640
	62 1,1,2,2-Tetrachloroethane	83	11.085	11.085	(1.146)	33628	0.50000	0.451
	63 Isopropylbenzene	105	11.451	11.451	(1.183)	59670	0.50000	0.429
	64 N-Propylbenzene	91	12.118	12.118	(1.252)	42635	0.50000	0.503
	65 4-Ethyltoluene	105	12.318	12.318	(1.273)	33238	0.50000	0.483(M)
	66 1,3,5-Trimethylbenzene	105	12.422	12.422	(1.284)	36344	0.50000	0.499
	67 1,2,4-Trimethylbenzene	105	13.017	13.017	(1.345)	23968	0.50000	0.392(M)
	68 1,3-Dichlorobenzene	146	13.377	13.377	(1.382)	23453	0.50000	0.510(M)
	69 Sec- Butylbenzene	105	13.396	13.396	(1.384)	51174	0.50000	0.411(M)
$	70 1,4-dichlorobenzene-d4 (S)	150	13.449	13.449	(1.390)	245418	10.0000	10.1
	71 Benzyl Chloride	91	13.478	13.478	(1.393)	31746	0.50000	0.737(M)
	72 1,4-Dichlorobenzene	146	13.498	13.498	(1.395)	28694	0.50000	0.550(M)
	73 1,2-Dichlorobenzene	146	14.034	14.034	(1.450)	20040	0.50000	0.680(M)
	74 N-Butylbenzene	91	14.331	14.331	(1.481)	33369	0.50000	0.989(M)
	75 1,2,4-Trichlorobenzene	180	16.694	16.694	(1.725)	10048	0.50000	1.22(M)
	76 Naphthalene	128	16.874	16.874	(1.744)	9822	0.50000	1.52(M)
	77 Hexachlorobutadiene	225	17.247	17.247	(1.782)	14883	0.50000	0.537(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11107.d
Report Date: 22-Apr-2013 07:59

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11107.d
Report Date: 22-Apr-2013 07:59

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11107.d
Lab Smp Id: ICAL3
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info:

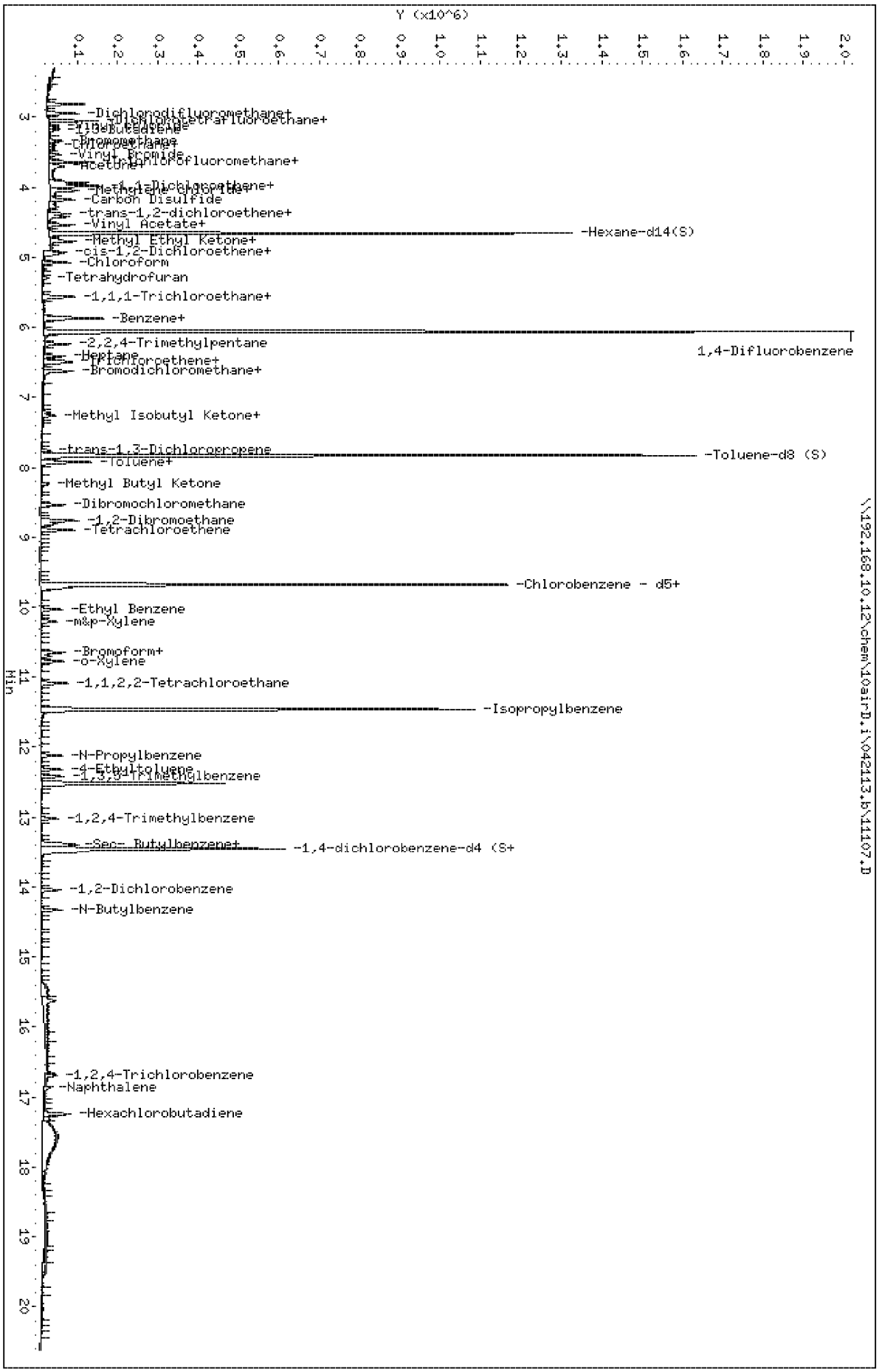
Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	1081382	-10.01
55 Chlorobenzene - d	638533	383120	893946	550684	-13.76

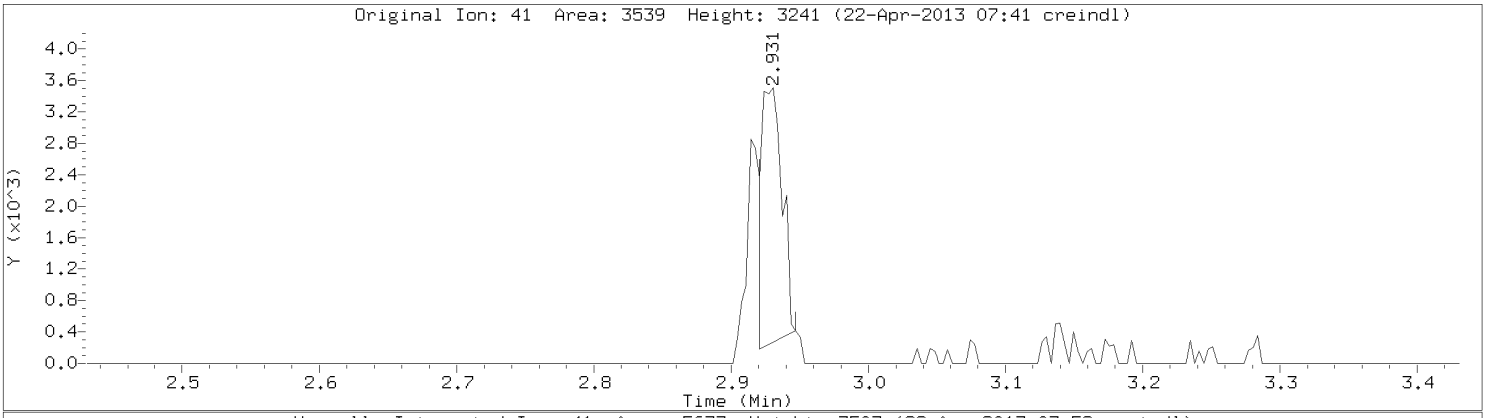
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

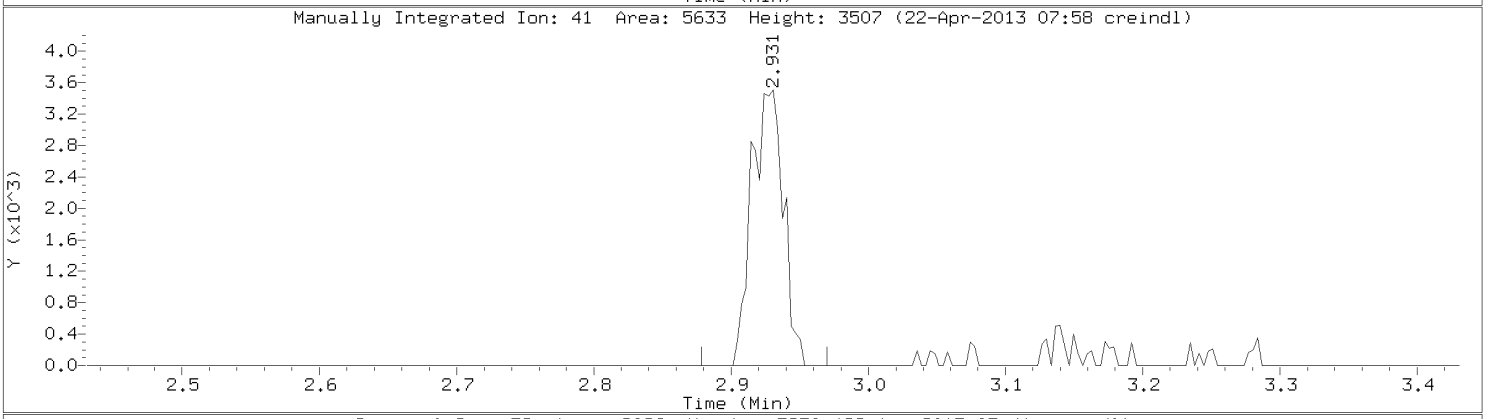
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

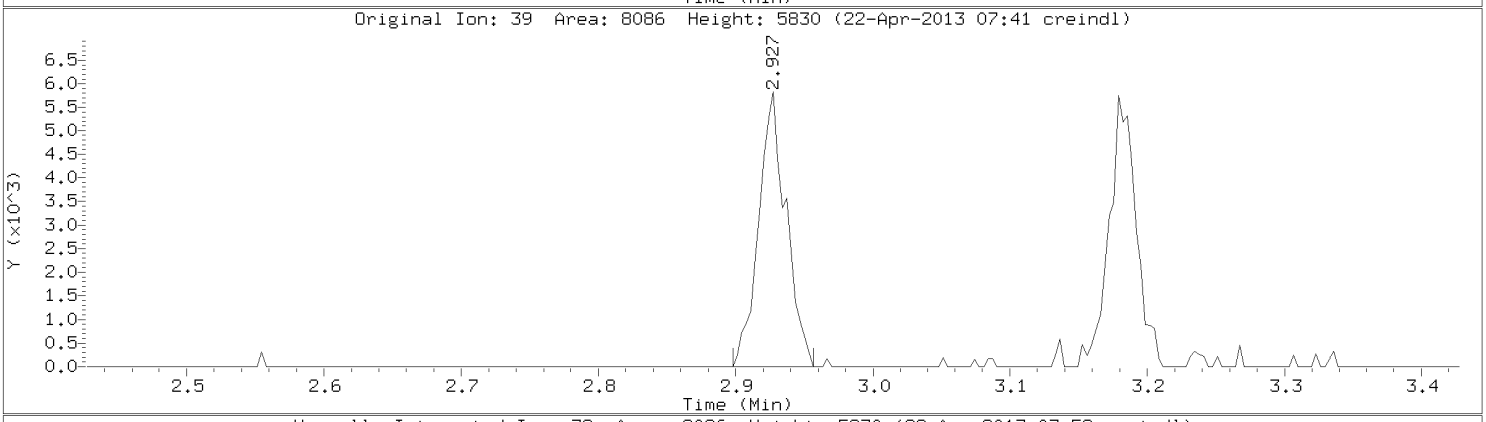

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11107.D
Date : 24-APR-2013 11:15
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^6)
\\192.168.10.12\chem\10airD.i\042113.b\11107.D
Min
-Dichlorodifluoromethane+
-Trichlorotrifluoroethane+
-Vinyl Bromide
-Acetone+
-Methylene Chloride
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
1,4-Difluorobenzene
-Methyl Isobutyl Ketone+
-trans-1,3-Dichloropropene
-Toluene+
-Toluene-d8 (S)
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform+
-o-Xylene
-1,1,2,2-Tetrachloroethane
-Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-Sec- Butylbenzene+
-1,4-dichlorobenzene-d4 (S+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene

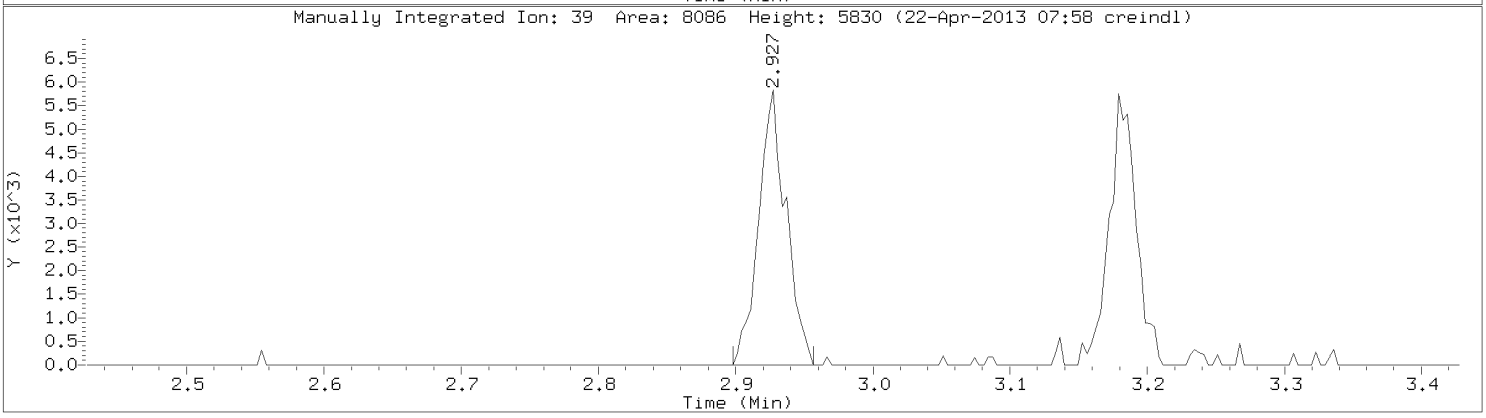
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Propylene
CAS Number: 76-14-2



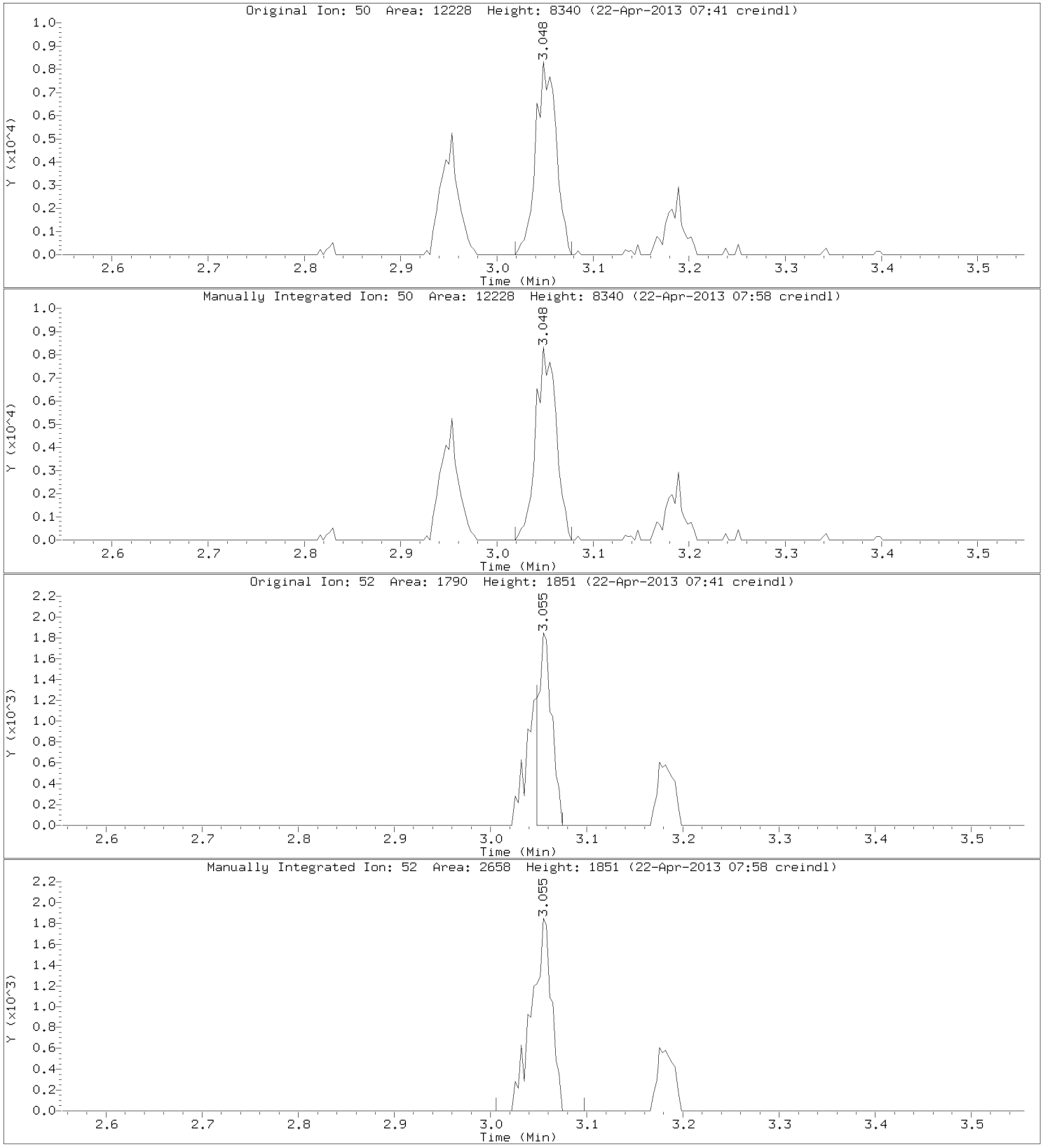






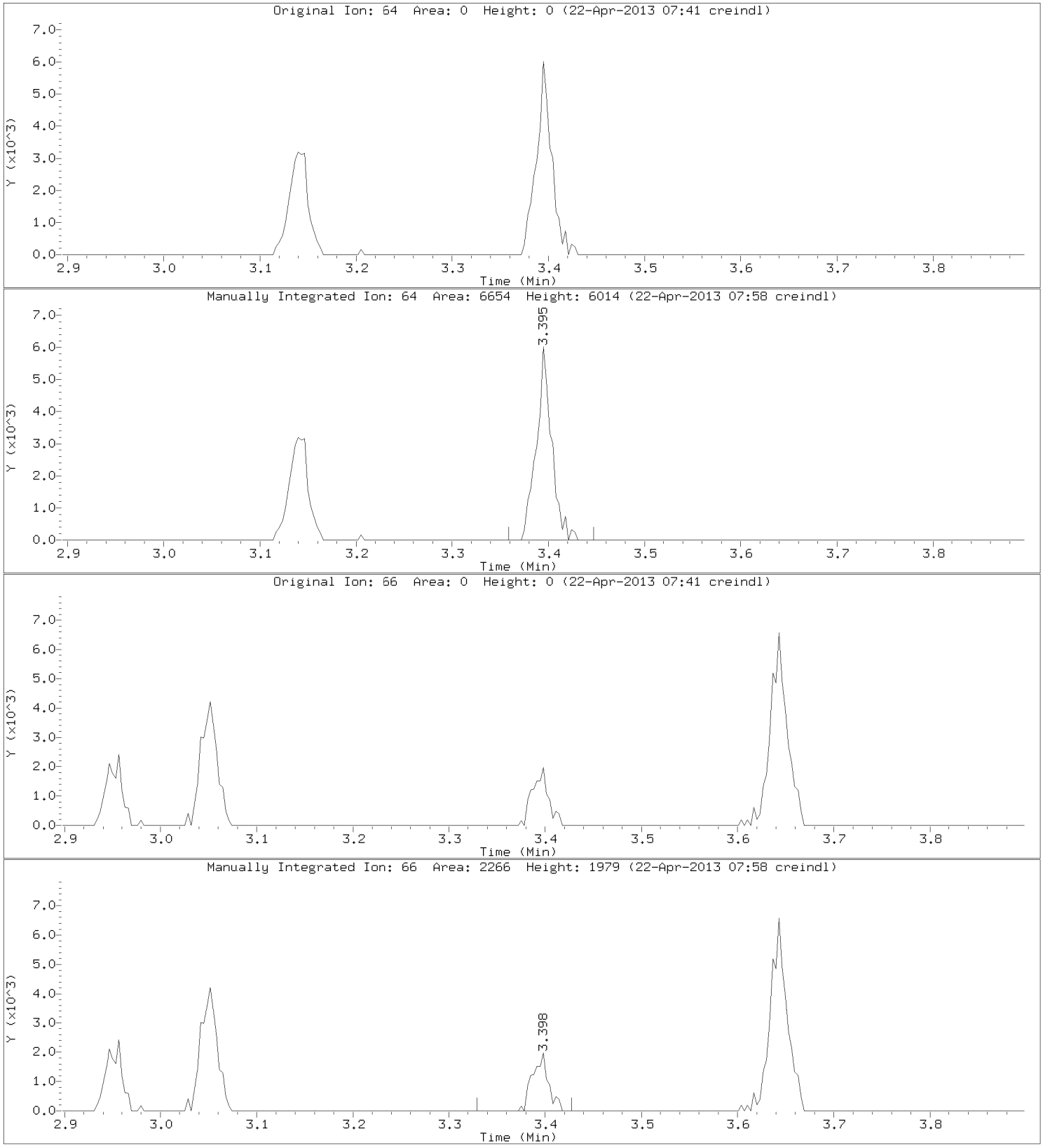
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Chloromethane
CAS Number: 74-87-3



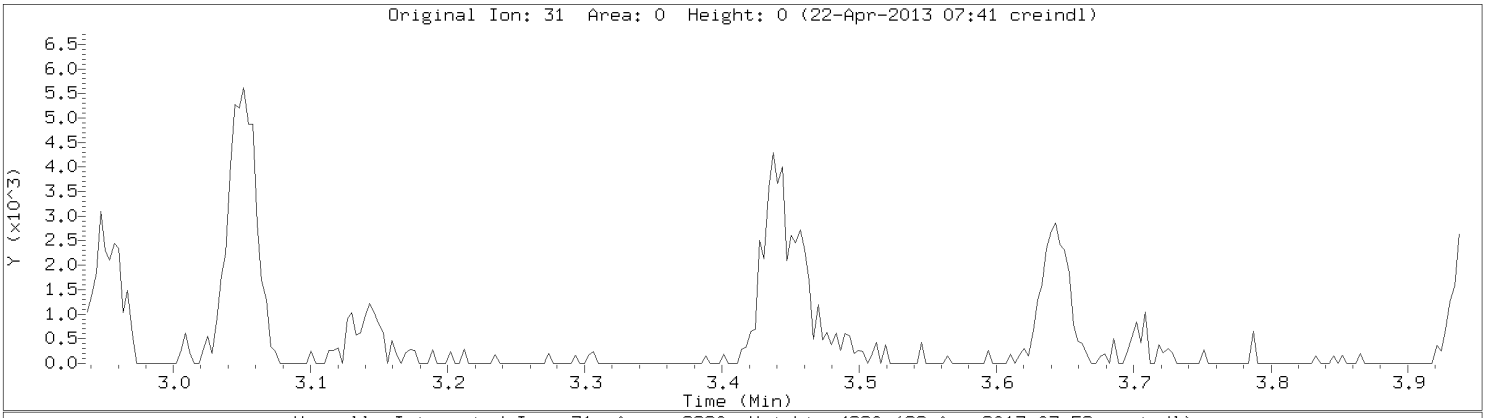
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

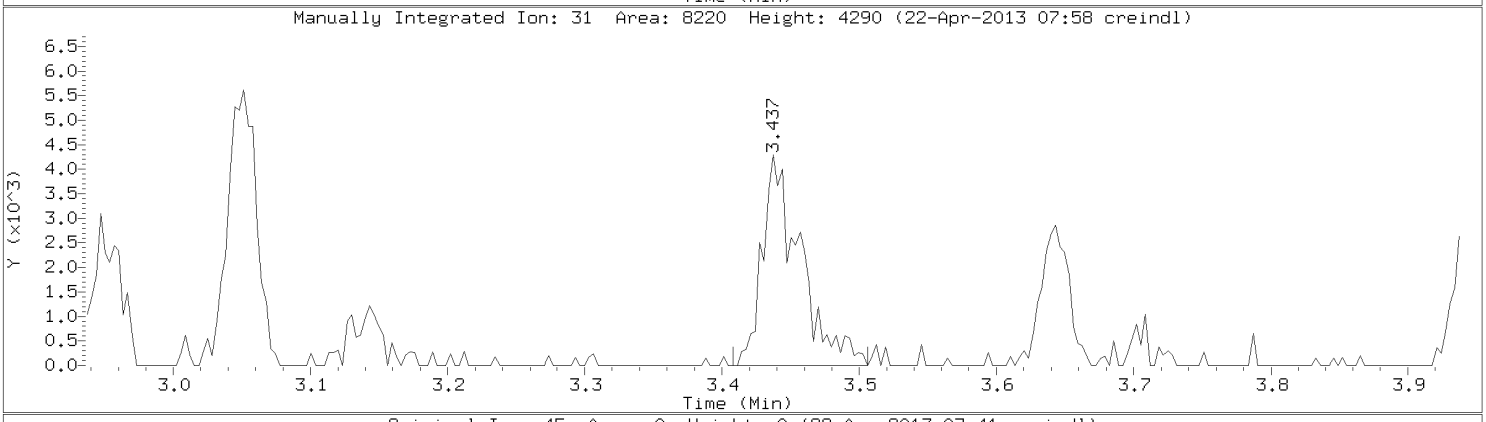
Compound: Chloroethane
CAS Number: 75-00-3

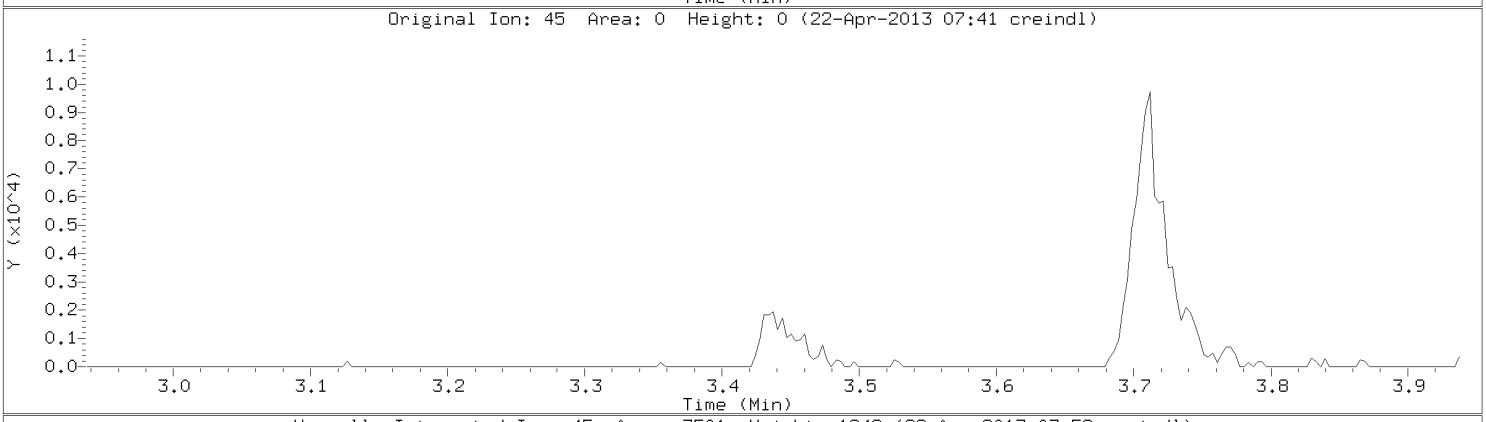


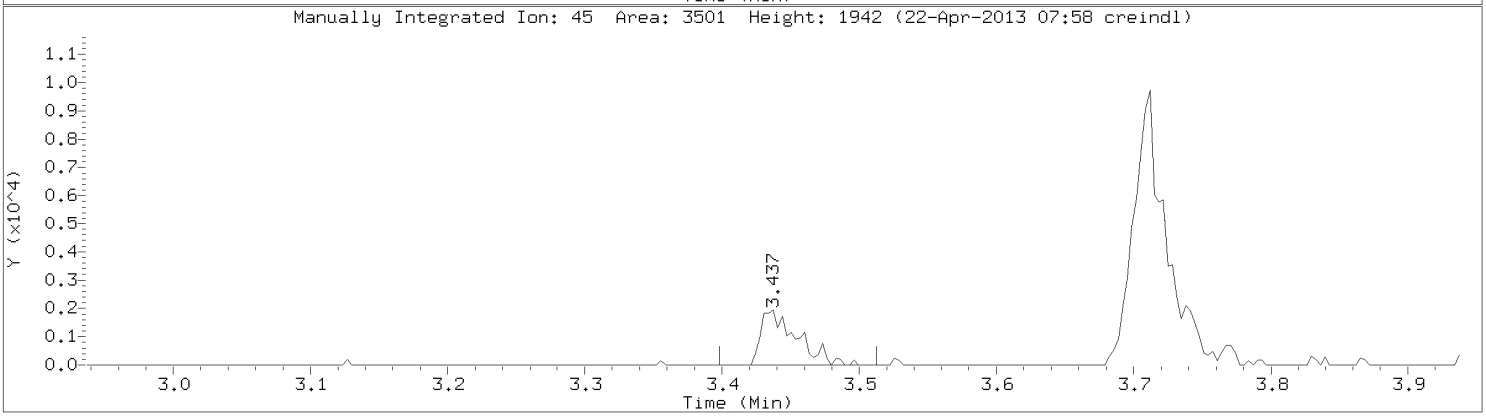
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Ethanol
CAS Number: 64-17-5



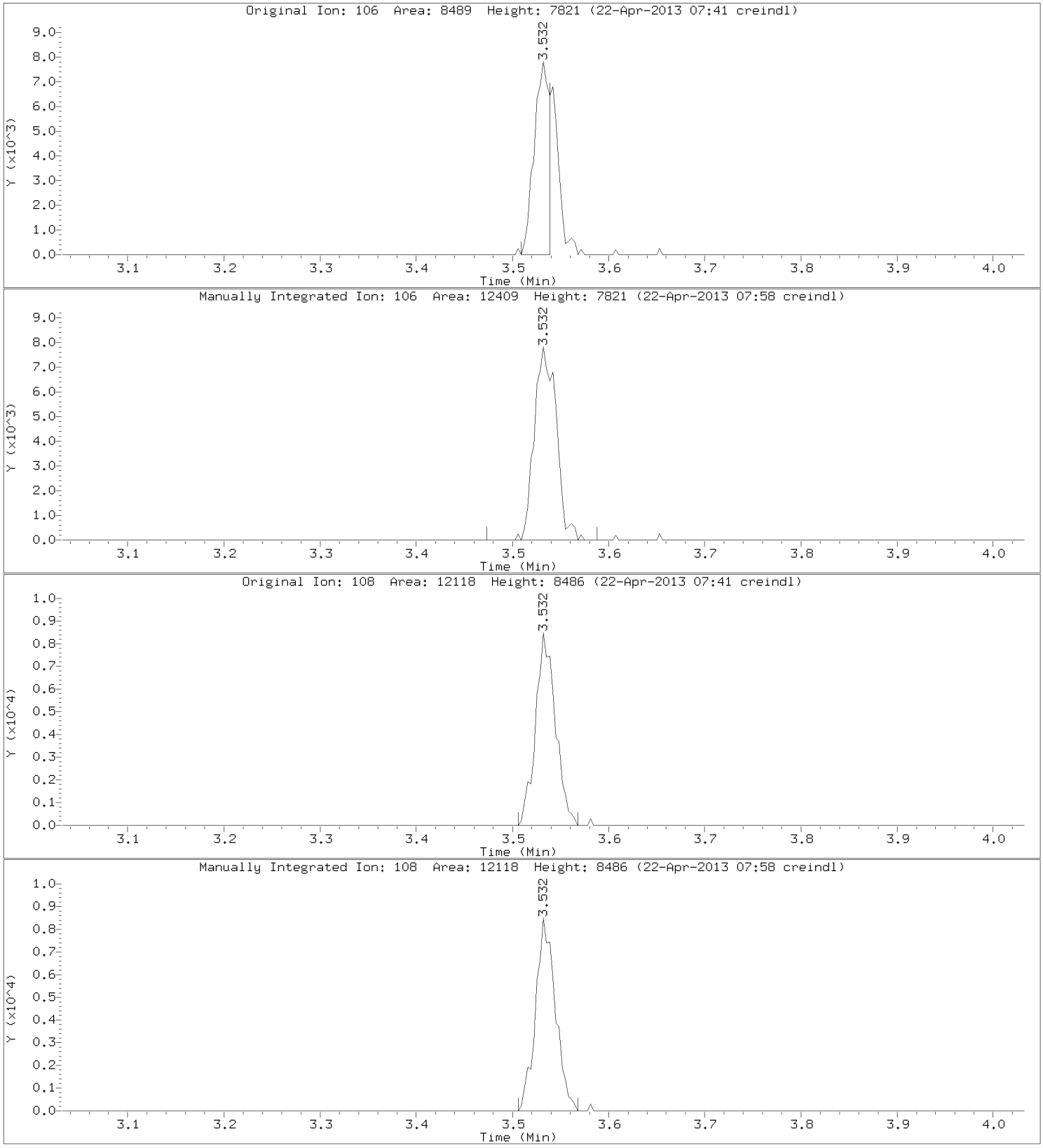






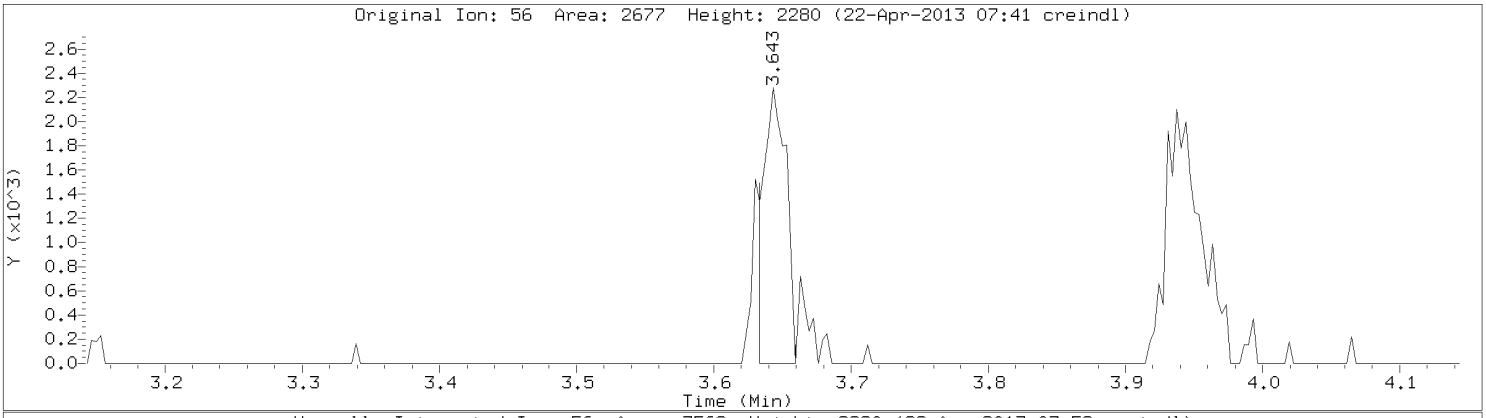
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

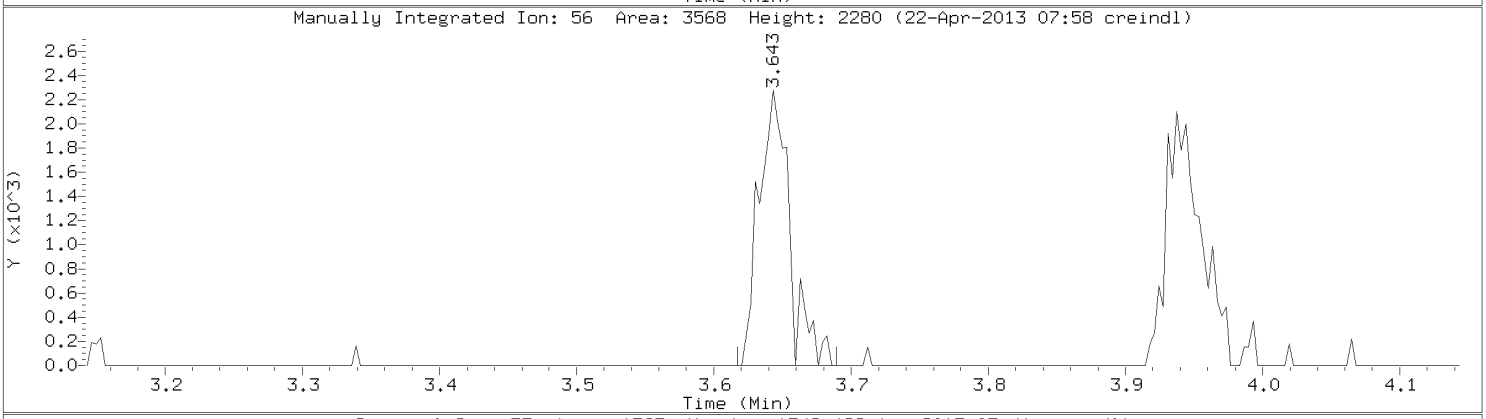
Compound: Vinyl Bromide
CAS Number: 593-60-2

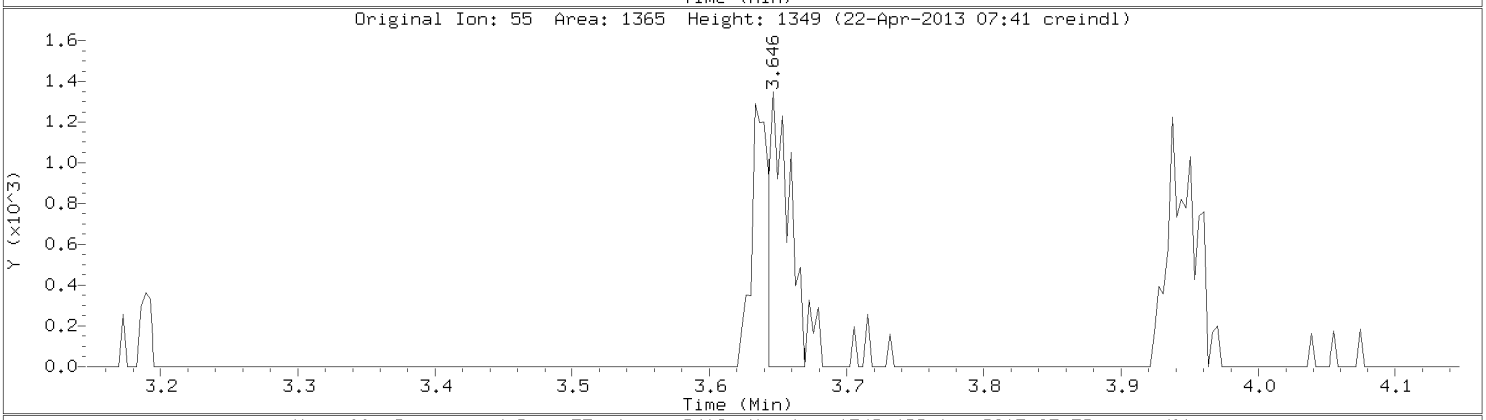


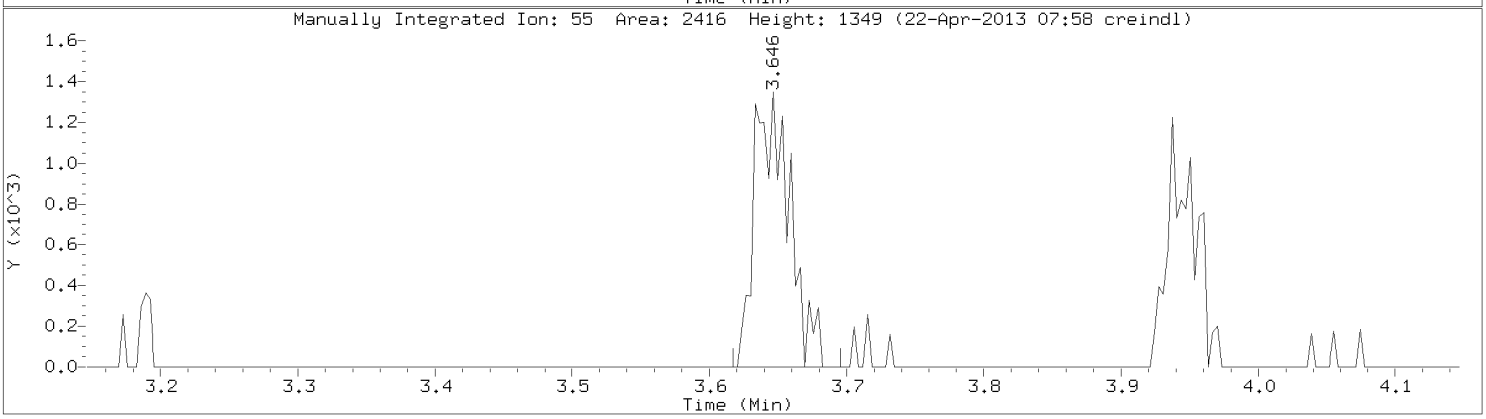
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Acrolein
CAS Number: 107-02-08



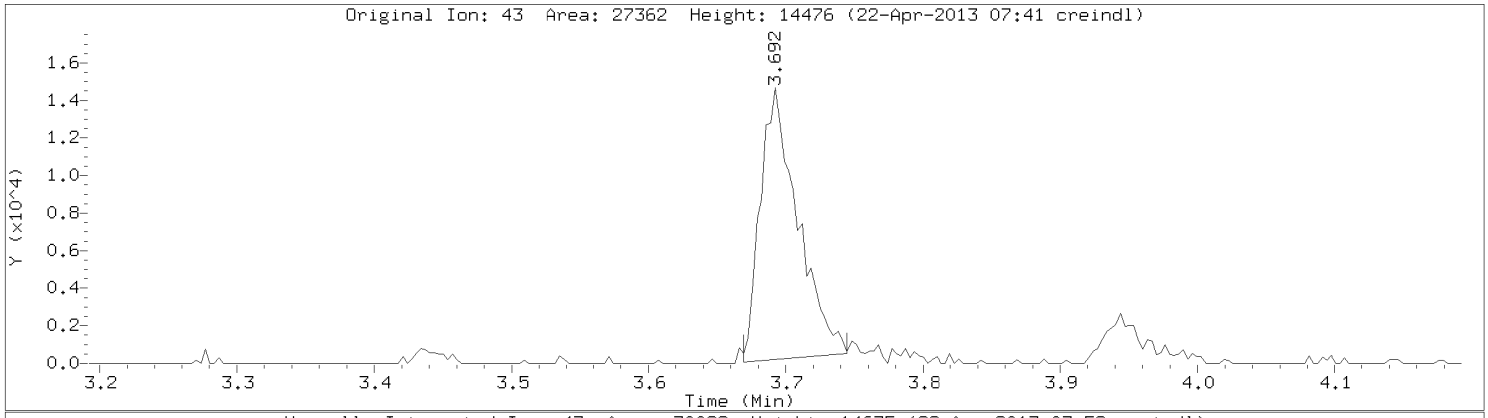


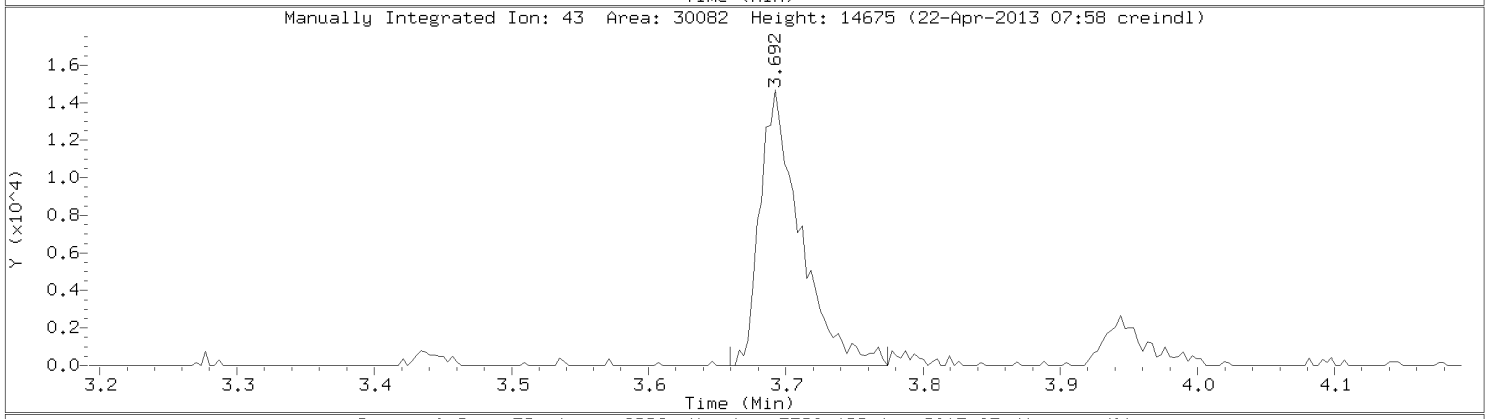


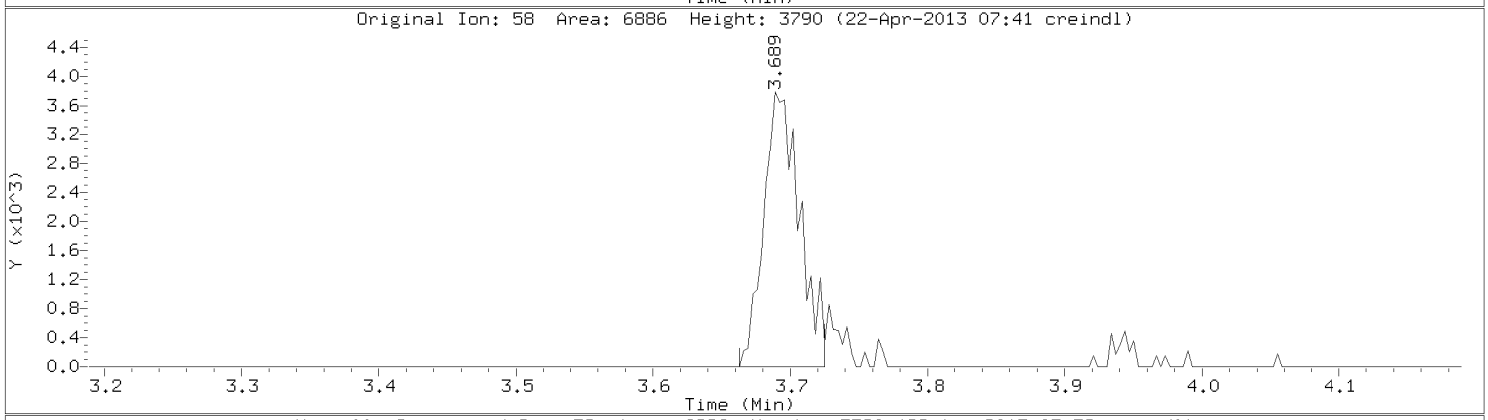


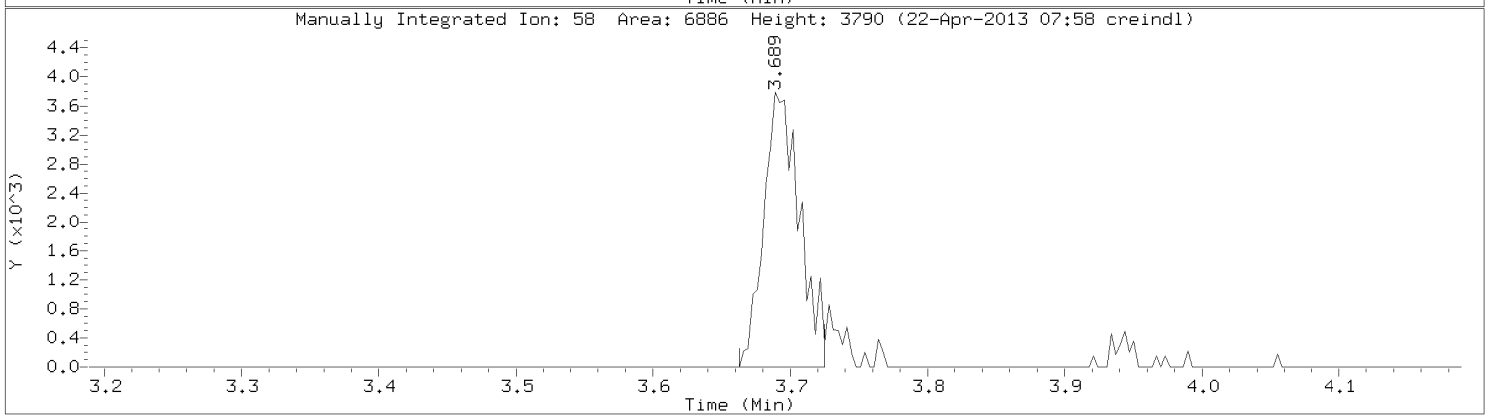
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Acetone
CAS Number: 67-64-1



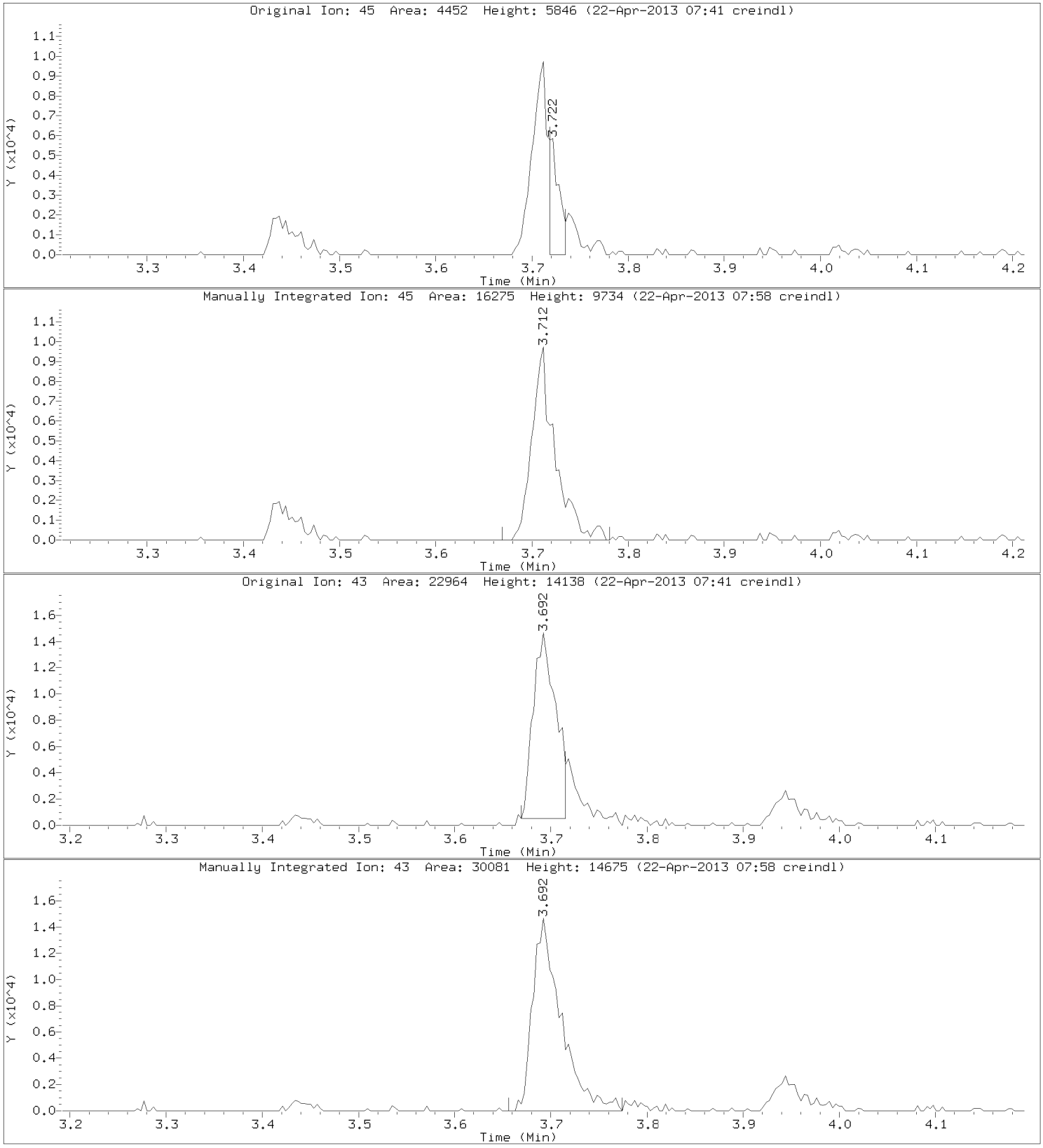






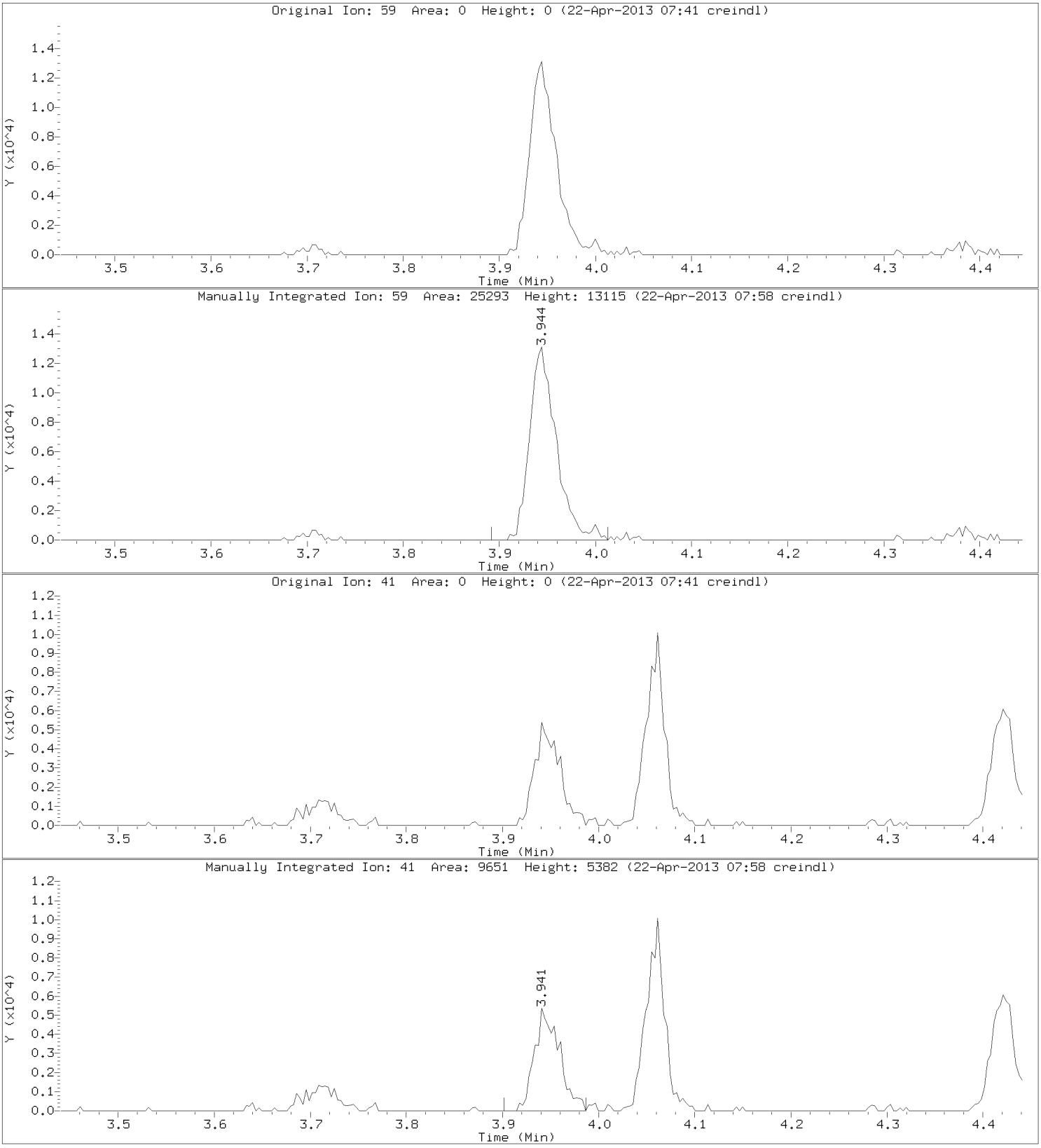
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Isopropyl Alcohol
CAS Number: 67-63-0



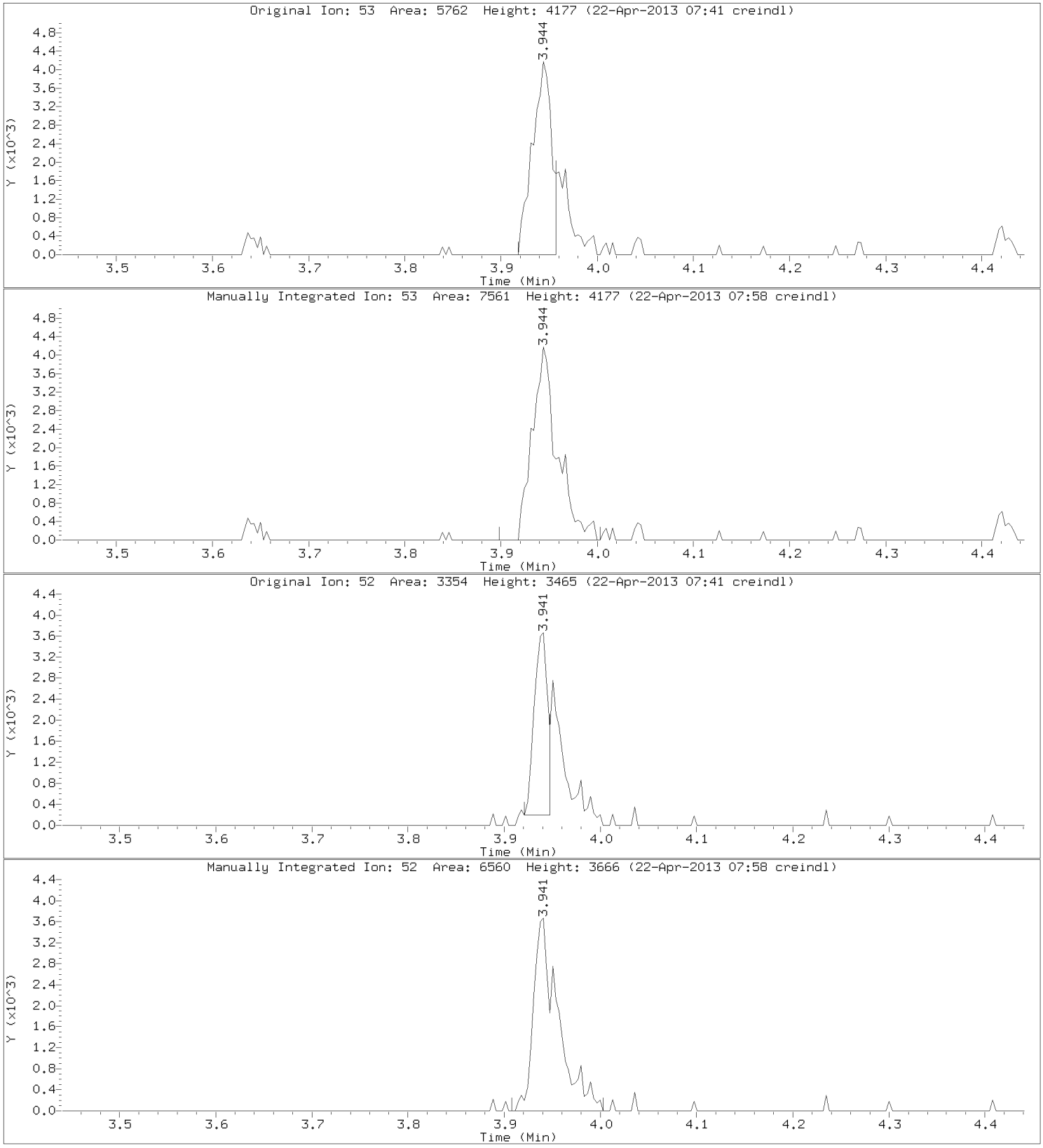
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



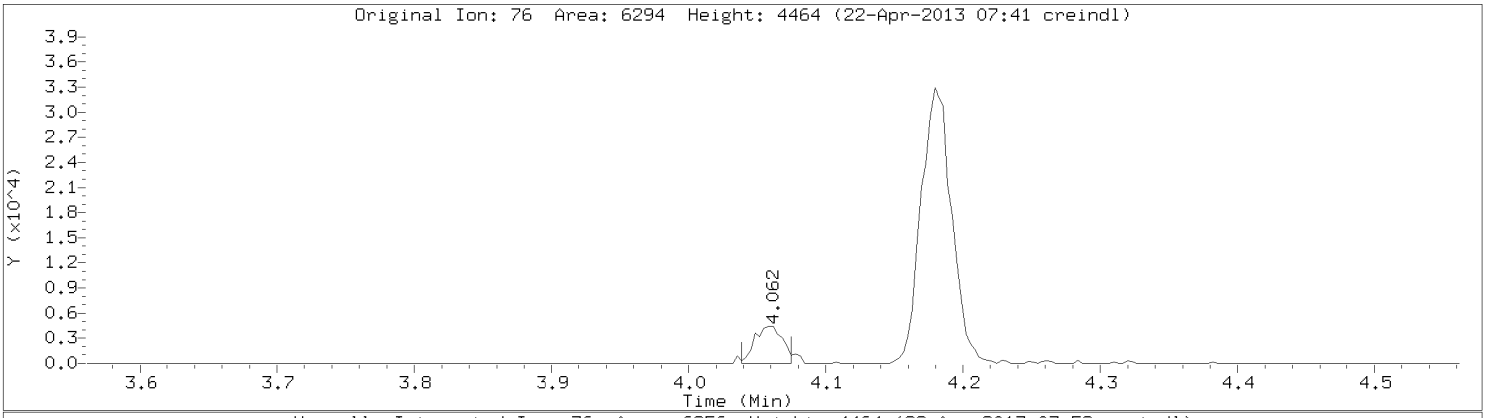
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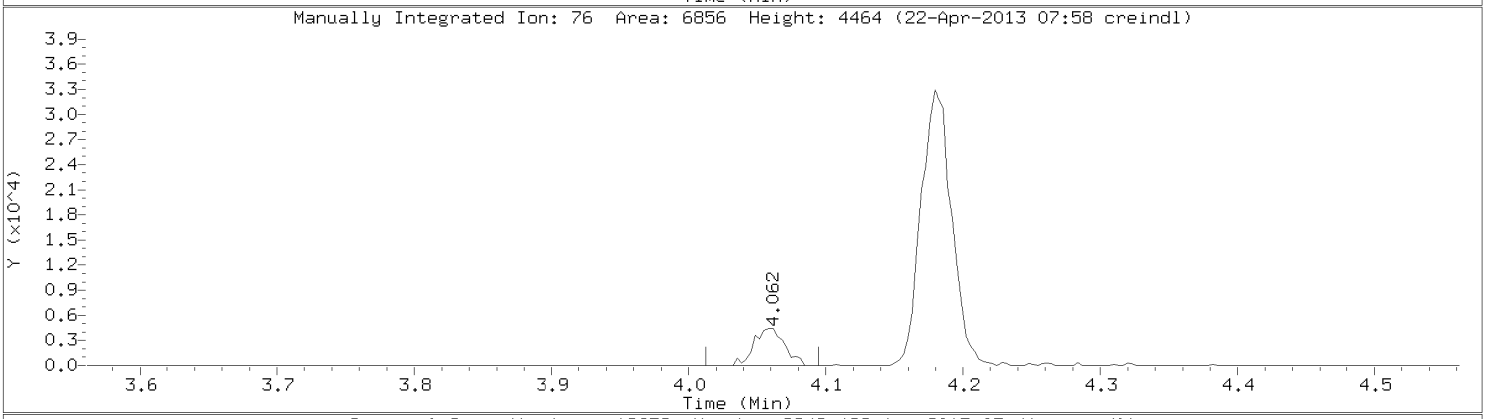
Compound: Acrylonitrile
CAS Number: 107-13-1

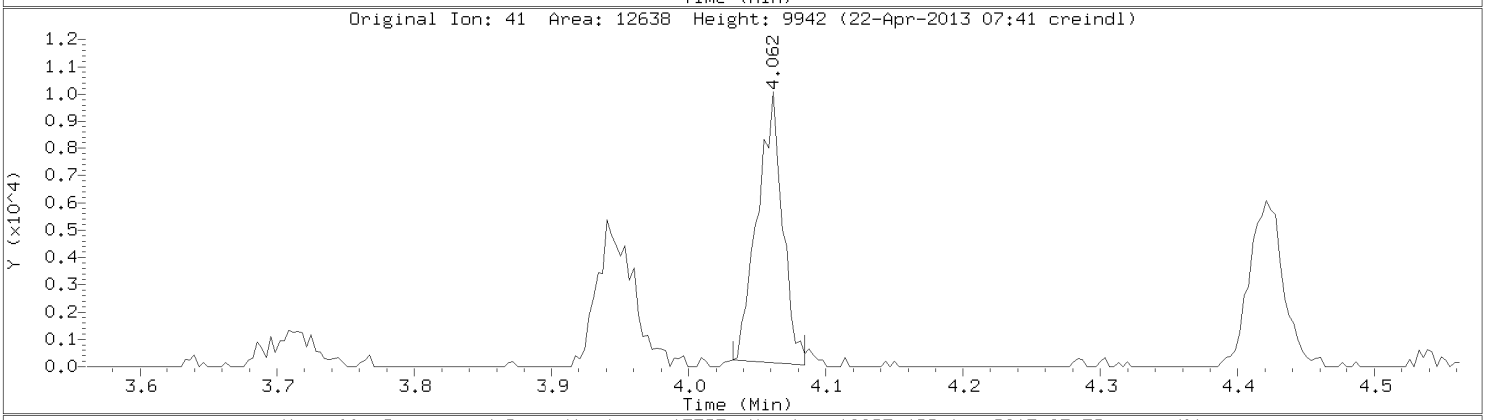


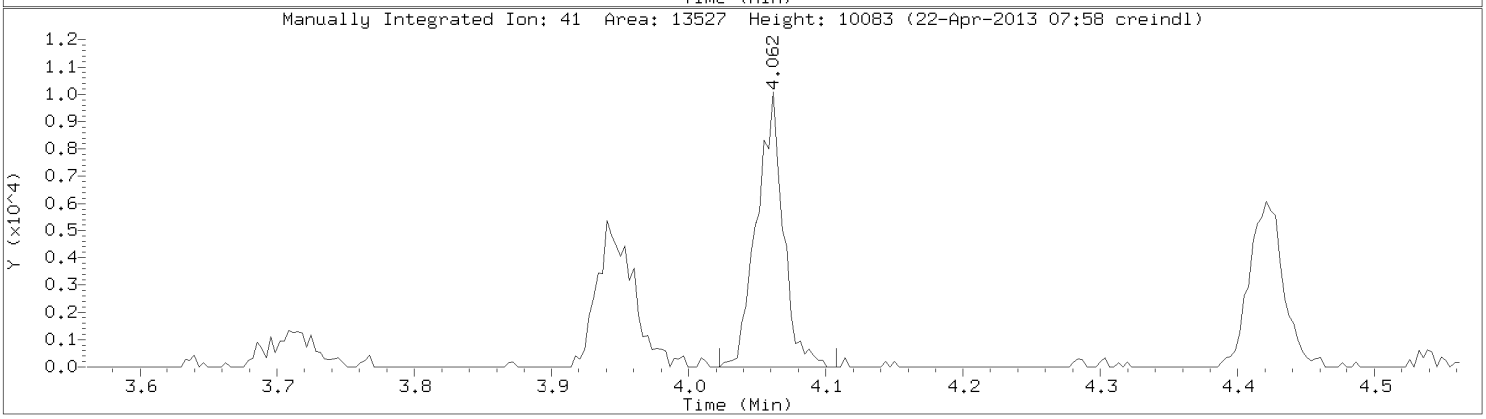
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Allyl Chloride
CAS Number: 107-05-1

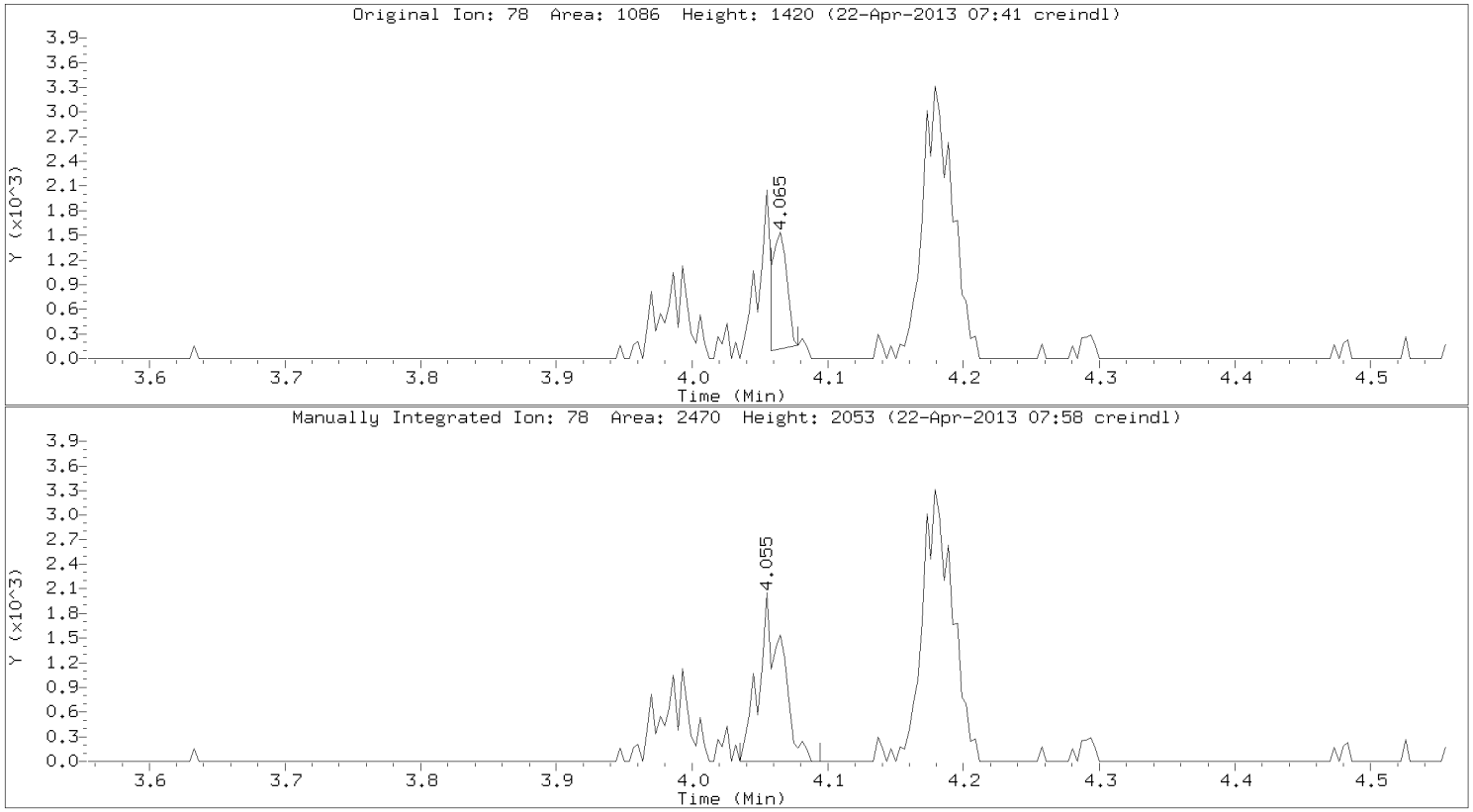






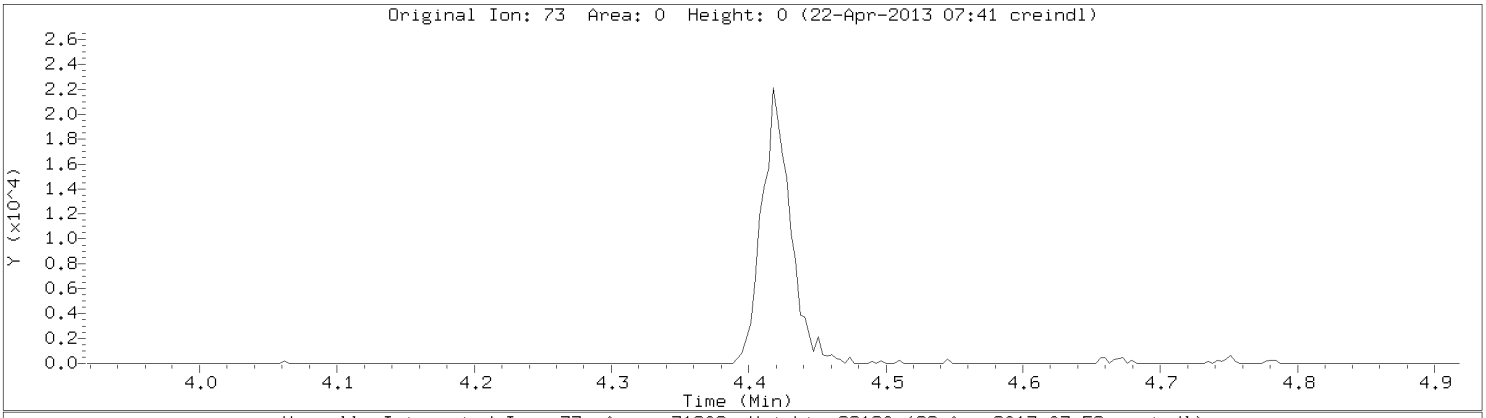


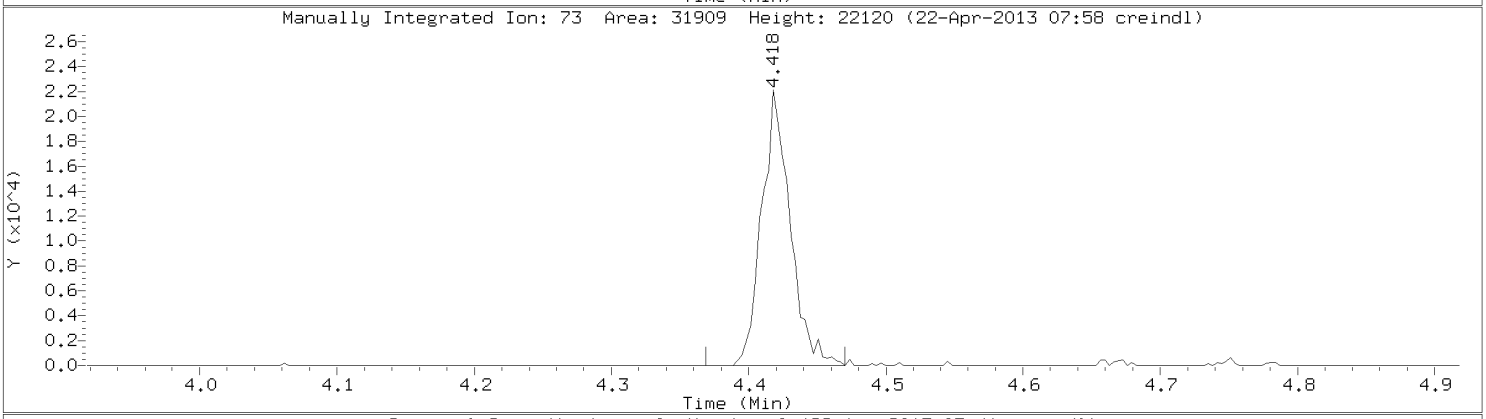
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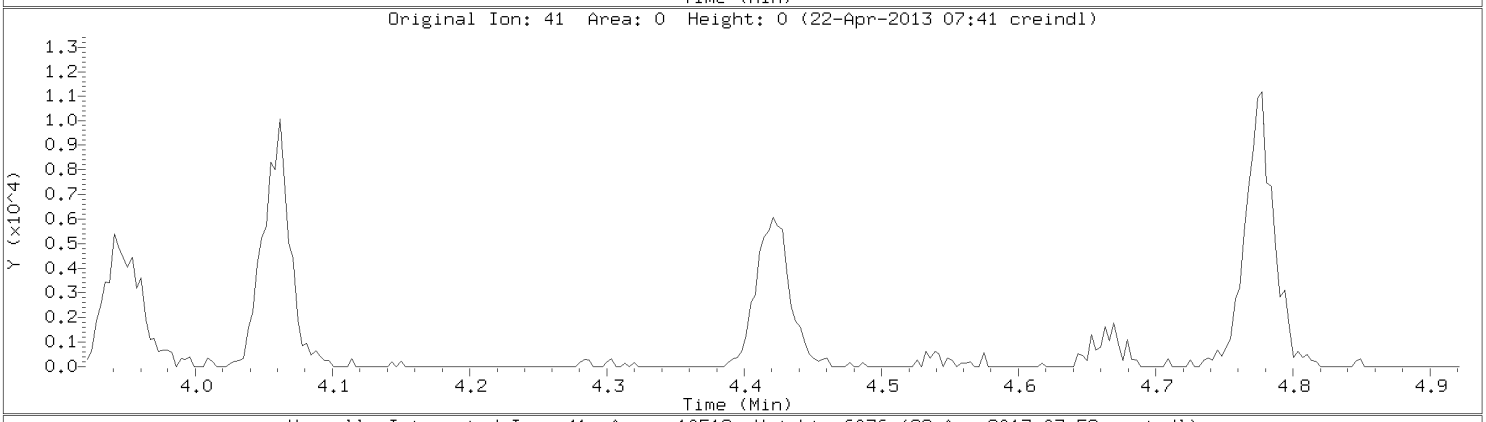


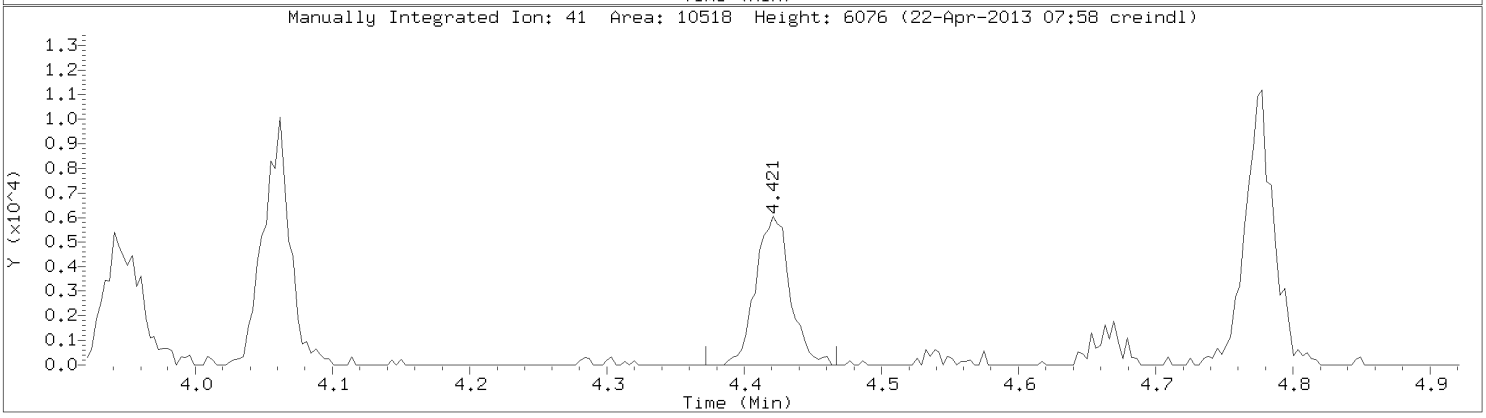
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



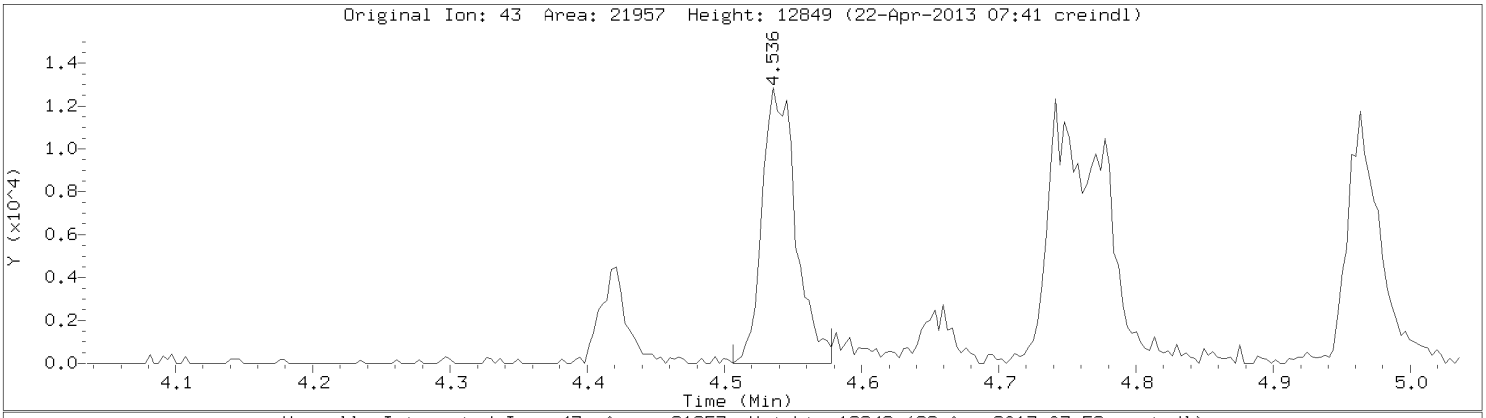


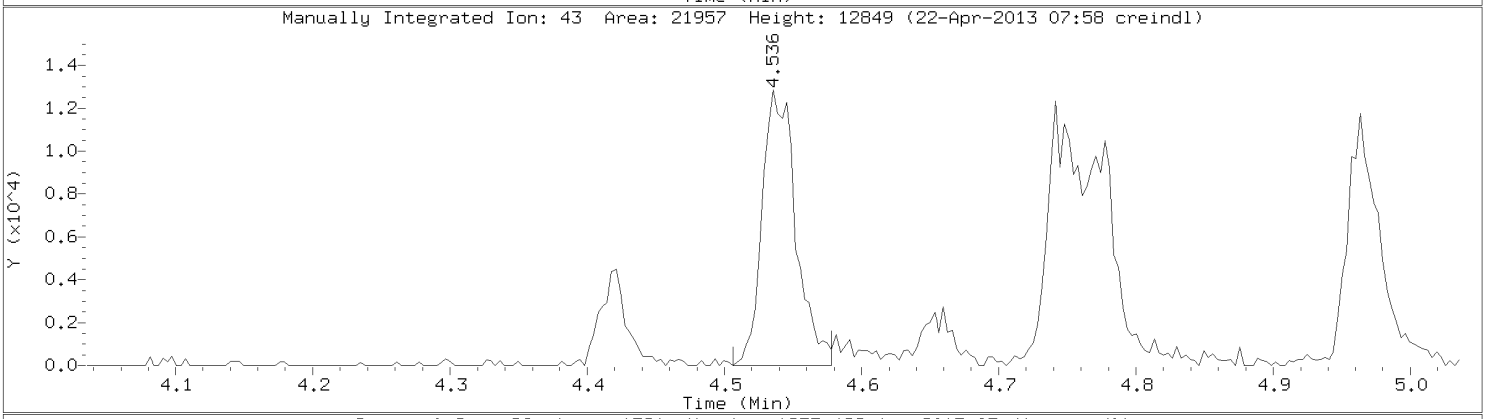


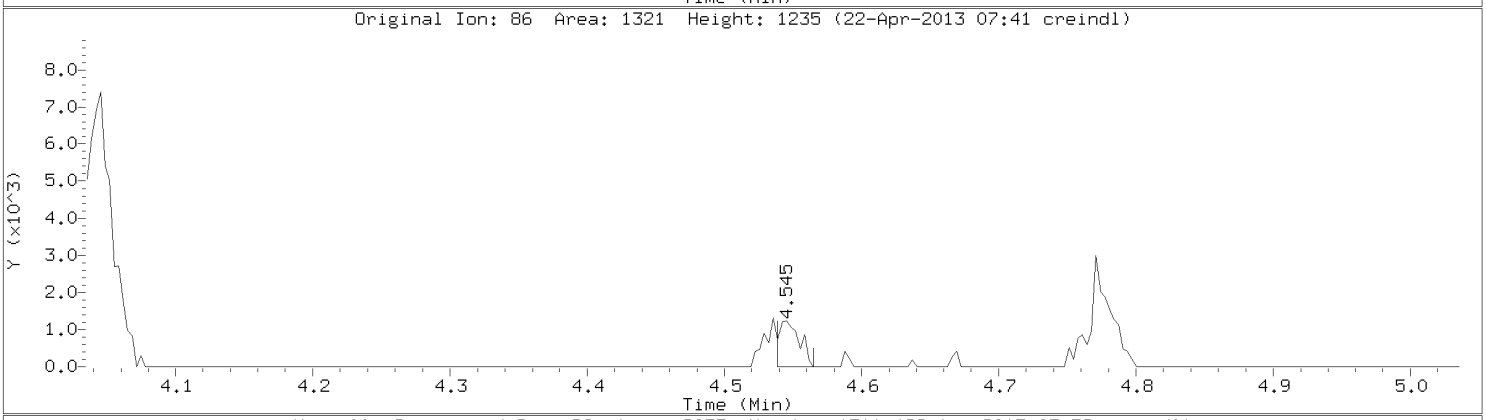


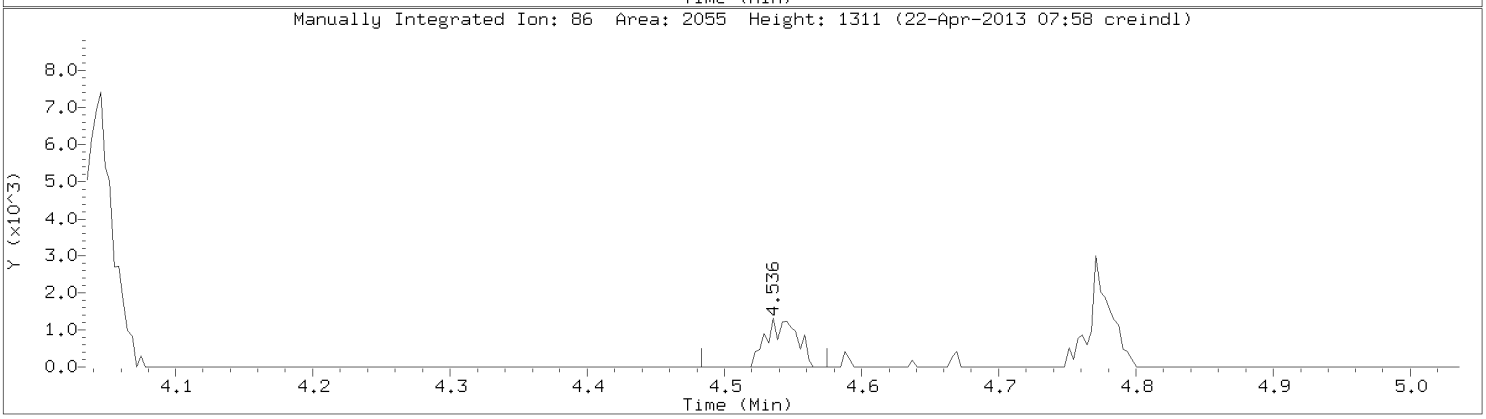
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Vinyl Acetate
CAS Number: 108-05-4



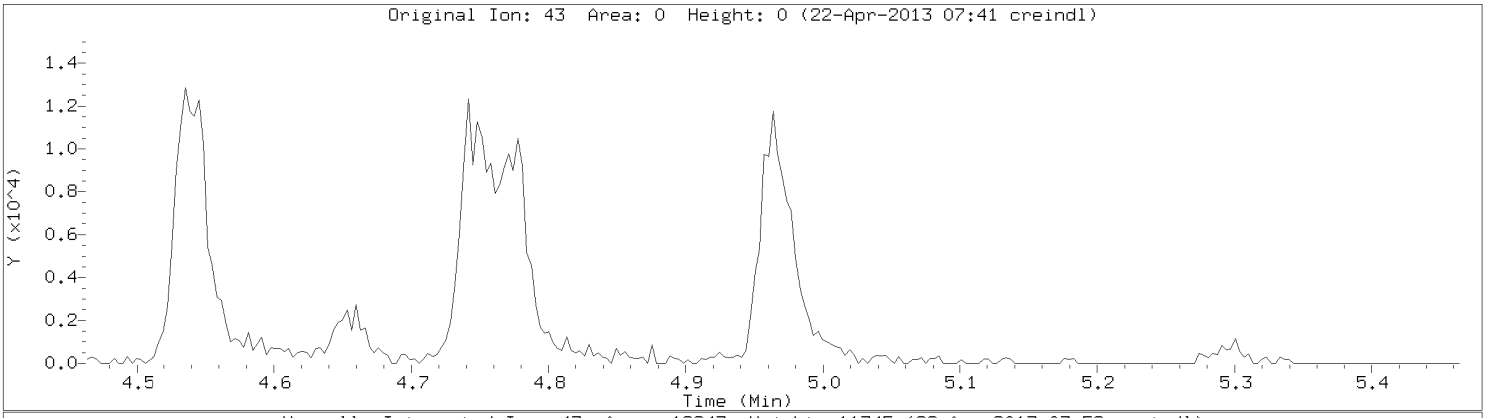


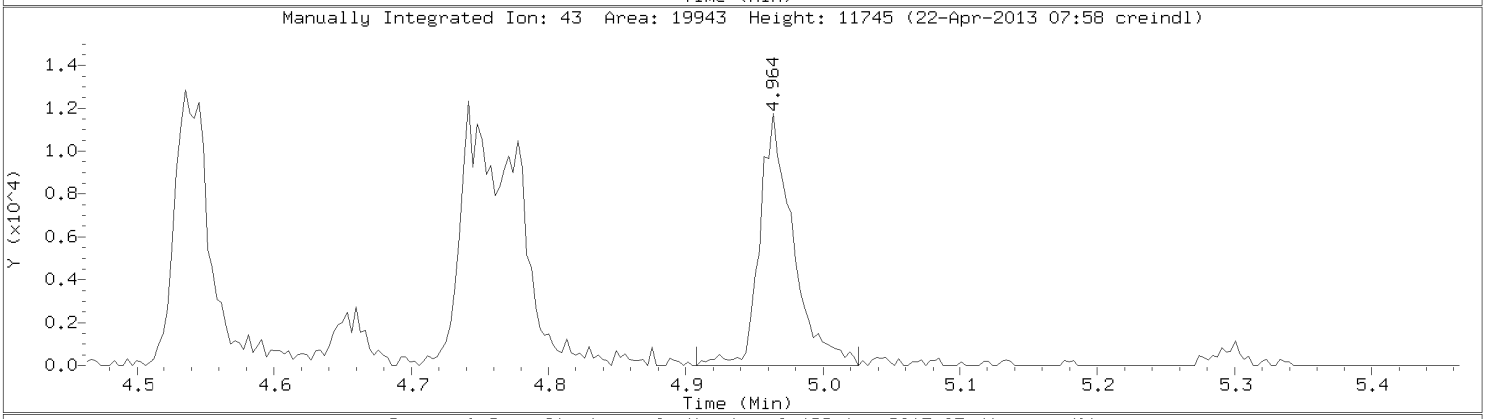


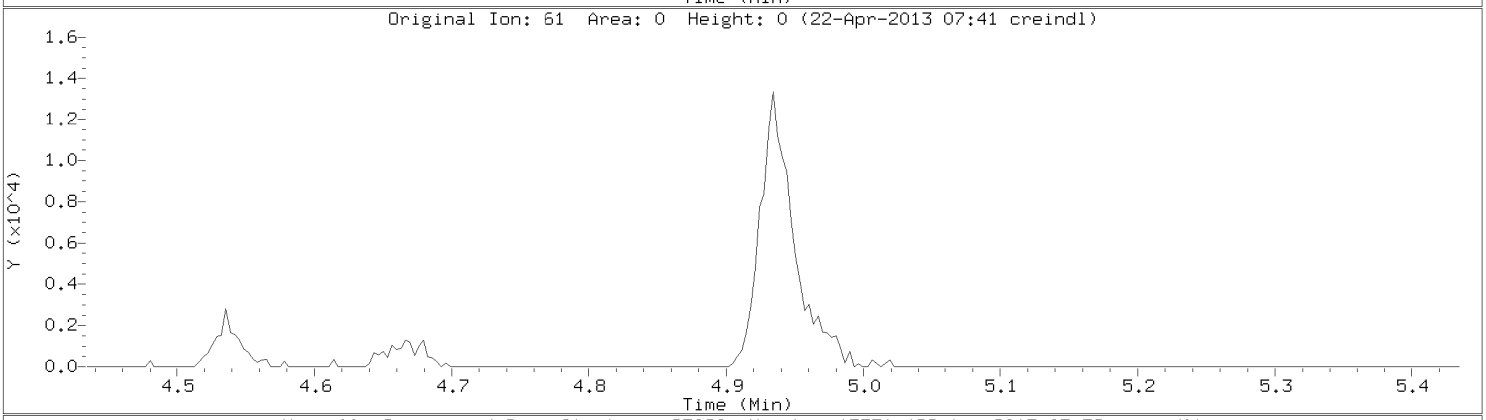


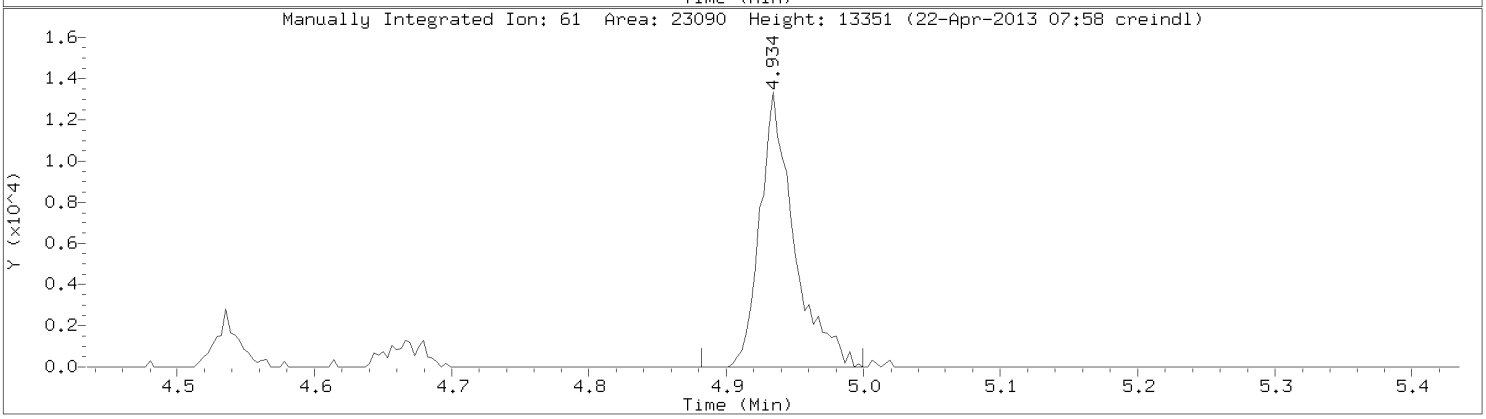
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Ethyl Acetate
CAS Number: 141-78-6

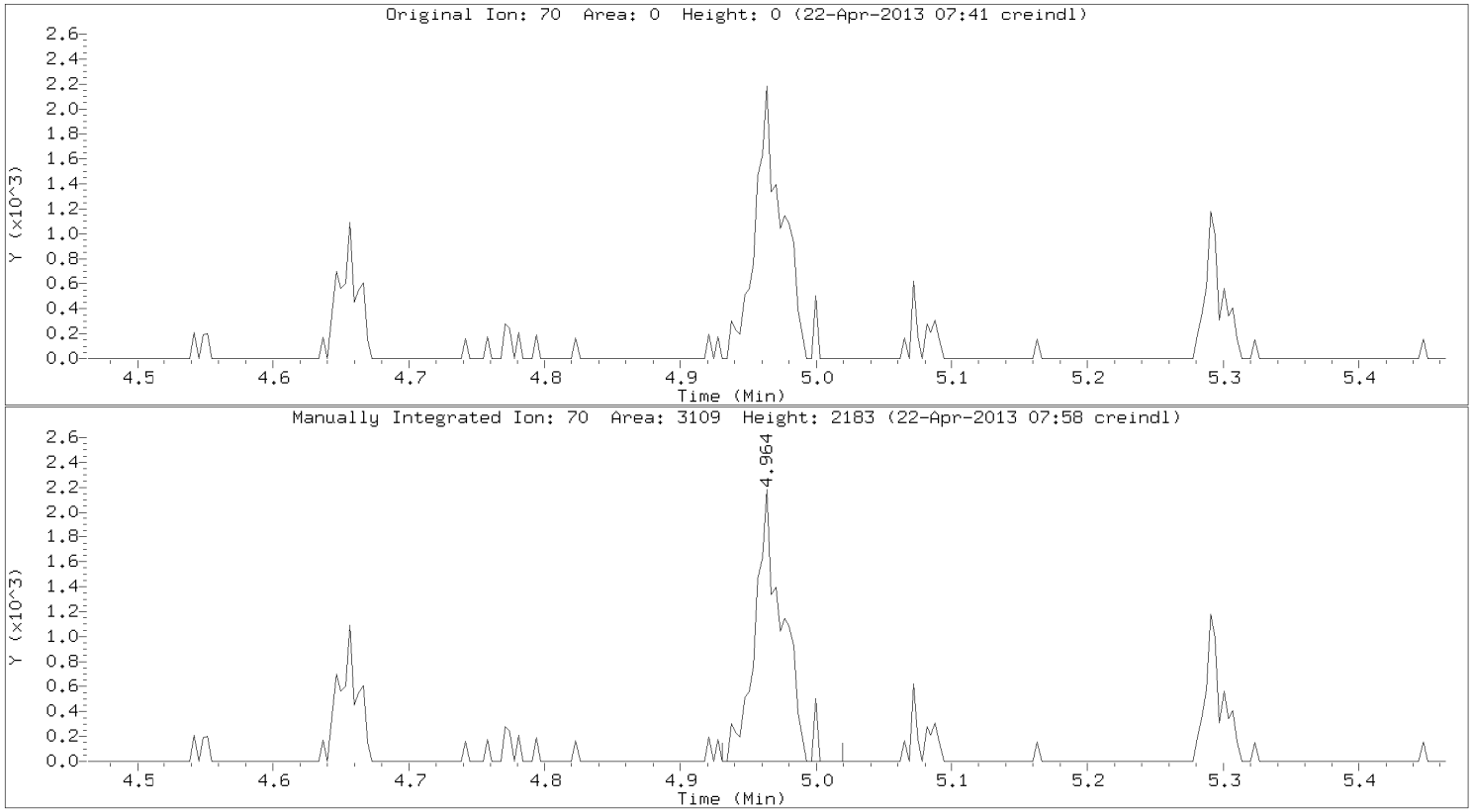






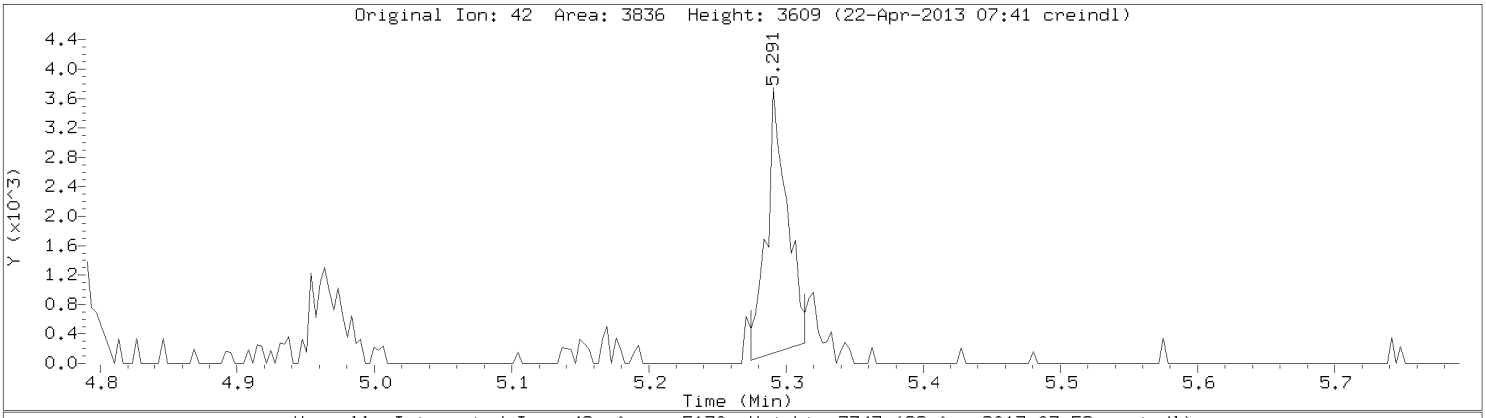


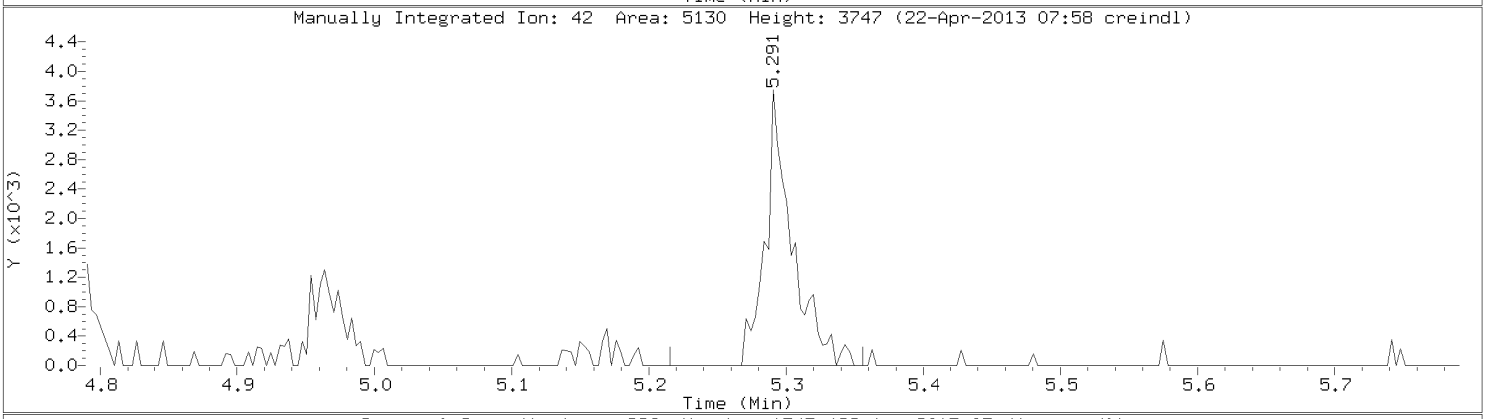
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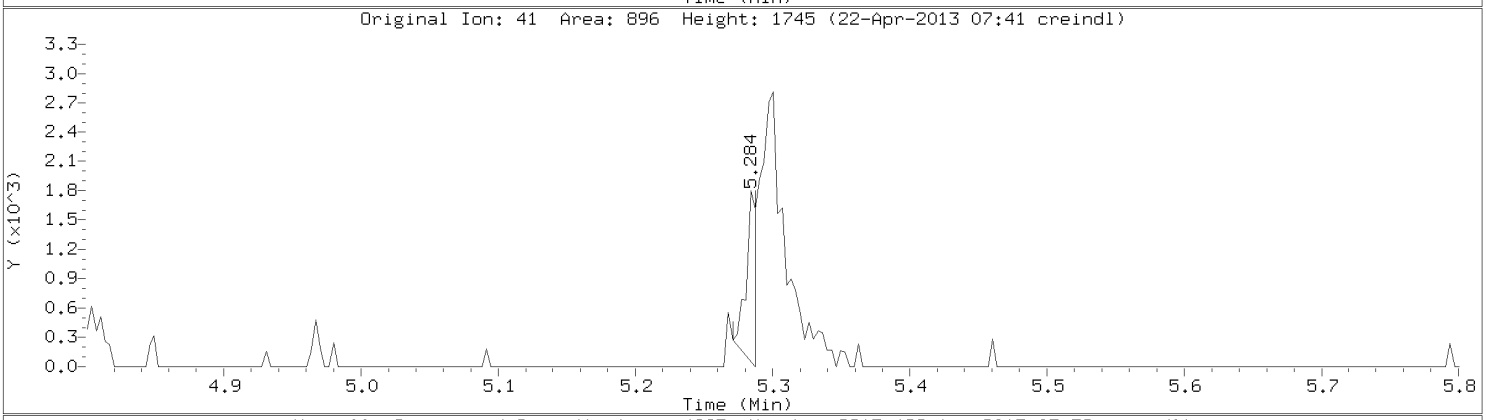


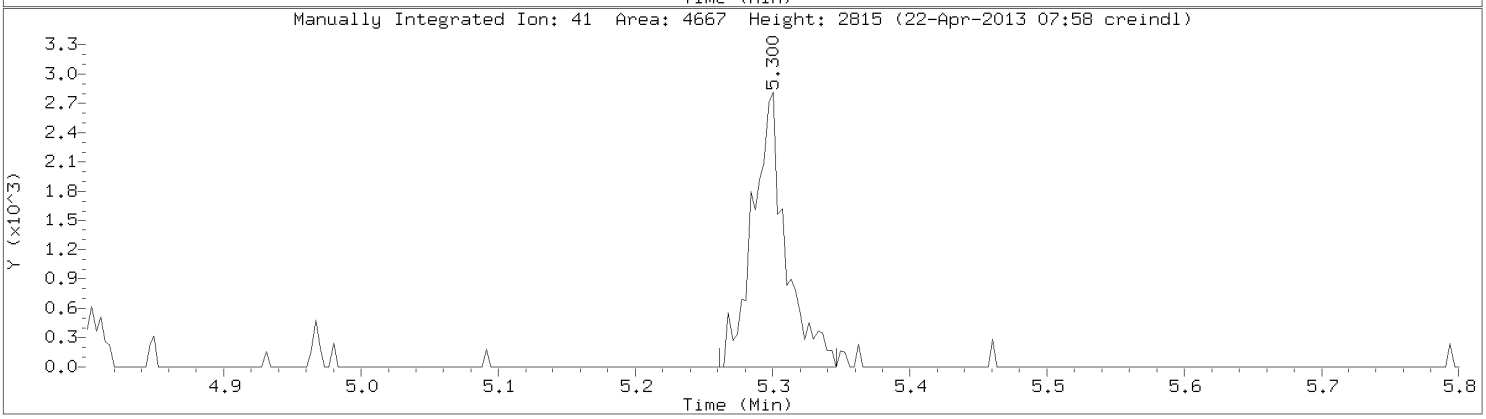
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Tetrahydrofuran
CAS Number: 109-99-9

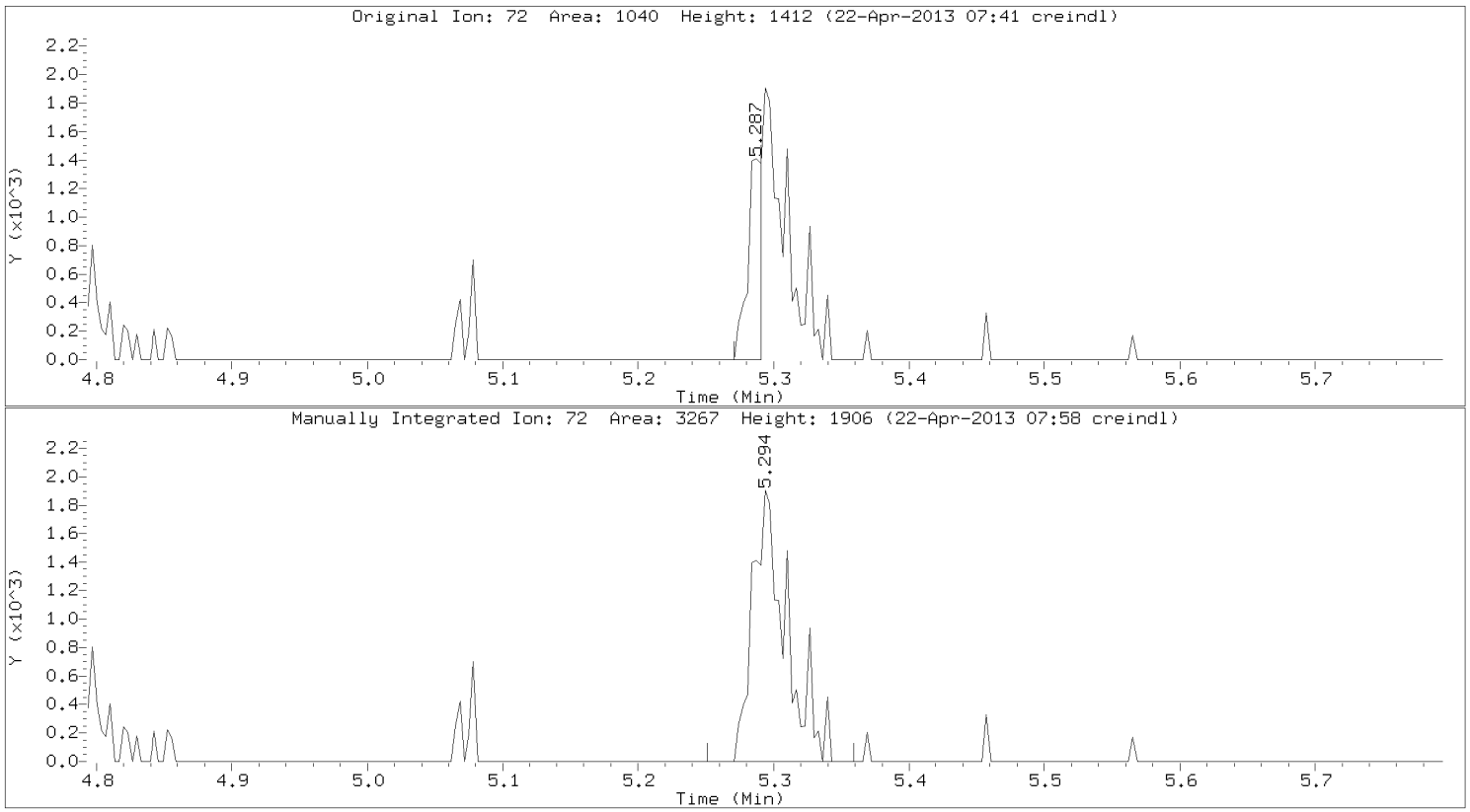






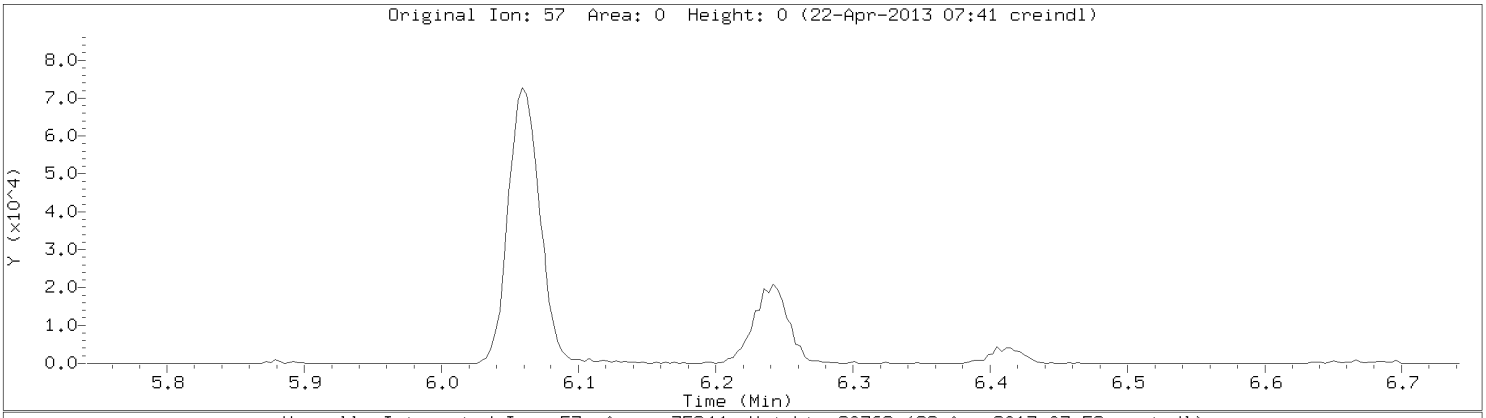


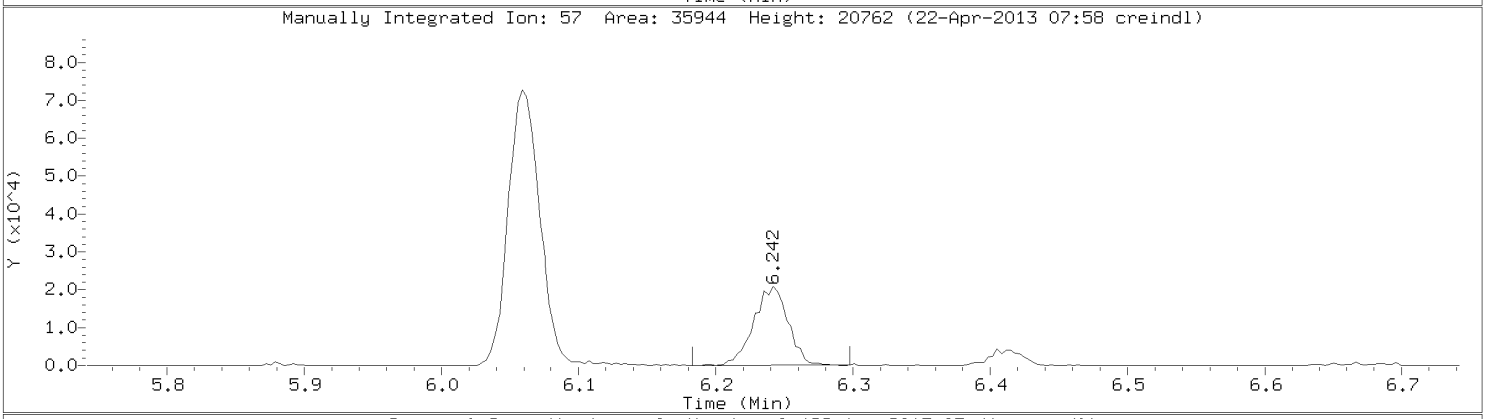
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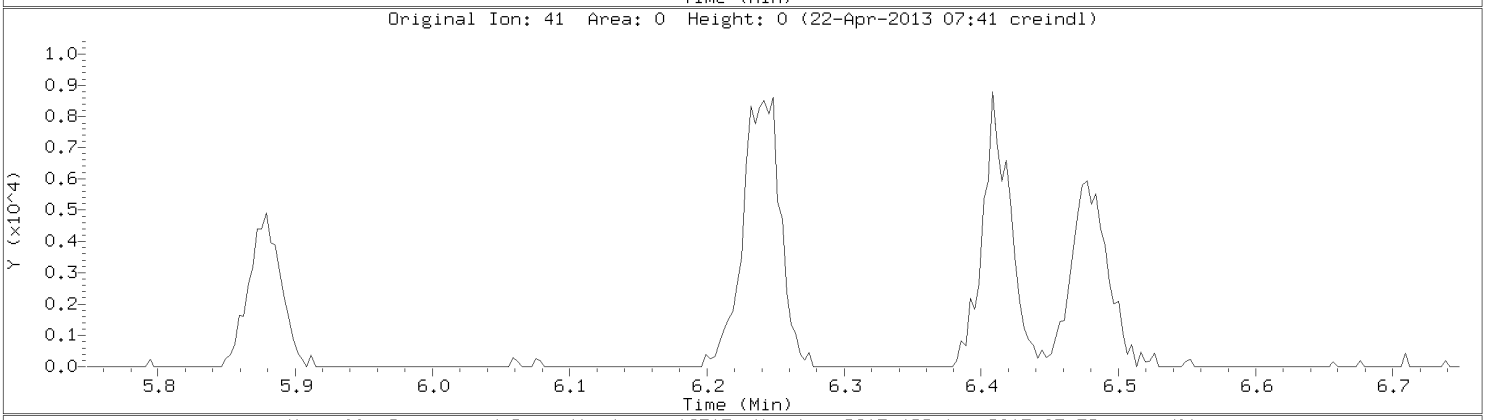


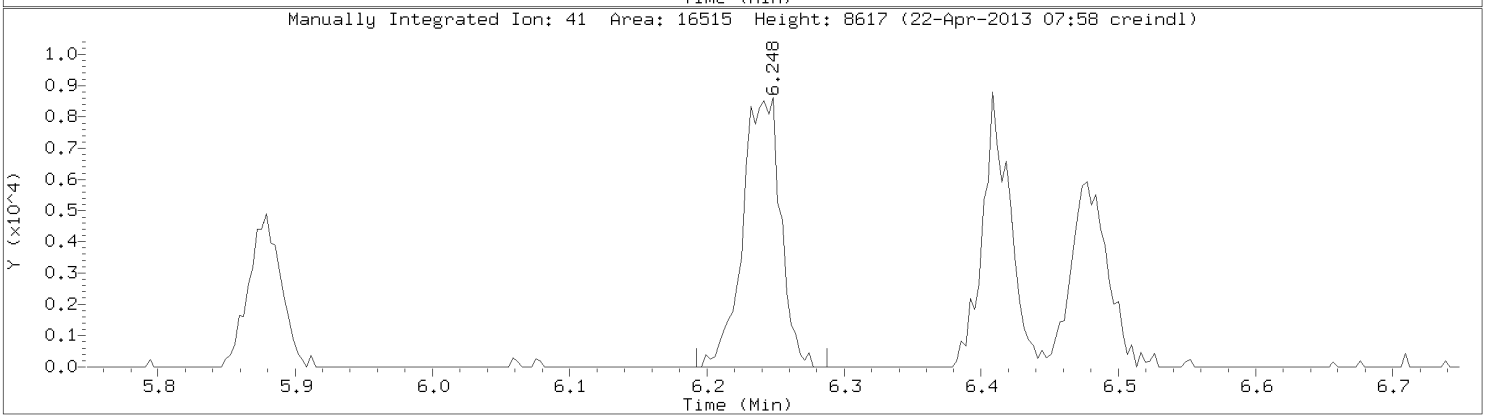
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

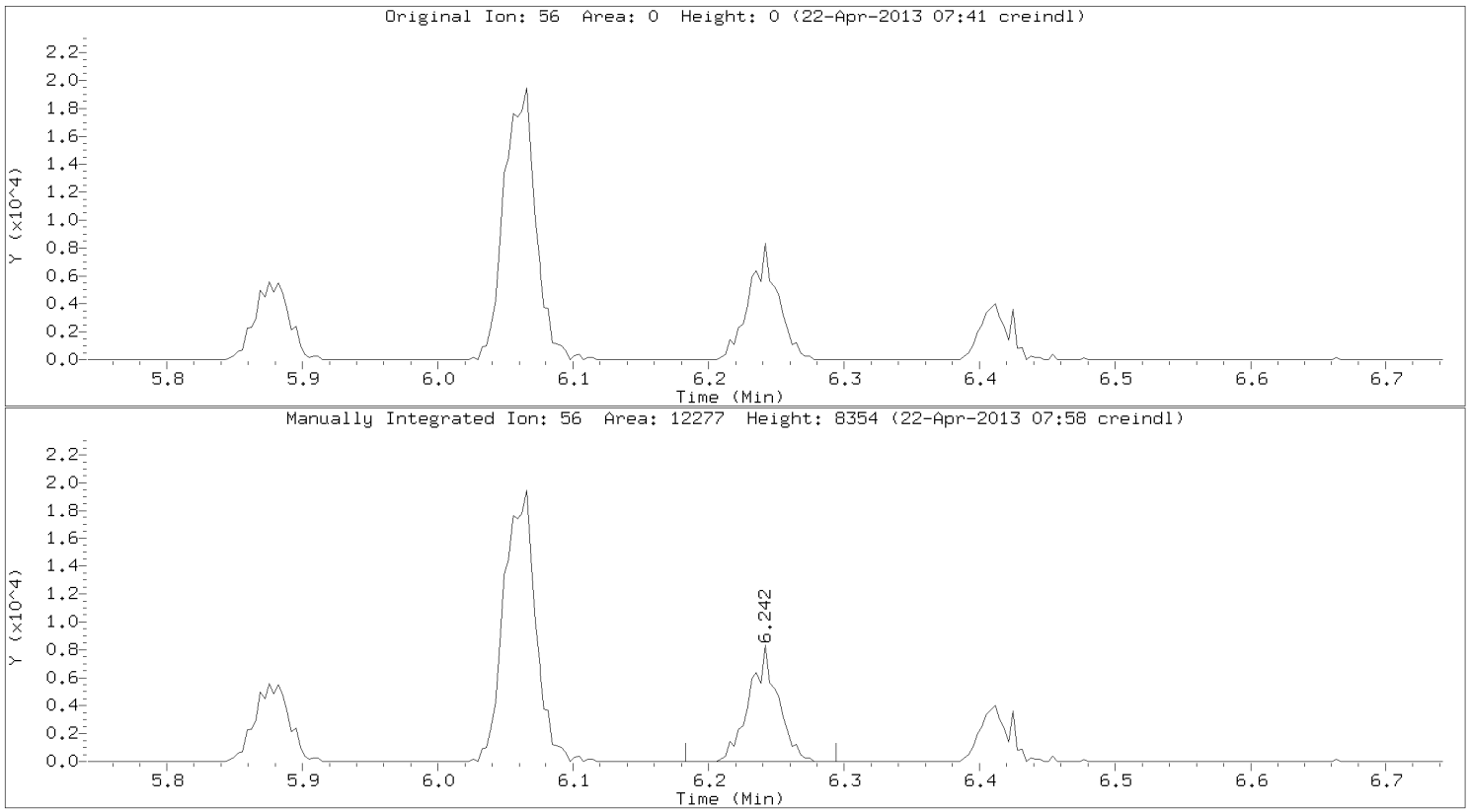






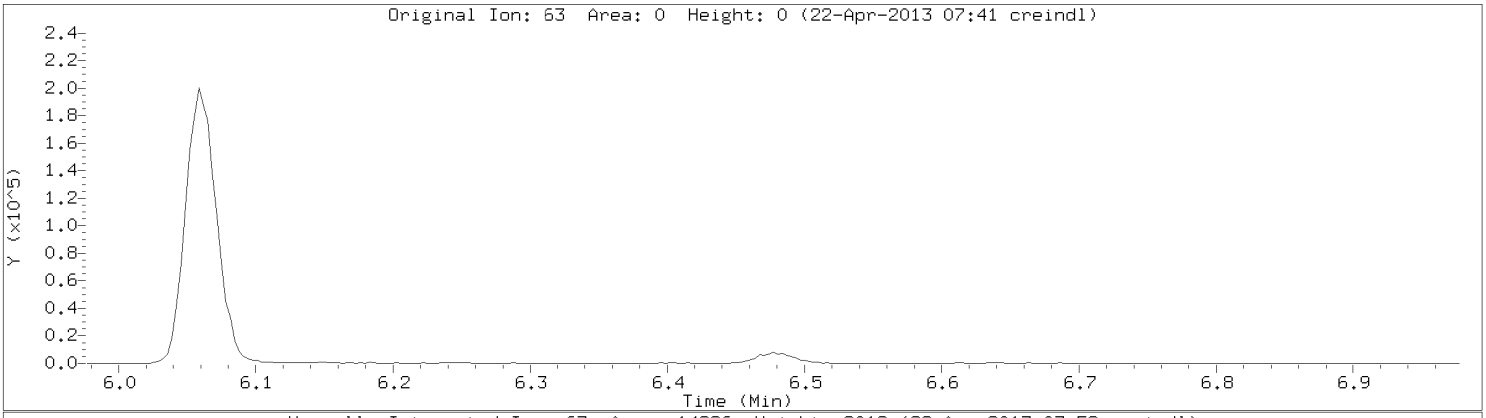


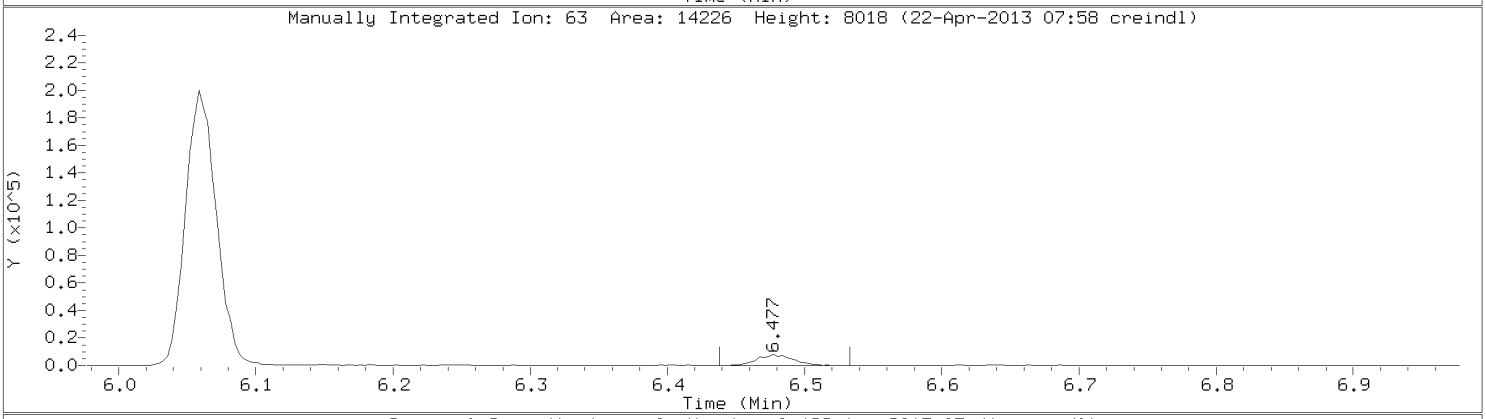
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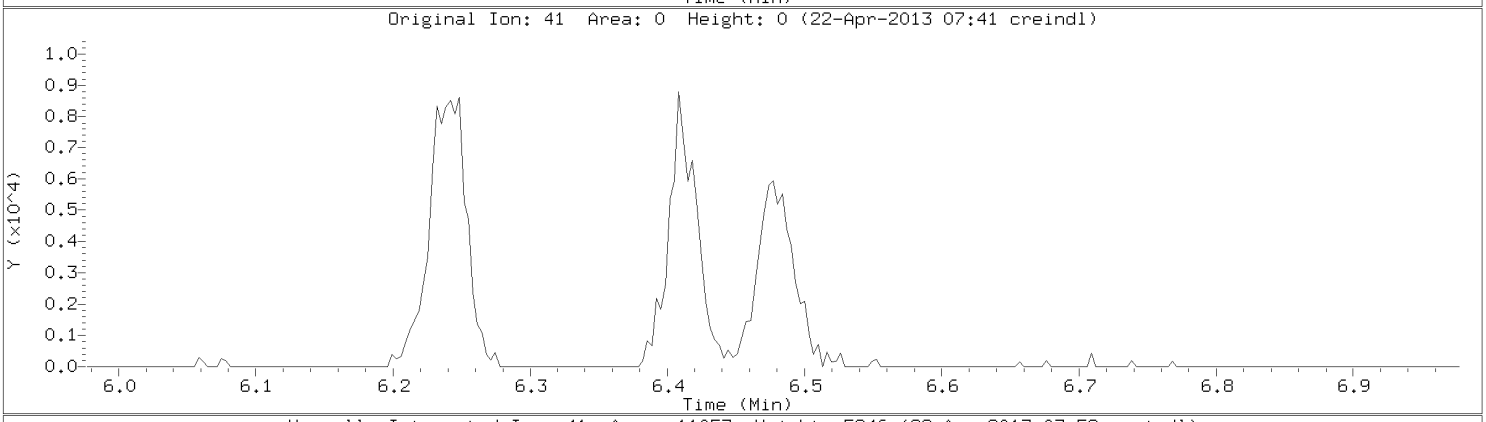


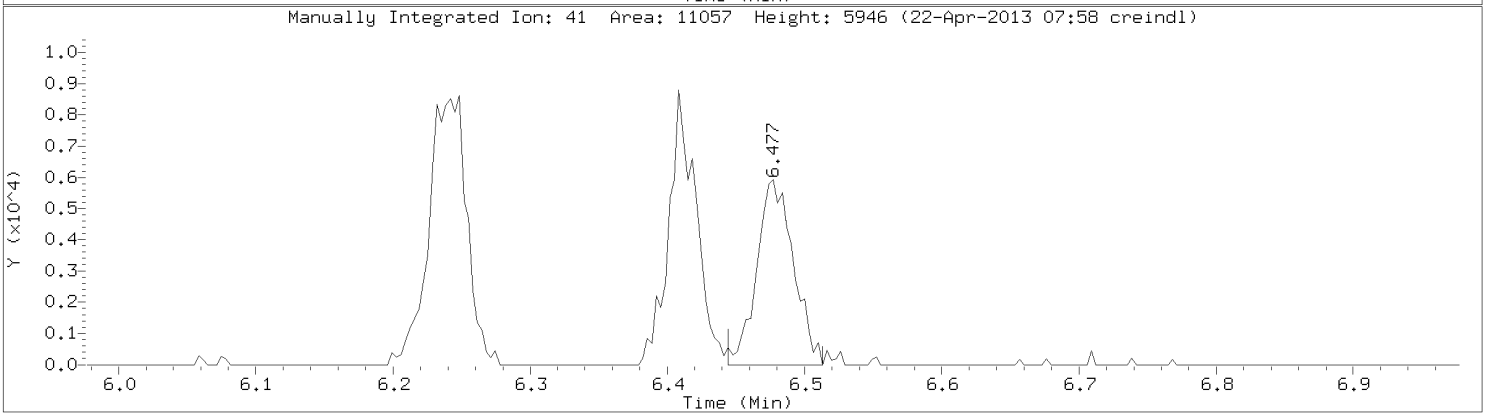
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

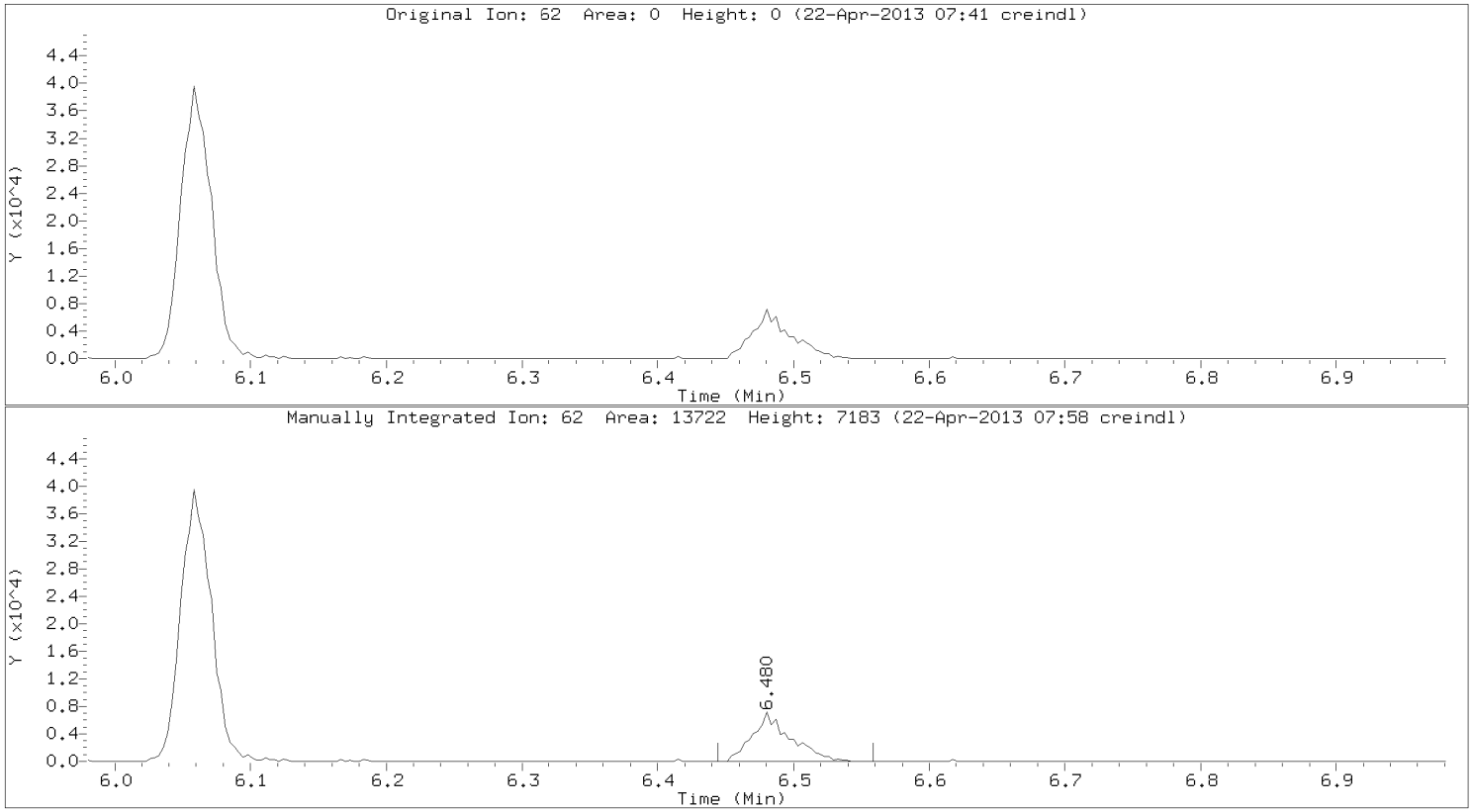






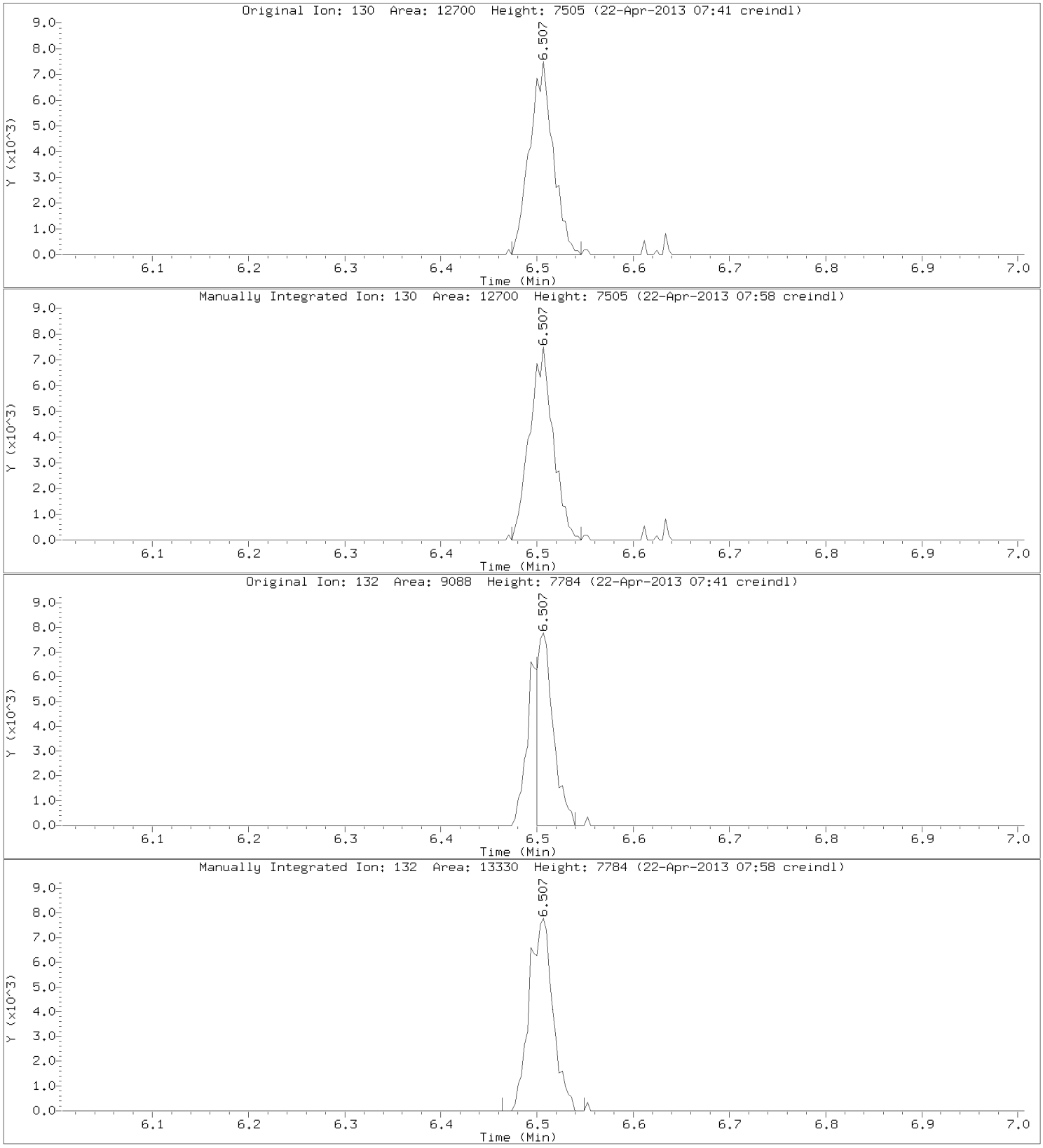


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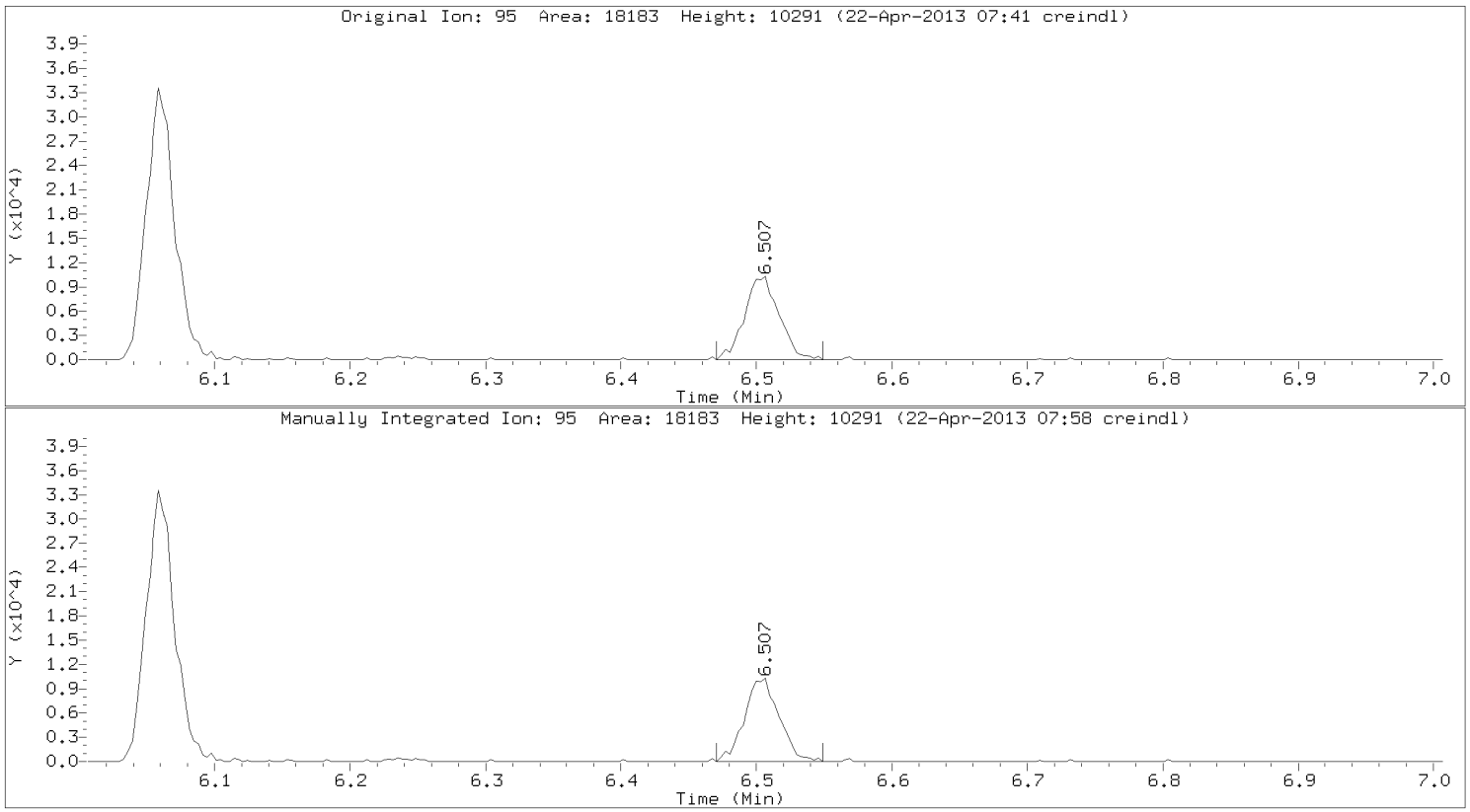


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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Trichloroethene
CAS Number: 79-01-6

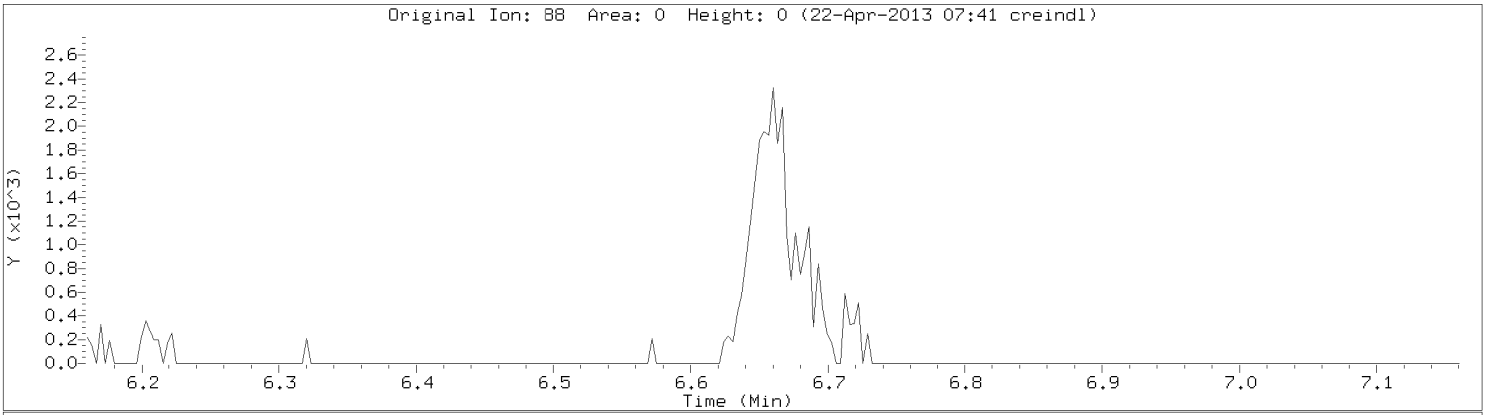


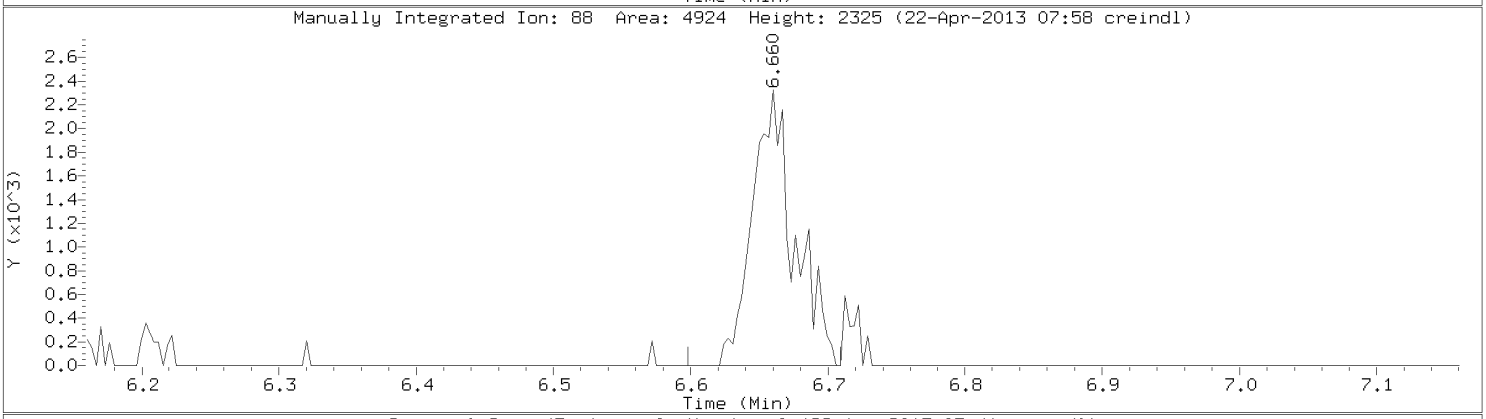
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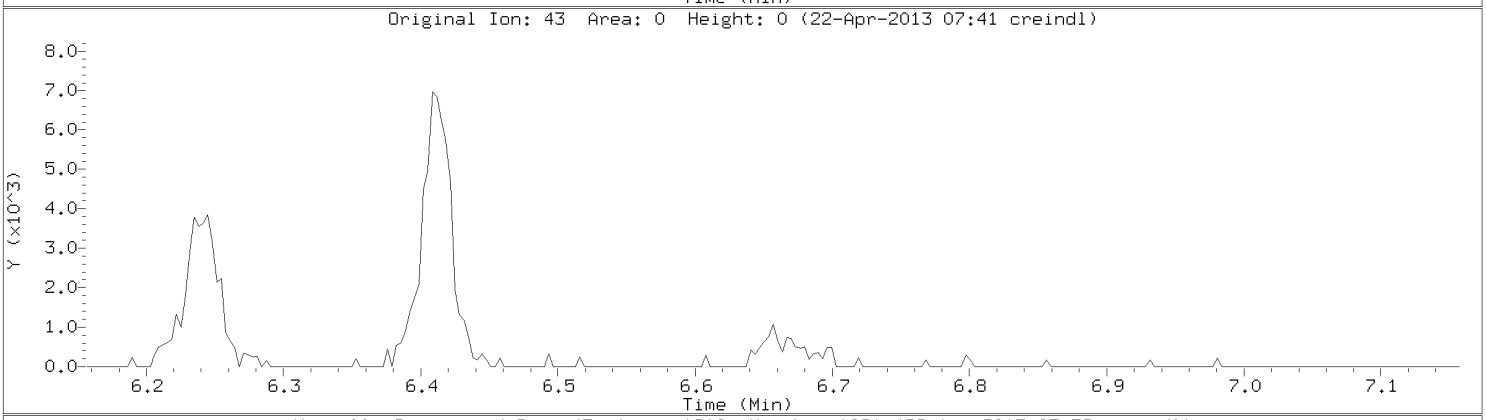


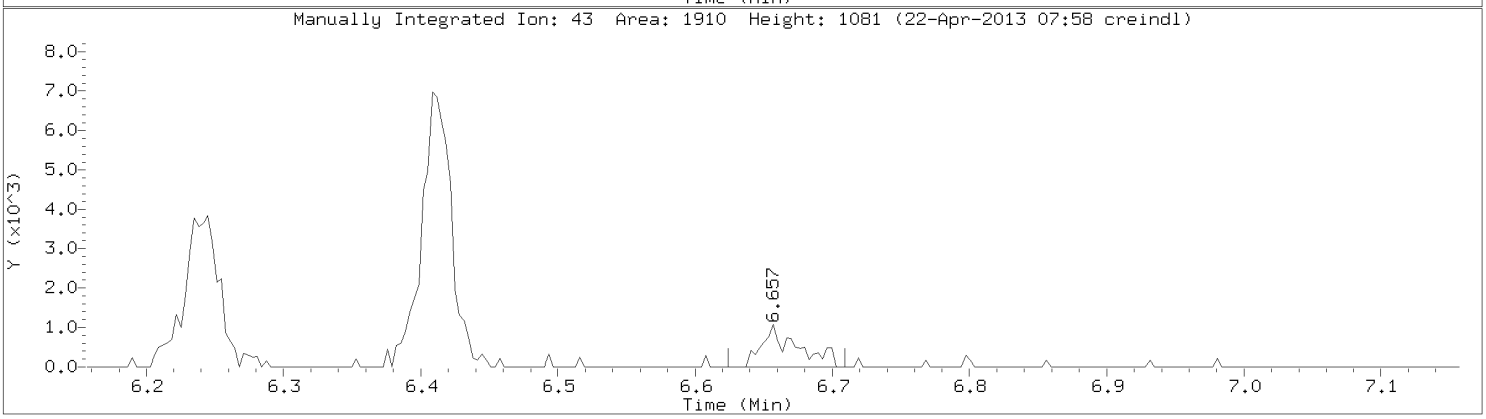
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,4-Dioxane
CAS Number: 123-91-1



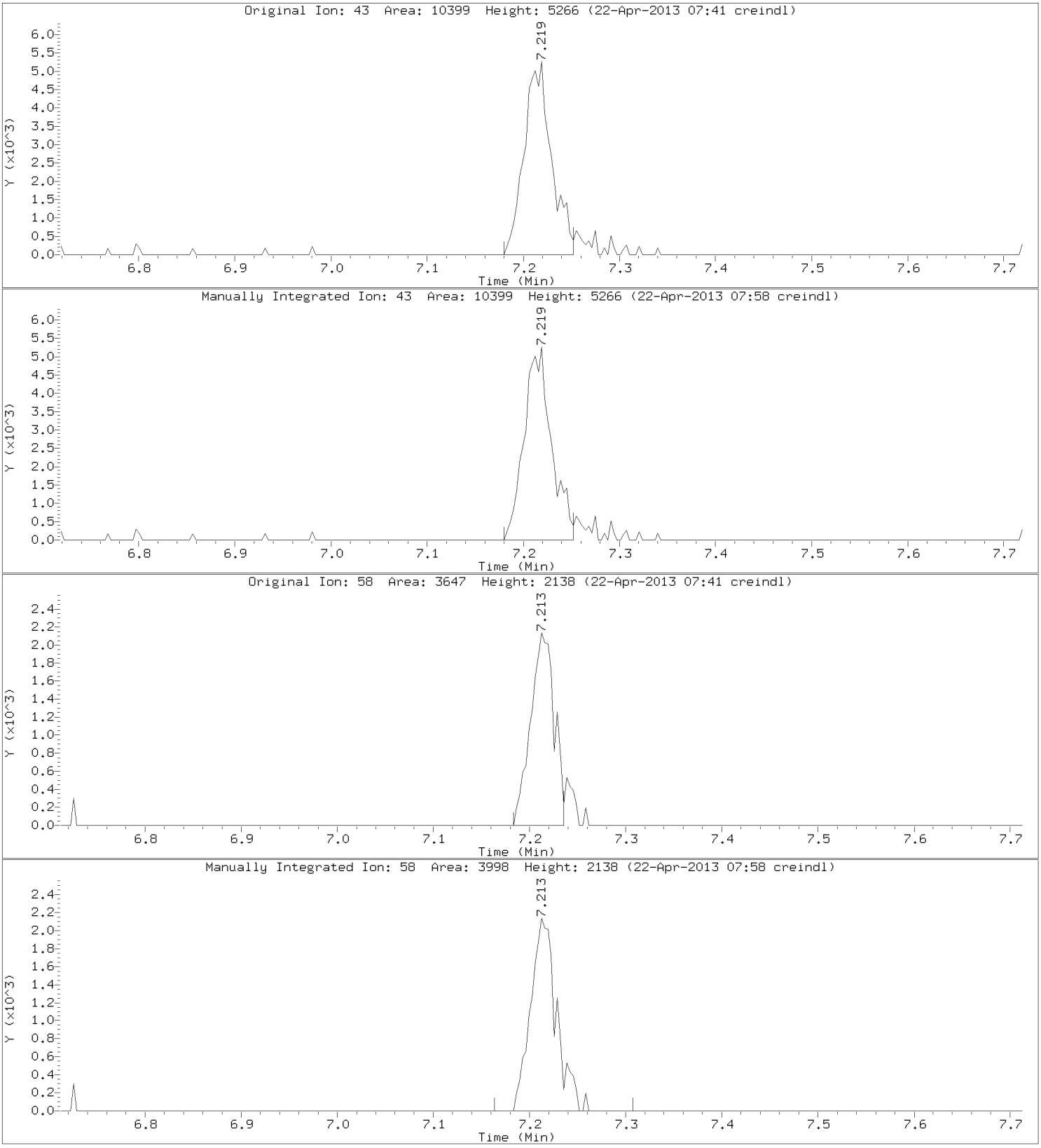




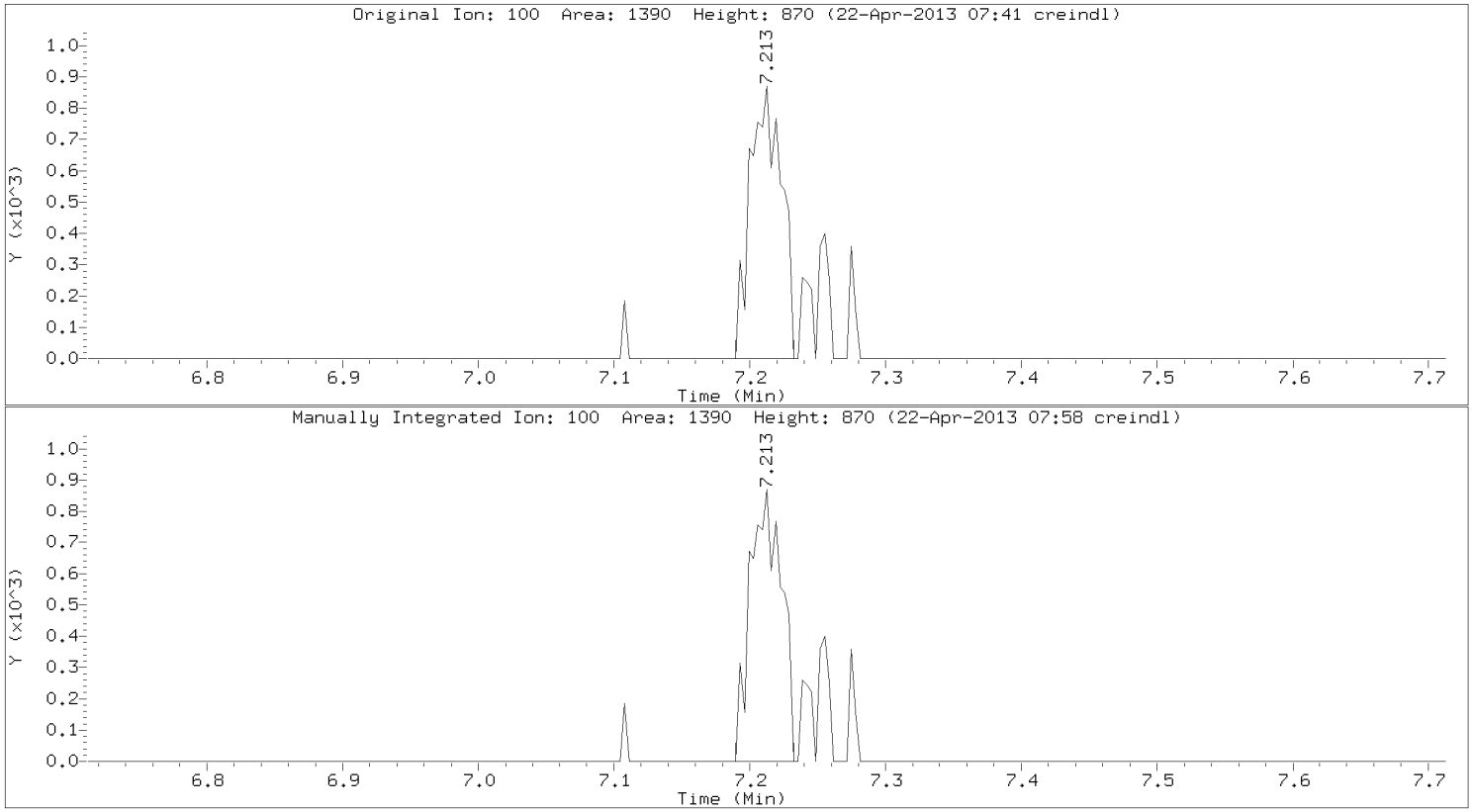


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Methyl Isobutyl Ketone
CAS Number: 108-10-1

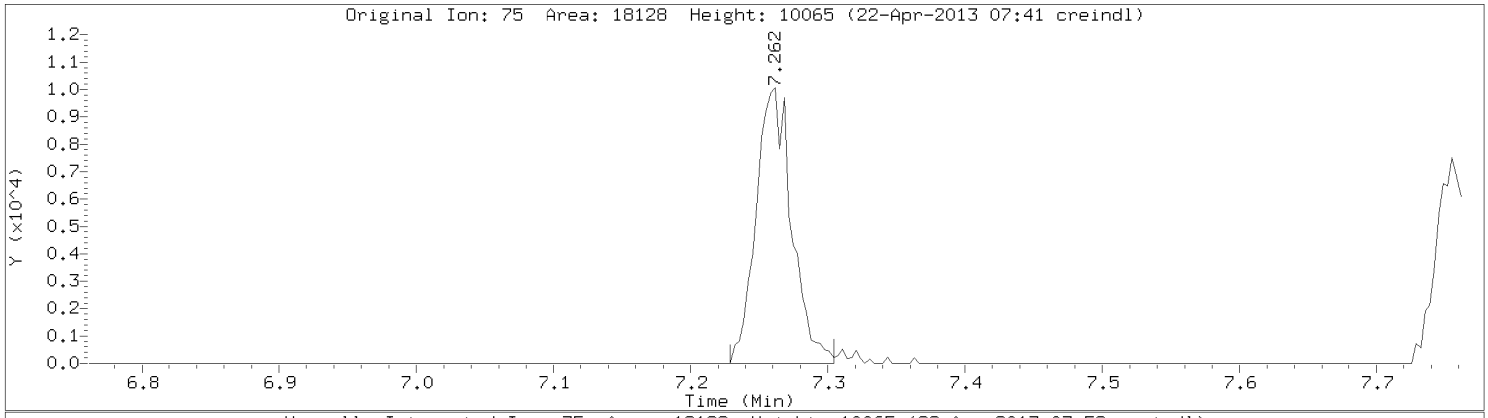


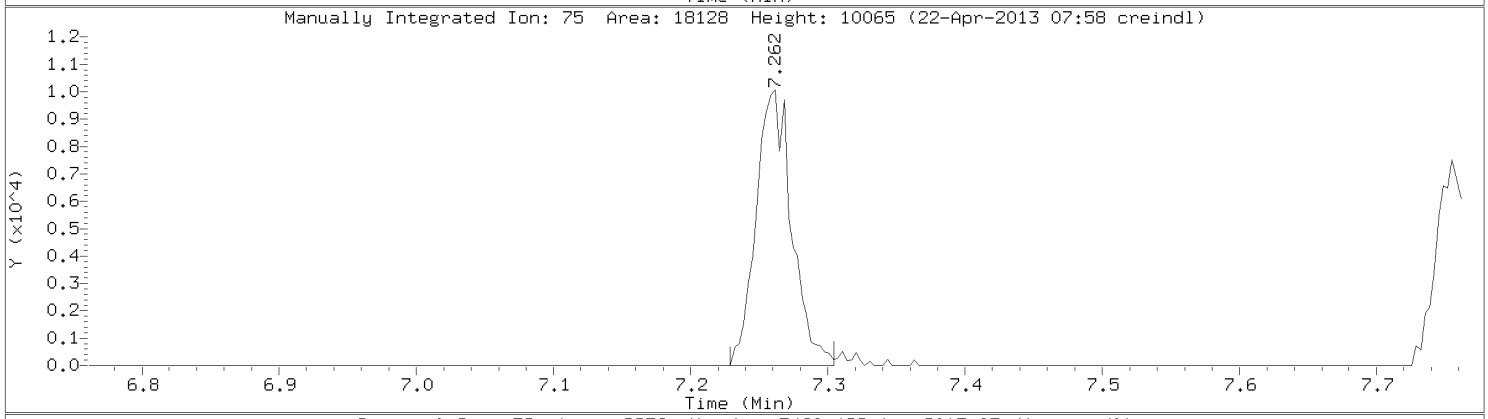
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

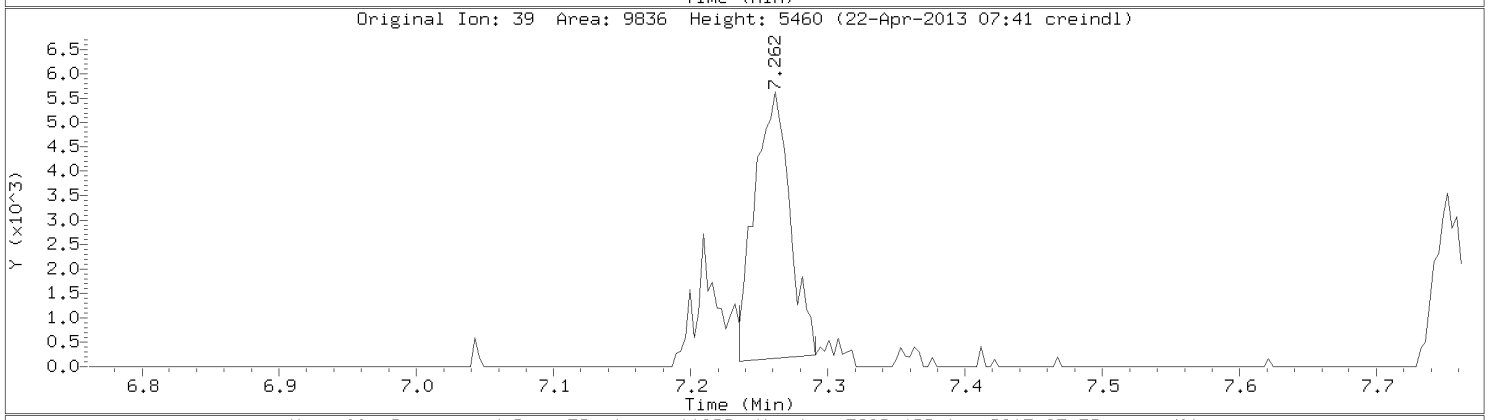


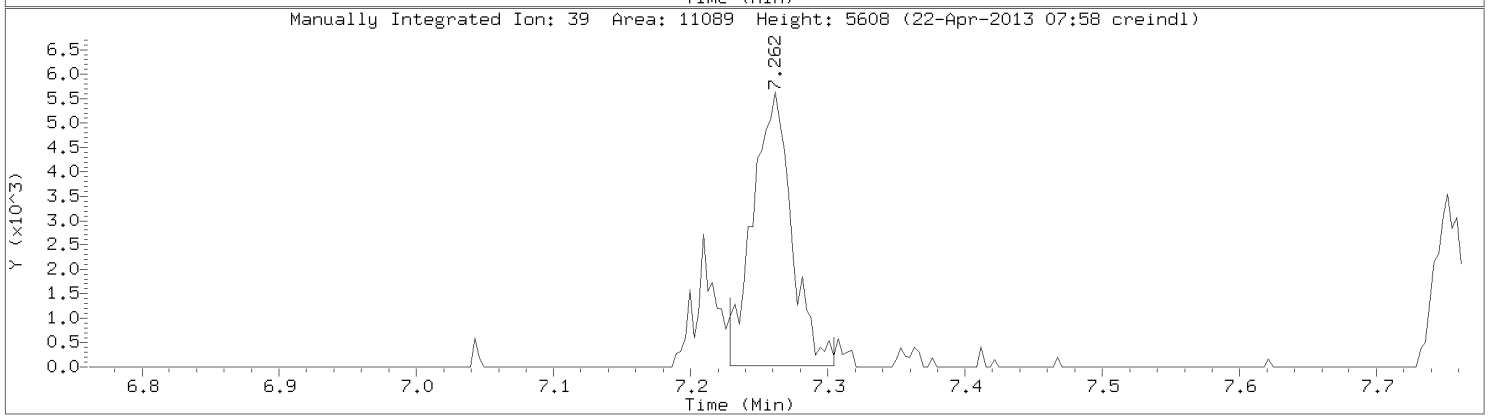
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5

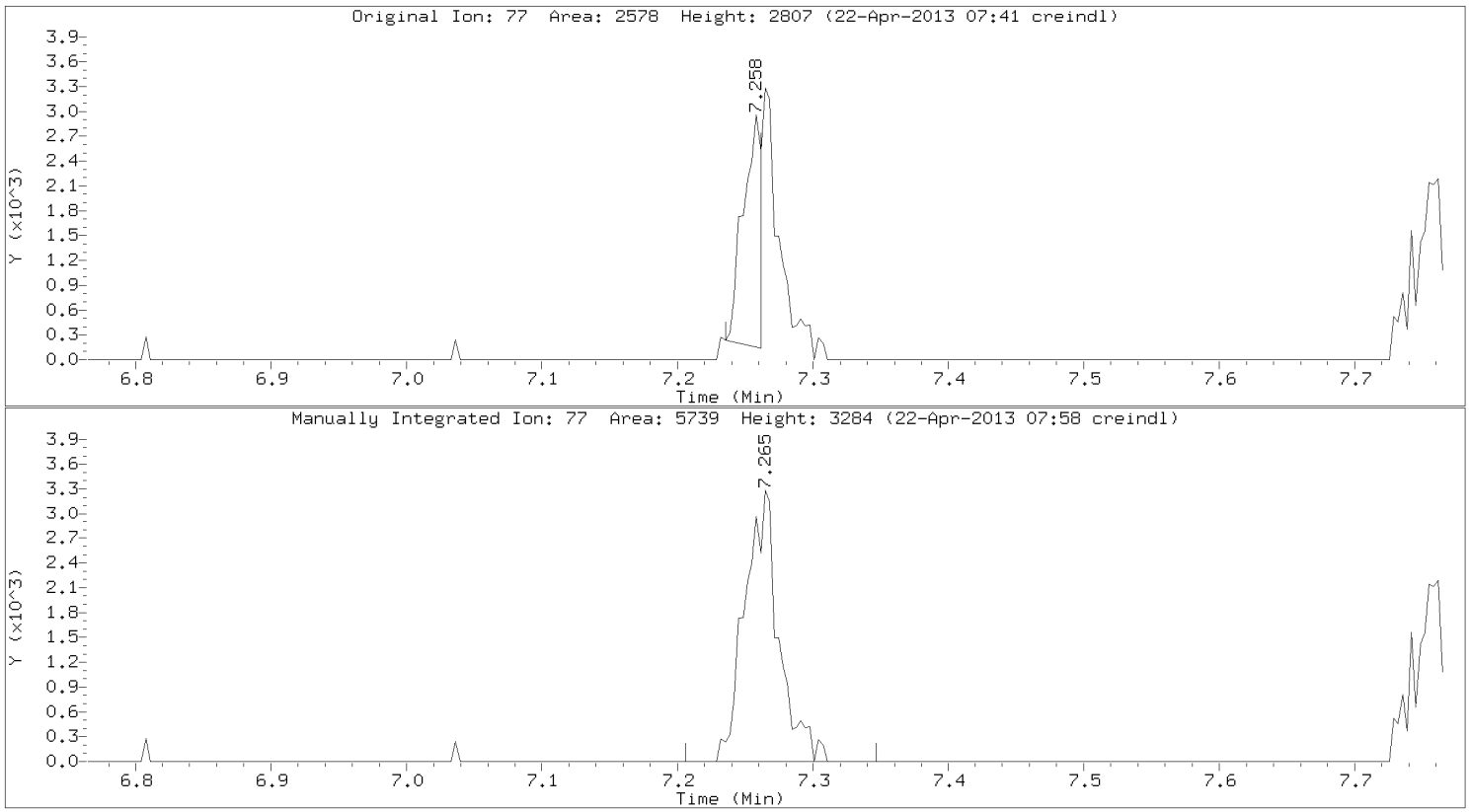






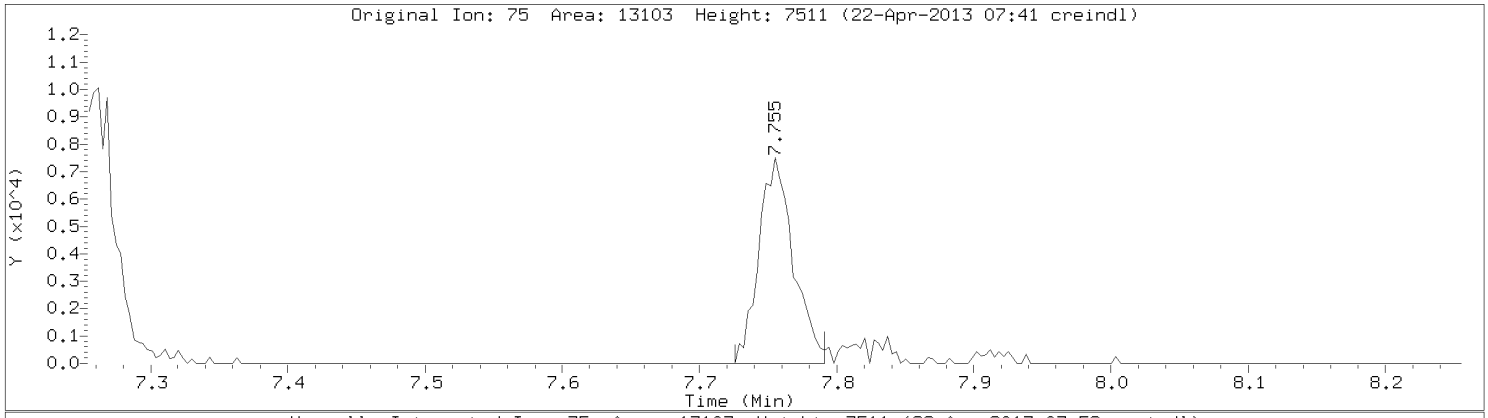


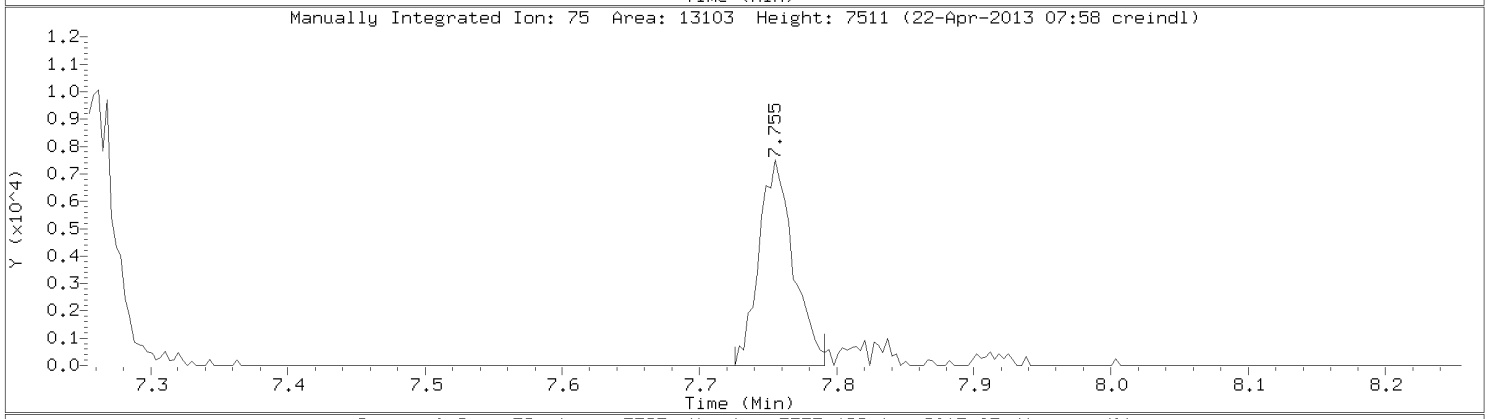
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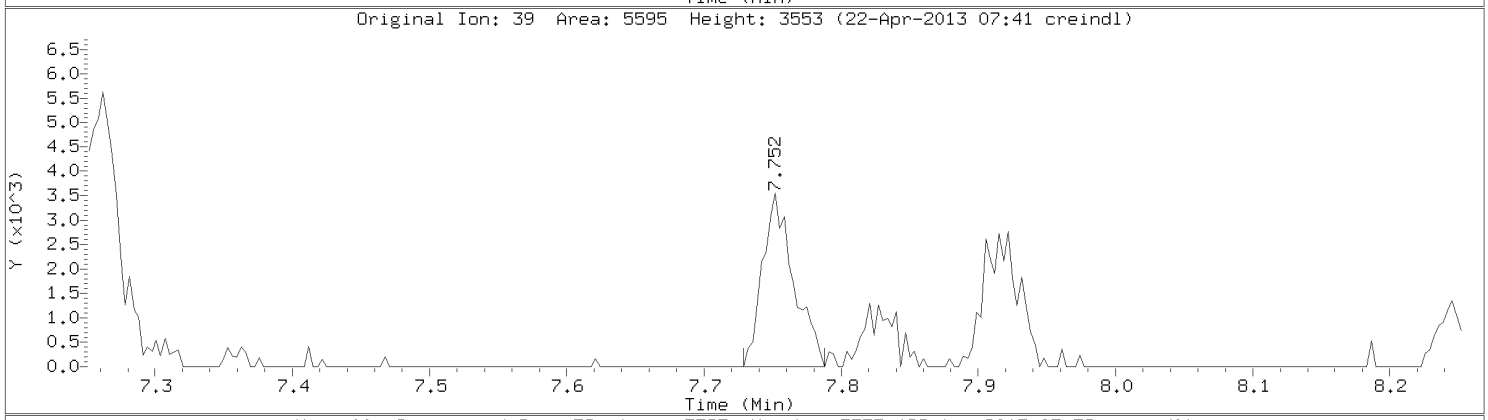


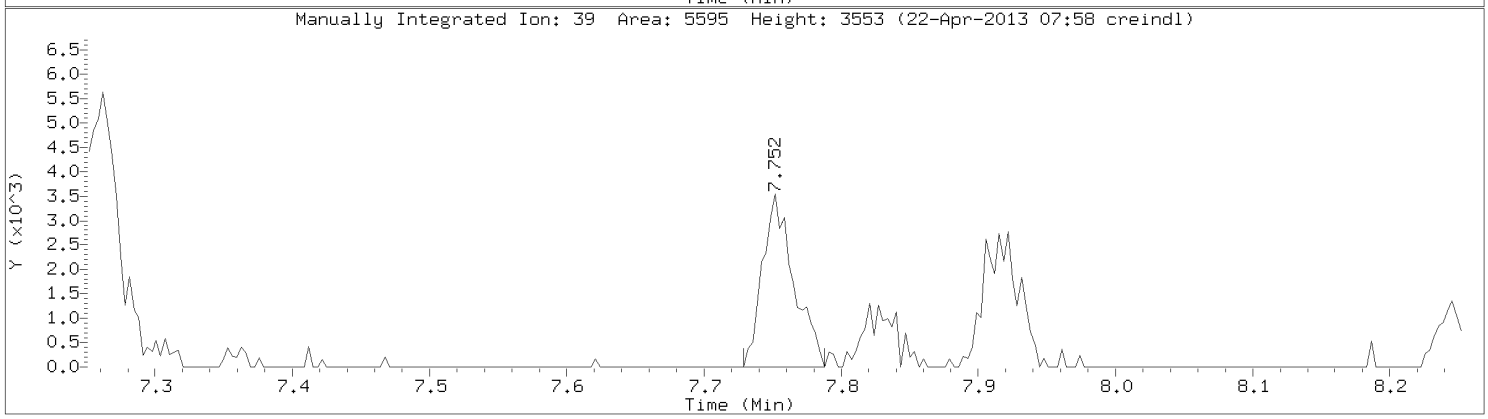
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: trans-1,3-Dichloropropene
CAS Number: 10061-02-6

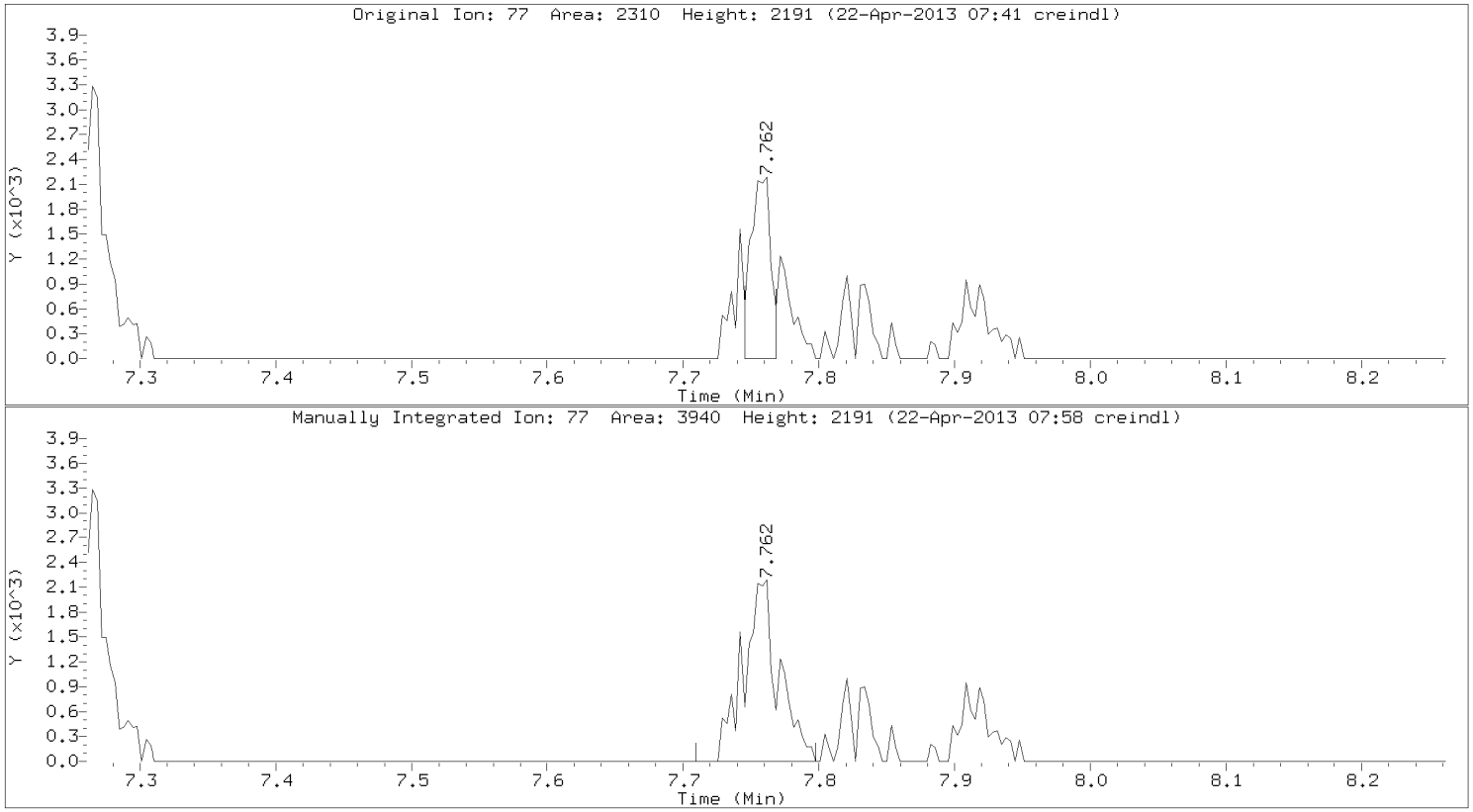






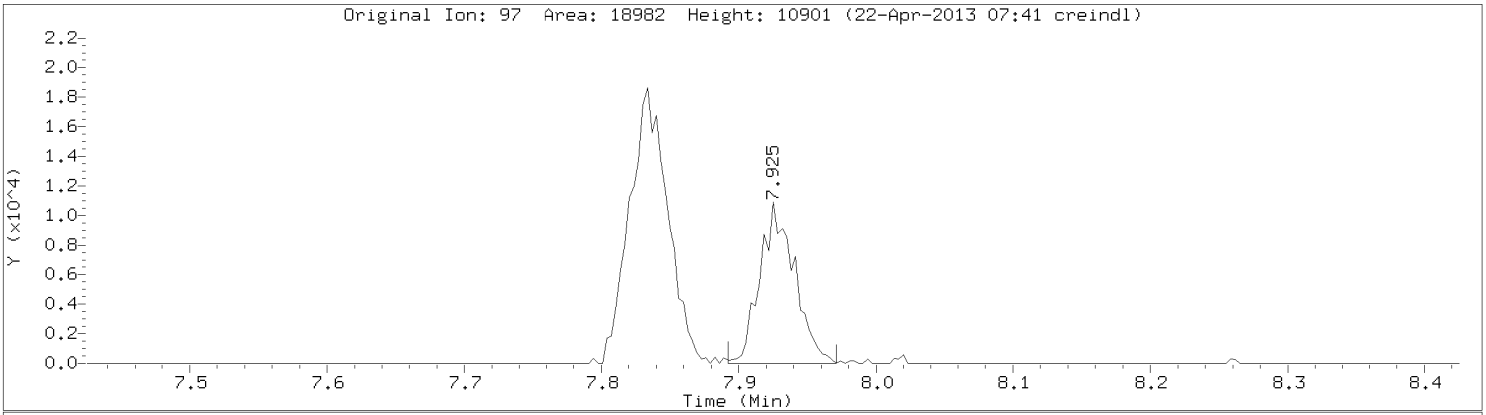


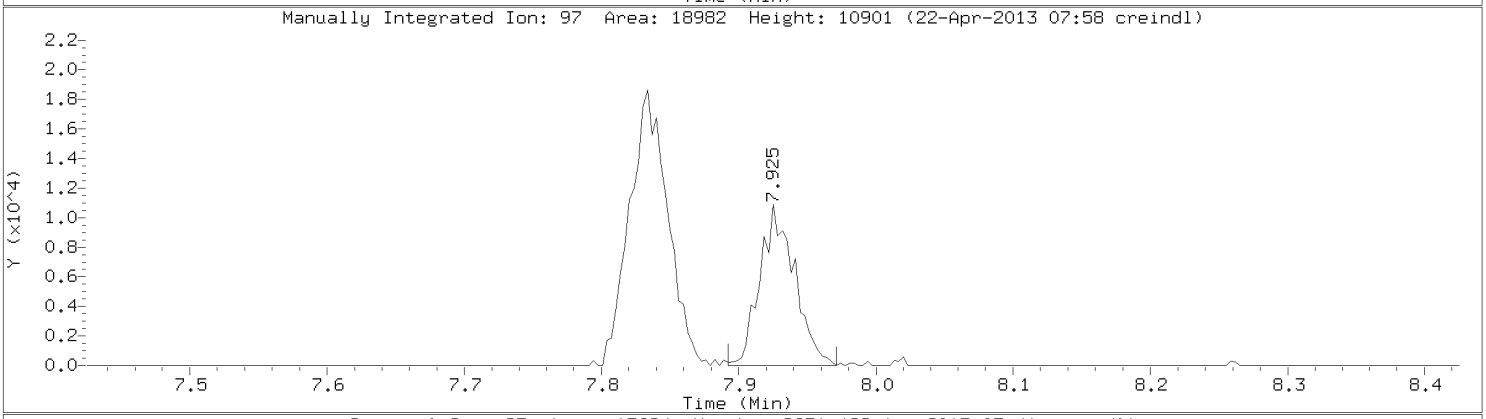
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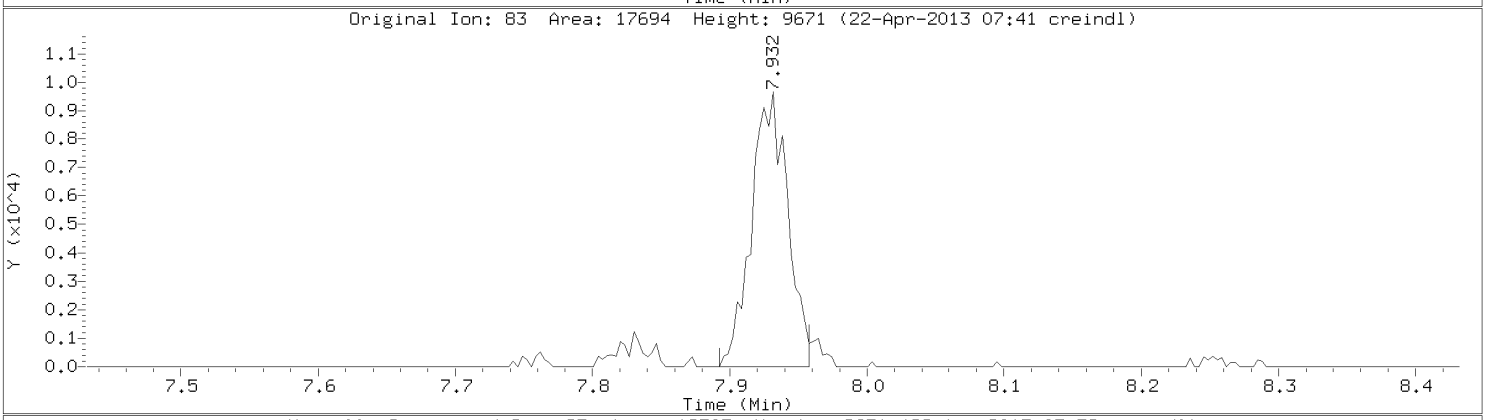


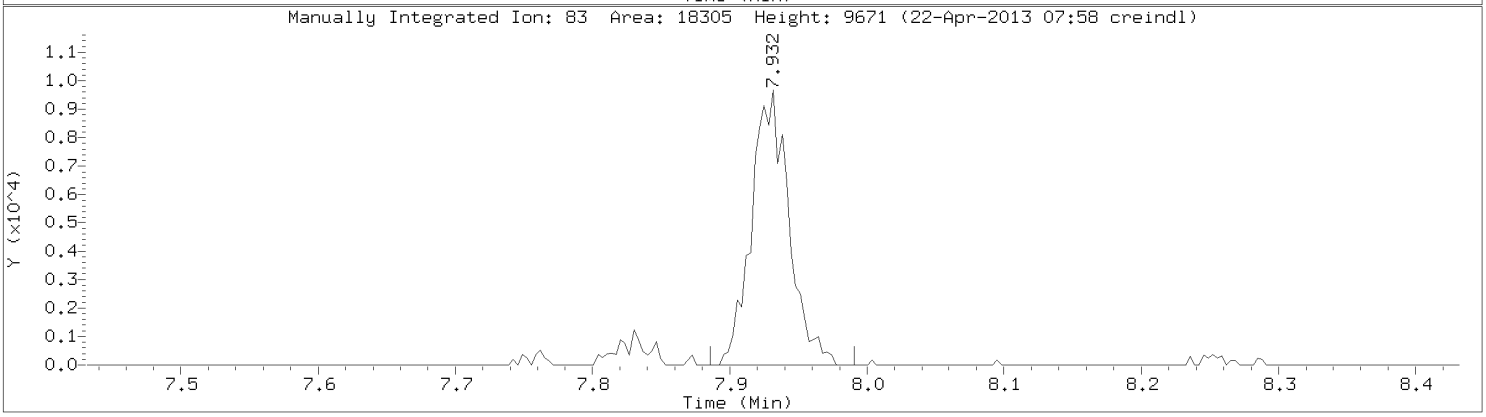
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,1,2-Trichloroethane
CAS Number: 79-00-5

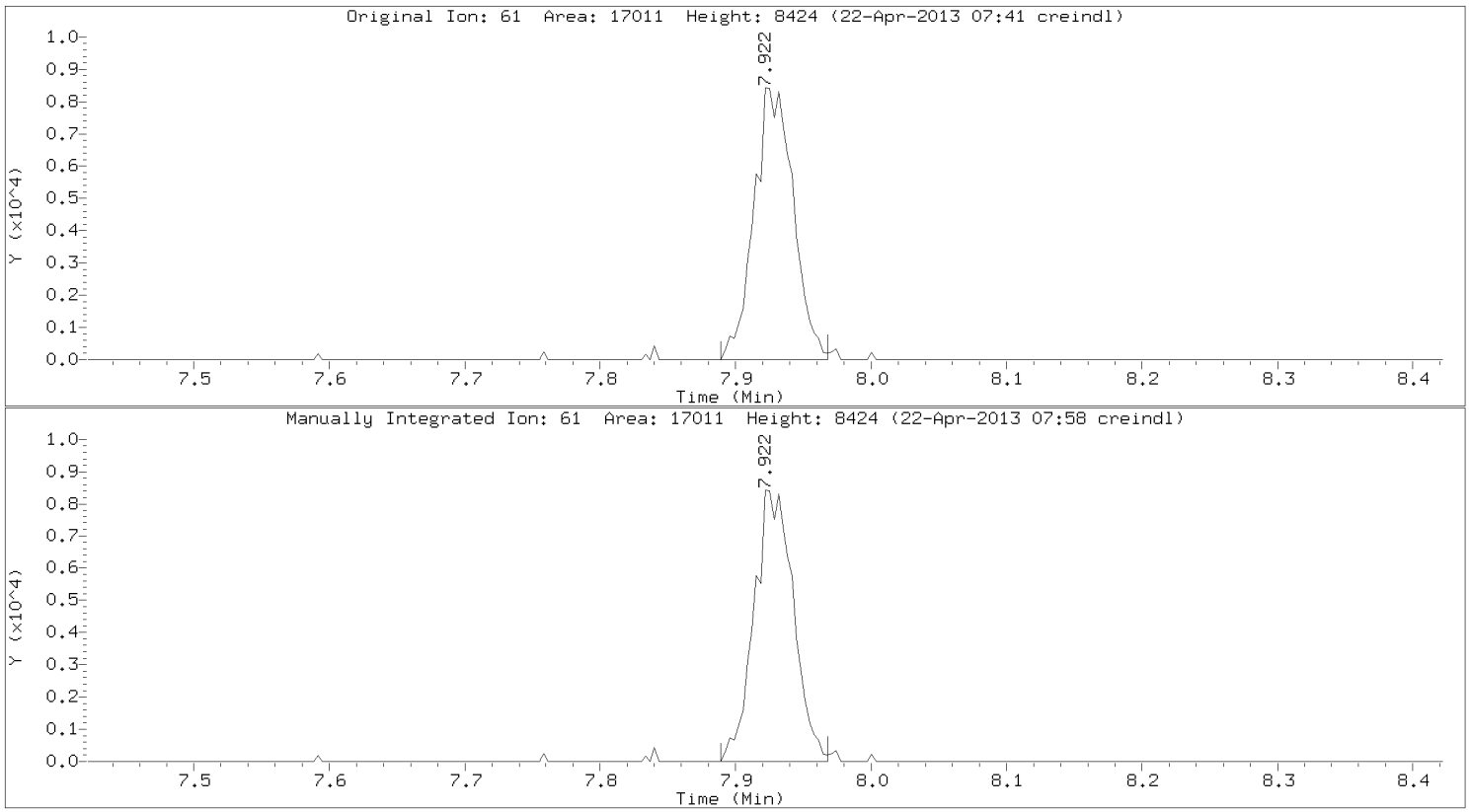






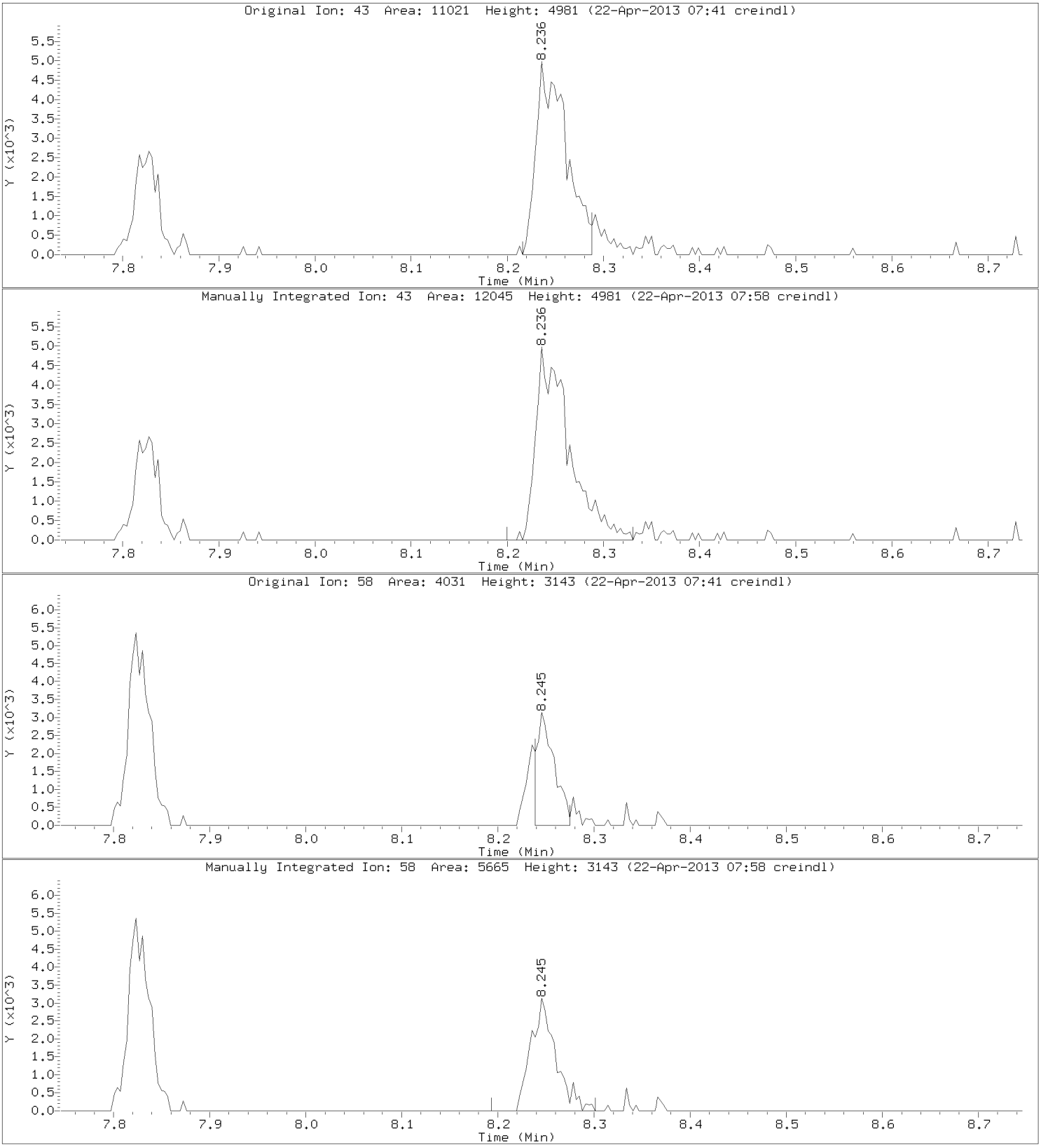


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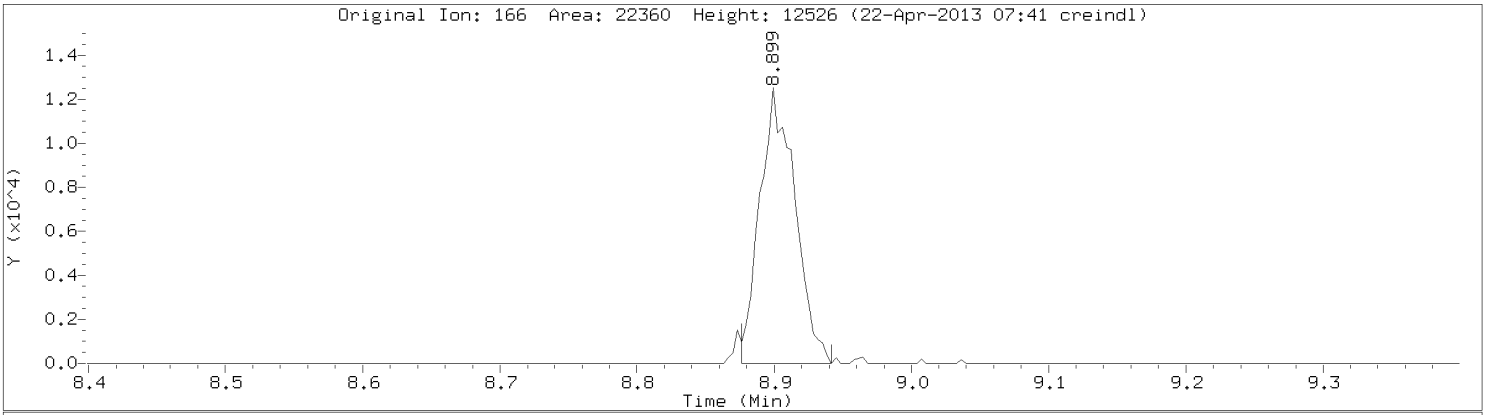
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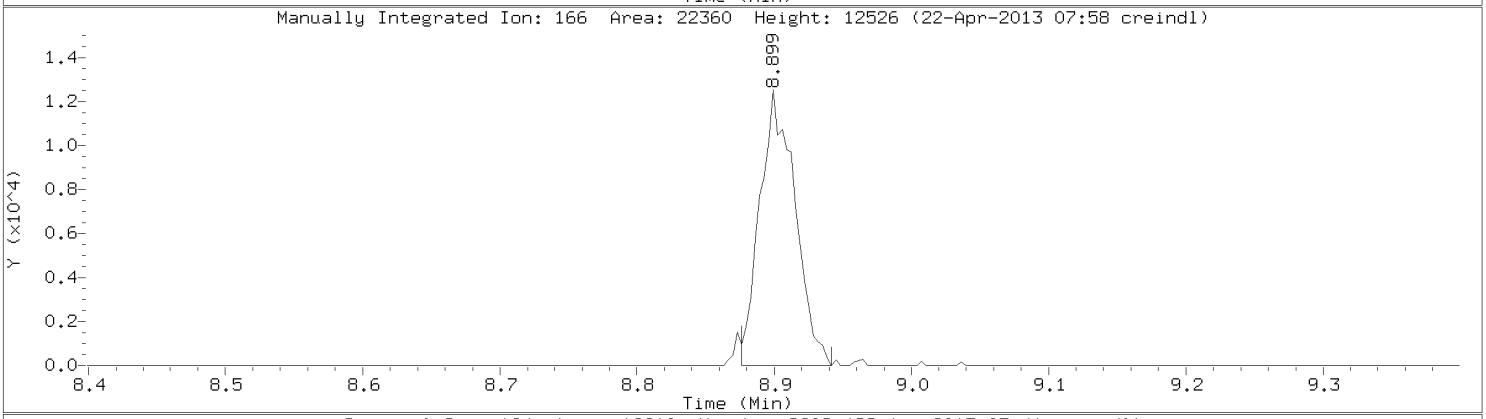
Compound: Methyl Butyl Ketone
CAS Number: 591-78-6

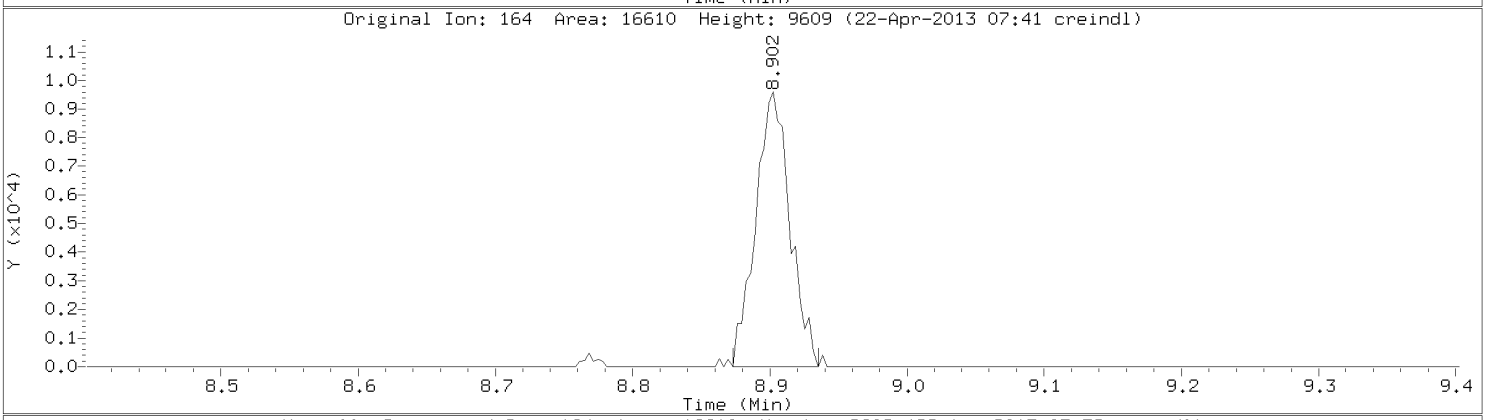


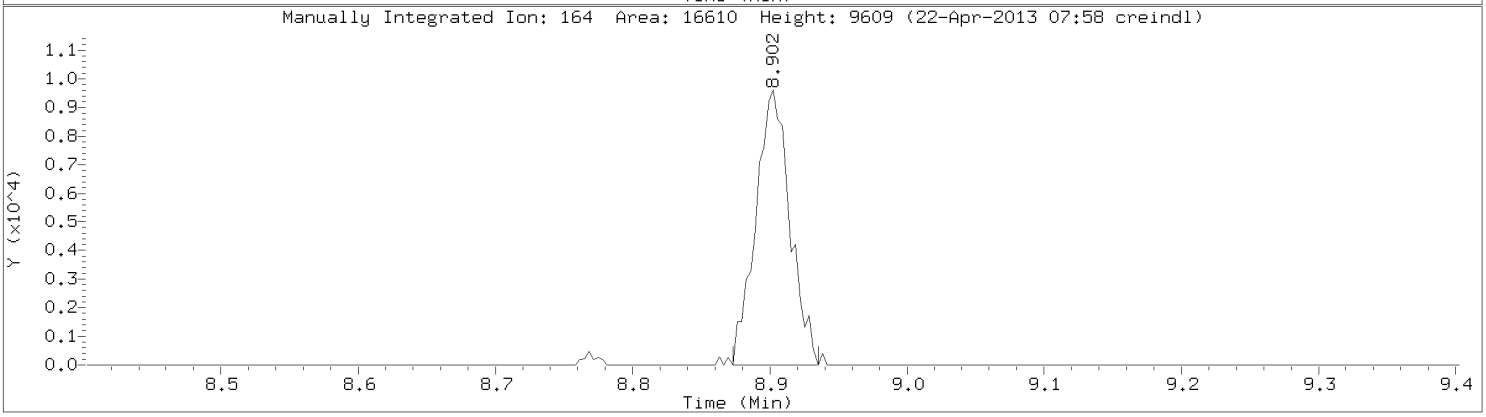
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Tetrachloroethene
CAS Number: 127-18-4

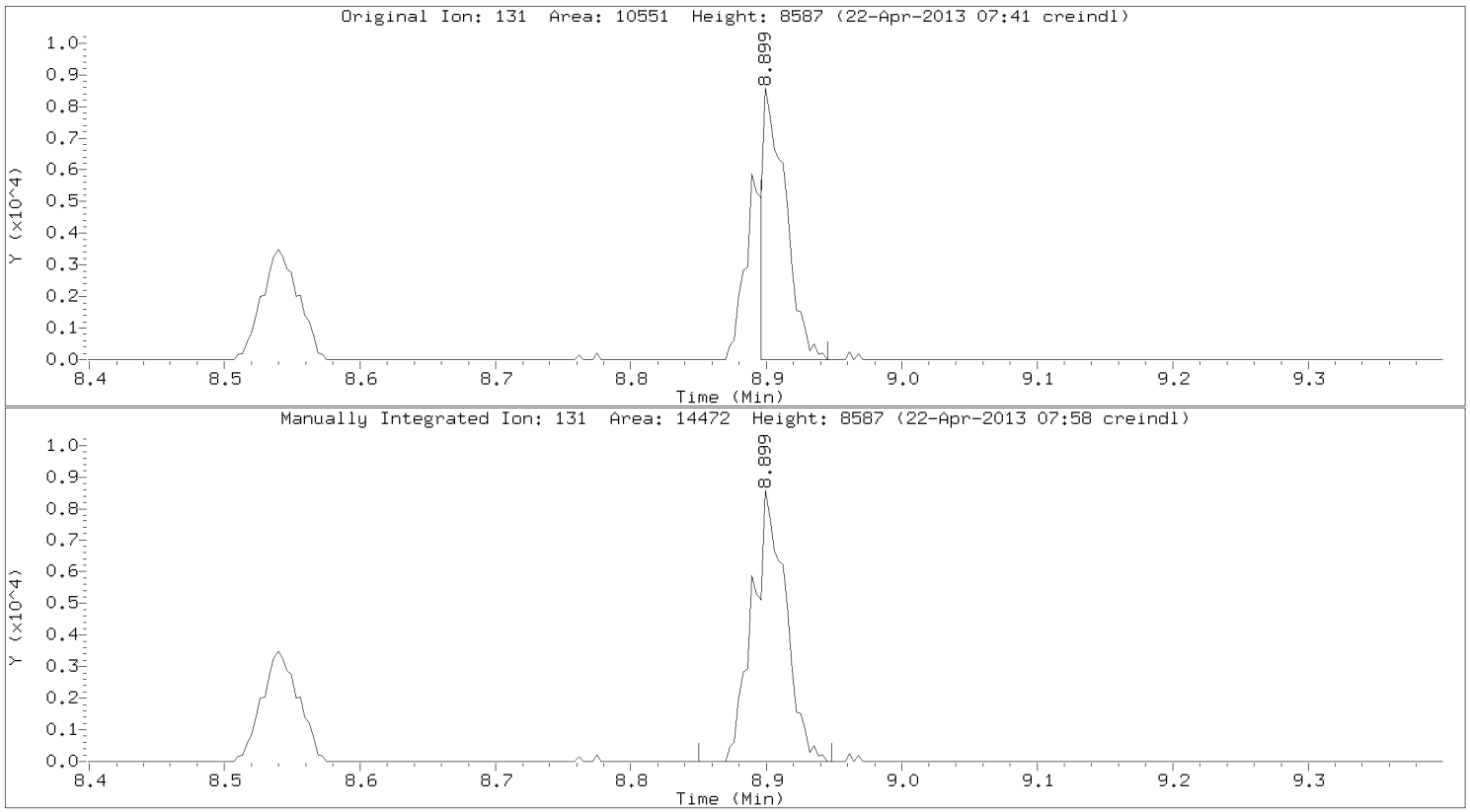






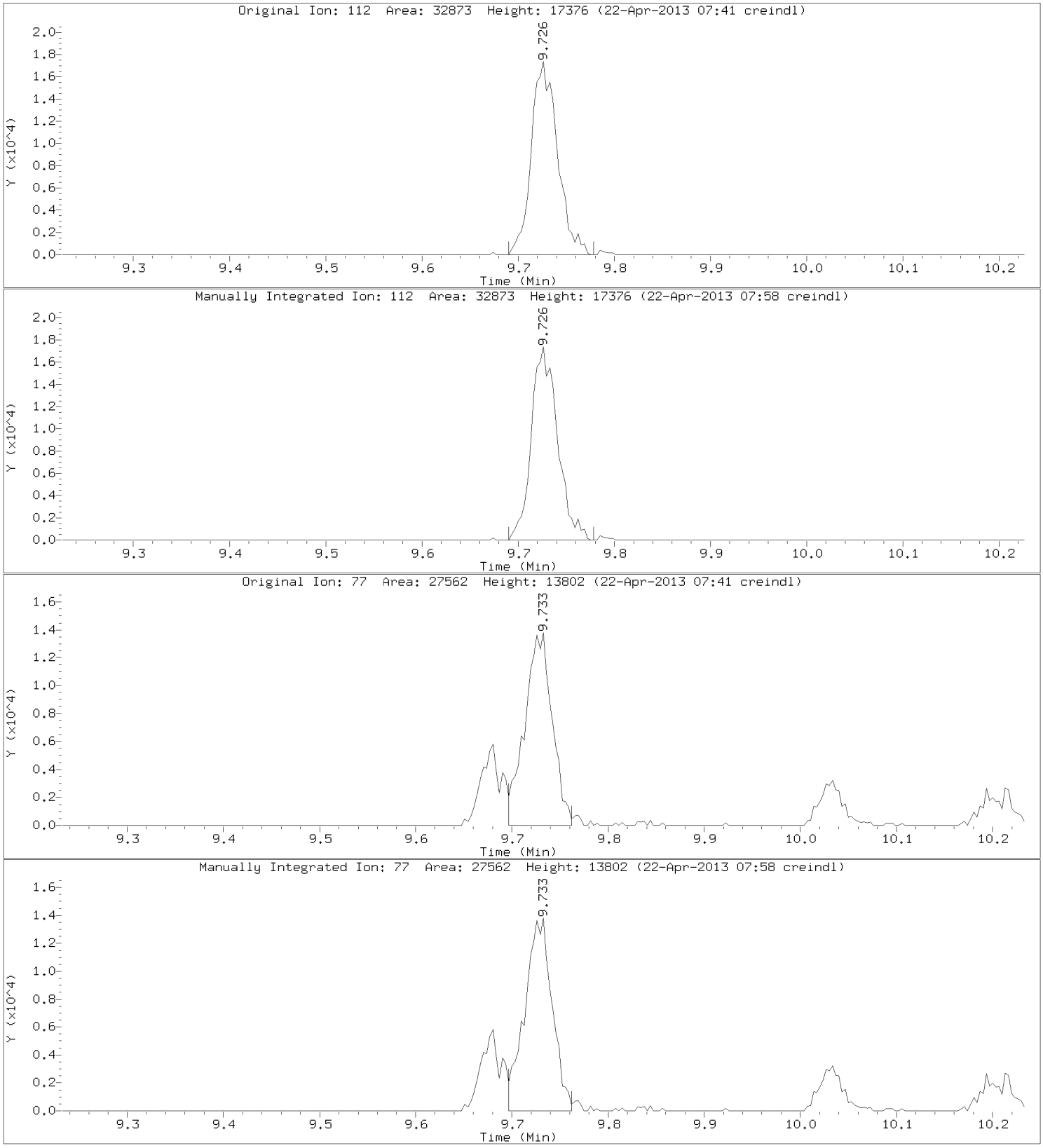


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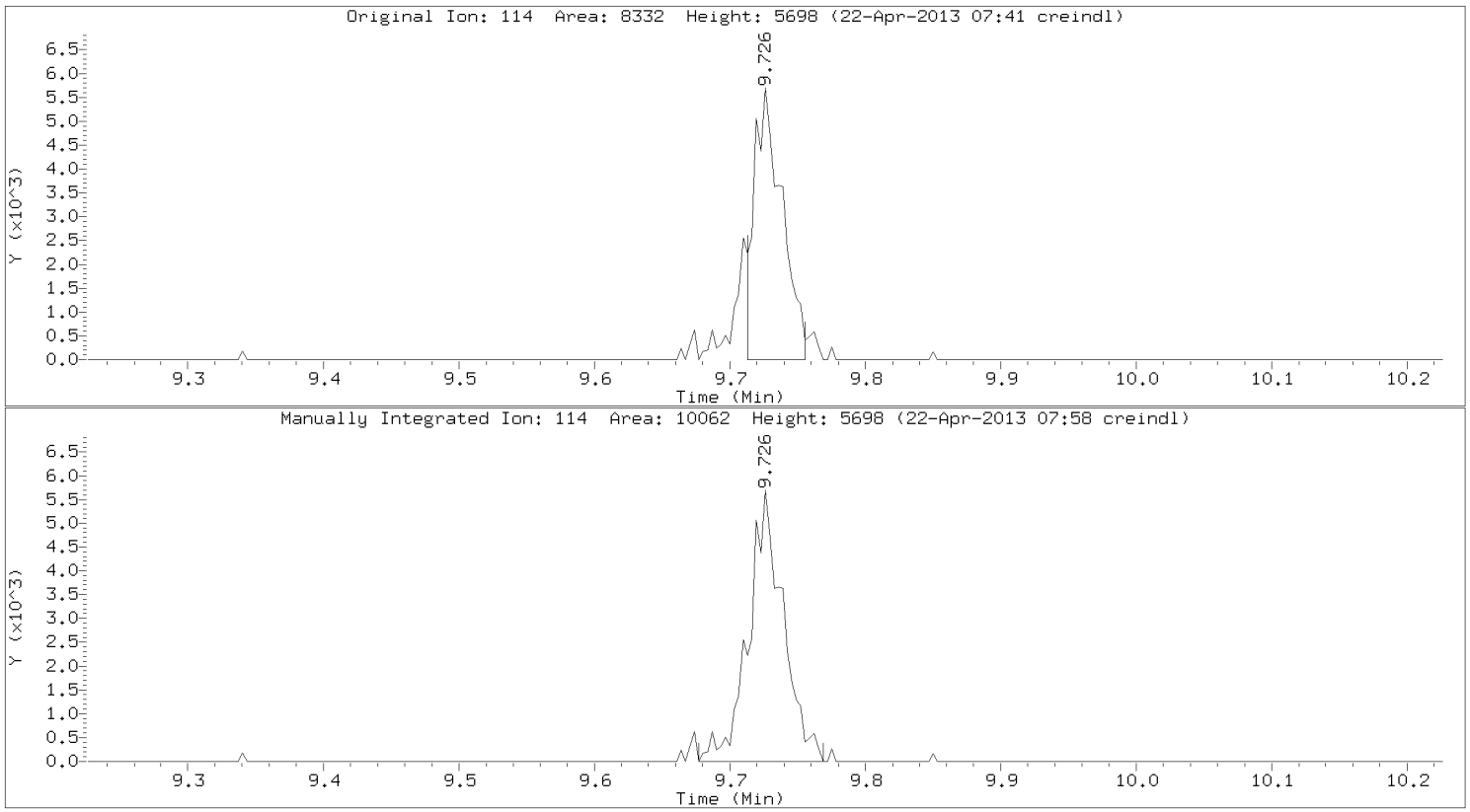


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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Chlorobenzene
CAS Number: 108-90-7

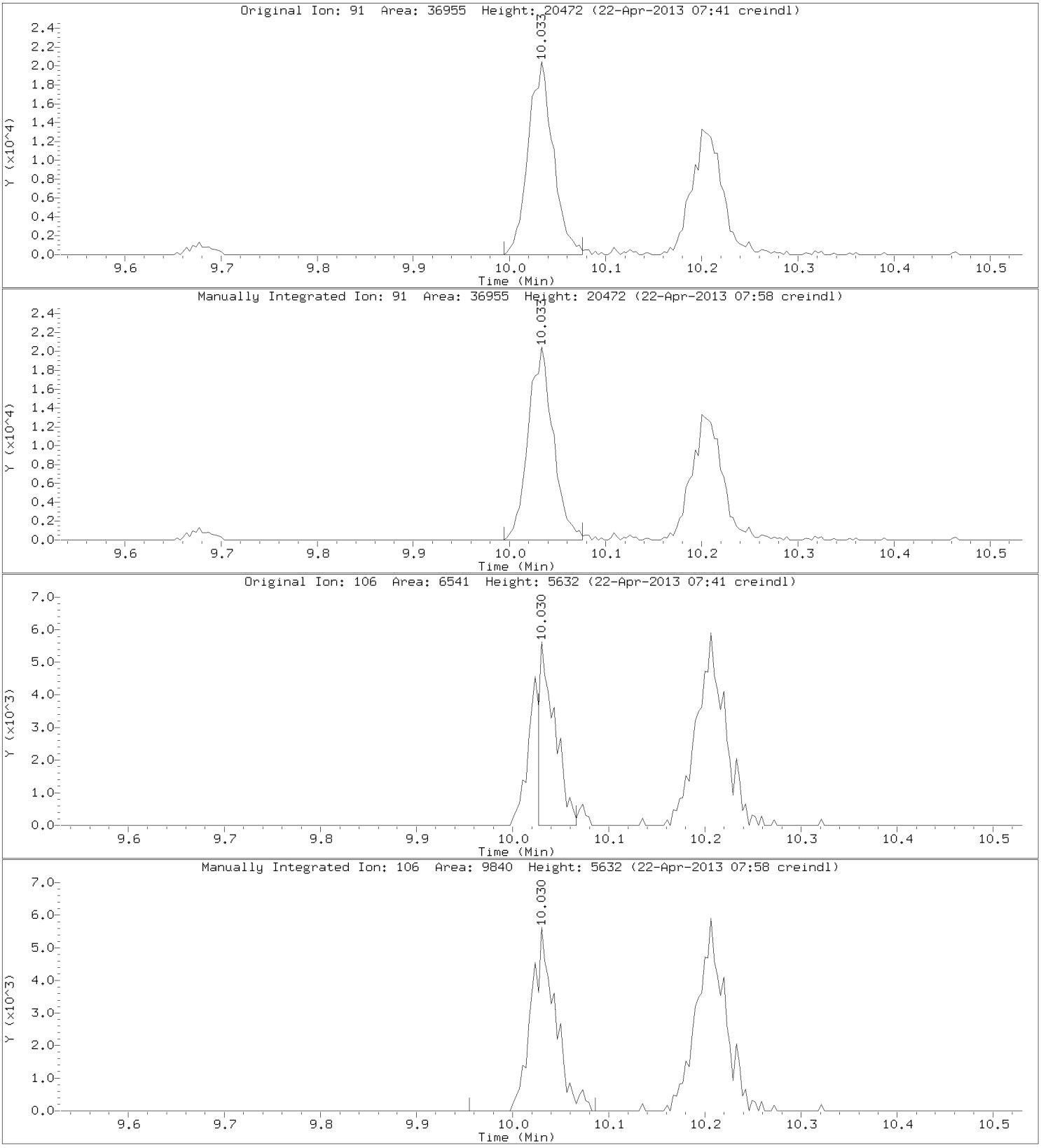


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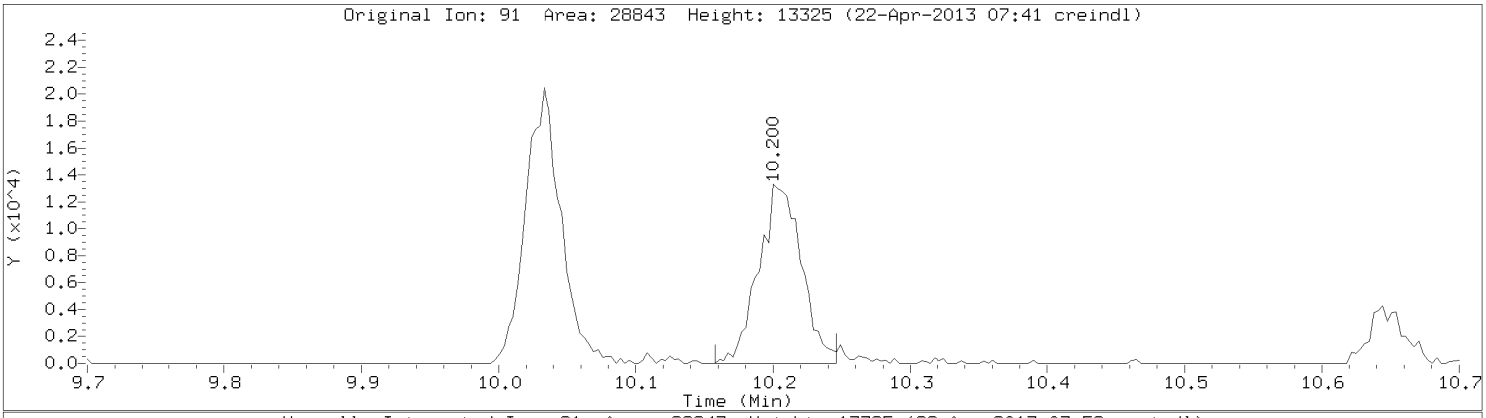
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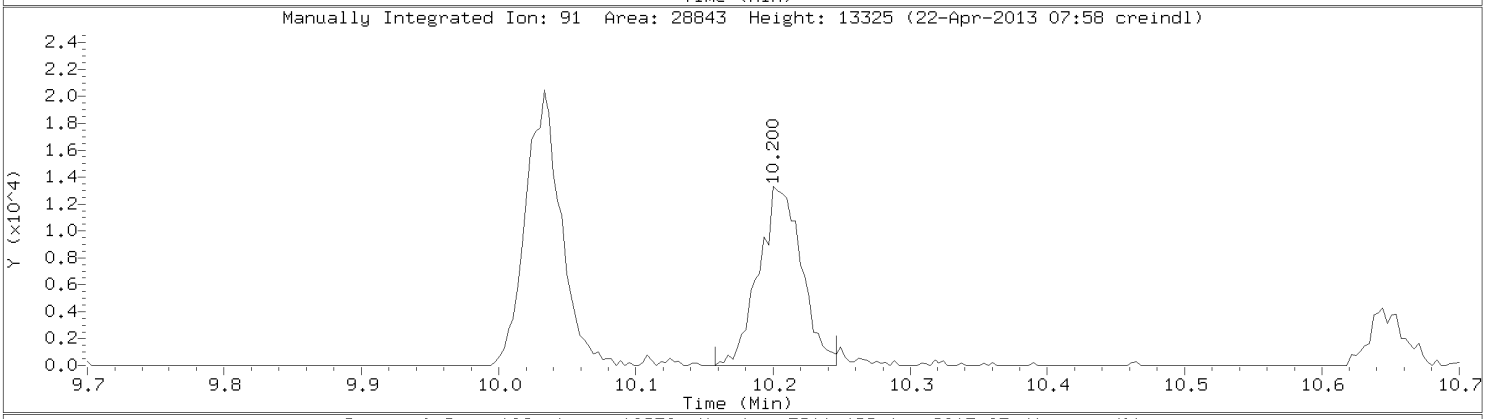
Compound: Ethyl Benzene
CAS Number: 100-41-4

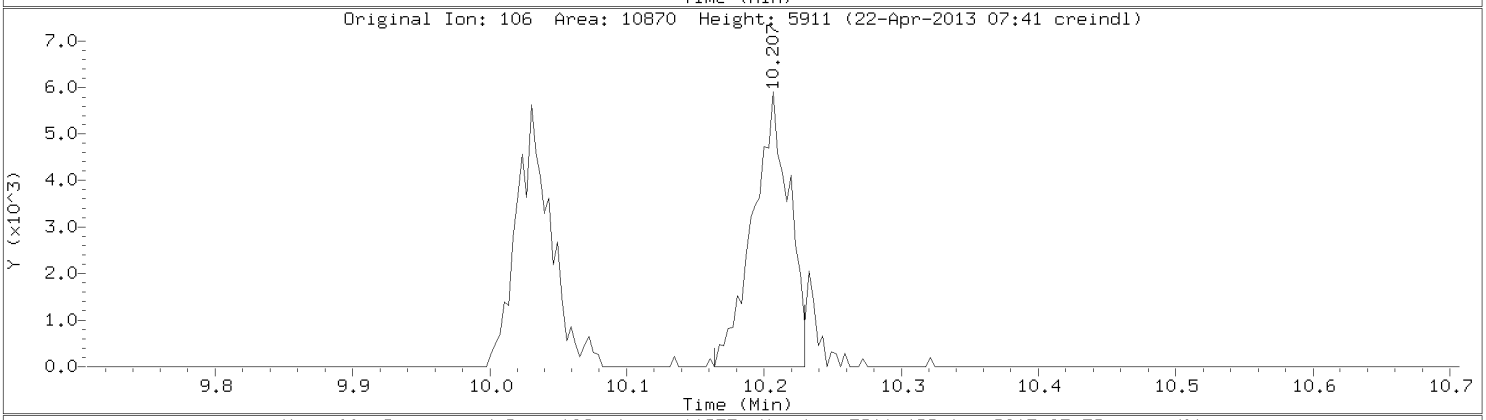


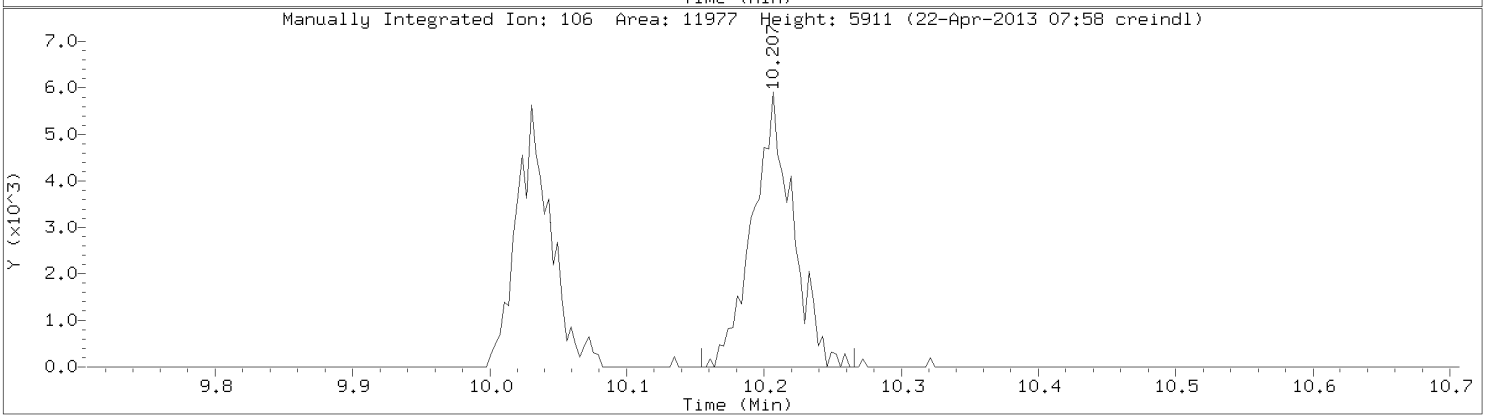
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: m&p-Xylene
CAS Number: 7816-60-0



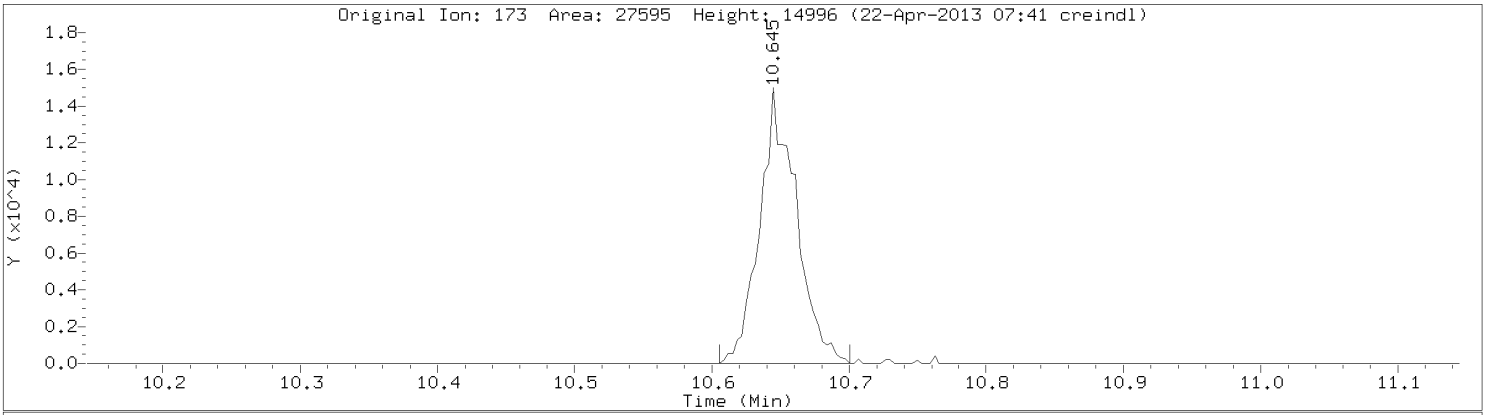


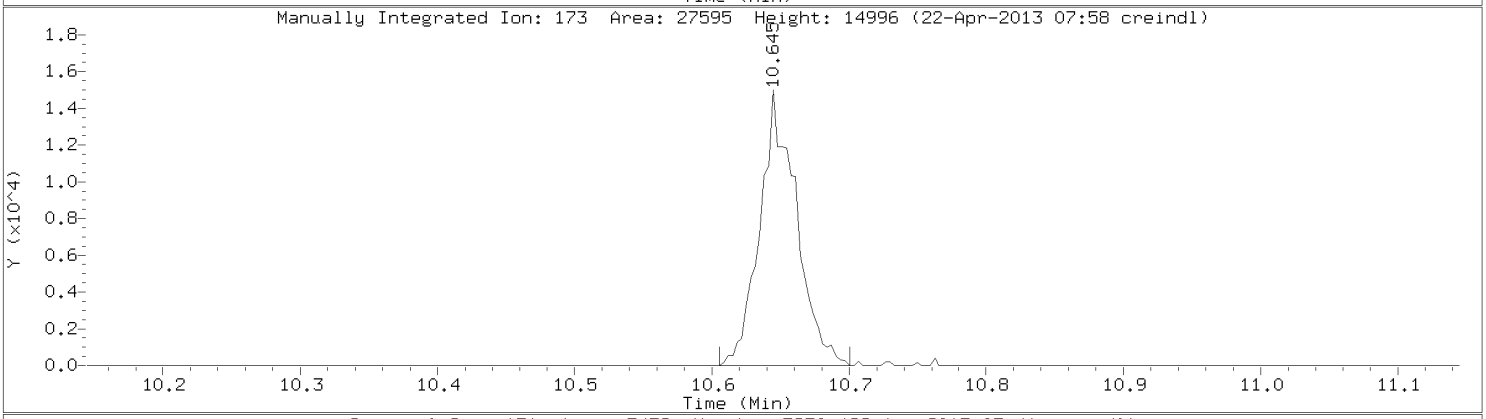


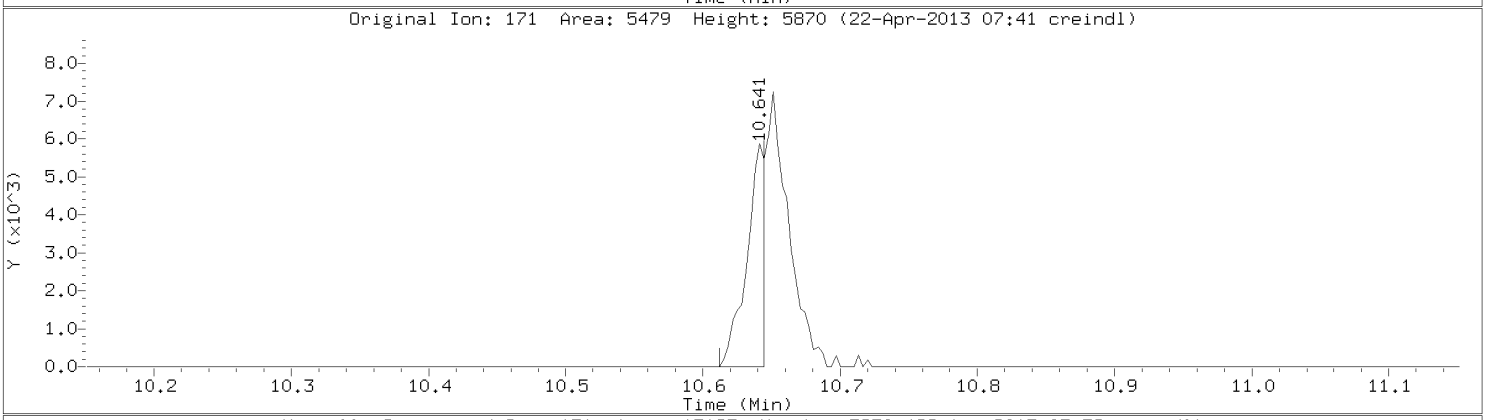


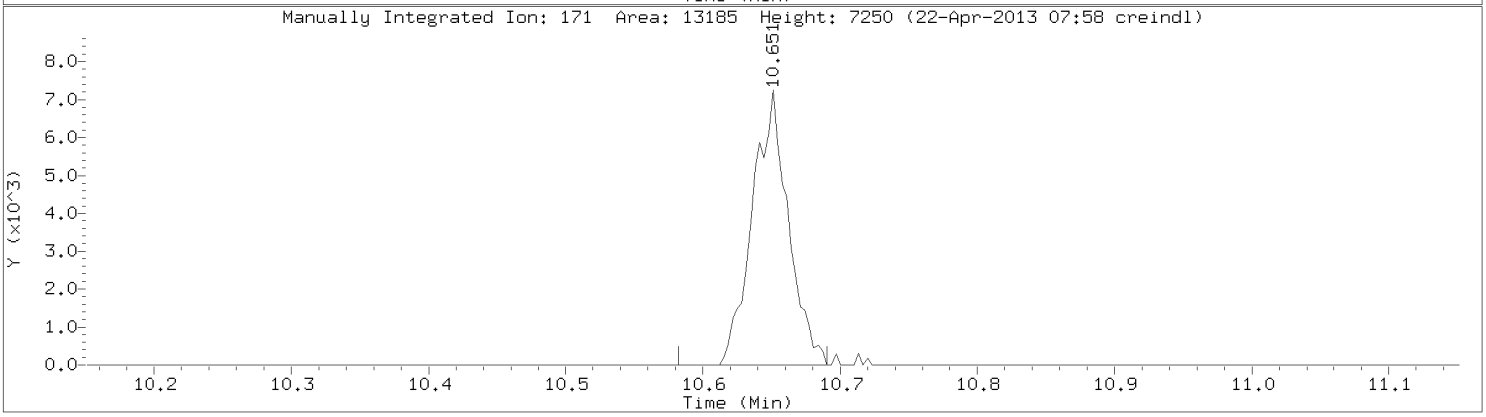
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Bromoform
CAS Number: 75-25-2



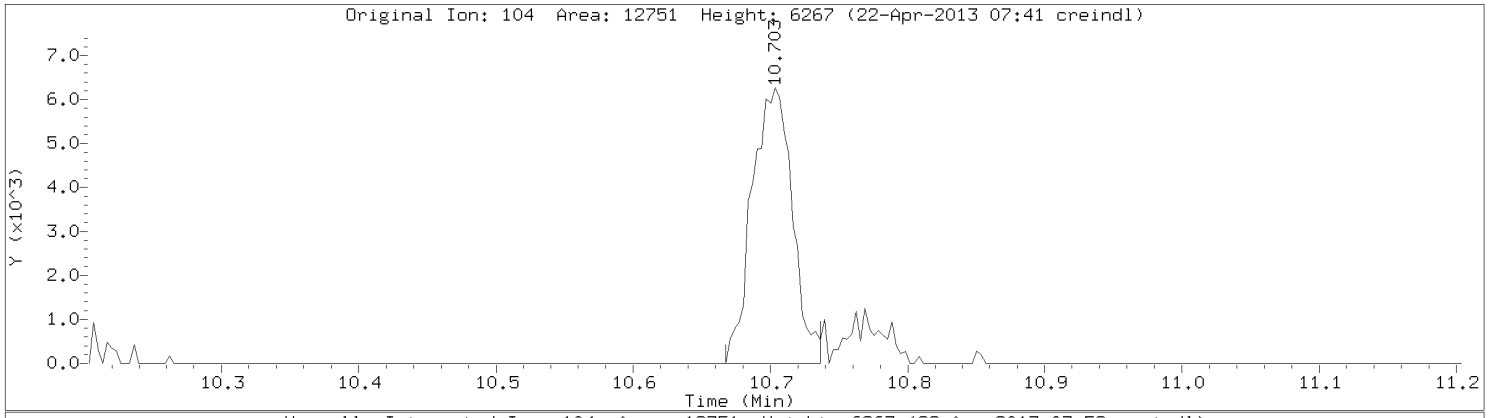


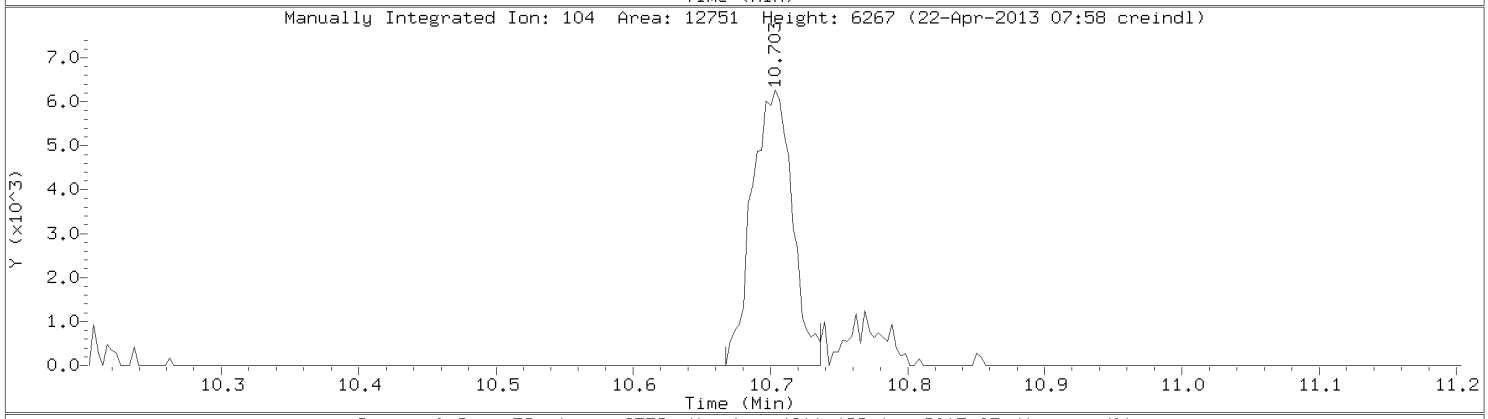


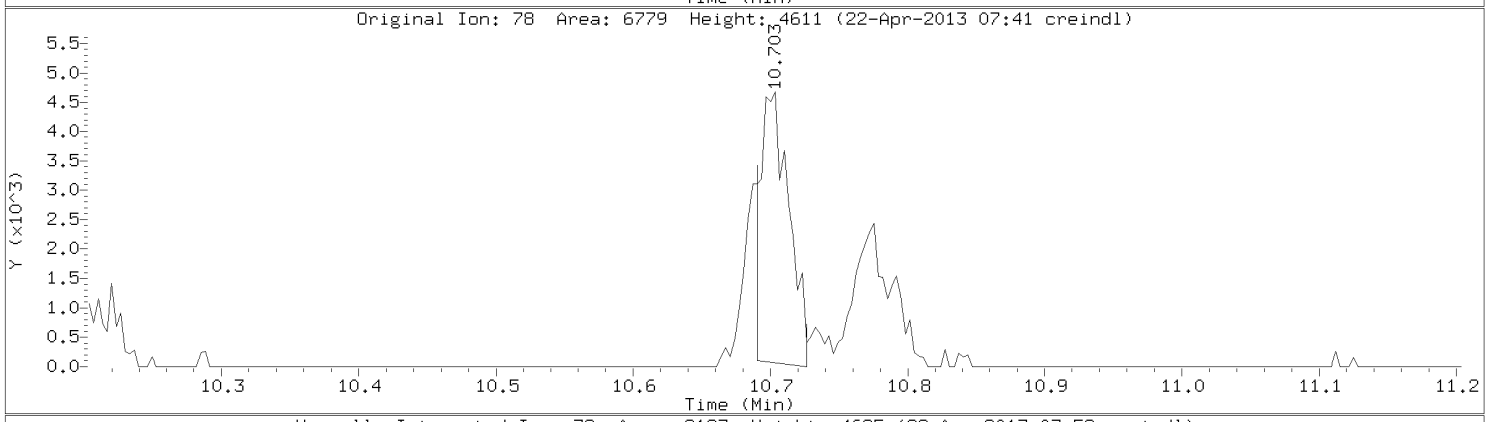


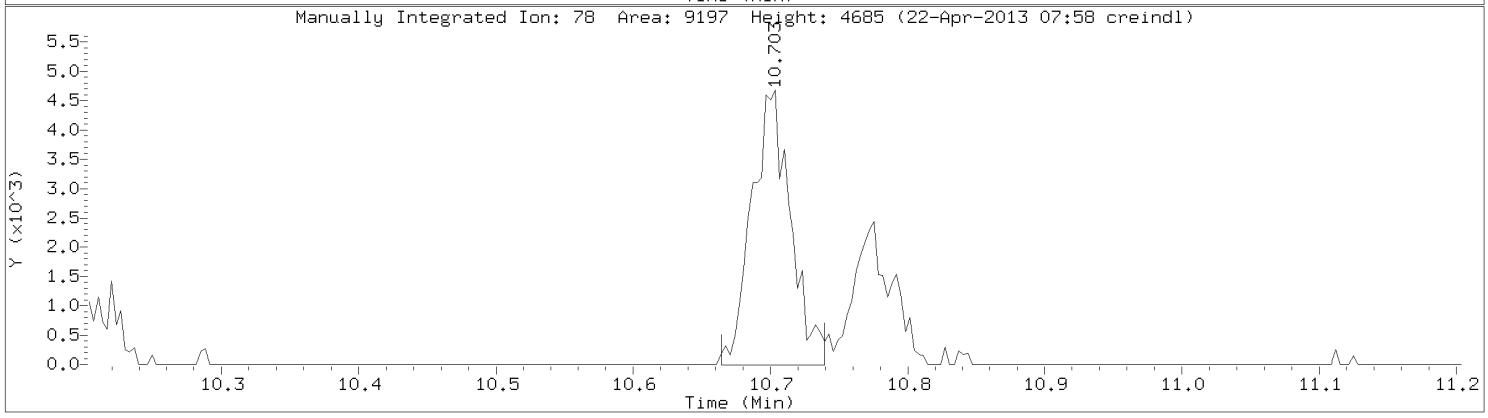
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Styrene
CAS Number: 100-42-5

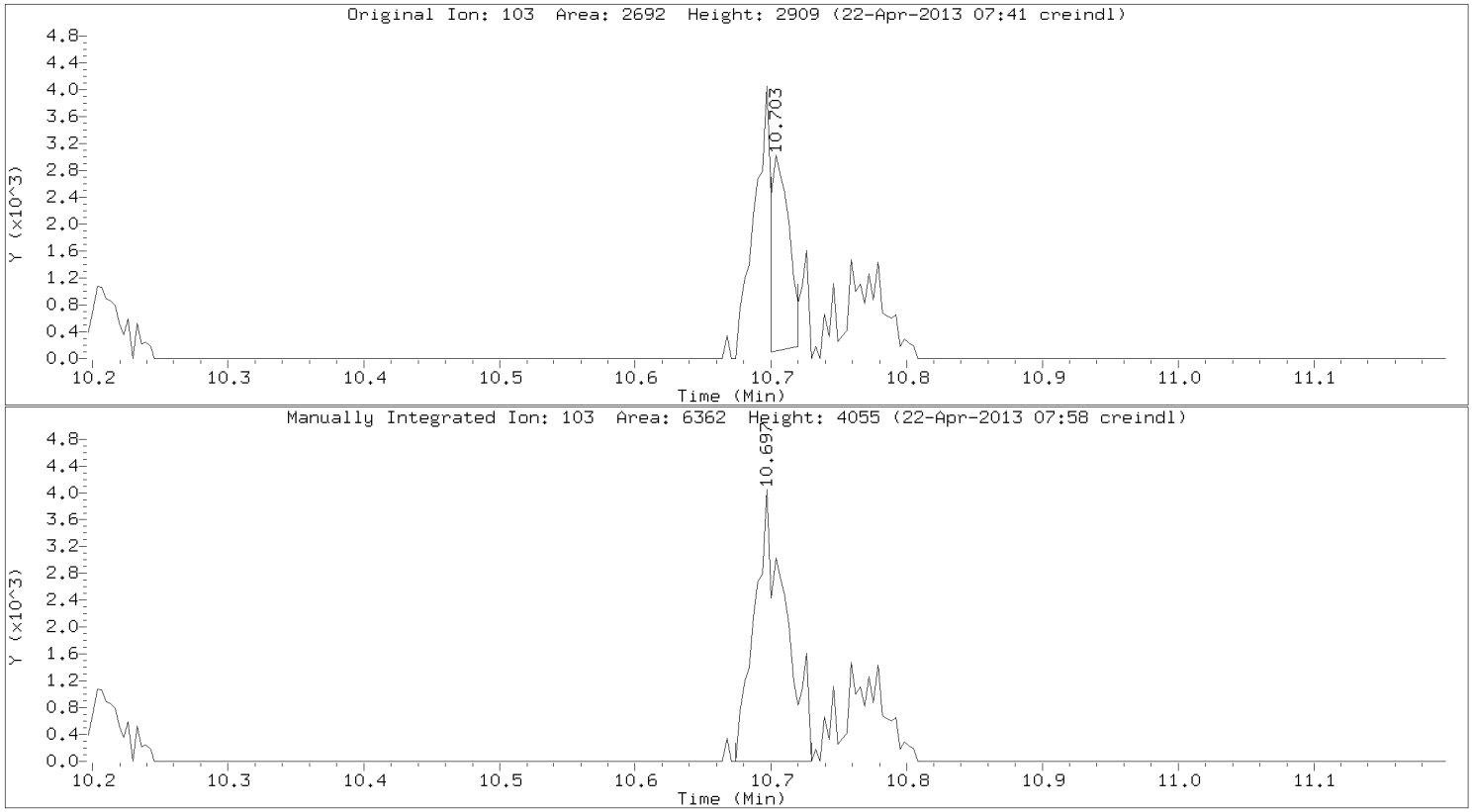






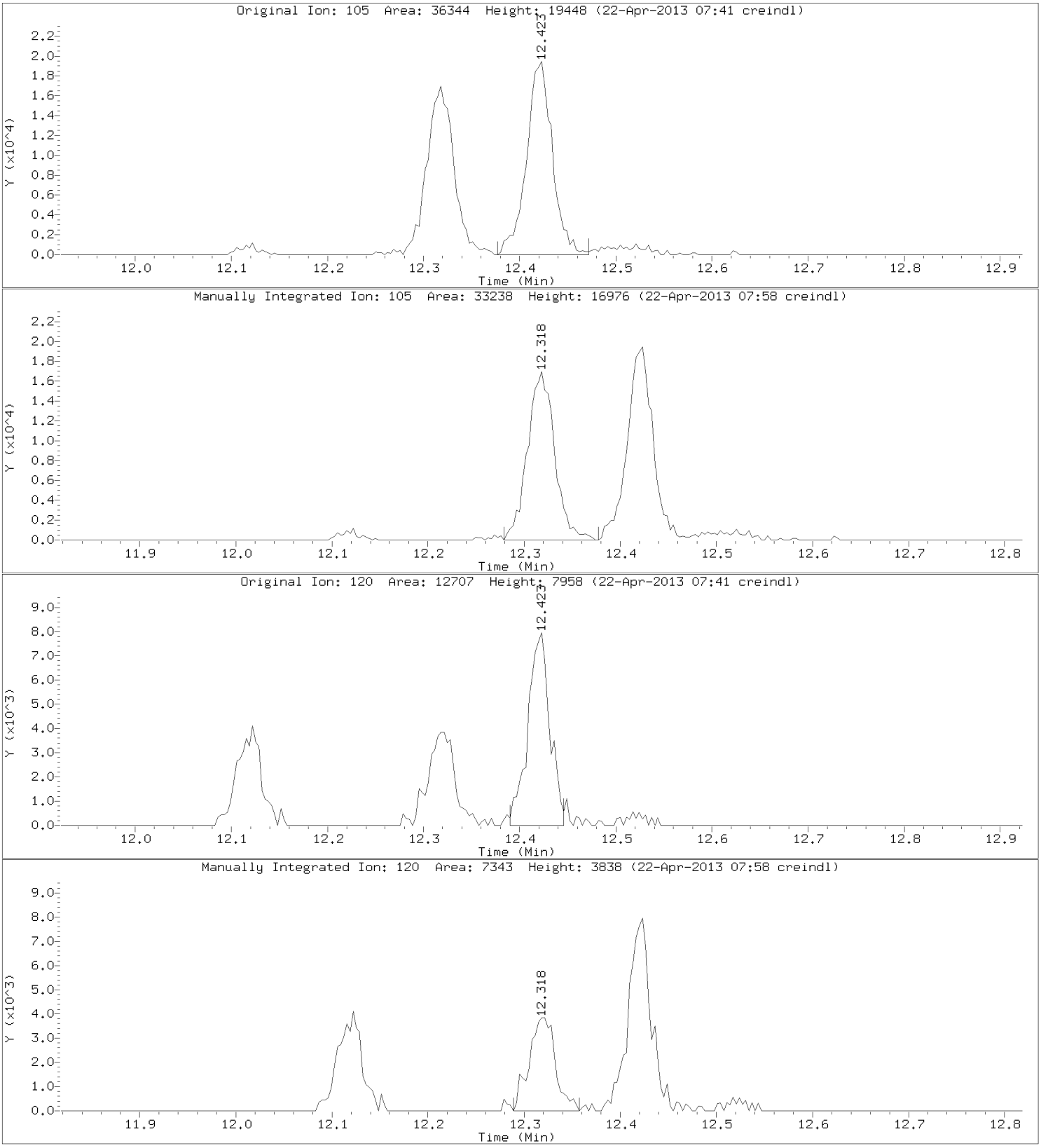


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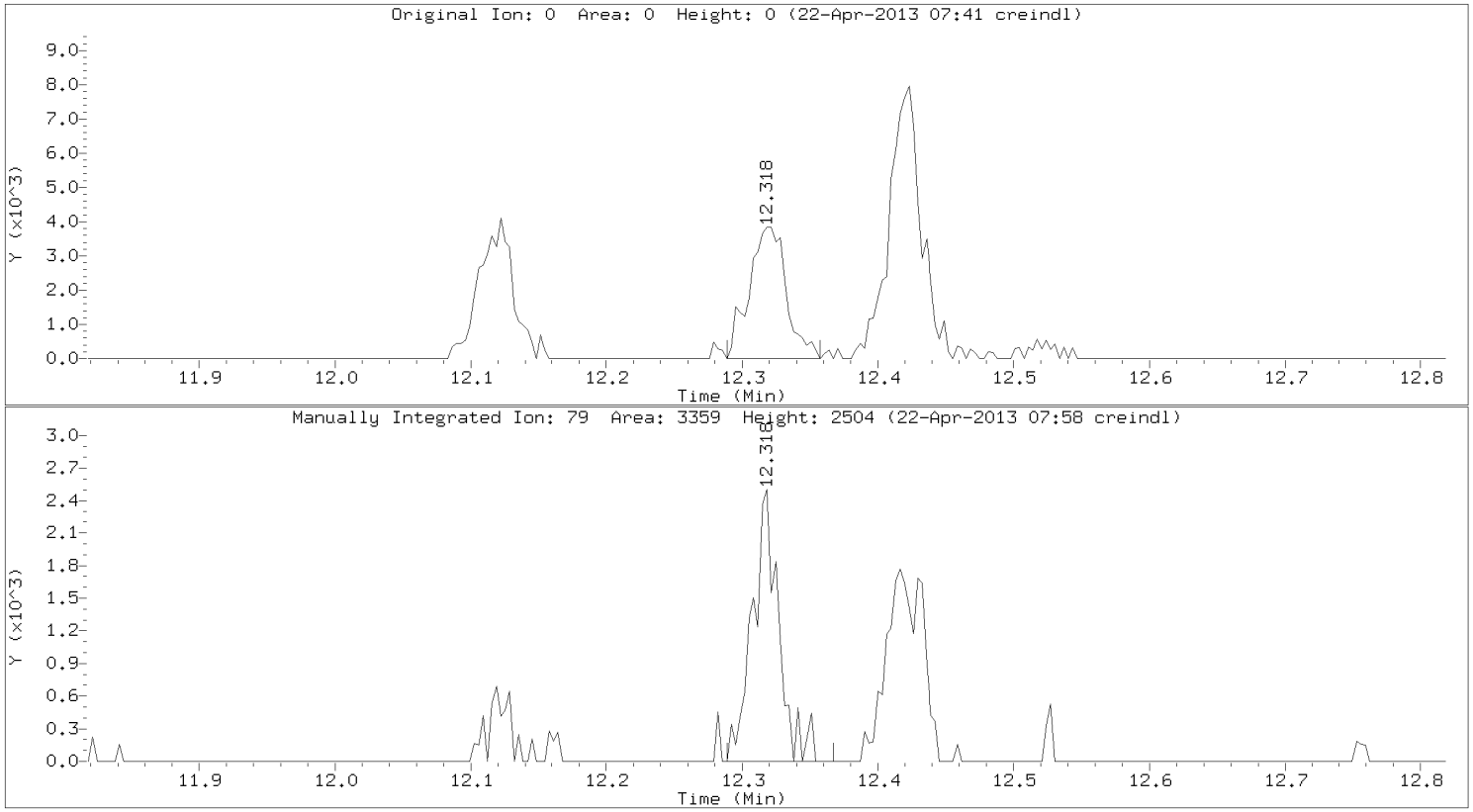


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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

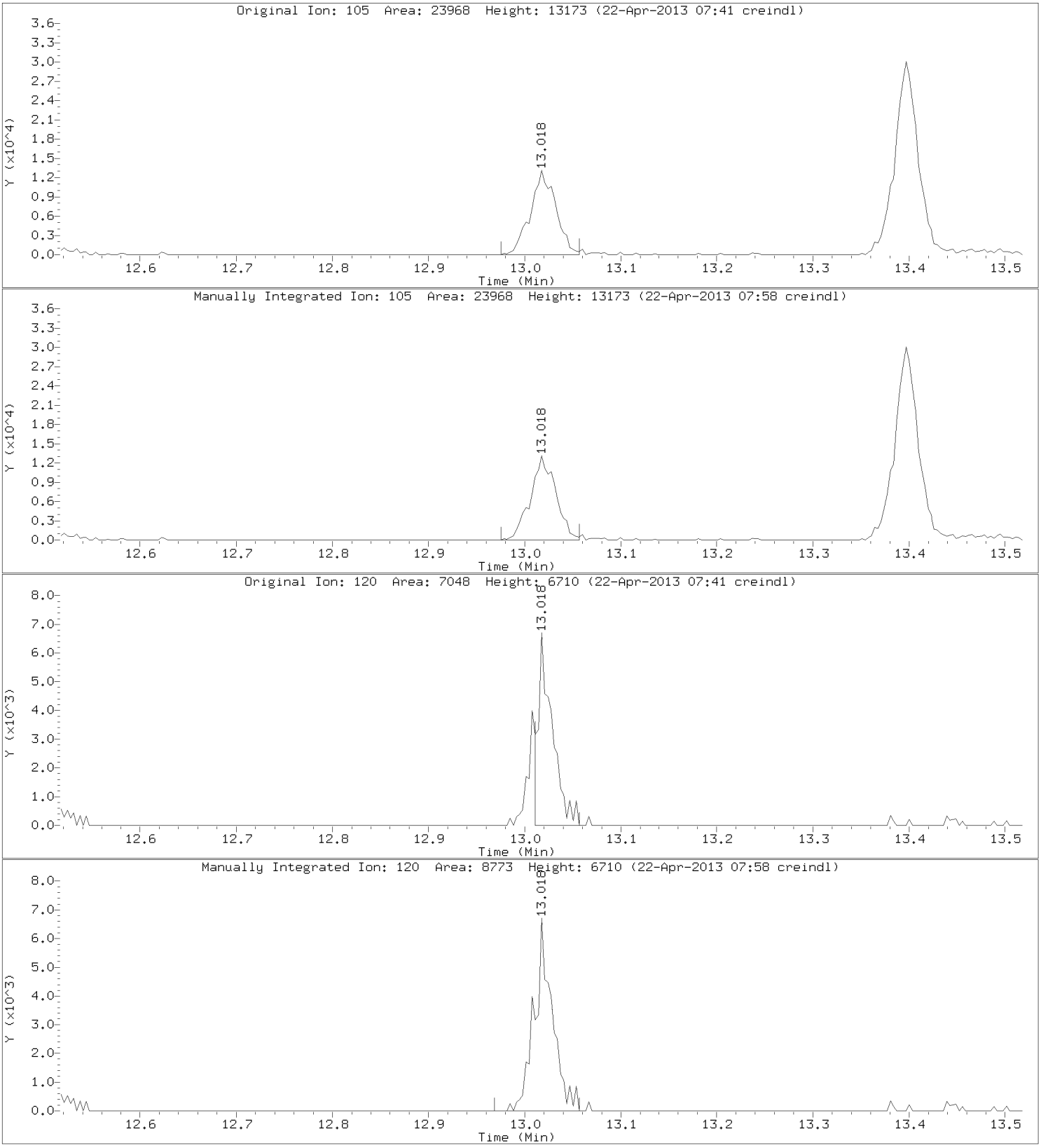


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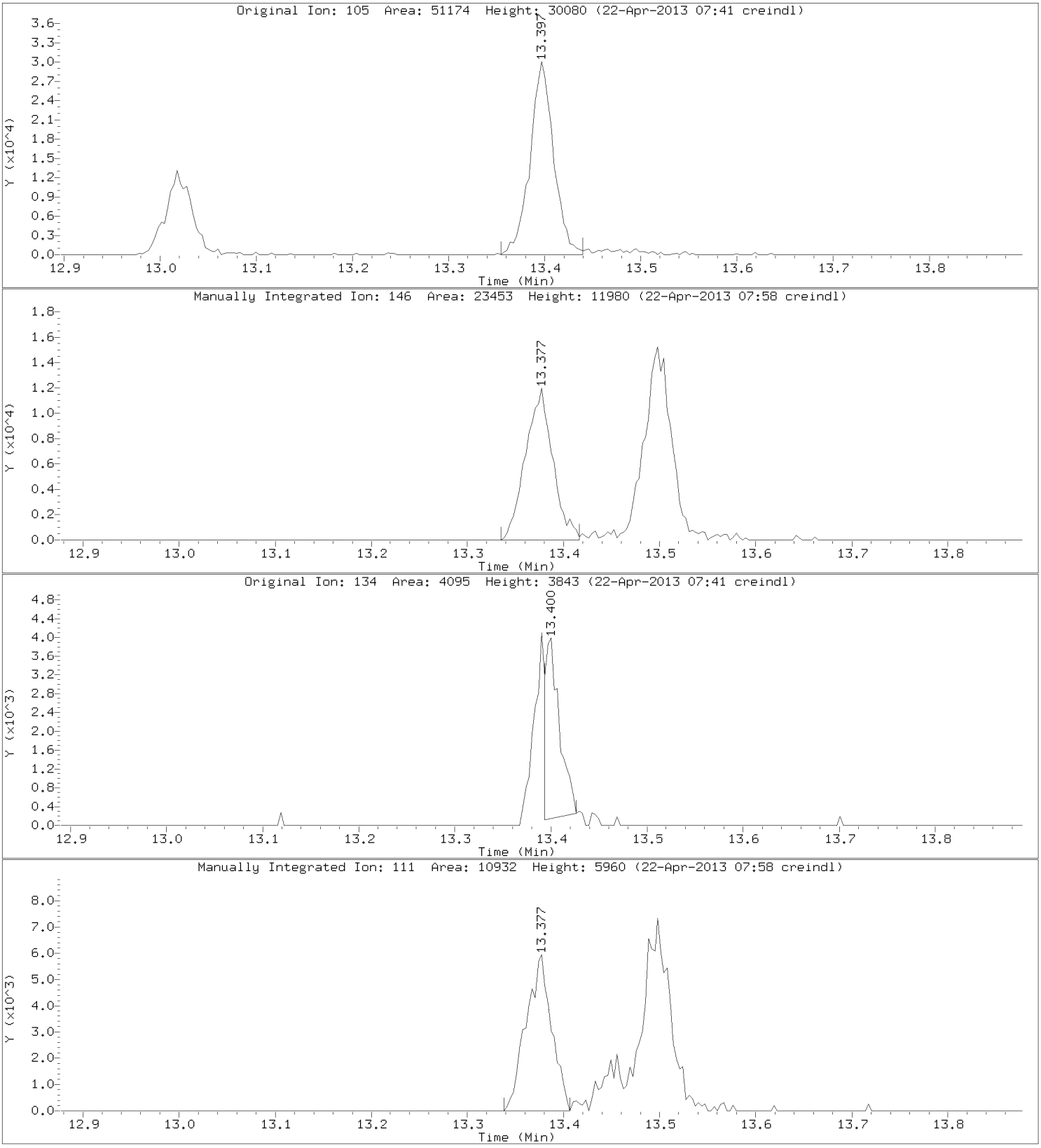
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6

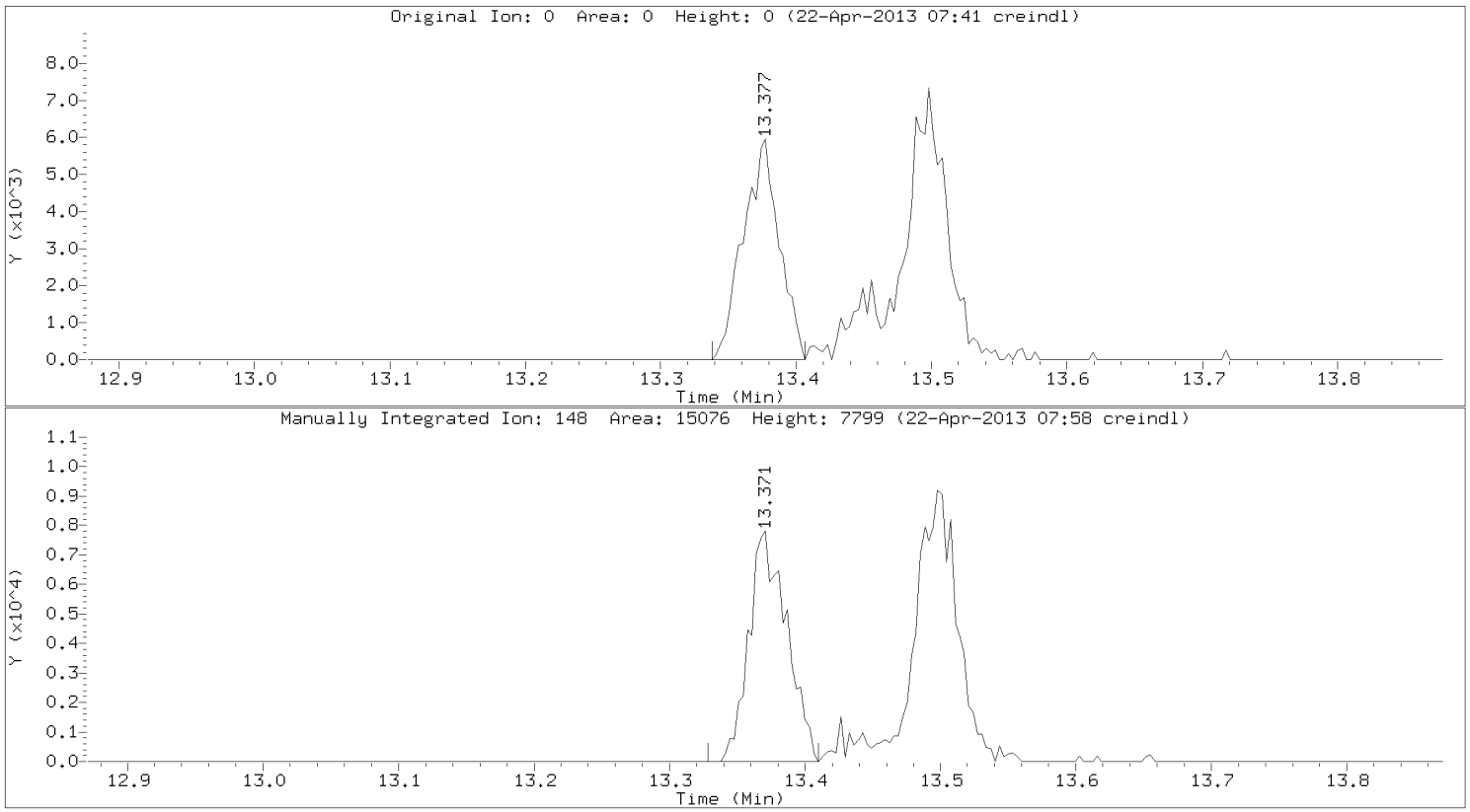


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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,3-Dichlorobenzene
CAS Number: 541-73-1

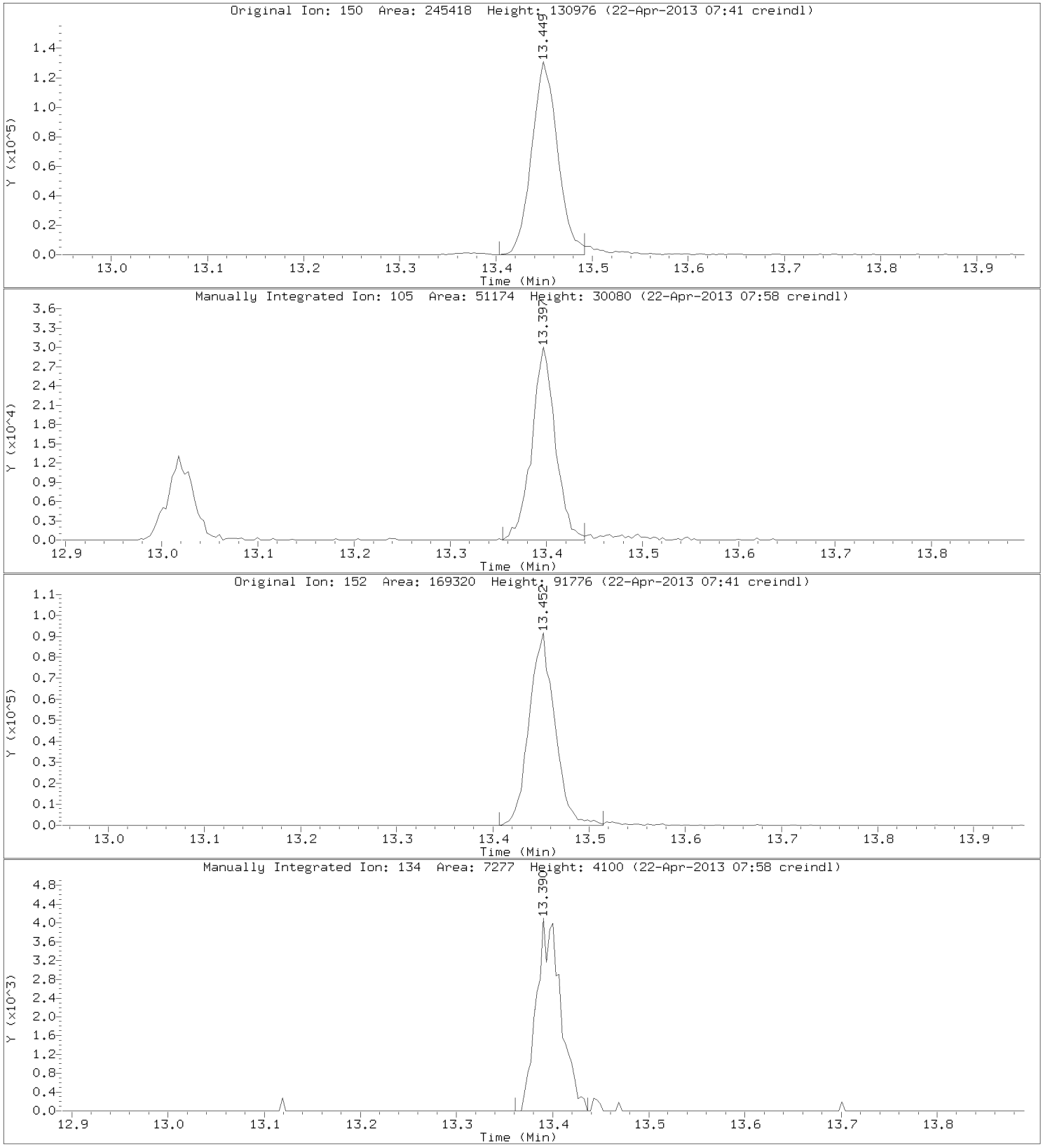


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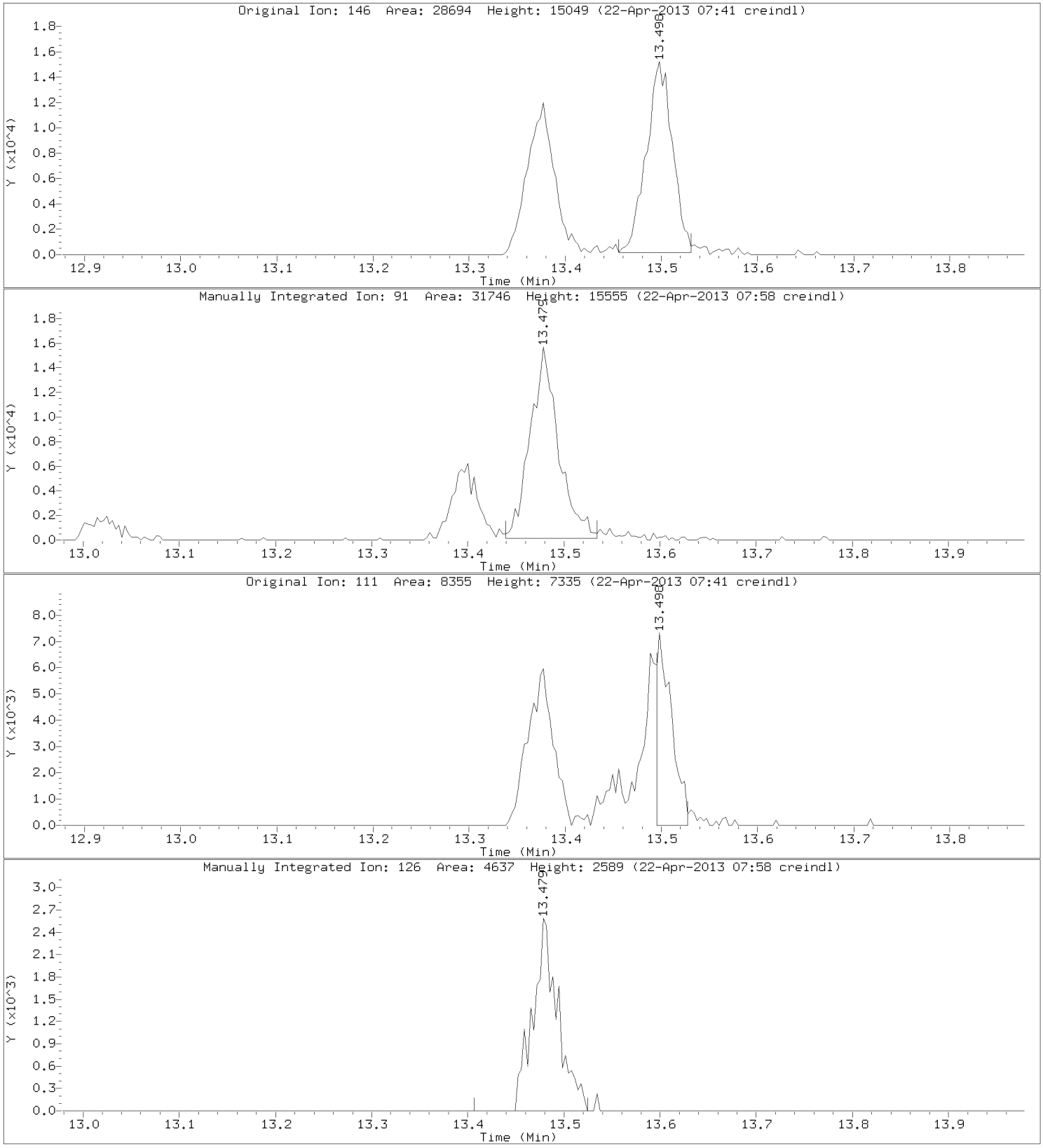
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Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Sec- Butylbenzene
CAS Number: 135-98-8



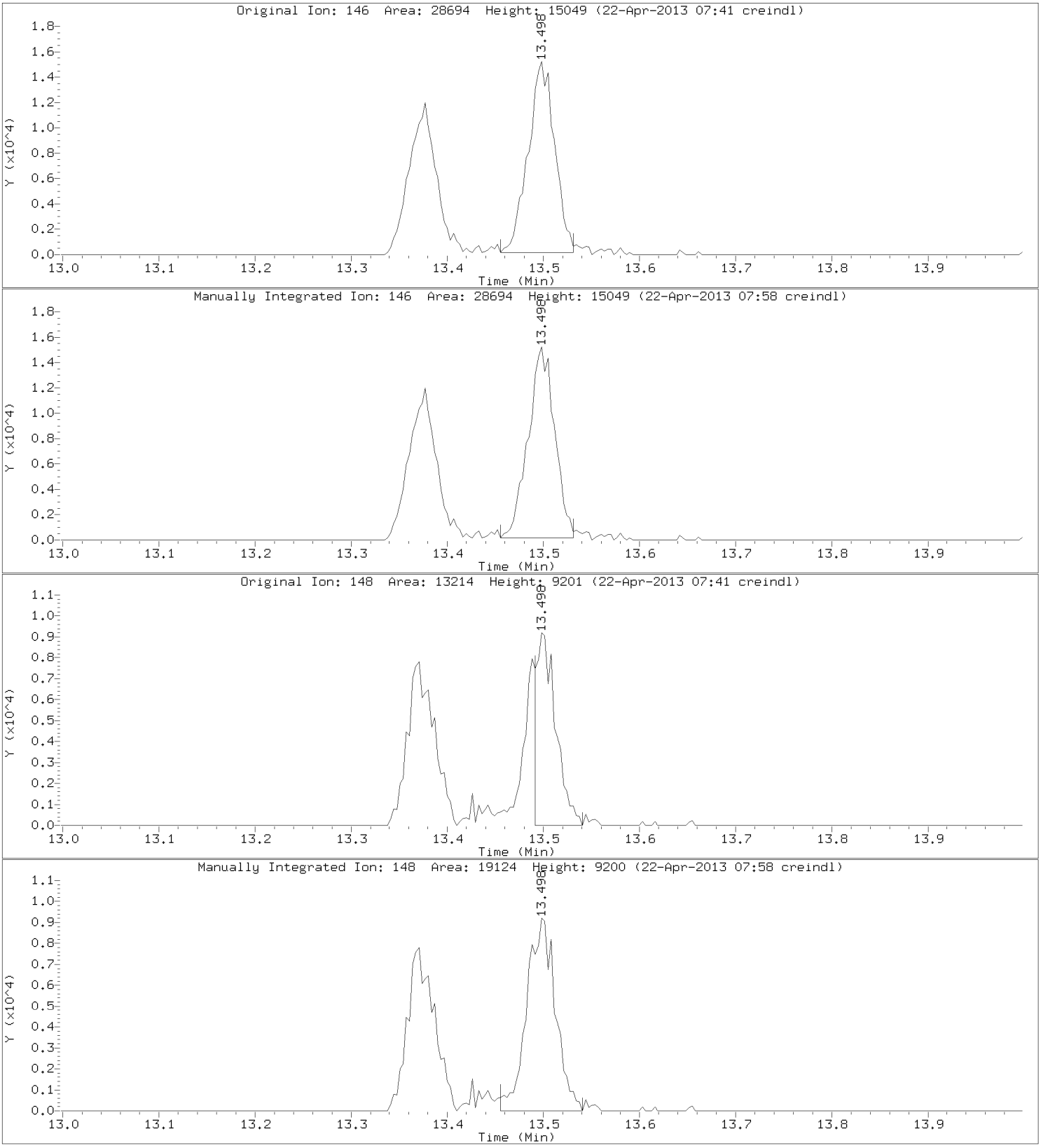
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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Benzyl Chloride
CAS Number: 100-44-7

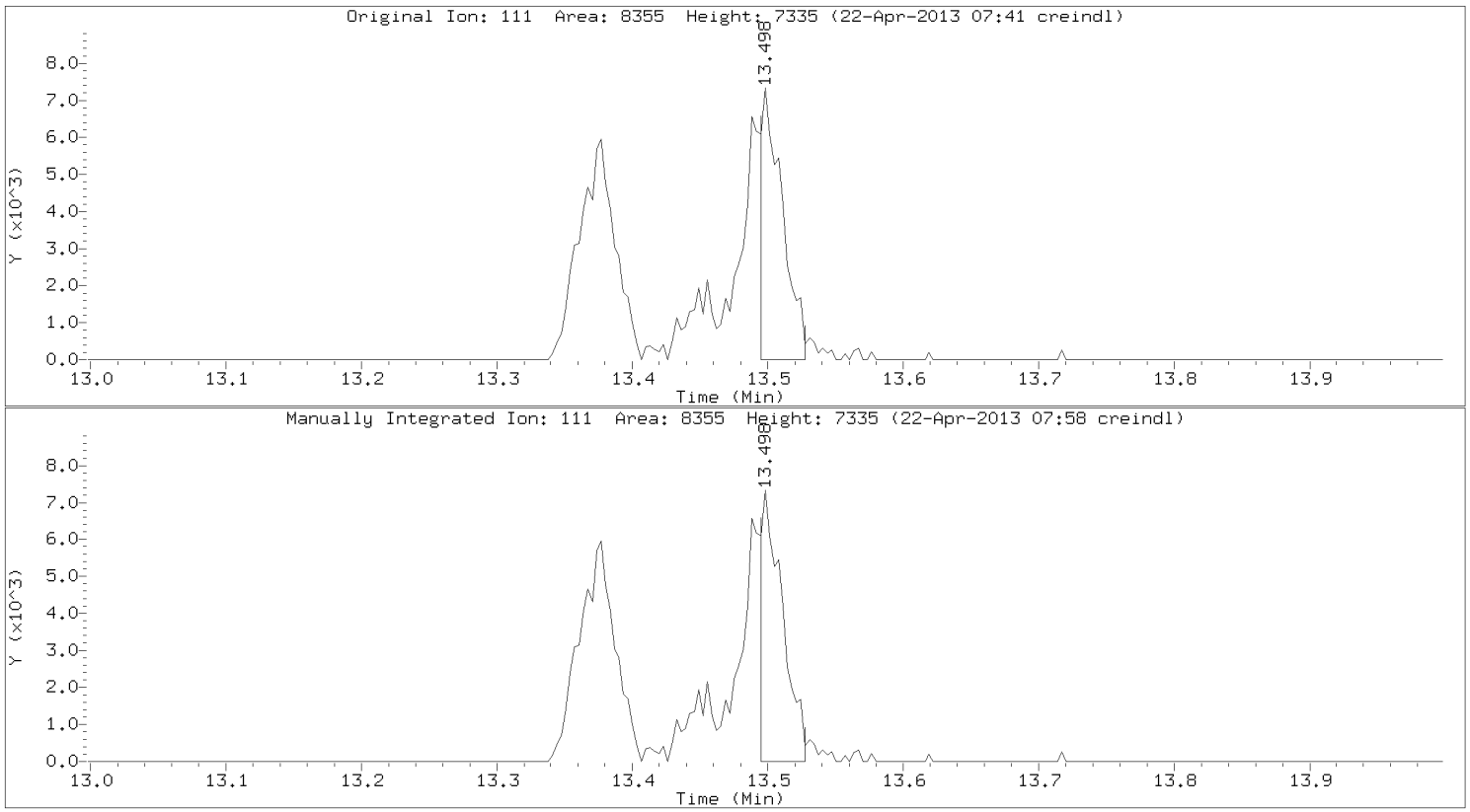


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,4-Dichlorobenzene
CAS Number: 106-46-7

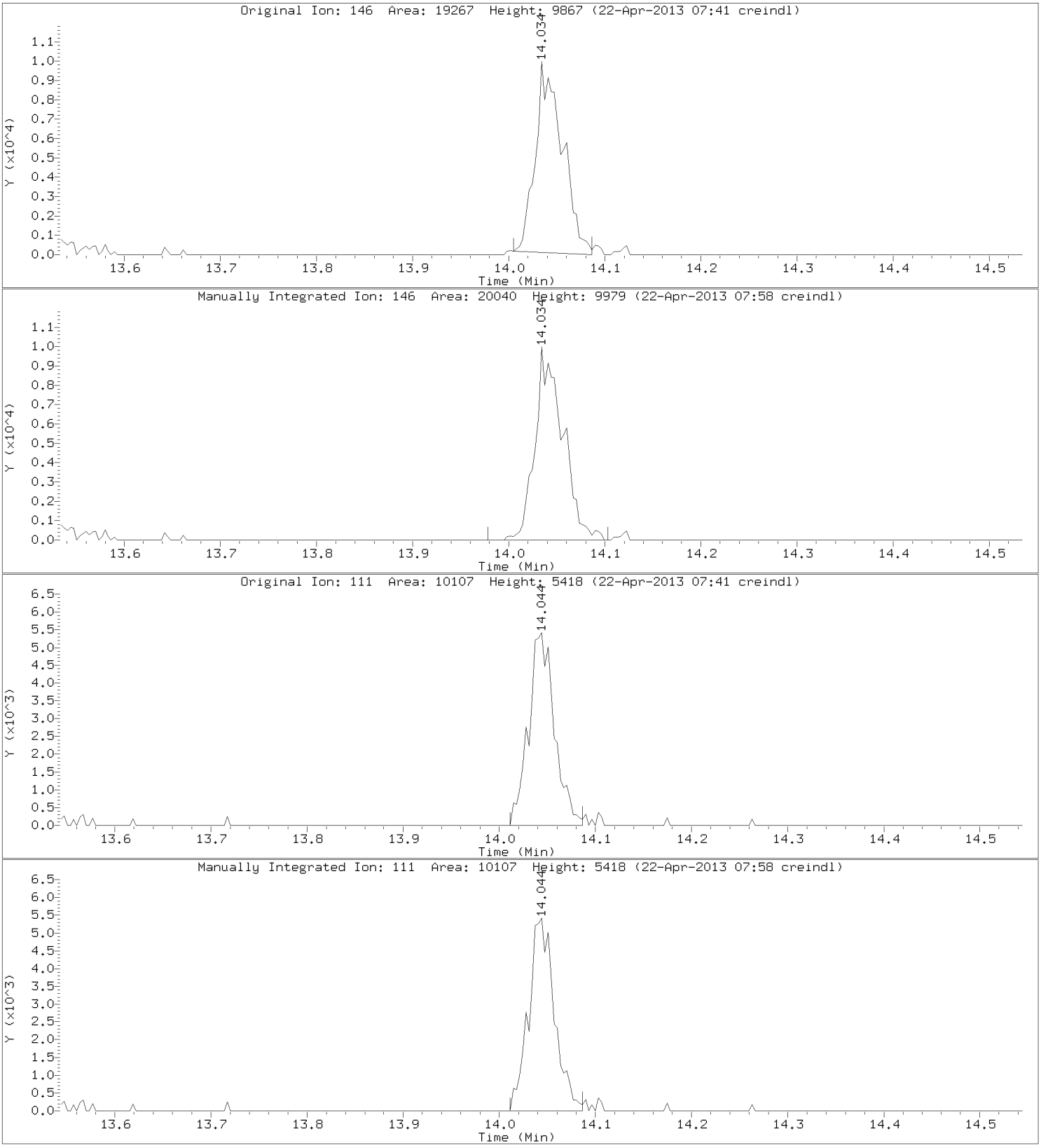


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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

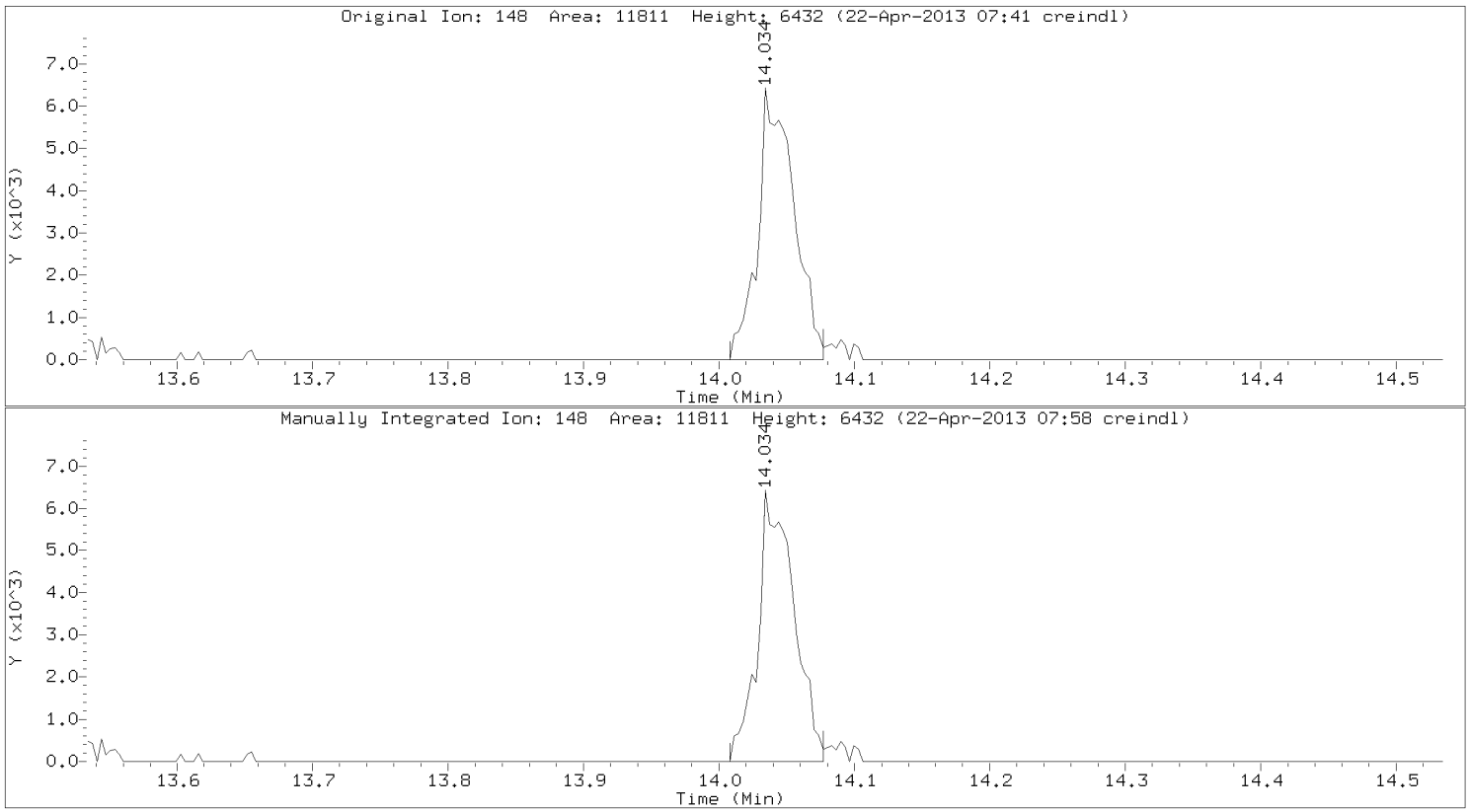


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Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1

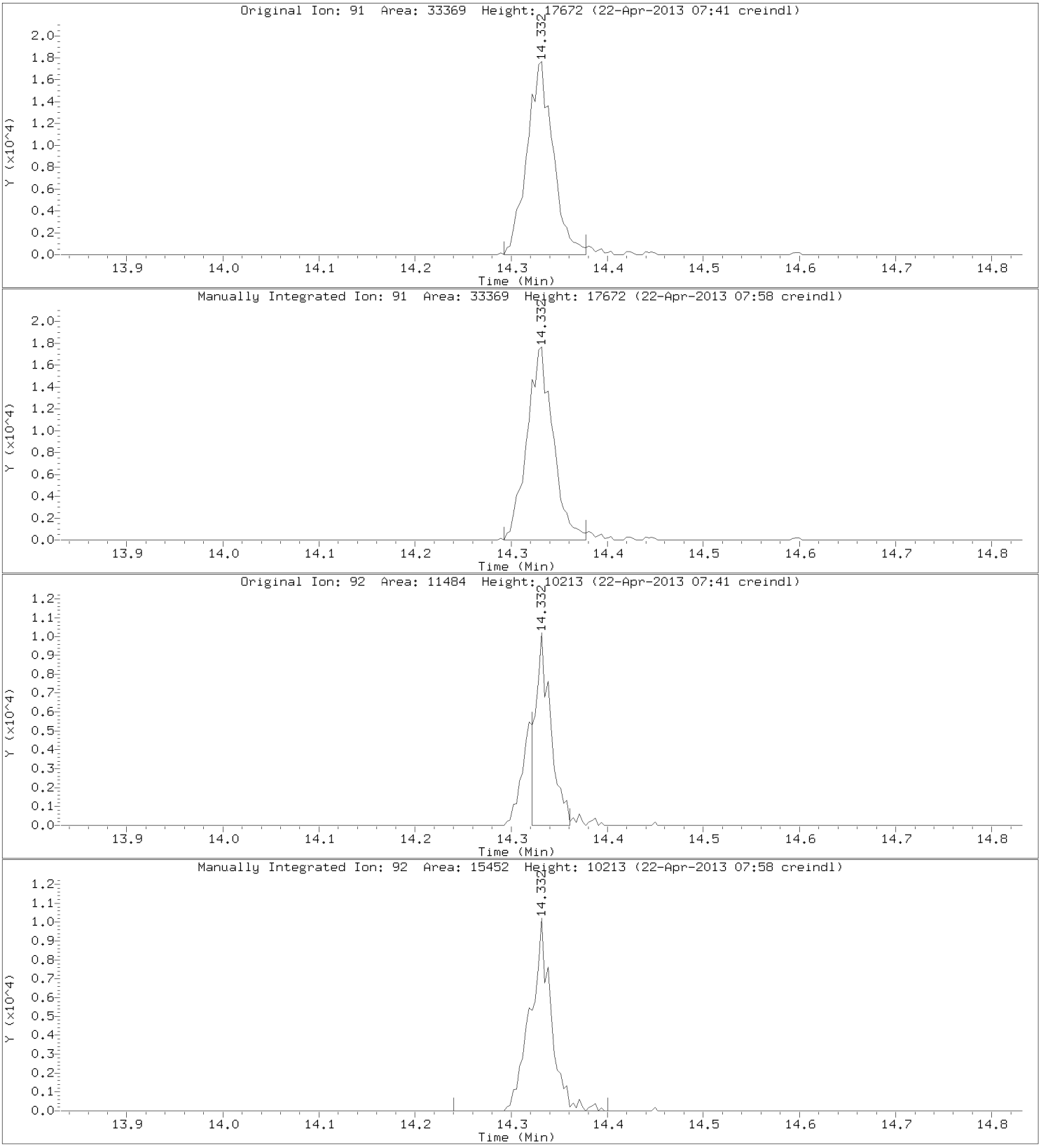


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3



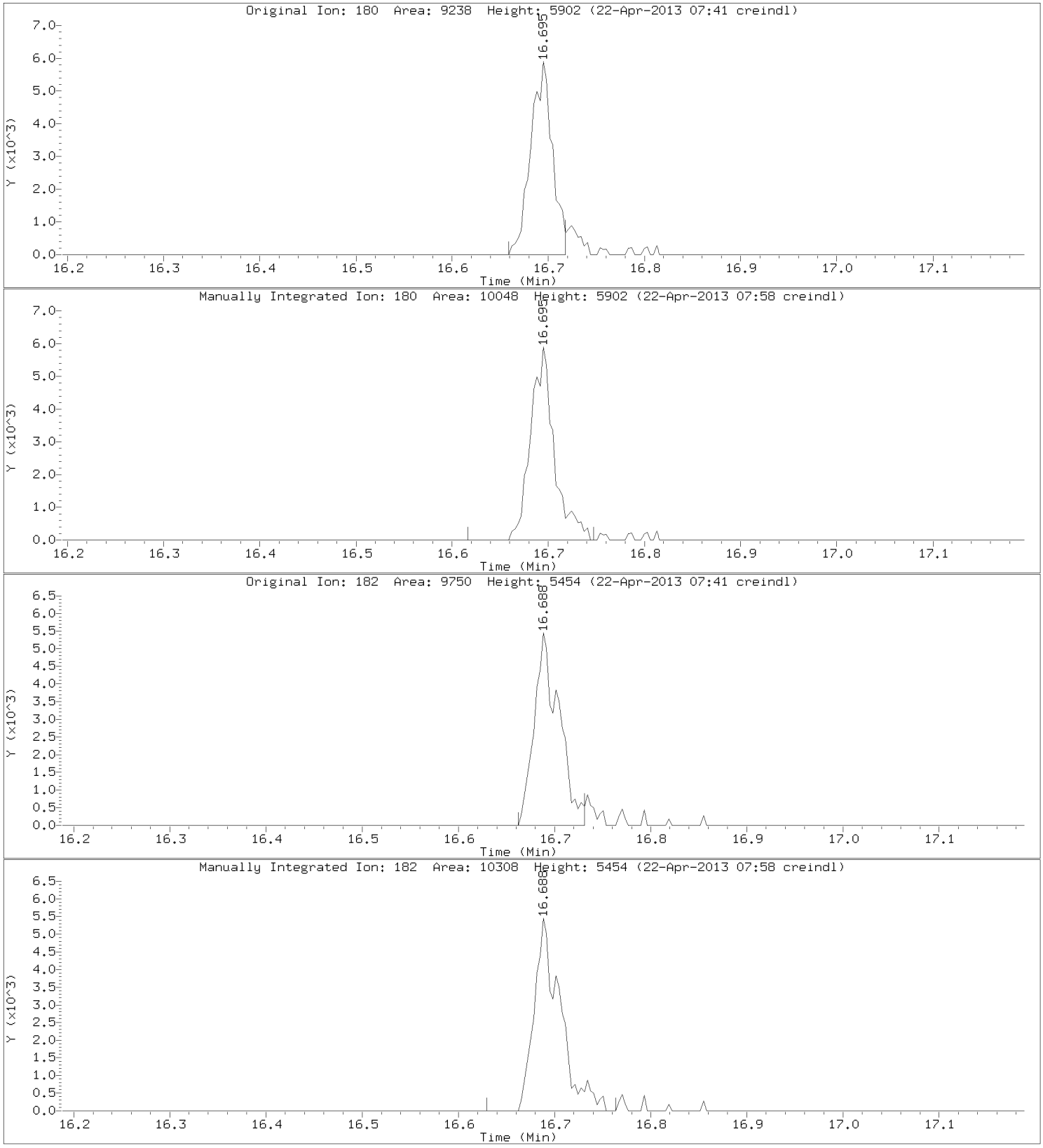
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: N-Butylbenzene
CAS Number: 104-51-8

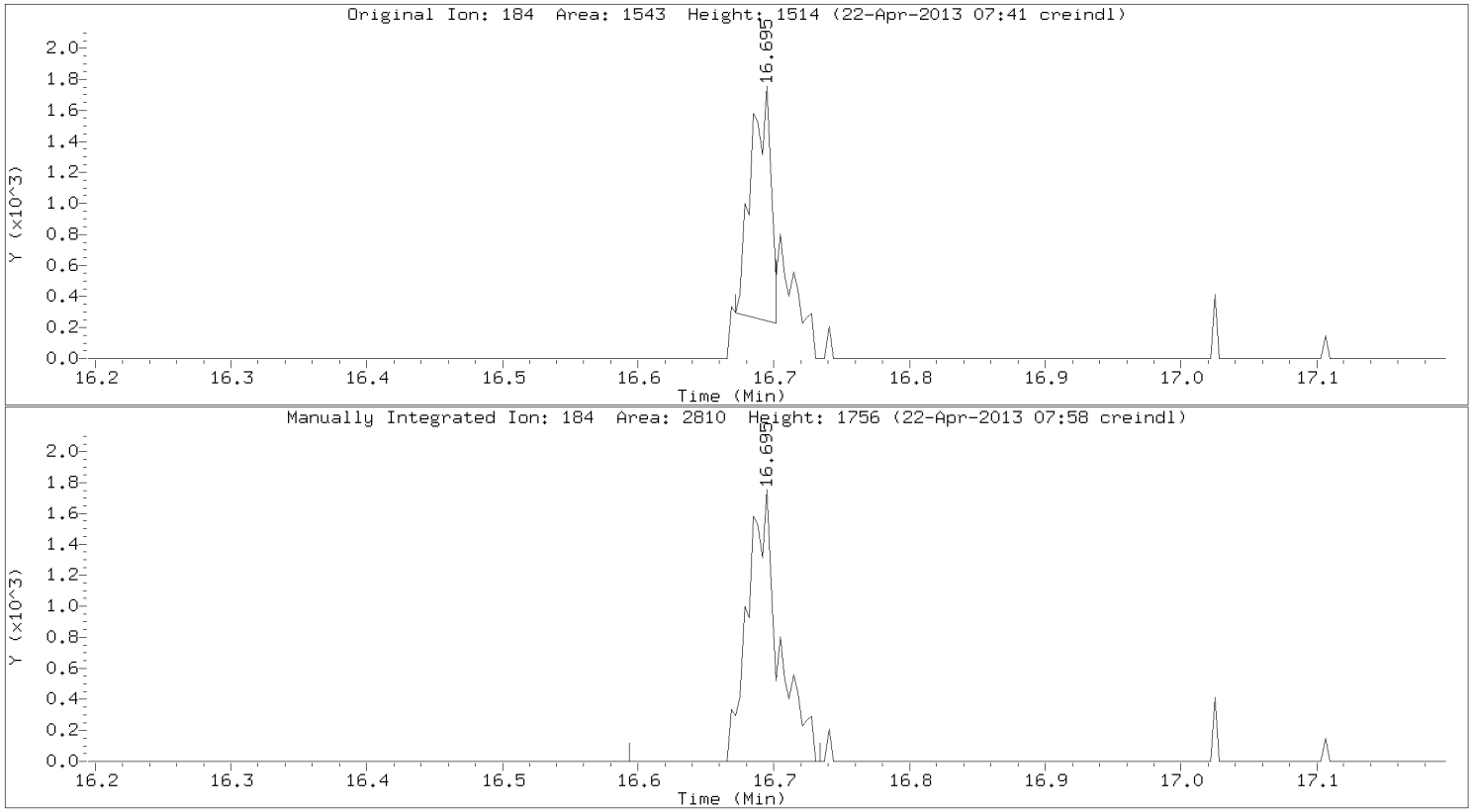


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: 1,2,4-Trichlorobenzene
CAS Number: 95-63-6

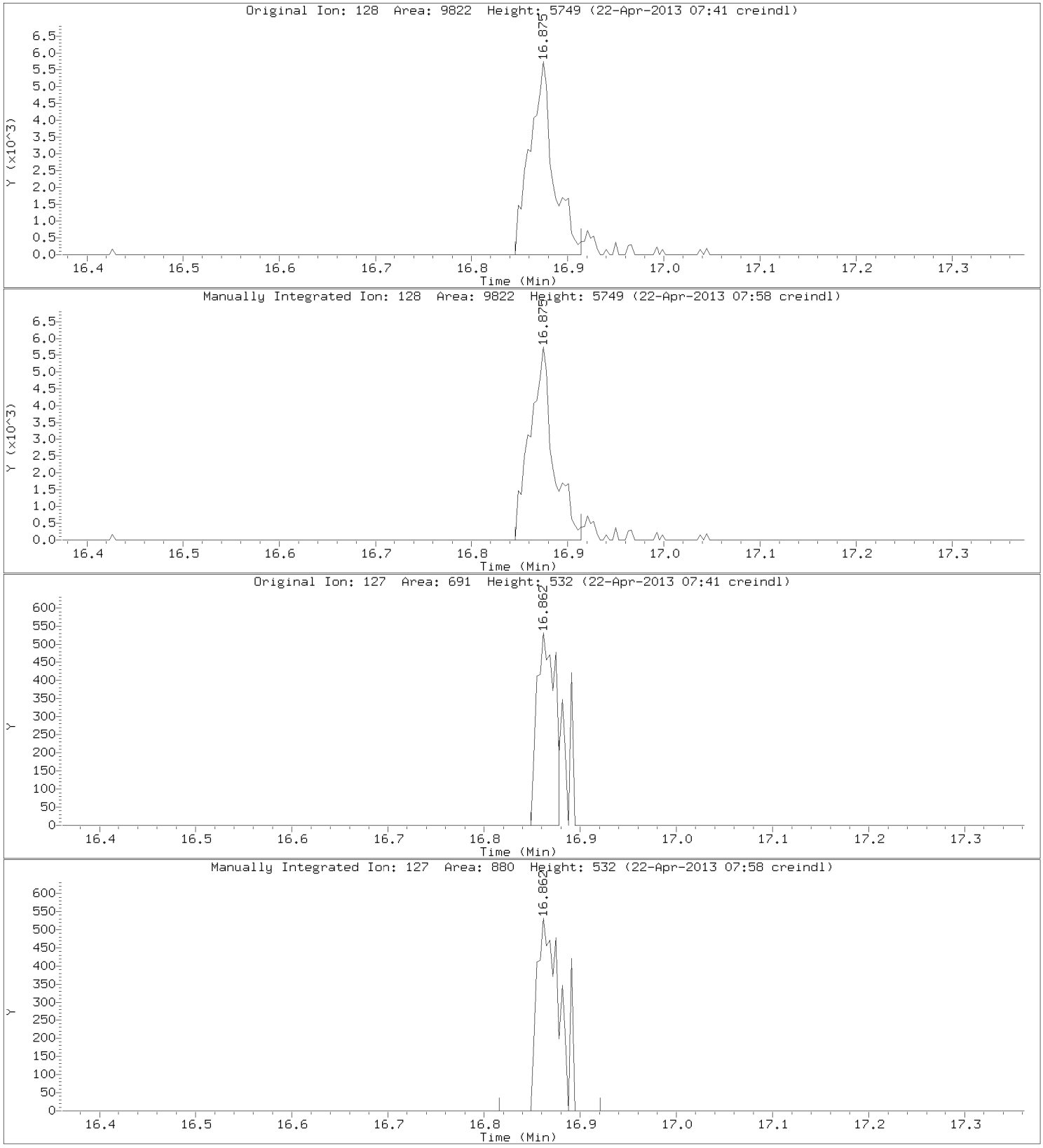


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Instrument: 10airD.i
Lab Sample ID: ICAL3



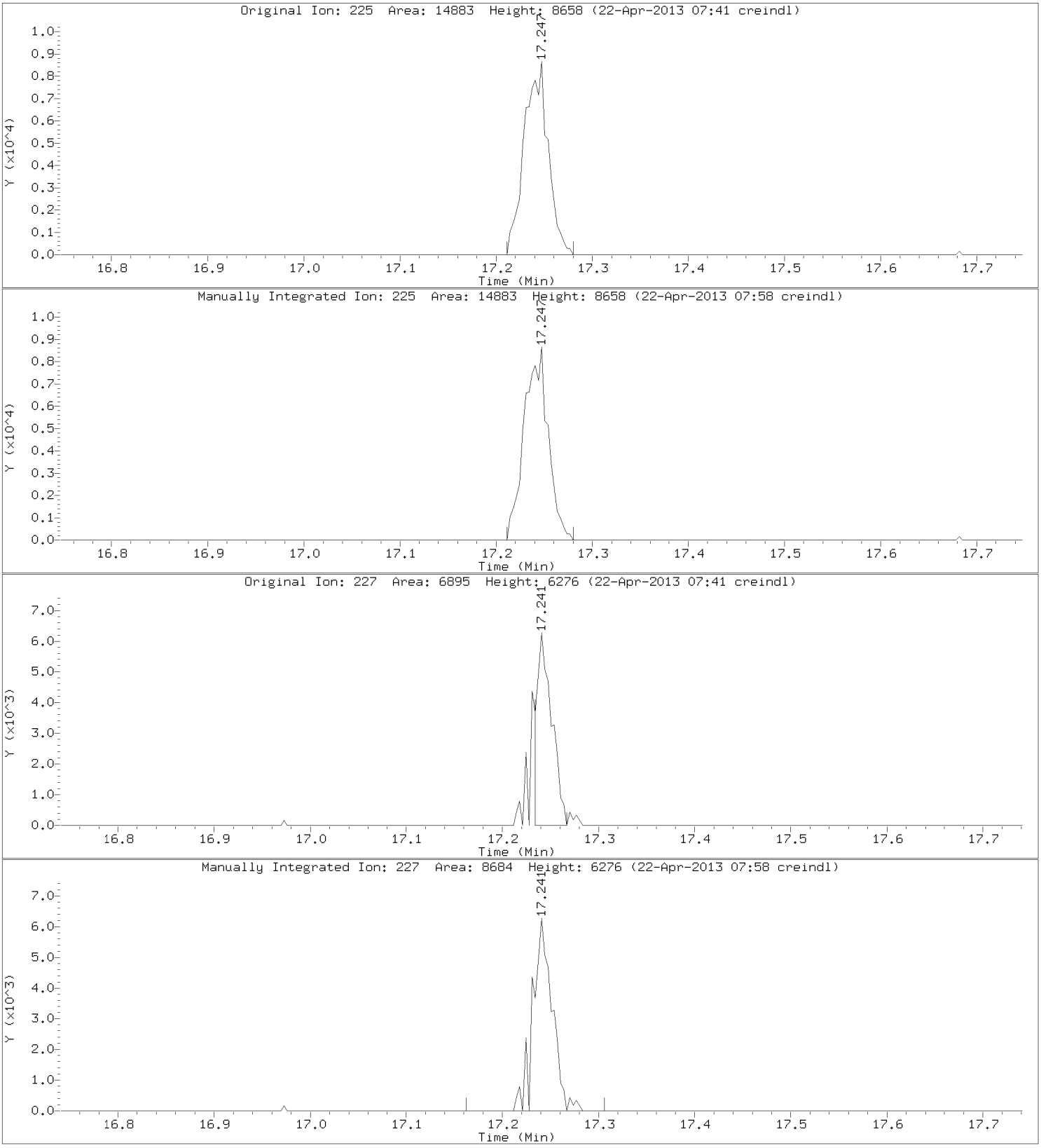
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Naphthalene
CAS Number: 91-20-3

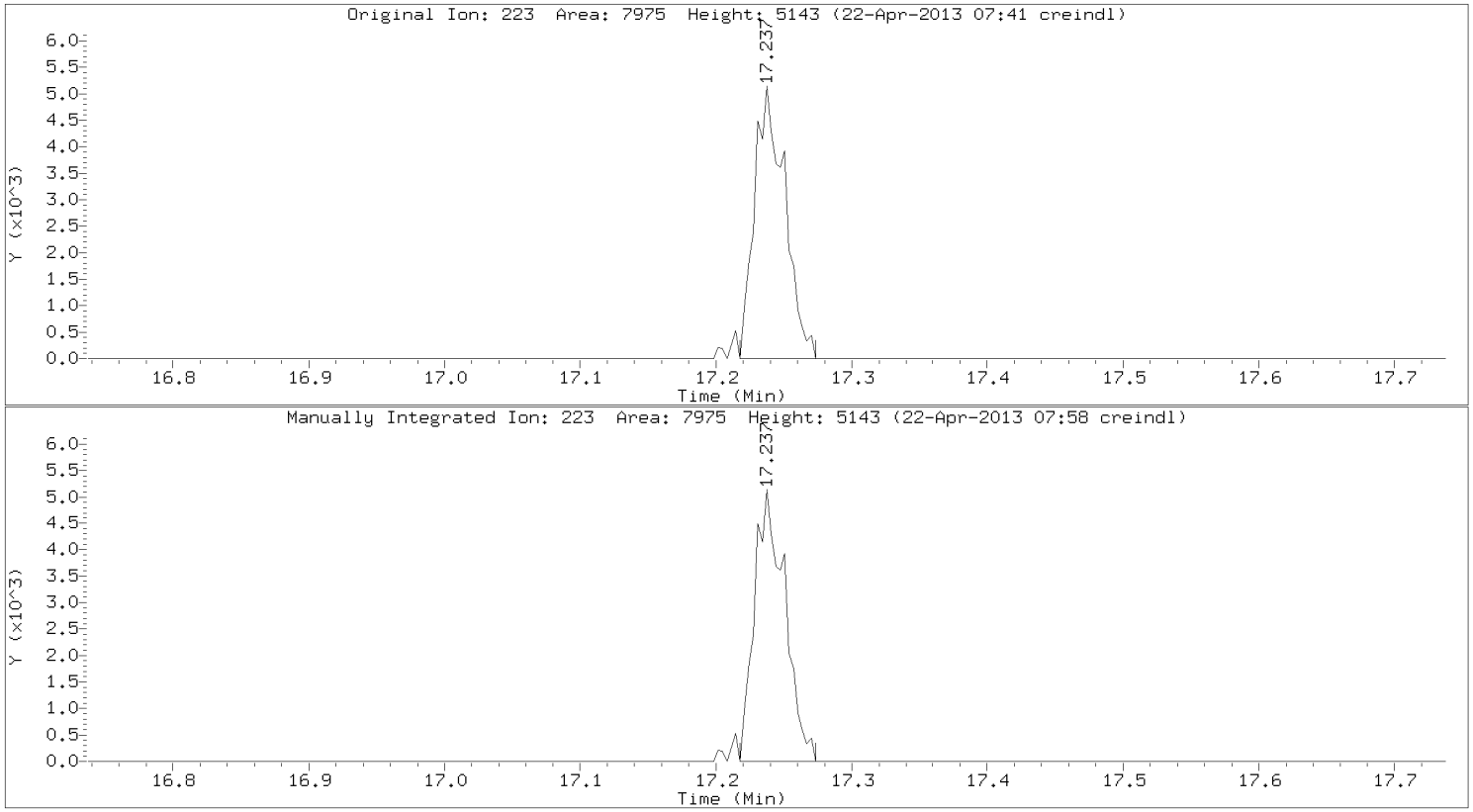


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3

Compound: Hexachlorobutadiene
CAS Number: 87-68-3



Data File: \\192.168.10.12\chem\10airD.i\042113.b/11107.d
Injection Date: 21-APR-2013 11:15
Instrument: 10airD.i
Lab Sample ID: ICAL3



Data File: \\192.168.10.12\chem\10airD.i\042113.b\11108.d
Report Date: 22-Apr-2013 08:06

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11108.d
Lab Smp Id: ICAL4
Inj Date : 21-APR-2013 11:47
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 07:41 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 11:47 Cal File: 11108.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	10642	1.00000	1.12
2	Dichlorodifluoromethane	85	2.950	2.950	(0.487)	125939	1.00000	1.16
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	94732	1.00000	1.11
4	Chloromethane	50	3.051	3.051	(0.503)	24299	1.00000	1.06
5	Vinyl chloride	62	3.140	3.140	(0.518)	23640	1.00000	0.971
6	1,3-Butadiene	54	3.182	3.182	(0.525)	12128	1.00000	0.990
7	Bromomethane	94	3.336	3.336	(0.550)	29872	1.00000	1.02
8	Chloroethane	64	3.398	3.398	(0.561)	13503	1.00000	1.06(M)
9	Ethanol	31	3.434	3.434	(0.566)	14734	1.00000	1.01(M)
10	Vinyl Bromide	106	3.532	3.532	(0.583)	22493	1.00000	0.938
11	Acrolein	56	3.636	3.636	(0.600)	6511	1.00000	0.944(M)
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	115549	1.00000	1.12
13	Acetone	43	3.682	3.682	(0.607)	58303	1.00000	1.38
14	Isopropyl Alcohol	45	3.702	3.702	(0.611)	31664	1.00000	5.97(M)
15	1,1-Dichloroethene	61	3.927	3.927	(0.648)	52901	1.00000	1.06
16	Acrylonitrile	53	3.937	3.937	(0.650)	16837	1.00000	1.11(M)
17	Tert Butyl Alcohol	59	3.937	3.937	(0.650)	45891	1.00000	1.01(M)
18	Freon 113	101	3.986	3.986	(0.658)	73395	1.00000	1.11
19	Methylene chloride	49	4.042	4.042	(0.667)	32094	1.00000	1.10(M)
20	Allyl Chloride	76	4.055	4.055	(0.669)	13457	1.00000	1.01
21	Carbon Disulfide	76	4.179	4.179	(0.689)	97570	1.00000	1.55(H)
22	trans-1,2-dichloroethene	96	4.372	4.372	(0.721)	31396	1.00000	1.10
23	Methyl Tert Butyl Ether	73	4.418	4.418	(0.729)	65230	1.00000	1.11(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11108.d
Report Date: 22-Apr-2013 08:06

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	24 Vinyl Acetate	43	4.535	4.535	(0.748)	55433	1.00000	1.11(M)
	25 1,1-Dichloroethane	63	4.535	4.535	(0.748)	64248	1.00000	1.12
$	26 Hexane-d14(S)	66	4.656	4.656	(0.768)	478711	10.0000	11.5
	27 Methyl Ethyl Ketone	72	4.741	4.741	(0.782)	14222	1.00000	1.10(M)
	28 n-Hexane	57	4.777	4.777	(0.788)	39734	1.00000	1.08
	29 cis-1,2-Dichloroethene	96	4.931	4.931	(0.813)	25704	1.00000	1.19
	30 Ethyl Acetate	43	4.960	4.960	(0.818)	35836	1.00000	0.923(M)
	31 Chloroform	83	5.075	5.075	(0.837)	80537	1.00000	1.03
	32 Tetrahydrofuran	42	5.284	5.284	(0.872)	11823	1.00000	0.986
	33 1,1,1-Trichloroethane	97	5.562	5.562	(0.918)	77045	1.00000	0.992
	34 1,2-Dichloroethane	62	5.578	5.578	(0.920)	61708	1.00000	1.06(M)
	35 Benzene	78	5.849	5.849	(0.965)	63948	1.00000	0.884
	36 Carbon tetrachloride	117	5.869	5.869	(0.968)	87684	1.00000	1.09
	37 Cyclohexane	56	5.879	5.879	(0.970)	21055	1.00000	1.17(M)
*	38 1,4-Difluorobenzene	114	6.062	6.062	(1.000)	869304	10.0000	
	39 2,2,4-Trimethylpentane	57	6.238	6.238	(1.029)	68684	1.00000	1.13(M)
	40 Heptane	43	6.411	6.411	(1.058)	19812	1.00000	1.12
	41 1,2-Dichloropropane	63	6.477	6.477	(1.068)	23354	1.00000	1.03(M)
	42 Trichloroethene	130	6.500	6.500	(1.072)	22133	1.00000	0.911
	43 1,4-Dioxane	88	6.647	6.647	(1.097)	11951	1.00000	1.01(M)
	44 Bromodichloromethane	83	6.627	6.627	(1.093)	81132	1.00000	0.981
	45 Methyl Isobutyl Ketone	43	7.206	7.206	(1.189)	25181	1.00000	3.56(M)
	46 cis-1,3-Dichloropropene	75	7.258	7.258	(1.197)	36160	1.00000	1.09(M)
	47 trans-1,3-Dichloropropene	75	7.755	7.755	(1.279)	26755	1.00000	1.01(M)
$	48 Toluene-d8 (S)	98	7.827	7.827	(1.291)	788403	10.0000	10.0
	49 Toluene	91	7.918	7.918	(1.306)	77291	1.00000	0.892
	50 1,1,2-Trichloroethane	97	7.928	7.928	(1.308)	31172	1.00000	0.922
	51 Methyl Butyl Ketone	43	8.242	8.242	(0.851)	25666	1.00000	5.49
	52 Dibromochloromethane	129	8.539	8.539	(0.882)	50282	1.00000	0.988
	53 1,2-Dibromoethane	107	8.807	8.807	(0.910)	45991	1.00000	1.00
	54 Tetrachloroethene	166	8.905	8.905	(0.920)	40785	1.00000	0.935
*	55 Chlorobenzene - d5	117	9.680	9.680	(1.000)	445791	10.0000	
	56 Chlorobenzene	112	9.726	9.726	(1.005)	53273	1.00000	0.896(M)
	57 Ethyl Benzene	91	10.030	10.030	(1.036)	83897	1.00000	1.06
	58 m&p-Xylene	91	10.203	10.203	(1.054)	73285	1.00000	1.09
	59 Bromoform	173	10.648	10.648	(1.100)	51626	1.00000	0.952(M)
	60 Styrene	104	10.700	10.700	(1.105)	34195	1.00000	1.04
	61 o-Xylene	91	10.769	10.769	(1.112)	87677	1.00000	1.11
	62 1,1,2,2-Tetrachloroethane	83	11.086	11.086	(1.145)	61027	1.00000	1.01
	63 Isopropylbenzene	105	11.455	11.455	(1.183)	106430	1.00000	0.945
	64 N-Propylbenzene	91	12.119	12.119	(1.252)	110393	1.00000	1.03(M)
	65 4-Ethyltoluene	105	12.321	12.321	(1.273)	82252	1.00000	0.986(H)
	66 1,3,5-Trimethylbenzene	105	12.422	12.422	(1.283)	85455	1.00000	1.00
	67 1,2,4-Trimethylbenzene	105	13.021	13.021	(1.345)	67642	1.00000	0.864
	68 1,3-Dichlorobenzene	146	13.374	13.374	(1.382)	46421	1.00000	1.00(M)
	69 Sec- Butylbenzene	105	13.393	13.393	(1.384)	114306	1.00000	0.922(M)
$	70 1,4-dichlorobenzene-d4 (S)	150	13.452	13.452	(1.390)	221108	10.0000	11.2
	71 Benzyl Chloride	91	13.475	13.475	(1.392)	65950	1.00000	1.23
	72 1,4-Dichlorobenzene	146	13.501	13.501	(1.395)	53821	1.00000	1.07
	73 1,2-Dichlorobenzene	146	14.040	14.040	(1.450)	39189	1.00000	1.17(M)
	74 N-Butylbenzene	91	14.328	14.328	(1.480)	83846	1.00000	1.60
	75 1,2,4-Trichlorobenzene	180	16.691	16.691	(1.724)	21977	1.00000	3.12
	76 Naphthalene	128	16.865	16.865	(1.742)	22710	1.00000	2.73(M)
	77 Hexachlorobutadiene	225	17.244	17.244	(1.781)	28291	1.00000	2.36

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11108.d
Report Date: 22-Apr-2013 08:06

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11108.d
Report Date: 22-Apr-2013 08:06

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11108.d
Lab Smp Id: ICAL4
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info:

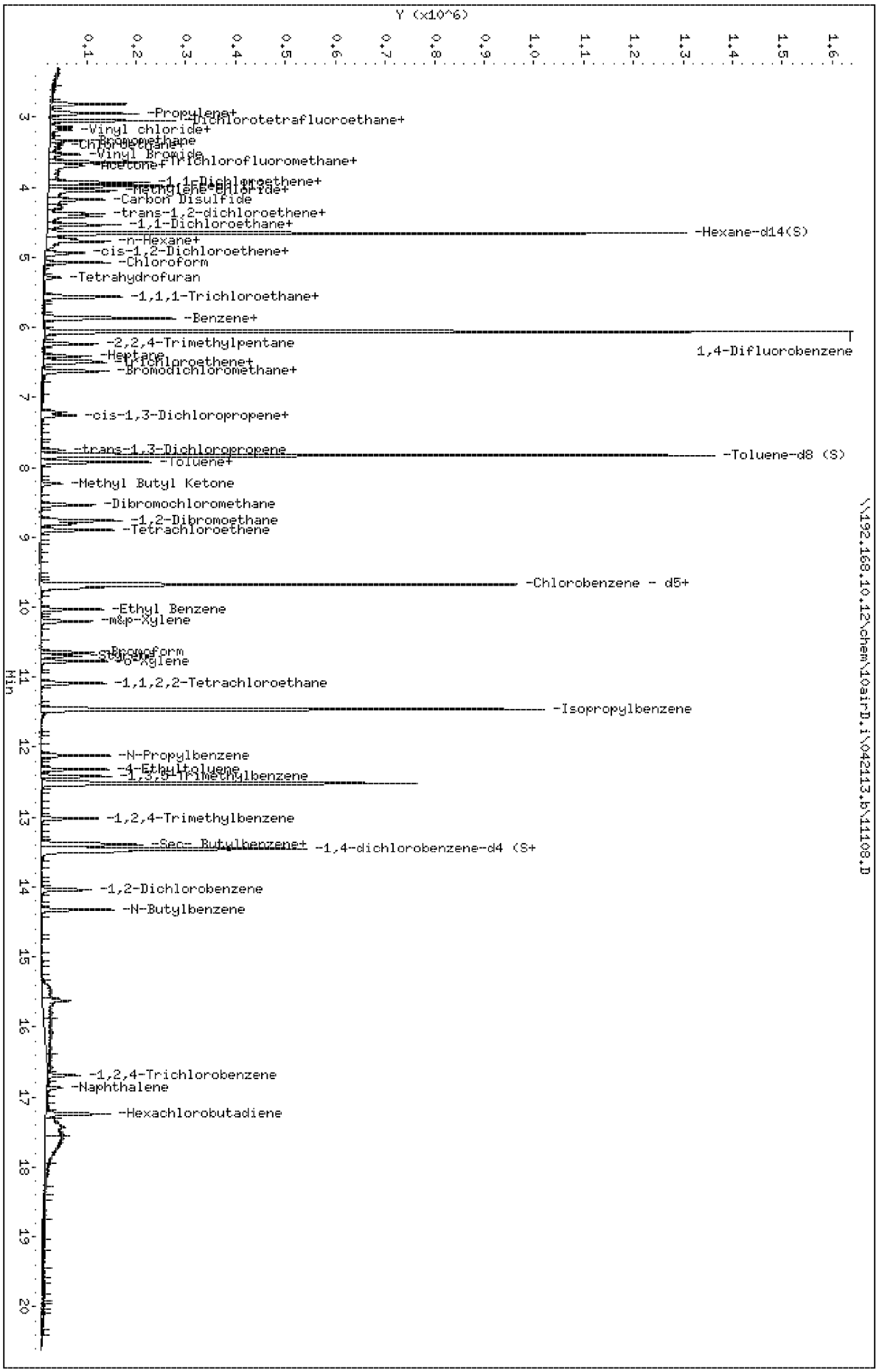
Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	869304	-27.66
55 Chlorobenzene - d	638533	383120	893946	445791	-30.19

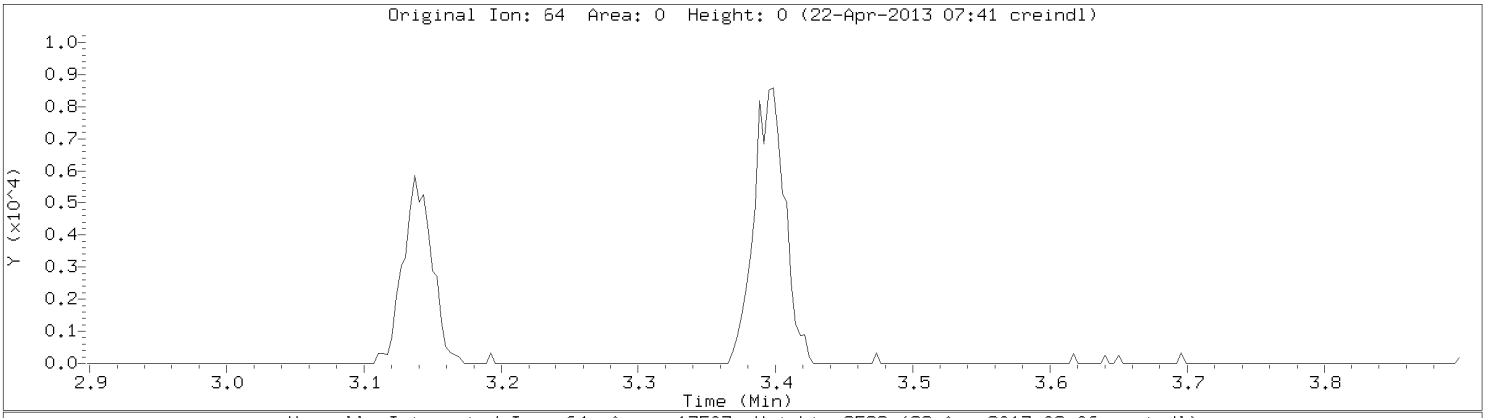
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

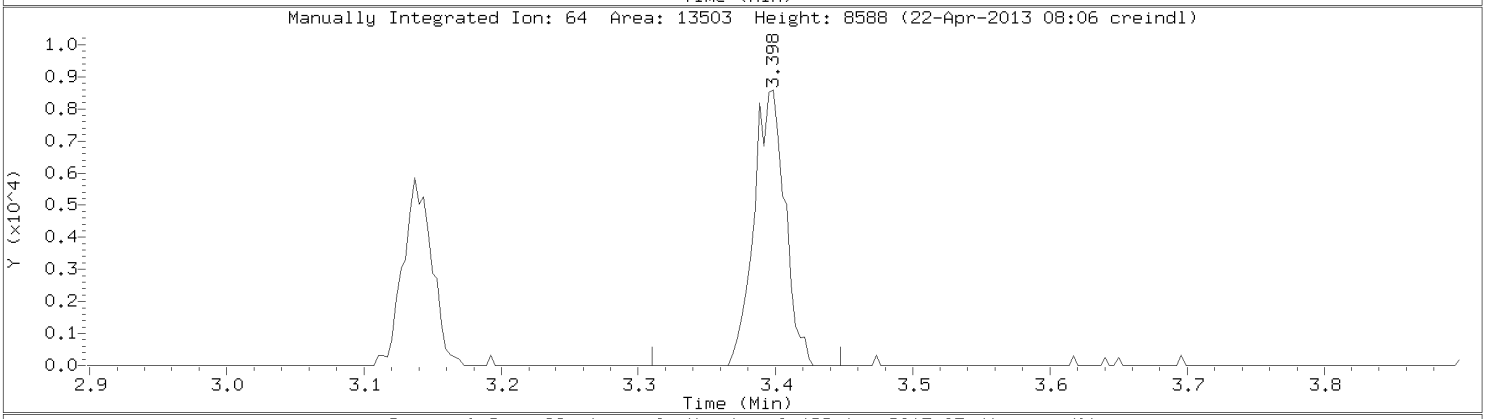
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

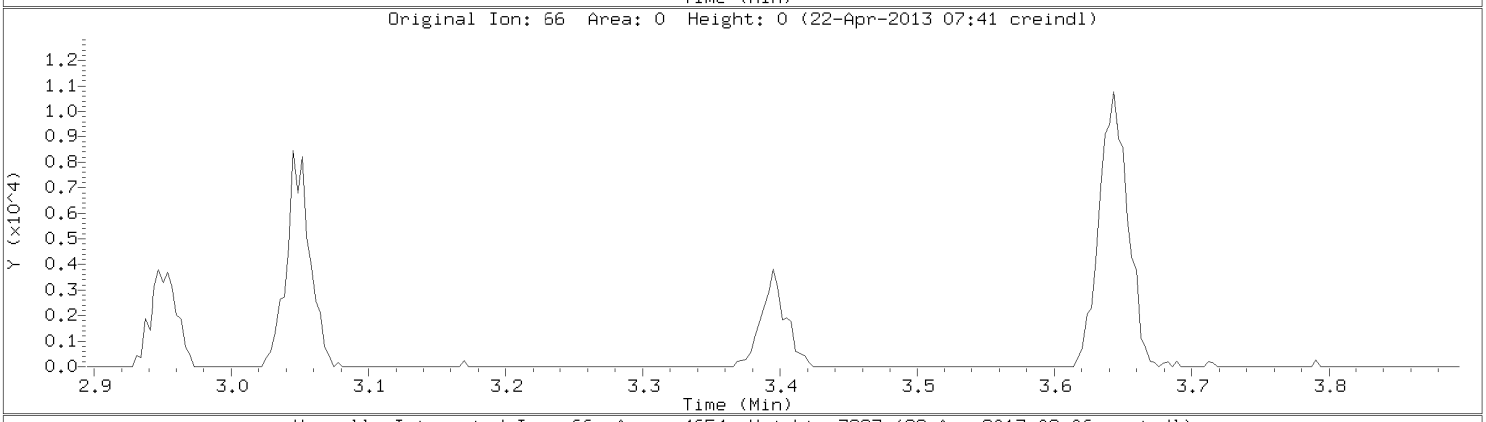

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11108.D
Date : 24-APR-2013 11:47
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
\\192.168.10.12\chem\10airD.i\042113.b\11108.D
Y (x10^6)
Min
-Propylene+
-Dichlorotetrafluoroethane+
-Vinyl chloride+
-Bromomethane
-Chloroethane+
-Vinyl Bromide
-Acetone+
-Trichlorofluoromethane+
-1,1-Dichloroethene+
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-1,1-Dichloroethane+
-Hexane-d14(S)
-n-Hexane+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-2,2,4-Trimethylpentane
1,4-Difluorobenzene
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-cis-1,3-Dichloropropene+
-trans-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform
-o-Xylene
-1,1,2,2-Tetrachloroethane
-Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-Sec- Butylbenzene+
-1,4-dichlorobenzene-d4 (S+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene

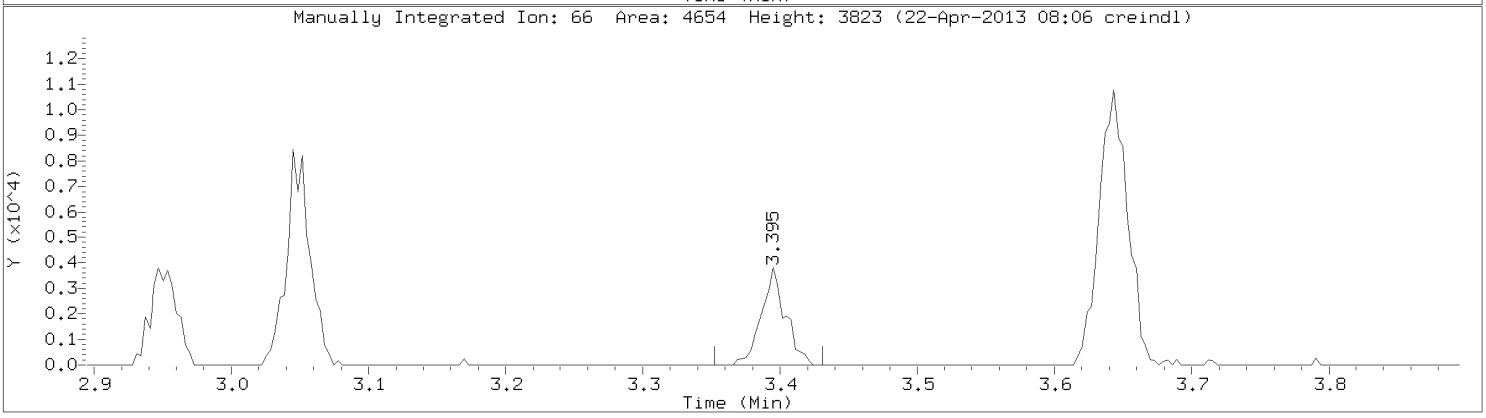
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11108.d
Injection Date: 21-APR-2013 11:47
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Chloroethane
CAS Number: 75-00-3



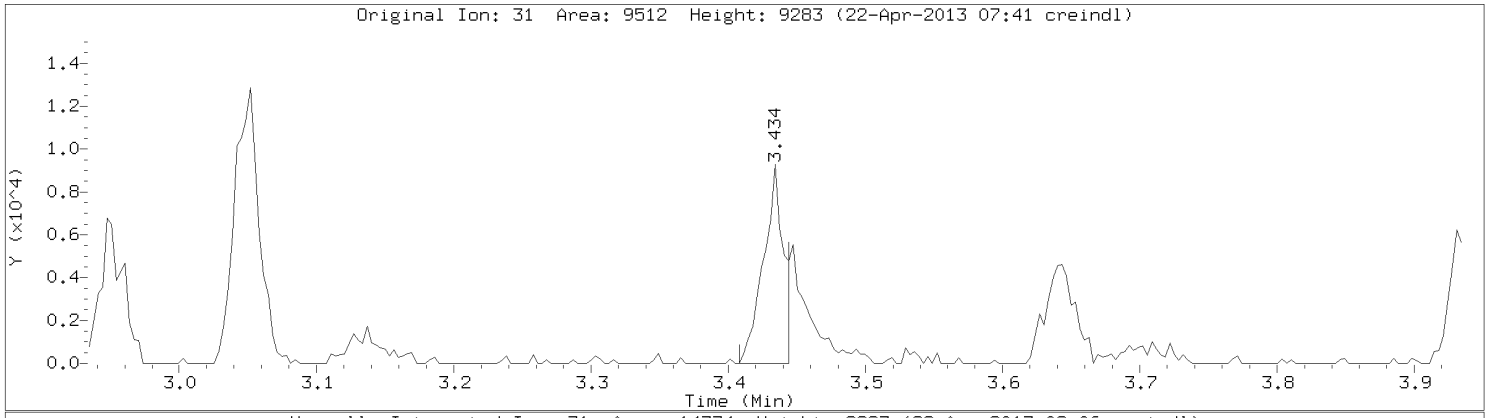


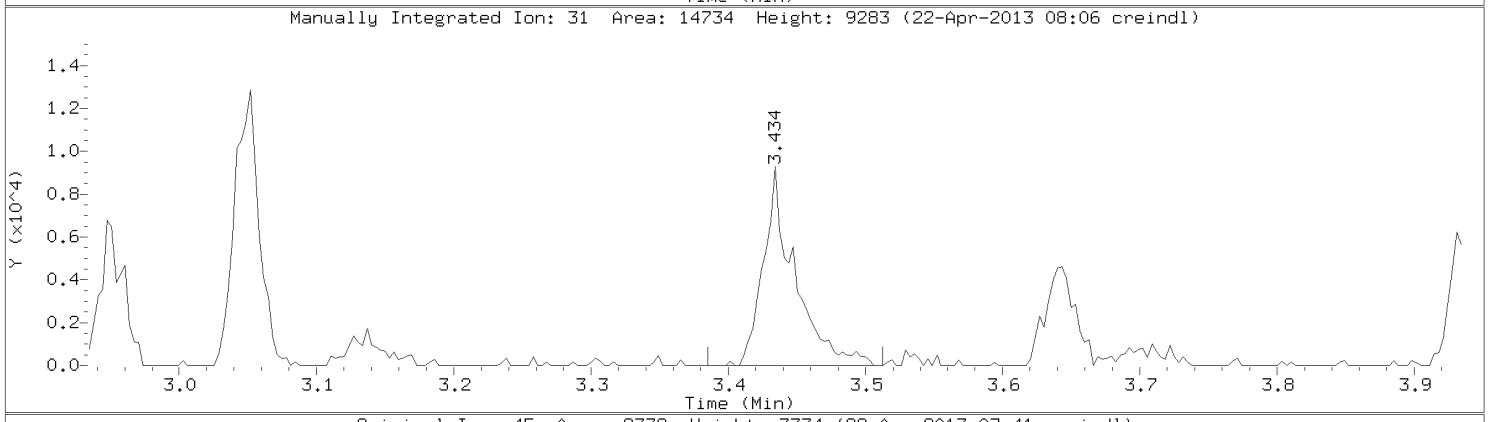


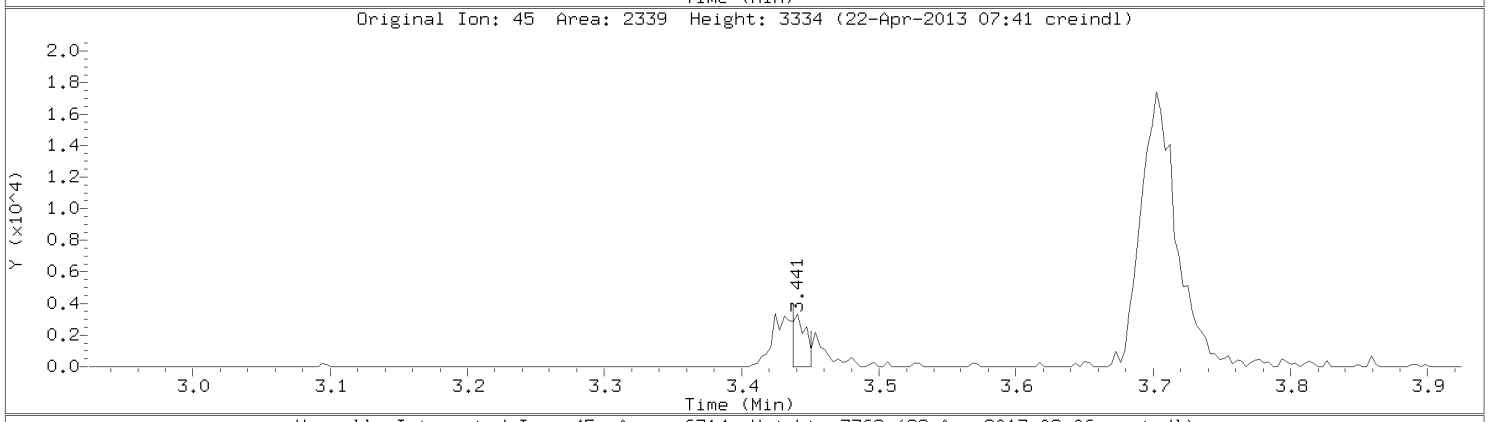


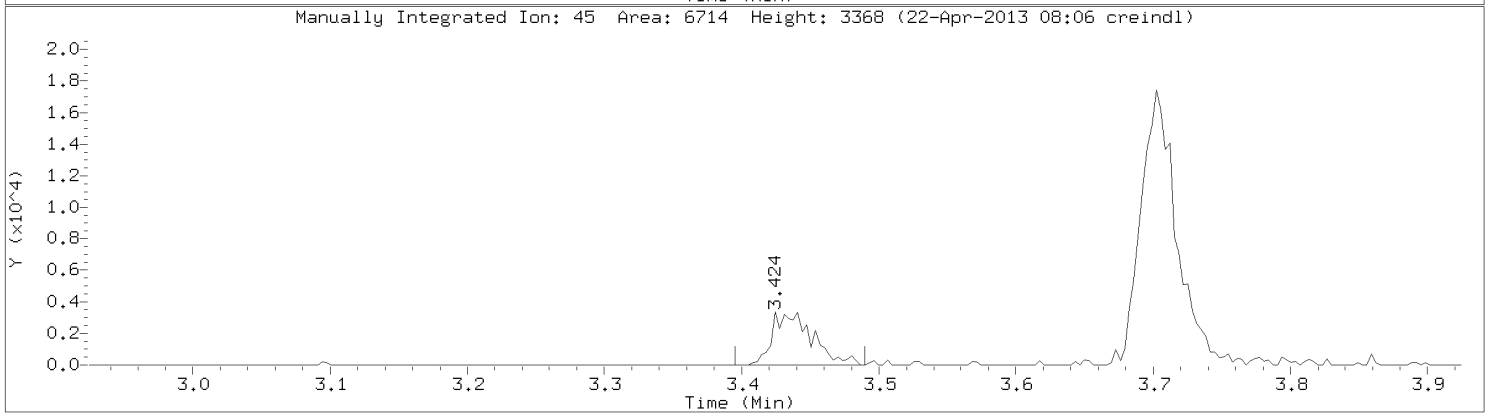
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11108.d
Injection Date: 21-APR-2013 11:47
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Ethanol
CAS Number: 64-17-5



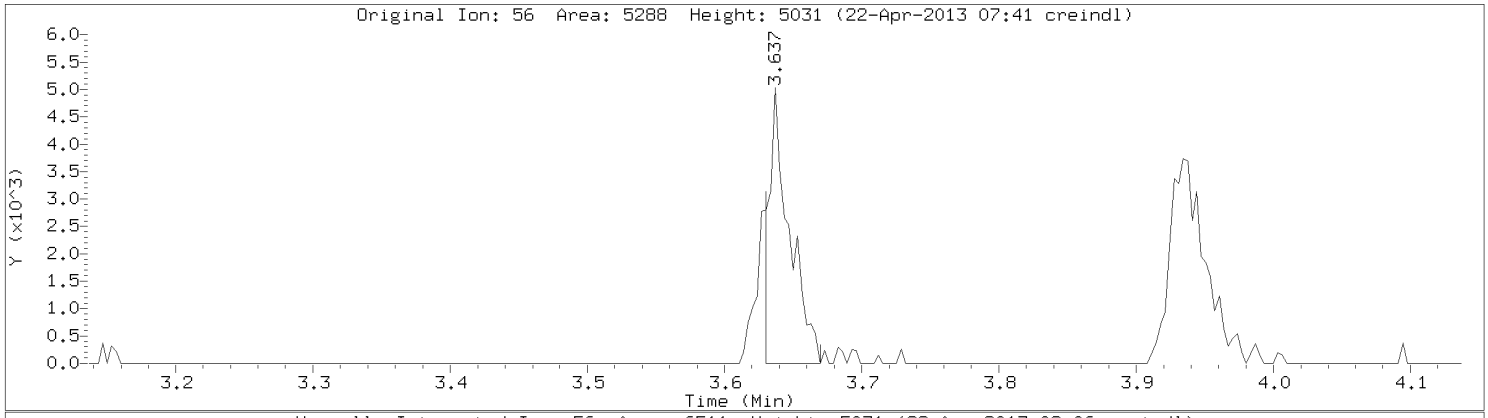


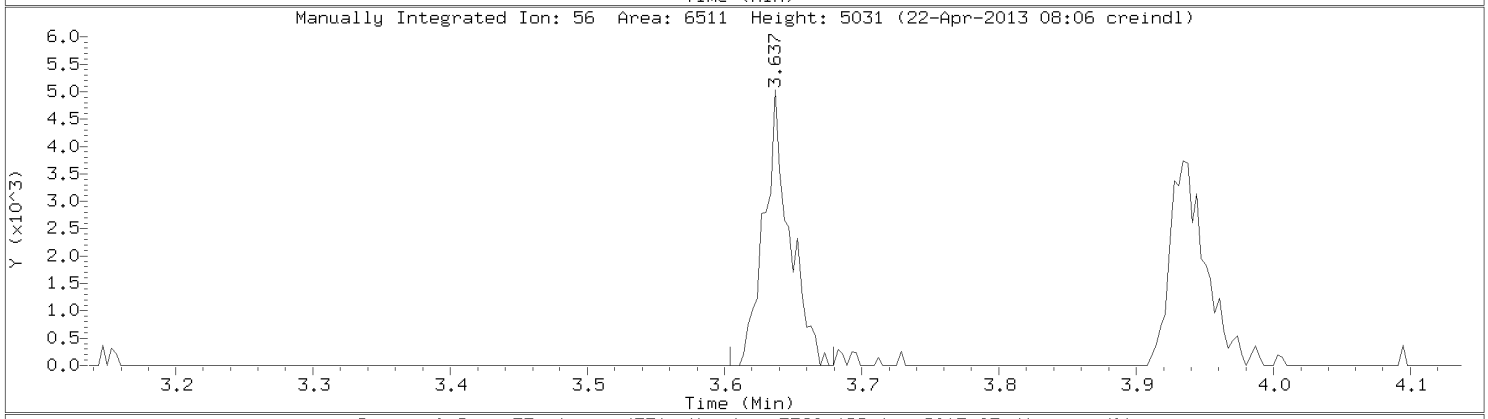


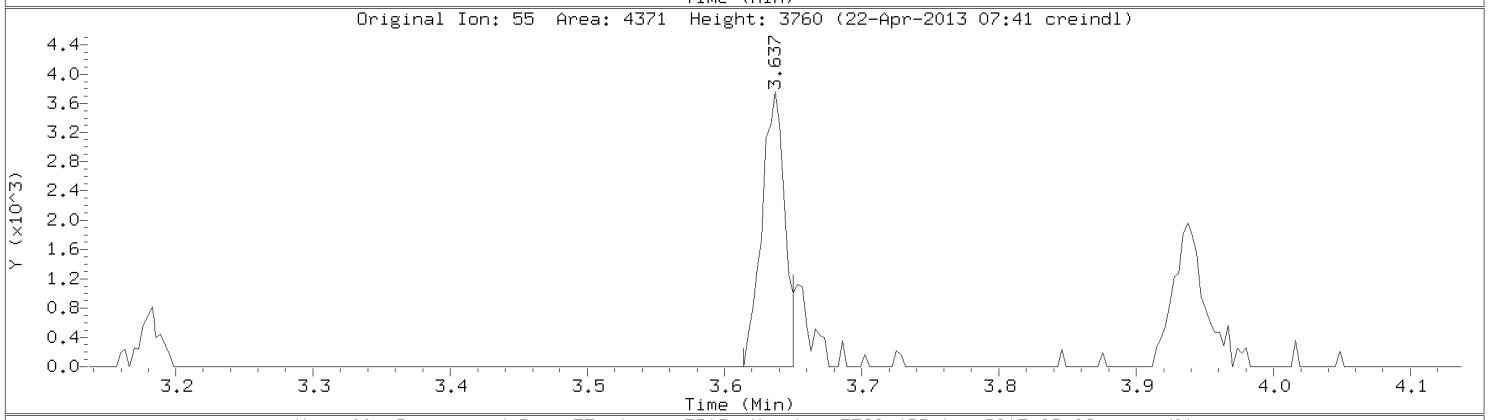


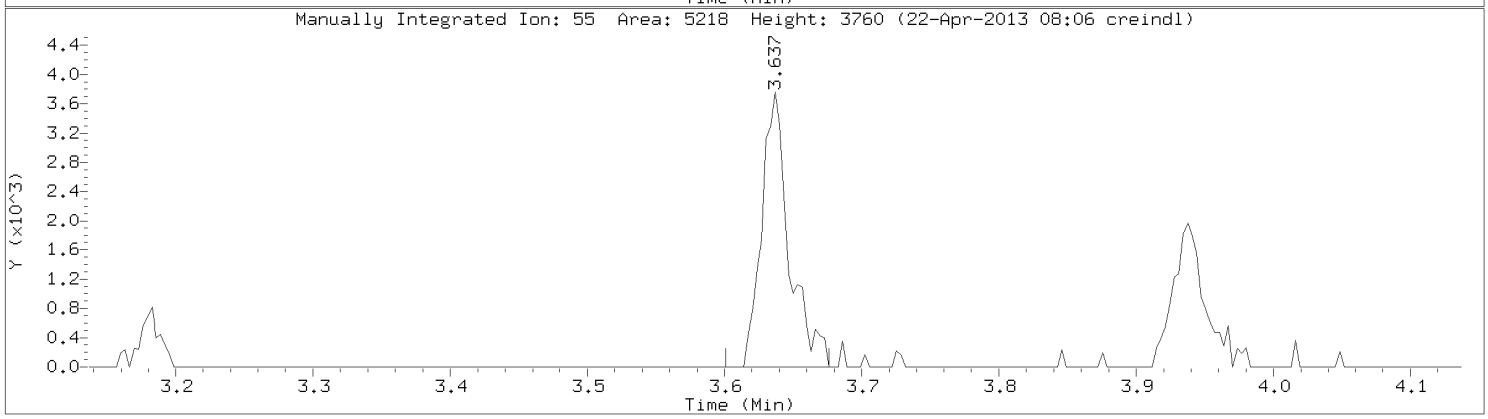
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Acrolein
CAS Number: 107-02-08



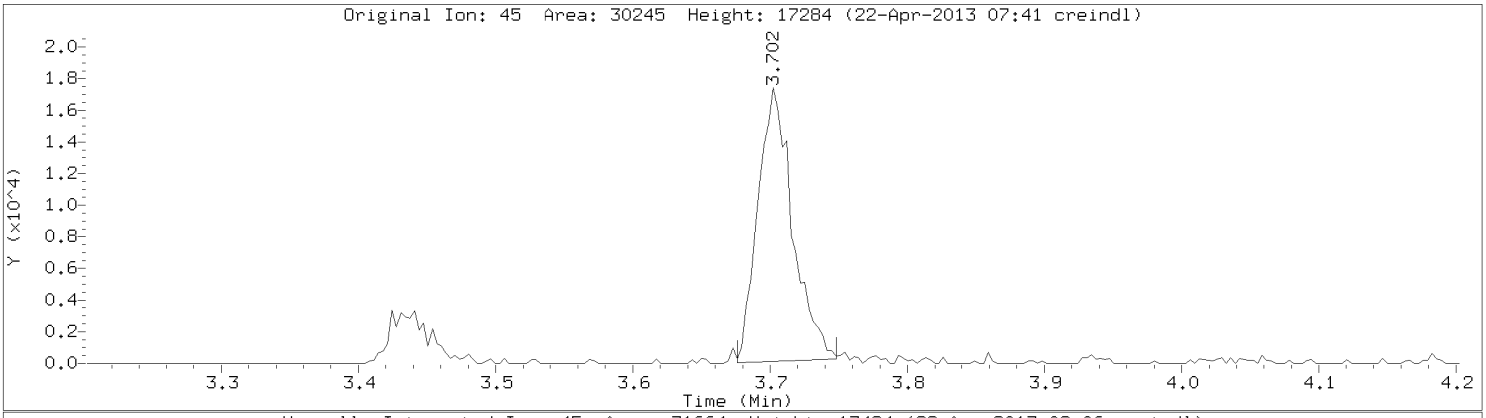


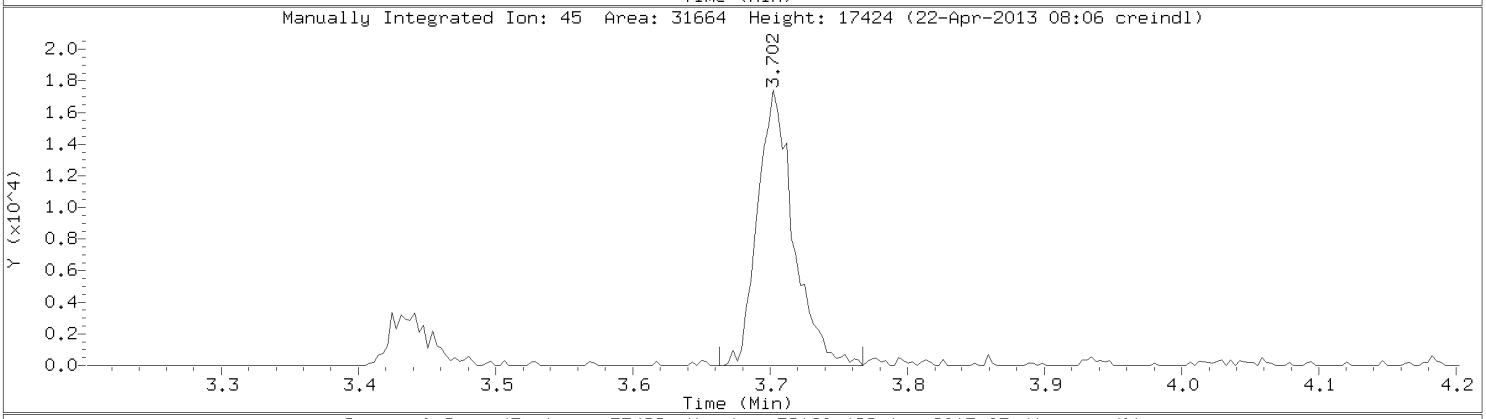


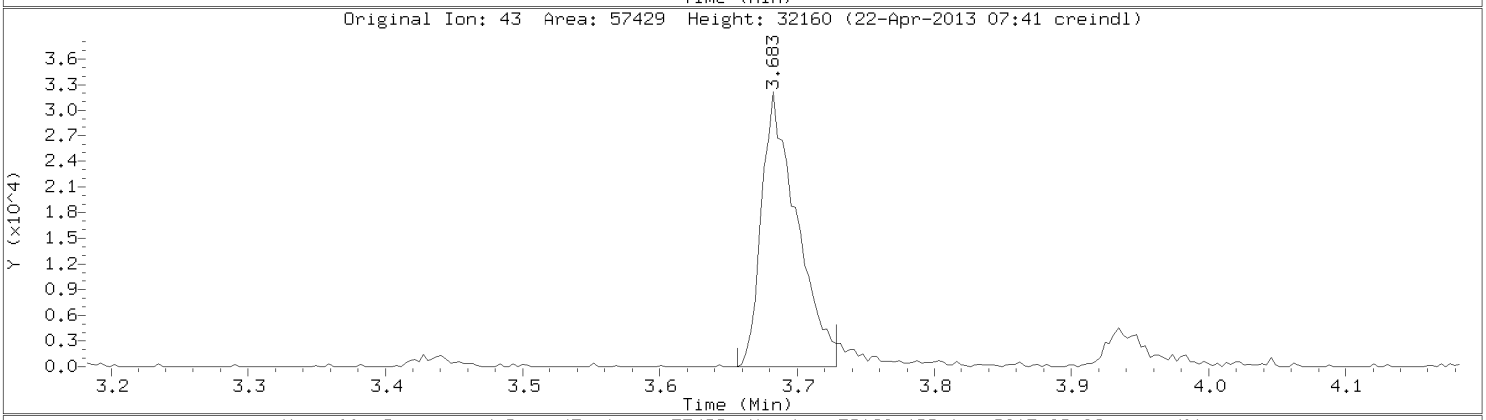


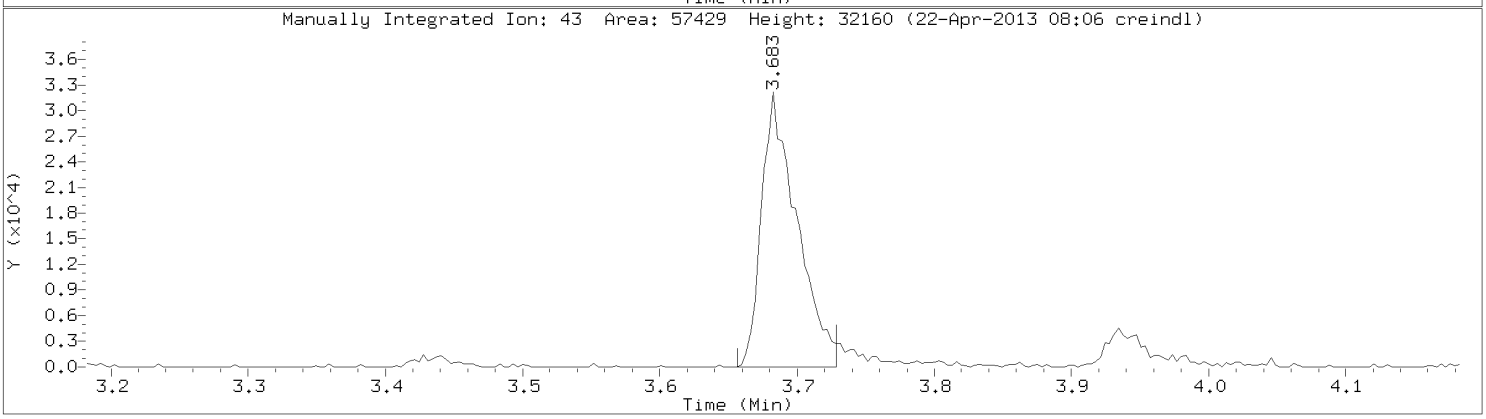
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Isopropyl Alcohol
CAS Number: 67-63-0



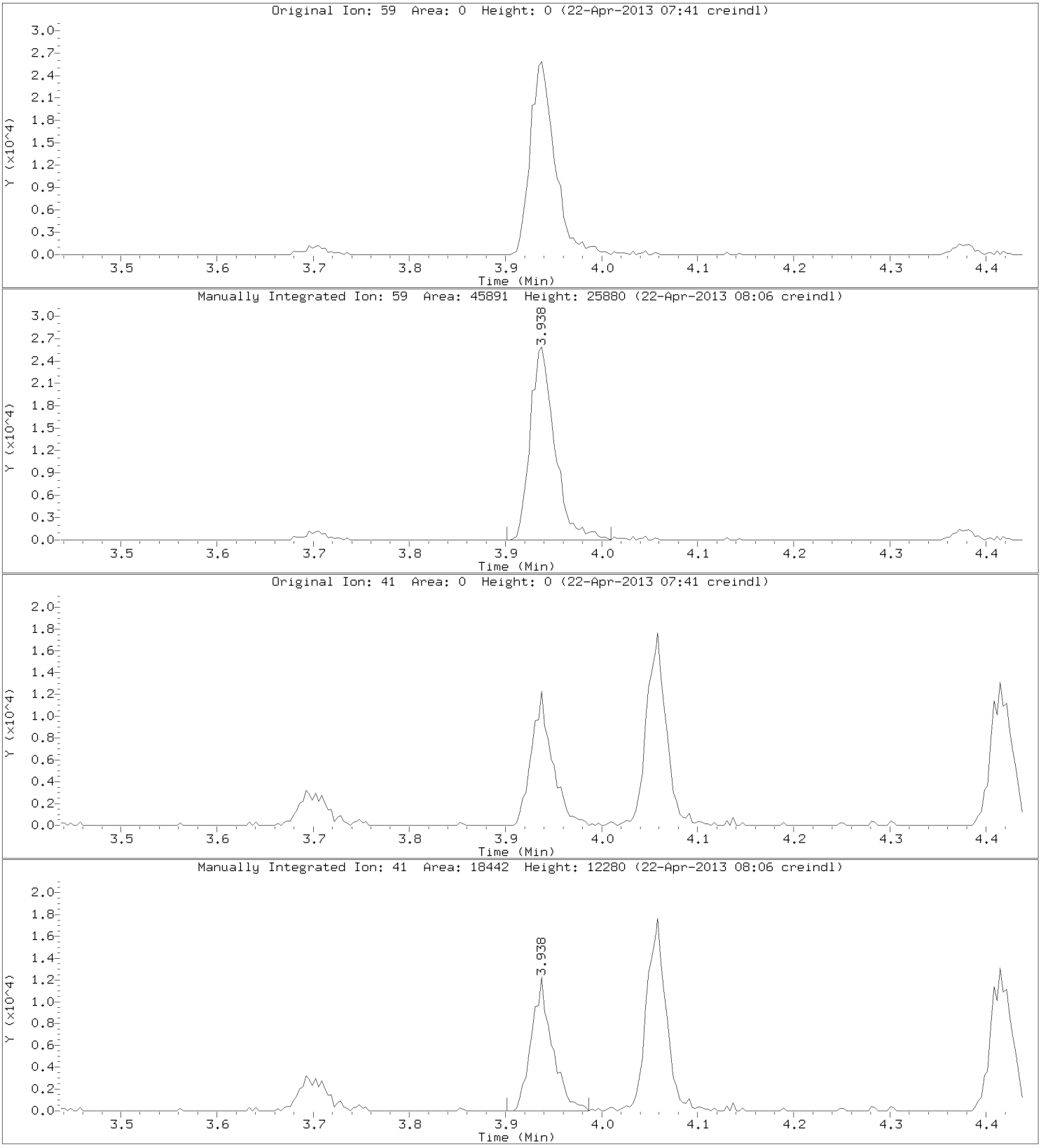






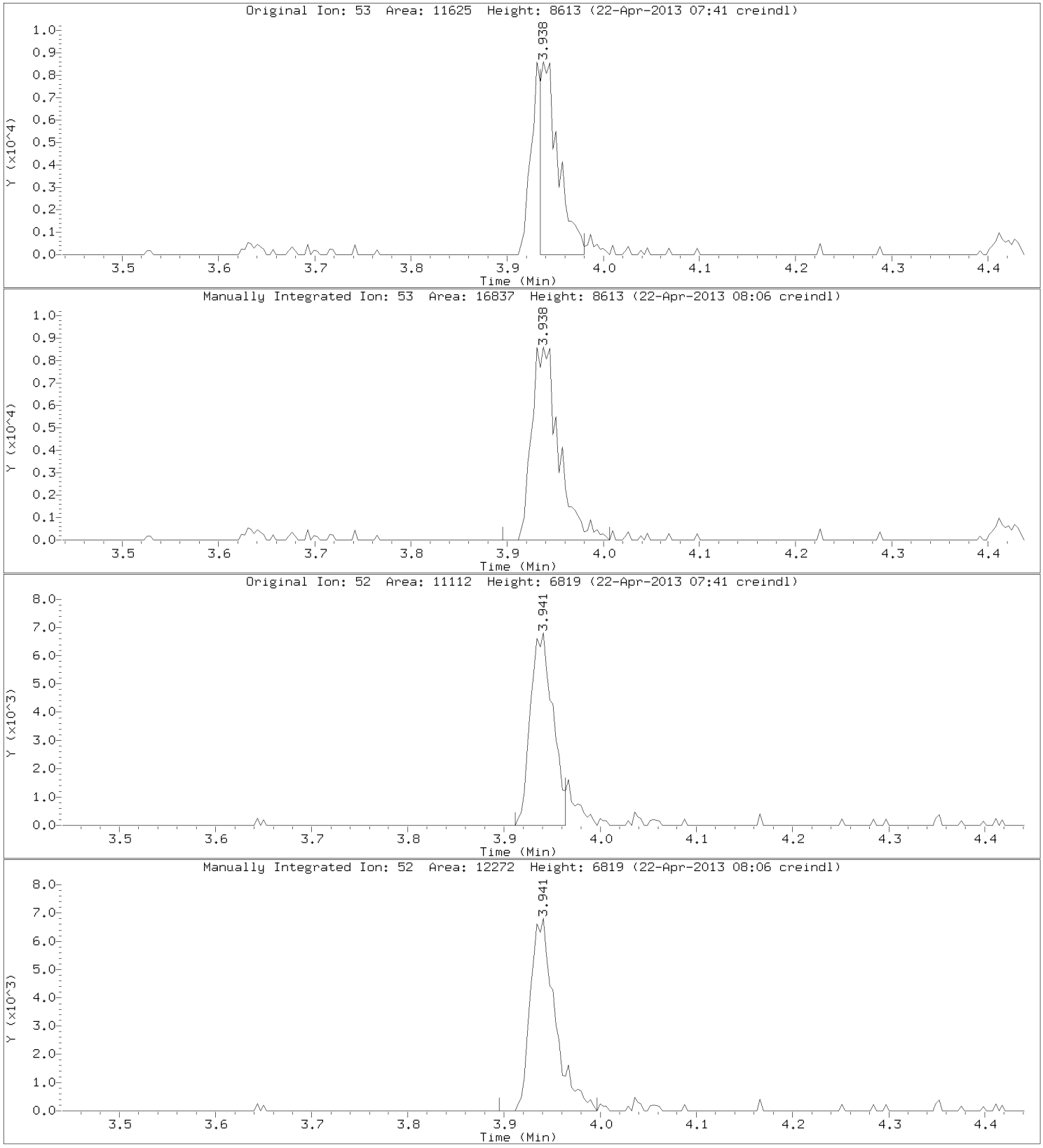
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



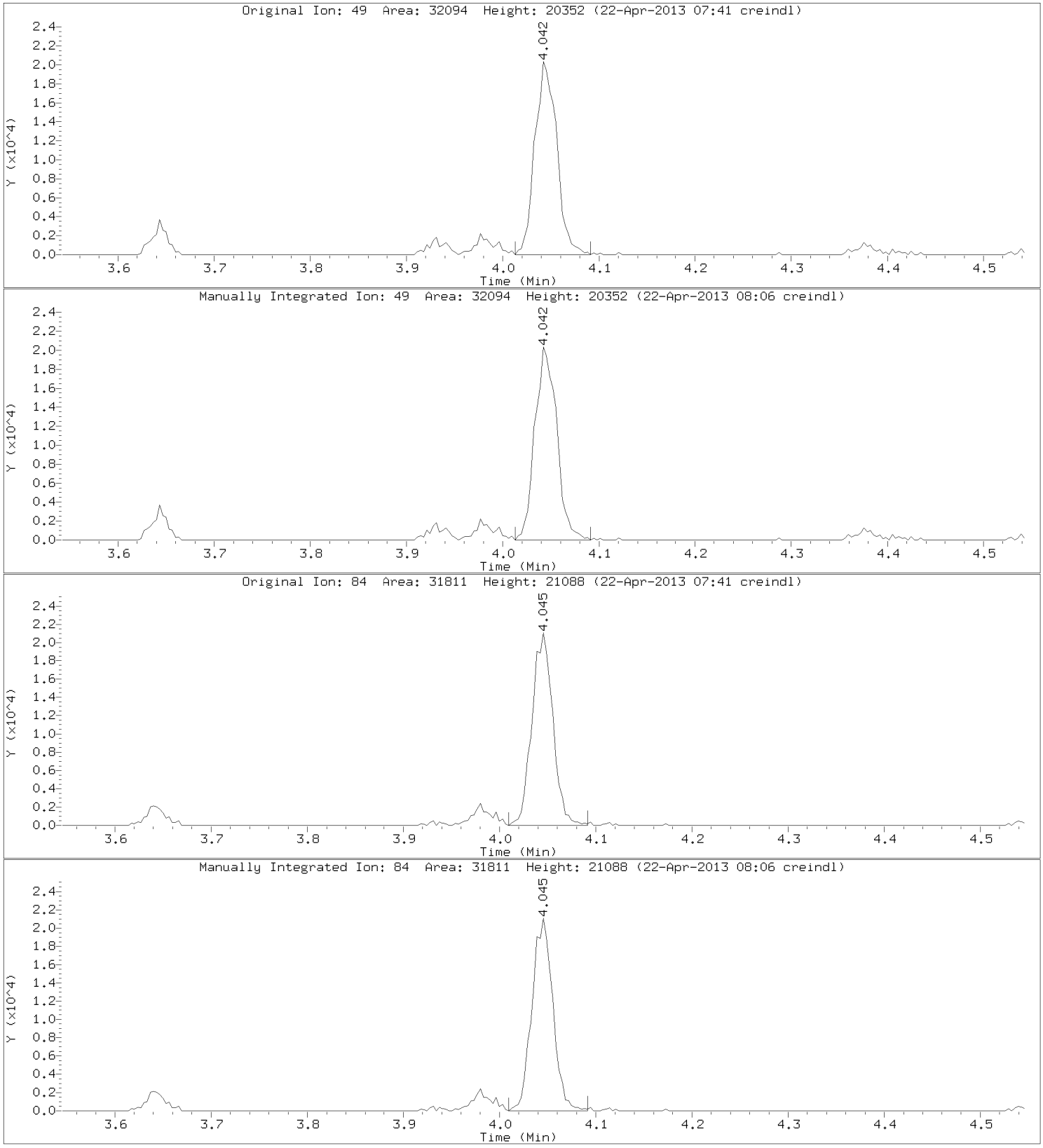
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Acrylonitrile
CAS Number: 107-13-1

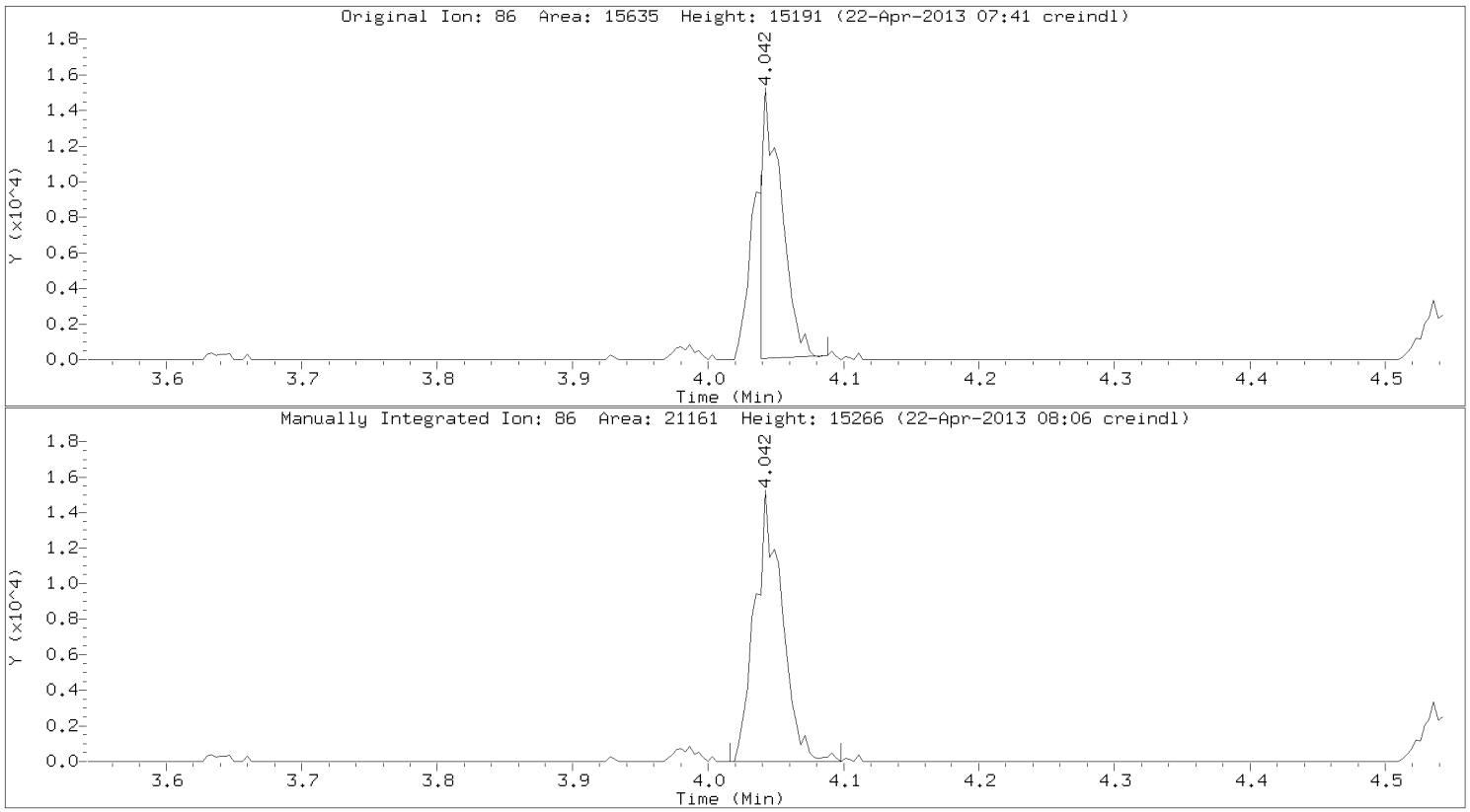


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Lab Sample ID: ICAL4

Compound: Methylene chloride
CAS Number: 75-09-2

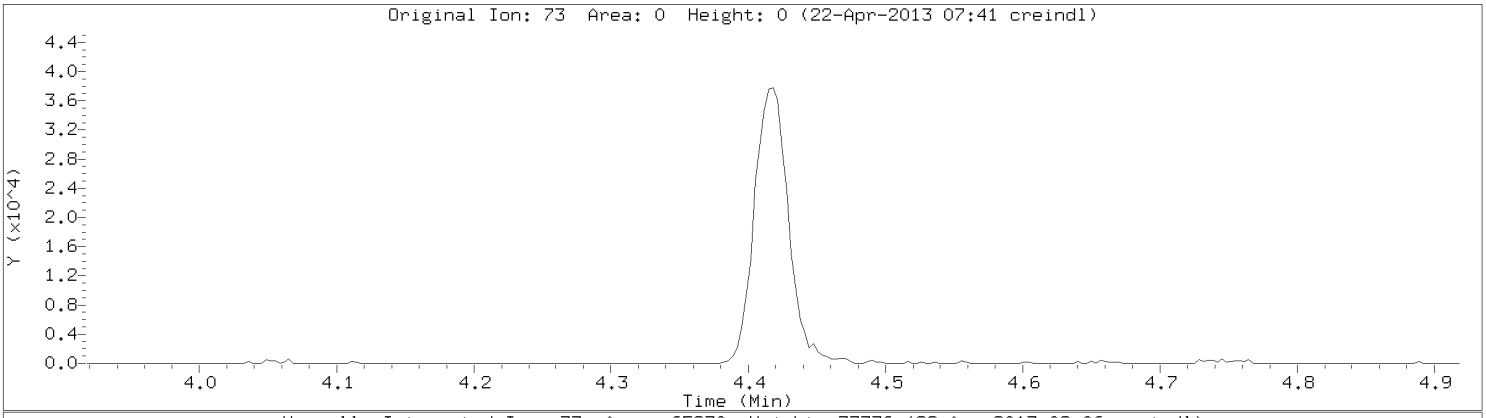


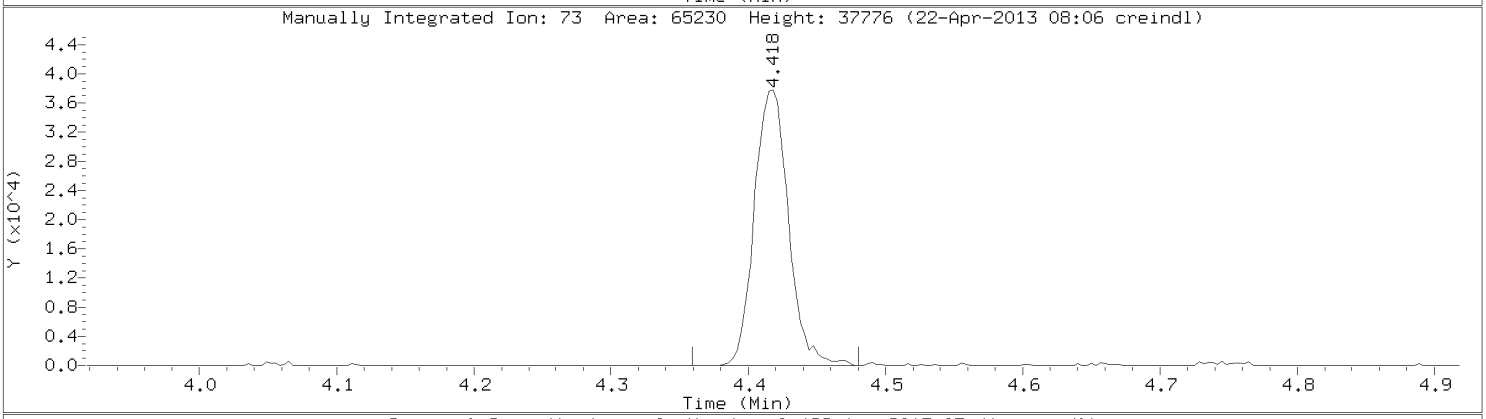
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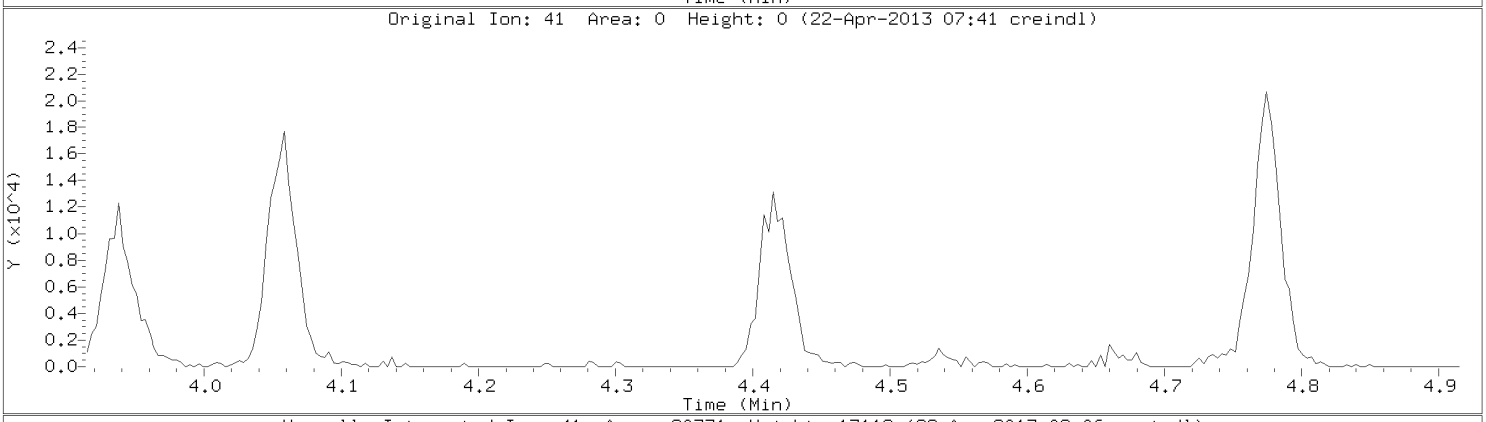


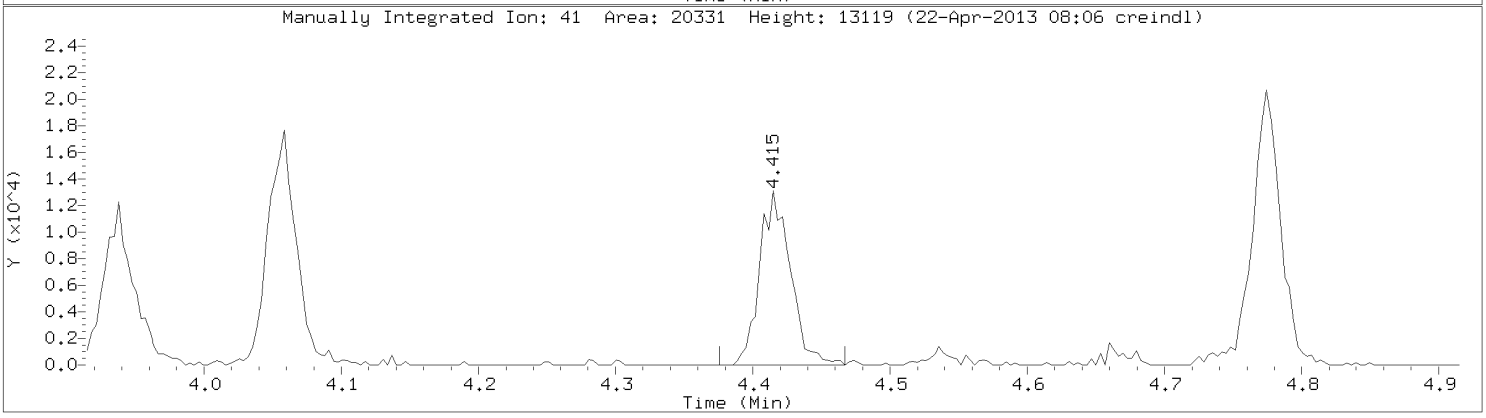
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



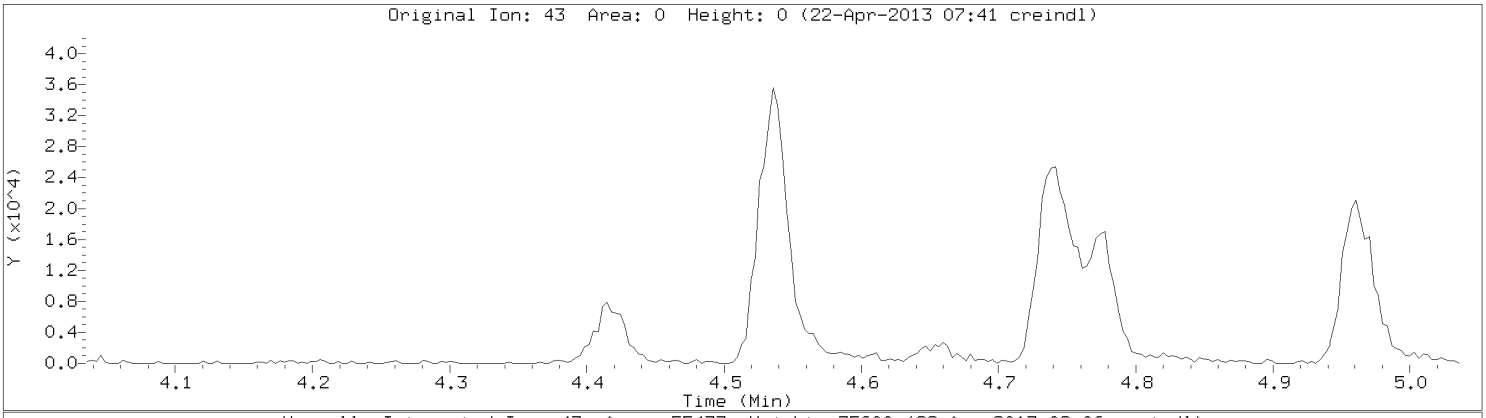


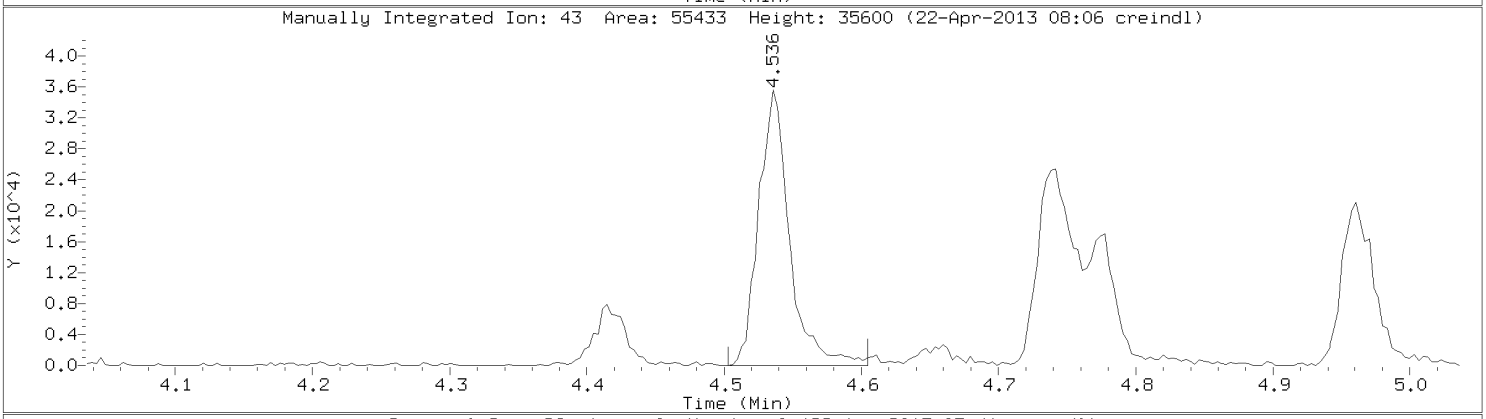


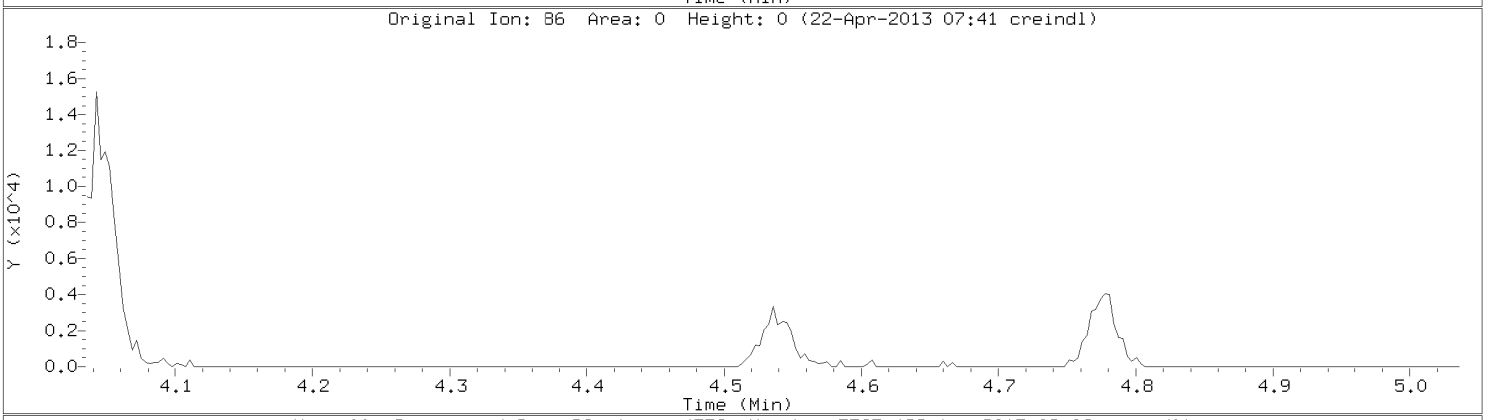


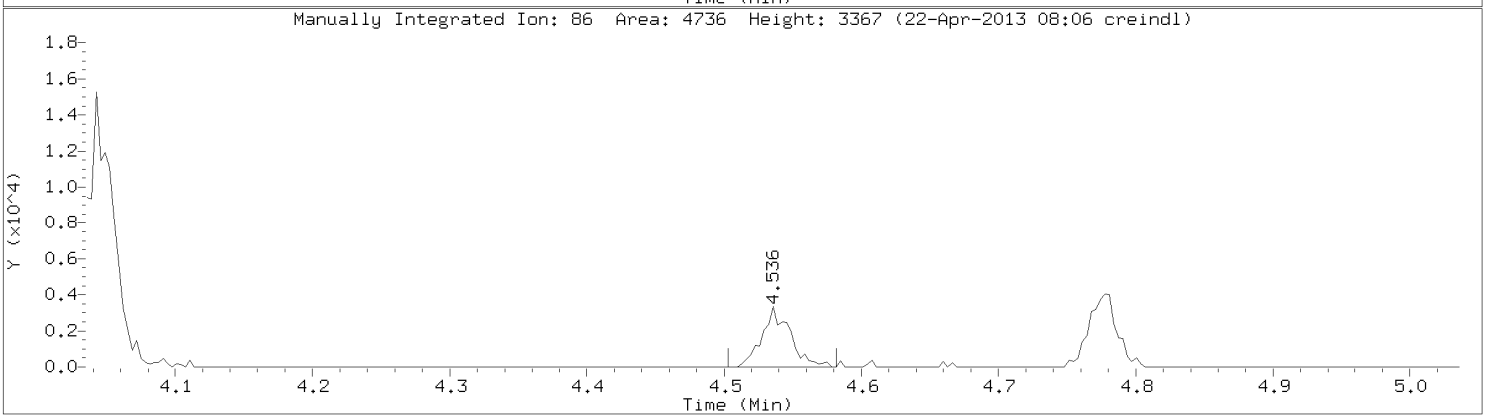
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Vinyl Acetate
CAS Number: 108-05-4



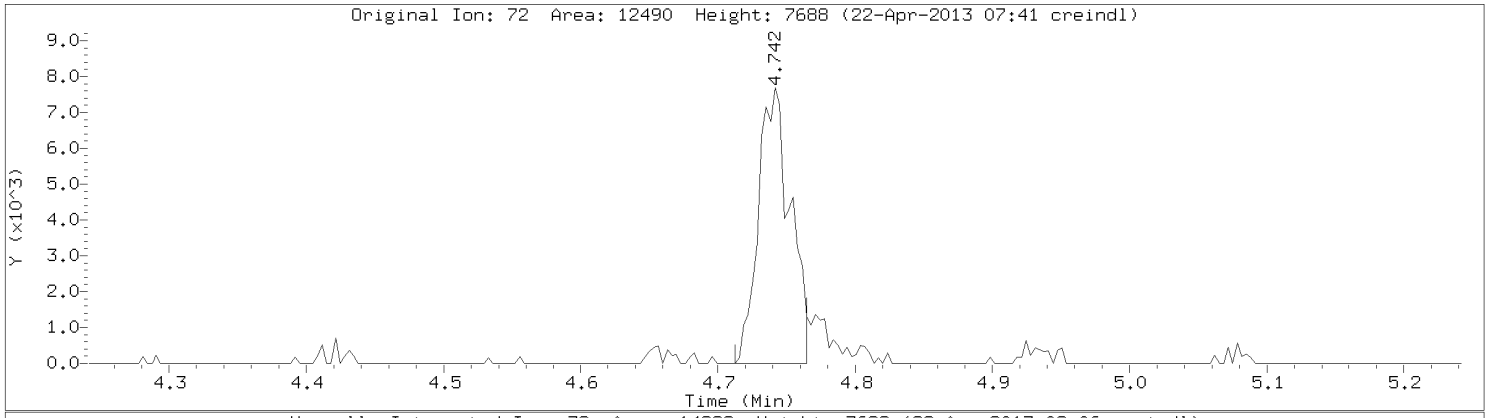


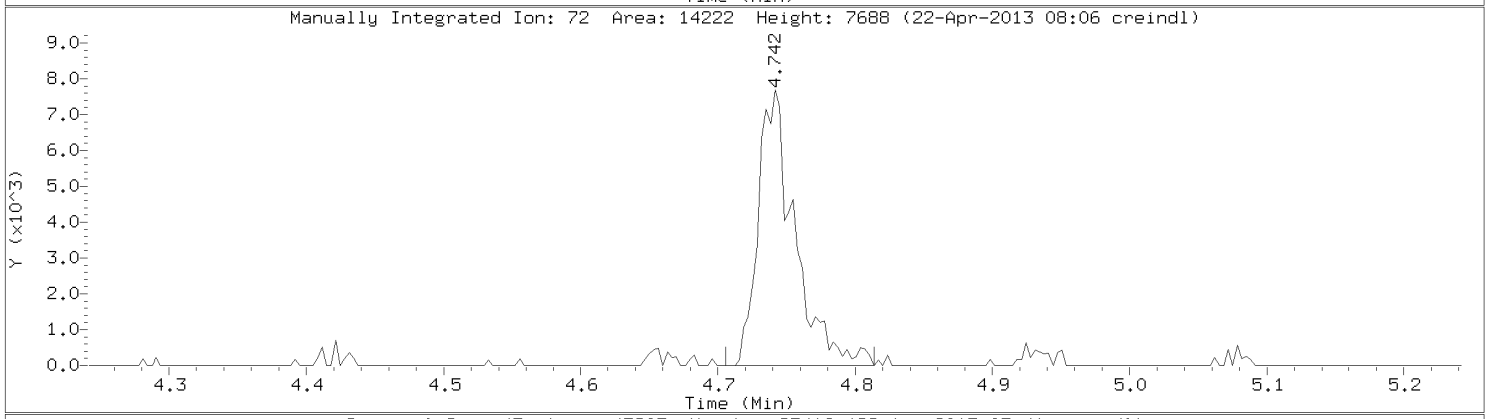


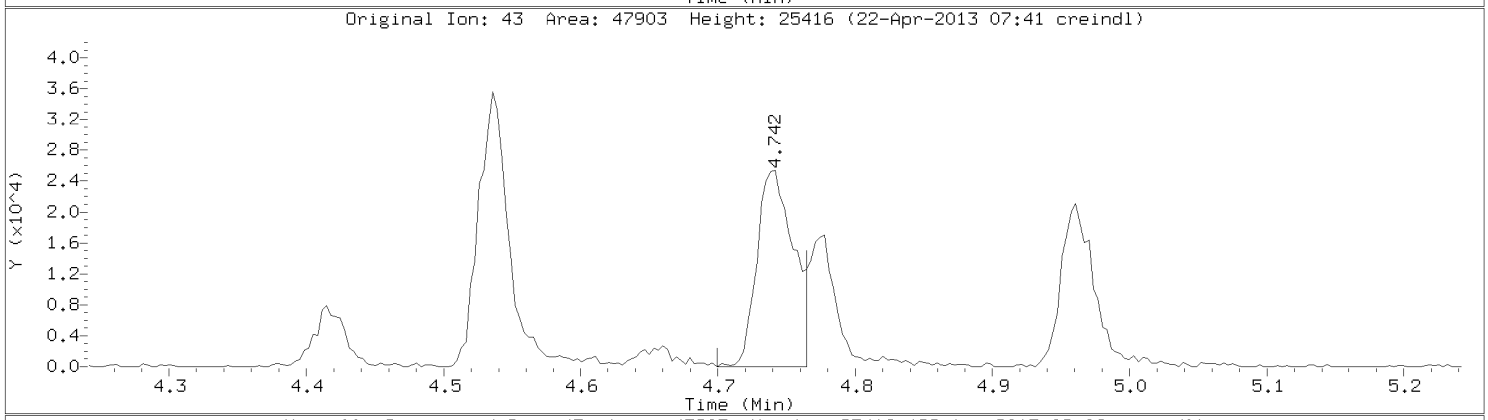


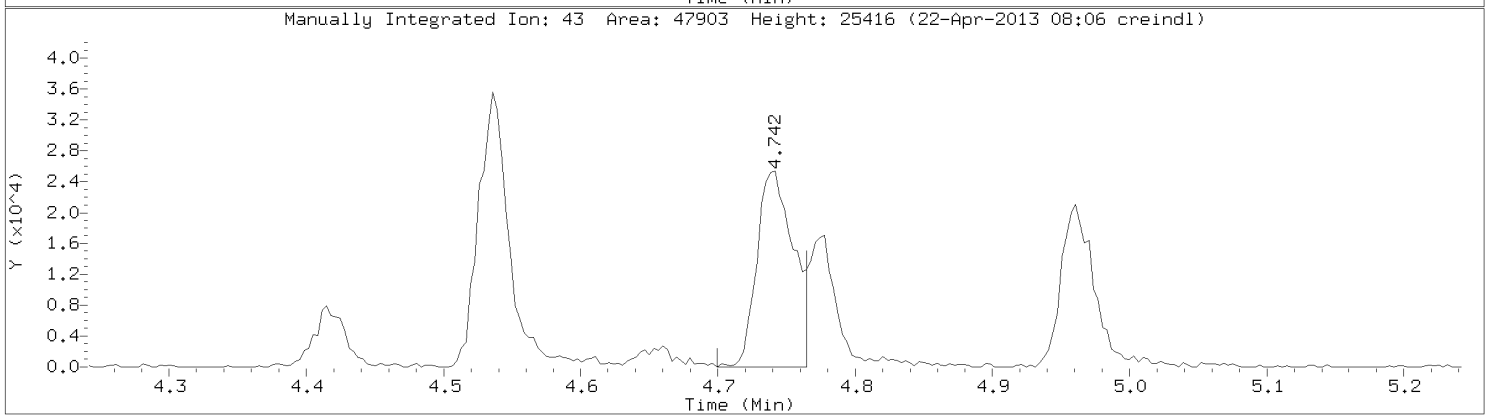
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3



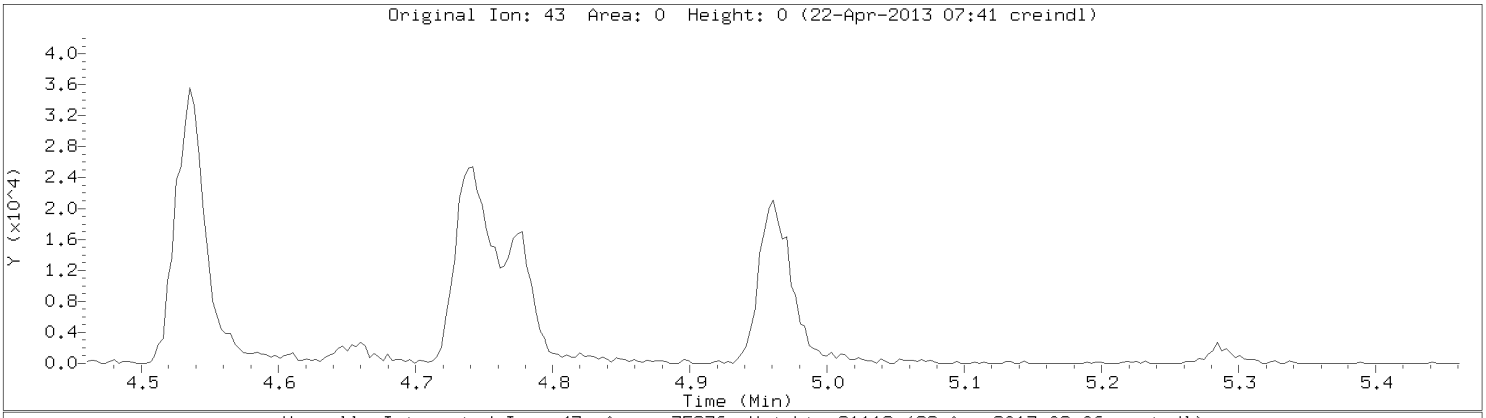


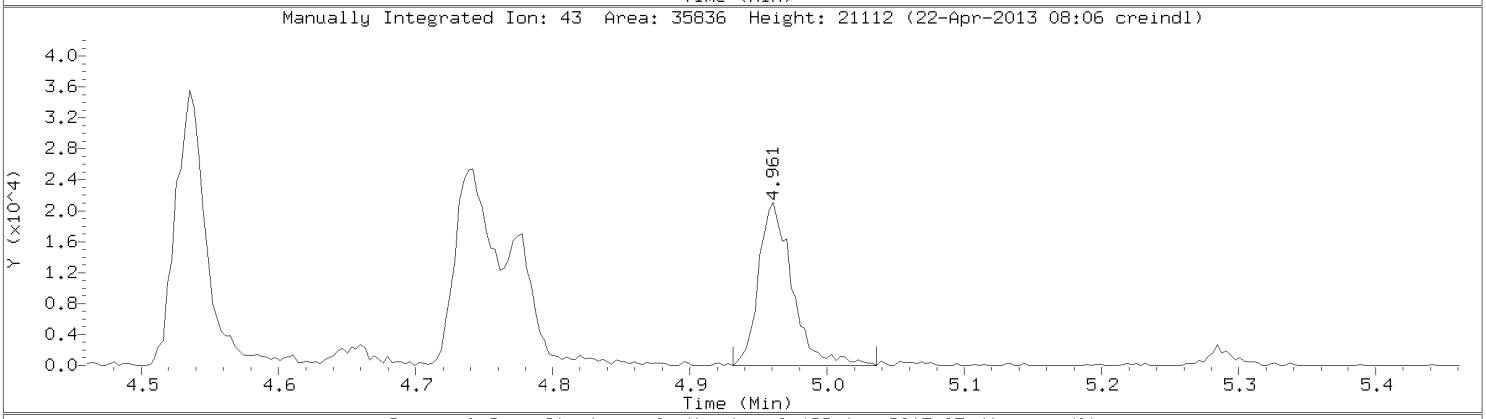


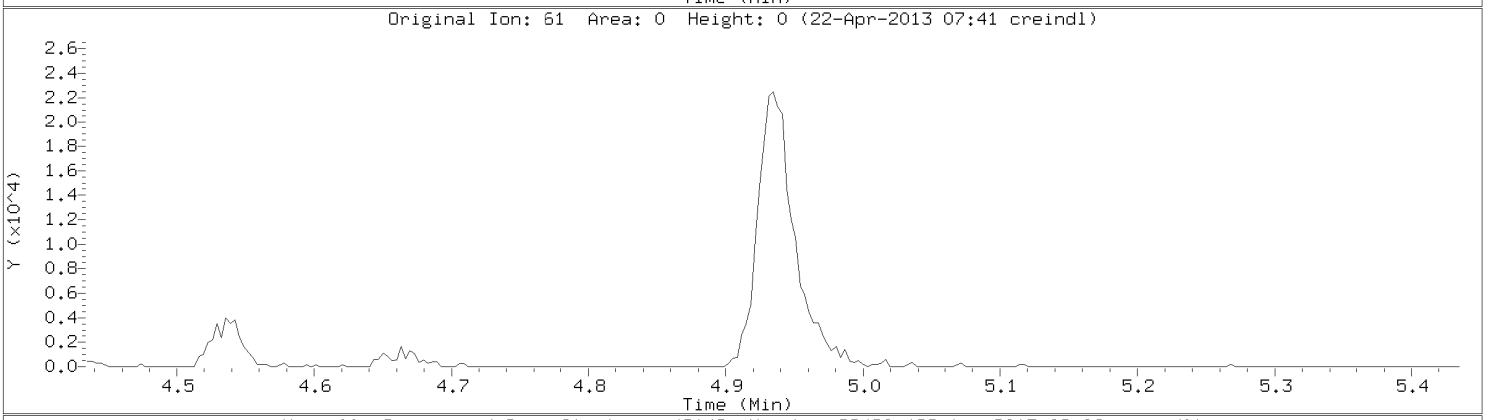


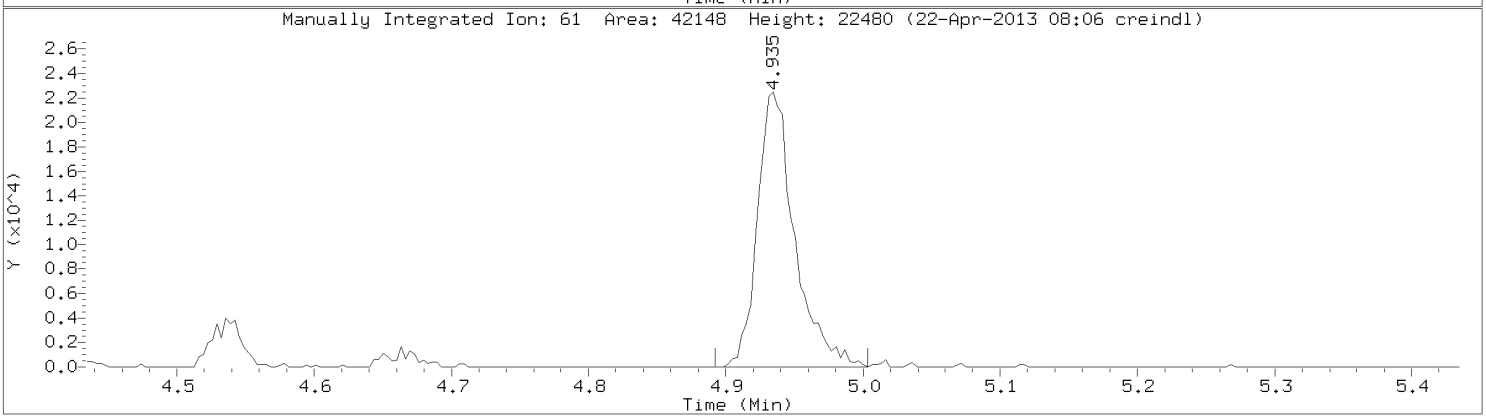
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Ethyl Acetate
CAS Number: 141-78-6

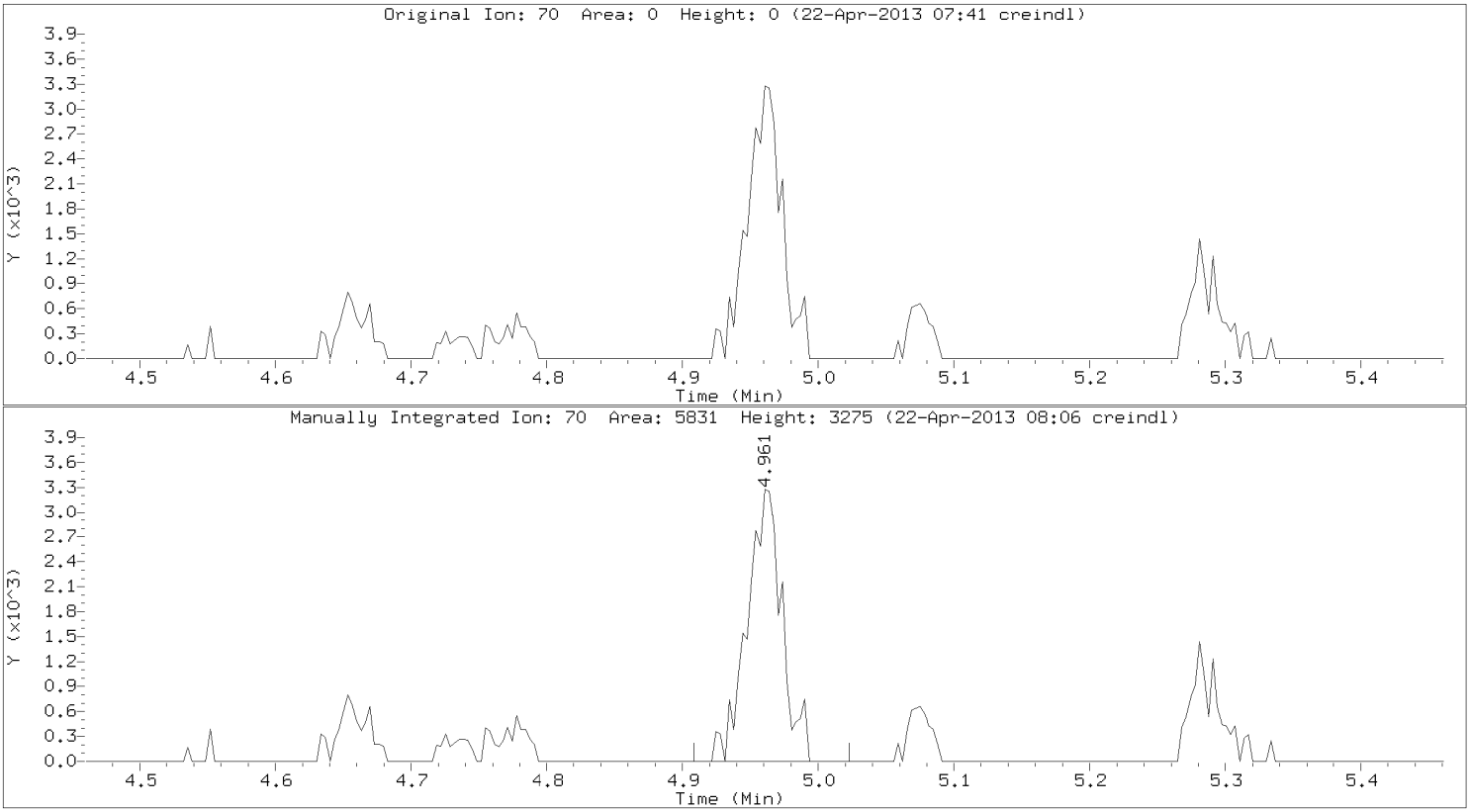






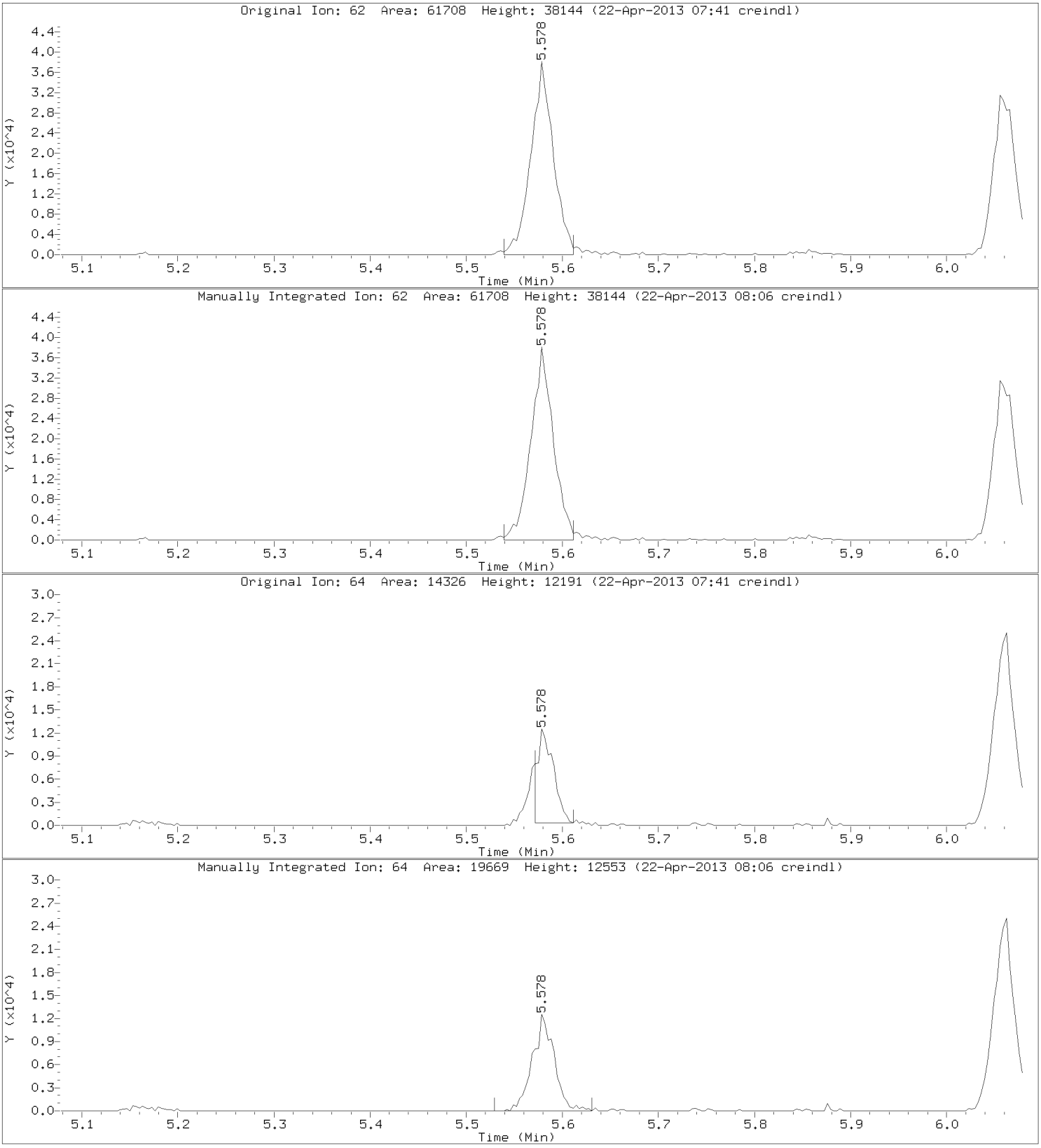


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Lab Sample ID: ICAL4



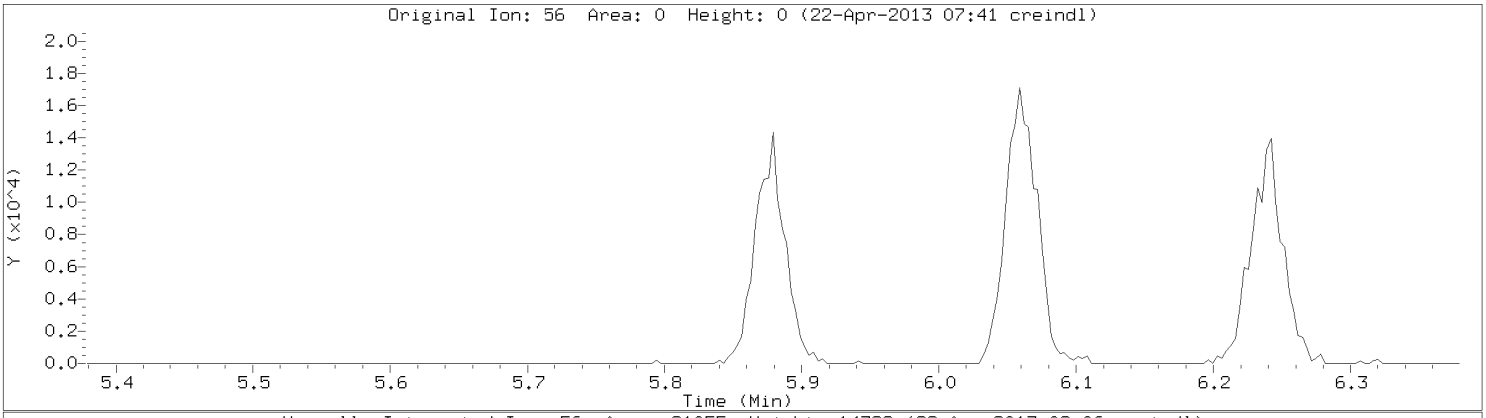
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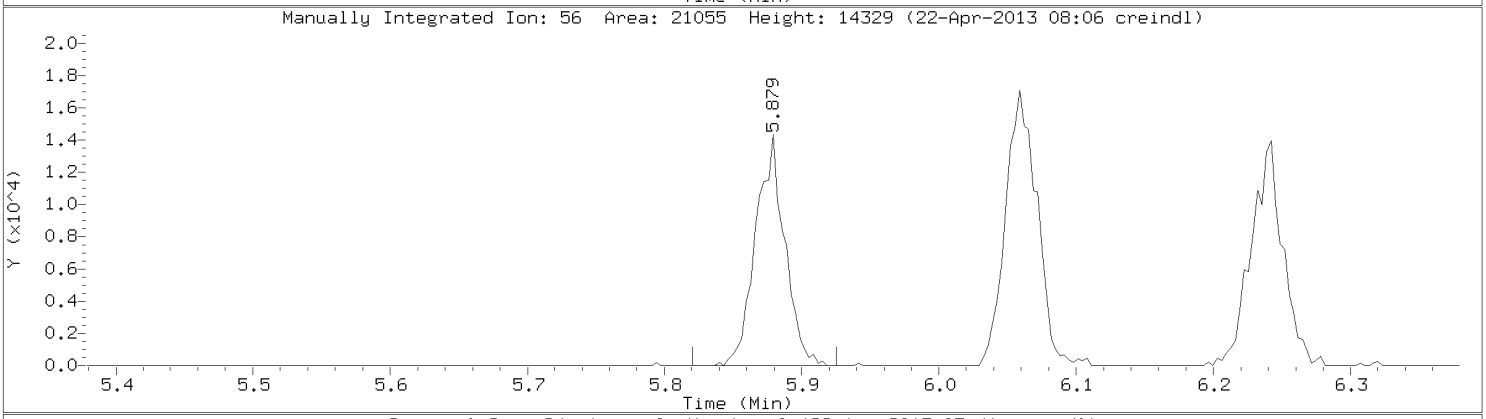
Compound: 1,2-Dichloroethane
CAS Number: 107-06-2

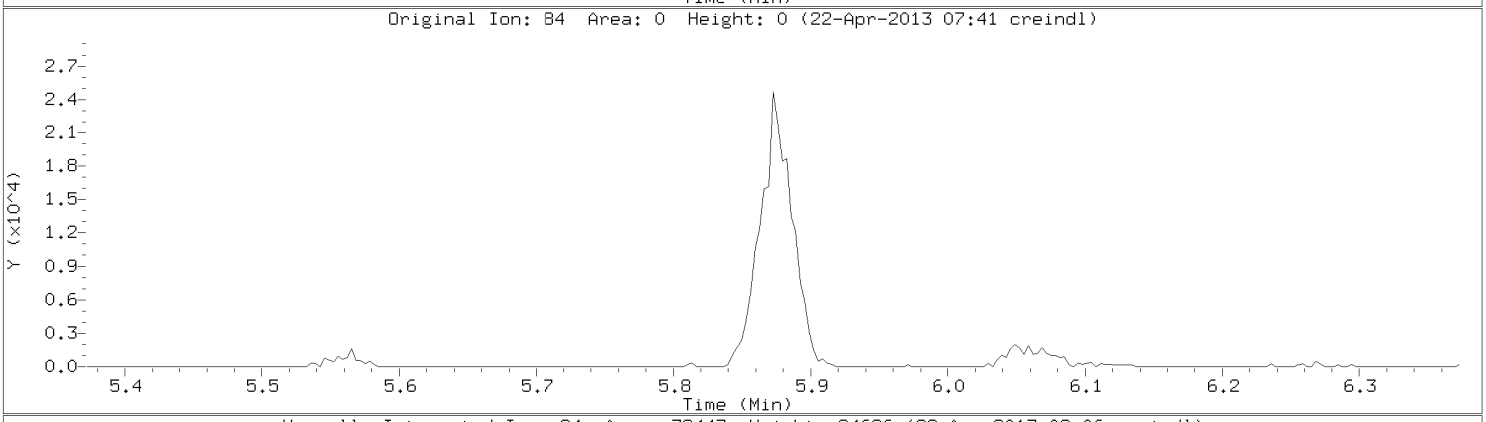


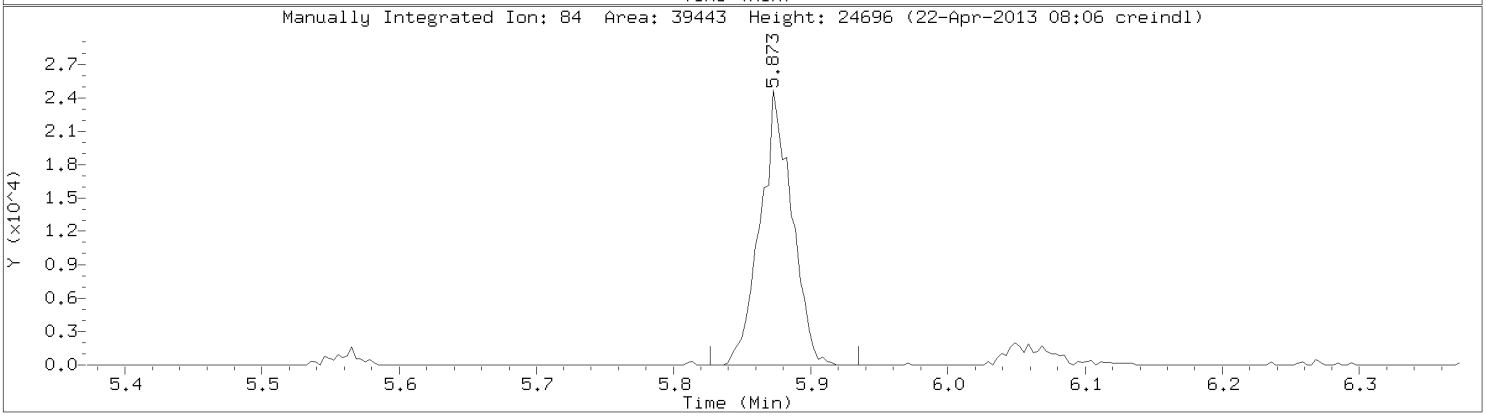
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Cyclohexane
CAS Number: 110-82-7

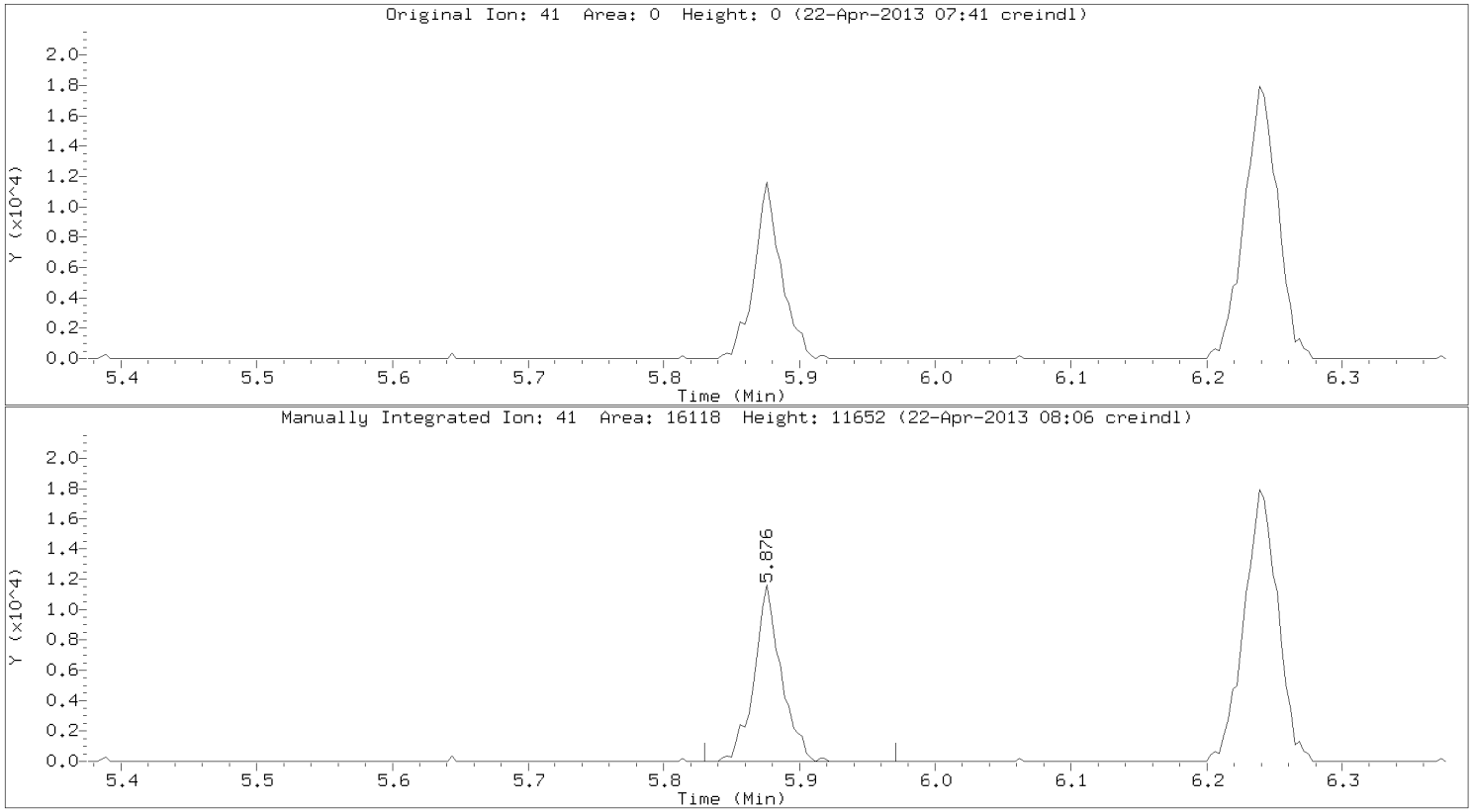






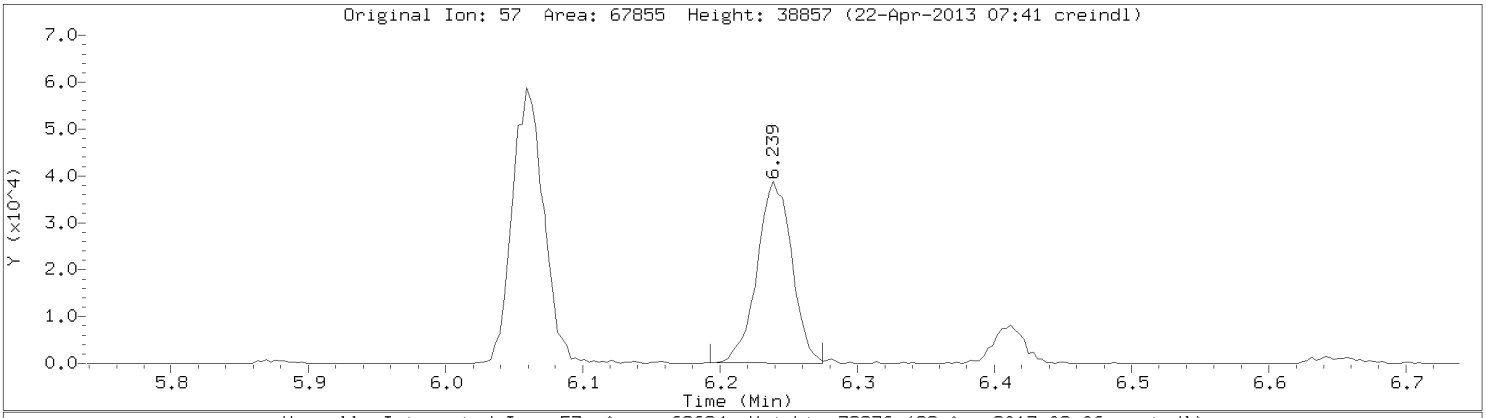


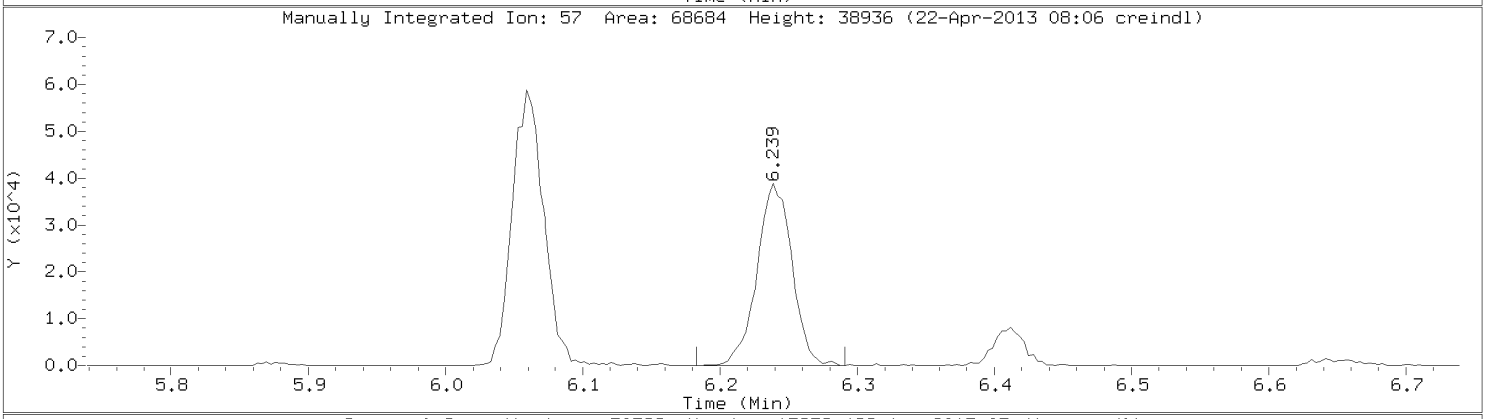
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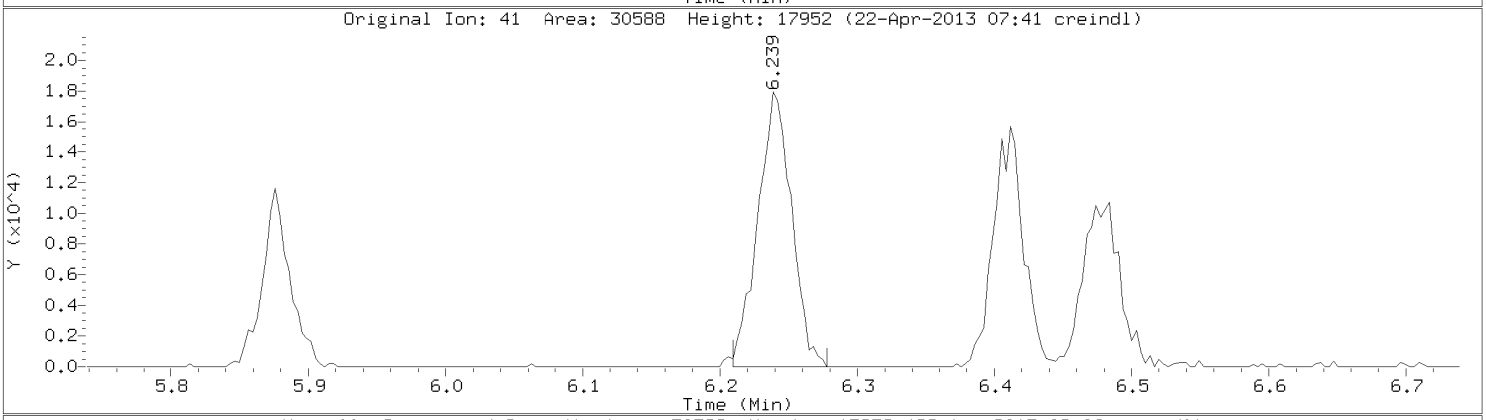


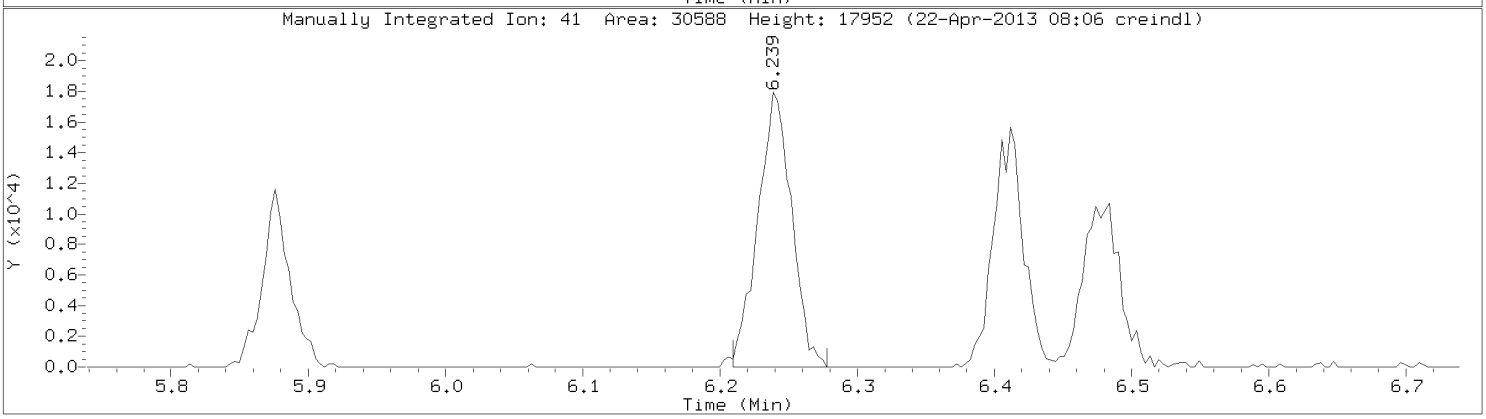
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Injection Date: 21-APR-2013 11:47
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

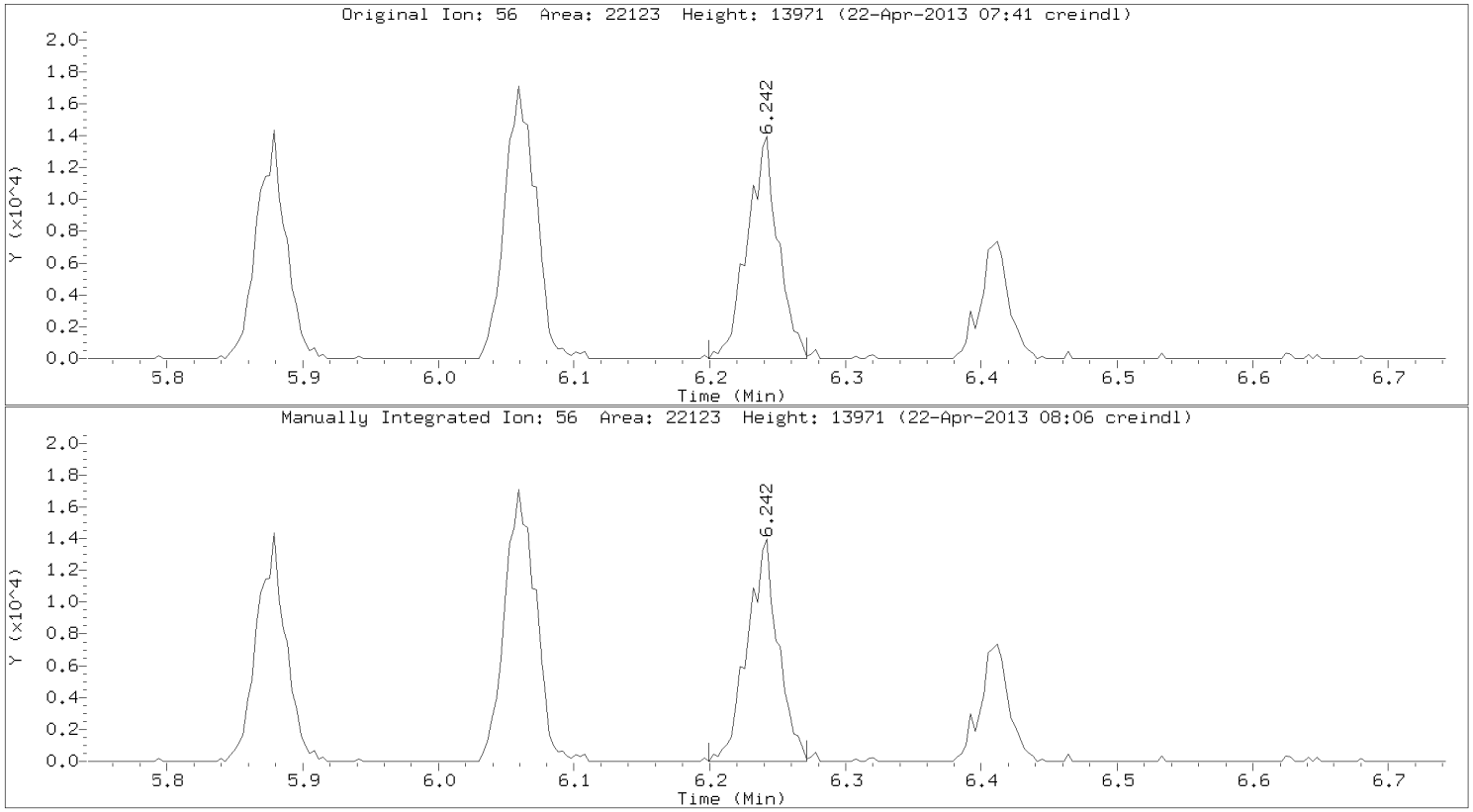






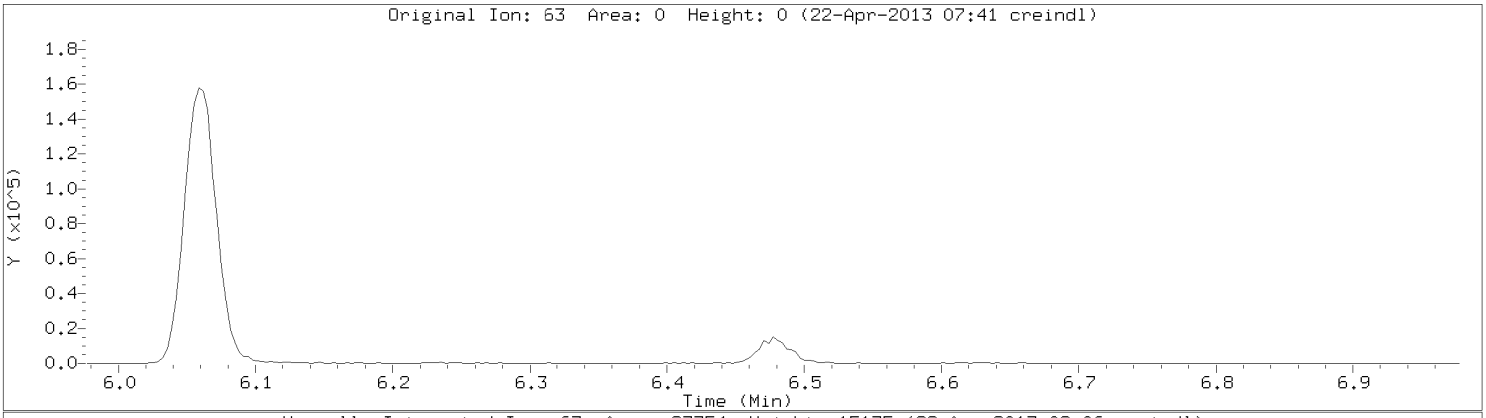


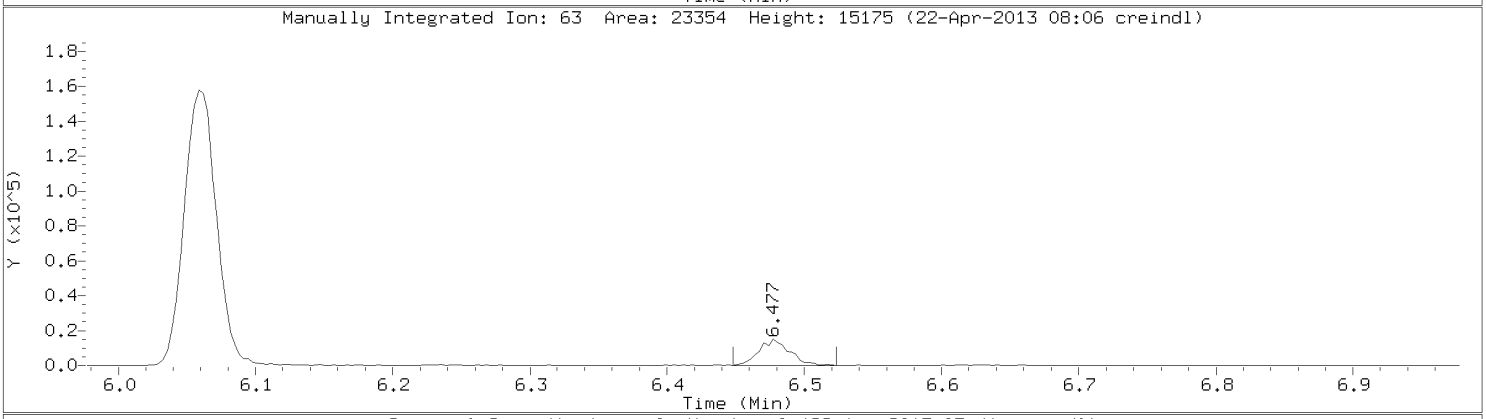
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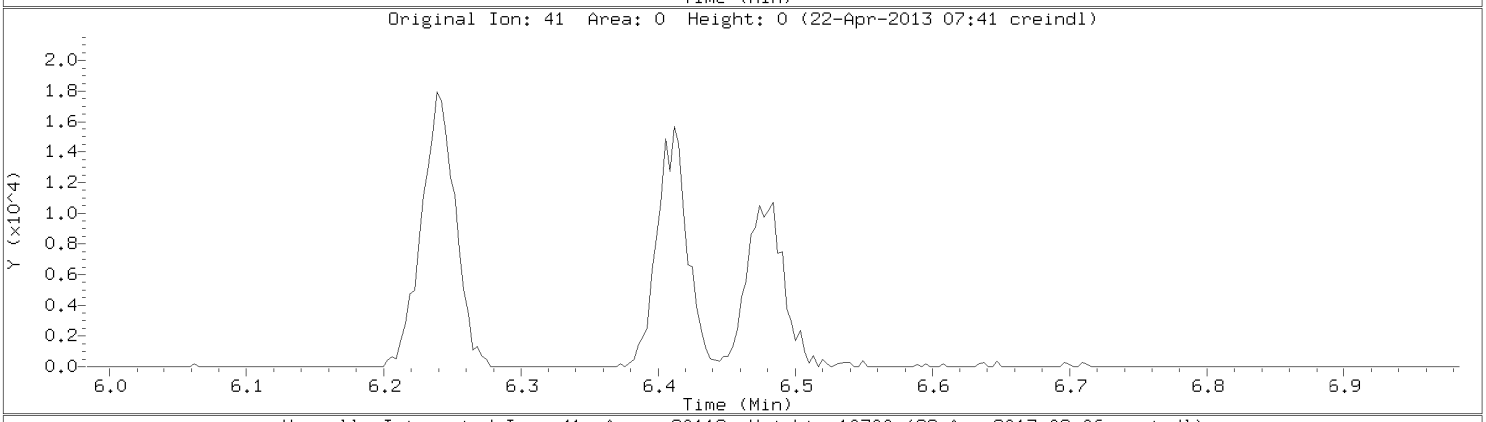


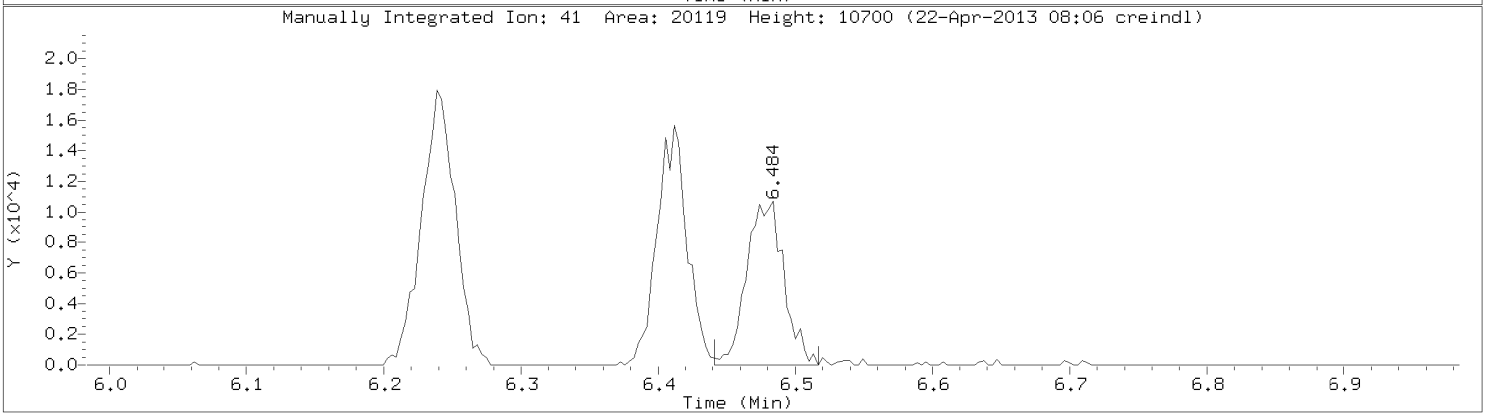
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Injection Date: 21-APR-2013 11:47
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

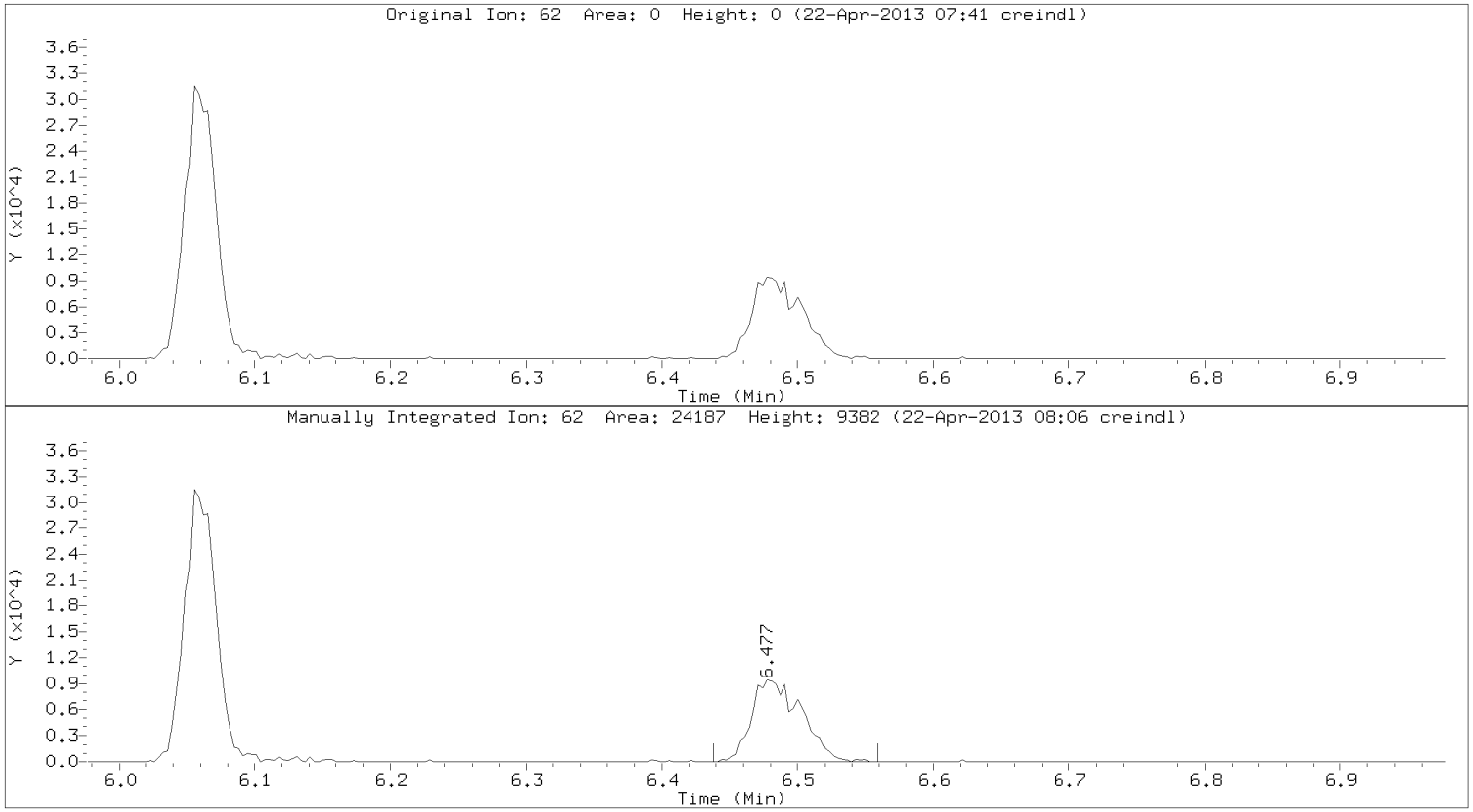






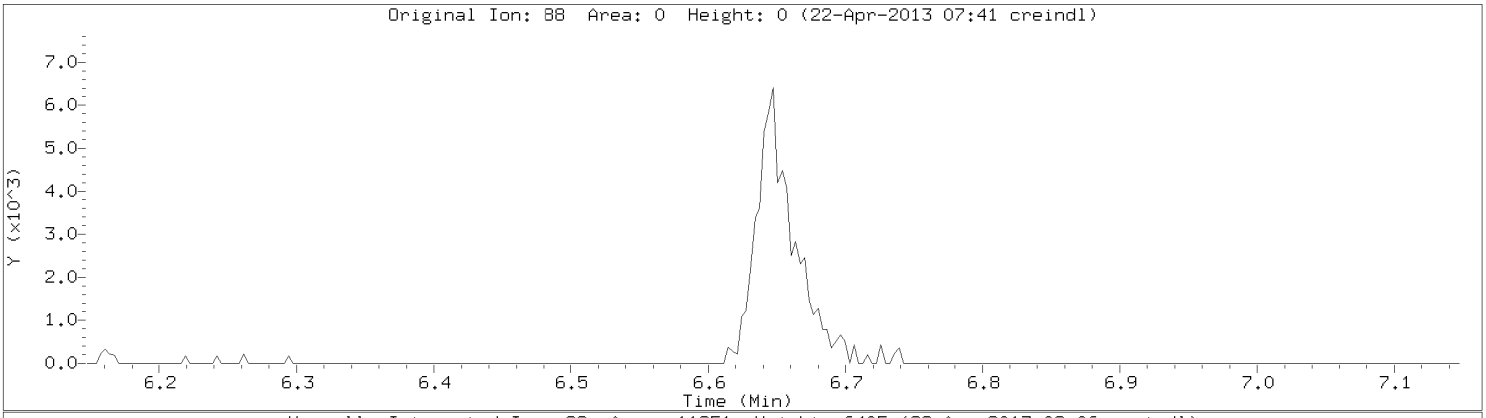


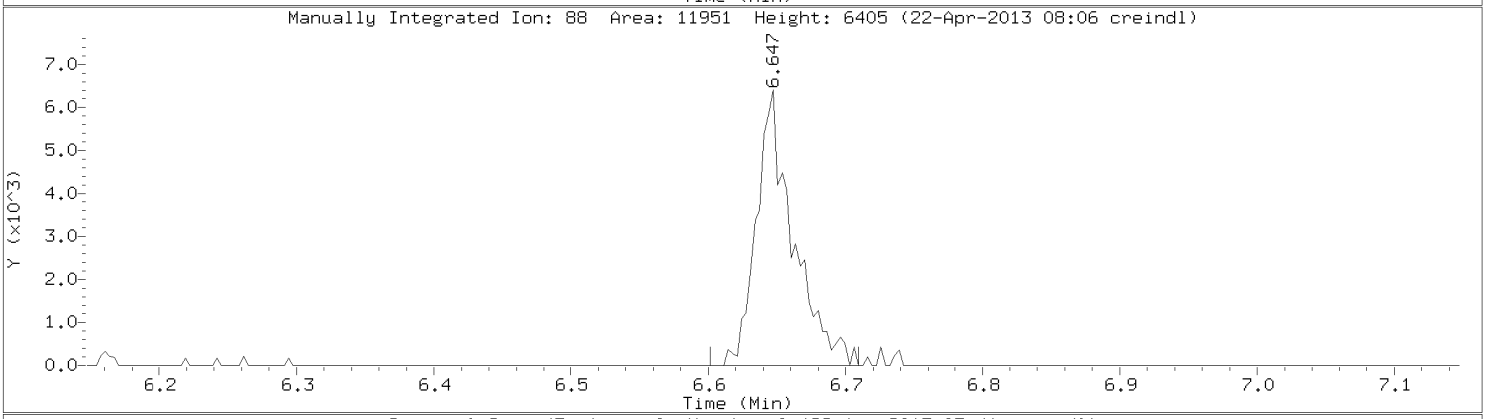
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11108.d
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Instrument: 10airD.i
Lab Sample ID: ICAL4

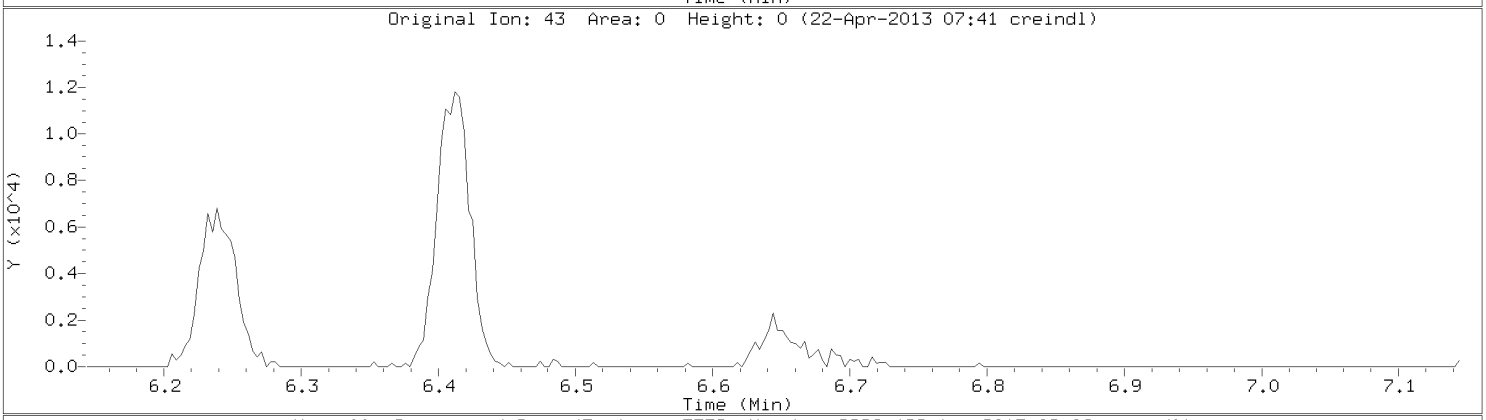


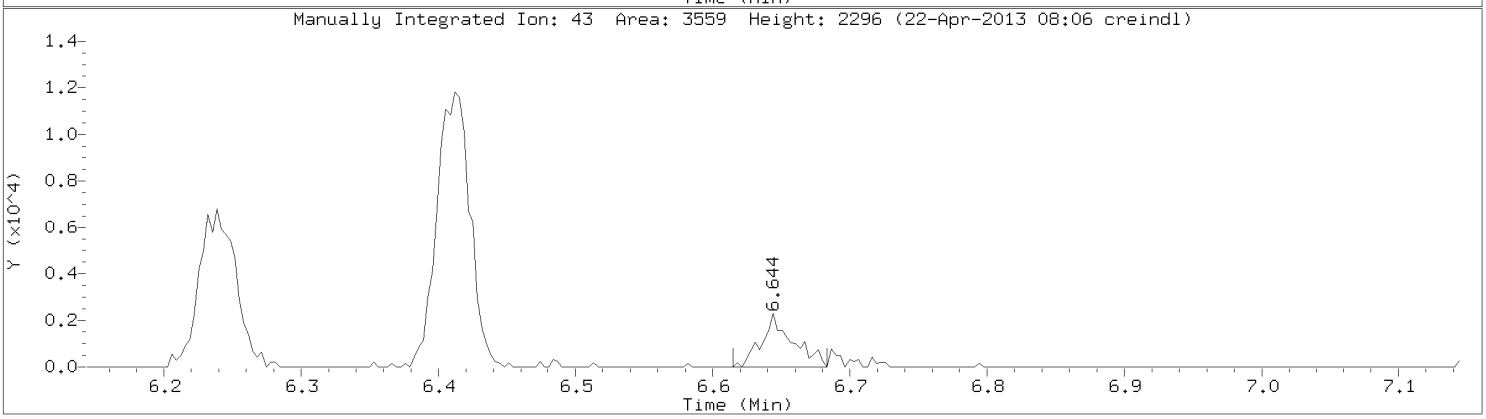
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Injection Date: 21-APR-2013 11:47
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: 1,4-Dioxane
CAS Number: 123-91-1



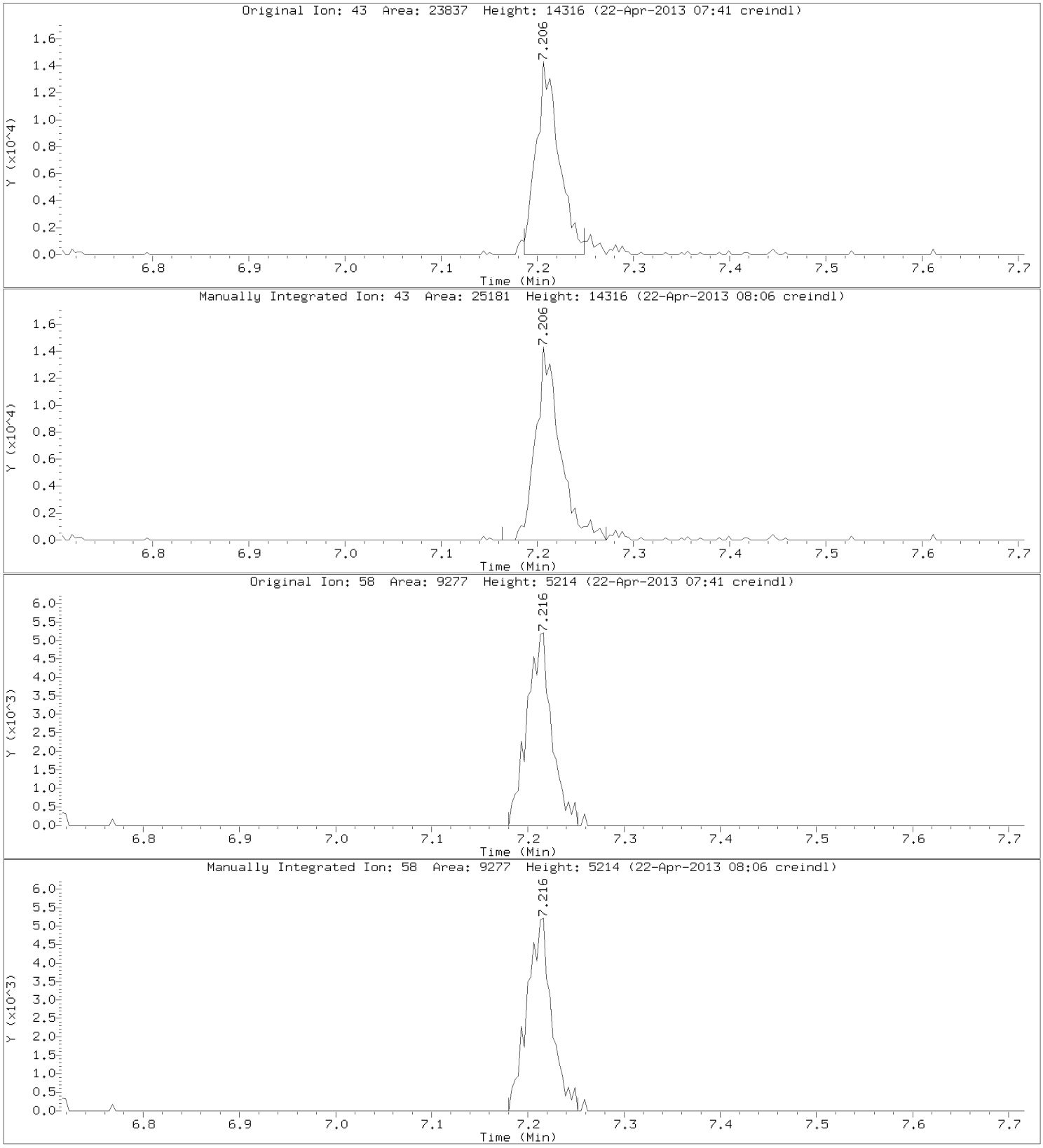




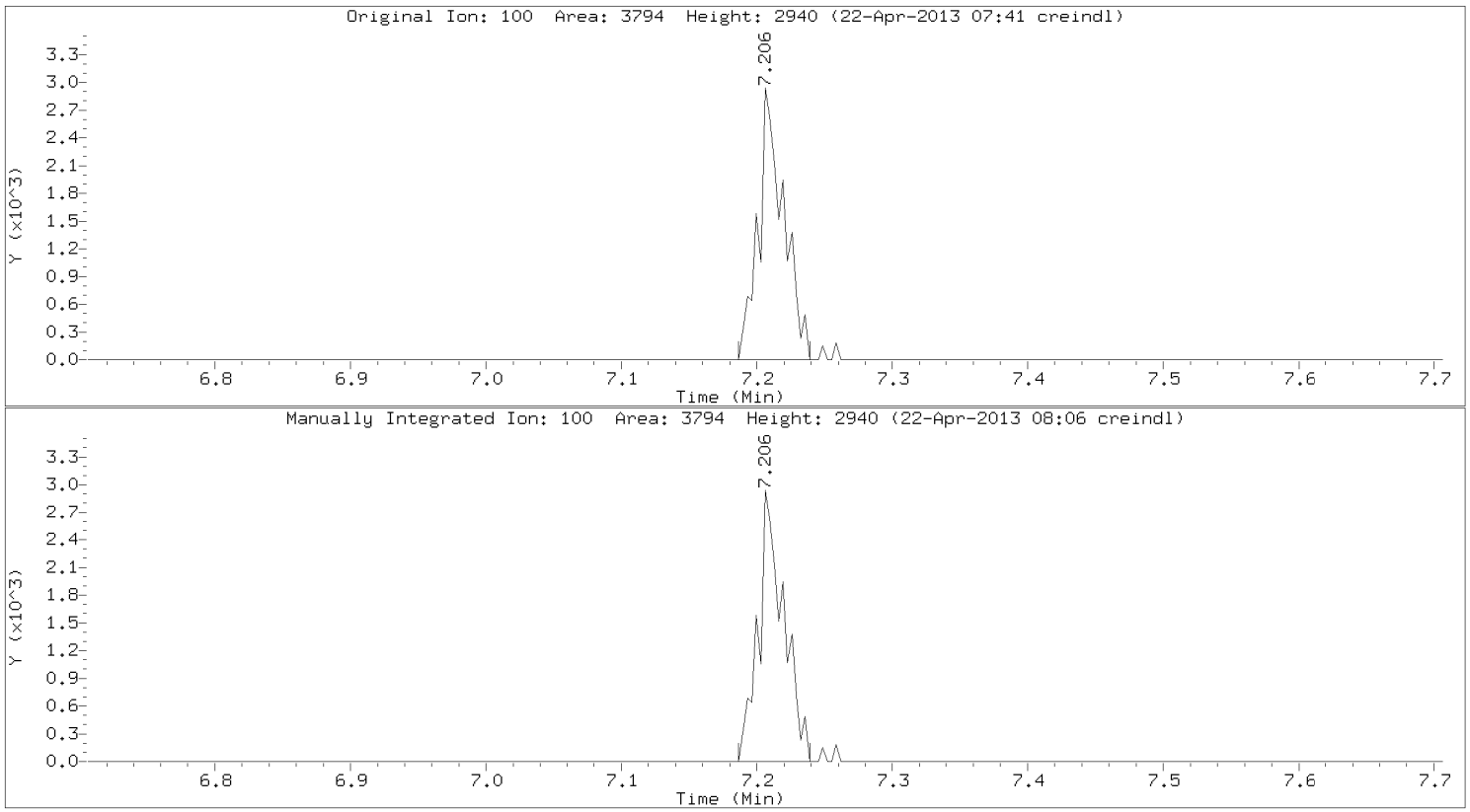


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Injection Date: 21-APR-2013 11:47
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Methyl Isobutyl Ketone
CAS Number: 108-10-1

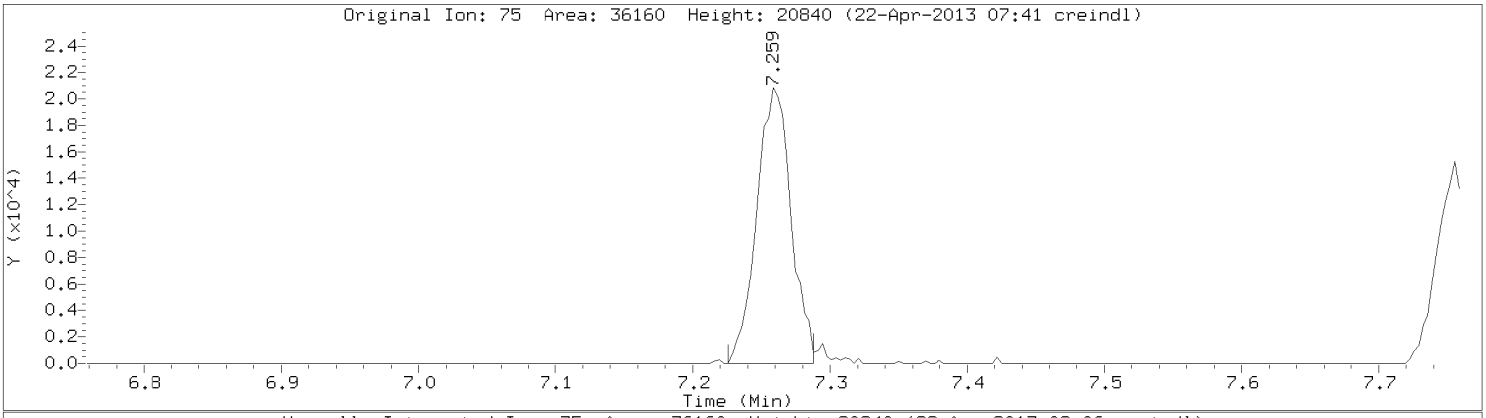


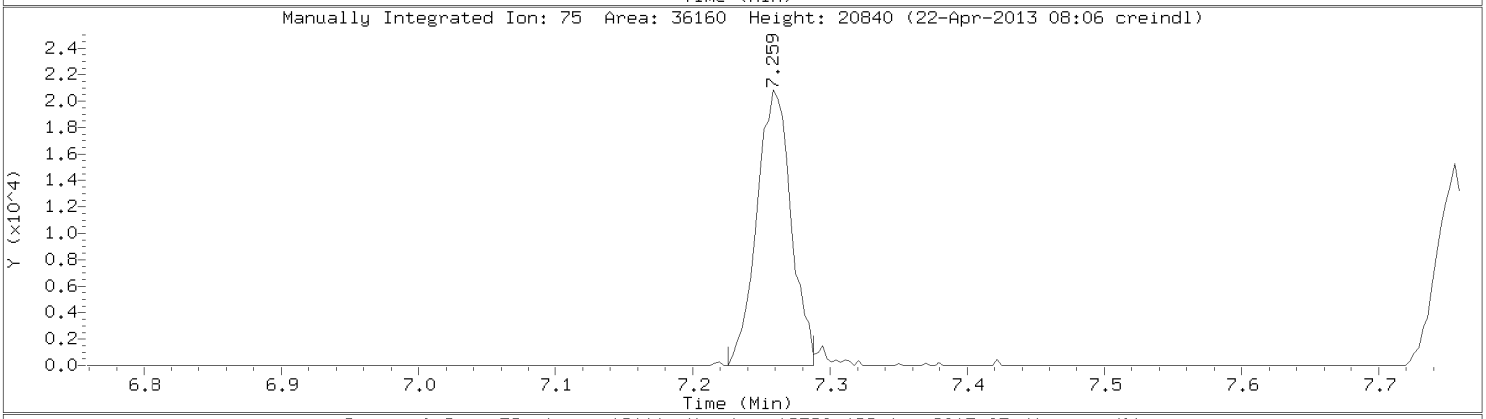
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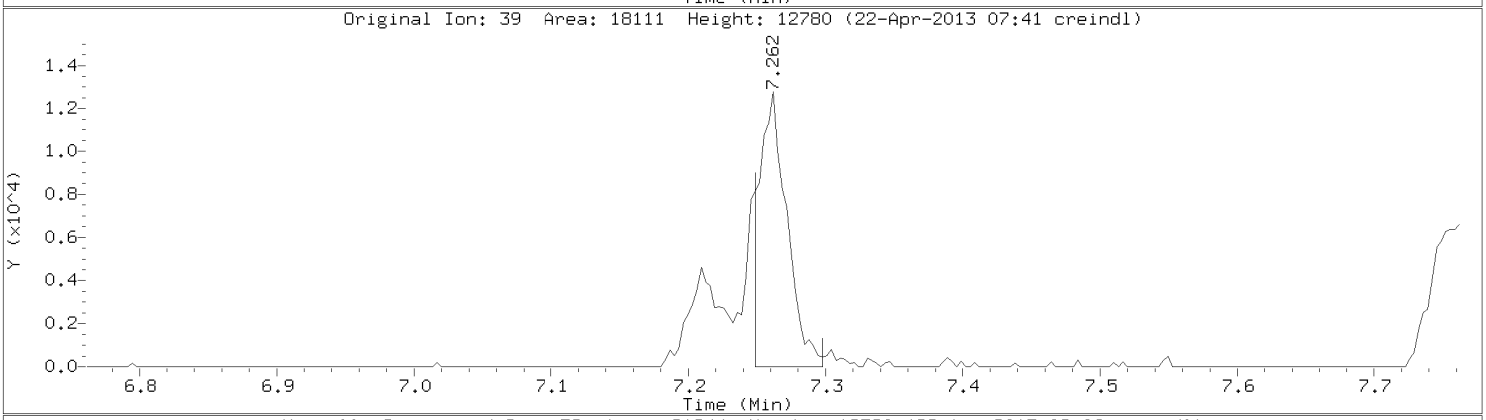


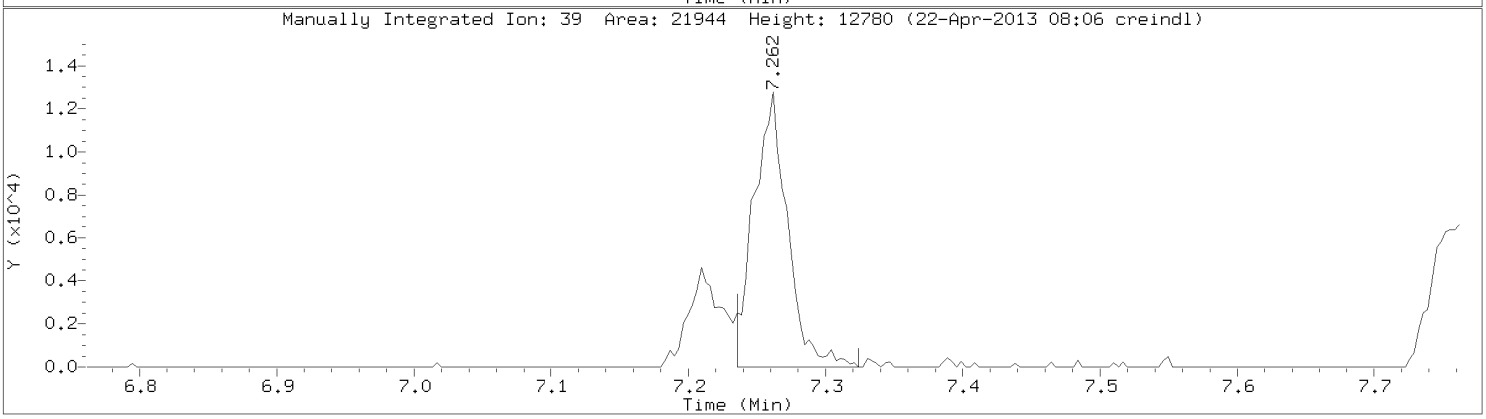
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: cis-1,3-Dichloropropene
CAS Number: 10061-01-5

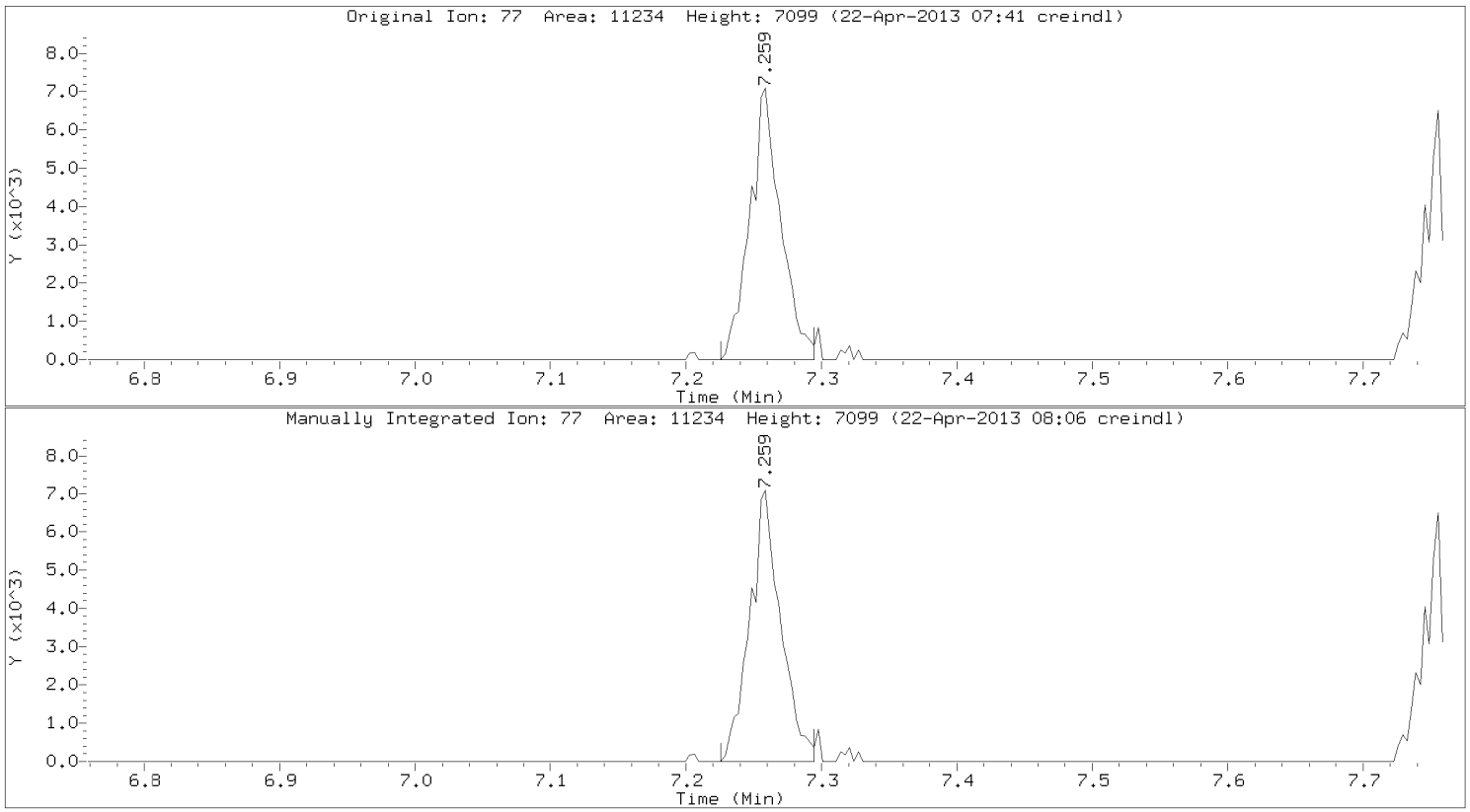






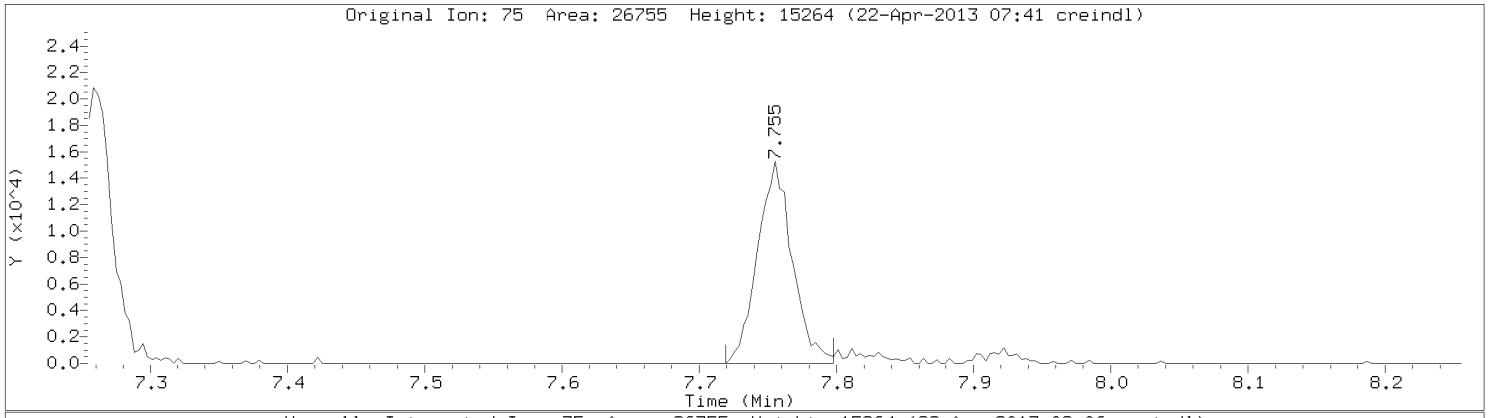


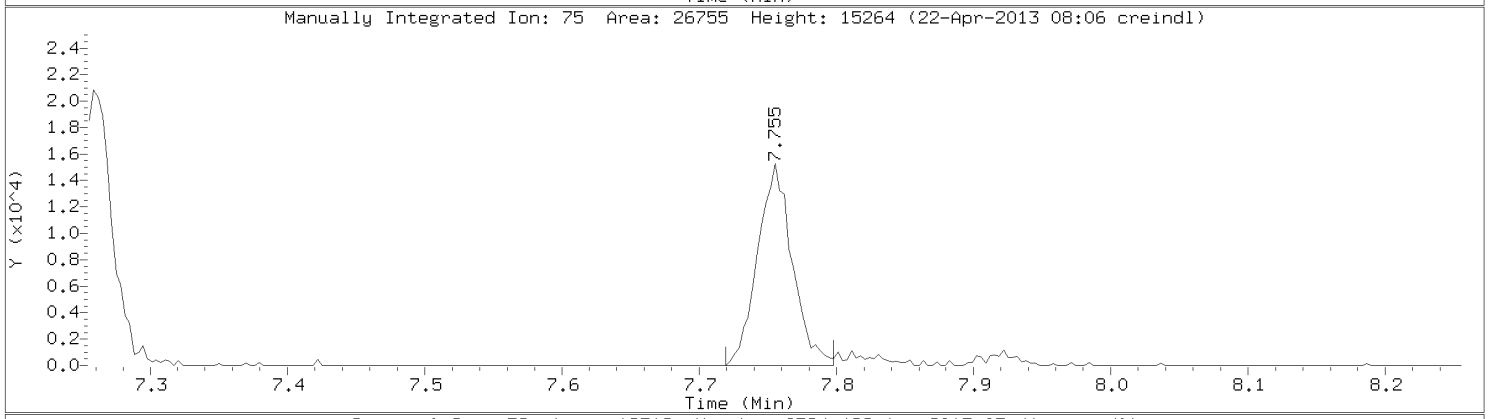
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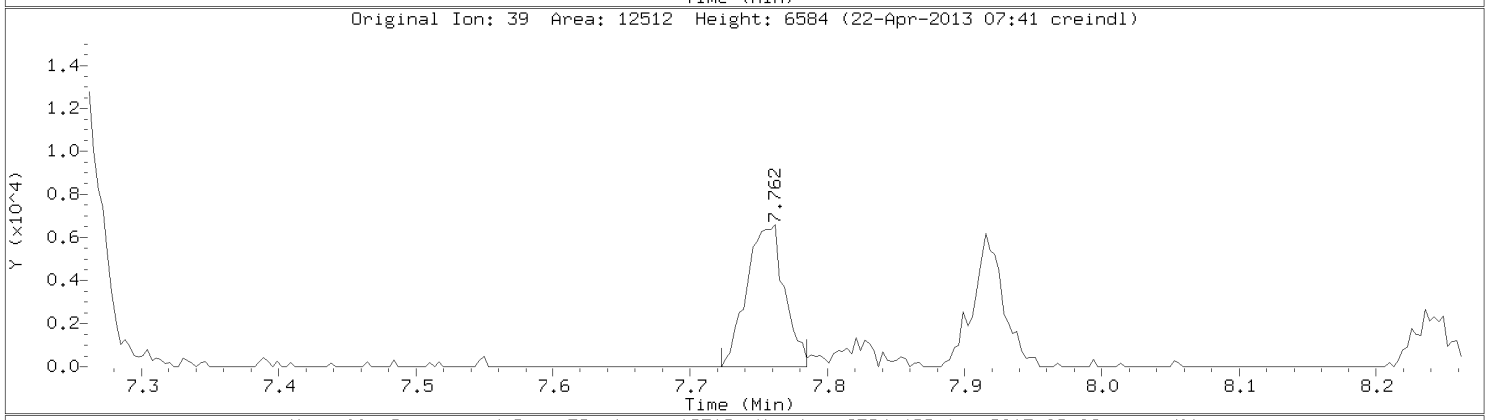


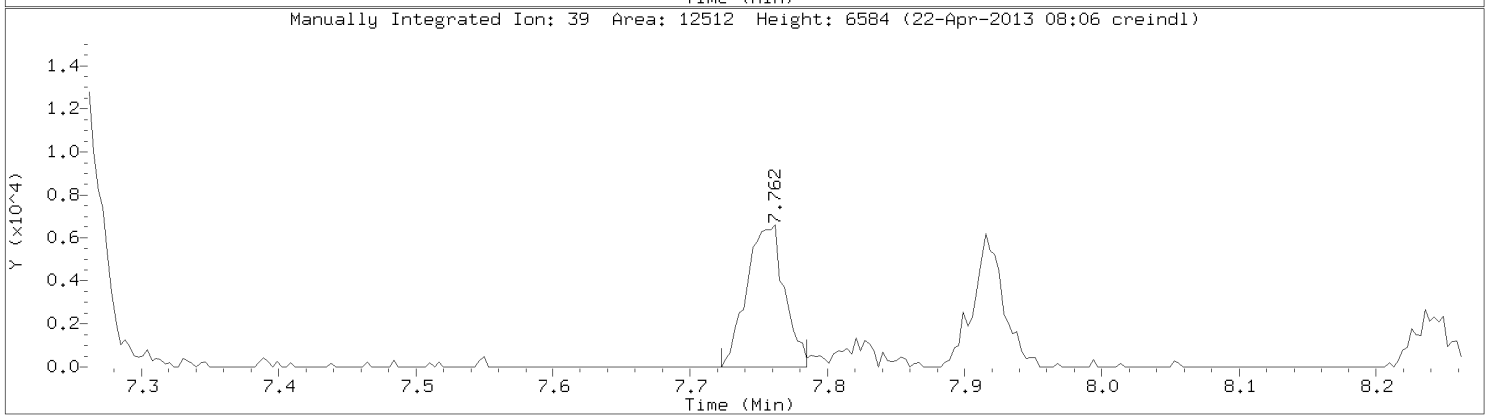
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: trans-1,3-Dichloropropene
CAS Number: 10061-02-6

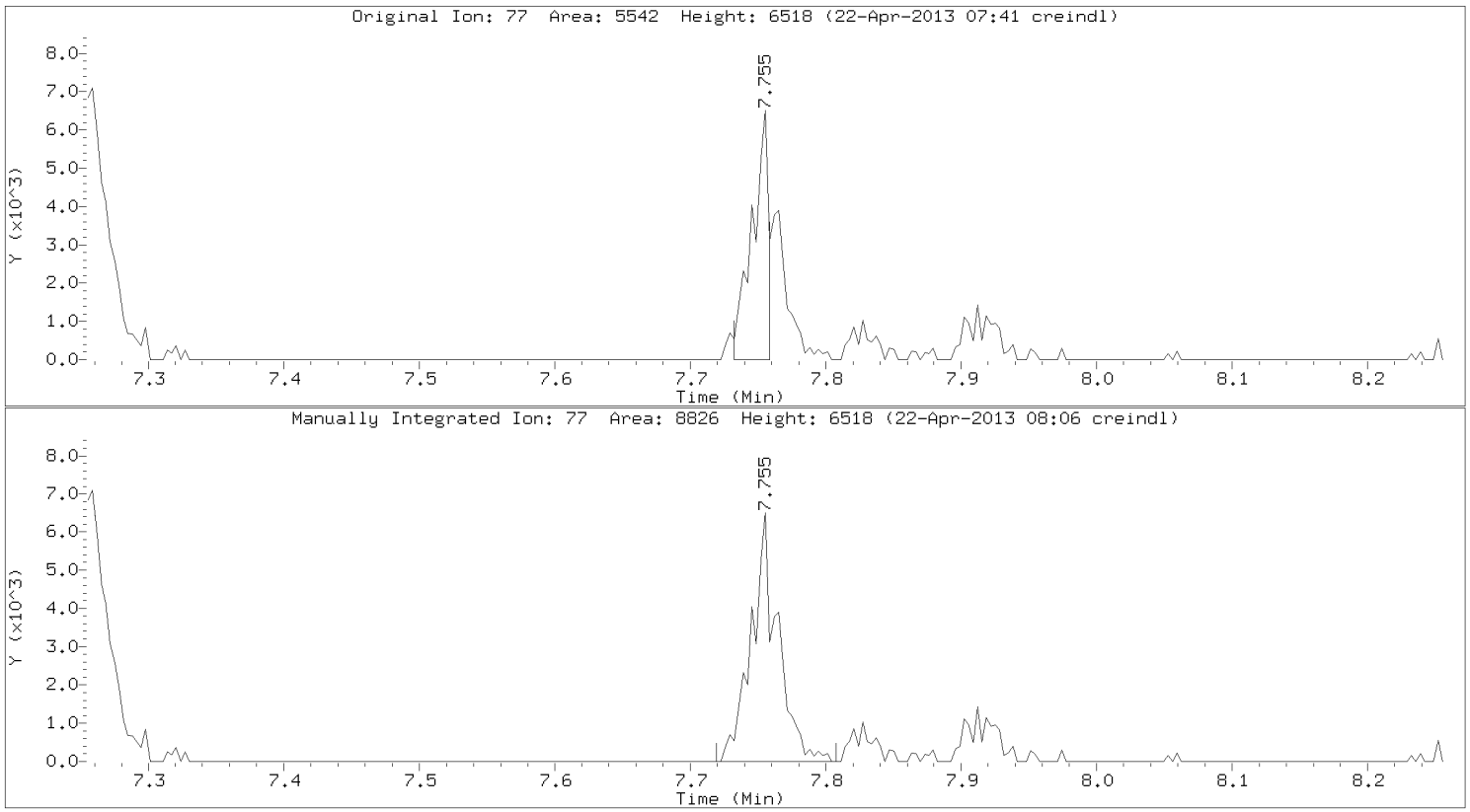






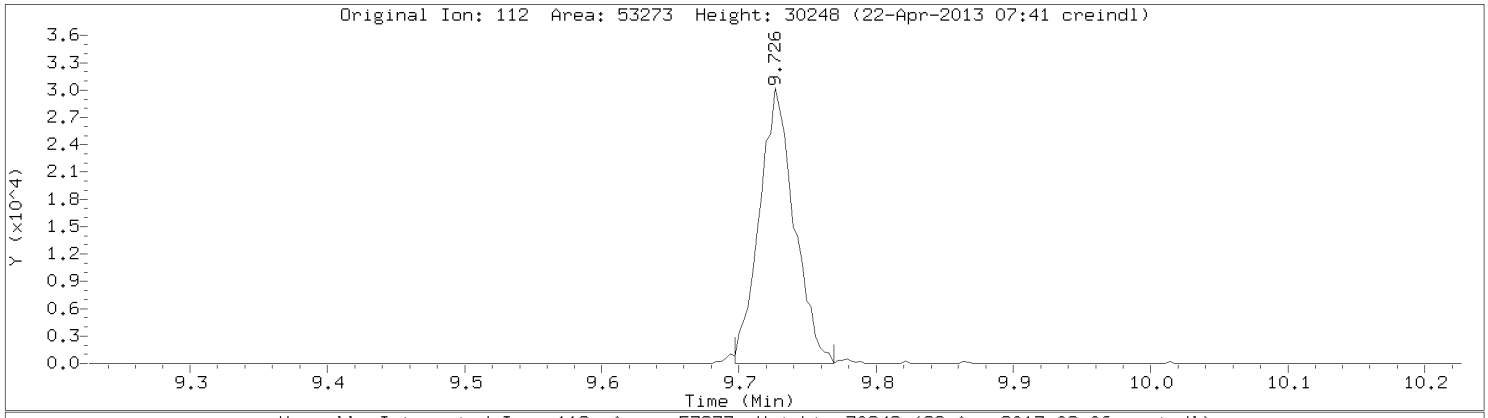


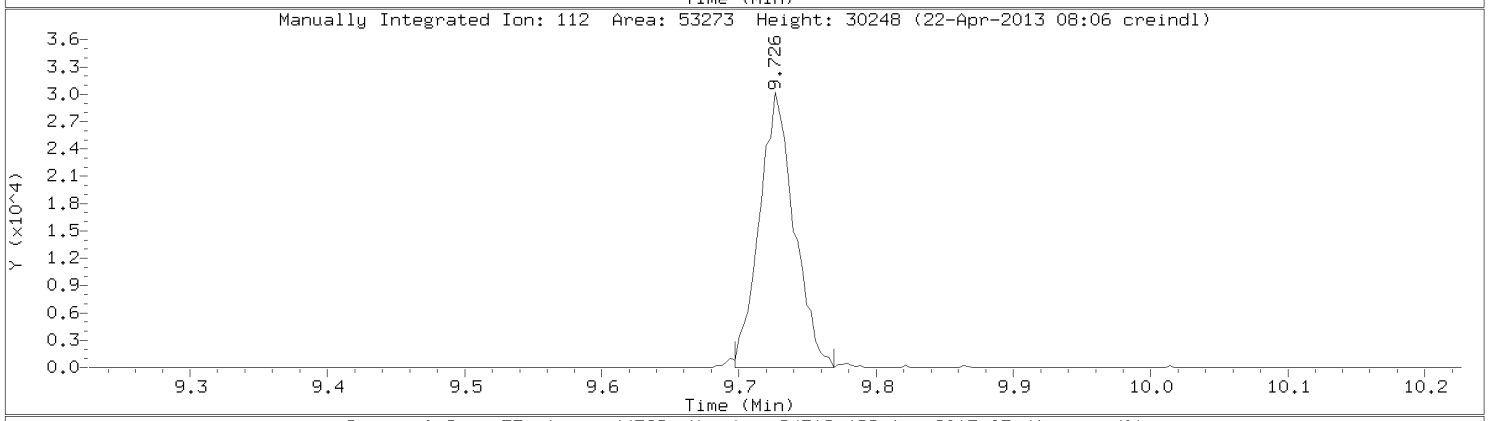
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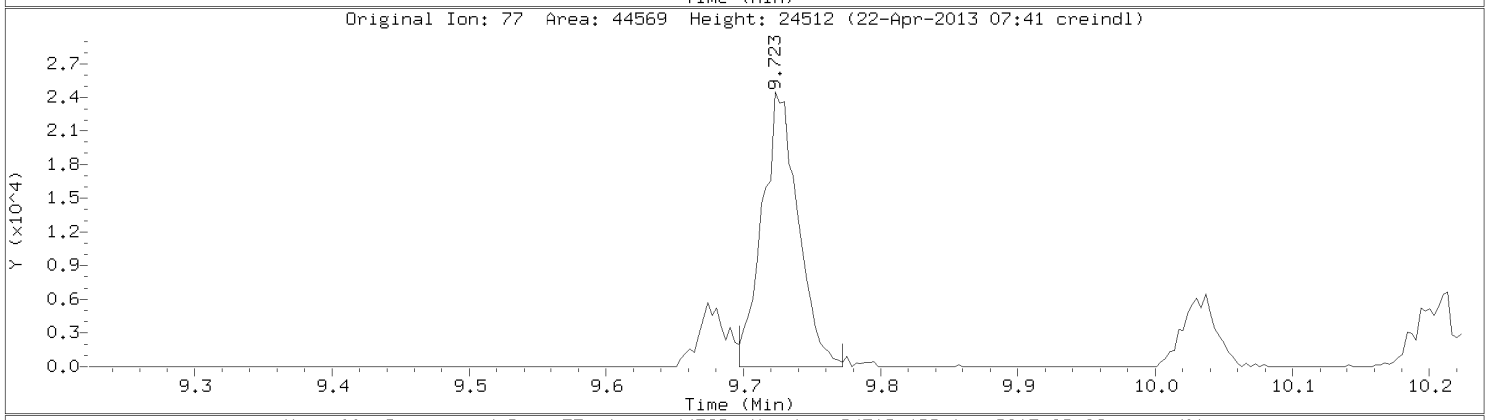


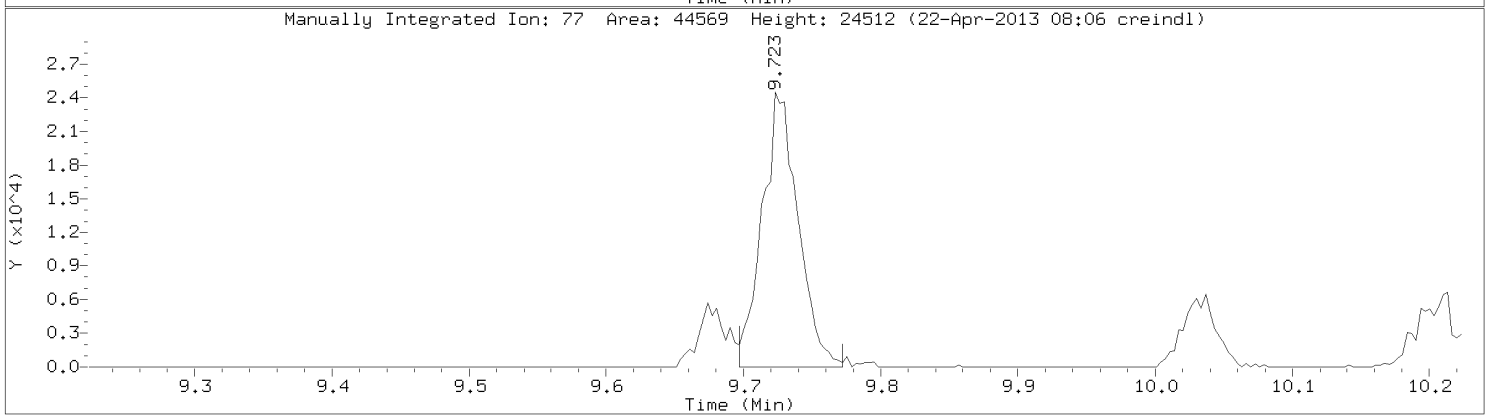
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Chlorobenzene
CAS Number: 108-90-7

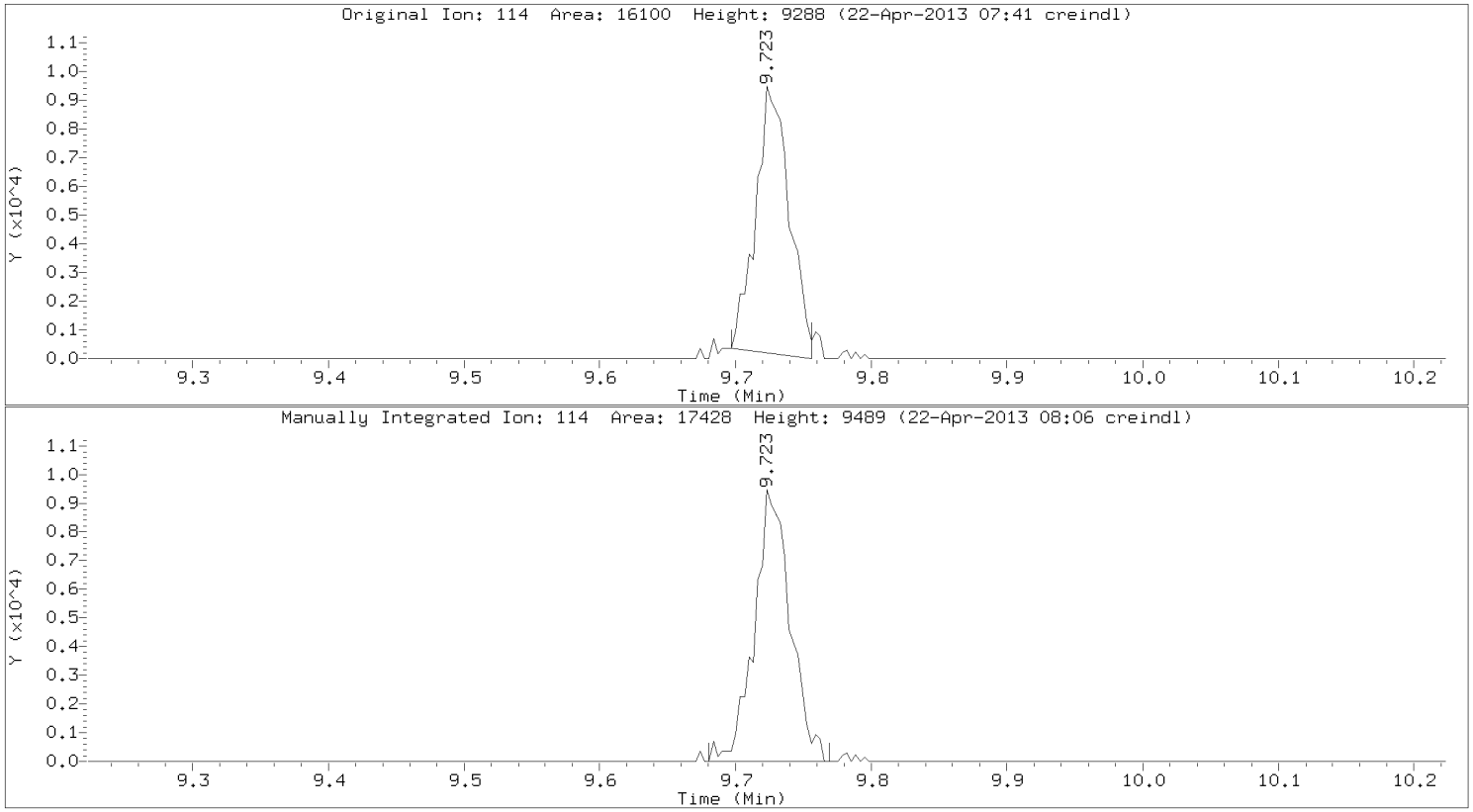






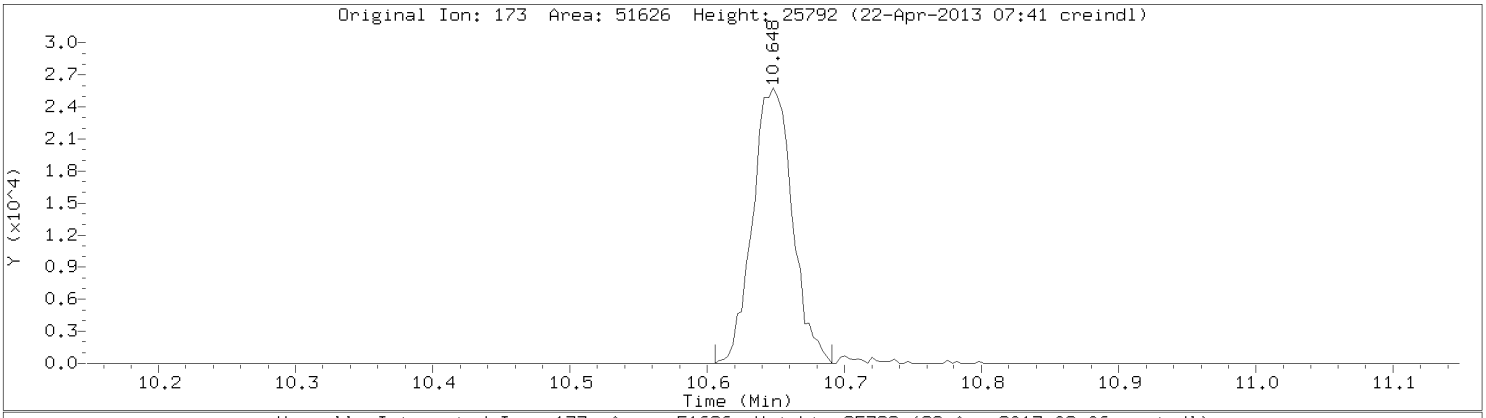


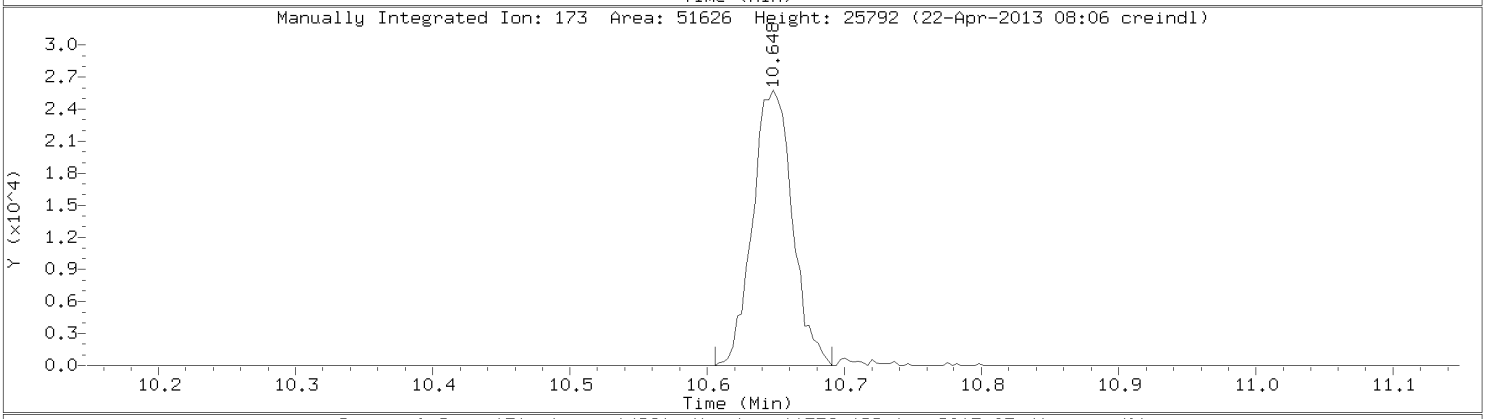
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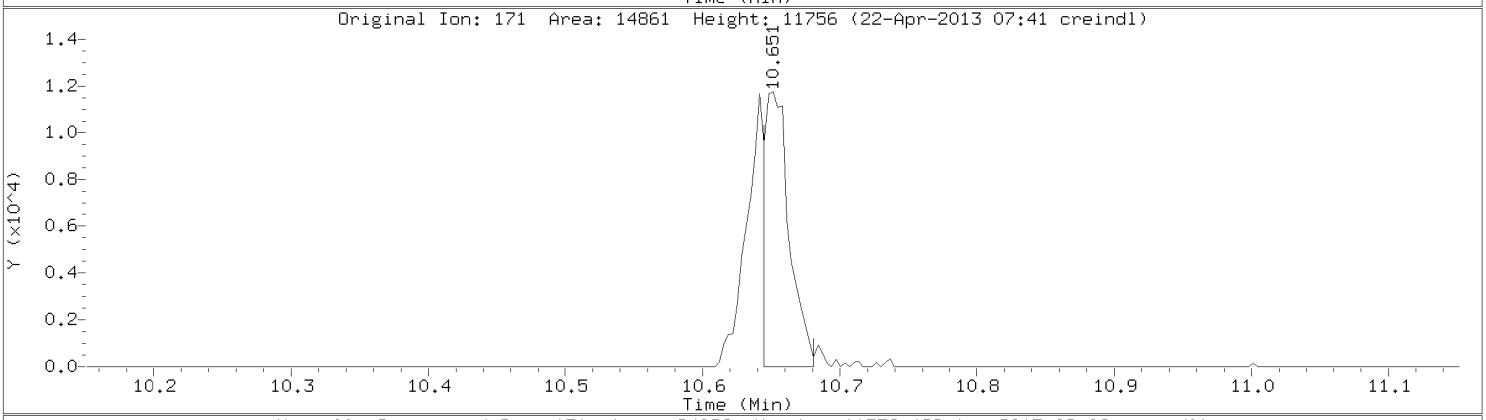


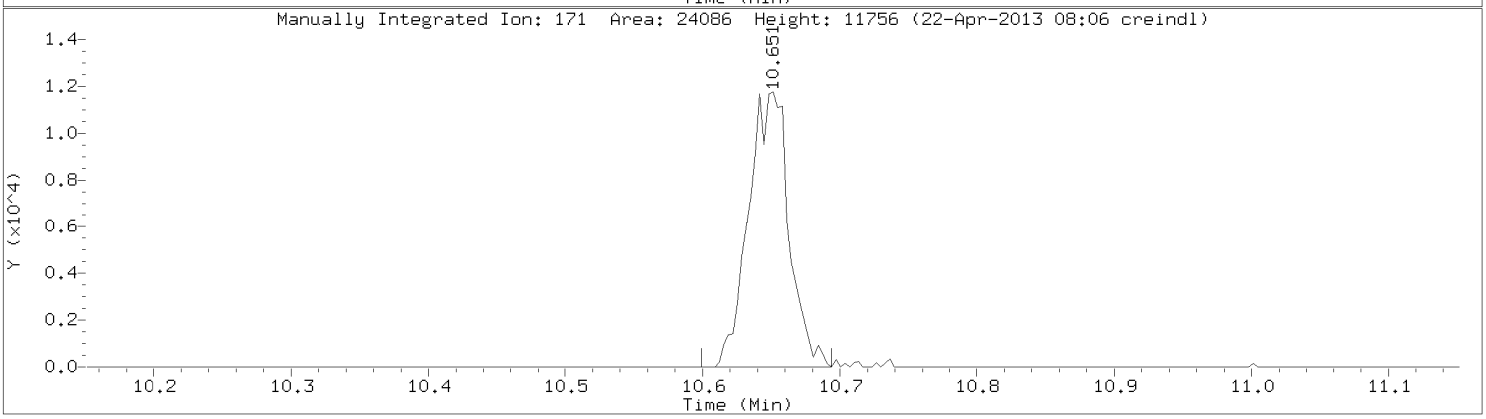
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Bromoform
CAS Number: 75-25-2



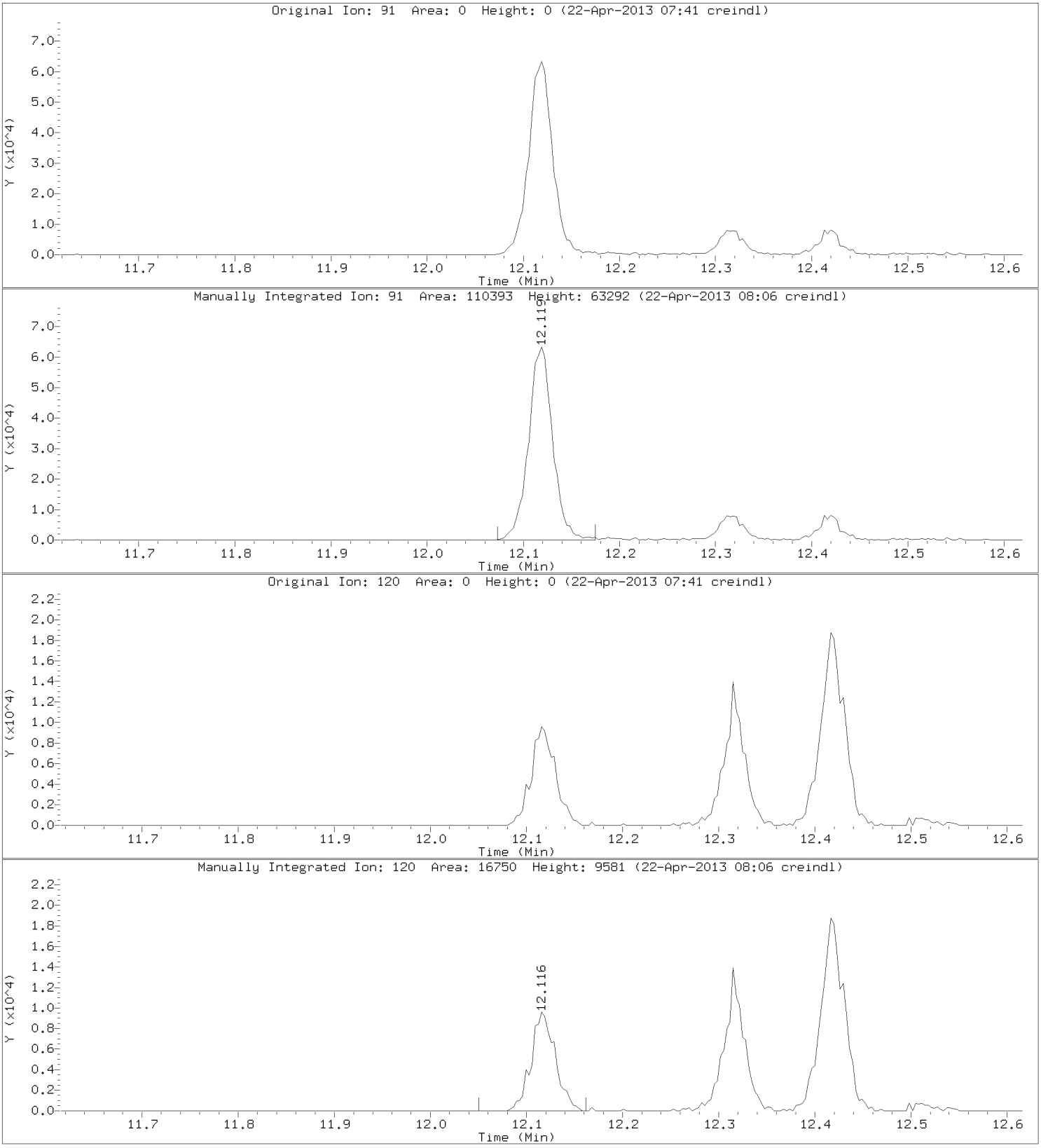






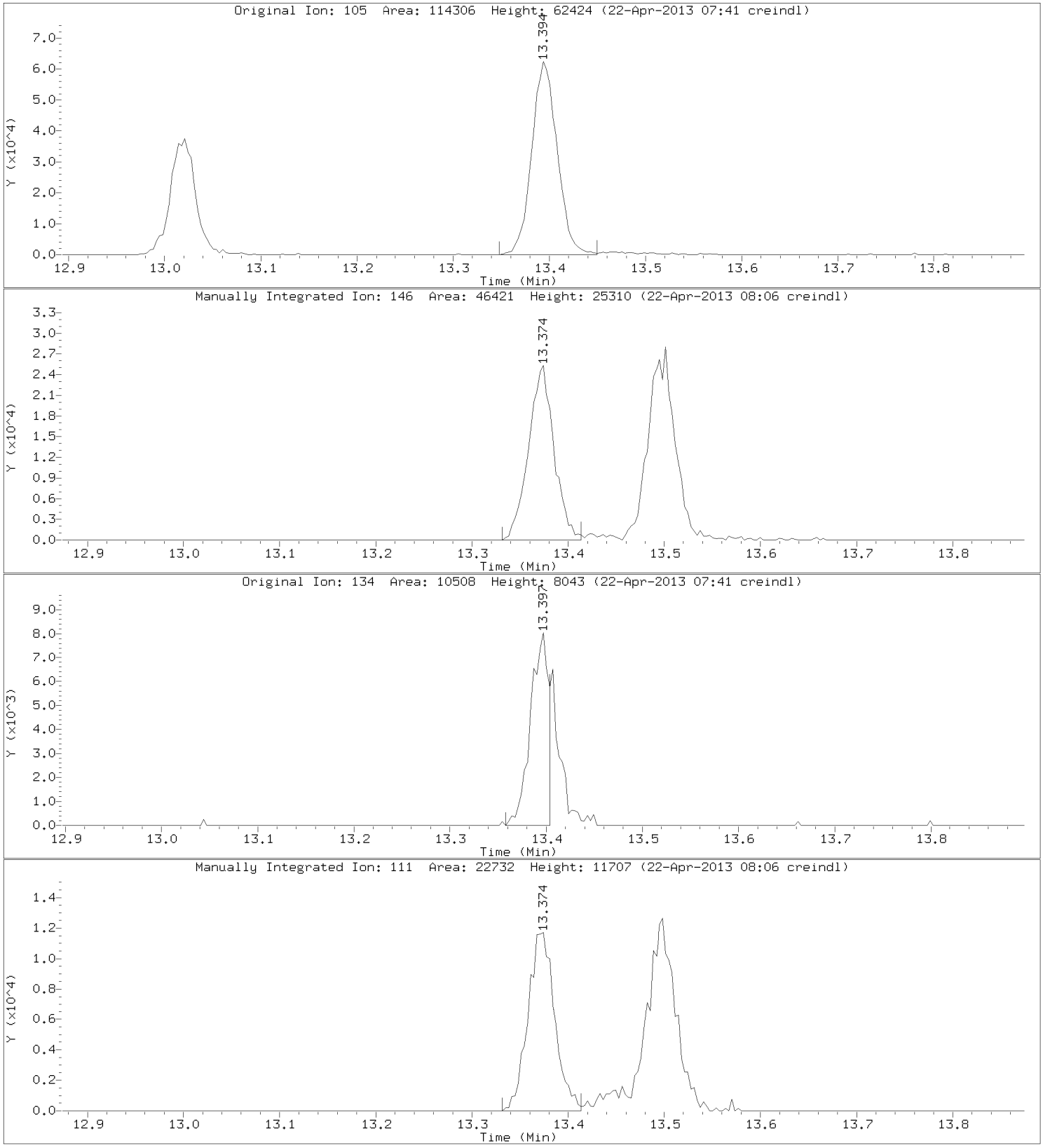
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Injection Date: 21-APR-2013 11:47
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: N-Propylbenzene
CAS Number: 103-65-1

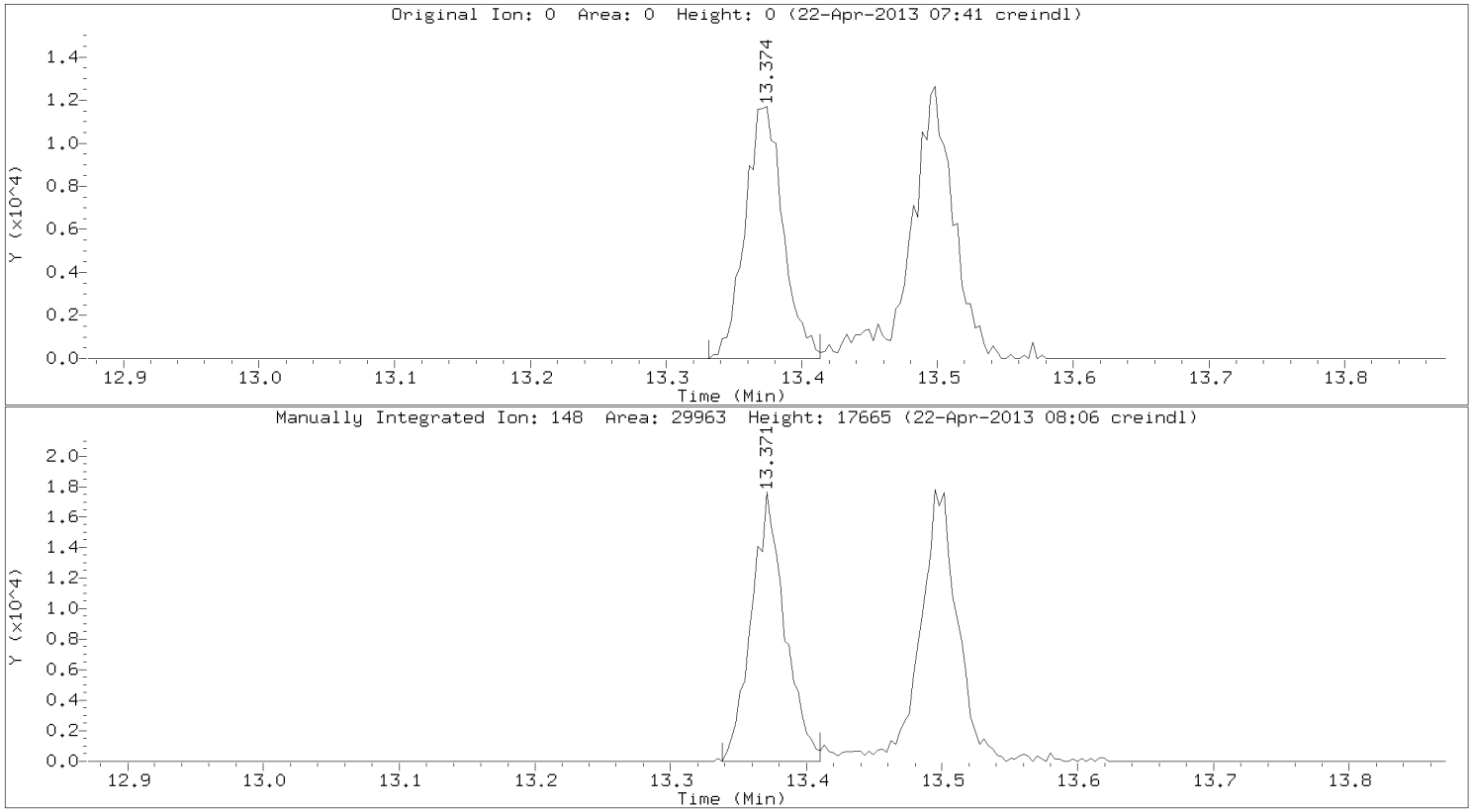


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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: 1,3-Dichlorobenzene
CAS Number: 541-73-1

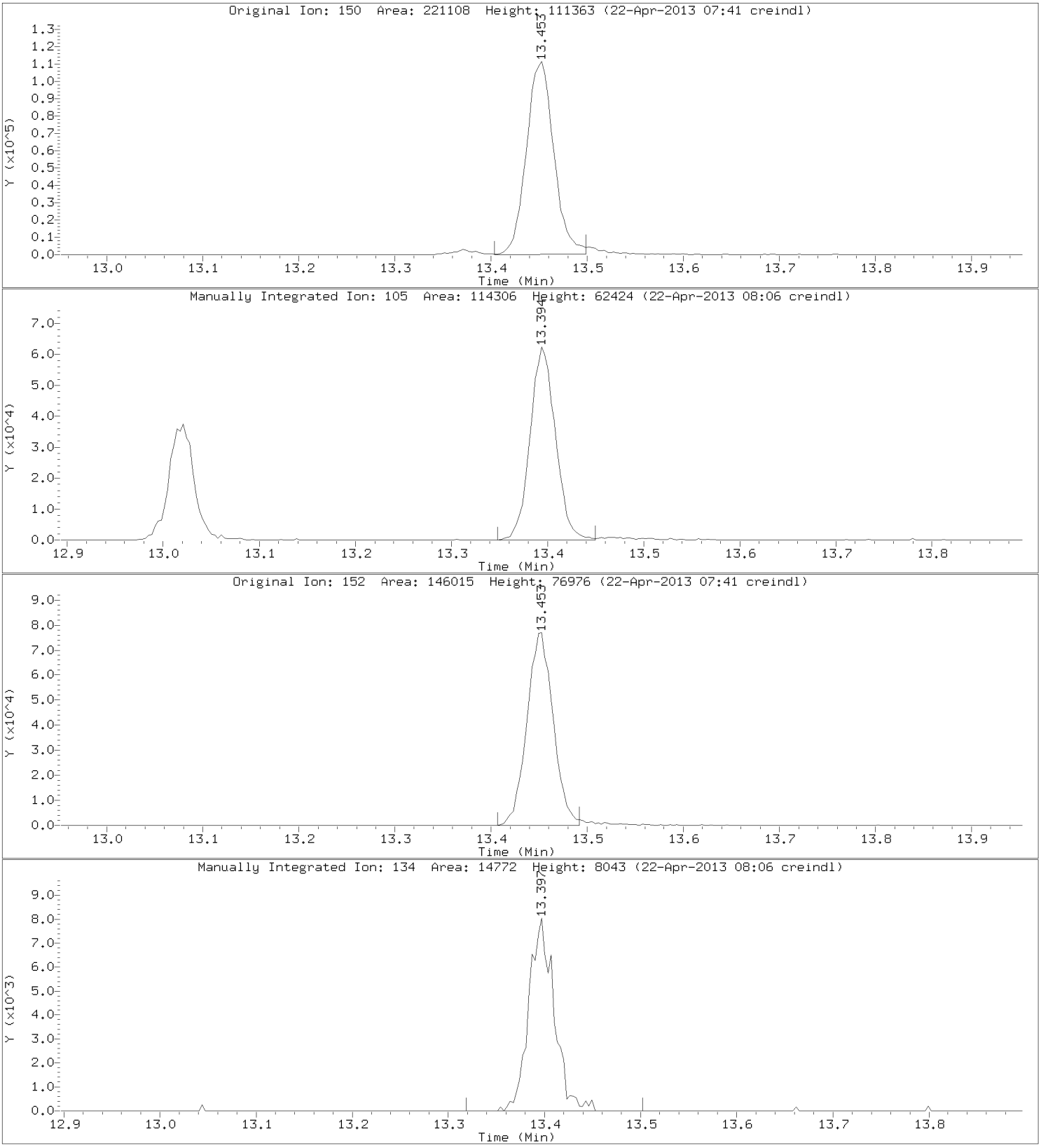


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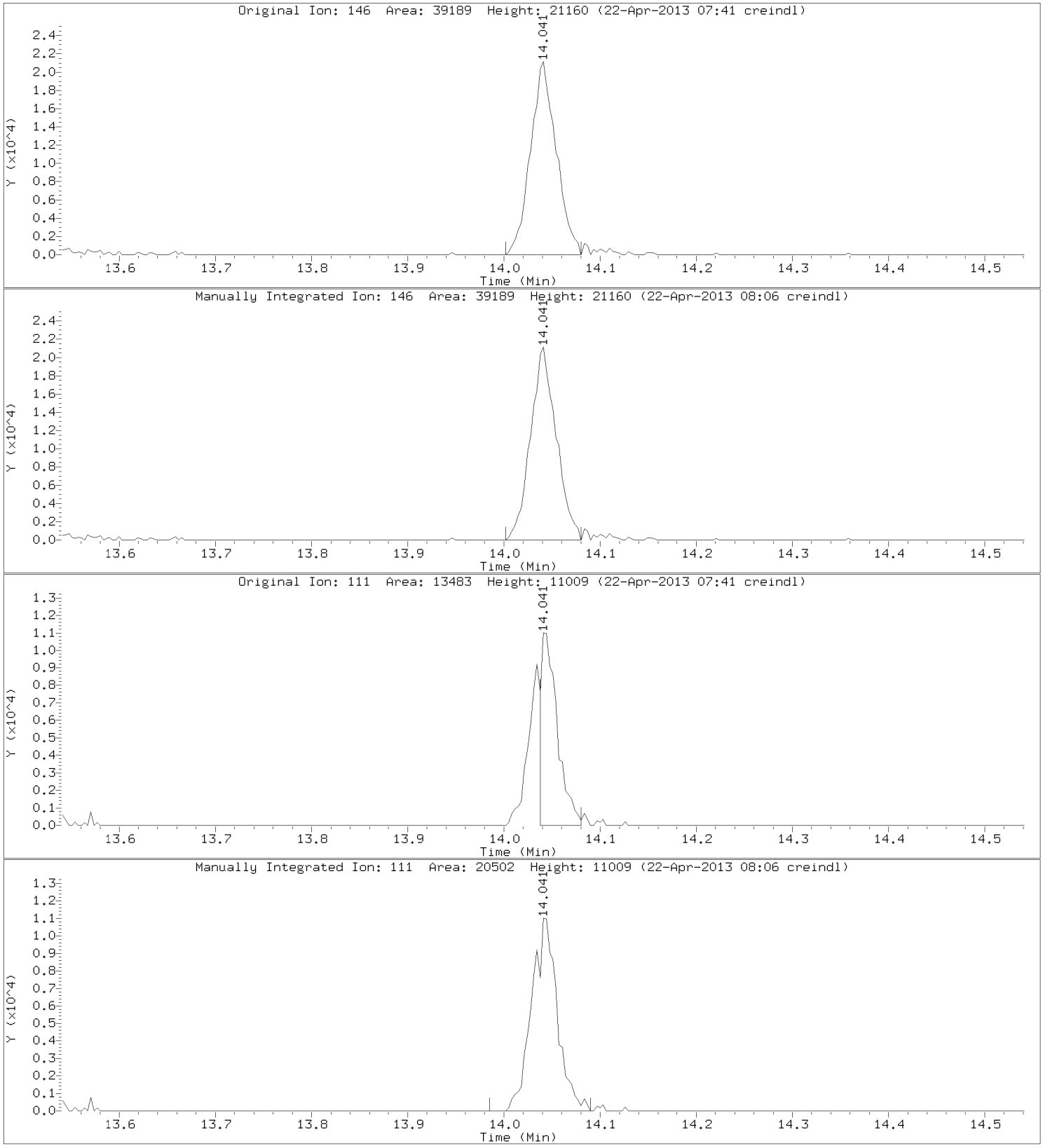
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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Sec- Butylbenzene
CAS Number: 135-98-8

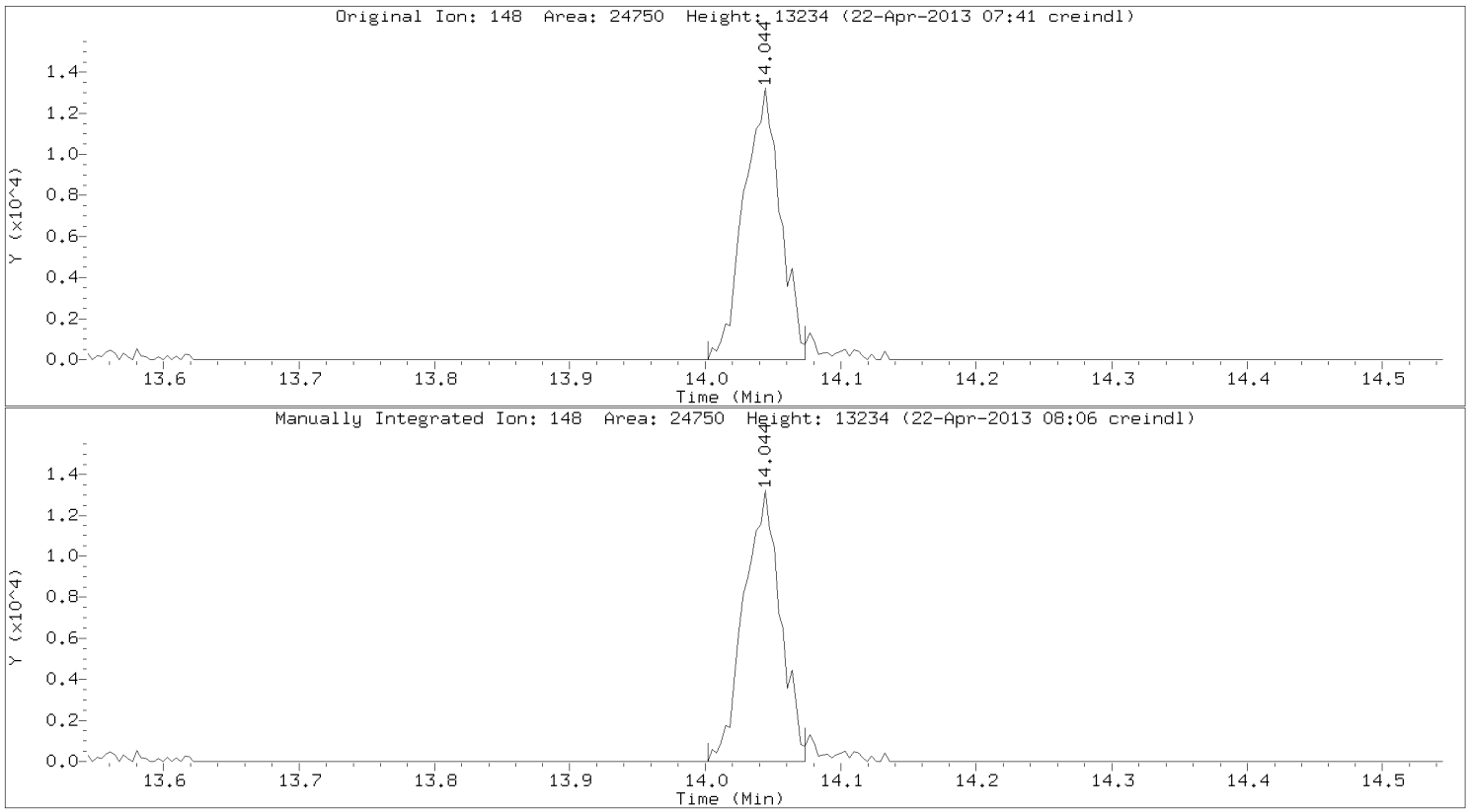


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Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: 1,2-Dichlorobenzene
CAS Number: 95-50-1

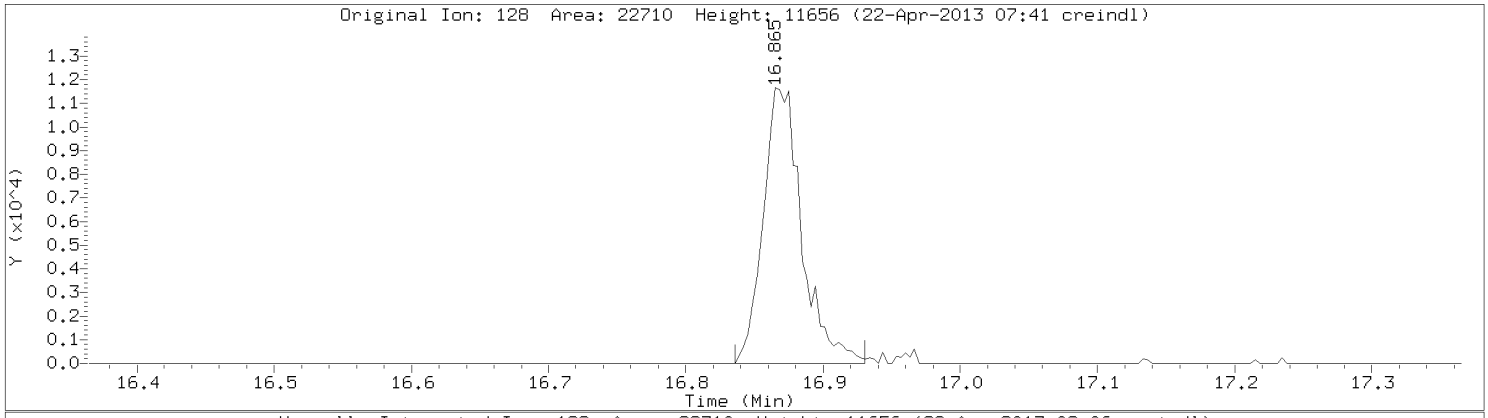


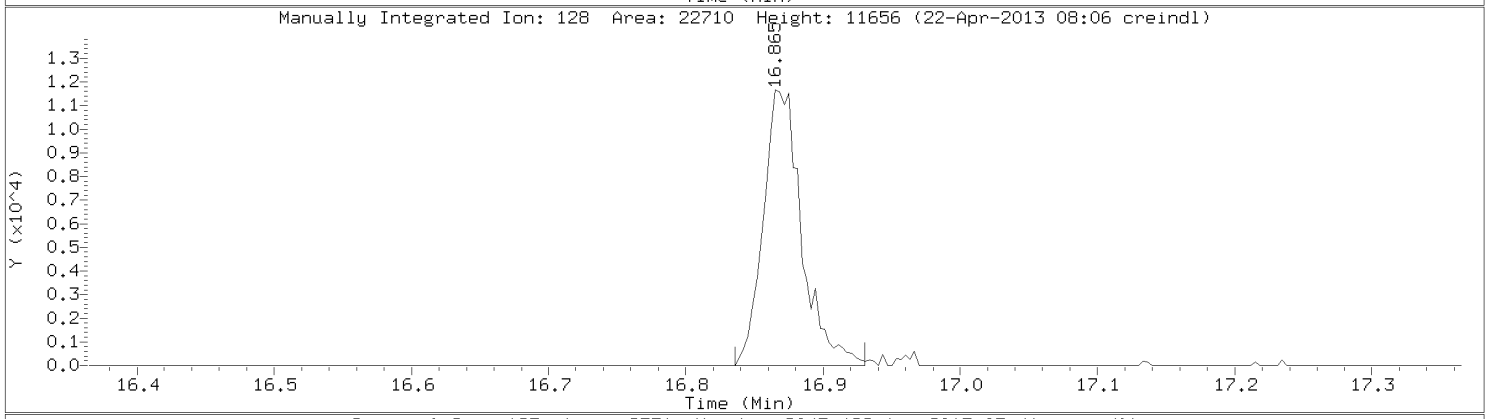
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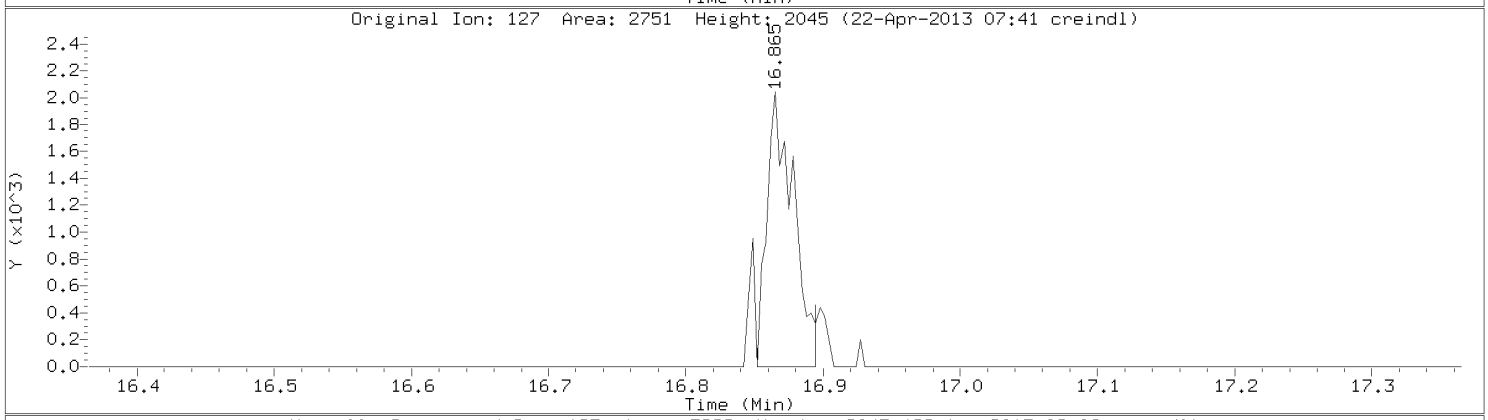


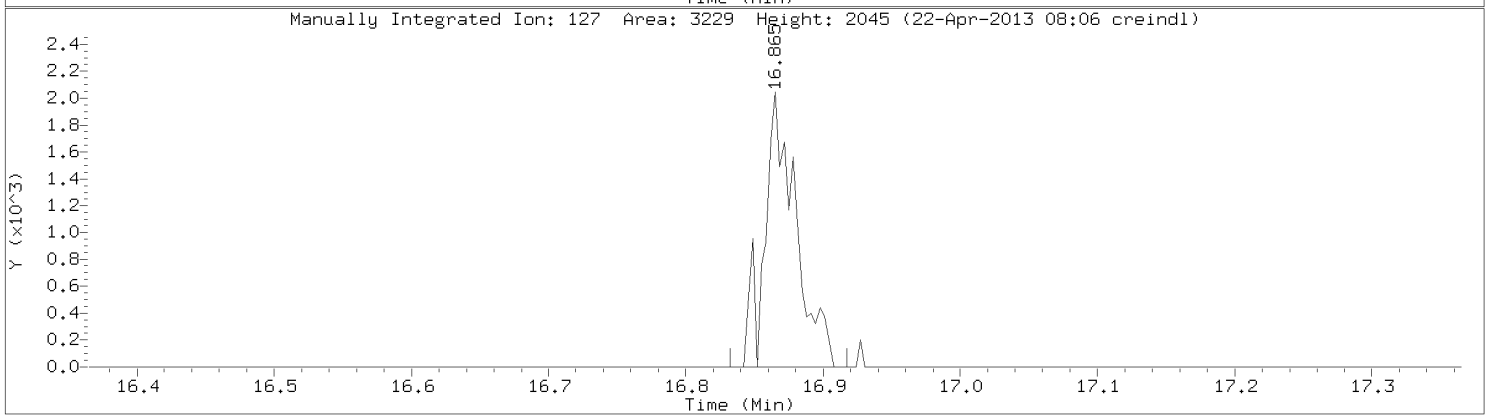
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Injection Date: 21-APR-2013 11:47
Instrument: 10airD.i
Lab Sample ID: ICAL4

Compound: Naphthalene
CAS Number: 91-20-3









Data File: \\192.168.10.12\chem\10airD.i\042113.b\11109.d
Report Date: 22-Apr-2013 08:08

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11109.d
Lab Smp Id: ICAL5
Inj Date : 21-APR-2013 12:16
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 07:41 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 12:16 Cal File: 11109.d
Als bottle: 9 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	146845	10.0000	9.83
2	Dichlorodifluoromethane	85	2.953	2.953	(0.487)	1491639	10.0000	9.96
3	Dichlorotetrafluoroethane	85	3.051	3.051	(0.503)	1124519	10.0000	9.56
4	Chloromethane	50	3.051	3.051	(0.503)	311994	10.0000	9.85
5	Vinyl chloride	62	3.139	3.139	(0.518)	324564	10.0000	9.65
6	1,3-Butadiene	54	3.182	3.182	(0.525)	174176	10.0000	10.3
7	Bromomethane	94	3.339	3.339	(0.551)	359935	10.0000	8.91
8	Chloroethane	64	3.398	3.398	(0.560)	167322	10.0000	9.60(M)
9	Ethanol	31	3.424	3.424	(0.565)	177754	10.0000	11.9
10	Vinyl Bromide	106	3.532	3.532	(0.582)	319133	10.0000	9.62
11	Acrolein	56	3.633	3.633	(0.599)	93634	10.0000	9.82
12	Trichlorofluoromethane	101	3.646	3.646	(0.601)	1286374	10.0000	9.04
13	Acetone	43	3.672	3.672	(0.606)	578505	10.0000	9.70
14	Isopropyl Alcohol	45	3.698	3.698	(0.610)	187068	10.0000	10.4
15	1,1-Dichloroethene	61	3.930	3.930	(0.648)	651189	10.0000	9.46
16	Acrylonitrile	53	3.934	3.934	(0.649)	196118	10.0000	9.36
17	Tert Butyl Alcohol	59	3.937	3.937	(0.649)	156773	10.0000	9.22(M)
18	Freon 113	101	3.986	3.986	(0.657)	831244	10.0000	9.11
19	Methylene chloride	49	4.045	4.045	(0.667)	369094	10.0000	9.18
20	Allyl Chloride	76	4.055	4.055	(0.669)	174405	10.0000	9.44
21	Carbon Disulfide	76	4.179	4.179	(0.689)	1163746	10.0000	11.5(H)
22	trans-1,2-dichloroethene	96	4.378	4.378	(0.722)	366829	10.0000	9.33
23	Methyl Tert Butyl Ether	73	4.414	4.414	(0.728)	815712	10.0000	10.0(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11109.d
Report Date: 22-Apr-2013 08:08

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ppbv)	ON-COL (ppbv)
	24	Vinyl Acetate	43	4.535	4.535	(0.748)	744992	10.0000	10.8
	25	1,1-Dichloroethane	63	4.538	4.538	(0.748)	758532	10.0000	9.57
$	26	Hexane-d14(S)	66	4.656	4.656	(0.768)	524663	10.0000	9.14
	27	Methyl Ethyl Ketone	72	4.734	4.734	(0.781)	190017	10.0000	10.5(M)
	28	n-Hexane	57	4.777	4.777	(0.788)	450471	10.0000	9.10(M)
	29	cis-1,2-Dichloroethene	96	4.937	4.937	(0.814)	405064	10.0000	9.43
	30	Ethyl Acetate	43	4.957	4.957	(0.817)	624937	10.0000	11.6
	31	Chloroform	83	5.078	5.078	(0.837)	1106353	10.0000	10.2
	32	Tetrahydrofuran	42	5.274	5.274	(0.870)	253938	10.0000	9.74
	33	1,1,1-Trichloroethane	97	5.565	5.565	(0.918)	1106772	10.0000	10.3
	34	1,2-Dichloroethane	62	5.584	5.584	(0.921)	866021	10.0000	10.7
	35	Benzene	78	5.852	5.852	(0.965)	1162686	10.0000	11.6
	36	Carbon tetrachloride	117	5.875	5.875	(0.969)	1111772	10.0000	10.0
	37	Cyclohexane	56	5.878	5.878	(0.969)	442872	10.0000	9.19
*	38	1,4-Difluorobenzene	114	6.065	6.065	(1.000)	1201629	10.0000	
	39	2,2,4-Trimethylpentane	57	6.241	6.241	(1.029)	1316779	10.0000	9.26
	40	Heptane	43	6.411	6.411	(1.057)	416023	10.0000	9.15
	41	1,2-Dichloropropane	63	6.483	6.483	(1.069)	390611	10.0000	11.9(M)
	42	Trichloroethene	130	6.506	6.506	(1.073)	375734	10.0000	11.2
	43	1,4-Dioxane	88	6.624	6.624	(1.092)	208814	10.0000	10.0(M)
	44	Bromodichloromethane	83	6.627	6.627	(1.093)	1235530	10.0000	10.8
	45	Methyl Isobutyl Ketone	43	7.206	7.206	(1.188)	475107	10.0000	11.8
	46	cis-1,3-Dichloropropene	75	7.261	7.261	(1.197)	687971	10.0000	9.42
	47	trans-1,3-Dichloropropene	75	7.758	7.758	(1.279)	710141	10.0000	9.01
$	48	Toluene-d8 (S)	98	7.830	7.830	(1.291)	1130038	10.0000	10.4
	49	Toluene	91	7.921	7.921	(1.306)	1459786	10.0000	12.2
	50	1,1,2-Trichloroethane	97	7.931	7.931	(1.308)	508825	10.0000	10.9
	51	Methyl Butyl Ketone	43	8.232	8.232	(0.850)	307822	10.0000	9.83
	52	Dibromochloromethane	129	8.542	8.542	(0.882)	830355	10.0000	11.4
	53	1,2-Dibromoethane	107	8.814	8.814	(0.911)	738829	10.0000	11.2
	54	Tetrachloroethene	166	8.905	8.905	(0.920)	685158	10.0000	11.0
*	55	Chlorobenzene - d5	117	9.680	9.680	(1.000)	638533	10.0000	
	56	Chlorobenzene	112	9.729	9.729	(1.005)	931724	10.0000	10.9
	57	Ethyl Benzene	91	10.033	10.033	(1.036)	1871914	10.0000	9.84
	58	m&p-Xylene	91	10.203	10.203	(1.054)	1512425	10.0000	9.82
	59	Bromoform	173	10.651	10.651	(1.100)	936416	10.0000	12.0
	60	Styrene	104	10.700	10.700	(1.105)	935573	10.0000	9.50
	61	o-Xylene	91	10.775	10.775	(1.113)	1630028	10.0000	9.96
	62	1,1,2,2-Tetrachloroethane	83	11.092	11.092	(1.146)	907412	10.0000	10.5
	63	Isopropylbenzene	105	11.455	11.455	(1.183)	1939717	10.0000	12.0
	64	N-Propylbenzene	91	12.118	12.118	(1.252)	2428568	10.0000	10.0(M)
	65	4-Ethyltoluene	105	12.318	12.318	(1.272)	1768870	10.0000	11.1(H)
	66	1,3,5-Trimethylbenzene	105	12.422	12.422	(1.283)	1546895	10.0000	9.93
	67	1,2,4-Trimethylbenzene	105	13.020	13.020	(1.345)	1416232	10.0000	9.87
	68	1,3-Dichlorobenzene	146	13.373	13.373	(1.382)	771885	10.0000	9.34(H)
	69	Sec- Butylbenzene	105	13.400	13.400	(1.384)	2024827	10.0000	10.0
$	70	1,4-dichlorobenzene-d4 (S)	150	13.452	13.452	(1.390)	257647	10.0000	9.14(M)
	71	Benzyl Chloride	91	13.481	13.481	(1.393)	849445	10.0000	7.68
	72	1,4-Dichlorobenzene	146	13.501	13.501	(1.395)	759422	10.0000	9.18
	73	1,2-Dichlorobenzene	146	14.040	14.040	(1.450)	520308	10.0000	8.15
	74	N-Butylbenzene	91	14.325	14.325	(1.480)	1045215	10.0000	8.51
	75	1,2,4-Trichlorobenzene	180	16.685	16.685	(1.724)	61709	10.0000	6.03
	76	Naphthalene	128	16.864	16.864	(1.742)	66952	10.0000	4.70
	77	Hexachlorobutadiene	225	17.240	17.240	(1.781)	133421	10.0000	9.62

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11109.d
Report Date: 22-Apr-2013 08:08

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11109.d
Report Date: 22-Apr-2013 08:08

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11109.d
Lab Smp Id: ICAL5
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info:

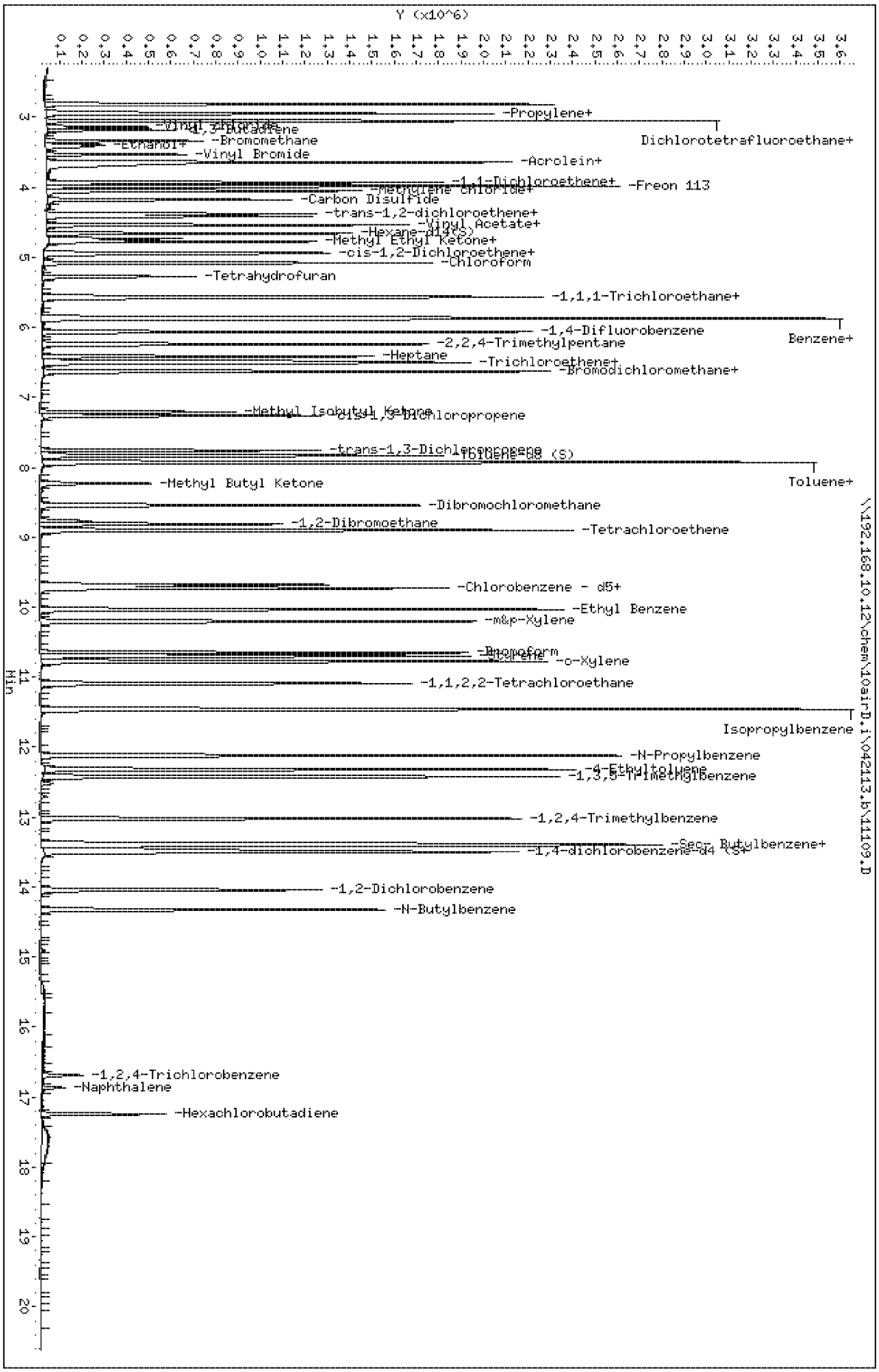
Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	1201629	0.00
55 Chlorobenzene - d	638533	383120	893946	638533	0.00

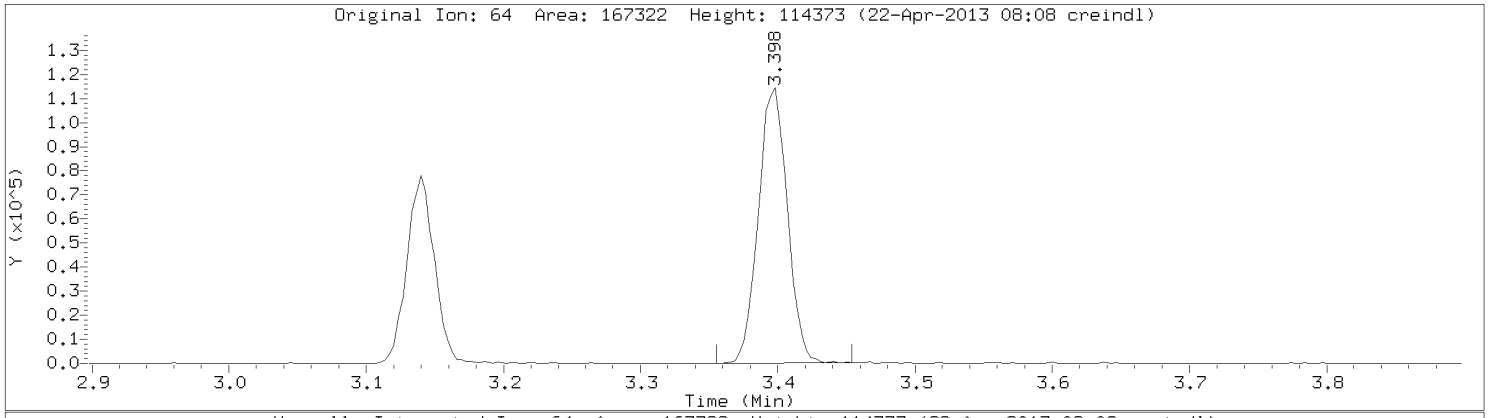
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

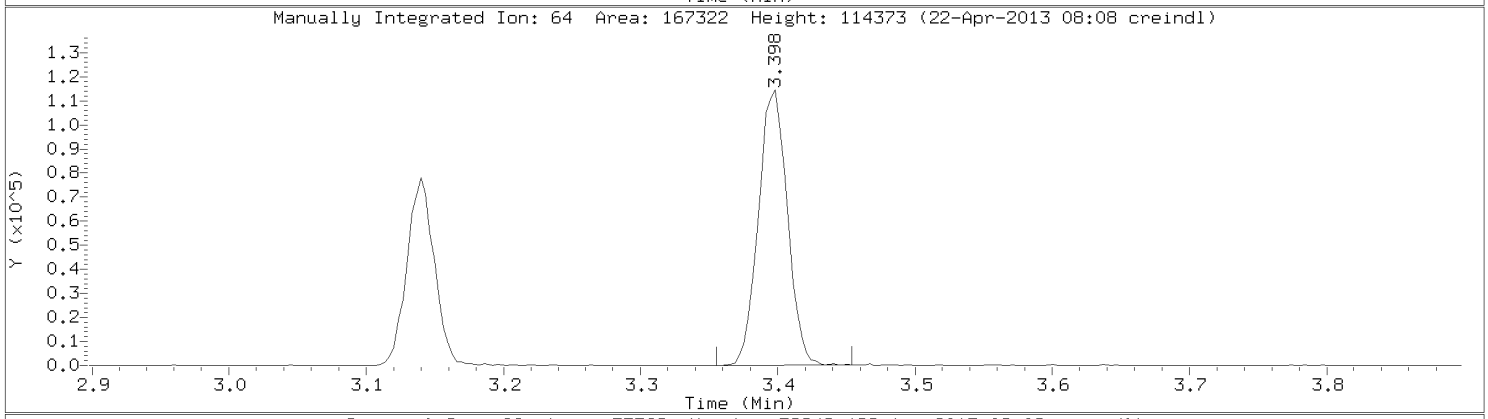
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

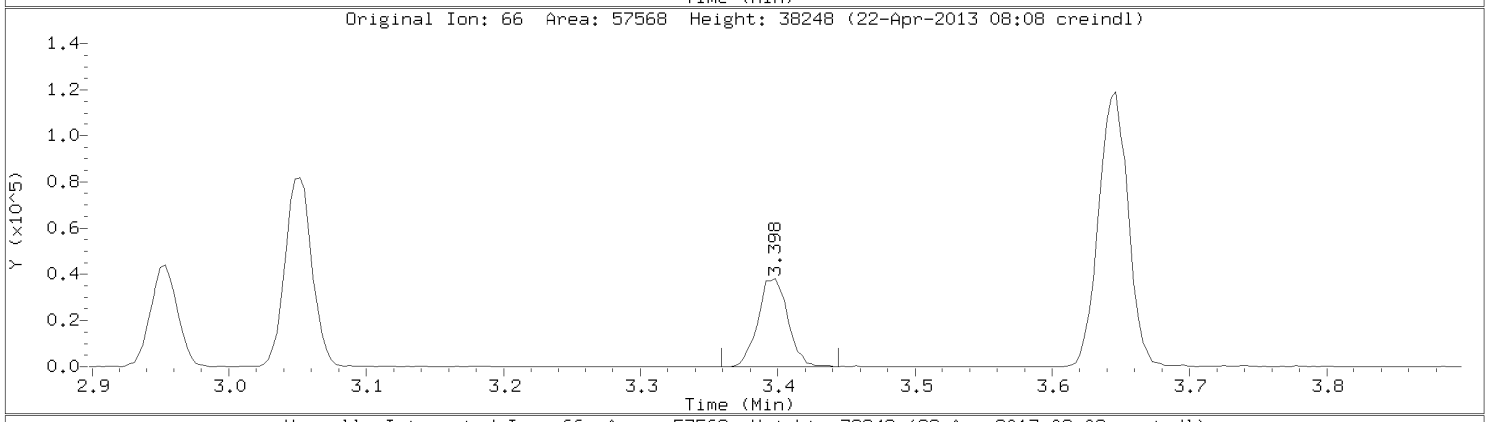

Y (x10^6)
Min
-Propylene+
-Vinyl Bromide
-Ethanol+
-Bromomethane
-Acrolein+
-Freon 113
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
-trans-1,3-Dichloropropene
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,4-dichlorobenzene-d4 (S)+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene
Dichlorotetrafluoroethane+
Benzene+
Toluene+
Data File: \\192.168.10.12\chem\10airD.i\042113.b\11109.D
Date : 21-APR-2013 12:16
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

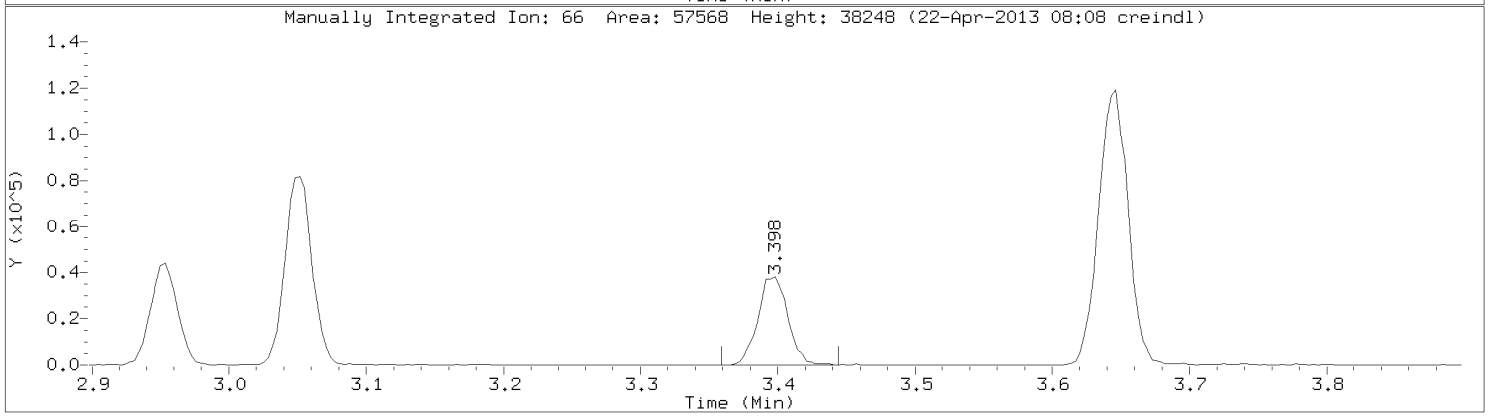
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Injection Date: 21-APR-2013 12:16
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: Chloroethane
CAS Number: 75-00-3



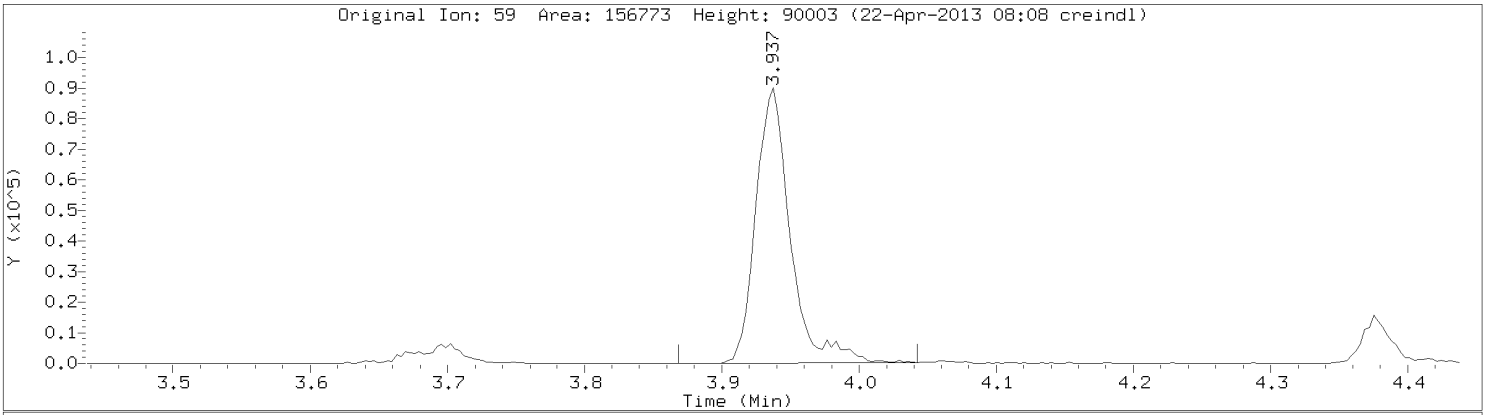


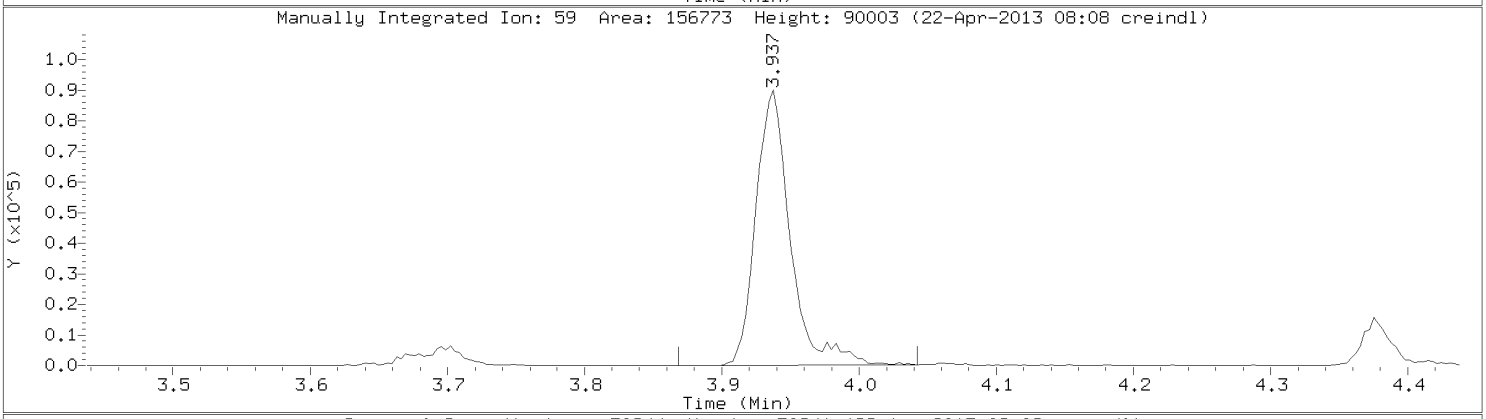


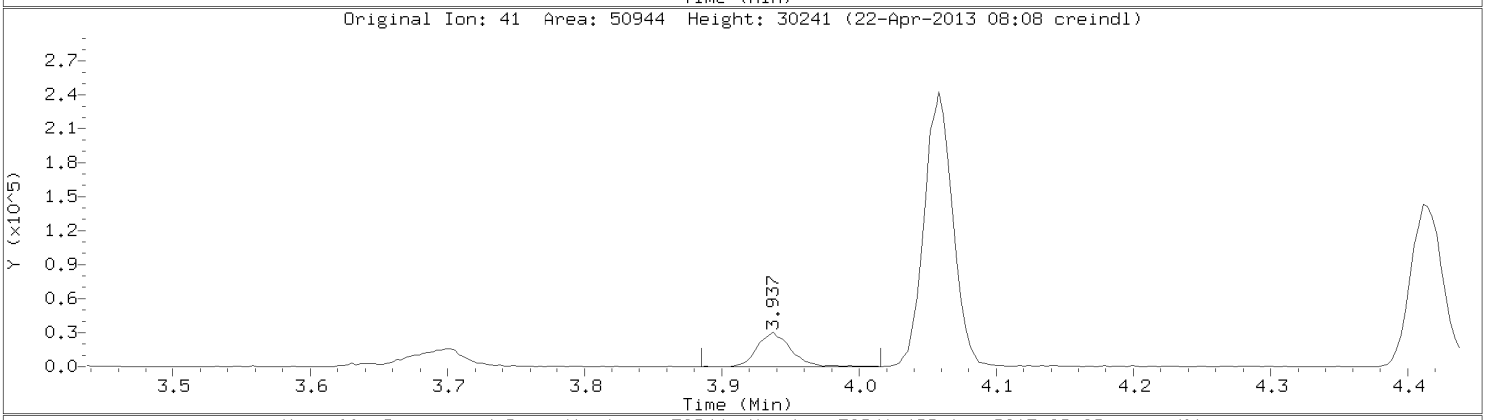


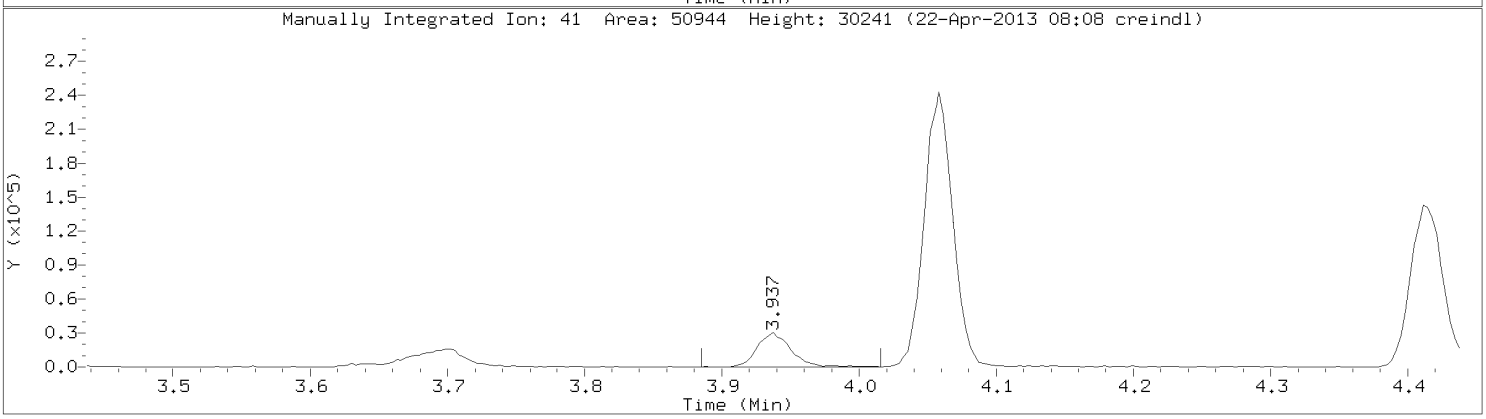
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Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



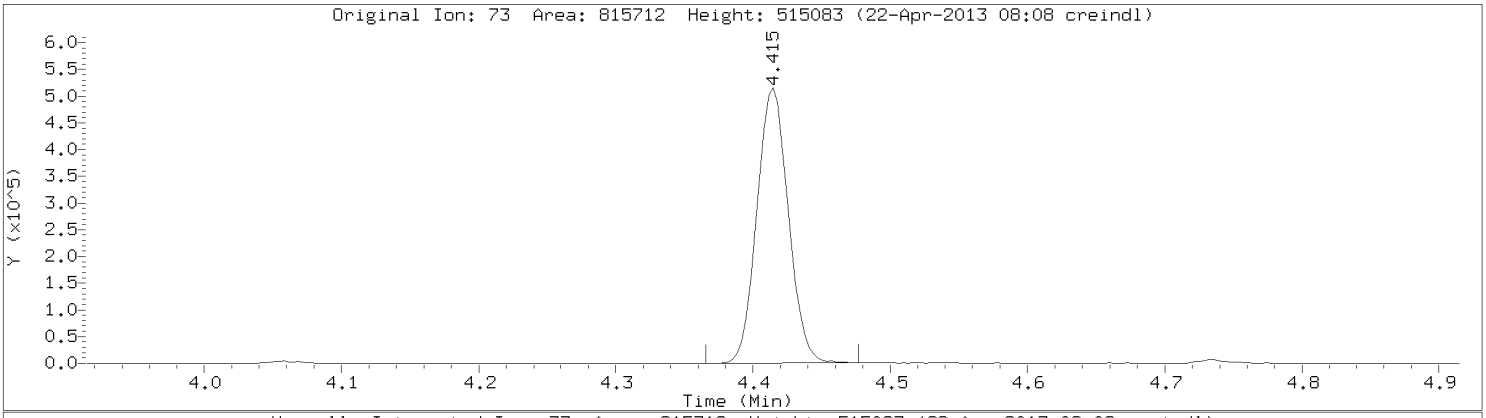


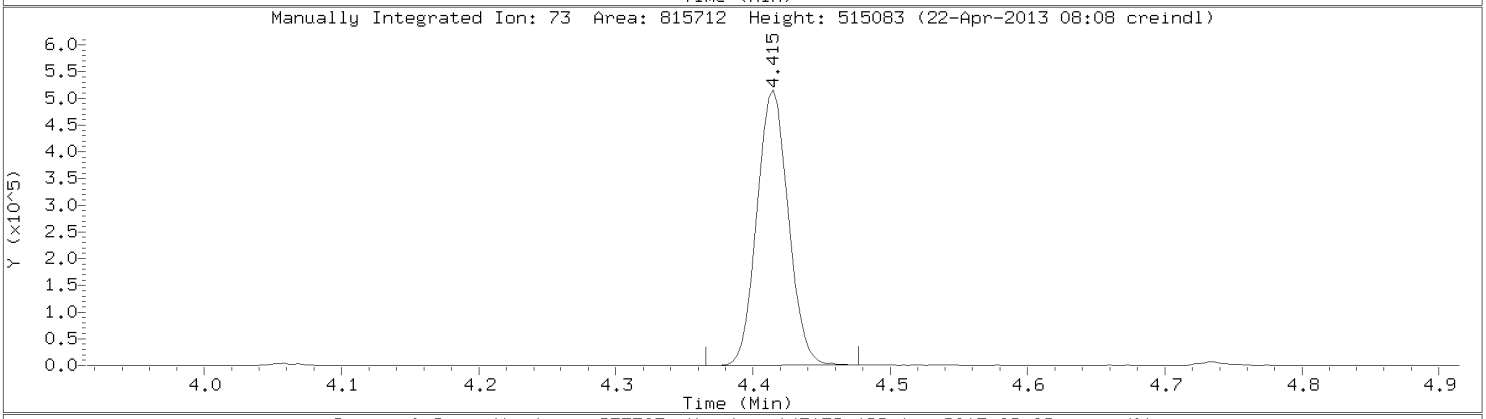


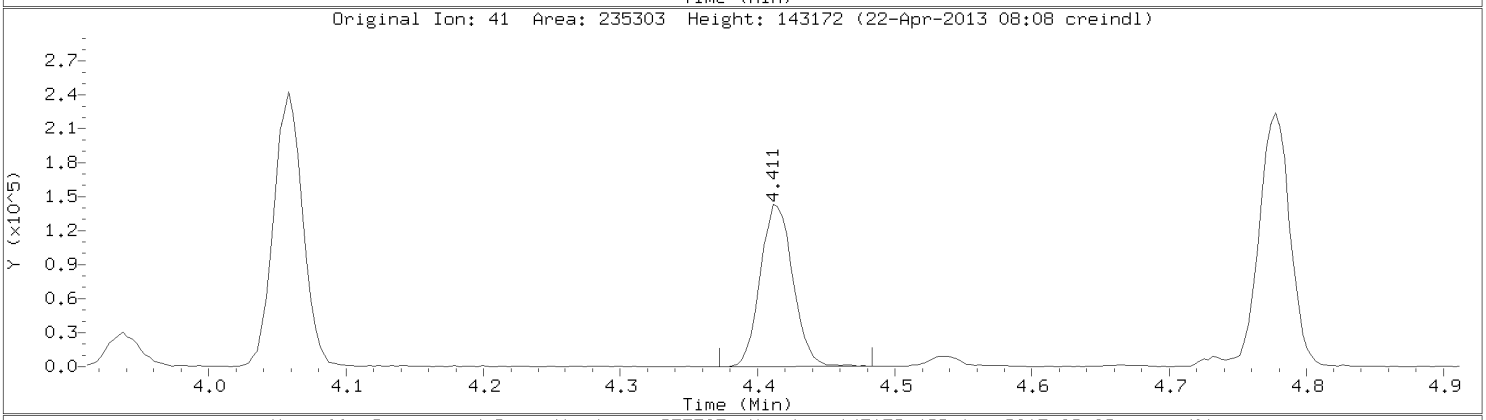


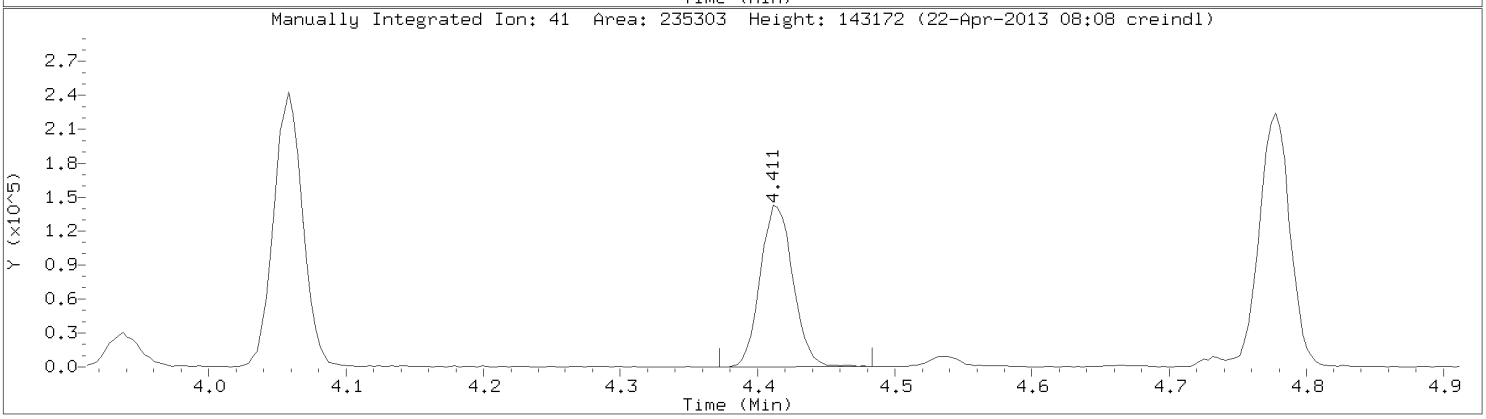
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Injection Date: 21-APR-2013 12:16
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



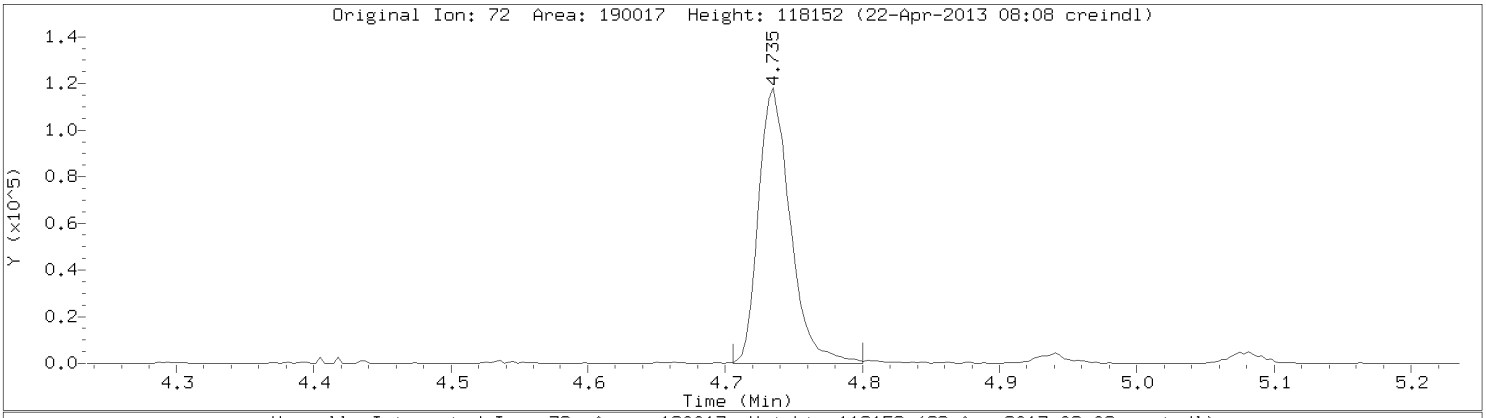


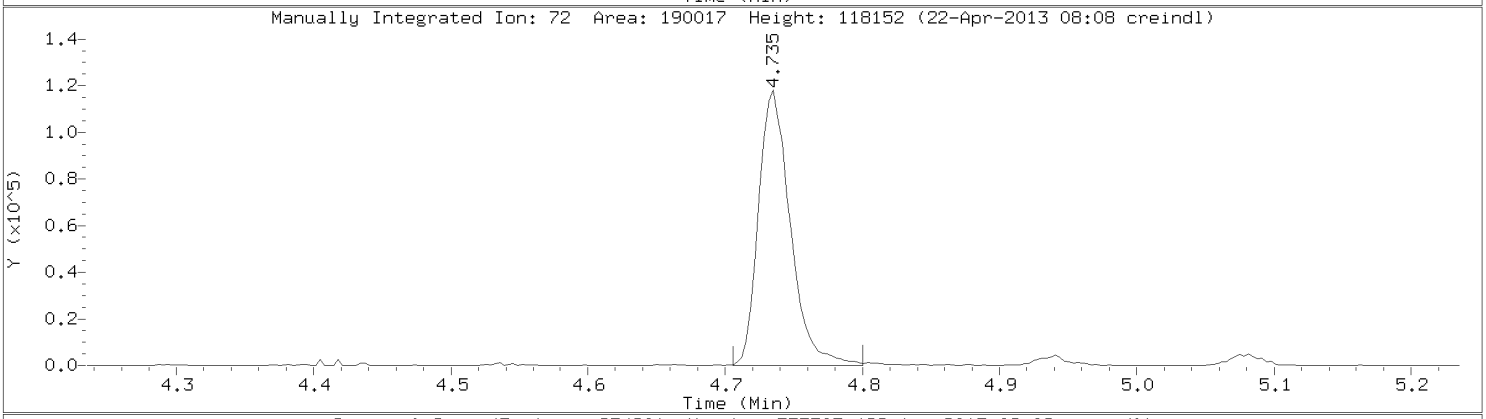


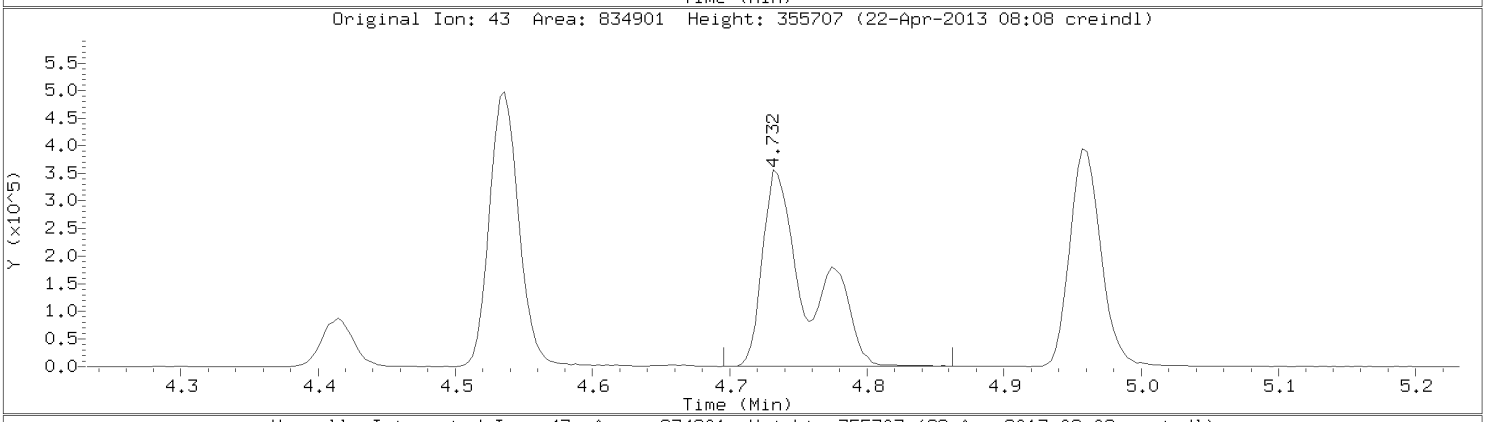


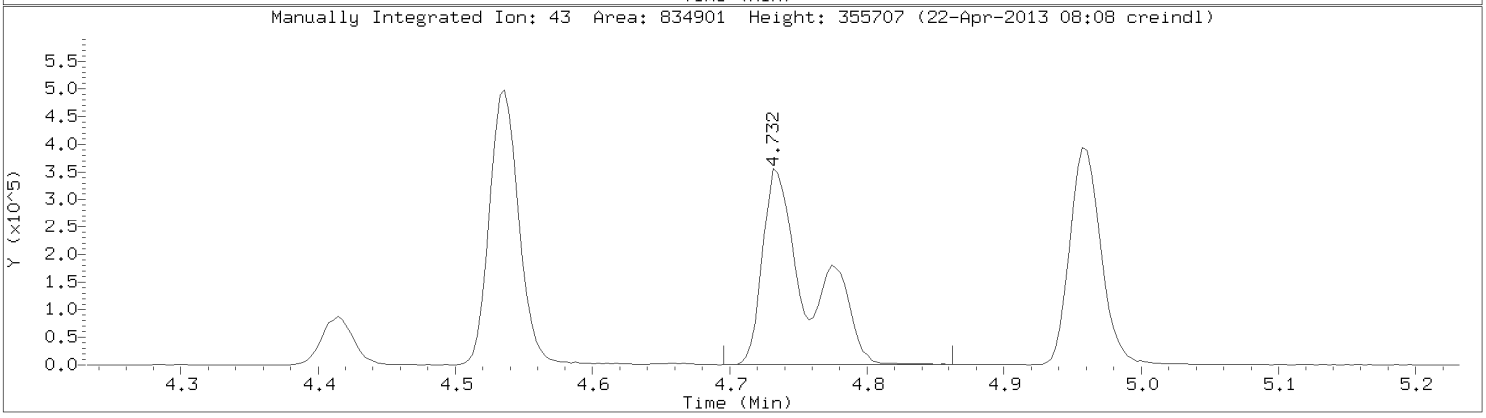
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Injection Date: 21-APR-2013 12:16
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3



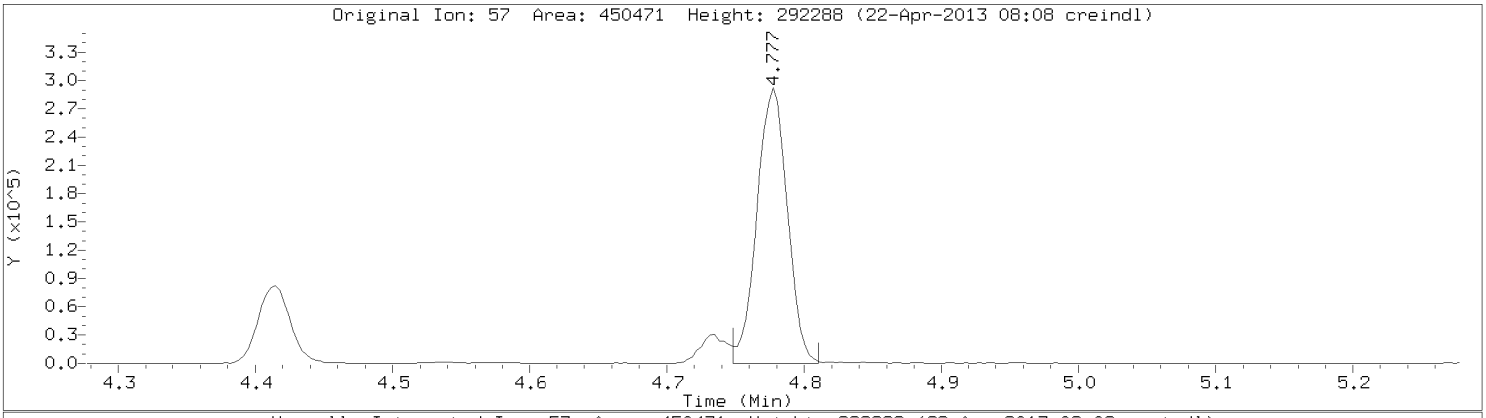


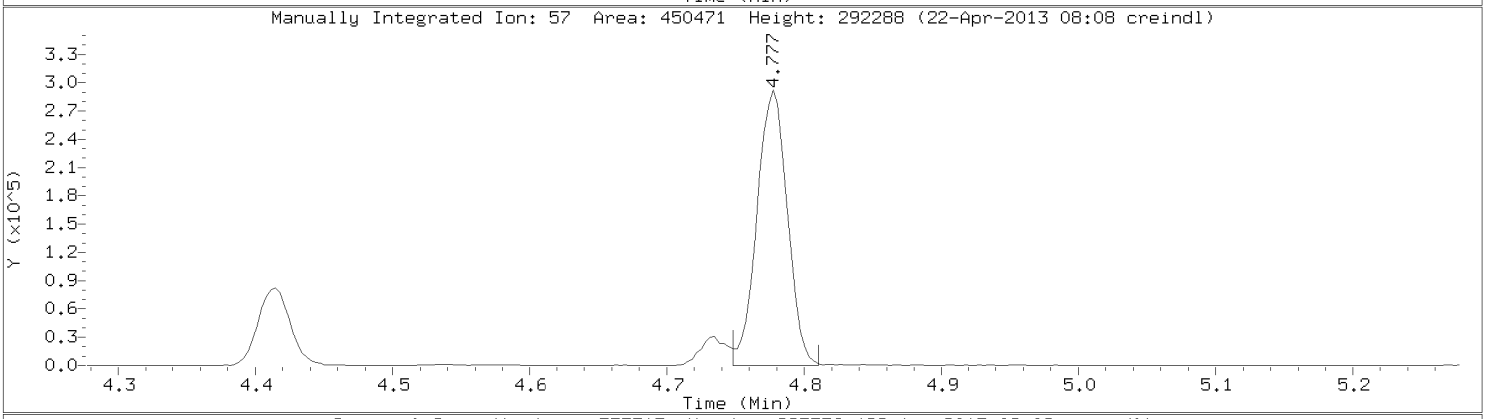


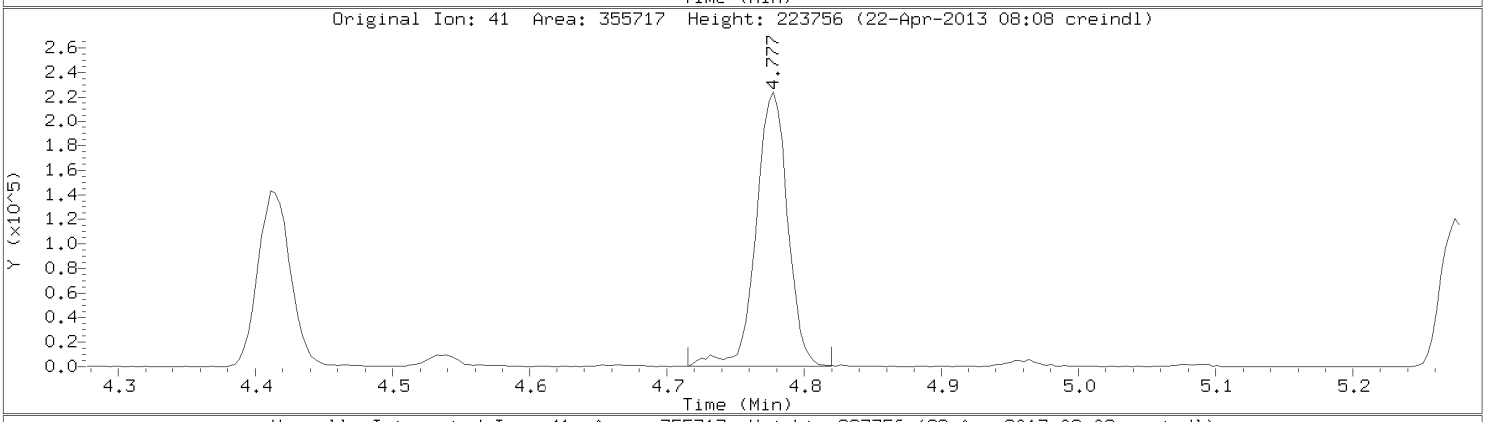


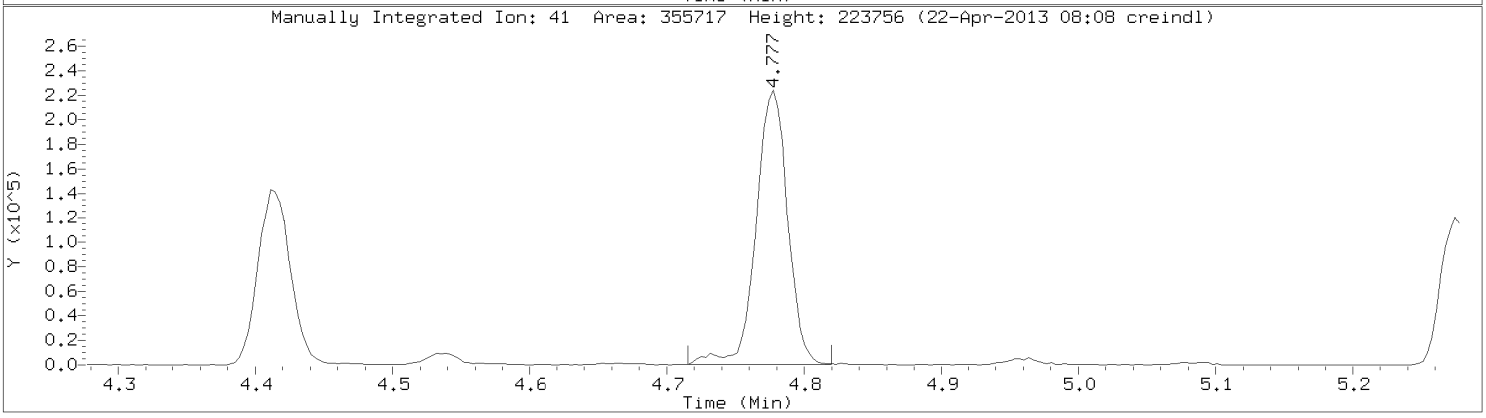
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Injection Date: 21-APR-2013 12:16
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: n-Hexane
CAS Number: 110-54-3

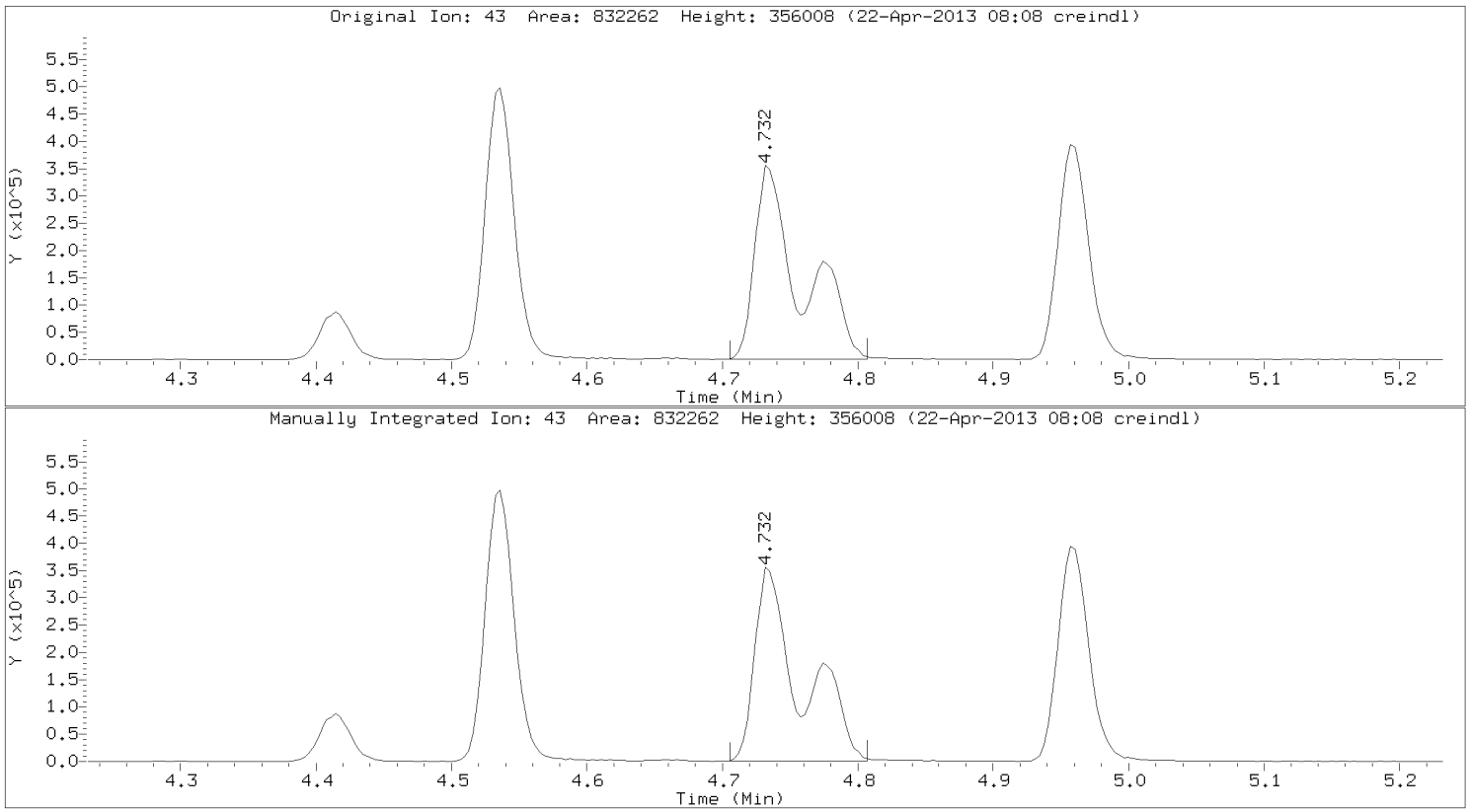






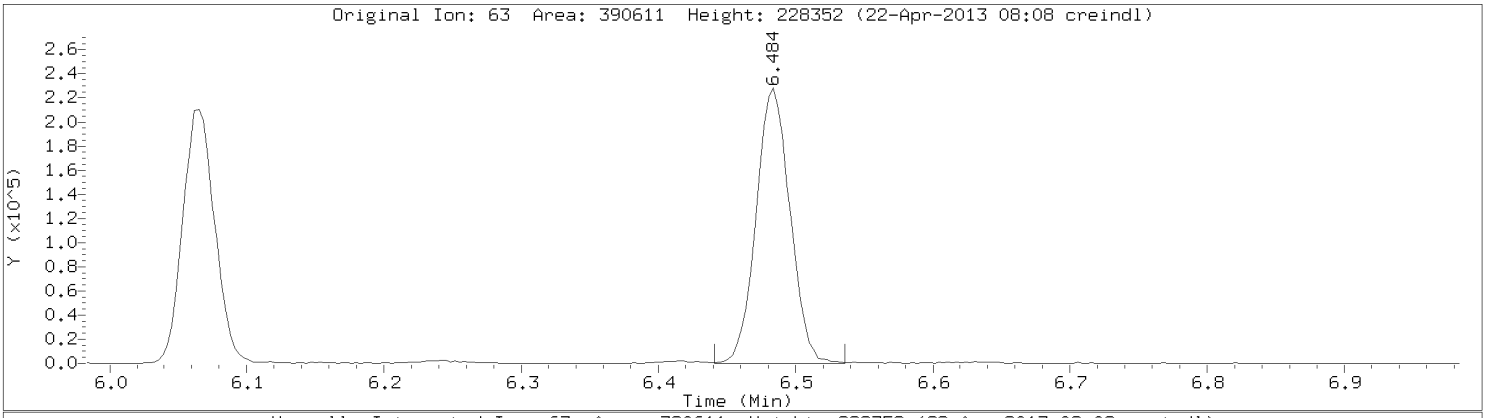


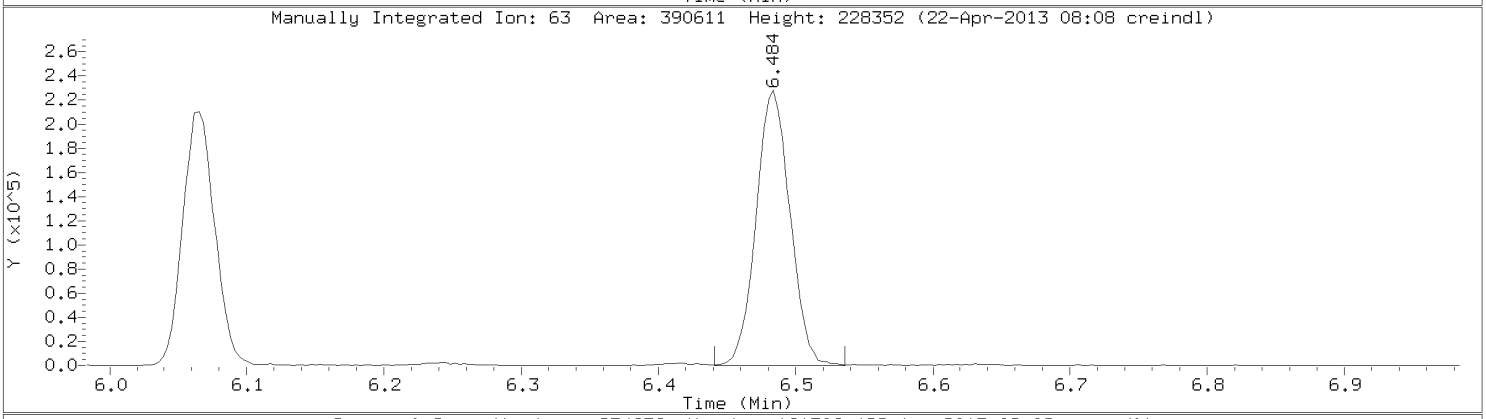
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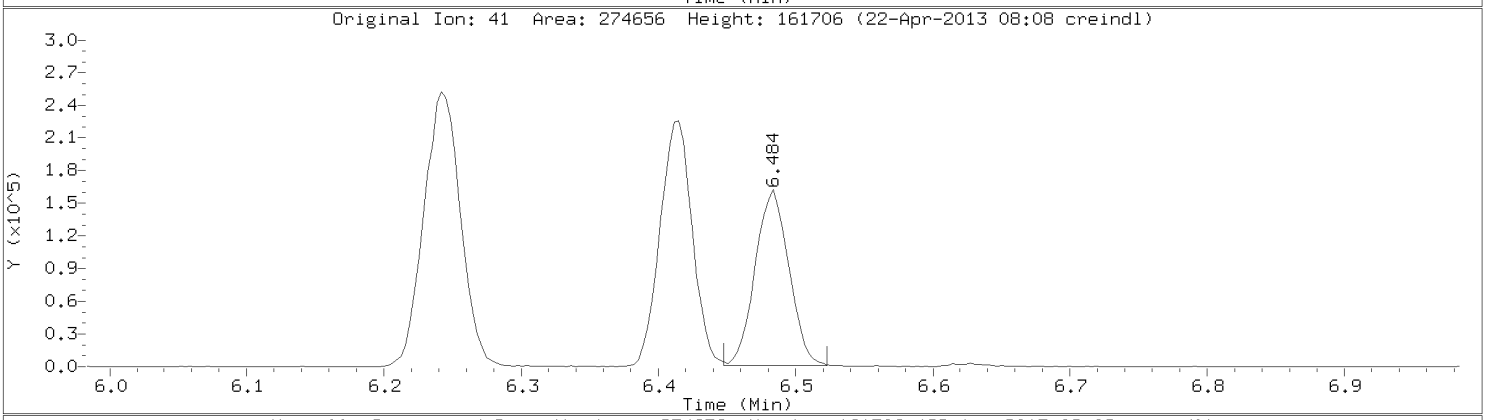


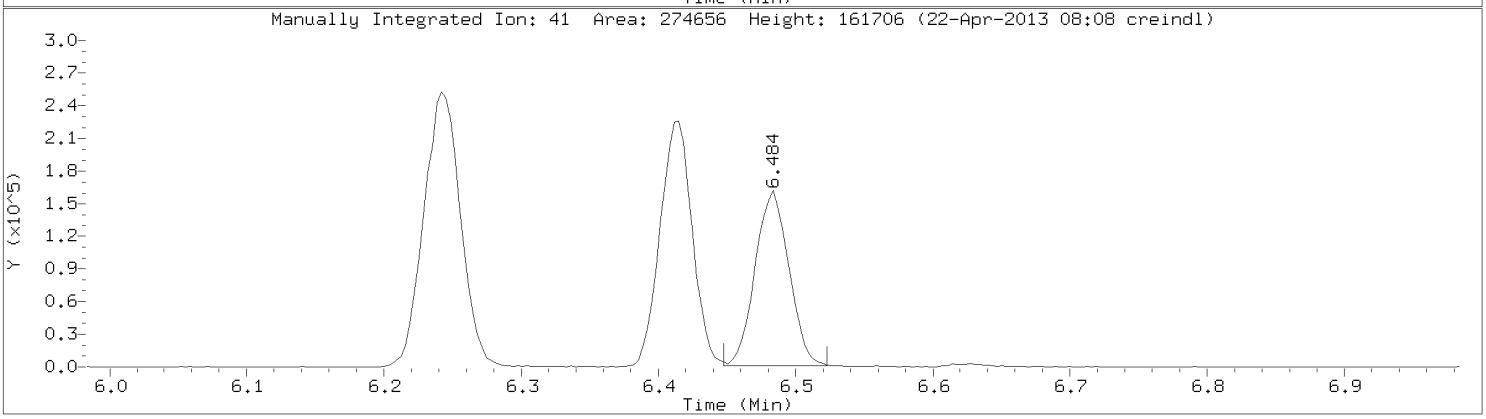
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Injection Date: 21-APR-2013 12:16
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

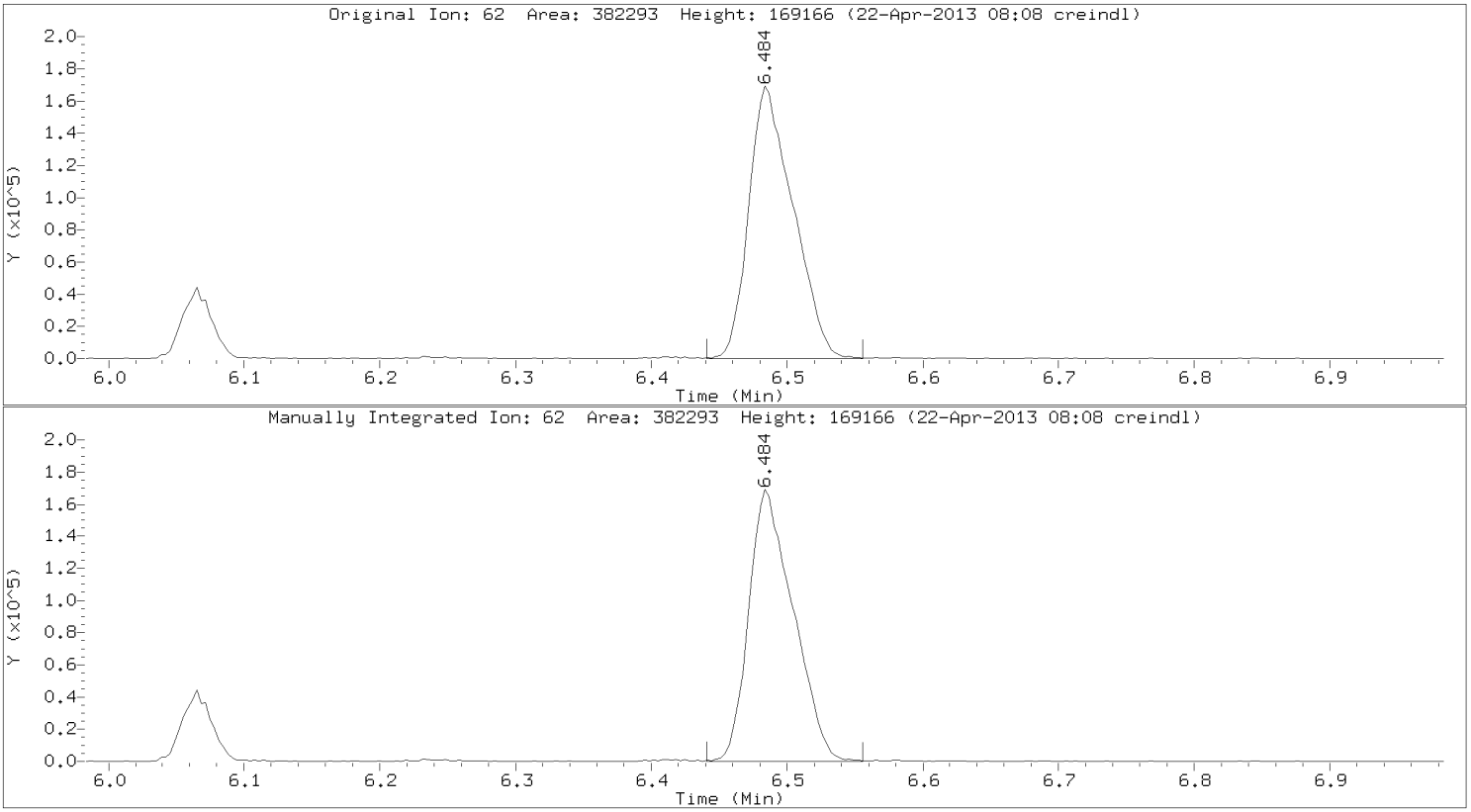






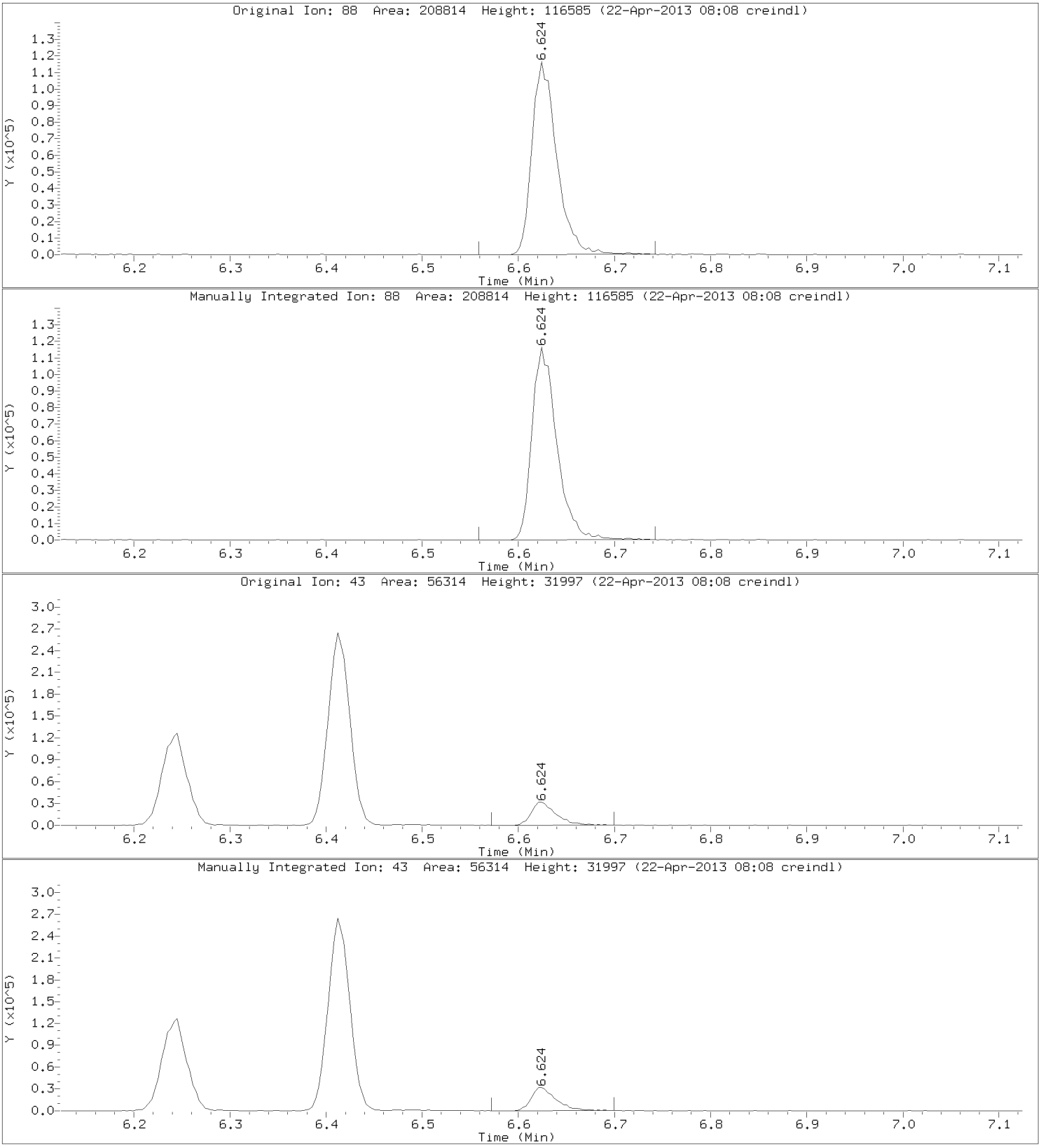


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Injection Date: 21-APR-2013 12:16
Instrument: 10airD.i
Lab Sample ID: ICAL5



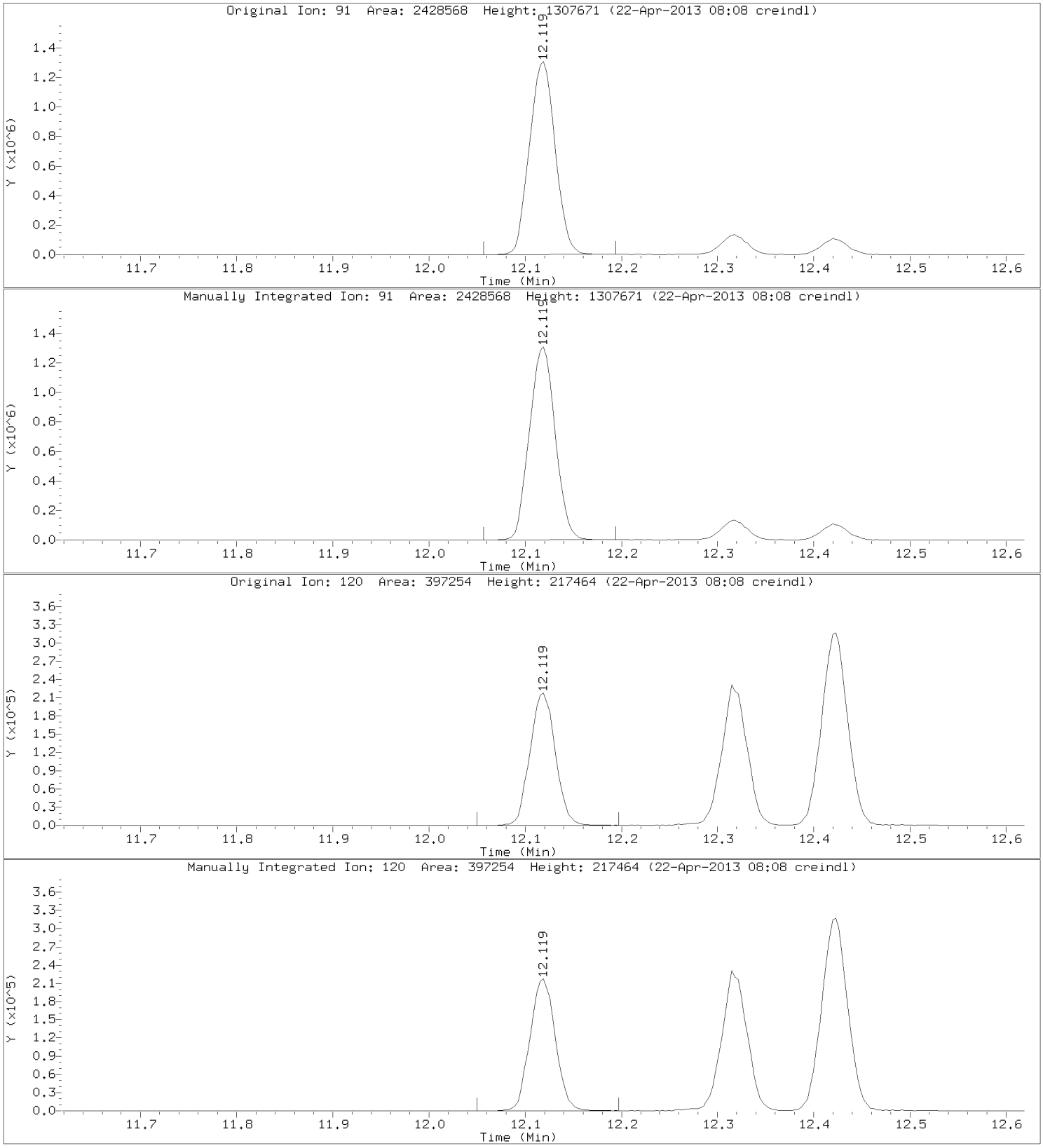
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Injection Date: 21-APR-2013 12:16
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: 1,4-Dioxane
CAS Number: 123-91-1



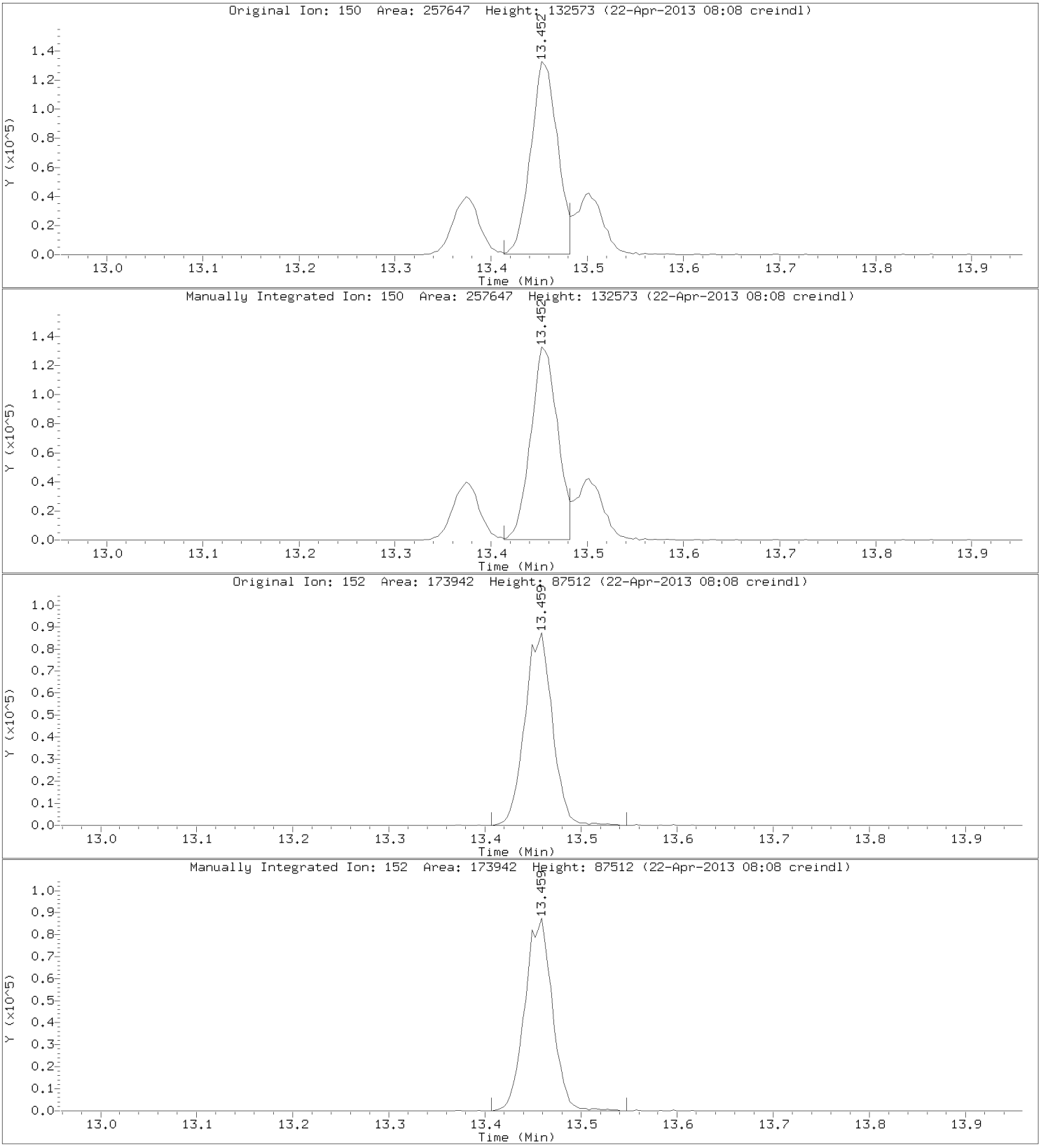
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Injection Date: 21-APR-2013 12:16
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: N-Propylbenzene
CAS Number: 103-65-1



Data File: \\192.168.10.12\chem\10airD.i\042113.b/11109.d
Injection Date: 21-APR-2013 12:16
Instrument: 10airD.i
Lab Sample ID: ICAL5

Compound: 1,4-dichlorobenzene-d4 (S)
CAS Number:



Data File: \\192.168.10.12\chem\10airD.i\042113.b\11110.d
Report Date: 22-Apr-2013 08:10

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11110.d
Lab Smp Id: ICAL6
Inj Date : 21-APR-2013 12:45
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 07:41 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 12:45 Cal File: 11110.d
Als bottle: 10 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	322169	20.0000	18.6
2	Dichlorodifluoromethane	85	2.953	2.953	(0.487)	2915205	20.0000	16.9
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.502)	2278266	20.0000	16.8
4	Chloromethane	50	3.051	3.051	(0.503)	662328	20.0000	18.2
5	Vinyl chloride	62	3.136	3.136	(0.517)	732149	20.0000	18.9
6	1,3-Butadiene	54	3.182	3.182	(0.524)	402900	20.0000	20.7
7	Bromomethane	94	3.339	3.339	(0.550)	774491	20.0000	16.6
8	Chloroethane	64	3.394	3.394	(0.559)	356189	20.0000	18.1(M)
9	Ethanol	31	3.424	3.424	(0.564)	418122	20.0000	24.7
10	Vinyl Bromide	106	3.532	3.532	(0.582)	691098	20.0000	18.1
11	Acrolein	56	3.630	3.630	(0.598)	214052	20.0000	19.5
12	Trichlorofluoromethane	101	3.643	3.643	(0.600)	2507297	20.0000	15.3
13	Acetone	43	3.672	3.672	(0.605)	1292925	20.0000	18.8
14	Isopropyl Alcohol	45	3.698	3.698	(0.610)	684837	20.0000	23.0
15	1,1-Dichloroethene	61	3.930	3.930	(0.648)	1358493	20.0000	17.1
16	Acrylonitrile	53	3.930	3.930	(0.648)	458730	20.0000	19.0
17	Tert Butyl Alcohol	59	3.937	3.937	(0.649)	211600	20.0000	16.1(M)
18	Freon 113	101	3.986	3.986	(0.657)	1691773	20.0000	16.1
19	Methylene chloride	49	4.045	4.045	(0.667)	791274	20.0000	17.1
20	Allyl Chloride	76	4.058	4.058	(0.669)	383592	20.0000	18.0
21	Carbon Disulfide	76	4.179	4.179	(0.689)	2455522	20.0000	18.7(H)
22	trans-1,2-dichloroethene	96	4.378	4.378	(0.722)	794146	20.0000	17.5
23	Methyl Tert Butyl Ether	73	4.414	4.414	(0.727)	1744055	20.0000	18.8(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11110.d
Report Date: 22-Apr-2013 08:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
	24 Vinyl Acetate	43	4.535	4.535	(0.747)	1606351	20.0000	20.3
	25 1,1-Dichloroethane	63	4.542	4.542	(0.748)	1540558	20.0000	16.9
$	26 Hexane-d14(S)	66	4.659	4.659	(0.768)	588628	10.0000	8.91
	27 Methyl Ethyl Ketone	72	4.738	4.738	(0.781)	408434	20.0000	19.6(M)
	28 n-Hexane	57	4.777	4.777	(0.787)	961298	20.0000	17.3(M)
	29 cis-1,2-Dichloroethene	96	4.940	4.940	(0.814)	916668	20.0000	18.2
	30 Ethyl Acetate	43	4.960	4.960	(0.817)	1392484	20.0000	22.5
	31 Chloroform	83	5.081	5.081	(0.837)	2337285	20.0000	18.8
	32 Tetrahydrofuran	42	5.274	5.274	(0.869)	573723	20.0000	18.7
	33 1,1,1-Trichloroethane	97	5.568	5.568	(0.918)	2282833	20.0000	18.4
	34 1,2-Dichloroethane	62	5.584	5.584	(0.920)	1801959	20.0000	19.4
	35 Benzene	78	5.856	5.856	(0.965)	2626587	20.0000	22.8
	36 Carbon tetrachloride	117	5.875	5.875	(0.968)	2114941	20.0000	16.5
	37 Cyclohexane	56	5.882	5.882	(0.969)	1029794	20.0000	17.9
*	38 1,4-Difluorobenzene	114	6.068	6.068	(1.000)	1383882	10.0000	
	39 2,2,4-Trimethylpentane	57	6.245	6.245	(1.029)	3077759	20.0000	18.3
	40 Heptane	43	6.415	6.415	(1.057)	991214	20.0000	18.3
	41 1,2-Dichloropropane	63	6.487	6.487	(1.069)	888054	20.0000	22.8(M)
	42 Trichloroethene	130	6.509	6.509	(1.073)	869189	20.0000	22.5
	43 1,4-Dioxane	88	6.624	6.624	(1.092)	568465	20.0000	20.4(M)
	44 Bromodichloromethane	83	6.634	6.634	(1.093)	2570806	20.0000	19.5
	45 Methyl Isobutyl Ketone	43	7.209	7.209	(1.188)	1414477	20.0000	26.0
	46 cis-1,3-Dichloropropene	75	7.264	7.264	(1.197)	1601817	20.0000	18.6
	47 trans-1,3-Dichloropropene	75	7.758	7.758	(1.278)	1766751	20.0000	18.8
$	48 Toluene-d8 (S)	98	7.833	7.833	(1.291)	1313161	10.0000	10.5
	49 Toluene	91	7.925	7.925	(1.306)	3285213	20.0000	23.8
	50 1,1,2-Trichloroethane	97	7.935	7.935	(1.308)	1134568	20.0000	21.1
	51 Methyl Butyl Ketone	43	8.239	8.239	(0.851)	1394424	20.0000	23.5
	52 Dibromochloromethane	129	8.549	8.549	(0.883)	1816006	20.0000	20.7
	53 1,2-Dibromoethane	107	8.817	8.817	(0.911)	1711907	20.0000	21.7
	54 Tetrachloroethene	166	8.909	8.909	(0.920)	1532765	20.0000	20.4
*	55 Chlorobenzene - d5	117	9.683	9.683	(1.000)	766815	10.0000	
	56 Chlorobenzene	112	9.736	9.736	(1.005)	2162635	20.0000	21.1
	57 Ethyl Benzene	91	10.036	10.036	(1.036)	4218458	20.0000	18.0
	58 m&p-Xylene	91	10.210	10.210	(1.054)	3427868	20.0000	18.2
	59 Bromoform	173	10.654	10.654	(1.100)	2105131	20.0000	22.6
	60 Styrene	104	10.703	10.703	(1.105)	2209608	20.0000	18.1
	61 o-Xylene	91	10.782	10.782	(1.113)	3635056	20.0000	18.2
	62 1,1,2,2-Tetrachloroethane	83	11.095	11.095	(1.146)	2341659	20.0000	22.5
	63 Isopropylbenzene	105	11.458	11.458	(1.183)	4335313	20.0000	22.4
	64 N-Propylbenzene	91	12.122	12.122	(1.252)	5567357	20.0000	19.8(M)
	65 4-Ethyltoluene	105	12.321	12.321	(1.272)	4166691	20.0000	21.0(H)
	66 1,3,5-Trimethylbenzene	105	12.426	12.426	(1.283)	3669078	20.0000	19.4
	67 1,2,4-Trimethylbenzene	105	13.027	13.027	(1.345)	3557435	20.0000	20.4
	68 1,3-Dichlorobenzene	146	13.377	13.377	(1.381)	2119741	20.0000	21.0(H)
	69 Sec- Butylbenzene	105	13.406	13.406	(1.384)	4963419	20.0000	20.3
$	70 1,4-dichlorobenzene-d4 (S)	150	13.462	13.462	(1.390)	452259	10.0000	13.4
	71 Benzyl Chloride	91	13.488	13.488	(1.393)	3262894	20.0000	23.6
	72 1,4-Dichlorobenzene	146	13.508	13.508	(1.395)	2078681	20.0000	20.7
	73 1,2-Dichlorobenzene	146	14.047	14.047	(1.451)	1895800	20.0000	24.0
	74 N-Butylbenzene	91	14.331	14.331	(1.480)	4176999	20.0000	26.7
	75 1,2,4-Trichlorobenzene	180	16.691	16.691	(1.724)	258546	20.0000	20.8
	76 Naphthalene	128	16.868	16.868	(1.742)	418997	20.0000	20.8
	77 Hexachlorobutadiene	225	17.244	17.244	(1.781)	602634	20.0000	38.4(A)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11110.d
Report Date: 22-Apr-2013 08:10

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11110.d
Report Date: 22-Apr-2013 08:10

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11110.d
Lab Smp Id: ICAL6
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info:

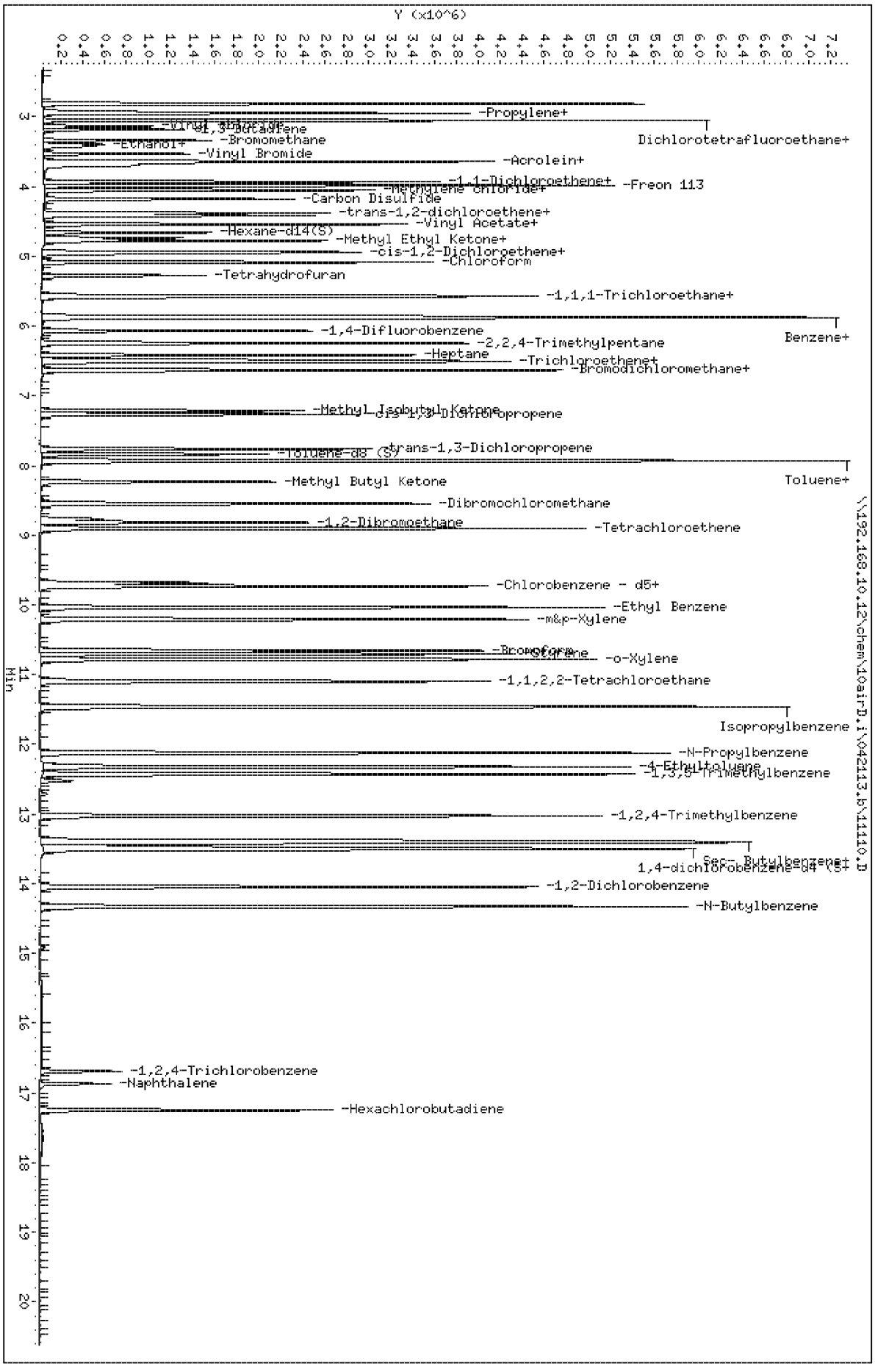
Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	1383882	15.17
55 Chlorobenzene - d	638533	383120	893946	766815	20.09

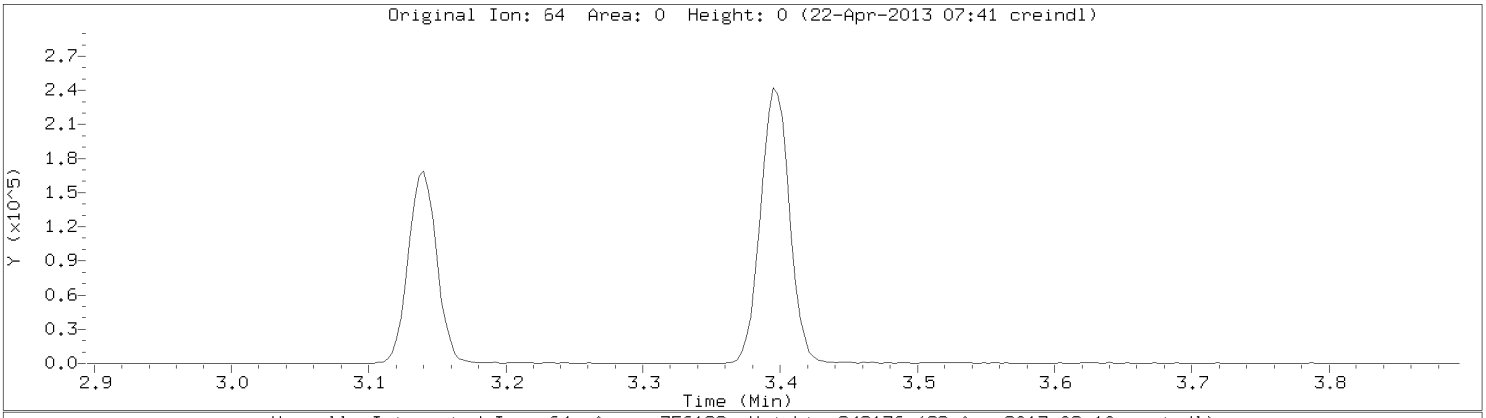
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	0.06
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.03

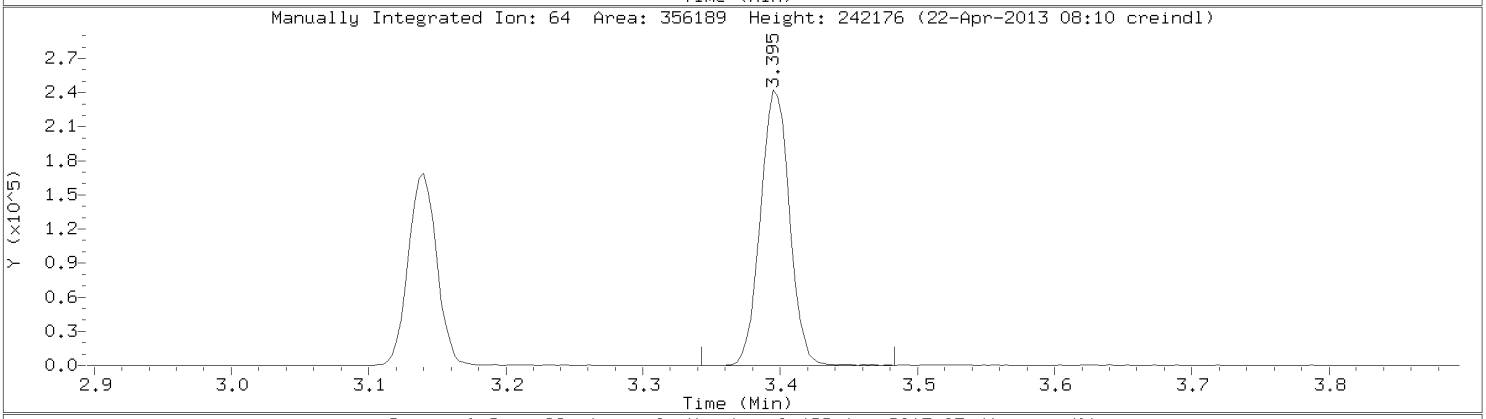
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

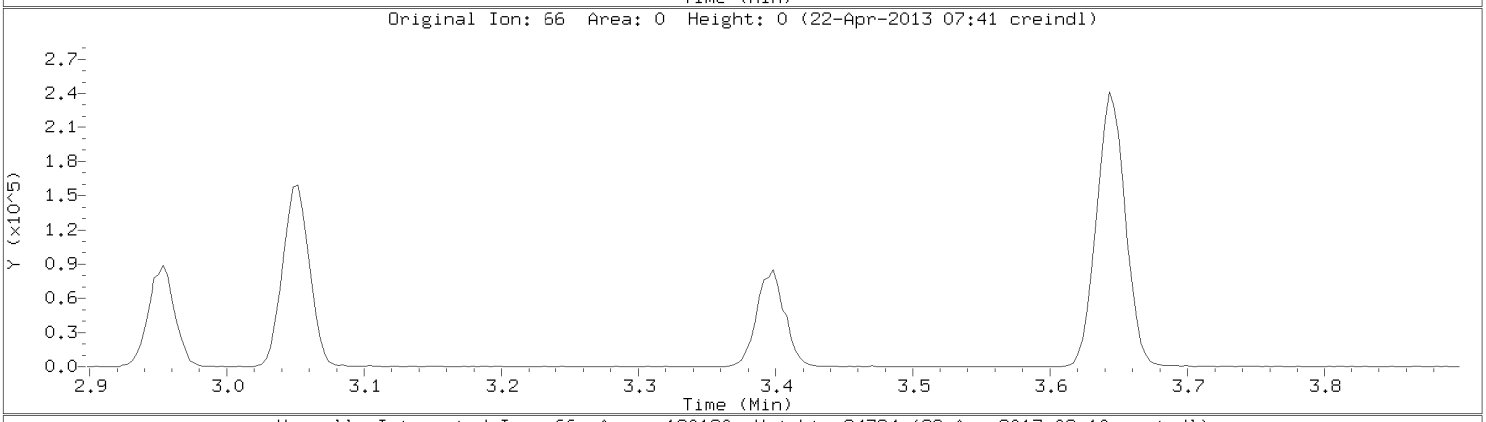

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Date : 24-APR-2013 12:45
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^6)
Min
\\192.168.10.12\chem\10airD.i\042113.b\11110.D
-Propylene+
-Vinyl Bromide
-Bromomethane
-Ethanol+
Dichlorotetrafluoroethane+
-Acrolein+
-Freon 113
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
Benzene+
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
trans-1,3-Dichloropropene
-Toluene-d8 (S)
Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
Sec- Butylbenzene+
1,4-dichlorobenzene-d4 (S)+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene

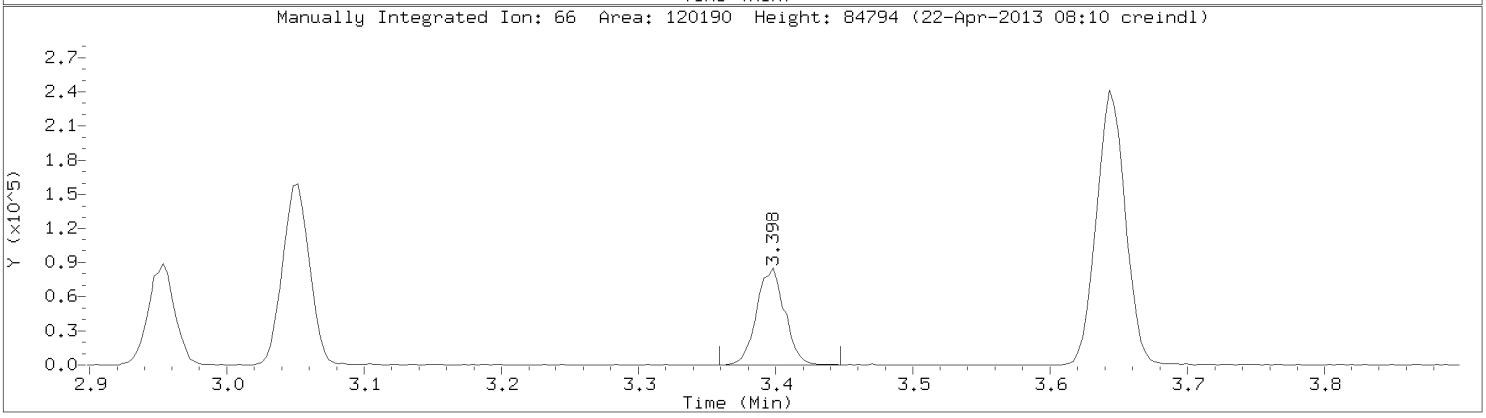
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Injection Date: 21-APR-2013 12:45
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: Chloroethane
CAS Number: 75-00-3



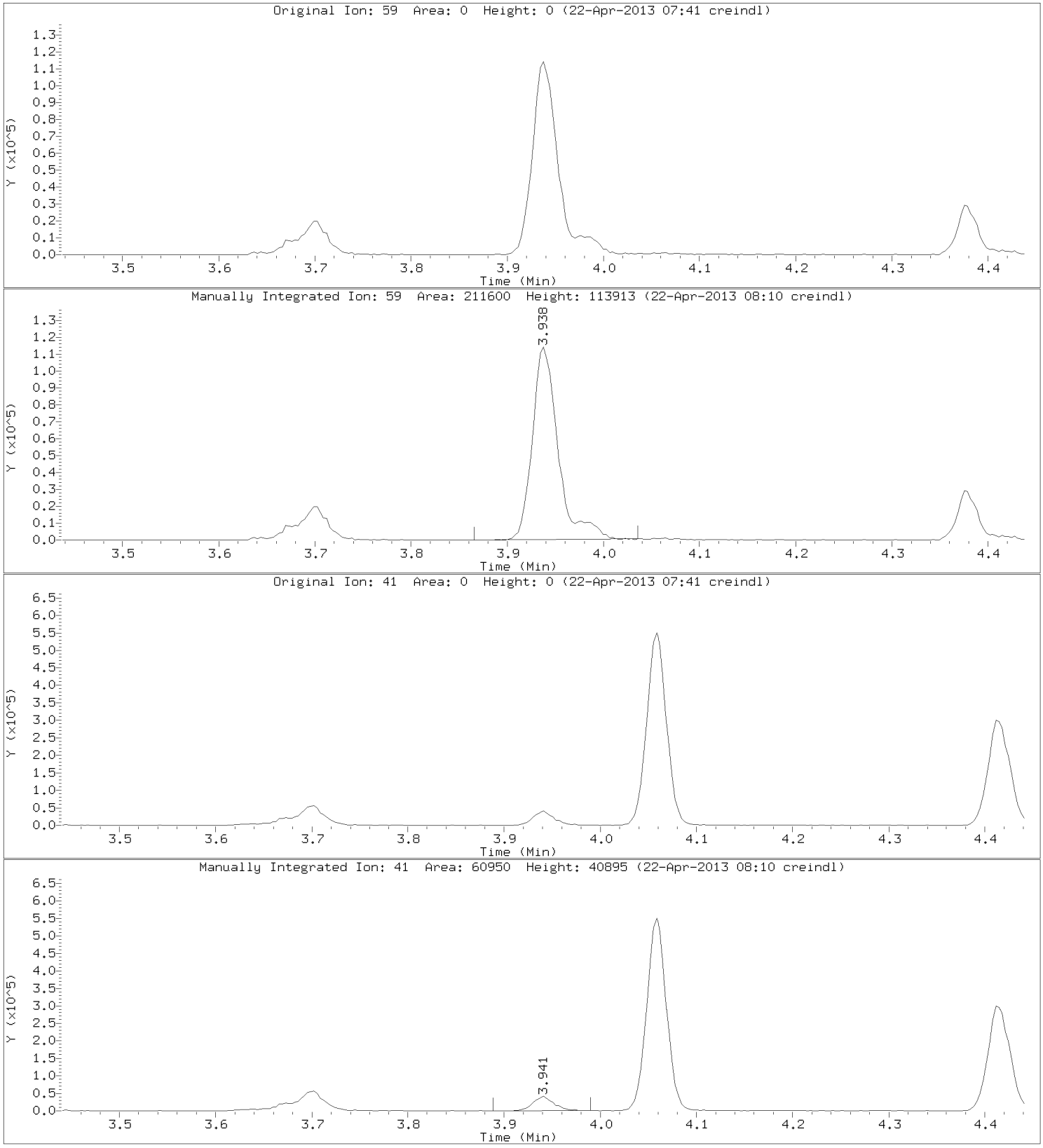






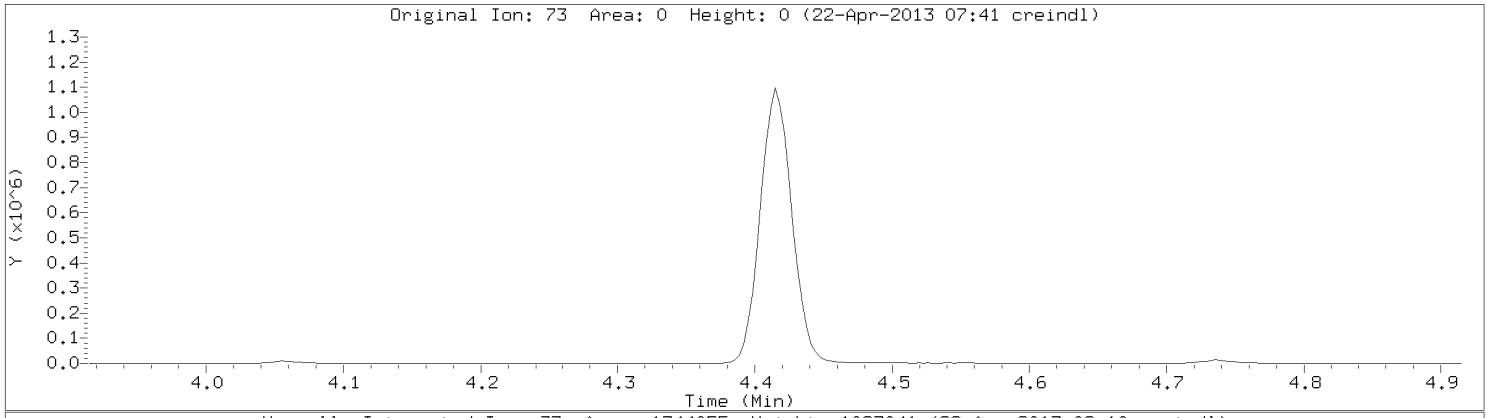
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Instrument: 10airD.i
Lab Sample ID: ICAL6

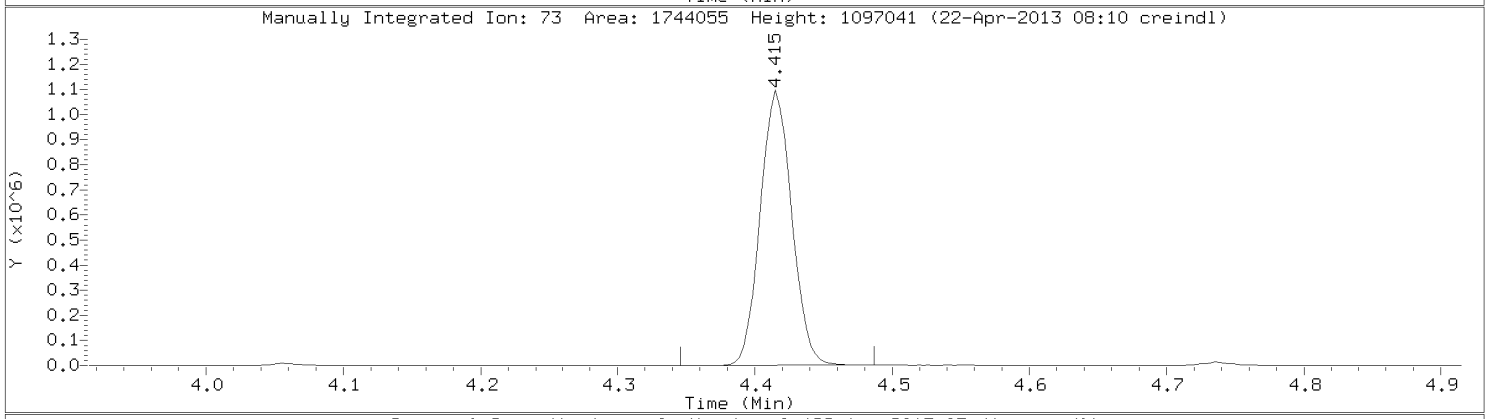
Compound: Tert Butyl Alcohol
CAS Number: 75-65-0

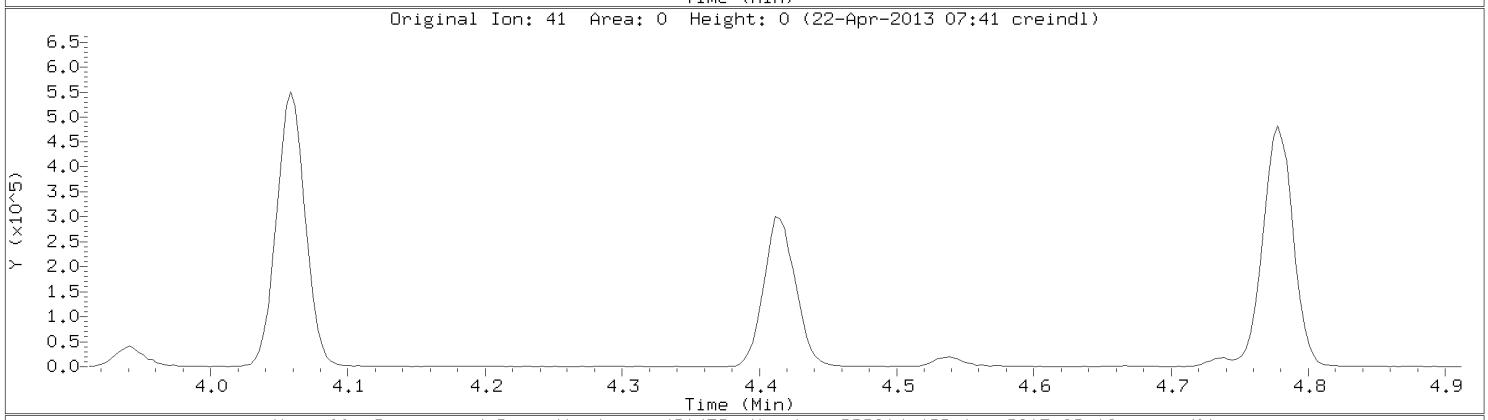


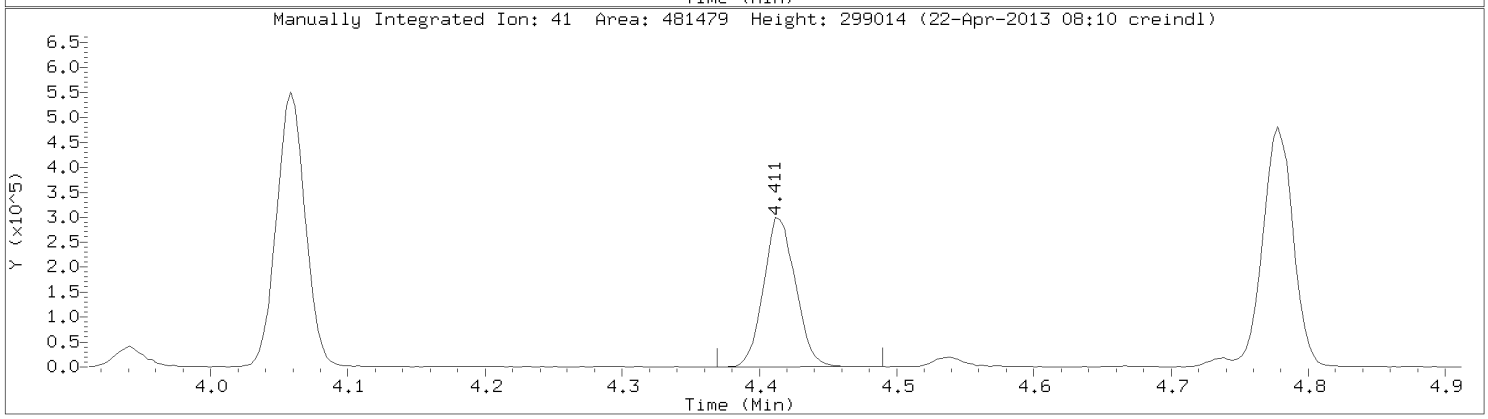
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Injection Date: 21-APR-2013 12:45
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



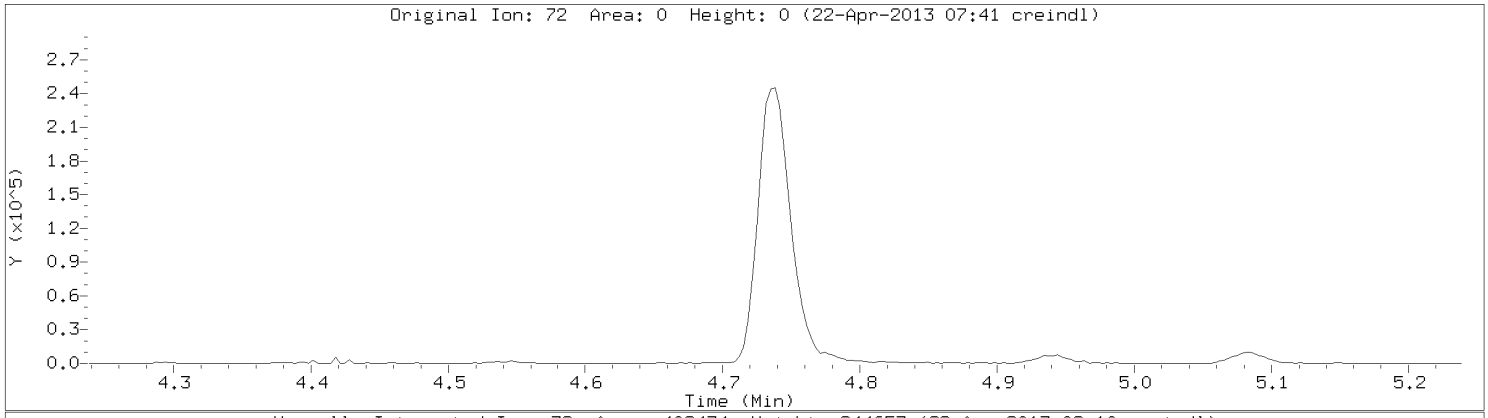


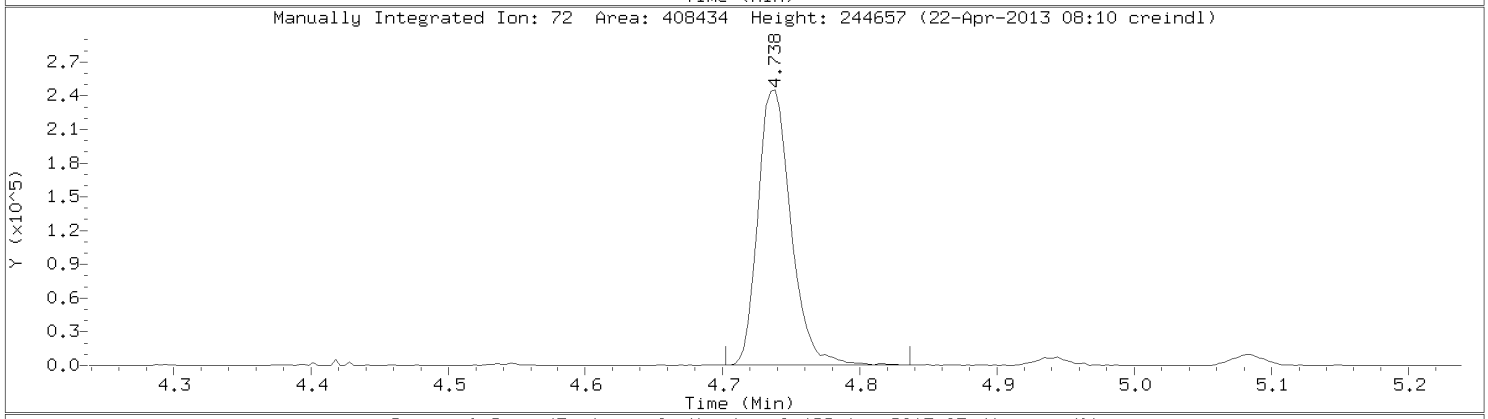


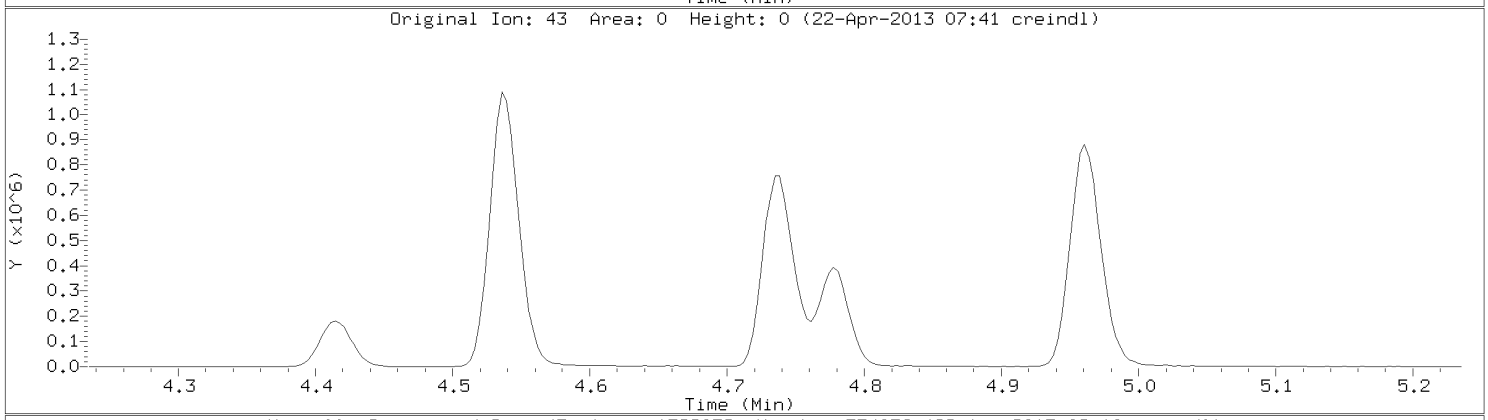


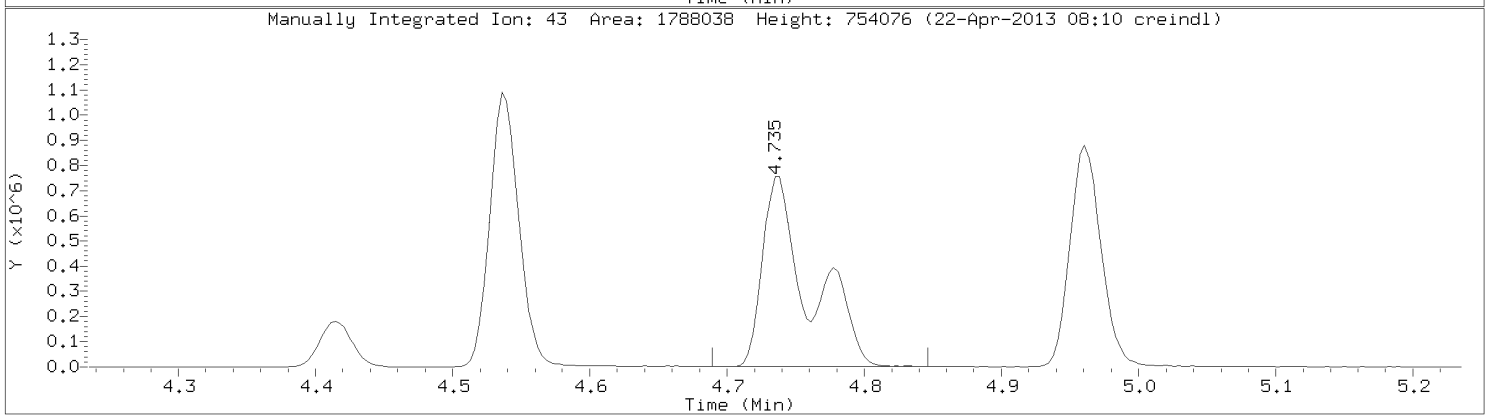
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Injection Date: 21-APR-2013 12:45
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3



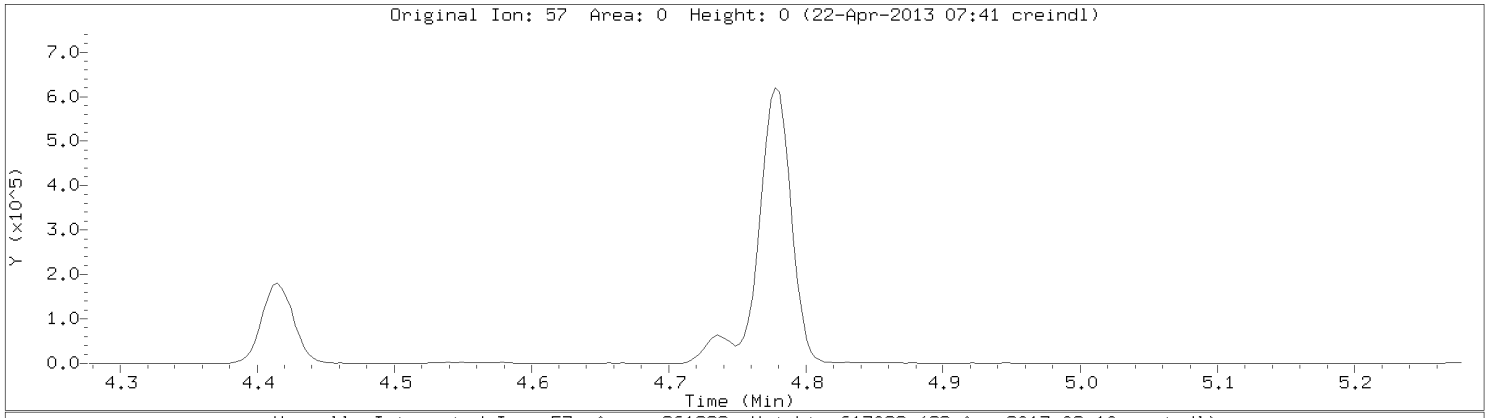


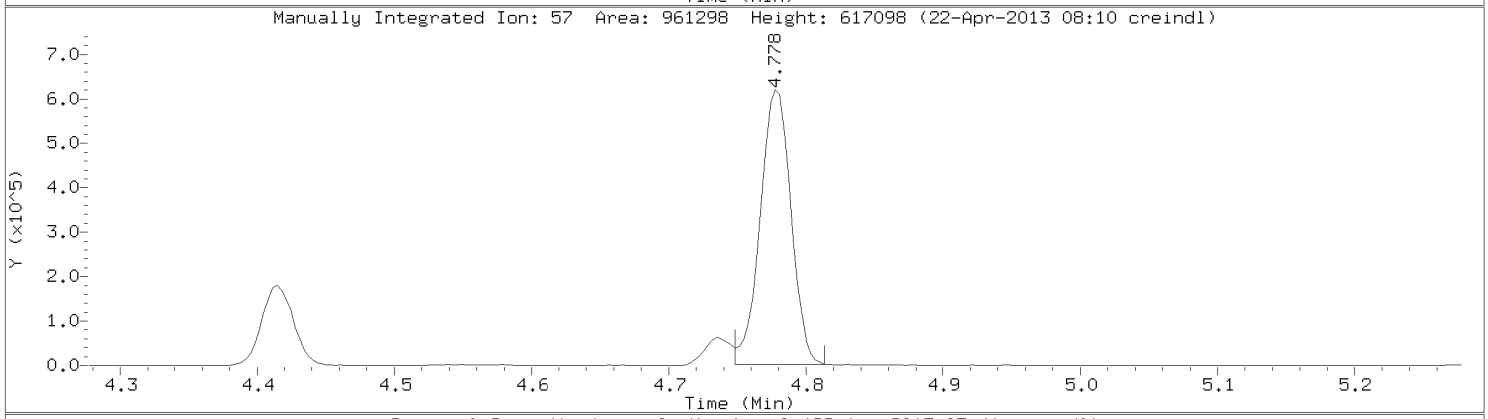


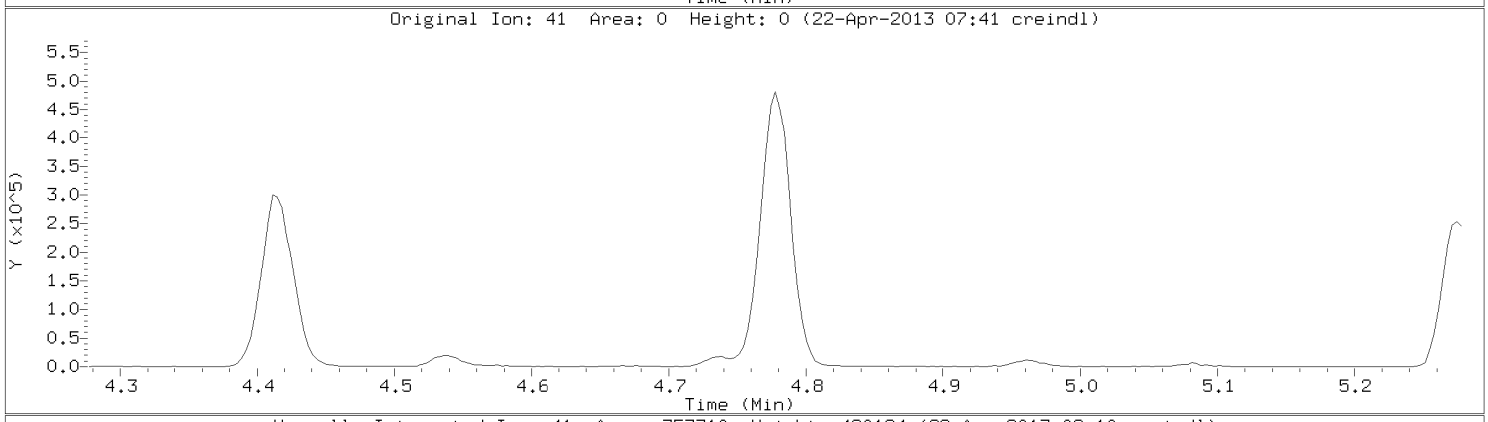


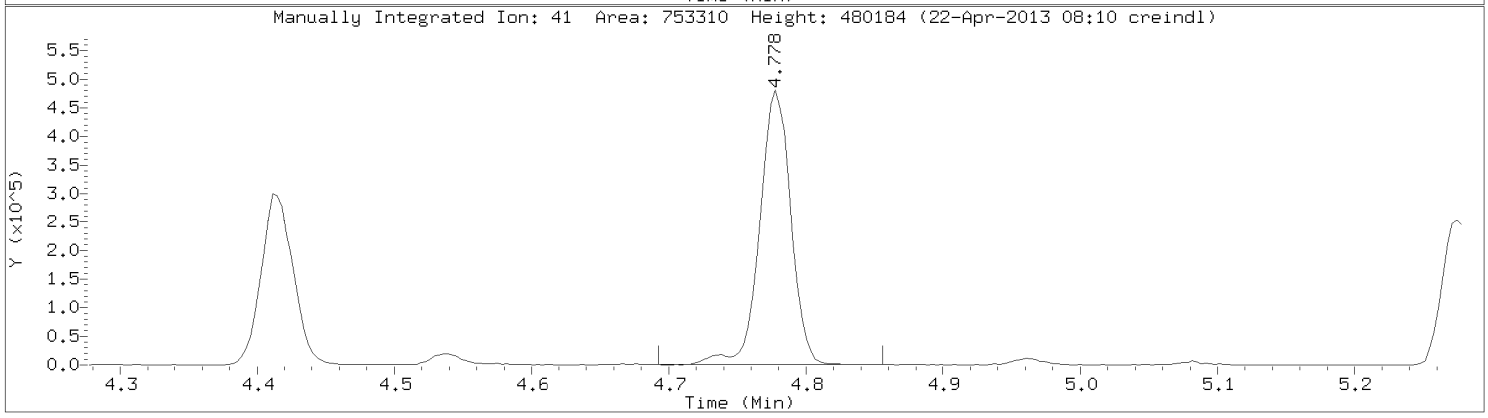
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Injection Date: 21-APR-2013 12:45
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: n-Hexane
CAS Number: 110-54-3

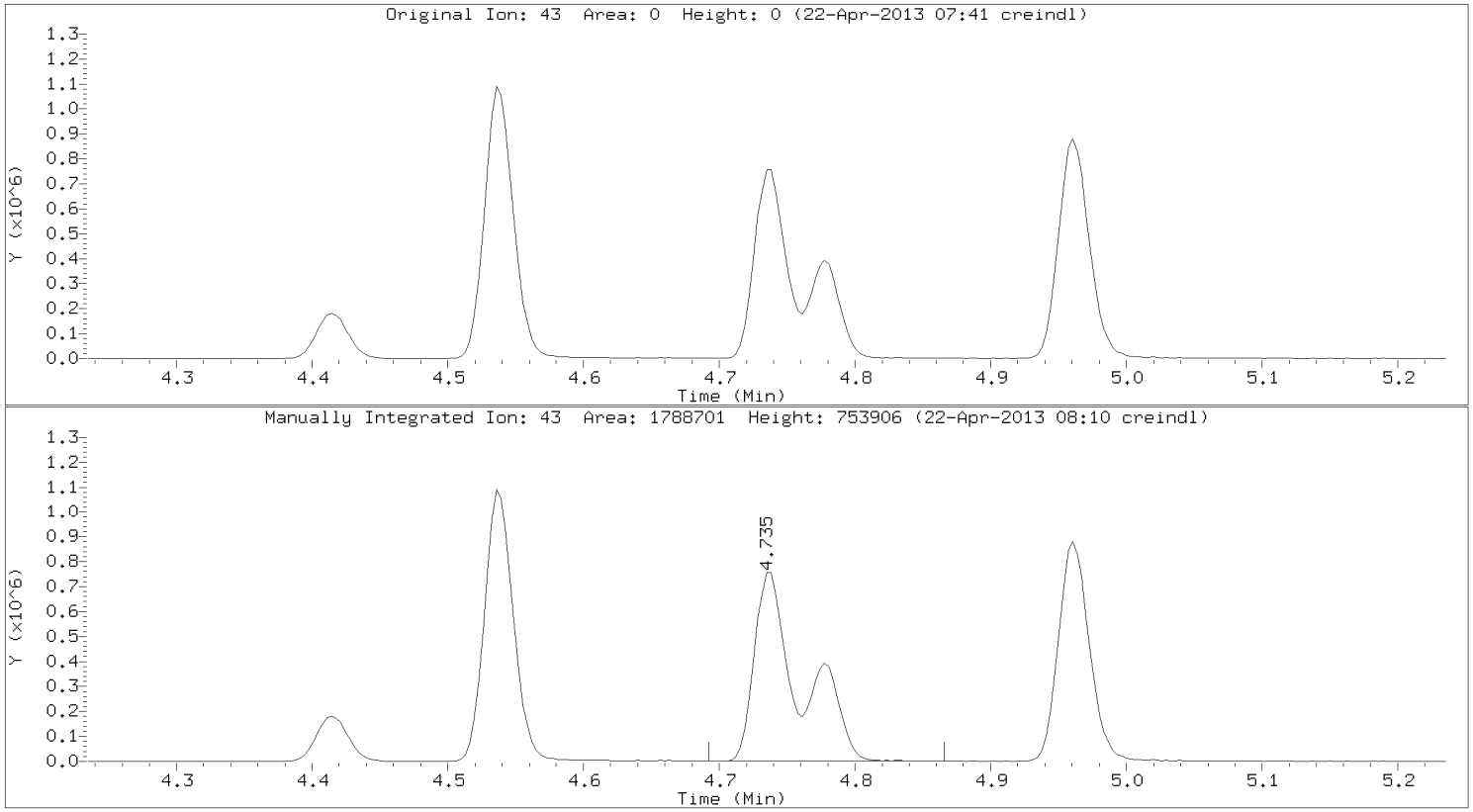






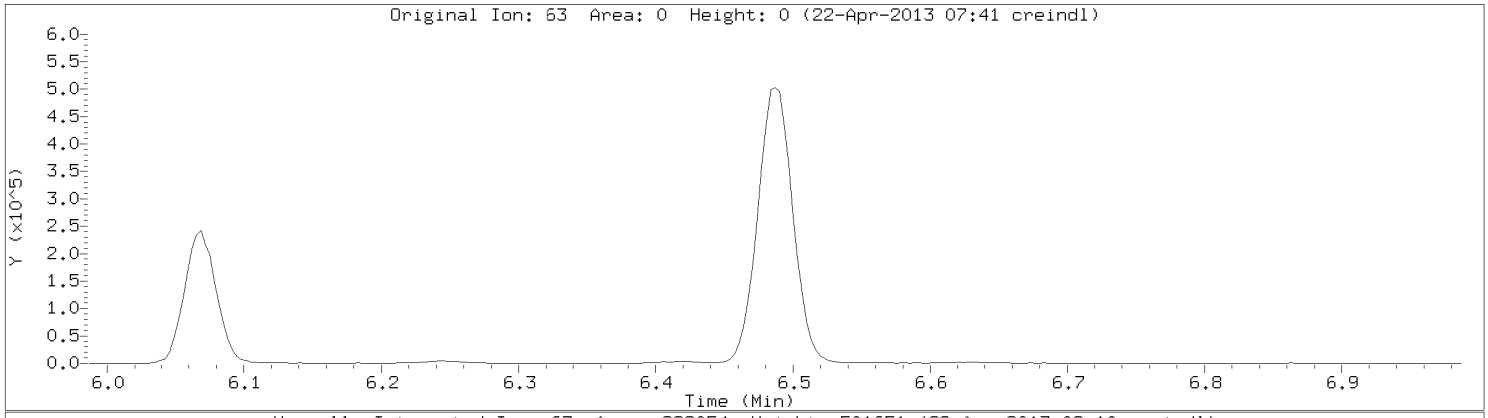


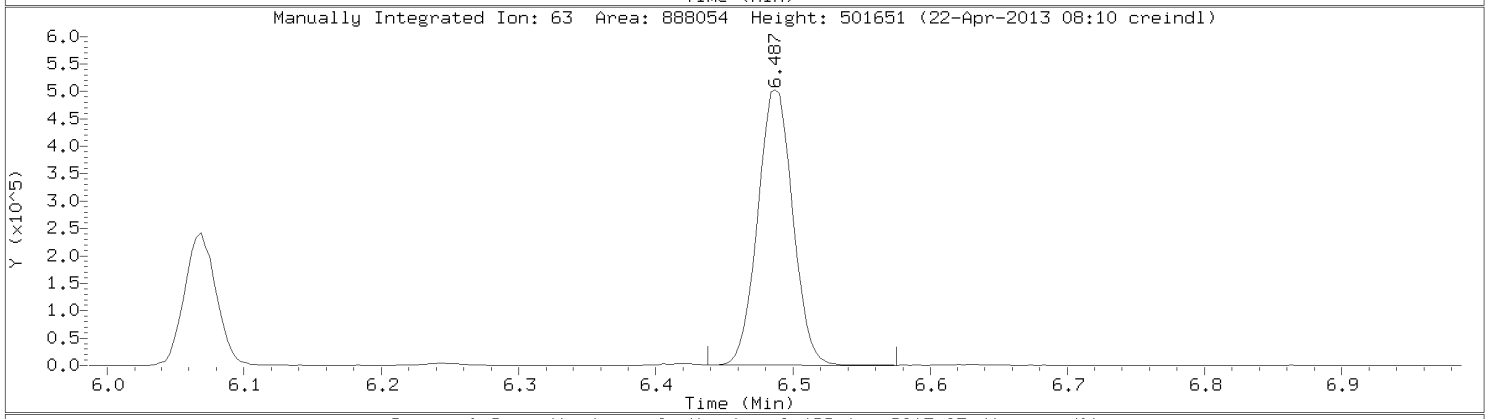
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Injection Date: 21-APR-2013 12:45
Instrument: 10airD.i
Lab Sample ID: ICAL6

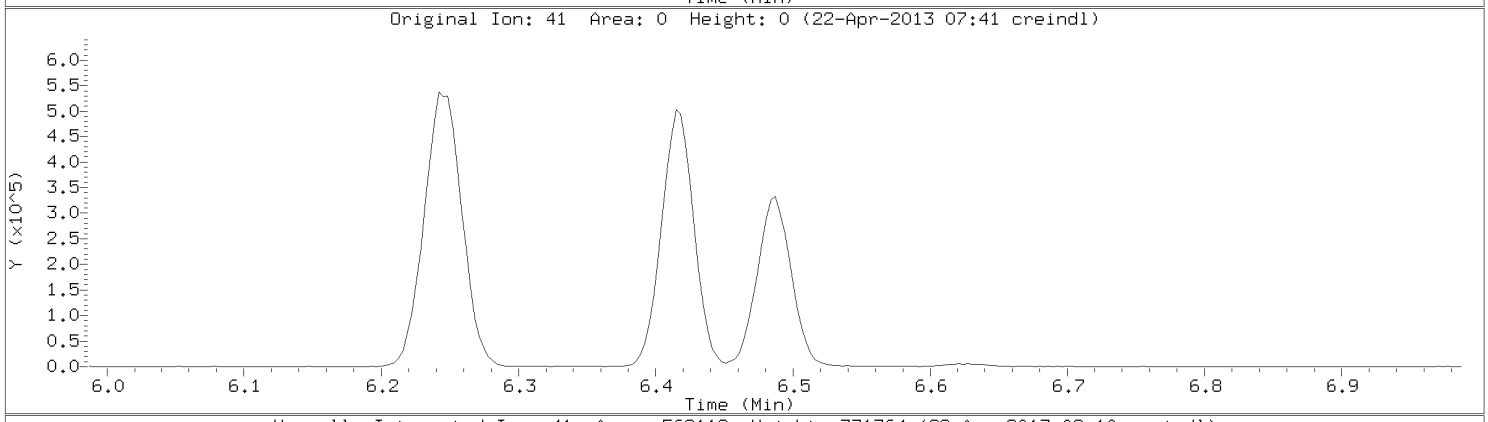


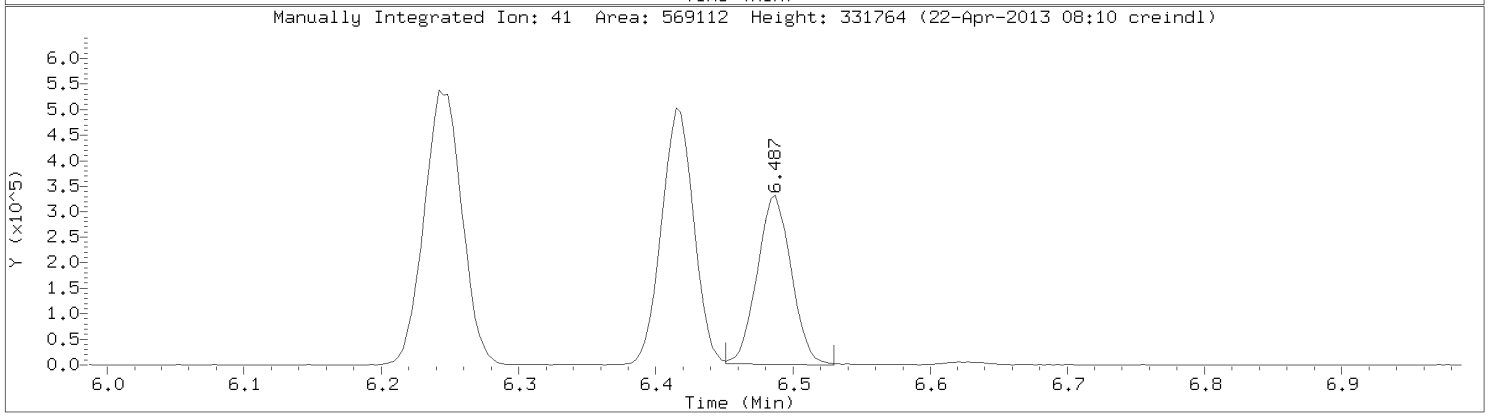
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Injection Date: 21-APR-2013 12:45
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

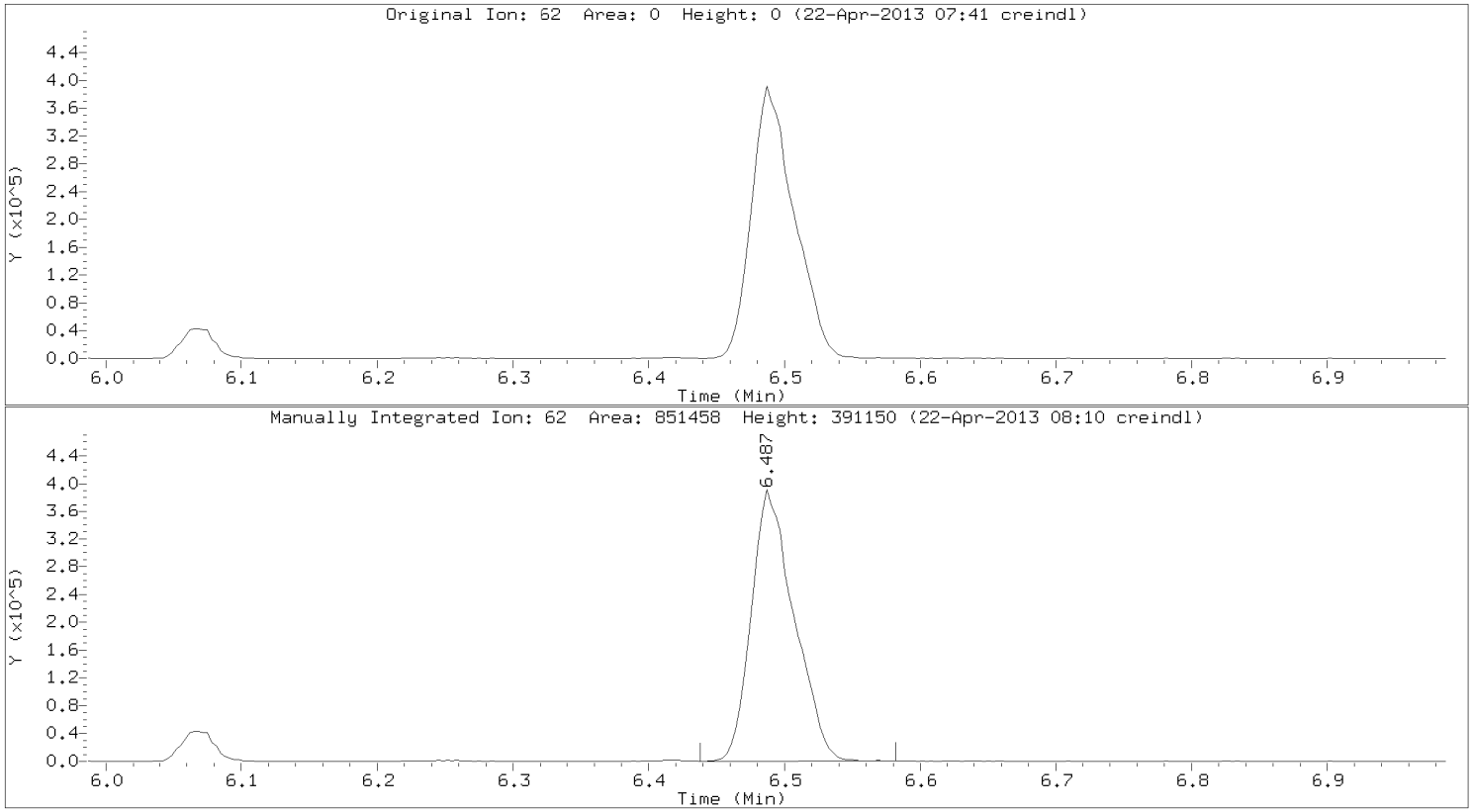






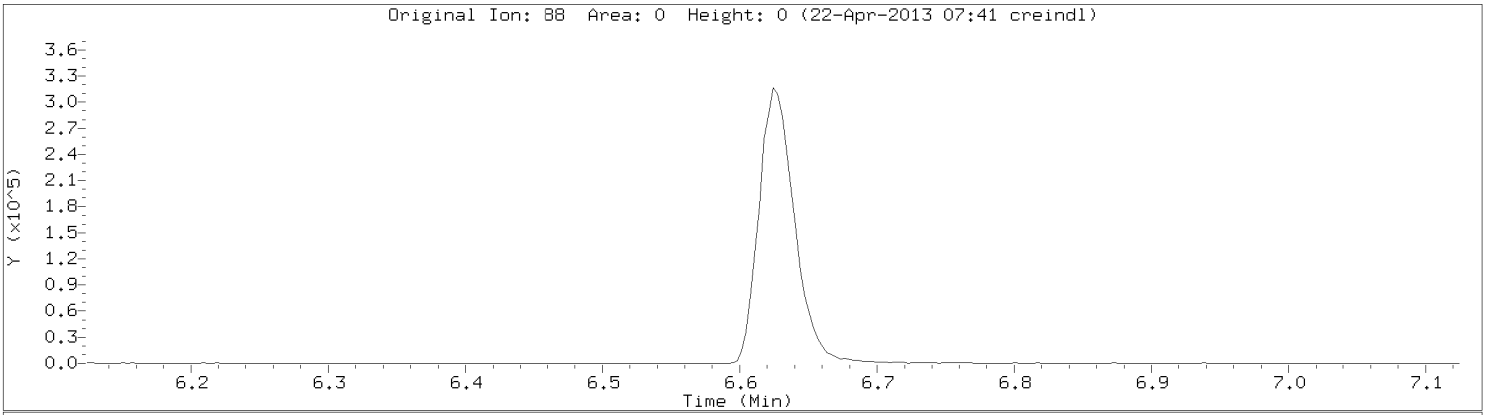


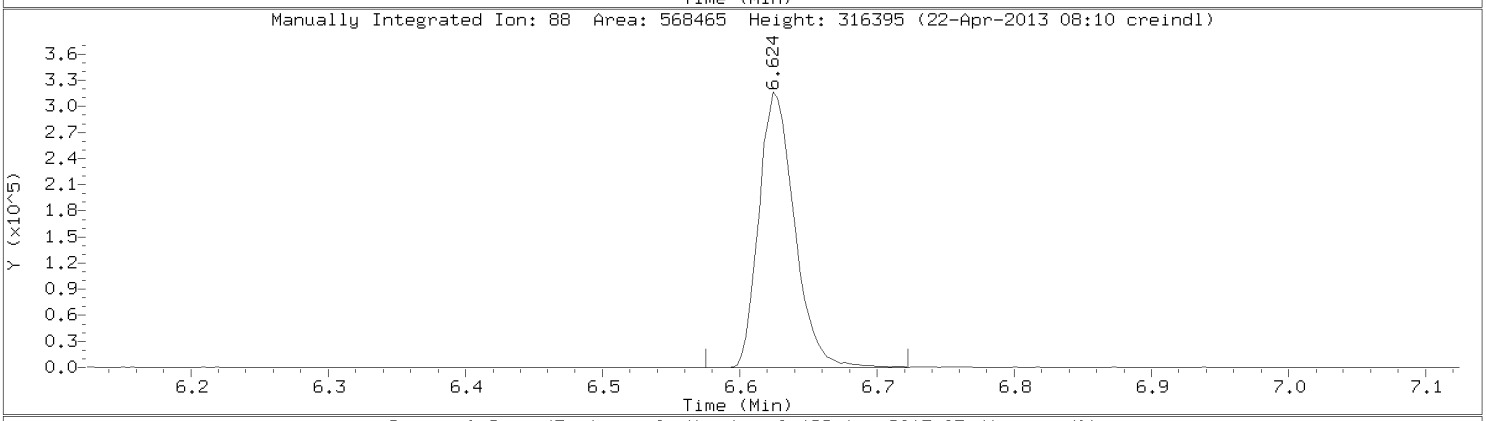
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Injection Date: 21-APR-2013 12:45
Instrument: 10airD.i
Lab Sample ID: ICAL6

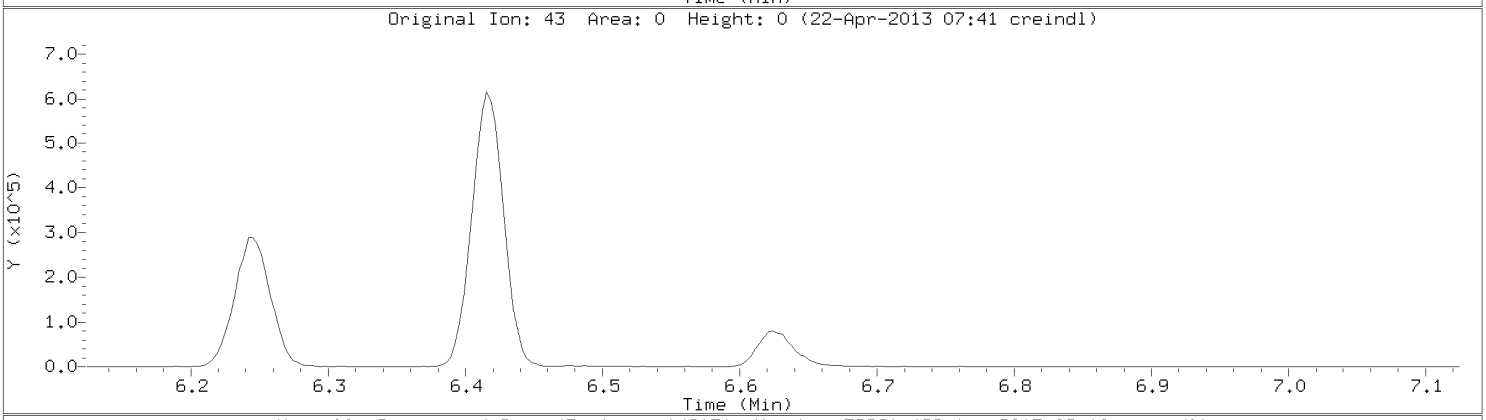


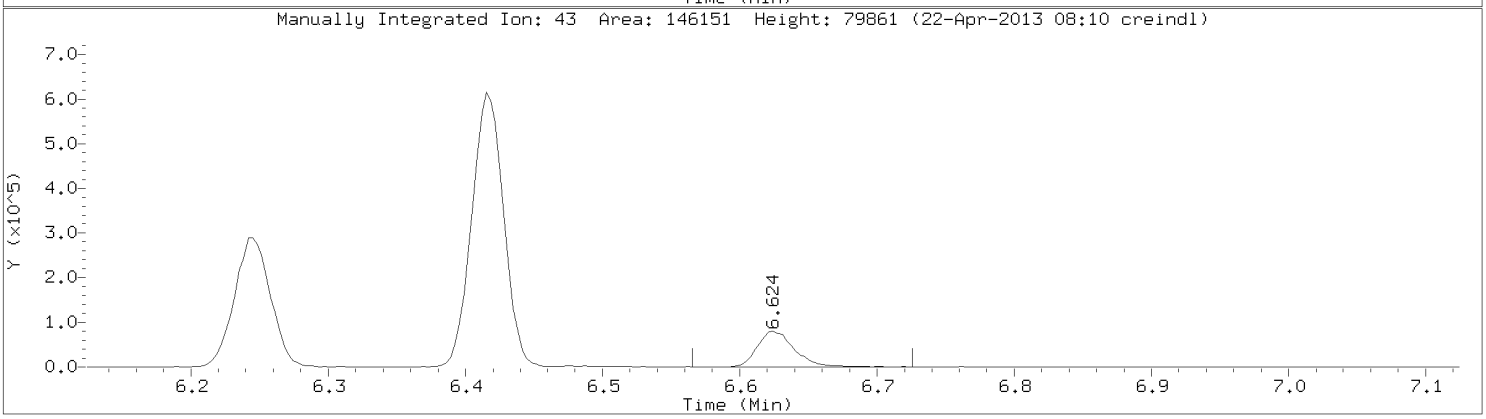
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Injection Date: 21-APR-2013 12:45
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: 1,4-Dioxane
CAS Number: 123-91-1



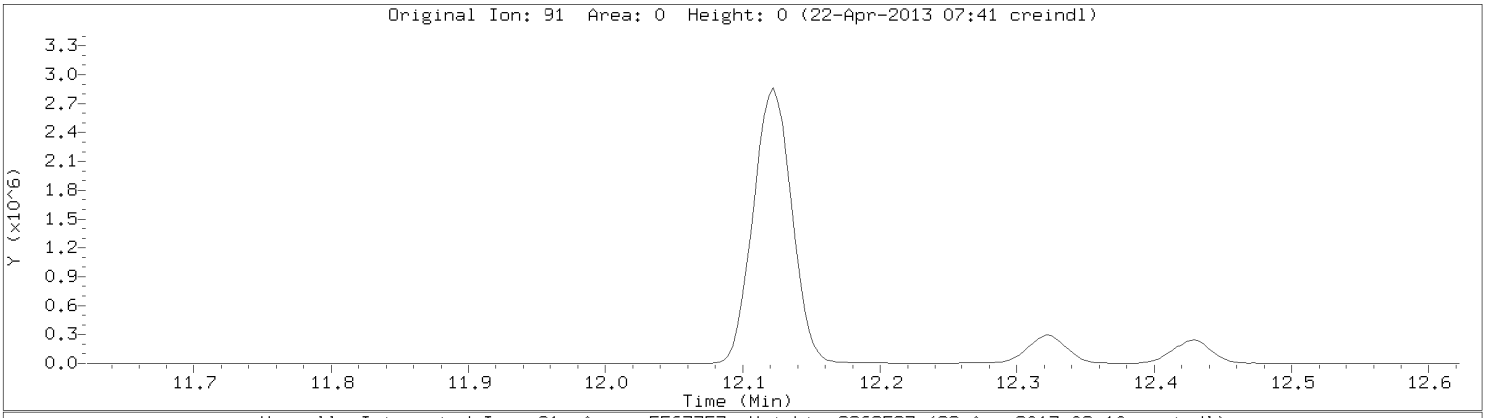


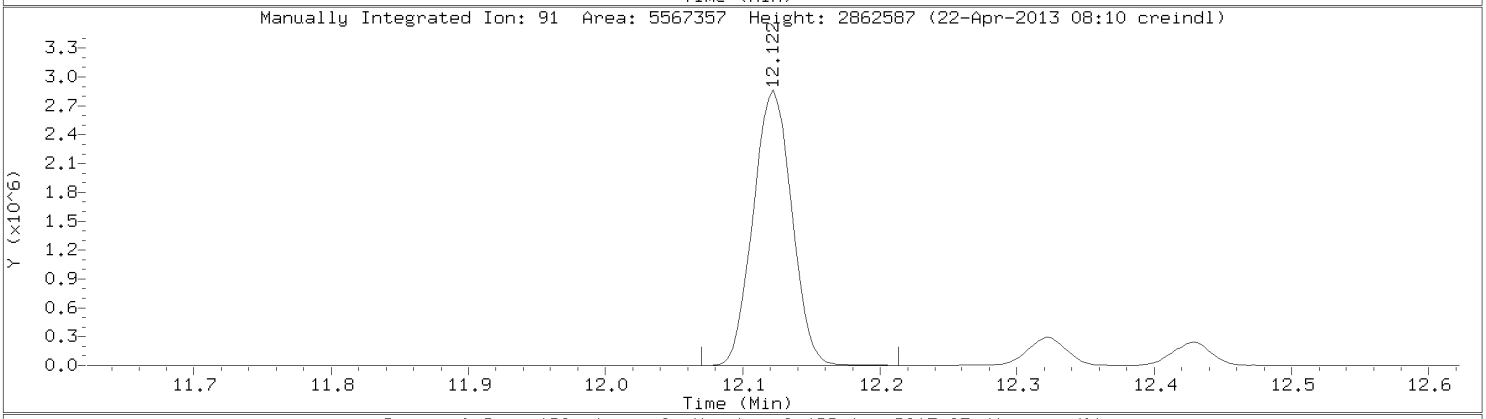


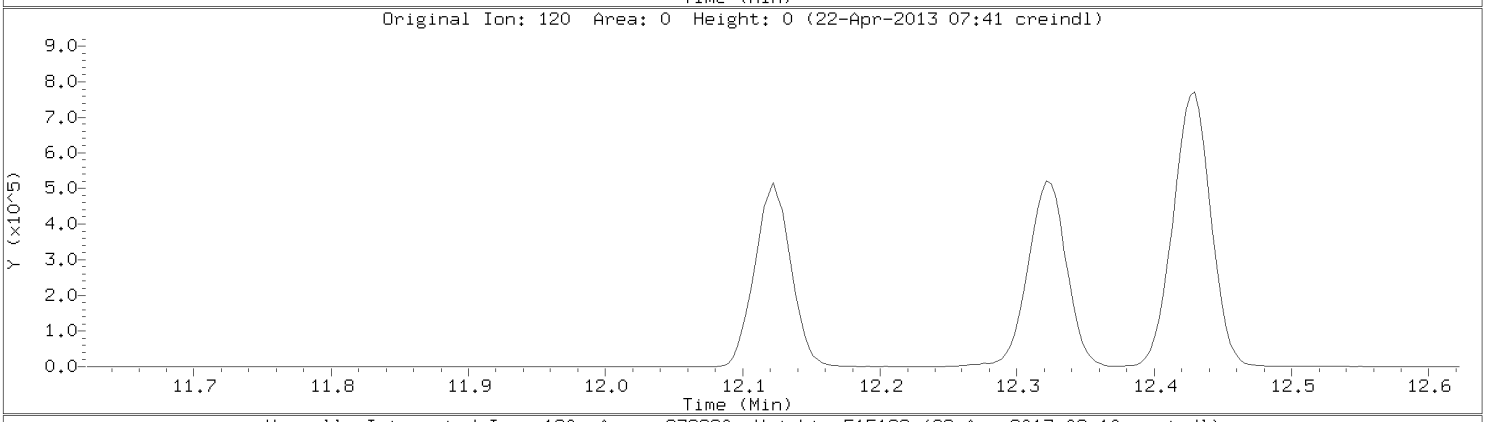


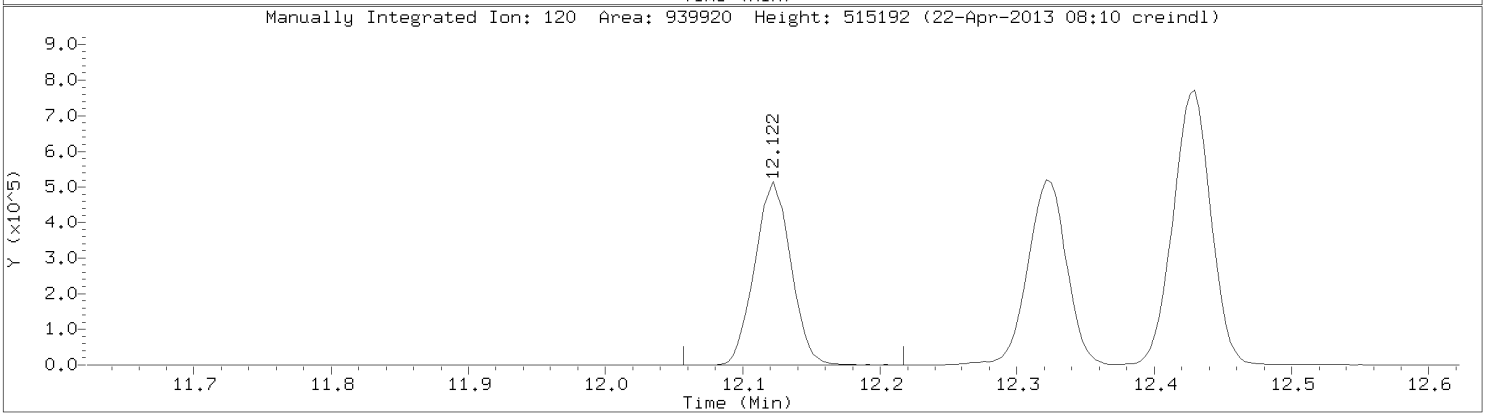
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Injection Date: 21-APR-2013 12:45
Instrument: 10airD.i
Lab Sample ID: ICAL6

Compound: N-Propylbenzene
CAS Number: 103-65-1









Data File: \\192.168.10.12\chem\10airD.i\042113.b\11111.d
Report Date: 22-Apr-2013 08:11

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11111.d
Lab Smp Id: ICAL7
Inj Date : 21-APR-2013 13:15
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 07:41 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 13:15 Cal File: 11111.d
Als bottle: 11 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	417134	30.0000	30.9(A)
2	Dichlorodifluoromethane	85	2.953	2.953	(0.486)	3800806	30.0000	28.4
3	Dichlorotetrafluoroethane	85	3.051	3.051	(0.503)	3300438	30.0000	31.4(A)
4	Chloromethane	50	3.051	3.051	(0.503)	979928	30.0000	34.6(A)
5	Vinyl chloride	62	3.140	3.140	(0.517)	1060491	30.0000	35.2(A)
6	1,3-Butadiene	54	3.182	3.182	(0.524)	582078	30.0000	38.4(A)
7	Bromomethane	94	3.342	3.342	(0.550)	1179701	30.0000	32.7(A)
8	Chloroethane	64	3.398	3.398	(0.560)	557856	30.0000	35.4(AM)
9	Ethanol	31	3.424	3.424	(0.564)	317839	30.0000	24.2
10	Vinyl Bromide	106	3.535	3.535	(0.582)	1051890	30.0000	35.4(A)
11	Acrolein	56	3.630	3.630	(0.598)	332275	30.0000	39.0(A)
12	Trichlorofluoromethane	101	3.646	3.646	(0.601)	3509594	30.0000	27.6
13	Acetone	43	3.672	3.672	(0.605)	1646145	30.0000	30.8(A)
14	Isopropyl Alcohol	45	3.705	3.705	(0.610)	87997	30.0000	7.66
15	1,1-Dichloroethene	61	3.934	3.934	(0.648)	1985061	30.0000	32.2(A)
16	Acrylonitrile	53	3.934	3.934	(0.648)	677994	30.0000	36.2(A)
17	Tert Butyl Alcohol	59	3.934	3.934	(0.648)	121556	30.0000	11.3(M)
18	Freon 113	101	3.986	3.986	(0.657)	2426958	30.0000	29.7
19	Methylene chloride	49	4.048	4.048	(0.667)	1173754	30.0000	32.6(A)
20	Allyl Chloride	76	4.061	4.061	(0.669)	578054	30.0000	35.0(A)
21	Carbon Disulfide	76	4.182	4.182	(0.689)	3661335	30.0000	31.4(AH)
22	trans-1,2-dichloroethene	96	4.382	4.382	(0.722)	1179745	30.0000	33.5(A)
23	Methyl Tert Butyl Ether	73	4.418	4.418	(0.728)	2680078	30.0000	36.0(AM)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11111.d
Report Date: 22-Apr-2013 08:11

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
	24 Vinyl Acetate	43	4.539	4.539	(0.748)	2376694	30.0000	38.6(A)
	25 1,1-Dichloroethane	63	4.545	4.545	(0.749)	2269580	30.0000	32.0(A)
$	26 Hexane-d14(S)	66	4.663	4.663	(0.768)	547503	10.0000	10.7
	27 Methyl Ethyl Ketone	72	4.741	4.741	(0.781)	609656	30.0000	36.4(AM)
	28 n-Hexane	57	4.780	4.780	(0.787)	1475426	30.0000	33.5(AM)
	29 cis-1,2-Dichloroethene	96	4.941	4.941	(0.814)	1235932	30.0000	31.2(A)
	30 Ethyl Acetate	43	4.963	4.963	(0.818)	1835448	30.0000	38.2(A)
	31 Chloroform	83	5.088	5.088	(0.838)	3120233	30.0000	32.3(A)
	32 Tetrahydrofuran	42	5.274	5.274	(0.869)	739313	30.0000	30.8(A)
	33 1,1,1-Trichloroethane	97	5.568	5.568	(0.917)	3047237	30.0000	31.7(A)
	34 1,2-Dichloroethane	62	5.591	5.591	(0.921)	2357602	30.0000	32.7(A)
	35 Benzene	78	5.859	5.859	(0.965)	3608975	30.0000	40.4(A)
	36 Carbon tetrachloride	117	5.879	5.879	(0.968)	2714141	30.0000	27.3
	37 Cyclohexane	56	5.882	5.882	(0.969)	1420151	30.0000	31.4(A)
*	38 1,4-Difluorobenzene	114	6.072	6.072	(1.000)	1074938	10.0000	
	39 2,2,4-Trimethylpentane	57	6.248	6.248	(1.029)	4126487	30.0000	31.2(A)
	40 Heptane	43	6.418	6.418	(1.057)	1326502	30.0000	31.2(A)
	41 1,2-Dichloropropane	63	6.490	6.490	(1.069)	1214118	30.0000	38.3(AM)
	42 Trichloroethene	130	6.513	6.513	(1.073)	1175286	30.0000	39.1(A)
	43 1,4-Dioxane	88	6.630	6.630	(1.092)	418596	30.0000	24.0(M)
	44 Bromodichloromethane	83	6.634	6.634	(1.093)	3393974	30.0000	33.2(A)
	45 Methyl Isobutyl Ketone	43	7.212	7.212	(1.188)	401078	30.0000	11.3
	46 cis-1,3-Dichloropropene	75	7.265	7.265	(1.196)	2093449	30.0000	31.0(A)
	47 trans-1,3-Dichloropropene	75	7.761	7.761	(1.278)	2288470	30.0000	31.0(A)
$	48 Toluene-d8 (S)	98	7.837	7.837	(1.291)	991182	10.0000	10.2
	49 Toluene	91	7.928	7.928	(1.306)	4426254	30.0000	41.3(A)
	50 1,1,2-Trichloroethane	97	7.938	7.938	(1.307)	1538688	30.0000	36.8(A)
	51 Methyl Butyl Ketone	43	8.242	8.242	(0.851)	173614	30.0000	7.99
	52 Dibromochloromethane	129	8.549	8.549	(0.883)	2391749	30.0000	36.5(A)
	53 1,2-Dibromoethane	107	8.820	8.820	(0.911)	2216670	30.0000	37.4(A)
	54 Tetrachloroethene	166	8.909	8.909	(0.920)	2055130	30.0000	36.5(A)
*	55 Chlorobenzene - d5	117	9.683	9.683	(1.000)	574731	10.0000	
	56 Chlorobenzene	112	9.736	9.736	(1.005)	2823942	30.0000	36.8(A)
	57 Ethyl Benzene	91	10.040	10.040	(1.037)	5515688	30.0000	31.2(A)
	58 m&p-Xylene	91	10.210	10.210	(1.054)	4449962	30.0000	31.1(A)
	59 Bromoform	173	10.657	10.657	(1.101)	2764587	30.0000	39.5(A)
	60 Styrene	104	10.706	10.706	(1.106)	2891245	30.0000	31.2(A)
	61 o-Xylene	91	10.785	10.785	(1.114)	4700525	30.0000	31.1(A)
	62 1,1,2,2-Tetrachloroethane	83	11.099	11.099	(1.146)	2662437	30.0000	34.2(A)
	63 Isopropylbenzene	105	11.461	11.461	(1.184)	5566302	30.0000	38.3(A)
	64 N-Propylbenzene	91	12.125	12.125	(1.252)	6975671	30.0000	30.8(AM)
	65 4-Ethyltoluene	105	12.324	12.324	(1.273)	5216310	30.0000	30.9(AH)
	66 1,3,5-Trimethylbenzene	105	12.432	12.432	(1.284)	4332224	30.0000	30.4(A)
	67 1,2,4-Trimethylbenzene	105	13.027	13.027	(1.345)	3897286	30.0000	29.8
	68 1,3-Dichlorobenzene	146	13.380	13.380	(1.382)	2338211	30.0000	30.0(H)
	69 Sec- Butylbenzene	105	13.410	13.410	(1.385)	5452870	30.0000	29.8
$	70 1,4-dichlorobenzene-d4 (S)	150	13.462	13.462	(1.390)	228593	10.0000	9.01
	71 Benzyl Chloride	91	13.488	13.488	(1.393)	2848077	30.0000	27.5
	72 1,4-Dichlorobenzene	146	13.511	13.511	(1.395)	2241289	30.0000	29.7
	73 1,2-Dichlorobenzene	146	14.047	14.047	(1.451)	1592300	30.0000	26.9
	74 N-Butylbenzene	91	14.331	14.331	(1.480)	2624489	30.0000	22.5
	75 1,2,4-Trichlorobenzene	180	16.691	16.691	(1.724)	95312	30.0000	10.3
	76 Naphthalene	128	16.868	16.868	(1.742)	112429	30.0000	8.01
	77 Hexachlorobutadiene	225	17.244	17.244	(1.781)	152485	30.0000	12.4

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11111.d
Report Date: 22-Apr-2013 08:11

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11111.d
Report Date: 22-Apr-2013 08:11

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11111.d
Lab Smp Id: ICAL7
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info:

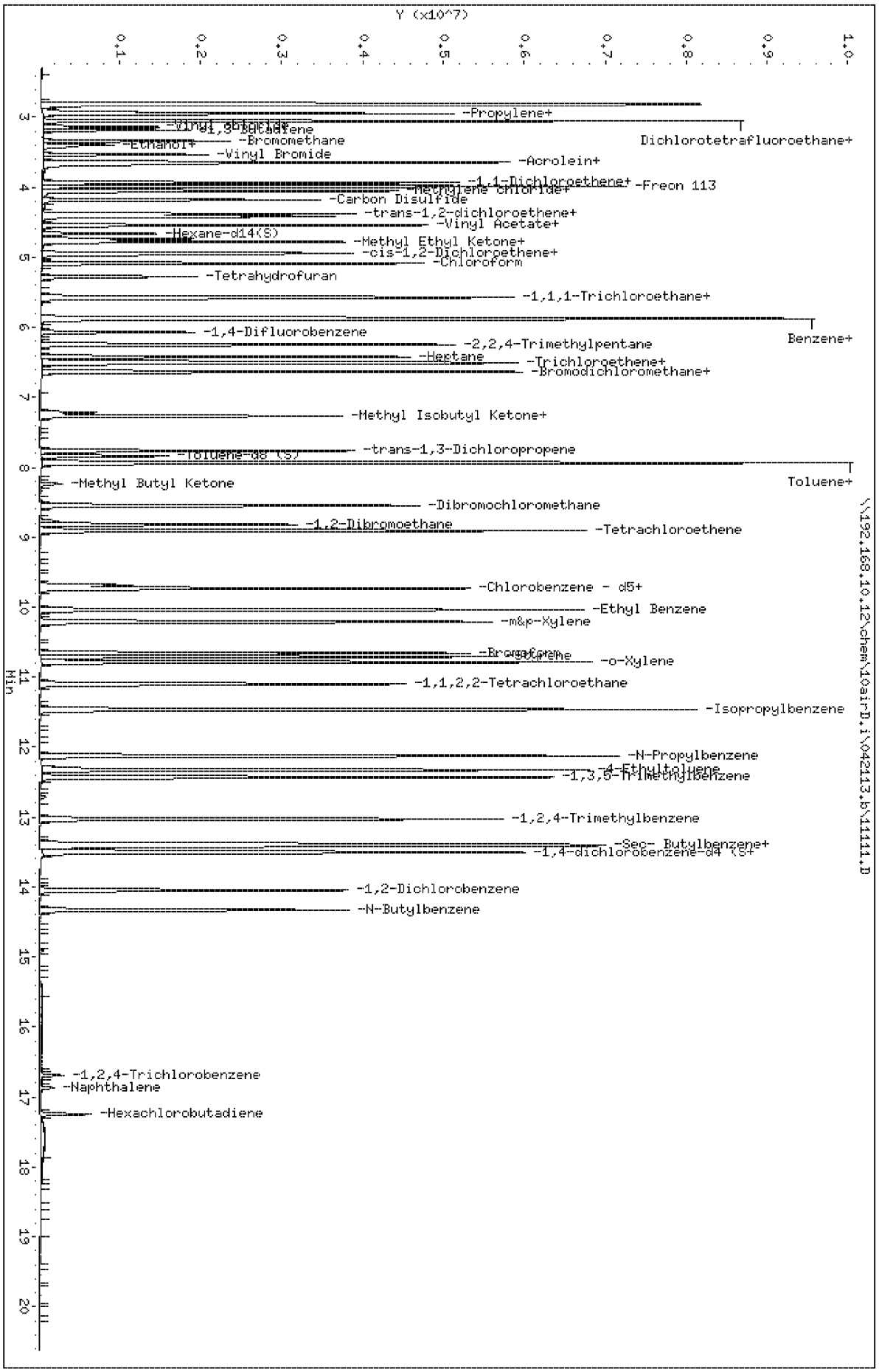
Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	1074938	-10.54
55 Chlorobenzene - d	638533	383120	893946	574731	-9.99

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.04

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

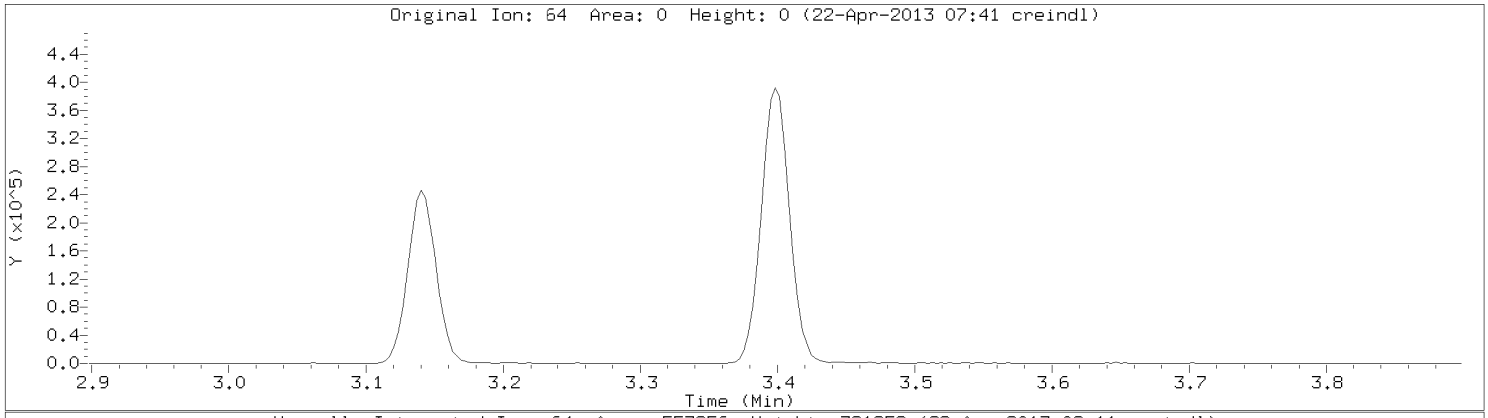


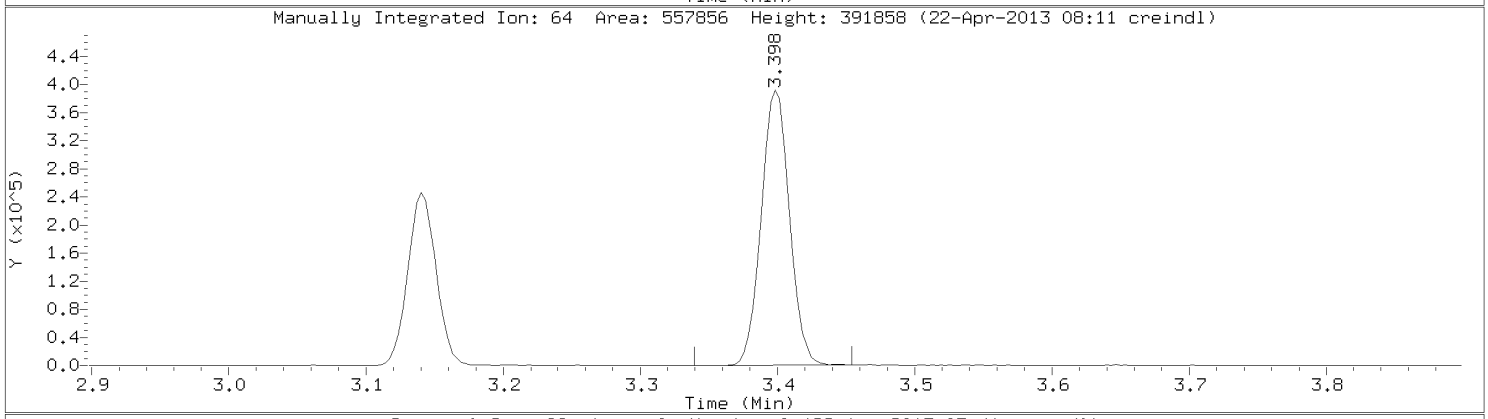
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Client ID:
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Column phase: J&W DB-5

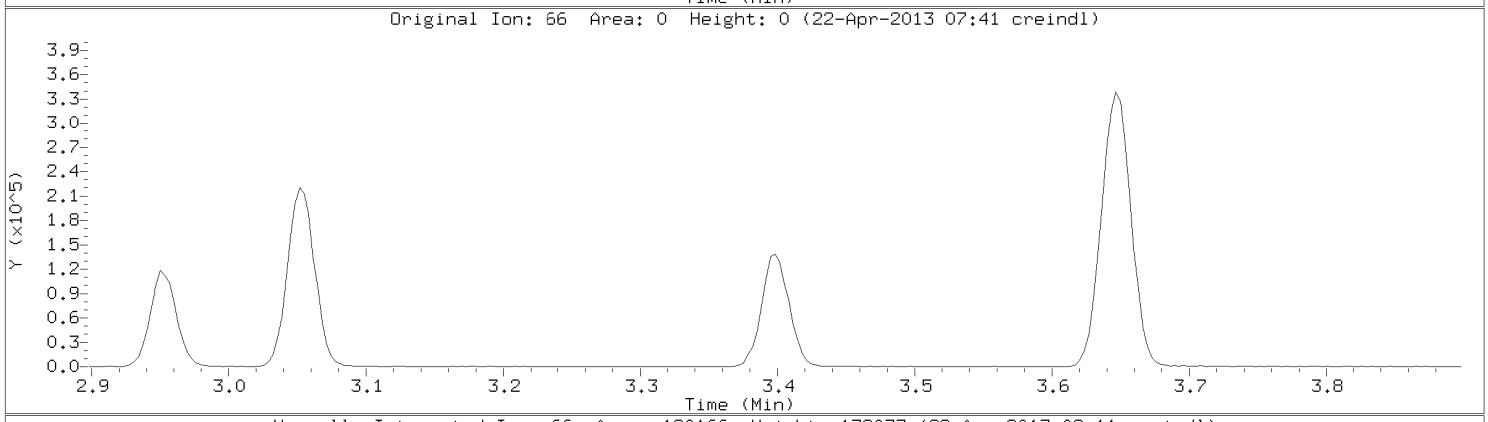
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

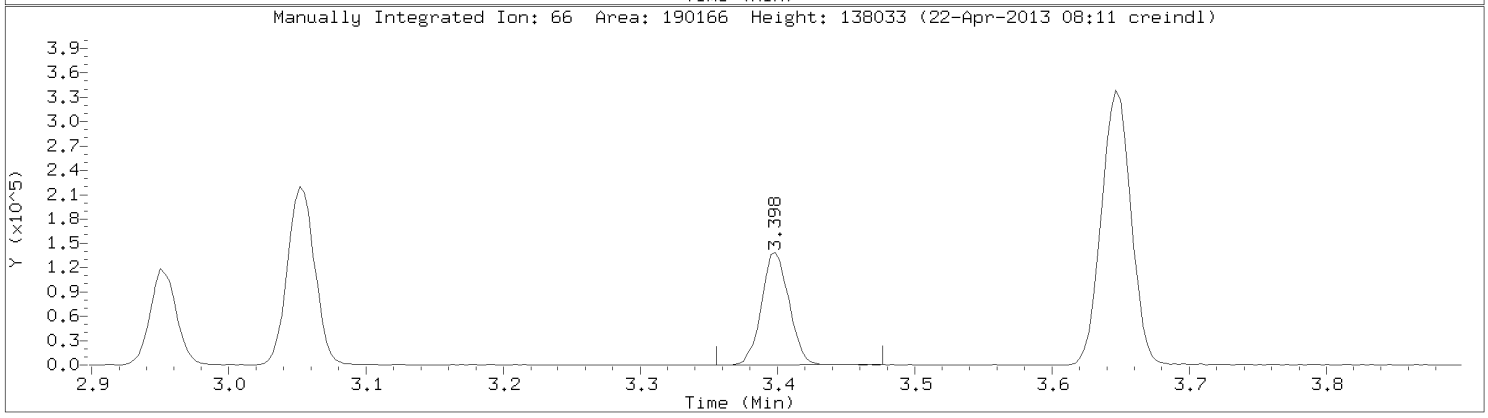
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Injection Date: 21-APR-2013 13:15
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: Chloroethane
CAS Number: 75-00-3



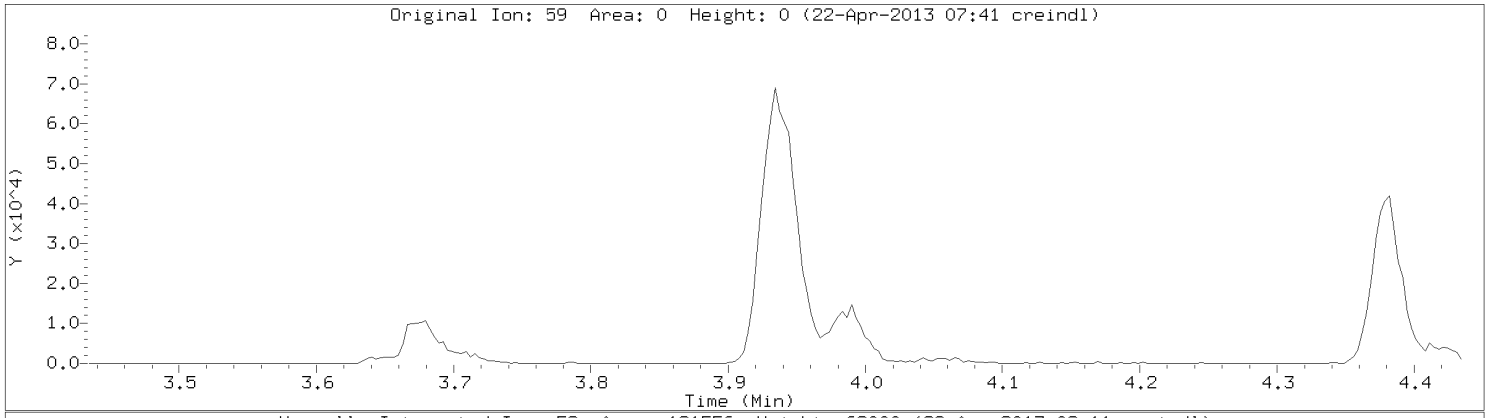


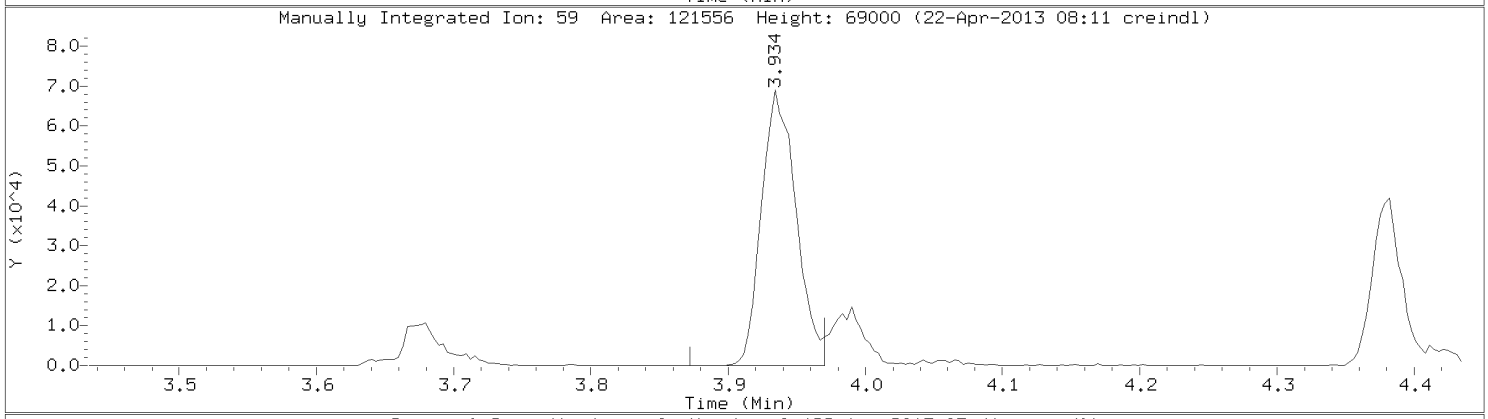


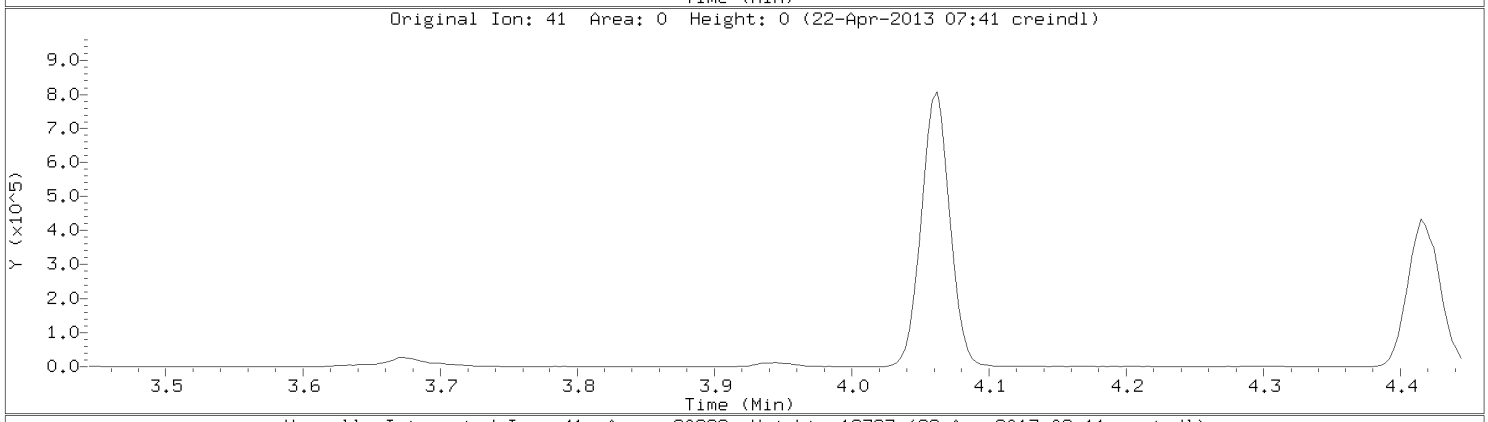


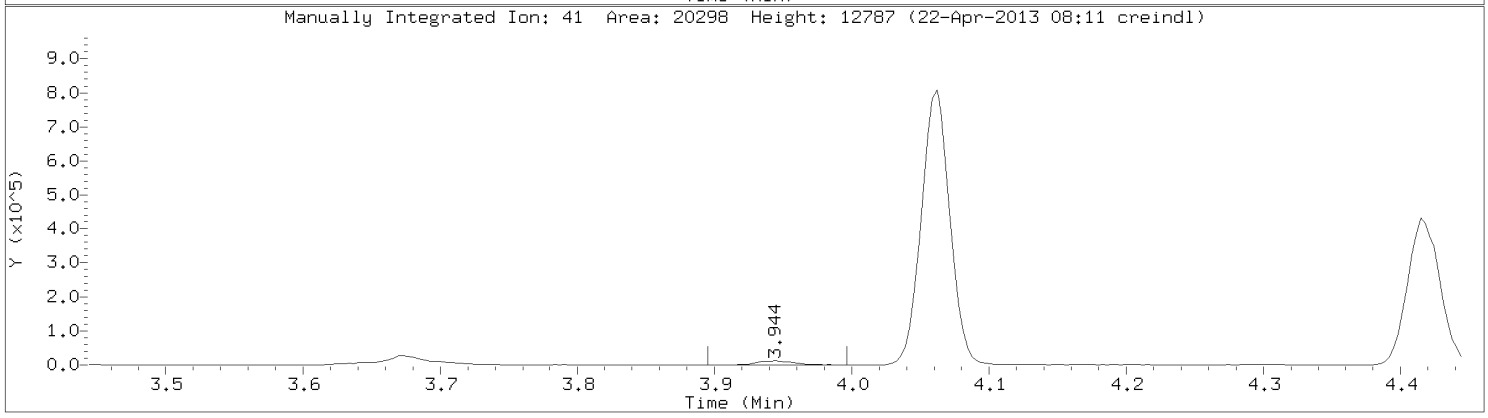
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Injection Date: 21-APR-2013 13:15
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: Tert Butyl Alcohol
CAS Number: 75-65-0



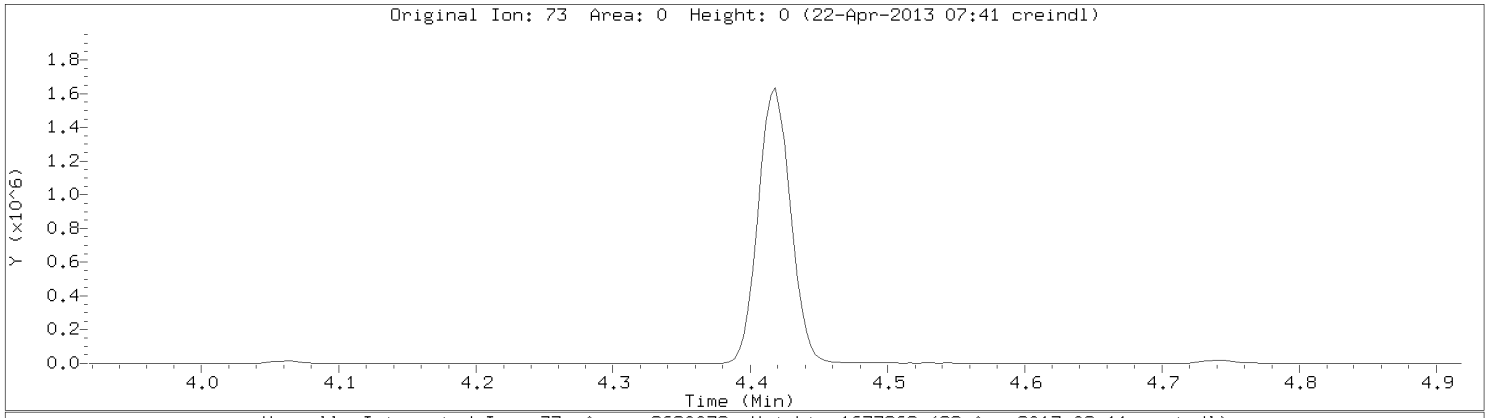


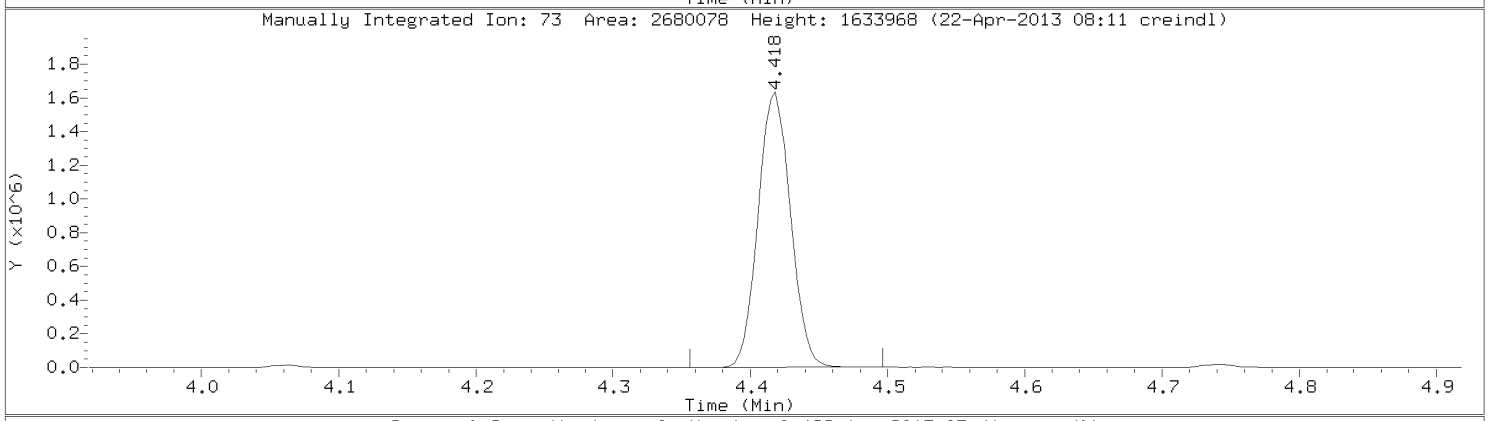


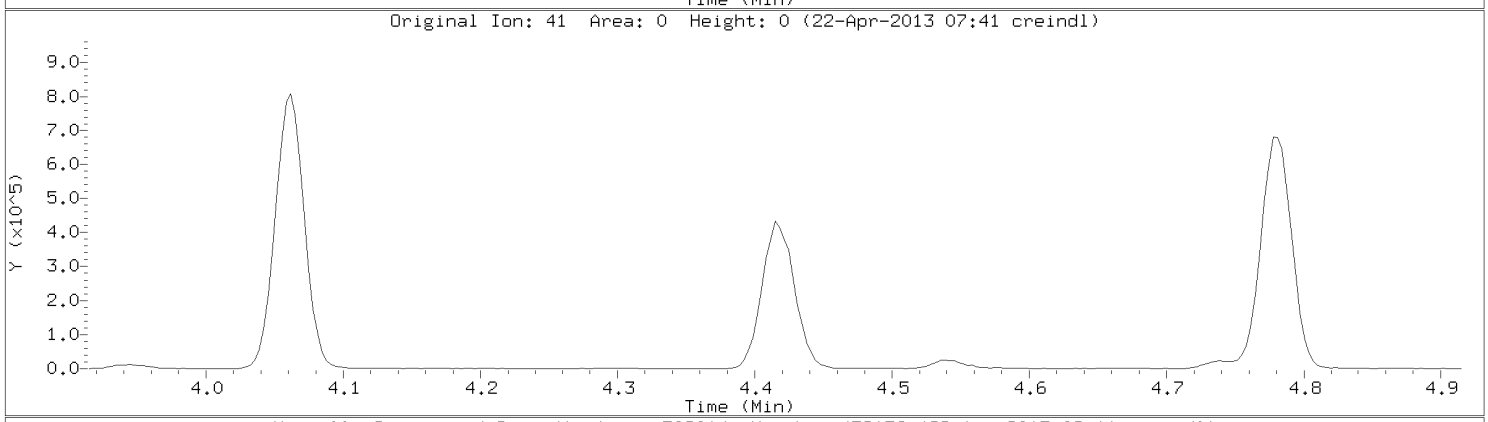


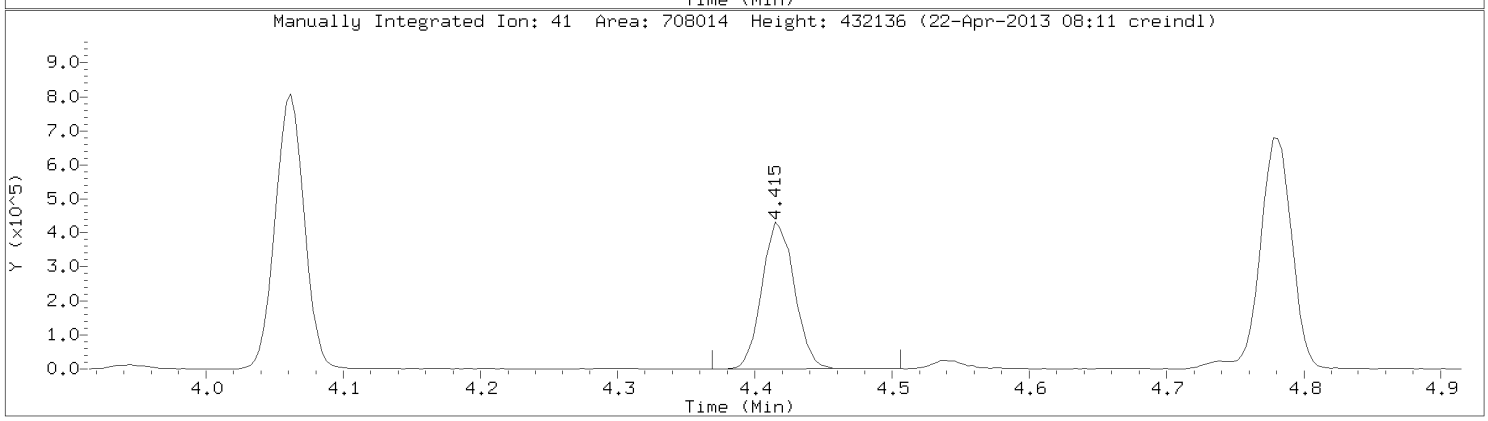
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Injection Date: 21-APR-2013 13:15
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



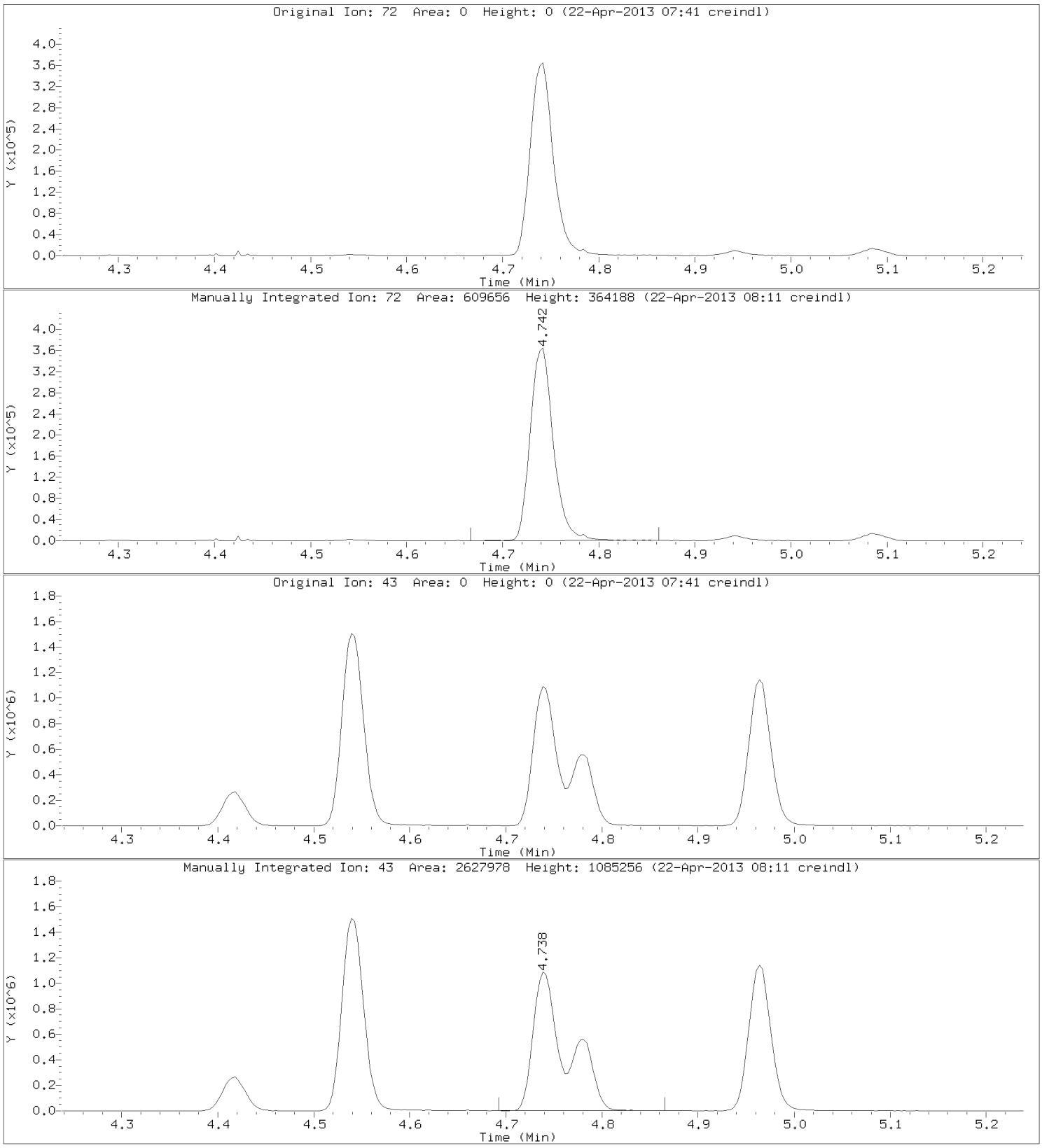






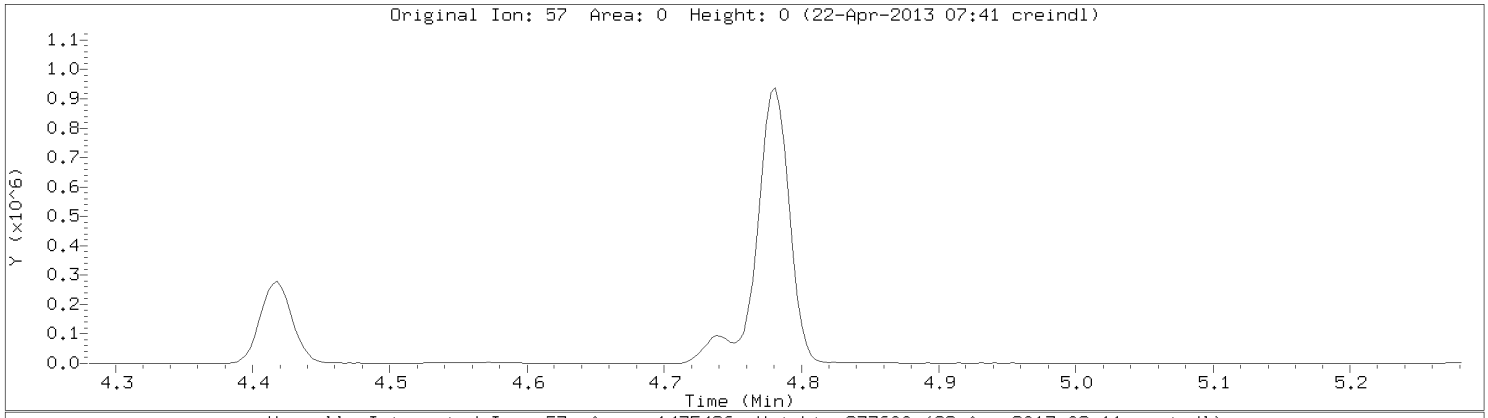
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Injection Date: 21-APR-2013 13:15
Instrument: 10airD.i
Lab Sample ID: ICAL7

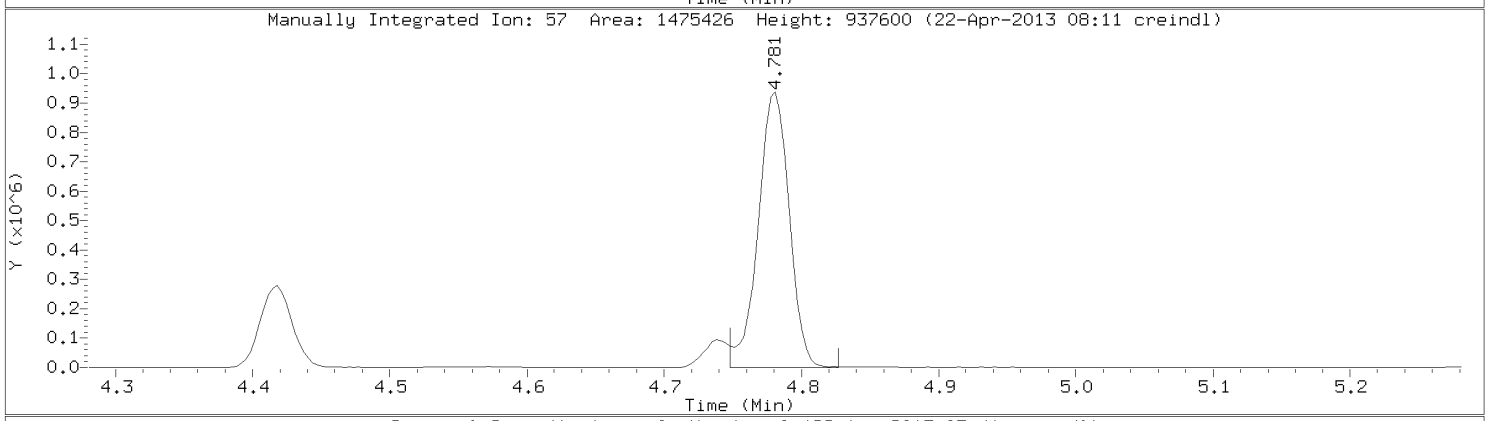
Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

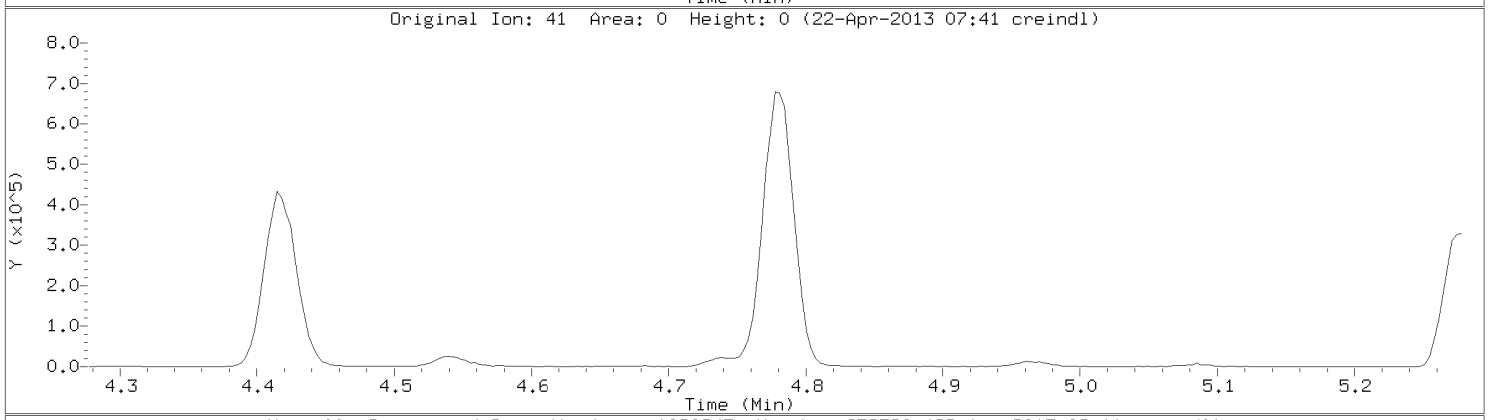


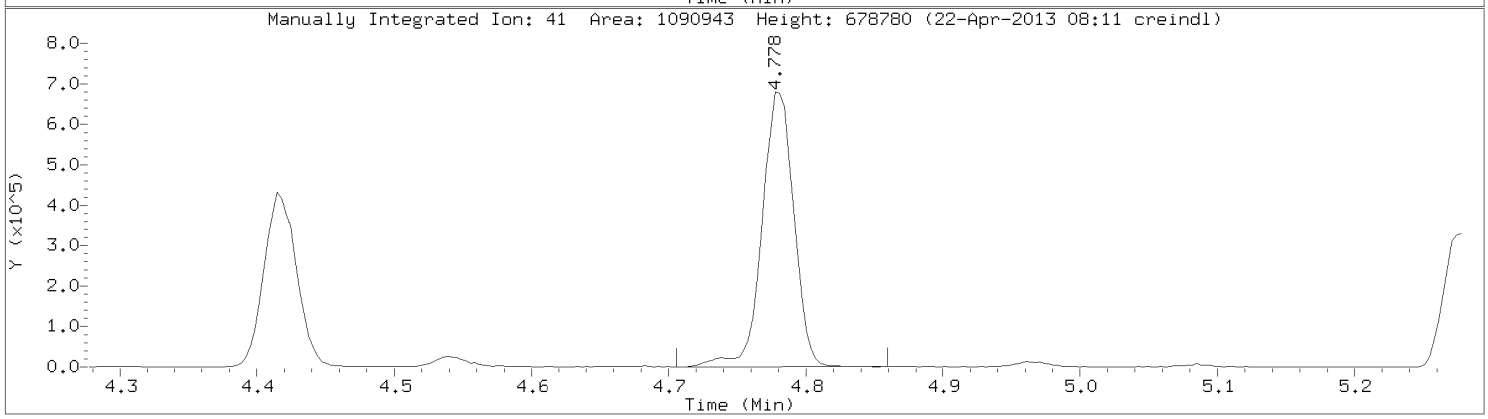
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Injection Date: 21-APR-2013 13:15
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: n-Hexane
CAS Number: 110-54-3

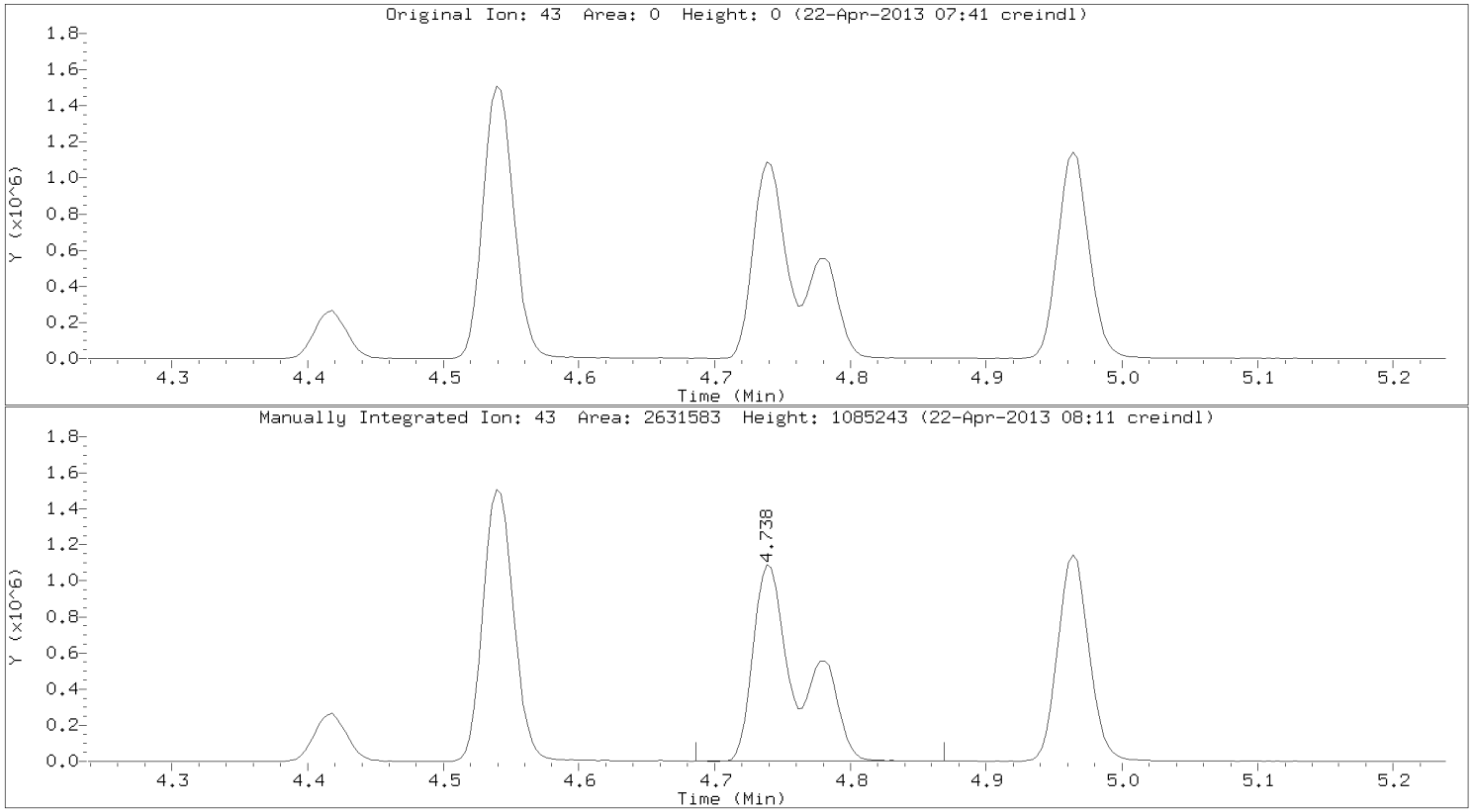






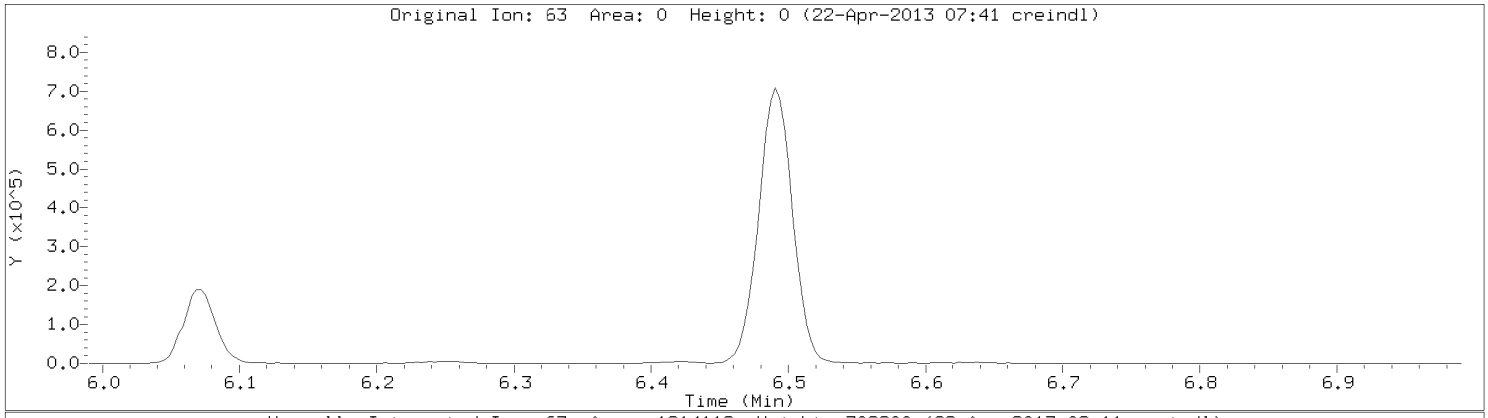


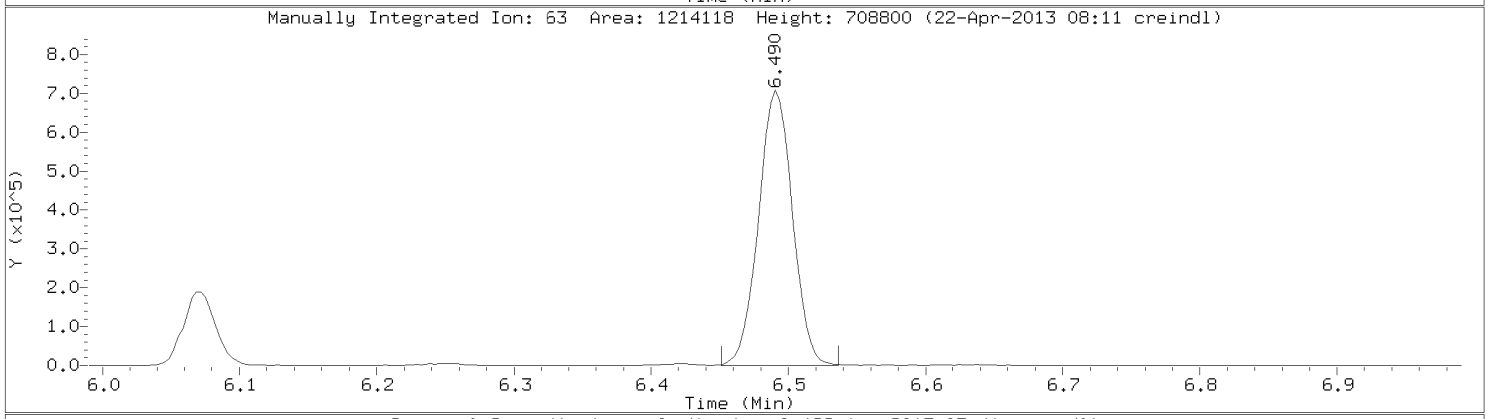
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Instrument: 10airD.i
Lab Sample ID: ICAL7

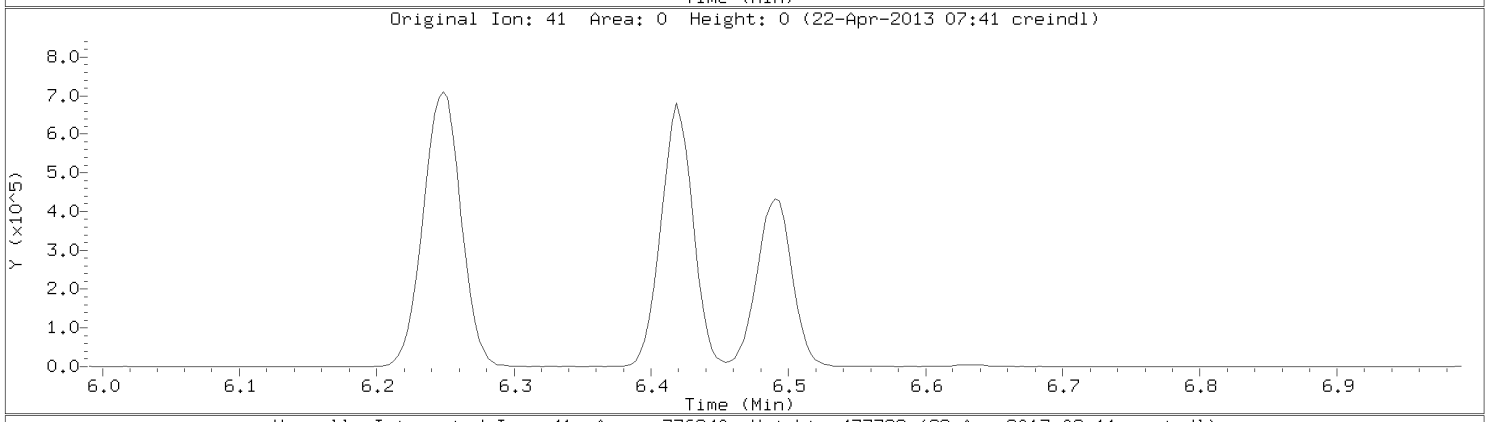


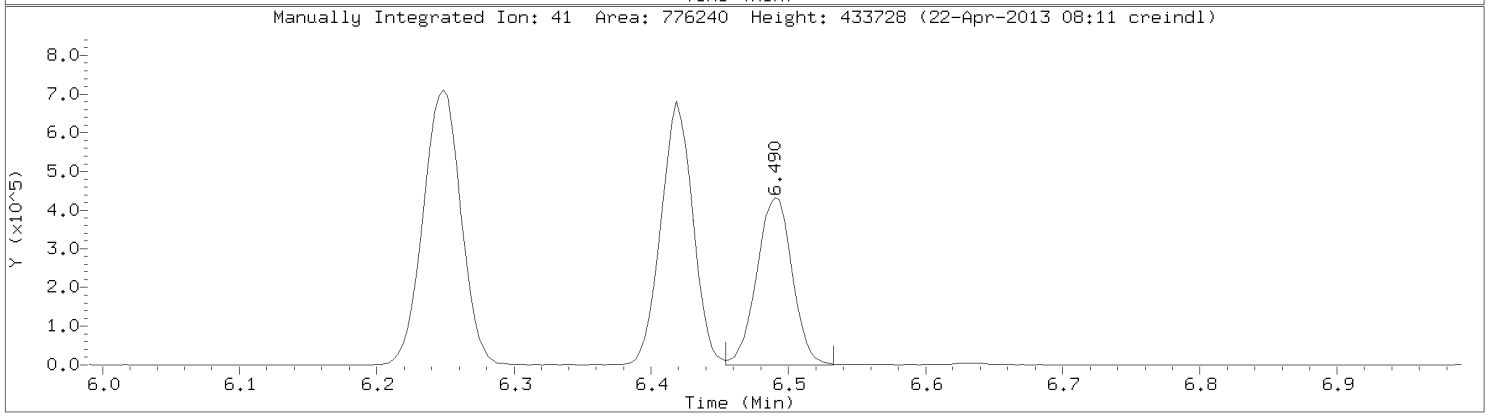
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Injection Date: 21-APR-2013 13:15
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

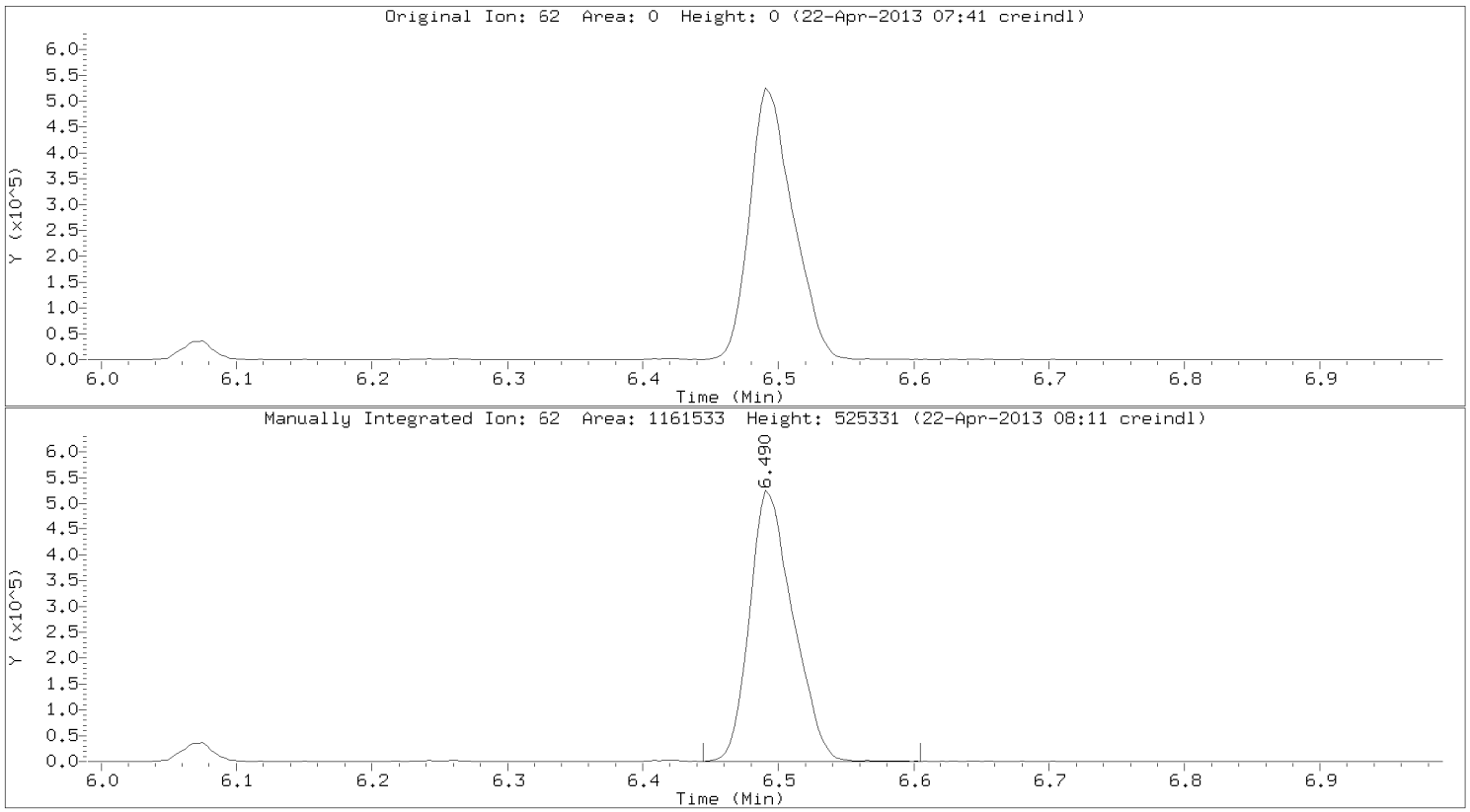






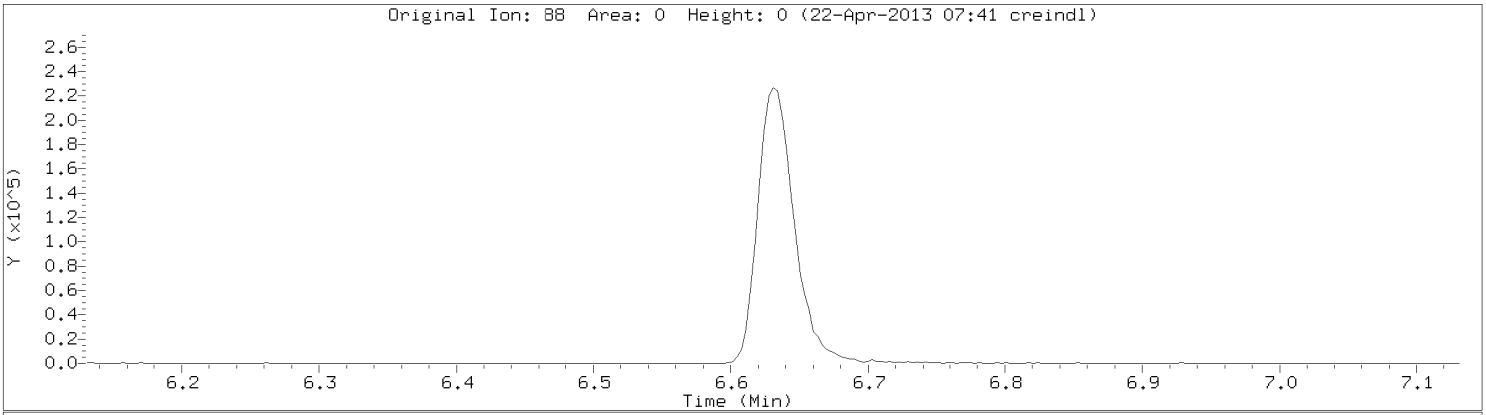


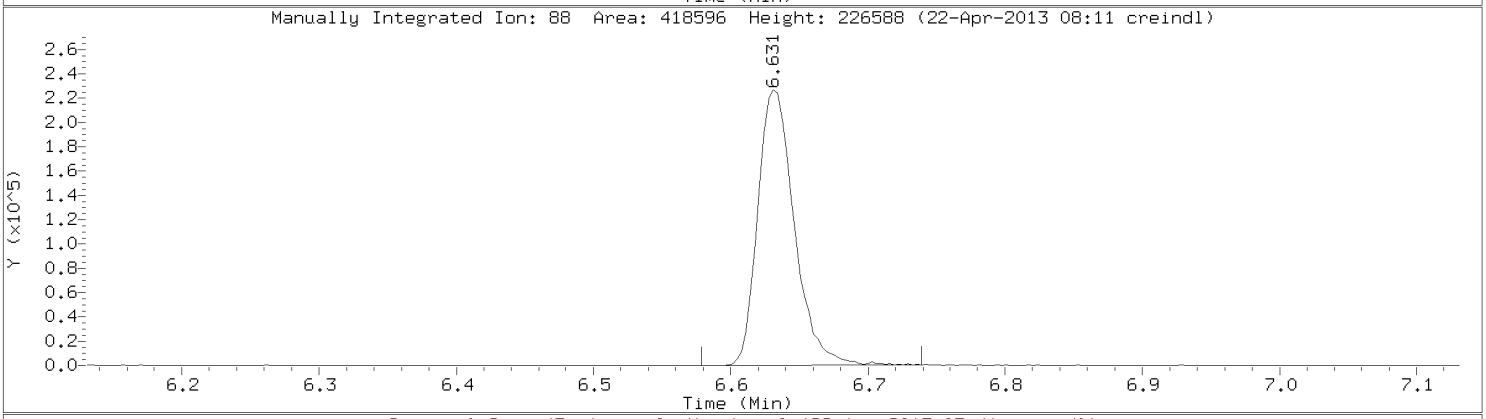
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Instrument: 10airD.i
Lab Sample ID: ICAL7

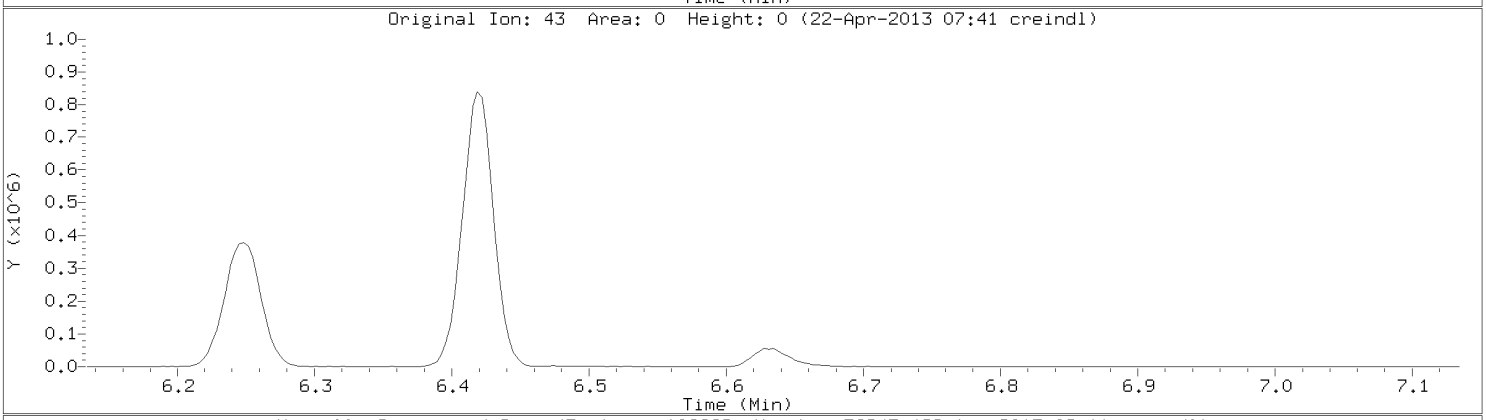


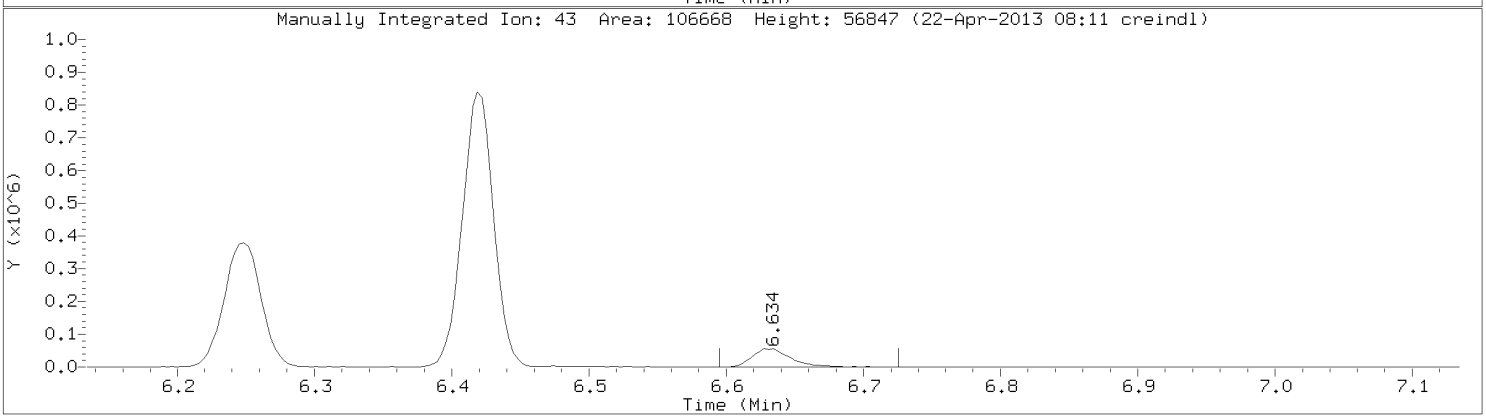
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Injection Date: 21-APR-2013 13:15
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: 1,4-Dioxane
CAS Number: 123-91-1



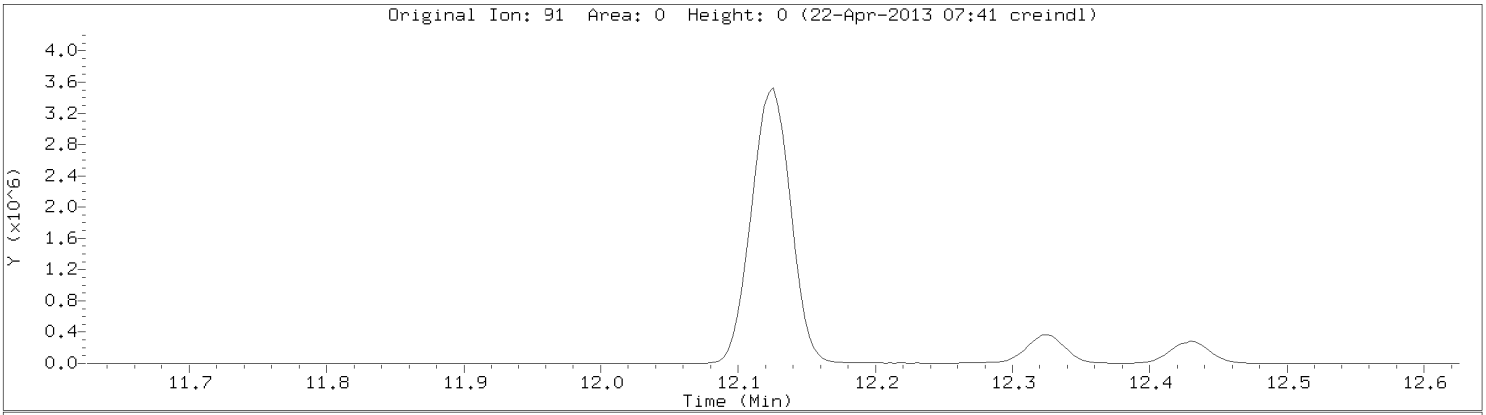


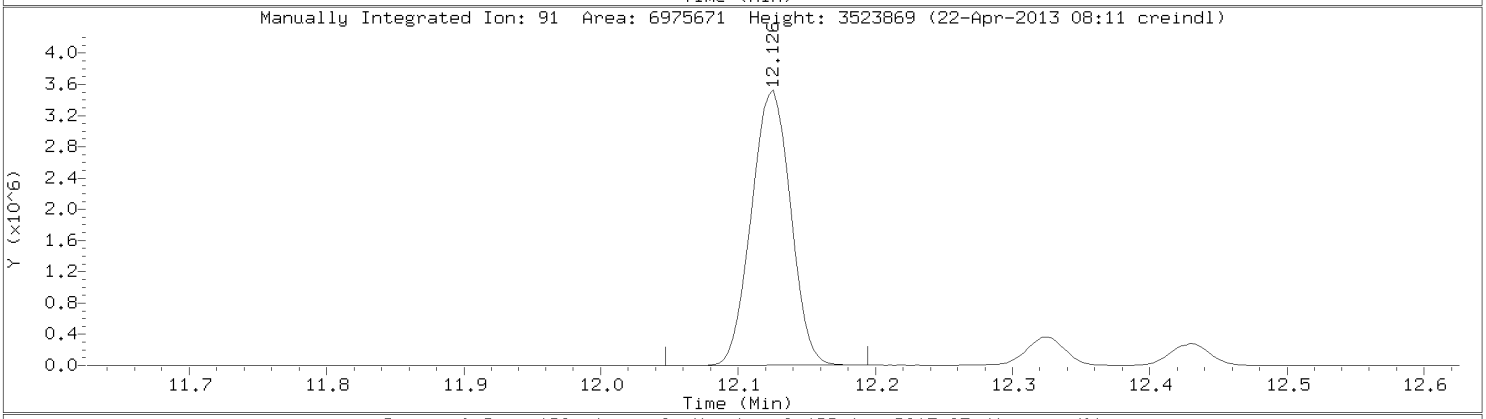


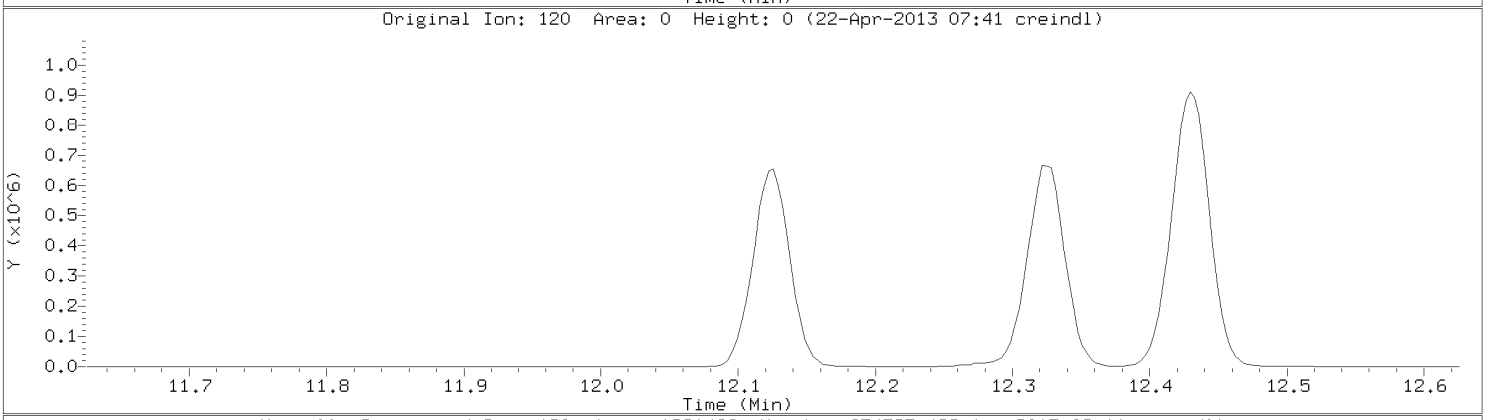


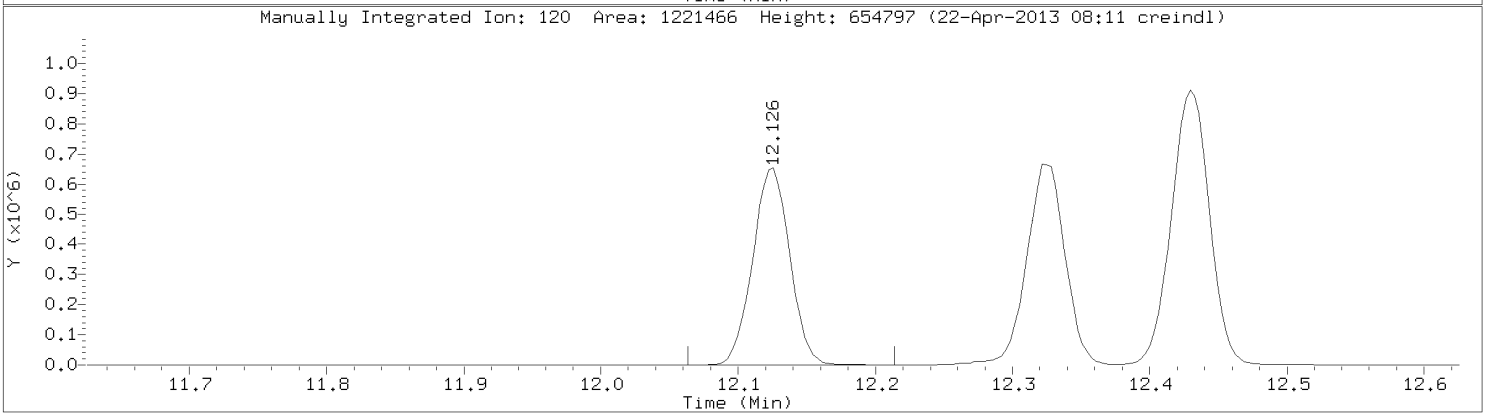
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11111.d
Injection Date: 21-APR-2013 13:15
Instrument: 10airD.i
Lab Sample ID: ICAL7

Compound: N-Propylbenzene
CAS Number: 103-65-1









Data File: \\192.168.10.12\chem\10airD.i\042113.b\11112.d
Report Date: 22-Apr-2013 08:21

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11112.d
Lab Smp Id: SSV
Inj Date : 21-APR-2013 13:46
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 08:16 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 13:15 Cal File: 11111.d
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	116071	8.98689	8.99
2	Dichlorodifluoromethane	85	2.950	2.954	(0.486)	1247296	9.61607	9.62
3	Dichlorotetrafluoroethane	85	3.048	3.052	(0.503)	1028890	10.0983	10.1
4	Chloromethane	50	3.048	3.052	(0.503)	305952	11.1577	11.2
5	Vinyl chloride	62	3.136	3.140	(0.517)	313799	10.7693	10.8
6	1,3-Butadiene	54	3.182	3.183	(0.525)	167230	11.4068	11.4
7	Bromomethane	94	3.336	3.343	(0.550)	257590	7.36620	7.37
8	Chloroethane	64	3.394	3.398	(0.560)	128738	8.43584	8.44(M)
9	Ethanol	31	3.424	3.424	(0.565)	151392	9.65374	9.65
10	Vinyl Bromide	106	3.532	3.536	(0.582)	313514	10.9160	10.9
11	Acrolein	56	3.627	3.630	(0.598)	63014	7.63280	7.63
12	Trichlorofluoromethane	101	3.643	3.647	(0.601)	1225234	9.93727	9.94
13	Acetone	43	3.672	3.673	(0.606)	628738	12.1710	12.2
14	Isopropyl Alcohol	45	3.695	3.706	(0.609)	418997	18.8745	18.9(QR)
15	1,1-Dichloroethene	61	3.930	3.934	(0.648)	751204	12.6026	12.6
16	Acrylonitrile	53	3.927	3.934	(0.648)	195986	10.8015	10.8
17	Tert Butyl Alcohol	59	3.934	3.934	(0.649)	545288	12.1395	12.1
18	Freon 113	101	3.983	3.987	(0.657)	746976	9.44948	9.45
19	Methylene chloride	49	4.042	4.049	(0.666)	344681	9.07055	9.07
20	Allyl Chloride	76	4.055	4.062	(0.669)	110144	6.88500	6.88
21	Carbon Disulfide	76	4.179	4.183	(0.689)	804154	7.12901	7.13
22	trans-1,2-dichloroethene	96	4.375	4.382	(0.721)	387970	11.3950	11.4
23	Methyl Tert Butyl Ether	73	4.414	4.418	(0.728)	825202	11.4580	11.4(M)

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11112.d
Report Date: 22-Apr-2013 08:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	24 Vinyl Acetate	43	4.532	4.539	(0.747)	487351	8.18233	8.18(M)
	25 1,1-Dichloroethane	63	4.538	4.546	(0.748)	759188	11.0605	11.1
$	26 Hexane-d14(S)	66	4.656	4.663	(0.768)	527433	10.6139	10.6
	27 Methyl Ethyl Ketone	72	4.731	4.742	(0.780)	195239	12.0365	12.0(Q)
	28 n-Hexane	57	4.774	4.781	(0.787)	461255	10.8279	10.8(QM)
	29 cis-1,2-Dichloroethene	96	4.934	4.941	(0.814)	350600	10.1515	10.2
	30 Ethyl Acetate	43	4.957	4.964	(0.817)	564832	12.1576	12.2
	31 Chloroform	83	5.078	5.088	(0.837)	1020105	10.9098	10.9
	32 Tetrahydrofuran	42	5.274	5.274	(0.870)	225361	9.97261	9.97
	33 1,1,1-Trichloroethane	97	5.562	5.569	(0.917)	966169	10.3889	10.4
	34 1,2-Dichloroethane	62	5.581	5.591	(0.920)	840154	12.0308	12.0
	35 Benzene	78	5.852	5.860	(0.965)	1036967	11.9770	12.0
	36 Carbon tetrachloride	117	5.872	5.879	(0.968)	892458	9.27713	9.28
	37 Cyclohexane	56	5.875	5.882	(0.969)	383562	10.0063	10.0
*	38 1,4-Difluorobenzene	114	6.065	6.072	(1.000)	1040672	10.0000	
	39 2,2,4-Trimethylpentane	57	6.241	6.248	(1.029)	1119730	9.77351	9.77
	40 Heptane	43	6.411	6.418	(1.057)	387760	10.5546	10.6
	41 1,2-Dichloropropane	63	6.483	6.490	(1.069)	321913	10.4897	10.5(M)
	42 Trichloroethene	130	6.506	6.513	(1.073)	354430	12.1870	12.2
	43 1,4-Dioxane	88	6.621	6.631	(1.092)	191037	10.5613	10.6(M)
	44 Bromodichloromethane	83	6.627	6.634	(1.093)	1092904	11.0354	11.0
	45 Methyl Isobutyl Ketone	43	7.202	7.213	(1.188)	517428	12.5407	12.5
	46 cis-1,3-Dichloropropene	75	7.261	7.265	(1.197)	657823	10.3551	10.4
	47 trans-1,3-Dichloropropene	75	7.755	7.762	(1.279)	582586	8.56887	8.57
$	48 Toluene-d8 (S)	98	7.830	7.837	(1.291)	971397	10.3340	10.3
	49 Toluene	91	7.918	7.929	(1.306)	1223701	11.7951	11.8
	50 1,1,2-Trichloroethane	97	7.928	7.938	(1.307)	390727	9.65171	9.65
	51 Methyl Butyl Ketone	43	8.232	8.242	(0.850)	490135	17.9563	18.0(R)
	52 Dibromochloromethane	129	8.546	8.550	(0.883)	640287	9.92644	9.93
	53 1,2-Dibromoethane	107	8.814	8.821	(0.911)	618350	10.6179	10.6
	54 Tetrachloroethene	166	8.902	8.909	(0.920)	567001	10.2542	10.2
*	55 Chlorobenzene - d5	117	9.680	9.684	(1.000)	565128	10.0000	
	56 Chlorobenzene	112	9.729	9.736	(1.005)	787001	10.4394	10.4
	57 Ethyl Benzene	91	10.030	10.040	(1.036)	1524029	9.72597	9.72
	58 m&p-Xylene	91	10.203	10.210	(1.054)	2712367	21.1797	21.2
	59 Bromoform	173	10.648	10.658	(1.100)	715428	10.4039	10.4
	60 Styrene	104	10.700	10.707	(1.105)	924559	11.3929	11.4
	61 o-Xylene	91	10.775	10.785	(1.113)	1203576	8.87699	8.88
	62 1,1,2,2-Tetrachloroethane	83	11.089	11.099	(1.146)	824763	10.7707	10.8
	63 Isopropylbenzene	105	11.455	11.462	(1.183)	1606984	11.2511	11.2
	64 N-Propylbenzene	91	12.115	12.126	(1.252)	1910801	8.86652	8.87
	65 4-Ethyltoluene	105	12.318	12.325	(1.272)	1250355	7.84042	7.84(M)
	66 1,3,5-Trimethylbenzene	105	12.422	12.433	(1.283)	1296454	9.41839	9.42
	67 1,2,4-Trimethylbenzene	105	13.017	13.028	(1.345)	1217660	9.59355	9.59
	68 1,3-Dichlorobenzene	146	13.374	13.381	(1.382)	753173	9.99699	10.0
	69 Sec- Butylbenzene	105	13.400	13.410	(1.384)	1806888	10.1092	10.1
$	70 1,4-dichlorobenzene-d4 (S)	150	13.455	13.462	(1.390)	320562	12.8488	12.8
	71 Benzyl Chloride	91	13.481	13.489	(1.393)	1076682	14.3056	14.3(R)
	72 1,4-Dichlorobenzene	146	13.501	13.511	(1.395)	753172	10.2668	10.3
	73 1,2-Dichlorobenzene	146	14.040	14.047	(1.450)	655479	14.2144	14.2(R)
	74 N-Butylbenzene	91	14.328	14.332	(1.480)	1440082	15.5130	15.5(R)
	75 1,2,4-Trichlorobenzene	180	16.688	16.692	(1.724)	212305	12.2781	12.3
	76 Naphthalene	128	16.864	16.867	(1.742)	254914	13.6694	13.7(R)
	77 Hexachlorobutadiene	225	17.240	17.244	(1.781)	212030	6.55374	6.55

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11112.d
Report Date: 22-Apr-2013 08:21

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11112.d
Report Date: 22-Apr-2013 08:21

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11112.d
Lab Smp Id: SSV
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info:

Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	1040672	-13.39
55 Chlorobenzene - d	638533	383120	893946	565128	-11.50

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11112.d
Report Date: 22-Apr-2013 08:21

Pace Analytical Services, Inc.

RECOVERY REPORT

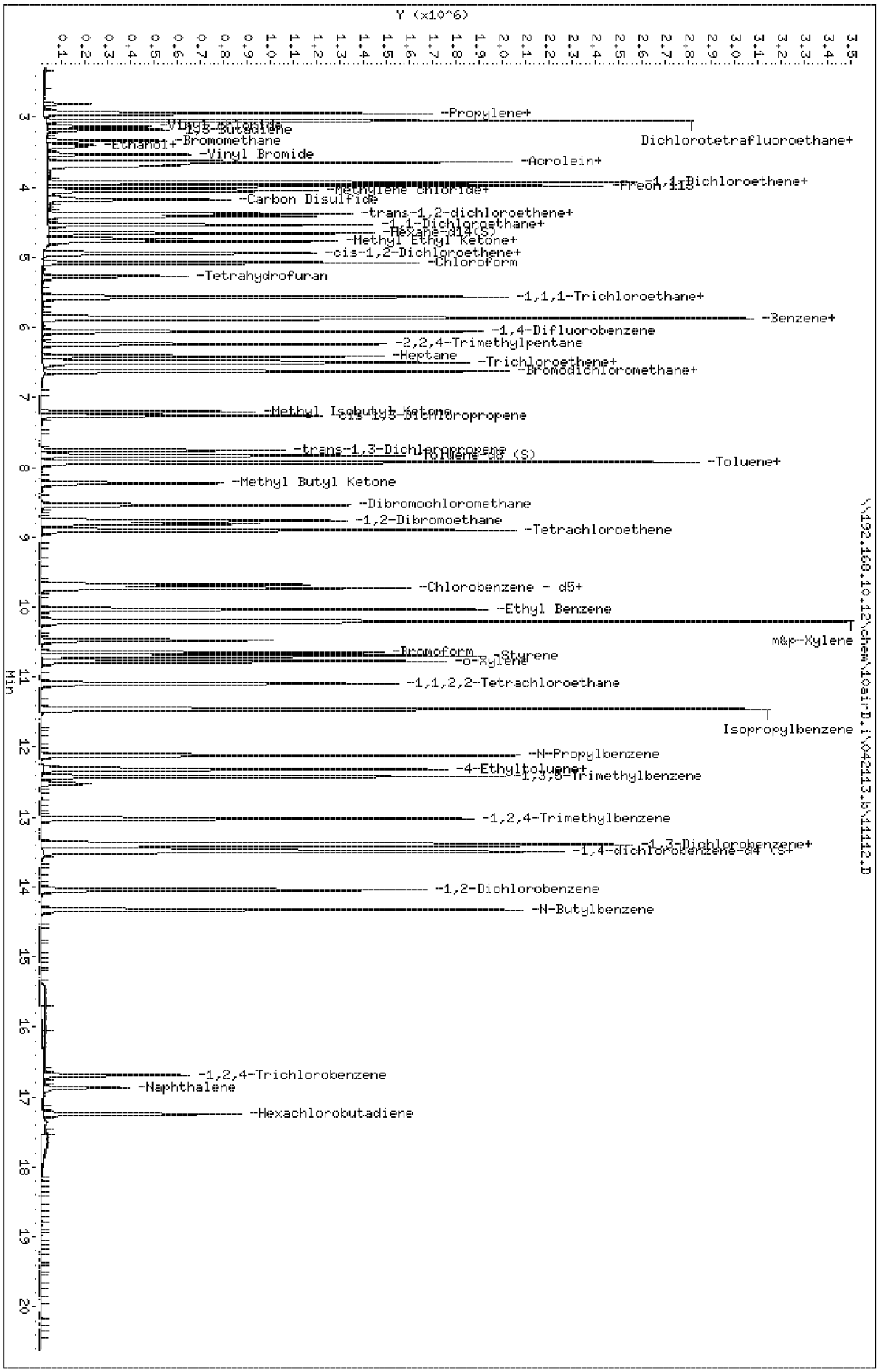
Client Name: Client SDG: 042113.b
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: SSV
Level: LOW Operator: CJR
Data Type: MS DATA SampleType: LCS
SpikeList File: SSV.spk Quant Type: ISTD
Sublist File: all.sub
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info:

	SPIKE	COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
	1	Propylene	10.1	8.99	88.98	60-140
	2	Dichlorodifluorome	9.60	9.62	100.17	60-140
	3	Dichlorotetrafluor	9.70	10.1	104.11	60-140
	4	Chloromethane	10.8	11.2	103.31	60-140
	5	Vinyl chloride	9.60	10.8	112.18	60-140
	6	1,3-Butadiene	9.90	11.4	115.22	60-140
	7	Bromomethane	7.20	7.37	102.31	60-140
	8	Chloroethane	7.60	8.44	111.00	60-140
	9	Ethanol	7.90	9.65	122.20	60-140
	10	Vinyl Bromide	9.70	10.9	112.54	60-140
	12	Trichlorofluoromet	9.90	9.94	100.38	60-140
	13	Acetone	9.40	12.2	129.48	60-140
	14	Isopropyl Alcohol	10.2	18.9	185.04*	60-140
	15	1,1-Dichloroethene	11.5	12.6	109.59	60-140
	18	Freon 113	9.30	9.45	101.61	60-140
	19	Methylene chloride	9.90	9.07	91.62	60-140
	21	Carbon Disulfide	10.0	7.13	71.29	60-140
	22	trans-1,2-dichloro	10.2	11.4	111.72	60-140
	23	Methyl Tert Butyl	9.60	11.4	119.35	60-140
	25	1,1-Dichloroethane	10.2	11.1	108.44	60-140
	24	Vinyl Acetate	10.3	8.18	79.44	60-140
	27	Methyl Ethyl Keton	10.2	12.0	118.00	60-140
	28	n-Hexane	10.1	10.8	107.21	60-140
	29	cis-1,2-Dichloroet	10.1	10.2	100.51	60-140
	30	Ethyl Acetate	10.7	12.2	113.62	60-140
	31	Chloroform	10.9	10.9	100.09	60-140
	32	Tetrahydrofuran	10.8	9.97	92.34	60-140
	33	1,1,1-Trichloroeth	9.90	10.4	104.94	60-140
	34	1,2-Dichloroethane	11.0	12.0	109.37	60-140
	35	Benzene	10.6	12.0	112.99	60-140
	36	Carbon tetrachlori	10.2	9.28	90.95	60-140
	37	Cyclohexane	10.5	10.0	95.30	60-140
*	38	1,4-Difluorobenzen	0.000	10.0	0.00	0-0
	39	2,2,4-Trimethylpen	10.0	9.77	97.74	60-140
	40	Heptane	11.3	10.6	93.40	60-140
	41	1,2-Dichloropropan	10.1	10.5	103.86	60-140
	42	Trichloroethene	9.50	12.2	128.28	60-140
	44	Bromodichlorometha	9.80	11.0	112.61	60-140
	43	1,4-Dioxane	9.70	10.6	108.88	60-140
	45	Methyl Isobutyl Ke	9.80	12.5	127.97	60-140

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11112.d
Report Date: 22-Apr-2013 08:21

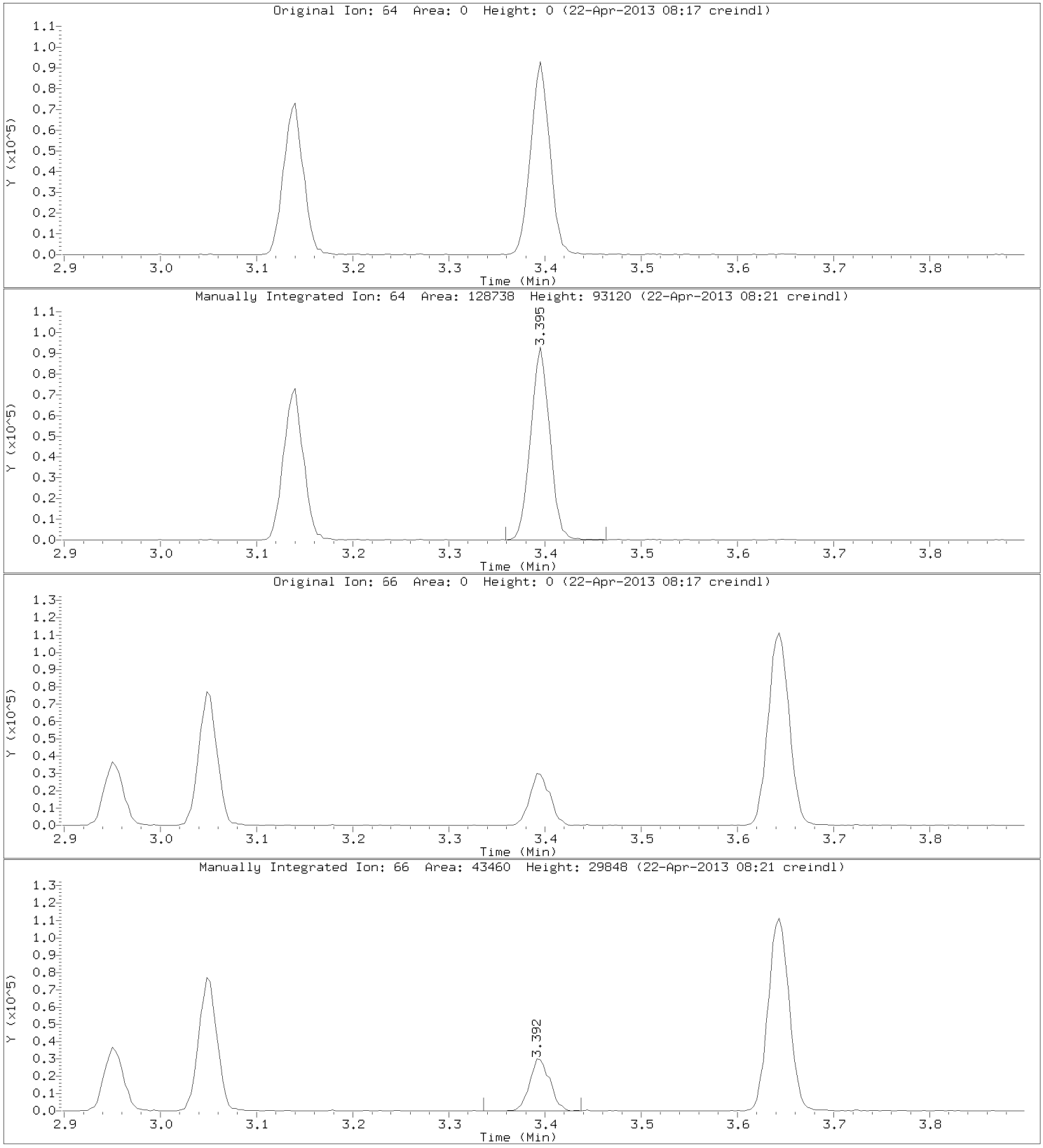
	SPIKE COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
	46 cis-1,3-Dichloropr	11.6	10.4	89.27	60-140
	47 trans-1,3-Dichloro	9.90	8.57	86.55	60-140
	49 Toluene	10.4	11.8	113.41	60-140
	50 1,1,2-Trichloroeth	9.60	9.65	100.54	60-140
	51 Methyl Butyl Keton	9.70	18.0	185.12*	60-140
	52 Dibromochlorometha	9.30	9.93	106.74	60-140
	53 1,2-Dibromoethane	9.60	10.6	110.60	60-140
	54 Tetrachloroethene	9.60	10.2	106.81	60-140
*	55 Chlorobenzene - d5	0.000	10.0	0.00	0-0
	56 Chlorobenzene	10.3	10.4	101.35	60-140
	57 Ethyl Benzene	9.90	9.72	98.24	60-140
	58 m&p-Xylene	20.2	21.2	104.85	60-140
	59 Bromoform	9.80	10.4	106.16	60-140
	60 Styrene	11.6	11.4	98.21	60-140
	61 o-Xylene	9.30	8.88	95.45	60-140
	62 1,1,2,2-Tetrachlor	9.30	10.8	115.81	60-140
	63 Isopropylbenzene	9.30	11.2	120.98	60-140
	64 N-Propylbenzene	8.90	8.87	99.62	60-140
	65 4-Ethyltoluene	8.30	7.84	94.46	60-140
	66 1,3,5-Trimethylben	9.60	9.42	98.11	60-140
	67 1,2,4-Trimethylben	9.00	9.59	106.59	60-140
	69 Sec- Butylbenzene	9.40	10.1	107.55	60-140
	68 1,3-Dichlorobenzen	10.0	10.0	99.97	60-140
	71 Benzyl Chloride	9.80	14.3	145.98*	60-140
	72 1,4-Dichlorobenzen	9.70	10.3	105.84	60-140
	73 1,2-Dichlorobenzen	9.70	14.2	146.54*	60-140
	74 N-Butylbenzene	9.50	15.5	163.29*	60-140
	75 1,2,4-Trichloroben	9.10	12.3	134.92	60-140
	76 Naphthalene	9.30	13.7	146.98*	60-140
	77 Hexachlorobutadien	9.10	6.55	72.02	60-140

	SURROGATE COMPOUND	CONC ADDED ppbv	CONC RECOVERED ppbv	% RECOVERED	LIMITS
$	26 Hexane-d14(S)	10.0	10.6	106.14	70-130
$	48 Toluene-d8 (S)	10.0	10.3	103.34	70-130
$	70 1,4-dichlorobenzen	10.0	12.8	128.49	70-130


Y (x10^6)
Data File: \\192.168.10.12\chem\10airD.i\042113.b\11112.D
Date : 24-APR-2013 13:46
Client ID:
Sample Info:
Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32
\\192.168.10.12\chem\10airD.i\042113.b\11112.D
Min
-Propylene+
-Vinyl Acetate
-1,3-Butadiene
-Ethanol+
-Bromomethane
-Vinyl Bromide
Dichlorotetrafluoroethane+
-Acrolein+
-1,1-Dichloroethene+
-Freon 113
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-1,1-Dichloroethane+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
-cis-1,3-Dichloropropene
-trans-1,3-Dichloropropene
Toluene-d8 (S)
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
m&p-Xylene
-Bromoform
-Styrene
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene+
1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,3-Dichlorobenzene+
-1,4-dichlorobenzene-d4 (S)+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
-Hexachlorobutadiene

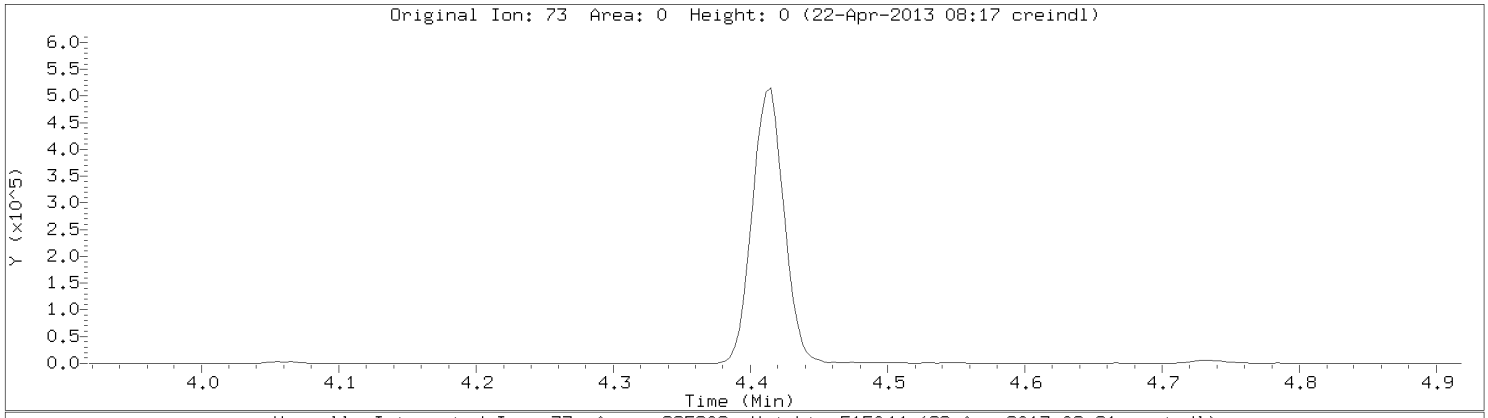
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Injection Date: 21-APR-2013 13:46
Instrument: 10airD.i
Lab Sample ID: SSV

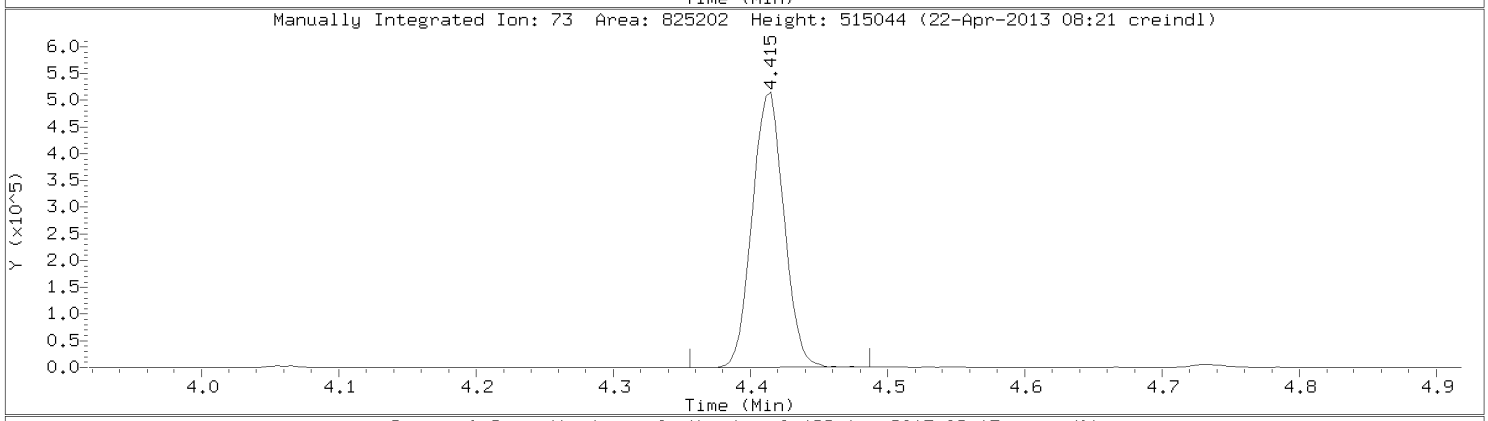
Compound: Chloroethane
CAS Number: 75-00-3

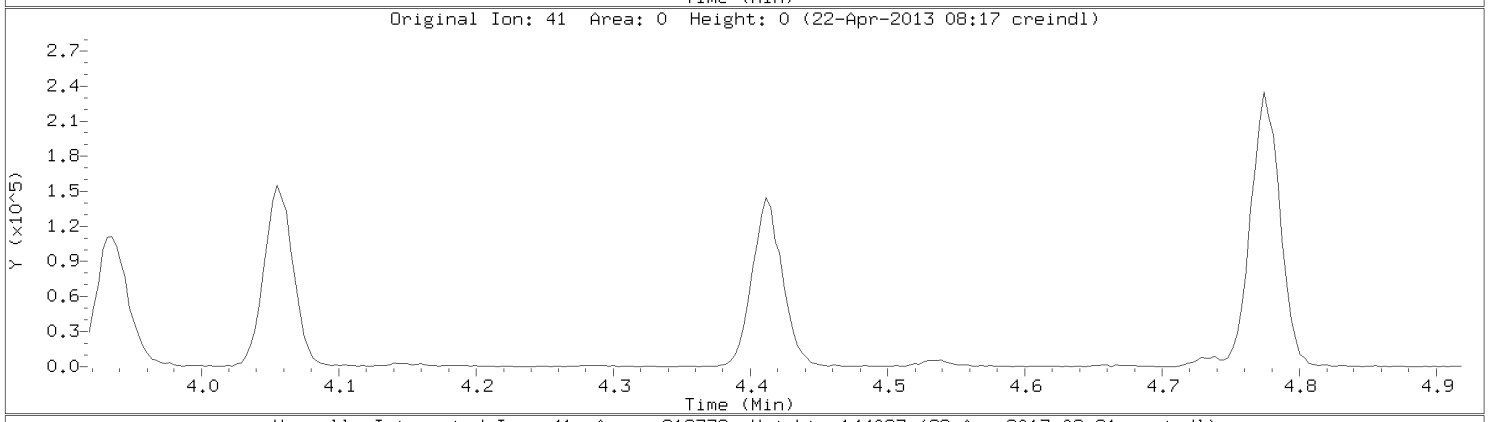


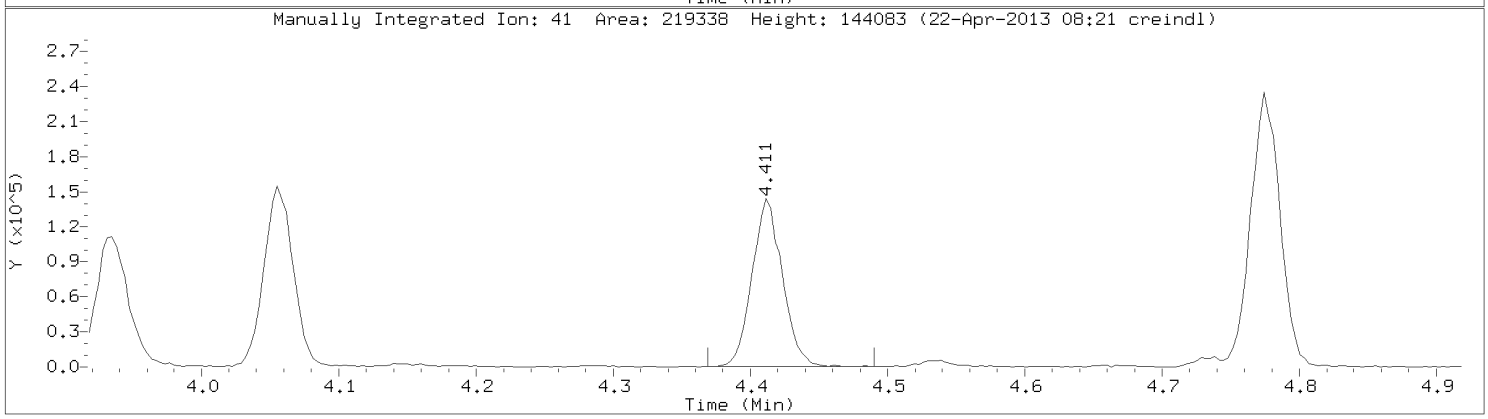
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Injection Date: 21-APR-2013 13:46
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



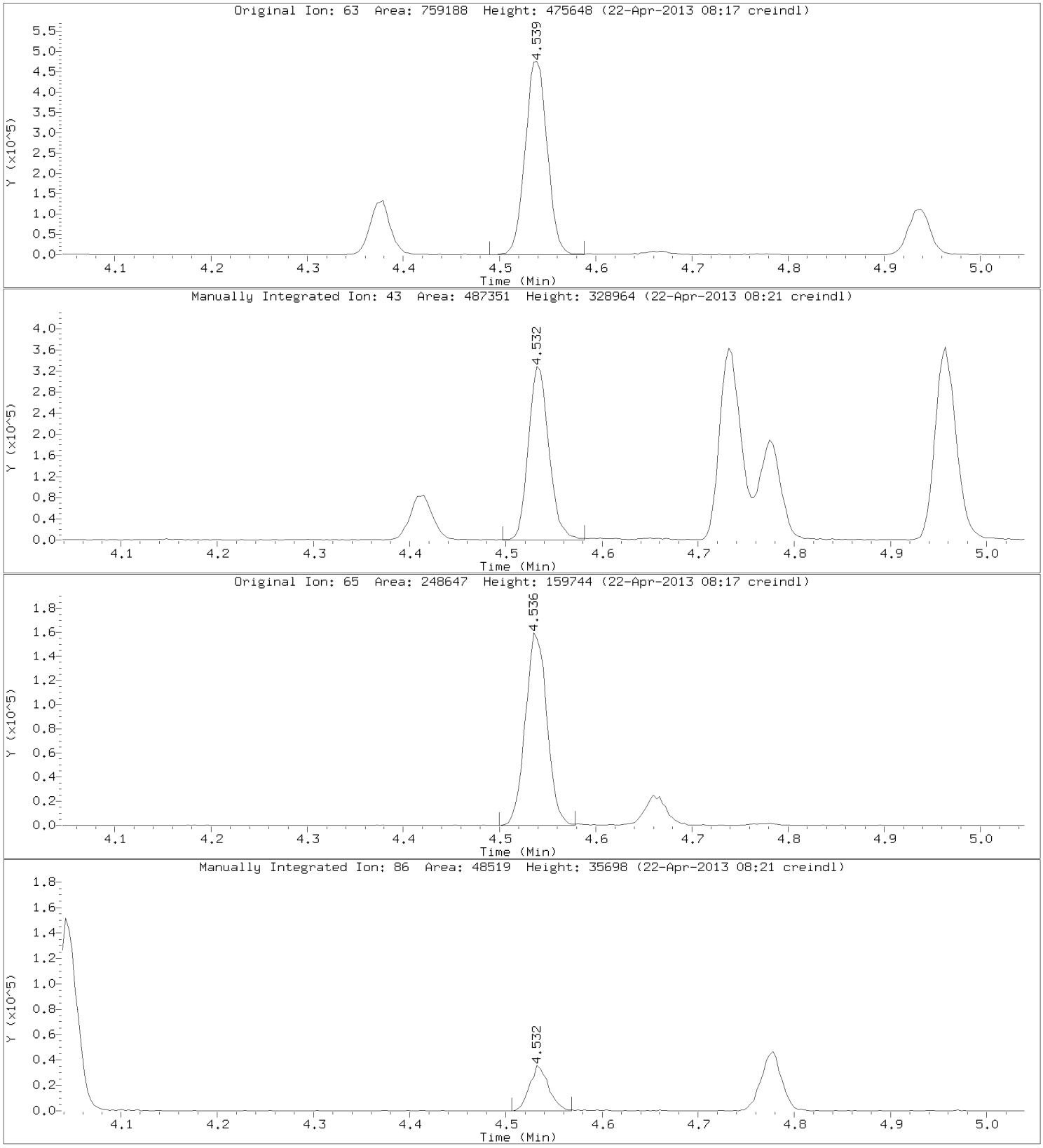






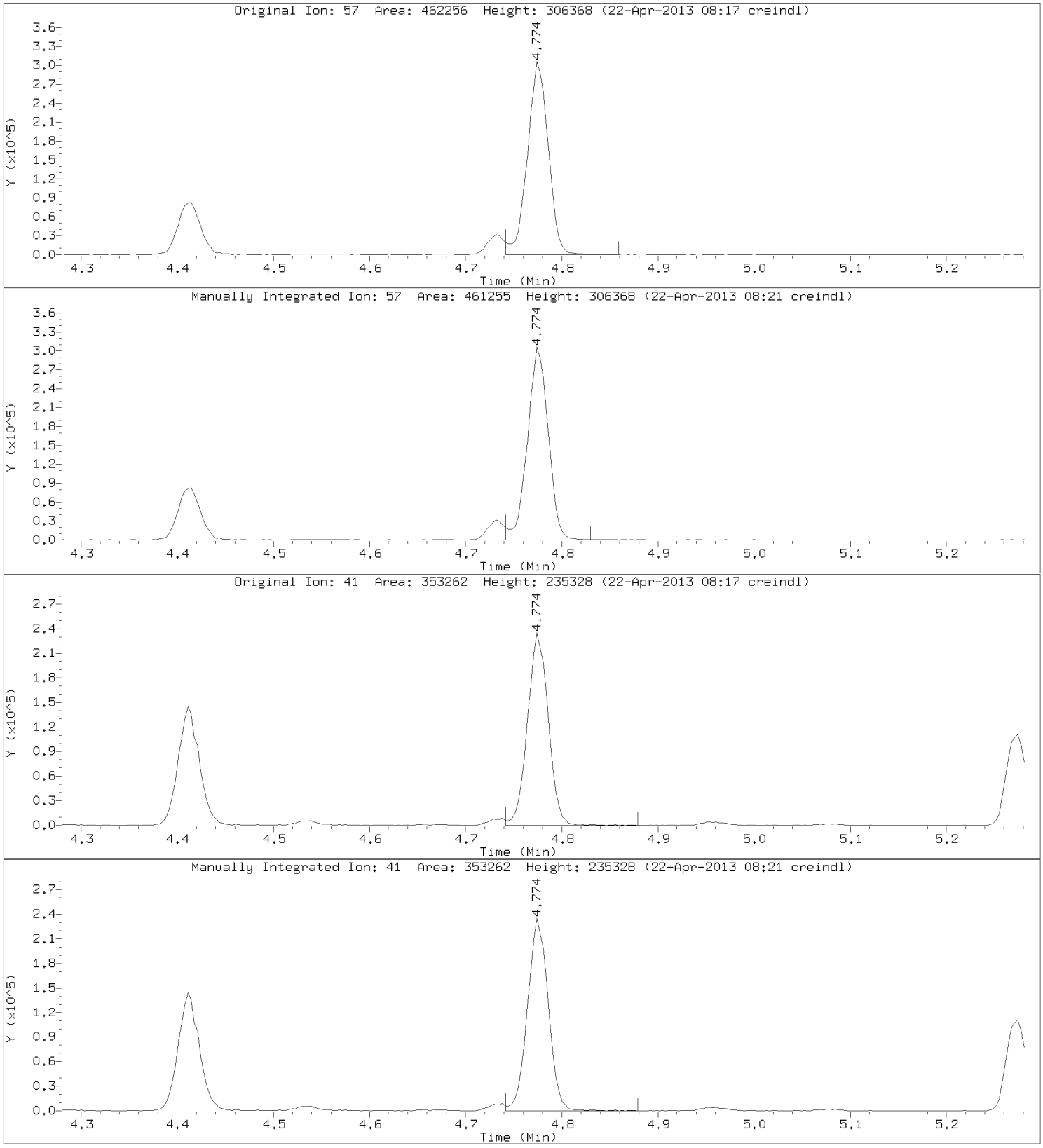
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Instrument: 10airD.i
Lab Sample ID: SSV

Compound: Vinyl Acetate
CAS Number: 108-05-4

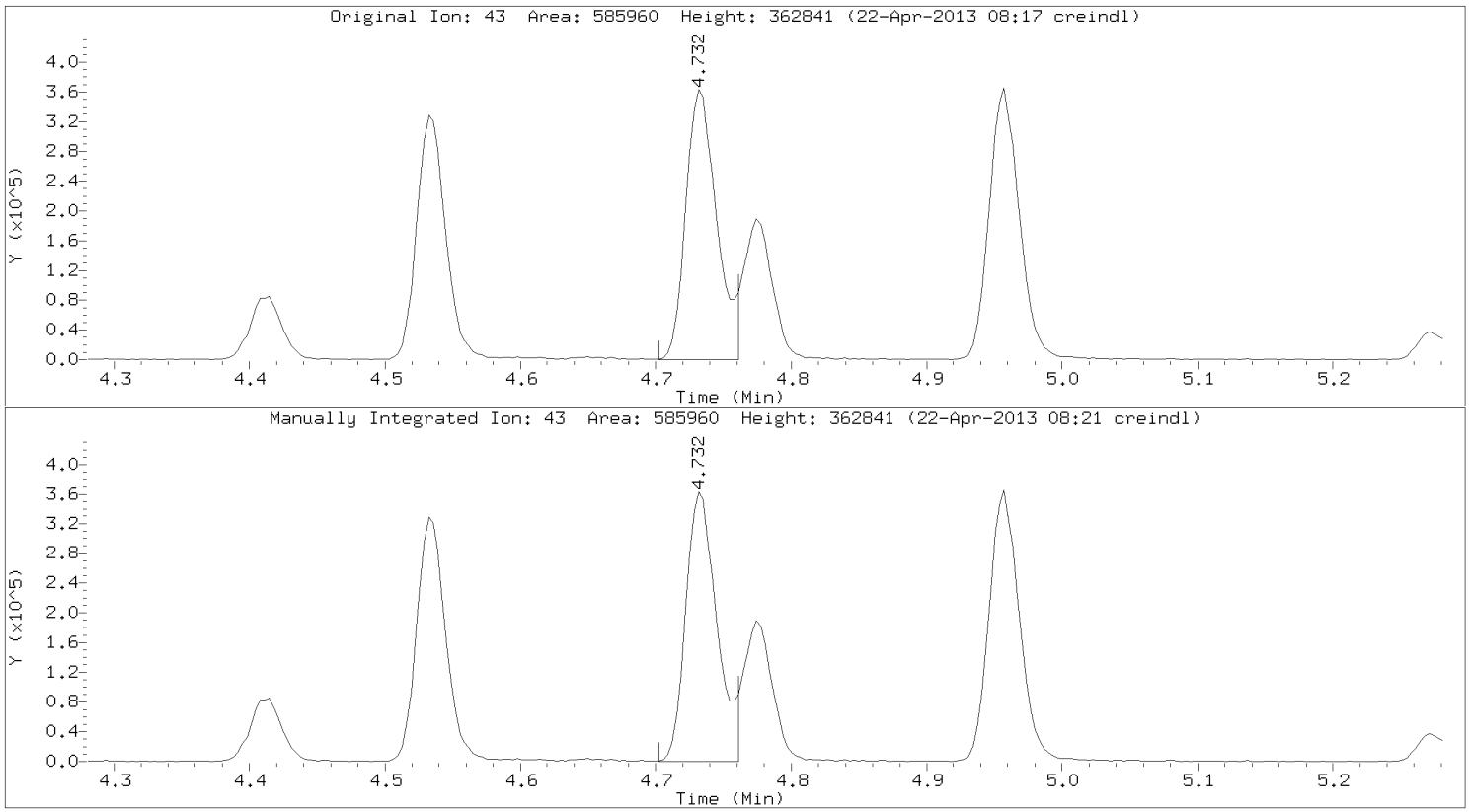


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Instrument: 10airD.i
Lab Sample ID: SSV

Compound: n-Hexane
CAS Number: 110-54-3

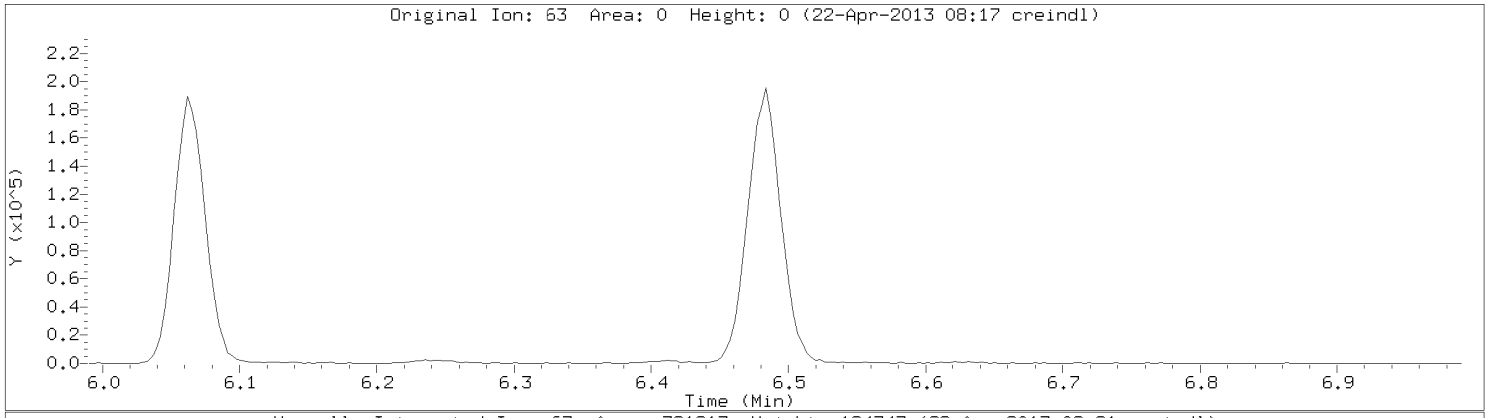


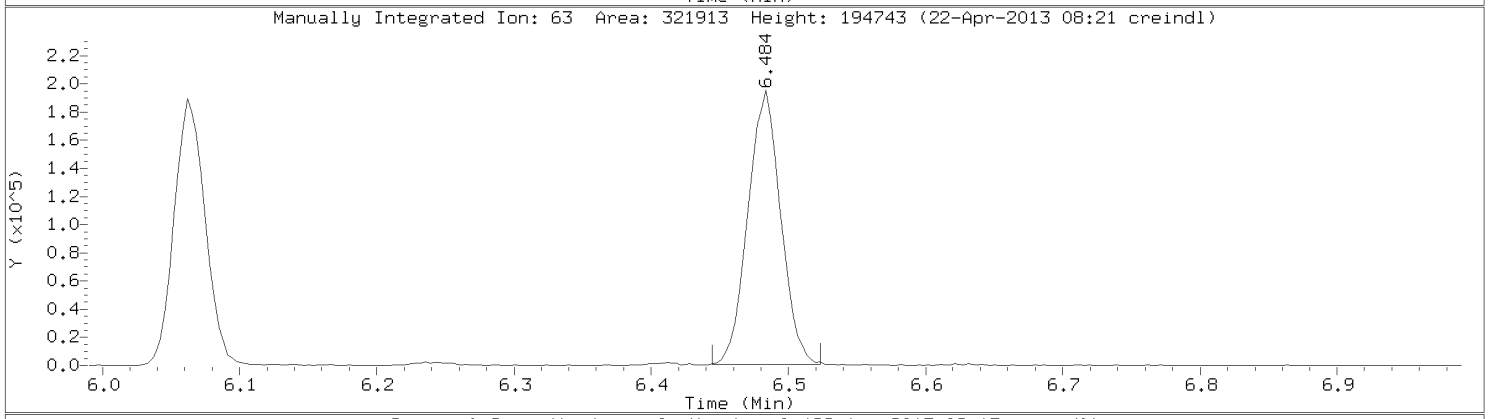
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Injection Date: 21-APR-2013 13:46
Instrument: 10airD.i
Lab Sample ID: SSV

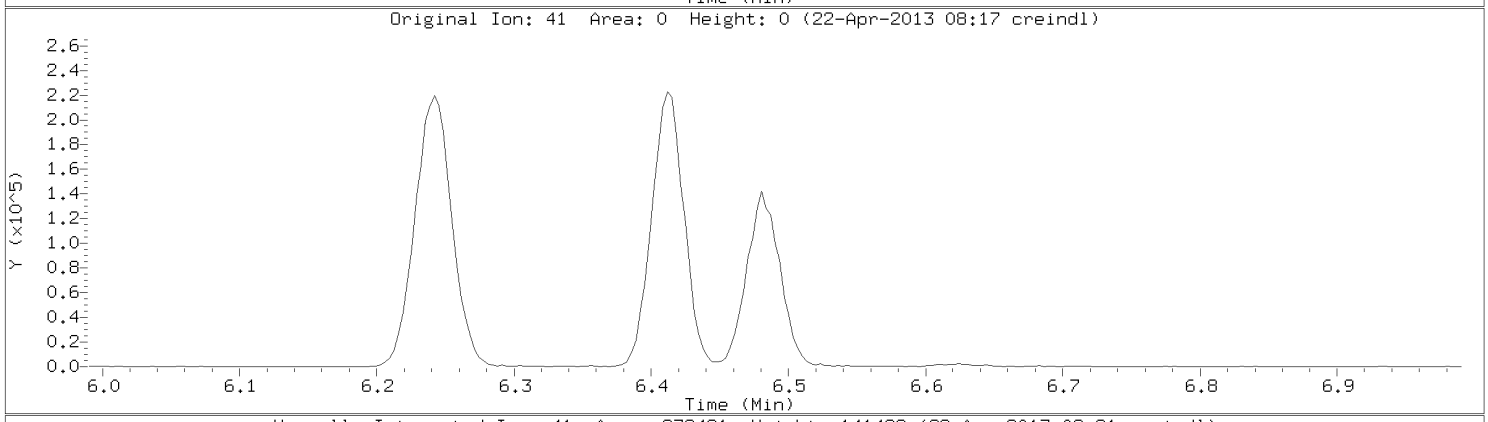


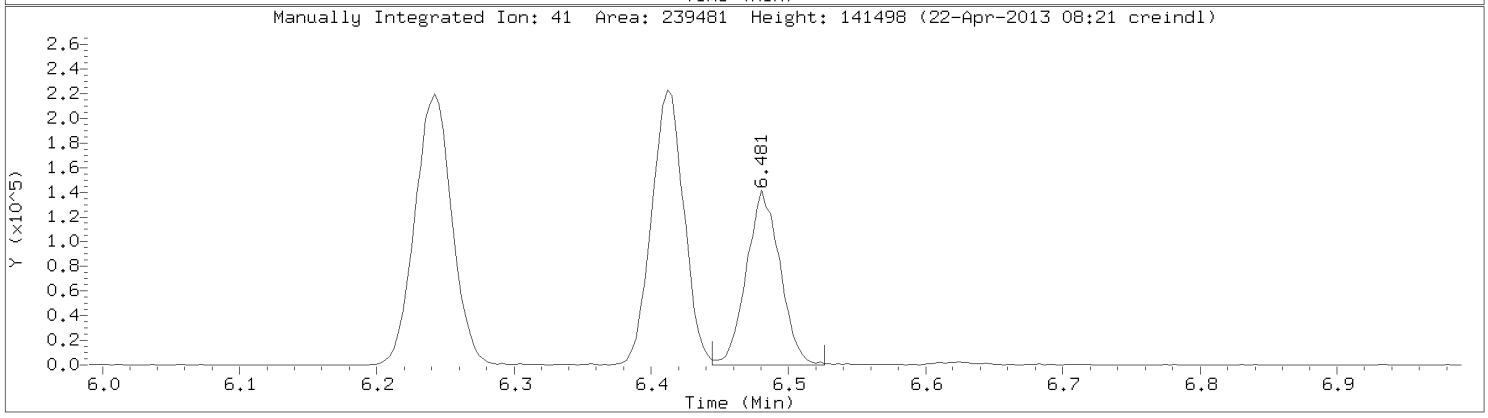
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Injection Date: 21-APR-2013 13:46
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

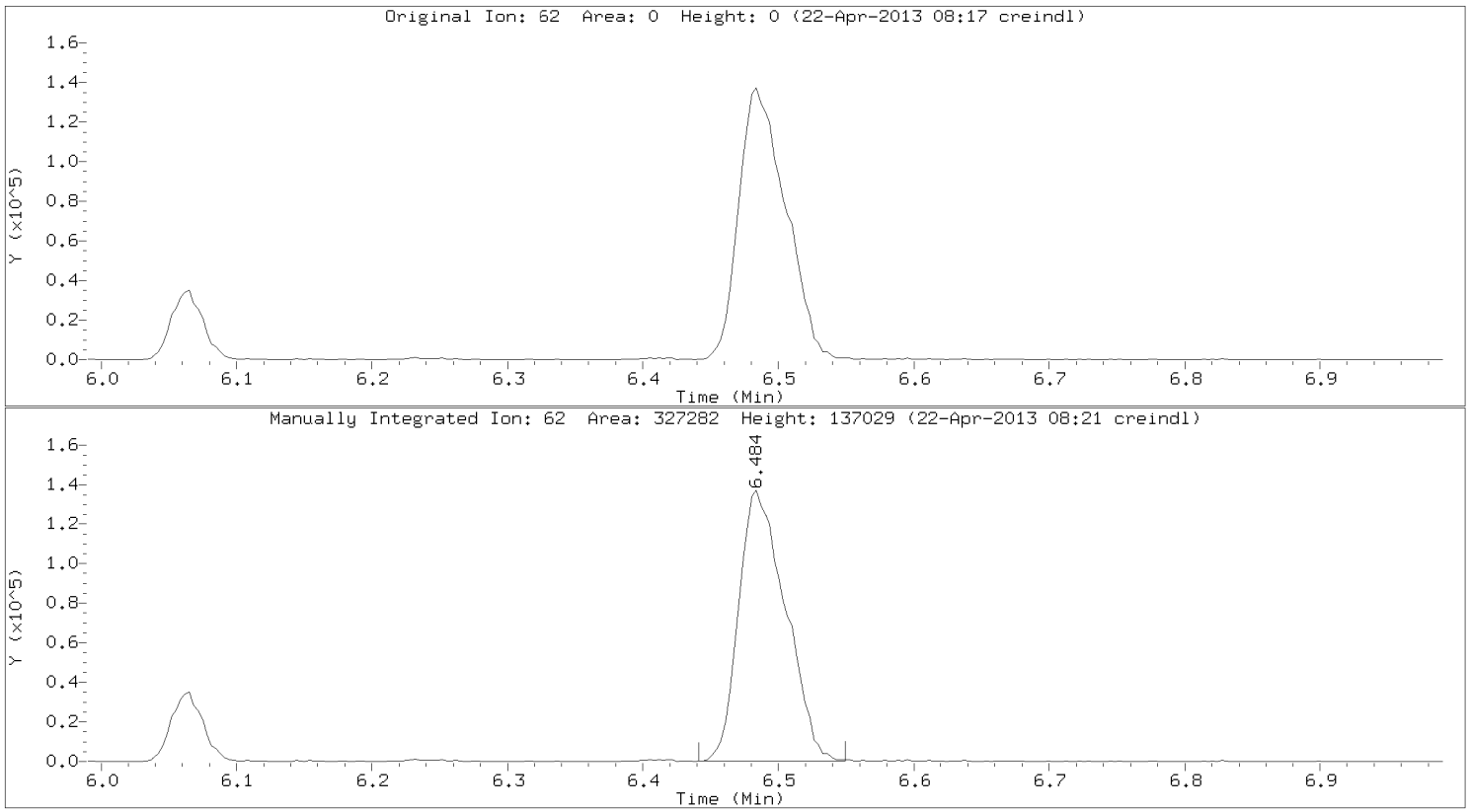






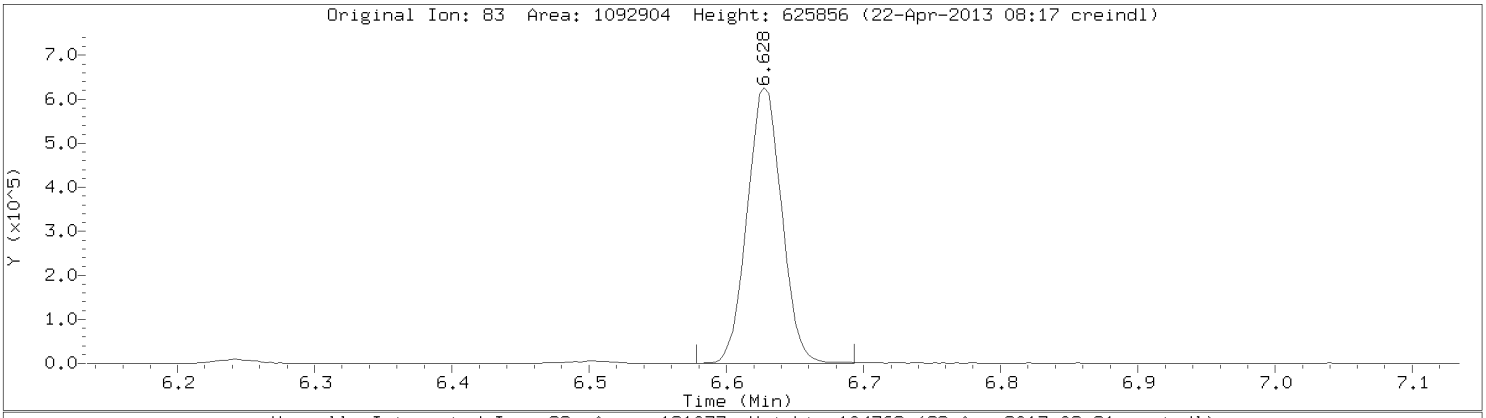


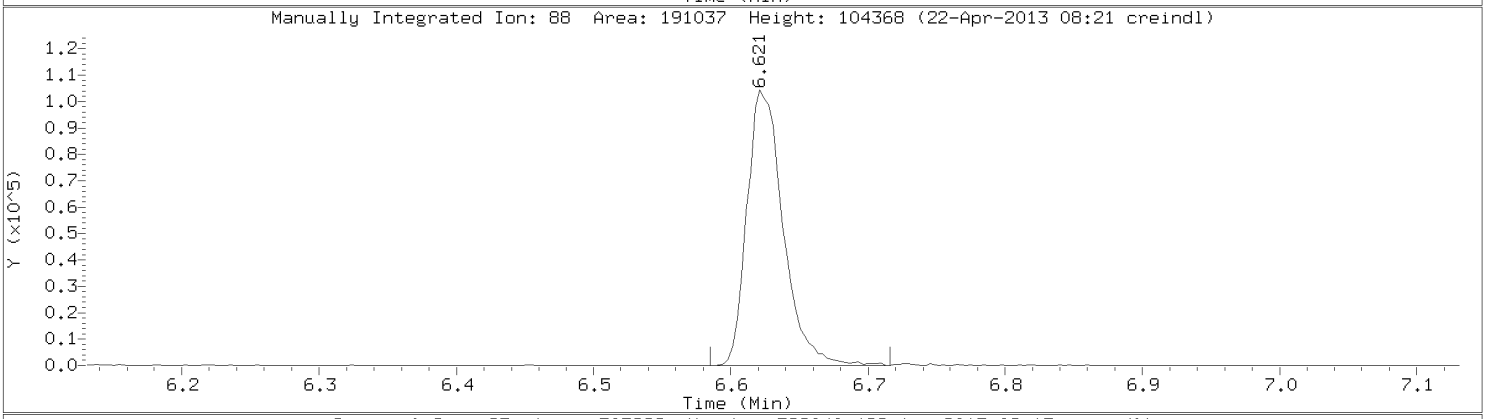
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Instrument: 10airD.i
Lab Sample ID: SSV

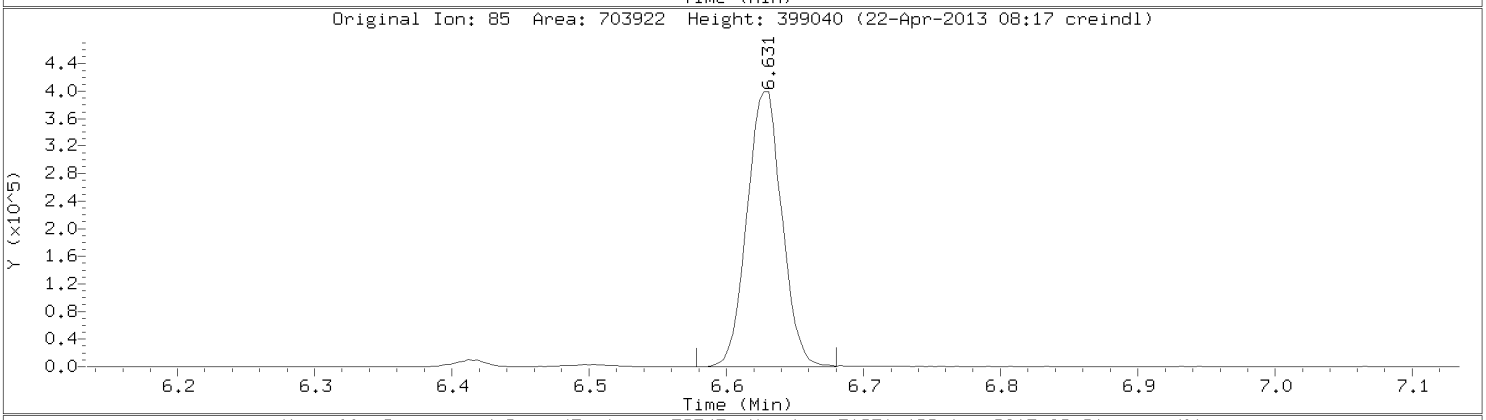


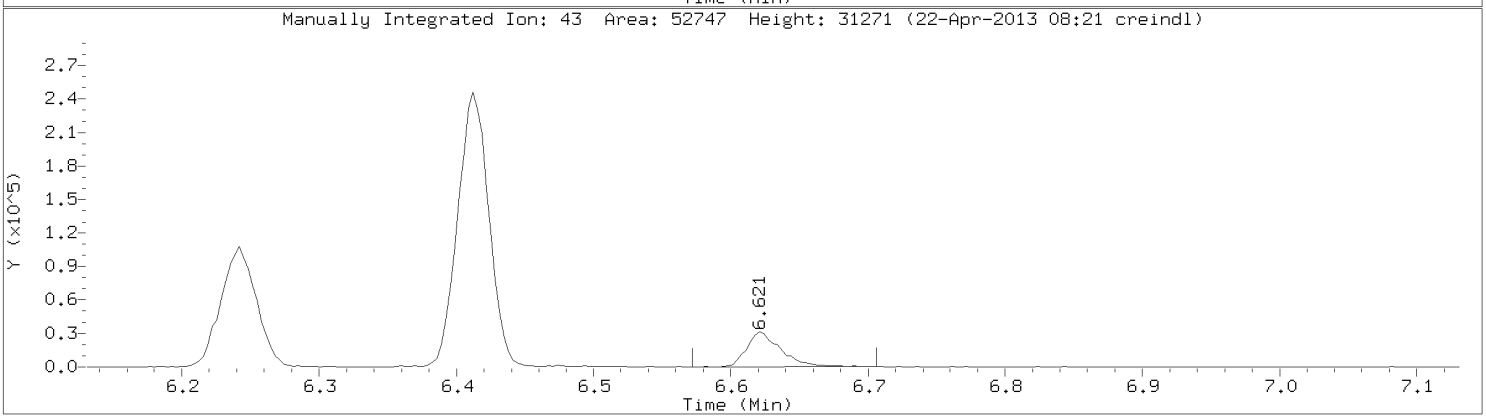
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Injection Date: 21-APR-2013 13:46
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: 1,4-Dioxane
CAS Number: 123-91-1



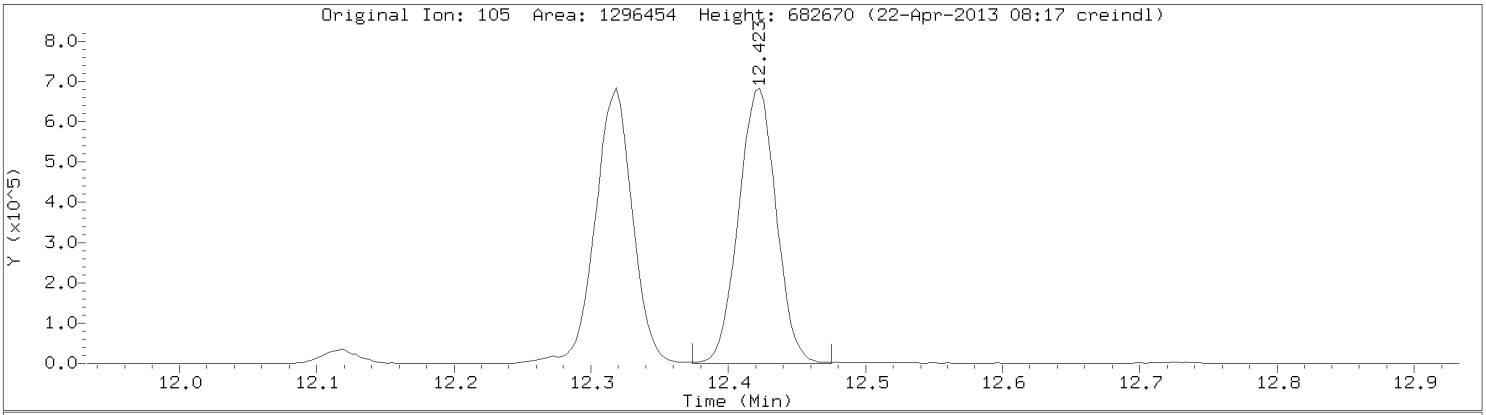


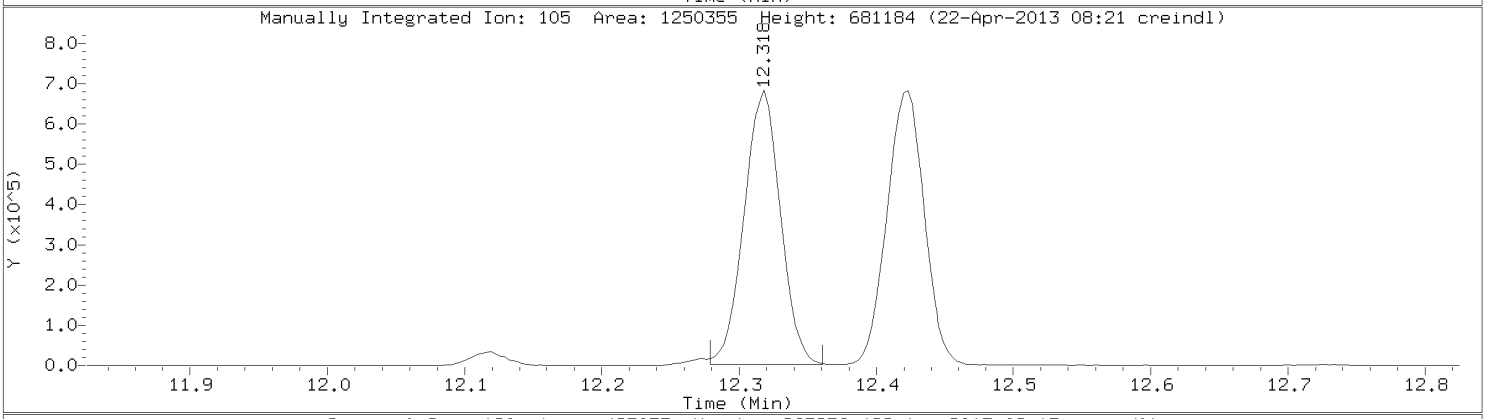


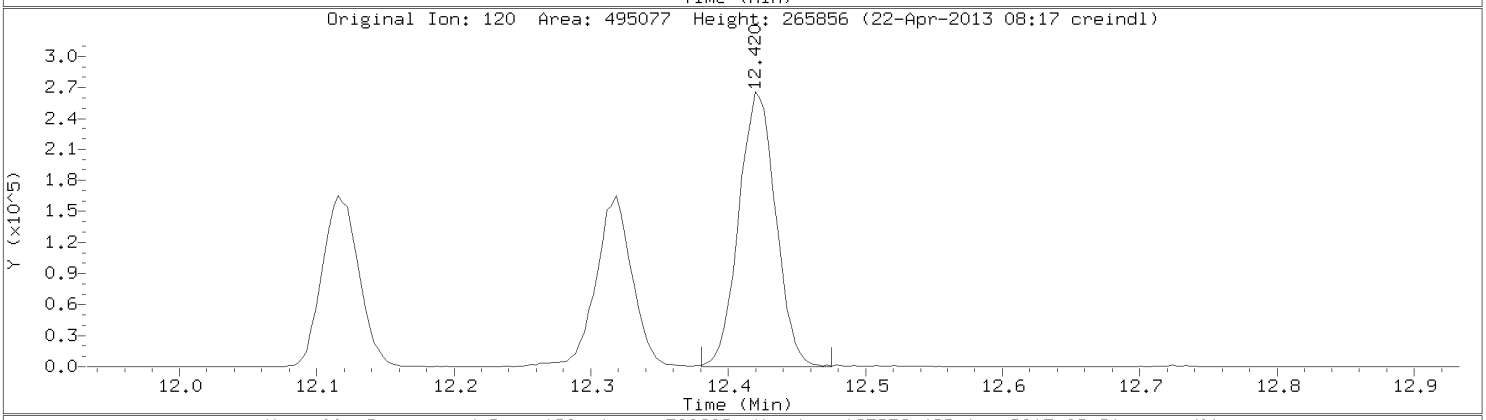


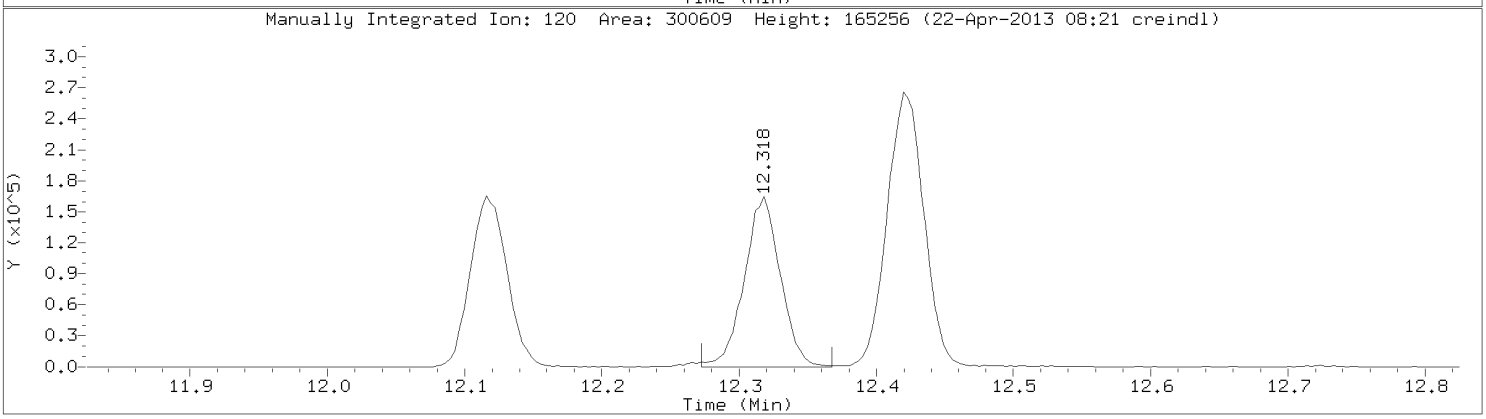
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Injection Date: 21-APR-2013 13:46
Instrument: 10airD.i
Lab Sample ID: SSV

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

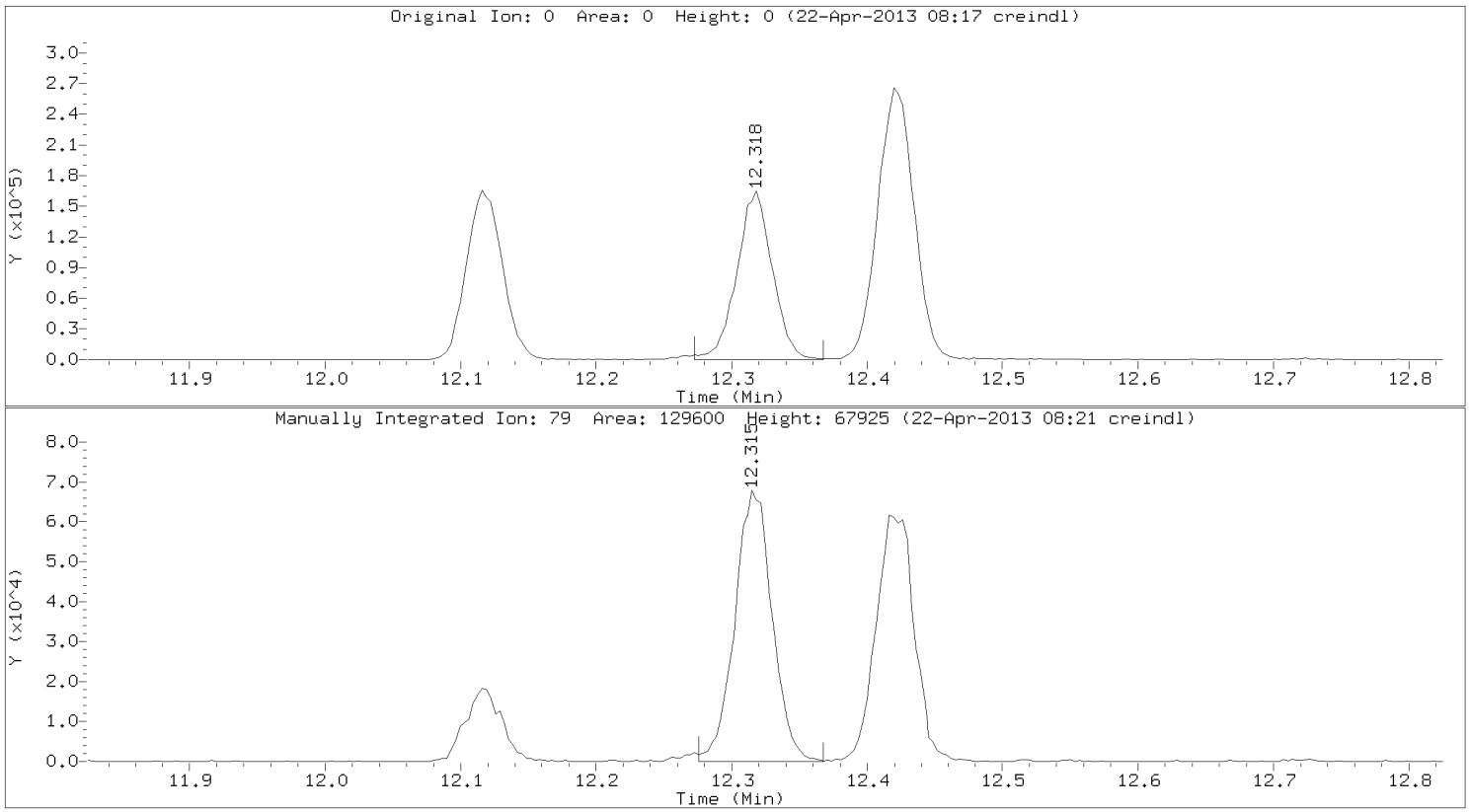








Data File: \\192.168.10.12\chem\10airD.i\042113.b/11112.d
Injection Date: 21-APR-2013 13:46
Instrument: 10airD.i
Lab Sample ID: SSV



5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB

Lab Name: Pace Analytical Contract:
Lab Code: PASI Case No.: SAS No.: SDG No.: 10224616
Lab File ID: 10604BFB.D BFB Injection Date: 04/16/2013
Instrument ID: 10AIRD BFB Injection Time: 10:12
GC Column: J&W DB-5 ID: 0.32 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
95	Base Peak, 100% relative abundance	100.00	
50	8.00 - 40.00% of mass 95	19.49	
75	30.00 - 66.00% of mass 95	59.27	
96	5.00 - 9.00% of mass 95	7.31	
173	Less than 2.00% of mass 174	0.36	(0.47)
174	50.00 - 120.00% of mass 95	77.45	
175	4.00 - 9.00% of mass 174	6.64	(8.58)
176	93.00 - 101.00% of mass 174	73.94	(95.48)
177	5.00 - 9.00% of mass 176	4.87	(6.58)

1 - Value is %mass 174 2 - Value is %mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	ICAL1	ICAL1	10605.D	04/16/2013	10:41
2	ICAL2	ICAL2	10606.D	04/16/2013	11:10
3	ICAL3	ICAL3	10607.D	04/16/2013	11:40
4	ICAL4	ICAL4	10608.D	04/16/2013	12:13
5	ICAL5	ICAL5	10609.D	04/16/2013	12:43
6	ICAL6	ICAL6	10610.D	04/16/2013	13:14
7	ICAL7	ICAL7	10611.D	04/16/2013	13:45
8	SSV (LCS)	SSV	10612.D	04/16/2013	14:15
9	LCS (LCS)	LCS	10613.D	04/16/2013	14:46
10	BLANK (BLK)	BLANK	10616B.D	04/16/2013	16:19

Data File: \\192.168.10.12\chem\10airD.i\041613.B\10604BFB.D Page 1

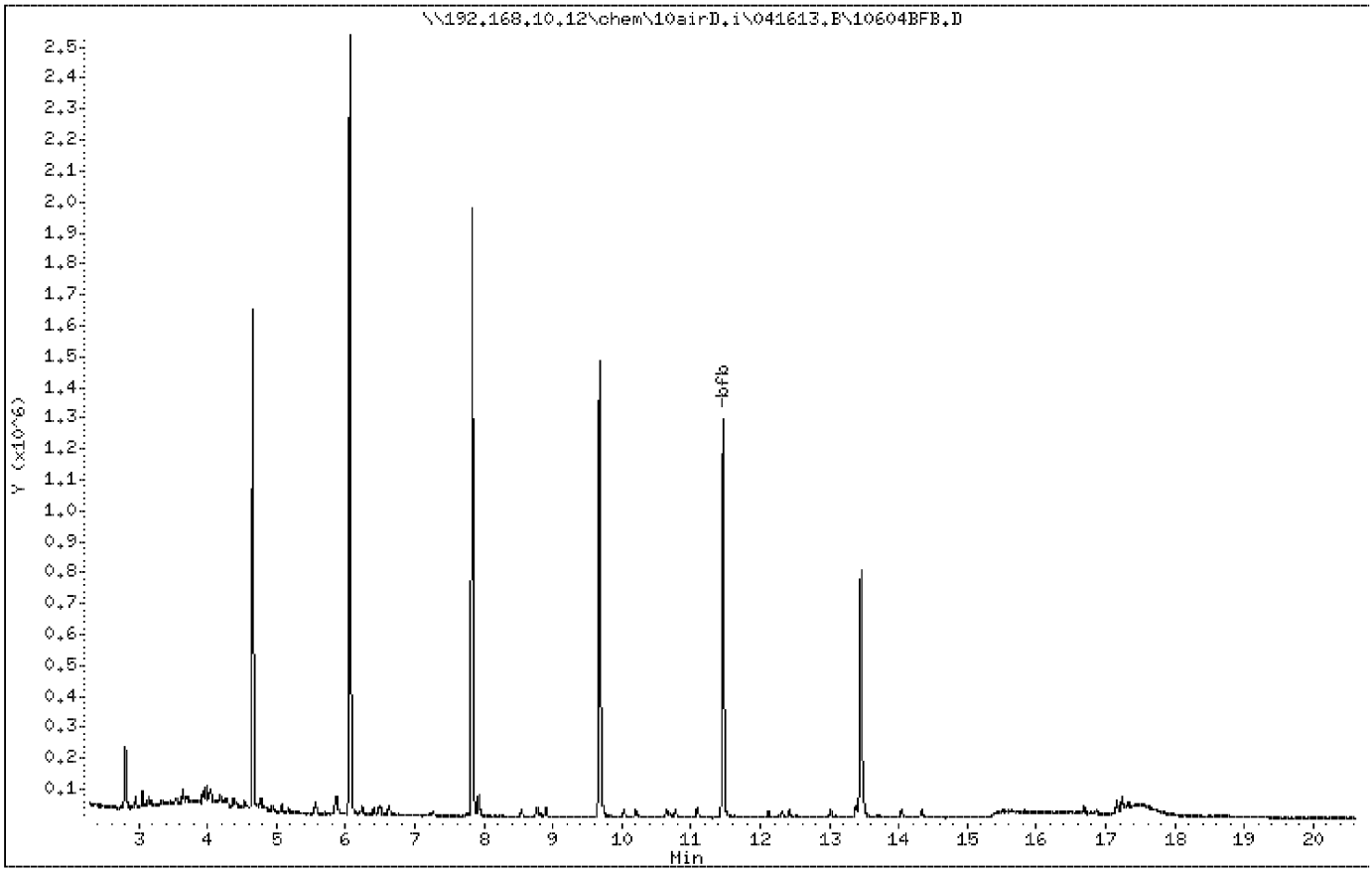
Date : 16-APR-2013 10:12

Client ID: BFB Instrument: 10airD.i

Sample Info:

Operator: CJR

Column phase: J&W DB-5 Column diameter: 0.32



Date : 16-APR-2013 10:12

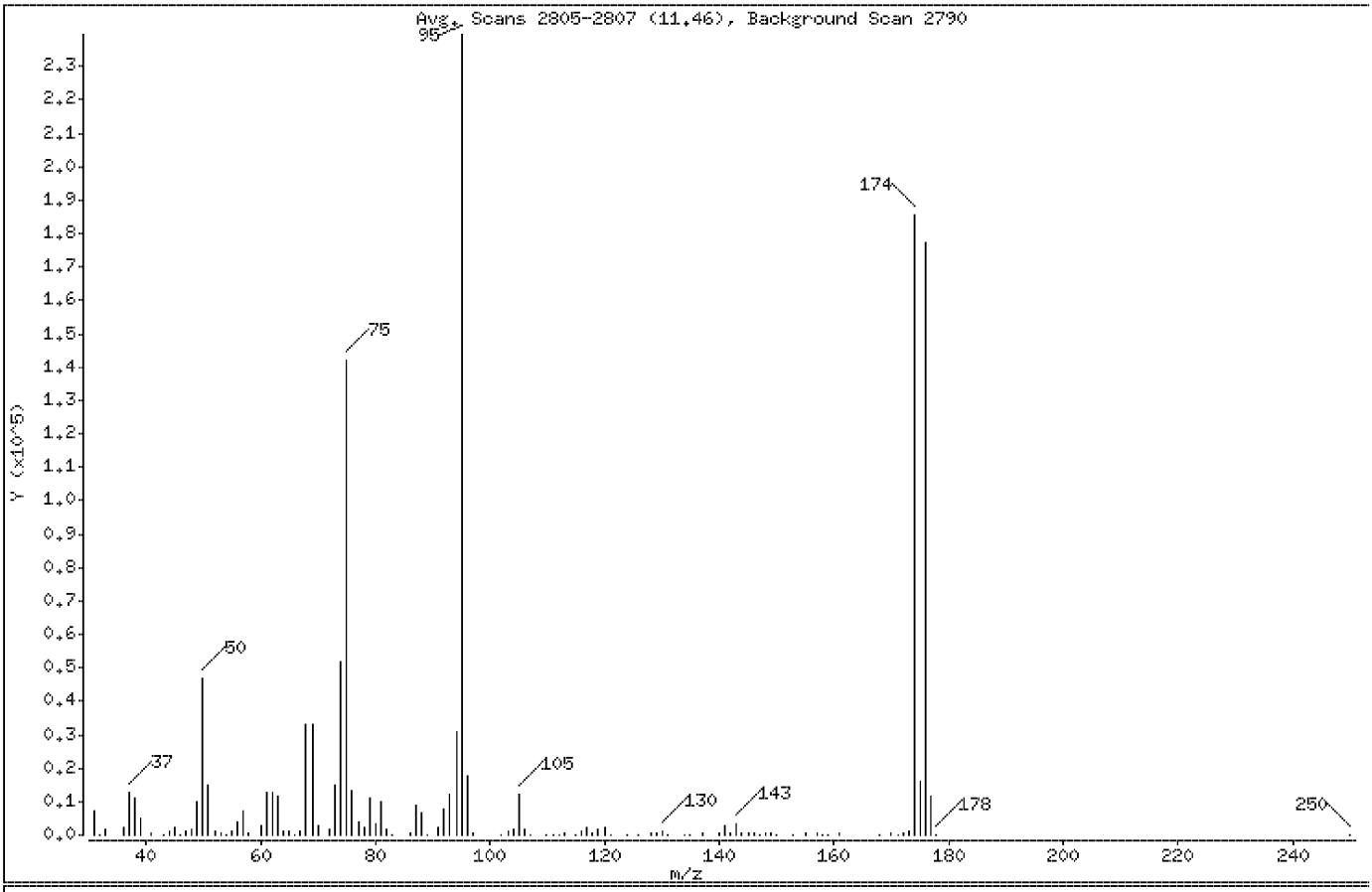
Client ID: BFB Instrument: 10airD.i

Sample Info:

Operator: CJR

Column phase: J&W DB-5 Column diameter: 0.32

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	19.49
75	30.00 - 66.00% of mass 95	59.27
96	5.00 - 9.00% of mass 95	7.31
173	Less than 2.00% of mass 174	0.36 (0.47)
174	50.00 - 120.00% of mass 95	77.45
175	4.00 - 9.00% of mass 174	6.64 (8.58)
176	93.00 - 101.00% of mass 174	73.94 (95.48)
177	5.00 - 9.00% of mass 176	4.87 (6.58)

Date : 16-APR-2013 10:12

Client ID: BFB Instrument: 10airD.i

Sample Info:

Operator: CJR

Column phase: J&W DB-5 Column diameter: 0.32

Data File: 10604BFB.D
Spectrum: Avg. Scans 2805-2807 (11.46), Background Scan 2790
Location of Maximum: 95.00
Number of points: 112

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	7027	65.00	1025	102.00	239	143.00	3340
32.00	40	66.00	130	103.00	1265	144.00	495
33.00	1780	67.00	1131	104.00	1587	145.00	441
36.00	2400	68.00	32896	105.00	11953	146.00	396
37.00	12403	69.00	32840	106.00	1904	147.00	87
38.00	11125	70.00	2629	107.00	253	148.00	715
39.00	4832	72.00	1738	110.00	220	149.00	340
41.00	353	73.00	14704	111.00	123	150.00	243
43.00	204	74.00	51696	112.00	166	153.00	222
44.00	1318	75.00	141952	113.00	353	155.00	556
45.00	2356	76.00	13301	115.00	208	157.00	465
46.00	64	77.00	3793	116.00	1058	158.00	87
47.00	1348	78.00	1934	117.00	1937	159.00	57
48.00	1692	79.00	11089	118.00	779	161.00	385
49.00	9967	80.00	3119	119.00	1507	168.00	54
50.00	46688	81.00	9701	120.00	2365	170.00	293
51.00	15014	82.00	1822	121.00	198	171.00	163
52.00	906	83.00	267	124.00	237	172.00	412
53.00	385	86.00	386	126.00	174	173.00	873
54.00	87	87.00	8718	128.00	706	174.00	185472
55.00	1084	88.00	6703	129.00	404	175.00	15906
56.00	3936	89.00	151	130.00	875	176.00	177088
57.00	7367	91.00	2403	131.00	220	177.00	11661
58.00	455	92.00	7620	134.00	98	178.00	154
60.00	2547	93.00	12029	135.00	244	250.00	75
61.00	12930	94.00	31080	137.00	394		
62.00	12504	95.00	239488	140.00	407		
63.00	11709	96.00	17504	141.00	2789		
64.00	1174	97.00	468	142.00	520		

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB

Lab Name: Pace Analytical Contract:
Lab Code: PASI Case No.: SAS No.: SDG No.: 10224616
Lab File ID: 10801BFB.D BFB Injection Date: 04/18/2013
Instrument ID: 10AIRD BFB Injection Time: 10:37
GC Column: J&W DB-5 ID: 0.32 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
95	Base Peak, 100% relative abundance	100.00	
50	8.00 - 40.00% of mass 95	19.58	
75	30.00 - 66.00% of mass 95	59.72	
96	5.00 - 9.00% of mass 95	6.35	
173	Less than 2.00% of mass 174	0.00	(0.00)
174	50.00 - 120.00% of mass 95	77.33	
175	4.00 - 9.00% of mass 174	6.08	(7.86)
176	93.00 - 101.00% of mass 174	73.07	(94.49)
177	5.00 - 9.00% of mass 176	4.64	(6.36)

1 - Value is %mass 174 2 - Value is %mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	LCS for HBN 246957 [AIR/17180]	1413528	10802S.D	04/18/2013	11:08
2	CCAL	CCAL	10802.D	04/18/2013	11:08
3	LCS for HBN 246659 [AIR/17165]	1411879	10802LL.D	04/18/2013	11:08
4	BLANK (BLK)	BLANK	10804B.D	04/18/2013	12:25
5	BLANK for HBN 246659 [AIR/1716	1411878	10804LL.D	04/18/2013	12:25
6	BLANK for HBN 246957 [AIR/1718	1413527	10804S.D	04/18/2013	12:25
7	1644-A-040313	10224616001	10812.D	04/18/2013	16:30
8	1644-B-040313	10224616002	10813.D	04/18/2013	17:01
9	1644-B-040313(1405008DUP)	1412388-DUP	10814.D	04/18/2013	17:33
10	1646-B-040313	10224616005	10815.D	04/18/2013	18:03
11	1644-R-040313	10224616008	10817.D	04/18/2013	19:12
12	1646-A-040313	10224616004	10819.D	04/18/2013	20:32
13	1646-F-040313	10224616009	10823.D	04/18/2013	22:38

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10801BFB.D Page 1

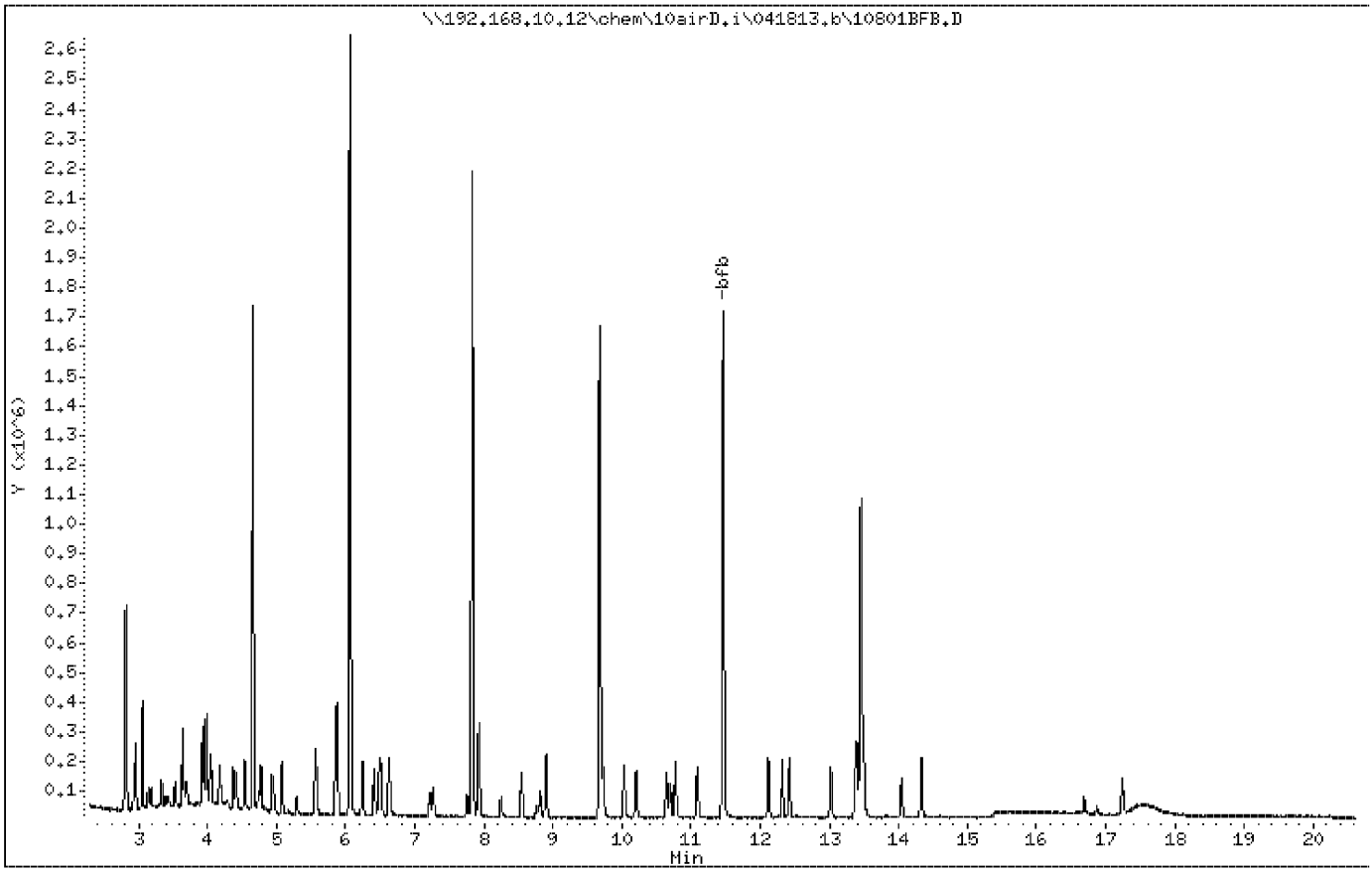
Date : 18-APR-2013 10:37

Client ID: BFB Instrument: 10airD.i

Sample Info:

Operator: CJR

Column phase: J&W DB-5 Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10801BFB.D

Date : 18-APR-2013 10:37

Client ID: BFB

Instrument: 10airD.i

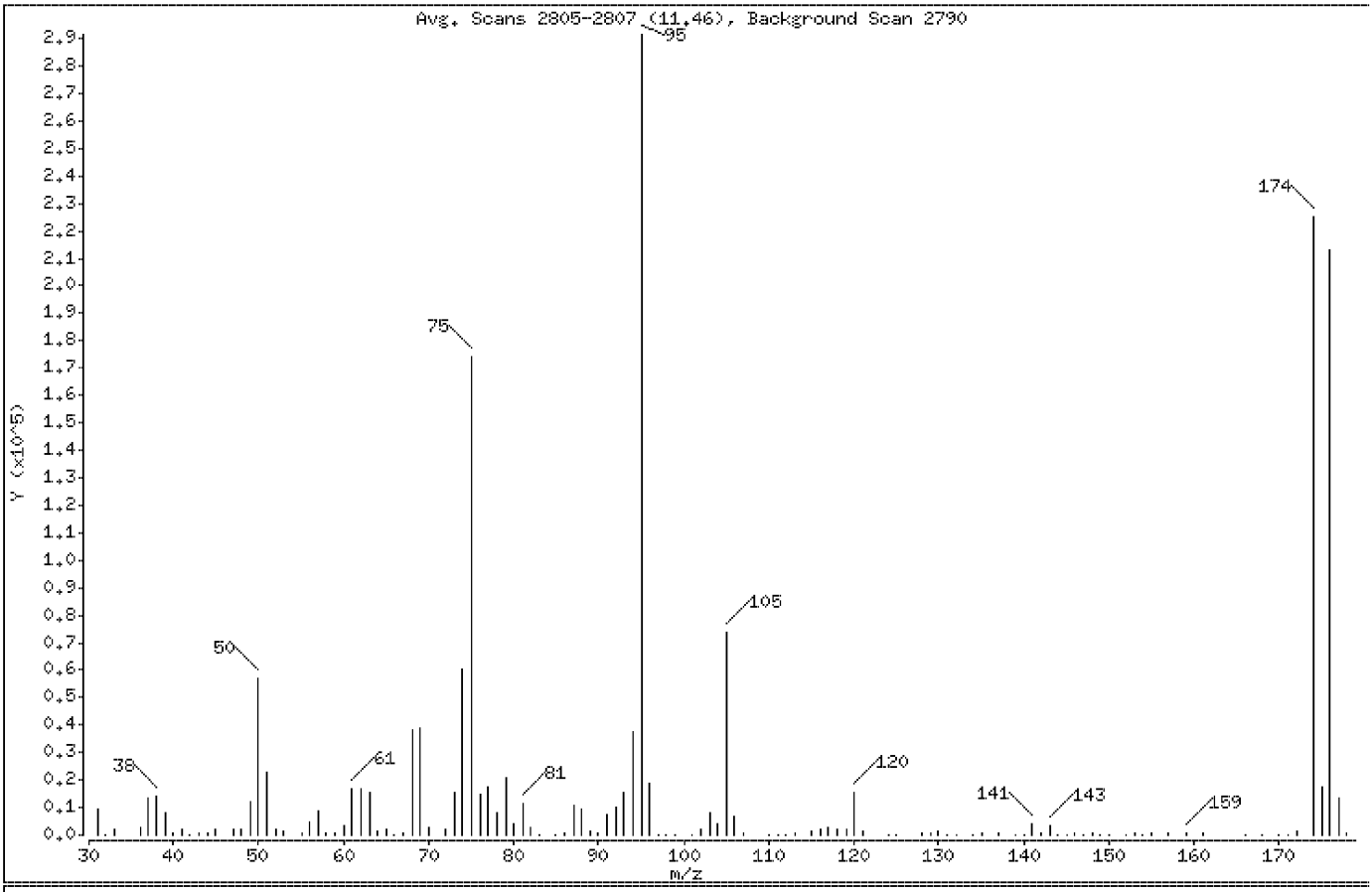
Sample Info:

Operator: CJR

Column phase: J&W DB-5

Column diameter: 0.32

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	19.58
75	30.00 - 66.00% of mass 95	59.72
96	5.00 - 9.00% of mass 95	6.35
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	77.33
175	4.00 - 9.00% of mass 174	6.08 (7.86)
176	93.00 - 101.00% of mass 174	73.07 (94.49)
177	5.00 - 9.00% of mass 176	4.64 (6.36)

Date : 18-APR-2013 10:37

Client ID: BFB Instrument: 10airD.i

Sample Info:

Operator: CJR

Column phase: J&W DB-5 Column diameter: 0.32

Data File: 10801BFB.D
Spectrum: Avg. Scans 2805-2807 (11.46), Background Scan 2790
Location of Maximum: 95.00
Number of points: 120

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	9048	66.00	327	99.00	50	141.00	3953
32.00	138	67.00	988	101.00	98	142.00	435
33.00	1922	68.00	38464	102.00	1834	143.00	3112
36.00	2751	69.00	38824	103.00	8082	144.00	184
37.00	13404	70.00	2918	104.00	4098	145.00	209
38.00	13855	72.00	1711	105.00	74000	146.00	411
39.00	8071	73.00	15123	106.00	6895	147.00	166
40.00	800	74.00	60480	107.00	611	148.00	674
41.00	1789	75.00	174016	110.00	258	149.00	236
42.00	53	76.00	14767	111.00	304	150.00	245
43.00	356	77.00	17152	112.00	86	152.00	176
44.00	974	78.00	8227	113.00	372	153.00	374
45.00	2151	79.00	21088	115.00	1475	154.00	269
47.00	2062	80.00	3728	116.00	1716	155.00	643
48.00	2019	81.00	11330	117.00	2600	157.00	542
49.00	12114	82.00	2514	118.00	1710	159.00	688
50.00	57064	83.00	274	119.00	1743	161.00	608
51.00	22616	85.00	97	120.00	15615	166.00	51
52.00	2295	86.00	604	121.00	1482	168.00	191
53.00	1287	87.00	10816	124.00	99	170.00	277
55.00	776	88.00	9687	125.00	117	171.00	206
56.00	4712	89.00	1515	128.00	889	172.00	1560
57.00	8424	90.00	490	129.00	499	174.00	225344
58.00	581	91.00	7472	130.00	1108	175.00	17704
59.00	660	92.00	9783	131.00	174	176.00	212928
60.00	3194	93.00	15155	132.00	61	177.00	13535
61.00	16920	94.00	37680	134.00	129	178.00	421
62.00	16448	95.00	291392	135.00	666		
63.00	15183	96.00	18504	137.00	457		
64.00	1306	97.00	272	139.00	137		
65.00	2230	98.00	264	140.00	203		

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB

Lab Name: Pace Analytical Contract:
Lab Code: PASI Case No.: SAS No.: SDG No.: 10224616
Lab File ID: 10901BFB.D BFB Injection Date: 04/19/2013
Instrument ID: 10AIRD BFB Injection Time: 11:03
GC Column: J&W DB-5 ID: 0.32 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
95	Base Peak, 100% relative abundance	100.00	
50	8.00 - 40.00% of mass 95	20.44	
75	30.00 - 66.00% of mass 95	63.42	
96	5.00 - 9.00% of mass 95	6.56	
173	Less than 2.00% of mass 174	0.00	(0.00)
174	50.00 - 120.00% of mass 95	76.74	
175	4.00 - 9.00% of mass 174	6.47	(8.43)
176	93.00 - 101.00% of mass 174	73.71	(96.06)
177	5.00 - 9.00% of mass 176	4.70	(6.38)

1 - Value is %mass 174 2 - Value is %mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	LCS for HBN 246759 [AIR/17167]	1412430	10903LL.D	04/19/2013	12:14
2	LCS for HBN 246957 [AIR/17180]	1413528	10903S.D	04/19/2013	12:14
3	CCAL	CCAL	10903.D	04/19/2013	12:14
4	BLANK for HBN 246957 [AIR/1718	1413527	10906S.D	04/19/2013	15:49
5	BLANK for HBN 246759 [AIR/1716	1412429	10906LL.D	04/19/2013	15:49
6	1000-B-040313	10224616003	10907.D	04/19/2013	16:49
7	1000-B-040313(1405009DUP)	1413420-DUP	10908.D	04/19/2013	17:18
8	1644/46-BK-040313	10224616006	10909.D	04/19/2013	17:54
9	1646-R-040313	10224616010	10910.D	04/19/2013	18:46
10	1644-F-040313	10224616007	10911.D	04/19/2013	19:15
11	102251080005	102251080005	10932.D	04/20/2013	06:15

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10901BFB.D Page 1

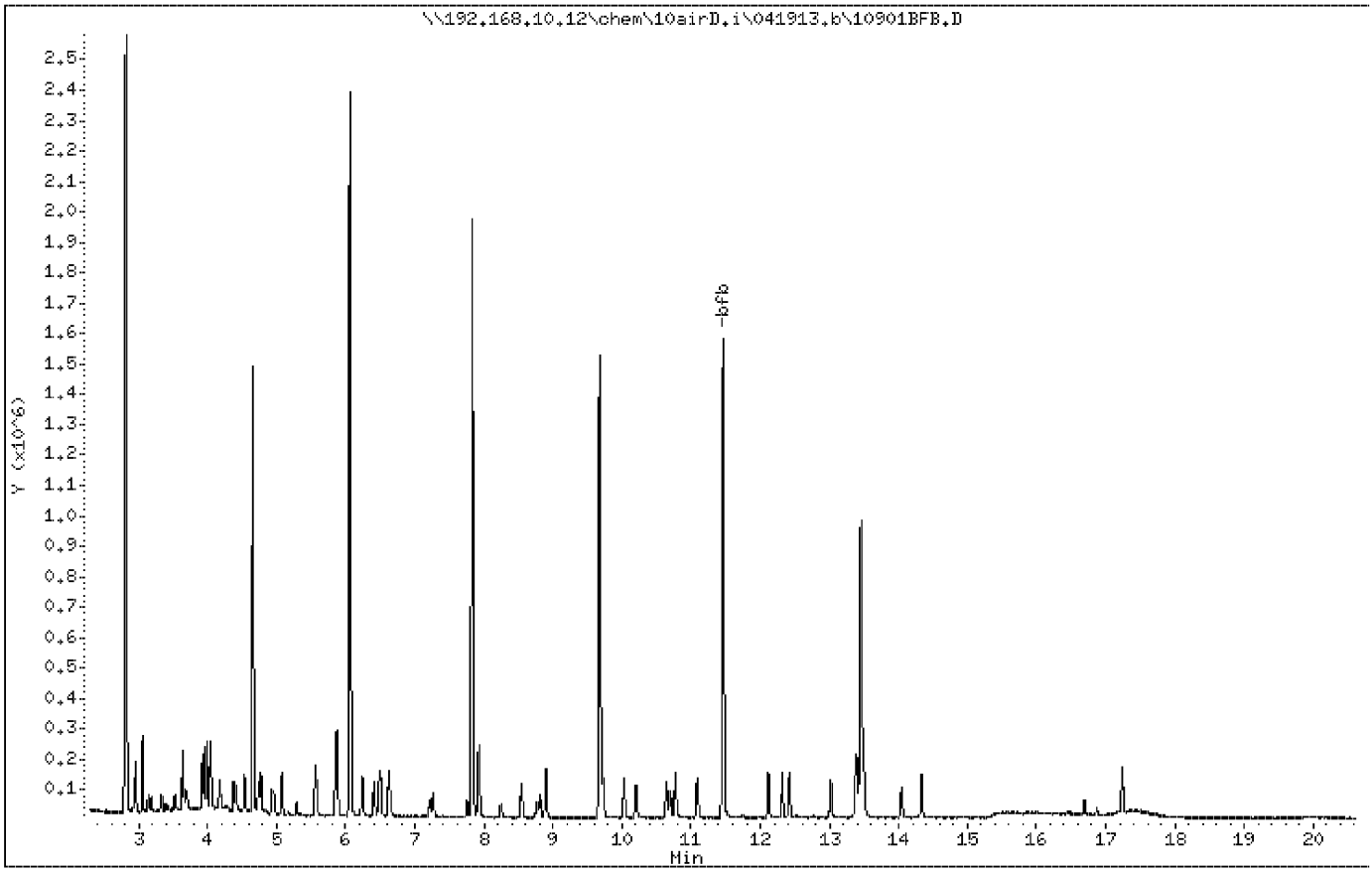
Date : 19-APR-2013 11:03

Client ID: BFB Instrument: 10airD.i

Sample Info:

Operator: CJR

Column phase: J&W DB-5 Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\041913.b\10901BFB.D

Date : 19-APR-2013 11:03

Client ID: BFB

Instrument: 10airD.i

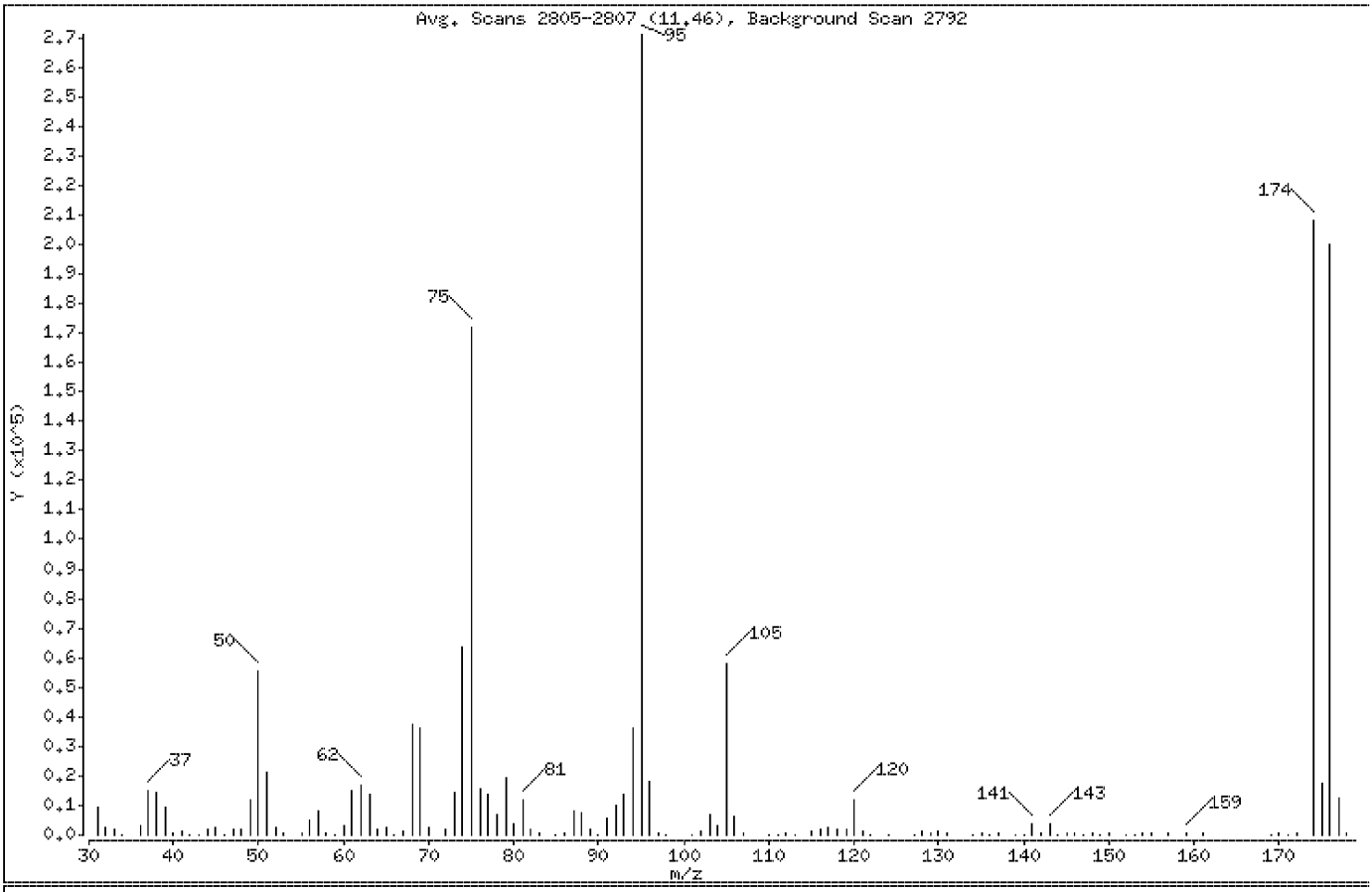
Sample Info:

Operator: CJR

Column phase: J&W DB-5

Column diameter: 0.32

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	20.44
75	30.00 - 66.00% of mass 95	63.42
96	5.00 - 9.00% of mass 95	6.56
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	76.74
175	4.00 - 9.00% of mass 174	6.47 (8.43)
176	93.00 - 101.00% of mass 174	73.71 (96.06)
177	5.00 - 9.00% of mass 176	4.70 (6.38)

Date : 19-APR-2013 11:03

Client ID: BFB Instrument: 10airD.i

Sample Info:

Operator: CJR

Column phase: J&W DB-5 Column diameter: 0.32

Data File: 10901BFB.D
Spectrum: Avg. Scans 2805-2807 (11.46), Background Scan 2792
Location of Maximum: 95.00
Number of points: 121

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	9380	64.00	2049	97.00	643	139.00	159
32.00	2443	65.00	2611	98.00	76	140.00	223
33.00	1800	66.00	253	101.00	210	141.00	3605
34.00	74	67.00	1024	102.00	1491	142.00	530
36.00	2896	68.00	37376	103.00	6764	143.00	3440
37.00	14755	69.00	35896	104.00	3324	144.00	64
38.00	14075	70.00	2559	105.00	57776	145.00	436
39.00	9089	72.00	1849	106.00	5967	146.00	382
40.00	510	73.00	14199	107.00	404	147.00	184
41.00	1238	74.00	63560	110.00	200	148.00	537
42.00	264	75.00	171840	111.00	295	149.00	139
43.00	275	76.00	15582	112.00	376	150.00	312
44.00	1740	77.00	13748	113.00	275	152.00	169
45.00	2484	78.00	6549	115.00	1214	153.00	155
46.00	266	79.00	19272	116.00	1635	154.00	495
47.00	1687	80.00	3641	117.00	2209	155.00	387
48.00	1707	81.00	11735	118.00	1749	157.00	414
49.00	12019	82.00	1854	119.00	1715	159.00	496
50.00	55376	83.00	354	120.00	11617	161.00	399
51.00	21328	85.00	156	121.00	1284	169.00	142
52.00	2191	86.00	558	122.00	72	170.00	480
53.00	819	87.00	8024	124.00	96	171.00	161
55.00	912	88.00	7542	127.00	93	172.00	654
56.00	4717	89.00	1684	128.00	1271	174.00	207936
57.00	8081	90.00	271	129.00	321	175.00	17520
58.00	683	91.00	5847	130.00	1097	176.00	199744
59.00	240	92.00	9809	131.00	417	177.00	12741
60.00	3057	93.00	13506	134.00	88	178.00	327
61.00	15103	94.00	36432	135.00	471		
62.00	16880	95.00	270976	136.00	71		
63.00	13551	96.00	17768	137.00	364		

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB

Lab Name: Pace Analytical Contract:
Lab Code: PASI Case No.: SAS No.: SDG No.: 10224616
Lab File ID: 11105BFB.D BFB Injection Date: 04/21/2013
Instrument ID: 10AIRD BFB Injection Time: 10:16
GC Column: J&W DB-5 ID: 0.32 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
95	Base Peak, 100% relative abundance	100.00	
50	8.00 - 40.00% of mass 95	21.21	
75	30.00 - 66.00% of mass 95	64.25	
96	5.00 - 9.00% of mass 95	6.69	
173	Less than 2.00% of mass 174	0.41	(0.56)
174	50.00 - 120.00% of mass 95	73.40	
175	4.00 - 9.00% of mass 174	5.80	(7.90)
176	93.00 - 101.00% of mass 174	70.16	(95.58)
177	5.00 - 9.00% of mass 176	4.76	(6.78)

1 - Value is %mass 174 2 - Value is %mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	ICAL1	ICAL1	11105.D	04/21/2013	10:16
2	ICAL2	ICAL2	11106.D	04/21/2013	10:45
3	ICAL3	ICAL3	11107.D	04/21/2013	11:15
4	ICAL4	ICAL4	11108.D	04/21/2013	11:47
5	ICAL5	ICAL5	11109.D	04/21/2013	12:16
6	ICAL6	ICAL6	11110.D	04/21/2013	12:45
7	ICAL7	ICAL7	11111.D	04/21/2013	13:15
8	SSV (LCS)	SSV	11112.D	04/21/2013	13:46
9	LCS (LCS)	LCS	11113.D	04/21/2013	14:17
10	LCS for HBN 246957 [AIR/17180]	1413528	11113LL.D	04/21/2013	14:17
11	BLANK (BLK)	BLANK	11115.D	04/21/2013	15:16
12	BLANK for HBN 246957 [AIR/1718	1413527	11115LL.D	04/21/2013	15:16
13	1644-R-040313	10224616008	11120.D	04/21/2013	17:47

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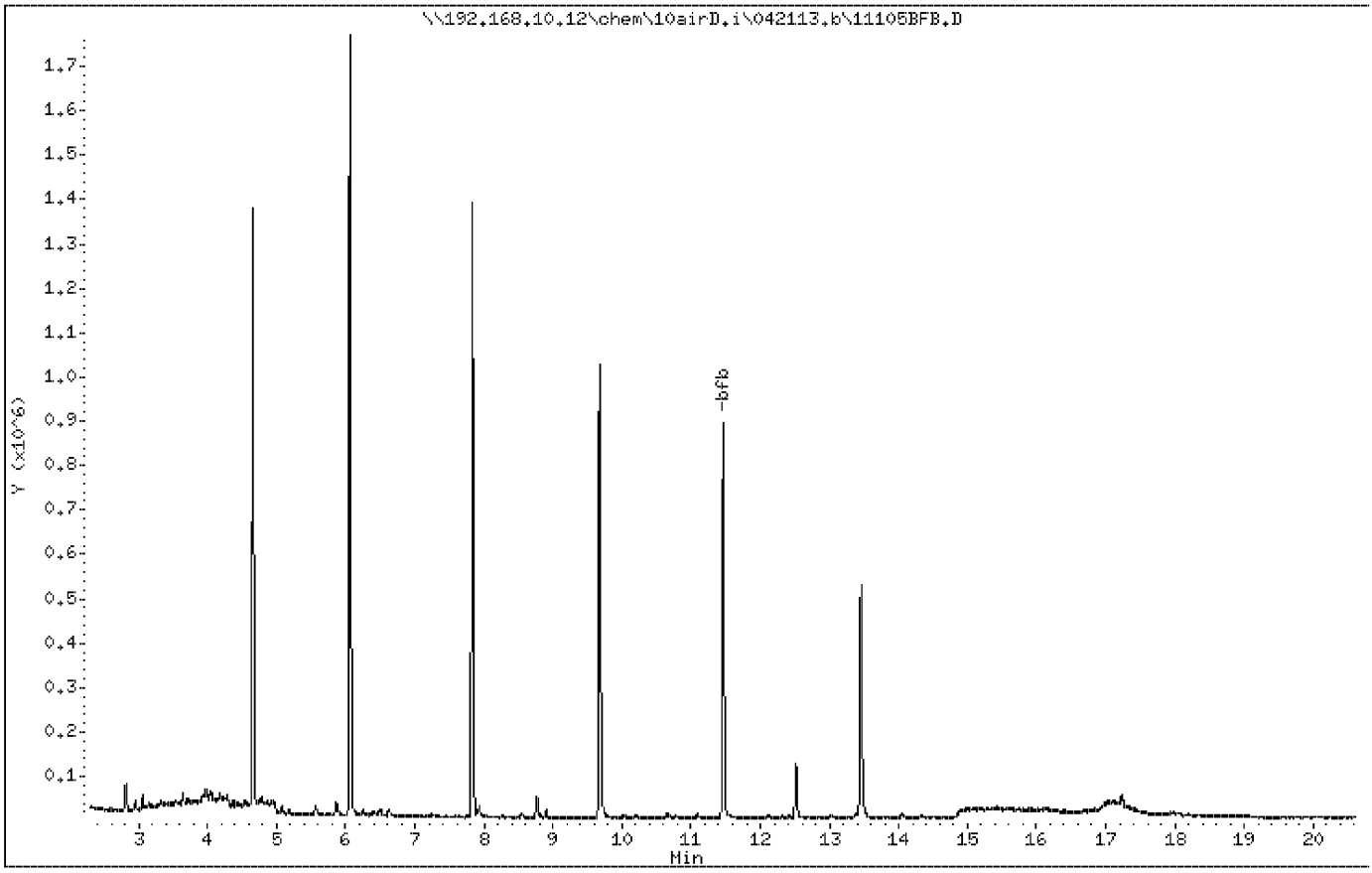
Date : 21-APR-2013 10:16

Client ID: BFB Instrument: 10airD.i

Sample Info:

Operator: CJR

Column phase: J&W DB-5 Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\042113.b\11105BFB.D

Date : 21-APR-2013 10:16

Client ID: BFB

Instrument: 10airD.i

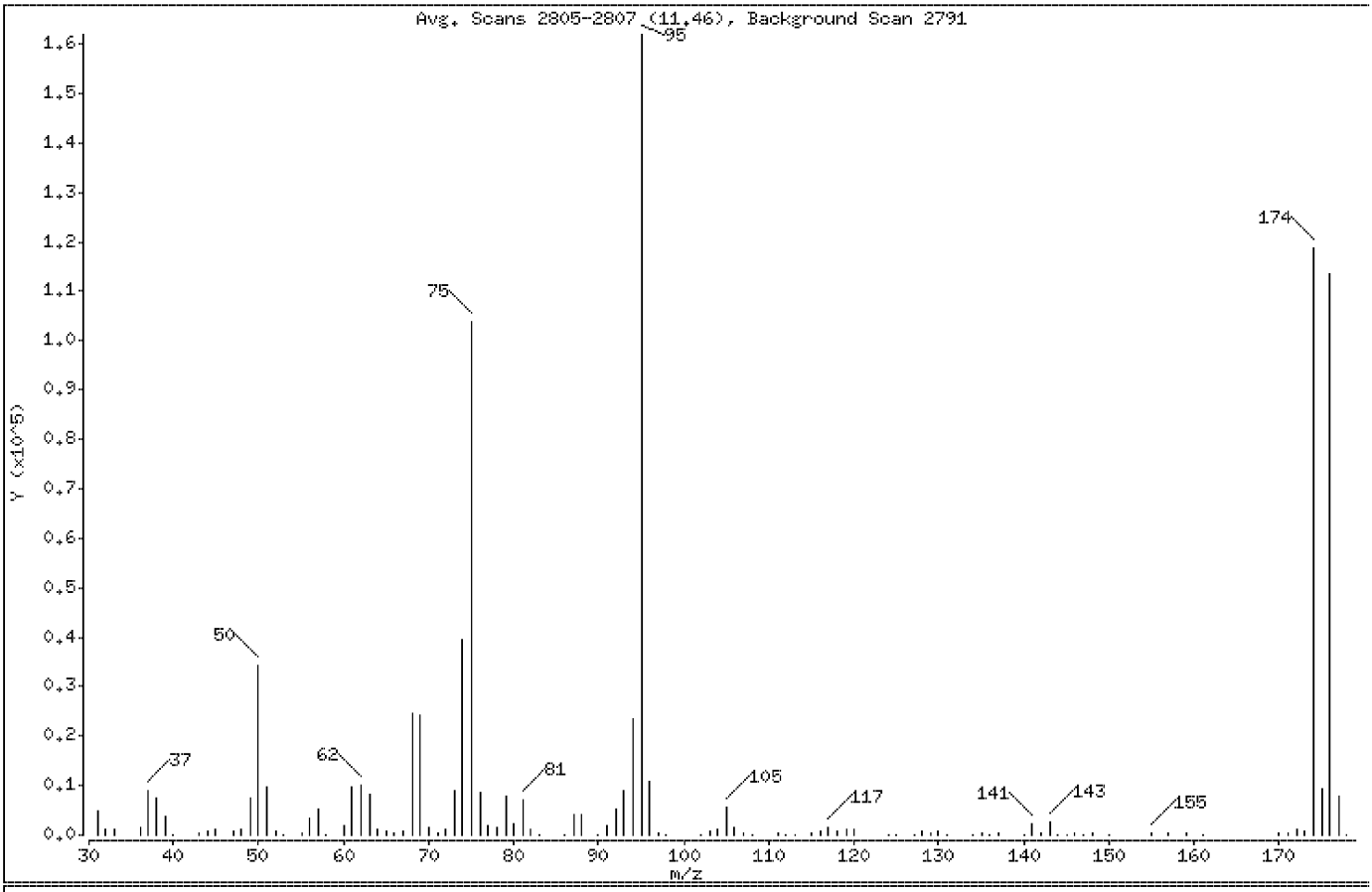
Sample Info:

Operator: CJR

Column phase: J&W DB-5

Column diameter: 0.32

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	21.21
75	30.00 - 66.00% of mass 95	64.25
96	5.00 - 9.00% of mass 95	6.69
173	Less than 2.00% of mass 174	0.41 (0.56)
174	50.00 - 120.00% of mass 95	73.40
175	4.00 - 9.00% of mass 174	5.80 (7.90)
176	93.00 - 101.00% of mass 174	70.16 (95.58)
177	5.00 - 9.00% of mass 176	4.76 (6.78)

Date : 21-APR-2013 10:16

Client ID: BFB Instrument: 10airD.i

Sample Info:

Operator: CJR

Column phase: J&W DB-5 Column diameter: 0.32

Data File: 11105BFB.D
Spectrum: Avg. Scans 2805-2807 (11.46), Background Scan 2791
Location of Maximum: 95.00
Number of points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	4827	66.00	213	97.00	258	137.00	216
32.00	1241	67.00	906	98.00	70	140.00	138
33.00	1160	68.00	24640	102.00	60	141.00	2296
36.00	1614	69.00	24296	103.00	718	142.00	467
37.00	8942	70.00	1615	104.00	987	143.00	2449
38.00	7546	71.00	249	105.00	5442	144.00	141
39.00	3549	72.00	1284	106.00	1359	145.00	158
40.00	182	73.00	8962	107.00	331	146.00	331
43.00	202	74.00	39272	108.00	69	147.00	57
44.00	887	75.00	104032	111.00	287	148.00	415
45.00	1232	76.00	8590	112.00	129	150.00	147
47.00	700	77.00	1905	113.00	60	155.00	539
48.00	1031	78.00	1338	115.00	287	157.00	237
49.00	7433	79.00	7687	116.00	649	159.00	254
50.00	34336	80.00	2080	117.00	1567	161.00	130
51.00	9576	81.00	7147	118.00	903	170.00	276
52.00	574	82.00	1239	119.00	1188	171.00	271
53.00	138	83.00	178	120.00	1153	172.00	1118
55.00	466	86.00	66	124.00	132	173.00	665
56.00	3520	87.00	4189	125.00	108	174.00	118848
57.00	5092	88.00	4245	127.00	75	175.00	9390
58.00	185	90.00	81	128.00	826	176.00	113600
60.00	1913	91.00	1792	129.00	201	177.00	7706
61.00	9861	92.00	5355	130.00	635	178.00	131
62.00	10216	93.00	8762	131.00	147		
63.00	8196	94.00	23416	134.00	106		
64.00	1031	95.00	161920	135.00	219		
65.00	899	96.00	10833	136.00	68		

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802.d
Report Date: 18-Apr-2013 11:33

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 10airD.i Injection Date: 18-APR-2013 11:08
Lab File ID: 10802.d Init. Cal. Date(s): 16-APR-2013 16-APR-2013
Analysis Type: AIR Init. Cal. Times: 10:41 13:45
Lab Sample ID: CCAL Quant Type: ISTD
Method: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m

COMPOUND	RRF / AMOUNT	RF10	CCAL RRF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Propylene	10.00000	9.32399	0.09948	0.010	-6.76006	30.00000	Linear
2 Dichlorodifluoromethane	1.07659	0.97789	0.97789	0.010	-9.16776	30.00000	Averaged
3 Dichlorotetrafluoroethane	0.85867	0.79529	0.79529	0.010	-7.38018	30.00000	Averaged
4 Chloromethane	0.23784	0.22563	0.22563	0.010	-5.13279	30.00000	Averaged
5 Vinyl chloride	0.26687	0.25279	0.25279	0.010	-5.27506	30.00000	Averaged
6 1,3-Butadiene	0.13143	0.13859	0.13859	0.010	5.45002	30.00000	Averaged
7 Bromomethane	0.29357	0.26624	0.26624	0.010	-9.30815	30.00000	Averaged
8 Chloroethane	0.13325	0.12586	0.12586	0.010	-5.54815	30.00000	Averaged
9 Ethanol	10.00000	9.74969	0.15583	0.100	-2.50308	30.00000	Linear
10 Vinyl Bromide	0.24832	0.23610	0.23610	0.010	-4.92099	30.00000	Averaged
11 Acrolein	0.06639	0.07231	0.07231	0.010	8.90655	30.00000	Averaged
12 Trichlorofluoromethane	0.97930	0.86149	0.86149	0.010	-12.02937	30.00000	Averaged
13 Acetone	10.00000	10.02585	0.47584	0.010	0.25852	30.00000	Linear
14 Isopropyl Alcohol	10.00000	10.02499	0.33314	0.010	0.24995	30.00000	Linear
15 1,1-Dichloroethene	0.48979	0.45407	0.45407	0.010	-7.29265	30.00000	Averaged
16 Acrylonitrile	0.16379	0.15947	0.15947	0.010	-2.63918	30.00000	Averaged
17 Tert Butyl Alcohol	10.00000	10.34637	0.42784	0.100	3.46367	30.00000	Linear
18 Freon 113	0.62406	0.57297	0.57297	0.010	-8.18662	30.00000	Averaged
19 Methylene chloride	0.28970	0.26900	0.26900	0.010	-7.14528	30.00000	Averaged
20 Allyl Chloride	0.12343	0.12378	0.12378	0.010	0.27996	30.00000	Averaged
21 Carbon Disulfide	0.91766	0.83058	0.83058	0.010	-9.48882	30.00000	Averaged
22 trans-1,2-dichloroethene	0.29138	0.26109	0.26109	0.010	-10.39505	30.00000	Averaged
23 Methyl Tert Butyl Ether	0.61261	0.57247	0.57247	0.010	-6.55369	30.00000	Averaged
24 Vinyl Acetate	0.51684	0.51821	0.51821	0.010	0.26414	30.00000	Averaged
25 1,1-Dichloroethane	0.55187	0.50641	0.50641	0.010	-8.23866	30.00000	Averaged
$ 26 Hexane-d14(S)	0.44547	0.41530	0.41530	0.200	-6.77383	30.00000	Averaged
27 Methyl Ethyl Ketone	0.13779	0.13007	0.13007	0.010	-5.60209	30.00000	Averaged
28 n-Hexane	0.41594	0.31668	0.31668	0.010	-23.86306	30.00000	Averaged
29 cis-1,2-Dichloroethene	10.00000	9.49709	0.28289	0.010	-5.02911	30.00000	Linear
30 Ethyl Acetate	0.39141	0.43638	0.43638	0.010	11.48875	30.00000	Averaged
31 Chloroform	0.77733	0.74862	0.74862	0.010	-3.69430	30.00000	Averaged
32 Tetrahydrofuran	10.00000	9.27409	0.17702	0.010	-7.25915	30.00000	Linear
33 1,1,1-Trichloroethane	0.75166	0.74073	0.74073	0.010	-1.45435	30.00000	Averaged
34 1,2-Dichloroethane	0.58249	0.57603	0.57603	0.010	-1.10938	30.00000	Averaged
35 Benzene	0.91110	0.81272	0.81272	0.300	-10.79747	30.00000	Averaged
36 Carbon tetrachloride	0.73601	0.72649	0.72649	0.010	-1.29334	30.00000	Averaged
37 Cyclohexane	10.00000	9.20878	0.30547	0.010	-7.91219	30.00000	Linear
39 2,2,4-Trimethylpentane	10.00000	9.25515	0.94104	0.010	-7.44846	30.00000	Linear
40 Heptane	10.00000	8.89477	0.29369	0.010	-11.05226	30.00000	Linear
41 1,2-Dichloropropane	0.25957	0.26708	0.26708	0.010	2.89421	30.00000	Averaged
42 Trichloroethene	0.24454	0.26157	0.26157	0.010	6.96141	30.00000	Averaged
43 1,4-Dioxane	10.00000	9.72299	0.17925	0.010	-2.77013	30.00000	Linear
44 Bromodichloromethane	0.78958	0.83000	0.83000	0.010	5.11900	30.00000	Averaged

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802.d
Report Date: 18-Apr-2013 11:33

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 10airD.i Injection Date: 18-APR-2013 11:08
Lab File ID: 10802.d Init. Cal. Date(s): 16-APR-2013 16-APR-2013
Analysis Type: AIR Init. Cal. Times: 10:41 13:45
Lab Sample ID: CCAL Quant Type: ISTD
Method: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m

COMPOUND	RRF / AMOUNT	RF10	CCAL RRF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
45 Methyl Isobutyl Ketone	10.00000	9.12430	0.42332	0.010	-8.75696	30.00000	Linear	
46 cis-1,3-Dichloropropene	10.00000	9.22873	0.46850	0.010	-7.71272	30.00000	Linear	
47 trans-1,3-Dichloropropene	10.00000	9.21163	0.51285	0.010	-7.88371	30.00000	Linear	
$ 48 Toluene-d8 (S)	0.91543	0.93754	0.93754	0.200	2.41480	30.00000	Averaged	
49 Toluene	1.25202	0.98853	0.98853	0.300	-21.04526	30.00000	Averaged	
50 1,1,2-Trichloroethane	0.33432	0.33657	0.33657	0.010	0.67185	30.00000	Averaged	
51 Methyl Butyl Ketone	10.00000	9.48056	0.76044	0.010	-5.19436	30.00000	Linear	
52 Dibromochloromethane	0.87594	0.99959	0.99959	0.010	14.11525	30.00000	Averaged	
53 1,2-Dibromoethane	0.81825	0.90769	0.90769	0.010	10.93000	30.00000	Averaged	
54 Tetrachloroethene	0.76592	0.81822	0.81822	0.010	6.82856	30.00000	Averaged	
56 Chlorobenzene	1.10810	1.14561	1.14561	0.010	3.38497	30.00000	Averaged	
57 Ethyl Benzene	10.00000	9.79900	2.27905	0.300	-2.01004	30.00000	Linear	
58 m&p-Xylene	10.00000	9.58594	1.83768	0.300	-4.14061	30.00000	Linear	
59 Bromoform	0.94530	1.13765	1.13765	0.010	20.34850	30.00000	Averaged	
60 Styrene	10.00000	9.51299	1.16200	0.010	-4.87011	30.00000	Linear	
61 o-Xylene	10.00000	9.86167	1.98122	0.300	-1.38333	30.00000	Linear	
62 1,1,2,2-Tetrachloroethane	1.15233	1.26601	1.26601	0.010	9.86600	30.00000	Averaged	
63 Isopropylbenzene	2.12033	2.36406	2.36406	0.010	11.49459	30.00000	Averaged	
64 N-Propylbenzene	10.00000	9.89680	3.03084	0.010	-1.03198	30.00000	Linear	
65 4-Ethyltoluene	10.00000	9.77521	2.24917	0.010	-2.24792	30.00000	Linear	
66 1,3,5-Trimethylbenzene	10.00000	9.88177	1.97291	0.010	-1.18232	30.00000	Linear	
67 1,2,4-Trimethylbenzene	10.00000	9.77814	1.93889	0.010	-2.21857	30.00000	Linear	
68 1,3-Dichlorobenzene	10.00000	9.63366	1.12857	0.010	-3.66340	30.00000	Linear	
69 Sec- Butylbenzene	10.00000	10.20748	2.77270	0.010	2.07485	30.00000	Linear	
$ 70 1,4-dichlorobenzene-d4 (S)	0.56190	0.61383	0.61383	0.200	9.24183	30.00000	Averaged	
71 Benzyl Chloride	10.00000	9.56791	1.71504	0.010	-4.32095	30.00000	Linear	
72 1,4-Dichlorobenzene	10.00000	9.88817	1.10796	0.010	-1.11828	30.00000	Linear	
73 1,2-Dichlorobenzene	10.00000	9.45834	1.01650	0.010	-5.41663	30.00000	Linear	
74 N-Butylbenzene	10.00000	9.88368	2.34558	0.010	-1.16324	30.00000	Linear	
75 1,2,4-Trichlorobenzene	10.00000	20.76121	0.66944	0.010	108	30.00000	Linear	<-
76 Naphthalene	10.00000	22.60081	0.98898	0.010	126	30.00000	Linear	<-
77 Hexachlorobutadiene	10.00000	23.76686	0.94103	0.010	138	30.00000	Linear	<-

Average %D / Drift Results.
Calculated Average %D/Drift = 10.89842
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802.d
Report Date: 18-Apr-2013 11:33

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10802.d
Lab Smp Id: CCAL
Inj Date : 18-APR-2013 11:08
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 18-Apr-2013 11:29 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	153734	10.0000	9.32
2	Dichlorodifluoromethane	85	2.950	2.950	(0.486)	1511212	10.0000	9.08
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	1229028	10.0000	9.26
4	Chloromethane	50	3.048	3.052	(0.503)	348688	10.0000	9.49
5	Vinyl chloride	62	3.139	3.137	(0.518)	390656	10.0000	9.47
6	1,3-Butadiene	54	3.182	3.182	(0.525)	214178	10.0000	10.5
7	Bromomethane	94	3.335	3.336	(0.550)	411441	10.0000	9.07
8	Chloroethane	64	3.394	3.395	(0.560)	194495	10.0000	9.44(M)
9	Ethanol	31	3.420	3.424	(0.564)	240813	10.0000	9.75
10	Vinyl Bromide	106	3.532	3.532	(0.582)	364868	10.0000	9.51
11	Acrolein	56	3.623	3.627	(0.597)	111739	10.0000	10.9
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	1331329	10.0000	8.80
13	Acetone	43	3.672	3.673	(0.606)	735352	10.0000	10.0
14	Isopropyl Alcohol	45	3.698	3.702	(0.610)	514820	10.0000	10.0
15	1,1-Dichloroethene	61	3.927	3.931	(0.648)	701705	10.0000	9.27
16	Acrylonitrile	53	3.930	3.934	(0.648)	246440	10.0000	9.74
17	Tert Butyl Alcohol	59	3.934	3.941	(0.649)	661173	10.0000	10.3
18	Freon 113	101	3.983	3.983	(0.657)	885450	10.0000	9.18
19	Methylene chloride	49	4.041	4.045	(0.666)	415706	10.0000	9.28
20	Allyl Chloride	76	4.058	4.058	(0.669)	191287	10.0000	10.0
21	Carbon Disulfide	76	4.179	4.179	(0.689)	1283559	10.0000	9.05
22	trans-1,2-dichloroethene	96	4.375	4.379	(0.721)	403477	10.0000	8.96
23	Methyl Tert Butyl Ether	73	4.411	4.415	(0.727)	884674	10.0000	9.34(M)

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802.d
Report Date: 18-Apr-2013 11:33

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	AMOUNTS ON-COL (ppbv)
	24 Vinyl Acetate	43	4.532	4.539	(0.747)	800824	10.0000	10.0
	25 1,1-Dichloroethane	63	4.538	4.542	(0.748)	782586	10.0000	9.18
$	26 Hexane-d14(S)	66	4.656	4.660	(0.768)	641788	10.0000	9.32
	27 Methyl Ethyl Ketone	72	4.731	4.738	(0.780)	201010	10.0000	9.44(M)
	28 n-Hexane	57	4.774	4.777	(0.787)	489392	10.0000	7.61(M)
	29 cis-1,2-Dichloroethene	96	4.934	4.941	(0.814)	437178	10.0000	9.50
	30 Ethyl Acetate	43	4.957	4.964	(0.817)	674376	10.0000	11.1
	31 Chloroform	83	5.078	5.085	(0.837)	1156893	10.0000	9.63
	32 Tetrahydrofuran	42	5.270	5.274	(0.869)	273563	10.0000	9.27
	33 1,1,1-Trichloroethane	97	5.561	5.569	(0.917)	1144700	10.0000	9.85
	34 1,2-Dichloroethane	62	5.581	5.588	(0.920)	890183	10.0000	9.89
	35 Benzene	78	5.852	5.856	(0.965)	1255963	10.0000	8.92
	36 Carbon tetrachloride	117	5.872	5.876	(0.968)	1122703	10.0000	9.87
	37 Cyclohexane	56	5.875	5.882	(0.969)	472063	10.0000	9.21
*	38 1,4-Difluorobenzene	114	6.065	6.069	(1.000)	1545375	10.0000	
	39 2,2,4-Trimethylpentane	57	6.241	6.245	(1.029)	1454261	10.0000	9.26
	40 Heptane	43	6.411	6.415	(1.057)	453860	10.0000	8.89
	41 1,2-Dichloropropane	63	6.483	6.487	(1.069)	412736	10.0000	10.3(M)
	42 Trichloroethene	130	6.506	6.510	(1.073)	404219	10.0000	10.7
	43 1,4-Dioxane	88	6.620	6.628	(1.092)	277008	10.0000	9.72(M)
	44 Bromodichloromethane	83	6.627	6.634	(1.093)	1282666	10.0000	10.5
	45 Methyl Isobutyl Ketone	43	7.206	7.213	(1.188)	654185	10.0000	9.12
	46 cis-1,3-Dichloropropene	75	7.261	7.265	(1.197)	724006	10.0000	9.23
	47 trans-1,3-Dichloropropene	75	7.755	7.762	(1.279)	792541	10.0000	9.21
$	48 Toluene-d8 (S)	98	7.830	7.837	(1.291)	1448851	10.0000	10.2
	49 Toluene	91	7.921	7.925	(1.306)	1527654	10.0000	7.90
	50 1,1,2-Trichloroethane	97	7.931	7.938	(1.308)	520126	10.0000	10.1
	51 Methyl Butyl Ketone	43	8.232	8.239	(0.850)	663692	10.0000	9.48
	52 Dibromochloromethane	129	8.546	8.550	(0.883)	872416	10.0000	11.4
	53 1,2-Dibromoethane	107	8.814	8.821	(0.910)	792208	10.0000	11.1
	54 Tetrachloroethene	166	8.905	8.909	(0.920)	714127	10.0000	10.7
*	55 Chlorobenzene - d5	117	9.683	9.684	(1.000)	872778	10.0000	
	56 Chlorobenzene	112	9.729	9.736	(1.005)	999861	10.0000	10.3
	57 Ethyl Benzene	91	10.033	10.040	(1.036)	1989101	10.0000	9.80
	58 m&p-Xylene	91	10.203	10.210	(1.054)	1603889	10.0000	9.58
	59 Bromoform	173	10.651	10.658	(1.100)	992919	10.0000	12.0
	60 Styrene	104	10.696	10.707	(1.105)	1014170	10.0000	9.51
	61 o-Xylene	91	10.775	10.785	(1.113)	1729162	10.0000	9.86
	62 1,1,2,2-Tetrachloroethane	83	11.089	11.099	(1.145)	1104950	10.0000	11.0
	63 Isopropylbenzene	105	11.455	11.462	(1.183)	2063296	10.0000	11.1
	64 N-Propylbenzene	91	12.115	12.125	(1.251)	2645251	10.0000	9.90(M)
	65 4-Ethyltoluene	105	12.314	12.328	(1.272)	1963024	10.0000	9.78
	66 1,3,5-Trimethylbenzene	105	12.422	12.433	(1.283)	1721911	10.0000	9.88
	67 1,2,4-Trimethylbenzene	105	13.017	13.028	(1.344)	1692218	10.0000	9.78
	68 1,3-Dichlorobenzene	146	13.373	13.381	(1.381)	984987	10.0000	9.63
	69 Sec- Butylbenzene	105	13.400	13.410	(1.384)	2419952	10.0000	10.2
$	70 1,4-dichlorobenzene-d4 (S)	150	13.455	13.466	(1.390)	535741	10.0000	10.9
	71 Benzyl Chloride	91	13.478	13.492	(1.392)	1496845	10.0000	9.57
	72 1,4-Dichlorobenzene	146	13.501	13.515	(1.394)	967004	10.0000	9.89
	73 1,2-Dichlorobenzene	146	14.040	14.051	(1.450)	887181	10.0000	9.46
	74 N-Butylbenzene	91	14.325	14.335	(1.479)	2047174	10.0000	9.88
	75 1,2,4-Trichlorobenzene	180	16.681	16.692	(1.723)	584272	10.0000	20.8
	76 Naphthalene	128	16.861	16.867	(1.741)	863156	10.0000	22.6
	77 Hexachlorobutadiene	225	17.237	17.247	(1.780)	821312	10.0000	23.8

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802.d
Report Date: 18-Apr-2013 11:33

QC Flag Legend

M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802.d
Report Date: 18-Apr-2013 11:33

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10802.d
Lab Smp Id: CCAL
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info:

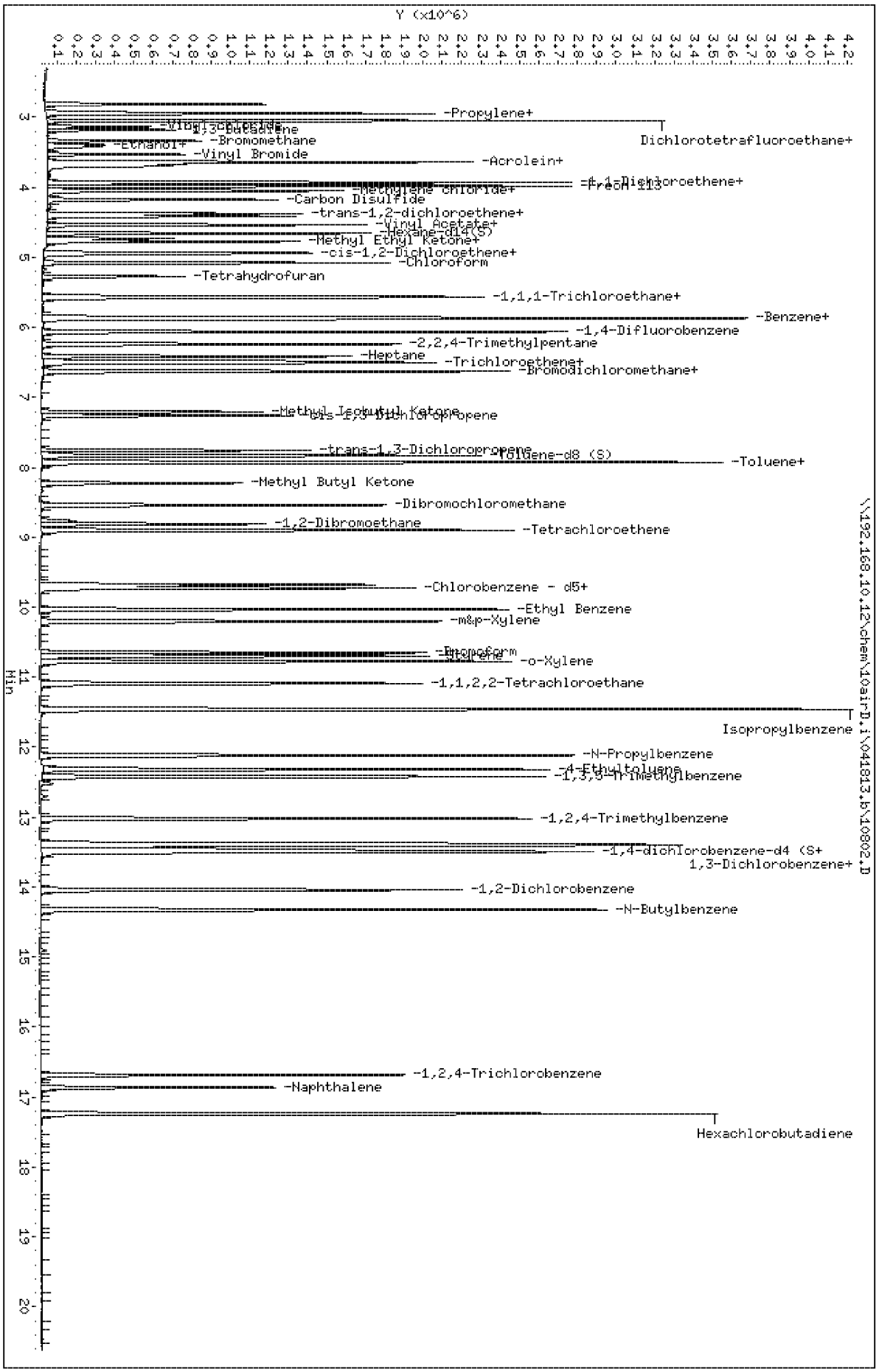
Calibration Date: 17-APR-2013
Calibration Time: 11:27
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1545375	7.89
55 Chlorobenzene - d	825122	495073	1155171	872778	5.78

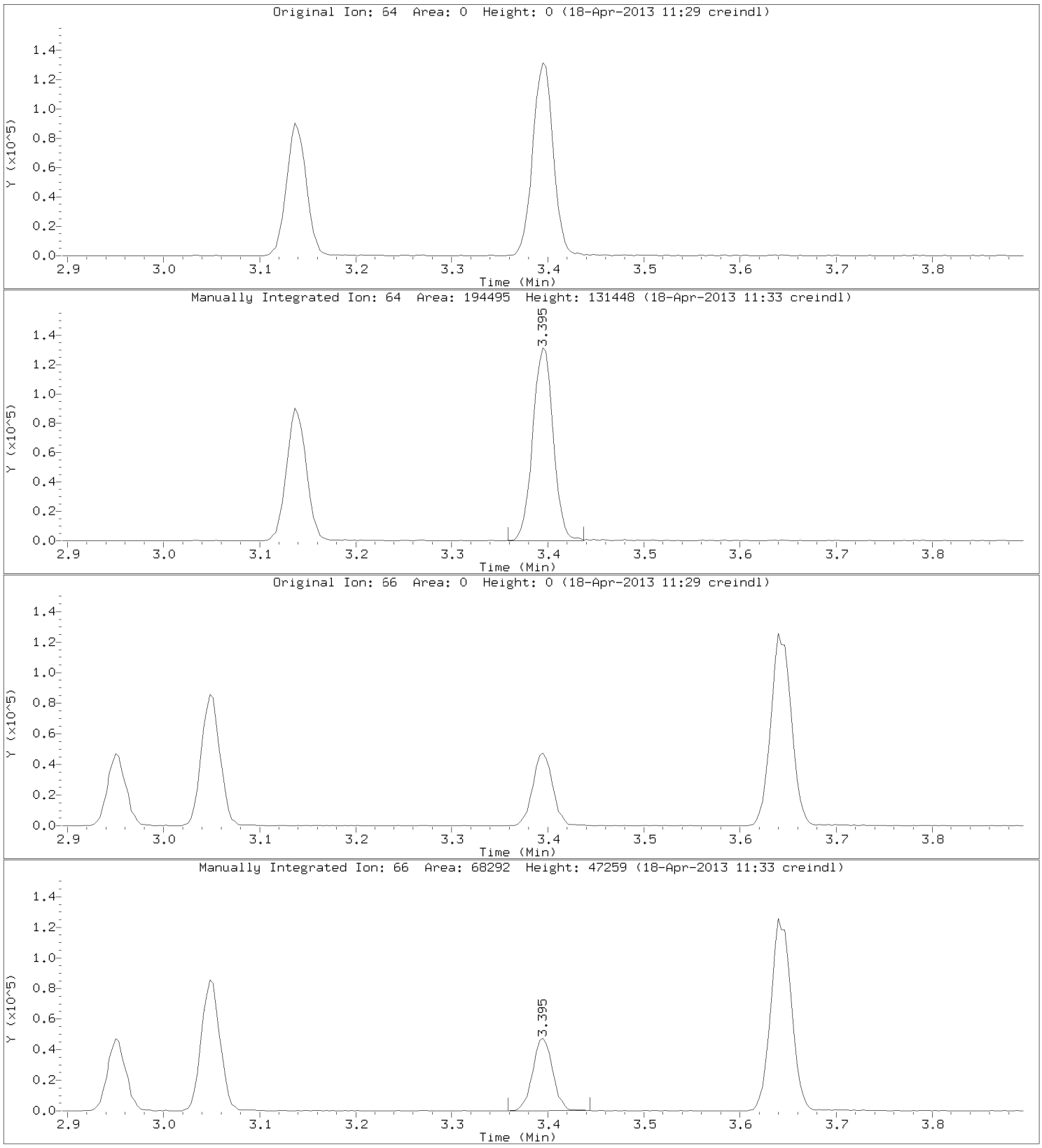
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	-0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.


Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802.D
Date : 18-APR-2013 11:08
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^6)
Min
\\192.168.10.12\chem\10airD.i\041813.b\10802.D
-Propylene+
-Dichlorotetrafluoroethane+
-Ethanol+
-Bromomethane
-Vinyl Bromide
-Acrolein+
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
-trans-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,4-dichlorobenzene-d4 (S+
1,3-Dichlorobenzene+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
Hexachlorobutadiene

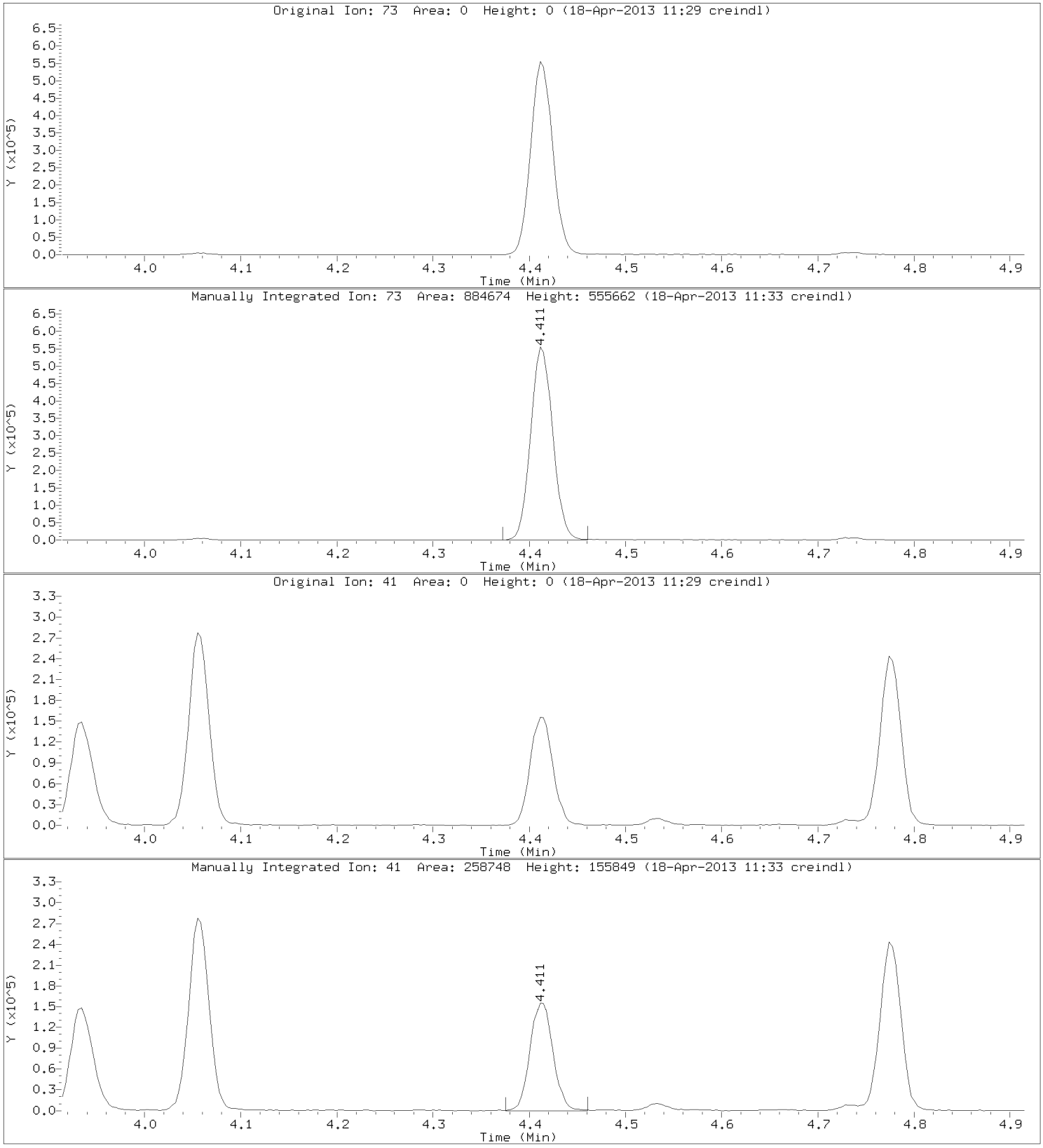
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: Chloroethane
CAS Number: 75-00-3



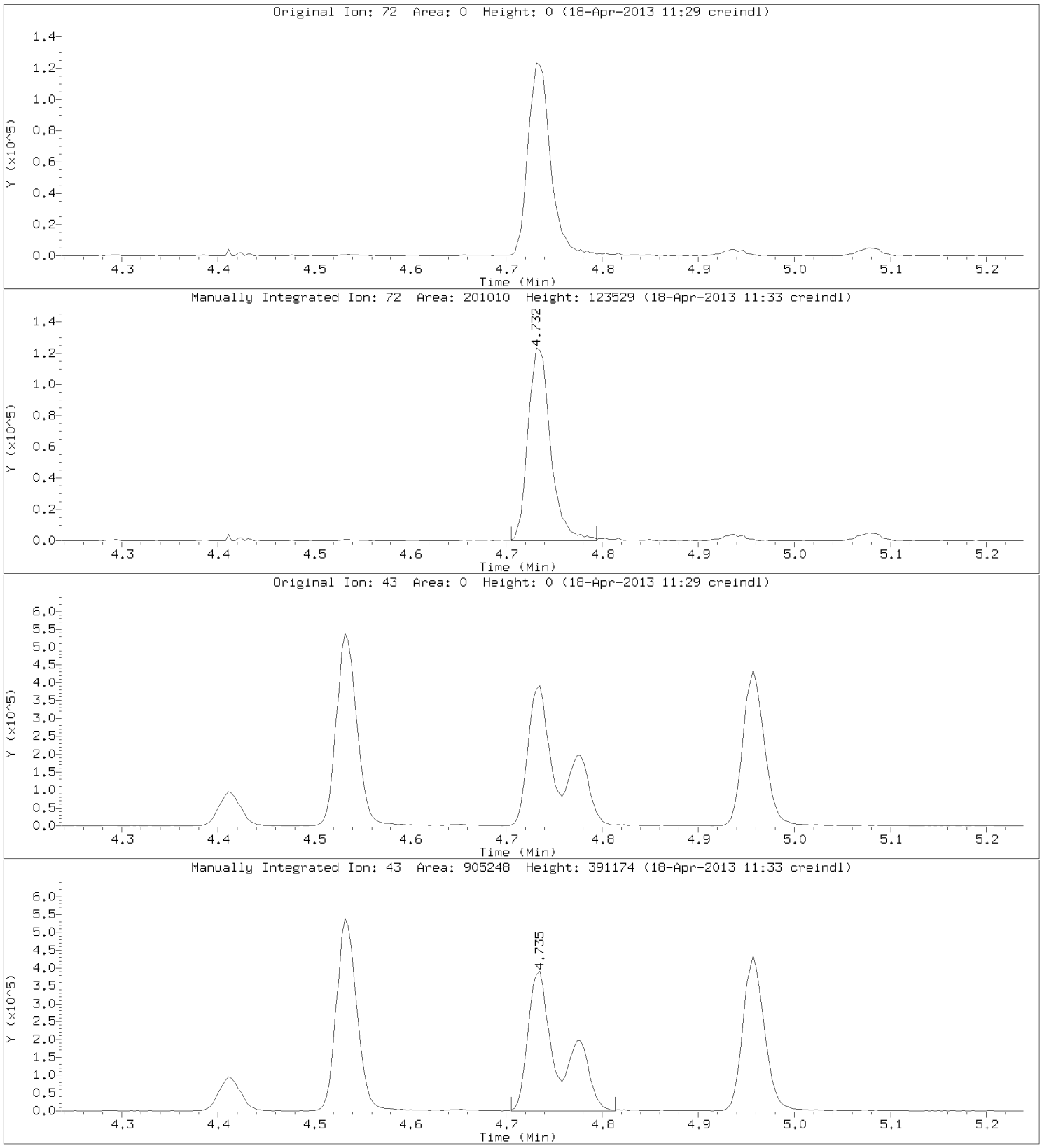
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



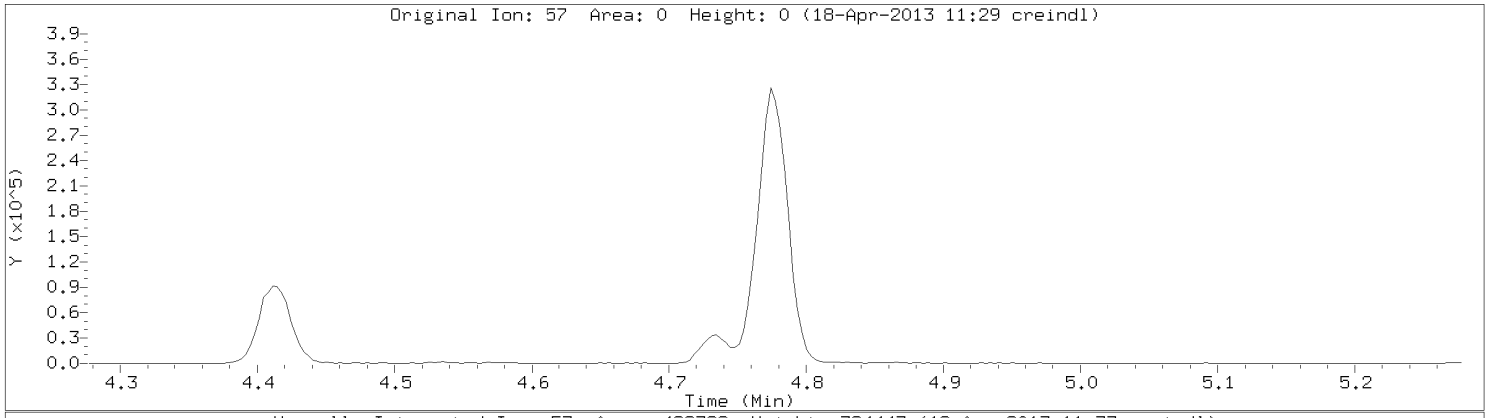
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: CCAL

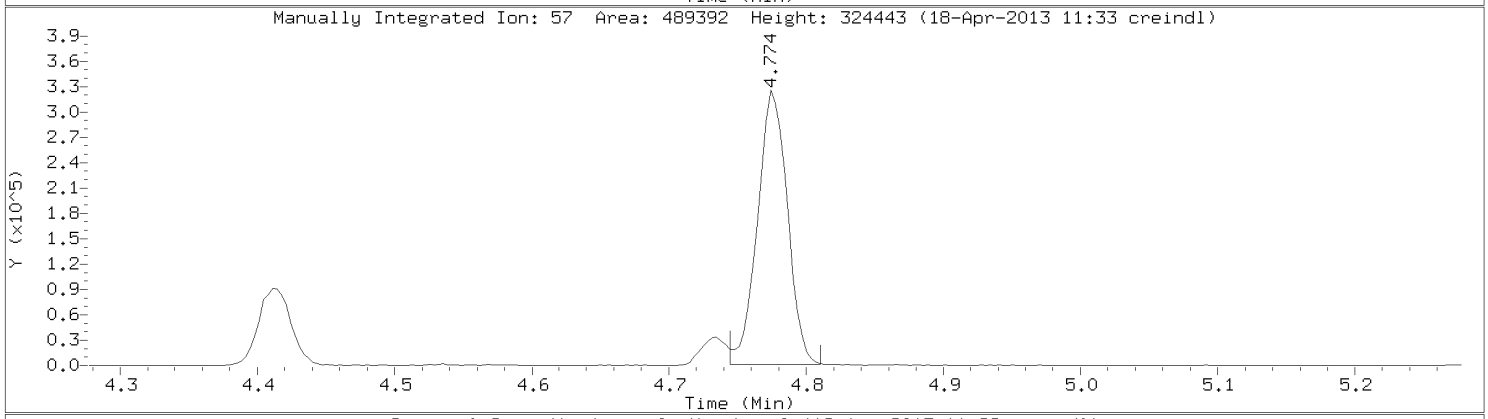
Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

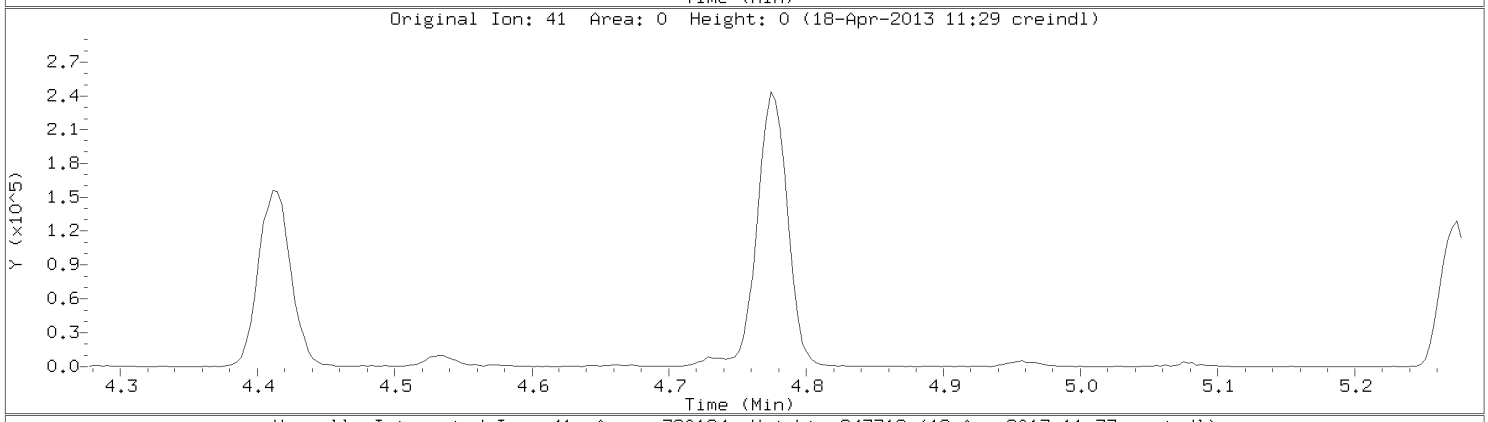


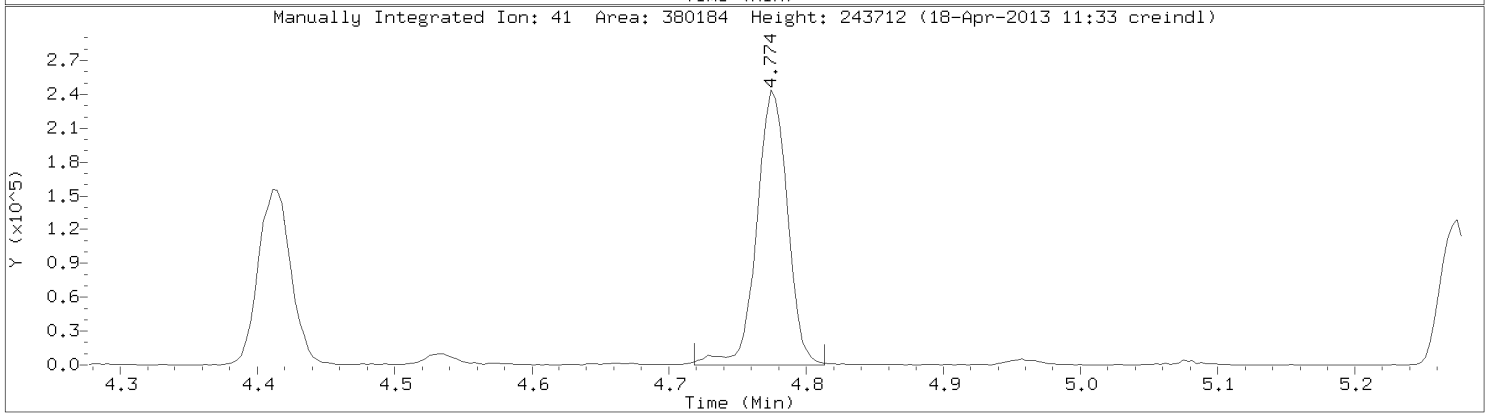
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: n-Hexane
CAS Number: 110-54-3

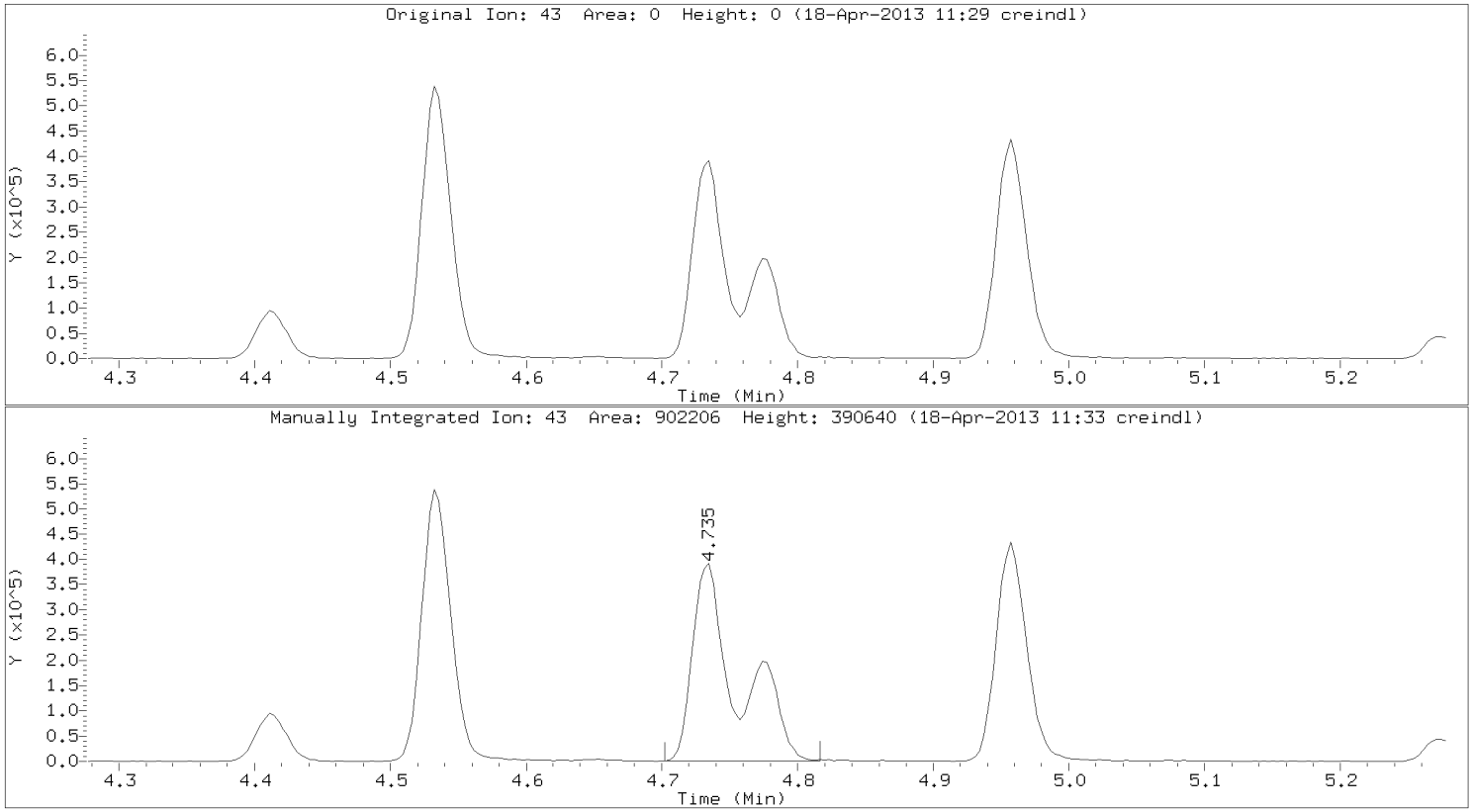






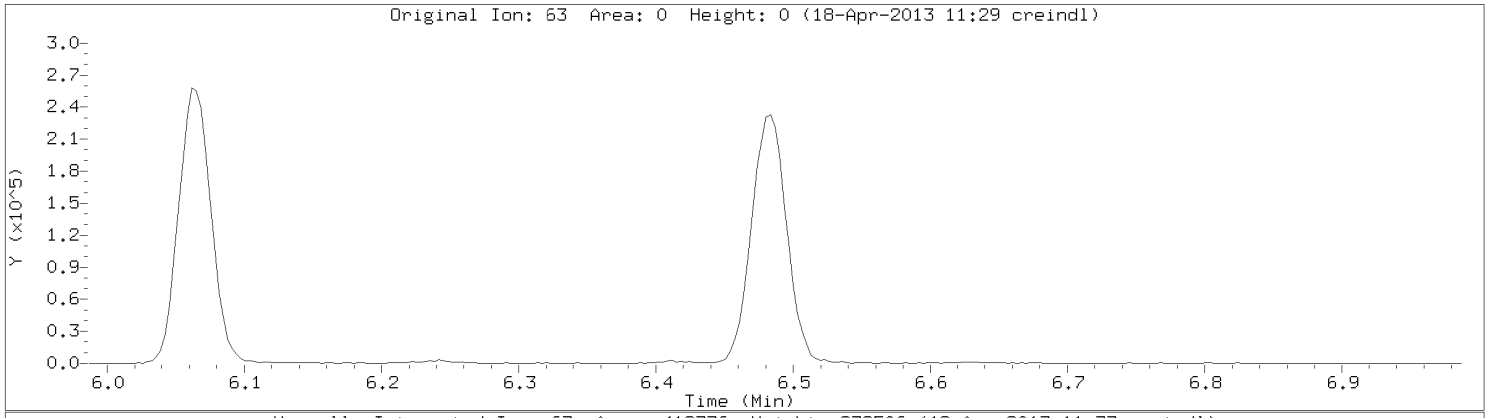


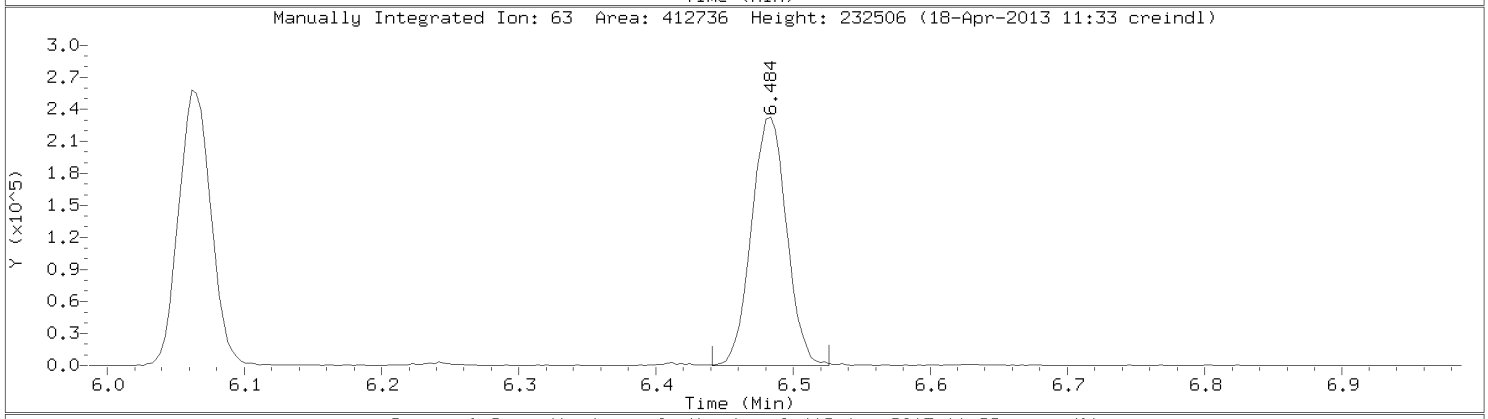
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: CCAL

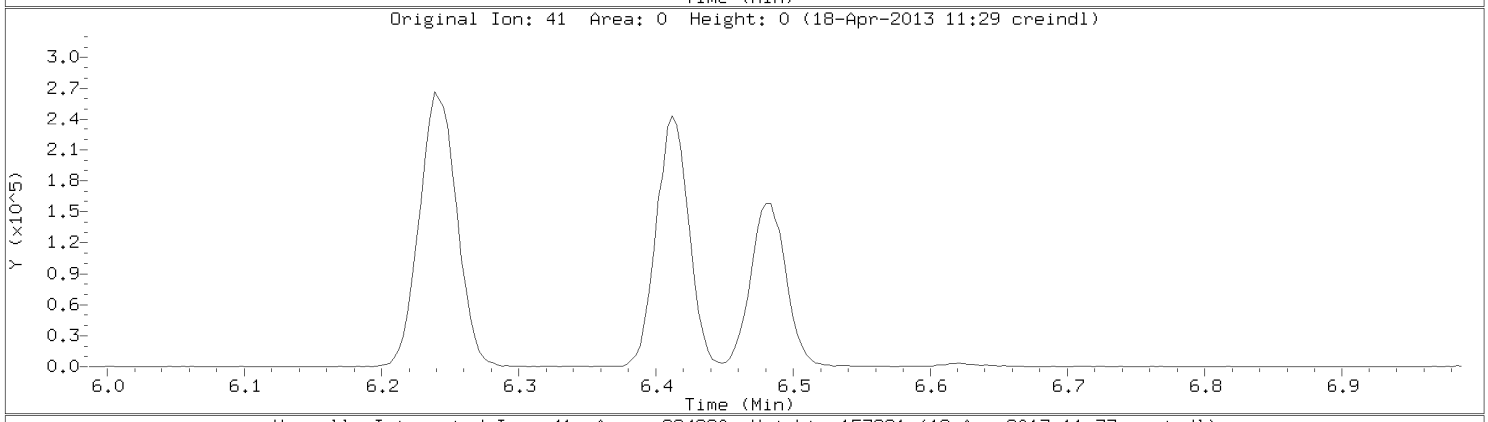


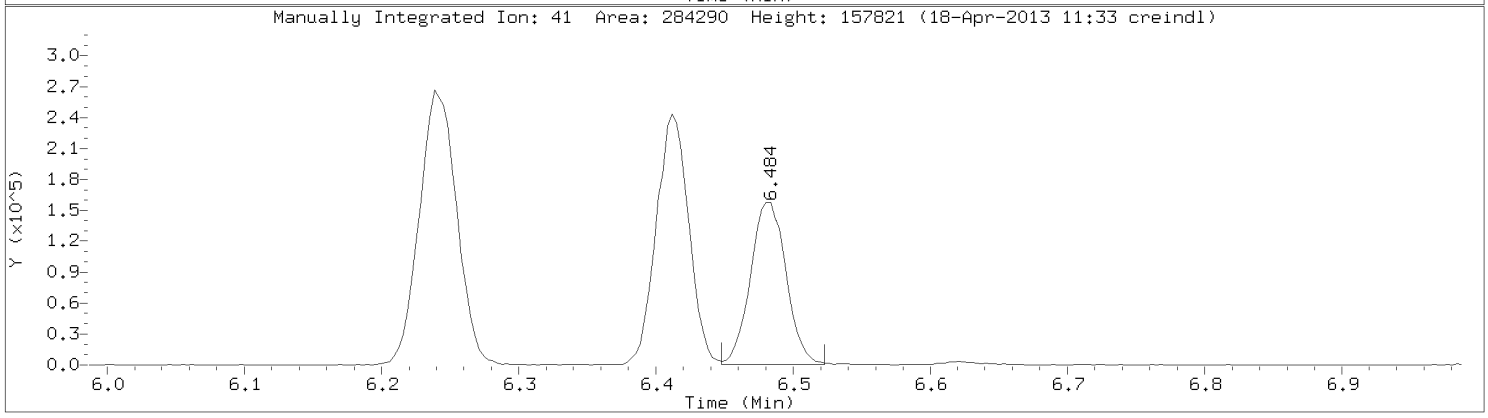
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10802.d
Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

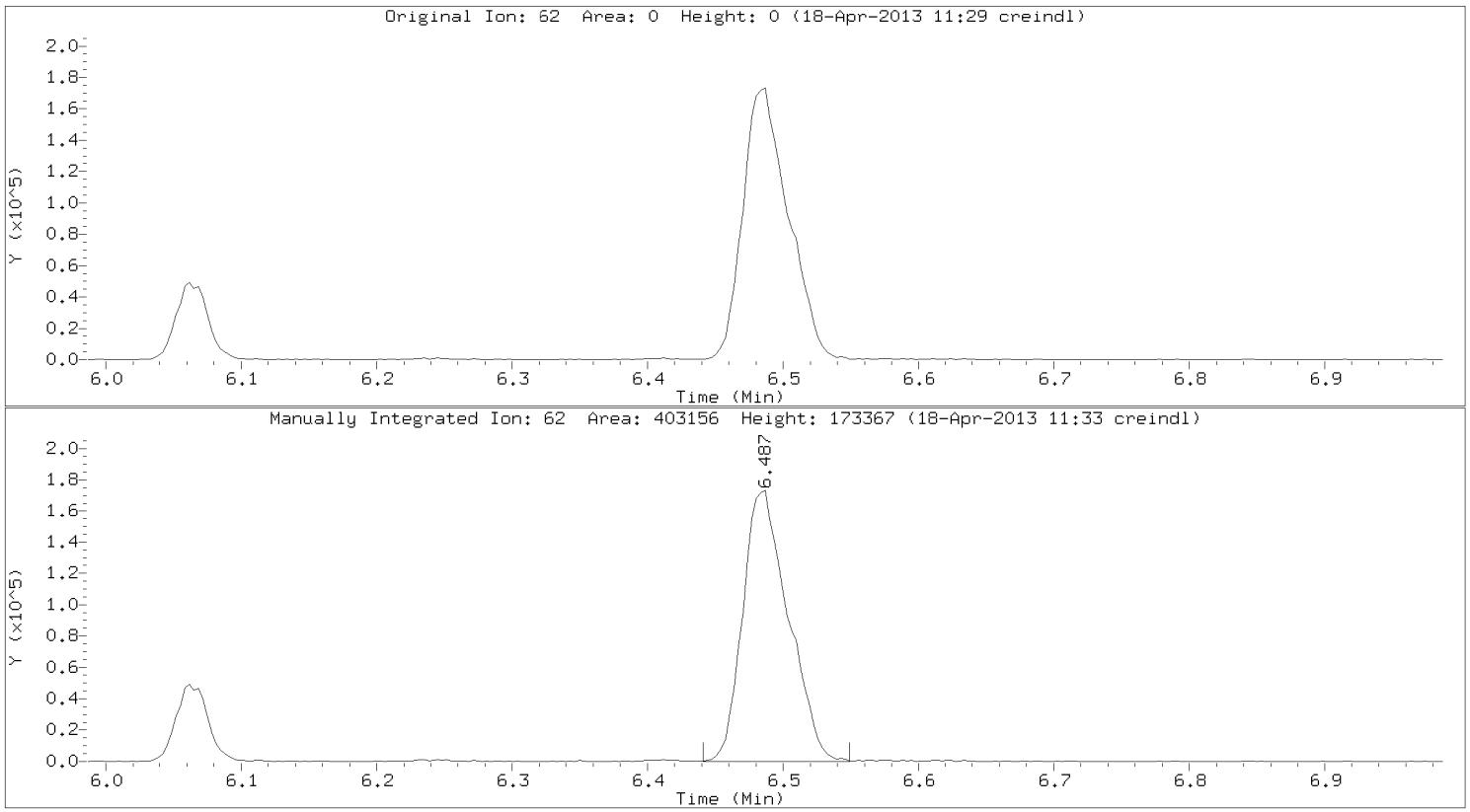






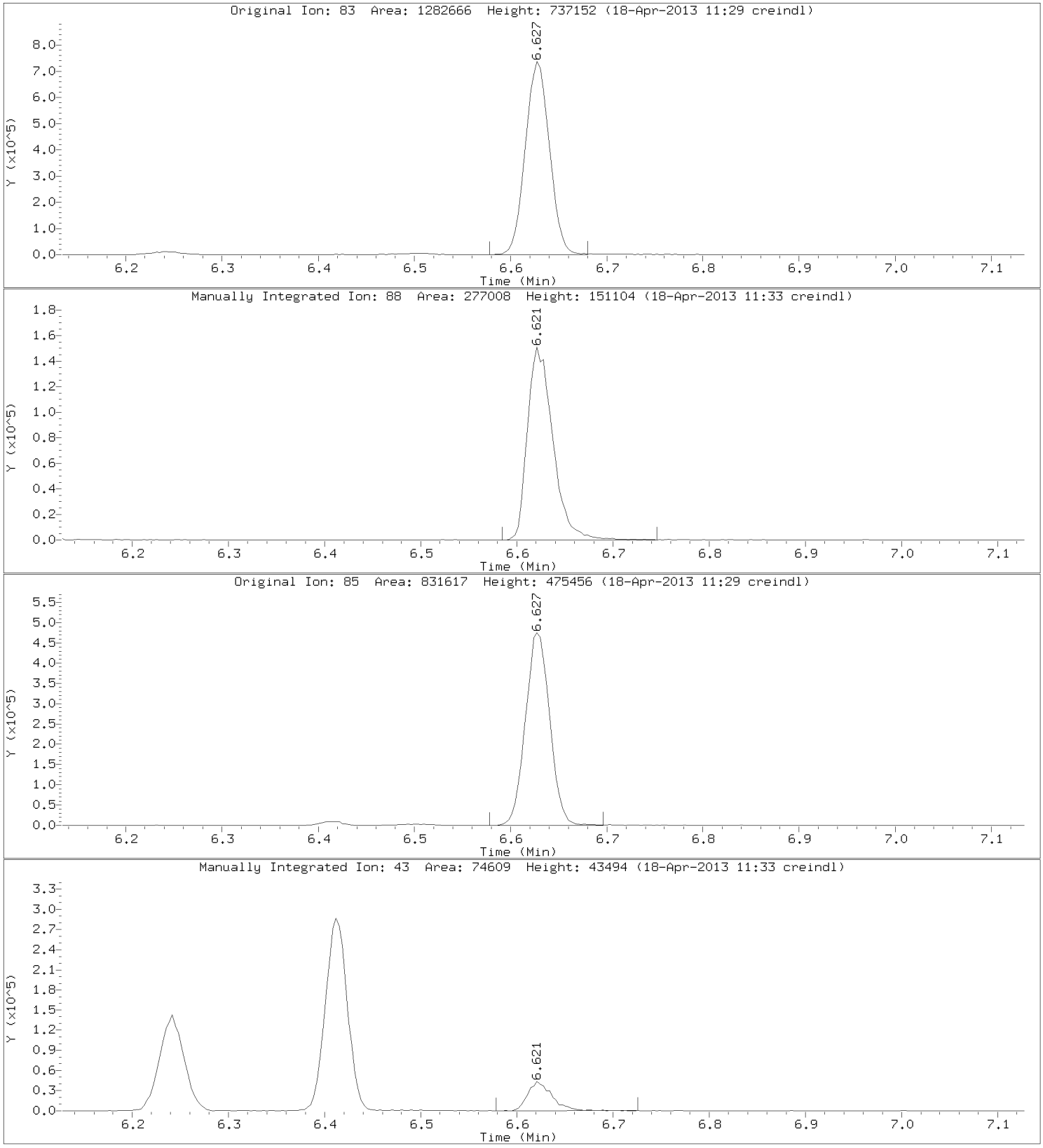


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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: CCAL



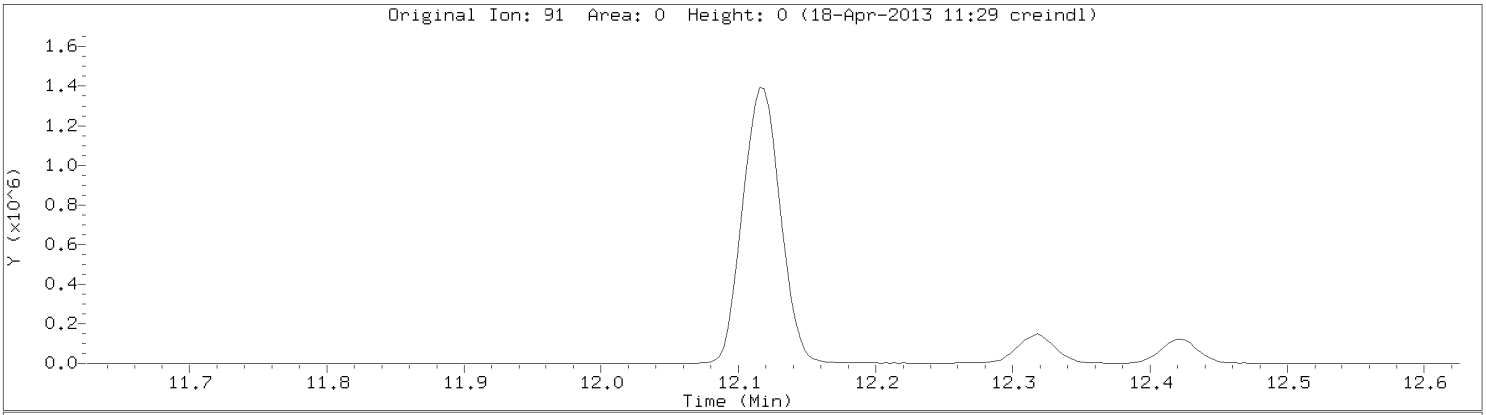
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: CCAL

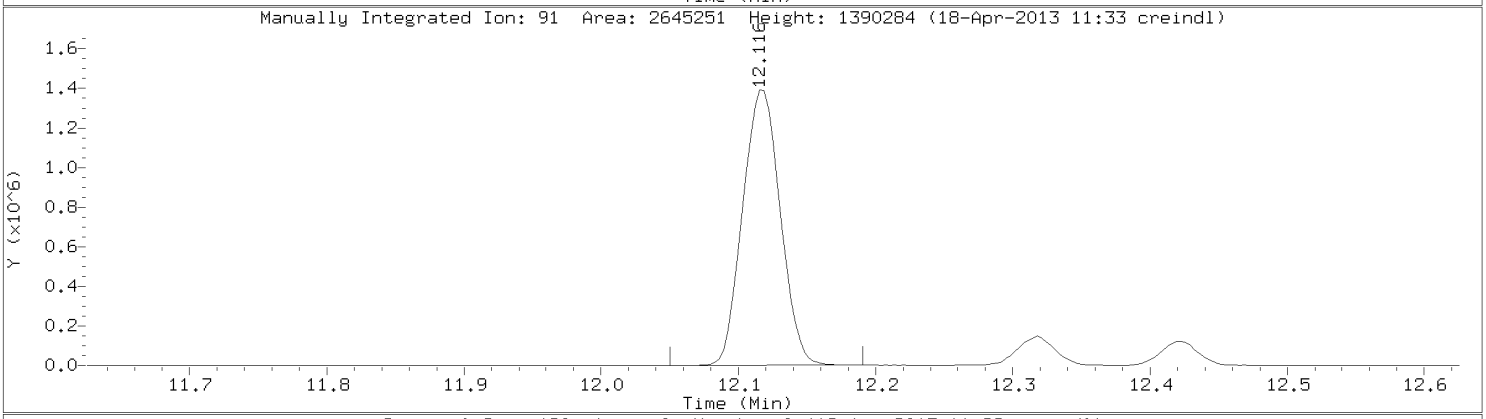
Compound: 1,4-Dioxane
CAS Number: 123-91-1

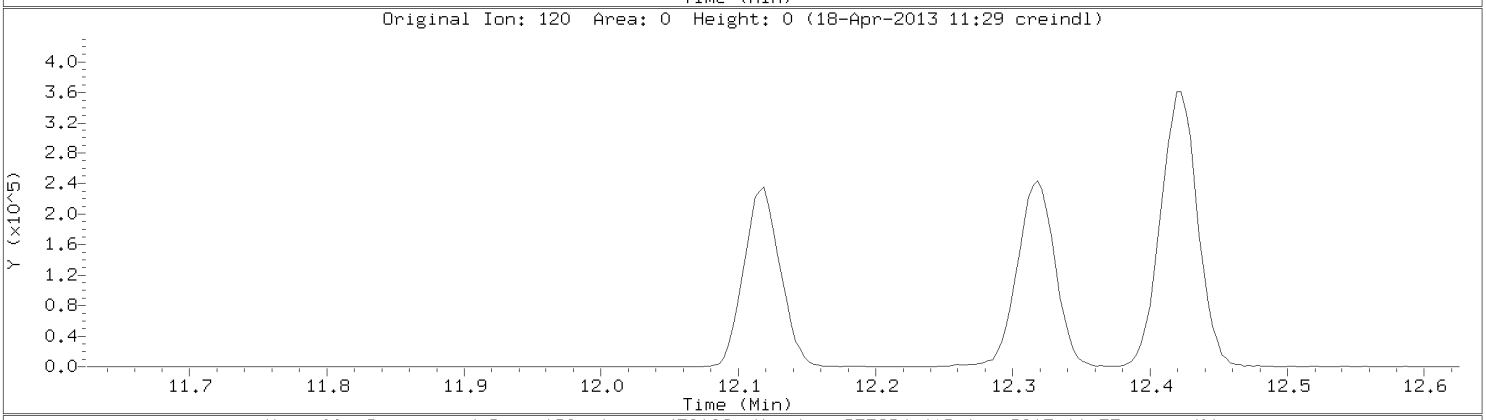


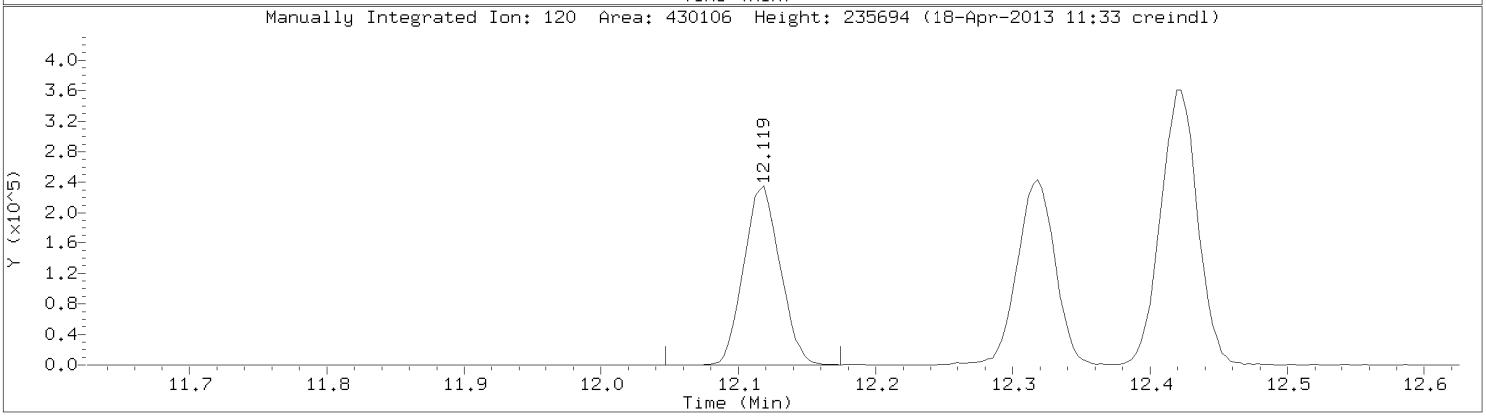
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10802.d
Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: N-Propylbenzene
CAS Number: 103-65-1









Data File: \\192.168.10.12\chem\10airD.i\041913.b\10903.d
Report Date: 19-Apr-2013 13:25

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 10airD.i Injection Date: 19-APR-2013 12:14
Lab File ID: 10903.d Init. Cal. Date(s): 16-APR-2013 16-APR-2013
Analysis Type: AIR Init. Cal. Times: 10:41 13:45
Lab Sample ID: CCAL Quant Type: ISTD
Method: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m

COMPOUND	RRF / AMOUNT	RF10	CCAL RRF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Propylene	10.00000	9.40306	0.10037	0.010	-5.96939	30.00000	Linear
2 Dichlorodifluoromethane	1.07659	1.03083	1.03083	0.010	-4.25051	30.00000	Averaged
3 Dichlorotetrafluoroethane	0.85867	0.79236	0.79236	0.010	-7.72240	30.00000	Averaged
4 Chloromethane	0.23784	0.22332	0.22332	0.010	-6.10472	30.00000	Averaged
5 Vinyl chloride	0.26687	0.25405	0.25405	0.010	-4.80346	30.00000	Averaged
6 1,3-Butadiene	0.13143	0.13197	0.13197	0.010	0.41223	30.00000	Averaged
7 Bromomethane	0.29357	0.26531	0.26531	0.010	-9.62661	30.00000	Averaged
8 Chloroethane	0.13325	0.12085	0.12085	0.010	-9.30290	30.00000	Averaged
9 Ethanol	10.00000	9.41950	0.15055	0.100	-5.80499	30.00000	Linear
10 Vinyl Bromide	0.24832	0.23102	0.23102	0.010	-6.96806	30.00000	Averaged
11 Acrolein	0.06639	0.07010	0.07010	0.010	5.57815	30.00000	Averaged
12 Trichlorofluoromethane	0.97930	0.88178	0.88178	0.010	-9.95774	30.00000	Averaged
13 Acetone	10.00000	9.67406	0.45982	0.010	-3.25944	30.00000	Linear
14 Isopropyl Alcohol	10.00000	9.53917	0.31690	0.010	-4.60834	30.00000	Linear
15 1,1-Dichloroethene	0.48979	0.45540	0.45540	0.010	-7.02006	30.00000	Averaged
16 Acrylonitrile	0.16379	0.14972	0.14972	0.010	-8.59215	30.00000	Averaged
17 Tert Butyl Alcohol	10.00000	9.48384	0.39235	0.100	-5.16165	30.00000	Linear
18 Freon 113	0.62406	0.57403	0.57403	0.010	-8.01656	30.00000	Averaged
19 Methylene chloride	0.28970	0.26657	0.26657	0.010	-7.98431	30.00000	Averaged
20 Allyl Chloride	0.12343	0.12531	0.12531	0.010	1.51901	30.00000	Averaged
21 Carbon Disulfide	0.91766	0.83042	0.83042	0.010	-9.50687	30.00000	Averaged
22 trans-1,2-dichloroethene	0.29138	0.26760	0.26760	0.010	-8.16089	30.00000	Averaged
23 Methyl Tert Butyl Ether	0.61261	0.55378	0.55378	0.010	-9.60333	30.00000	Averaged
24 Vinyl Acetate	0.51684	0.51514	0.51514	0.010	-0.32856	30.00000	Averaged
25 1,1-Dichloroethane	0.55187	0.52274	0.52274	0.010	-5.27856	30.00000	Averaged
$ 26 Hexane-d14(S)	0.44547	0.41202	0.41202	0.200	-7.50933	30.00000	Averaged
27 Methyl Ethyl Ketone	0.13779	0.13498	0.13498	0.010	-2.04177	30.00000	Averaged
28 n-Hexane	0.41594	0.32278	0.32278	0.010	-22.39625	30.00000	Averaged
29 cis-1,2-Dichloroethene	10.00000	9.99033	0.29778	0.010	-0.09670	30.00000	Linear
30 Ethyl Acetate	0.39141	0.47059	0.47059	0.010	20.22720	30.00000	Averaged
31 Chloroform	0.77733	0.80067	0.80067	0.010	3.00272	30.00000	Averaged
32 Tetrahydrofuran	10.00000	9.99380	0.19130	0.010	-0.06204	30.00000	Linear
33 1,1,1-Trichloroethane	0.75166	0.78436	0.78436	0.010	4.35043	30.00000	Averaged
34 1,2-Dichloroethane	0.58249	0.61321	0.61321	0.010	5.27333	30.00000	Averaged
35 Benzene	0.91110	0.84675	0.84675	0.300	-7.06288	30.00000	Averaged
36 Carbon tetrachloride	0.73601	0.77110	0.77110	0.010	4.76685	30.00000	Averaged
37 Cyclohexane	10.00000	9.53455	0.31658	0.010	-4.65449	30.00000	Linear
39 2,2,4-Trimethylpentane	10.00000	9.63032	0.98036	0.010	-3.69676	30.00000	Linear
40 Heptane	10.00000	9.38626	0.31070	0.010	-6.13737	30.00000	Linear
41 1,2-Dichloropropane	0.25957	0.27607	0.27607	0.010	6.35909	30.00000	Averaged
42 Trichloroethene	0.24454	0.26785	0.26785	0.010	9.53167	30.00000	Averaged
43 1,4-Dioxane	10.00000	10.01018	0.18476	0.010	0.10184	30.00000	Linear
44 Bromodichloromethane	0.78958	0.87349	0.87349	0.010	10.62619	30.00000	Averaged

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10903.d
Report Date: 19-Apr-2013 13:25

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 10airD.i Injection Date: 19-APR-2013 12:14
Lab File ID: 10903.d Init. Cal. Date(s): 16-APR-2013 16-APR-2013
Analysis Type: AIR Init. Cal. Times: 10:41 13:45
Lab Sample ID: CCAL Quant Type: ISTD
Method: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m

COMPOUND	RRF / AMOUNT	RF10	CCAL RRF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
45 Methyl Isobutyl Ketone	10.00000	9.22725	0.42832	0.010	-7.72747	30.00000	Linear	
46 cis-1,3-Dichloropropene	10.00000	9.60139	0.48806	0.010	-3.98614	30.00000	Linear	
47 trans-1,3-Dichloropropene	10.00000	9.43030	0.52552	0.010	-5.69695	30.00000	Linear	
$ 48 Toluene-d8 (S)	0.91543	0.91303	0.91303	0.200	-0.26263	30.00000	Averaged	
49 Toluene	1.25202	1.02168	1.02168	0.300	-18.39796	30.00000	Averaged	
50 1,1,2-Trichloroethane	0.33432	0.34854	0.34854	0.010	4.25191	30.00000	Averaged	
51 Methyl Butyl Ketone	10.00000	10.06389	0.80899	0.010	0.63887	30.00000	Linear	
52 Dibromochloromethane	0.87594	1.05623	1.05623	0.010	20.58191	30.00000	Averaged	
53 1,2-Dibromoethane	0.81825	0.94609	0.94609	0.010	15.62406	30.00000	Averaged	
54 Tetrachloroethene	0.76592	0.87586	0.87586	0.010	14.35336	30.00000	Averaged	
56 Chlorobenzene	1.10810	1.19580	1.19580	0.010	7.91466	30.00000	Averaged	
57 Ethyl Benzene	10.00000	10.40505	2.42176	0.300	4.05054	30.00000	Linear	
58 m&p-Xylene	10.00000	10.21824	1.95909	0.300	2.18245	30.00000	Linear	
59 Bromoform	0.94530	1.22384	1.22384	0.010	29.46591	30.00000	Averaged	
60 Styrene	10.00000	9.99697	1.22321	0.010	-0.03027	30.00000	Linear	
61 o-Xylene	10.00000	10.52196	2.11413	0.300	5.21964	30.00000	Linear	
62 1,1,2,2-Tetrachloroethane	1.15233	1.36043	1.36043	0.010	18.05947	30.00000	Averaged	
63 Isopropylbenzene	2.12033	2.55122	2.55122	0.010	20.32176	30.00000	Averaged	
64 N-Propylbenzene	10.00000	10.58715	3.24503	0.010	5.87147	30.00000	Linear	
65 4-Ethyltoluene	10.00000	10.30789	2.37361	0.010	3.07890	30.00000	Linear	
66 1,3,5-Trimethylbenzene	10.00000	10.73862	2.14537	0.010	7.38620	30.00000	Linear	
67 1,2,4-Trimethylbenzene	10.00000	10.53431	2.09080	0.010	5.34314	30.00000	Linear	
68 1,3-Dichlorobenzene	10.00000	10.23168	1.19977	0.010	2.31675	30.00000	Linear	
69 Sec- Butylbenzene	10.00000	10.98437	2.98456	0.010	9.84365	30.00000	Linear	
$ 70 1,4-dichlorobenzene-d4 (S)	0.56190	0.58924	0.58924	0.200	4.86446	30.00000	Averaged	
71 Benzyl Chloride	10.00000	10.00939	1.79626	0.010	0.09386	30.00000	Linear	
72 1,4-Dichlorobenzene	10.00000	10.59732	1.18765	0.010	5.97321	30.00000	Linear	
73 1,2-Dichlorobenzene	10.00000	10.22942	1.10156	0.010	2.29416	30.00000	Linear	
74 N-Butylbenzene	10.00000	10.53466	2.50231	0.010	5.34655	30.00000	Linear	
75 1,2,4-Trichlorobenzene	10.00000	21.36605	0.68894	0.010	114	30.00000	Linear	<-
76 Naphthalene	10.00000	23.04231	1.00838	0.010	130	30.00000	Linear	<-
77 Hexachlorobutadiene	10.00000	25.26520	1.00007	0.010	153	30.00000	Linear	<-

Average %D / Drift Results.
Calculated Average %D/Drift = 12.01802
Maximun Average %D/Drift = 30.00000
* Passed Average %D/Drift Test.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10903.d
Report Date: 19-Apr-2013 13:25

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041913.b\10903.d
Lab Smp Id: CCAL
Inj Date : 19-APR-2013 12:14
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info :
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Meth Date : 19-Apr-2013 13:20 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppbv)	ON-COL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	143639	10.0000	9.40
2	Dichlorodifluoromethane	85	2.953	2.950	(0.487)	1475226	10.0000	9.57
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	1133942	10.0000	9.23
4	Chloromethane	50	3.048	3.052	(0.503)	319596	10.0000	9.39
5	Vinyl chloride	62	3.139	3.137	(0.518)	363570	10.0000	9.52
6	1,3-Butadiene	54	3.182	3.182	(0.525)	188865	10.0000	10.0
7	Bromomethane	94	3.339	3.336	(0.551)	379679	10.0000	9.04
8	Chloroethane	64	3.394	3.395	(0.560)	172953	10.0000	9.07(M)
9	Ethanol	31	3.420	3.424	(0.564)	215454	10.0000	9.42
10	Vinyl Bromide	106	3.532	3.532	(0.582)	330613	10.0000	9.30
11	Acrolein	56	3.626	3.627	(0.598)	100314	10.0000	10.6
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	1261917	10.0000	9.00
13	Acetone	43	3.672	3.673	(0.606)	658043	10.0000	9.67
14	Isopropyl Alcohol	45	3.695	3.702	(0.609)	453513	10.0000	9.54
15	1,1-Dichloroethene	61	3.927	3.931	(0.648)	651728	10.0000	9.30
16	Acrylonitrile	53	3.930	3.934	(0.648)	214263	10.0000	9.14
17	Tert Butyl Alcohol	59	3.934	3.941	(0.649)	561500	10.0000	9.48
18	Freon 113	101	3.983	3.983	(0.657)	821494	10.0000	9.20
19	Methylene chloride	49	4.045	4.045	(0.667)	381488	10.0000	9.20
20	Allyl Chloride	76	4.055	4.058	(0.669)	179331	10.0000	10.2
21	Carbon Disulfide	76	4.179	4.179	(0.689)	1188409	10.0000	9.05
22	trans-1,2-dichloroethene	96	4.375	4.379	(0.721)	382958	10.0000	9.18
23	Methyl Tert Butyl Ether	73	4.411	4.415	(0.727)	792520	10.0000	9.04(M)

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10903.d
Report Date: 19-Apr-2013 13:25

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ppbv)	ON-COL (ppbv)
	24	Vinyl Acetate	43	4.532	4.539	(0.747)	737223	10.0000	9.97
	25	1,1-Dichloroethane	63	4.538	4.542	(0.748)	748096	10.0000	9.47
$	26	Hexane-d14(S)	66	4.653	4.660	(0.767)	589642	10.0000	9.25
	27	Methyl Ethyl Ketone	72	4.731	4.738	(0.780)	193167	10.0000	9.80(M)
	28	n-Hexane	57	4.774	4.777	(0.787)	461935	10.0000	7.76(M)
	29	cis-1,2-Dichloroethene	96	4.934	4.941	(0.814)	426154	10.0000	9.99
	30	Ethyl Acetate	43	4.957	4.964	(0.817)	673458	10.0000	12.0
	31	Chloroform	83	5.078	5.085	(0.837)	1145847	10.0000	10.3
	32	Tetrahydrofuran	42	5.274	5.274	(0.870)	273773	10.0000	9.99
	33	1,1,1-Trichloroethane	97	5.561	5.569	(0.917)	1122497	10.0000	10.4
	34	1,2-Dichloroethane	62	5.581	5.588	(0.920)	877565	10.0000	10.5
	35	Benzene	78	5.849	5.856	(0.964)	1211785	10.0000	9.29
	36	Carbon tetrachloride	117	5.872	5.876	(0.968)	1103517	10.0000	10.5
	37	Cyclohexane	56	5.875	5.882	(0.969)	453058	10.0000	9.53
*	38	1,4-Difluorobenzene	114	6.065	6.069	(1.000)	1431102	10.0000	
	39	2,2,4-Trimethylpentane	57	6.241	6.245	(1.029)	1402999	10.0000	9.63
	40	Heptane	43	6.411	6.415	(1.057)	444643	10.0000	9.39
	41	1,2-Dichloropropane	63	6.480	6.487	(1.068)	395087	10.0000	10.6(M)
	42	Trichloroethene	130	6.506	6.510	(1.073)	383324	10.0000	11.0
	43	1,4-Dioxane	88	6.620	6.628	(1.092)	264412	10.0000	10.0(M)
	44	Bromodichloromethane	83	6.627	6.634	(1.093)	1250049	10.0000	11.1
	45	Methyl Isobutyl Ketone	43	7.202	7.213	(1.188)	612968	10.0000	9.23
	46	cis-1,3-Dichloropropene	75	7.258	7.265	(1.197)	698467	10.0000	9.60
	47	trans-1,3-Dichloropropene	75	7.751	7.762	(1.278)	752072	10.0000	9.43
$	48	Toluene-d8 (S)	98	7.830	7.837	(1.291)	1306639	10.0000	9.97
	49	Toluene	91	7.918	7.925	(1.306)	1462125	10.0000	8.16
	50	1,1,2-Trichloroethane	97	7.928	7.938	(1.307)	498794	10.0000	10.4
	51	Methyl Butyl Ketone	43	8.229	8.239	(0.850)	632784	10.0000	10.1
	52	Dibromochloromethane	129	8.542	8.550	(0.882)	826169	10.0000	12.0
	53	1,2-Dibromoethane	107	8.814	8.821	(0.911)	740023	10.0000	11.6
	54	Tetrachloroethene	166	8.905	8.909	(0.920)	685084	10.0000	11.4
*	55	Chlorobenzene - d5	117	9.680	9.684	(1.000)	782187	10.0000	
	56	Chlorobenzene	112	9.729	9.736	(1.005)	935340	10.0000	10.8
	57	Ethyl Benzene	91	10.030	10.040	(1.036)	1894272	10.0000	10.4
	58	m&p-Xylene	91	10.203	10.210	(1.054)	1532378	10.0000	10.2
	59	Bromoform	173	10.647	10.658	(1.100)	957272	10.0000	12.9
	60	Styrene	104	10.700	10.707	(1.105)	956780	10.0000	10.0
	61	o-Xylene	91	10.775	10.785	(1.113)	1653643	10.0000	10.5
	62	1,1,2,2-Tetrachloroethane	83	11.089	11.099	(1.146)	1064111	10.0000	11.8
	63	Isopropylbenzene	105	11.451	11.462	(1.183)	1995532	10.0000	12.0
	64	N-Propylbenzene	91	12.115	12.125	(1.252)	2538222	10.0000	10.6(M)
	65	4-Ethyltoluene	105	12.318	12.328	(1.272)	1856603	10.0000	10.3
	66	1,3,5-Trimethylbenzene	105	12.419	12.433	(1.283)	1678079	10.0000	10.7
	67	1,2,4-Trimethylbenzene	105	13.017	13.028	(1.345)	1635396	10.0000	10.5
	68	1,3-Dichlorobenzene	146	13.373	13.381	(1.382)	938445	10.0000	10.2
	69	Sec- Butylbenzene	105	13.396	13.410	(1.384)	2334484	10.0000	11.0
$	70	1,4-dichlorobenzene-d4 (S)	150	13.455	13.466	(1.390)	460894	10.0000	10.5
	71	Benzyl Chloride	91	13.481	13.492	(1.393)	1405012	10.0000	10.0
	72	1,4-Dichlorobenzene	146	13.501	13.515	(1.395)	928962	10.0000	10.6
	73	1,2-Dichlorobenzene	146	14.040	14.051	(1.450)	861629	10.0000	10.2
	74	N-Butylbenzene	91	14.325	14.335	(1.480)	1957274	10.0000	10.5
	75	1,2,4-Trichlorobenzene	180	16.685	16.692	(1.724)	538880	10.0000	21.4
	76	Naphthalene	128	16.861	16.867	(1.742)	788739	10.0000	23.0
	77	Hexachlorobutadiene	225	17.237	17.247	(1.781)	782243	10.0000	25.3

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10903.d
Report Date: 19-Apr-2013 13:25

QC Flag Legend

M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10903.d
Report Date: 19-Apr-2013 13:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10903.d
Lab Smp Id: CCAL
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Misc Info:

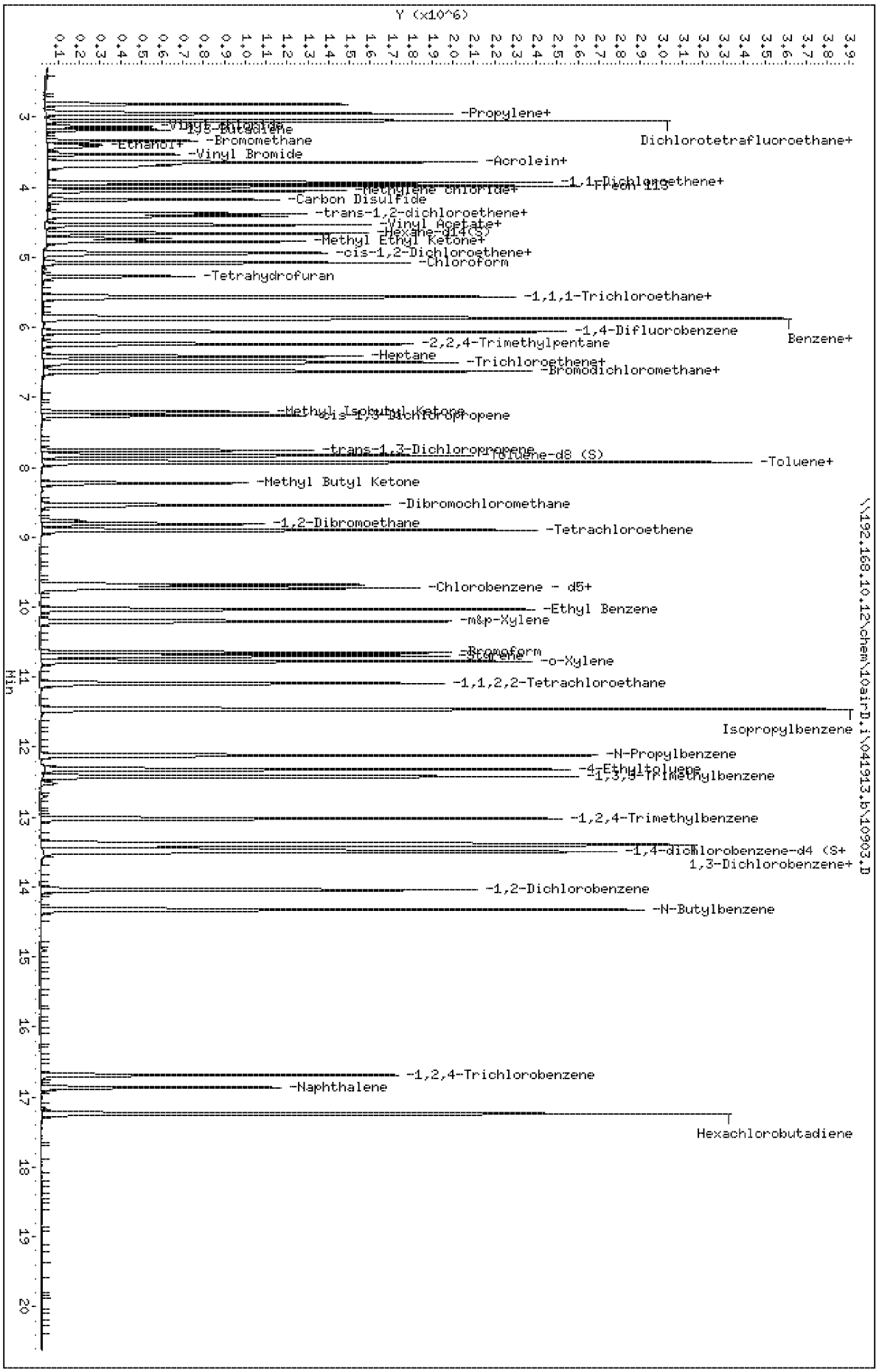
Calibration Date: 19-APR-2013
Calibration Time: 11:32
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1431102	-0.09
55 Chlorobenzene - d	825122	495073	1155171	782187	-5.20

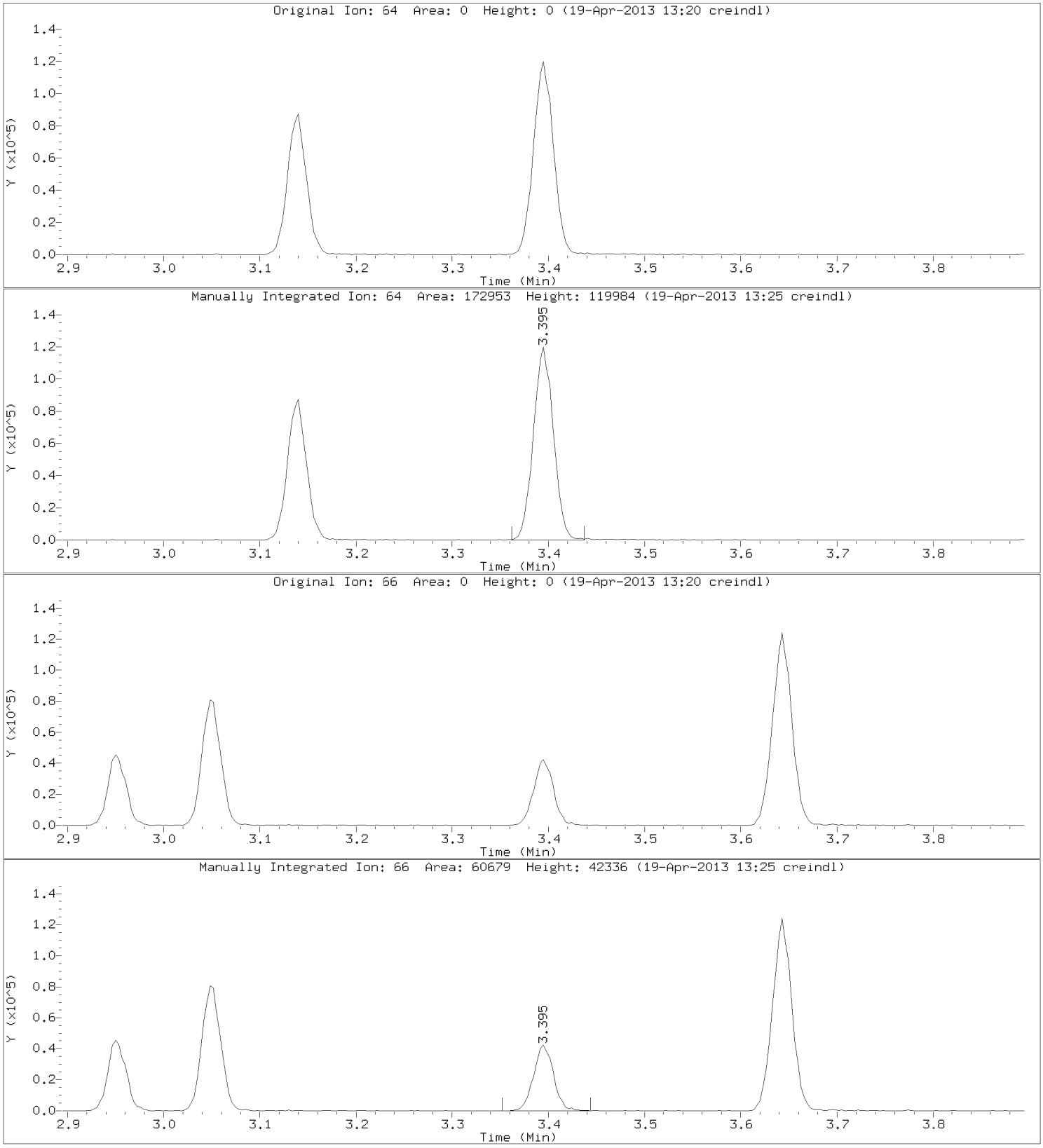
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	-0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.


Y (x10^6)
Min
Data File: \\192.168.10.12\chem\10airD.i\041913.b\10903.D
Date : 19-APR-2013 12:14
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
\\192.168.10.12\chem\10airD.i\041913.b\10903.D
-Propylene+
Dichlorotetrafluoroethane+
-Ethanol+
-Bromomethane
-Vinyl Bromide
-Acrolein+
-1,1-Dichloroethene+
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-1,4-Difluorobenzene
Benzene+
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
-trans-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,4-dichlorobenzene-d4 (S+
1,3-Dichlorobenzene+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
Hexachlorobutadiene

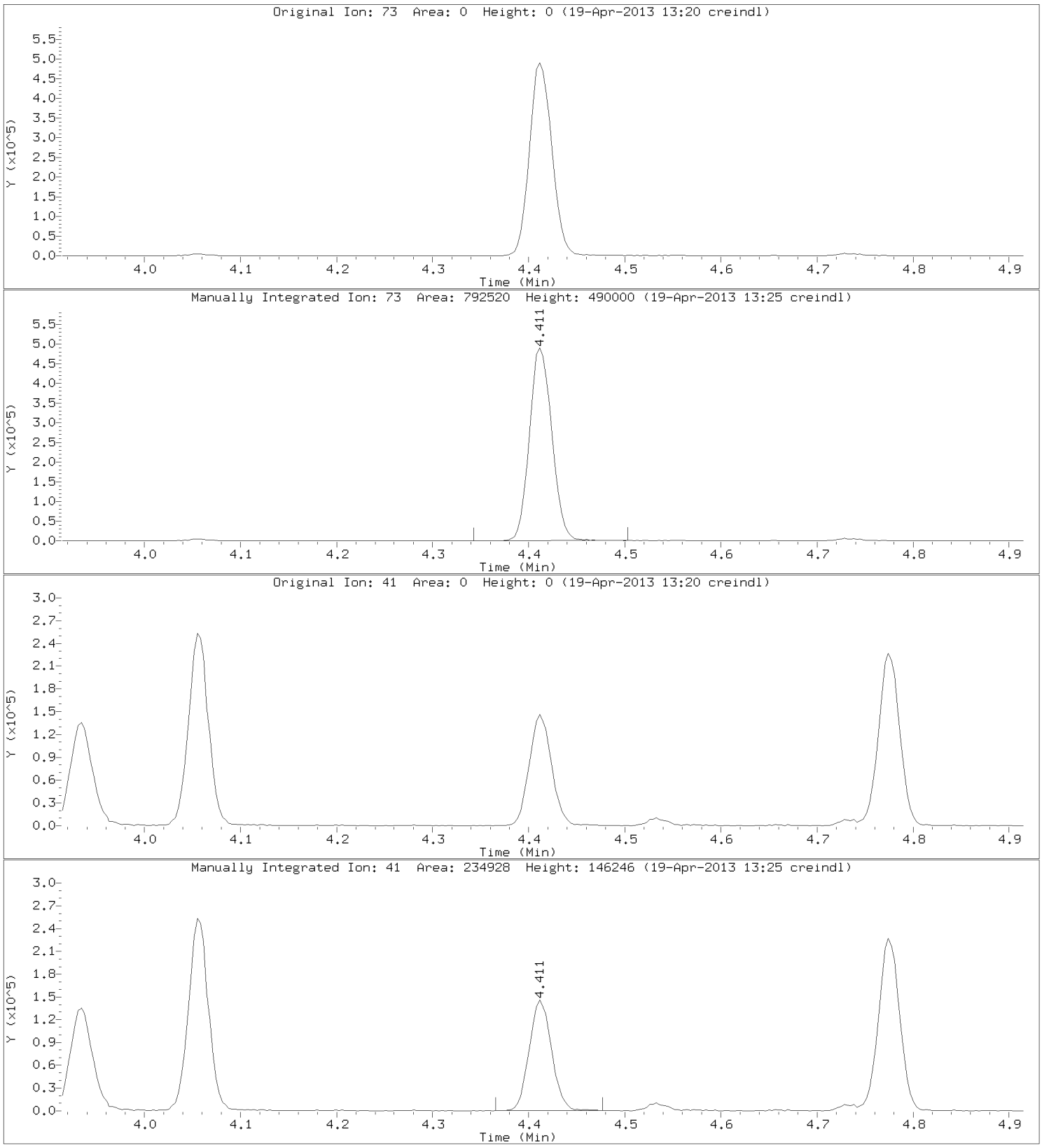
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Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: Chloroethane
CAS Number: 75-00-3



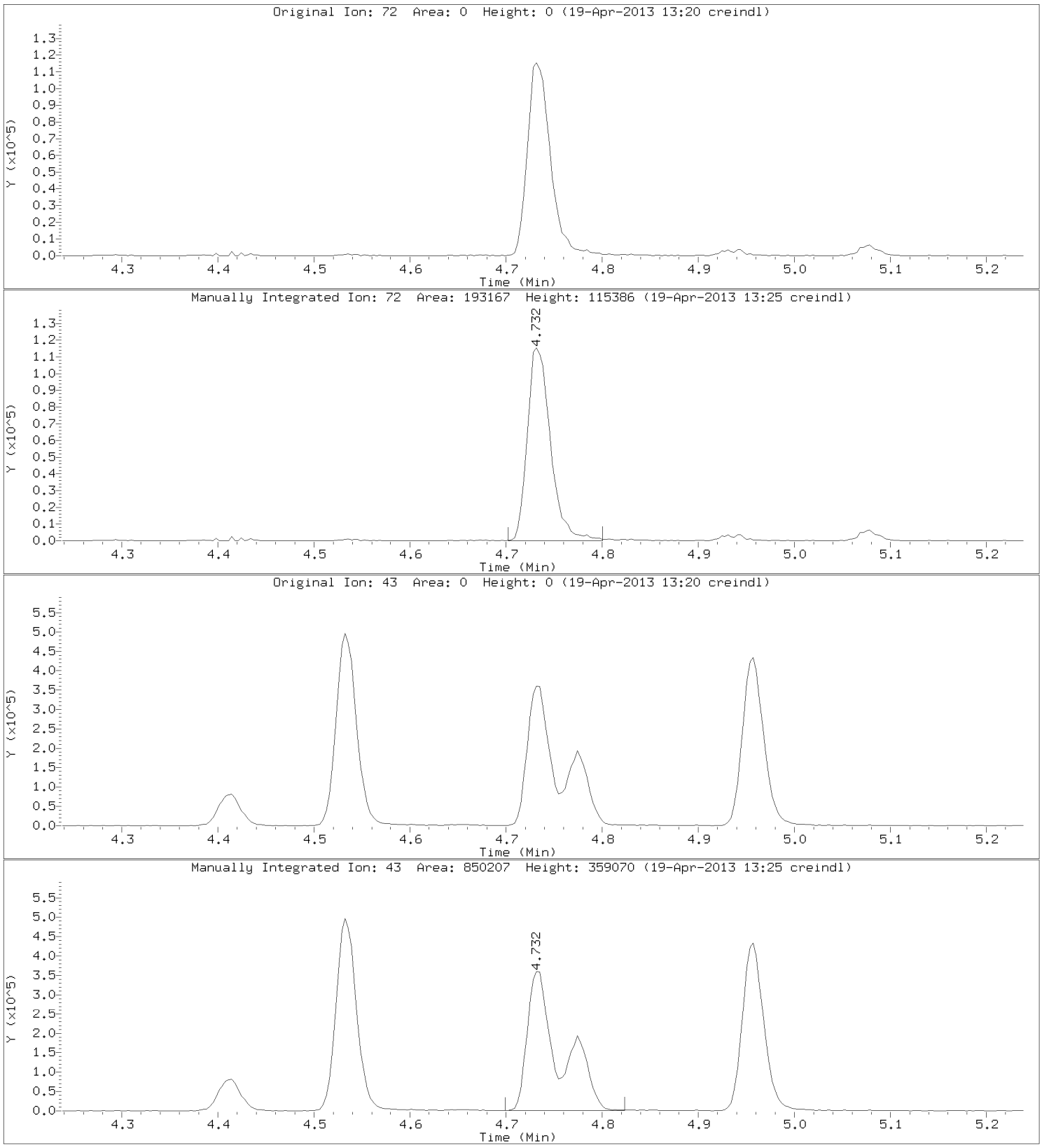
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Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



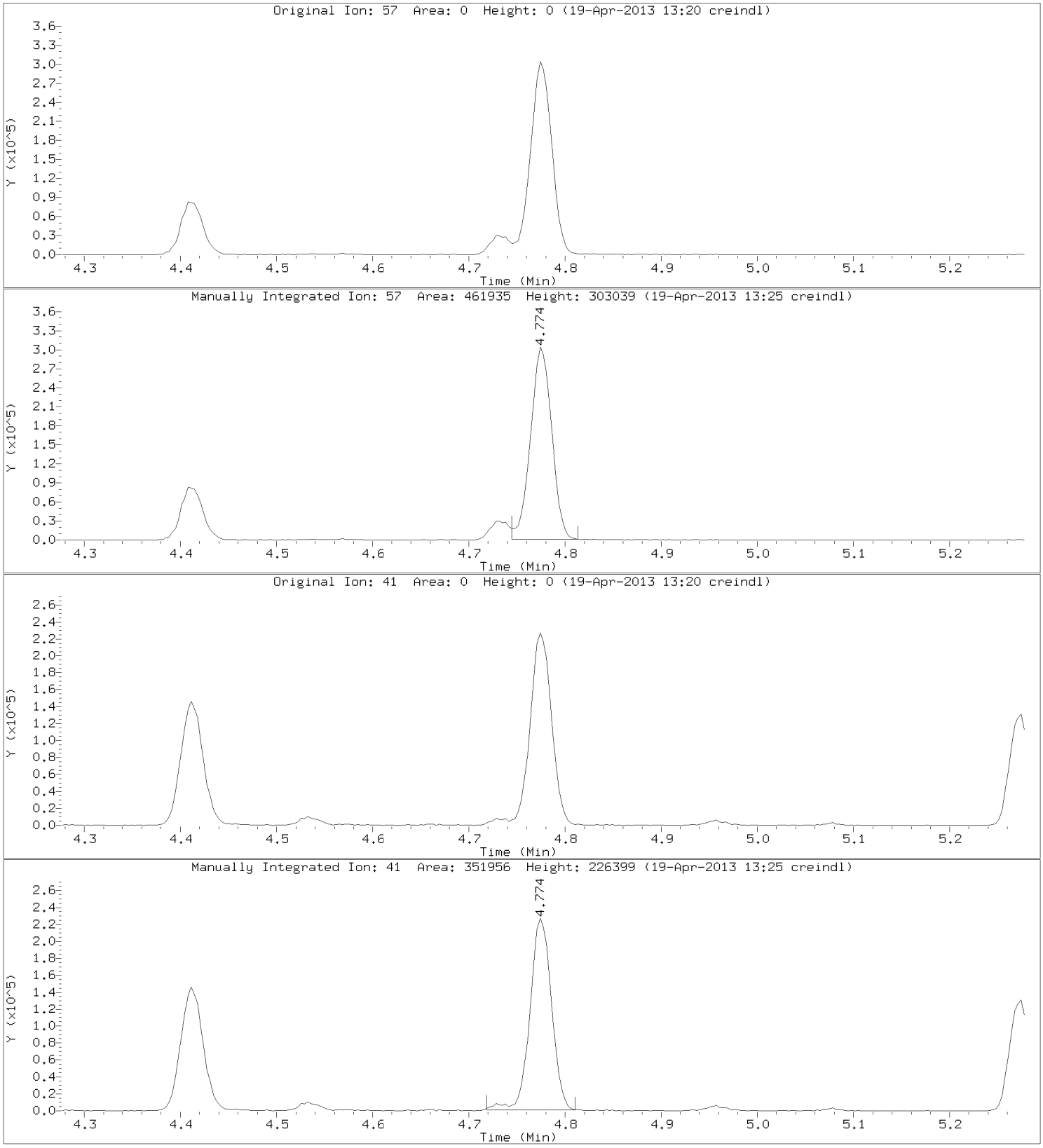
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Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

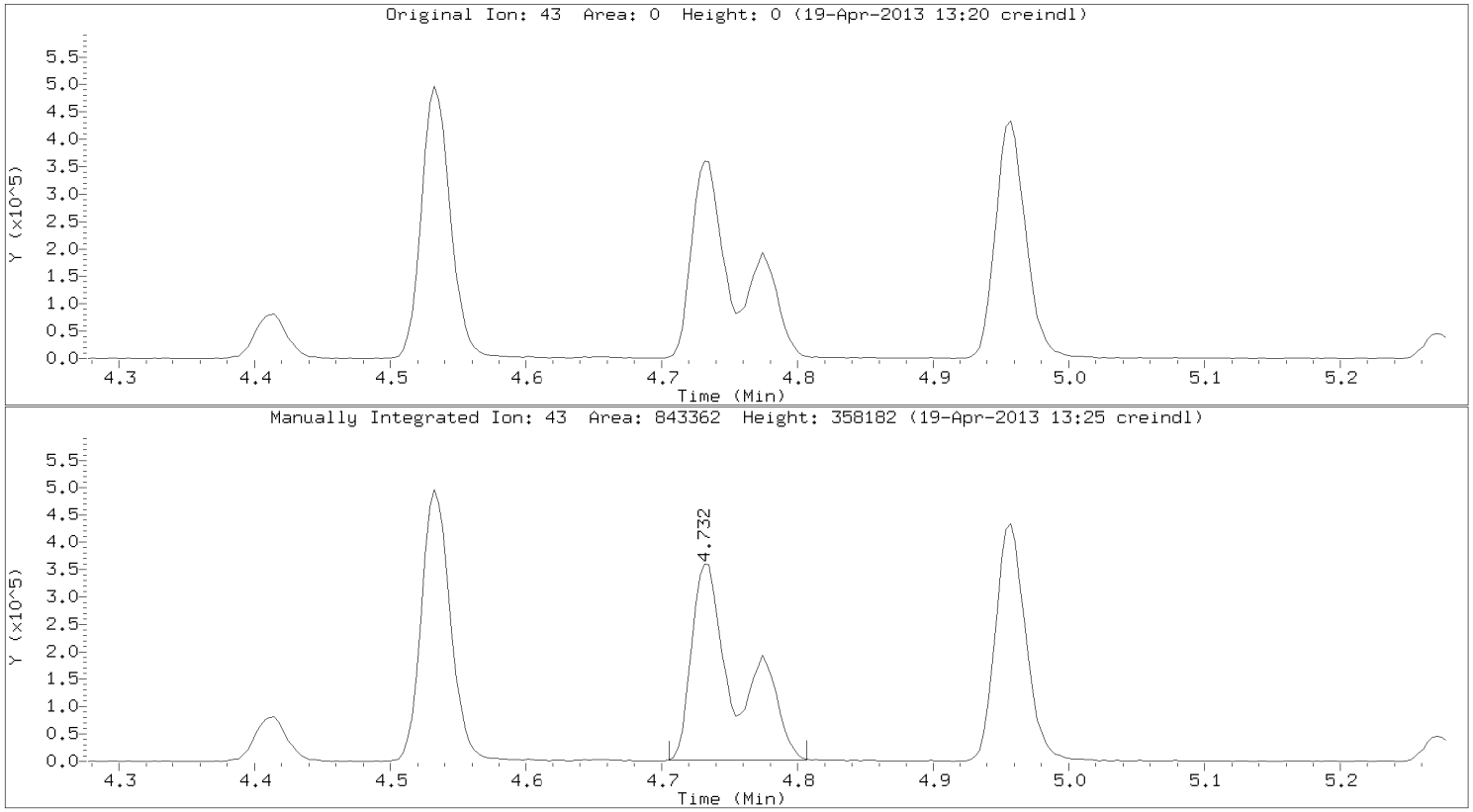


Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: n-Hexane
CAS Number: 110-54-3

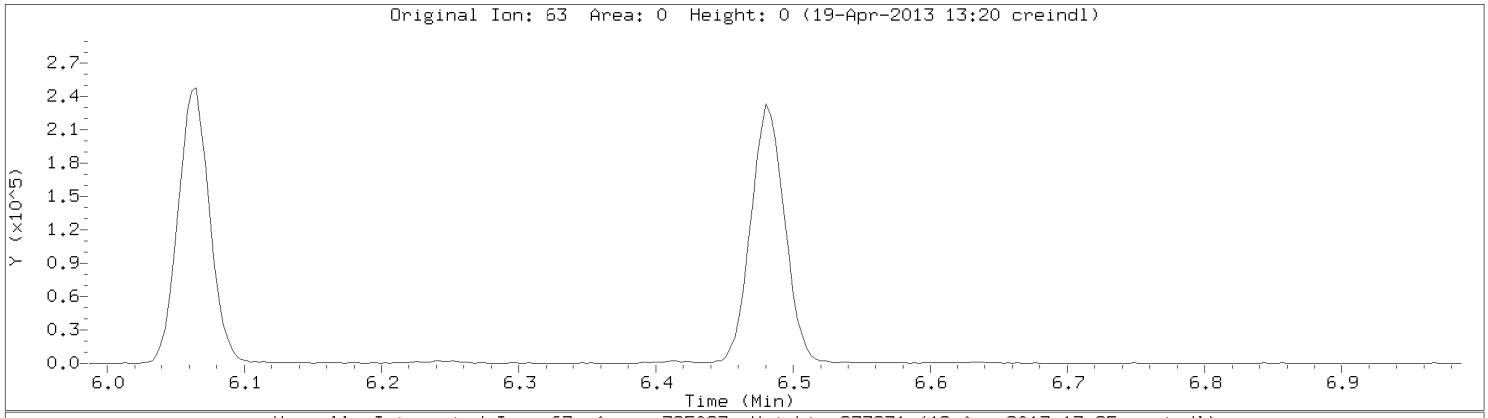


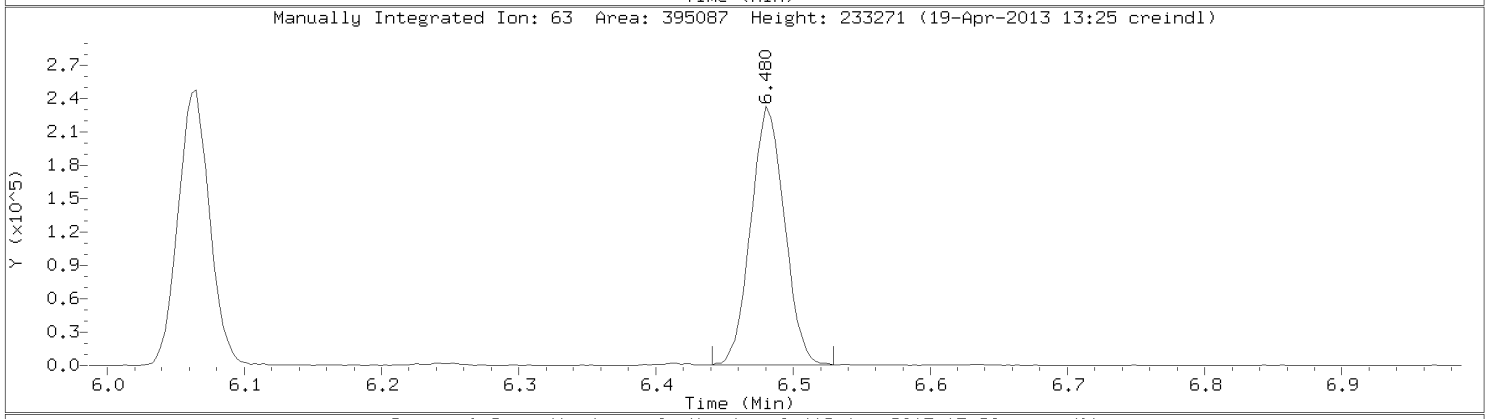
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Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: CCAL

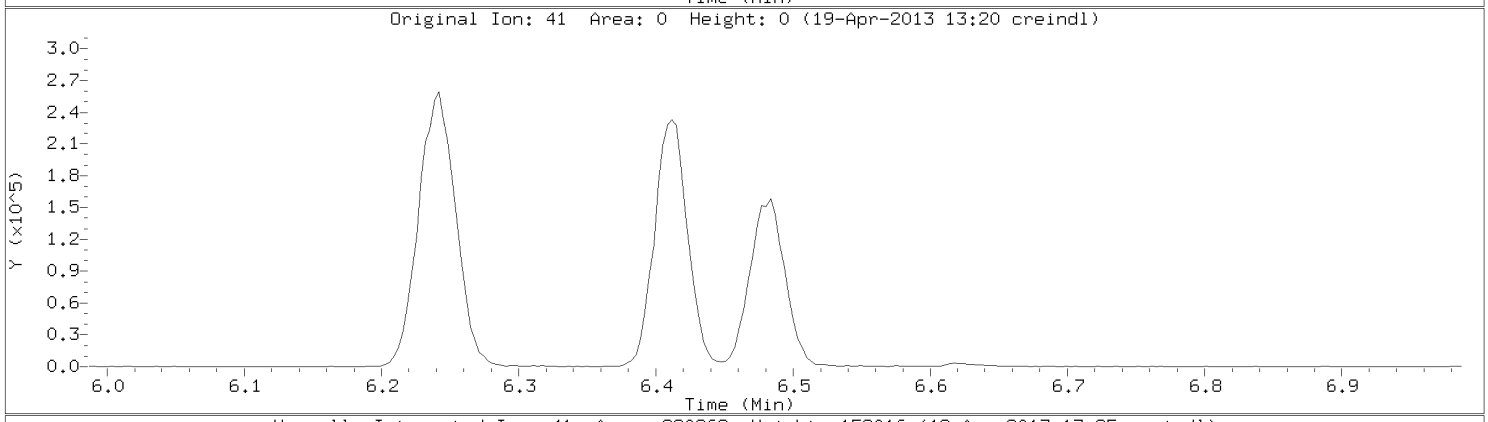


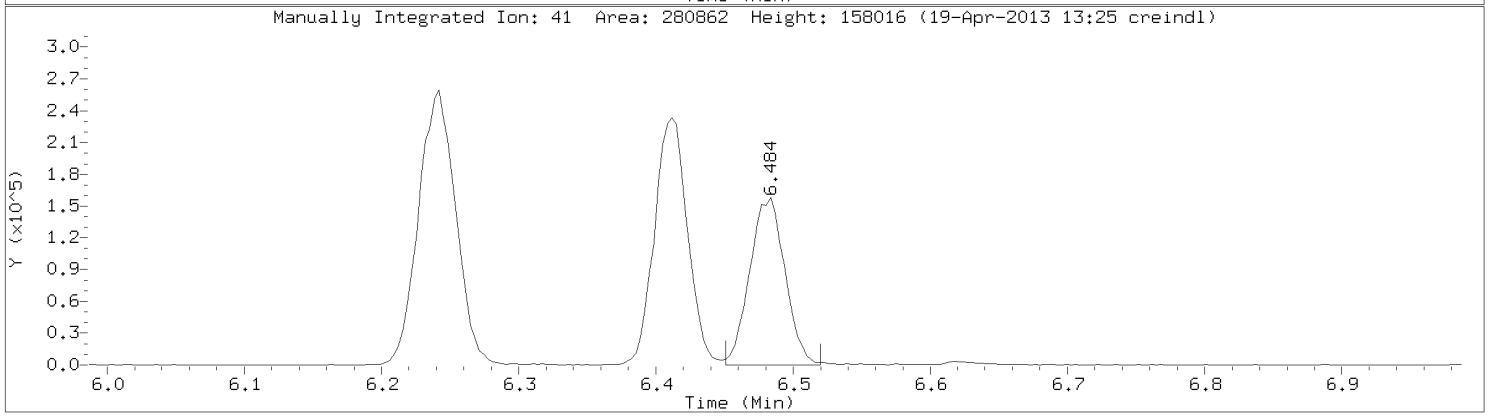
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Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

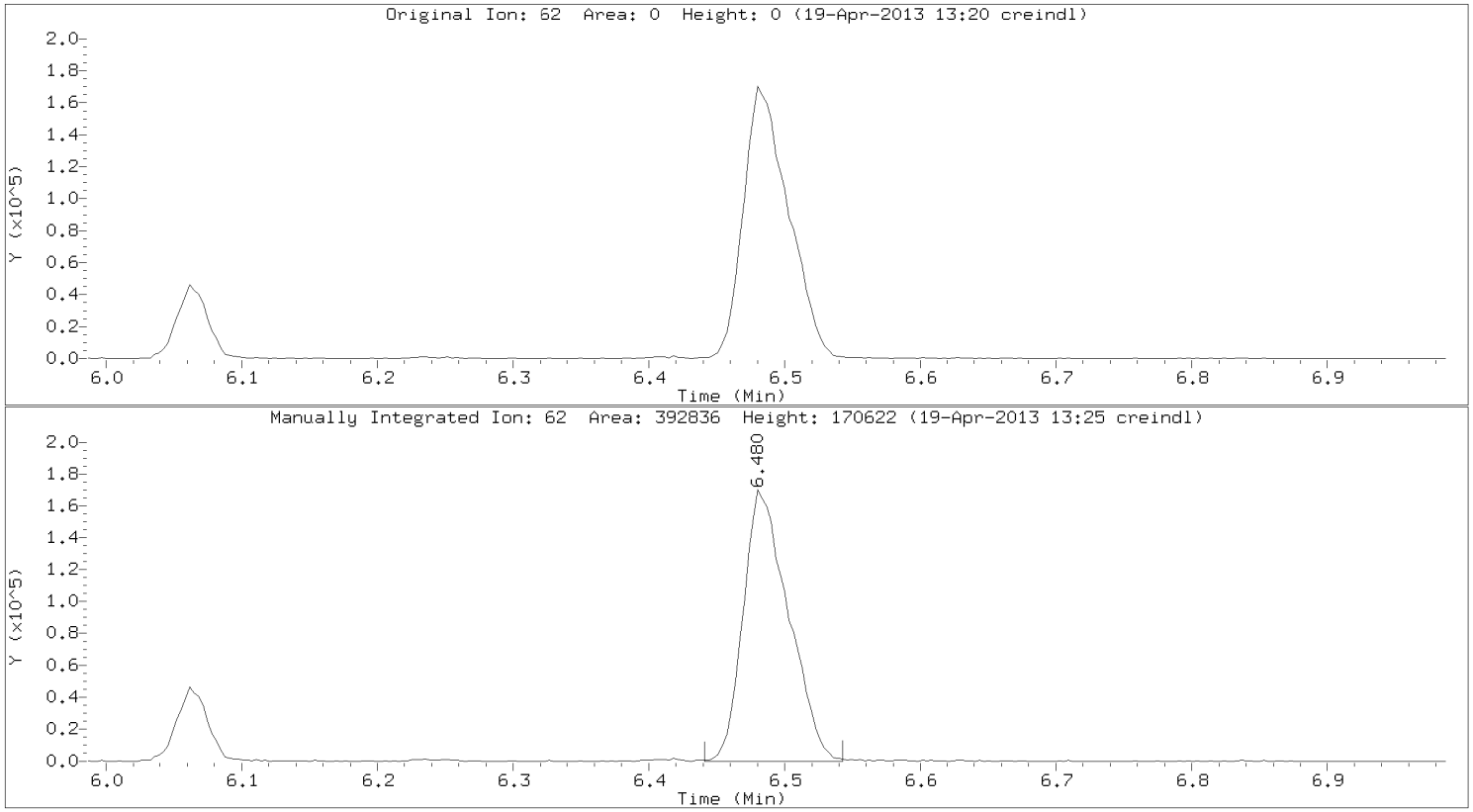






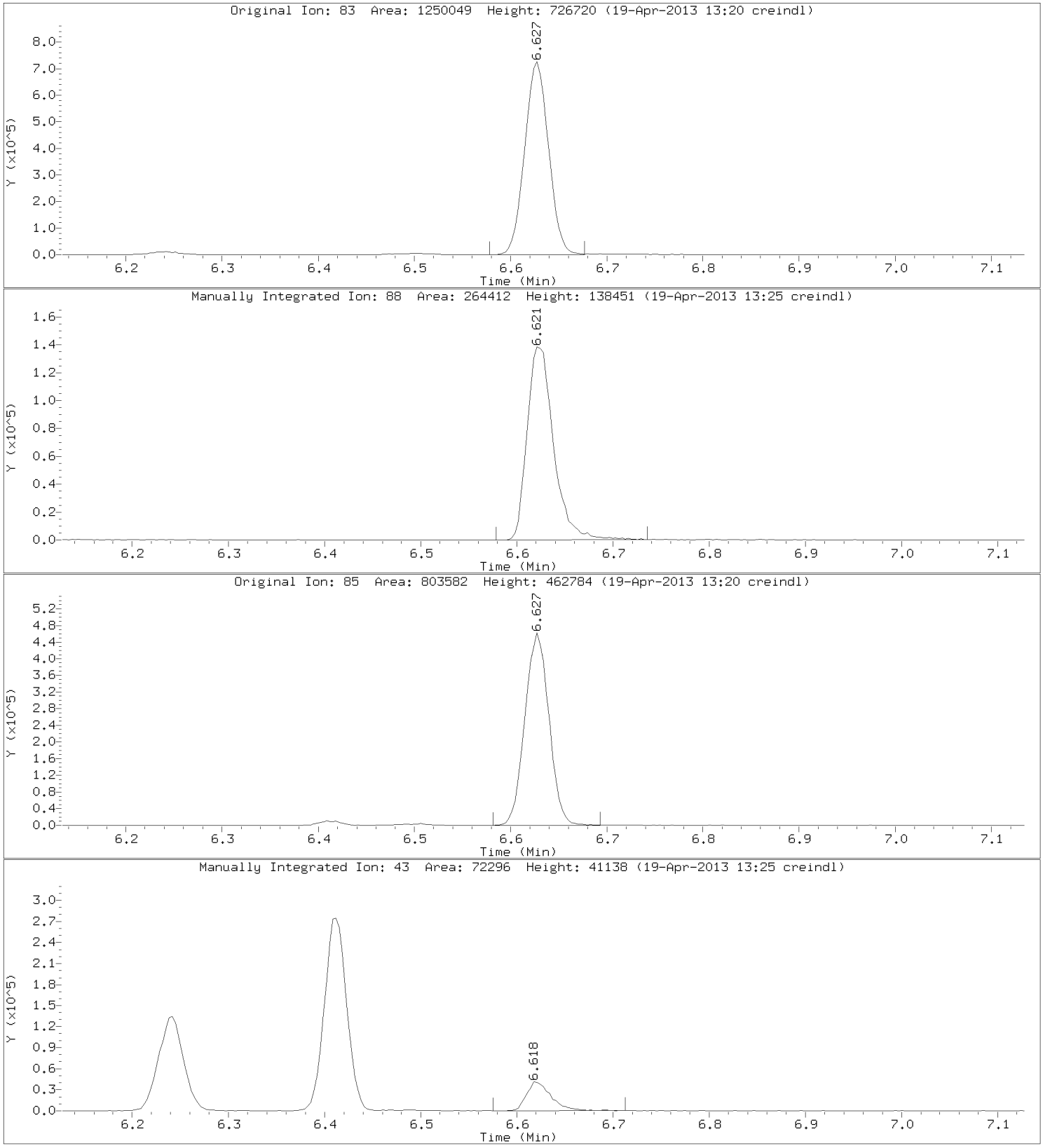


Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: CCAL



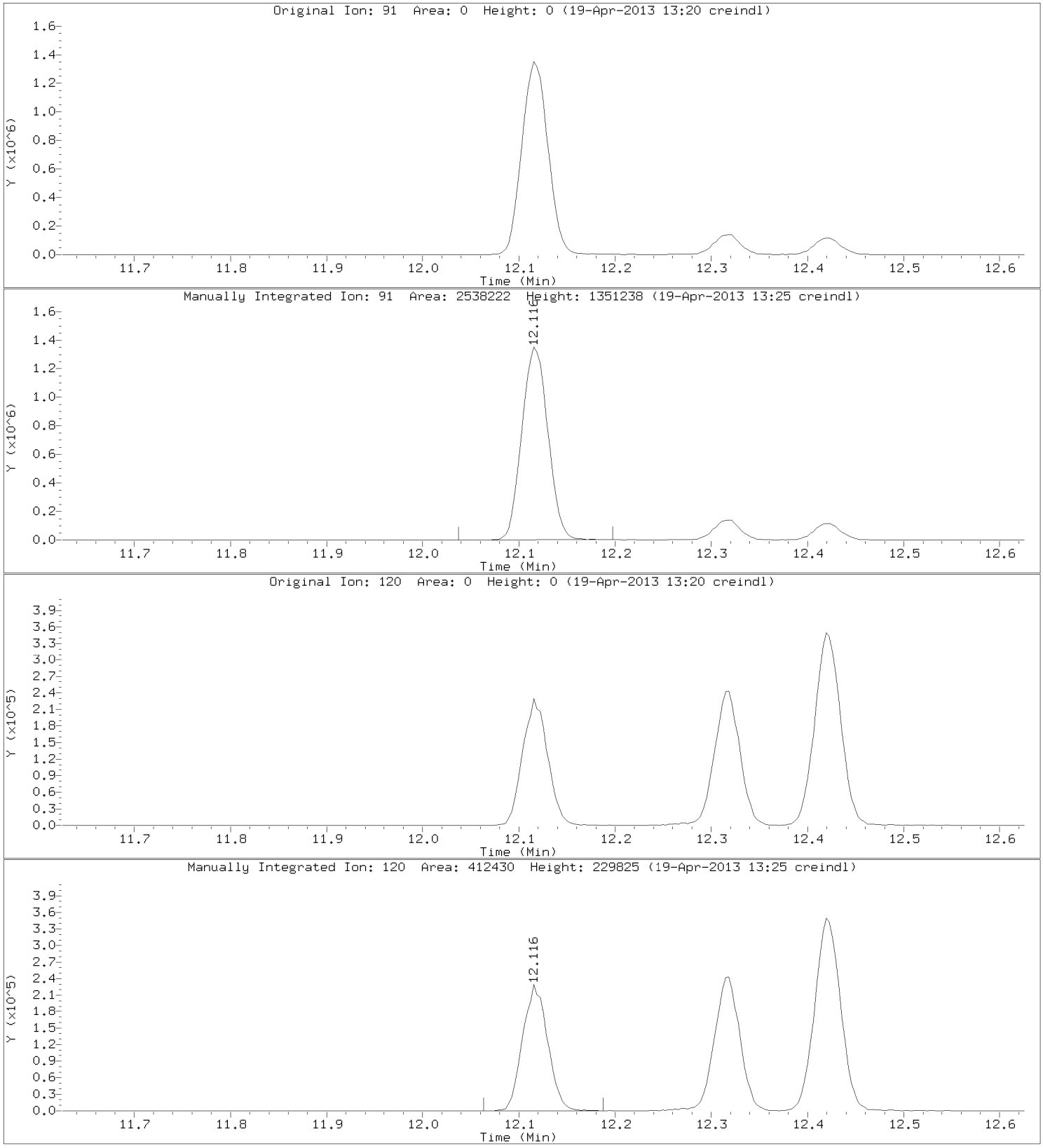
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: 1,4-Dioxane
CAS Number: 123-91-1



Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: CCAL

Compound: N-Propylbenzene
CAS Number: 103-65-1



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10804LL.d
Report Date: 18-Apr-2013 15:04

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10804LL.d
Lab Smp Id: 1411878
Inj Date : 18-APR-2013 12:25
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17165
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 18-Apr-2013 11:29 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1 Propylene	41	Compound Not Detected.					
2 Dichlorodifluoromethane	85	Compound Not Detected.					
3 Dichlorotetrafluoroethane	85	Compound Not Detected.					
4 Chloromethane	50	Compound Not Detected.					
5 Vinyl chloride	62	Compound Not Detected.					
6 1,3-Butadiene	54	Compound Not Detected.					
7 Bromomethane	94	Compound Not Detected.					
8 Chloroethane	64	Compound Not Detected.					
9 Ethanol	31	Compound Not Detected.					
10 Vinyl Bromide	106	Compound Not Detected.					
11 Acrolein	56	Compound Not Detected.					
12 Trichlorofluoromethane	101	Compound Not Detected.					
13 Acetone	43	Compound Not Detected.					
14 Isopropyl Alcohol	45	Compound Not Detected.					
15 1,1-Dichloroethene	61	Compound Not Detected.					
16 Acrylonitrile	53	Compound Not Detected.					
17 Tert Butyl Alcohol	59	Compound Not Detected.					
18 Freon 113	101	Compound Not Detected.					
19 Methylene chloride	49	Compound Not Detected.					
20 Allyl Chloride	76	Compound Not Detected.					
21 Carbon Disulfide	76	Compound Not Detected.					
22 trans-1,2-dichloroethene	96	Compound Not Detected.					
23 Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10804LL.d
Report Date: 18-Apr-2013 15:04

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
	24	Vinyl Acetate	43	Compound Not Detected.					
	25	1,1-Dichloroethane	63	Compound Not Detected.					
$	26	Hexane-d14(S)	66	4.656	4.660	(0.769)	616650	10.0300	10.0
	27	Methyl Ethyl Ketone	72	Compound Not Detected.					
	28	n-Hexane	57	Compound Not Detected.					
	29	cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30	Ethyl Acetate	43	Compound Not Detected.					
	31	Chloroform	83	Compound Not Detected.					
	32	Tetrahydrofuran	42	Compound Not Detected.					
	33	1,1,1-Trichloroethane	97	Compound Not Detected.					
	34	1,2-Dichloroethane	62	Compound Not Detected.					
	35	Benzene	78	Compound Not Detected.					
	36	Carbon tetrachloride	117	Compound Not Detected.					
	37	Cyclohexane	56	Compound Not Detected.					
*	38	1,4-Difluorobenzene	114	6.058	6.069	(1.000)	1380122	10.0000	
	39	2,2,4-Trimethylpentane	57	Compound Not Detected.					
	40	Heptane	43	Compound Not Detected.					
	41	1,2-Dichloropropane	63	Compound Not Detected.					
	42	Trichloroethene	130	Compound Not Detected.					
	43	1,4-Dioxane	88	Compound Not Detected.					
	44	Bromodichloromethane	83	Compound Not Detected.					
	45	Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46	cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47	trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48	Toluene-d8 (S)	98	7.823	7.837	(1.291)	1209477	9.57311	9.57
	49	Toluene	91	Compound Not Detected.					
	50	1,1,2-Trichloroethane	97	Compound Not Detected.					
	51	Methyl Butyl Ketone	43	Compound Not Detected.					
	52	Dibromochloromethane	129	Compound Not Detected.					
	53	1,2-Dibromoethane	107	Compound Not Detected.					
	54	Tetrachloroethene	166	Compound Not Detected.					
*	55	Chlorobenzene - d5	117	9.673	9.684	(1.000)	730167	10.0000	
	56	Chlorobenzene	112	Compound Not Detected.					
	57	Ethyl Benzene	91	Compound Not Detected.					
	58	m&p-Xylene	91	Compound Not Detected.					
	59	Bromoform	173	Compound Not Detected.					
	60	Styrene	104	Compound Not Detected.					
	61	o-Xylene	91	Compound Not Detected.					
	62	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63	Isopropylbenzene	105	Compound Not Detected.					
	64	N-Propylbenzene	91	Compound Not Detected.					
	65	4-Ethyltoluene	105	Compound Not Detected.					
	66	1,3,5-Trimethylbenzene	105	Compound Not Detected.					
	67	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
	68	1,3-Dichlorobenzene	146	Compound Not Detected.					
	69	Sec- Butylbenzene	105	Compound Not Detected.					
$	70	1,4-dichlorobenzene-d4 (S)	150	13.452	13.466	(1.391)	340841	8.30745	8.31
	71	Benzyl Chloride	91	Compound Not Detected.					
	72	1,4-Dichlorobenzene	146	Compound Not Detected.					
	73	1,2-Dichlorobenzene	146	Compound Not Detected.					
	74	N-Butylbenzene	91	Compound Not Detected.					
	75	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76	Naphthalene	128	Compound Not Detected.					
	77	Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10804LL.d
Report Date: 18-Apr-2013 15:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10804LL.d
Report Date: 18-Apr-2013 15:04

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10804LL.d
Lab Smp Id: 1411878
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17165

Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

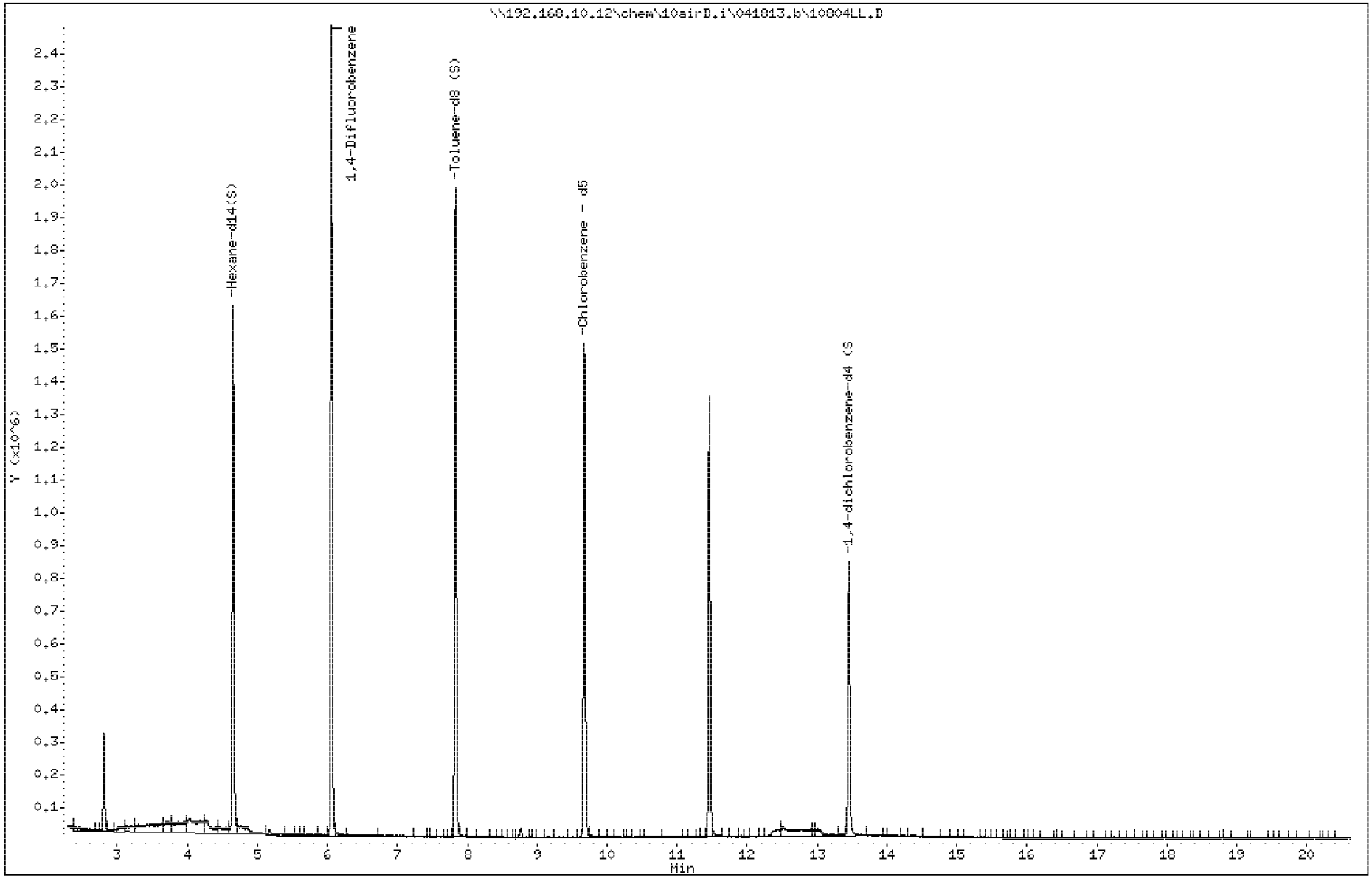
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1380122	-3.65
55 Chlorobenzene - d	825122	495073	1155171	730167	-11.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.67	-0.07

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10804LL.D
Date : 18-APR-2013 12:25
Client ID:
Sample Info:

Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\041813.b/10804LL.d
Injection Date: 18-APR-2013 12:25
Instrument: 10airD.i
Lab Sample ID: 1411878
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10906LL.d
Report Date: 21-Apr-2013 08:41

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041913.b\10906LL.d
Lab Smp Id: 1412429
Inj Date : 19-APR-2013 15:49
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17167
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Meth Date : 21-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
5	Vinyl chloride	62	Compound Not Detected.					
13	Acetone	43	Compound Not Detected.					
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
29	cis-1,2-Dichloroethene	96	Compound Not Detected.					
31	Chloroform	83	Compound Not Detected.					
* 38	1,4-Difluorobenzene	114	6.058	6.069	(1.000)	1185428	10.0000	
42	Trichloroethene	130	Compound Not Detected.					
51	Methyl Butyl Ketone	43	Compound Not Detected.					
54	Tetrachloroethene	166	Compound Not Detected.					
* 55	Chlorobenzene - d5	117	9.677	9.684	(1.000)	613823	10.0000	
58	m&p-Xylene	91	Compound Not Detected.					
61	o-Xylene	91	Compound Not Detected.					
64	N-Propylbenzene	91	Compound Not Detected.					
67	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
73	1,2-Dichlorobenzene	146	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10906LL.d
Report Date: 21-Apr-2013 08:41

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10906LL.d
Lab Smp Id: 1412429
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Misc Info: 17167

Calibration Date: 19-APR-2013
Calibration Time: 12:14
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1185428	-17.24
55 Chlorobenzene - d	825122	495073	1155171	613823	-25.61

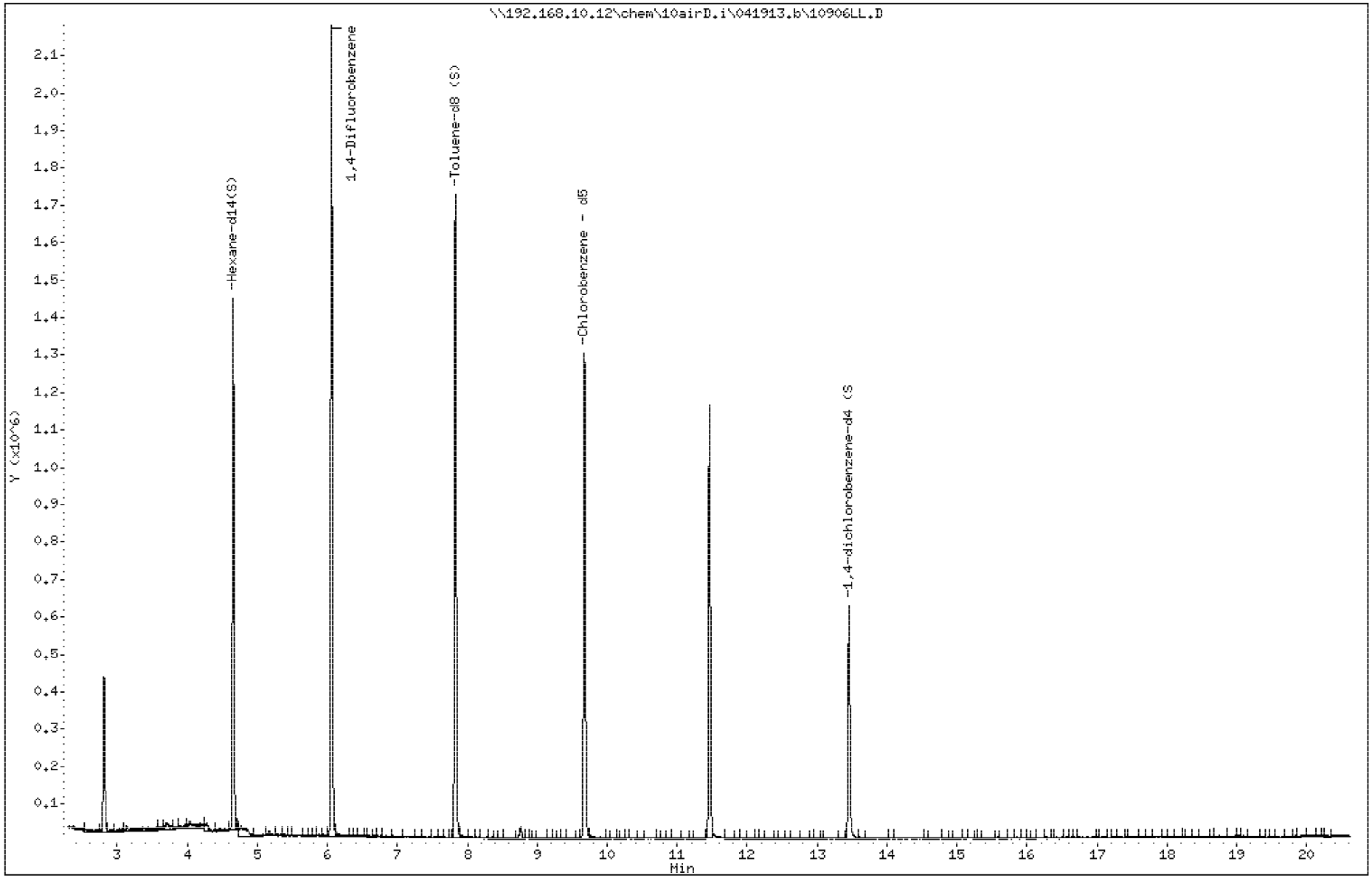
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10906LL.D
Date : 19-APR-2013 15:49
Client ID:
Sample Info:

Instrument: 10airD.i

Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\041913.b/10906LL.d
Injection Date: 19-APR-2013 15:49
Instrument: 10airD.i
Lab Sample ID: 1412429
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10804S.d
Report Date: 22-Apr-2013 11:47

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10804S.d
Lab Smp Id: 1413527
Inj Date : 18-APR-2013 12:25
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17180
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 19-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 17180.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
14	Isopropyl Alcohol	45	Compound Not Detected.					
* 38	1,4-Difluorobenzene	114	6.058	6.069	(1.000)	1380122	10.0000	
51	Methyl Butyl Ketone	43	Compound Not Detected.					
* 55	Chlorobenzene - d5	117	9.673	9.684	(1.000)	730167	10.0000	
71	Benzyl Chloride	91	Compound Not Detected.					
73	1,2-Dichlorobenzene	146	Compound Not Detected.					
75	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
76	Naphthalene	128	Compound Not Detected.					
77	Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10804S.d
Report Date: 22-Apr-2013 11:47

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10804S.d
Lab Smp Id: 1413527
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17180

Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

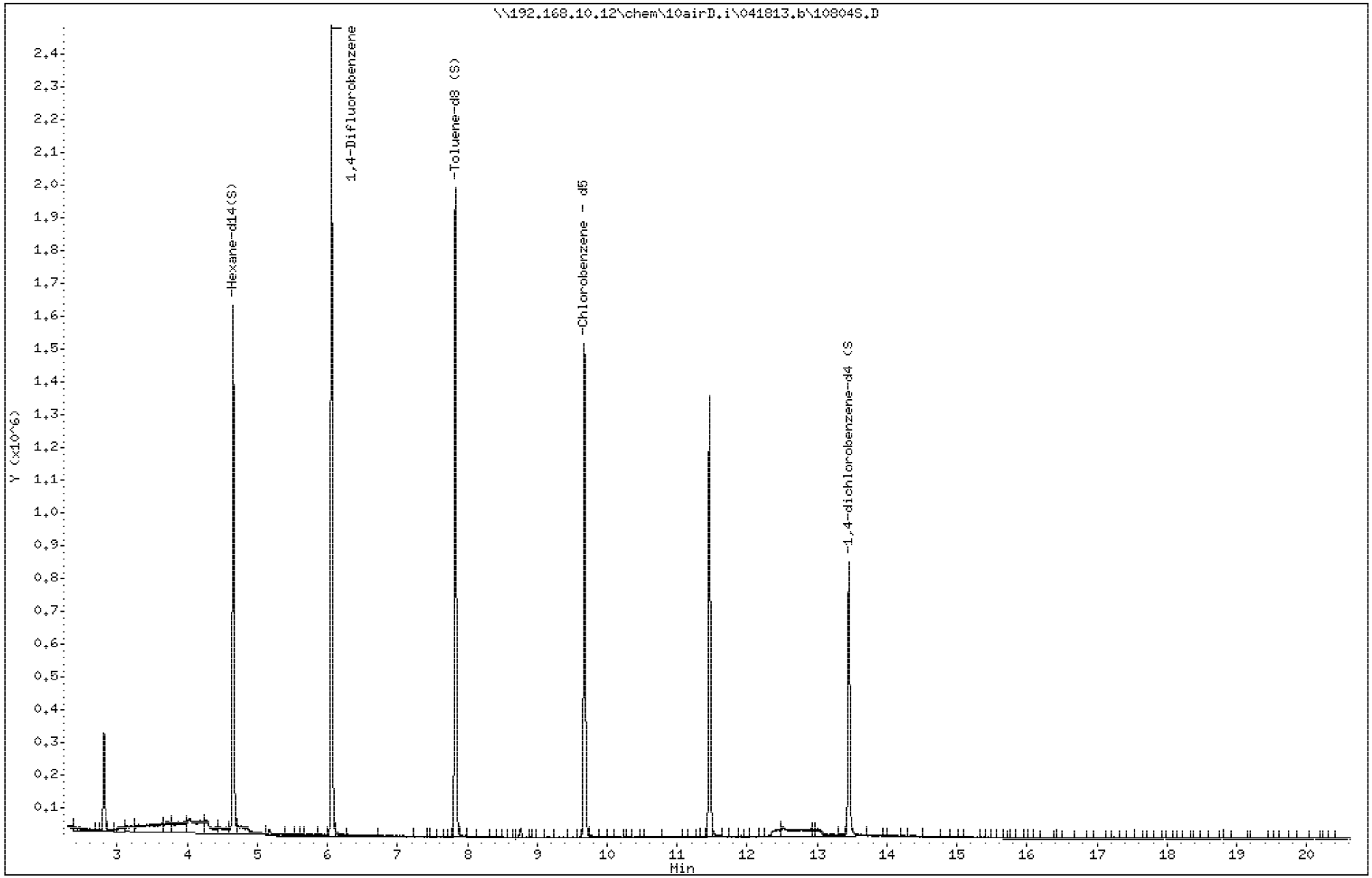
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1380122	-3.65
55 Chlorobenzene - d	825122	495073	1155171	730167	-11.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.67	-0.07

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10804S.D
Date : 18-APR-2013 12:25
Client ID:
Sample Info:

Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\041813.b/10804S.d
Injection Date: 18-APR-2013 12:25
Instrument: 10airD.i
Lab Sample ID: 1413527
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11115LL.d
Report Date: 22-Apr-2013 09:28

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11115LL.d
Lab Smp Id: 1413527
Inj Date : 21-APR-2013 15:16
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17180
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 09:26 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 13:15 Cal File: 11111.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 17180.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1 Propylene	41	Compound Not Detected.					
2 Dichlorodifluoromethane	85	Compound Not Detected.					
3 Dichlorotetrafluoroethane	85	Compound Not Detected.					
4 Chloromethane	50	Compound Not Detected.					
5 Vinyl chloride	62	Compound Not Detected.					
6 1,3-Butadiene	54	Compound Not Detected.					
7 Bromomethane	94	Compound Not Detected.					
8 Chloroethane	64	Compound Not Detected.					
9 Ethanol	31	Compound Not Detected.					
10 Vinyl Bromide	106	Compound Not Detected.					
11 Acrolein	56	Compound Not Detected.					
12 Trichlorofluoromethane	101	Compound Not Detected.					
13 Acetone	43	Compound Not Detected.					
15 1,1-Dichloroethene	61	Compound Not Detected.					
16 Acrylonitrile	53	Compound Not Detected.					
17 Tert Butyl Alcohol	59	Compound Not Detected.					
18 Freon 113	101	Compound Not Detected.					
19 Methylene chloride	49	Compound Not Detected.					
20 Allyl Chloride	76	Compound Not Detected.					
21 Carbon Disulfide	76	Compound Not Detected.					
22 trans-1,2-dichloroethene	96	Compound Not Detected.					
23 Methyl Tert Butyl Ether	73	Compound Not Detected.					
24 Vinyl Acetate	43	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11115LL.d
Report Date: 22-Apr-2013 09:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
25	1,1-Dichloroethane	63	Compound Not Detected.					
27	Methyl Ethyl Ketone	72	Compound Not Detected.					
28	n-Hexane	57	Compound Not Detected.					
29	cis-1,2-Dichloroethene	96	Compound Not Detected.					
30	Ethyl Acetate	43	Compound Not Detected.					
31	Chloroform	83	Compound Not Detected.					
32	Tetrahydrofuran	42	Compound Not Detected.					
33	1,1,1-Trichloroethane	97	Compound Not Detected.					
34	1,2-Dichloroethane	62	Compound Not Detected.					
35	Benzene	78	Compound Not Detected.					
36	Carbon tetrachloride	117	Compound Not Detected.					
37	Cyclohexane	56	Compound Not Detected.					
* 38	1,4-Difluorobenzene	114	6.061	6.072	(1.000)	774722	10.0000	
39	2,2,4-Trimethylpentane	57	Compound Not Detected.					
40	Heptane	43	Compound Not Detected.					
41	1,2-Dichloropropane	63	Compound Not Detected.					
42	Trichloroethene	130	Compound Not Detected.					
43	1,4-Dioxane	88	Compound Not Detected.					
44	Bromodichloromethane	83	Compound Not Detected.					
45	Methyl Isobutyl Ketone	43	Compound Not Detected.					
46	cis-1,3-Dichloropropene	75	Compound Not Detected.					
47	trans-1,3-Dichloropropene	75	Compound Not Detected.					
49	Toluene	91	Compound Not Detected.					
50	1,1,2-Trichloroethane	97	Compound Not Detected.					
52	Dibromochloromethane	129	Compound Not Detected.					
53	1,2-Dibromoethane	107	Compound Not Detected.					
54	Tetrachloroethene	166	Compound Not Detected.					
* 55	Chlorobenzene - d5	117	9.680	9.684	(1.000)	373995	10.0000	
56	Chlorobenzene	112	Compound Not Detected.					
57	Ethyl Benzene	91	Compound Not Detected.					
58	m&p-Xylene	91	Compound Not Detected.					
59	Bromoform	173	Compound Not Detected.					
60	Styrene	104	Compound Not Detected.					
61	o-Xylene	91	Compound Not Detected.					
62	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
63	Isopropylbenzene	105	Compound Not Detected.					
64	N-Propylbenzene	91	Compound Not Detected.					
65	4-Ethyltoluene	105	Compound Not Detected.					
66	1,3,5-Trimethylbenzene	105	Compound Not Detected.					
67	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
68	1,3-Dichlorobenzene	146	Compound Not Detected.					
69	Sec- Butylbenzene	105	Compound Not Detected.					
72	1,4-Dichlorobenzene	146	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11115LL.d
Report Date: 22-Apr-2013 09:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11115LL.d
Lab Smp Id: 1413527
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info: 17180

Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	774722	-35.53
55 Chlorobenzene - d	638533	383120	893946	373995	-41.43 <-

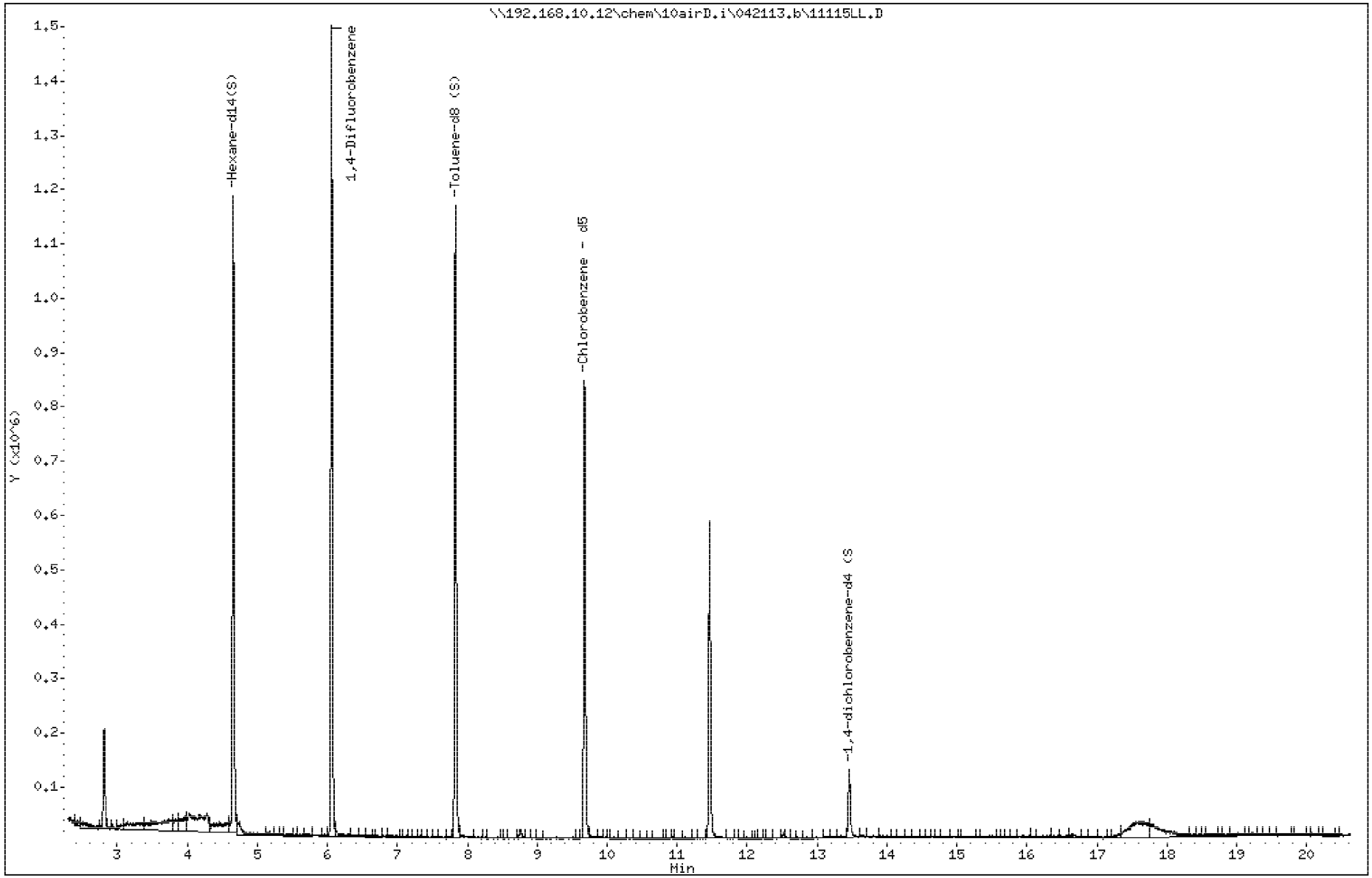
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11115LL.D
Date : 21-APR-2013 15:16
Client ID:
Sample Info:

Instrument: 10airD.i

Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\042113.b/11115LL.d
Injection Date: 21-APR-2013 15:16
Instrument: 10airD.i
Lab Sample ID: 1413527
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802LL.d
Report Date: 18-Apr-2013 15:04

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10802LL.d
Lab Smp Id: 1411879
Inj Date : 18-APR-2013 11:08
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17165
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 18-Apr-2013 11:29 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	2.924	2.924	(0.482)	153734	9.32399	9.32
2	Dichlorodifluoromethane	85	2.950	2.950	(0.486)	1511212	9.08322	9.08
3	Dichlorotetrafluoroethane	85	3.048	3.048	(0.503)	1229028	9.26198	9.26
4	Chloromethane	50	3.048	3.052	(0.503)	348688	9.48672	9.49
5	Vinyl chloride	62	3.139	3.137	(0.518)	390656	9.47249	9.47
6	1,3-Butadiene	54	3.182	3.182	(0.525)	214178	10.5450	10.5
7	Bromomethane	94	3.335	3.336	(0.550)	411441	9.06919	9.07
8	Chloroethane	64	3.394	3.395	(0.560)	194495	9.44518	9.44(M)
9	Ethanol	31	3.420	3.424	(0.564)	240813	9.74969	9.75
10	Vinyl Bromide	106	3.532	3.532	(0.582)	364868	9.50790	9.51
11	Acrolein	56	3.623	3.627	(0.597)	111739	10.8907	10.9
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	1331329	8.79706	8.80
13	Acetone	43	3.672	3.673	(0.606)	735352	10.0259	10.0
14	Isopropyl Alcohol	45	3.698	3.702	(0.610)	514820	10.0250	10.0
15	1,1-Dichloroethene	61	3.927	3.931	(0.648)	701705	9.27073	9.27
16	Acrylonitrile	53	3.930	3.934	(0.648)	246440	9.73608	9.74
17	Tert Butyl Alcohol	59	3.934	3.941	(0.649)	661173	10.3464	10.3
18	Freon 113	101	3.983	3.983	(0.657)	885450	9.18134	9.18
19	Methylene chloride	49	4.041	4.045	(0.666)	415706	9.28547	9.28
20	Allyl Chloride	76	4.058	4.058	(0.669)	191287	10.0280	10.0
21	Carbon Disulfide	76	4.179	4.179	(0.689)	1283559	9.05112	9.05
22	trans-1,2-dichloroethene	96	4.375	4.379	(0.721)	403477	8.96049	8.96
23	Methyl Tert Butyl Ether	73	4.411	4.415	(0.727)	884674	9.34463	9.34(M)

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802LL.d
Report Date: 18-Apr-2013 15:04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	24 Vinyl Acetate	43	4.532	4.539	(0.747)	800824	10.0264	10.0
	25 1,1-Dichloroethane	63	4.538	4.542	(0.748)	782586	9.17613	9.18
$	26 Hexane-d14(S)	66	4.656	4.660	(0.768)	641788	9.32262	9.32
	27 Methyl Ethyl Ketone	72	4.731	4.738	(0.780)	201010	9.43979	9.44(M)
	28 n-Hexane	57	4.774	4.777	(0.787)	489392	7.61369	7.61(M)
	29 cis-1,2-Dichloroethene	96	4.934	4.941	(0.814)	437178	9.49709	9.50
	30 Ethyl Acetate	43	4.957	4.964	(0.817)	674376	11.1489	11.1
	31 Chloroform	83	5.078	5.085	(0.837)	1156893	9.63057	9.63
	32 Tetrahydrofuran	42	5.270	5.274	(0.869)	273563	9.27409	9.27
	33 1,1,1-Trichloroethane	97	5.561	5.569	(0.917)	1144700	9.85457	9.85
	34 1,2-Dichloroethane	62	5.581	5.588	(0.920)	890183	9.88906	9.89
	35 Benzene	78	5.852	5.856	(0.965)	1255963	8.92025	8.92
	36 Carbon tetrachloride	117	5.872	5.876	(0.968)	1122703	9.87067	9.87
	37 Cyclohexane	56	5.875	5.882	(0.969)	472063	9.20878	9.21
*	38 1,4-Difluorobenzene	114	6.065	6.069	(1.000)	1545375	10.0000	
	39 2,2,4-Trimethylpentane	57	6.241	6.245	(1.029)	1454261	9.25515	9.26
	40 Heptane	43	6.411	6.415	(1.057)	453860	8.89477	8.89
	41 1,2-Dichloropropane	63	6.483	6.487	(1.069)	412736	10.2894	10.3(M)
	42 Trichloroethene	130	6.506	6.510	(1.073)	404219	10.6961	10.7
	43 1,4-Dioxane	88	6.620	6.628	(1.092)	277008	9.72299	9.72(M)
	44 Bromodichloromethane	83	6.627	6.634	(1.093)	1282666	10.5119	10.5
	45 Methyl Isobutyl Ketone	43	7.206	7.213	(1.188)	654185	9.12430	9.12
	46 cis-1,3-Dichloropropene	75	7.261	7.265	(1.197)	724006	9.22873	9.23
	47 trans-1,3-Dichloropropene	75	7.755	7.762	(1.279)	792541	9.21163	9.21
$	48 Toluene-d8 (S)	98	7.830	7.837	(1.291)	1448851	10.2415	10.2
	49 Toluene	91	7.921	7.925	(1.306)	1527654	7.89547	7.90
	50 1,1,2-Trichloroethane	97	7.931	7.938	(1.308)	520126	10.0672	10.1
	51 Methyl Butyl Ketone	43	8.232	8.239	(0.850)	663692	9.48056	9.48
	52 Dibromochloromethane	129	8.546	8.550	(0.883)	872416	11.4115	11.4
	53 1,2-Dibromoethane	107	8.814	8.821	(0.910)	792208	11.0930	11.1
	54 Tetrachloroethene	166	8.905	8.909	(0.920)	714127	10.6829	10.7
*	55 Chlorobenzene - d5	117	9.683	9.684	(1.000)	872778	10.0000	
	56 Chlorobenzene	112	9.729	9.736	(1.005)	999861	10.3385	10.3
	57 Ethyl Benzene	91	10.033	10.040	(1.036)	1989101	9.79900	9.80
	58 m&p-Xylene	91	10.203	10.210	(1.054)	1603889	9.58594	9.58
	59 Bromoform	173	10.651	10.658	(1.100)	992919	12.0349	12.0
	60 Styrene	104	10.696	10.707	(1.105)	1014170	9.51299	9.51
	61 o-Xylene	91	10.775	10.785	(1.113)	1729162	9.86167	9.86
	62 1,1,2,2-Tetrachloroethane	83	11.089	11.099	(1.145)	1104950	10.9866	11.0
	63 Isopropylbenzene	105	11.455	11.462	(1.183)	2063296	11.1495	11.1
	64 N-Propylbenzene	91	12.115	12.125	(1.251)	2645251	9.89680	9.90(M)
	65 4-Ethyltoluene	105	12.314	12.328	(1.272)	1963024	9.77521	9.78
	66 1,3,5-Trimethylbenzene	105	12.422	12.433	(1.283)	1721911	9.88177	9.88
	67 1,2,4-Trimethylbenzene	105	13.017	13.028	(1.344)	1692218	9.77814	9.78
	68 1,3-Dichlorobenzene	146	13.373	13.381	(1.381)	984987	9.63366	9.63
	69 Sec- Butylbenzene	105	13.400	13.410	(1.384)	2419952	10.2075	10.2
$	70 1,4-dichlorobenzene-d4 (S)	150	13.455	13.466	(1.390)	535741	10.9242	10.9
	71 Benzyl Chloride	91	13.478	13.492	(1.392)	1496845	9.56791	9.57
	72 1,4-Dichlorobenzene	146	13.501	13.515	(1.394)	967004	9.88817	9.89
	73 1,2-Dichlorobenzene	146	14.040	14.051	(1.450)	887181	9.45834	9.46
	74 N-Butylbenzene	91	14.325	14.335	(1.479)	2047174	9.88368	9.88
	75 1,2,4-Trichlorobenzene	180	16.681	16.692	(1.723)	584272	20.7612	20.8(R)
	76 Naphthalene	128	16.861	16.867	(1.741)	863156	22.6008	22.6(R)
	77 Hexachlorobutadiene	225	17.237	17.247	(1.780)	821312	23.7669	23.8(R)

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802LL.d
Report Date: 18-Apr-2013 15:04

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802LL.d
Report Date: 18-Apr-2013 15:04

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10802LL.d
Lab Smp Id: 1411879
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17165

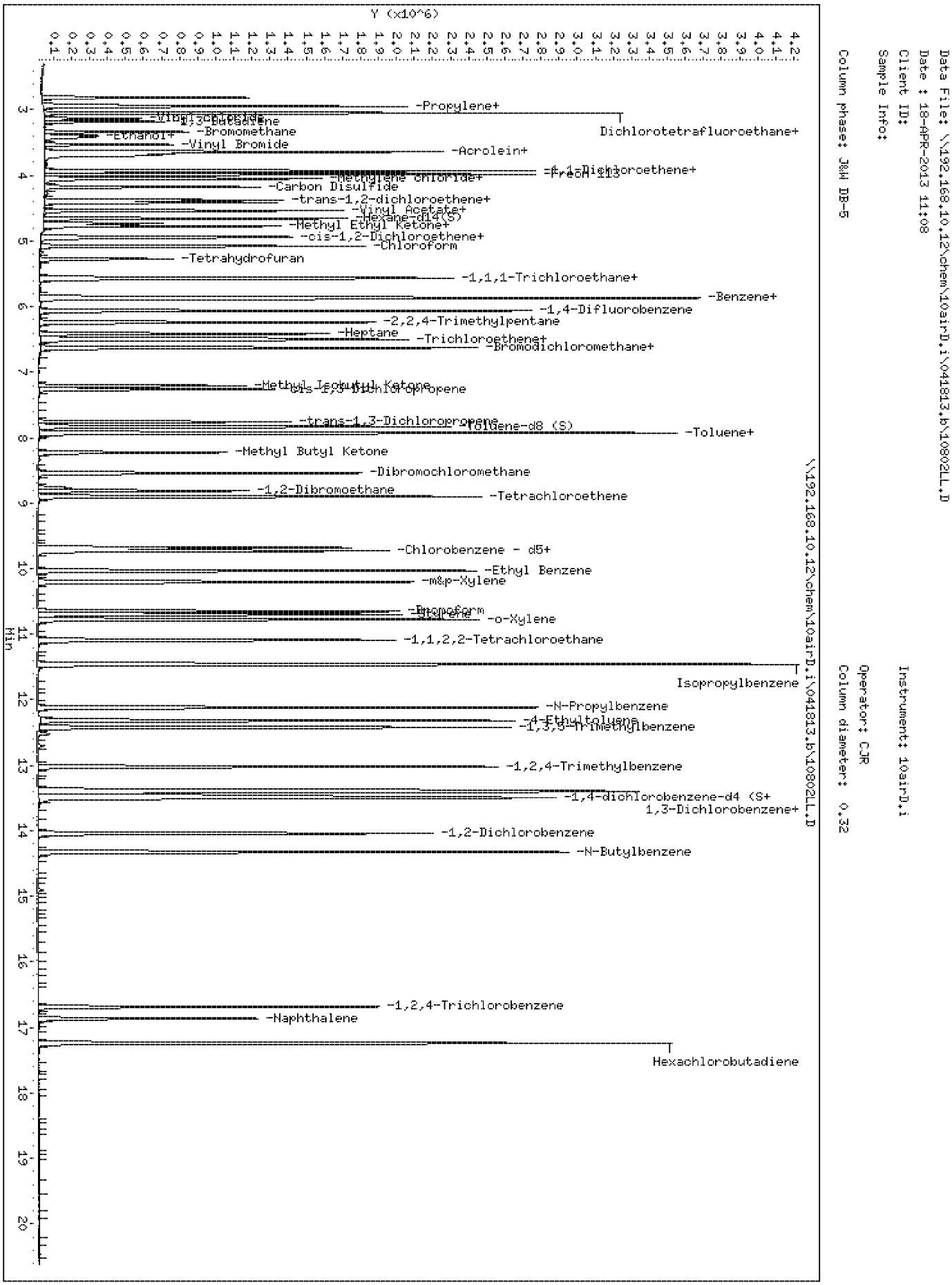
Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1545375	7.89
55 Chlorobenzene - d	825122	495073	1155171	872778	5.78

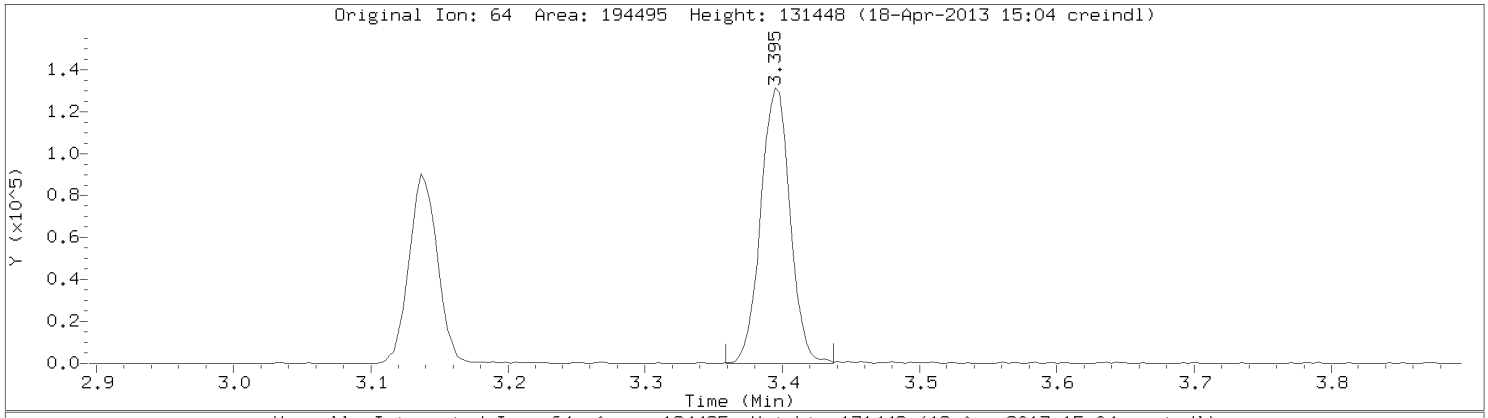
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	-0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.03

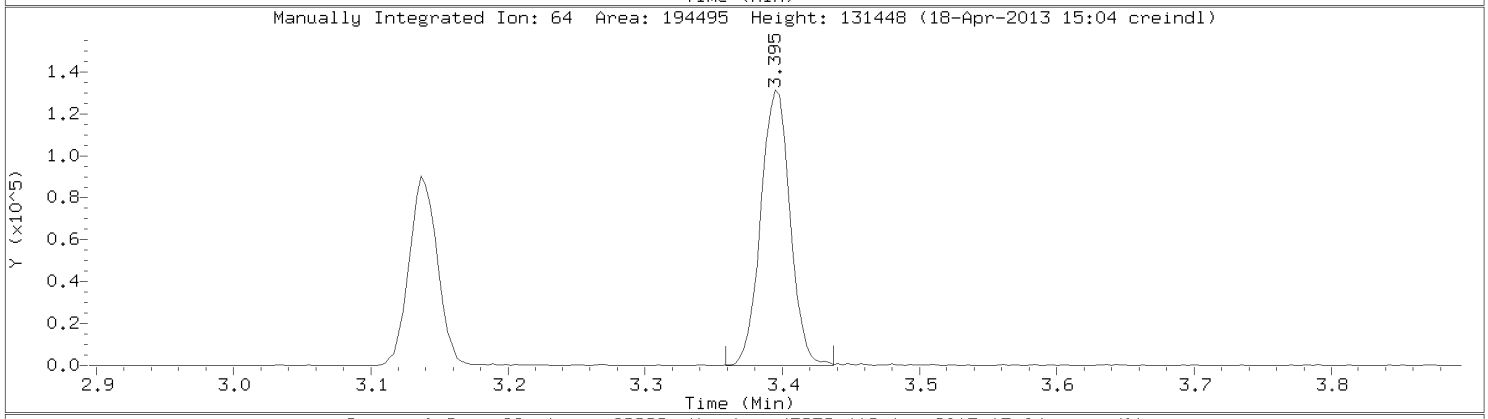
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

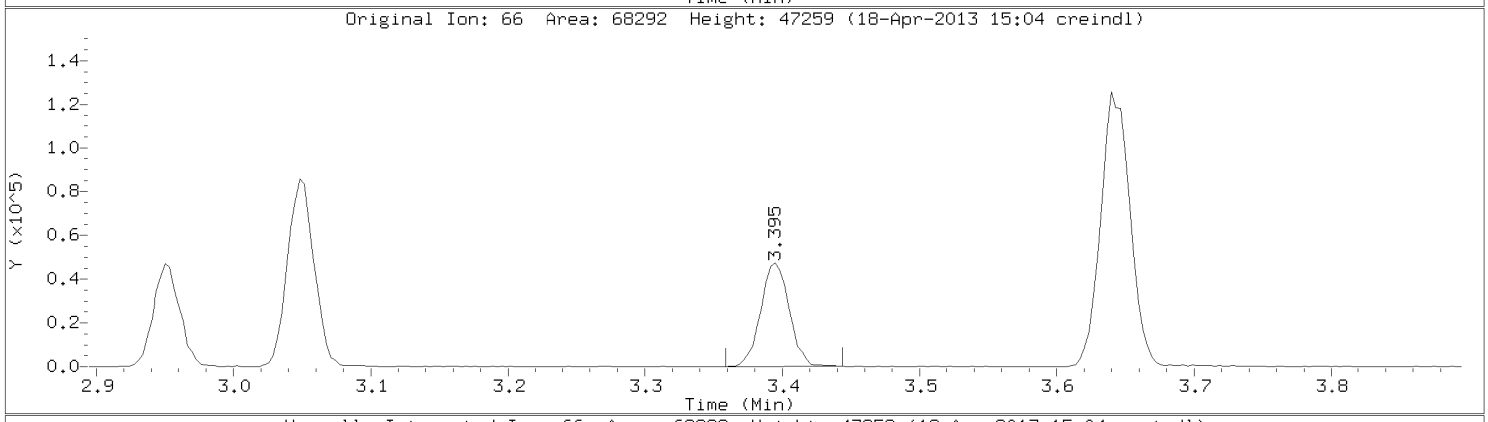

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802LL.D
Date : 18-APR-2013 11:08
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^6)
Min
\\192.168.10.12\chem\10airD.i\041813.b\10802LL.D
-Propylene+
-Dichlorotetrafluoroethane+
-Ethanol+
-Bromomethane
-Vinyl Bromide
-Acrolein+
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
-trans-1,3-Dichloropropene
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,4-dichlorobenzene-d4 (S+
1,3-Dichlorobenzene+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
Hexachlorobutadiene

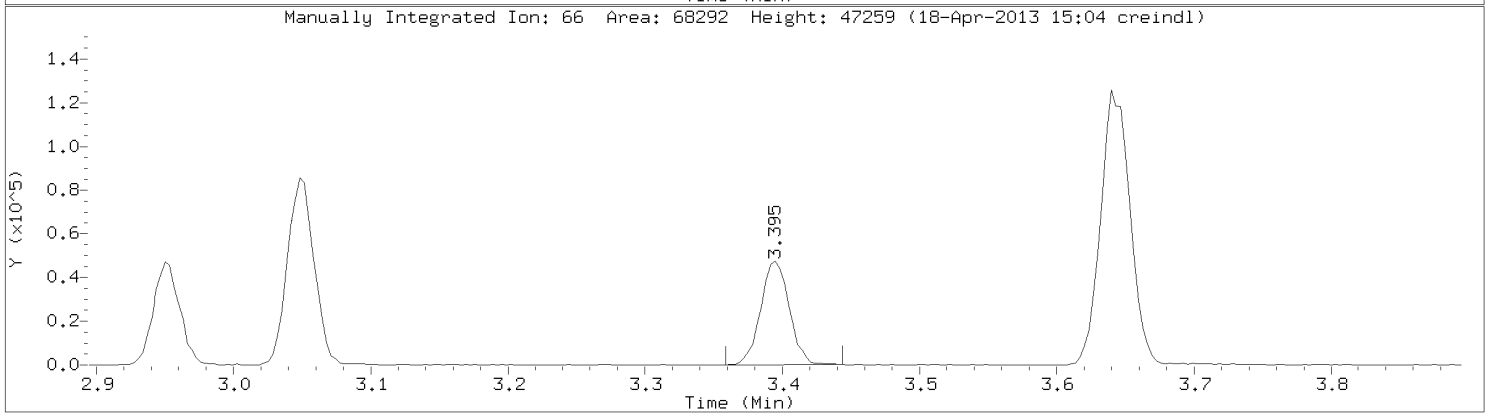
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1411879

Compound: Chloroethane
CAS Number: 75-00-3



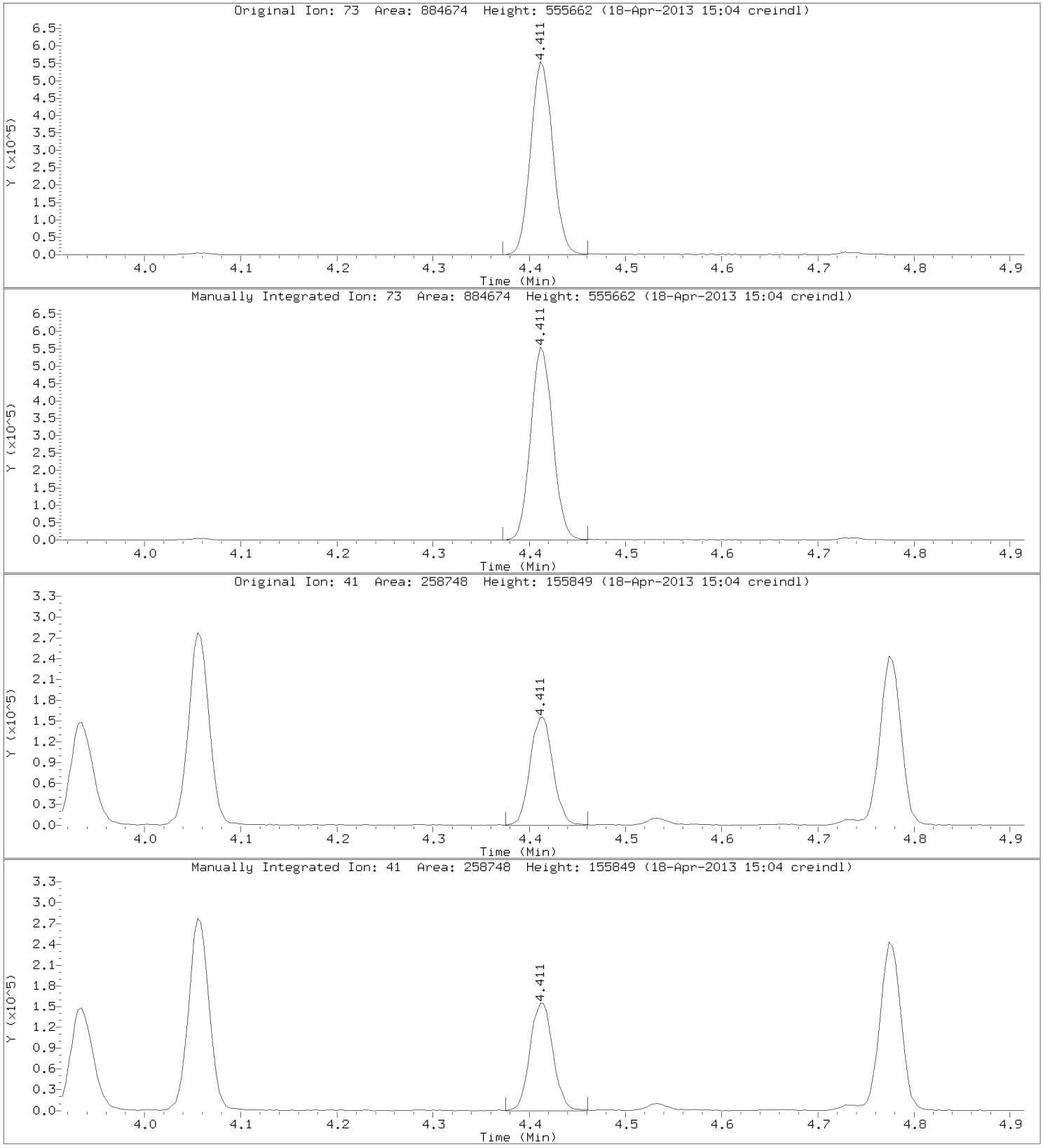






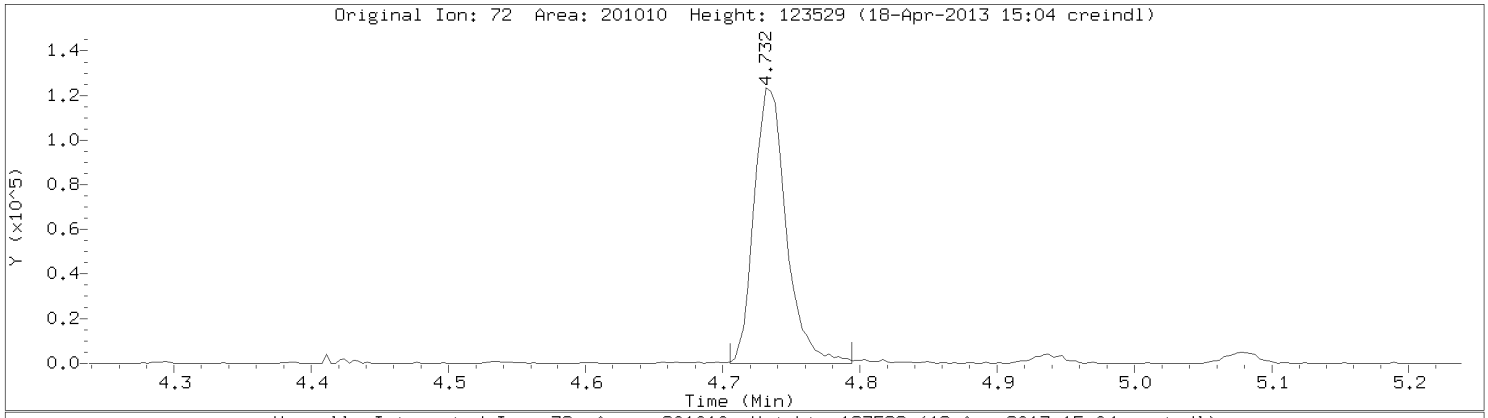
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1411879

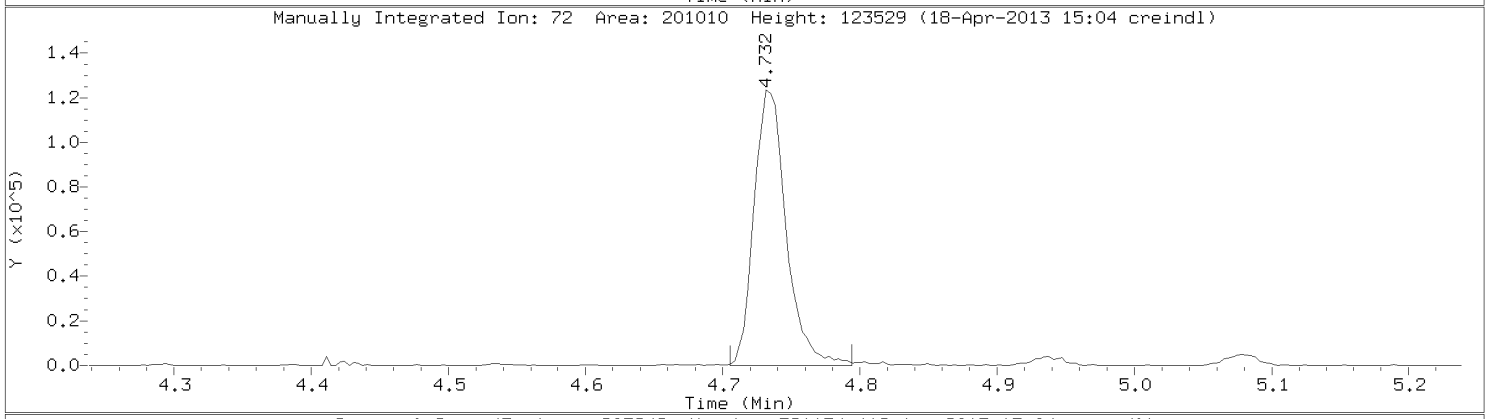
Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4

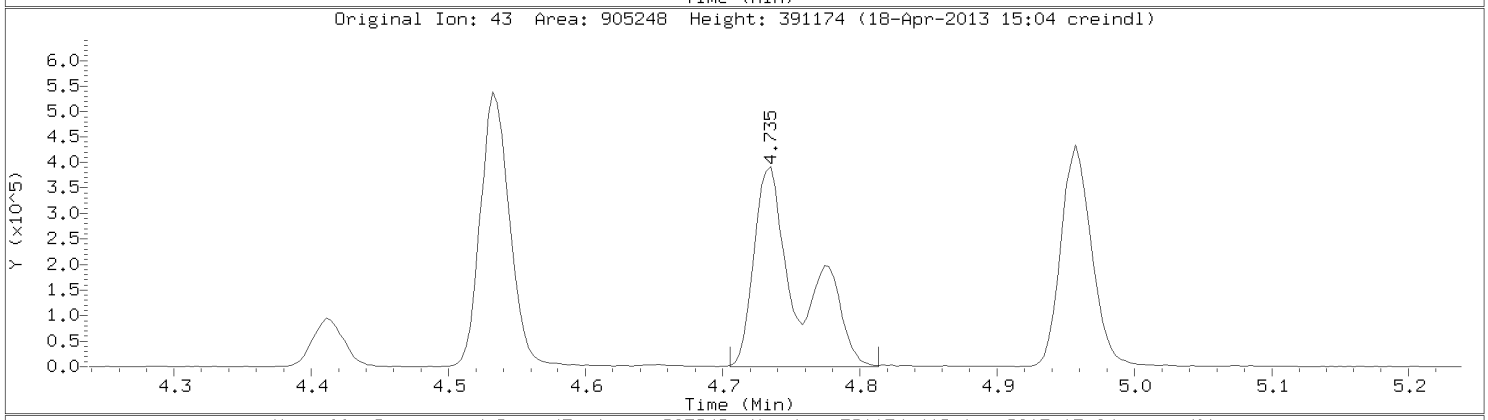


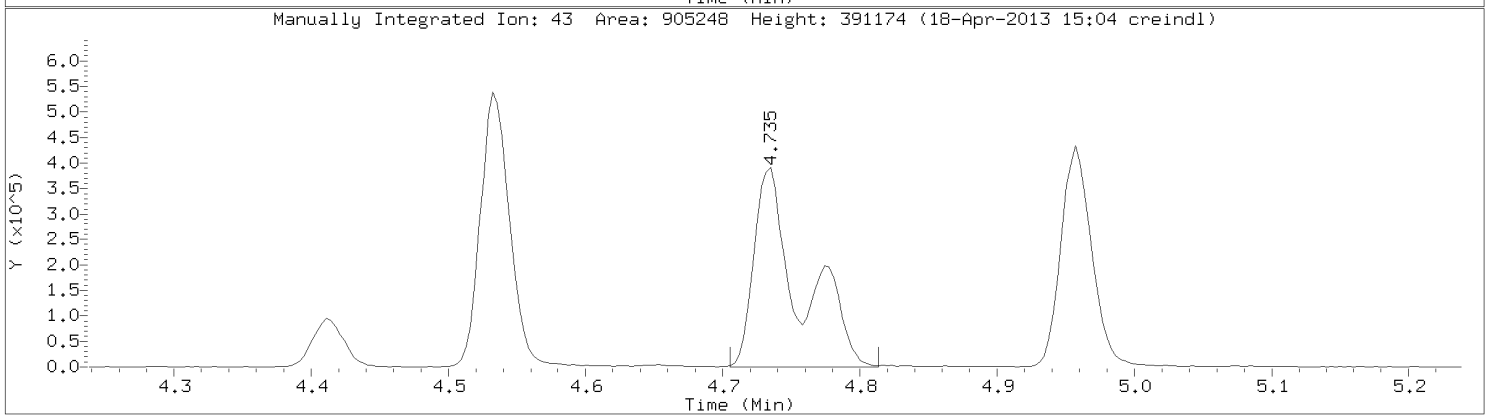
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1411879

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3



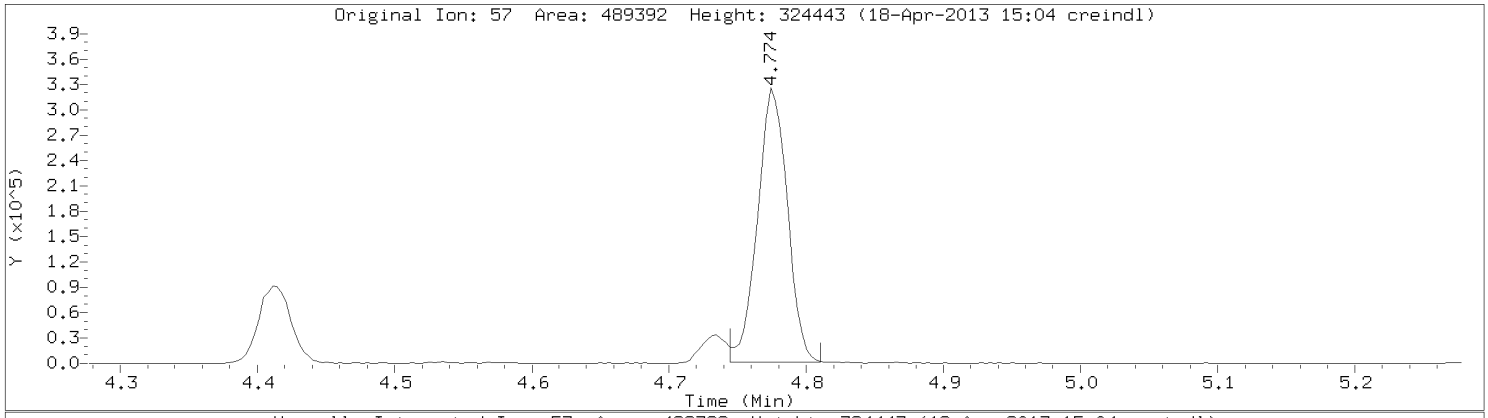


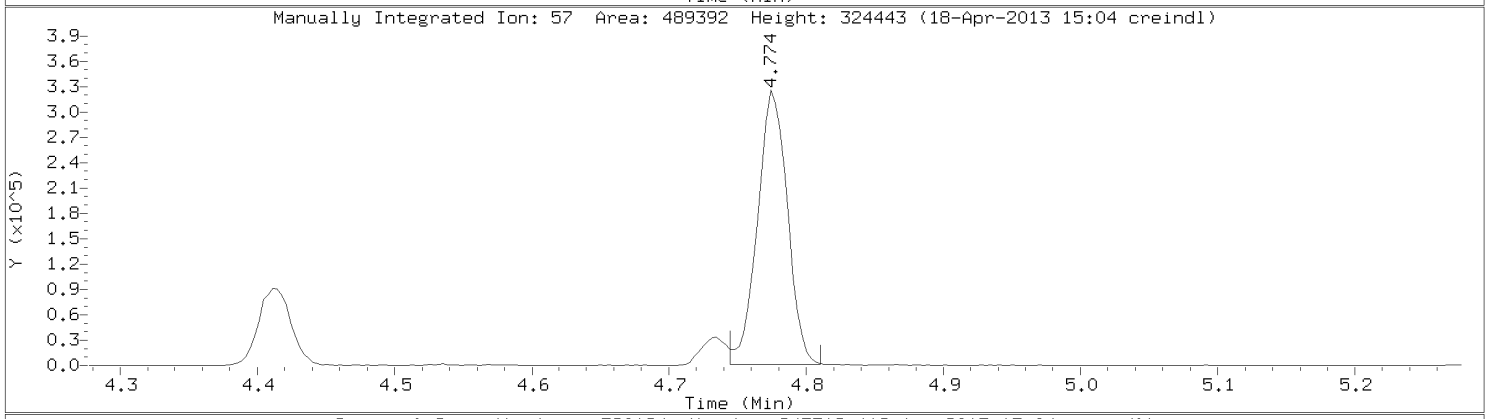


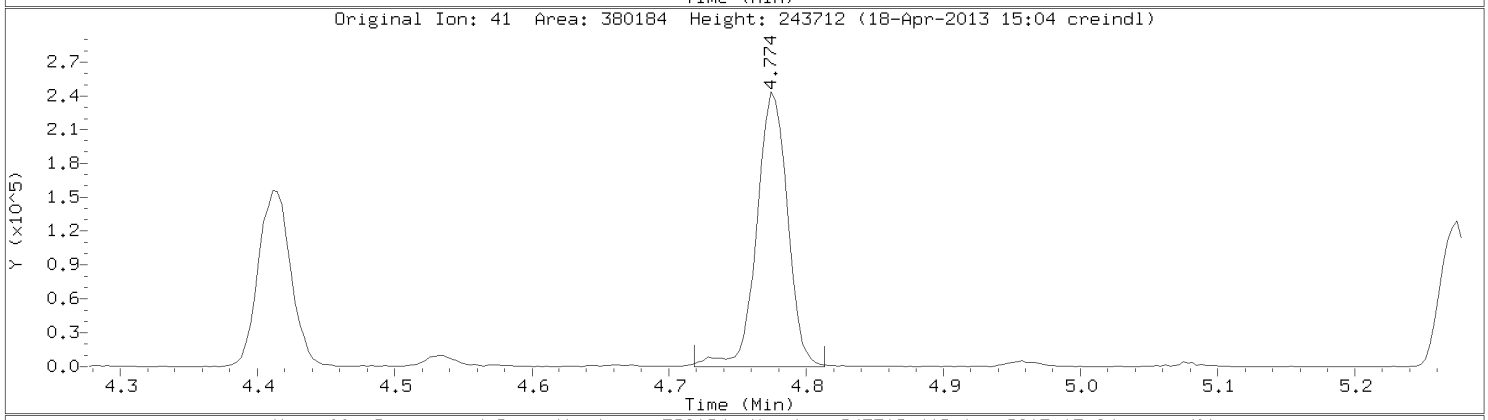


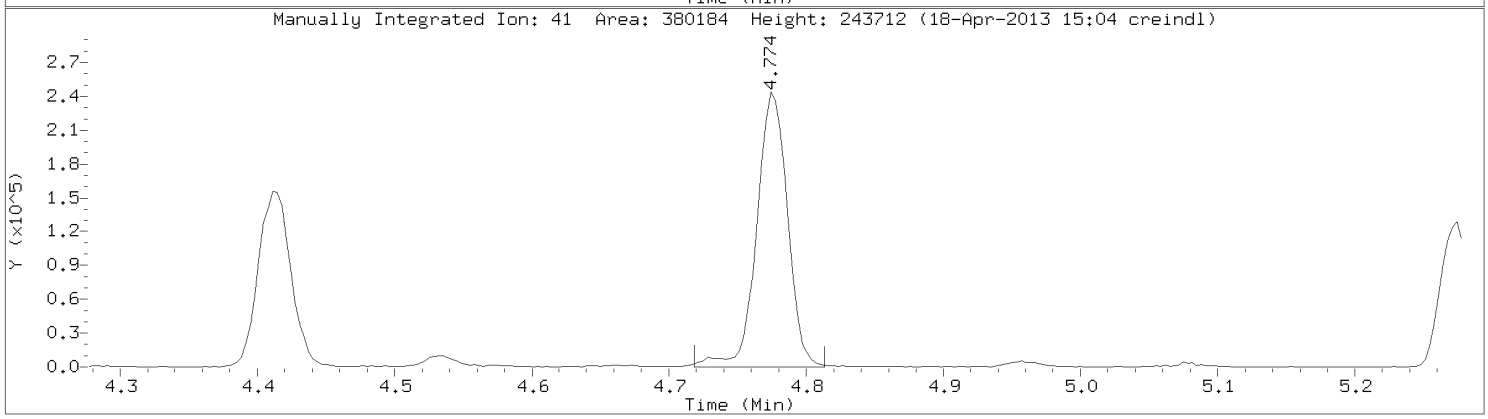
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1411879

Compound: n-Hexane
CAS Number: 110-54-3

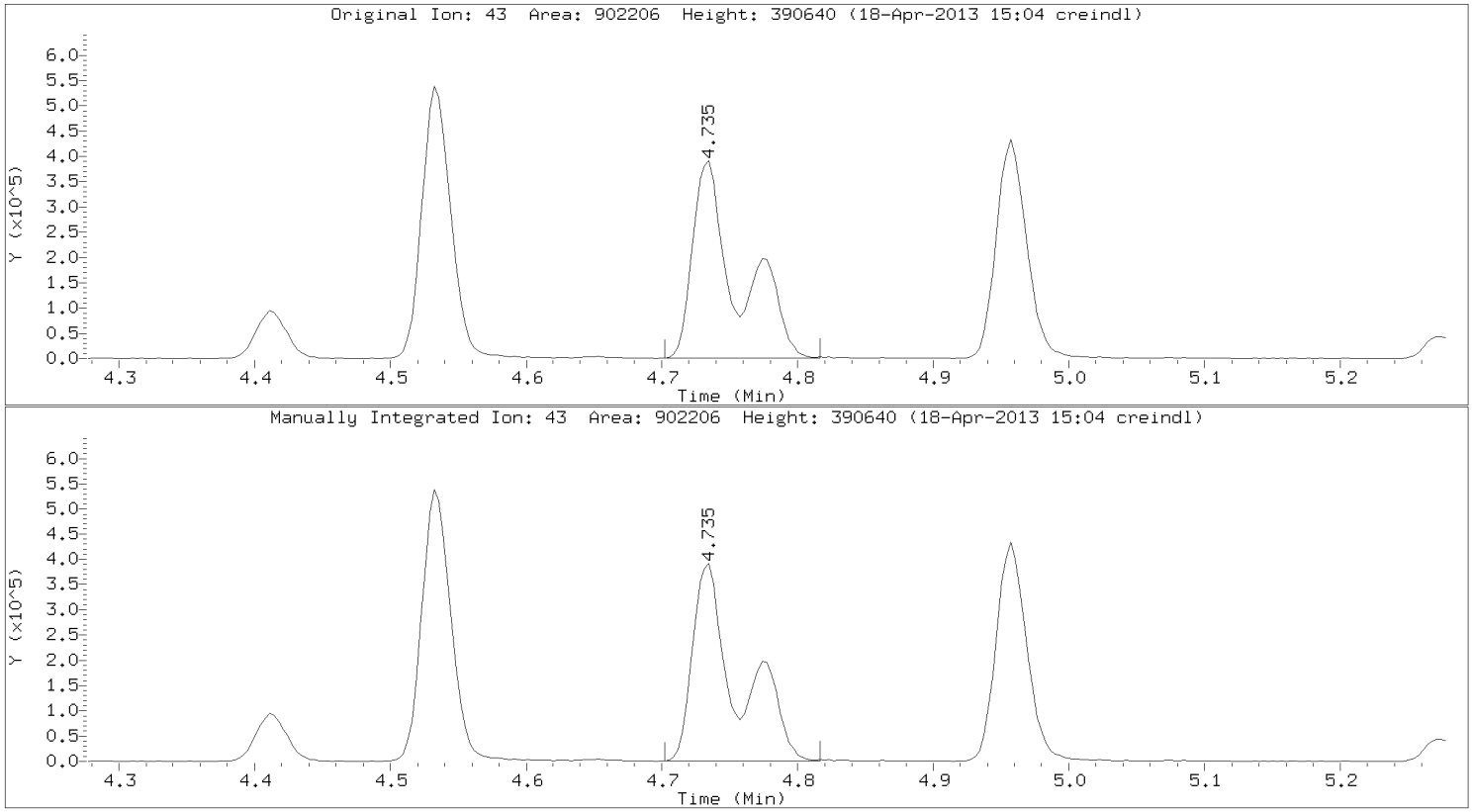






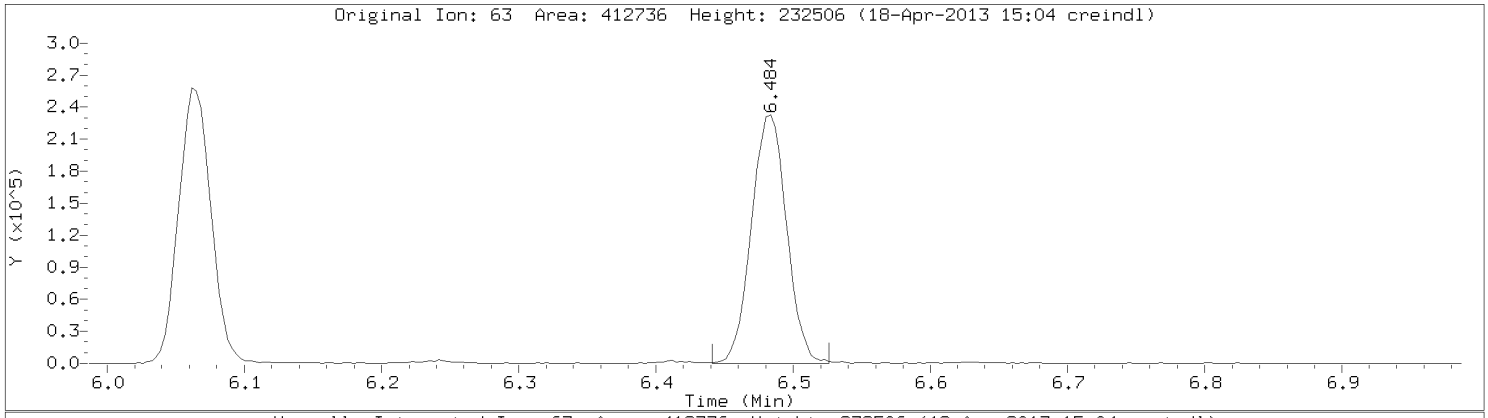


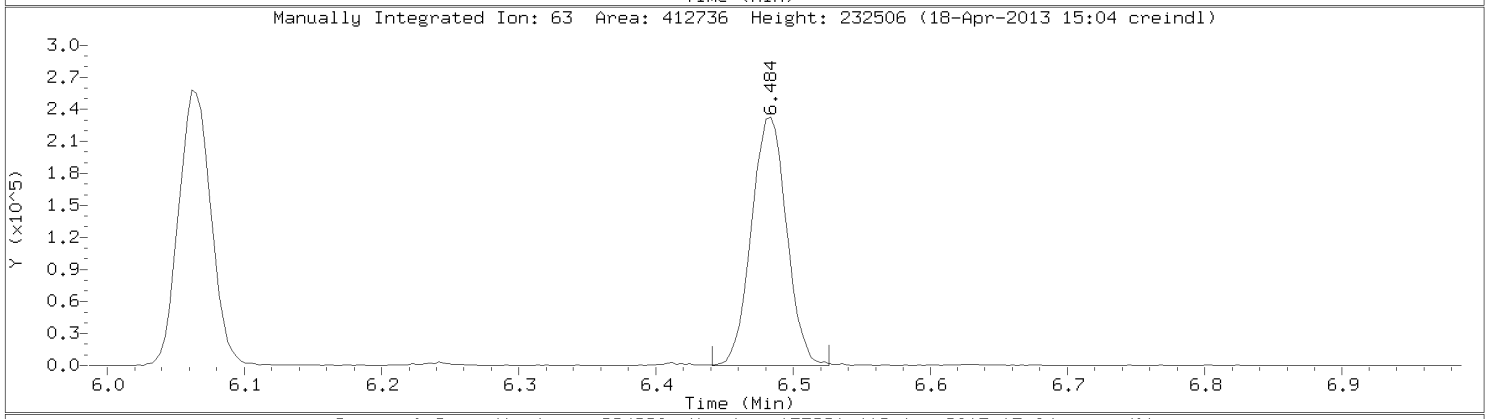
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1411879

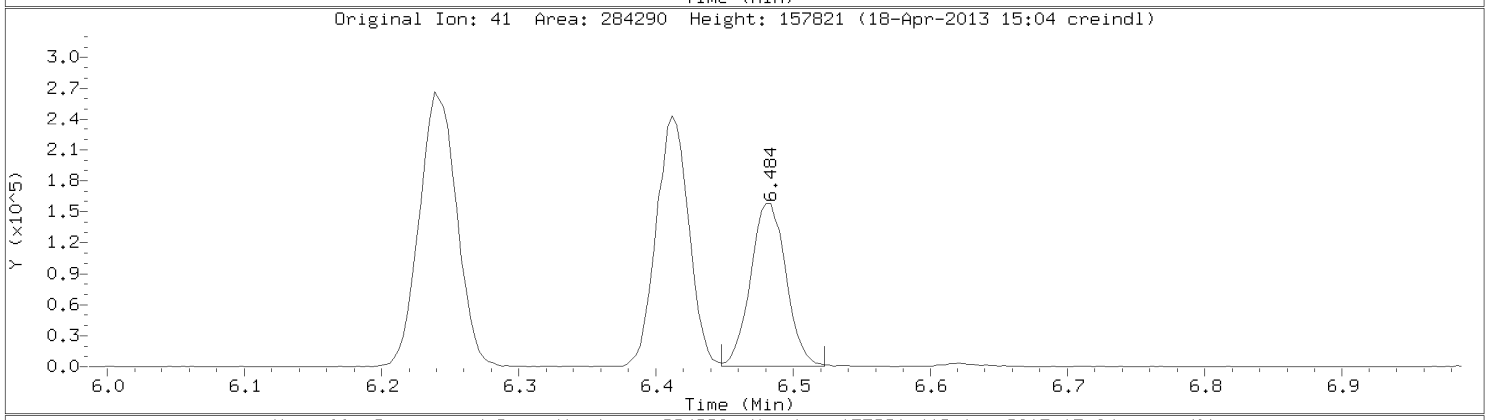


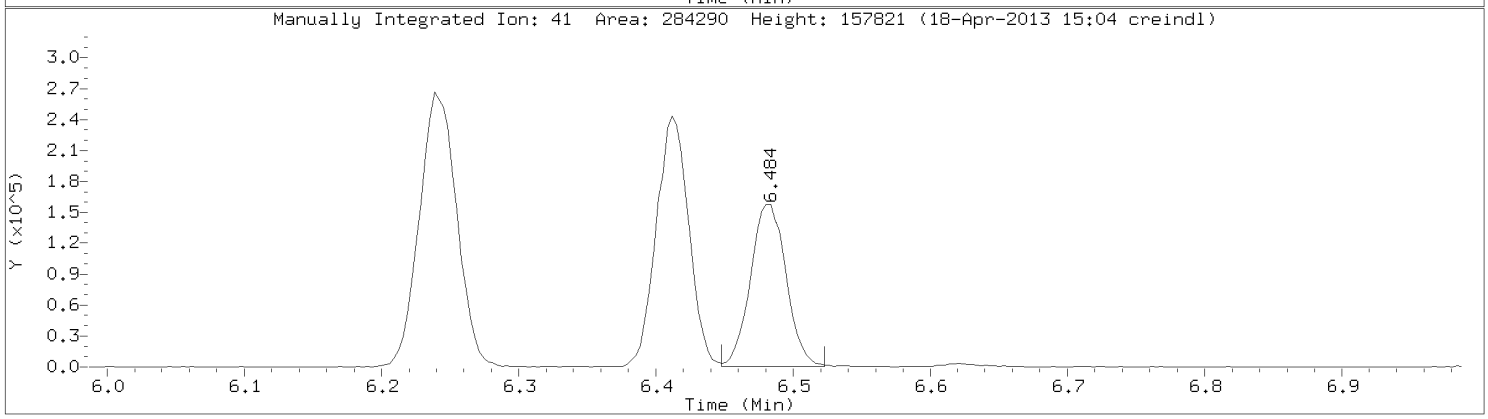
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1411879

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

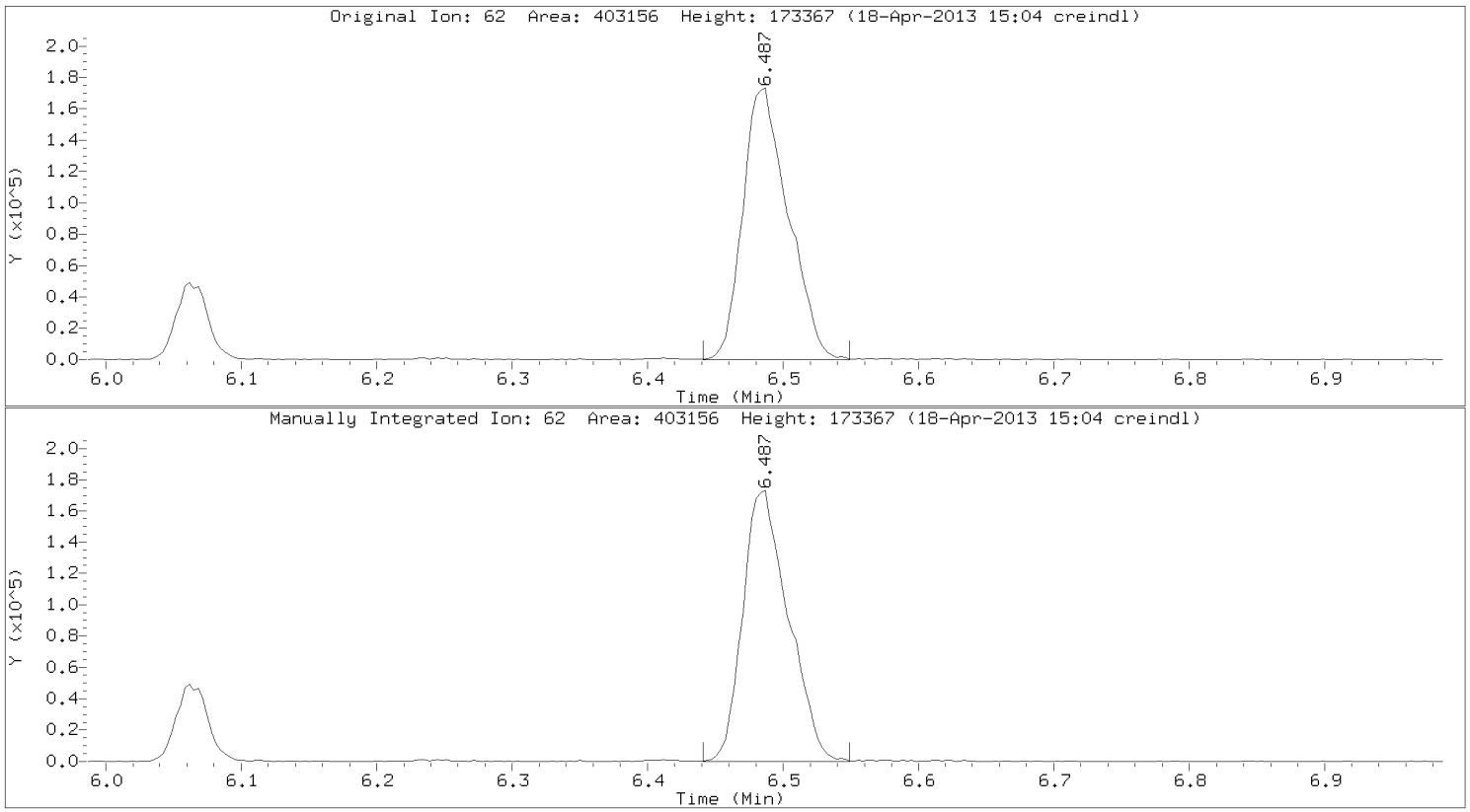






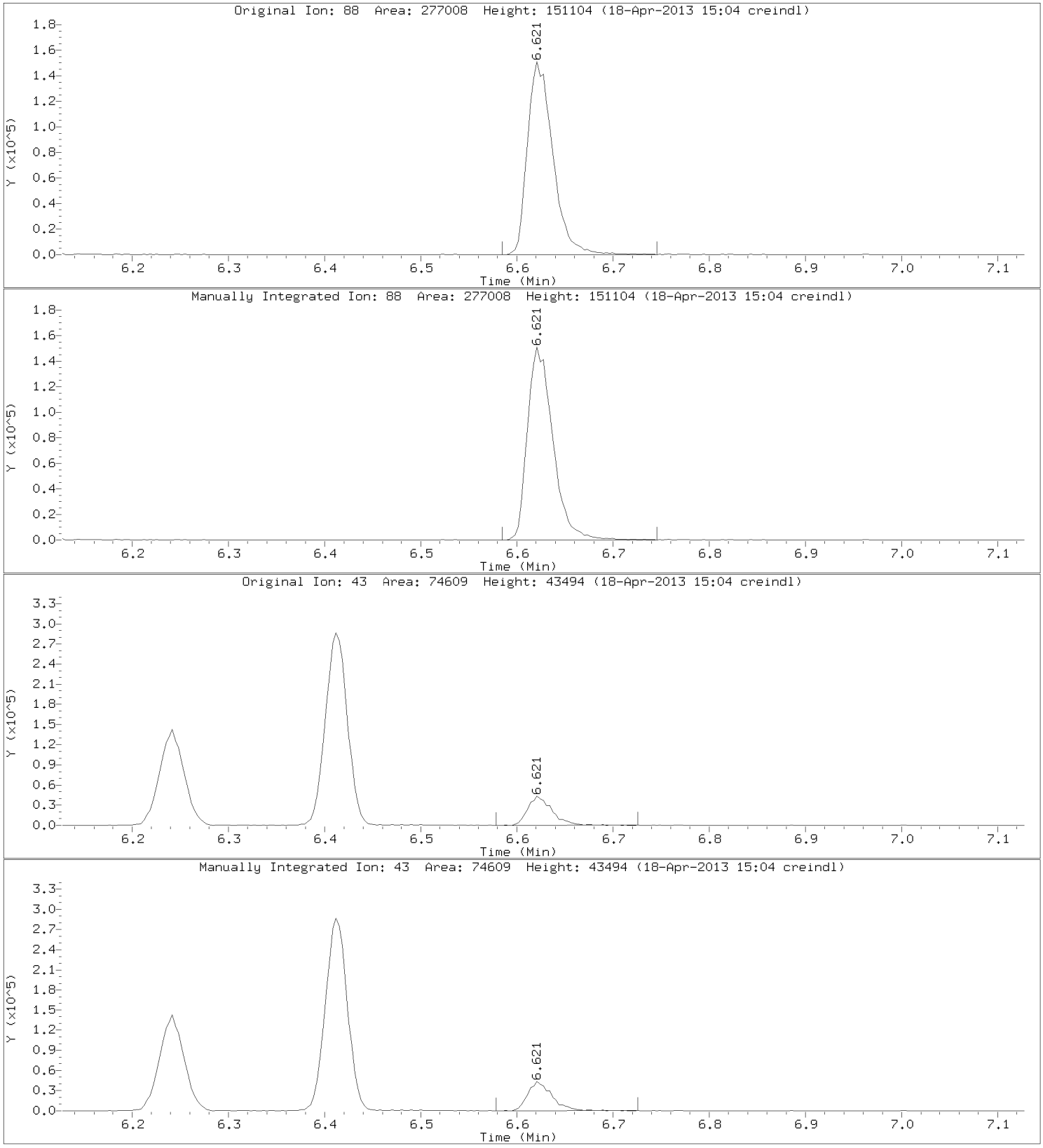


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10802LL.d
Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1411879



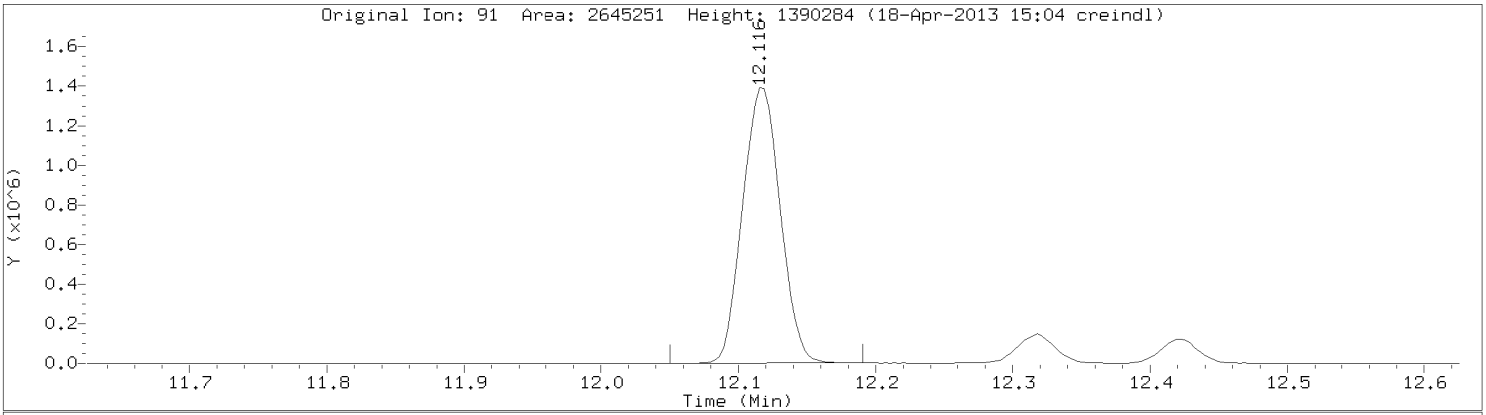
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1411879

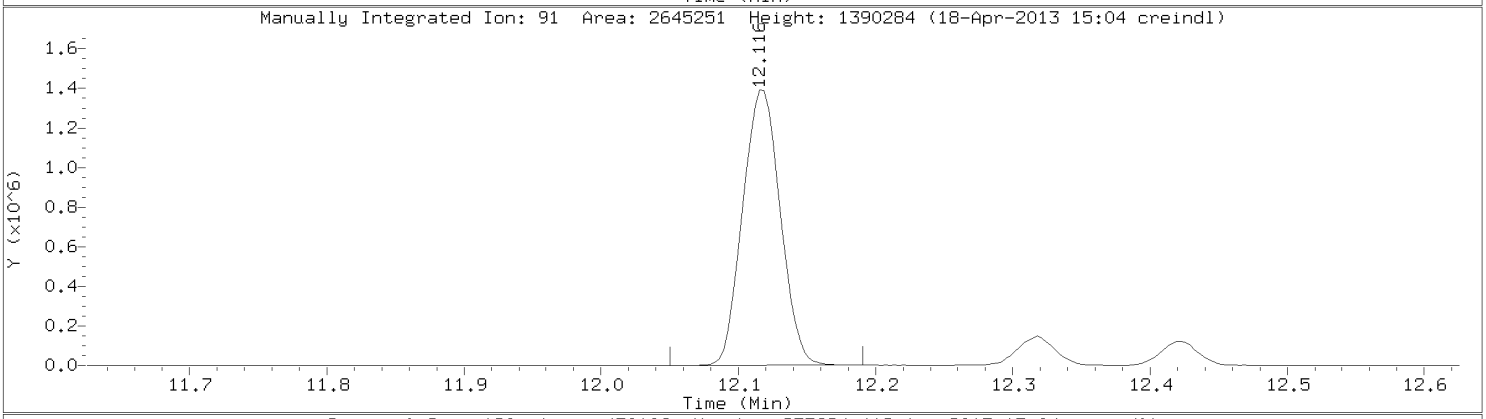
Compound: 1,4-Dioxane
CAS Number: 123-91-1

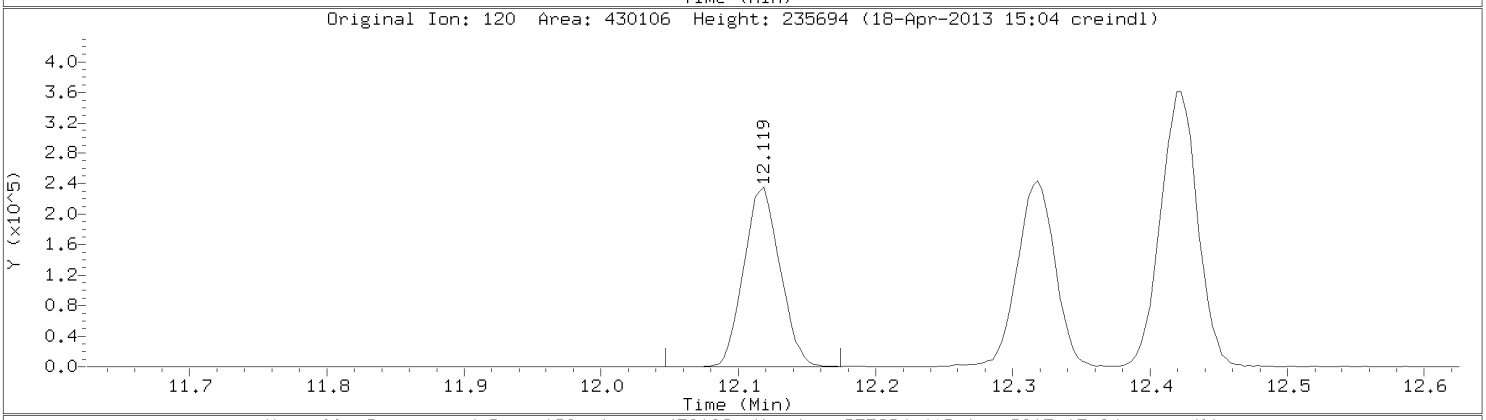


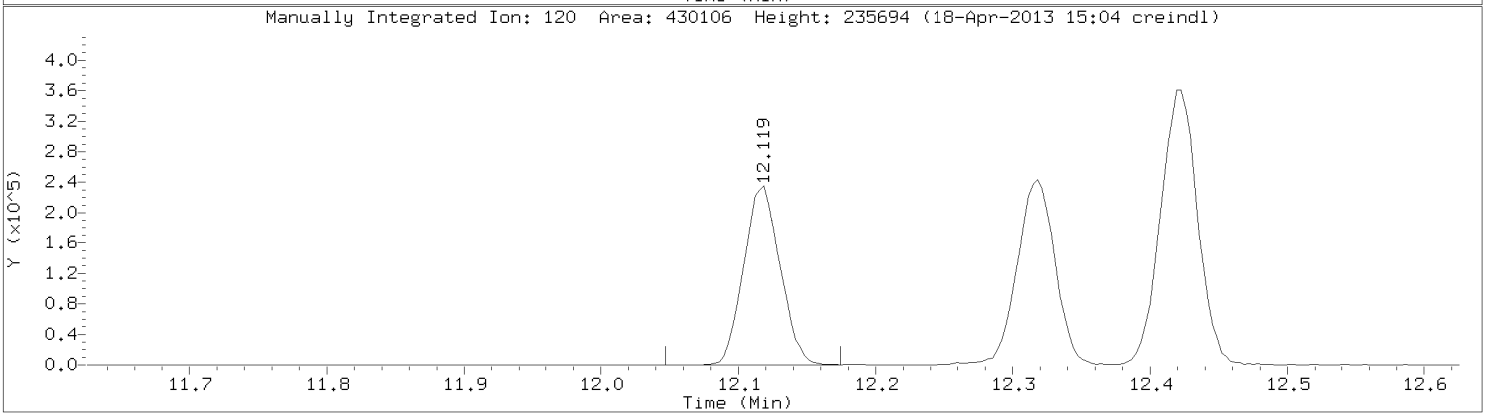
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Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1411879

Compound: N-Propylbenzene
CAS Number: 103-65-1









Data File: \\192.168.10.12\chem\10airD.i\041913.b\10903LL.d
Report Date: 21-Apr-2013 08:41

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041913.b\10903LL.d
Lab Smp Id: 1412430
Inj Date : 19-APR-2013 12:14
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17167
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Meth Date : 21-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
5	Vinyl chloride	62	3.139	3.137	(0.518)	363570	9.51965	9.52
13	Acetone	43	3.672	3.673	(0.606)	658043	9.67406	9.67
22	trans-1,2-dichloroethene	96	4.375	4.379	(0.721)	382958	9.18391	9.18
29	cis-1,2-Dichloroethene	96	4.934	4.941	(0.814)	426154	9.99033	9.99
31	Chloroform	83	5.078	5.085	(0.837)	1145847	10.3003	10.3
* 38	1,4-Difluorobenzene	114	6.065	6.069	(1.000)	1431102	10.0000	
42	Trichloroethene	130	6.506	6.510	(1.073)	383324	10.9532	11.0
51	Methyl Butyl Ketone	43	8.229	8.239	(0.850)	632784	10.0639	10.1
54	Tetrachloroethene	166	8.905	8.909	(0.920)	685084	11.4353	11.4
* 55	Chlorobenzene - d5	117	9.680	9.684	(1.000)	782187	10.0000	
58	m&p-Xylene	91	10.203	10.210	(1.054)	1532378	10.2182	10.2
61	o-Xylene	91	10.775	10.785	(1.113)	1653643	10.5220	10.5
64	N-Propylbenzene	91	12.115	12.125	(1.252)	2538222	10.5871	10.6(M)
67	1,2,4-Trimethylbenzene	105	13.017	13.028	(1.345)	1635396	10.5343	10.5
73	1,2-Dichlorobenzene	146	14.040	14.051	(1.450)	861629	10.2294	10.2

QC Flag Legend

M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10903LL.d
Report Date: 21-Apr-2013 08:41

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10903LL.d
Lab Smp Id: 1412430
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Misc Info: 17167

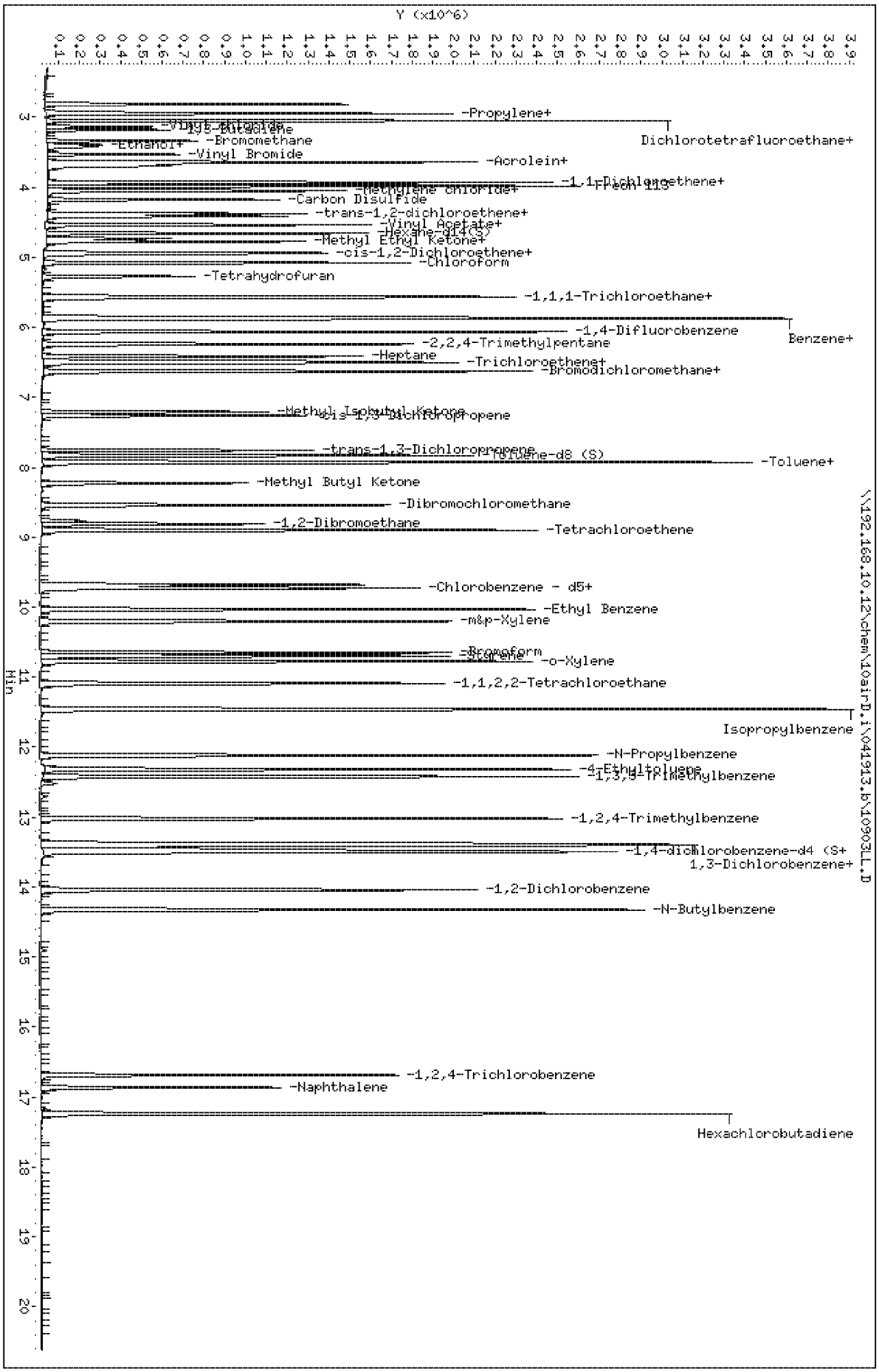
Calibration Date: 19-APR-2013
Calibration Time: 12:14
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1431102	-0.09
55 Chlorobenzene - d	825122	495073	1155171	782187	-5.20

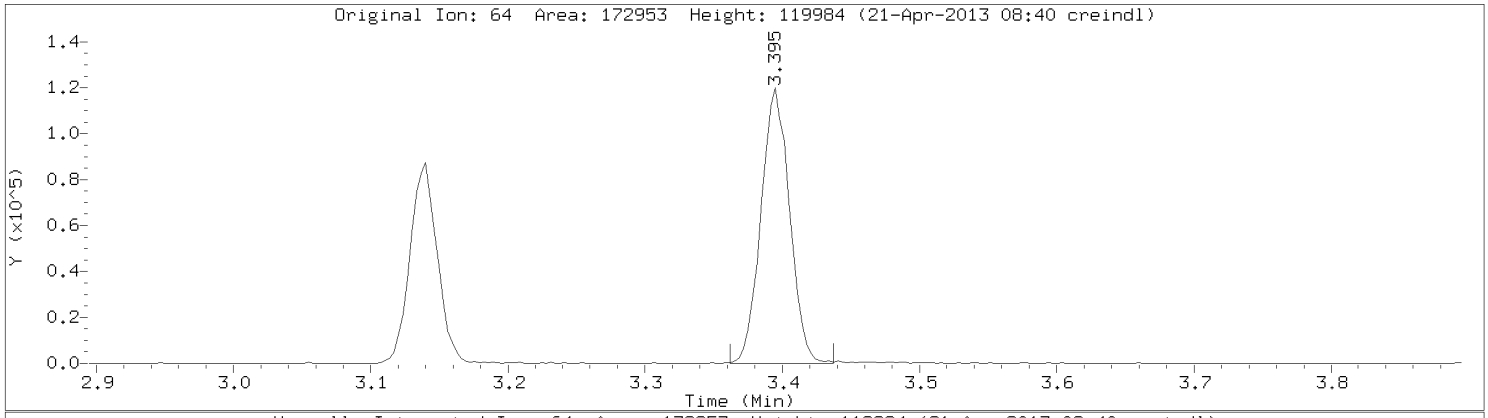
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	-0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.00

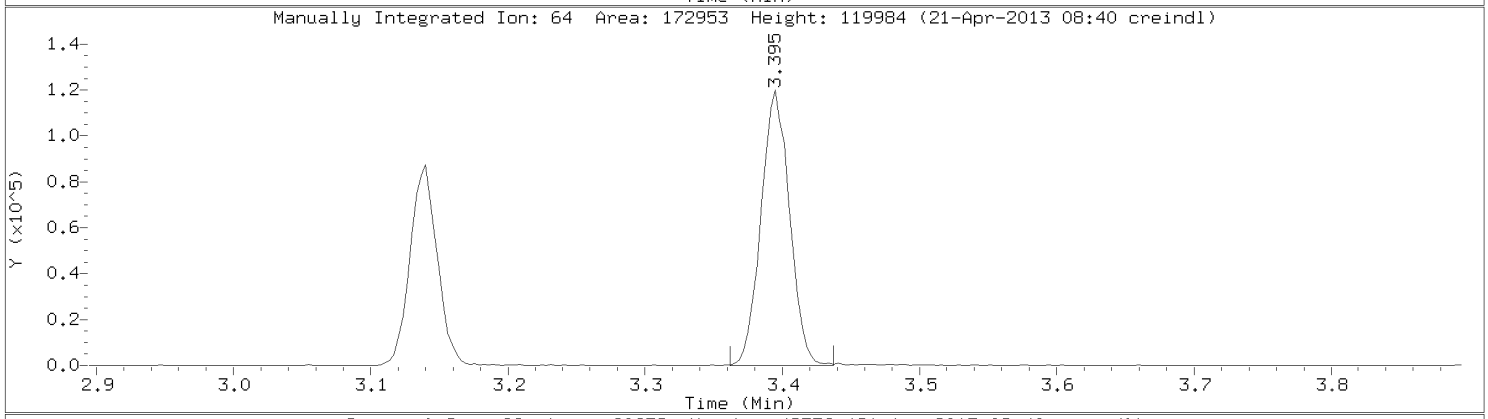
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AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

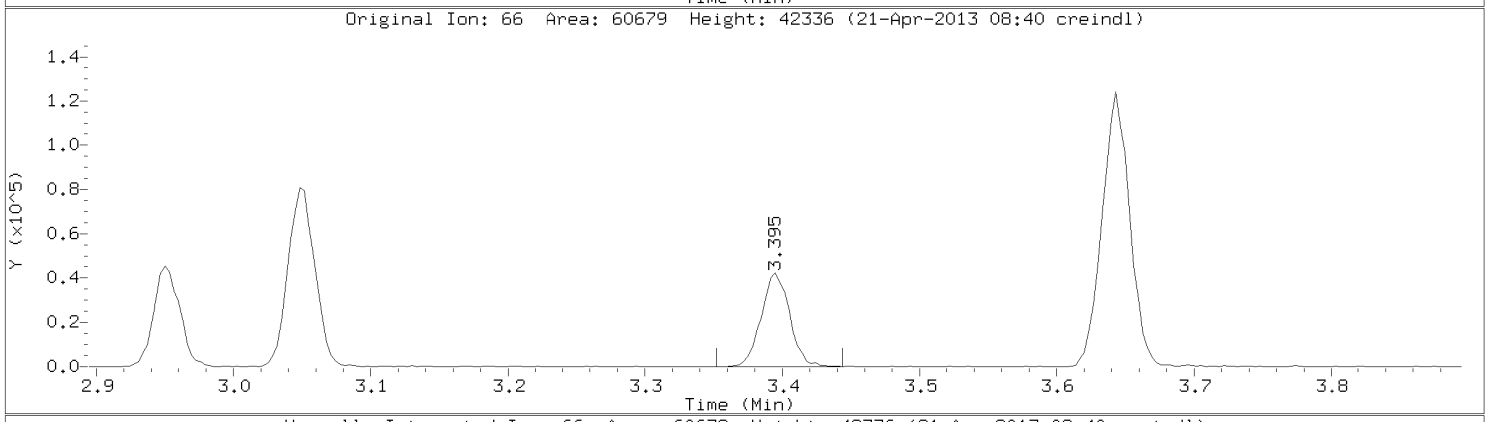

Data File: \\192.168.10.12\chem\10airD.i\041913.b\1090LL.D
Date : 19-APR-2013 12:14
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^6)
Min
\\192.168.10.12\chem\10airD.i\041913.b\1090LL.D
-Propylene+
Dichlorotetrafluoroethane+
-Ethanol+
-Bromomethane
-Vinyl Bromide
-Acrolein+
-1,1-Dichloroethene+
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-1,4-Difluorobenzene
Benzene+
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
-trans-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-Bromoform
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-4-Ethyltoluene
-1,2,4-Trimethylbenzene
-1,4-dichlorobenzene-d4 (S+
1,3-Dichlorobenzene+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
Hexachlorobutadiene

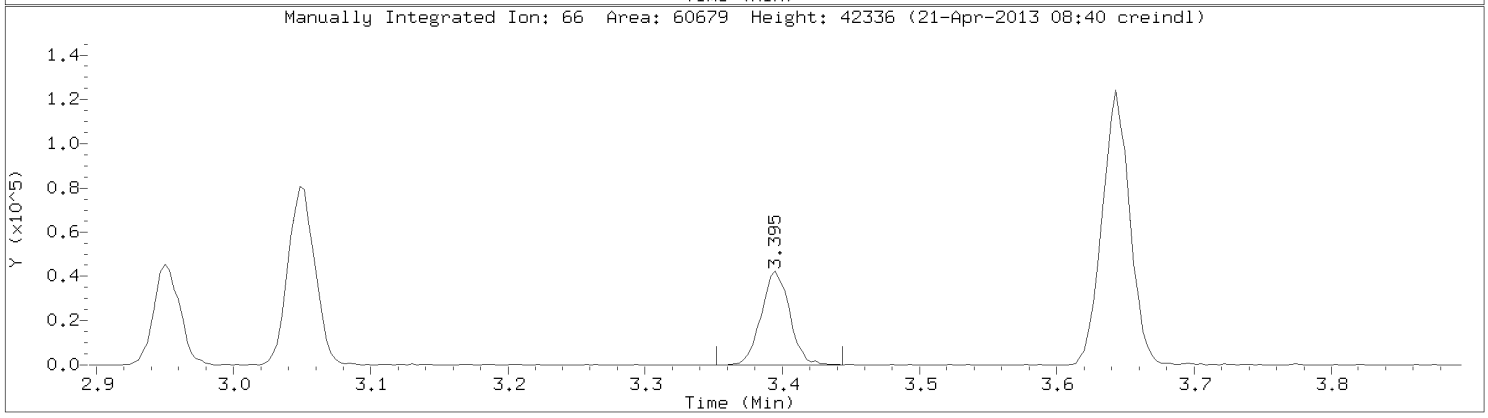
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903LL.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: 1412430

Compound: Chloroethane
CAS Number: 75-00-3



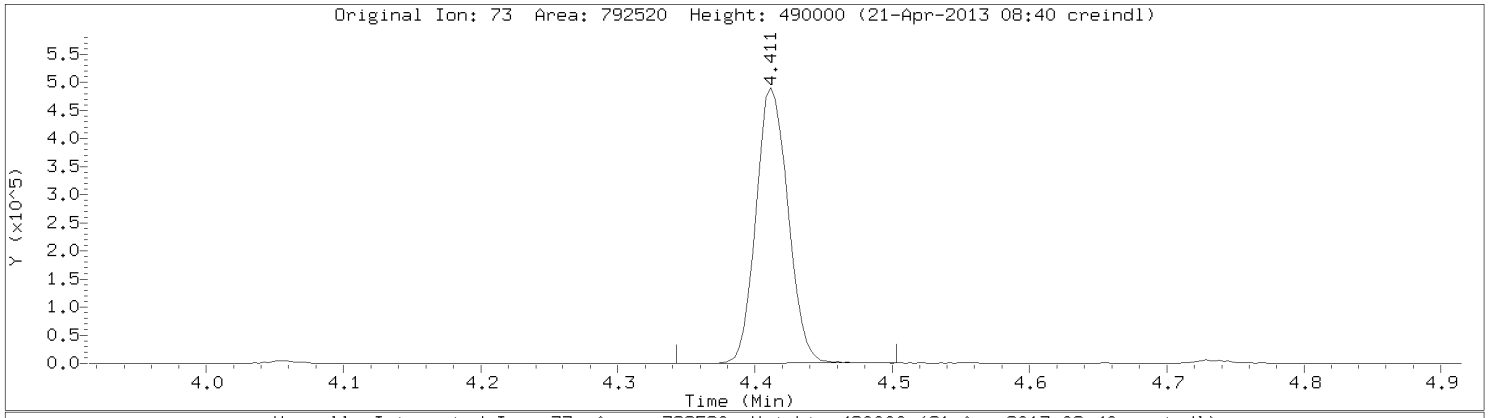


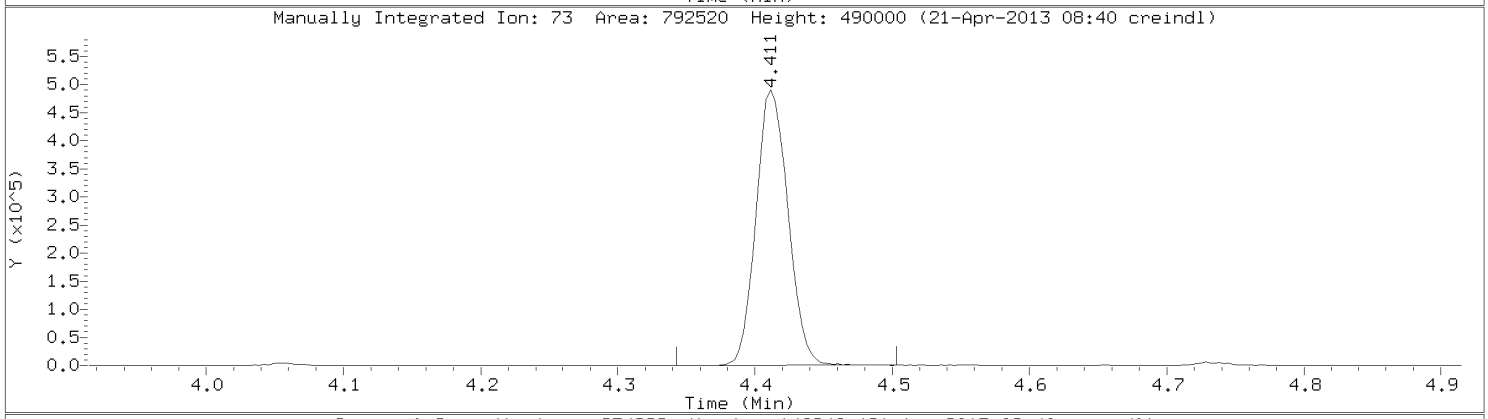


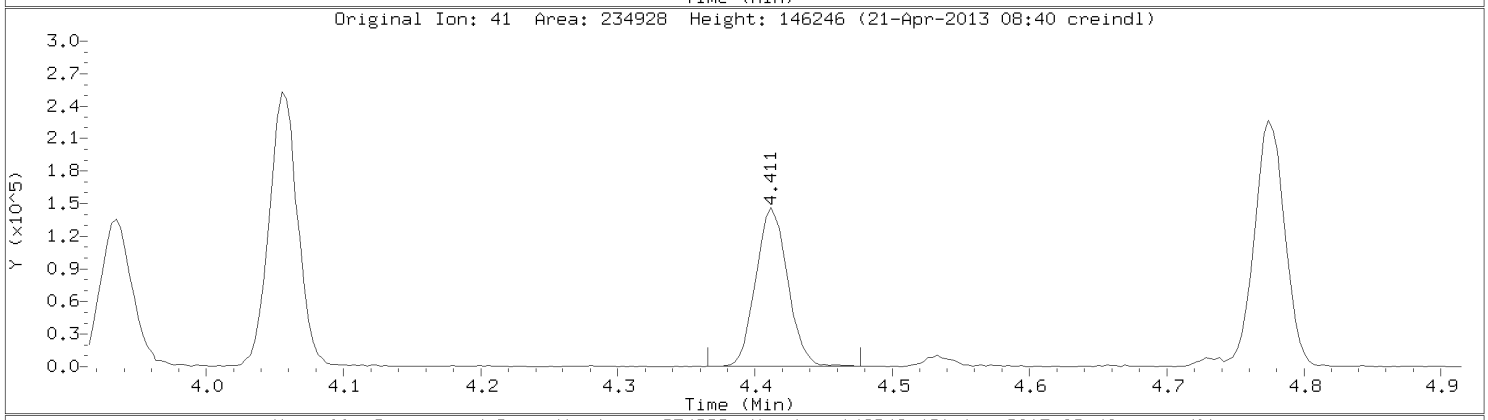


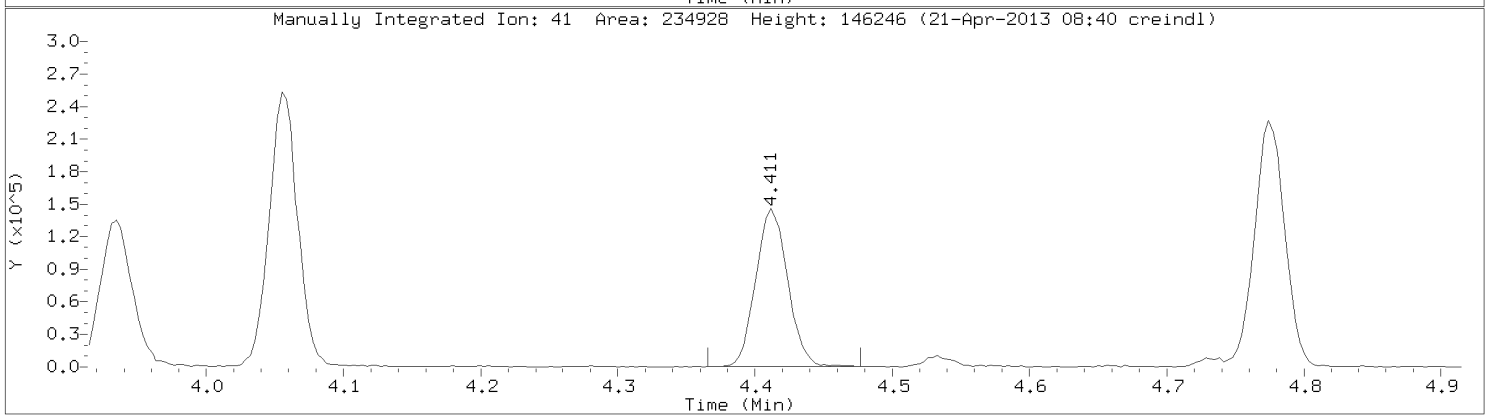
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Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: 1412430

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



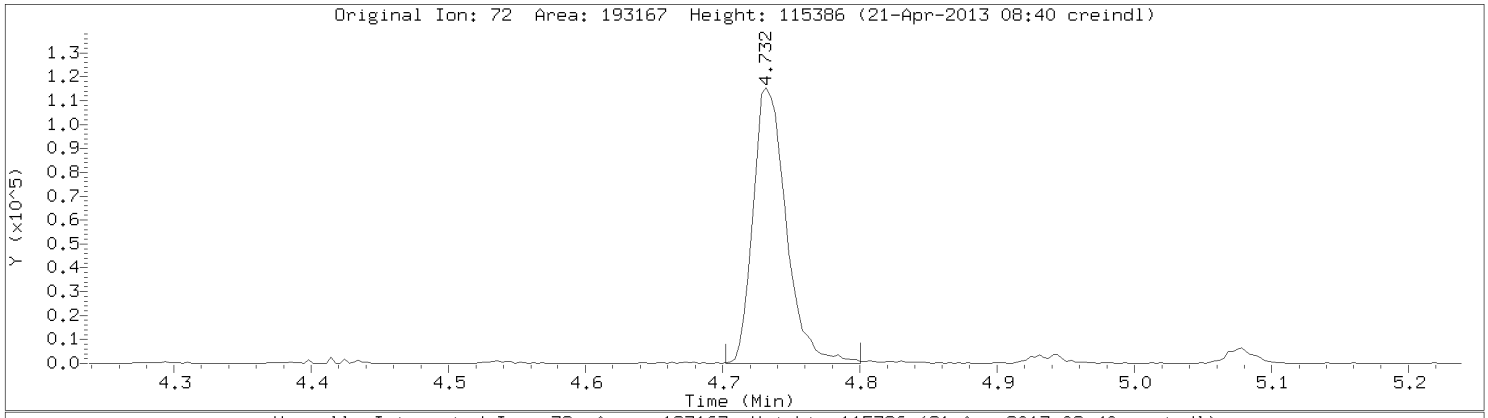


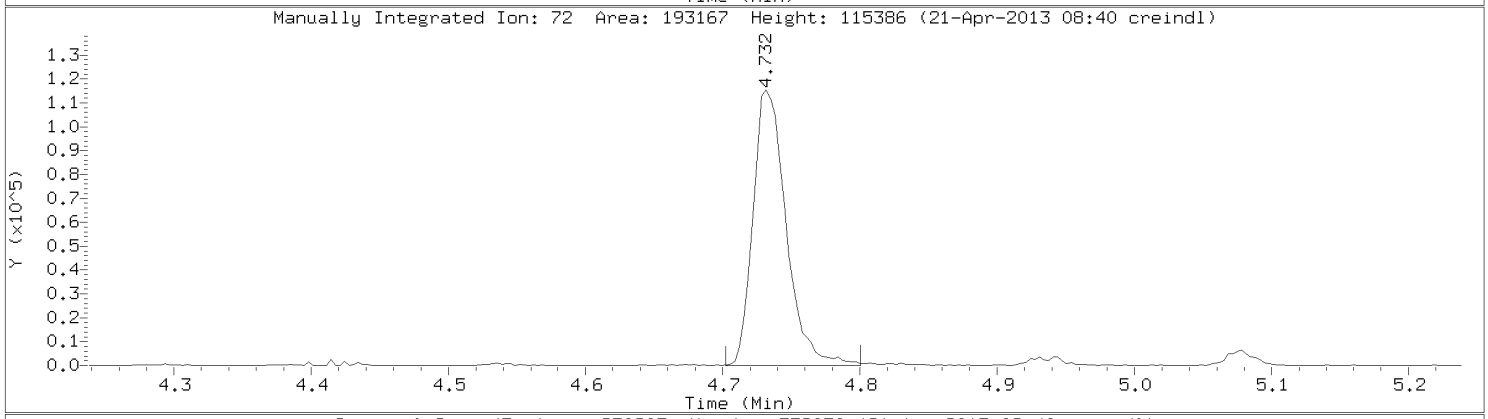


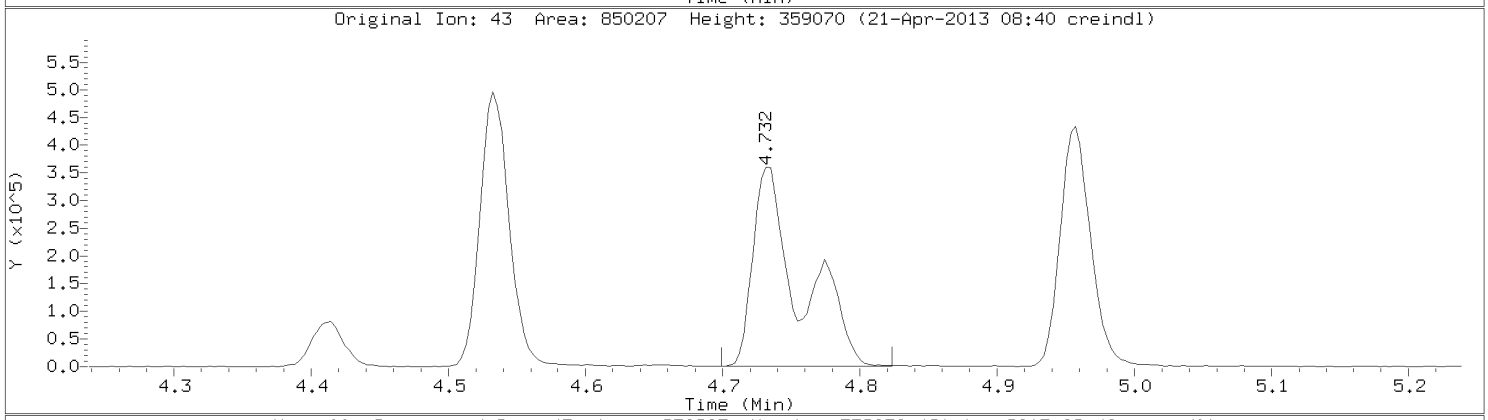


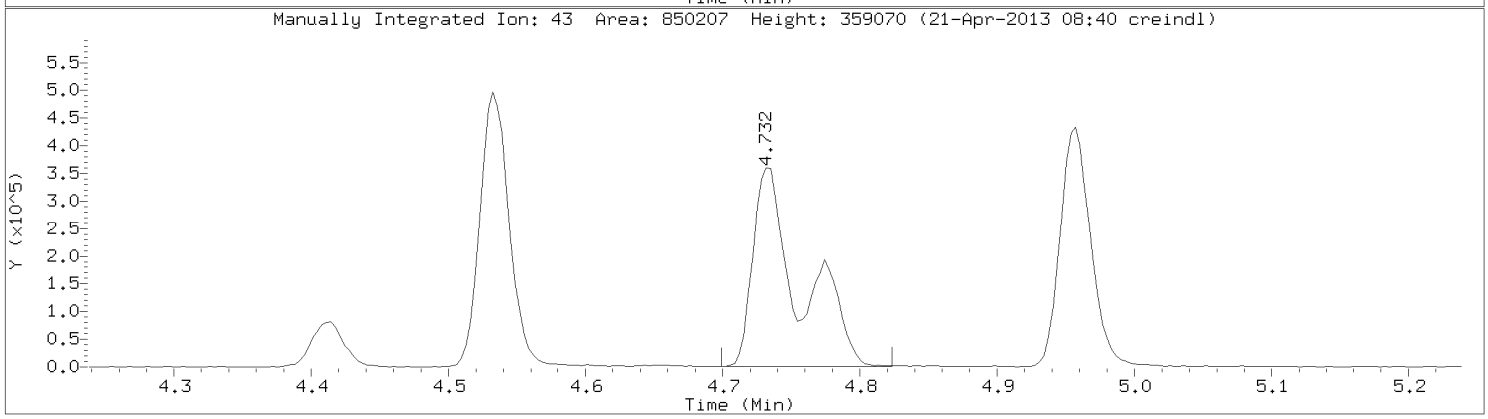
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903LL.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: 1412430

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3



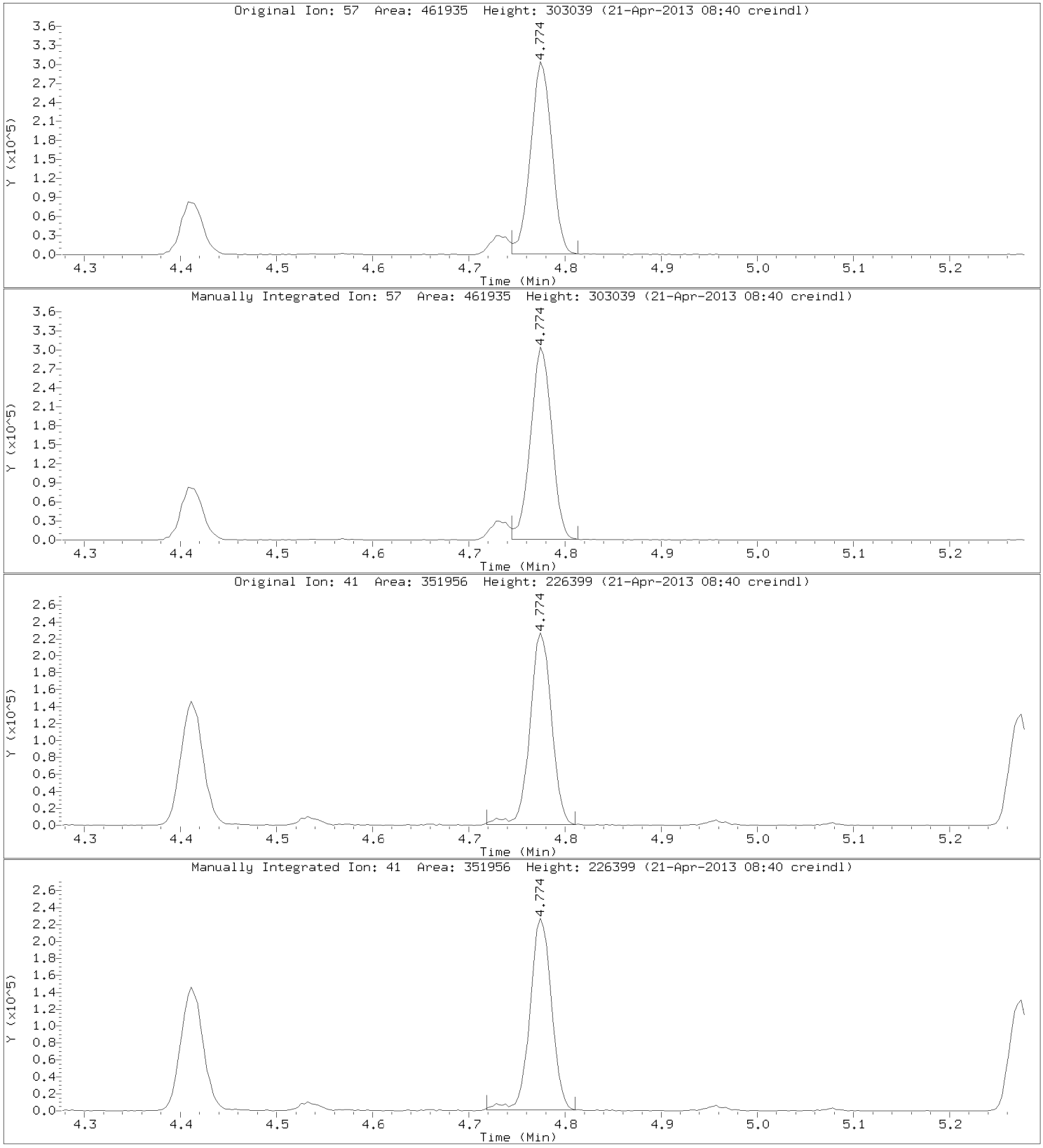




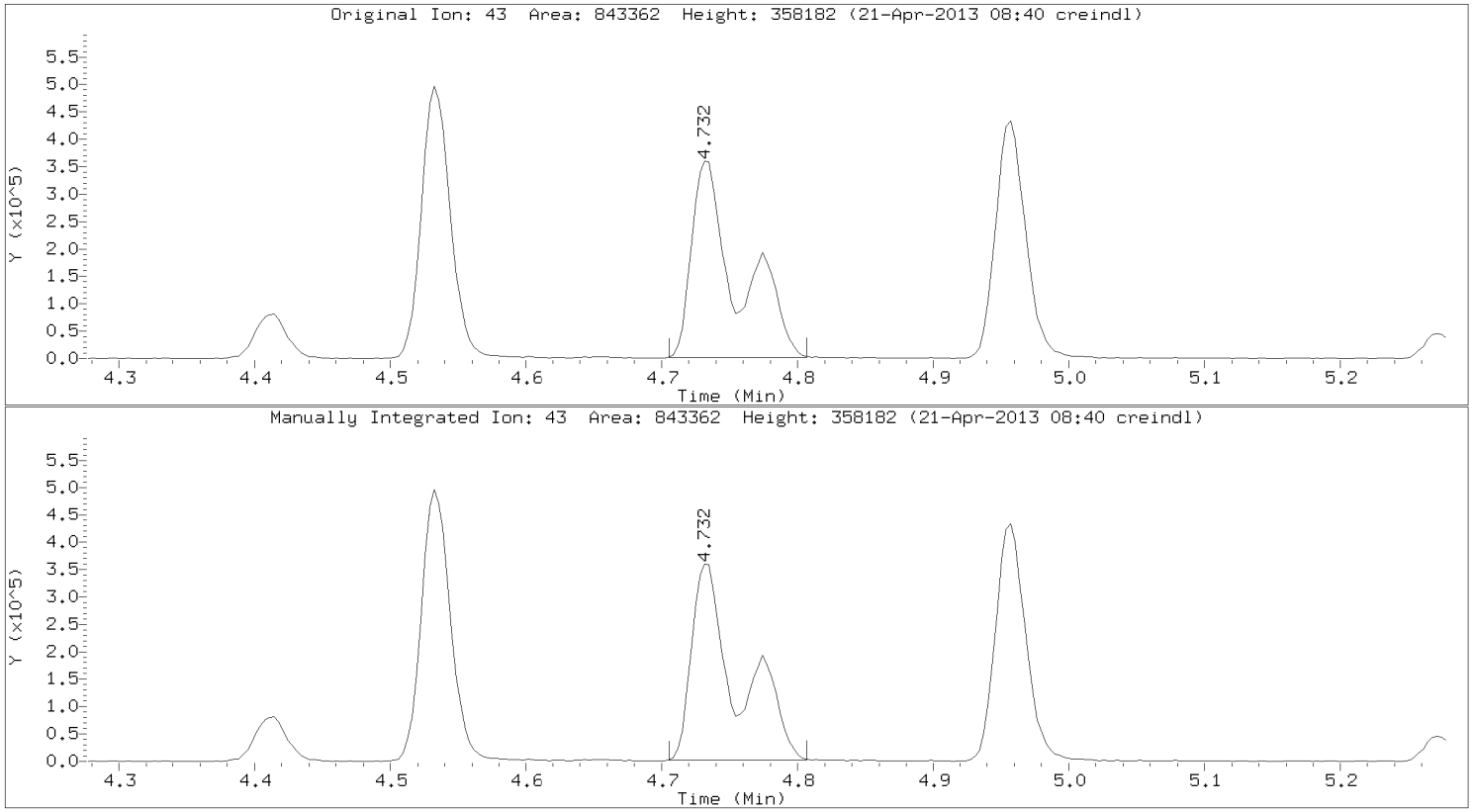


Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903LL.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: 1412430

Compound: n-Hexane
CAS Number: 110-54-3

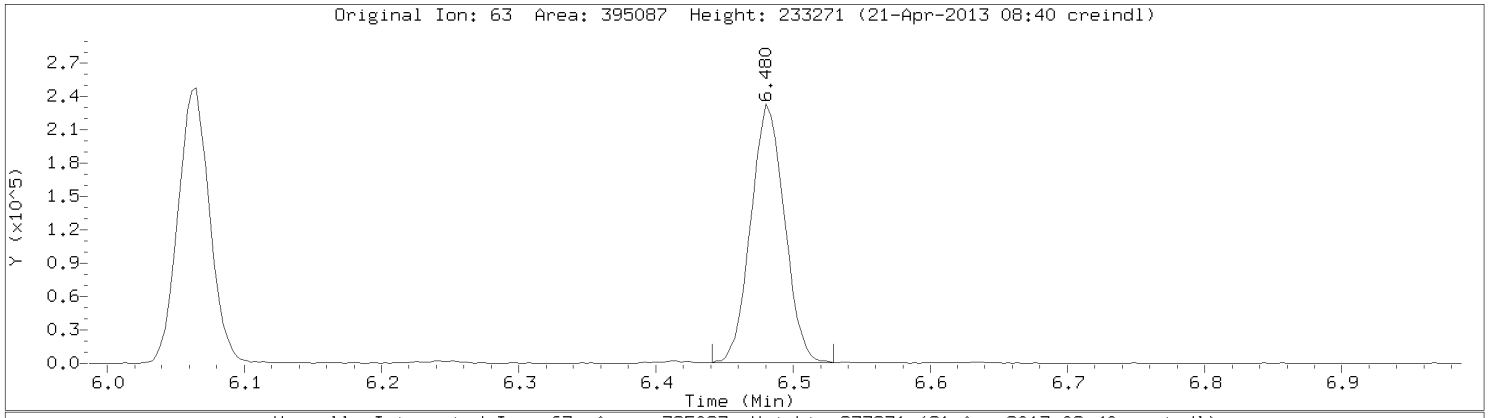


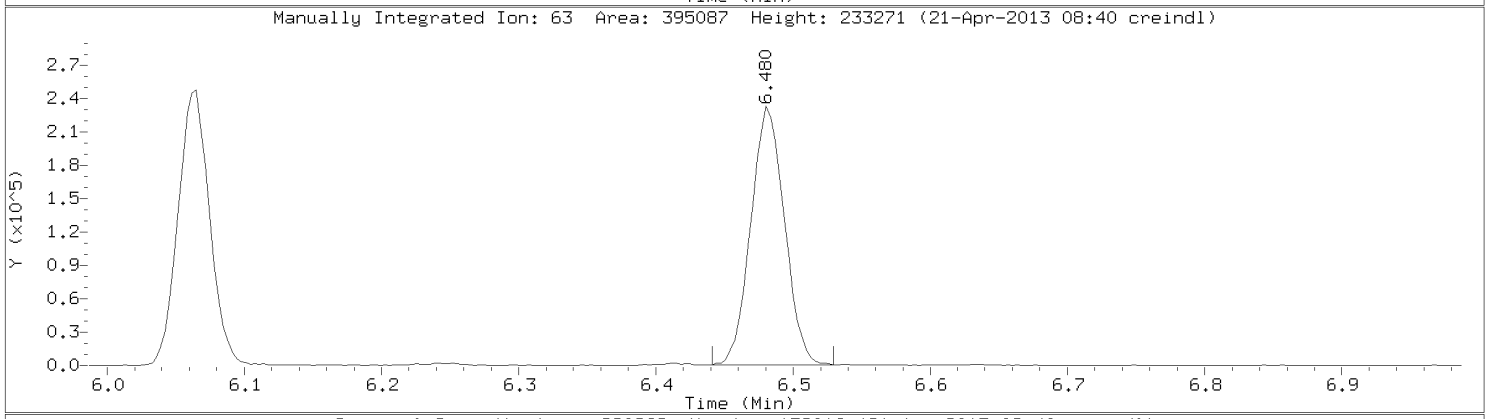
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Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: 1412430

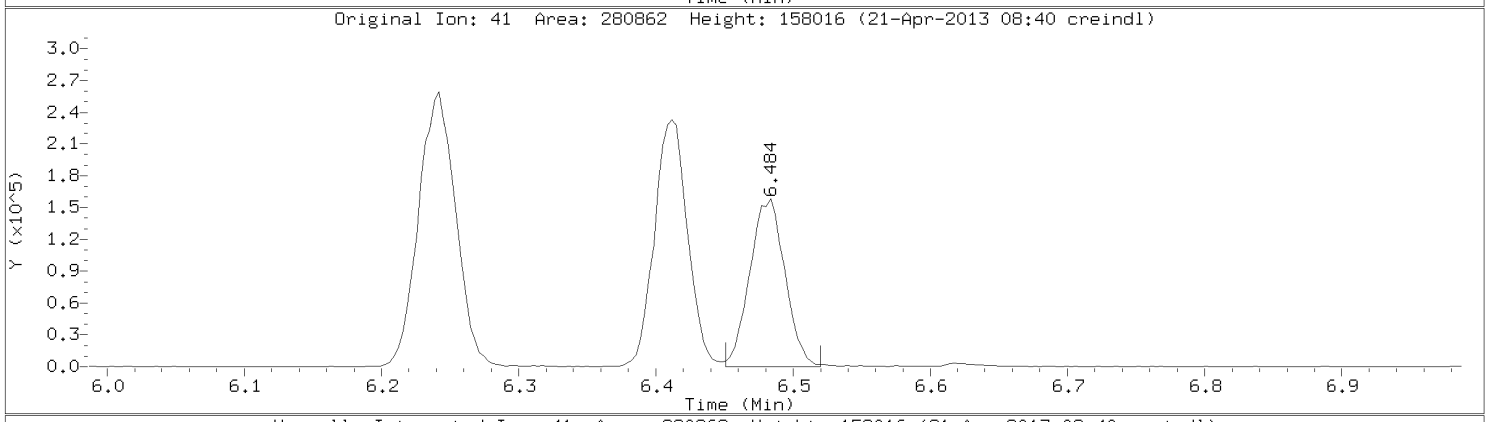


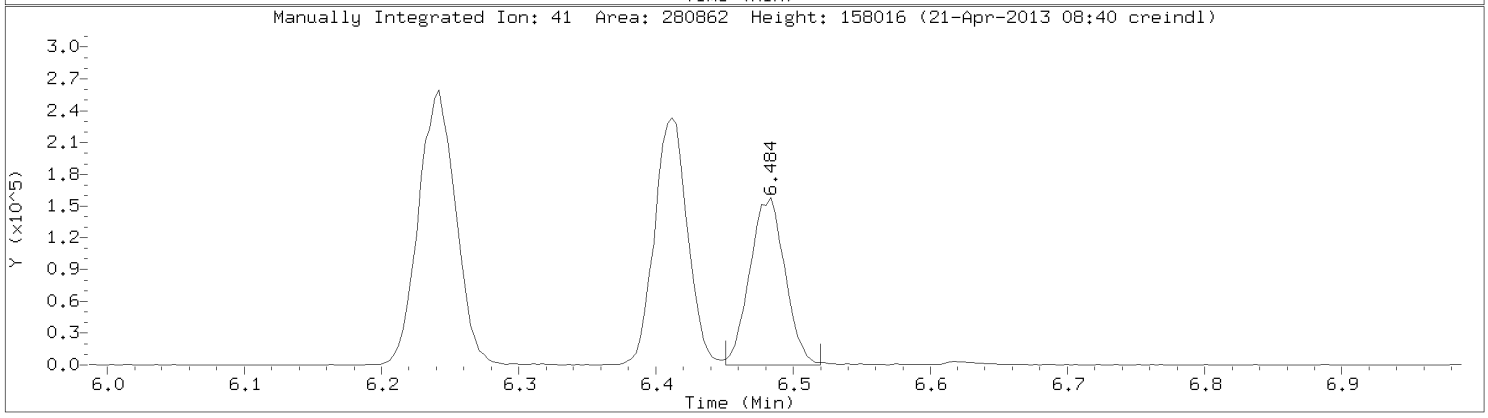
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903LL.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: 1412430

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

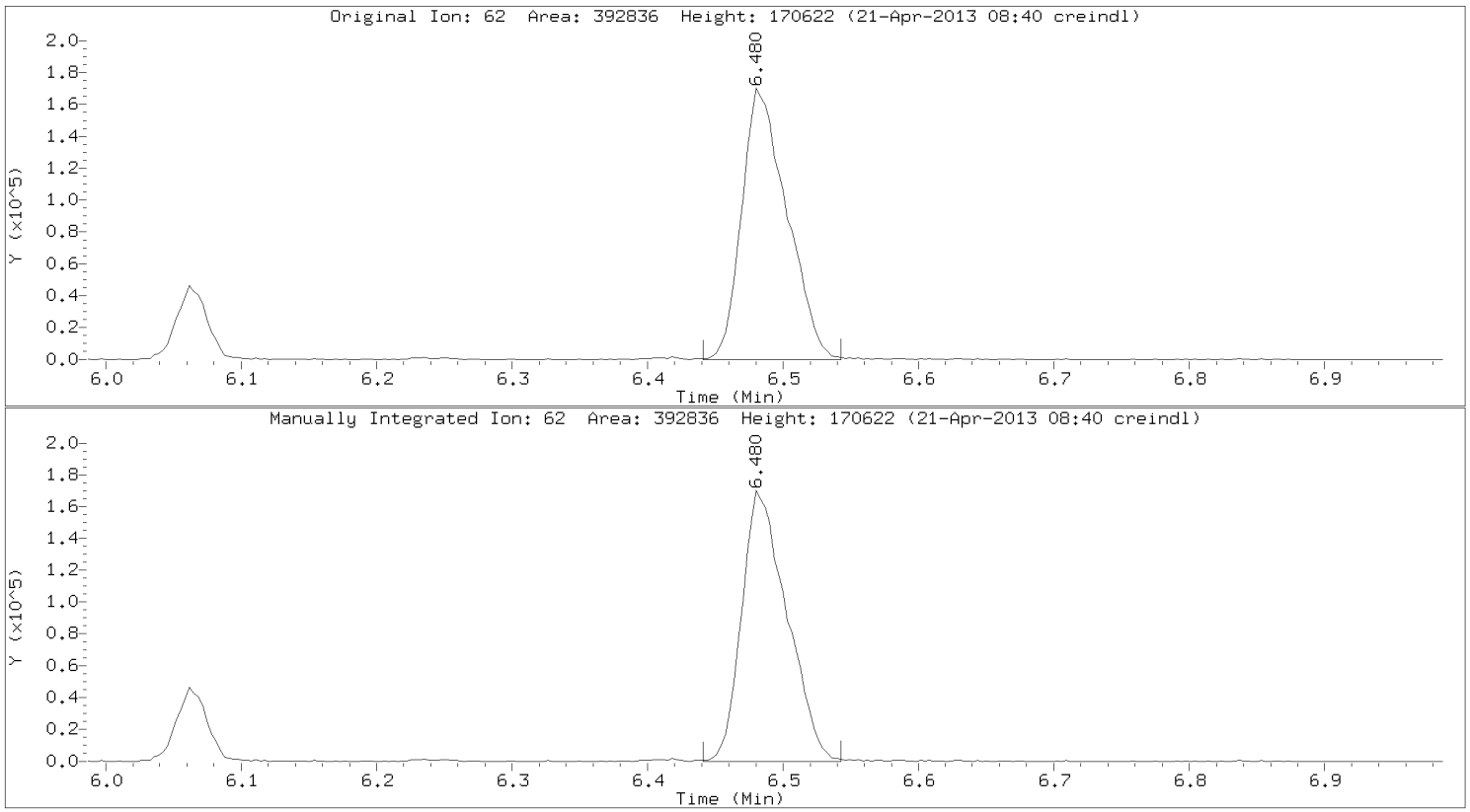






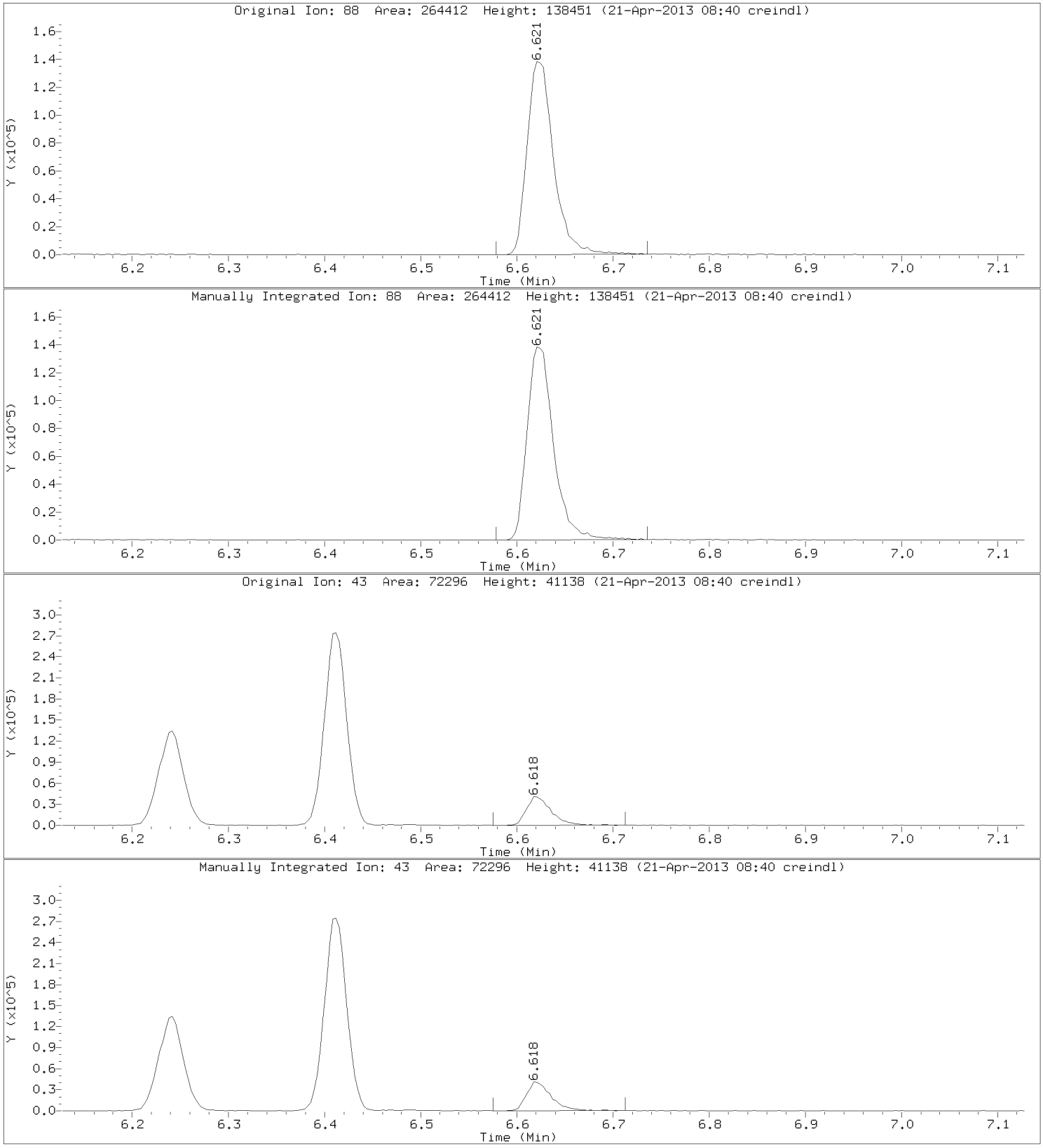


Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903LL.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: 1412430



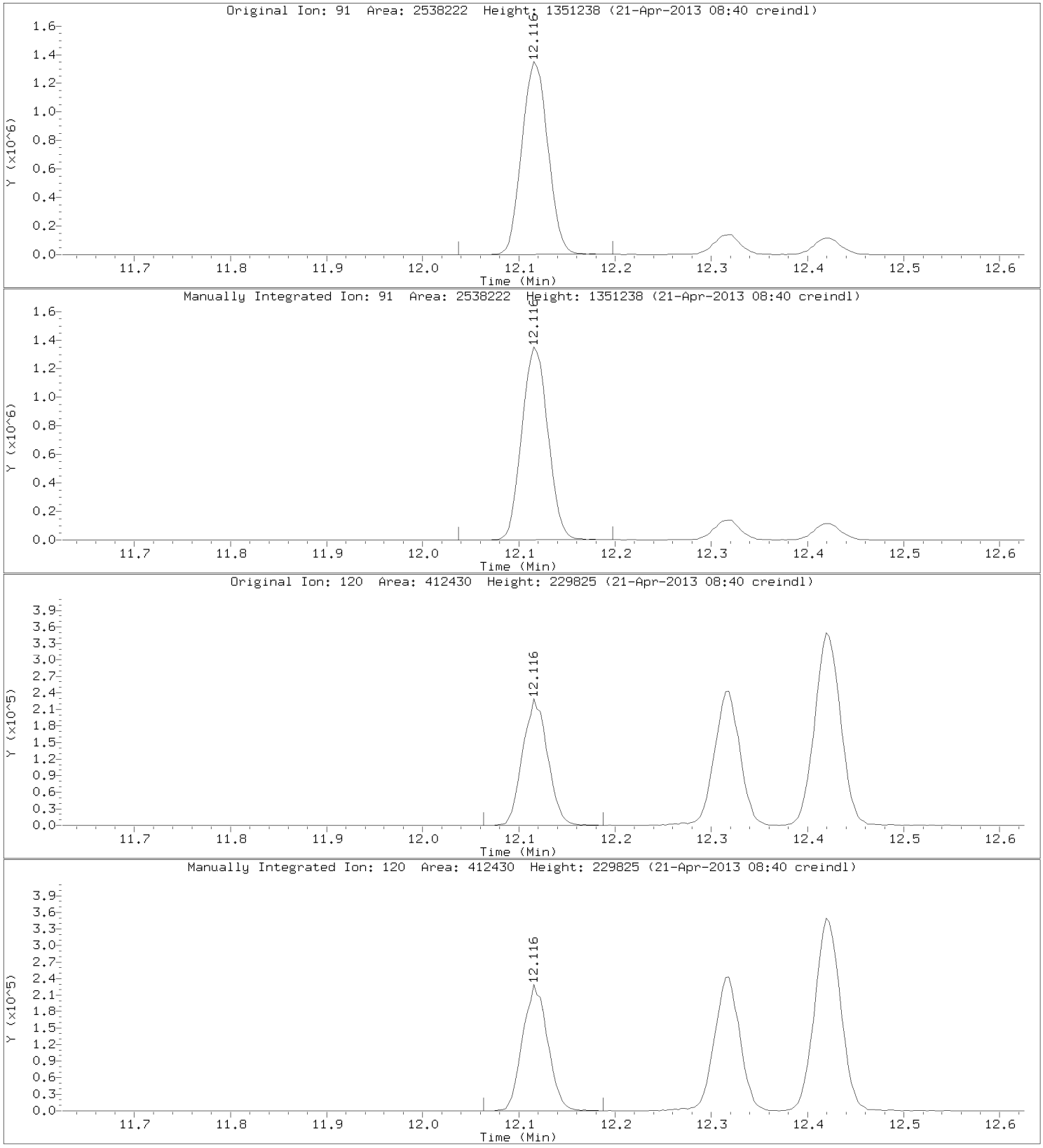
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903LL.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: 1412430

Compound: 1,4-Dioxane
CAS Number: 123-91-1



Data File: \\192.168.10.12\chem\10airD.i\041913.b/10903LL.d
Injection Date: 19-APR-2013 12:14
Instrument: 10airD.i
Lab Sample ID: 1412430

Compound: N-Propylbenzene
CAS Number: 103-65-1



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802S.d
Report Date: 22-Apr-2013 11:47

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10802S.d
Lab Smp Id: 1413528
Inj Date : 18-APR-2013 11:08
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17180
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 19-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 17180.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
	14 Isopropyl Alcohol	45	3.698	3.702	(0.610)	514820	10.0250	10.0
*	38 1,4-Difluorobenzene	114	6.065	6.069	(1.000)	1545375	10.0000	
	51 Methyl Butyl Ketone	43	8.232	8.239	(0.850)	663692	9.48056	9.48
*	55 Chlorobenzene - d5	117	9.683	9.684	(1.000)	872778	10.0000	
	71 Benzyl Chloride	91	13.478	13.492	(1.392)	1496845	9.56791	9.57
	73 1,2-Dichlorobenzene	146	14.040	14.051	(1.450)	887181	9.45834	9.46
	75 1,2,4-Trichlorobenzene	180	16.681	16.692	(1.723)	584272	20.7612	20.8(R)
	76 Naphthalene	128	16.861	16.867	(1.741)	863156	22.6008	22.6(R)
	77 Hexachlorobutadiene	225	17.237	17.247	(1.780)	821312	23.7669	23.8(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10802S.d
Report Date: 22-Apr-2013 11:47

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10802S.d
Lab Smp Id: 1413528
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17180

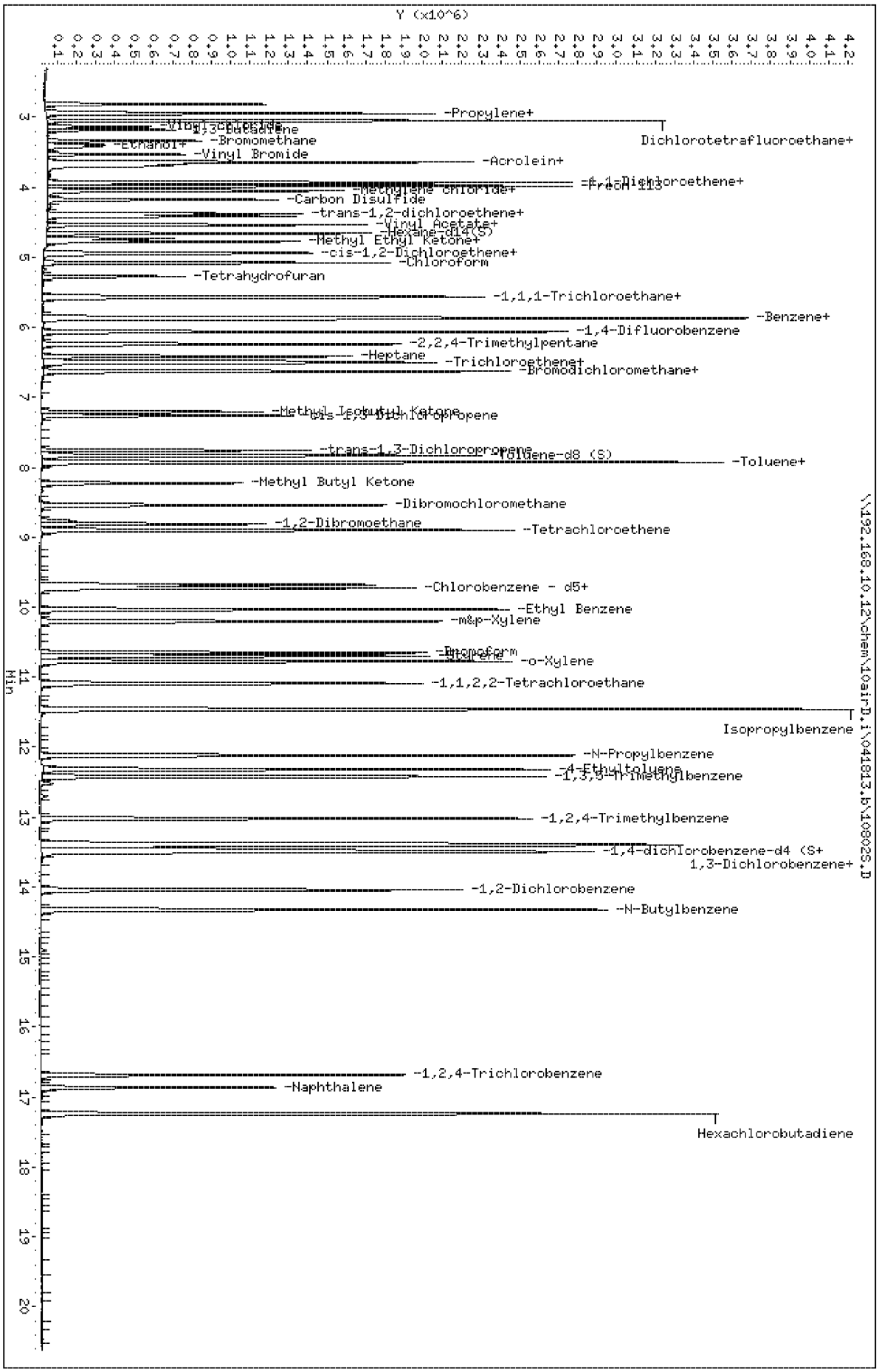
Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1545375	7.89
55 Chlorobenzene - d	825122	495073	1155171	872778	5.78

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	-0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.


Y (x10^6)
Min
Data File: \\192.168.10.12\chem\10airD.i\041813.b\10902S.D
Date : 18-APR-2013 11:08
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
\\192.168.10.12\chem\10airD.i\041813.b\10902S.D
-Propylene+
-Dichlorotetrafluoroethane+
-Bromomethane
-Ethanol+
-Vinyl Bromide
-Acrolein+
-Methylene Chloride+
-Carbon Disulfide
-trans-1,2-dichloroethene+
-Vinyl Acetate+
-Hexane-d14(S)
-Methyl Ethyl Ketone+
-cis-1,2-Dichloroethene+
-Chloroform
-Tetrahydrofuran
-1,1,1-Trichloroethane+
-Benzene+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene+
-Bromodichloromethane+
-Methyl Isobutyl Ketone
-trans-1,3-Dichloropropene
-Toluene+
-Methyl Butyl Ketone
-Dibromochloromethane
-1,2-Dibromoethane
-Tetrachloroethene
-Chlorobenzene - d5+
-Ethyl Benzene
-m&p-Xylene
-o-Xylene
-1,1,2,2-Tetrachloroethane
Isopropylbenzene
-N-Propylbenzene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,4-dichlorobenzene-d4 (S+
1,3-Dichlorobenzene+
-1,2-Dichlorobenzene
-N-Butylbenzene
-1,2,4-Trichlorobenzene
-Naphthalene
Hexachlorobutadiene

Data File: \\192.168.10.12\chem\10airD.i\041813.b/10802S.d
Injection Date: 18-APR-2013 11:08
Instrument: 10airD.i
Lab Sample ID: 1413528
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11113LL.d
Report Date: 22-Apr-2013 09:28

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11113LL.d
Lab Smp Id: 1413528
Inj Date : 21-APR-2013 14:17
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17180
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 09:26 creindl Quant Type: ISTD
Cal Date : 21-APR-2013 13:15 Cal File: 11111.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 17180.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1 Propylene	41	2.924	2.924	(0.482)	134021	8.69685	8.70
2 Dichlorodifluoromethane	85	2.953	2.954	(0.487)	1397597	9.02533	9.02
3 Dichlorotetrafluoroethane	85	3.048	3.052	(0.503)	1118425	9.19470	9.19
4 Chloromethane	50	3.051	3.052	(0.503)	312047	9.53223	9.53
5 Vinyl chloride	62	3.139	3.140	(0.518)	342797	9.85427	9.85
6 1,3-Butadiene	54	3.182	3.183	(0.525)	188604	10.7759	10.8
7 Bromomethane	94	3.339	3.343	(0.551)	372953	8.93350	8.93
8 Chloroethane	64	3.394	3.398	(0.560)	171330	9.40391	9.40(M)
9 Ethanol	31	3.424	3.424	(0.565)	208682	11.1513	11.2
10 Vinyl Bromide	106	3.532	3.536	(0.582)	333377	9.72290	9.72
11 Acrolein	56	3.630	3.630	(0.599)	101472	10.2955	10.3
12 Trichlorofluoromethane	101	3.643	3.647	(0.601)	1330217	9.03699	9.04
13 Acetone	43	3.672	3.673	(0.606)	700337	11.3579	11.4
15 1,1-Dichloroethene	61	3.930	3.934	(0.648)	680342	9.56053	9.56
16 Acrylonitrile	53	3.934	3.934	(0.649)	228625	10.5544	10.6
17 Tert Butyl Alcohol	59	3.934	3.934	(0.649)	657980	12.2699	12.3
18 Freon 113	101	3.983	3.987	(0.657)	865412	9.17017	9.17
19 Methylene chloride	49	4.045	4.049	(0.667)	390131	8.59963	8.60
20 Allyl Chloride	76	4.058	4.062	(0.669)	180507	9.45127	9.45
21 Carbon Disulfide	76	4.179	4.183	(0.689)	1208022	8.97053	8.97
22 trans-1,2-dichloroethene	96	4.378	4.382	(0.722)	380502	9.36105	9.36
23 Methyl Tert Butyl Ether	73	4.411	4.418	(0.727)	895740	10.4180	10.4(M)
24 Vinyl Acetate	43	4.535	4.539	(0.748)	775900	10.9117	10.9

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11113LL.d
Report Date: 22-Apr-2013 09:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
25	1,1-Dichloroethane	63	4.538	4.546	(0.748)	780026	9.51895	9.52
27	Methyl Ethyl Ketone	72	4.735	4.742	(0.781)	203338	10.5004	10.5(M)
28	n-Hexane	57	4.777	4.781	(0.788)	488198	9.59956	9.60(M)
29	cis-1,2-Dichloroethene	96	4.937	4.941	(0.814)	431139	10.4555	10.4
30	Ethyl Acetate	43	4.957	4.964	(0.817)	672886	12.1318	12.1
31	Chloroform	83	5.078	5.088	(0.837)	1143795	10.2465	10.2
32	Tetrahydrofuran	42	5.274	5.274	(0.870)	269739	9.99733	10.0
33	1,1,1-Trichloroethane	97	5.565	5.569	(0.918)	1148271	10.3422	10.3
34	1,2-Dichloroethane	62	5.584	5.591	(0.921)	885339	10.6193	10.6
35	Benzene	78	5.852	5.860	(0.965)	1225938	11.8605	11.9
36	Carbon tetrachloride	117	5.872	5.879	(0.968)	1139606	9.92279	9.92
37	Cyclohexane	56	5.879	5.882	(0.969)	462038	10.0946	10.1
* 38	1,4-Difluorobenzene	114	6.065	6.072	(1.000)	1242398	10.0000	
39	2,2,4-Trimethylpentane	57	6.241	6.248	(1.029)	1411199	10.3086	10.3
40	Heptane	43	6.415	6.418	(1.058)	443682	10.1248	10.1
41	1,2-Dichloropropane	63	6.483	6.490	(1.069)	405632	11.0716	11.1(M)
42	Trichloroethene	130	6.506	6.513	(1.073)	395365	11.3872	11.4
43	1,4-Dioxane	88	6.624	6.631	(1.092)	264854	12.2390	12.2(M)
44	Bromodichloromethane	83	6.627	6.634	(1.093)	1272768	10.7648	10.8
45	Methyl Isobutyl Ketone	43	7.206	7.213	(1.188)	640140	12.9893	13.0
46	cis-1,3-Dichloropropene	75	7.258	7.265	(1.197)	718340	9.50880	9.51
47	trans-1,3-Dichloropropene	75	7.755	7.762	(1.279)	757014	9.27601	9.28
49	Toluene	91	7.921	7.929	(1.306)	1499757	12.1088	12.1
50	1,1,2-Trichloroethane	97	7.931	7.938	(1.308)	515500	10.6663	10.7
52	Dibromochloromethane	129	8.543	8.550	(0.882)	857372	11.3585	11.4
53	1,2-Dibromoethane	107	8.814	8.821	(0.911)	763543	11.2039	11.2
54	Tetrachloroethene	166	8.905	8.909	(0.920)	705858	10.9085	10.9
* 55	Chlorobenzene - d5	117	9.680	9.684	(1.000)	661326	10.0000	
56	Chlorobenzene	112	9.729	9.736	(1.005)	966556	10.9562	11.0
57	Ethyl Benzene	91	10.033	10.040	(1.036)	1933209	10.5321	10.5
58	m&p-Xylene	91	10.203	10.210	(1.054)	1583034	10.6244	10.6
59	Bromoform	173	10.651	10.658	(1.100)	971116	12.0679	12.1
60	Styrene	104	10.700	10.707	(1.105)	986497	10.4082	10.4
61	o-Xylene	91	10.778	10.785	(1.113)	1697076	10.6812	10.7
62	1,1,2,2-Tetrachloroethane	83	11.092	11.099	(1.146)	1093778	12.2061	12.2
63	Isopropylbenzene	105	11.455	11.462	(1.183)	2040636	12.2090	12.2
64	N-Propylbenzene	91	12.118	12.126	(1.252)	2577199	10.1619	10.2(M)
65	4-Ethyltoluene	105	12.318	12.325	(1.272)	1940085	10.2620	10.3
66	1,3,5-Trimethylbenzene	105	12.422	12.433	(1.283)	1717787	10.6329	10.6
67	1,2,4-Trimethylbenzene	105	13.021	13.028	(1.345)	1676787	11.2534	11.2
68	1,3-Dichlorobenzene	146	13.374	13.381	(1.382)	972272	11.0001	11.0
69	Sec- Butylbenzene	105	13.400	13.410	(1.384)	2397603	11.4468	11.4
72	1,4-Dichlorobenzene	146	13.501	13.511	(1.395)	968827	11.2701	11.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11113LL.d
Report Date: 22-Apr-2013 09:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11113LL.d
Lab Smp Id: 1413528
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info: 17180

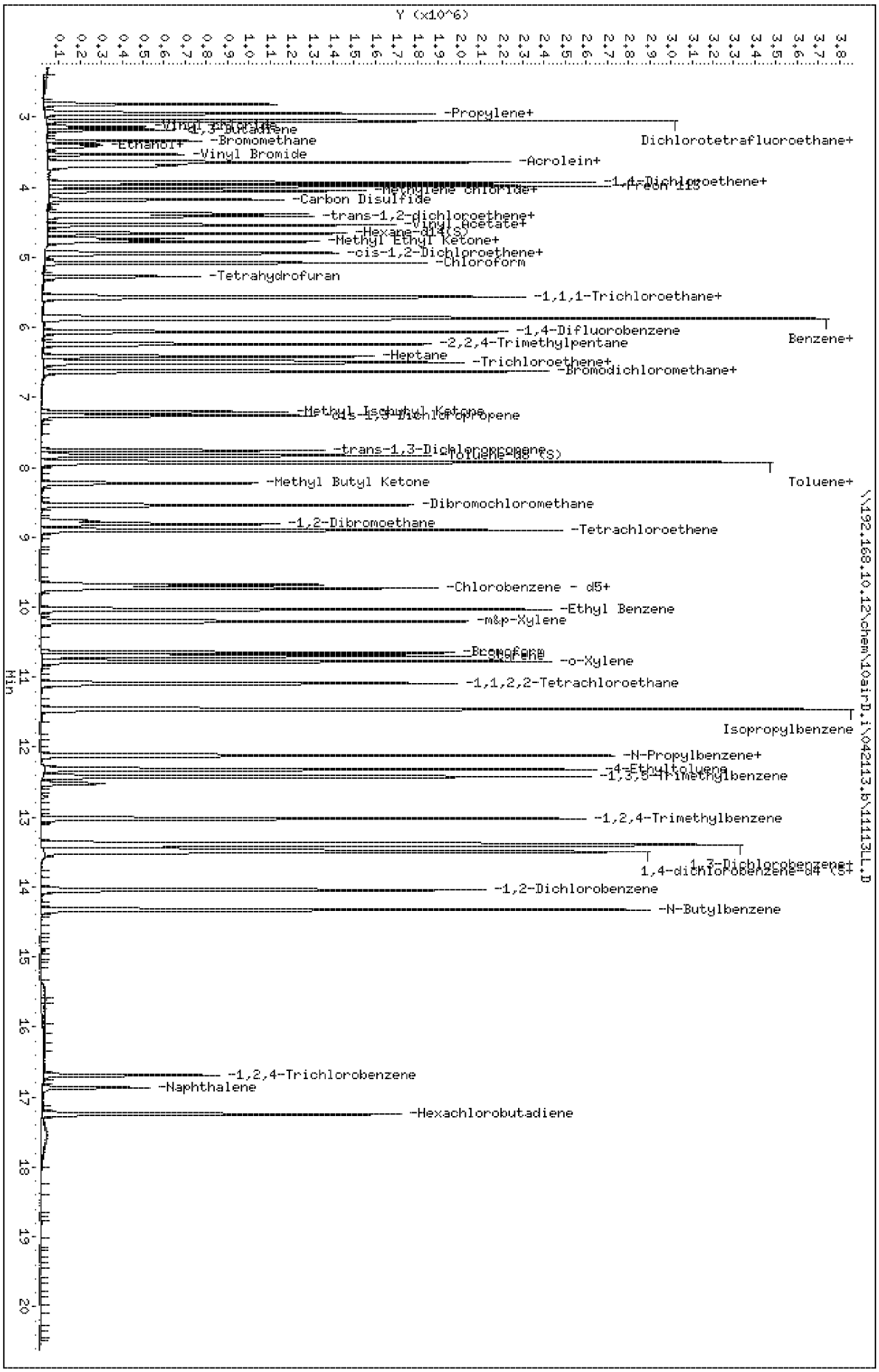
Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	1242398	3.39
55 Chlorobenzene - d	638533	383120	893946	661326	3.57

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.07	0.00
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.



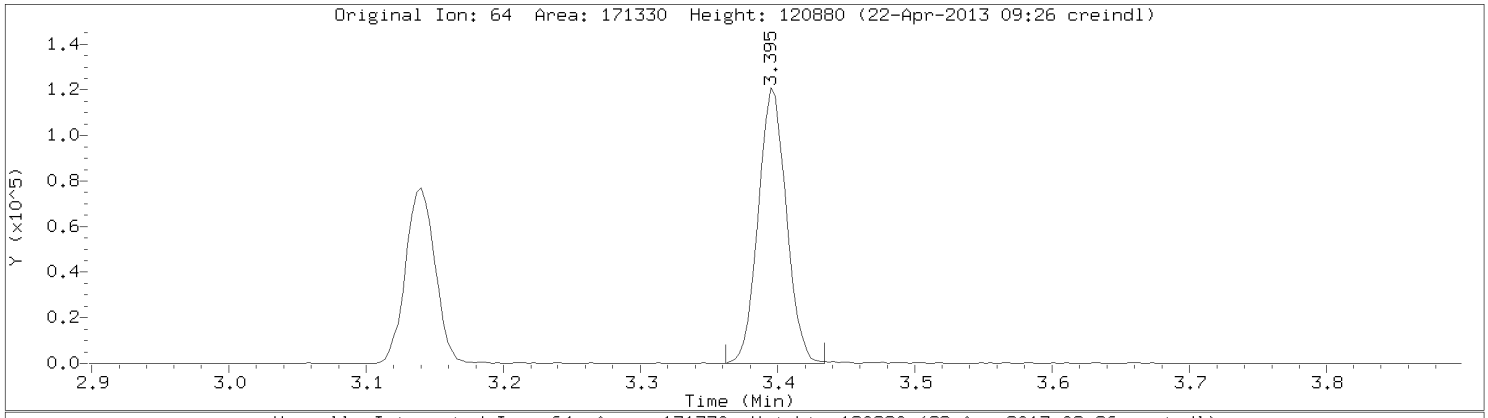
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Client ID:
Sample Info:
Column phase: J&W DB-5

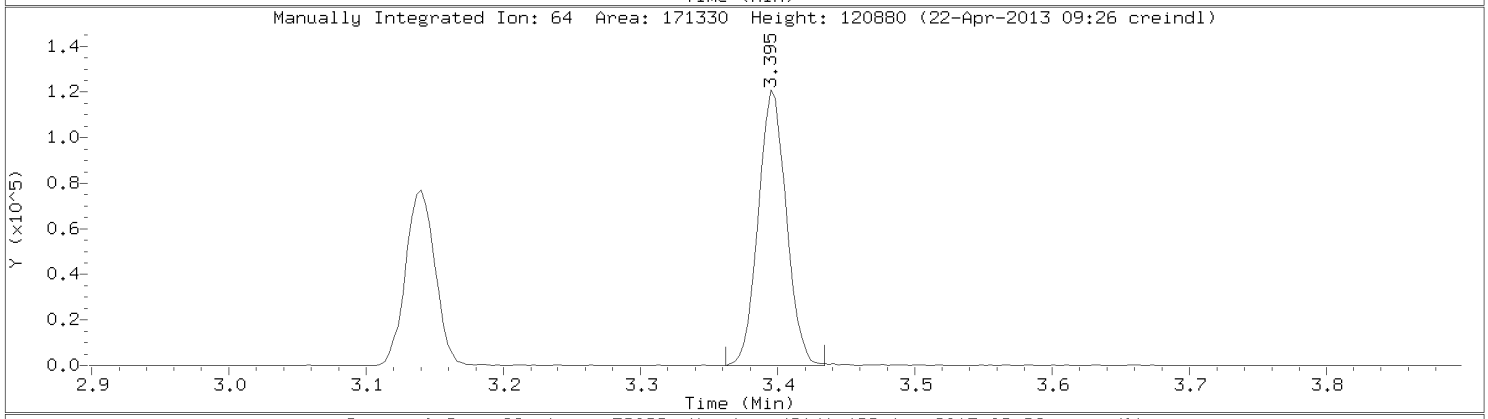
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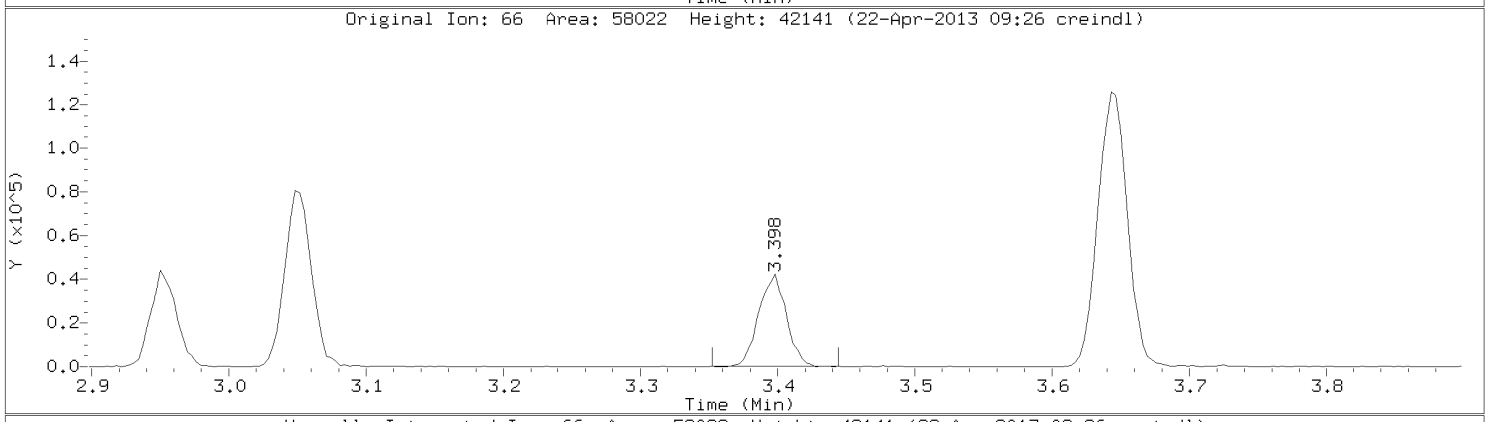
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

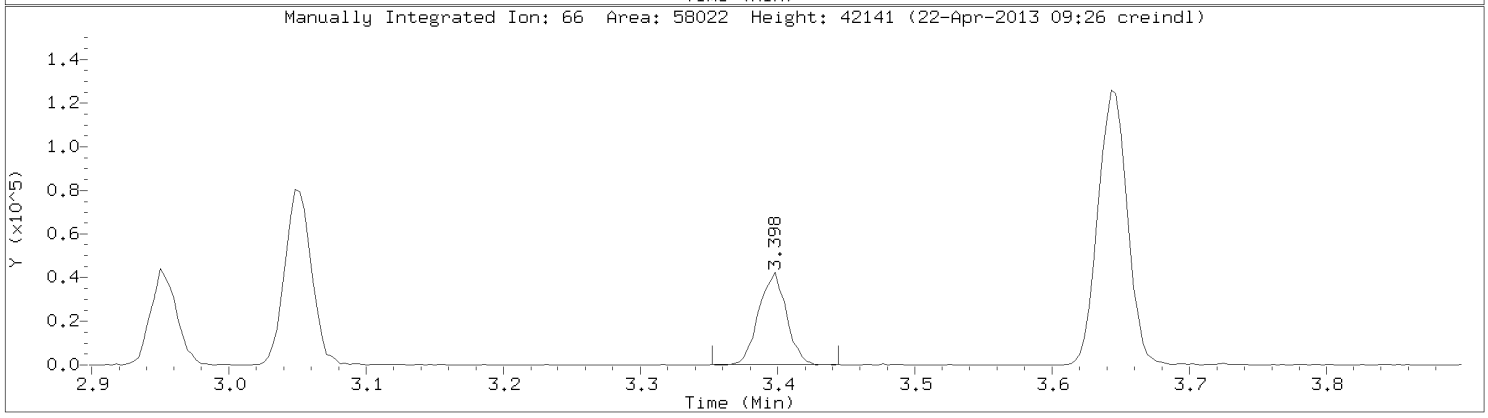
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Instrument: 10airD.i
Lab Sample ID: 1413528

Compound: Chloroethane
CAS Number: 75-00-3



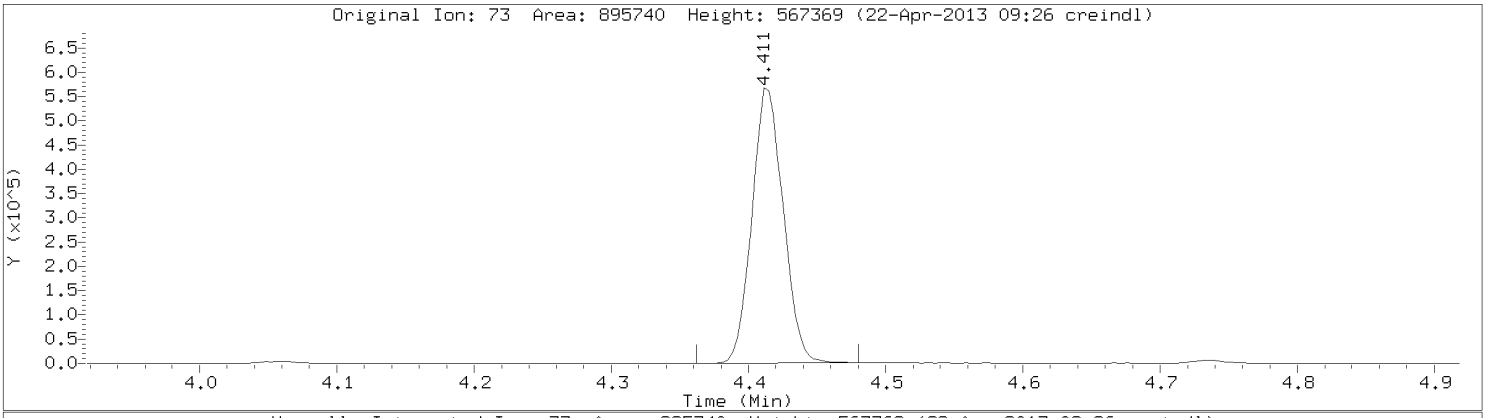


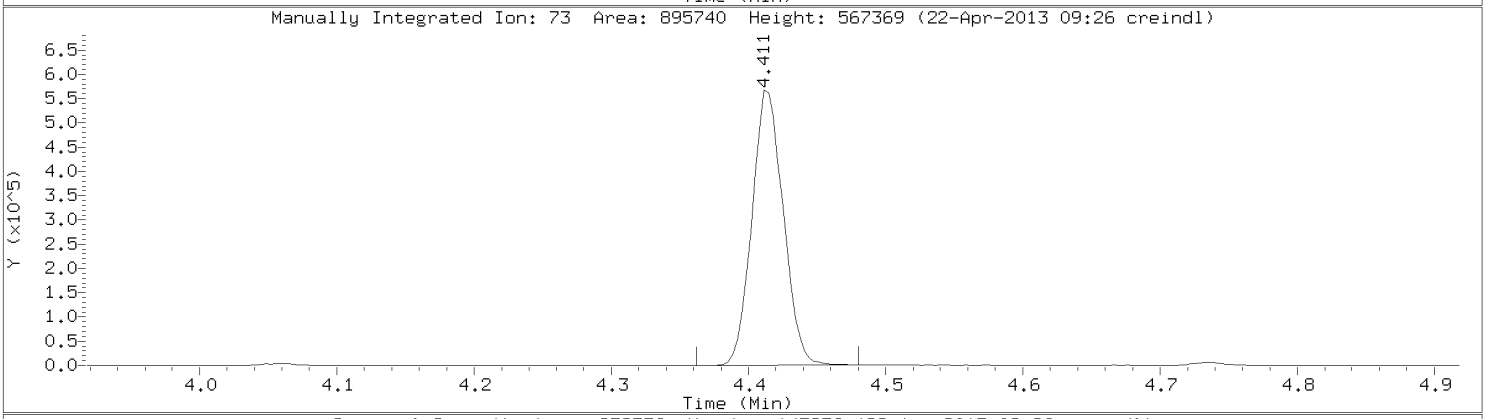


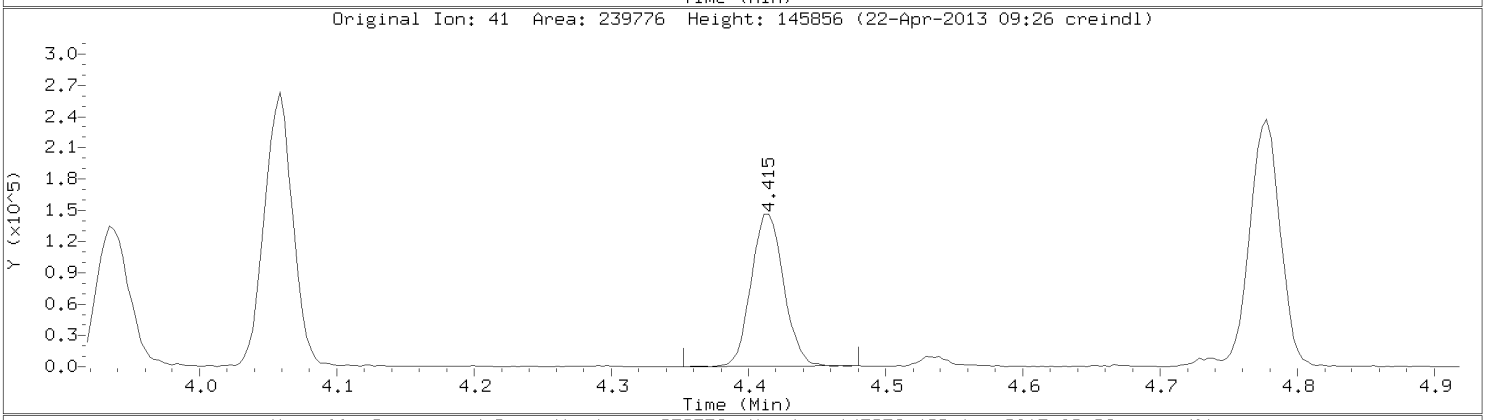


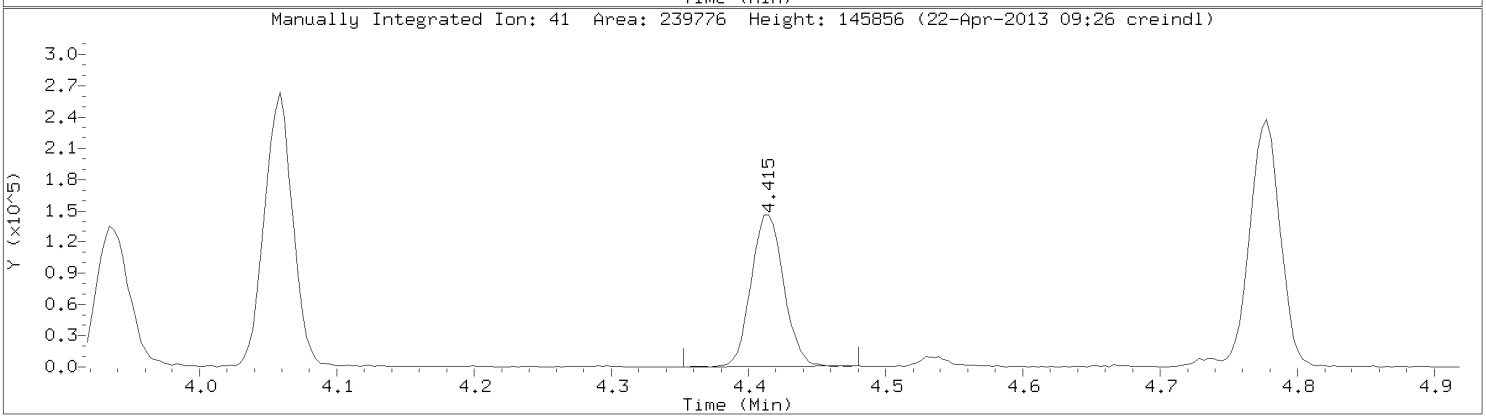
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Instrument: 10airD.i
Lab Sample ID: 1413528

Compound: Methyl Tert Butyl Ether
CAS Number: 1634-04-4



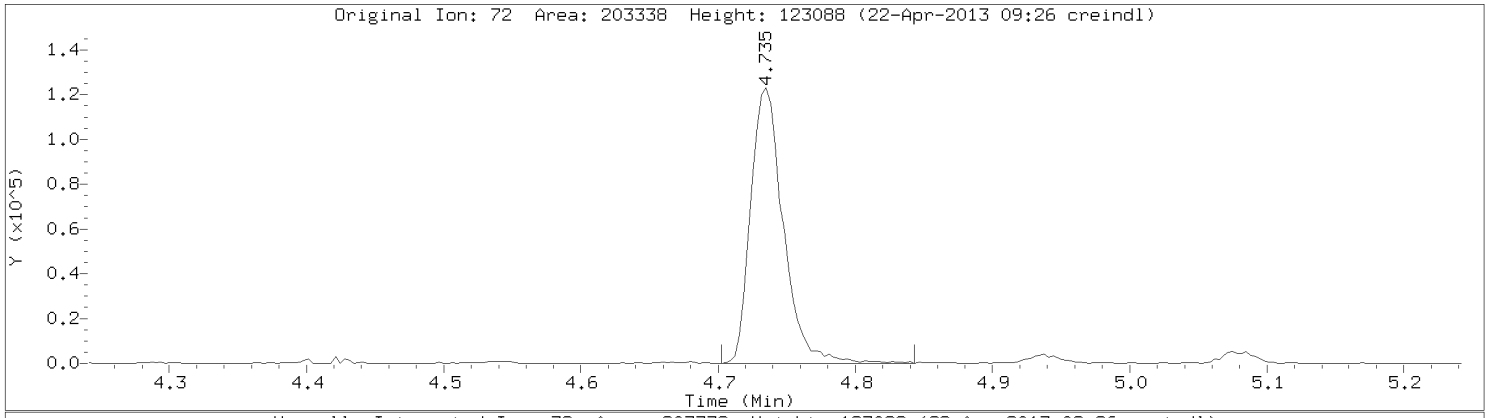


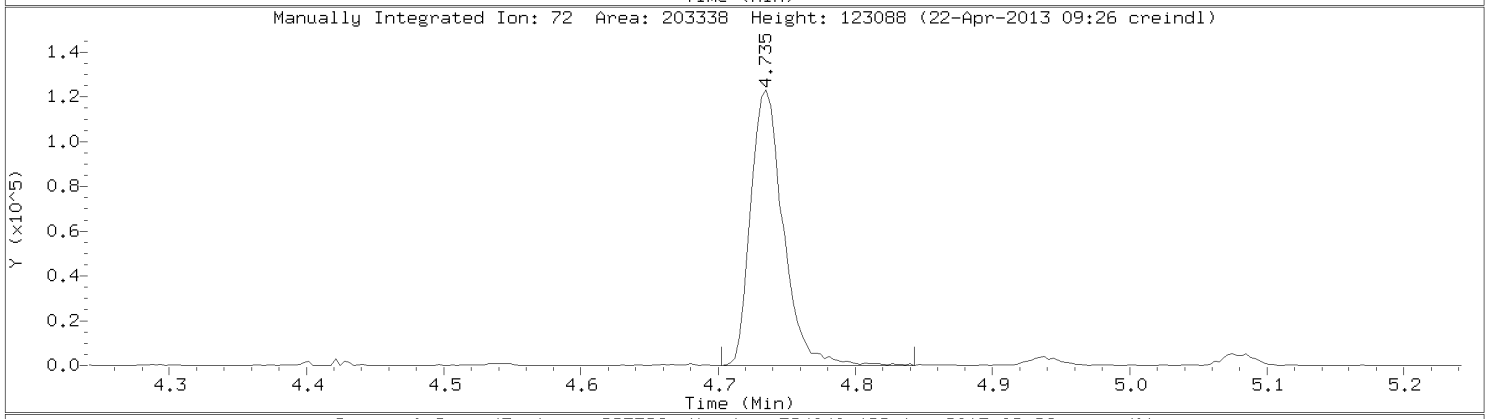


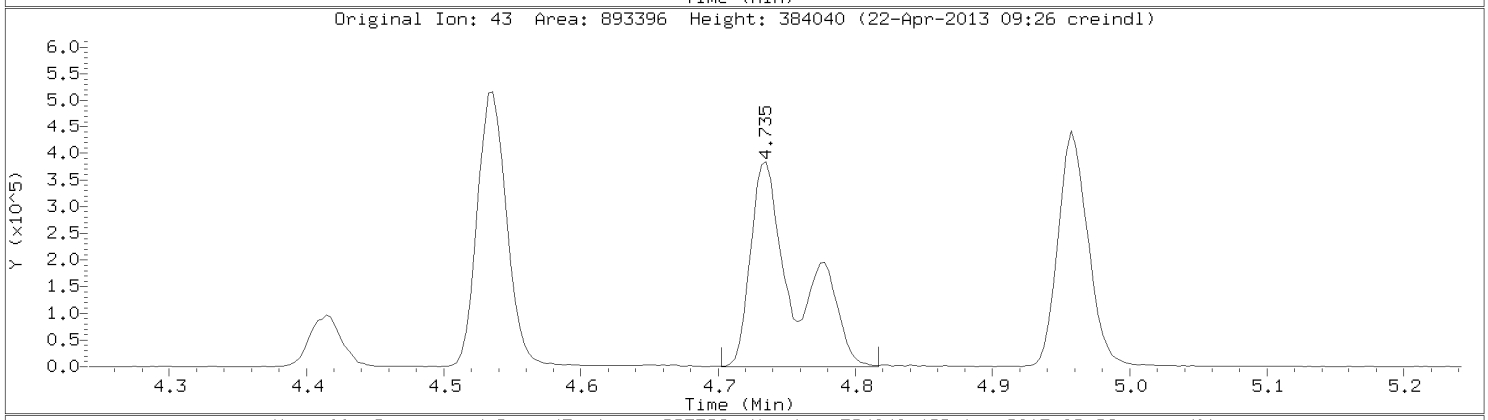


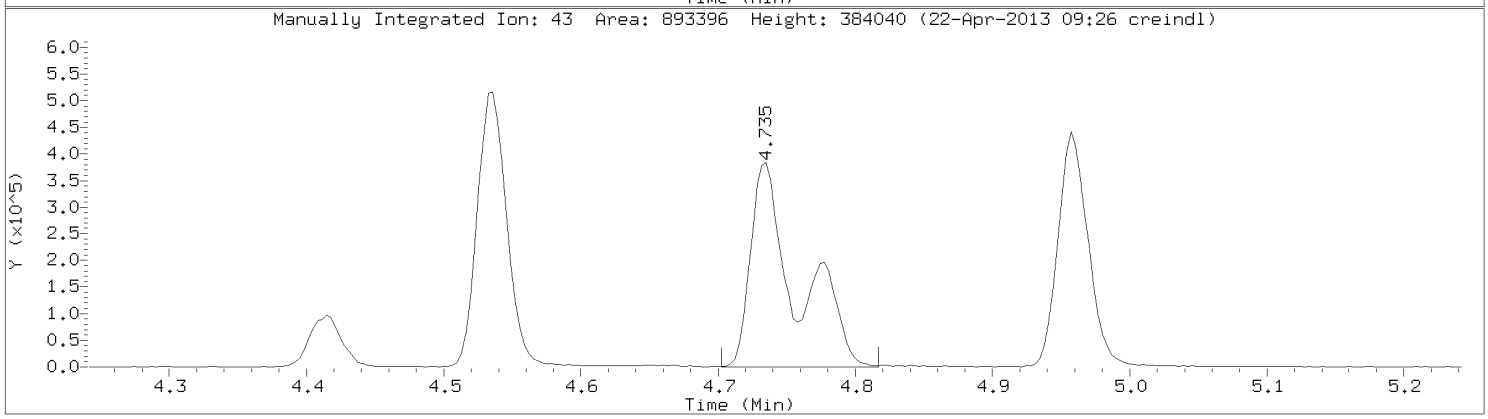
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Injection Date: 21-APR-2013 14:17
Instrument: 10airD.i
Lab Sample ID: 1413528

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3



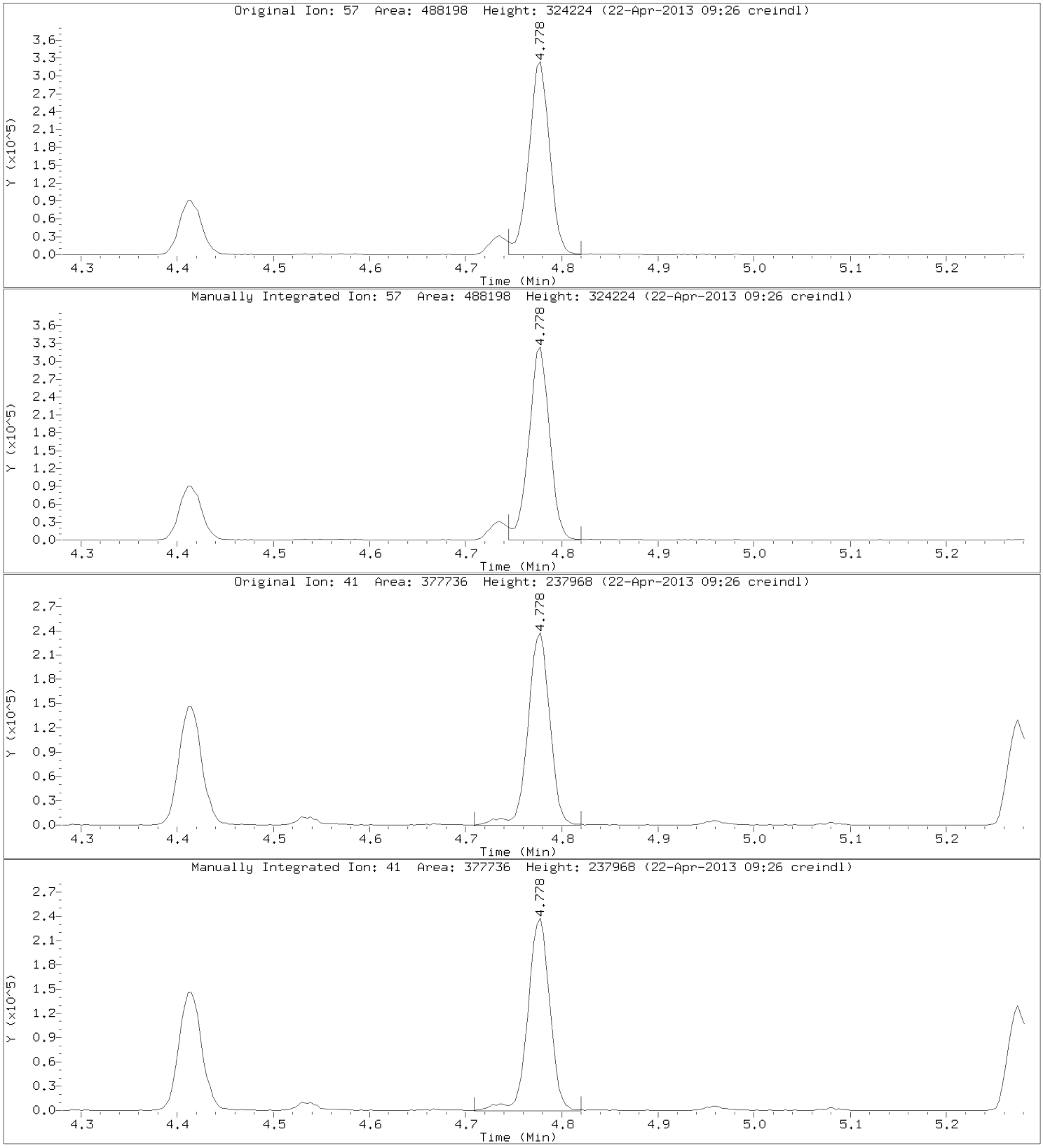




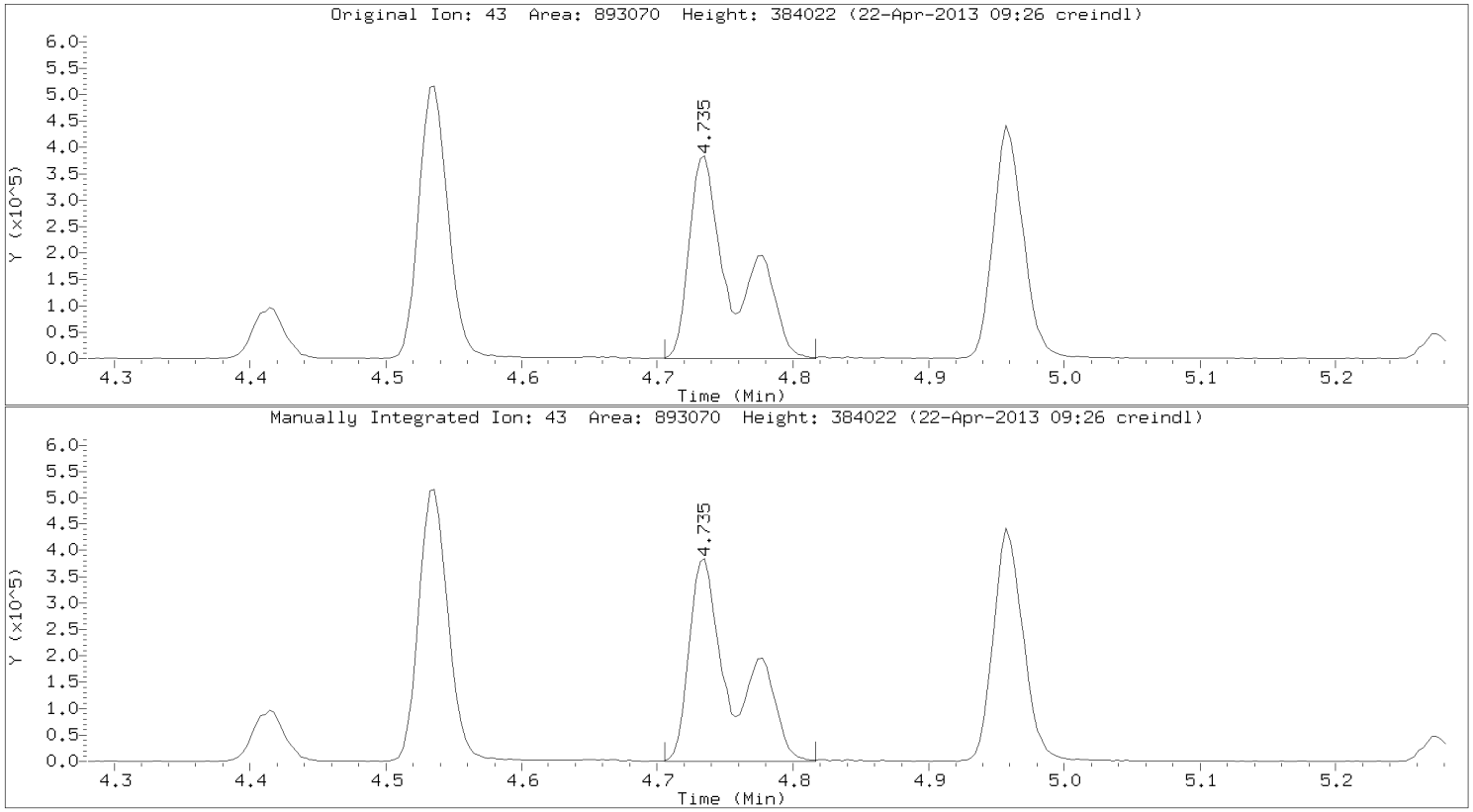


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Instrument: 10airD.i
Lab Sample ID: 1413528

Compound: n-Hexane
CAS Number: 110-54-3

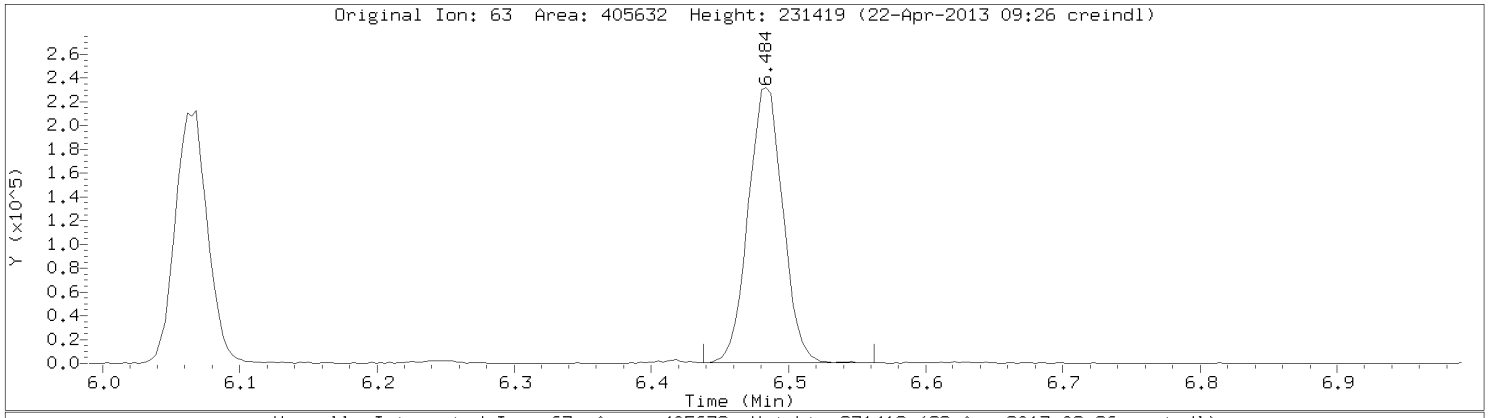


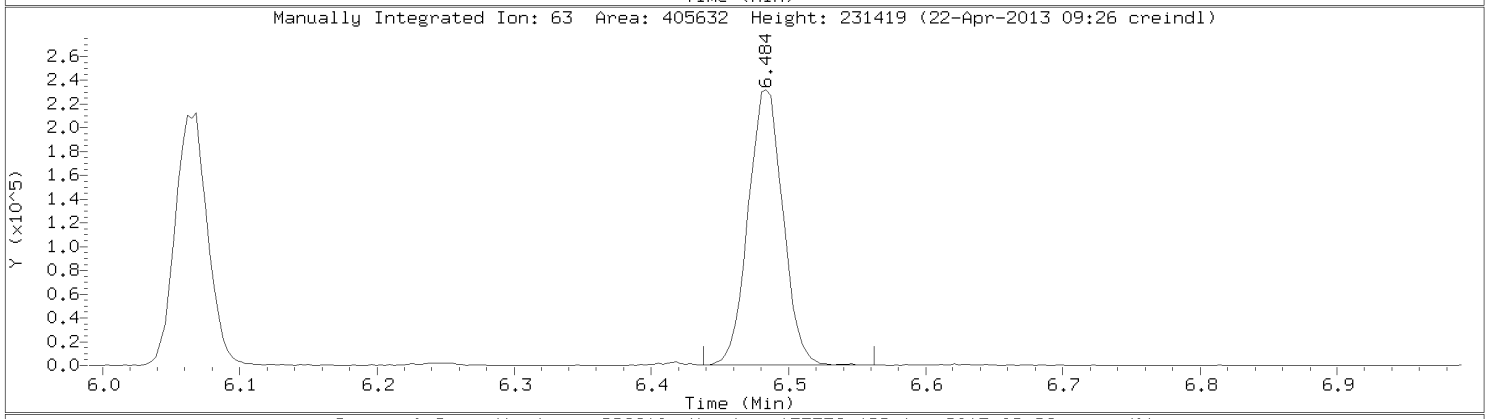
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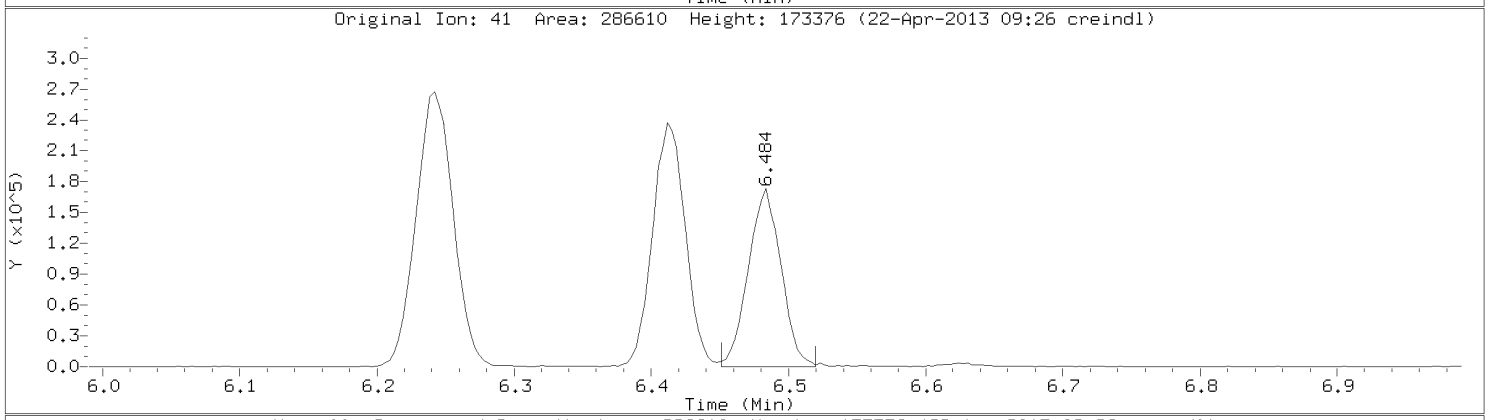


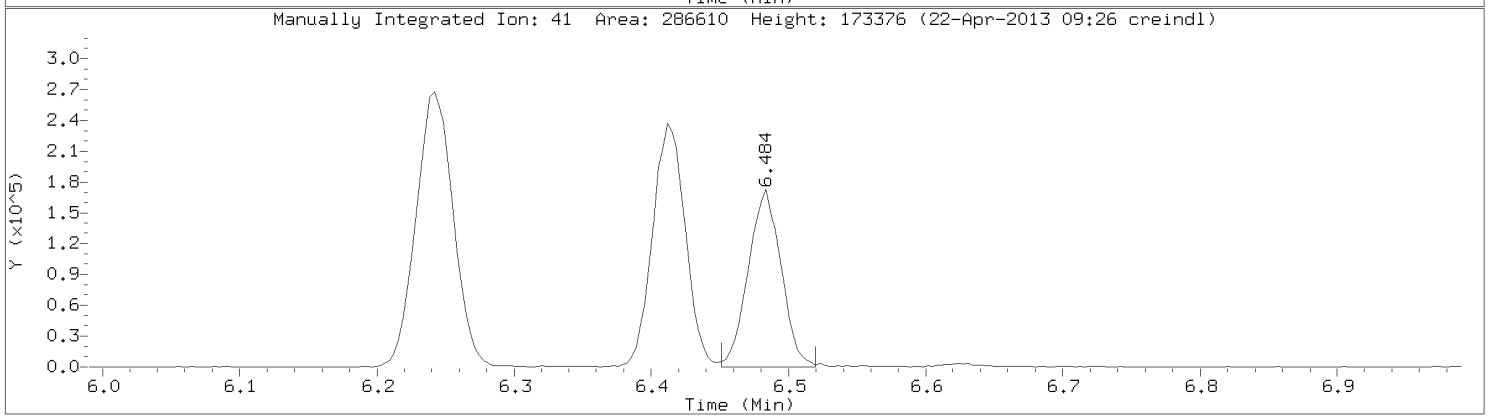
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Instrument: 10airD.i
Lab Sample ID: 1413528

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

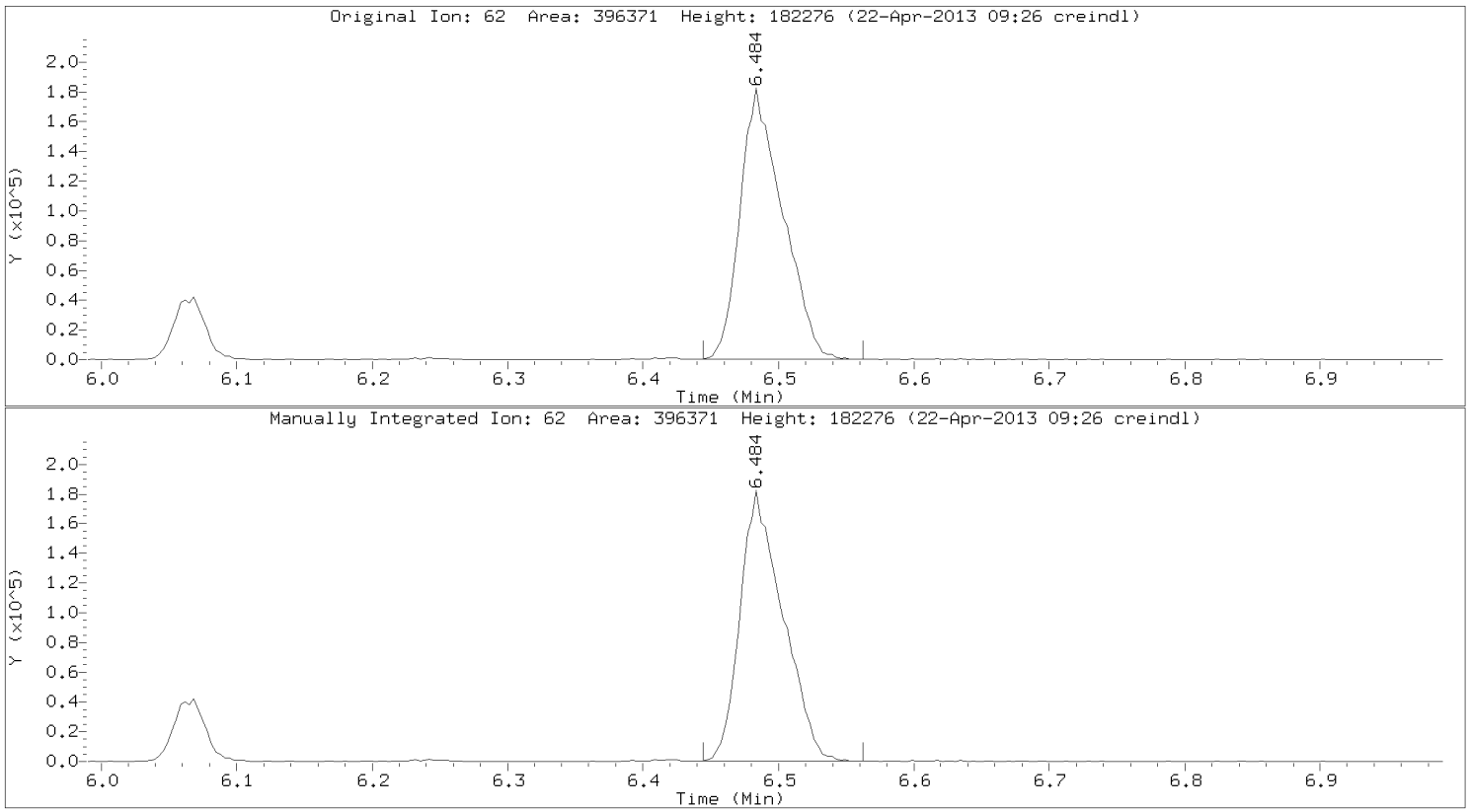






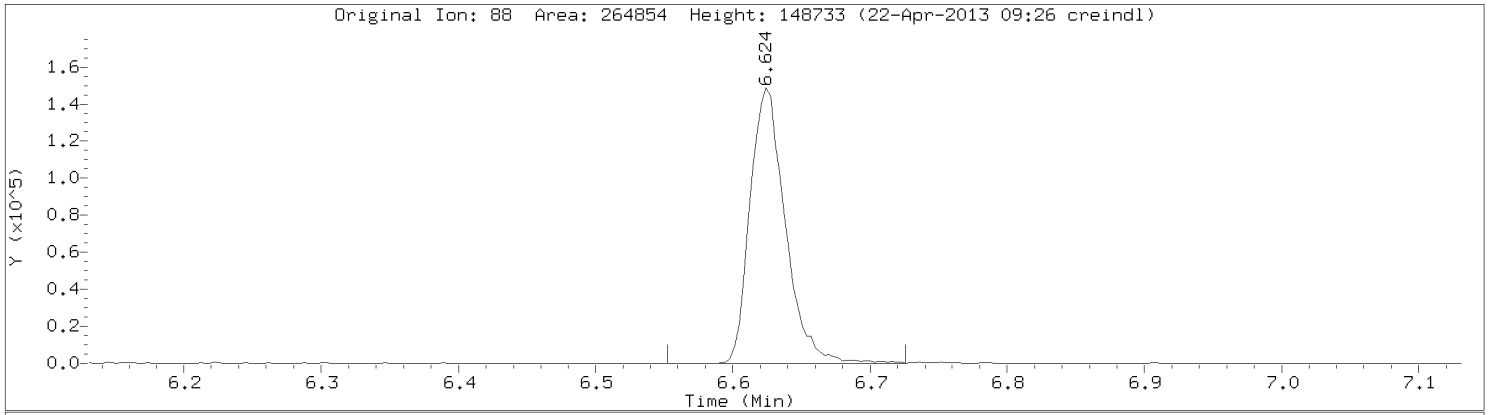


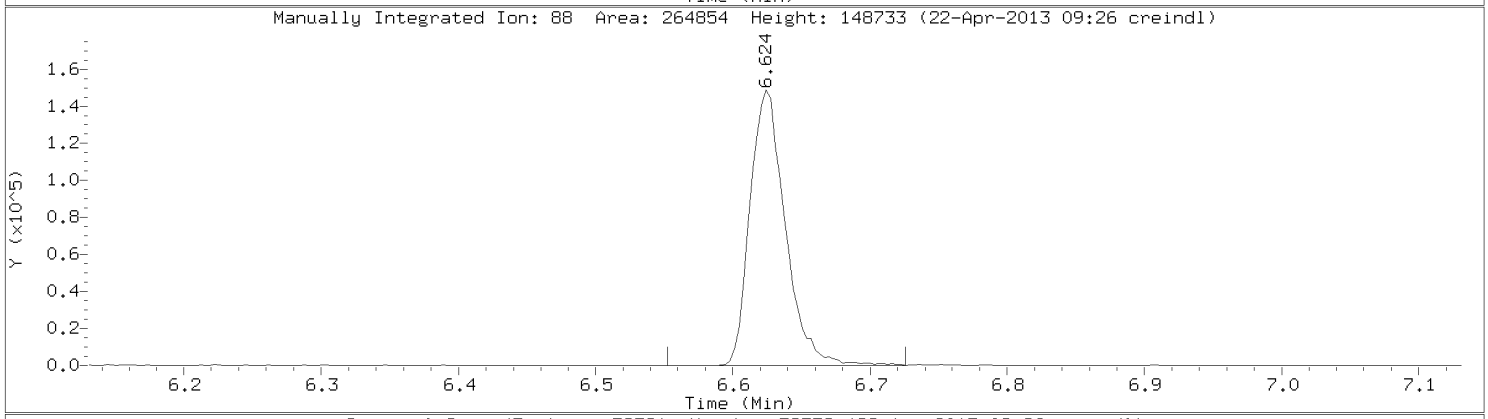
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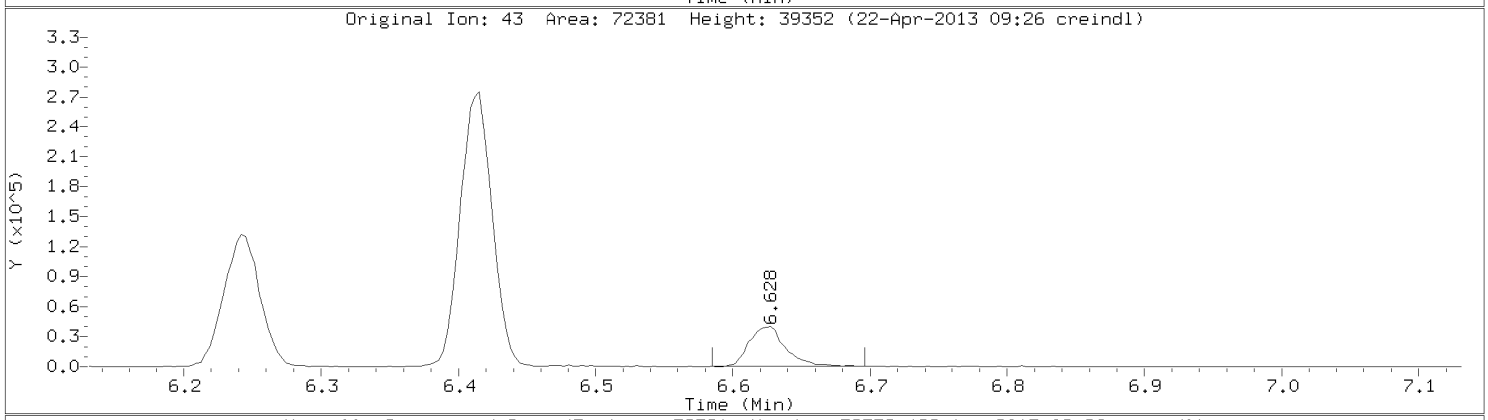


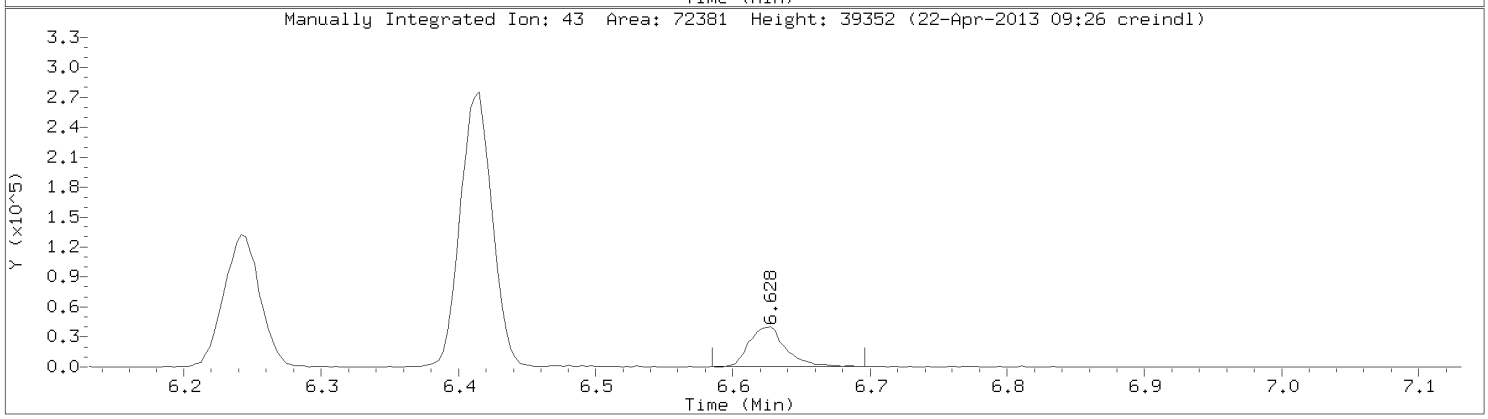
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Injection Date: 21-APR-2013 14:17
Instrument: 10airD.i
Lab Sample ID: 1413528

Compound: 1,4-Dioxane
CAS Number: 123-91-1



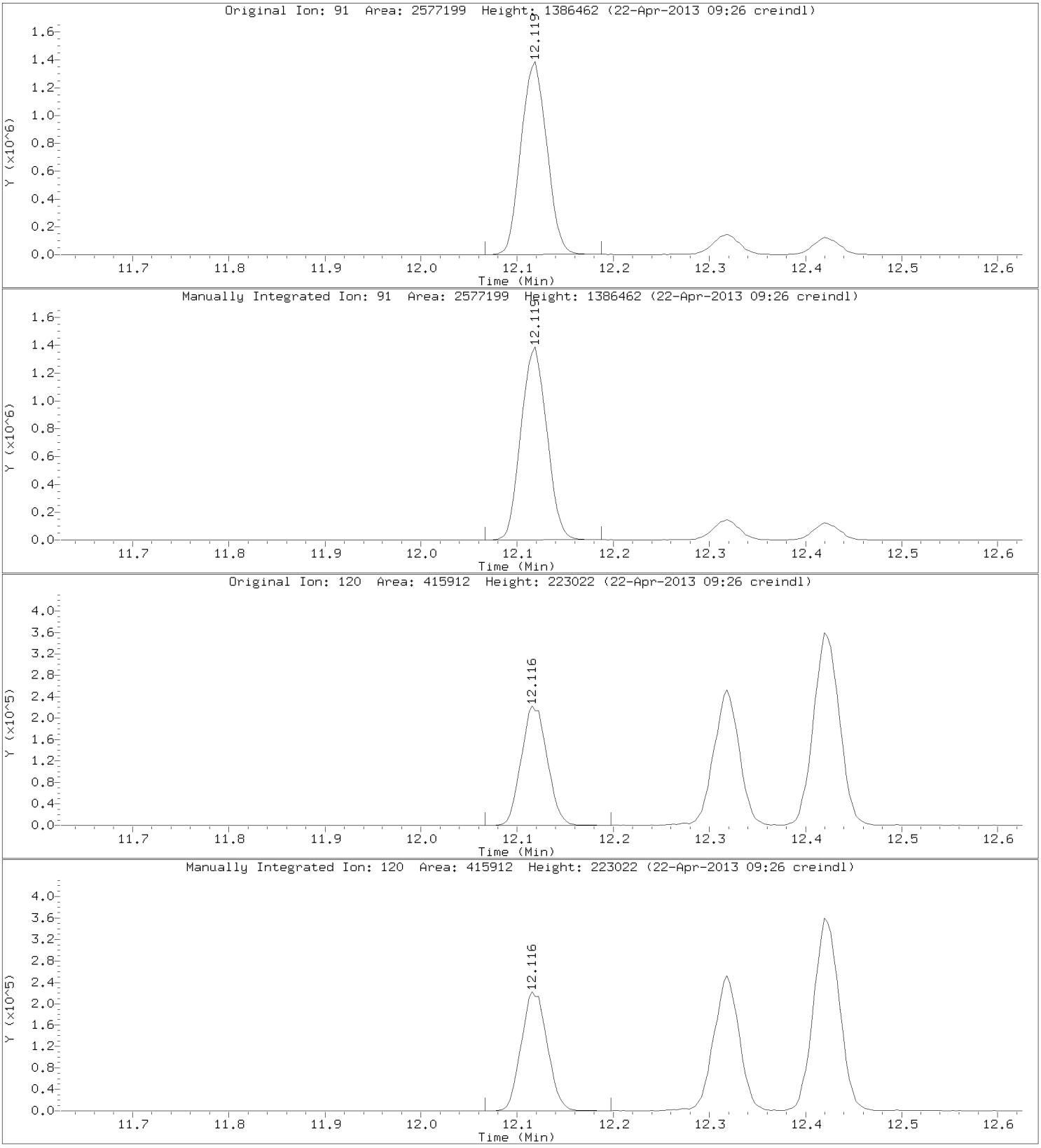






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Injection Date: 21-APR-2013 14:17
Instrument: 10airD.i
Lab Sample ID: 1413528

Compound: N-Propylbenzene
CAS Number: 103-65-1



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.d
Report Date: 18-Apr-2013 17:14

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10812.d
Lab Smp Id: 10224616001
Inj Date : 18-APR-2013 16:30
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17165
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 18-Apr-2013 11:29 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 12
Dil Factor: 1.44000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.440	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
1	Propylene	41	Compound Not Detected.					
2	Dichlorodifluoromethane	85	2.953	2.950	(0.487)	46578	0.29890	0.430
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	3.055	3.052	(0.504)	7218	0.20966	0.302(M)
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	3.339	3.336	(0.551)	5738	0.13504	0.194(M)
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	3.430	3.424	(0.566)	623104	26.9349	38.8
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	3.649	3.643	(0.602)	19170	0.13524	0.195
13	Acetone	43	3.669	3.673	(0.605)	582160	8.40907	12.1
14	Isopropyl Alcohol	45	3.712	3.702	(0.612)	9403334	194.423	280(AQ)
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	Compound Not Detected.					
19	Methylene chloride	49	4.045	4.045	(0.667)	10600	0.25278	0.364(M)
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	Compound Not Detected.					
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.d
Report Date: 18-Apr-2013 17:14

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ppbv)	FINAL (ppbv)
	24	Vinyl Acetate	43	Compound Not Detected.					
	25	1,1-Dichloroethane	63	Compound Not Detected.					
$	26	Hexane-d14(S)	66	4.656	4.660	(0.768)	623018	9.66213	9.66
	27	Methyl Ethyl Ketone	72	4.741	4.738	(0.782)	7974	0.39980	0.576(QM)
	28	n-Hexane	57	4.774	4.777	(0.788)	55115	0.91545	1.32(QM)
	29	cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30	Ethyl Acetate	43	4.954	4.964	(0.817)	799276	14.1076	20.3(Q)
	31	Chloroform	83	Compound Not Detected.					
	32	Tetrahydrofuran	42	Compound Not Detected.					
	33	1,1,1-Trichloroethane	97	Compound Not Detected.					
	34	1,2-Dichloroethane	62	Compound Not Detected.					
	35	Benzene	78	5.846	5.856	(0.964)	40005	0.30335	0.437
	36	Carbon tetrachloride	117	Compound Not Detected.					
	37	Cyclohexane	56	5.885	5.882	(0.971)	15580	0.56859	0.819(QM)
*	38	1,4-Difluorobenzene	114	6.062	6.069	(1.000)	1447464	10.0000	
	39	2,2,4-Trimethylpentane	57	6.241	6.245	(1.030)	66742	0.71662	1.03(M)
	40	Heptane	43	6.411	6.415	(1.058)	14227	0.69312	0.998
	41	1,2-Dichloropropane	63	Compound Not Detected.					
	42	Trichloroethene	130	6.506	6.510	(1.073)	12962	0.36619	0.527(M)
	43	1,4-Dioxane	88	Compound Not Detected.					
	44	Bromodichloromethane	83	Compound Not Detected.					
	45	Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46	cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47	trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48	Toluene-d8 (S)	98	7.827	7.837	(1.291)	1334142	10.0686	10.1
	49	Toluene	91	7.918	7.925	(1.306)	229116	1.26426	1.82
	50	1,1,2-Trichloroethane	97	Compound Not Detected.					
	51	Methyl Butyl Ketone	43	Compound Not Detected.					
	52	Dibromochloromethane	129	Compound Not Detected.					
	53	1,2-Dibromoethane	107	Compound Not Detected.					
	54	Tetrachloroethene	166	Compound Not Detected.					
*	55	Chlorobenzene - d5	117	9.680	9.684	(1.000)	802458	10.0000	
	56	Chlorobenzene	112	Compound Not Detected.					
	57	Ethyl Benzene	91	10.027	10.040	(1.036)	38768	0.32608	0.470
	58	m&p-Xylene	91	10.196	10.210	(1.053)	157610	1.03826	1.50
	59	Bromoform	173	Compound Not Detected.					
	60	Styrene	104	Compound Not Detected.					
	61	o-Xylene	91	10.775	10.785	(1.113)	44985	0.29757	0.428(M)
	62	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63	Isopropylbenzene	105	Compound Not Detected.					
	64	N-Propylbenzene	91	Compound Not Detected.					
	65	4-Ethyltoluene	105	Compound Not Detected.					
	66	1,3,5-Trimethylbenzene	105	Compound Not Detected.					
	67	1,2,4-Trimethylbenzene	105	13.017	13.028	(1.345)	20752	0.25570	0.368(M)
	68	1,3-Dichlorobenzene	146	Compound Not Detected.					
	69	Sec- Butylbenzene	105	Compound Not Detected.					
$	70	1,4-dichlorobenzene-d4 (S)	150	13.449	13.466	(1.389)	396353	8.79018	8.79
	71	Benzyl Chloride	91	Compound Not Detected.					
	72	1,4-Dichlorobenzene	146	Compound Not Detected.					
	73	1,2-Dichlorobenzene	146	Compound Not Detected.					
	74	N-Butylbenzene	91	Compound Not Detected.					
	75	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76	Naphthalene	128	Compound Not Detected.					
	77	Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.d
Report Date: 18-Apr-2013 17:14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.d
Report Date: 18-Apr-2013 17:14

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10812.d
Lab Smp Id: 10224616001
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17165

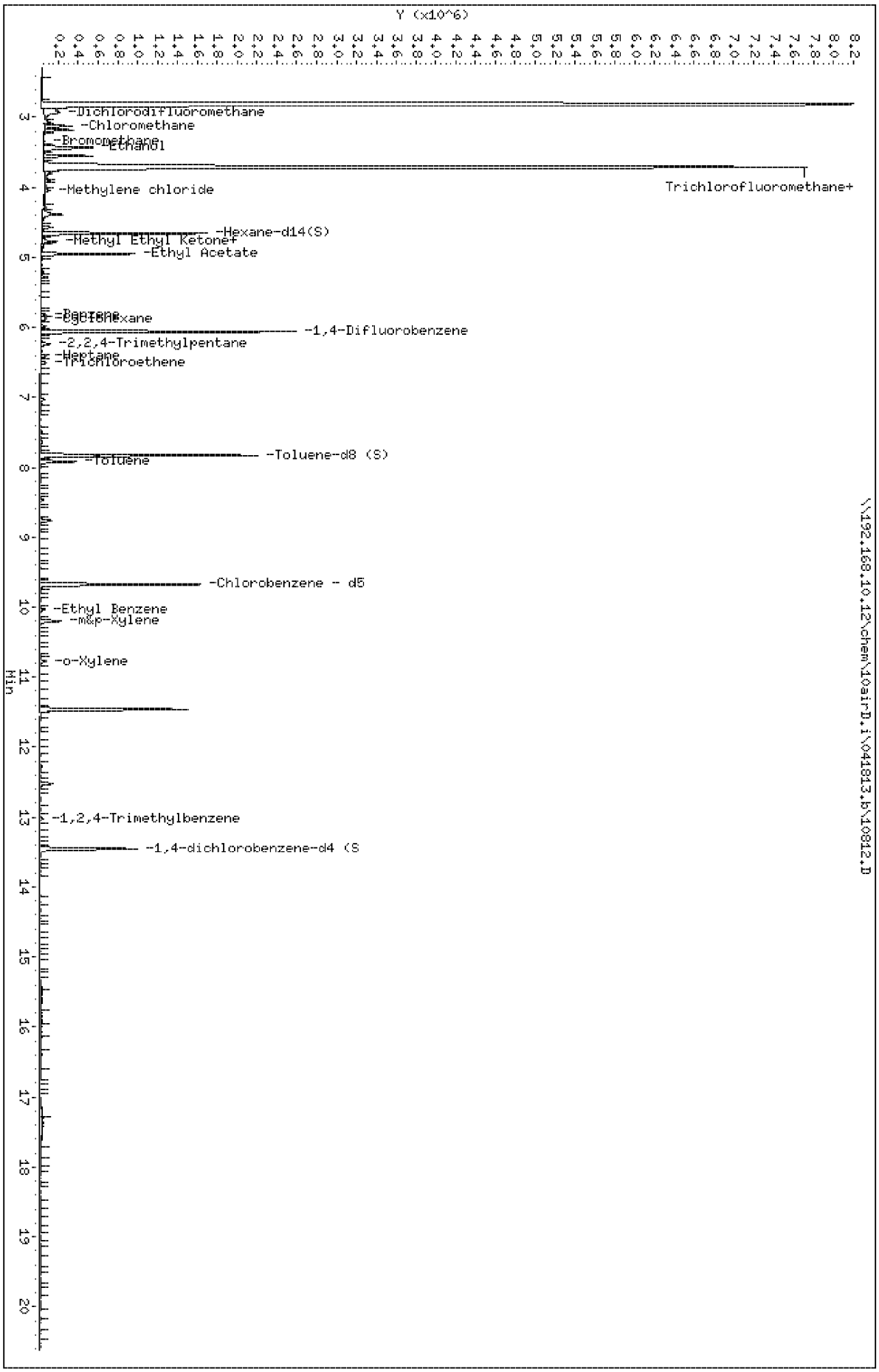
Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1447464	1.05
55 Chlorobenzene - d	825122	495073	1155171	802458	-2.75

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D
Date : 18-APR-2013 16:30
Client ID:
Sample Info:
Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

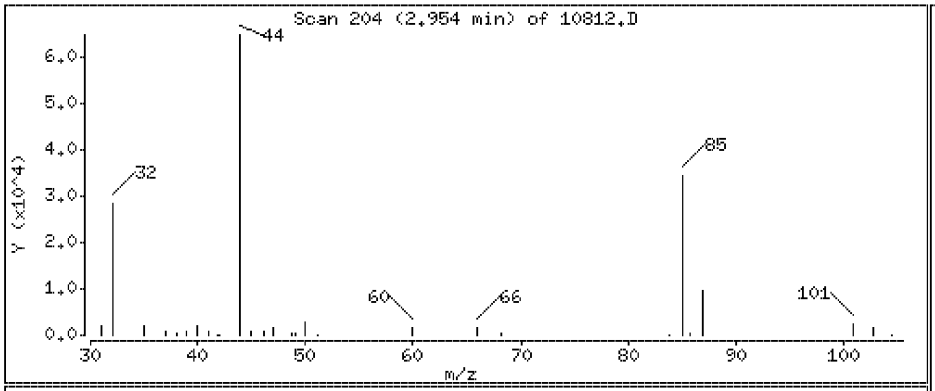
Operator: CJR

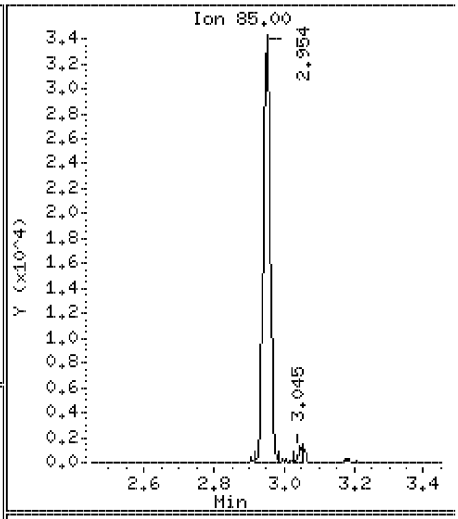
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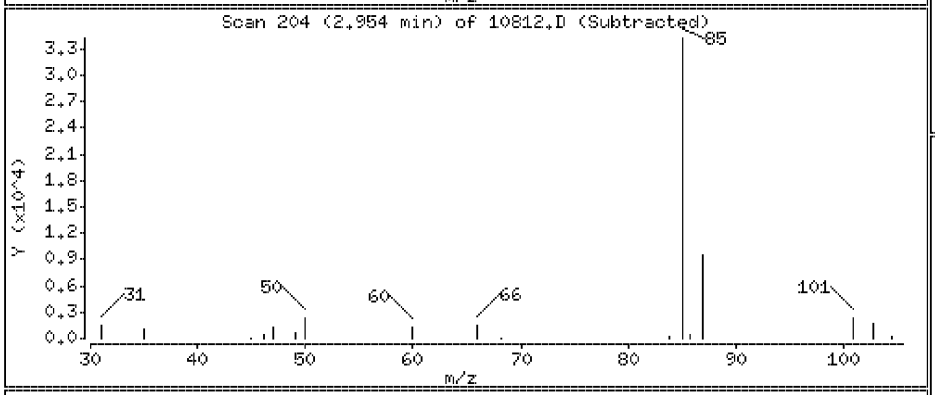
Column diameter: 0.32

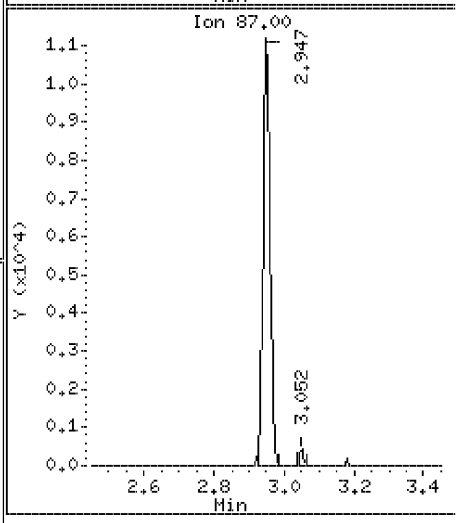
2 Dichlorodifluoromethane

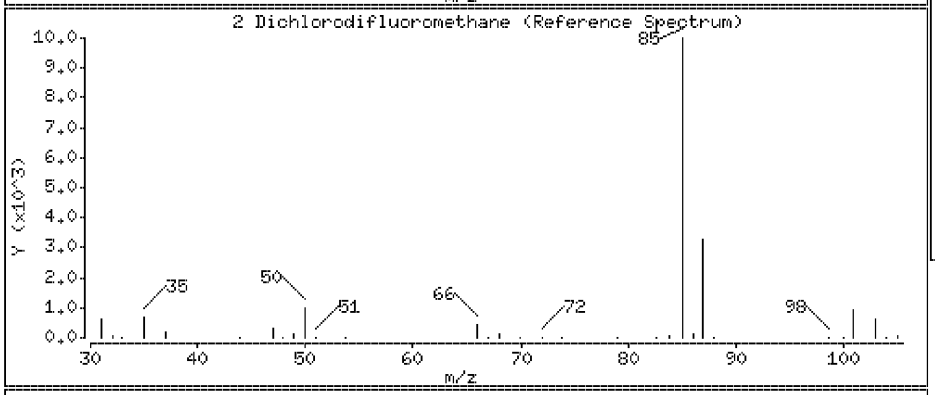
Concentration: 0.430 ppbv

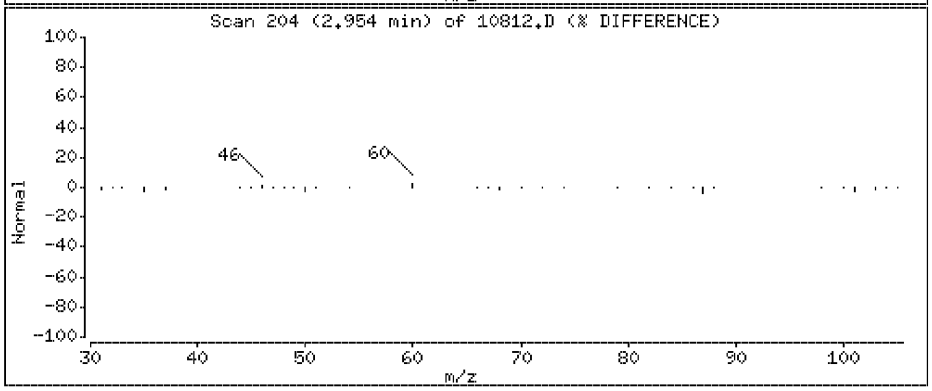












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

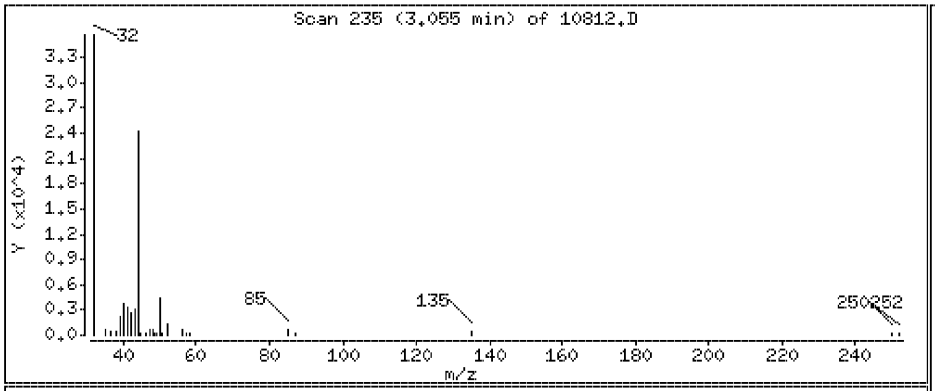
Operator: CJR

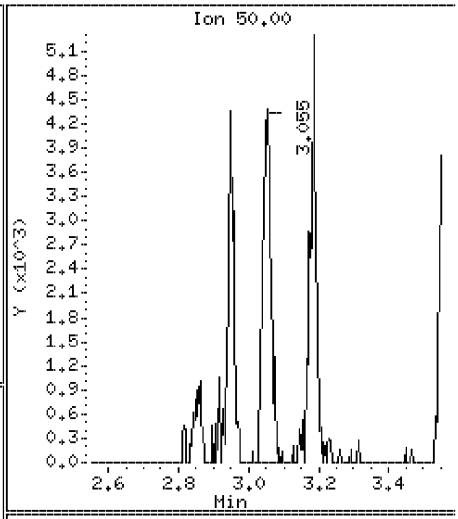
Column phase: J&W DB-5

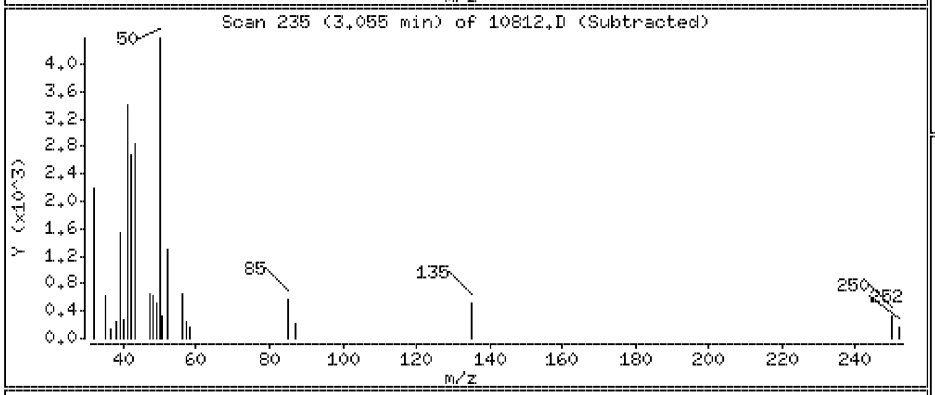
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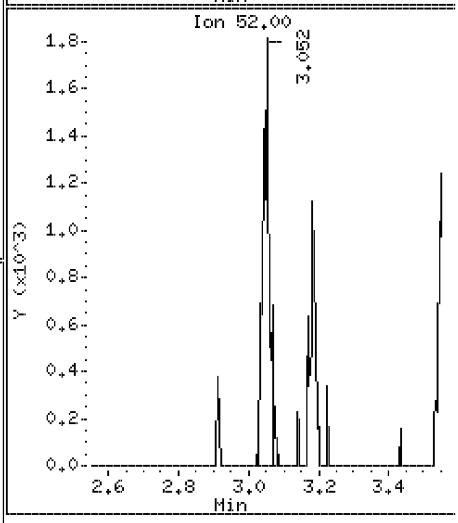
4 Chloromethane

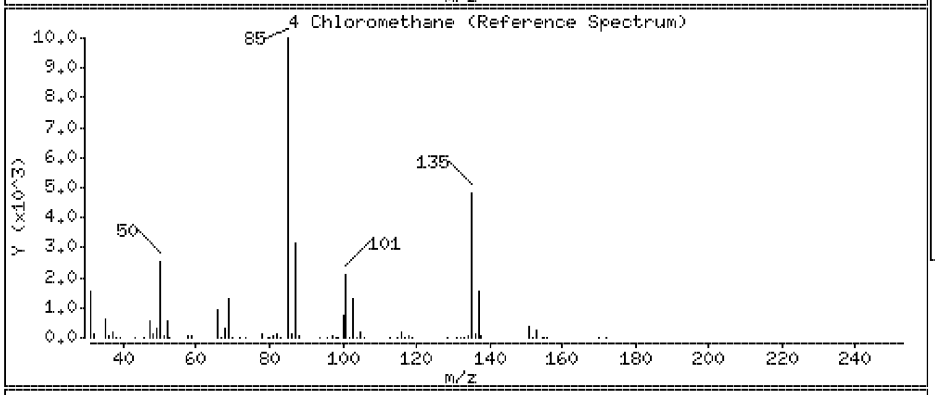
Concentration: 0.302 ppbv

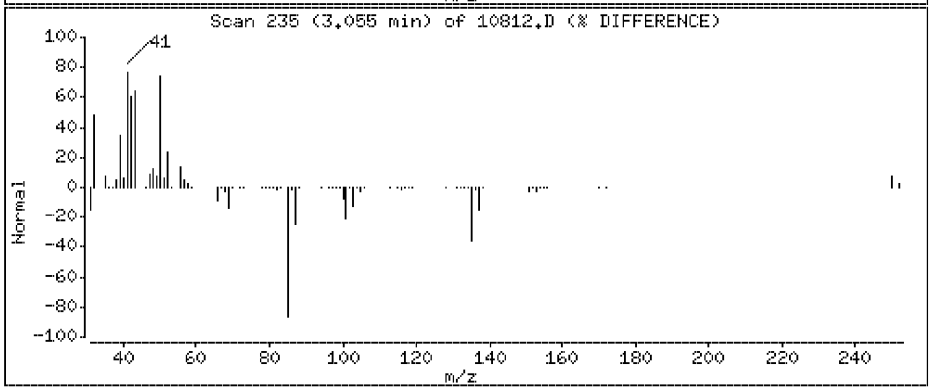












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

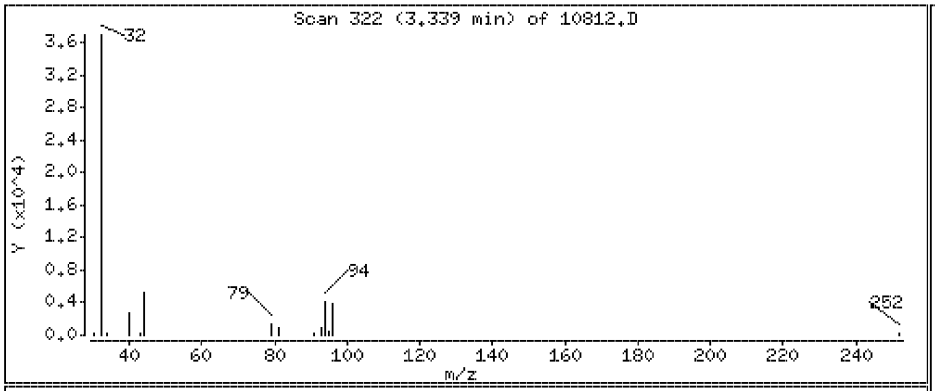
Operator: CJR

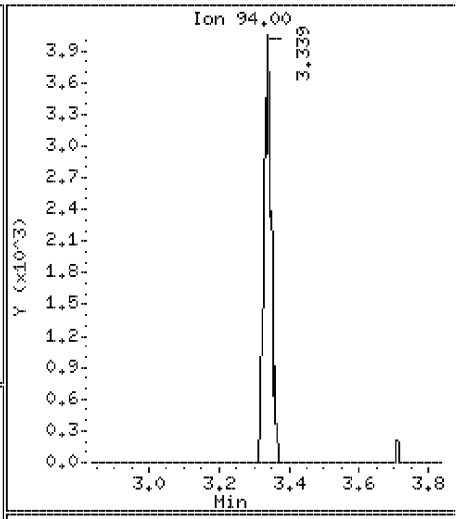
Column phase: J&W DB-5

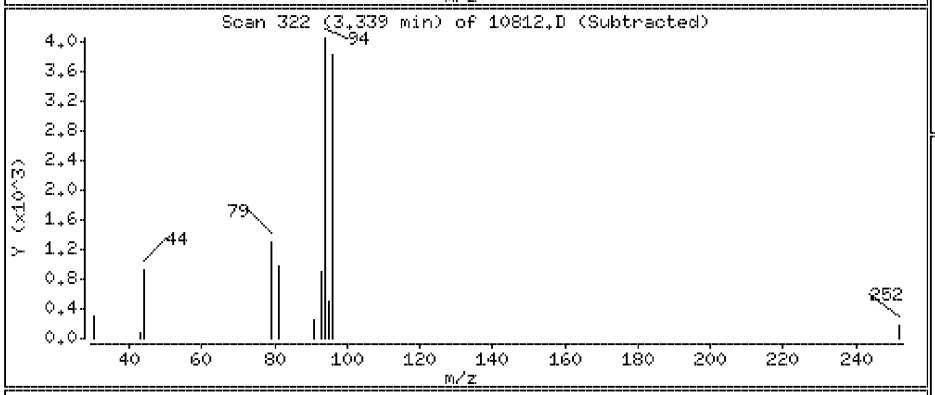
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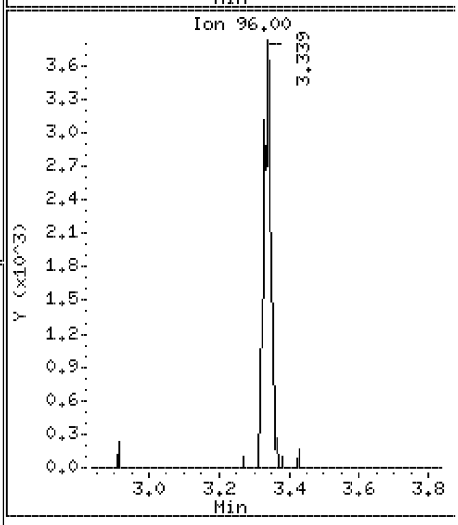
7 Bromomethane

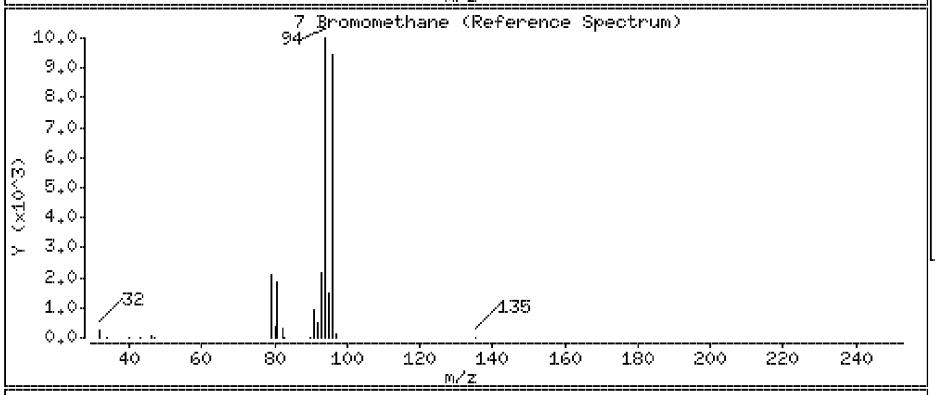
Concentration: 0.194 ppbv

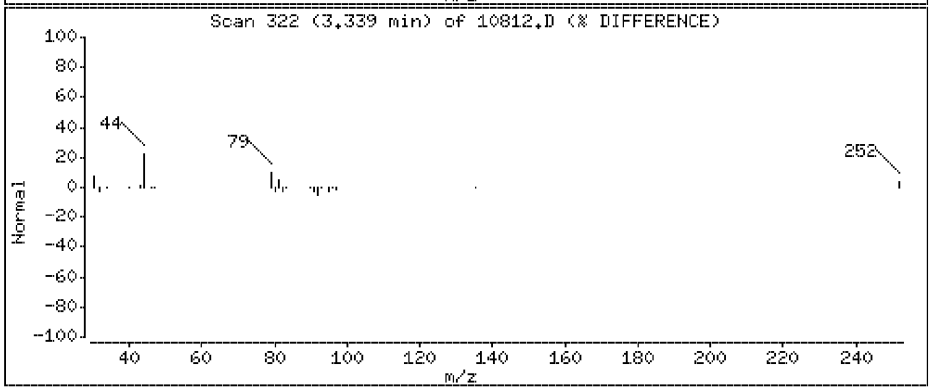












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

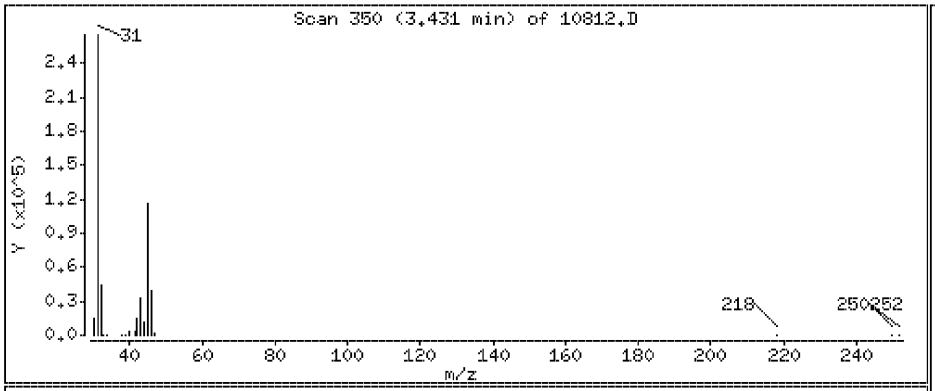
Operator: CJR

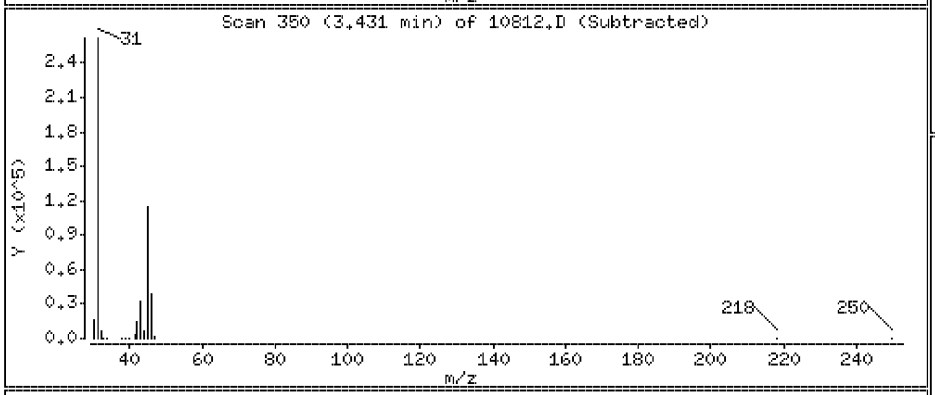
Column phase: J&W DB-5

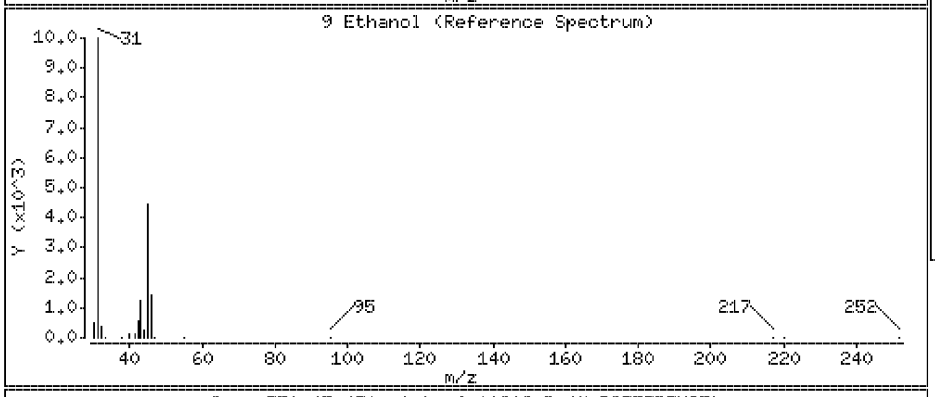
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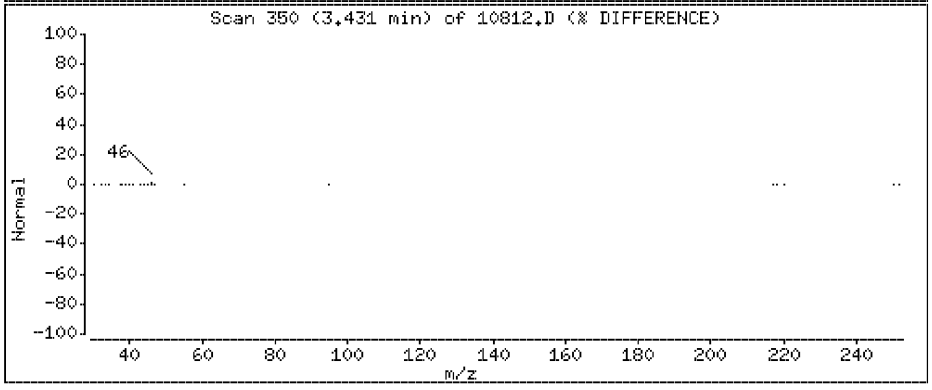
9 Ethanol

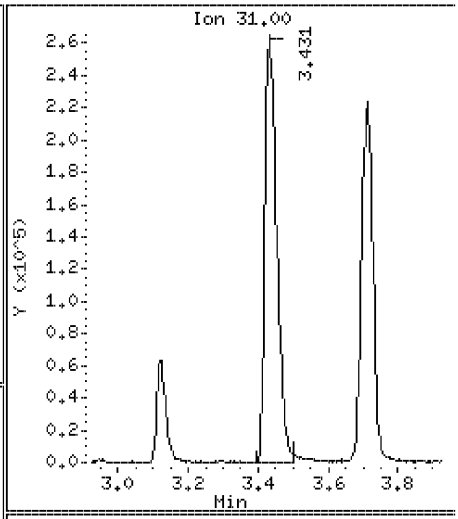
Concentration: 38.8 ppbv

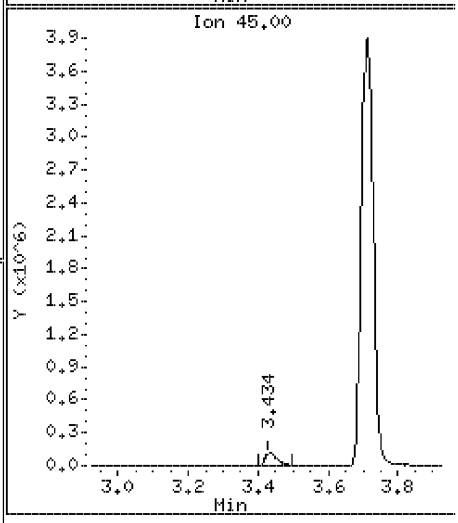












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

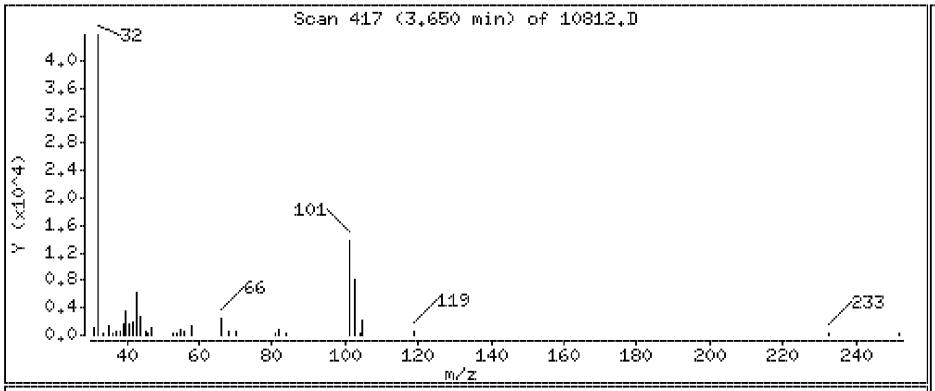
Operator: CJR

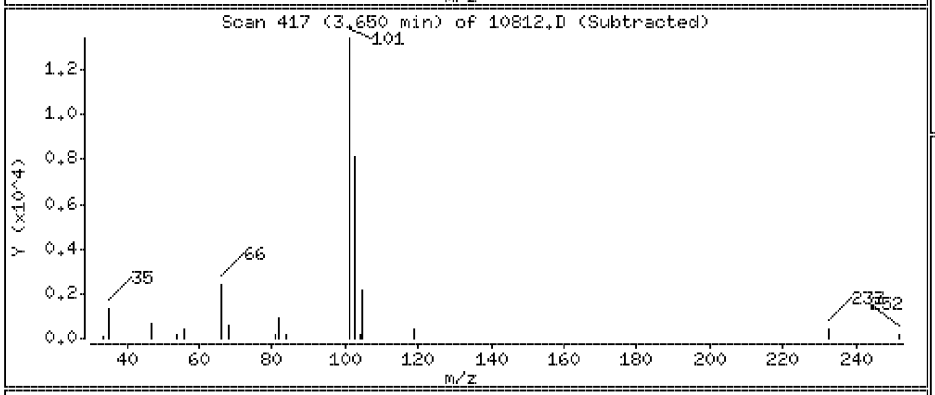
Column phase: J&W DB-5

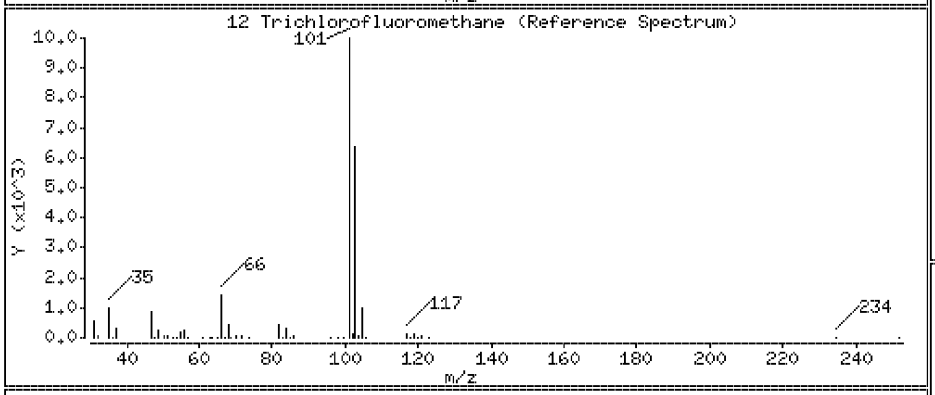
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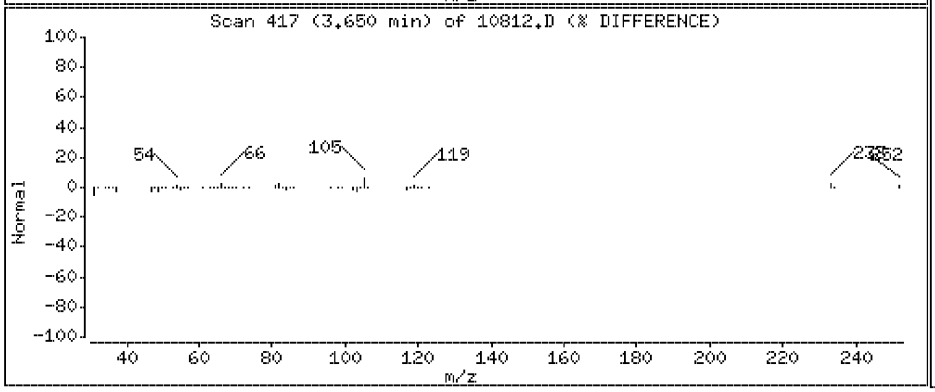
12 Trichlorofluoromethane

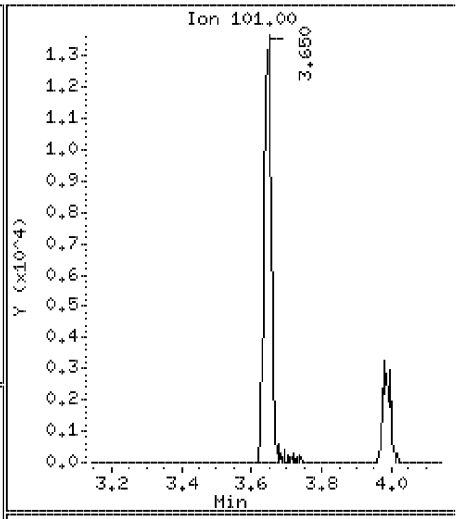
Concentration: 0.195 ppbv

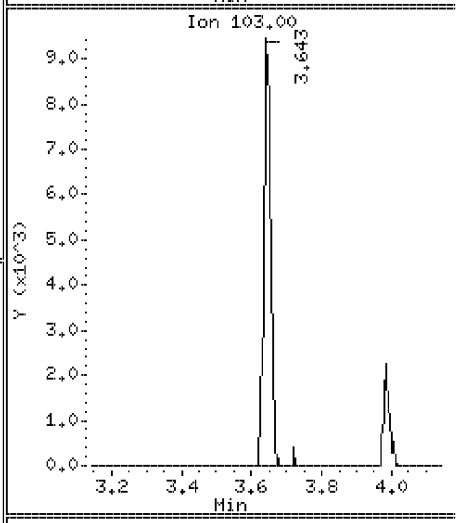


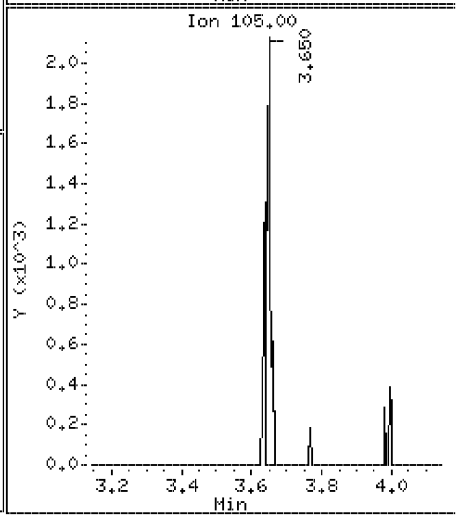












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

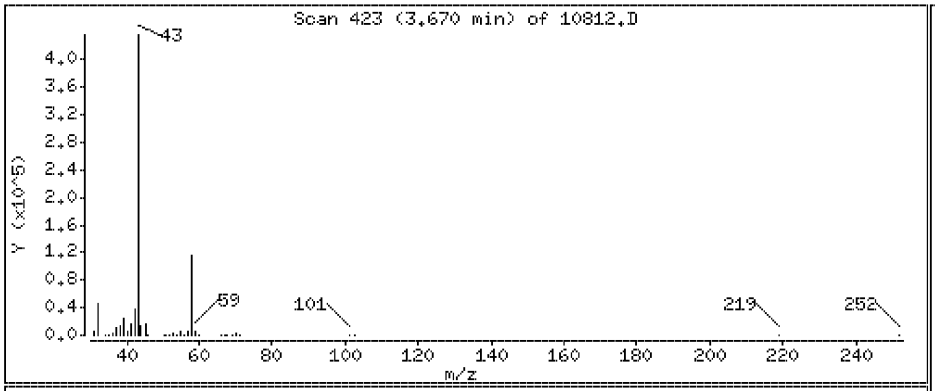
Operator: CJR

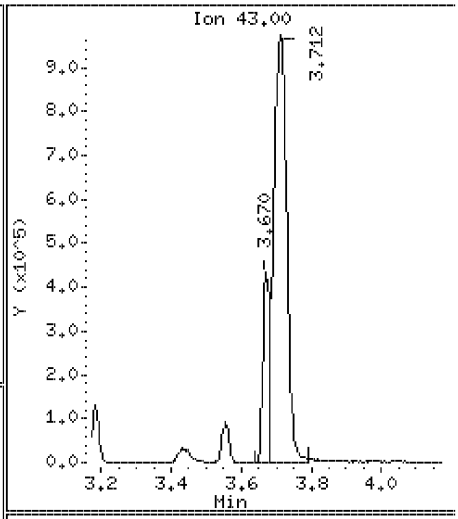
Column phase: J&W DB-5

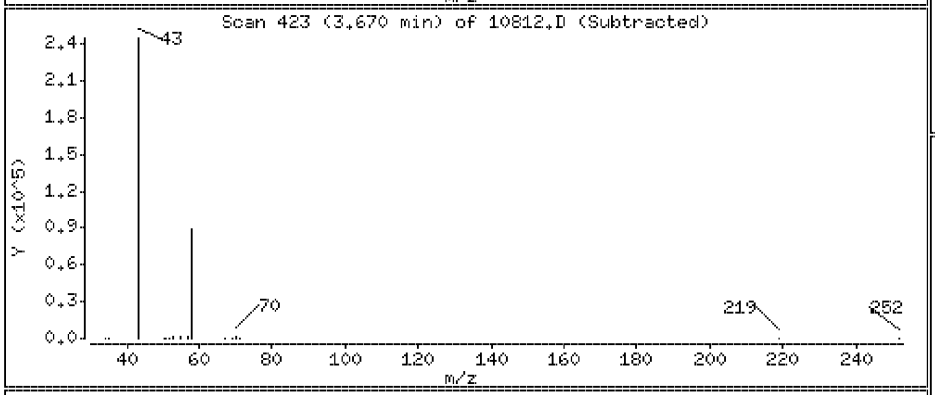
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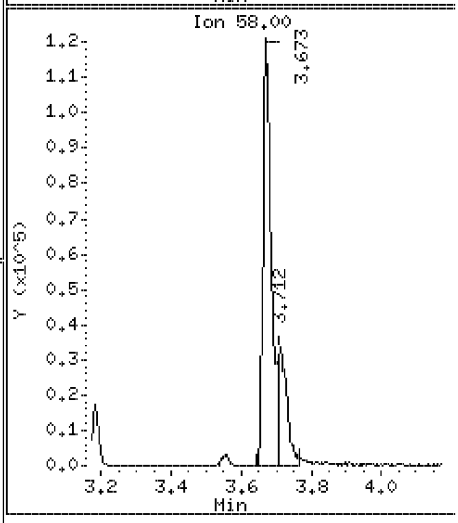
13 Acetone

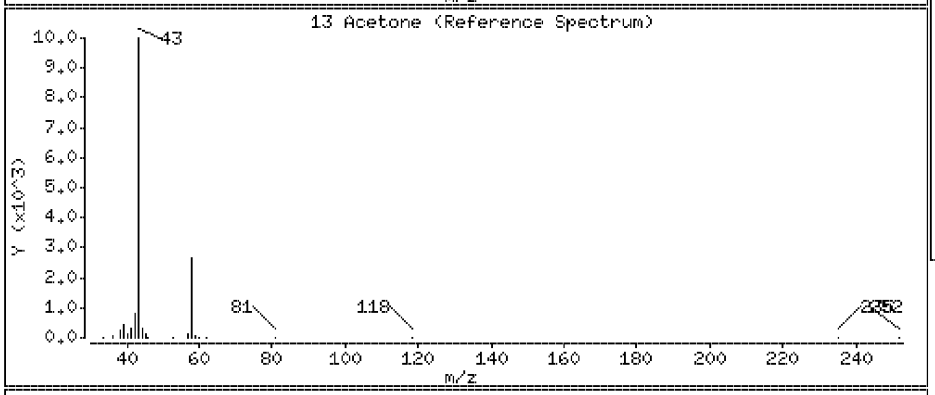
Concentration: 12.1 ppbv

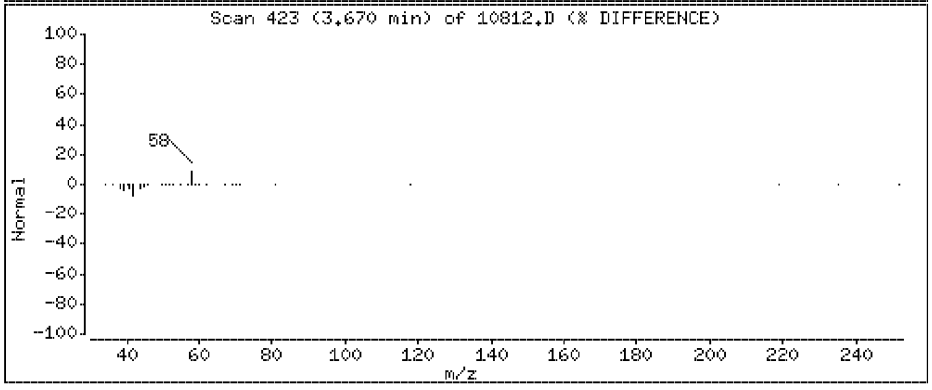












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

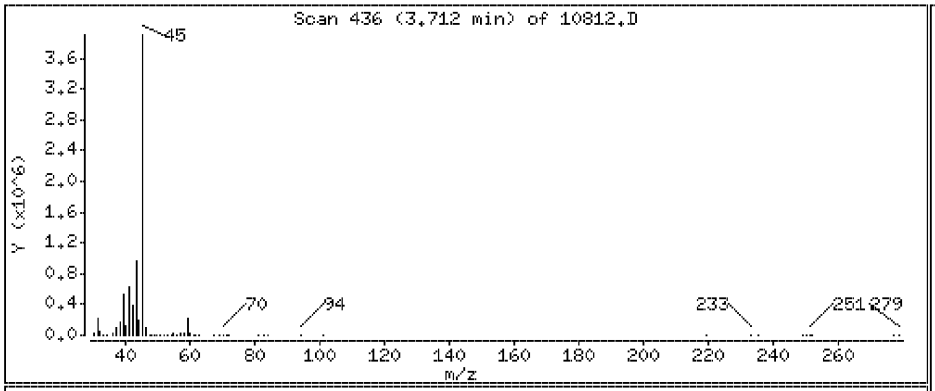
Operator: CJR

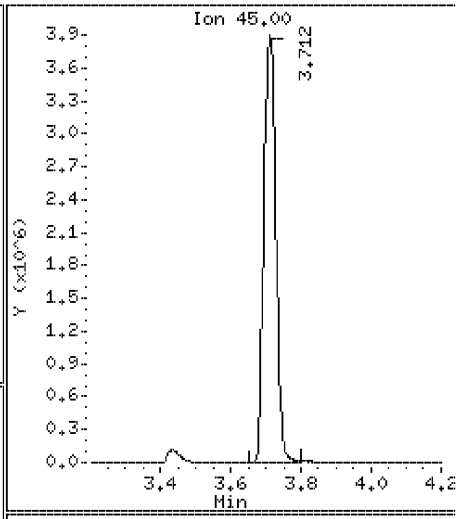
Column phase: J&W DB-5

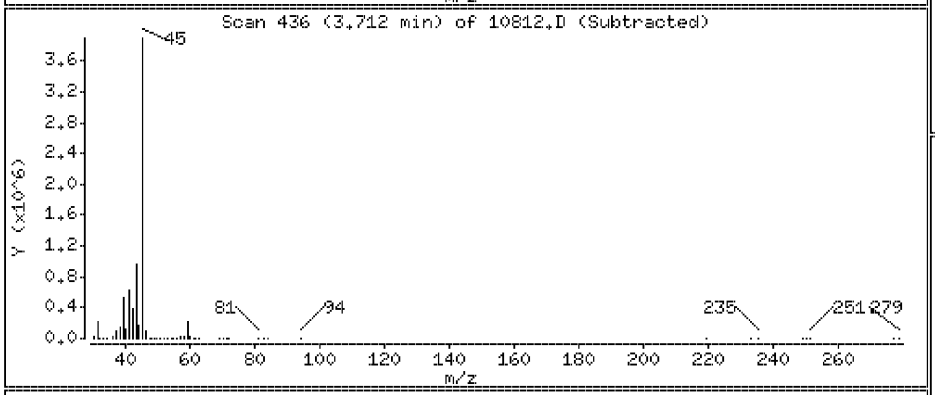
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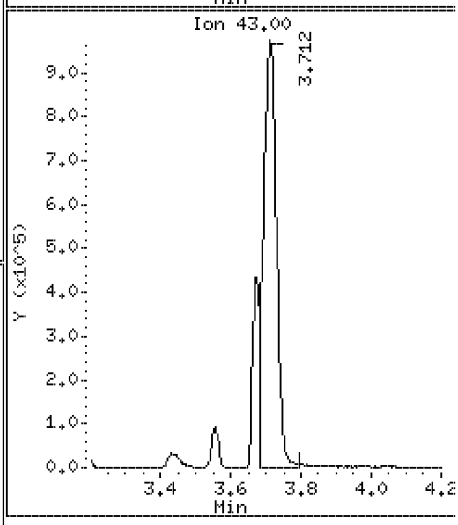
14 Isopropyl Alcohol

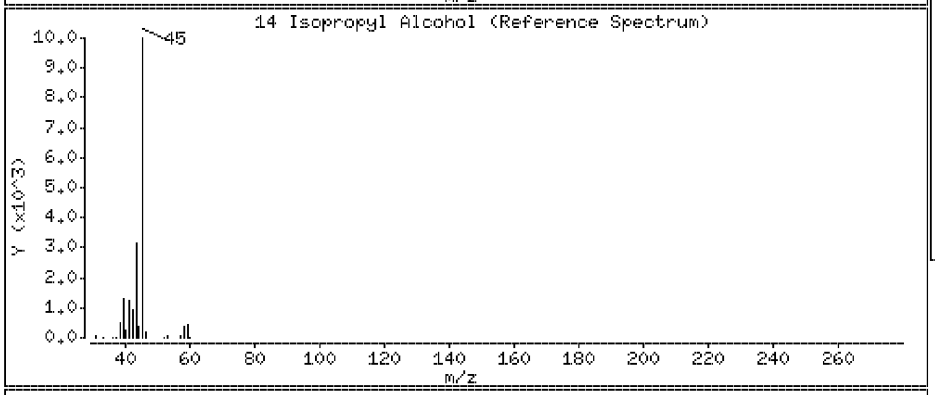
Concentration: 280 ppbv

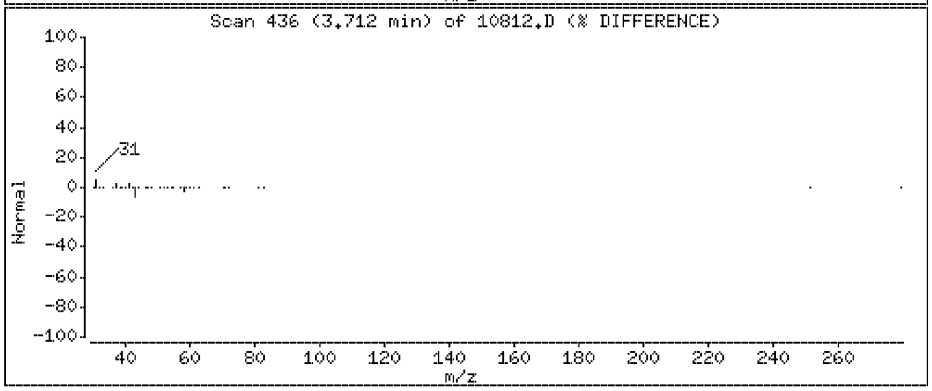












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

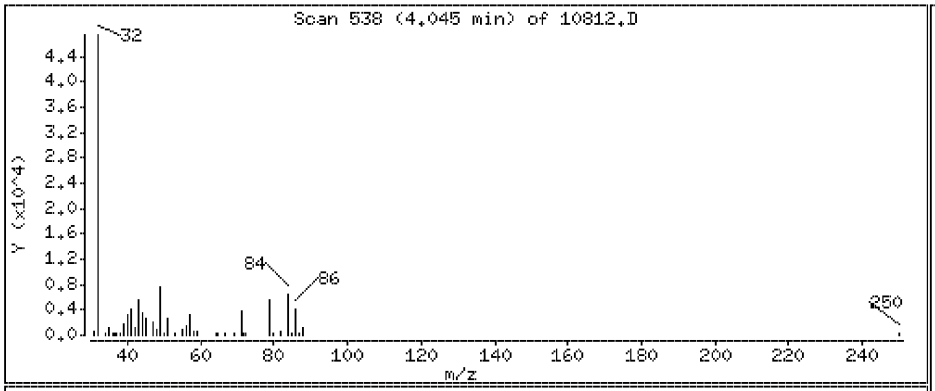
Operator: CJR

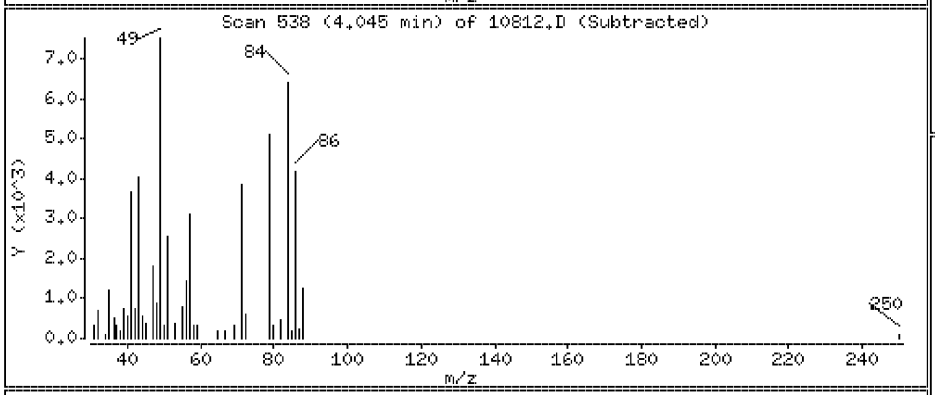
Column phase: J&W DB-5

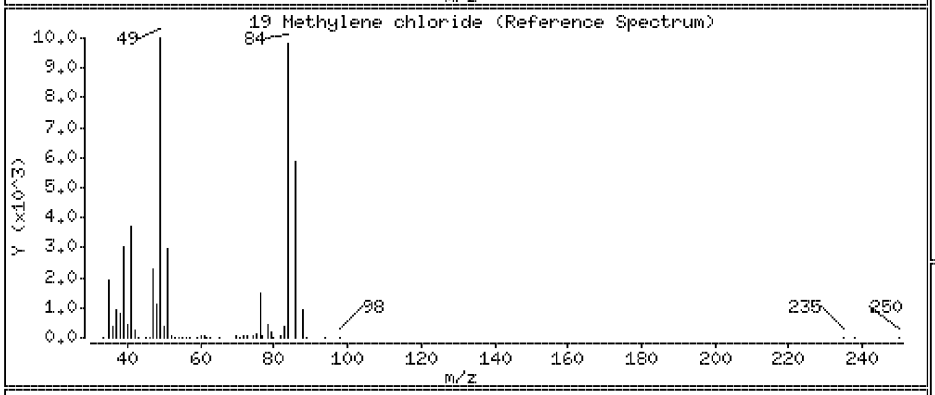
Column diameter: 0.32

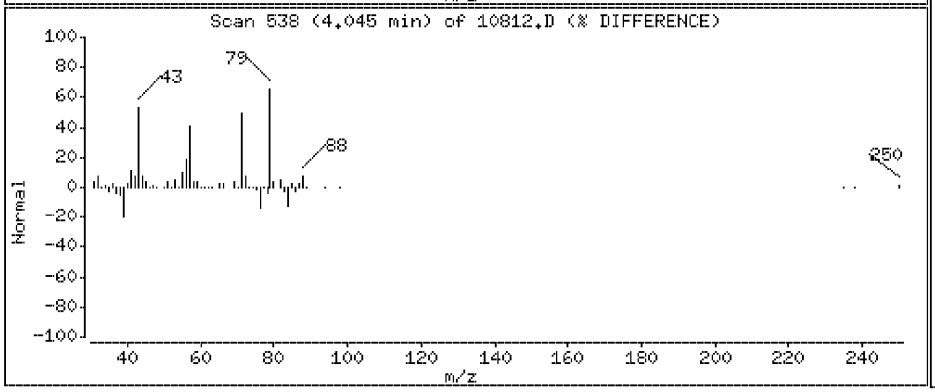
19 Methylene chloride

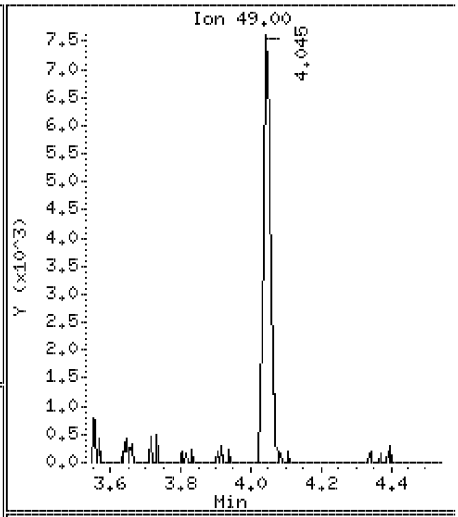
Concentration: 0.364 ppbv

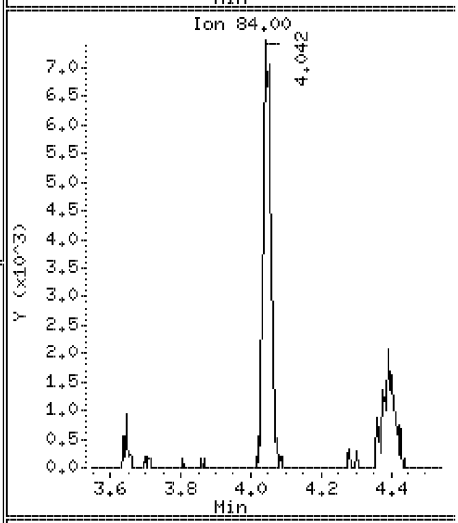


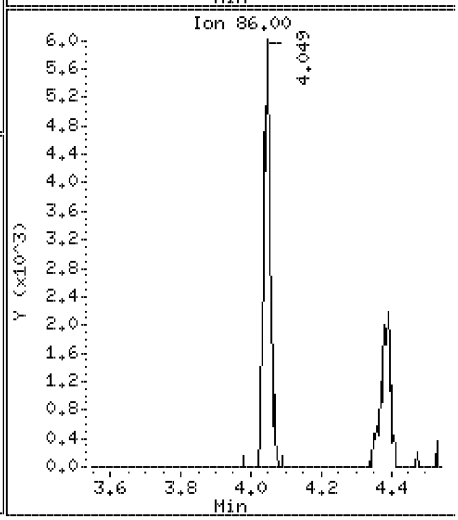












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

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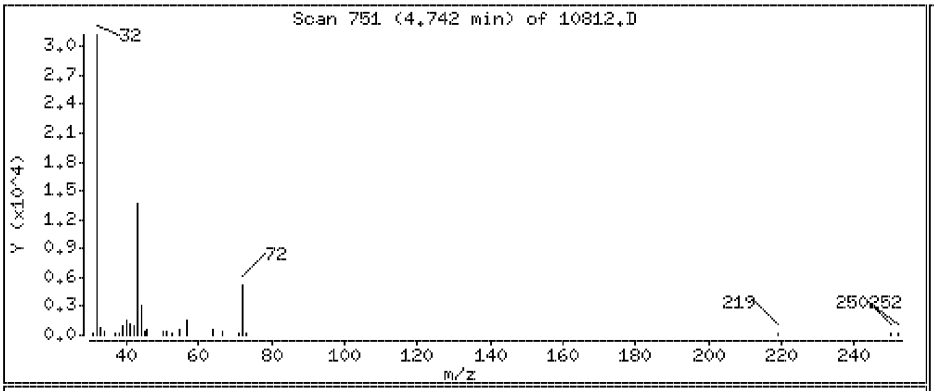
Operator: CJR

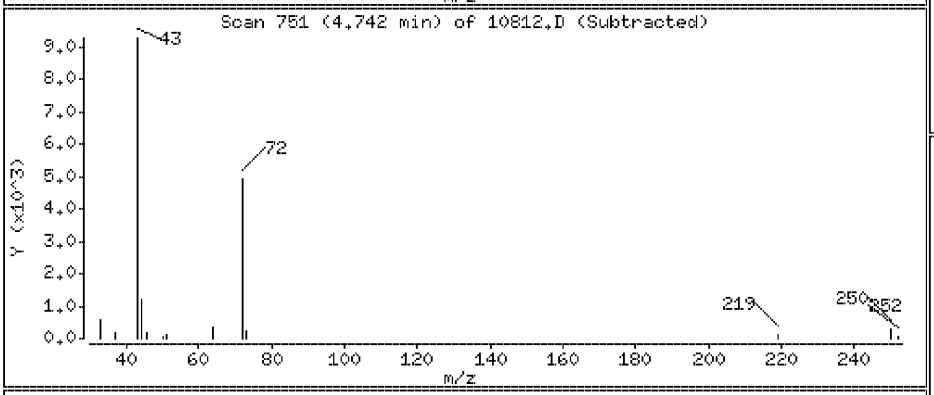
Column phase: J&W DB-5

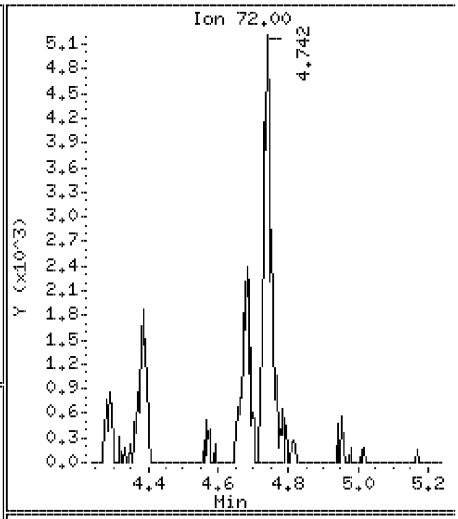
Column diameter: 0.32

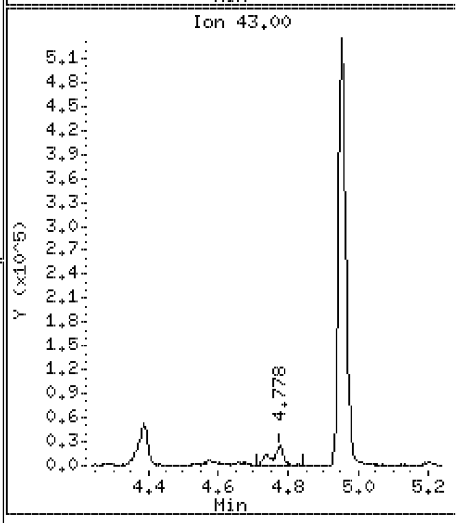
27 Methyl Ethyl Ketone

Concentration: 0.576 ppbv









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Date : 18-APR-2013 16:30

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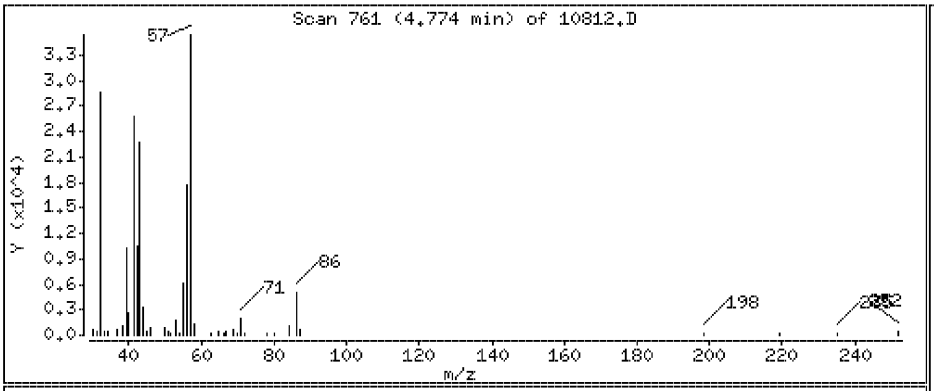
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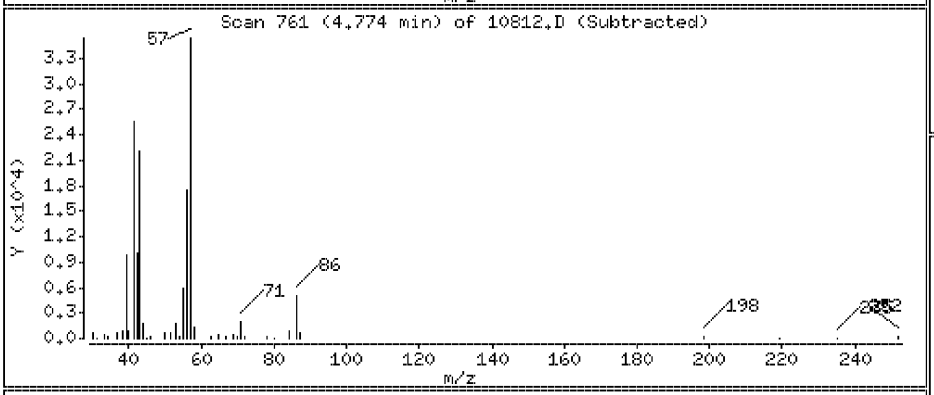
Column phase: J&W DB-5

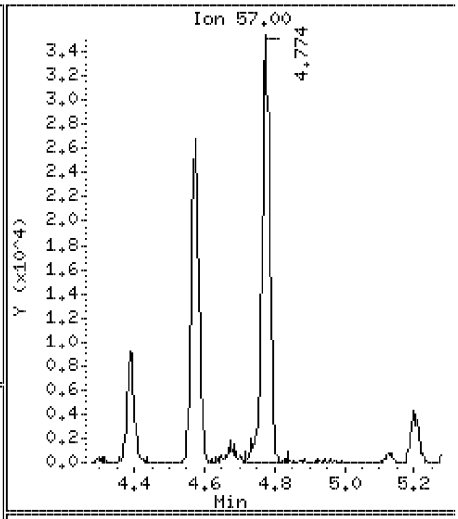
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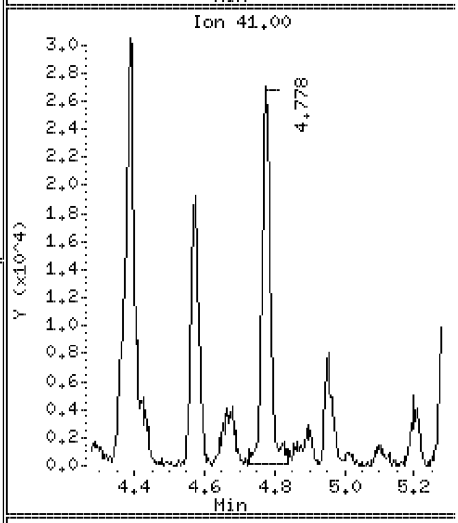
28 n-Hexane

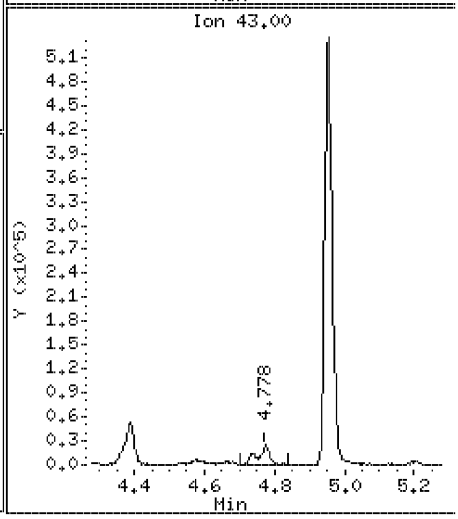
Concentration: 1.32 ppbv











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Date : 18-APR-2013 16:30

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Sample Info:

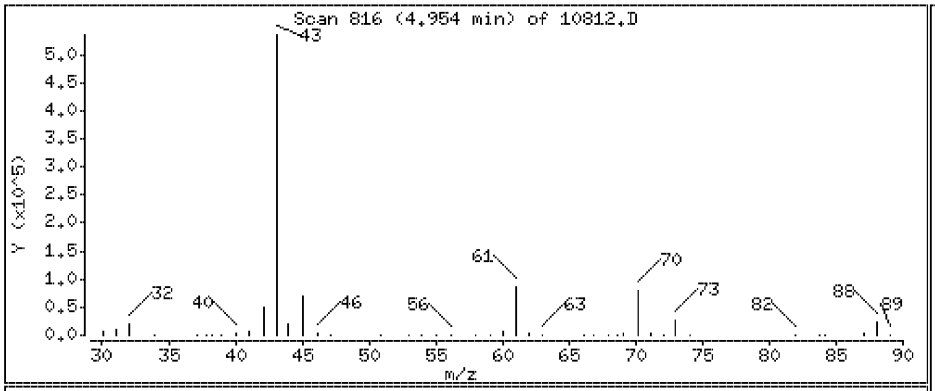
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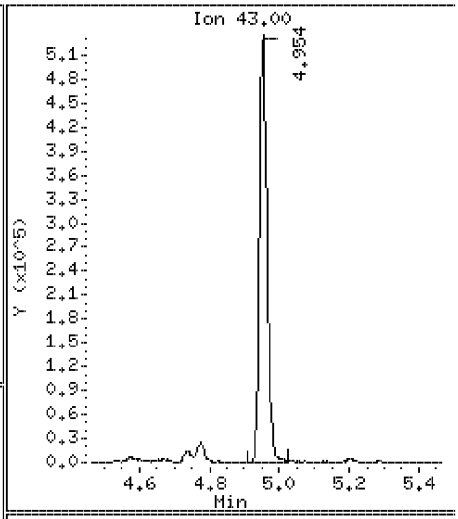
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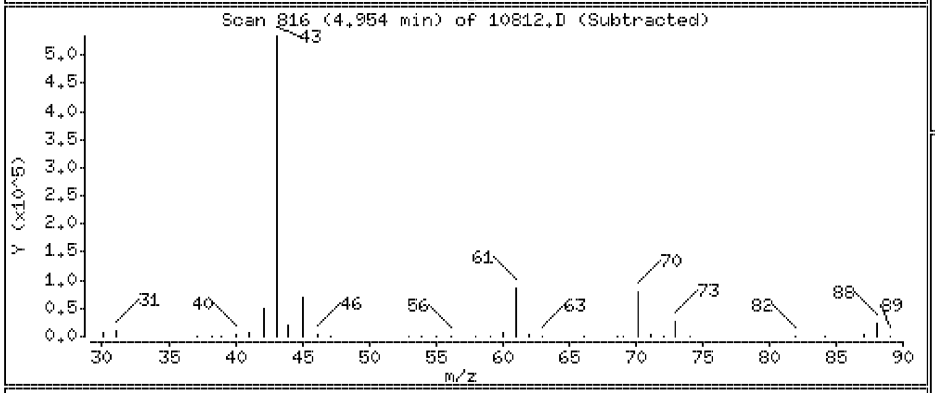
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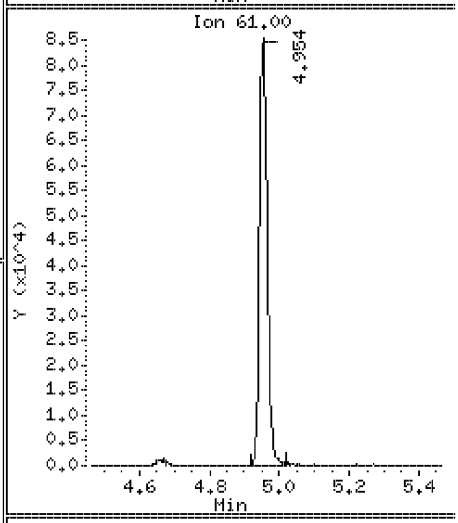
30 Ethyl Acetate

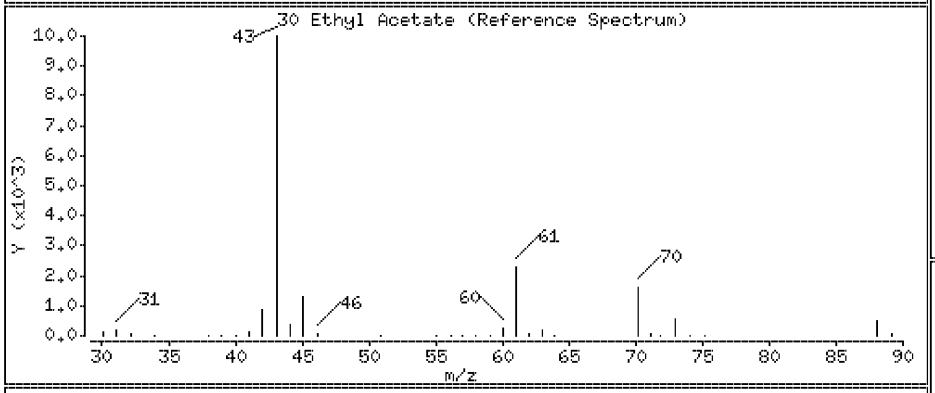
Concentration: 20.3 ppbv

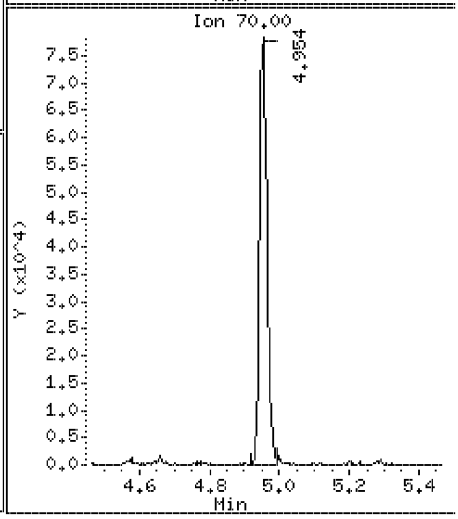


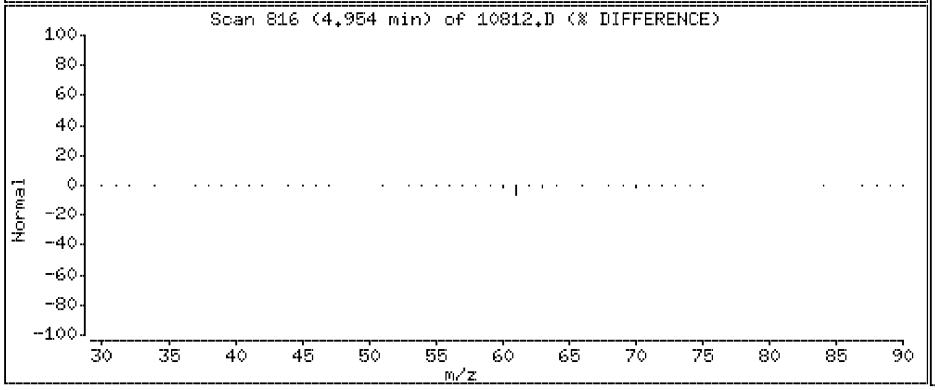












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Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

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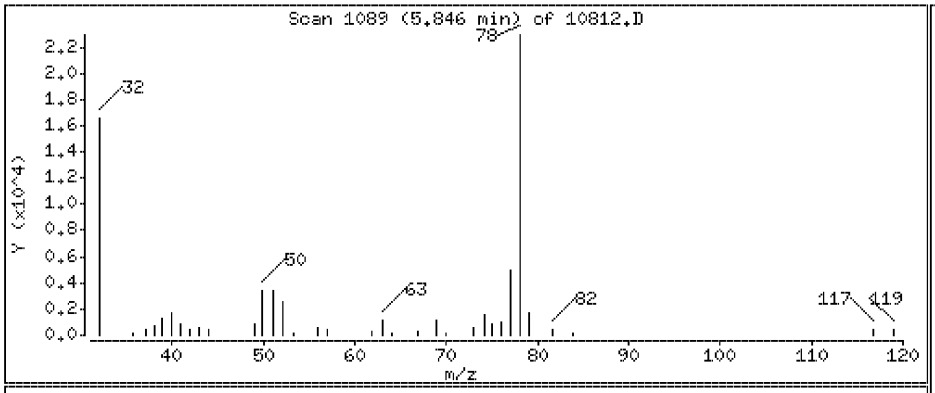
Operator: CJR

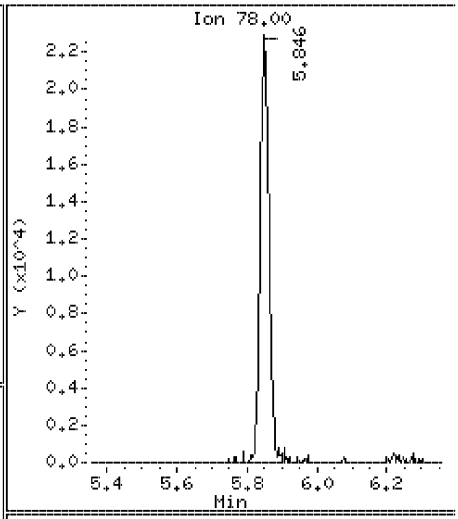
Column phase: J&W DB-5

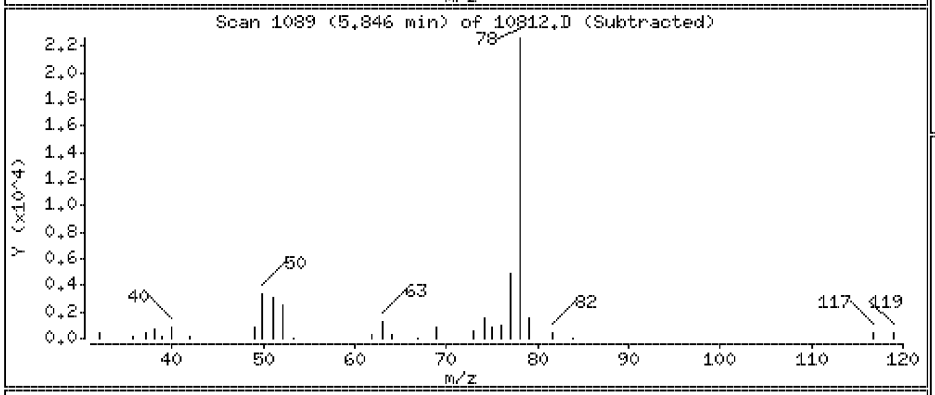
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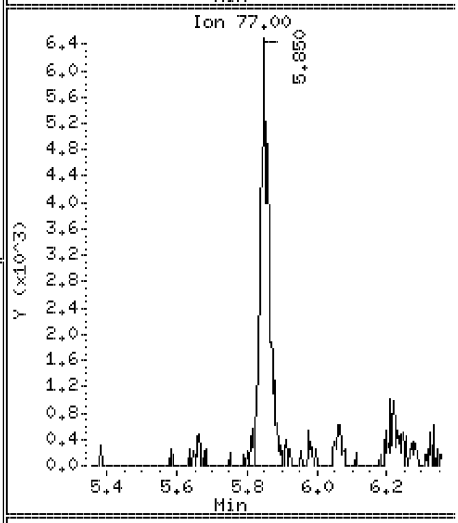
35 Benzene

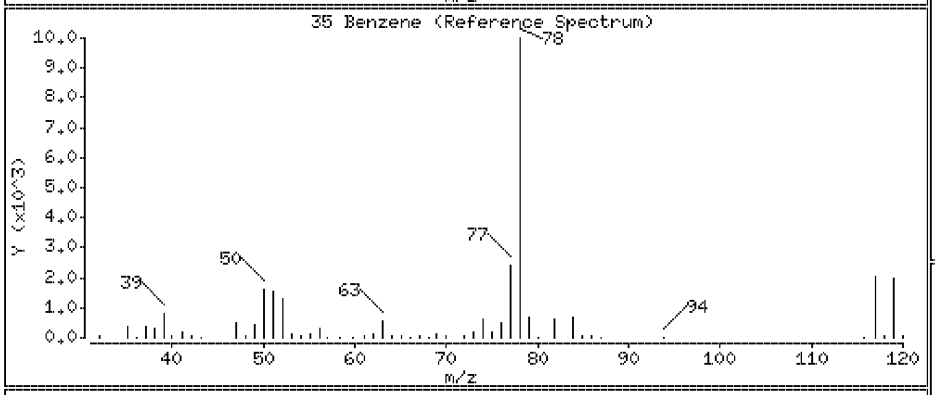
Concentration: 0.437 ppbv

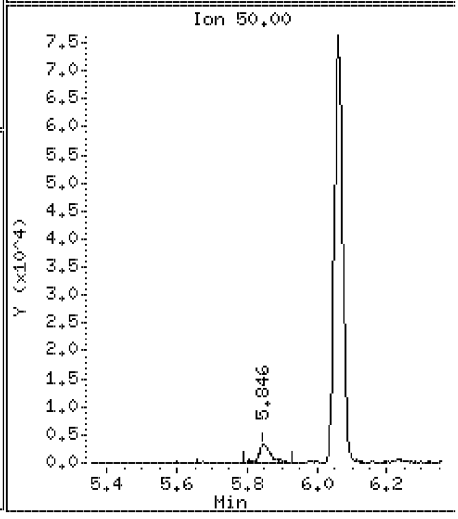


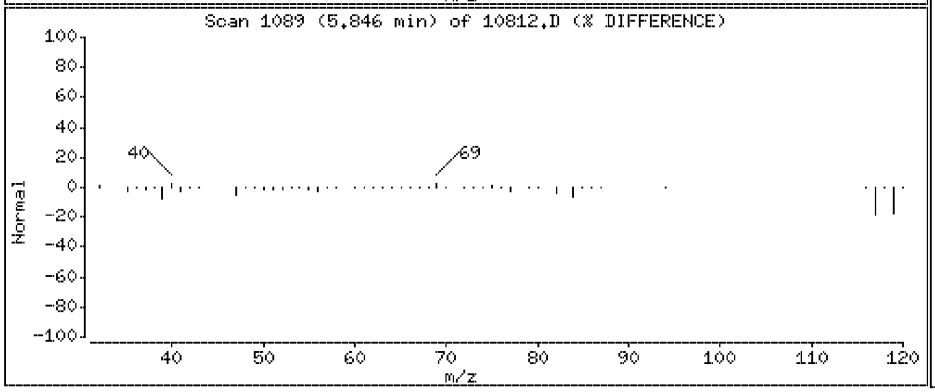












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Date : 18-APR-2013 16:30

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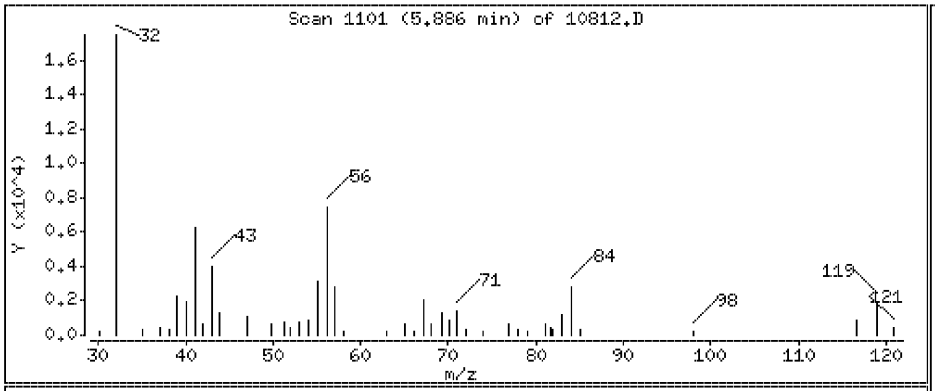
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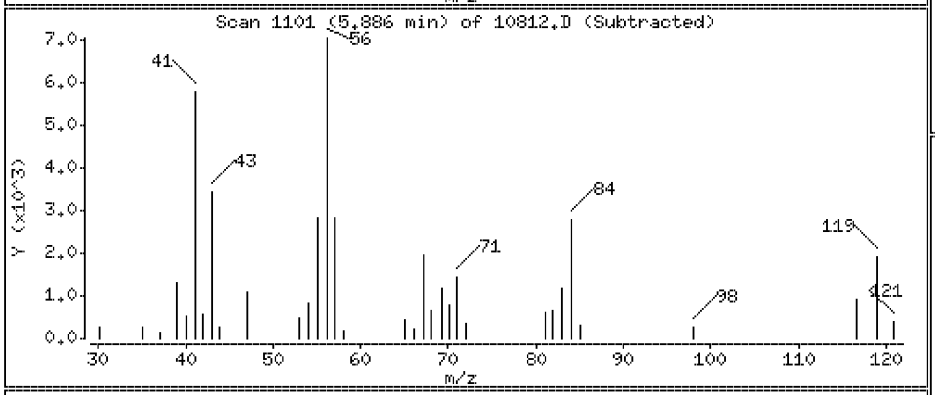
Column phase: J&W DB-5

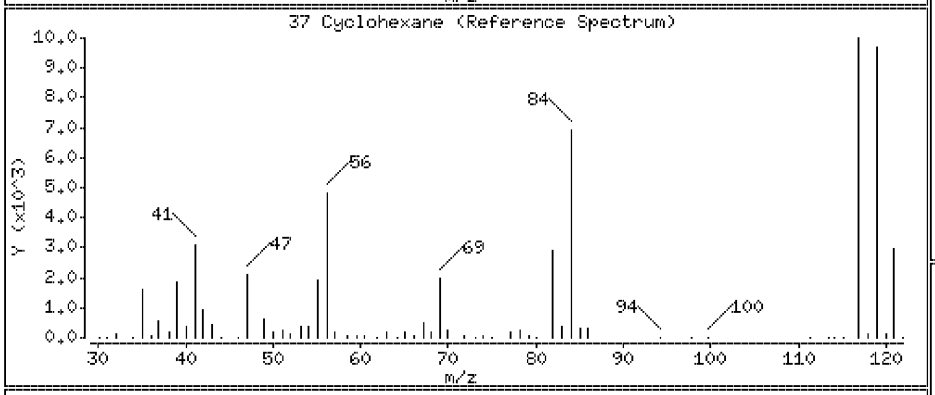
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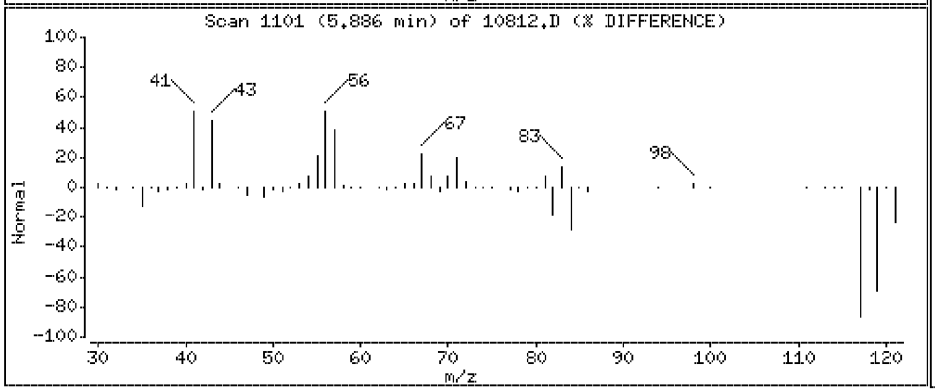
37 Cyclohexane

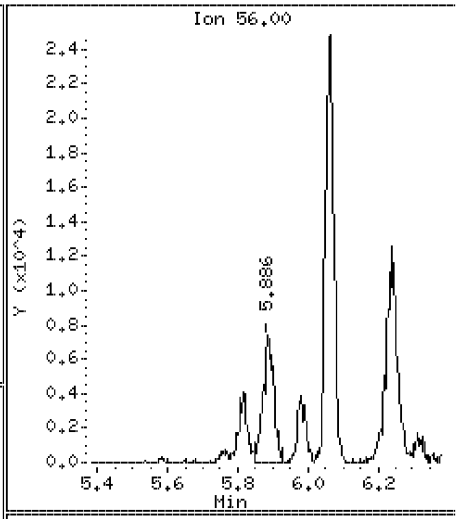
Concentration: 0.819 ppbv

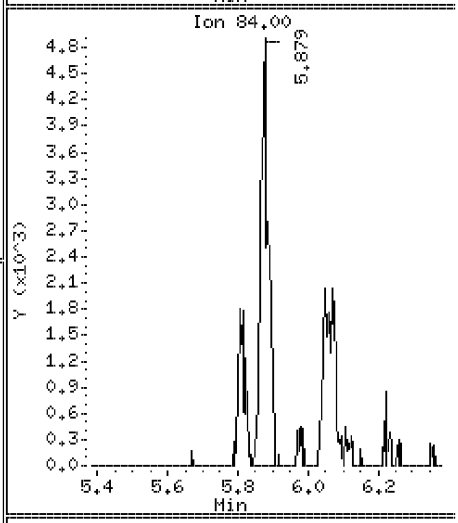


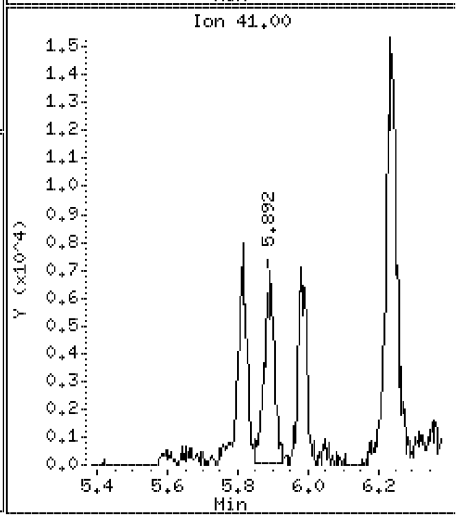












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Date : 18-APR-2013 16:30

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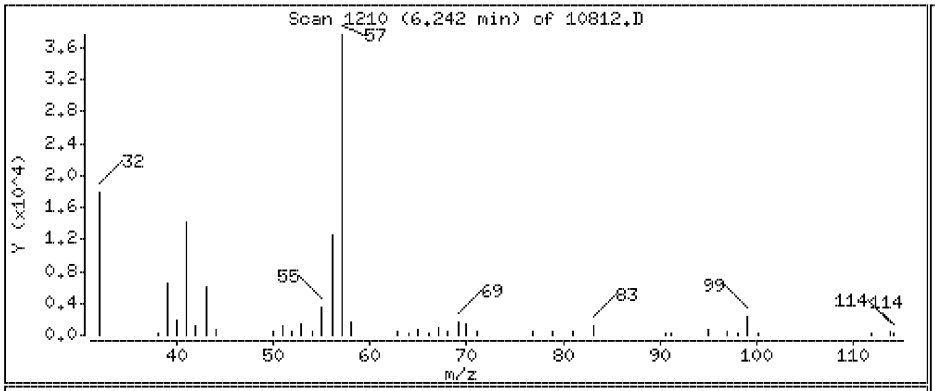
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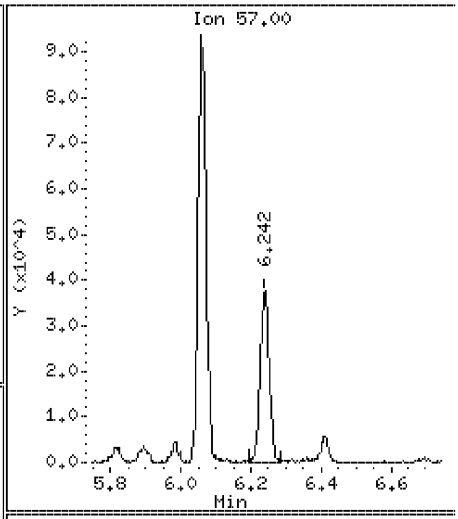
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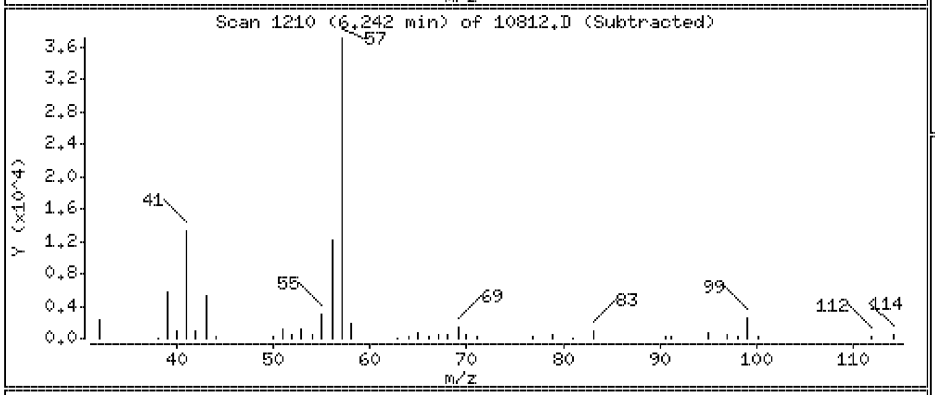
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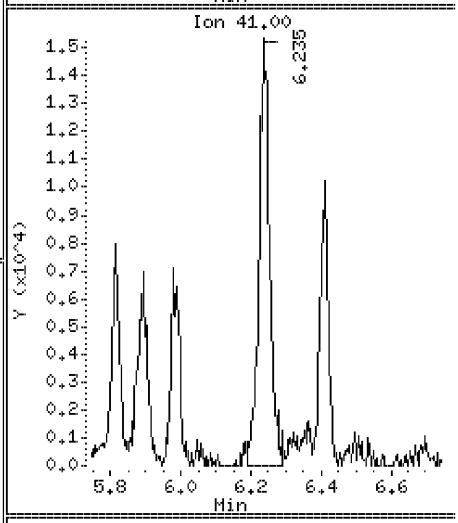
39 2,2,4-Trimethylpentane

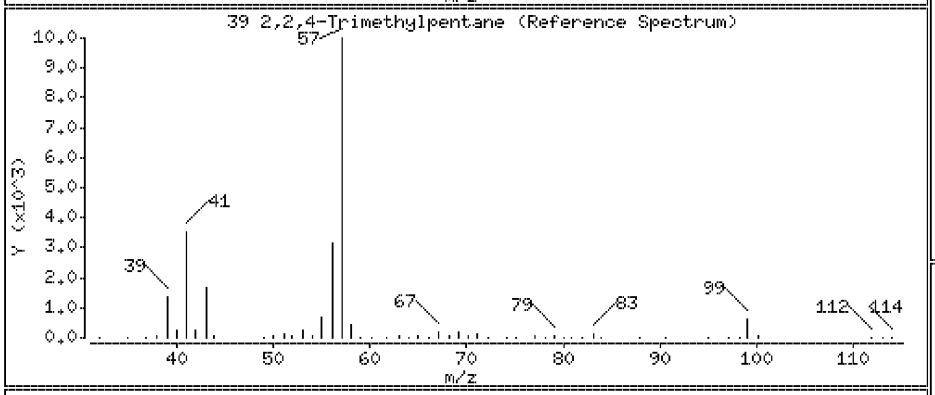
Concentration: 1.03 ppbv

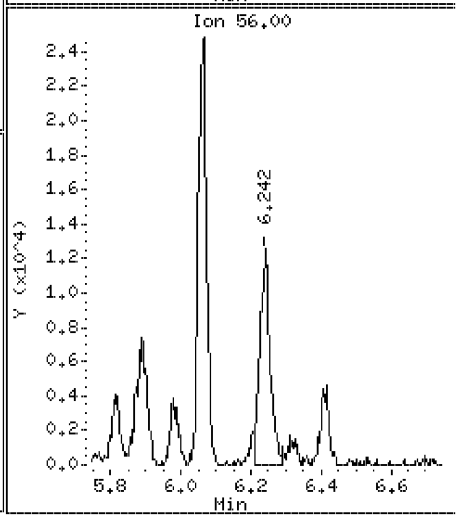


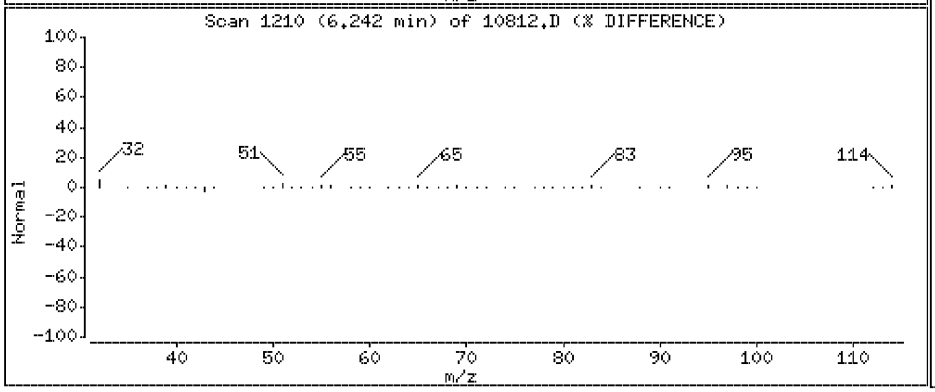












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Date : 18-APR-2013 16:30

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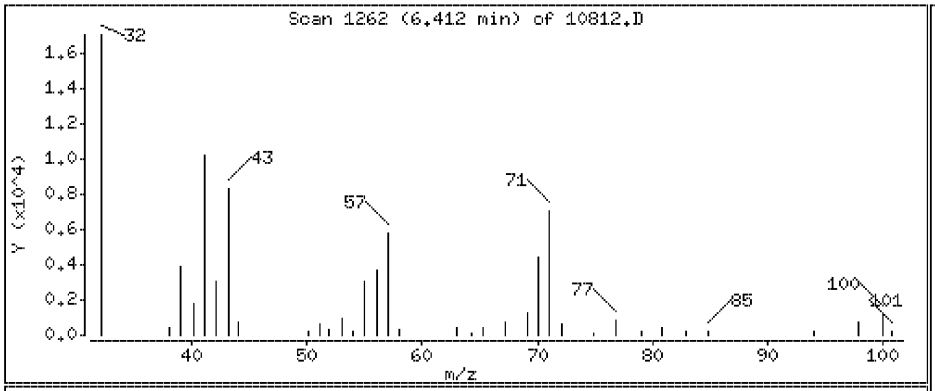
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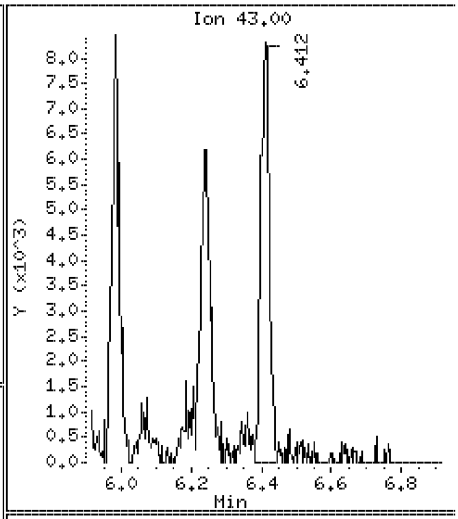
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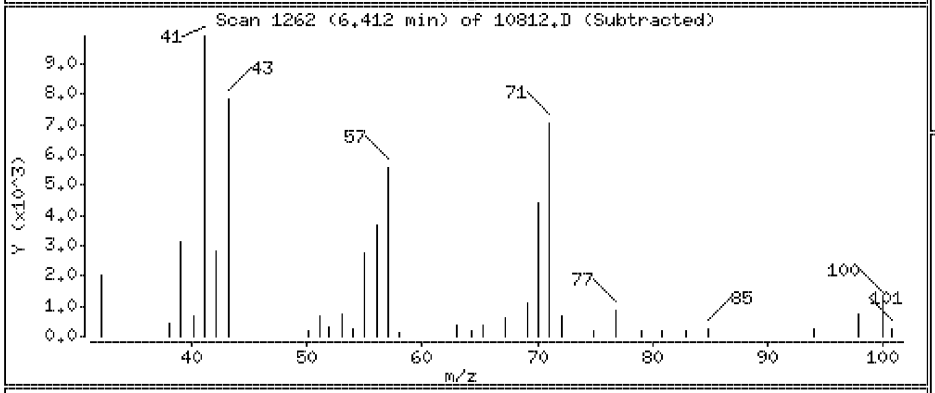
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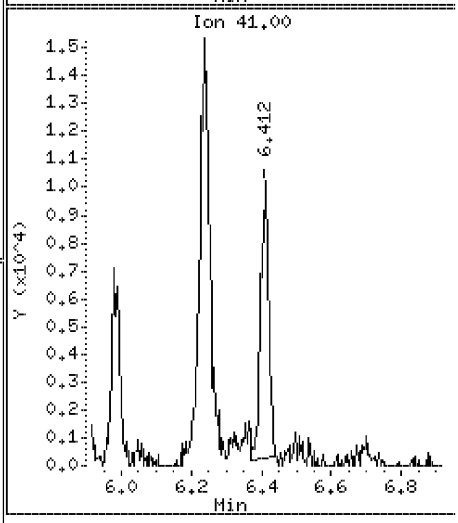
40 Heptane

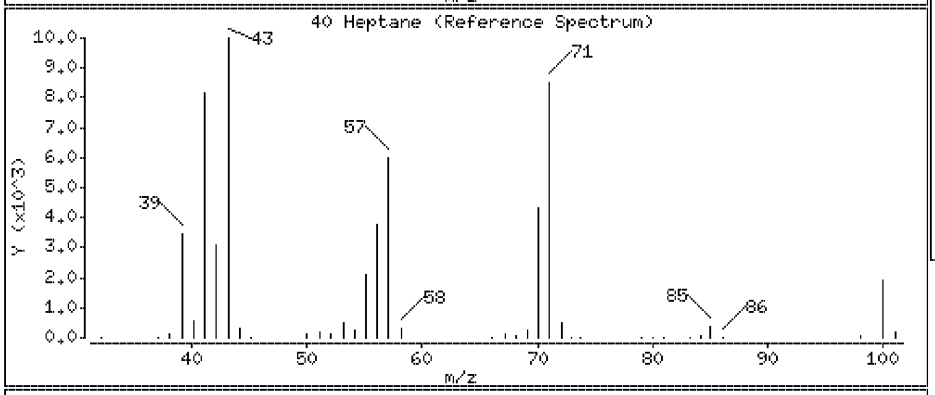
Concentration: 0.998 ppbv

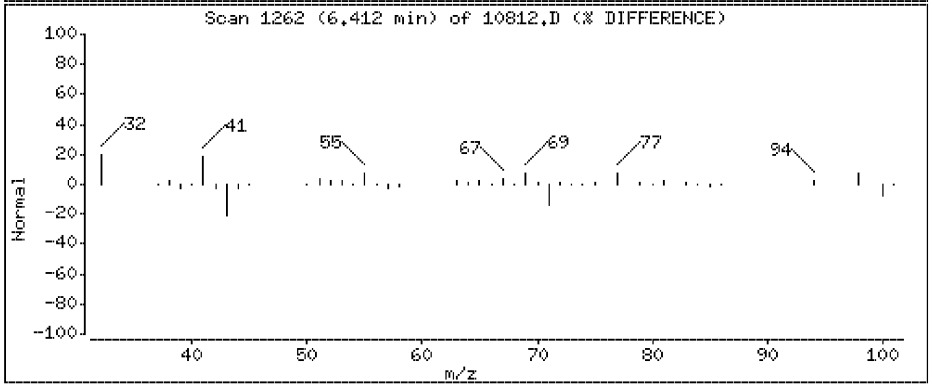












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Date : 18-APR-2013 16:30

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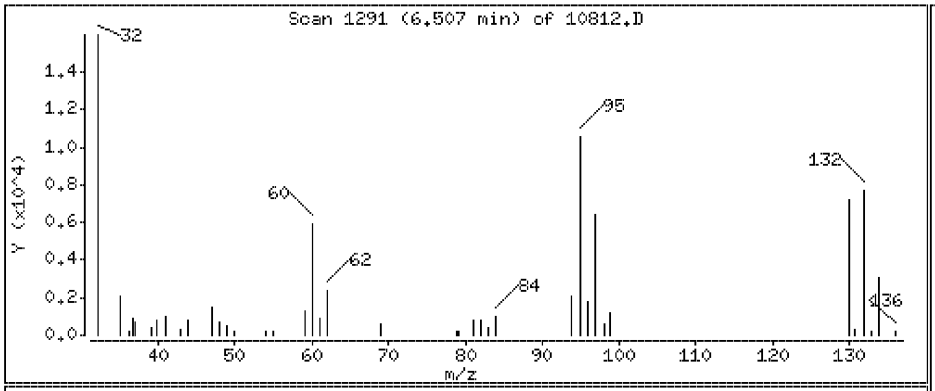
Operator: CJR

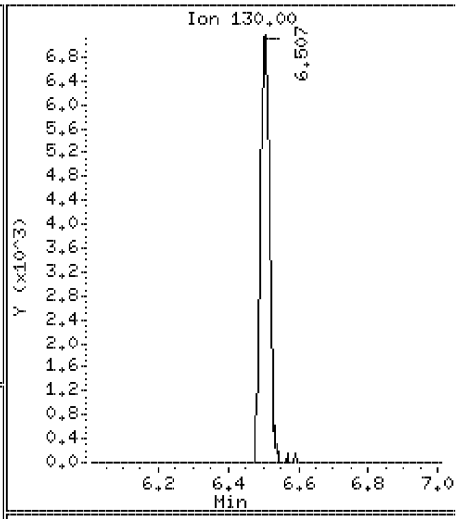
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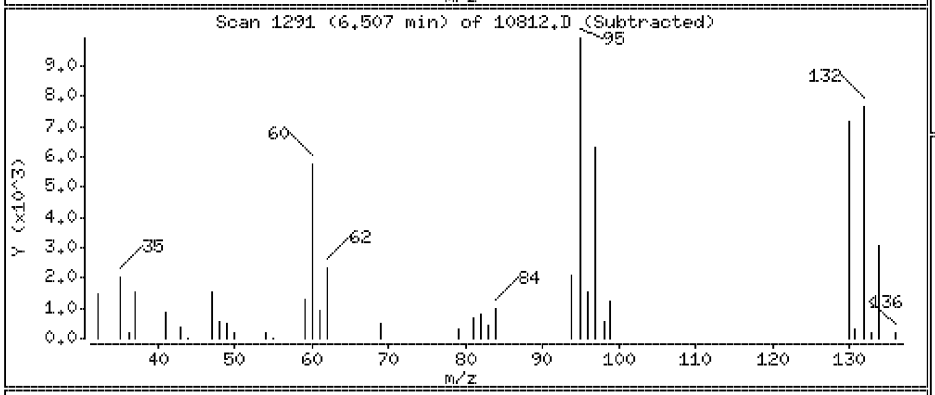
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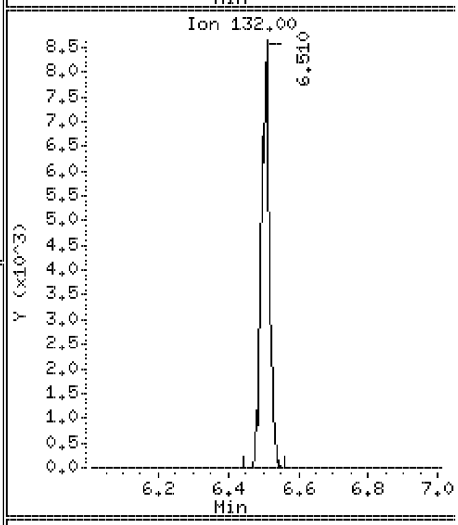
42 Trichloroethene

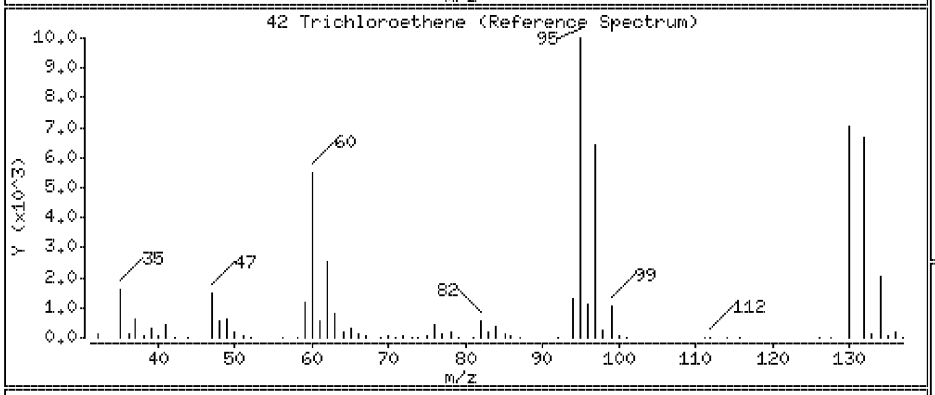
Concentration: 0.527 ppbv

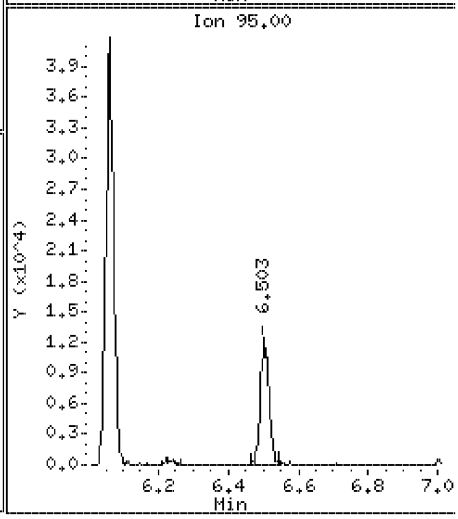


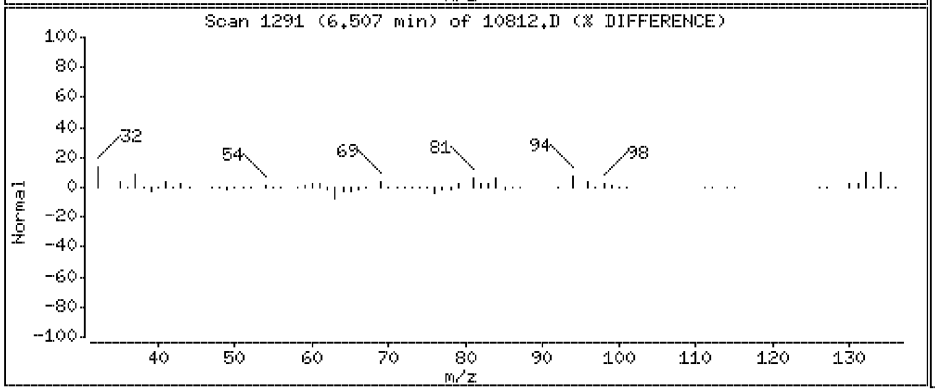












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

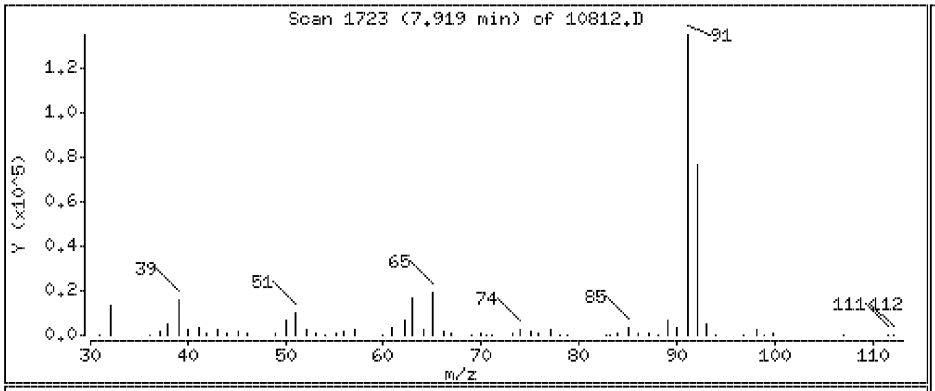
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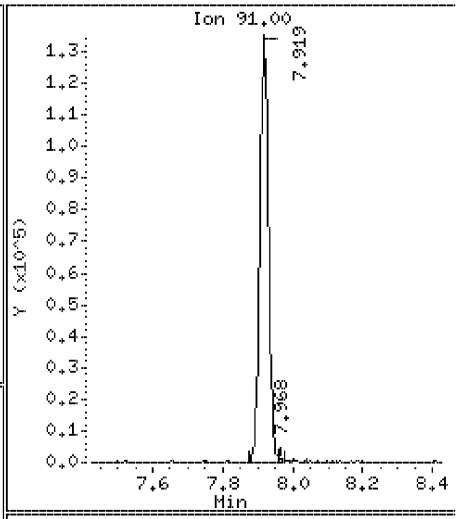
Column phase: J&W DB-5

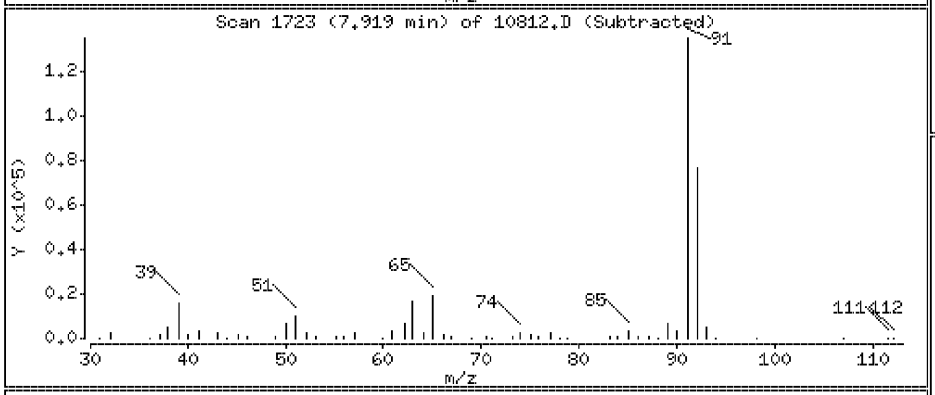
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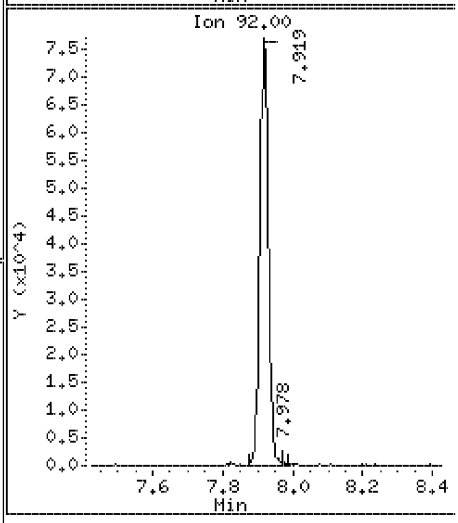
49 Toluene

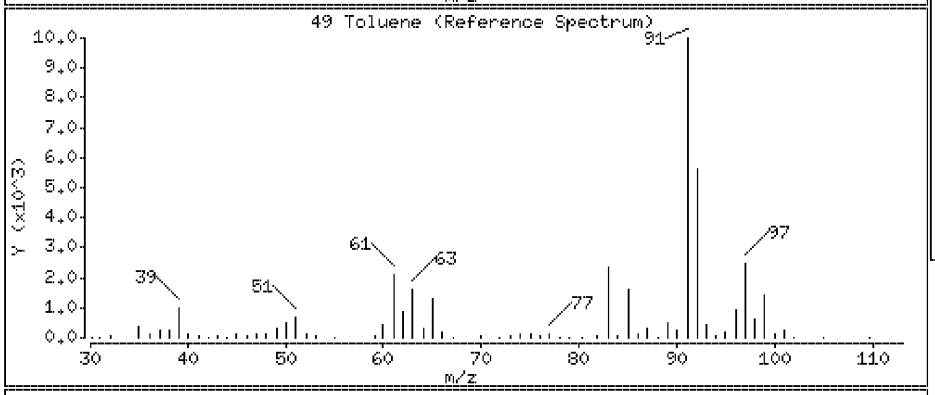
Concentration: 1.82 ppbv

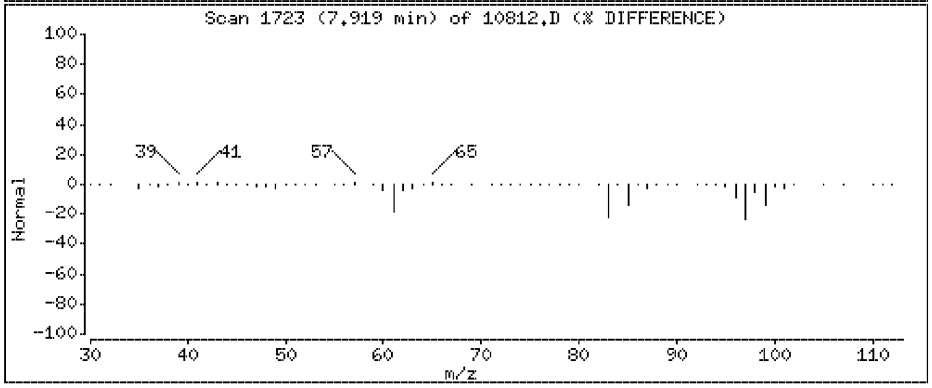












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

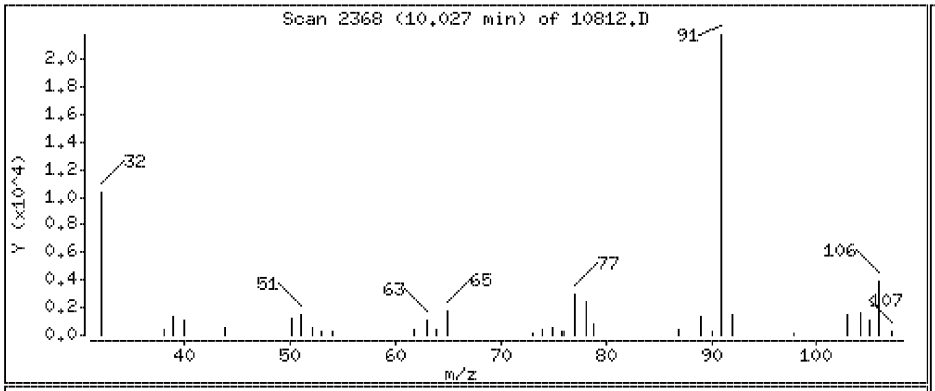
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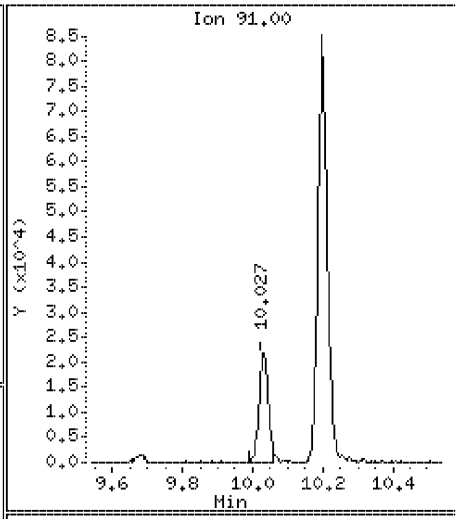
Column phase: J&W DB-5

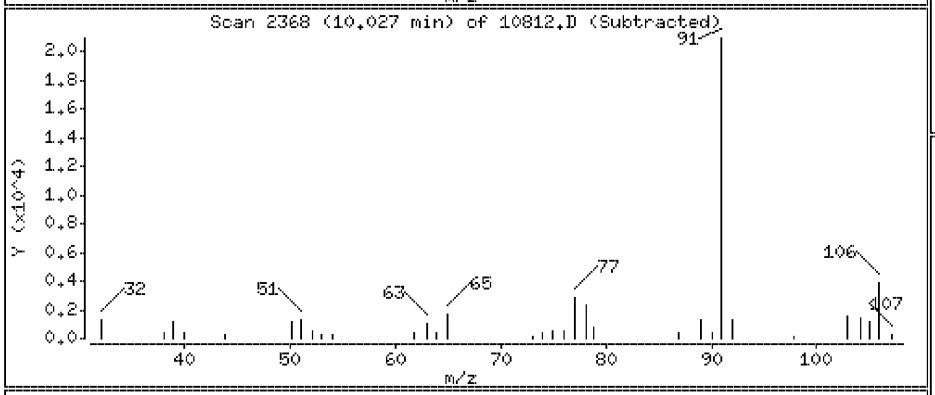
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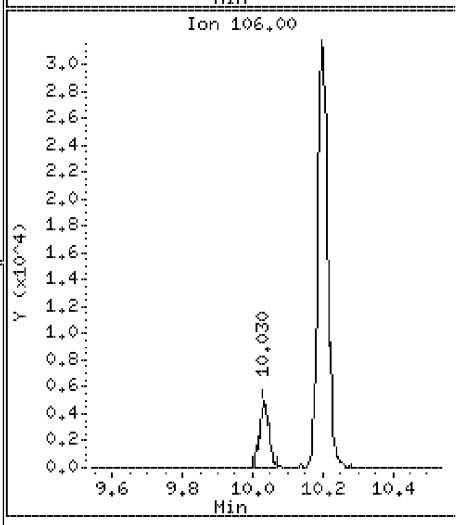
57 Ethyl Benzene

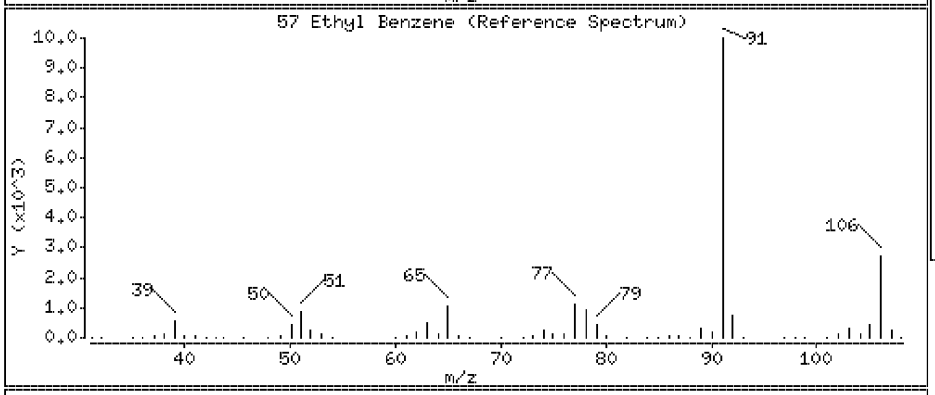
Concentration: 0.470 ppbv

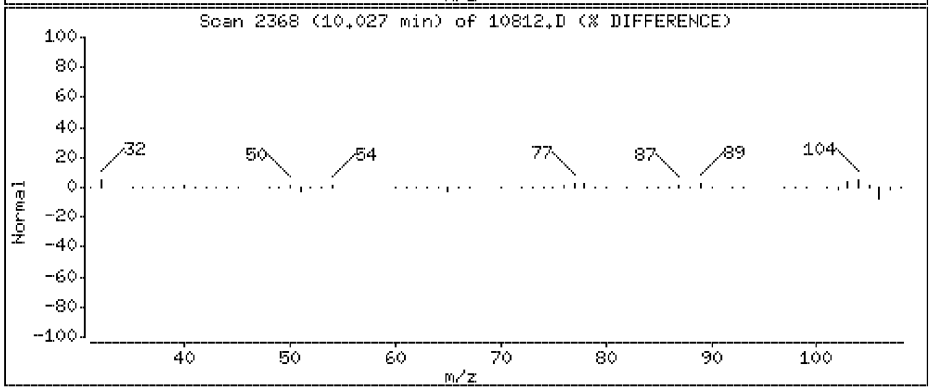












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

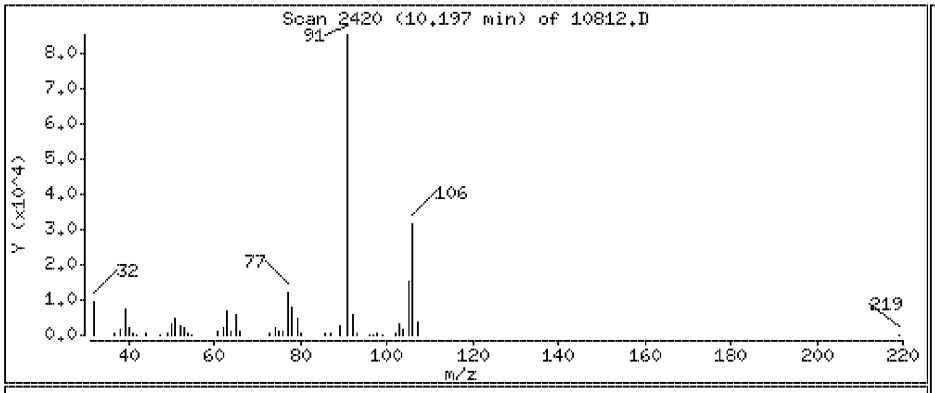
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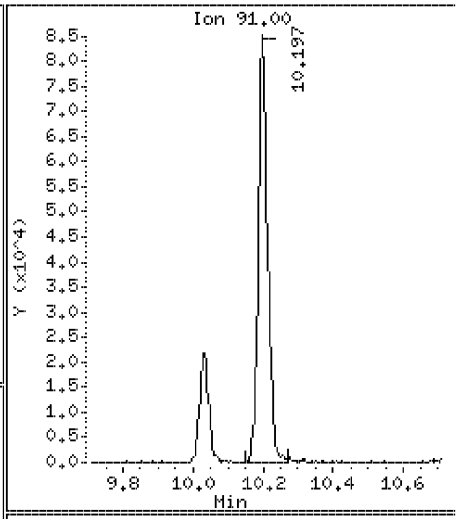
Column phase: J&W DB-5

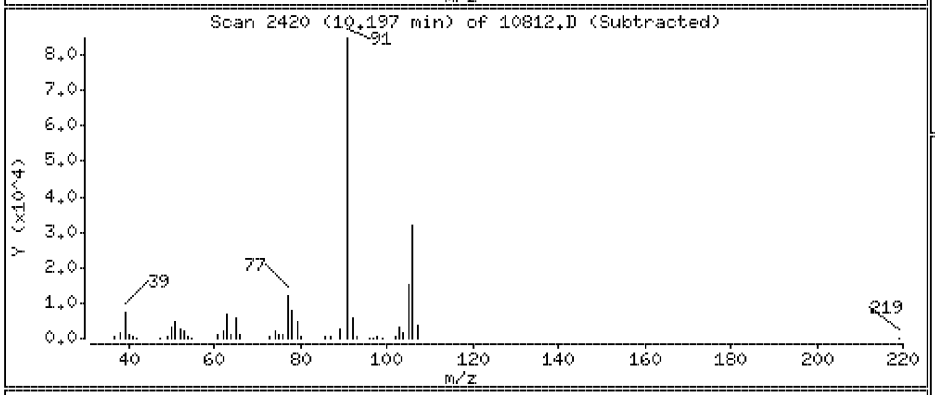
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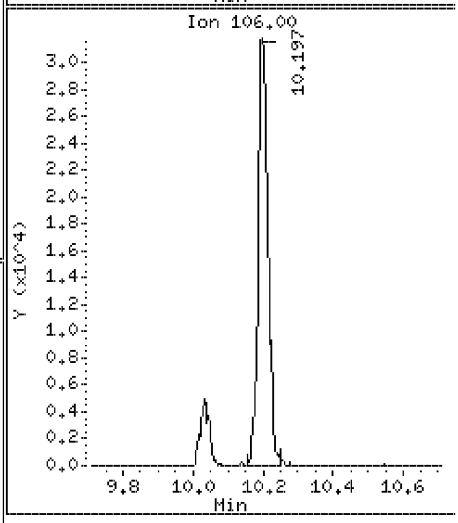
58 m&p-Xylene

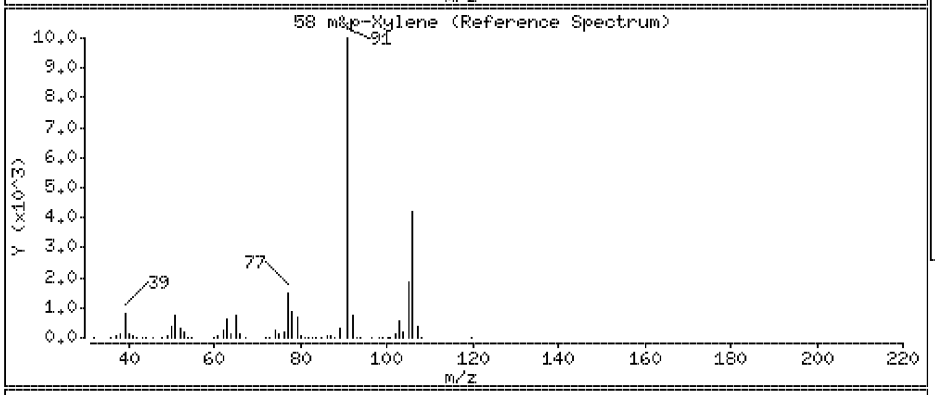
Concentration: 1.50 ppbv

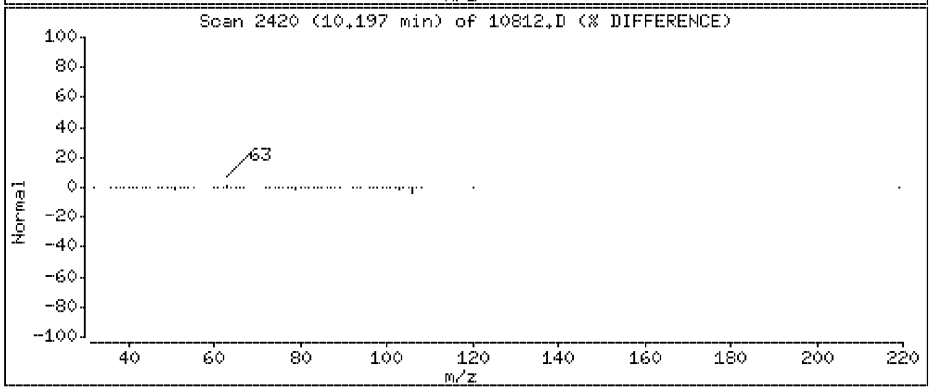












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

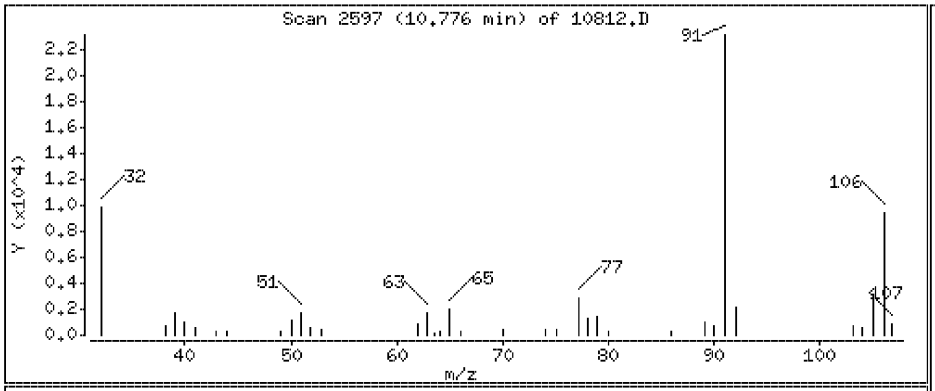
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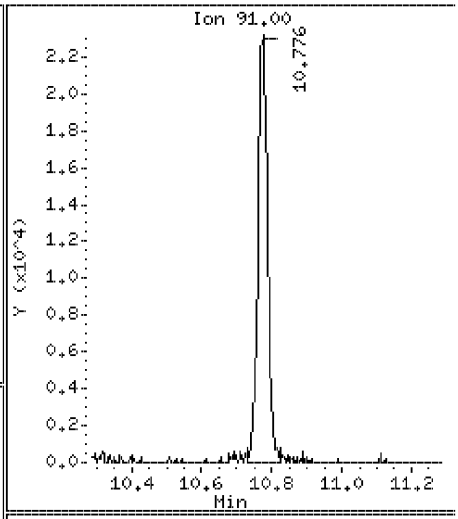
Column phase: J&W DB-5

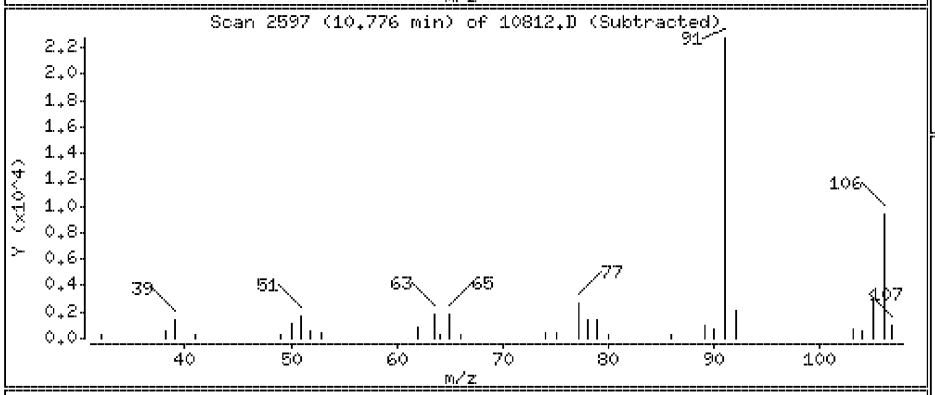
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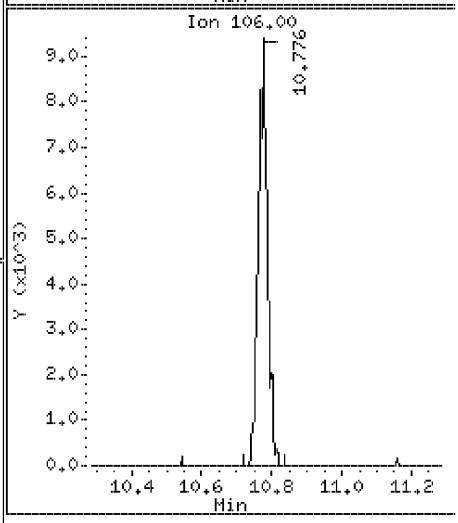
61 o-Xylene

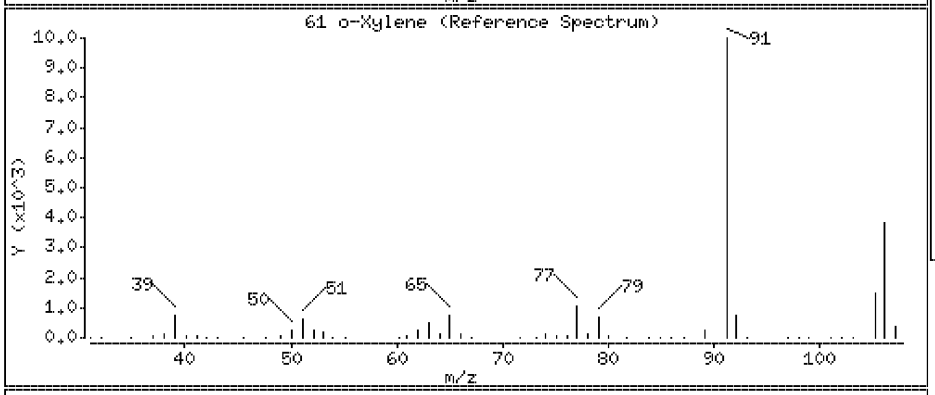
Concentration: 0.428 ppbv

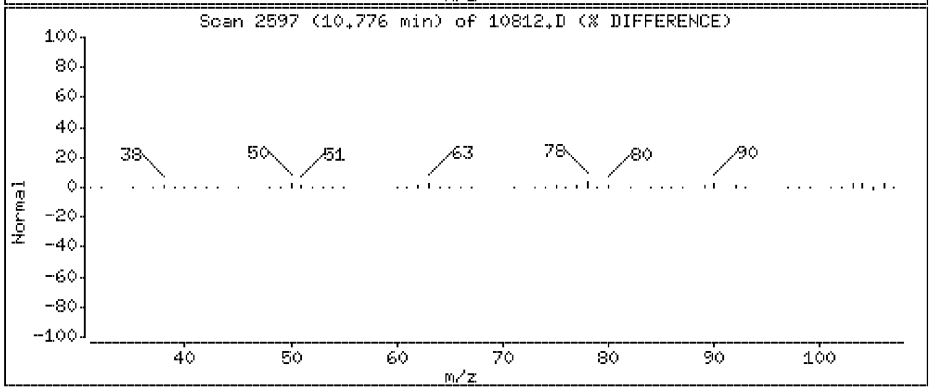












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10812.D

Date : 18-APR-2013 16:30

Client ID:

Instrument: 10airD.i

Sample Info:

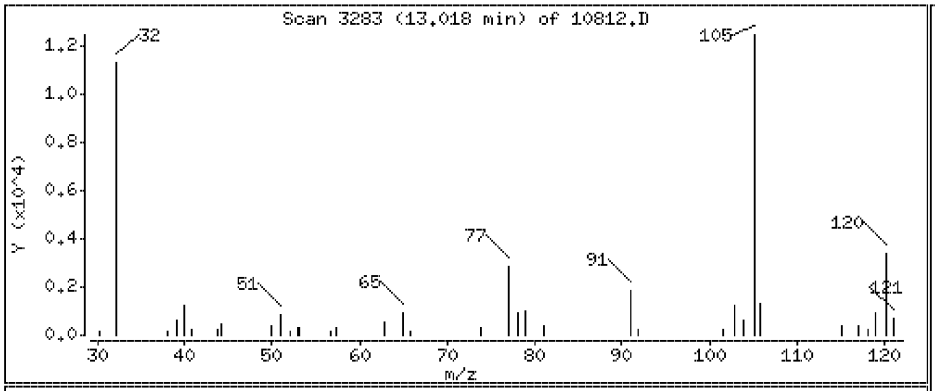
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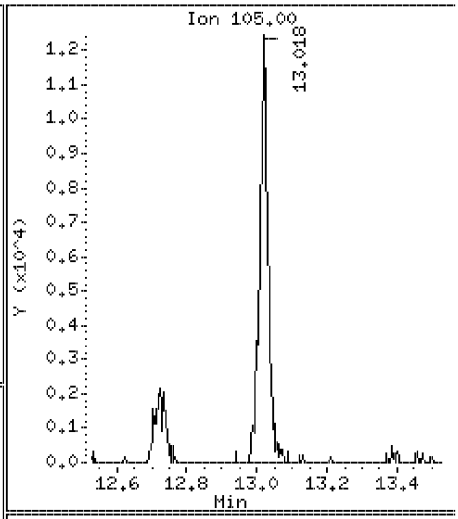
Column phase: J&W DB-5

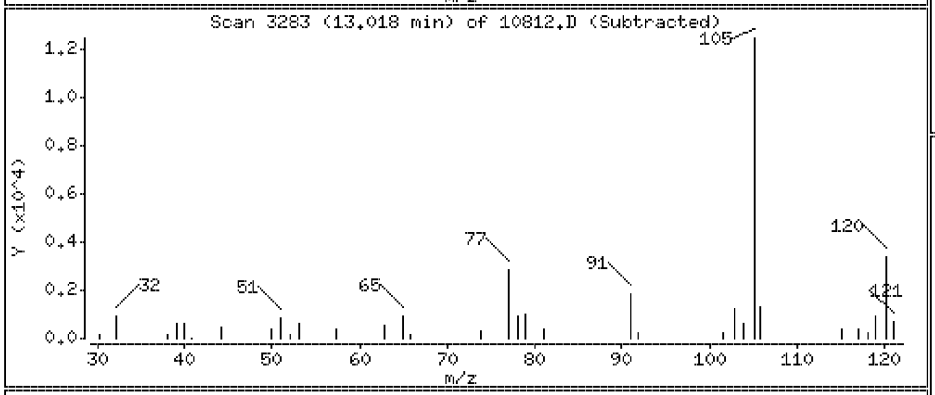
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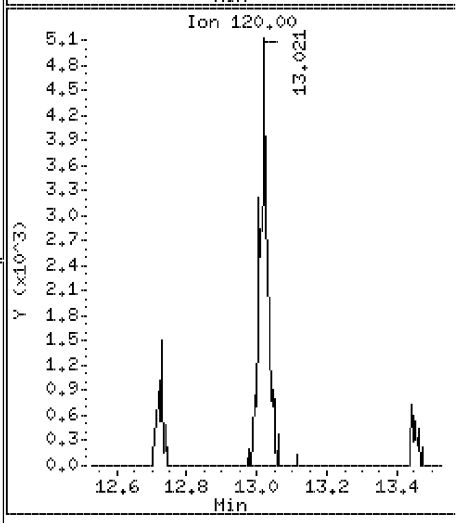
67 1,2,4-Trimethylbenzene

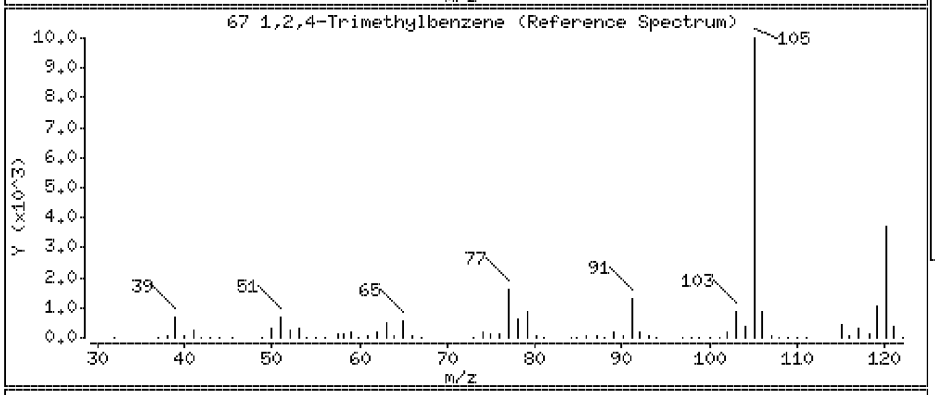
Concentration: 0.368 ppbv

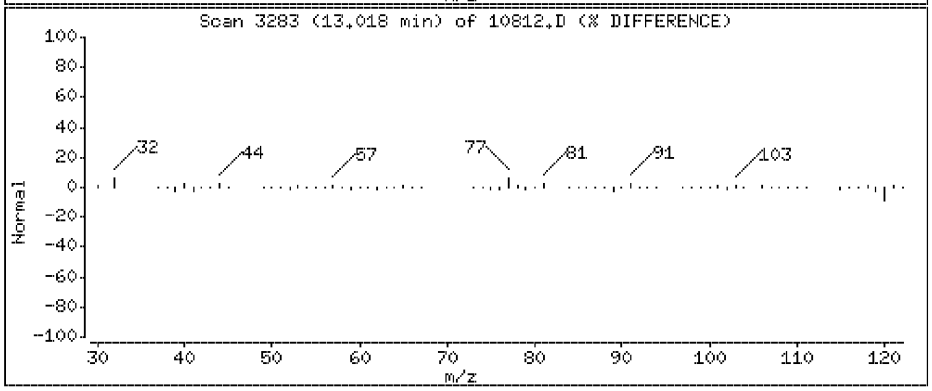






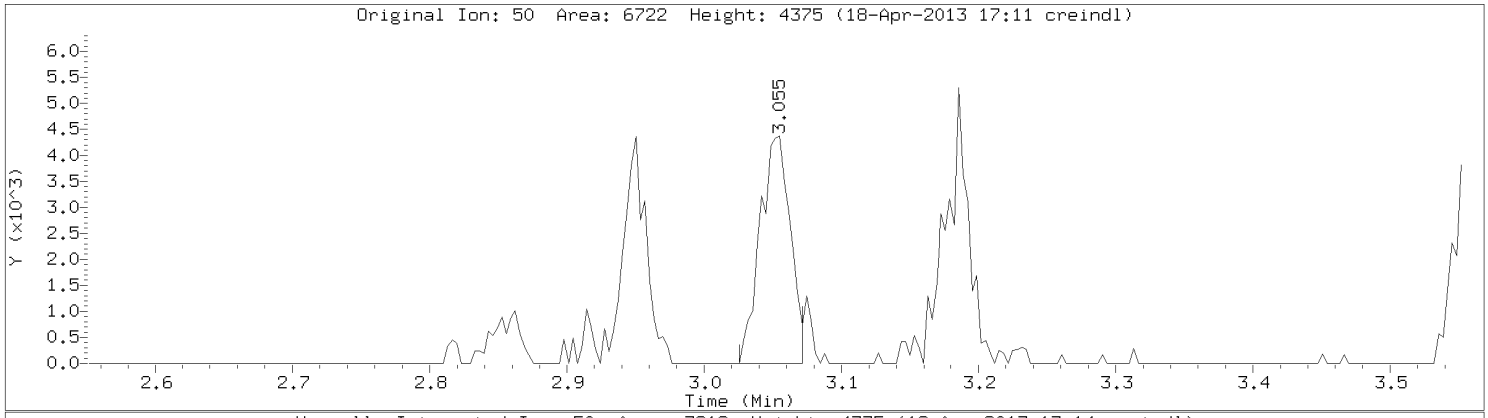


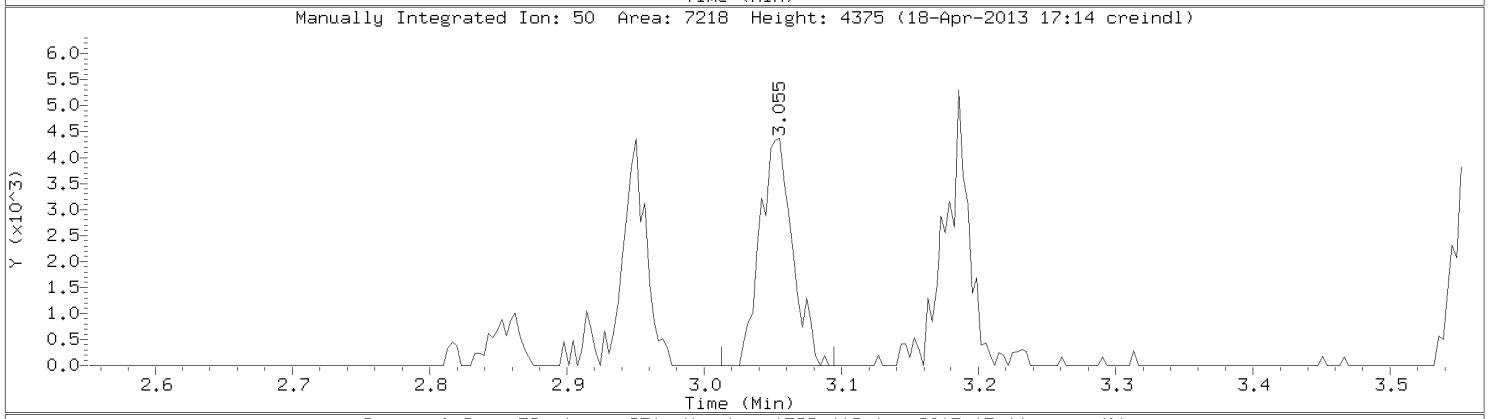


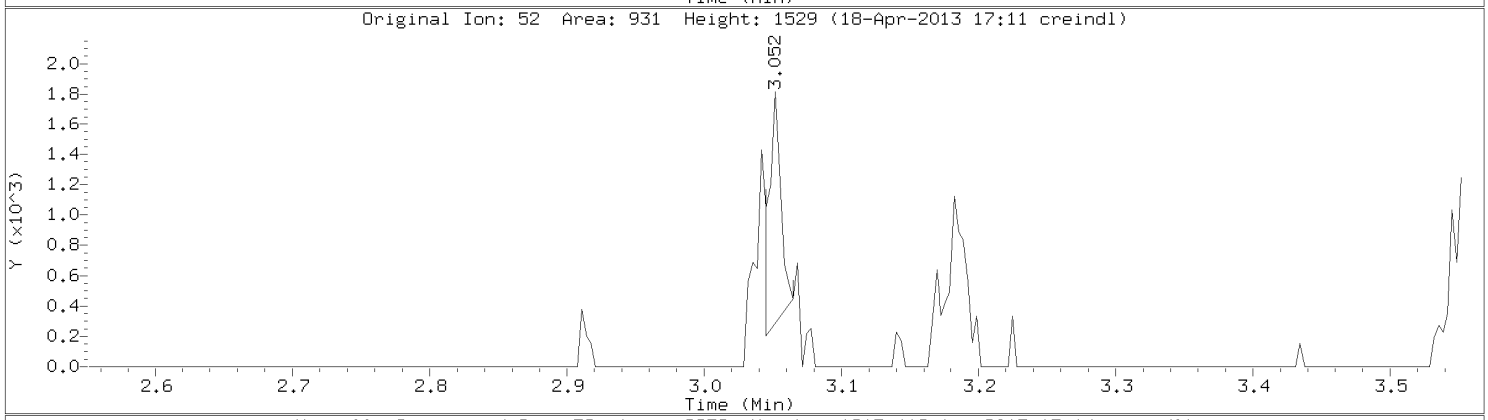


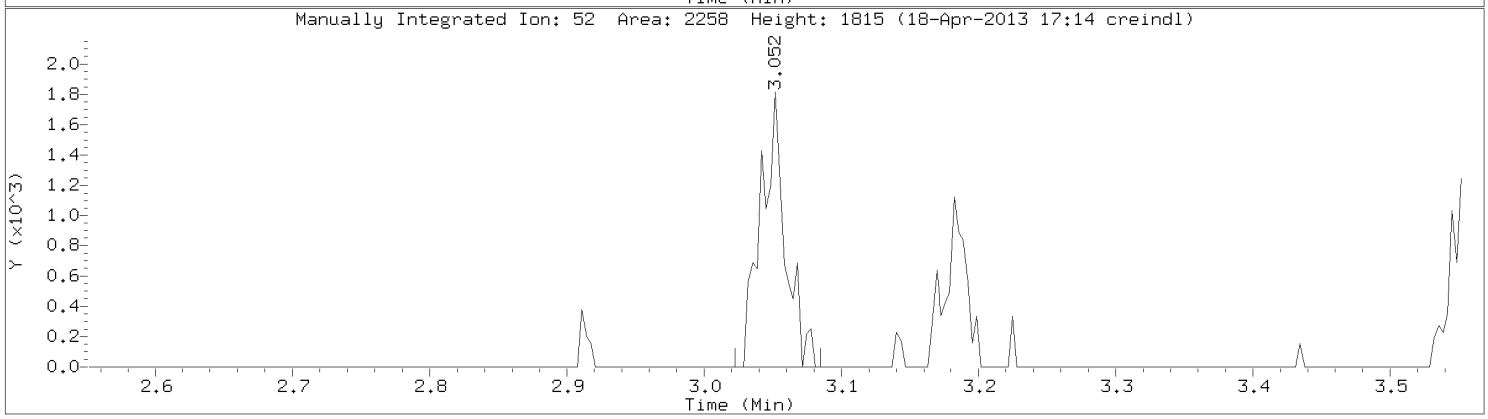
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Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

Compound: Chloromethane
CAS Number: 74-87-3



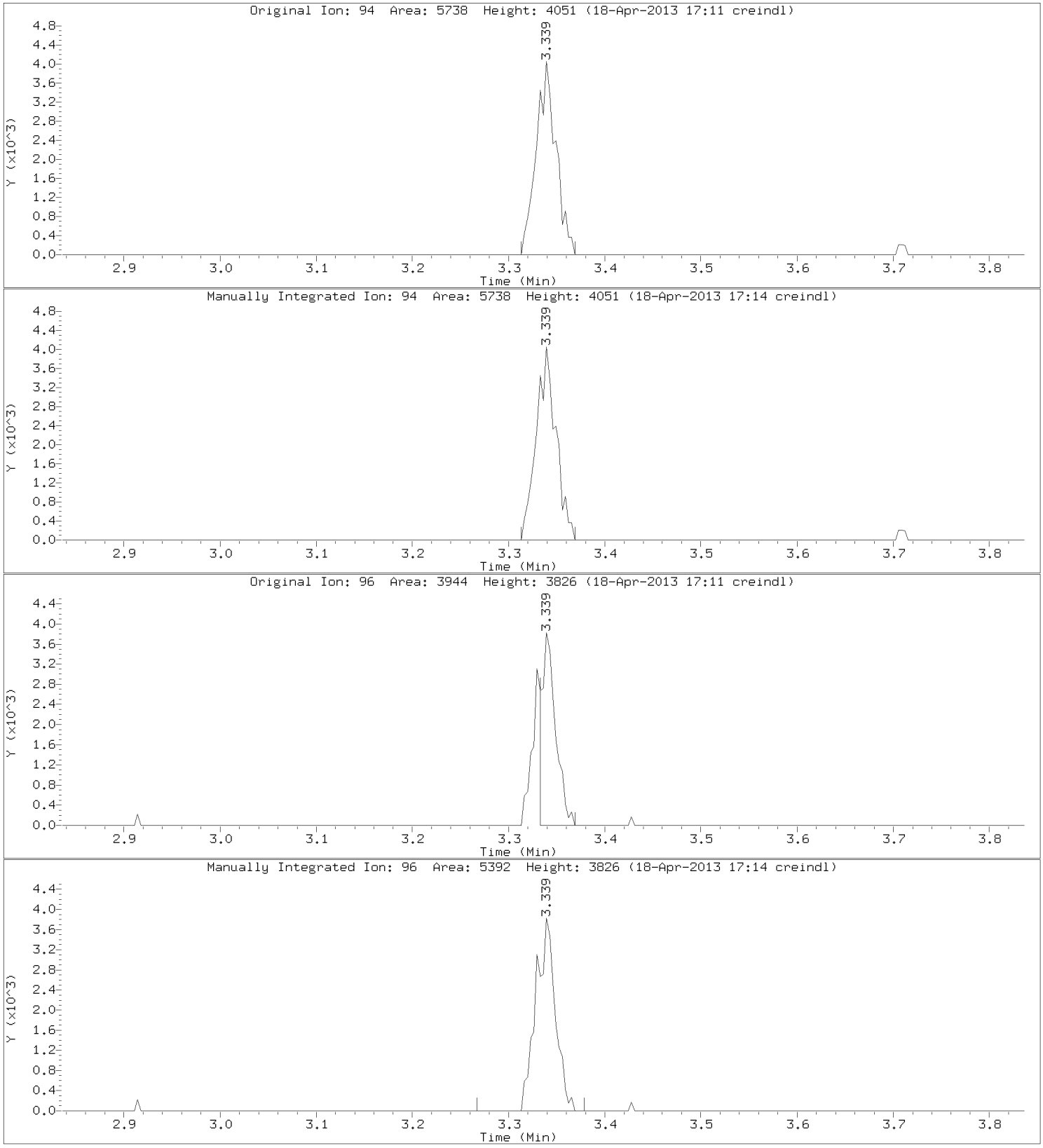






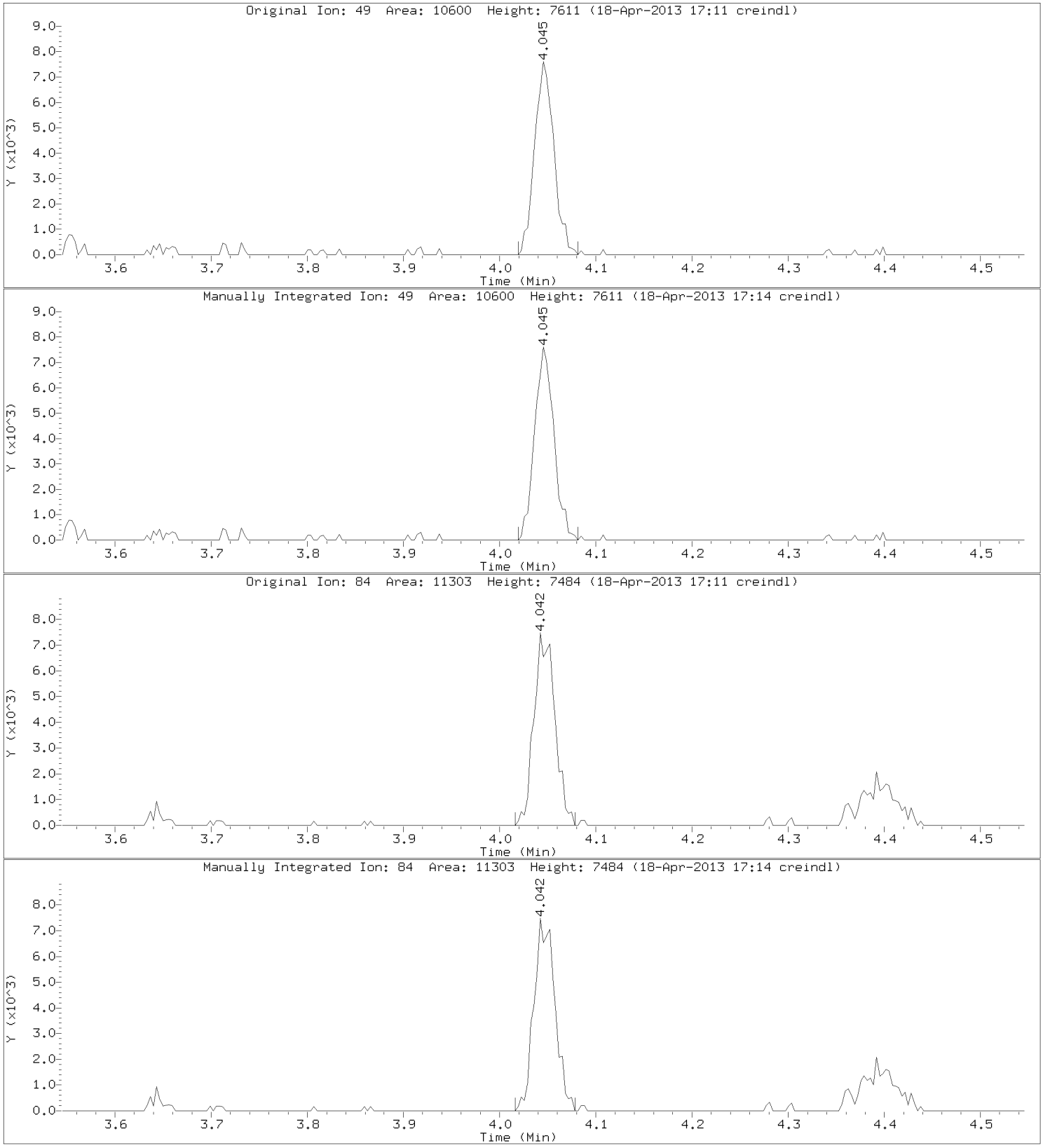
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Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

Compound: Bromomethane
CAS Number: 74-83-9

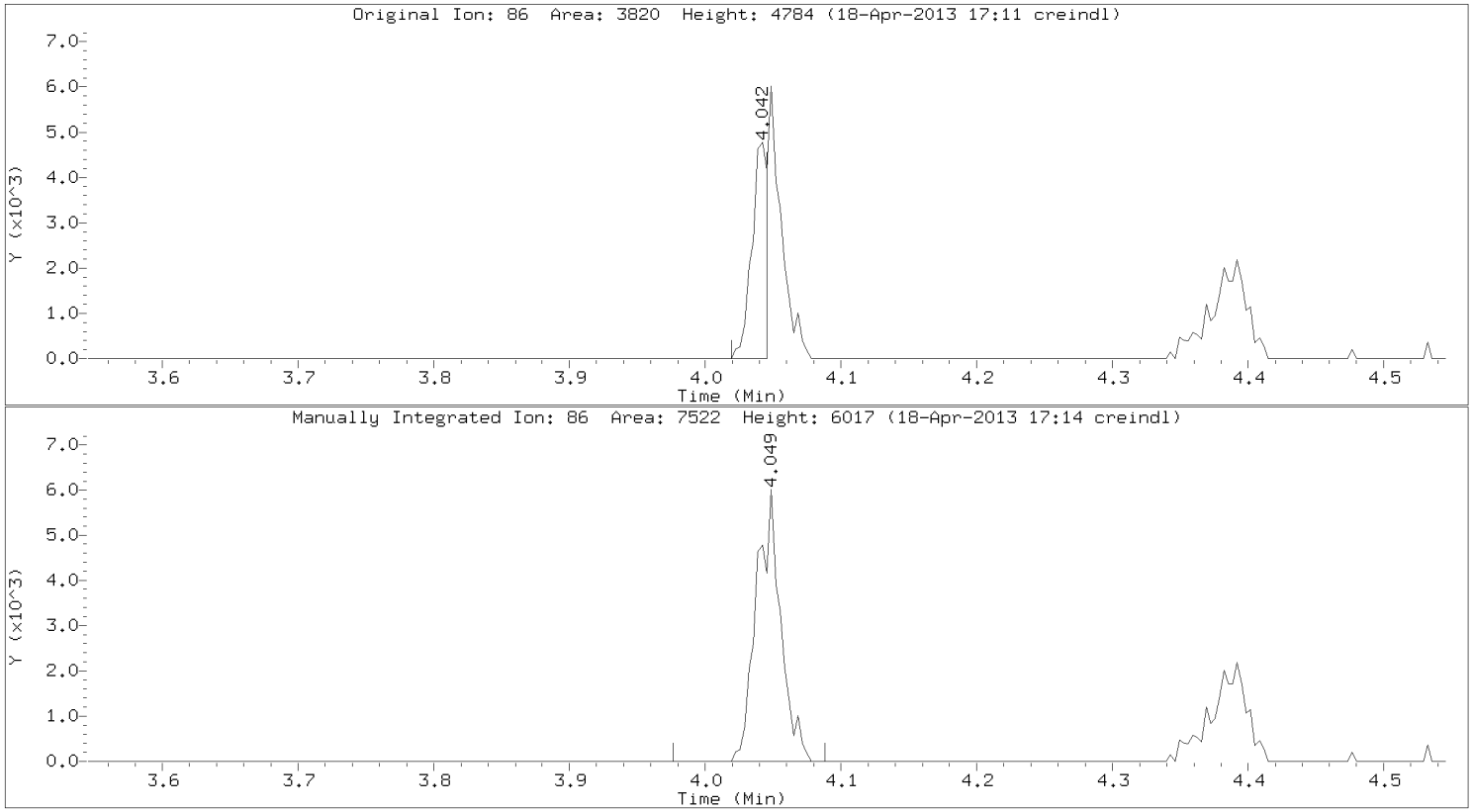


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

Compound: Methylene chloride
CAS Number: 75-09-2

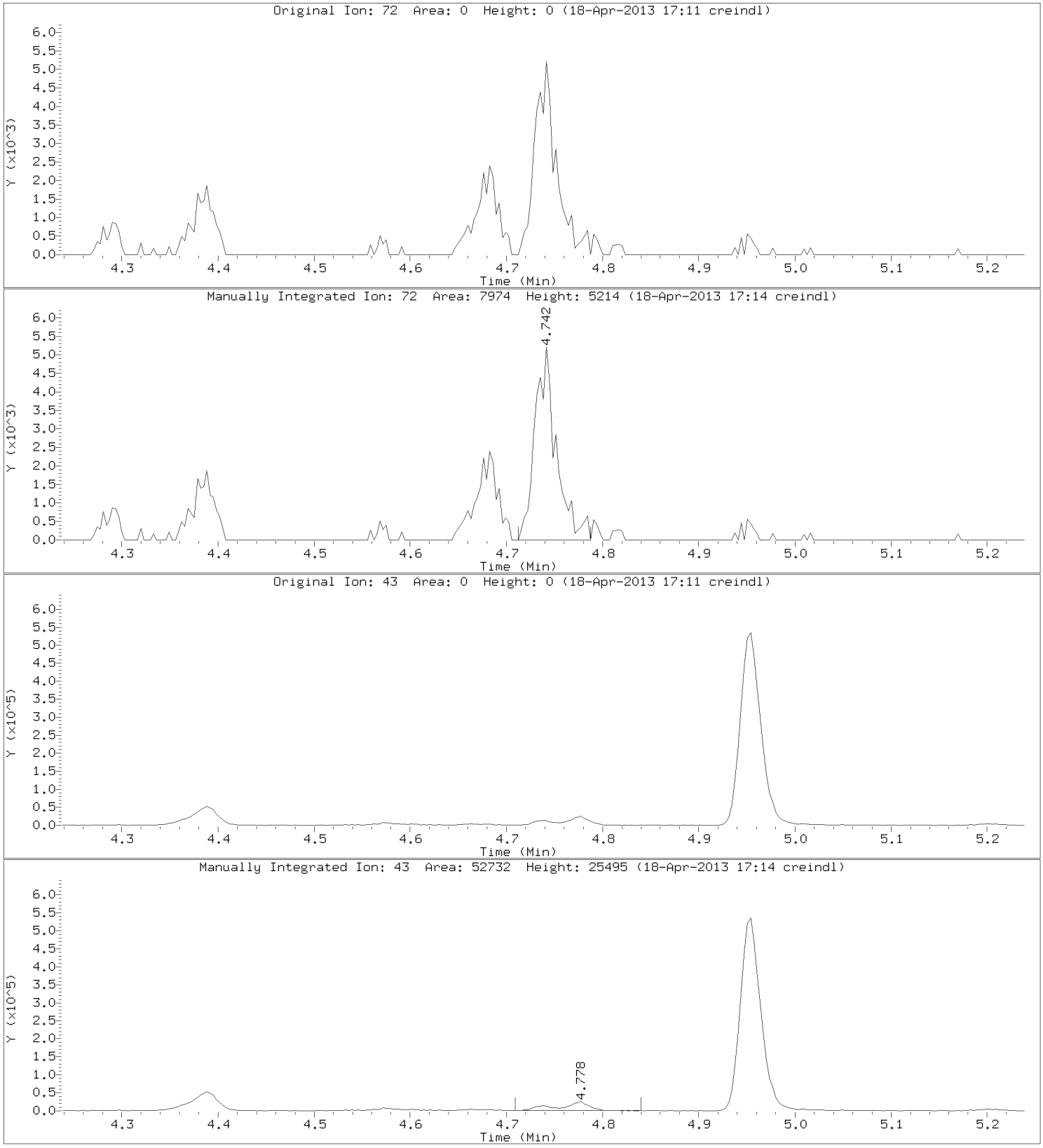


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
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Instrument: 10airD.i
Lab Sample ID: 10224616001



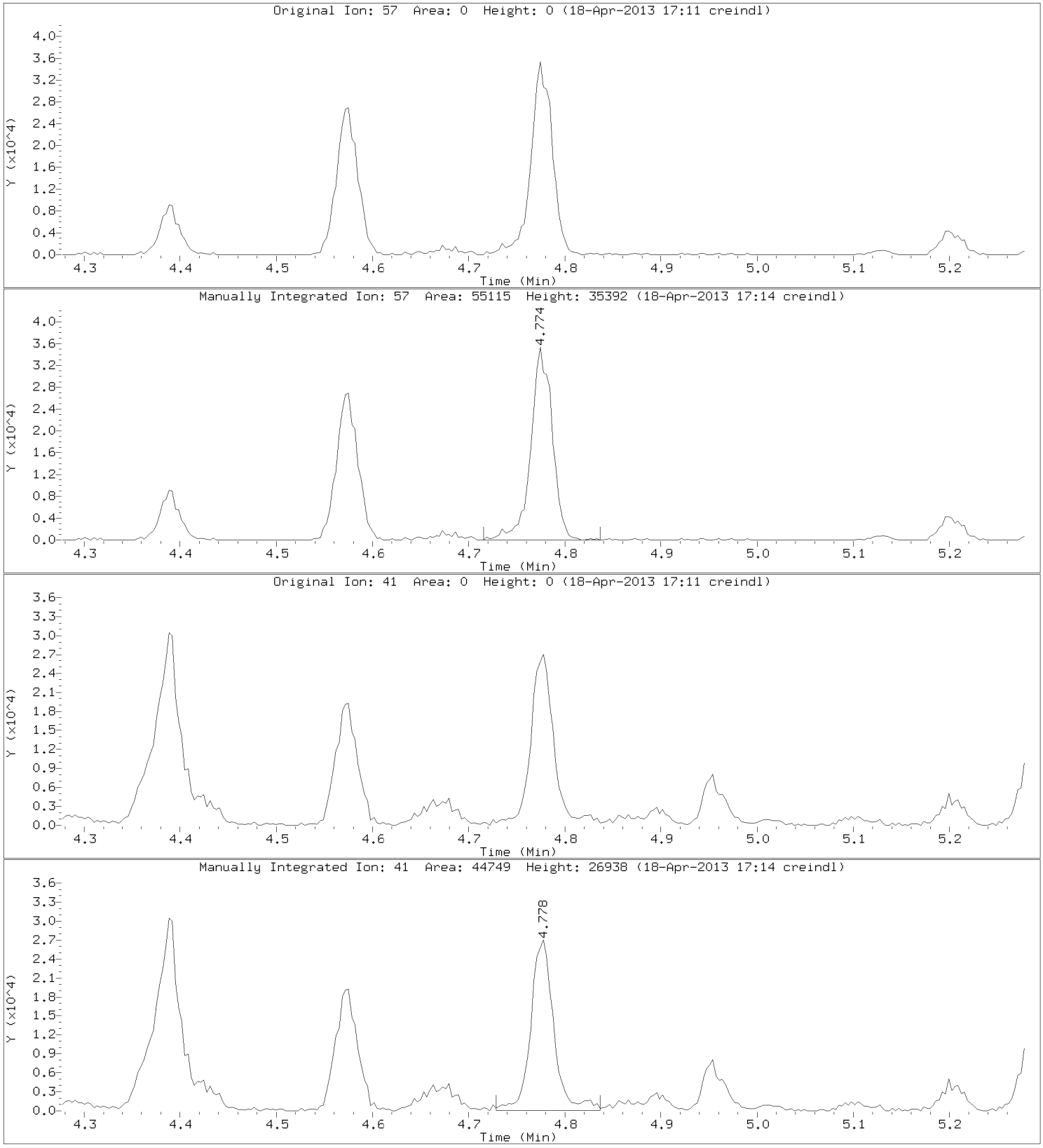
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3

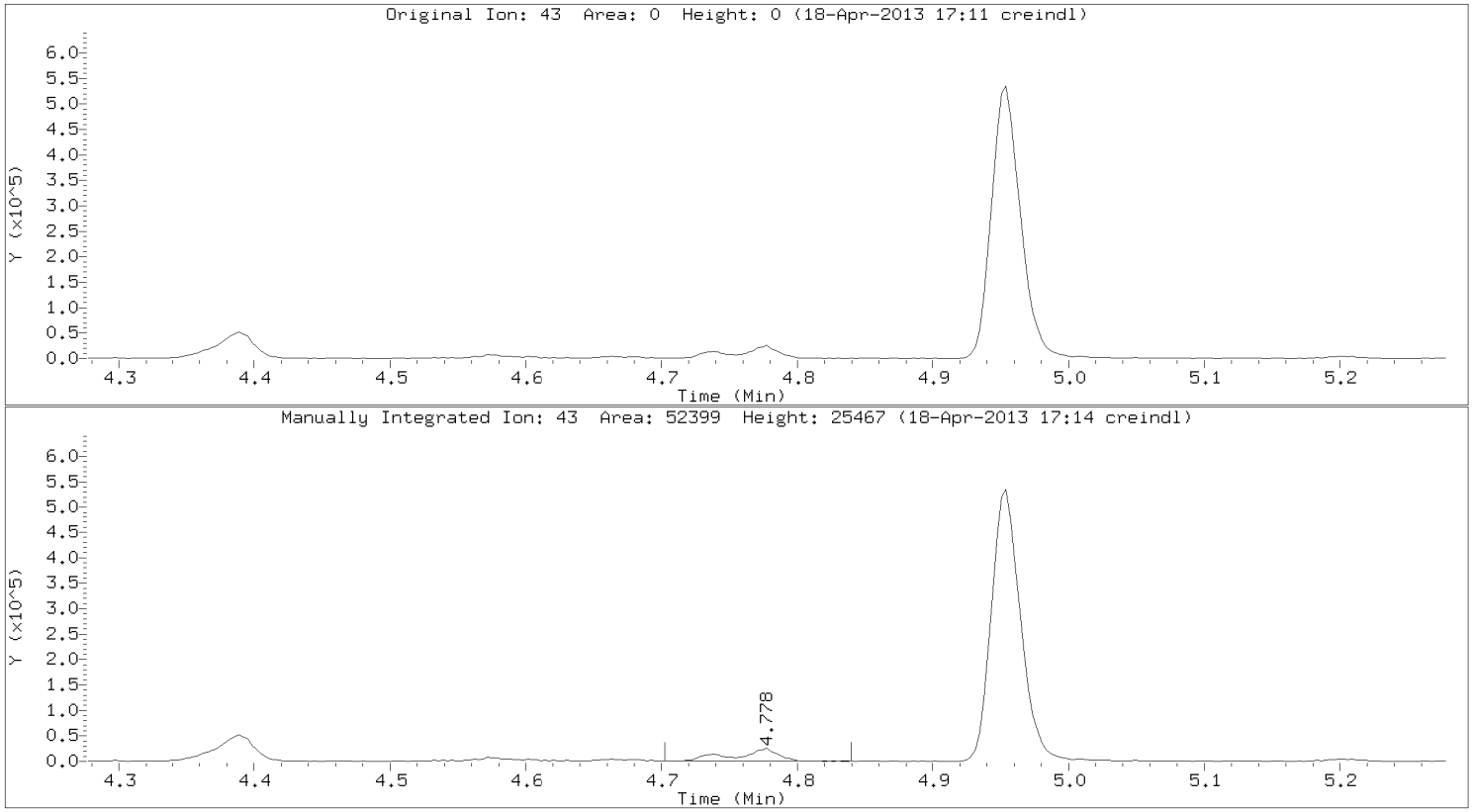


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

Compound: n-Hexane
CAS Number: 110-54-3

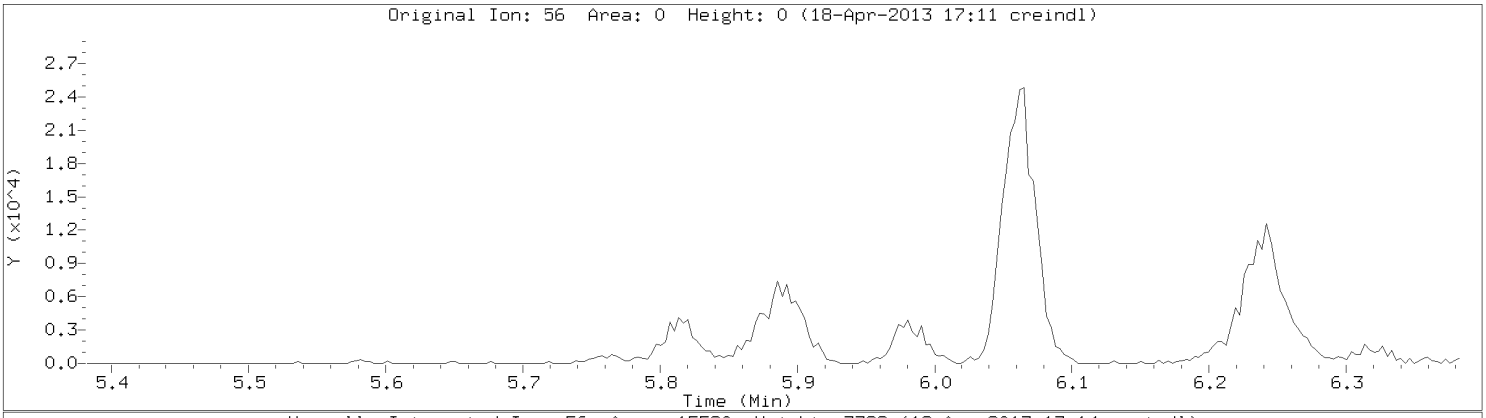


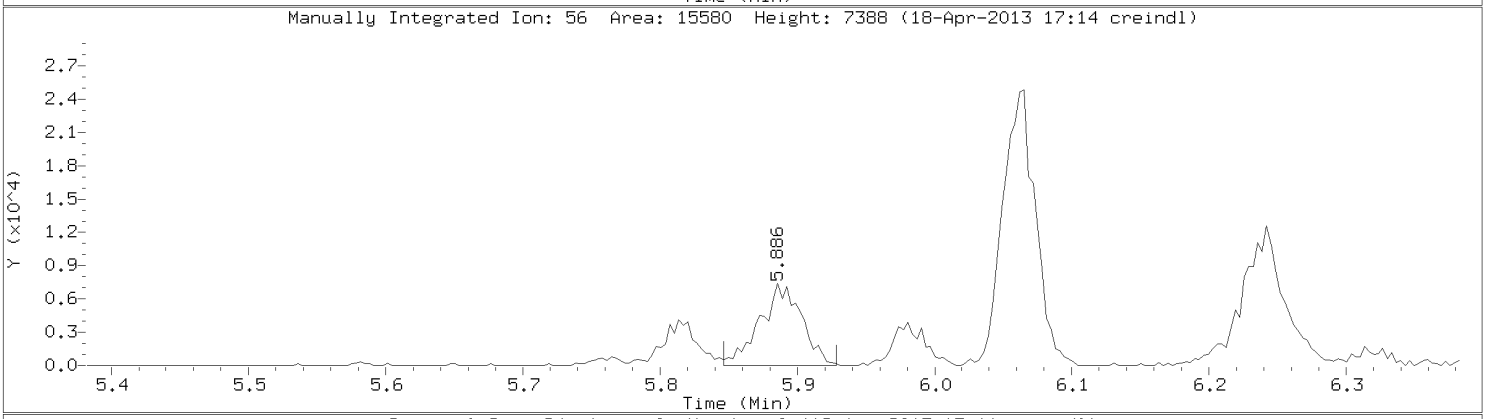
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Instrument: 10airD.i
Lab Sample ID: 10224616001

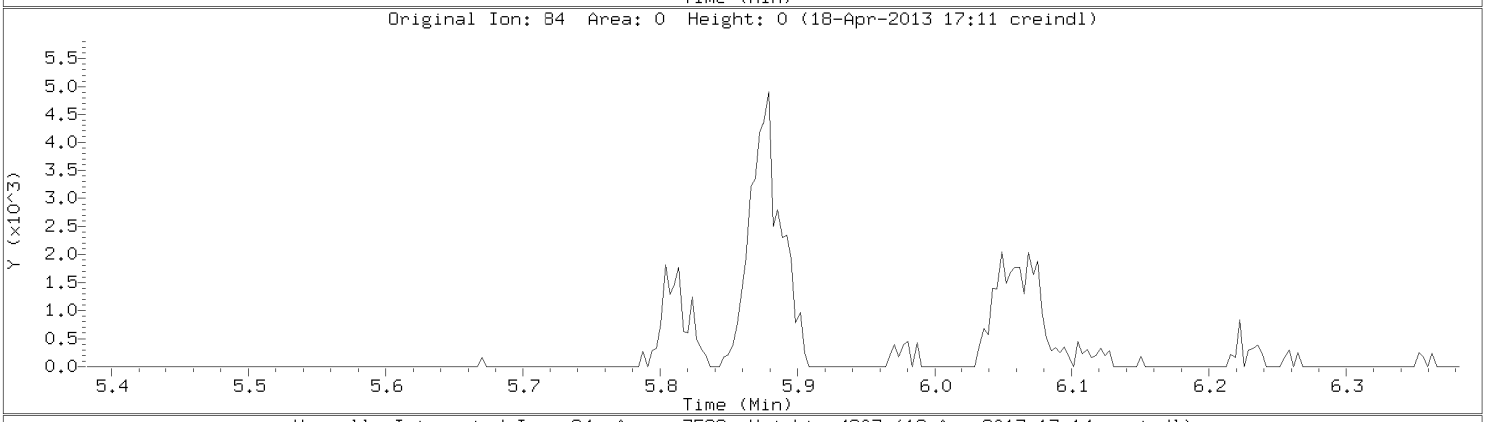


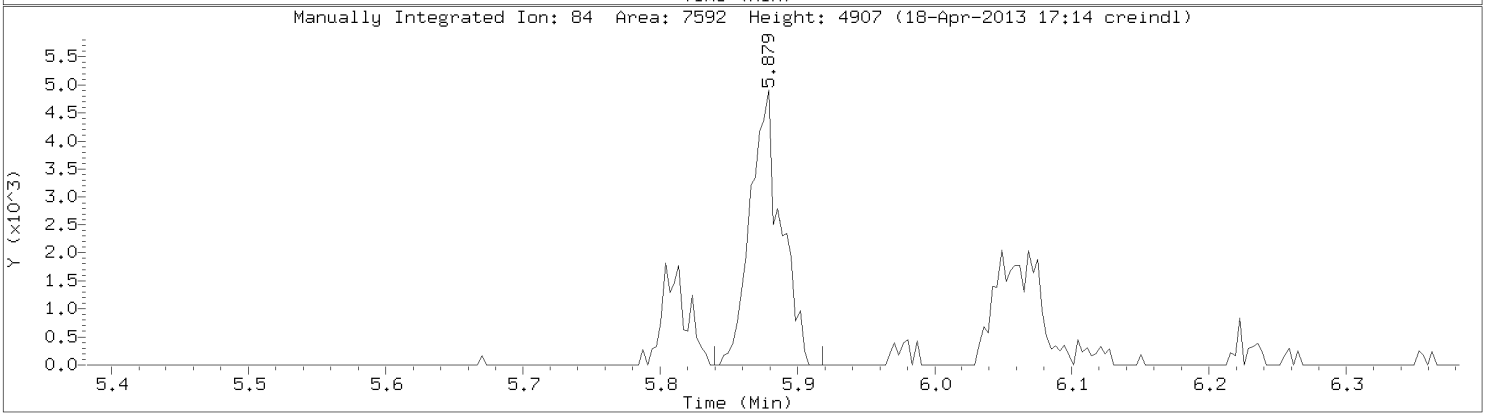
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Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

Compound: Cyclohexane
CAS Number: 110-82-7

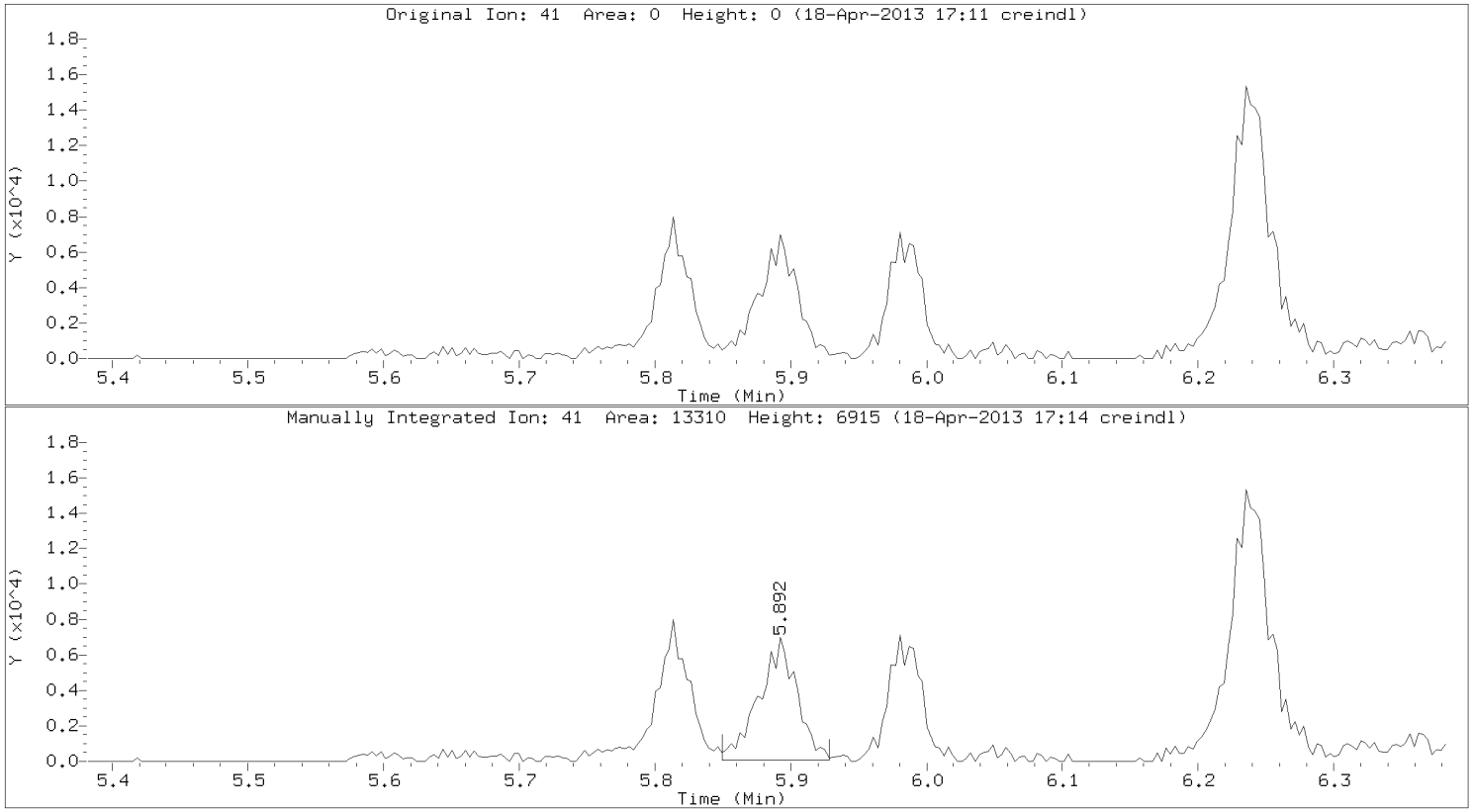






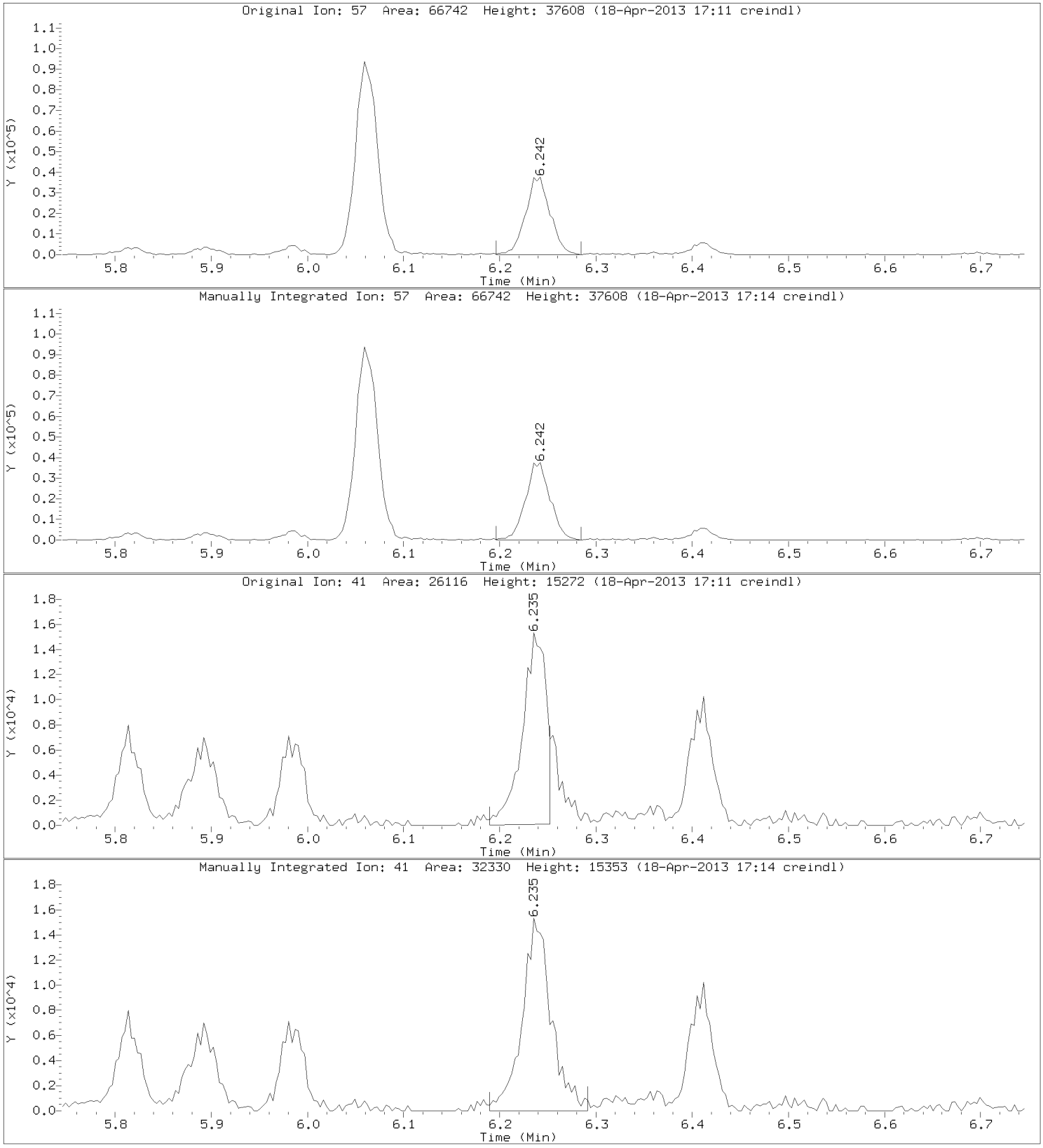


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

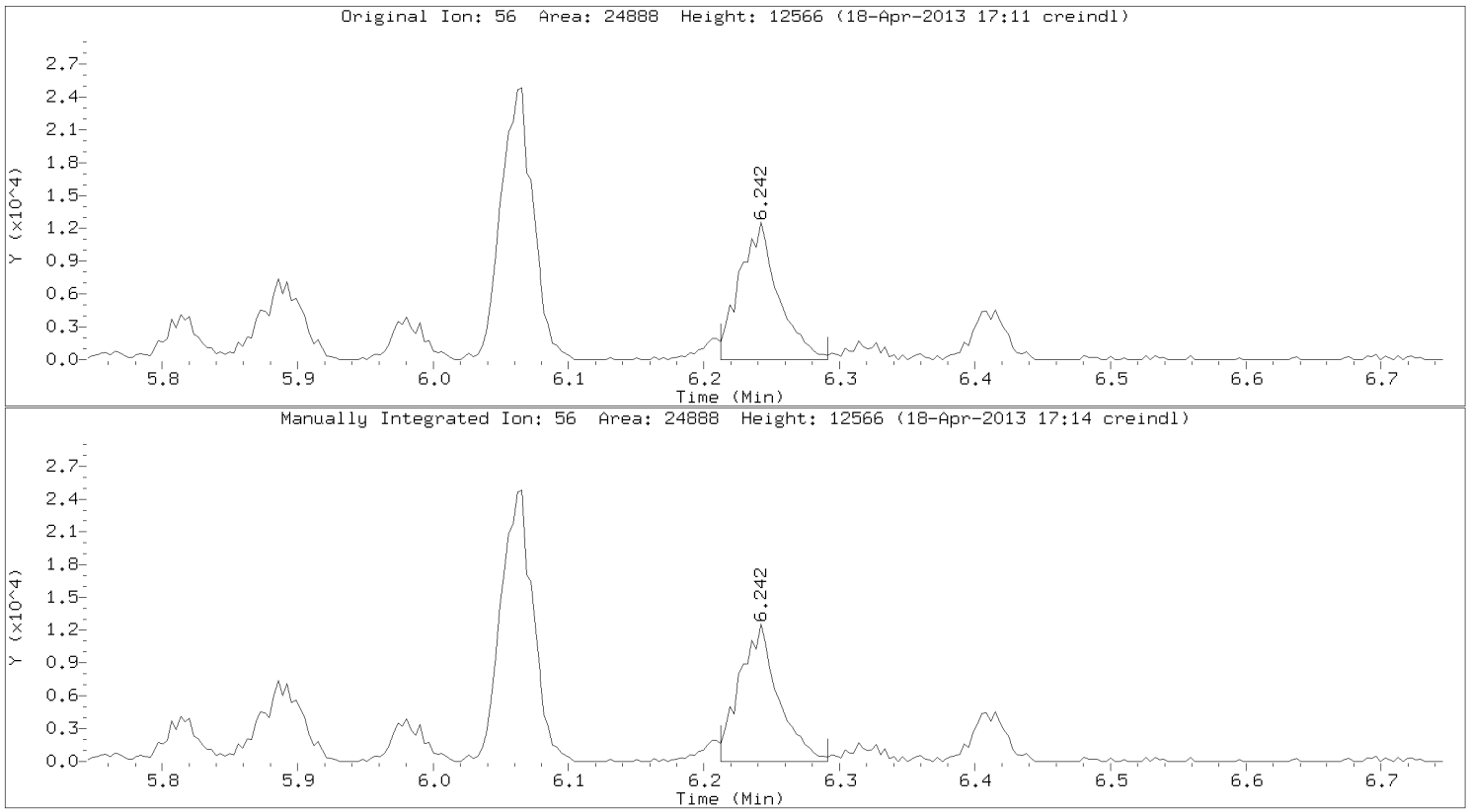


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

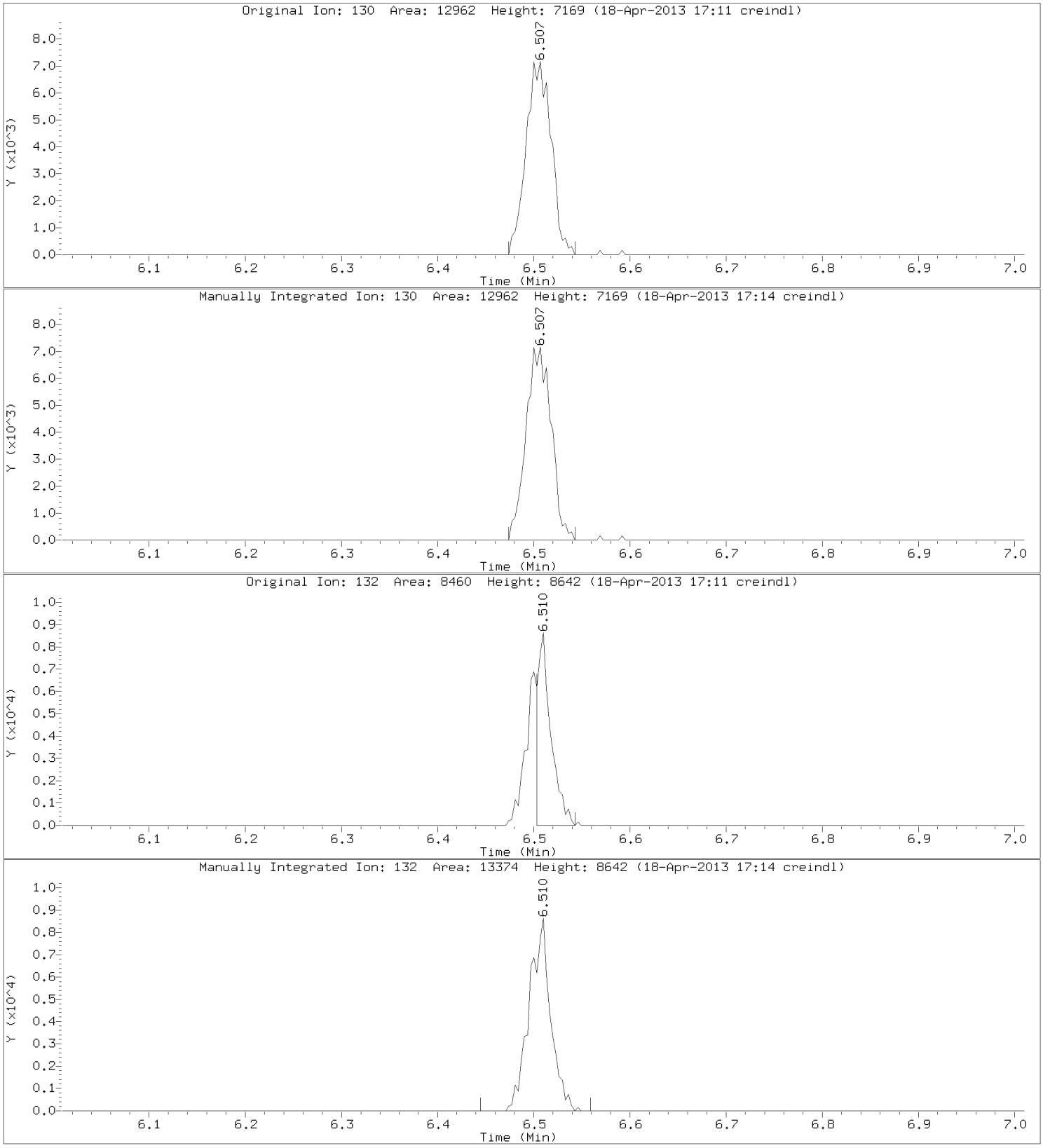


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

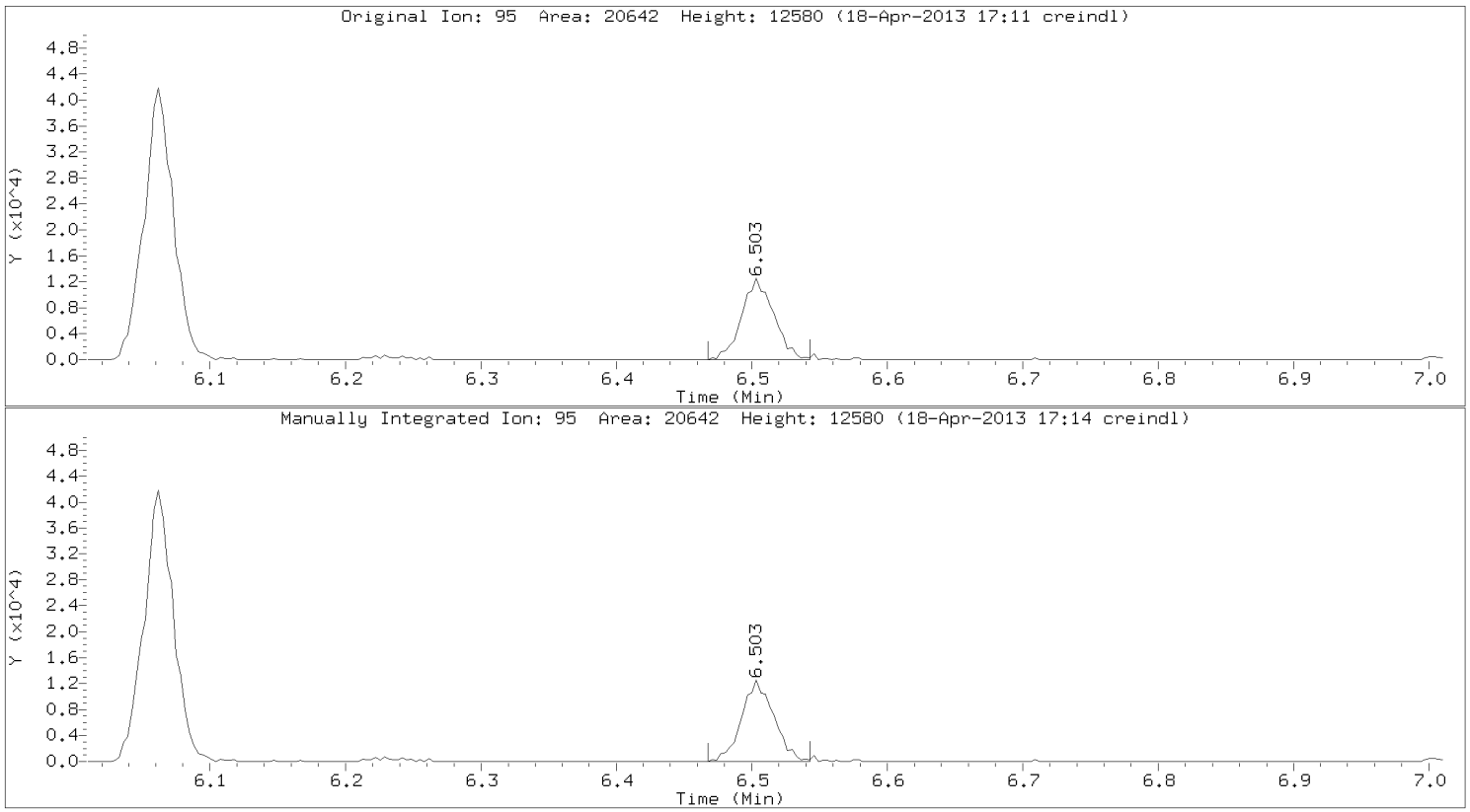


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

Compound: Trichloroethene
CAS Number: 79-01-6

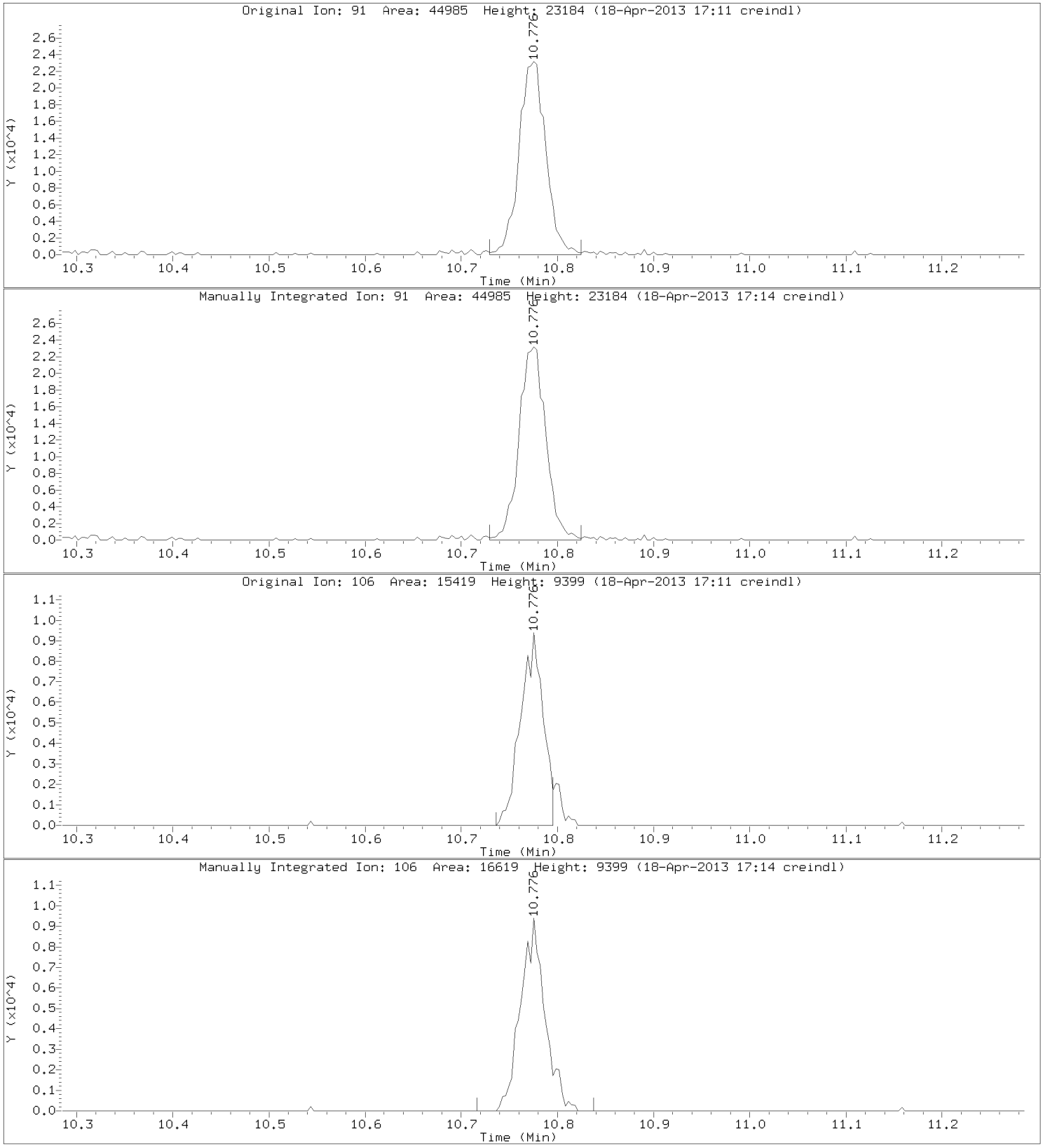


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001



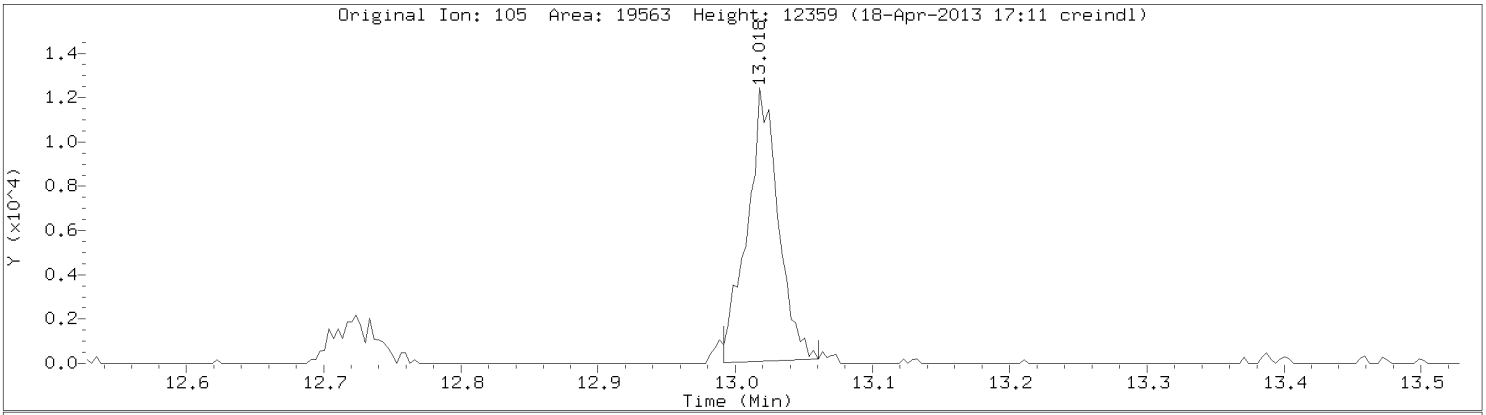
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Instrument: 10airD.i
Lab Sample ID: 10224616001

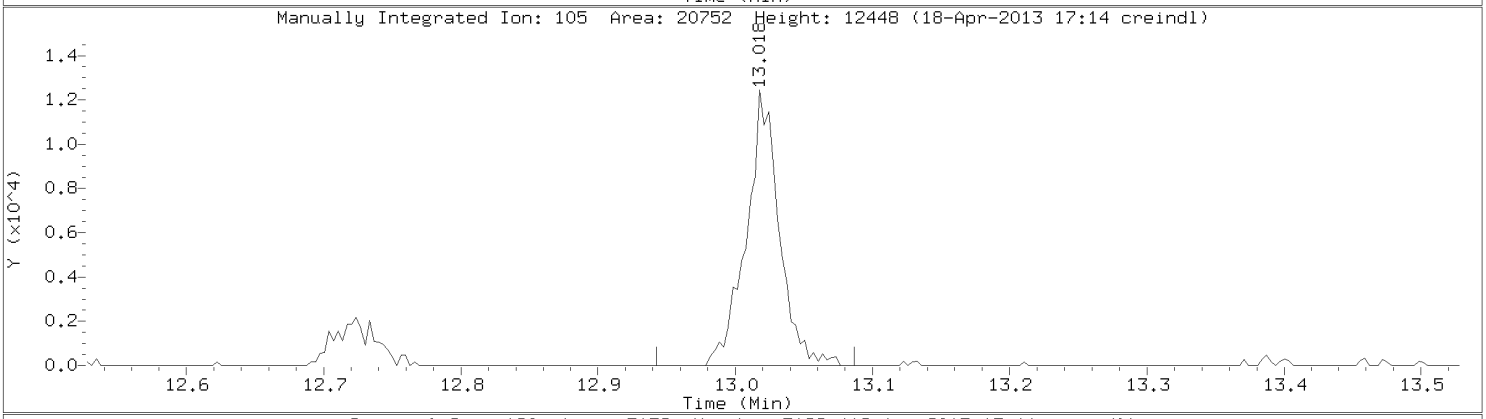
Compound: o-Xylene
CAS Number: 95-47-6

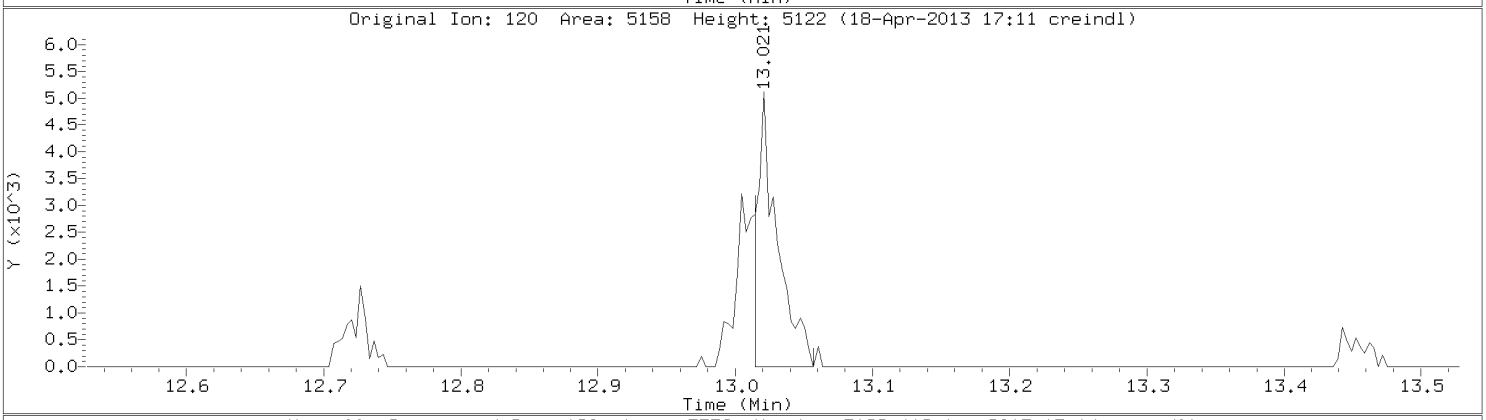


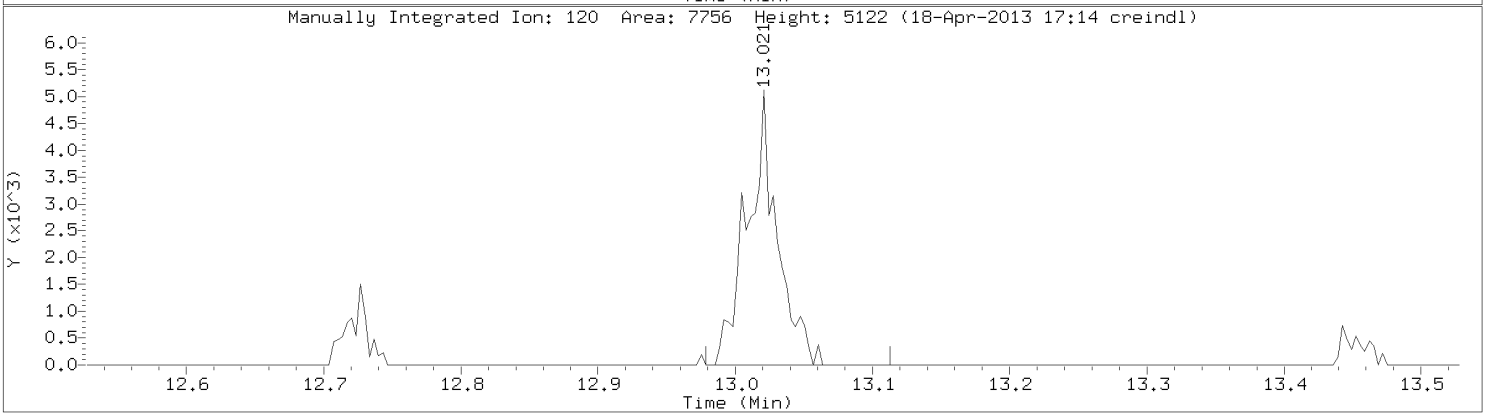
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10812.d
Injection Date: 18-APR-2013 16:30
Instrument: 10airD.i
Lab Sample ID: 10224616001

Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6









Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.d
Report Date: 19-Apr-2013 07:25

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10813.d
Lab Smp Id: 10224616002
Inj Date : 18-APR-2013 17:01
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17165
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 19-Apr-2013 07:11 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 13
Dil Factor: 1.26000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.260	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	Compound Not Detected.					
2	Dichlorodifluoromethane	85	2.947	2.950	(0.486)	53207	0.33977	0.428
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	3.051	3.052	(0.504)	8223	0.23769	0.299(MH)
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	Compound Not Detected.					
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	3.424	3.424	(0.565)	321633	13.8352	17.4
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	3.646	3.643	(0.602)	21751	0.15270	0.192(M)
13	Acetone	43	Compound Not Detected.					
14	Isopropyl Alcohol	45	3.695	3.702	(0.610)	3494775	71.9426	90.6(AQ)
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	Compound Not Detected.					
19	Methylene chloride	49	4.045	4.045	(0.668)	13008	0.30870	0.389
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	Compound Not Detected.					
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.d
Report Date: 19-Apr-2013 07:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	24 Vinyl Acetate	43	Compound Not Detected.					
	25 1,1-Dichloroethane	63	Compound Not Detected.					
$	26 Hexane-d14(S)	66	4.656	4.660	(0.769)	611858	9.44285	9.44
	27 Methyl Ethyl Ketone	72	Compound Not Detected.					
	28 n-Hexane	57	4.777	4.777	(0.789)	66319	1.09618	1.38(Q)
	29 cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30 Ethyl Acetate	43	Compound Not Detected.					
	31 Chloroform	83	Compound Not Detected.					
	32 Tetrahydrofuran	42	Compound Not Detected.					
	33 1,1,1-Trichloroethane	97	Compound Not Detected.					
	34 1,2-Dichloroethane	62	Compound Not Detected.					
	35 Benzene	78	5.849	5.856	(0.965)	53599	0.40445	0.510
	36 Carbon tetrachloride	117	Compound Not Detected.					
	37 Cyclohexane	56	5.888	5.882	(0.972)	21640	0.68920	0.868(QM)
*	38 1,4-Difluorobenzene	114	6.058	6.069	(1.000)	1454546	10.0000	
	39 2,2,4-Trimethylpentane	57	6.238	6.245	(1.030)	100269	0.93439	1.18(M)
	40 Heptane	43	6.411	6.415	(1.058)	17552	0.75778	0.955(Q)
	41 1,2-Dichloropropane	63	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,4-Dioxane	88	Compound Not Detected.					
	44 Bromodichloromethane	83	Compound Not Detected.					
	45 Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47 trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48 Toluene-d8 (S)	98	7.827	7.837	(1.292)	1337264	10.0430	10.0
	49 Toluene	91	7.915	7.925	(1.306)	305491	1.67748	2.11
	50 1,1,2-Trichloroethane	97	Compound Not Detected.					
	51 Methyl Butyl Ketone	43	Compound Not Detected.					
	52 Dibromochloromethane	129	Compound Not Detected.					
	53 1,2-Dibromoethane	107	Compound Not Detected.					
	54 Tetrachloroethene	166	Compound Not Detected.					
*	55 Chlorobenzene - d5	117	9.680	9.684	(1.000)	811516	10.0000	
	56 Chlorobenzene	112	Compound Not Detected.					
	57 Ethyl Benzene	91	10.033	10.040	(1.036)	72161	0.49853	0.628(M)
	58 m&p-Xylene	91	10.196	10.210	(1.053)	283118	1.83230	2.31
	59 Bromoform	173	Compound Not Detected.					
	60 Styrene	104	Compound Not Detected.					
	61 o-Xylene	91	10.775	10.785	(1.113)	78514	0.49972	0.630
	62 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63 Isopropylbenzene	105	Compound Not Detected.					
	64 N-Propylbenzene	91	Compound Not Detected.					
	65 4-Ethyltoluene	105	12.311	12.328	(1.272)	19509	0.25006	0.315(M)
	66 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
	67 1,2,4-Trimethylbenzene	105	13.021	13.028	(1.345)	78479	0.60835	0.766
	68 1,3-Dichlorobenzene	146	Compound Not Detected.					
	69 Sec- Butylbenzene	105	Compound Not Detected.					
$	70 1,4-dichlorobenzene-d4 (S)	150	13.452	13.466	(1.390)	425221	9.32514	9.32
	71 Benzyl Chloride	91	Compound Not Detected.					
	72 1,4-Dichlorobenzene	146	Compound Not Detected.					
	73 1,2-Dichlorobenzene	146	Compound Not Detected.					
	74 N-Butylbenzene	91	Compound Not Detected.					
	75 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76 Naphthalene	128	Compound Not Detected.					
	77 Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.d
Report Date: 19-Apr-2013 07:25

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.d
Report Date: 19-Apr-2013 07:25

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10813.d
Lab Smp Id: 10224616002
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17165

Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1454546	1.54
55 Chlorobenzene - d	825122	495073	1155171	811516	-1.65

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D
Date : 18-APR-2013 17:01
Client ID:
Sample Info:

Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D

Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

Sample Info:

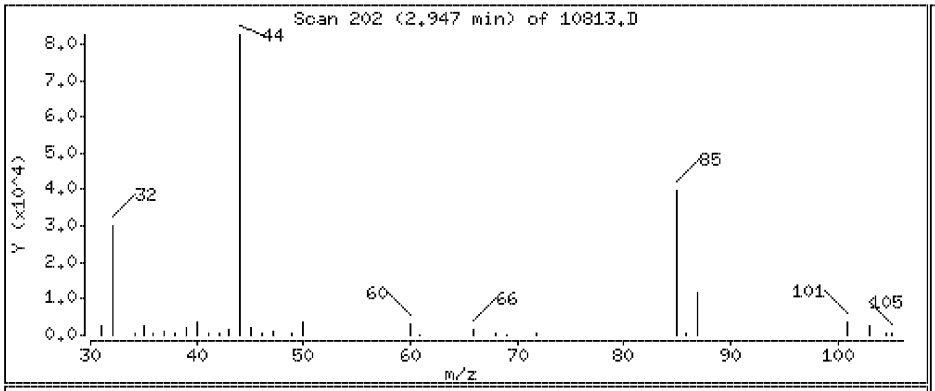
Operator: CJR

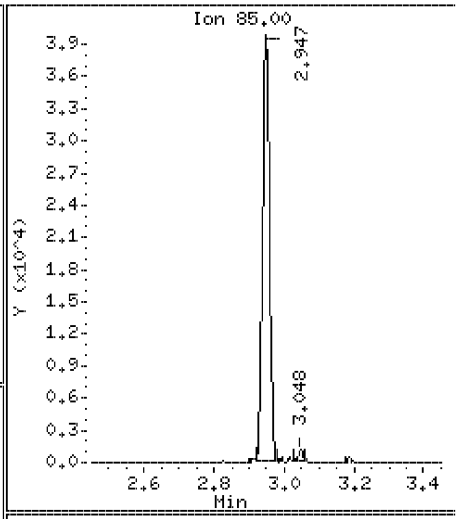
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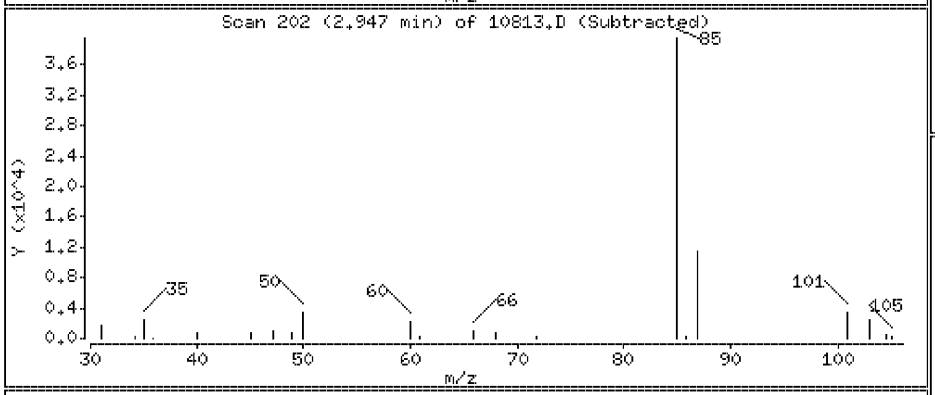
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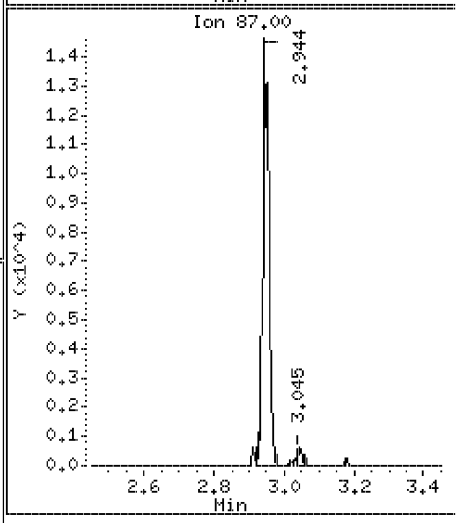
2 Dichlorodifluoromethane

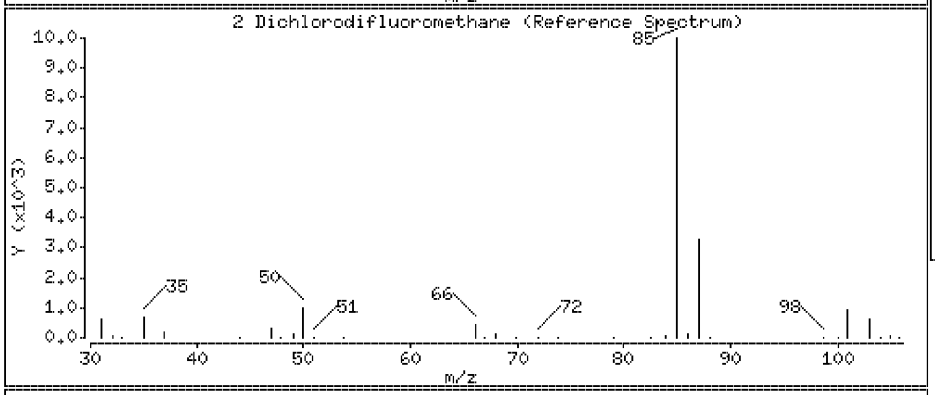
Concentration: 0.428 ppbv

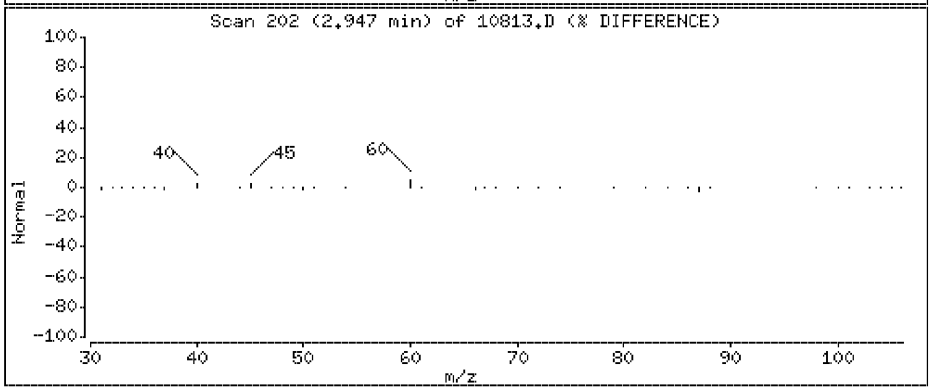












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D

Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

Sample Info:

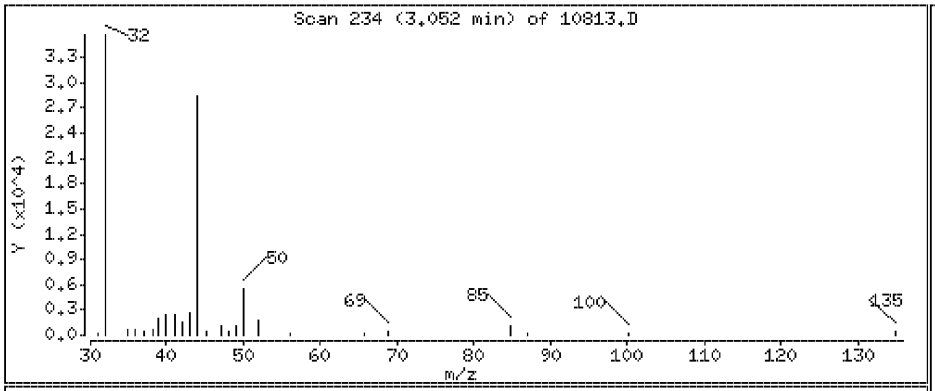
Operator: CJR

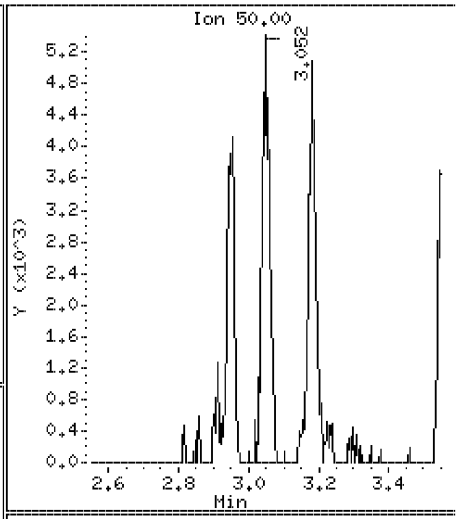
Column phase: J&W DB-5

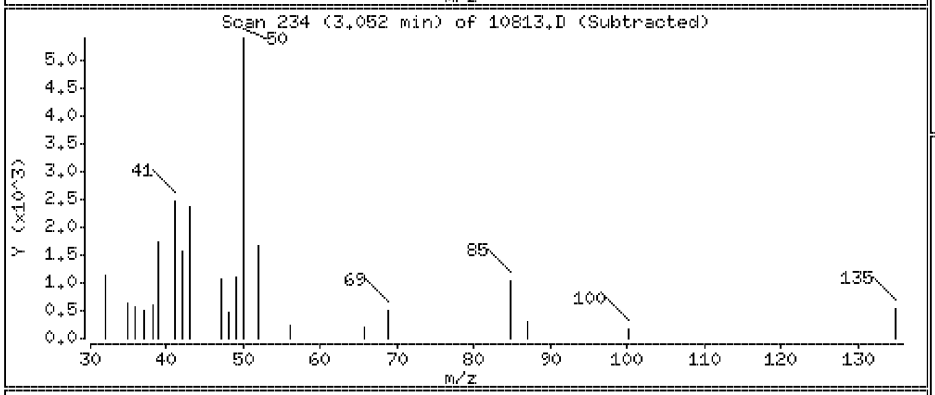
Column diameter: 0.32

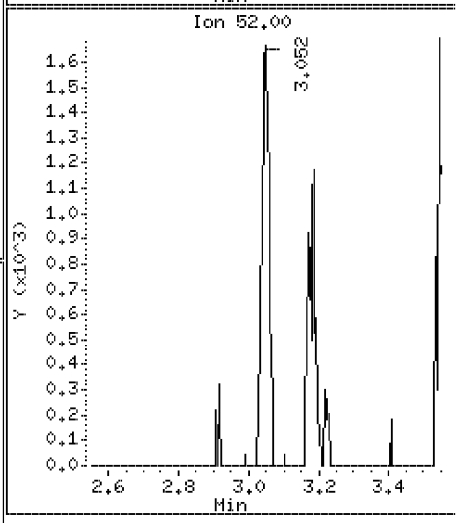
4 Chloromethane

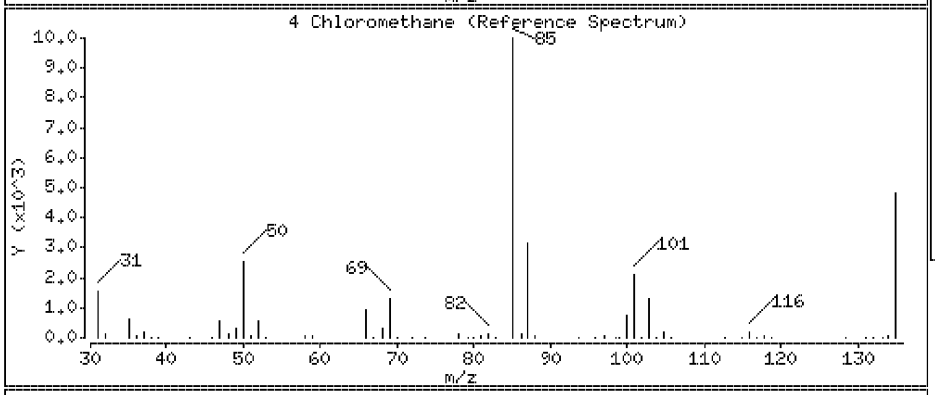
Concentration: 0.299 ppbv

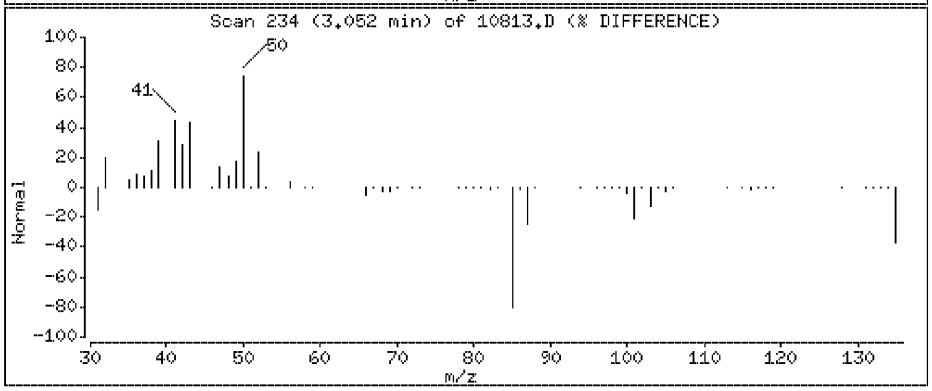












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D

Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

Sample Info:

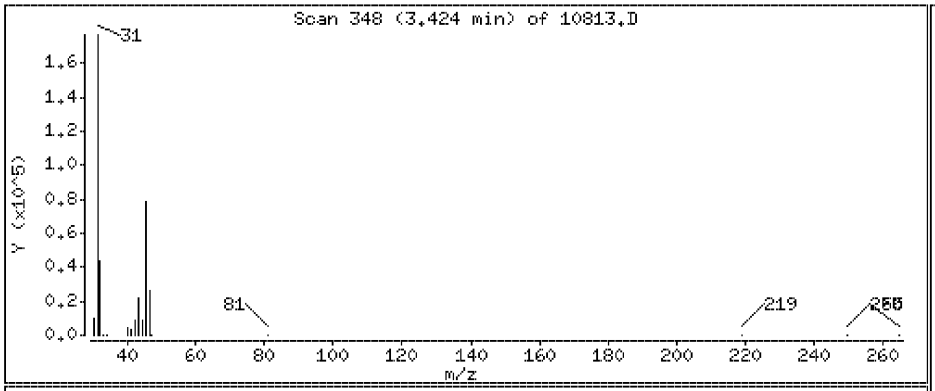
Operator: CJR

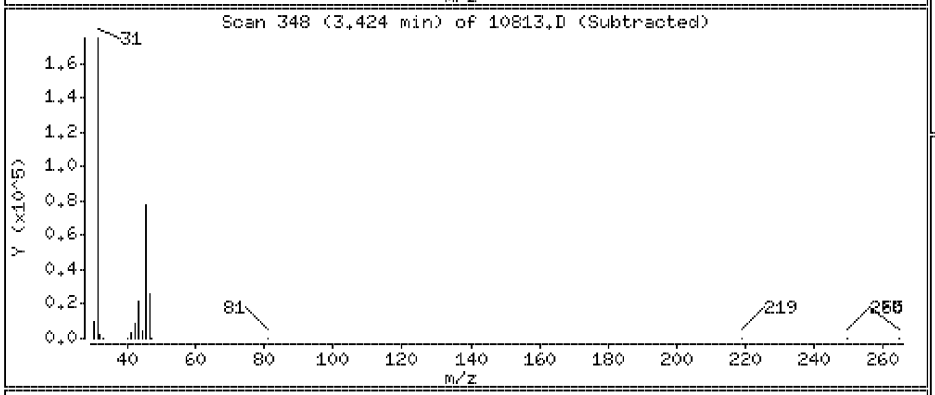
Column phase: J&W DB-5

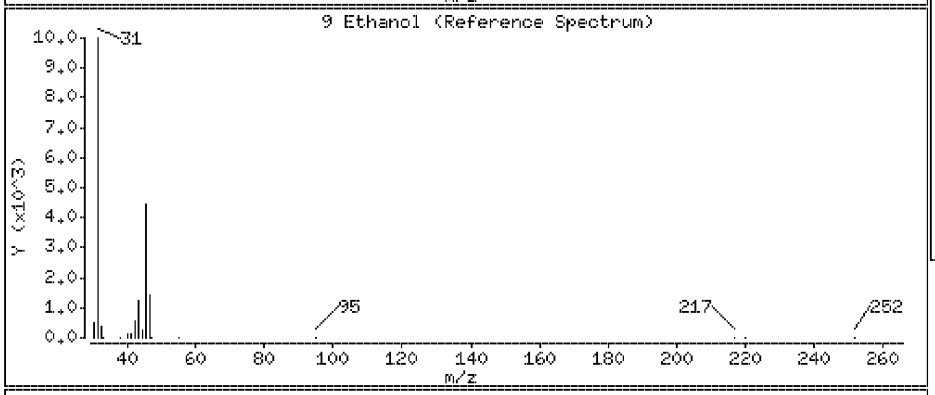
Column diameter: 0.32

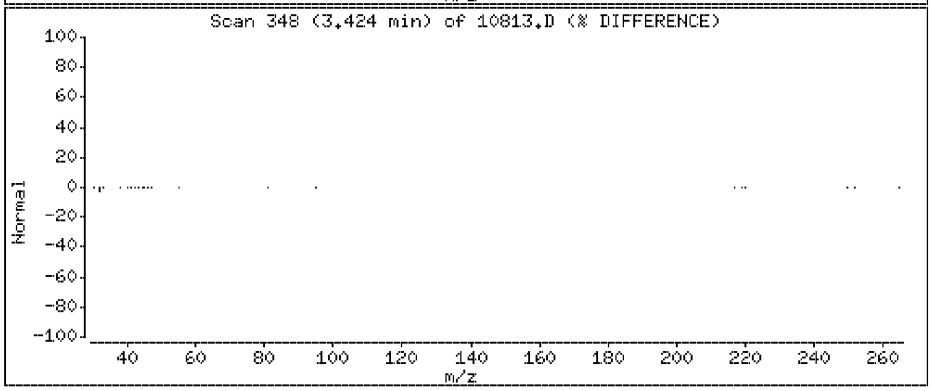
9 Ethanol

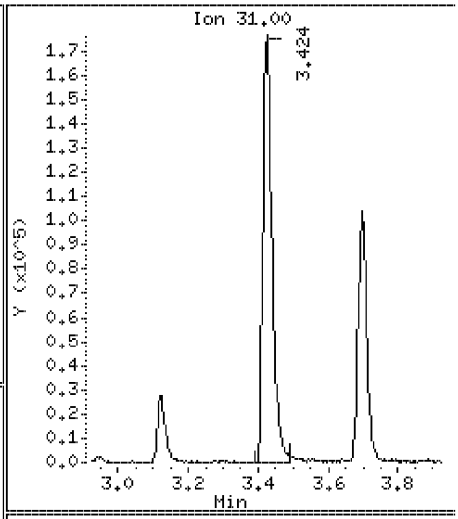
Concentration: 17.4 ppbv

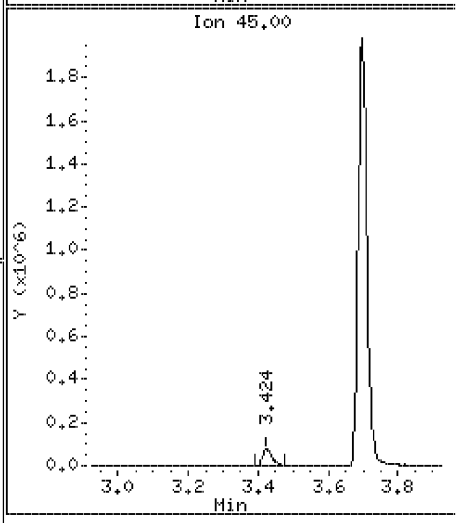












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Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

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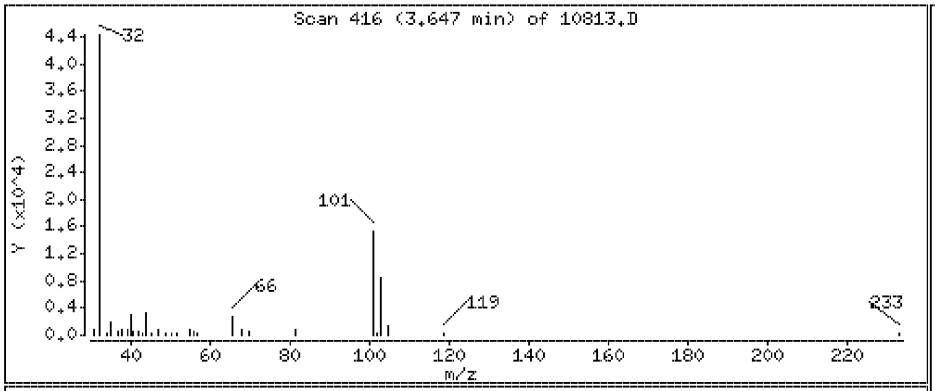
Operator: CJR

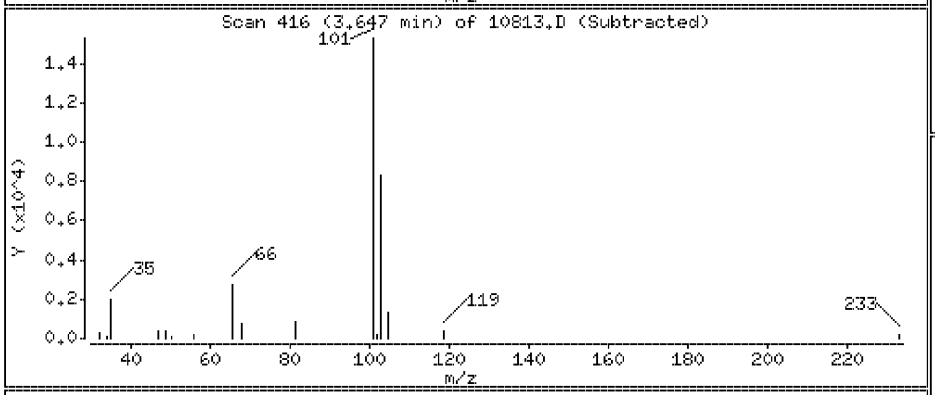
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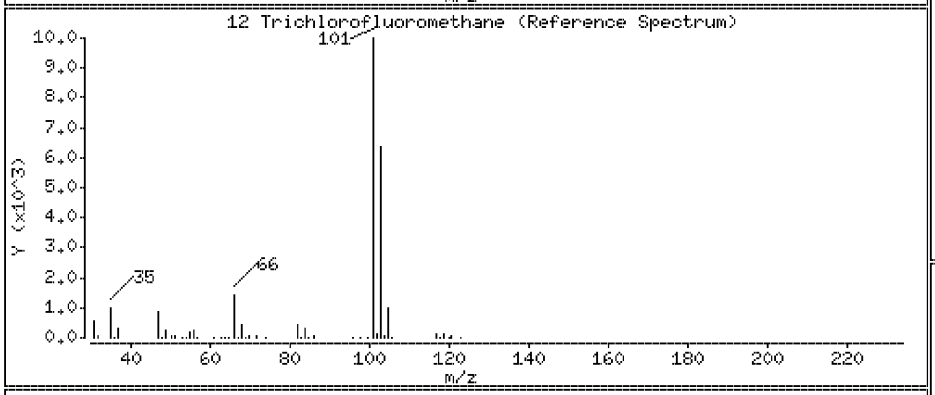
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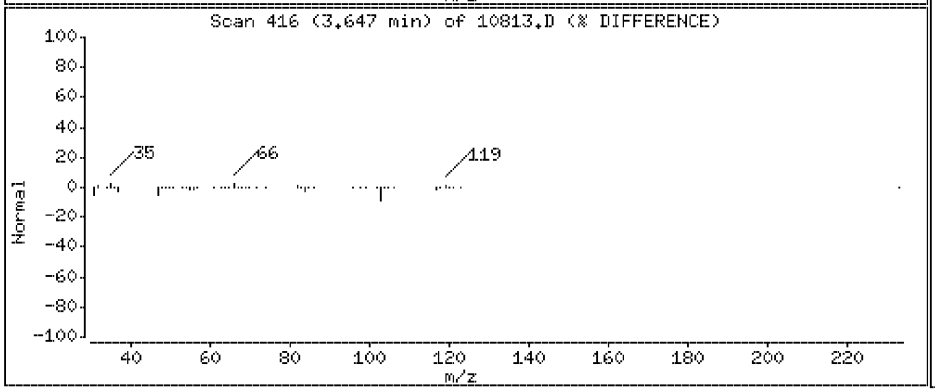
12 Trichlorofluoromethane

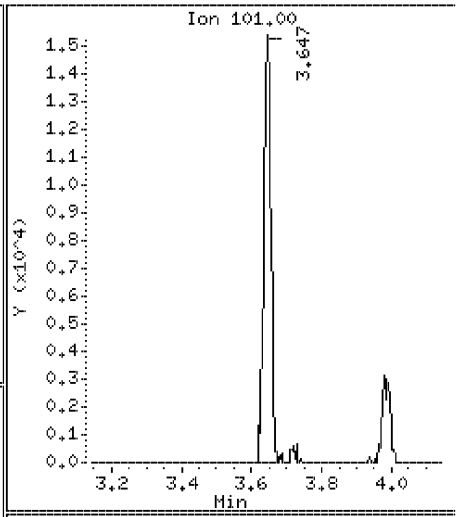
Concentration: 0.192 ppbv

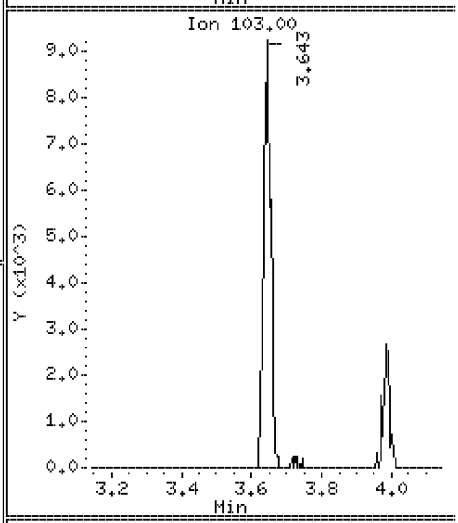


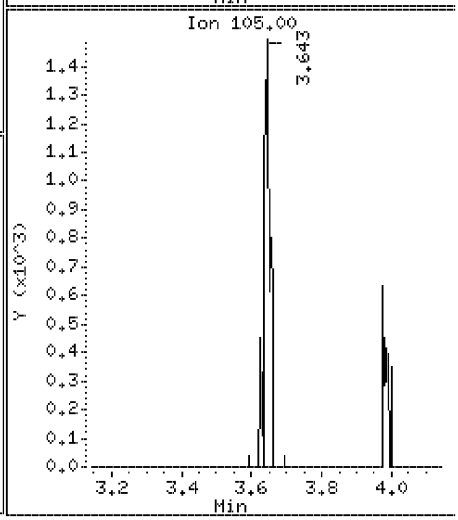












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Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

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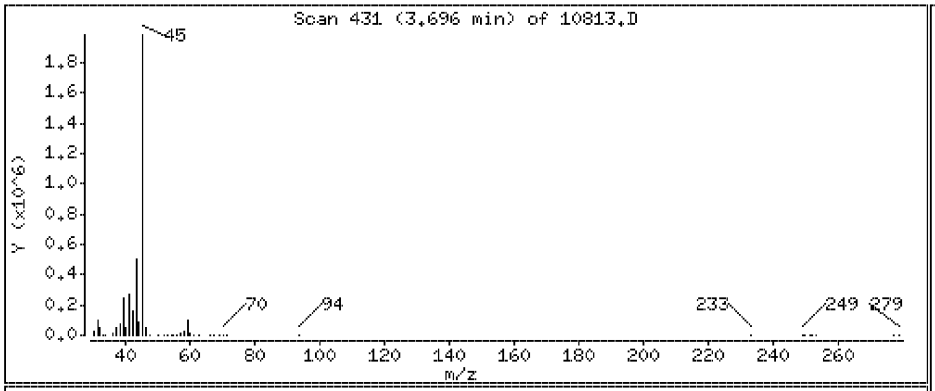
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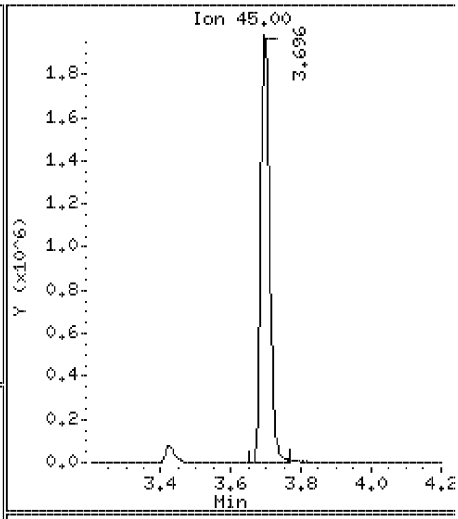
Column phase: J&W DB-5

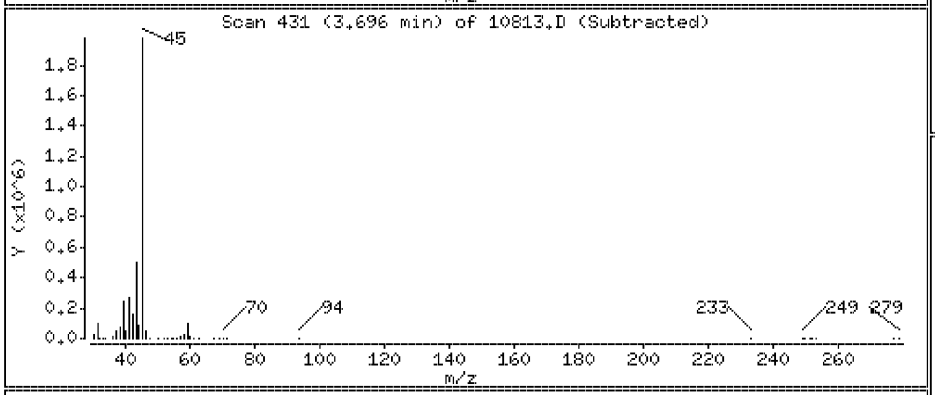
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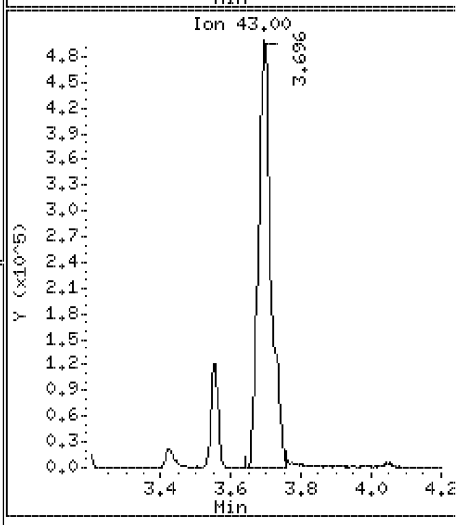
14 Isopropyl Alcohol

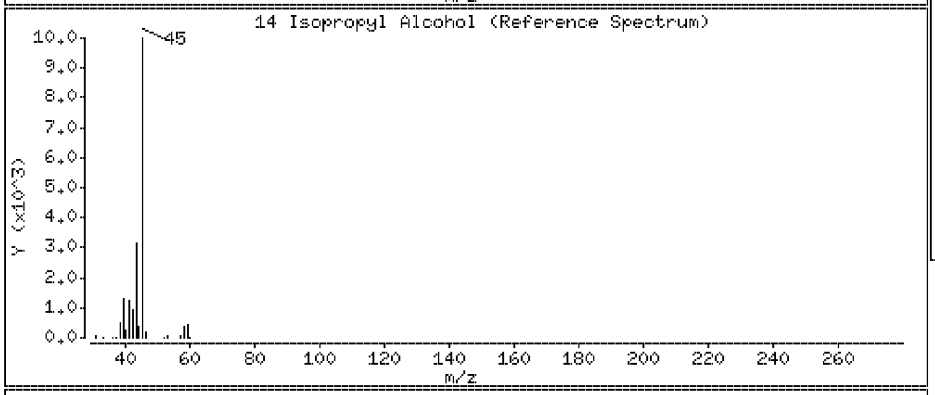
Concentration: 90.6 ppbv

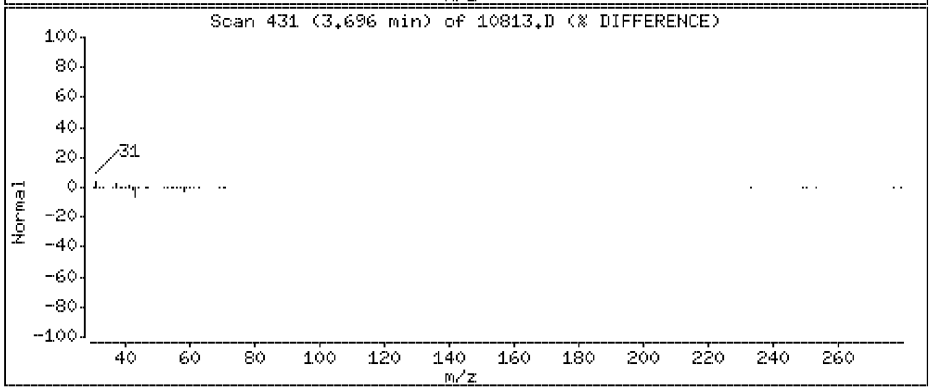












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Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

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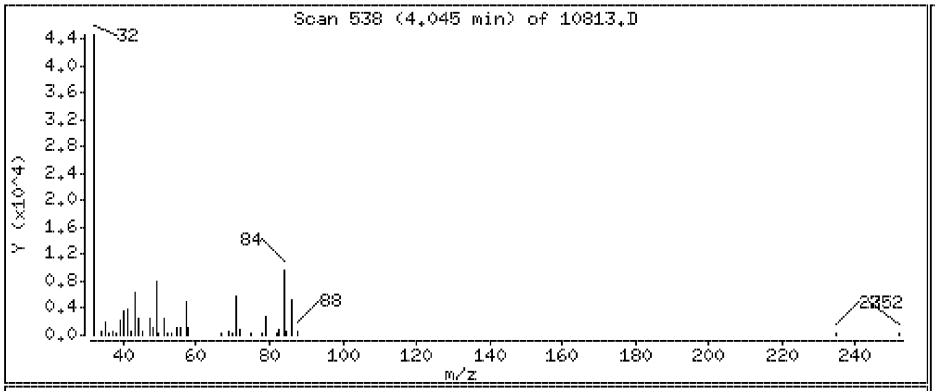
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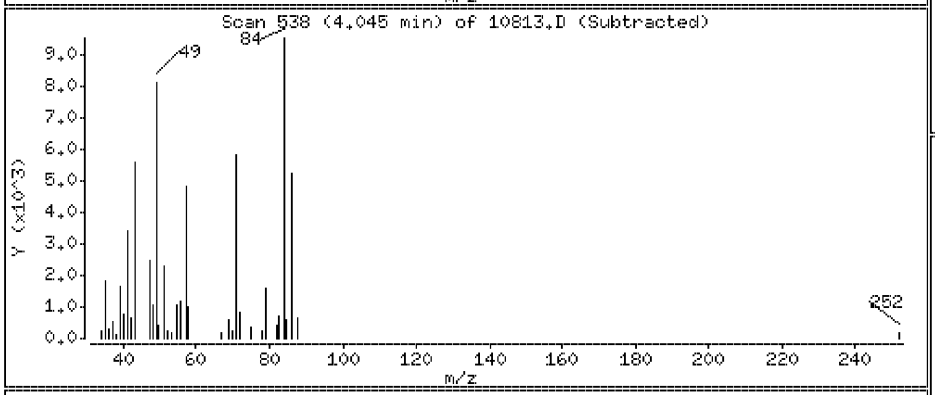
Column phase: J&W DB-5

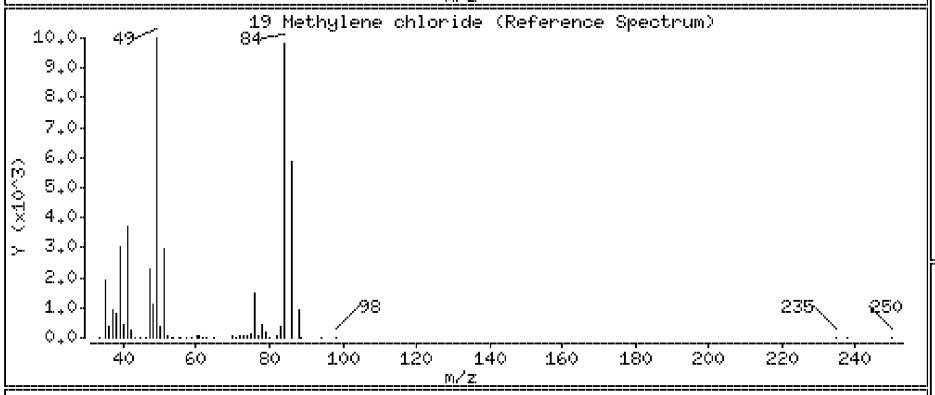
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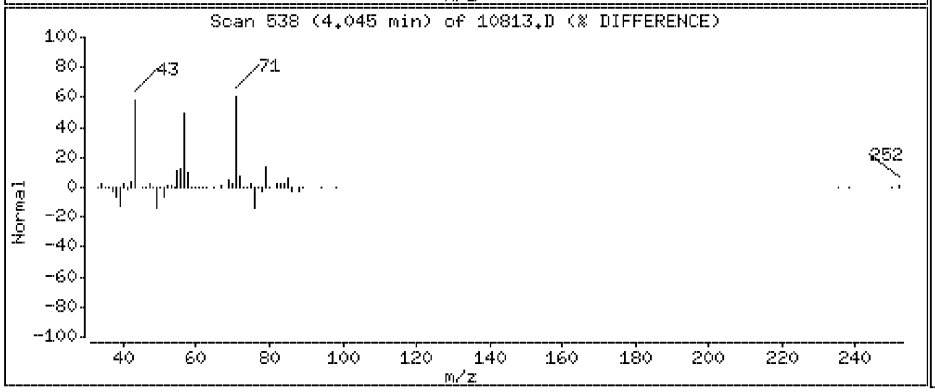
19 Methylene chloride

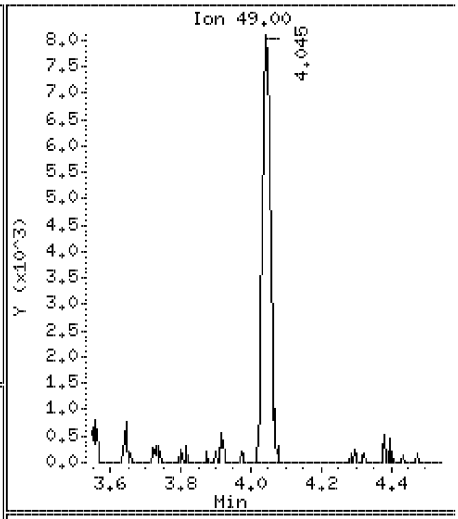
Concentration: 0.389 ppbv

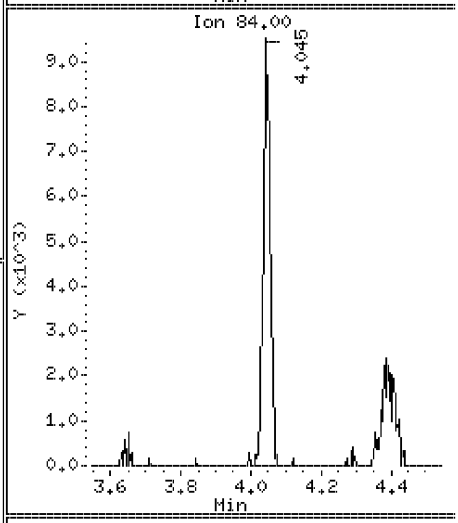


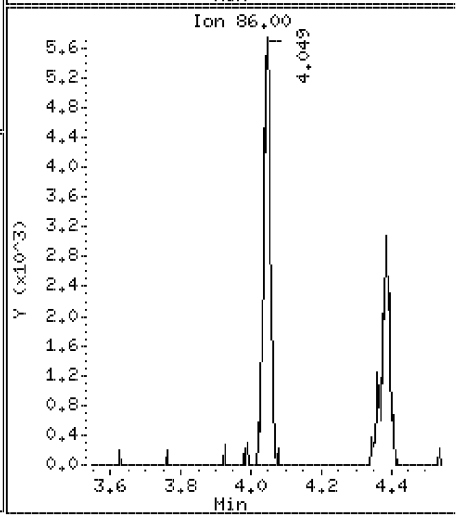












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Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

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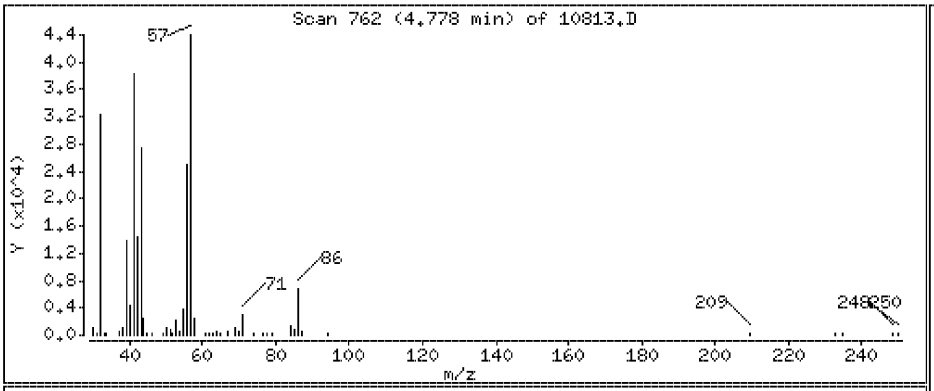
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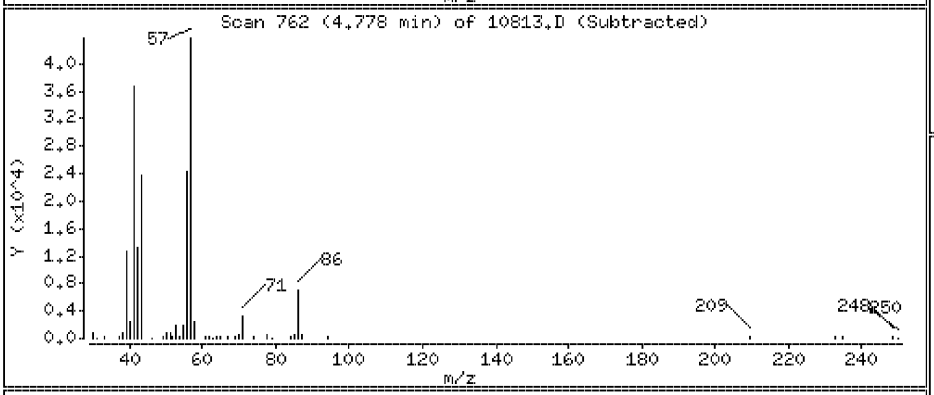
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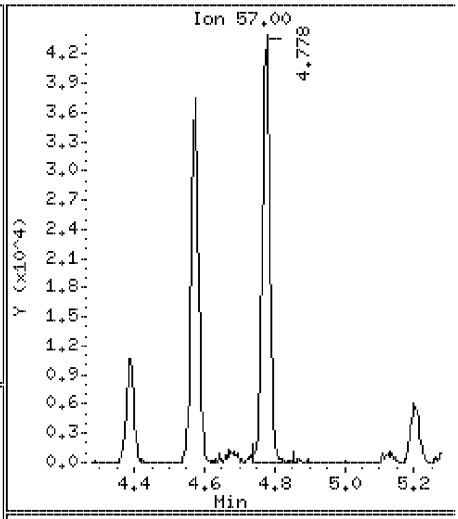
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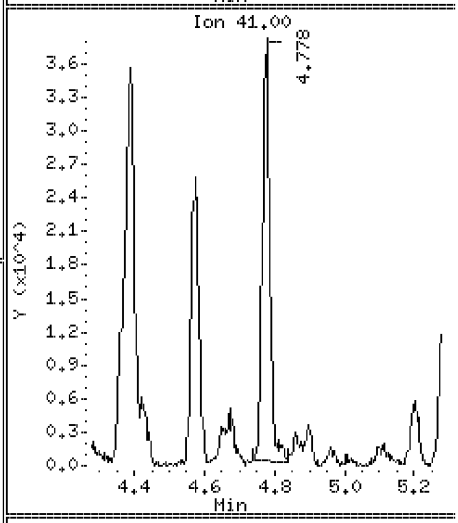
28 n-Hexane

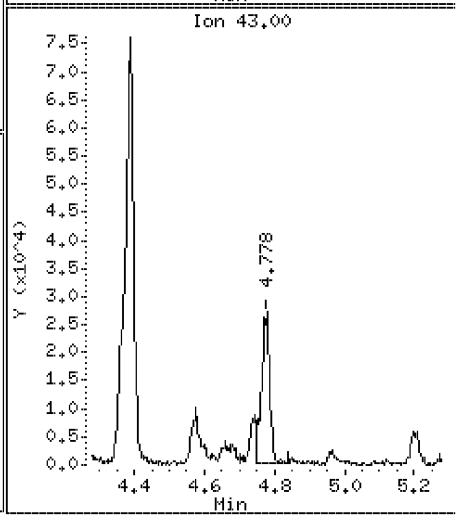
Concentration: 1.38 ppbv











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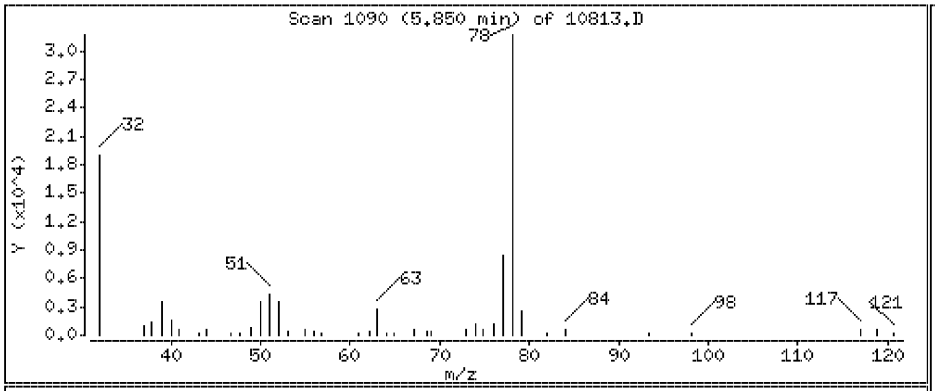
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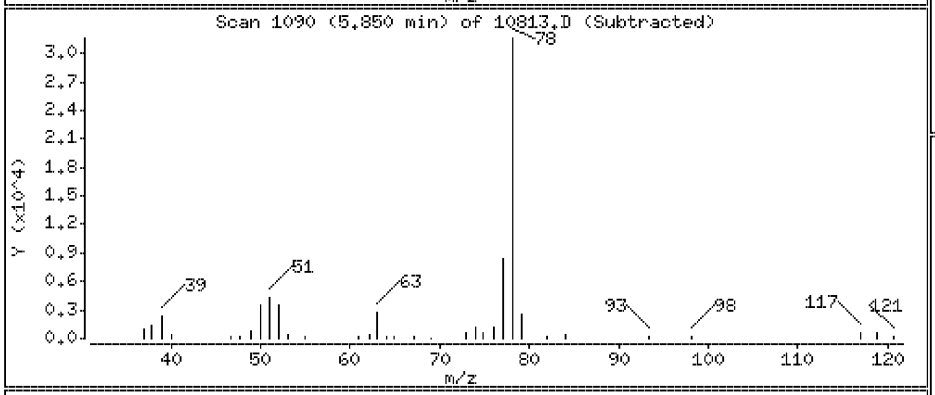
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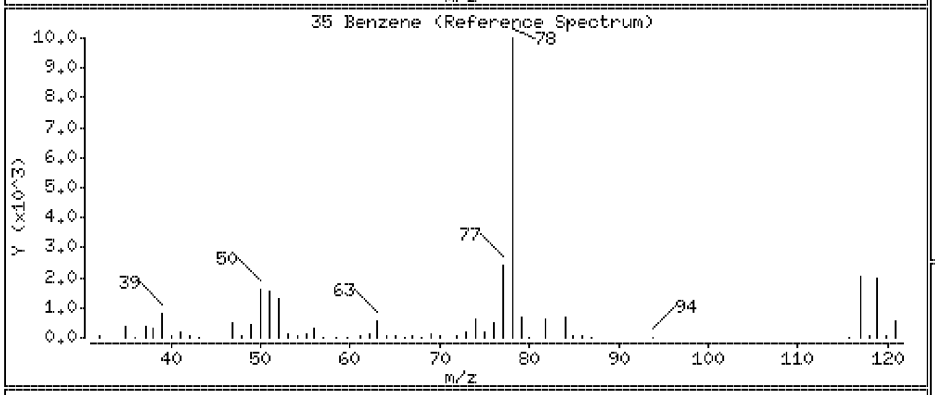
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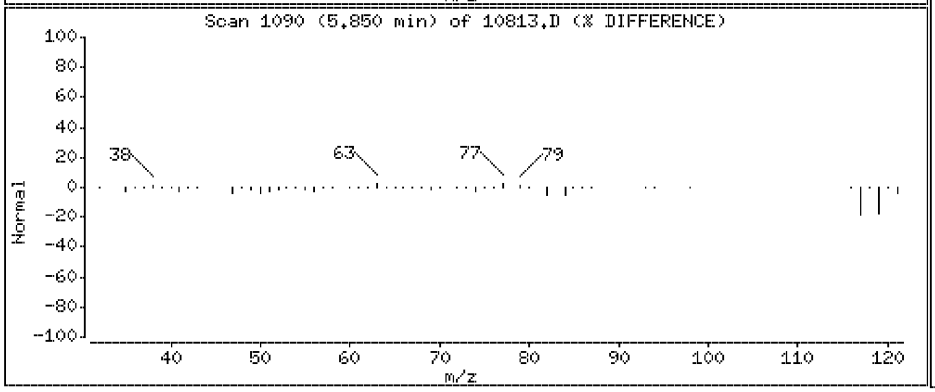
35 Benzene

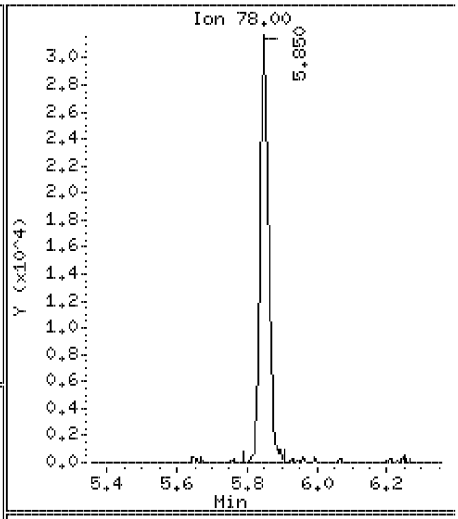
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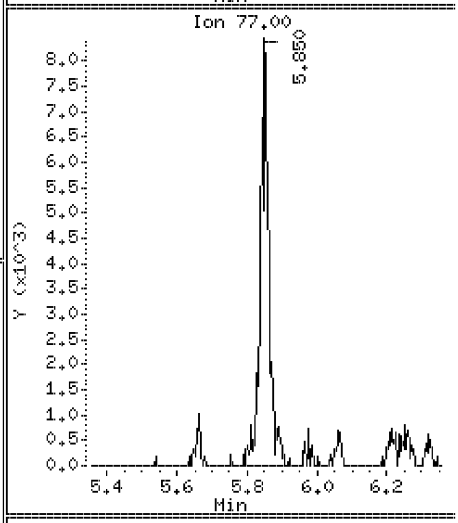


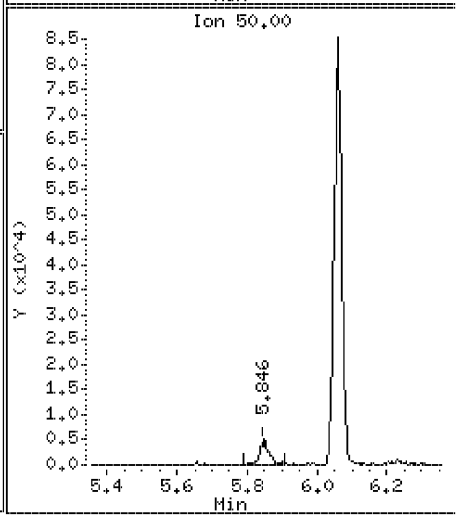












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Date : 18-APR-2013 17:01

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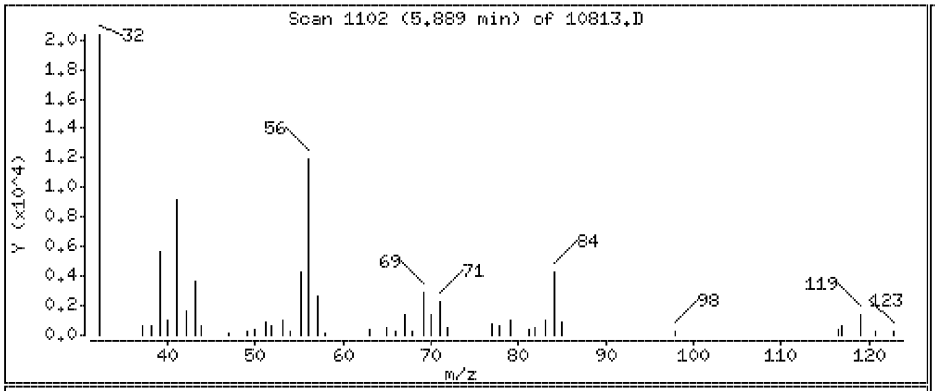
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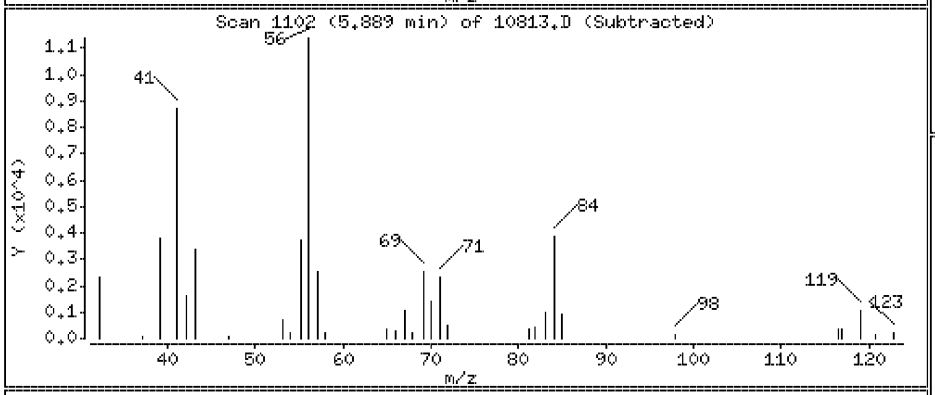
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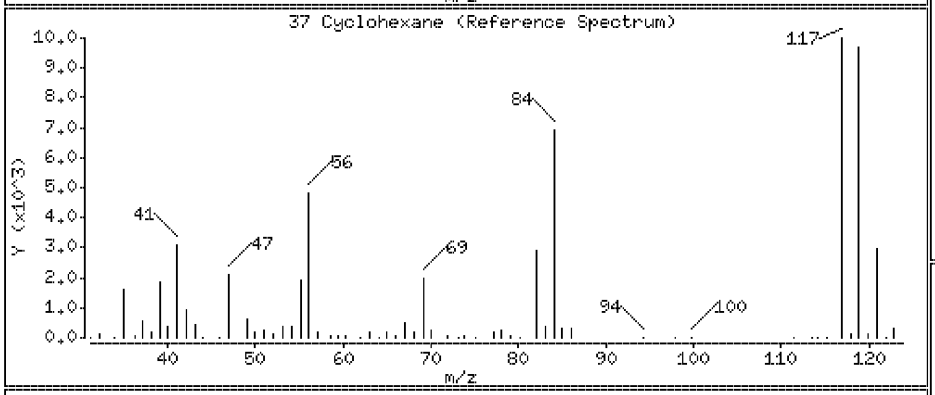
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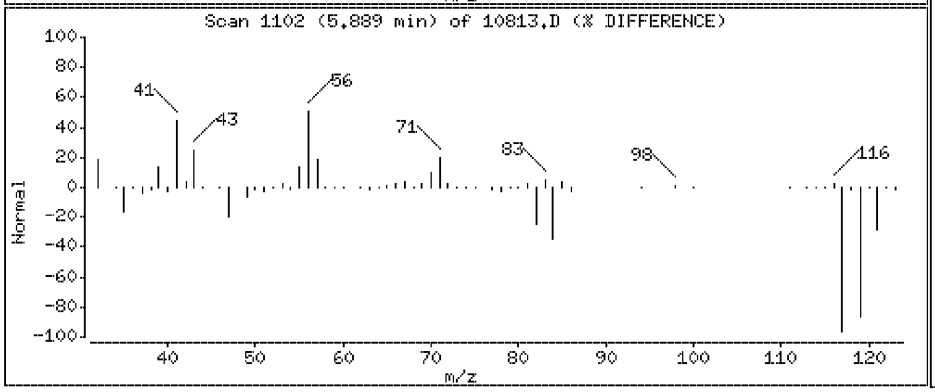
37 Cyclohexane

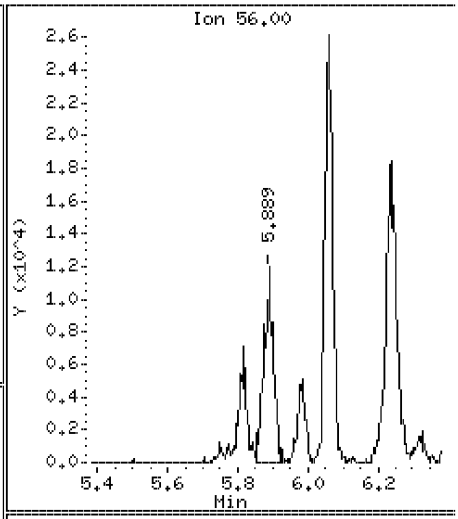
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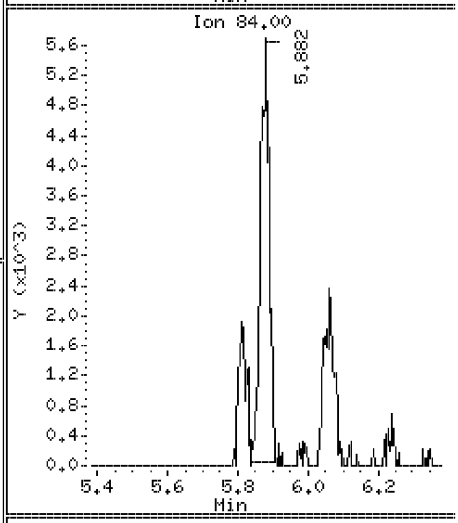


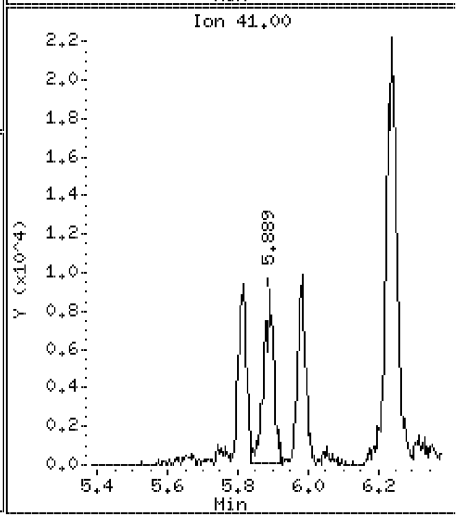












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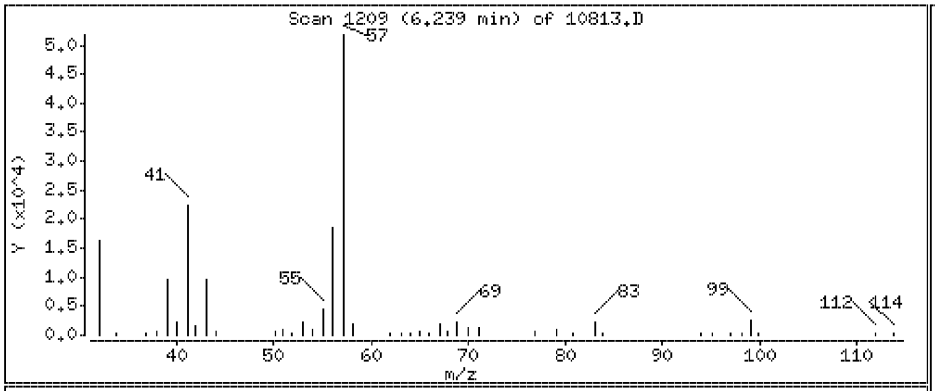
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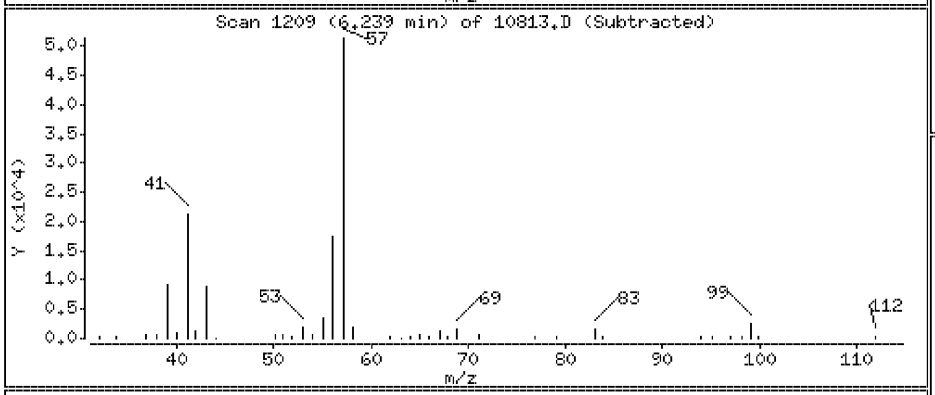
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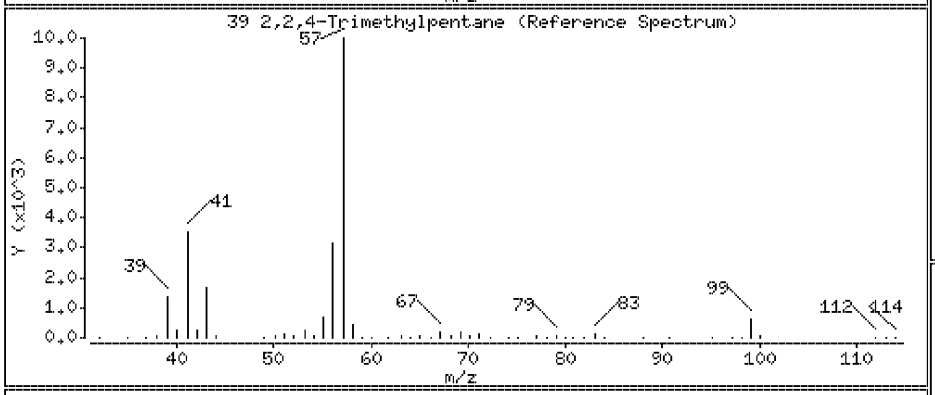
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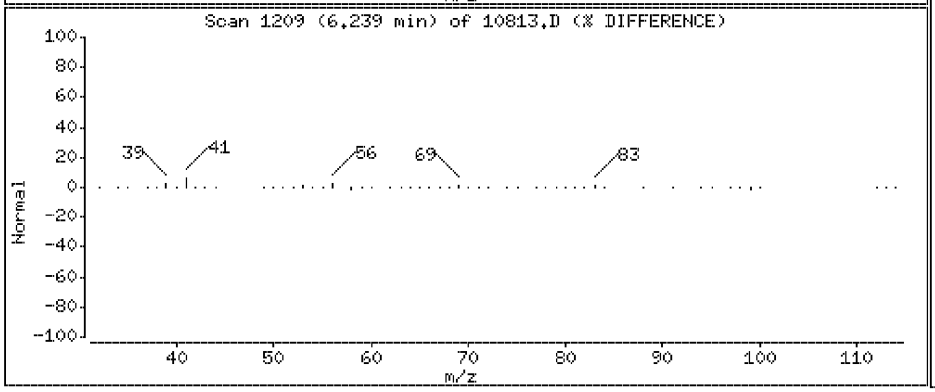
39 2,2,4-Trimethylpentane

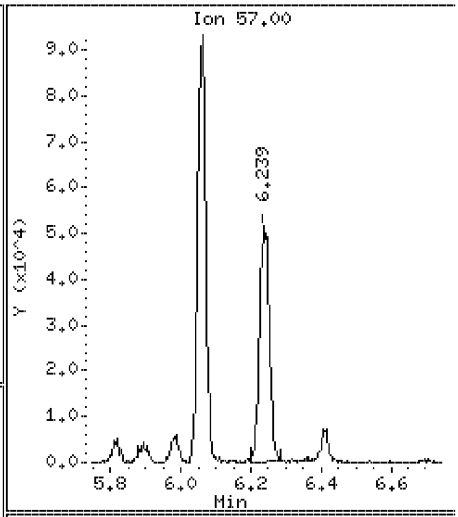
Concentration: 1.18 ppbv

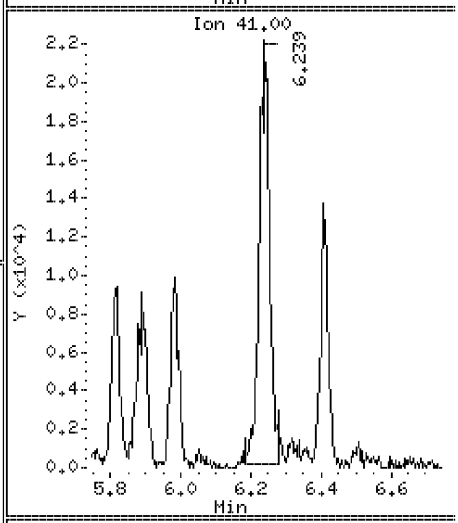


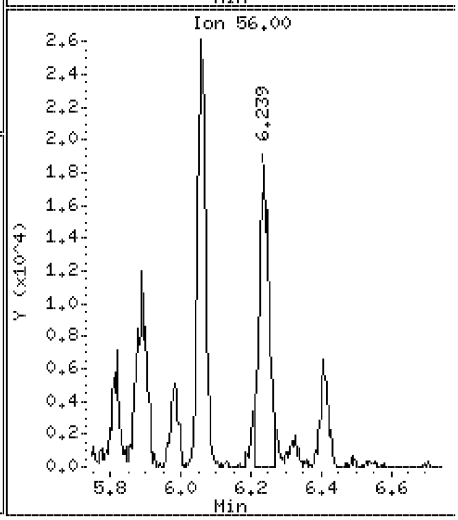












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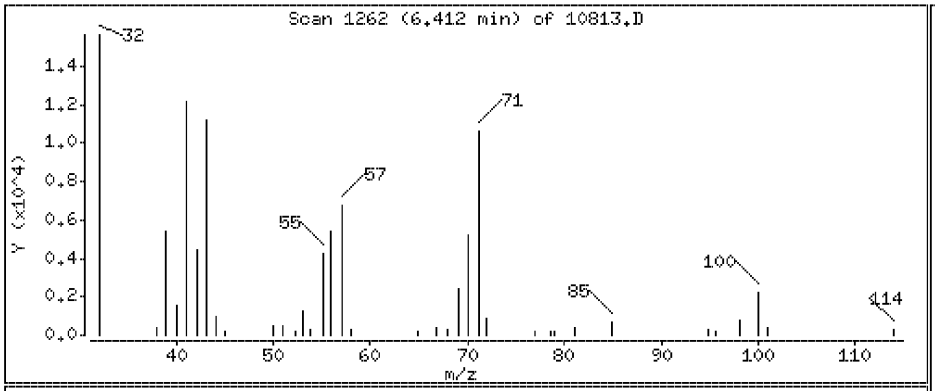
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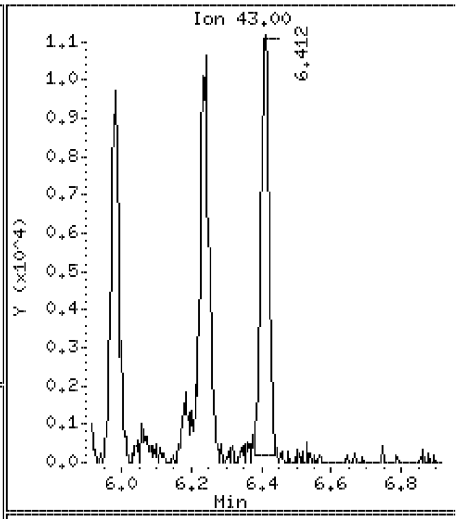
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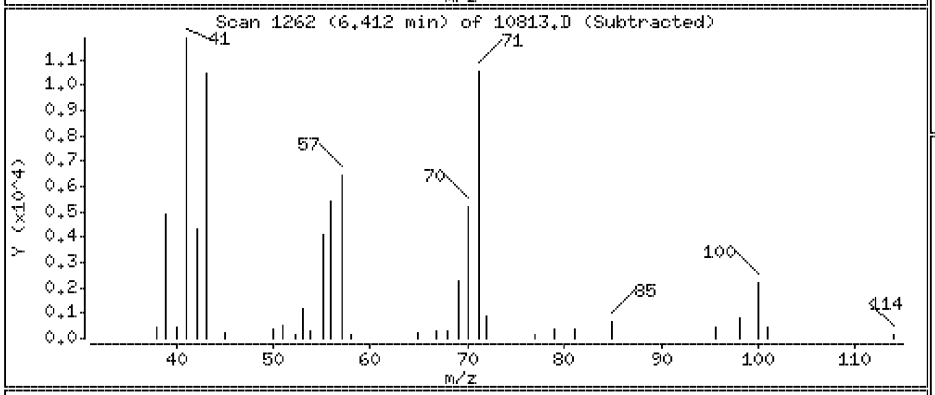
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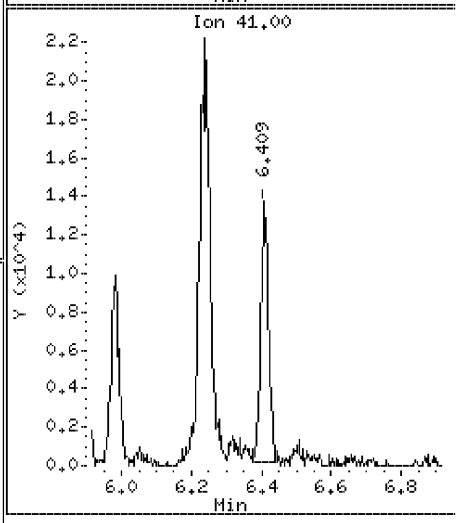
40 Heptane

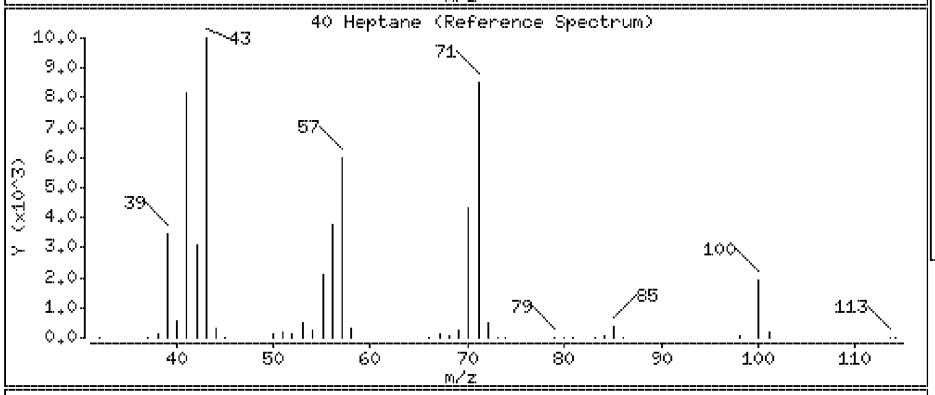
Concentration: 0.955 ppbv

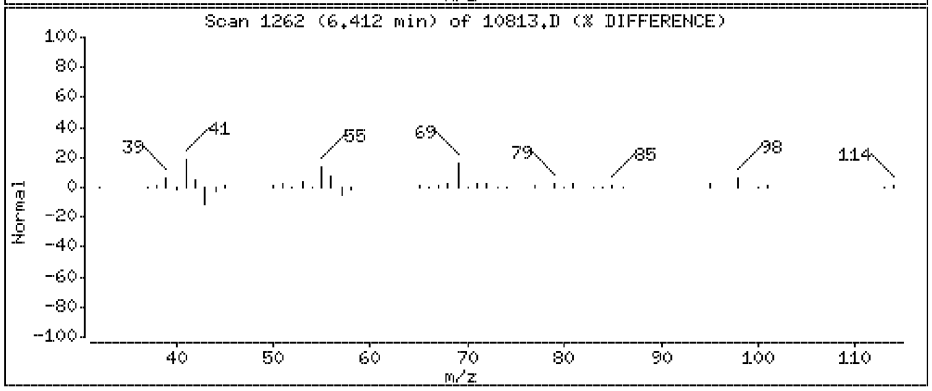












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D

Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

Sample Info:

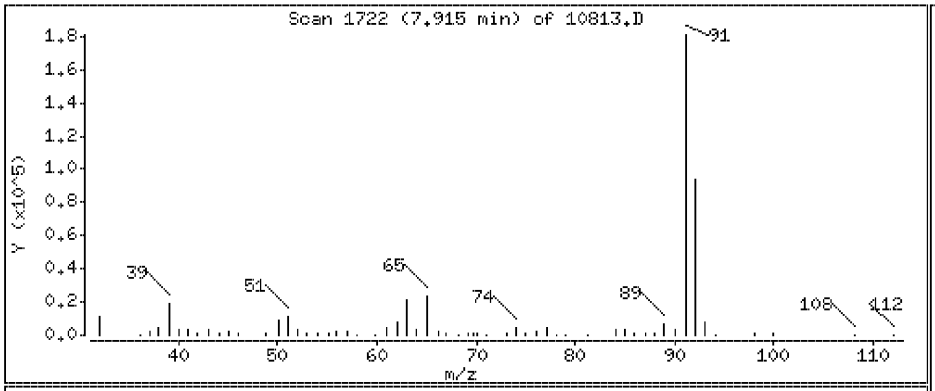
Operator: CJR

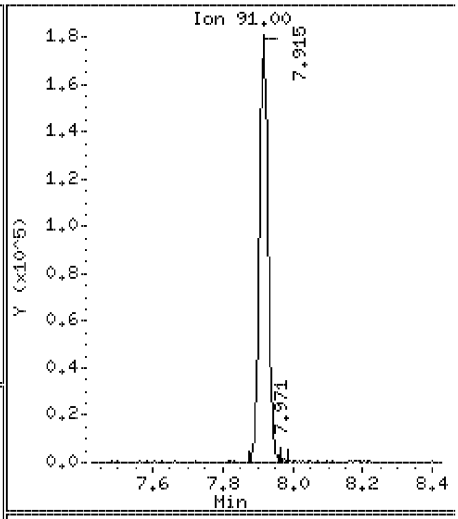
Column phase: J&W DB-5

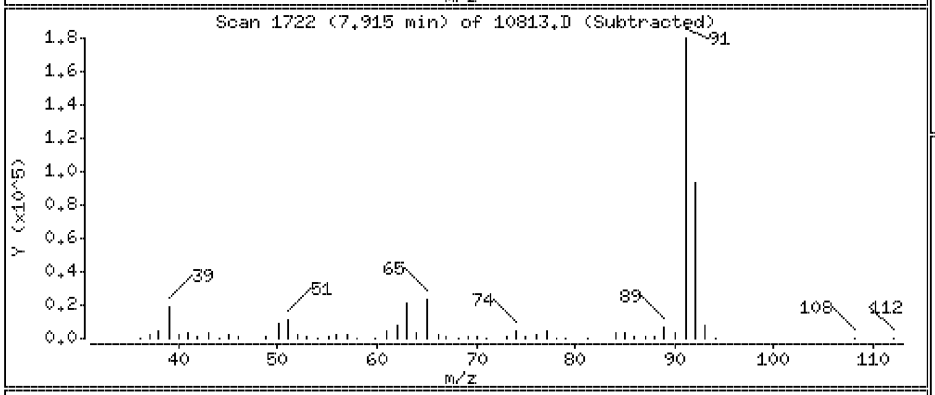
Column diameter: 0.32

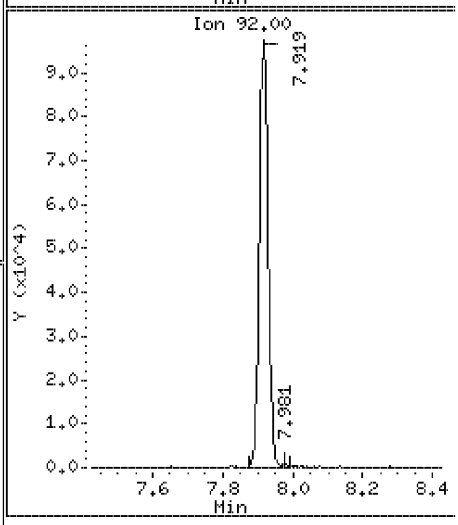
49 Toluene

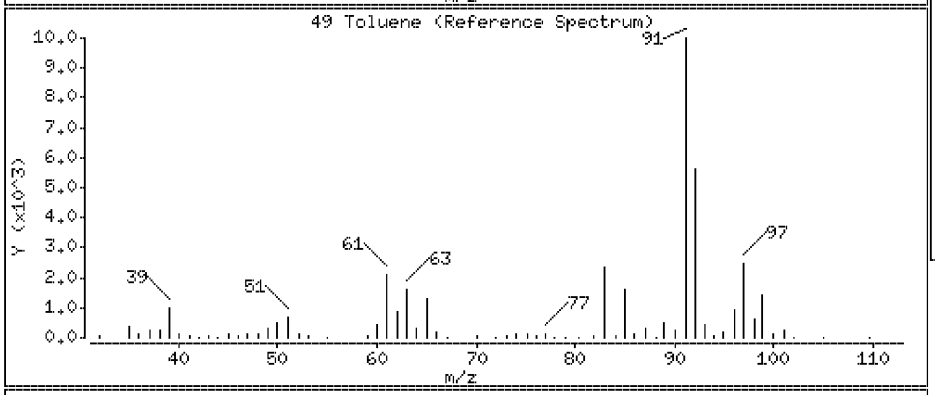
Concentration: 2.11 ppbv

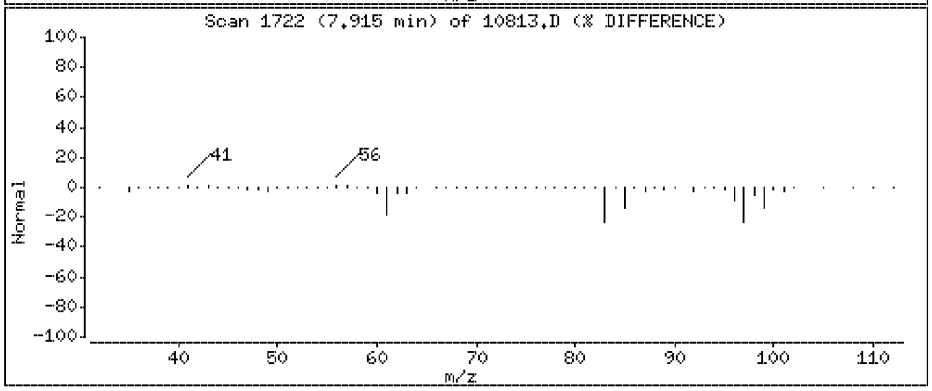












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D

Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

Sample Info:

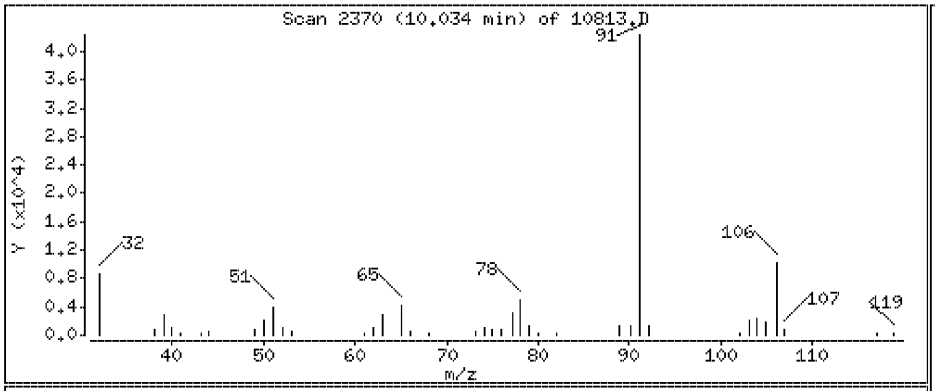
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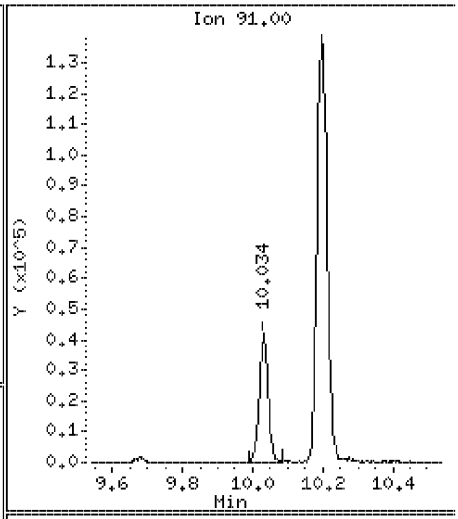
Column phase: J&W DB-5

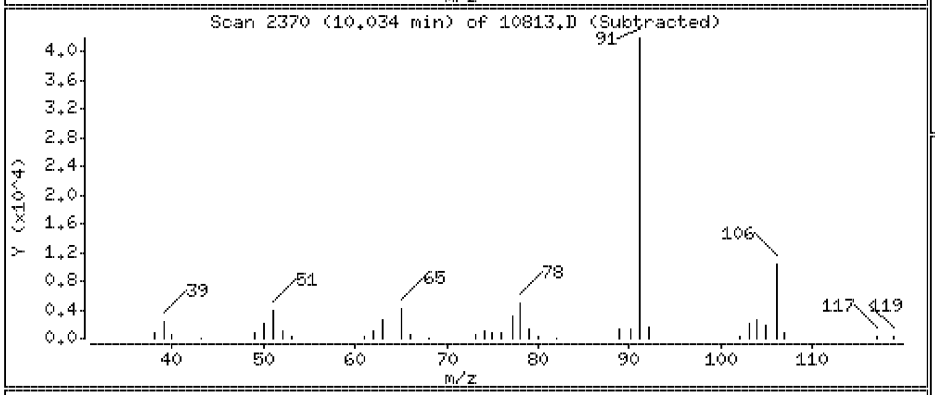
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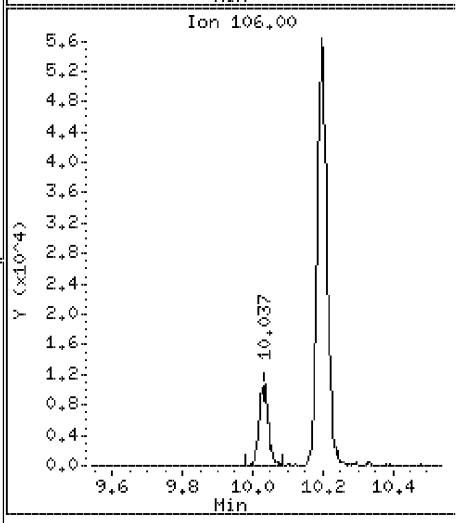
57 Ethyl Benzene

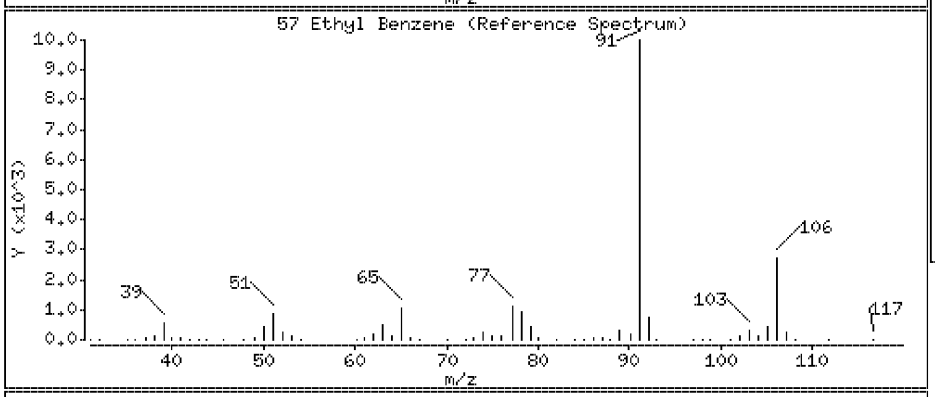
Concentration: 0.628 ppbv

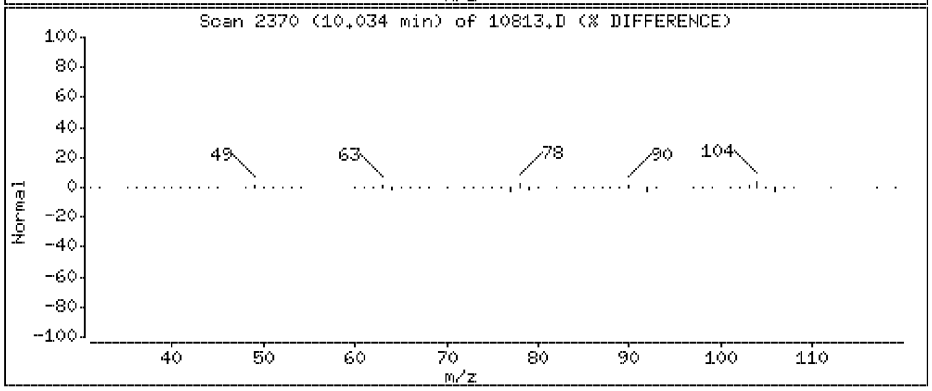












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D

Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

Sample Info:

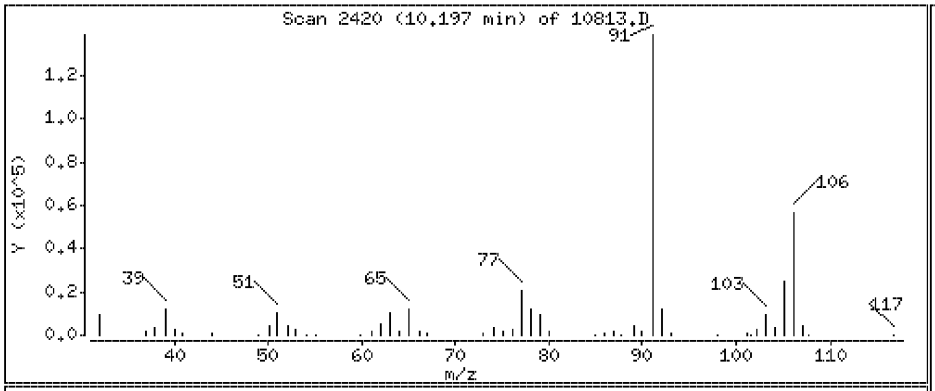
Operator: CJR

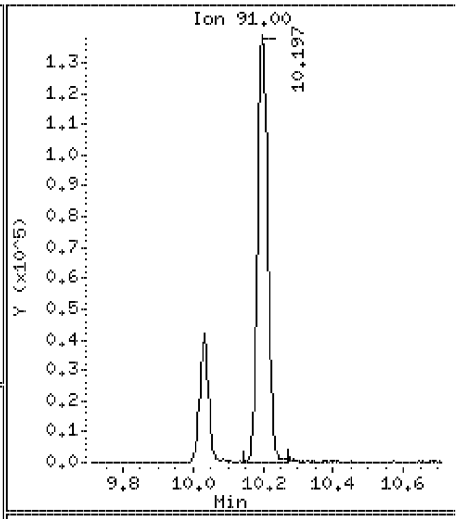
Column phase: J&W DB-5

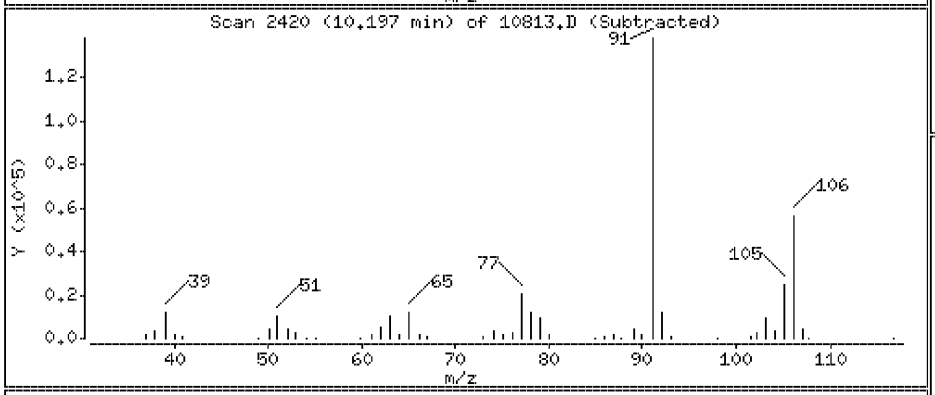
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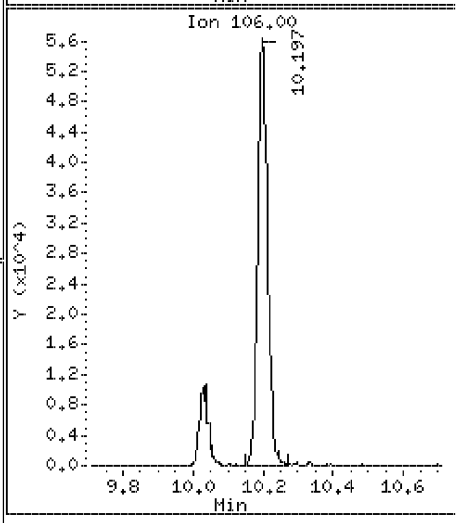
58 m&p-Xylene

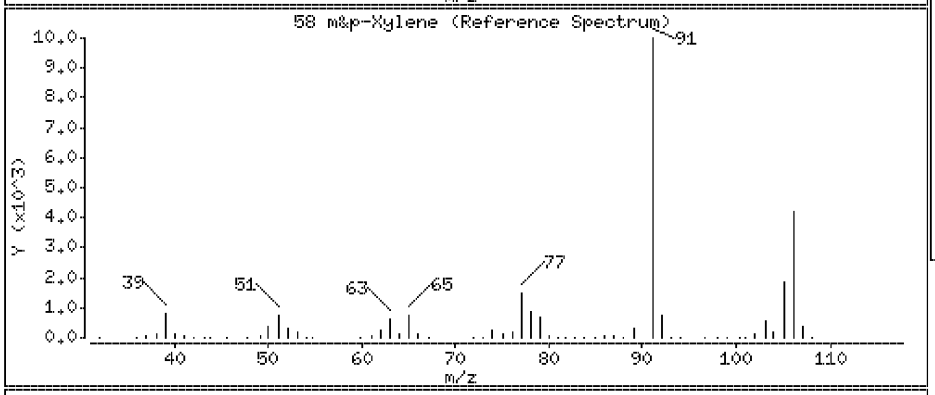
Concentration: 2.31 ppbv

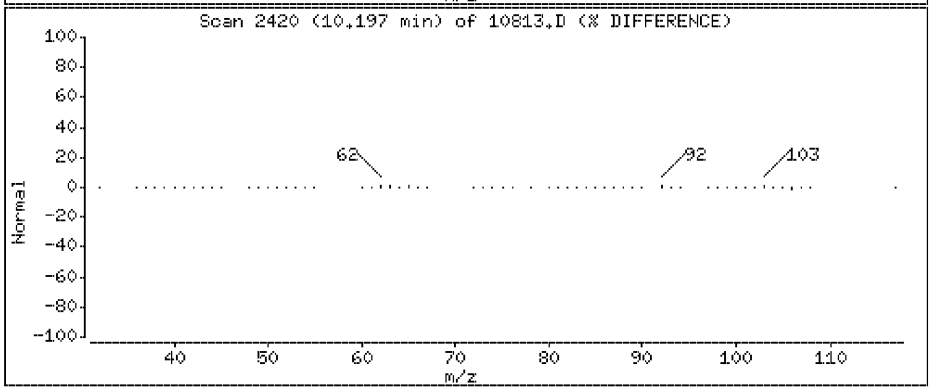












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D

Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

Sample Info:

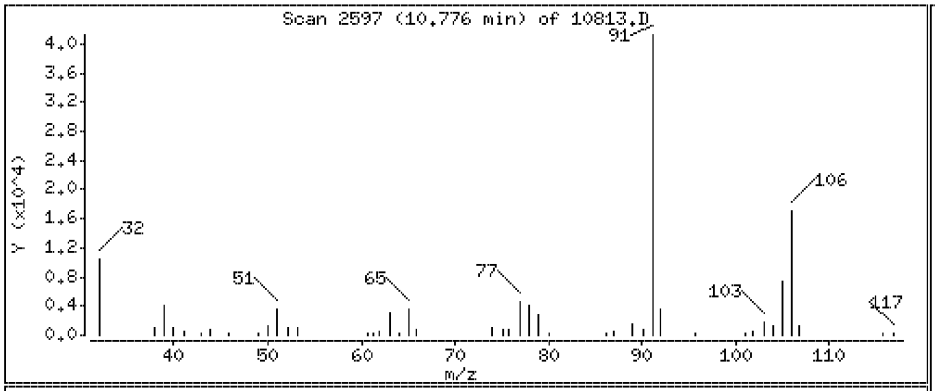
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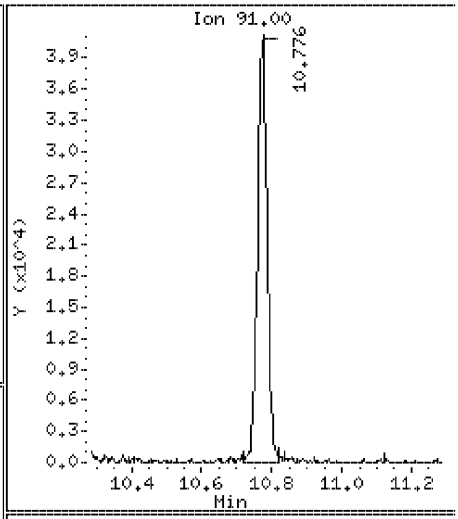
Column phase: J&W DB-5

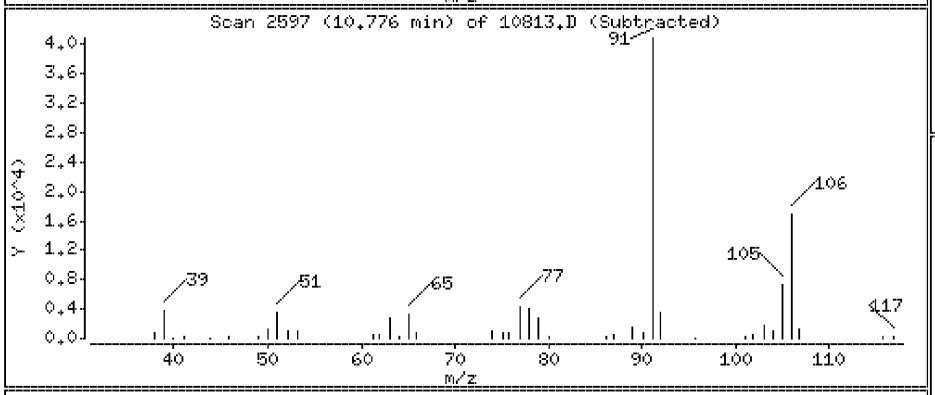
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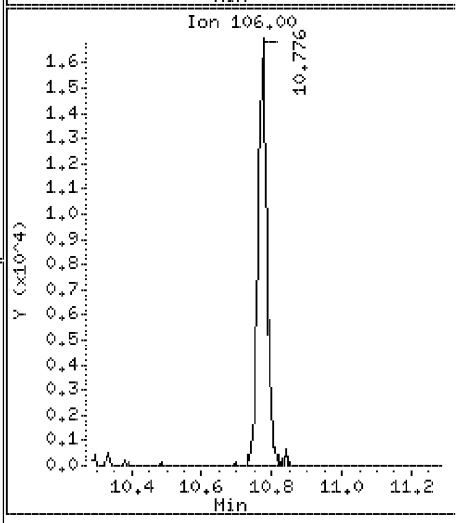
61 o-Xylene

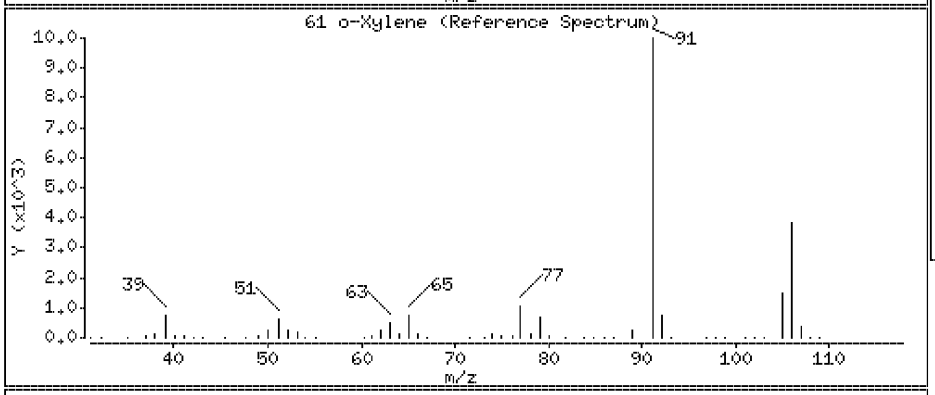
Concentration: 0.630 ppbv

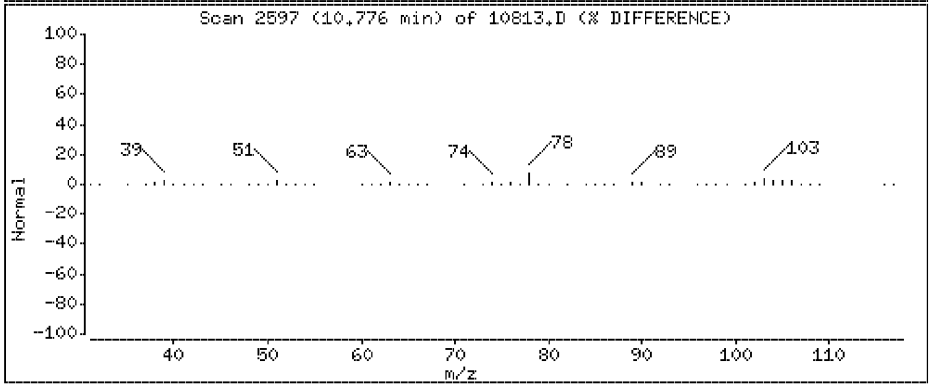












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D

Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

Sample Info:

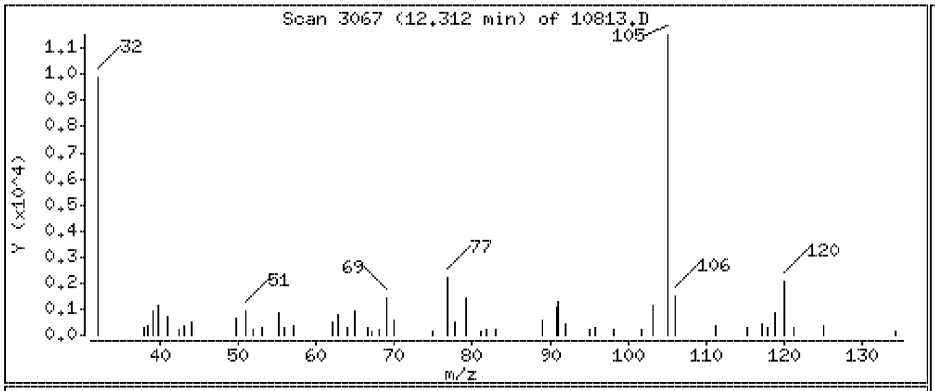
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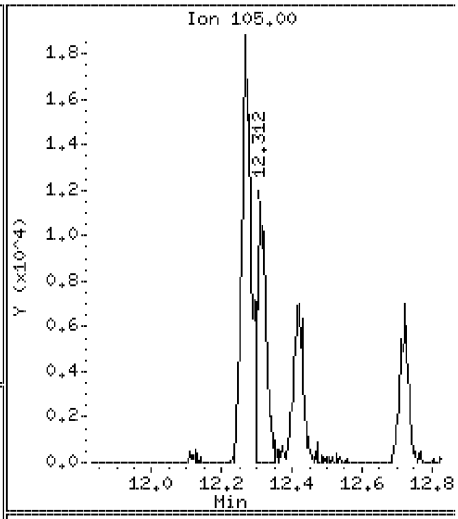
Column phase: J&W DB-5

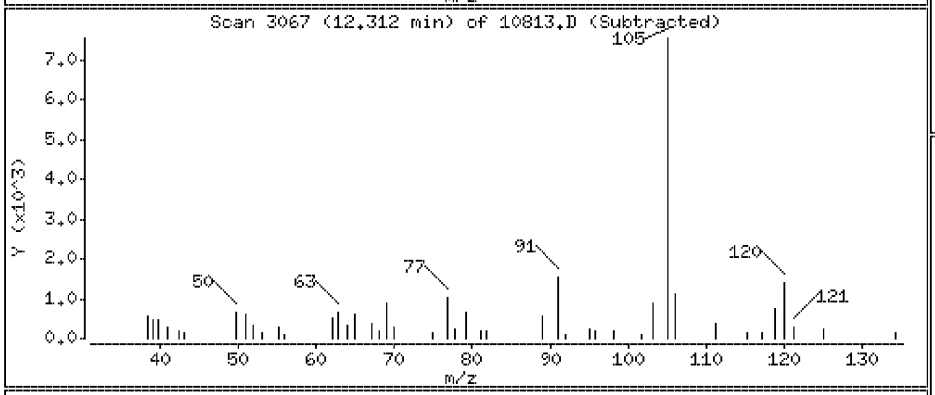
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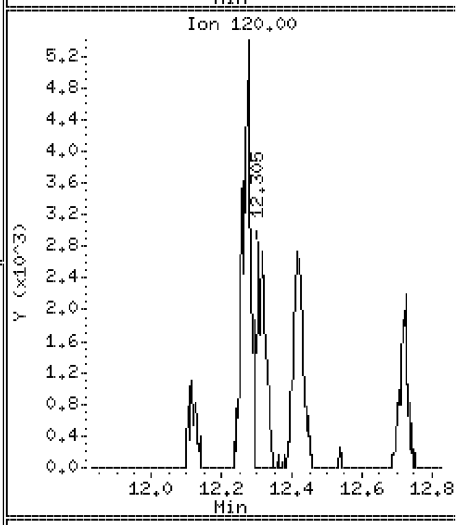
65 4-Ethyltoluene

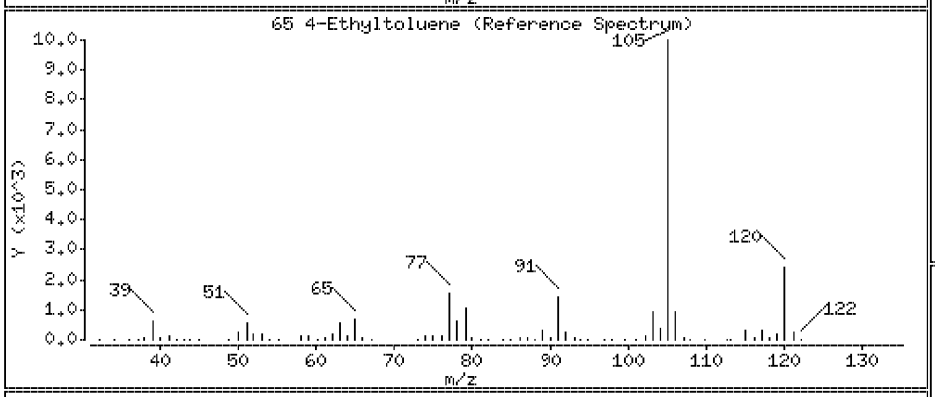
Concentration: 0.315 ppbv

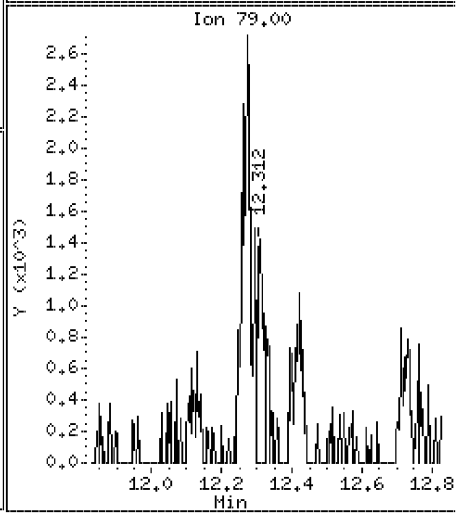


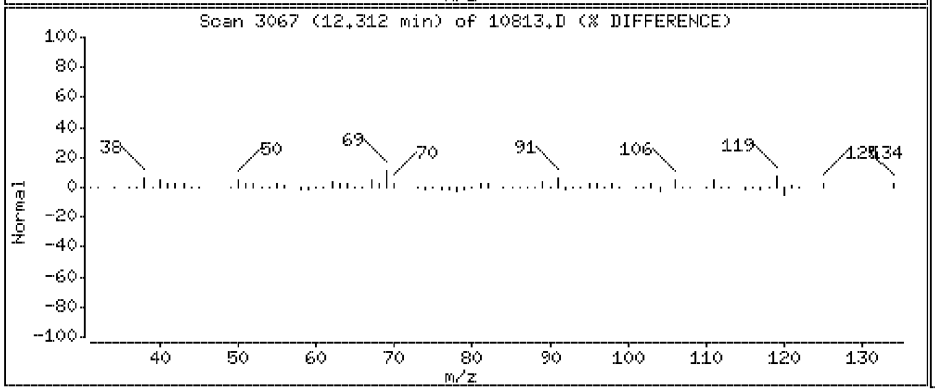












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10813.D

Date : 18-APR-2013 17:01

Client ID:

Instrument: 10airD.i

Sample Info:

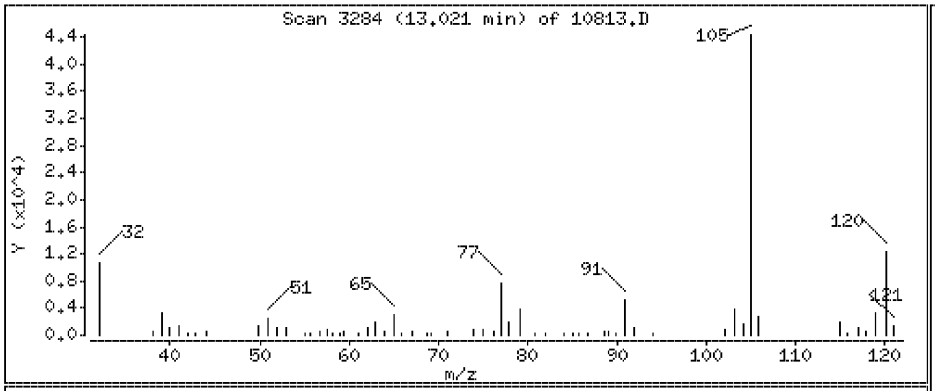
Operator: CJR

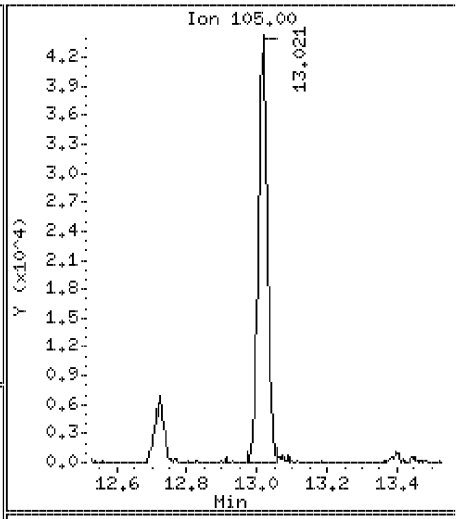
Column phase: J&W DB-5

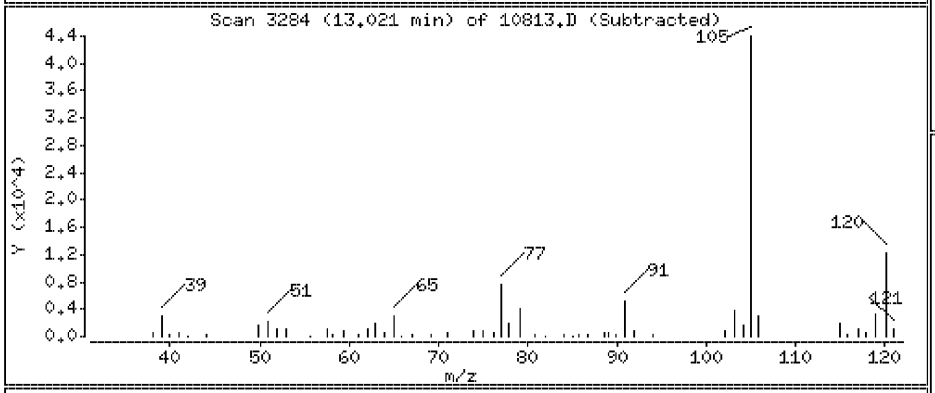
Column diameter: 0.32

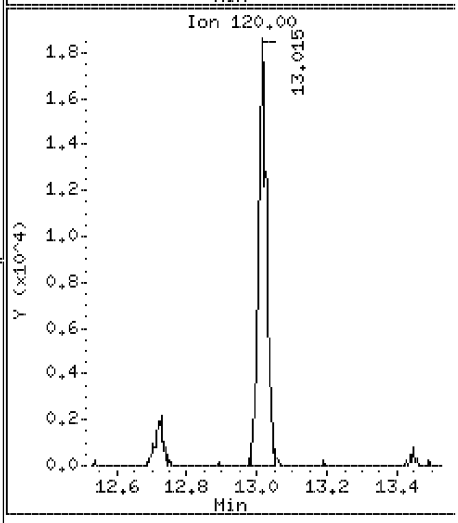
67 1,2,4-Trimethylbenzene

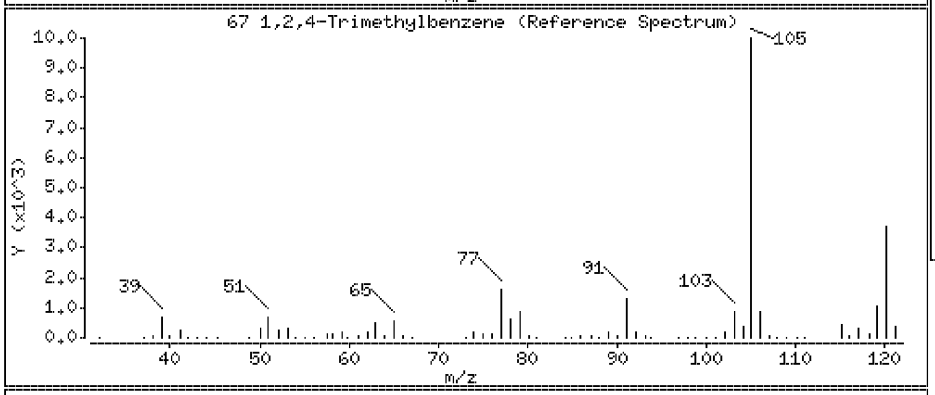
Concentration: 0.766 ppbv

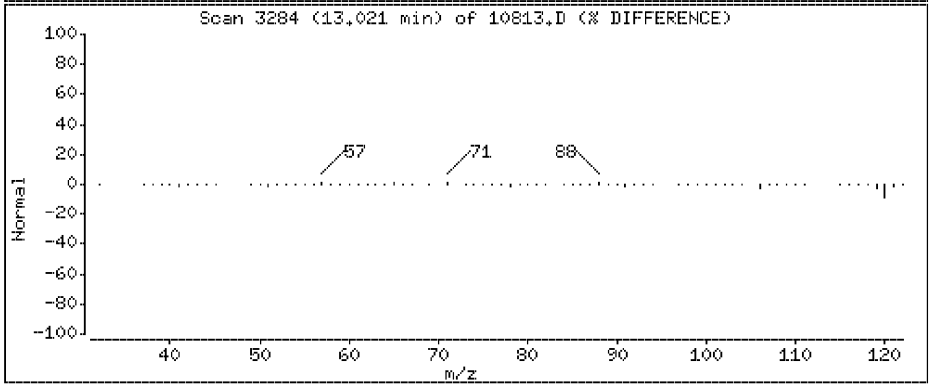






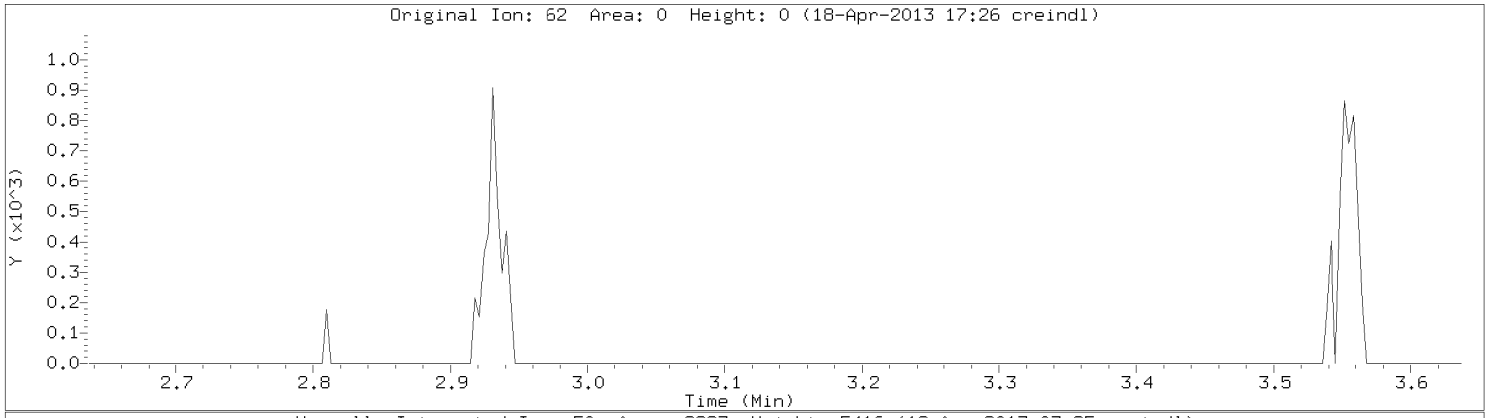


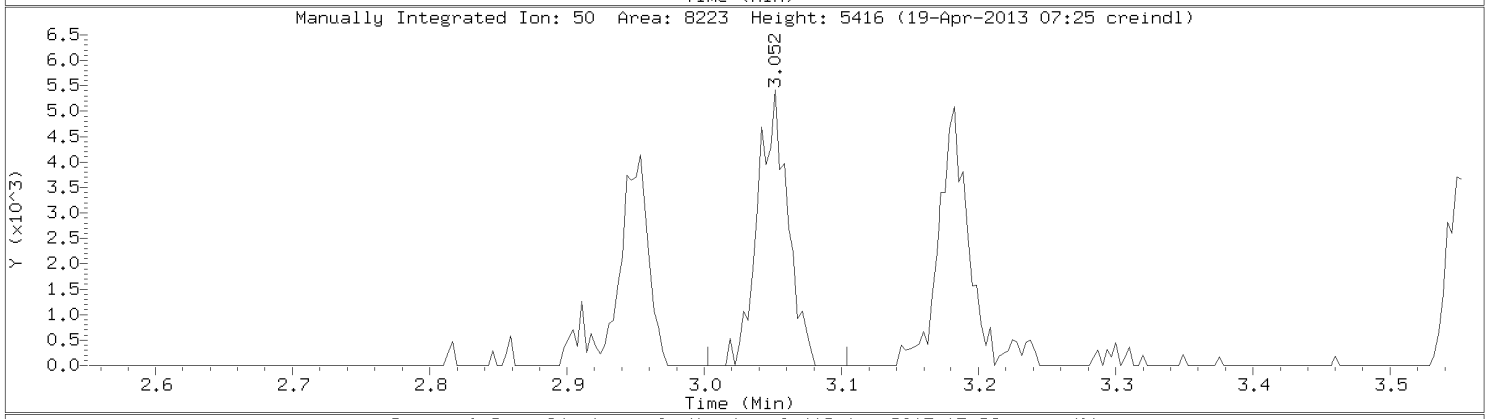


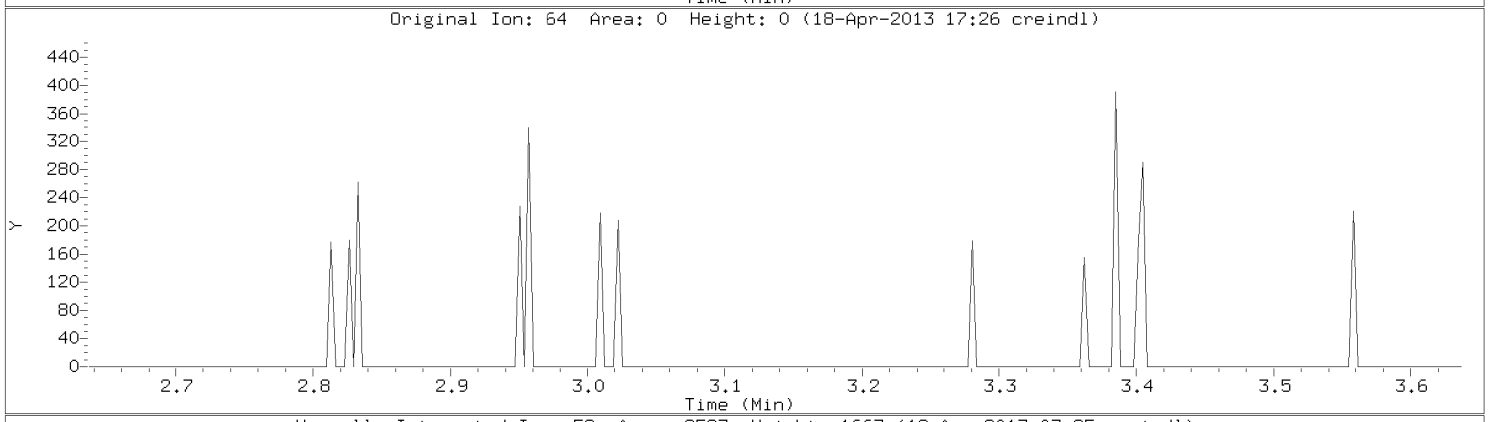


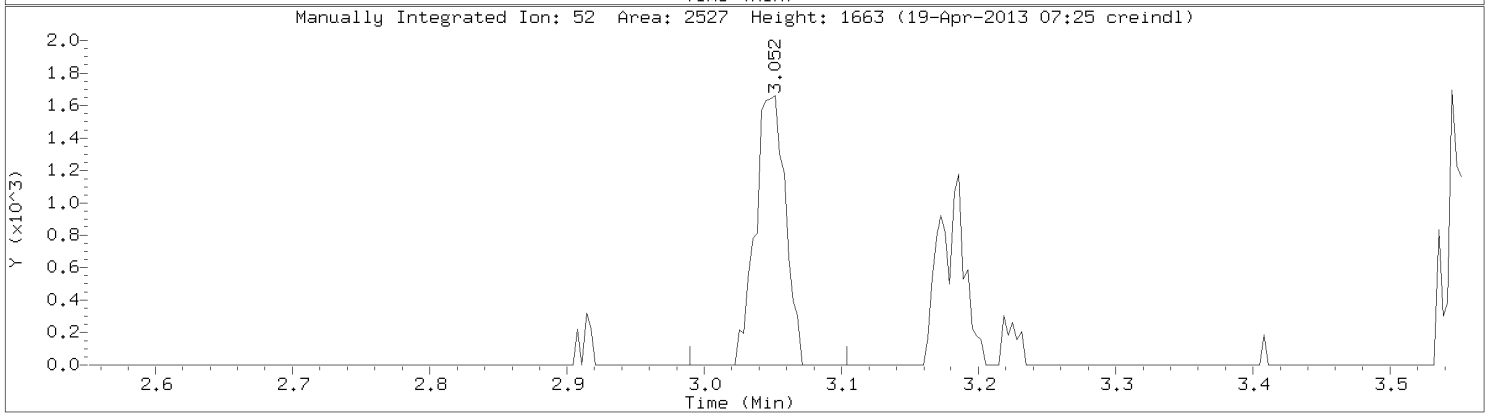
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10813.d
Injection Date: 18-APR-2013 17:01
Instrument: 10airD.i
Lab Sample ID: 10224616002

Compound: Chloromethane
CAS Number: 74-87-3



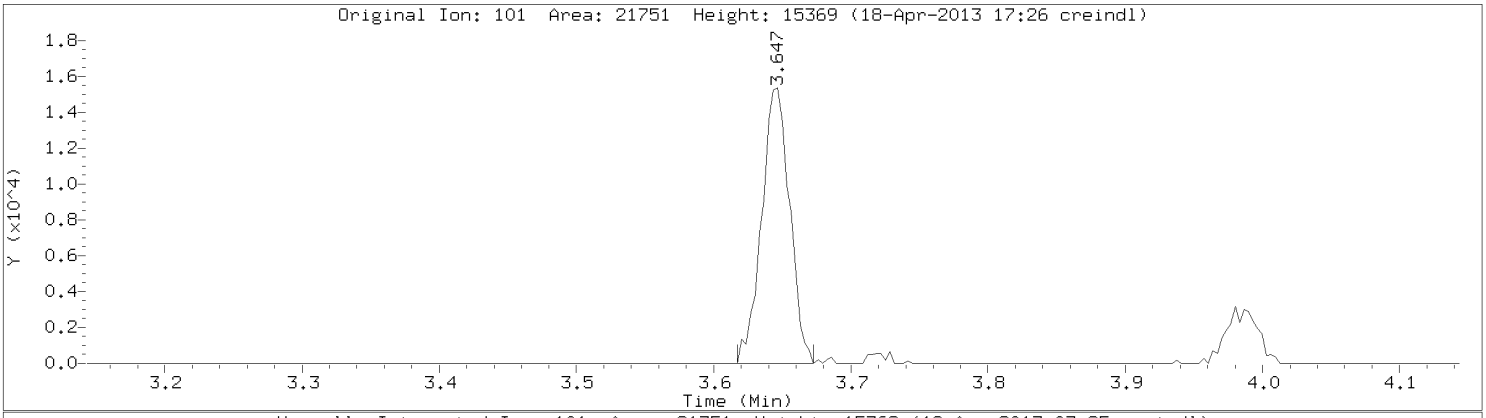


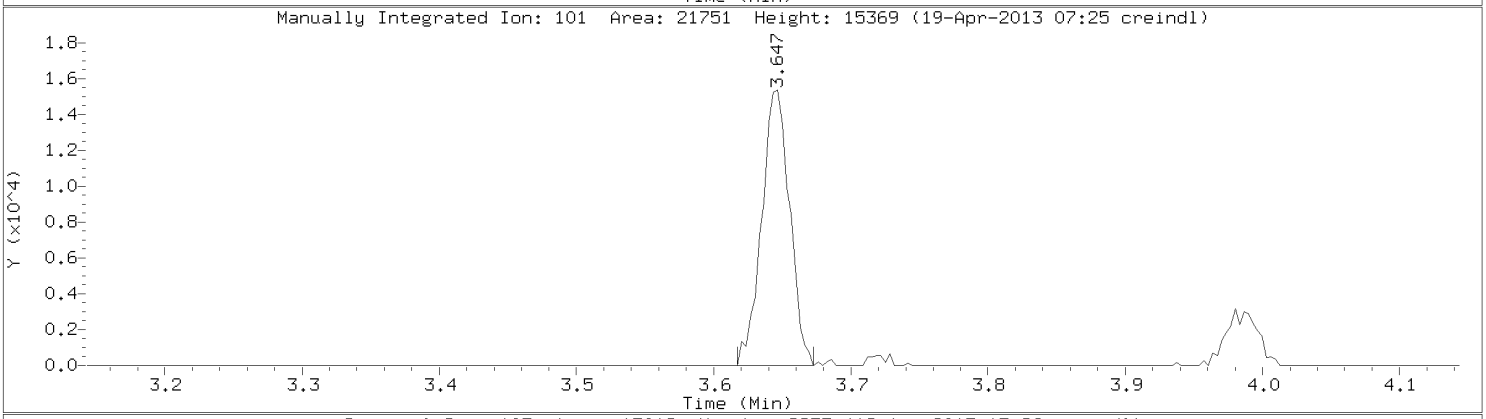


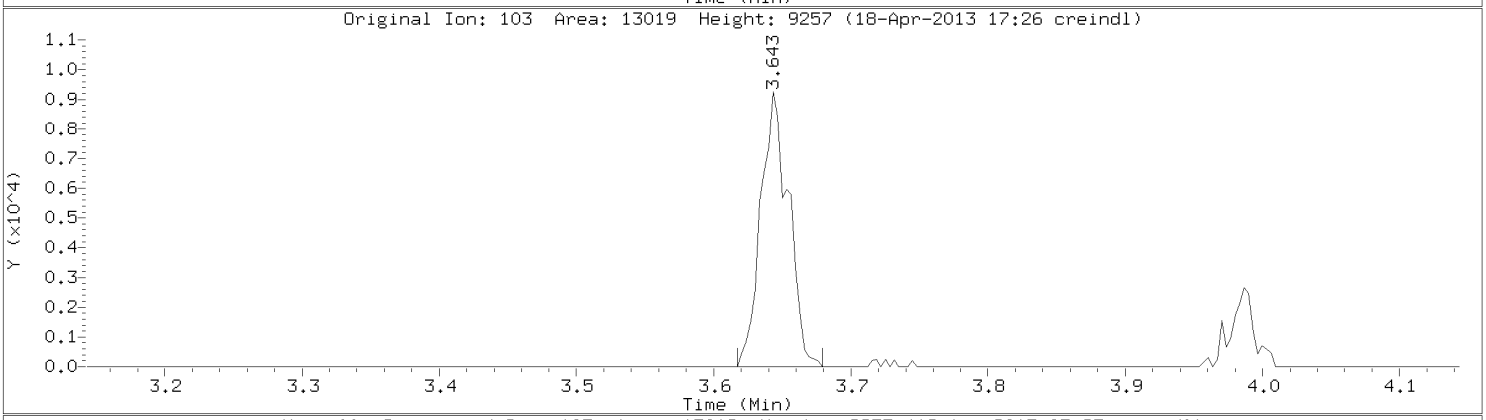


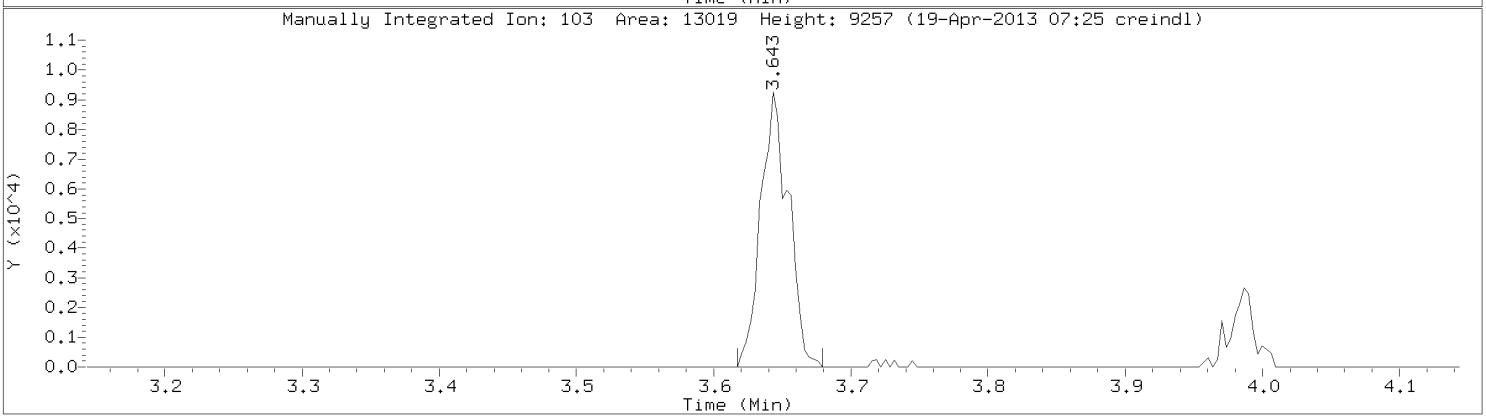
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10813.d
Injection Date: 18-APR-2013 17:01
Instrument: 10airD.i
Lab Sample ID: 10224616002

Compound: Trichlorofluoromethane
CAS Number: 75-69-4

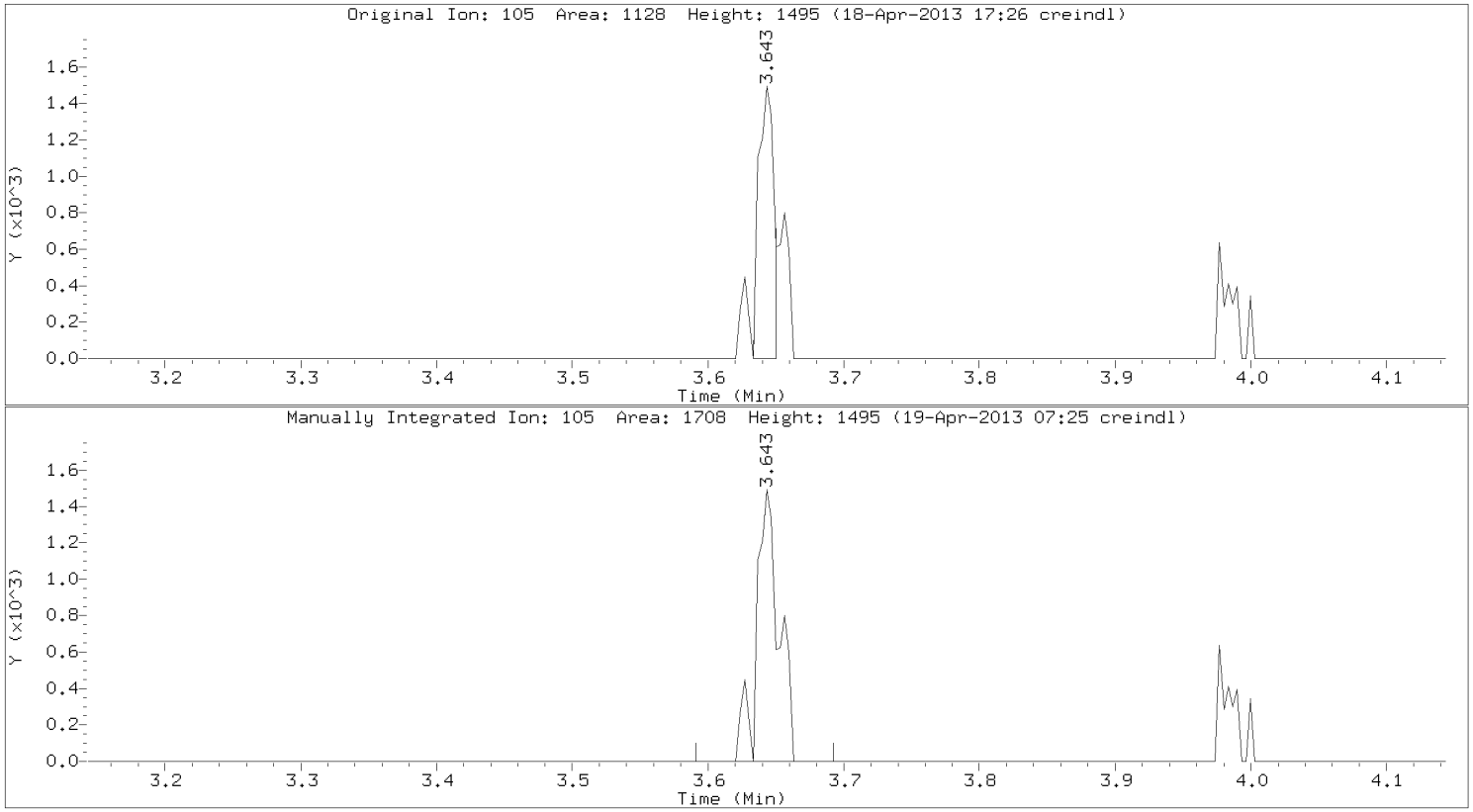






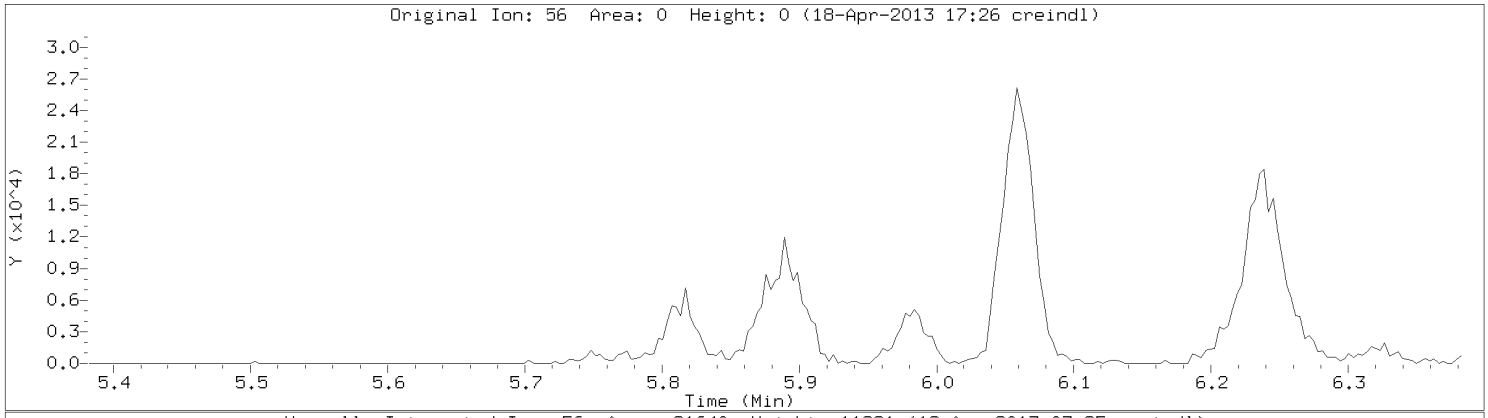


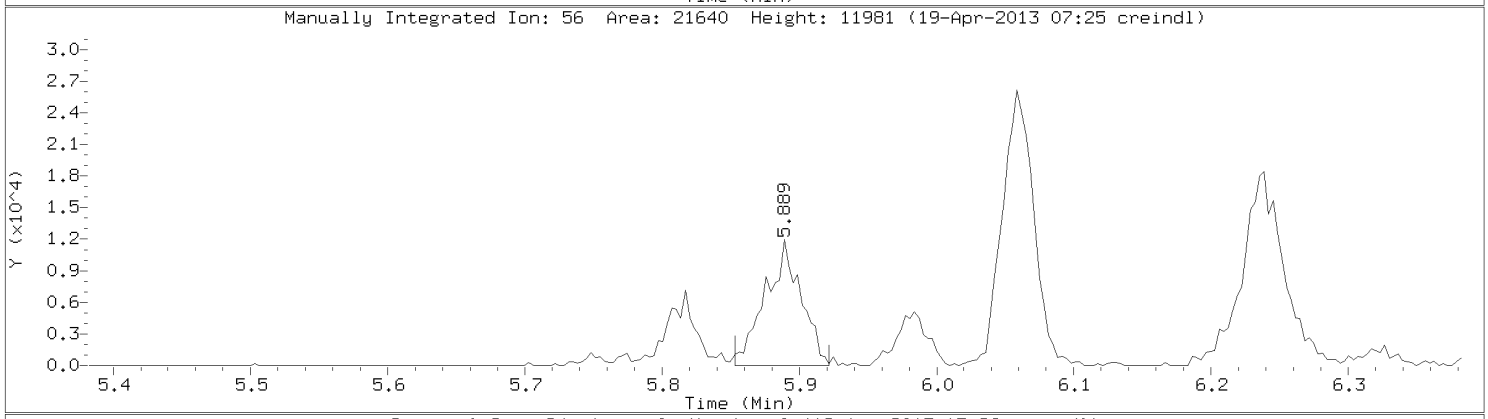
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Injection Date: 18-APR-2013 17:01
Instrument: 10airD.i
Lab Sample ID: 10224616002

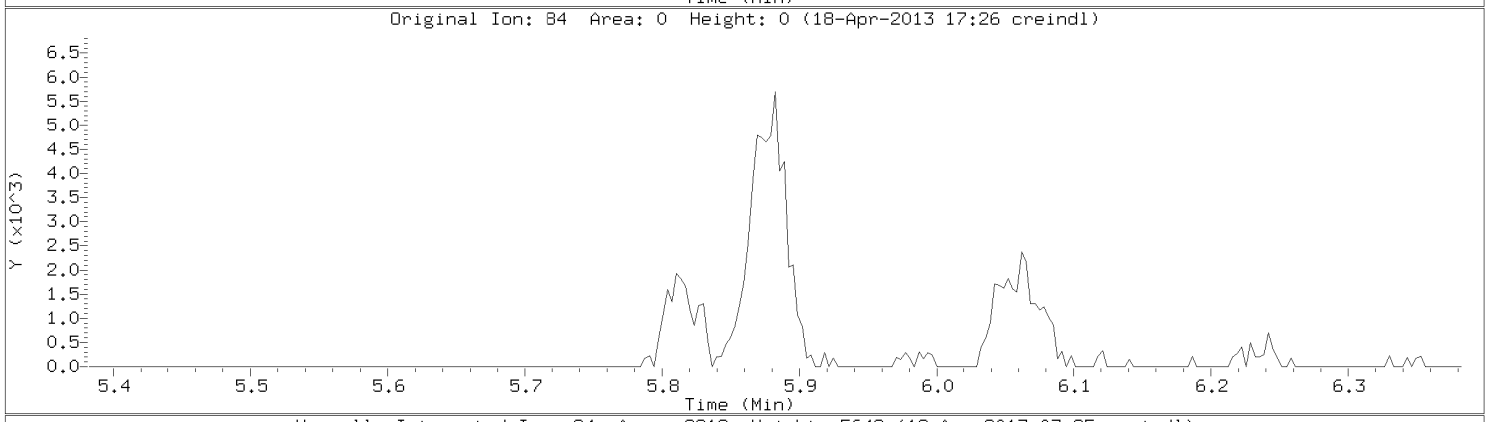


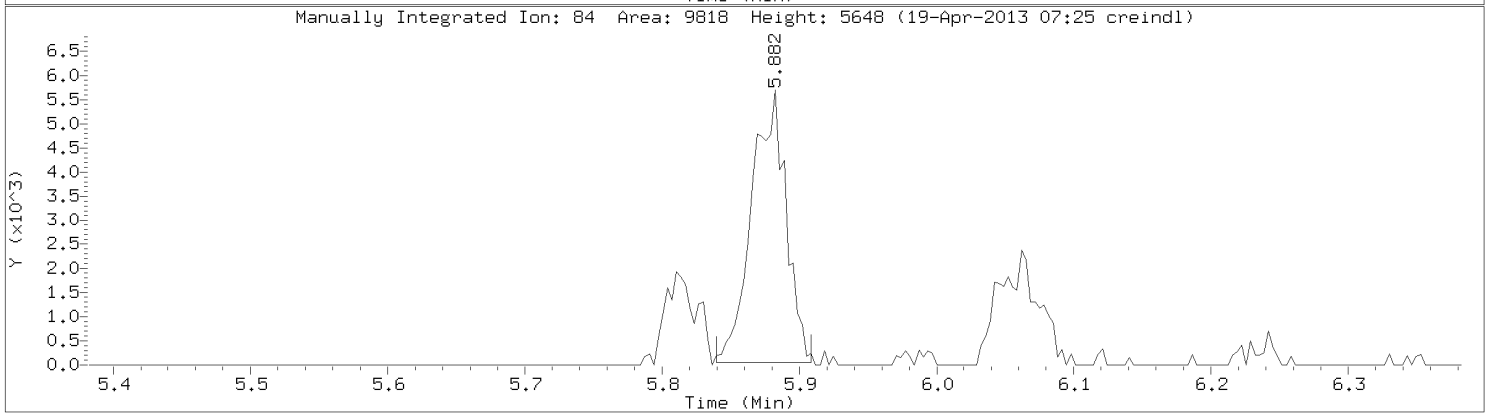
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10813.d
Injection Date: 18-APR-2013 17:01
Instrument: 10airD.i
Lab Sample ID: 10224616002

Compound: Cyclohexane
CAS Number: 110-82-7

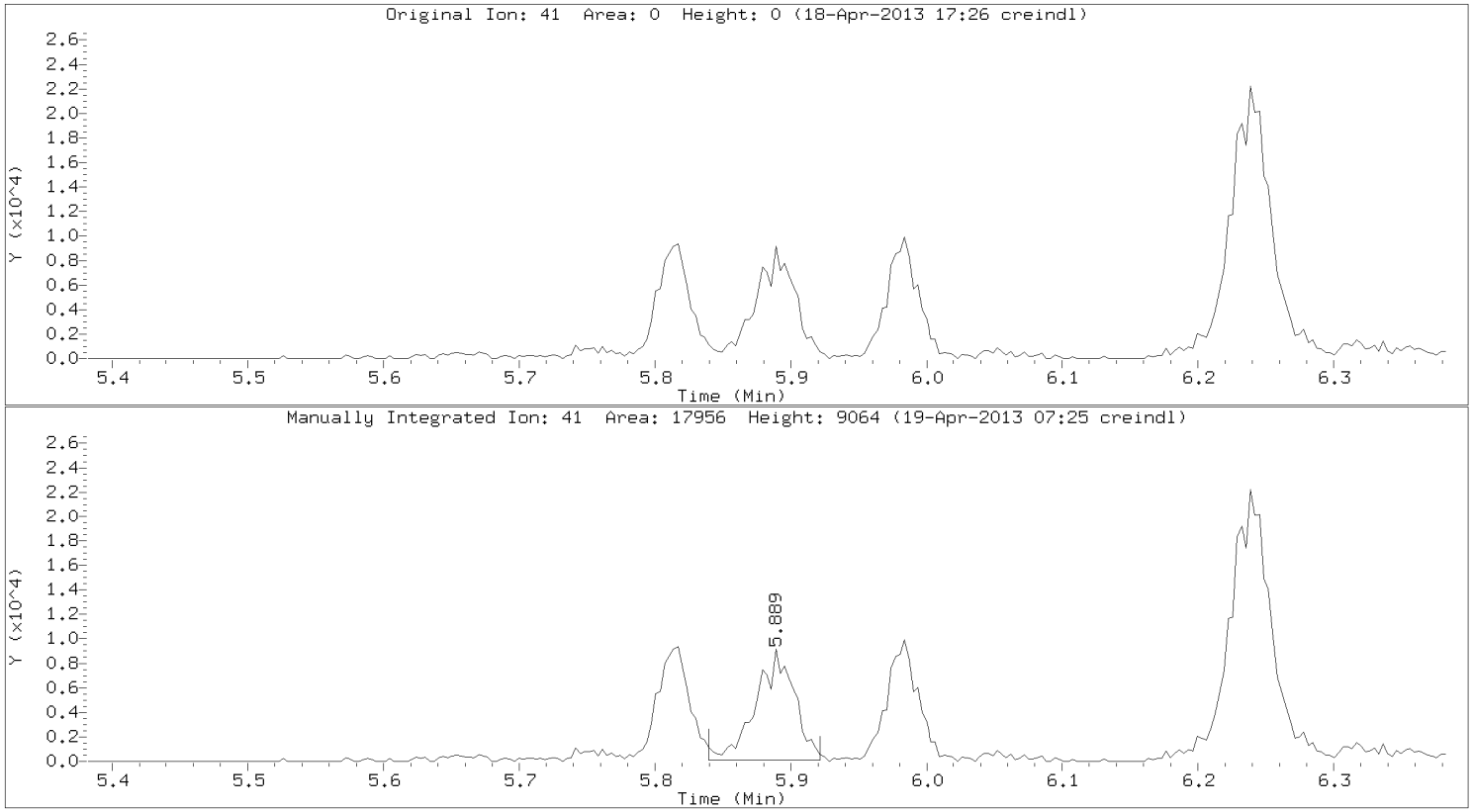






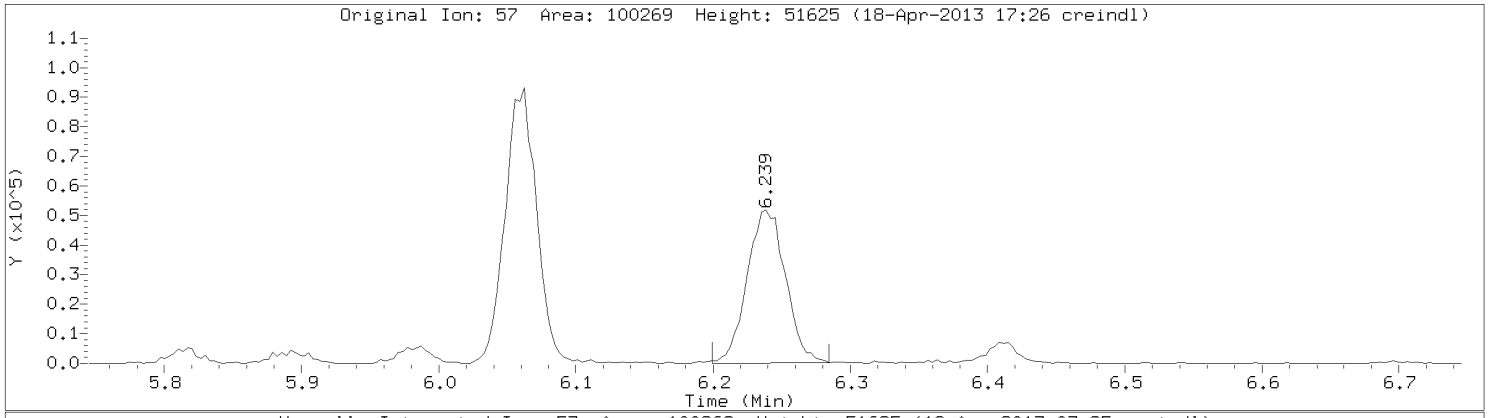


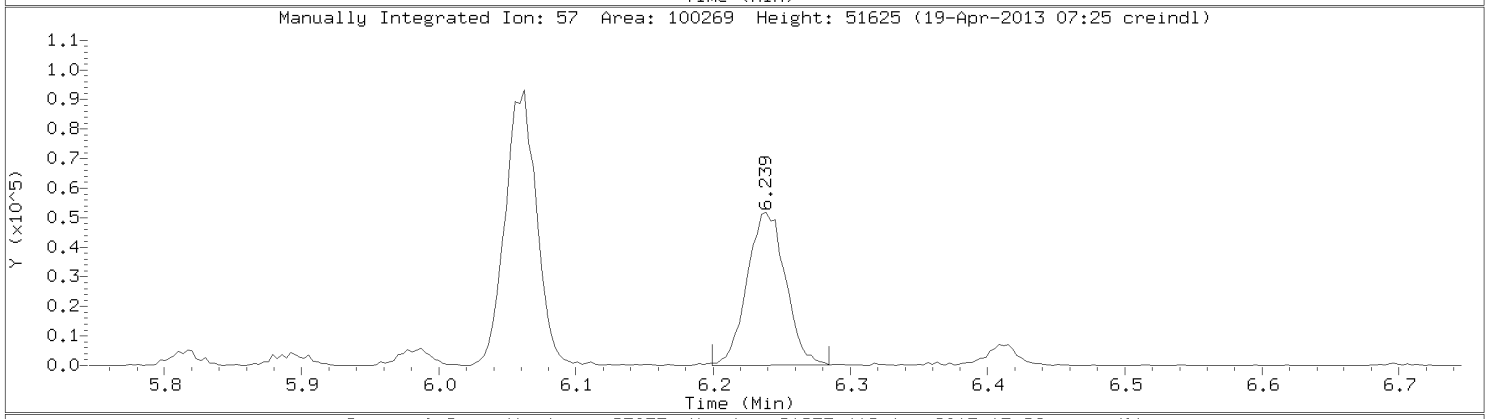
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Injection Date: 18-APR-2013 17:01
Instrument: 10airD.i
Lab Sample ID: 10224616002

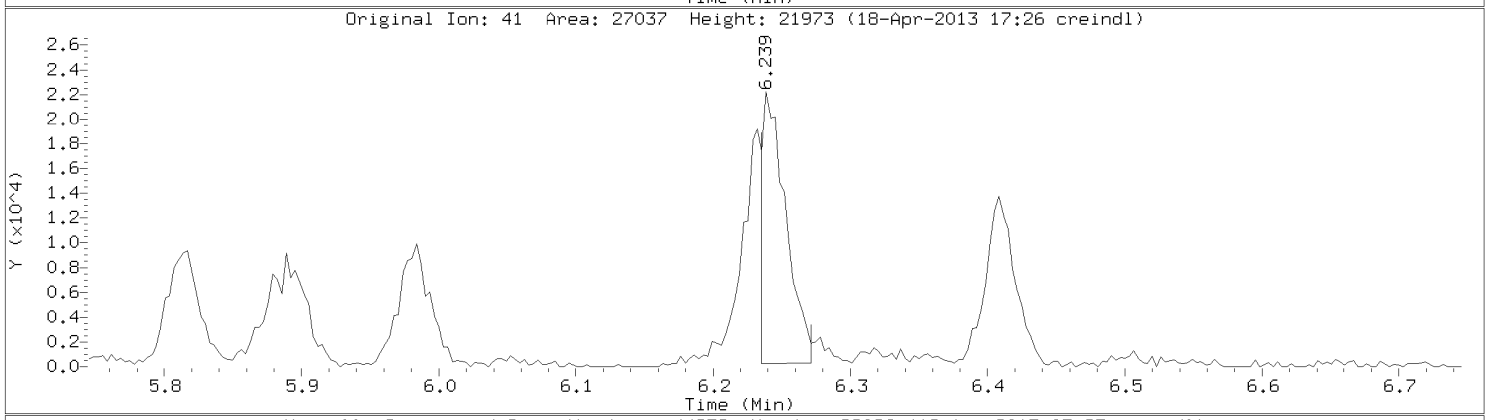


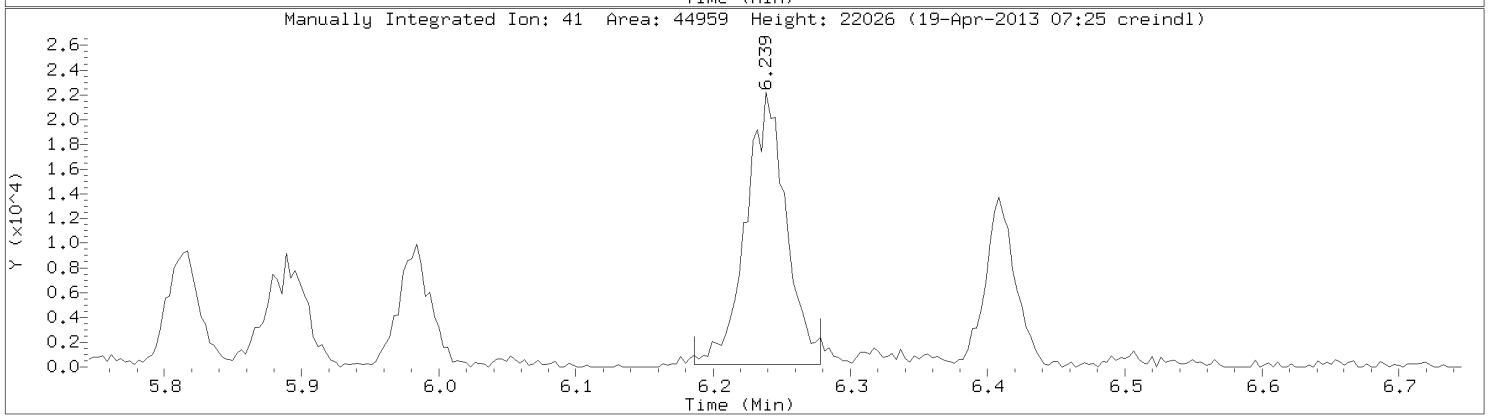
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Injection Date: 18-APR-2013 17:01
Instrument: 10airD.i
Lab Sample ID: 10224616002

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

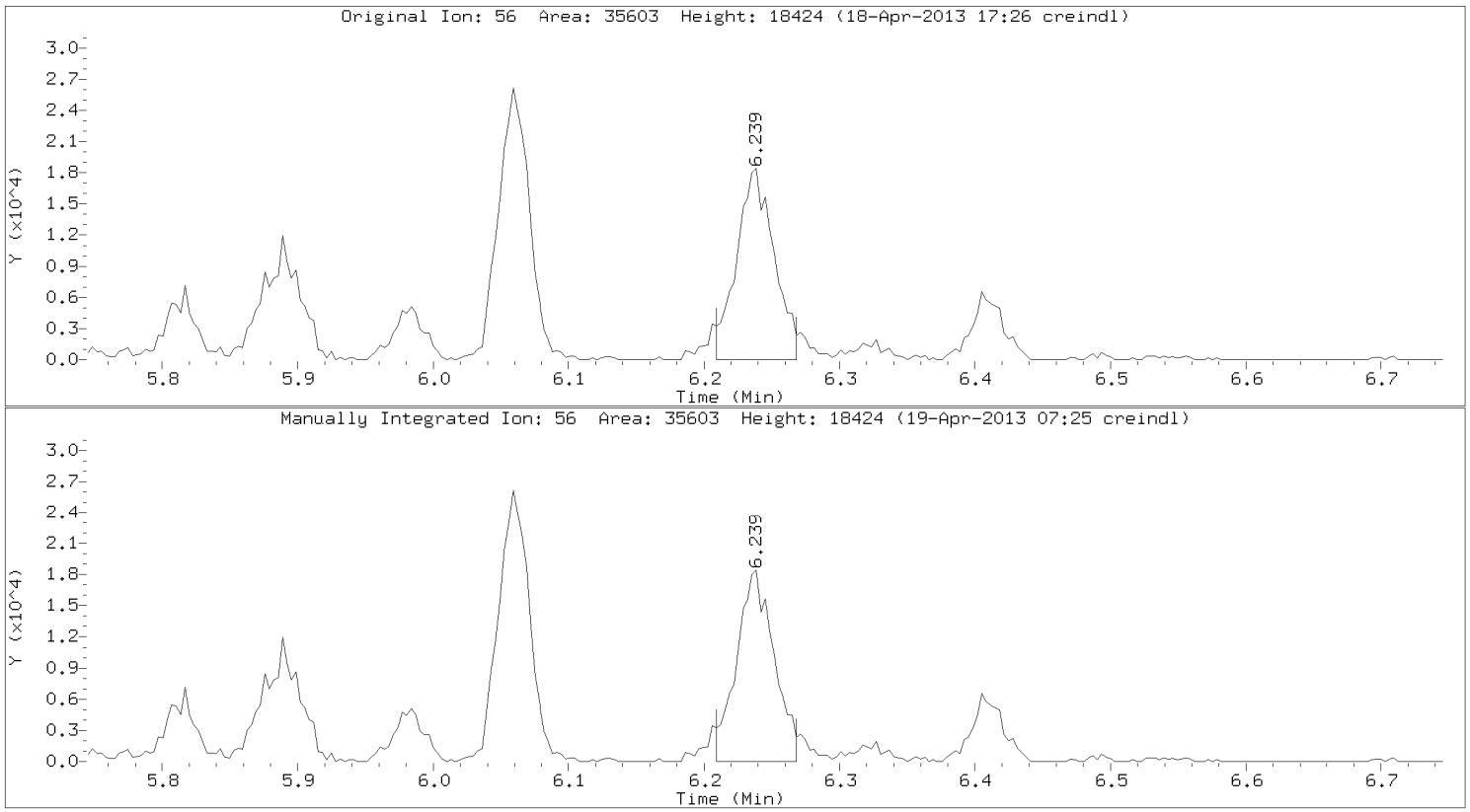






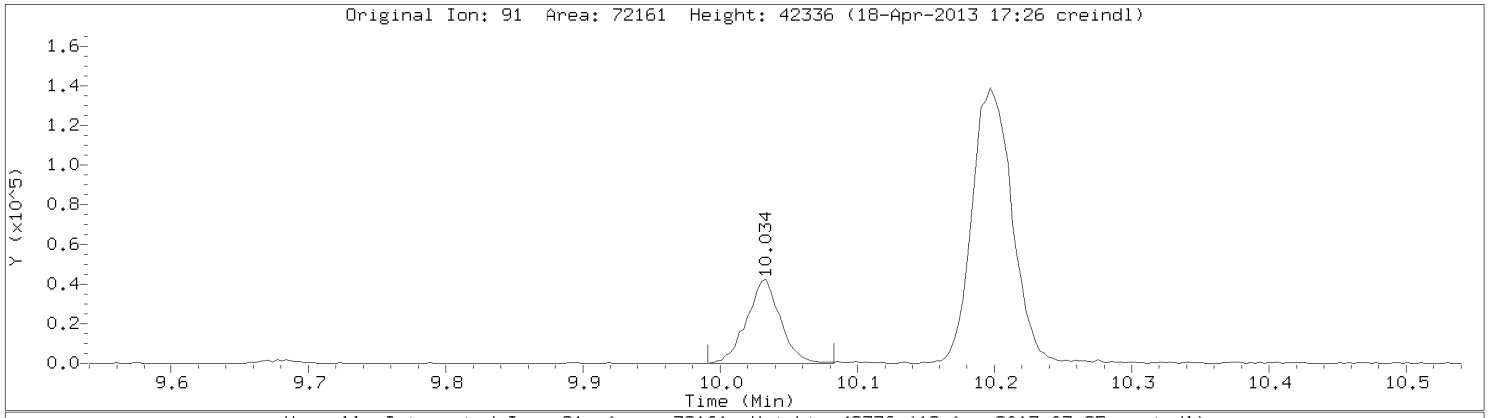


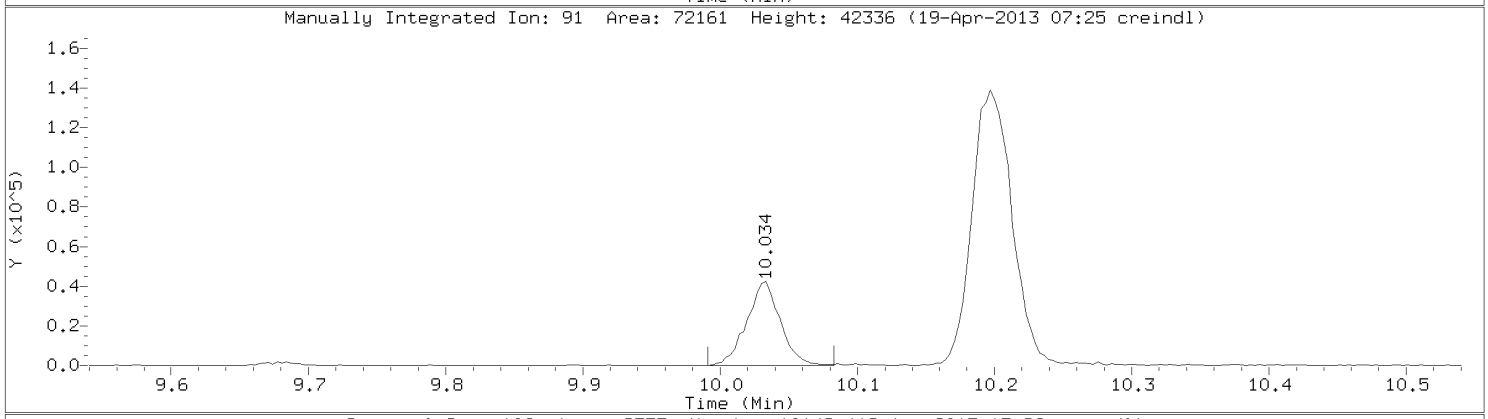
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Instrument: 10airD.i
Lab Sample ID: 10224616002

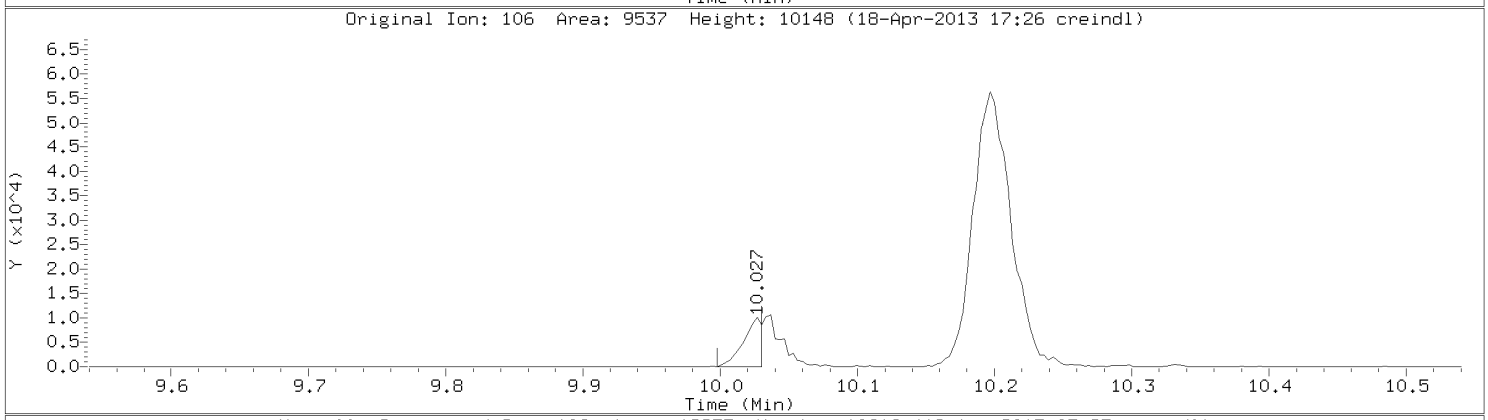


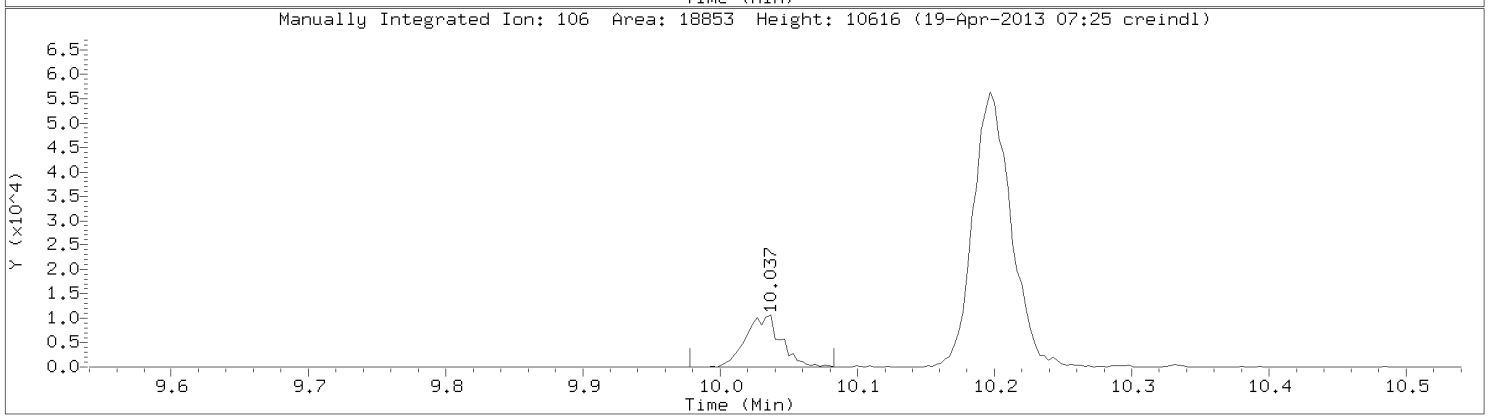
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Injection Date: 18-APR-2013 17:01
Instrument: 10airD.i
Lab Sample ID: 10224616002

Compound: Ethyl Benzene
CAS Number: 100-41-4



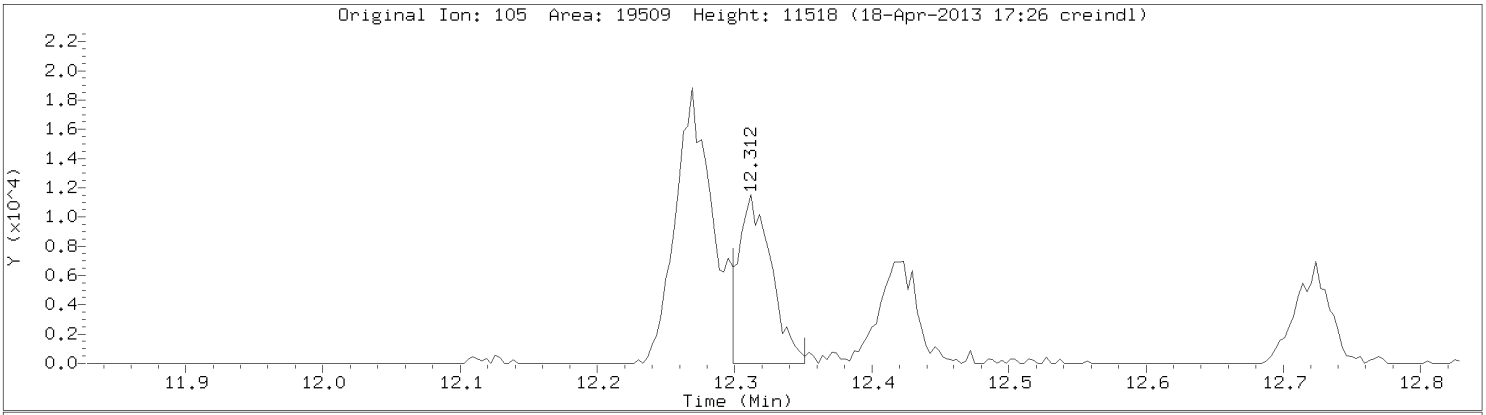


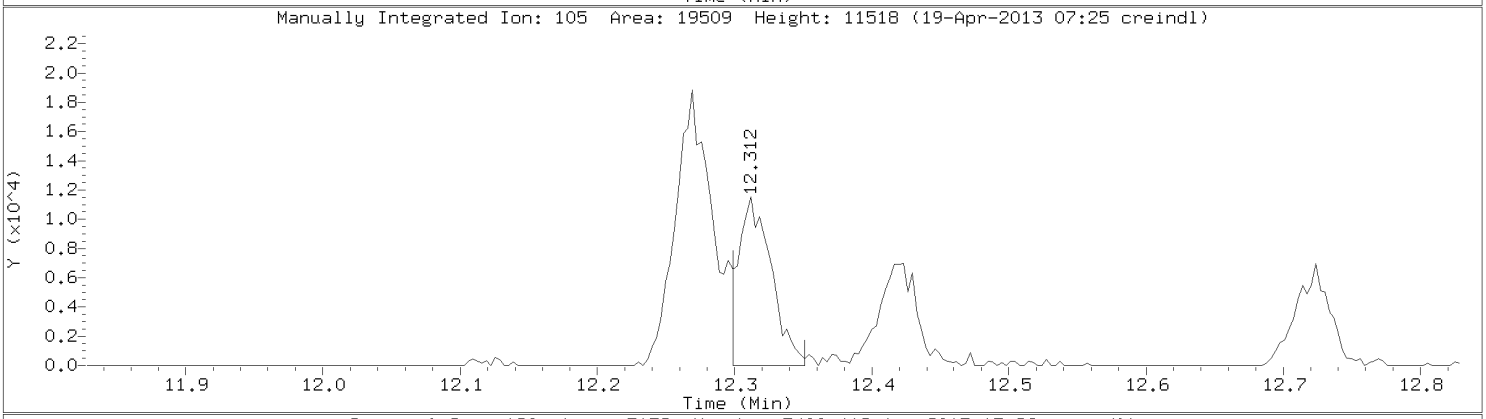


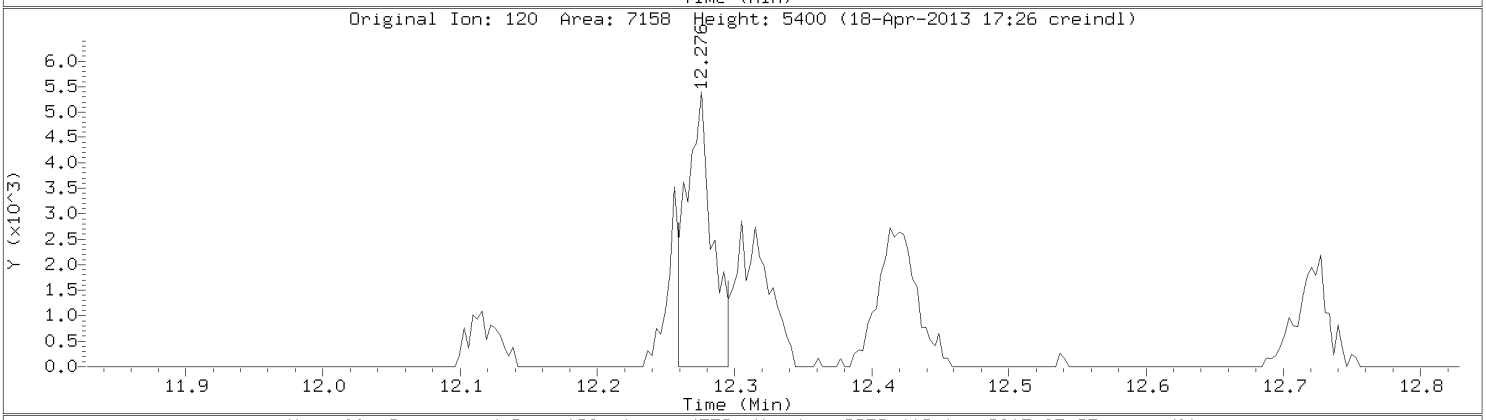


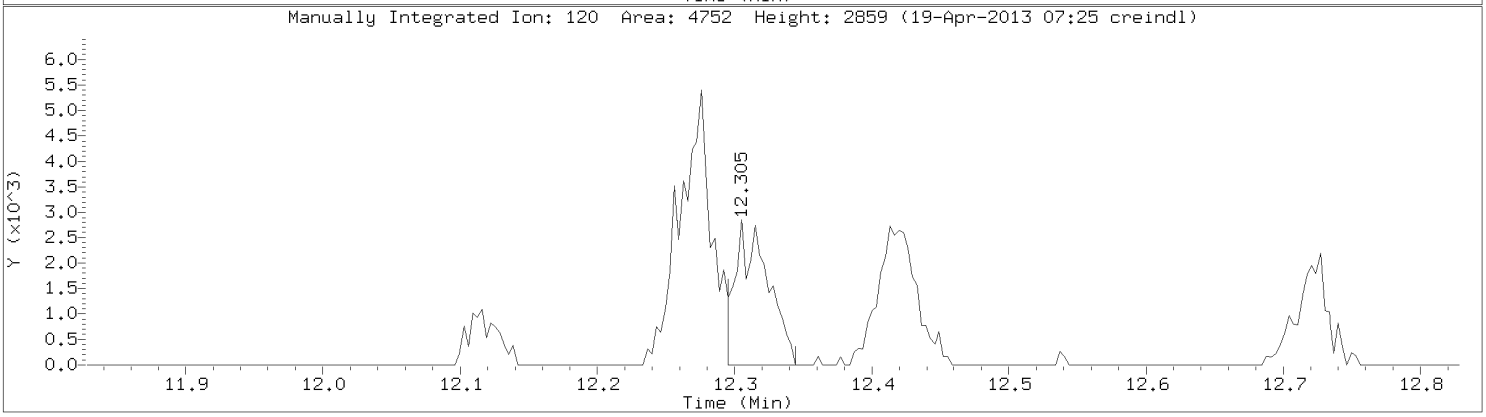
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10813.d
Injection Date: 18-APR-2013 17:01
Instrument: 10airD.i
Lab Sample ID: 10224616002

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

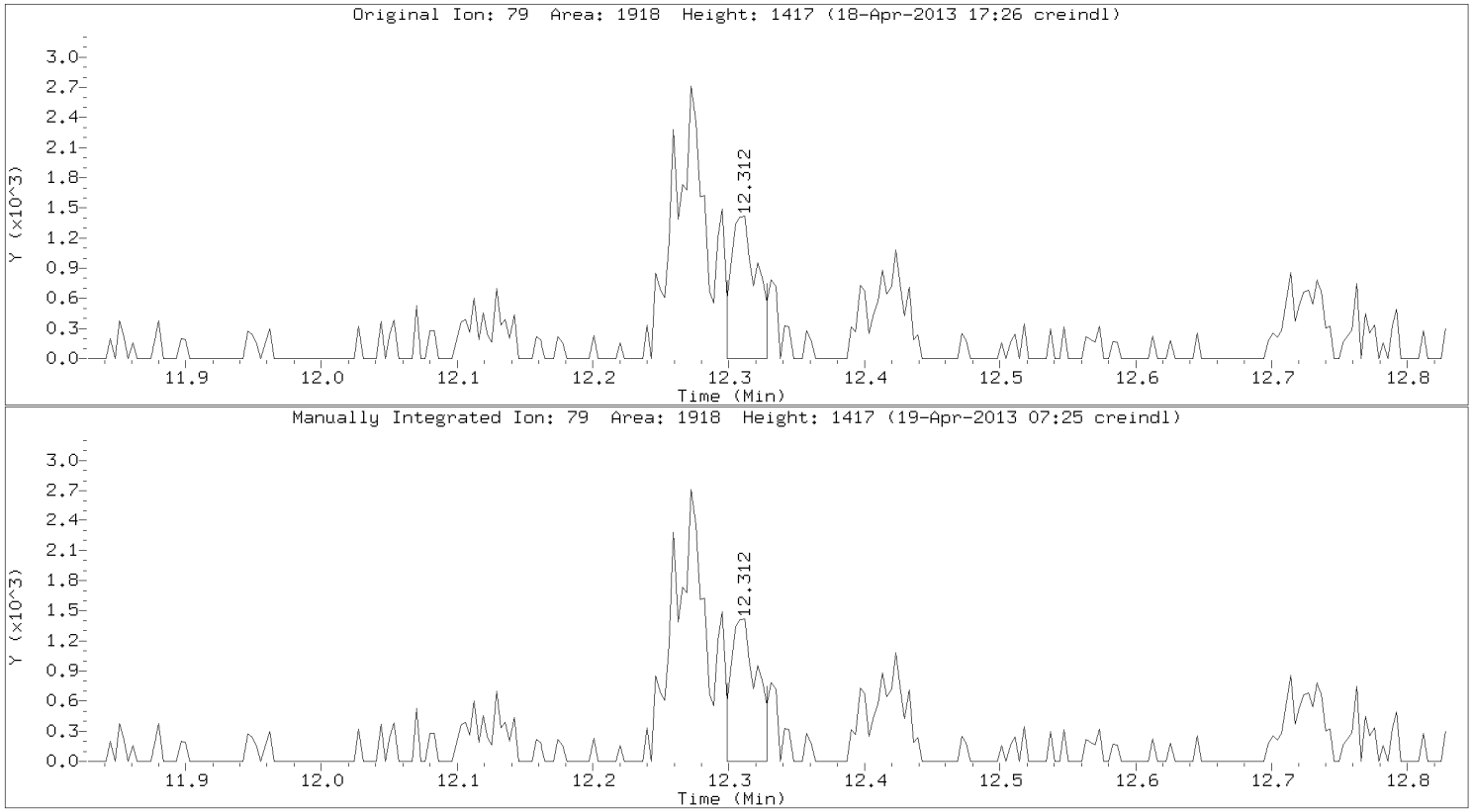








Data File: \\192.168.10.12\chem\10airD.i\041813.b/10813.d
Injection Date: 18-APR-2013 17:01
Instrument: 10airD.i
Lab Sample ID: 10224616002



Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.d
Report Date: 21-Apr-2013 07:50

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041913.b\10907.d
Lab Smp Id: 10224616003
Inj Date : 19-APR-2013 16:49
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17167
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Meth Date : 21-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 7
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.340	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	Compound Not Detected.					
2	Dichlorodifluoromethane	85	2.946	2.950	(0.486)	49476	0.39030	0.523
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	3.048	3.052	(0.503)	7204	0.25724	0.345
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	Compound Not Detected.					
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	3.424	3.424	(0.565)	262203	13.9331	18.7
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	3.646	3.643	(0.602)	21270	0.18446	0.247
13	Acetone	43	Compound Not Detected.					
14	Isopropyl Alcohol	45	3.698	3.702	(0.610)	3153867	80.1972	107(AQ)
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	Compound Not Detected.					
19	Methylene chloride	49	4.048	4.045	(0.668)	13589	0.39838	0.534
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	4.179	4.179	(0.690)	9795	0.09065	0.121(M)
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.d
Report Date: 21-Apr-2013 07:50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	24 Vinyl Acetate	43	Compound Not Detected.					
	25 1,1-Dichloroethane	63	Compound Not Detected.					
$	26 Hexane-d14(S)	66	4.656	4.660	(0.769)	490652	9.35430	9.35
	27 Methyl Ethyl Ketone	72	4.734	4.738	(0.782)	15644	0.96424	1.29(Q)
	28 n-Hexane	57	4.777	4.777	(0.789)	58477	1.19403	1.60(Q)
	29 cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30 Ethyl Acetate	43	Compound Not Detected.					
	31 Chloroform	83	Compound Not Detected.					
	32 Tetrahydrofuran	42	Compound Not Detected.					
	33 1,1,1-Trichloroethane	97	Compound Not Detected.					
	34 1,2-Dichloroethane	62	Compound Not Detected.					
	35 Benzene	78	5.846	5.856	(0.965)	52548	0.48983	0.656
	36 Carbon tetrachloride	117	Compound Not Detected.					
	37 Cyclohexane	56	5.888	5.882	(0.972)	20222	0.75655	1.01(QM)
*	38 1,4-Difluorobenzene	114	6.058	6.069	(1.000)	1177450	10.0000	
	39 2,2,4-Trimethylpentane	57	6.238	6.245	(1.030)	93508	1.03439	1.39(M)
	40 Heptane	43	6.408	6.415	(1.058)	19090	0.87758	1.18
	41 1,2-Dichloropropane	63	Compound Not Detected.					
	42 Trichloroethene	130	6.503	6.510	(1.073)	3881	0.13479	0.181(M)
	43 1,4-Dioxane	88	Compound Not Detected.					
	44 Bromodichloromethane	83	Compound Not Detected.					
	45 Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47 trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48 Toluene-d8 (S)	98	7.823	7.837	(1.291)	1029421	9.55044	9.55
	49 Toluene	91	7.915	7.925	(1.306)	289189	1.96167	2.63
	50 1,1,2-Trichloroethane	97	Compound Not Detected.					
	51 Methyl Butyl Ketone	43	Compound Not Detected.					
	52 Dibromochloromethane	129	Compound Not Detected.					
	53 1,2-Dibromoethane	107	Compound Not Detected.					
	54 Tetrachloroethene	166	Compound Not Detected.					
*	55 Chlorobenzene - d5	117	9.677	9.684	(1.000)	604419	10.0000	
	56 Chlorobenzene	112	Compound Not Detected.					
	57 Ethyl Benzene	91	10.026	10.040	(1.036)	75739	0.65305	0.875
	58 m&p-Xylene	91	10.196	10.210	(1.054)	259353	2.25008	3.02
	59 Bromoform	173	Compound Not Detected.					
	60 Styrene	104	Compound Not Detected.					
	61 o-Xylene	91	10.772	10.785	(1.113)	81975	0.69286	0.928
	62 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63 Isopropylbenzene	105	Compound Not Detected.					
	64 N-Propylbenzene	91	Compound Not Detected.					
	65 4-Ethyltoluene	105	12.305	12.328	(1.272)	22121	0.30382	0.407(M)
	66 1,3,5-Trimethylbenzene	105	12.416	12.433	(1.283)	14313	0.19720	0.264(M)
	67 1,2,4-Trimethylbenzene	105	13.014	13.028	(1.345)	86821	0.84199	1.13(M)
	68 1,3-Dichlorobenzene	146	Compound Not Detected.					
	69 Sec- Butylbenzene	105	Compound Not Detected.					
$	70 1,4-dichlorobenzene-d4 (S)	150	13.449	13.466	(1.390)	266875	7.85792	7.86
	71 Benzyl Chloride	91	Compound Not Detected.					
	72 1,4-Dichlorobenzene	146	Compound Not Detected.					
	73 1,2-Dichlorobenzene	146	Compound Not Detected.					
	74 N-Butylbenzene	91	Compound Not Detected.					
	75 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76 Naphthalene	128	16.874	16.867	(1.744)	6300	0.33239	0.445(M)
	77 Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.d
Report Date: 21-Apr-2013 07:50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.d
Report Date: 21-Apr-2013 07:50

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10907.d
Lab Smp Id: 10224616003
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Misc Info: 17167

Calibration Date: 19-APR-2013
Calibration Time: 12:14
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1177450	-17.80
55 Chlorobenzene - d	825122	495073	1155171	604419	-26.75

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.D
Date : 19-APR-2013 16:49
Client ID:
Sample Info:

Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32

10224616

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.D

Date : 19-APR-2013 16:49

Client ID:

Instrument: 10airD.i

Sample Info:

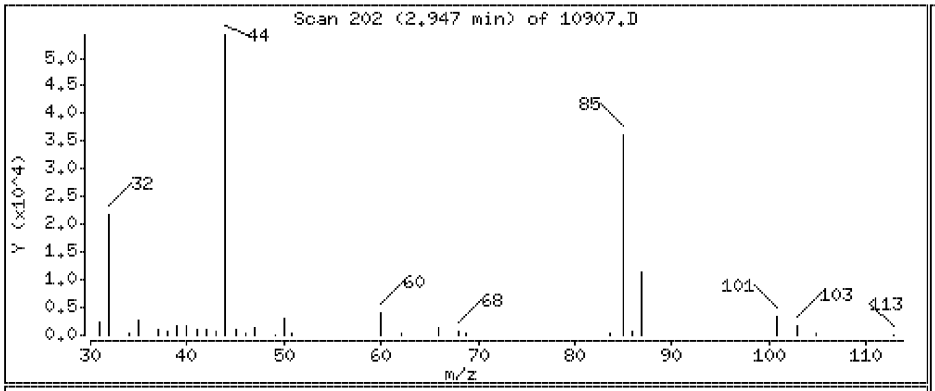
Operator: CJR

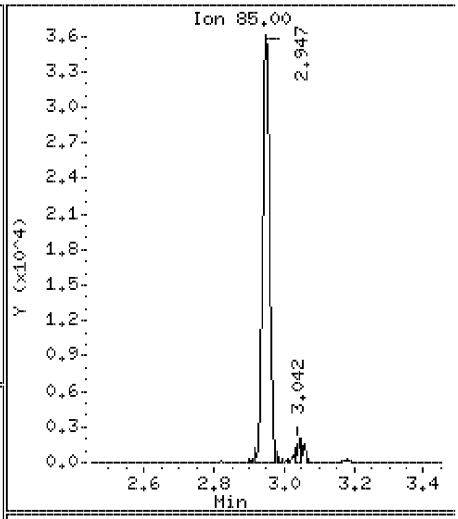
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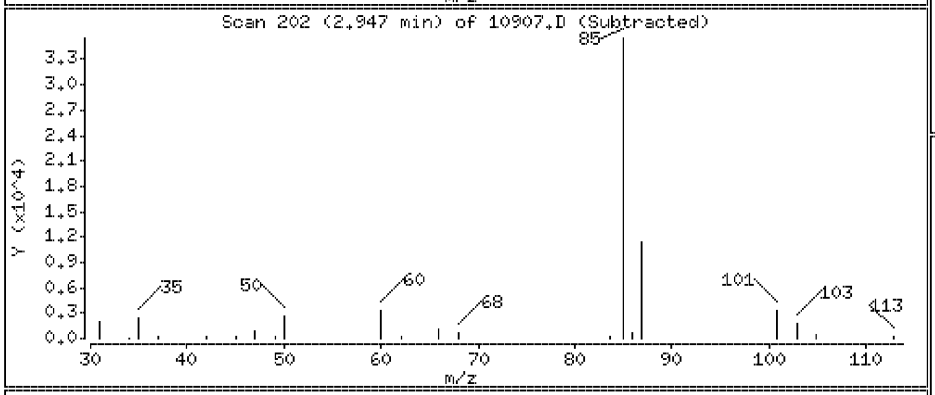
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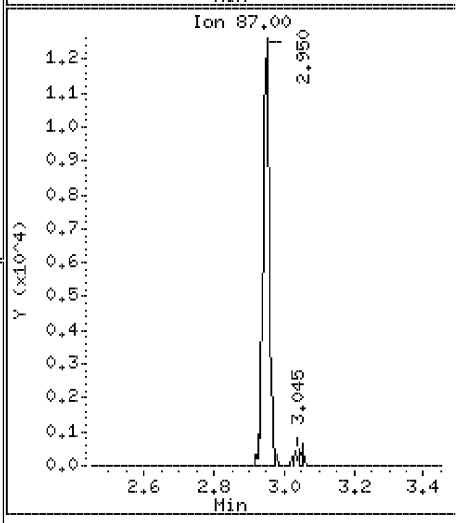
2 Dichlorodifluoromethane

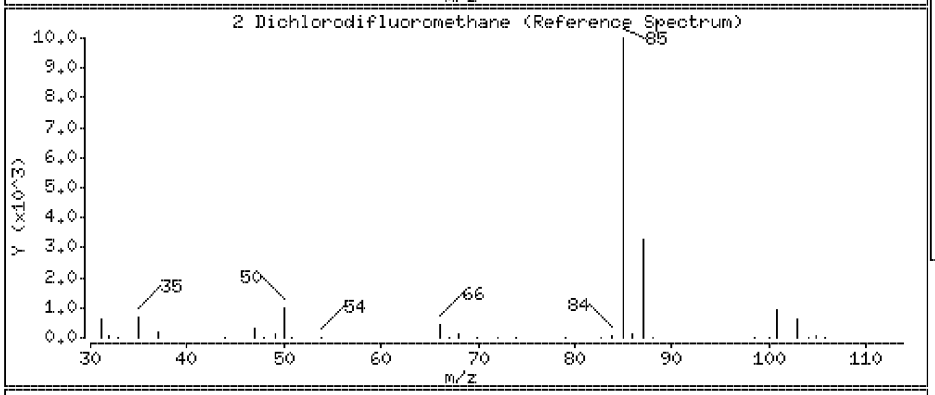
Concentration: 0.523 ppbv

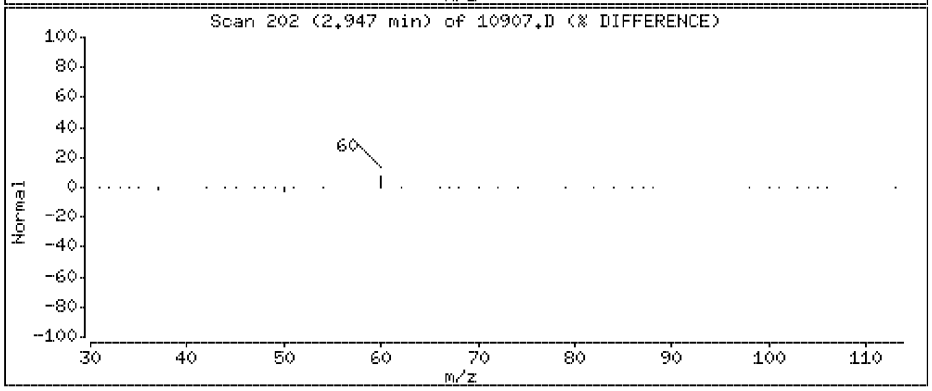












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.D

Date : 19-APR-2013 16:49

Client ID:

Instrument: 10airD.i

Sample Info:

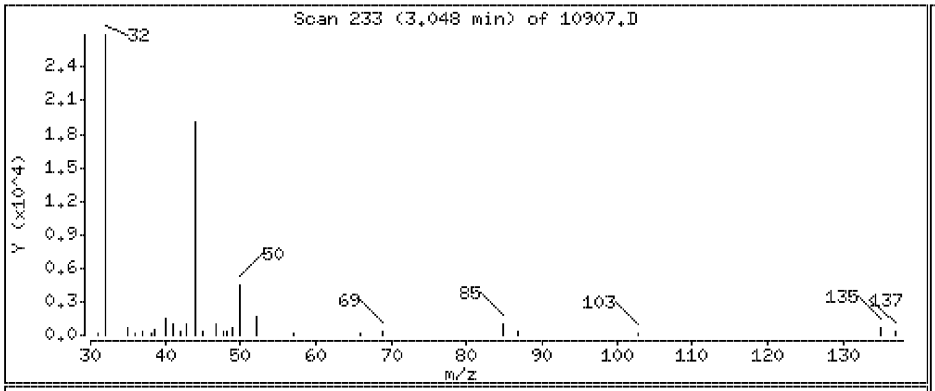
Operator: CJR

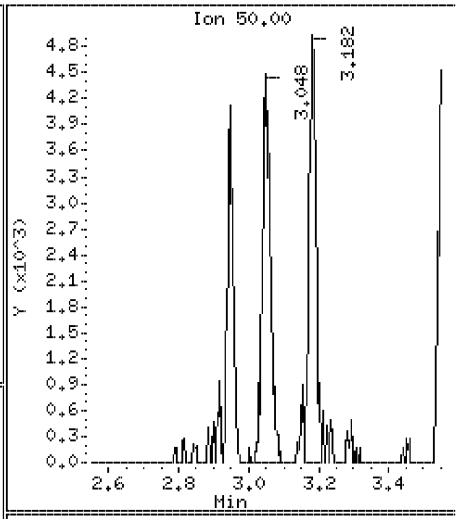
Column phase: J&W DB-5

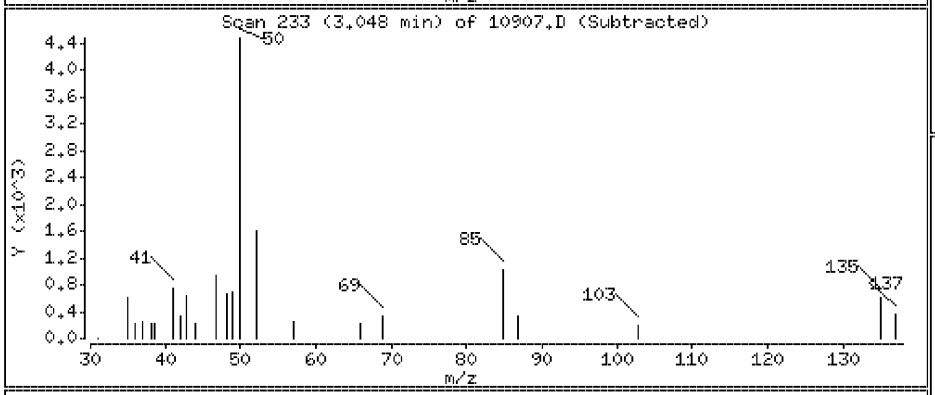
Column diameter: 0.32

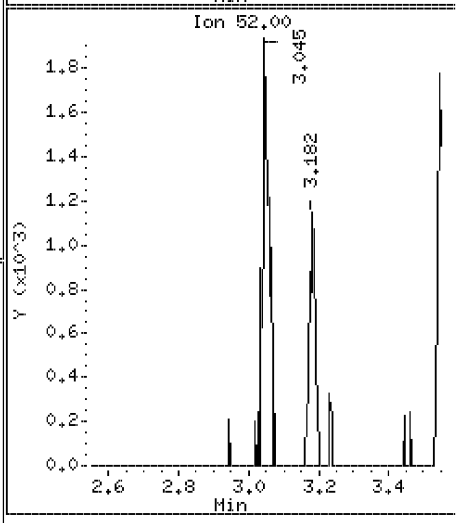
4 Chloromethane

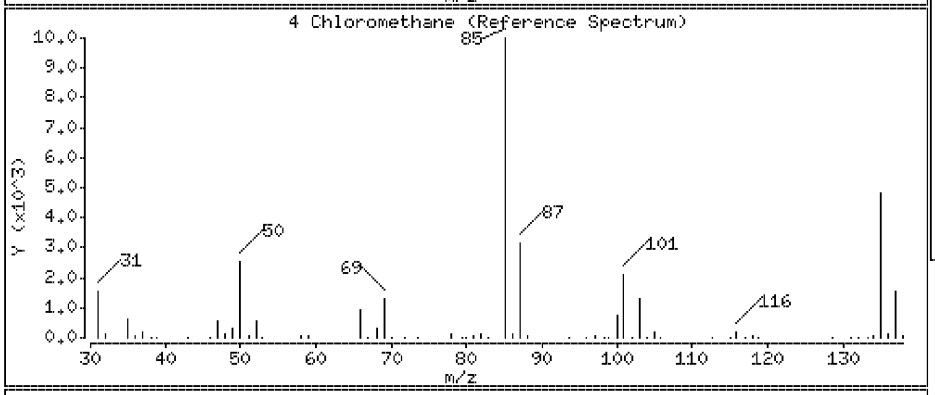
Concentration: 0.345 ppbv

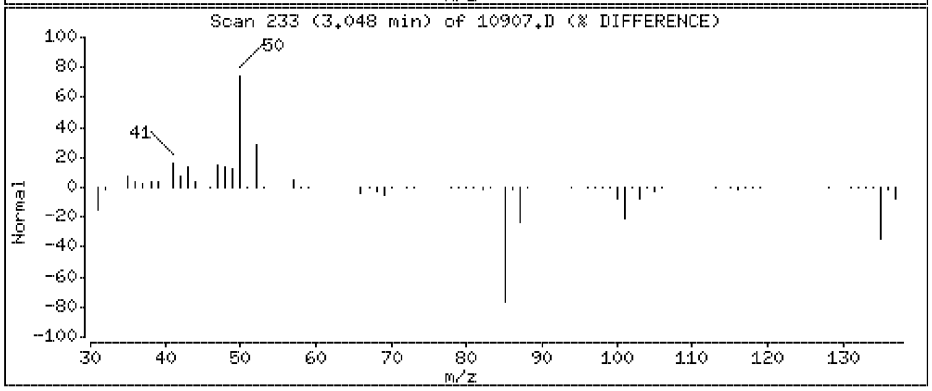












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.D

Date : 19-APR-2013 16:49

Client ID:

Instrument: 10airD.i

Sample Info:

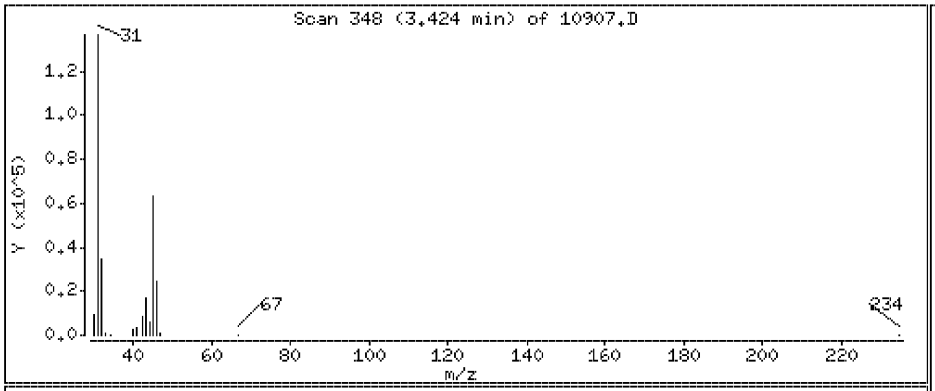
Operator: CJR

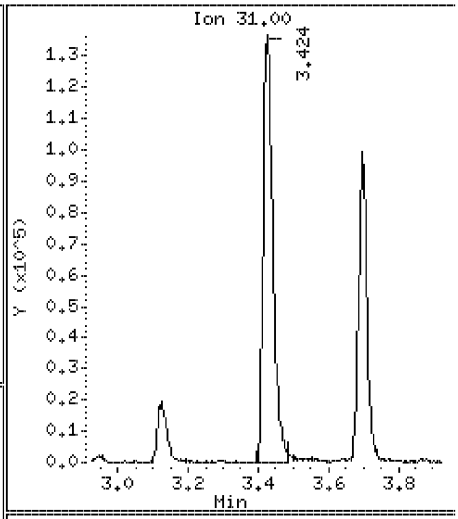
Column phase: J&W DB-5

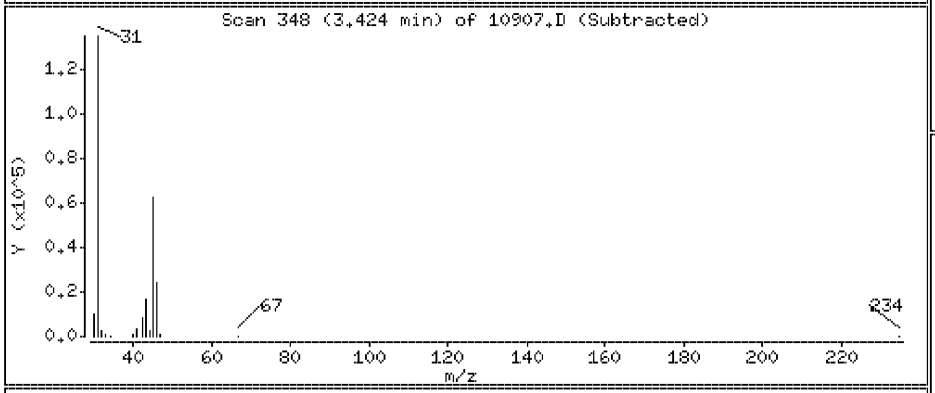
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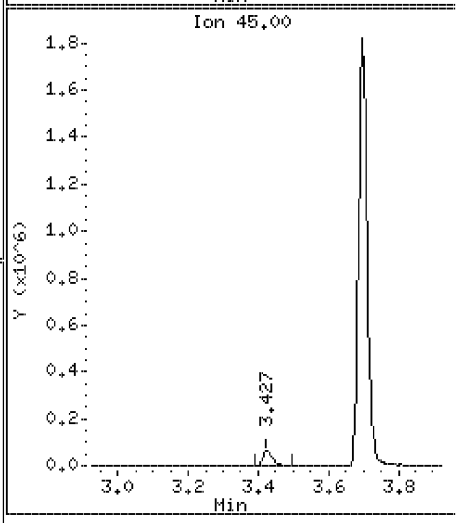
9 Ethanol

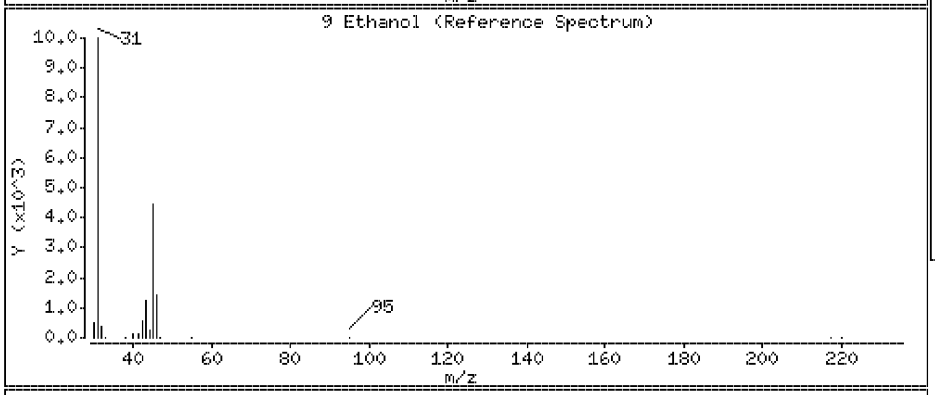
Concentration: 18.7 ppbv

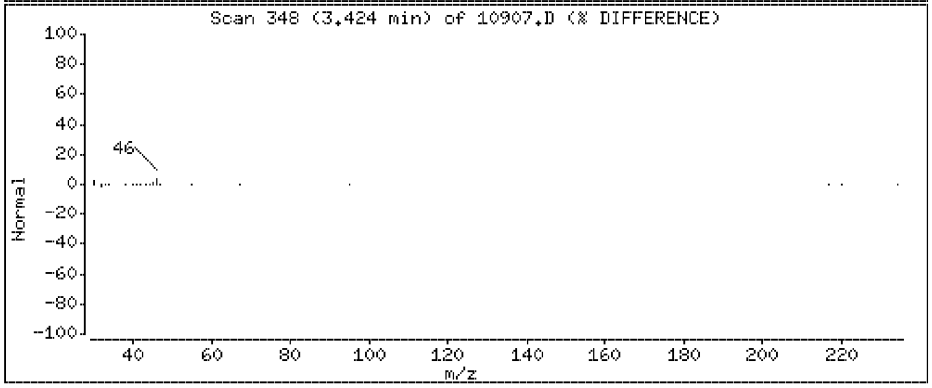












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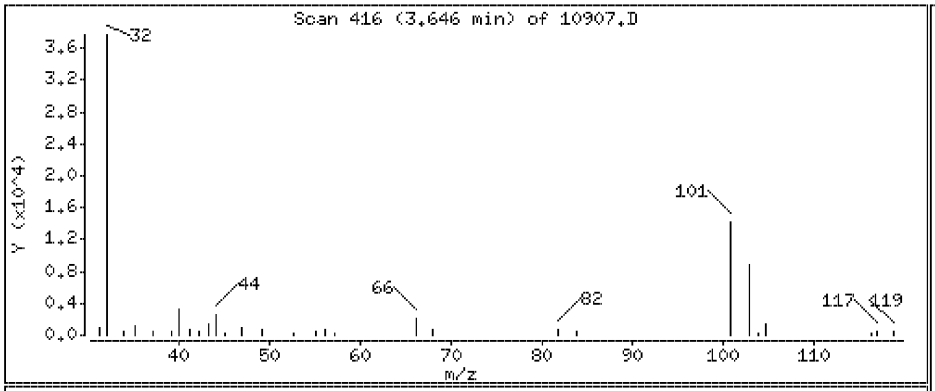
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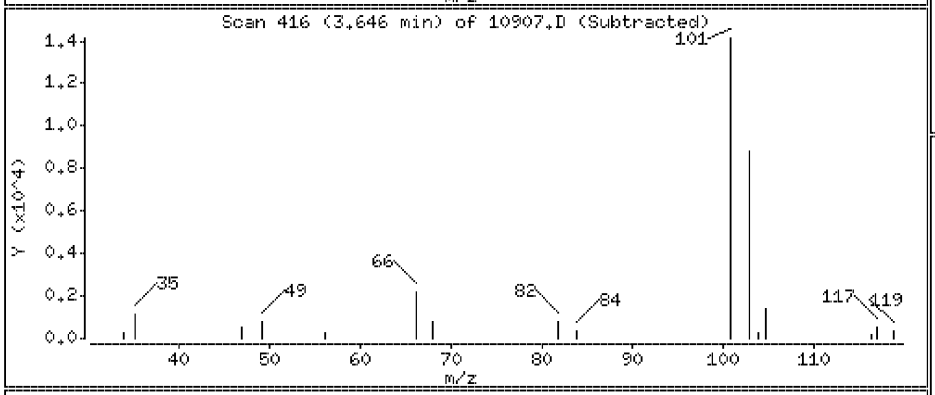
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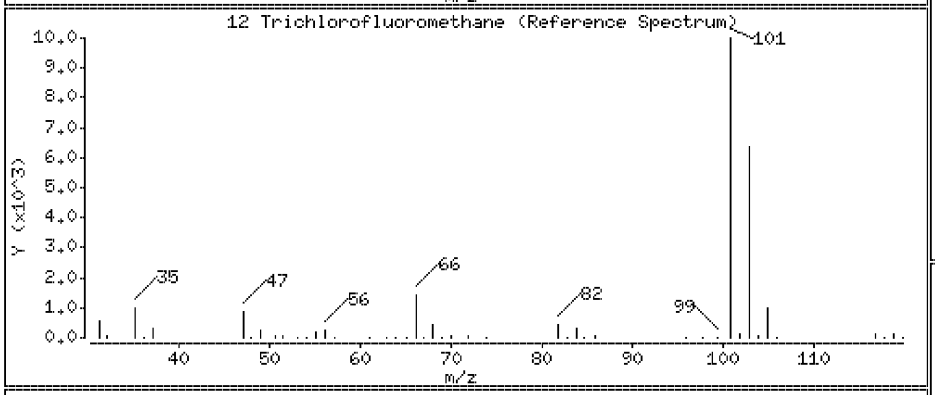
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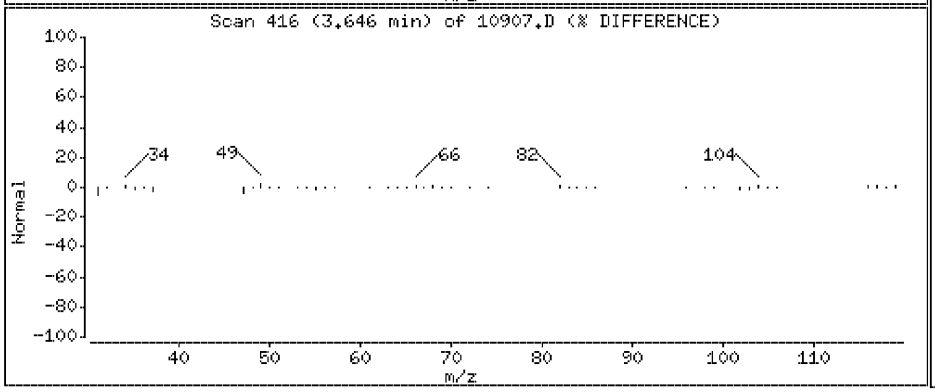
12 Trichlorofluoromethane

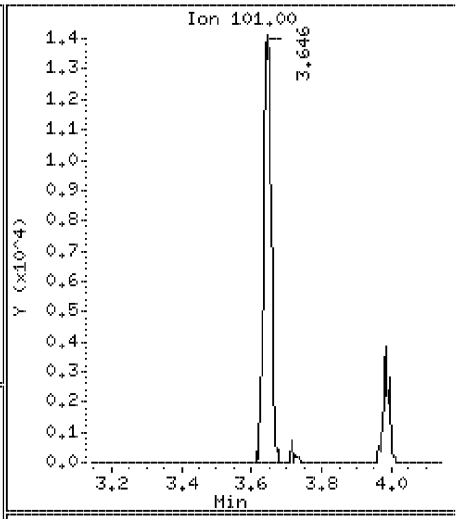
Concentration: 0.247 ppbv

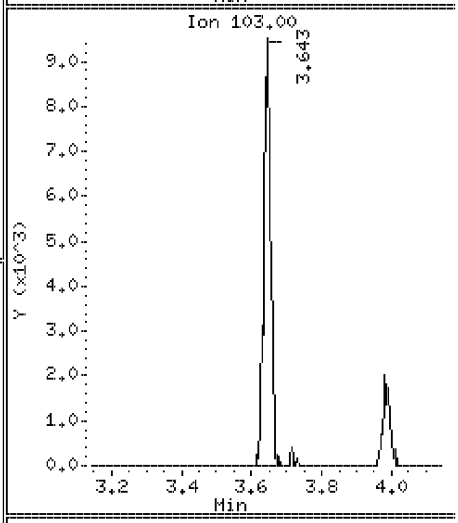


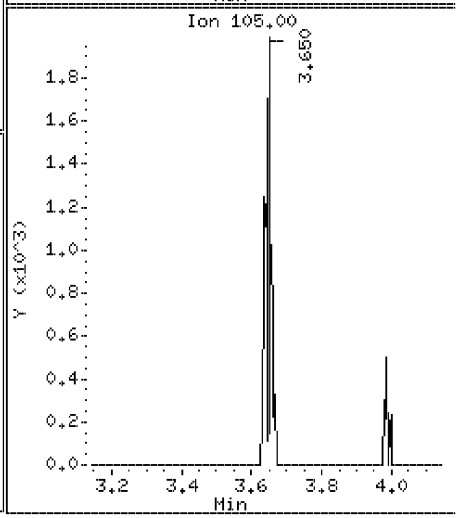












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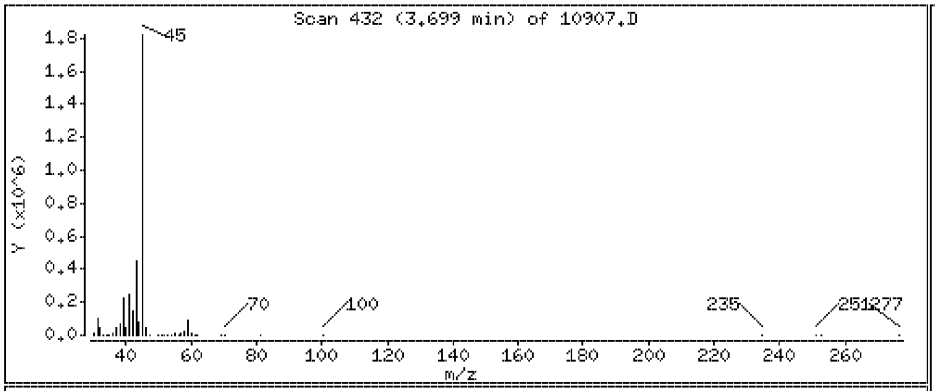
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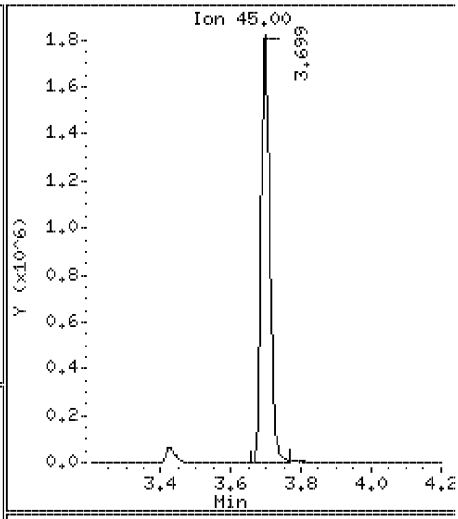
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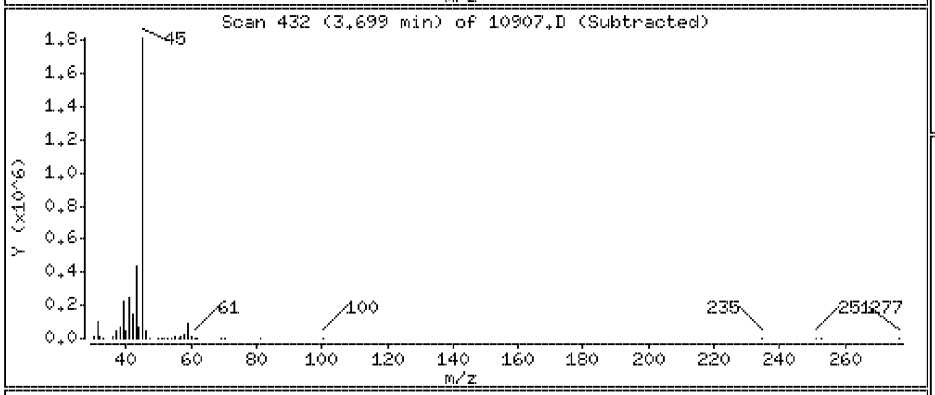
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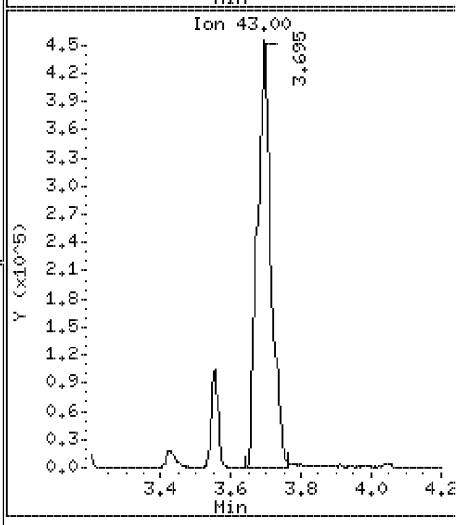
14 Isopropyl Alcohol

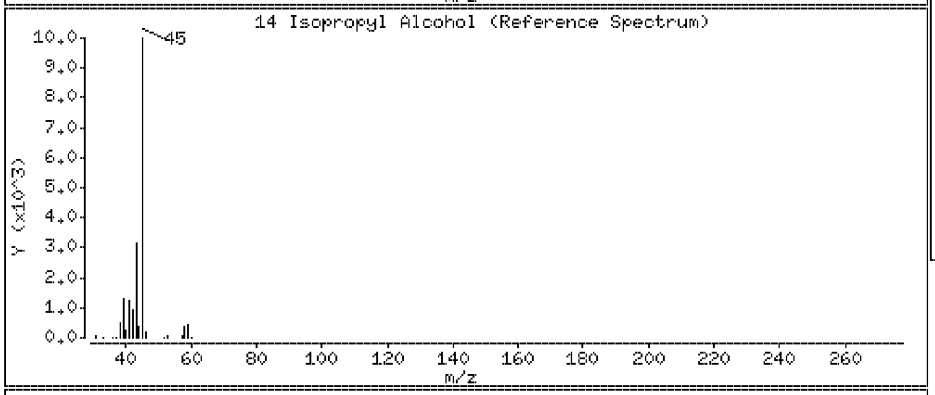
Concentration: 107 ppbv

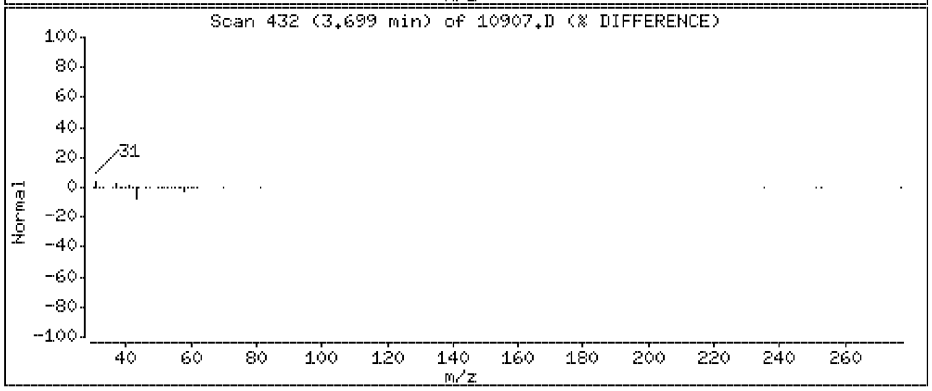












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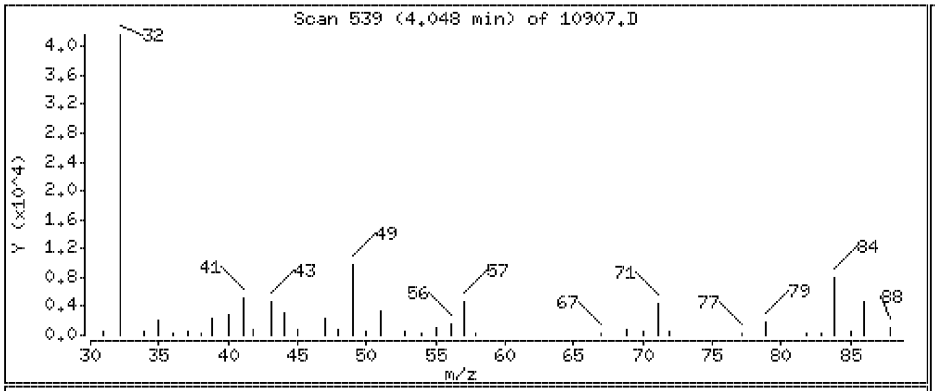
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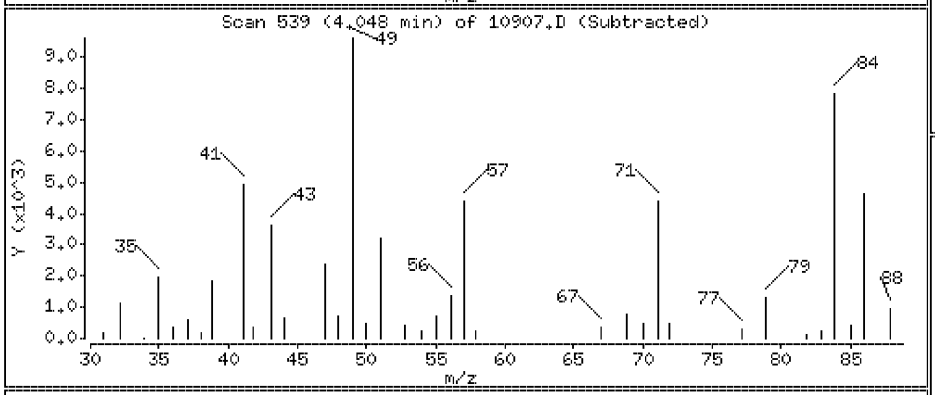
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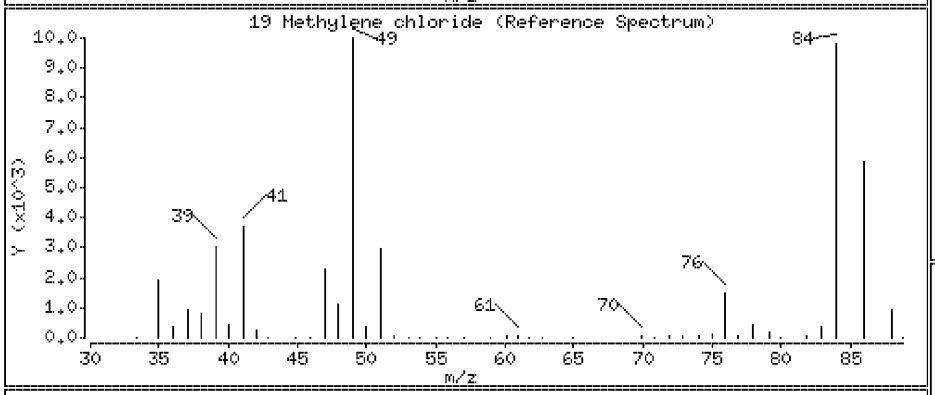
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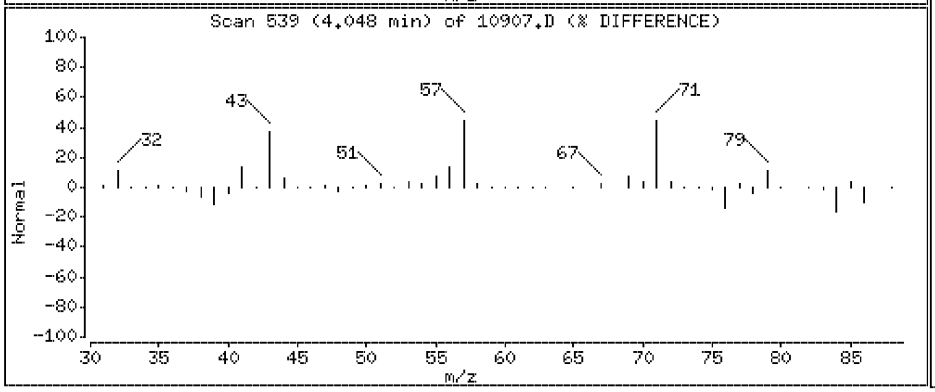
19 Methylene chloride

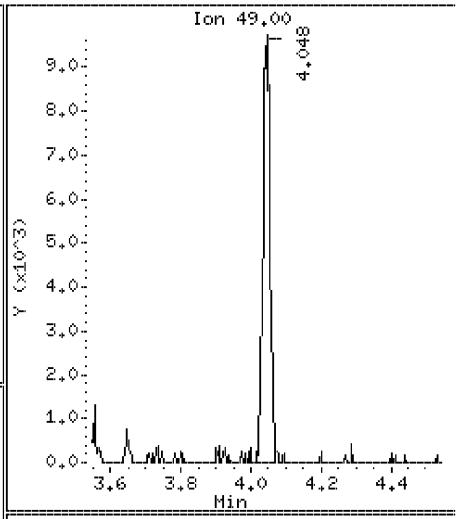
Concentration: 0.534 ppbv

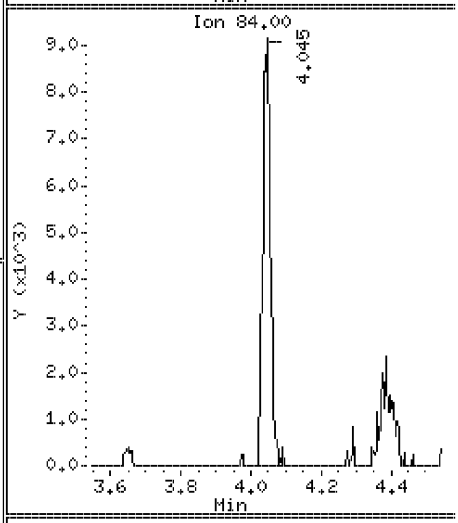


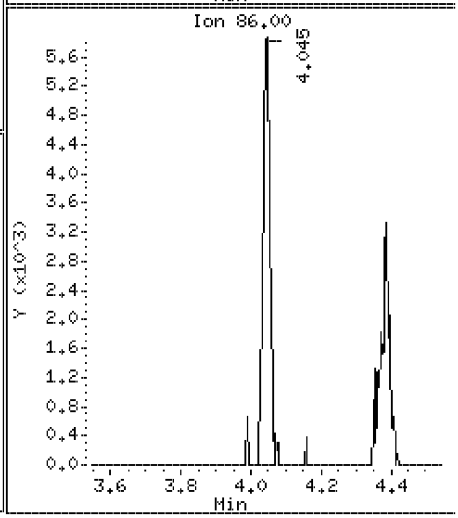












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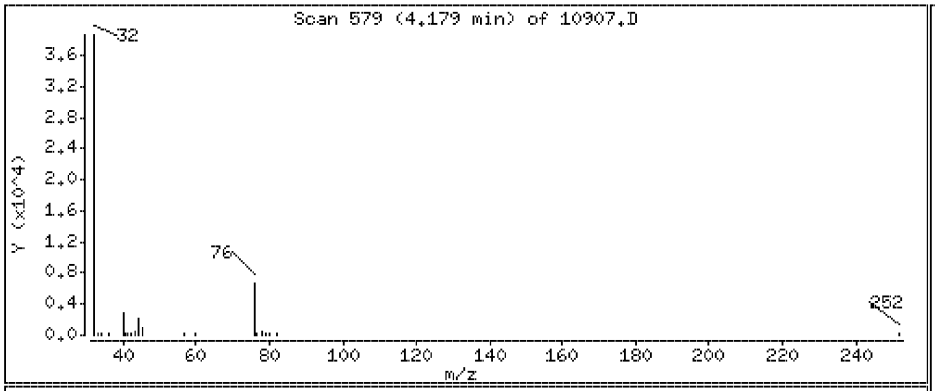
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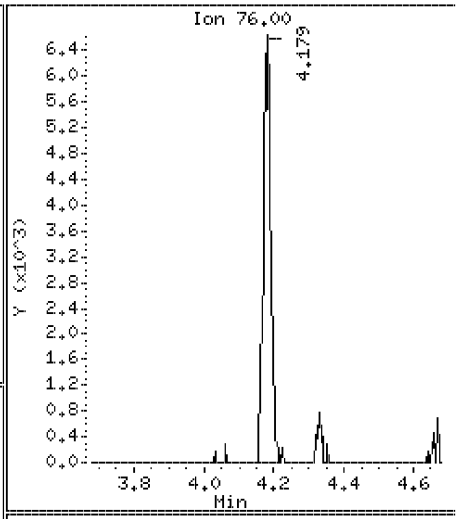
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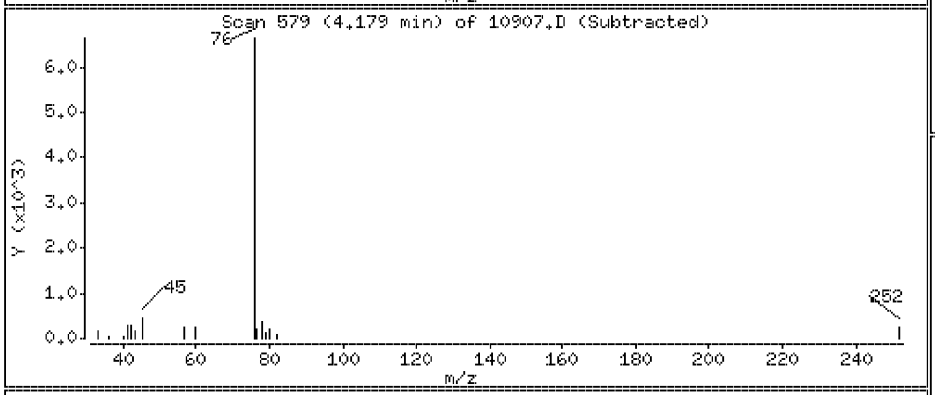
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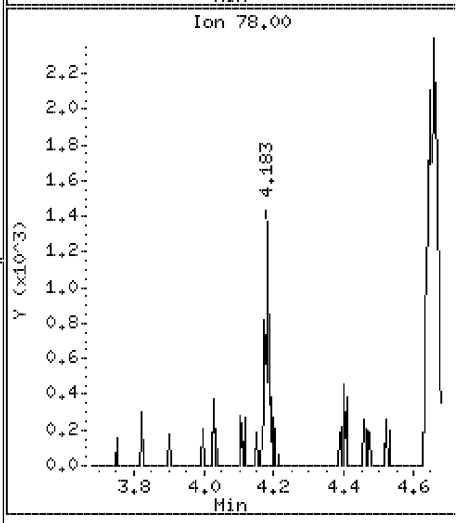
21 Carbon Disulfide

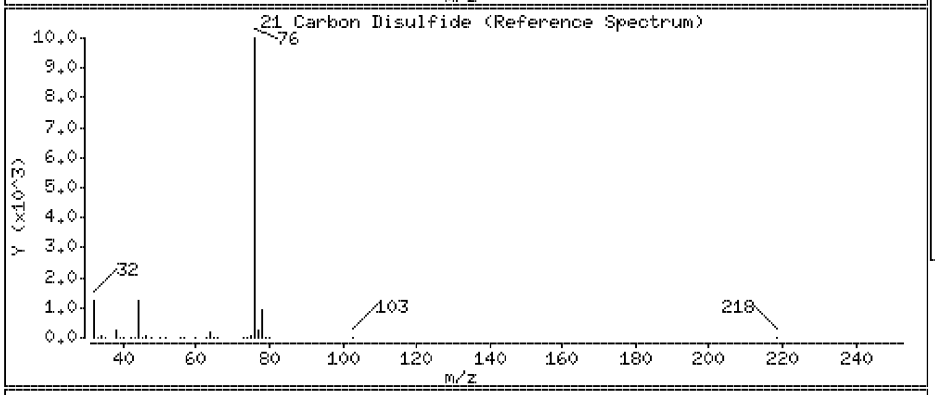
Concentration: 0.121 ppbv

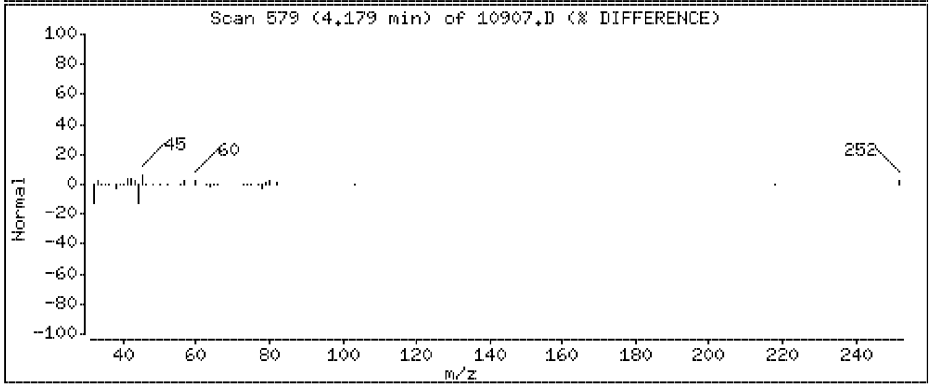












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Client ID:

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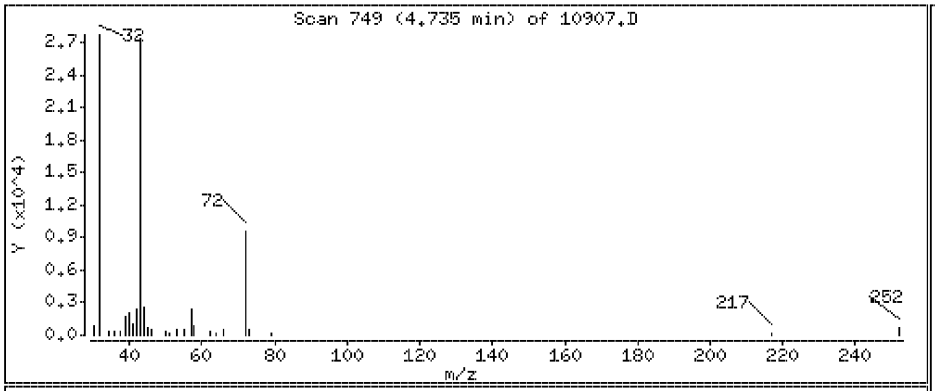
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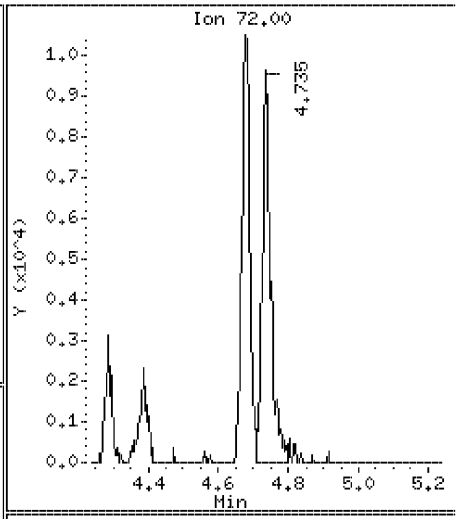
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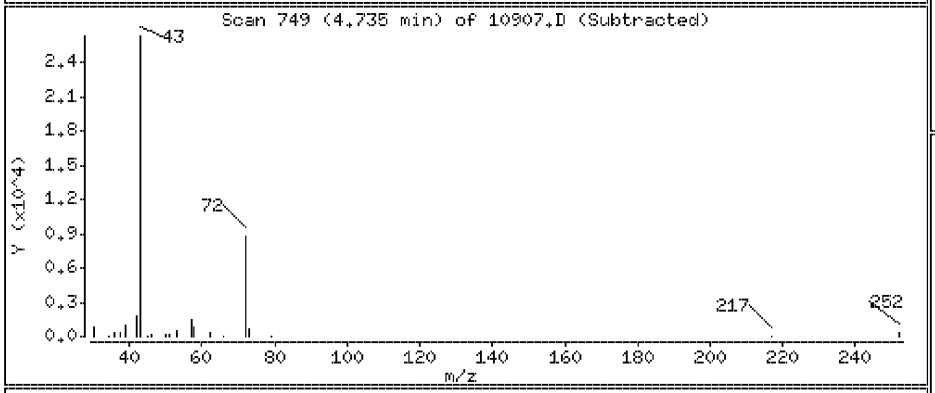
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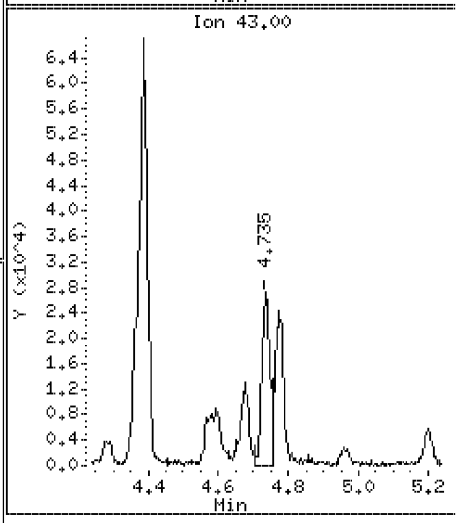
27 Methyl Ethyl Ketone

Concentration: 1.29 ppbv









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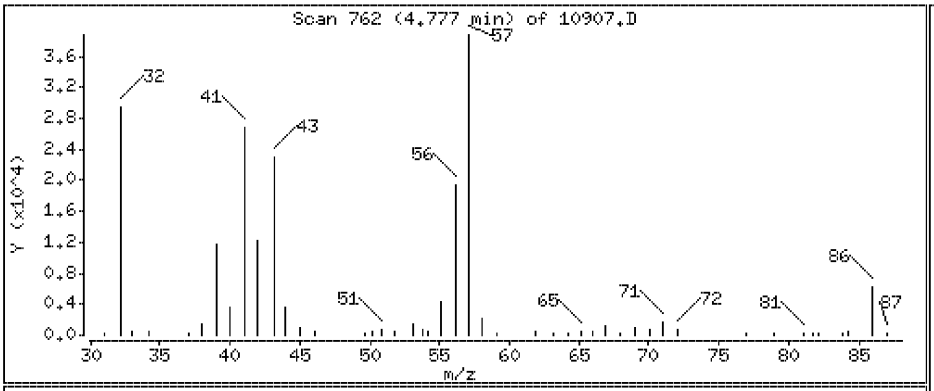
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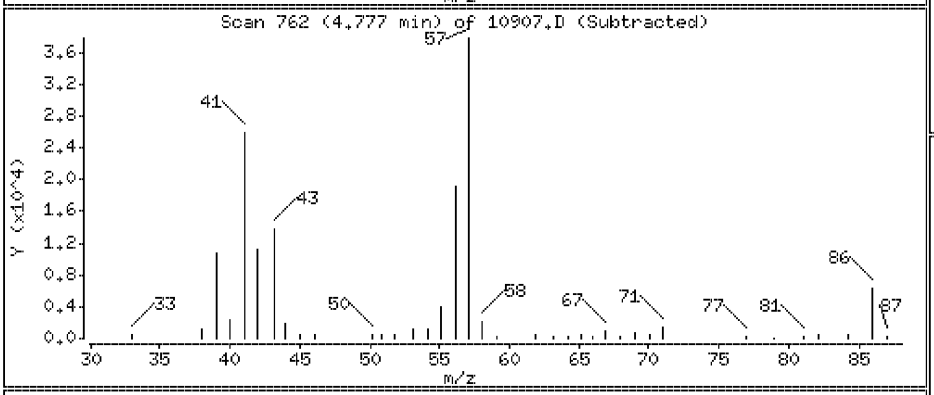
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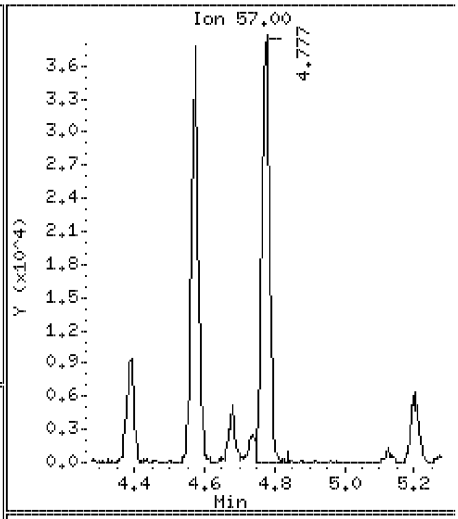
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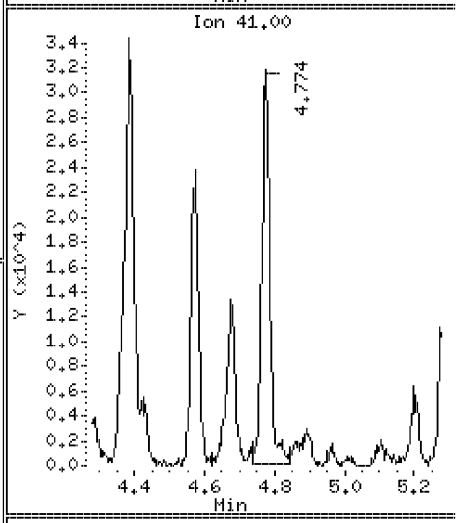
28 n-Hexane

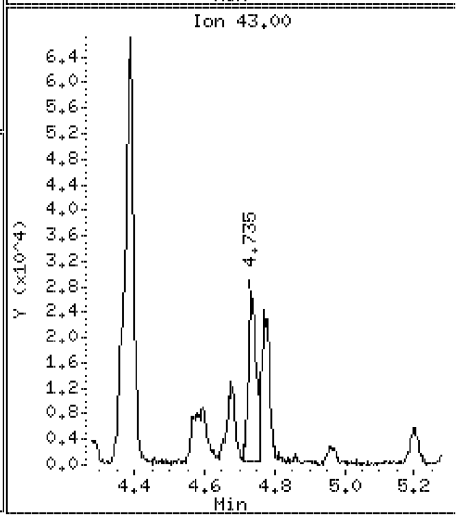
Concentration: 1.60 ppbv











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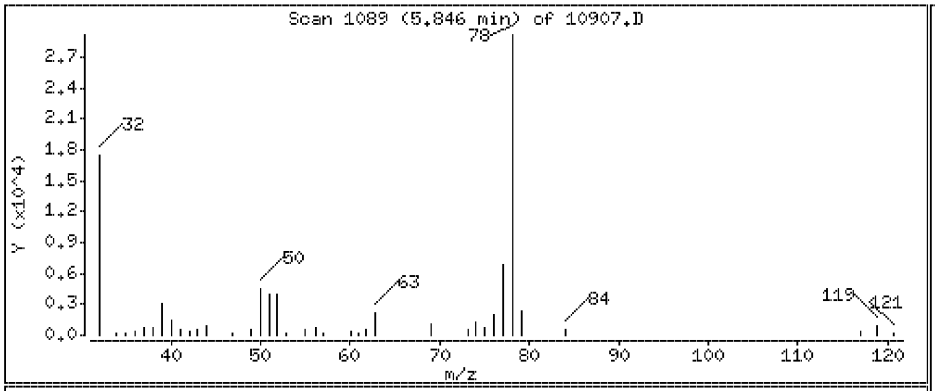
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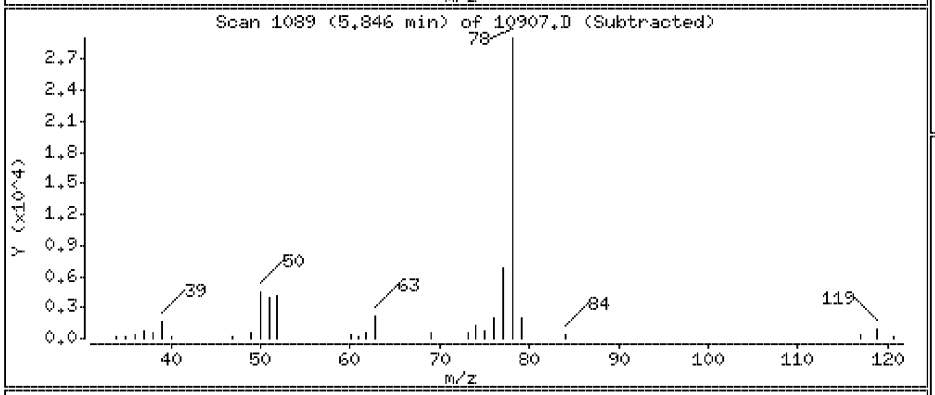
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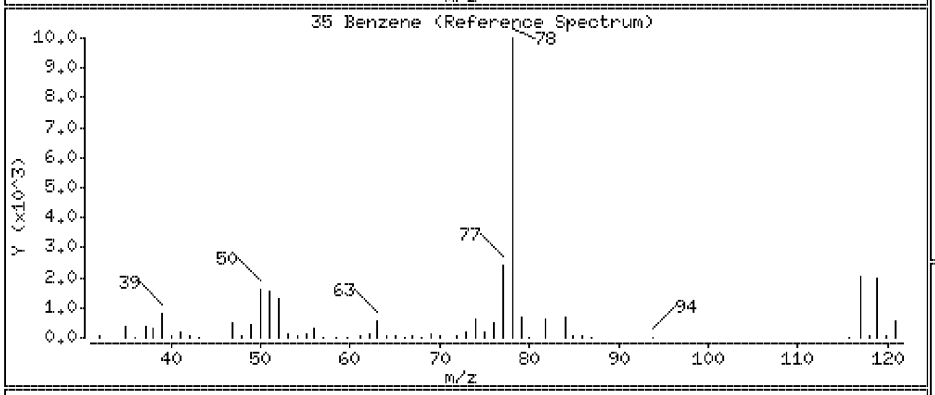
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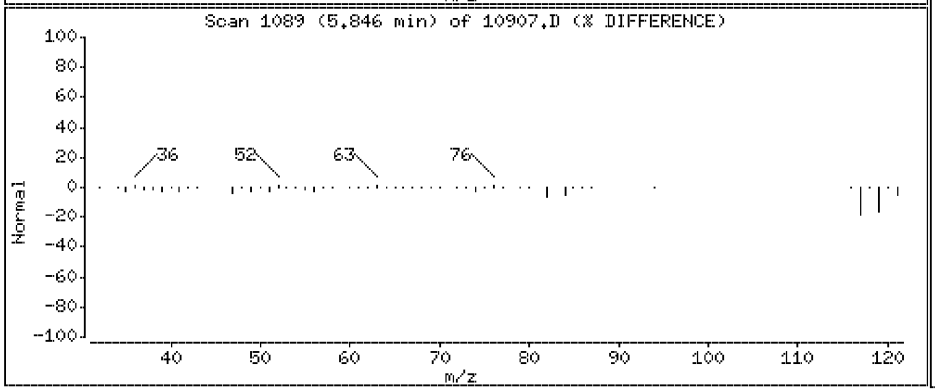
35 Benzene

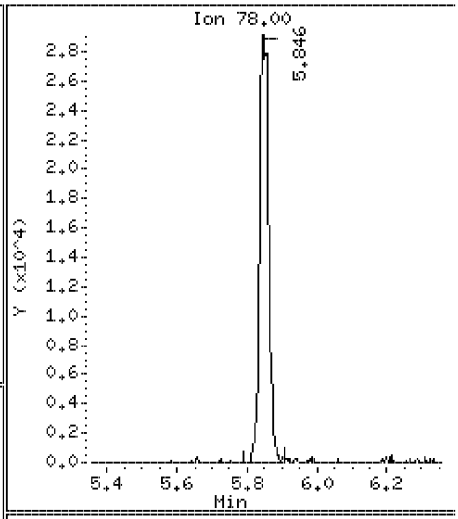
Concentration: 0.656 ppbv

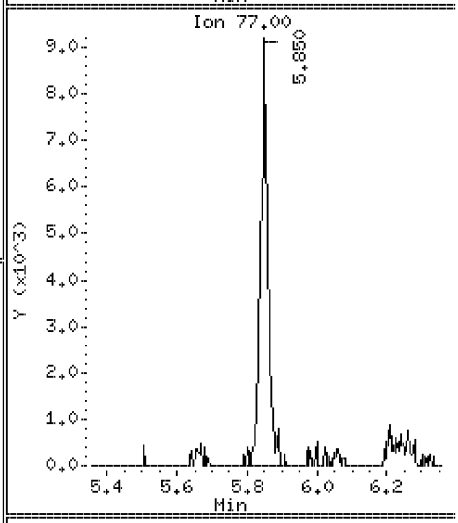


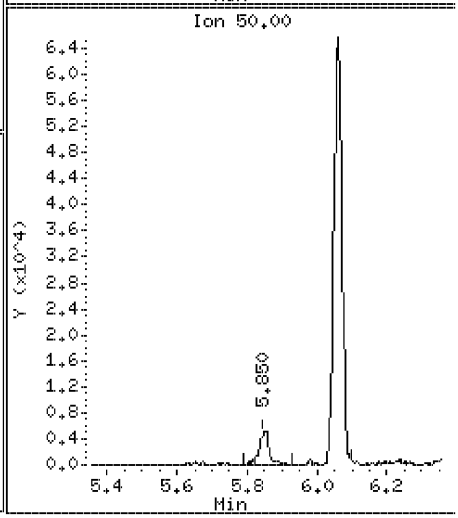












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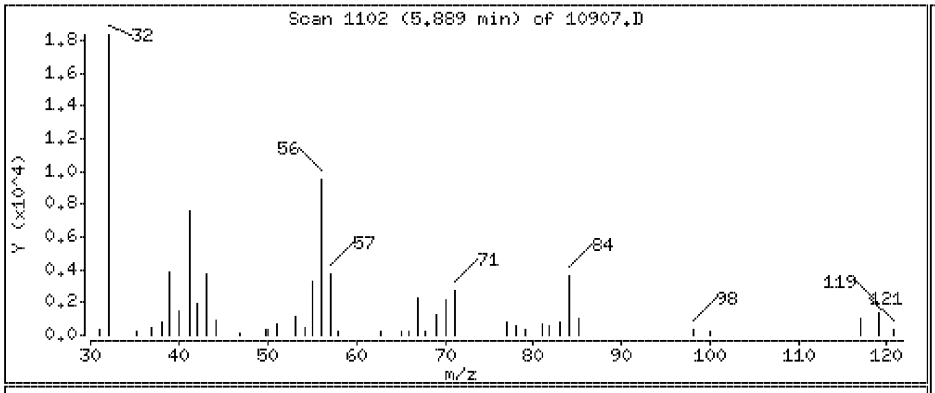
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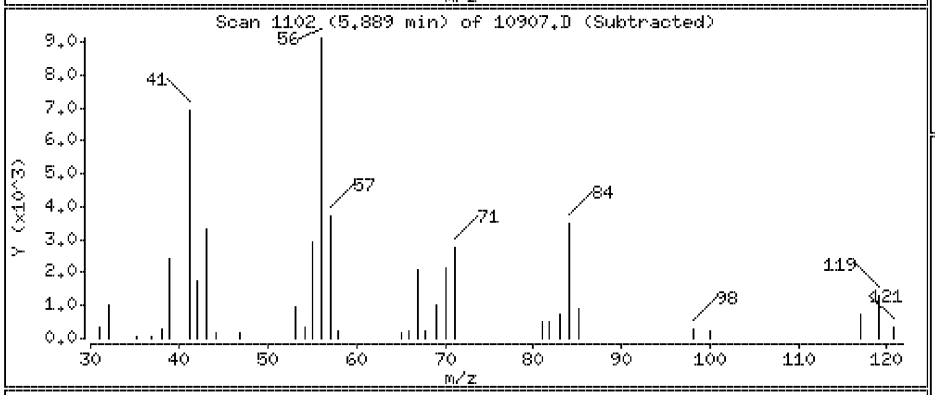
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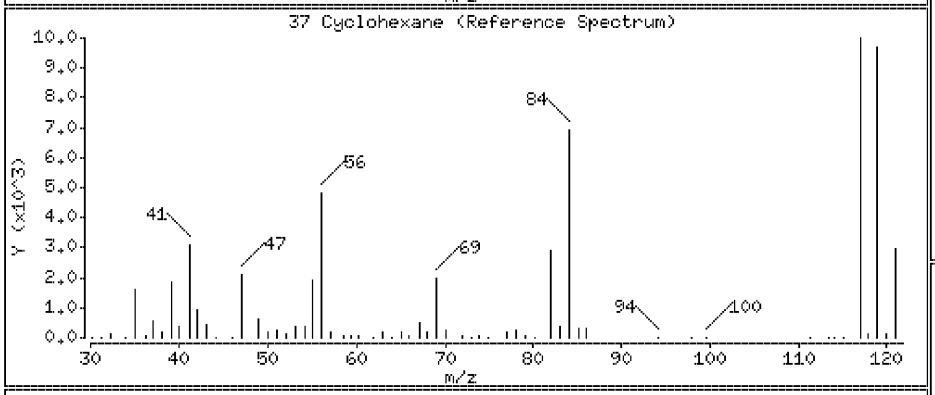
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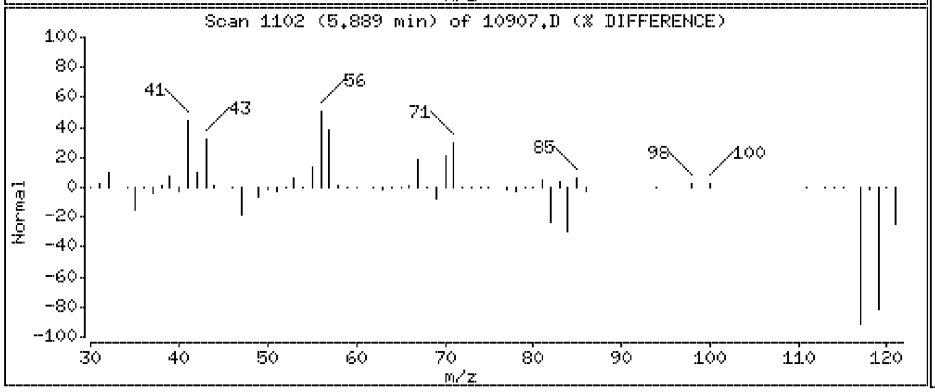
37 Cyclohexane

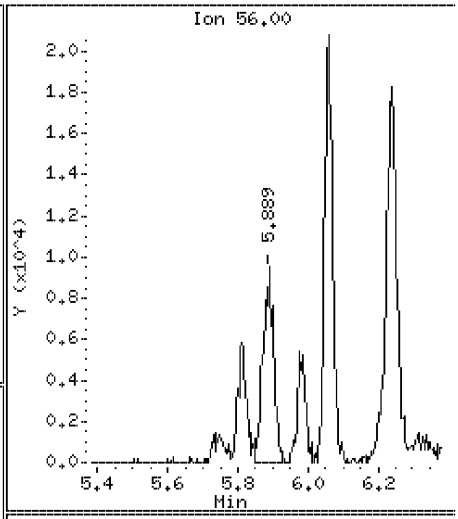
Concentration: 1.01 ppbv

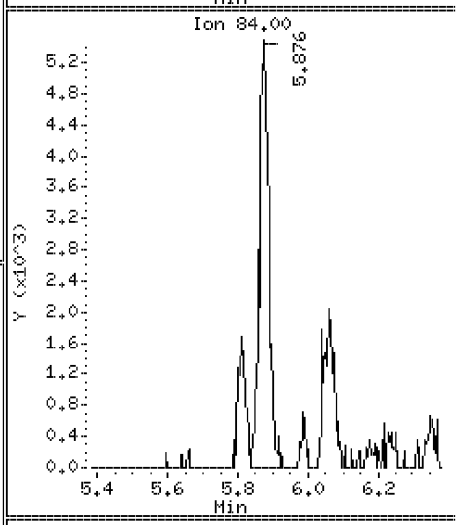


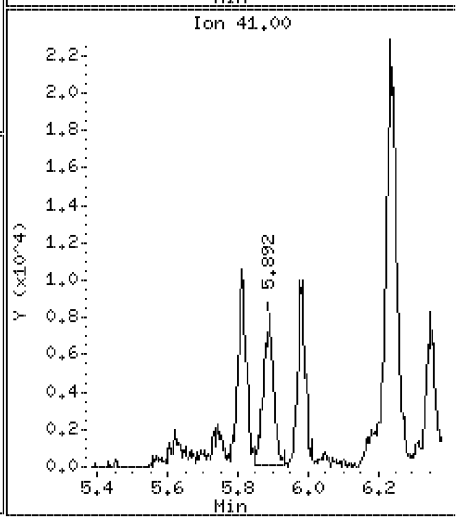












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.D

Date : 19-APR-2013 16:49

Client ID:

Instrument: 10airD.i

Sample Info:

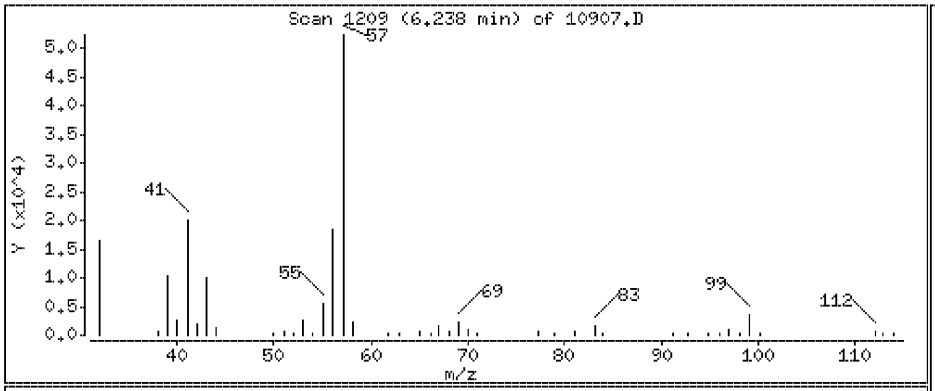
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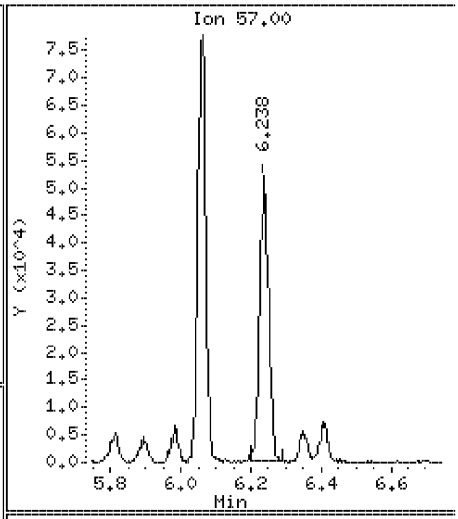
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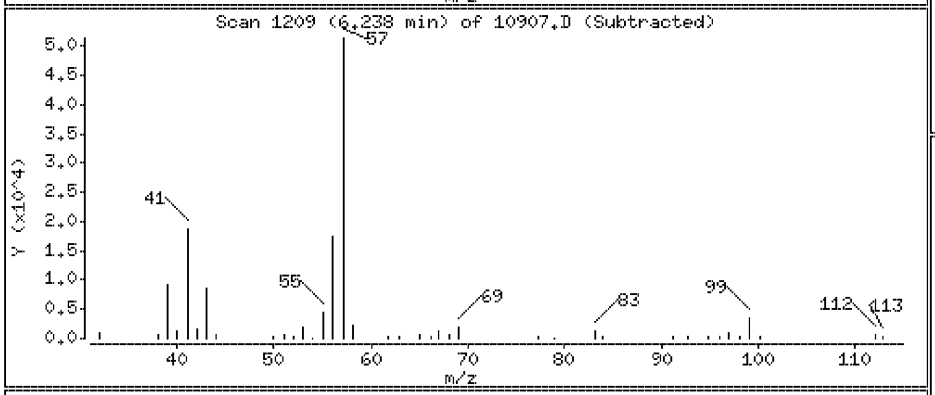
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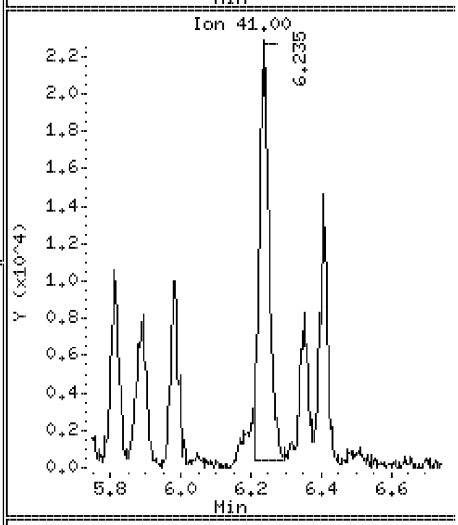
39 2,2,4-Trimethylpentane

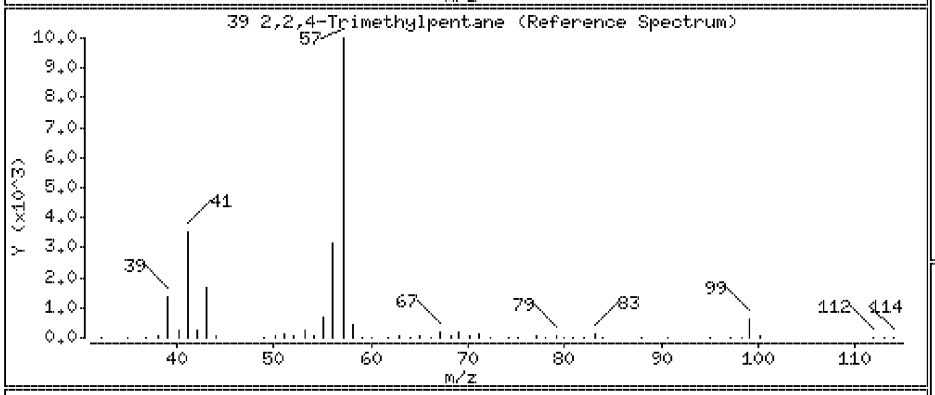
Concentration: 1.39 ppbv

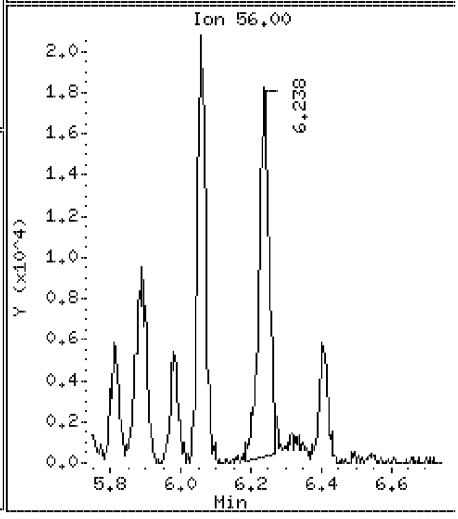


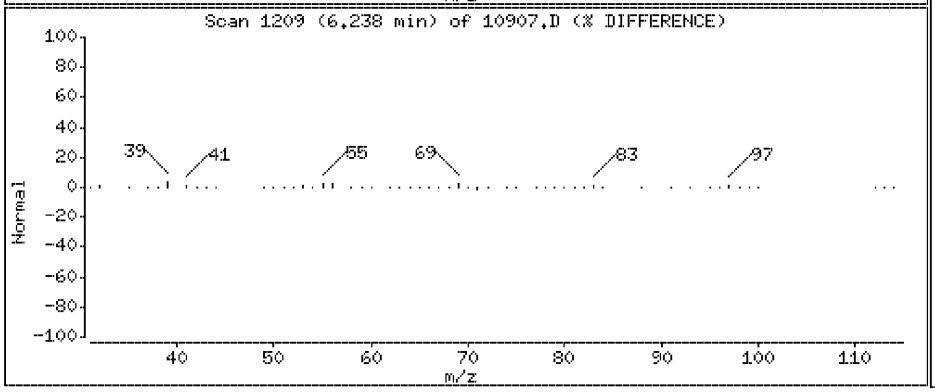












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Instrument: 10airD.i

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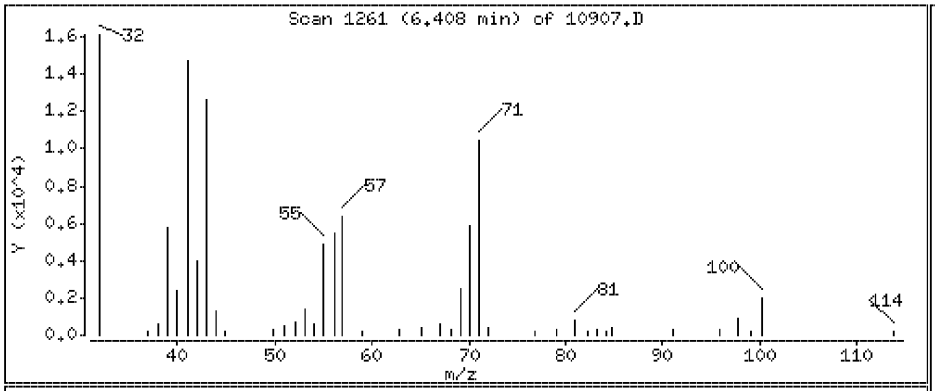
Operator: CJR

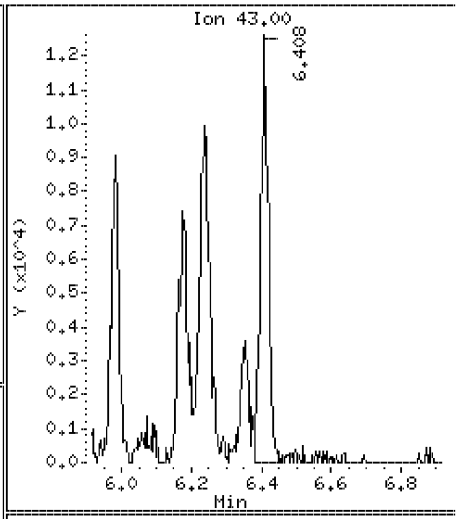
Column phase: J&W DB-5

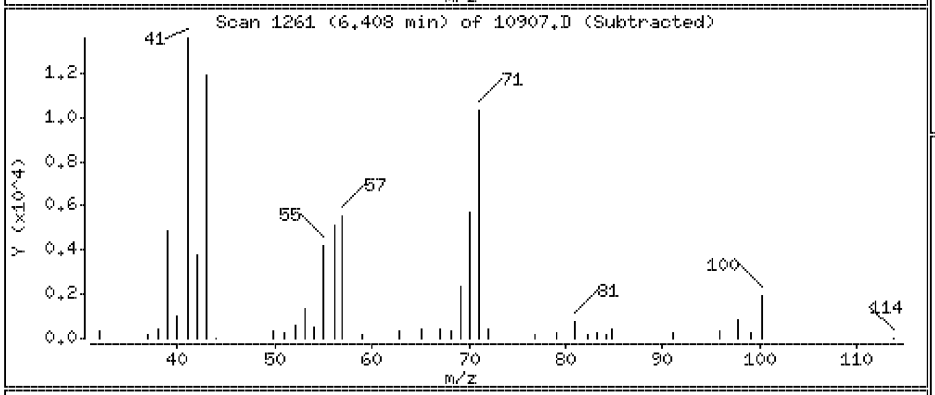
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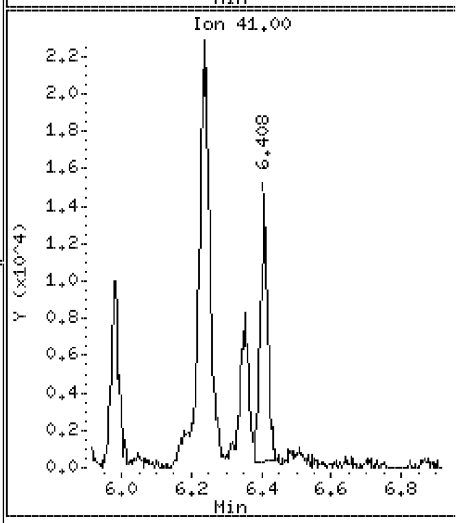
40 Heptane

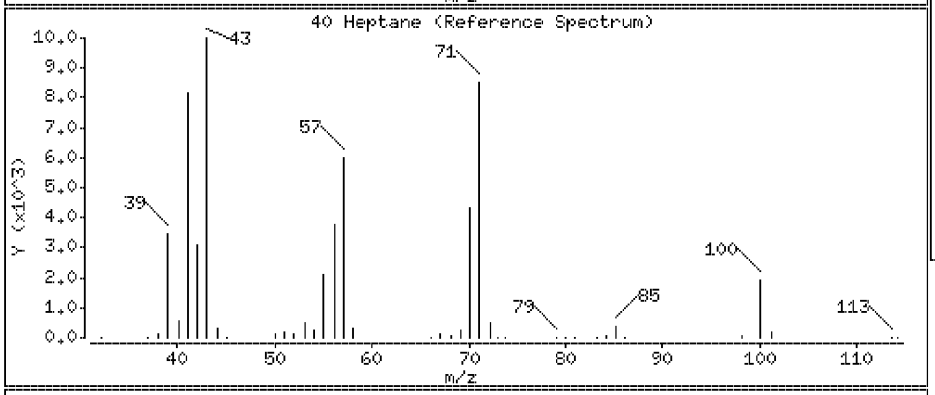
Concentration: 1.18 ppbv

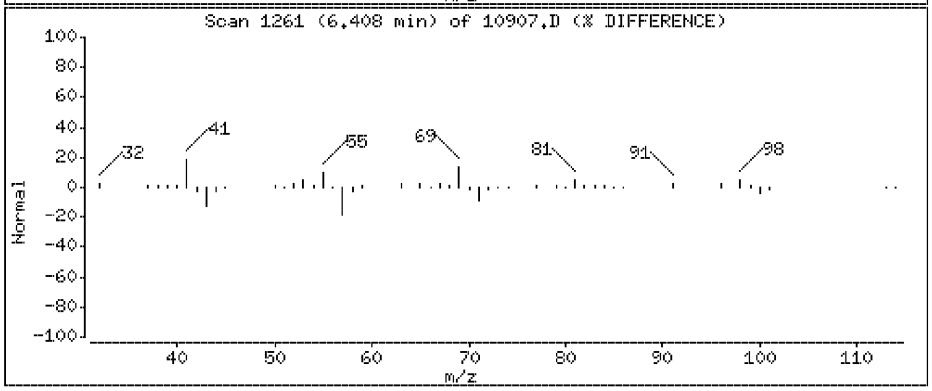












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Instrument: 10airD.i

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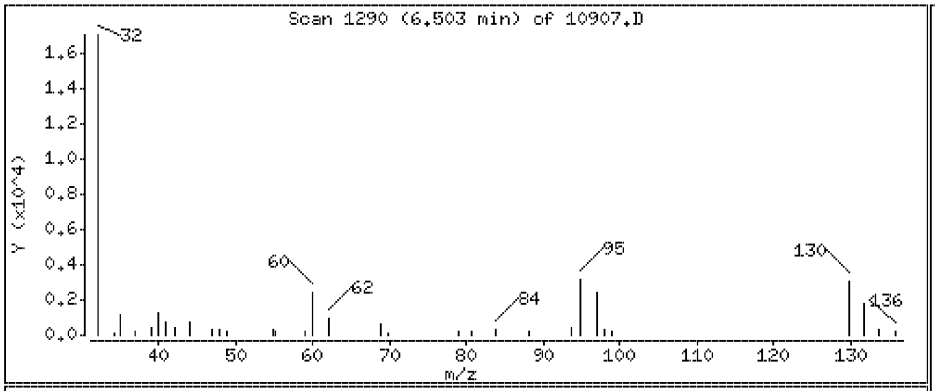
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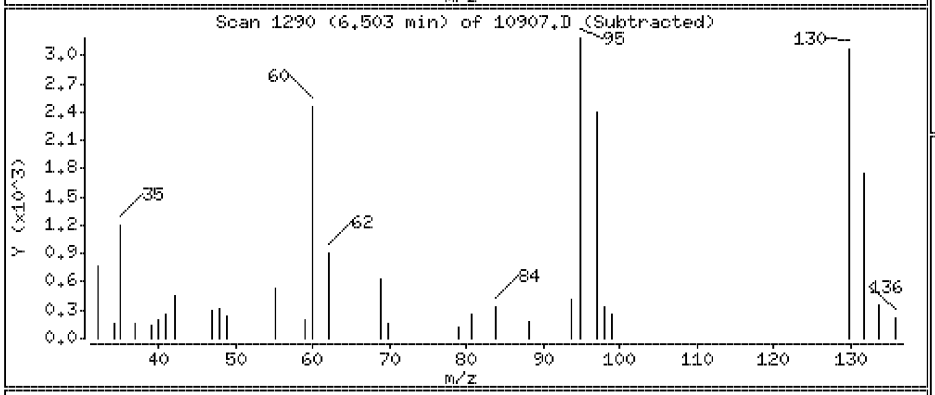
Column phase: J&W DB-5

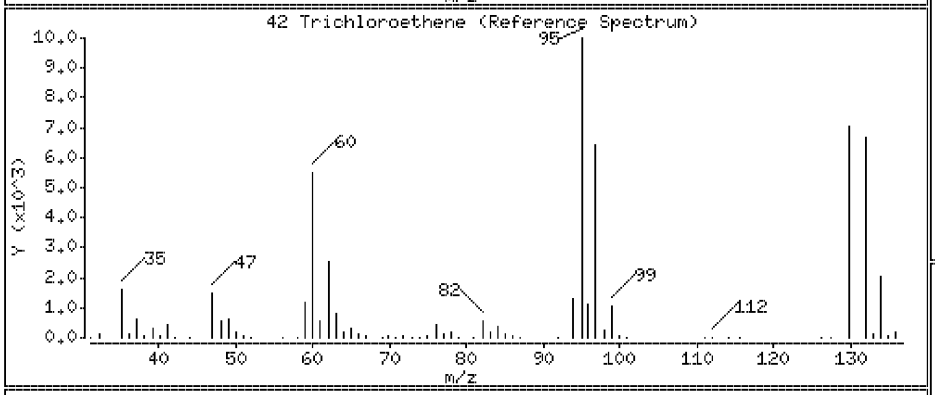
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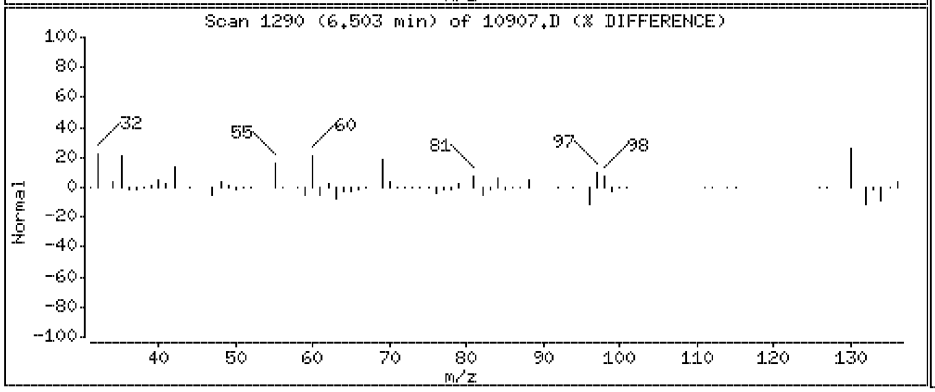
42 Trichloroethene

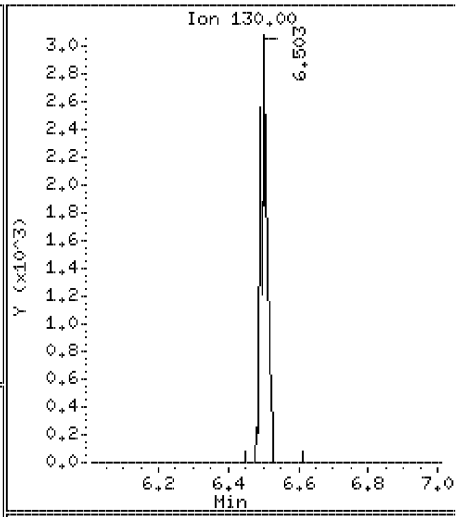
Concentration: 0.181 ppbv

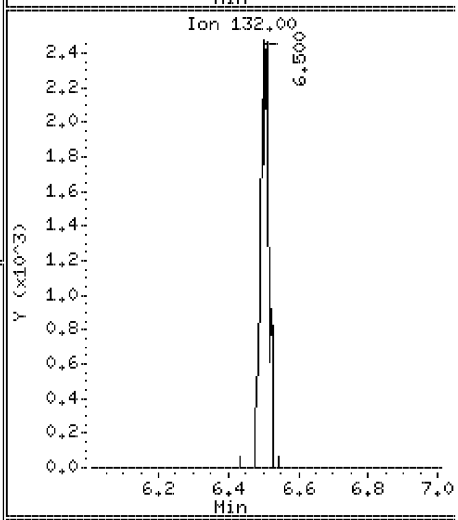


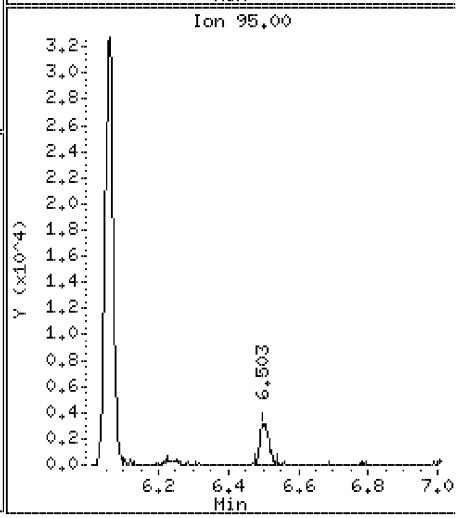












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Client ID:

Instrument: 10airD.i

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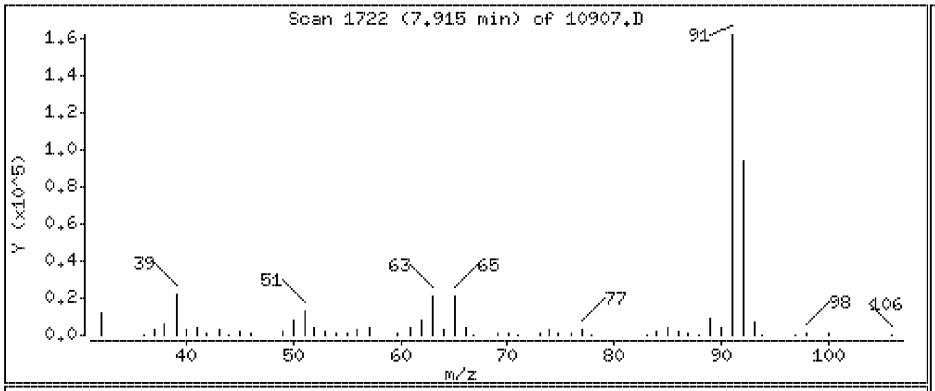
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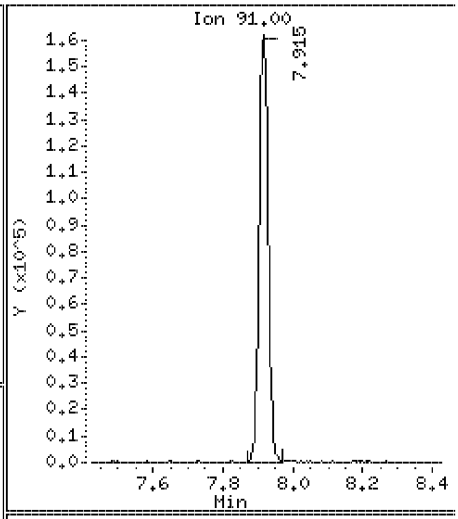
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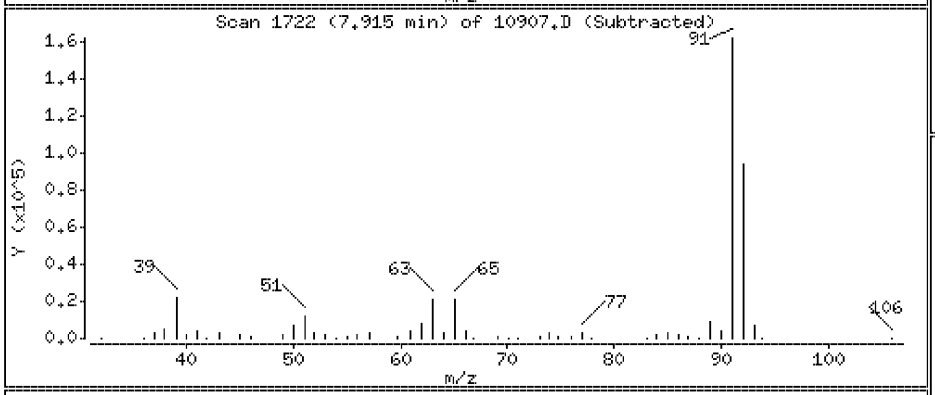
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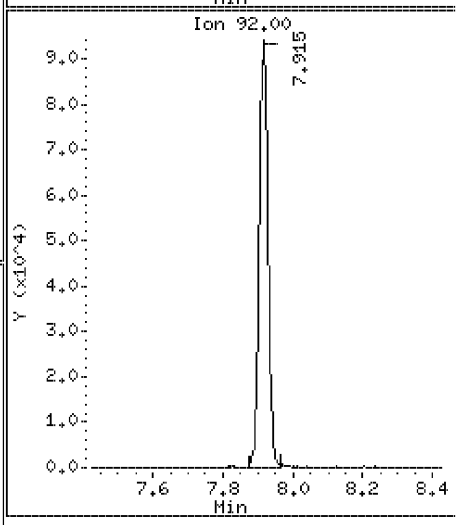
49 Toluene

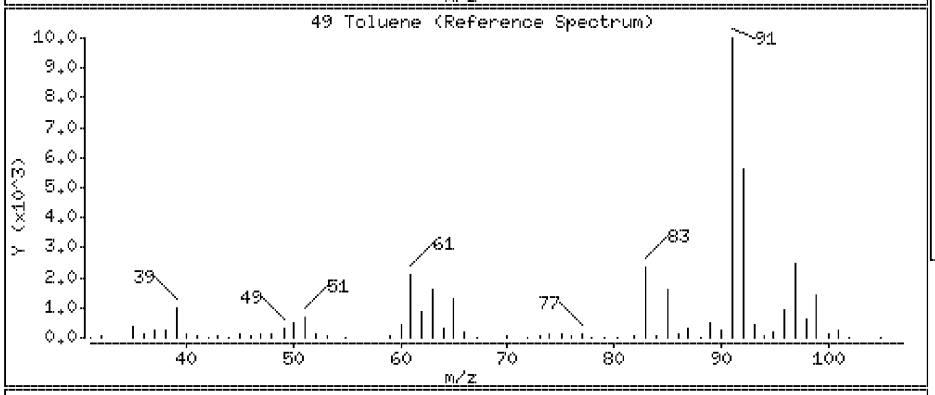
Concentration: 2.63 ppbv

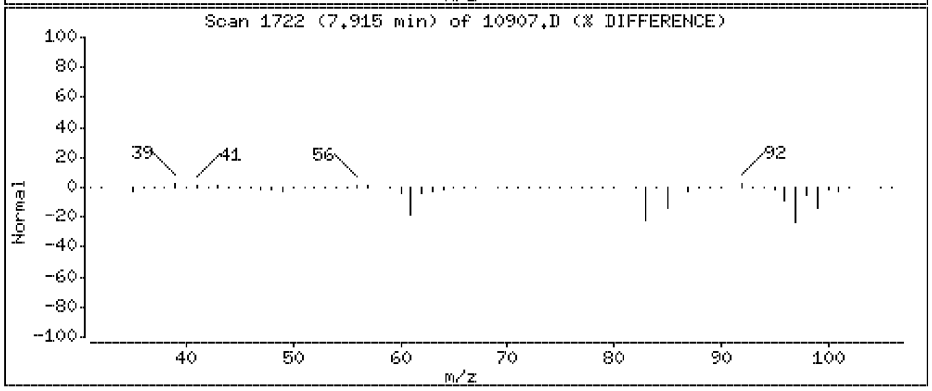












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Client ID:

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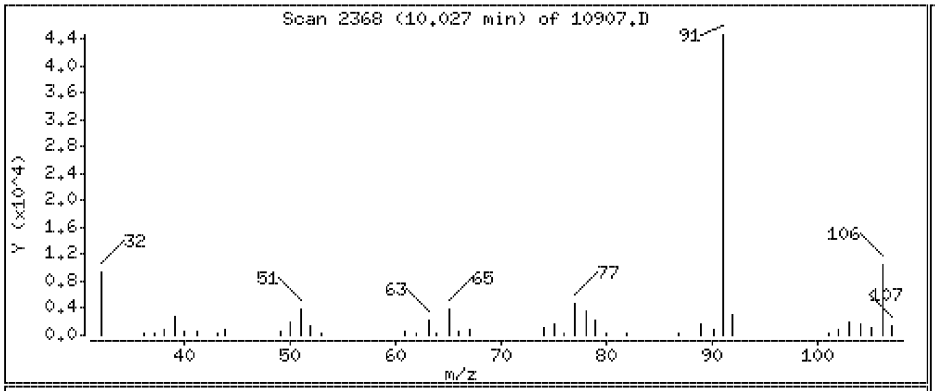
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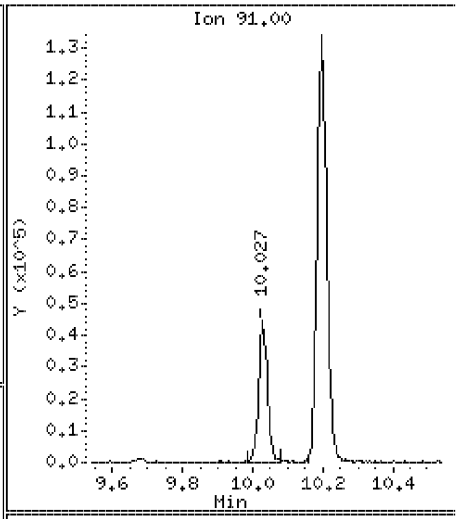
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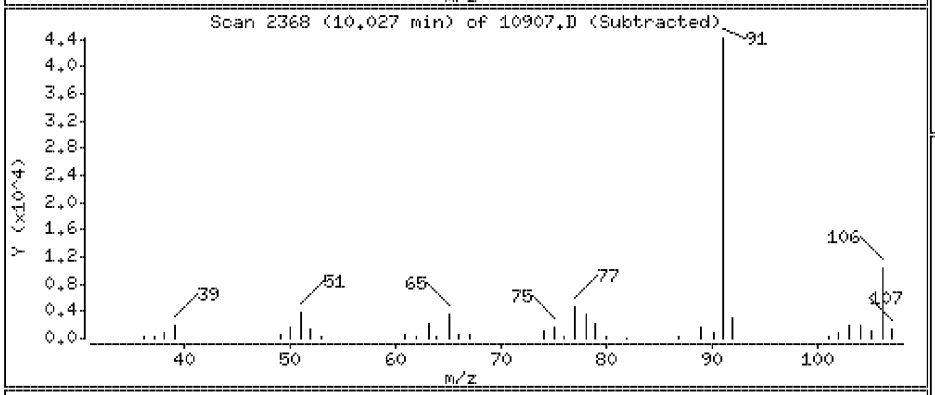
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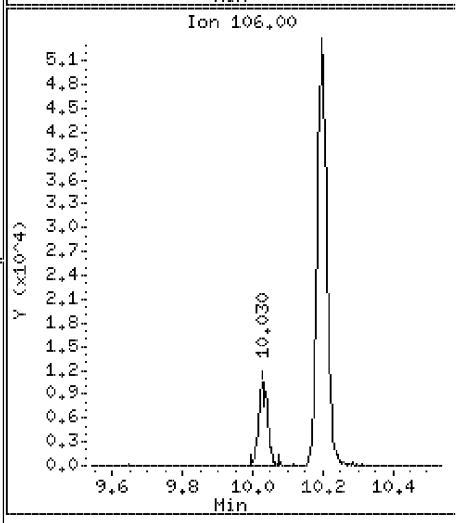
57 Ethyl Benzene

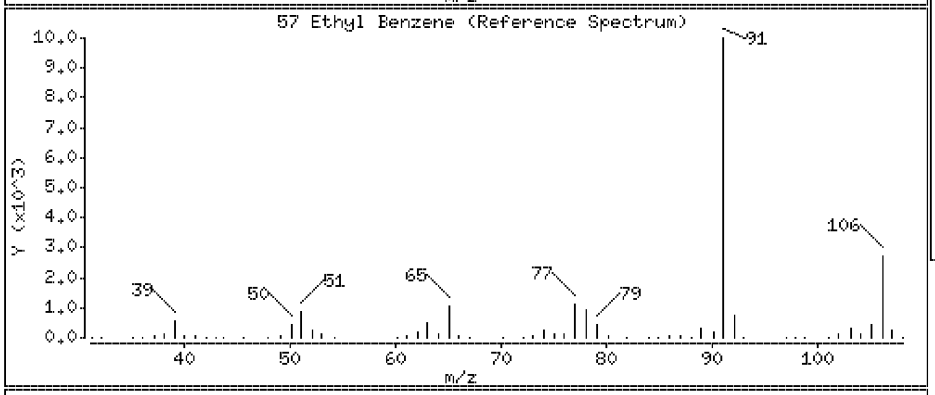
Concentration: 0.875 ppbv

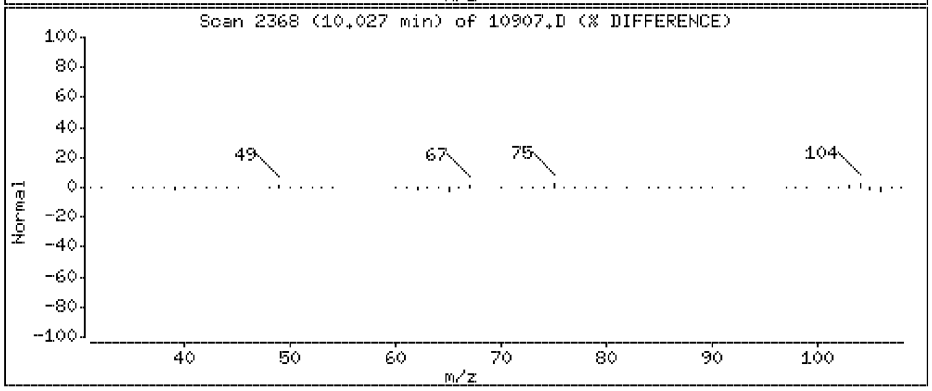












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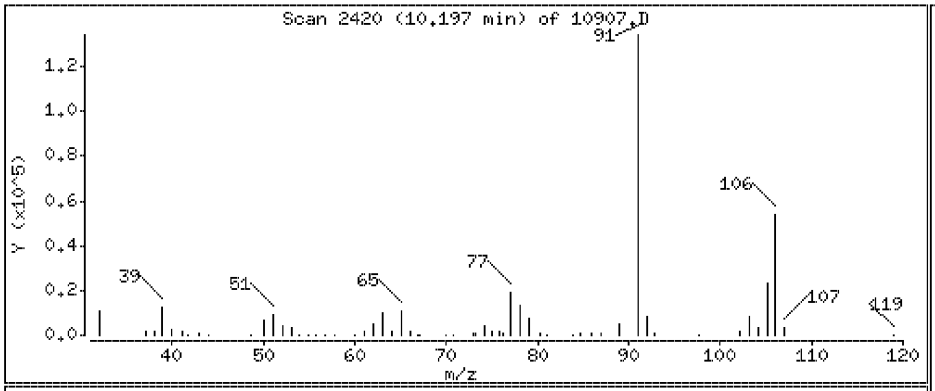
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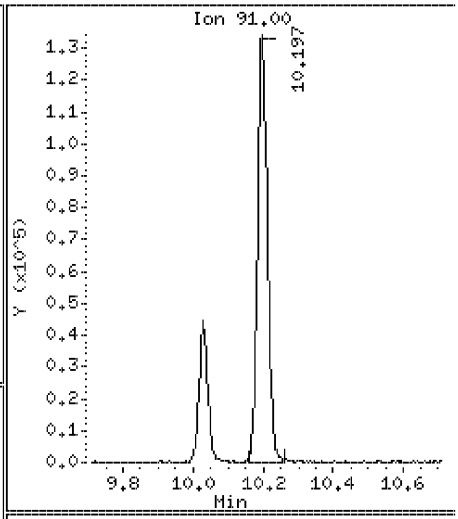
Column phase: J&W DB-5

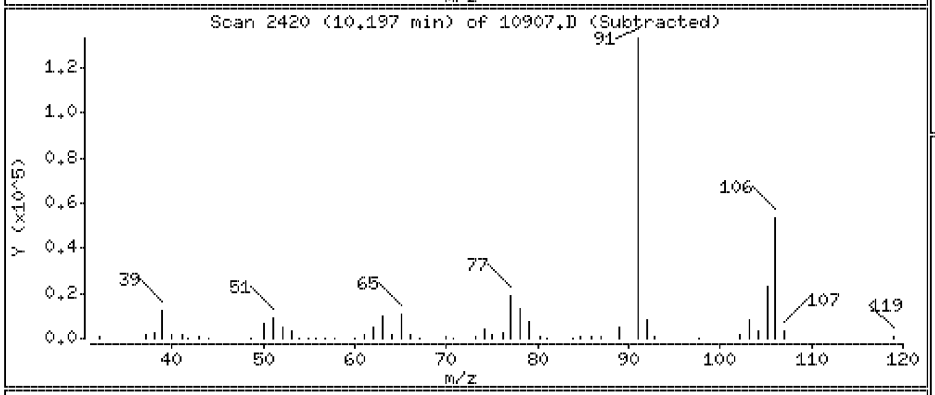
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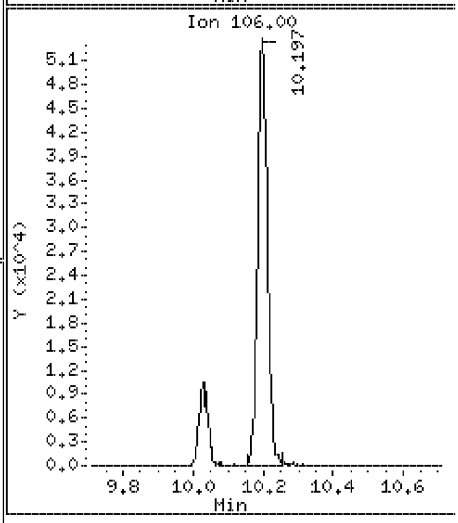
58 m&p-Xylene

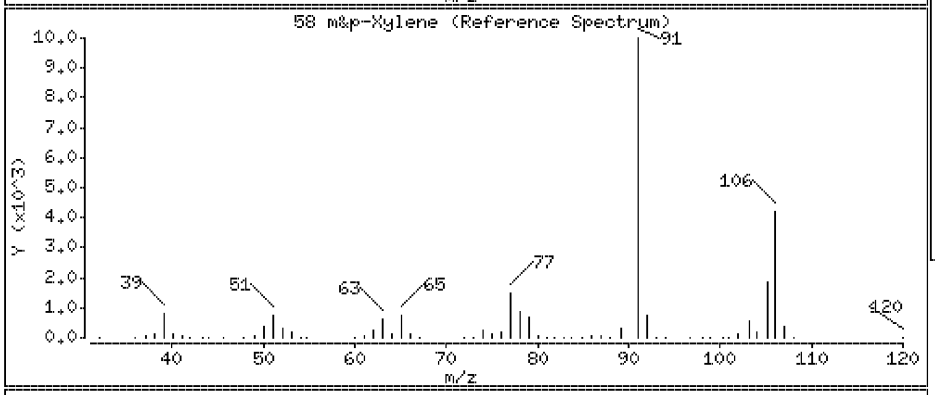
Concentration: 3.02 ppbv

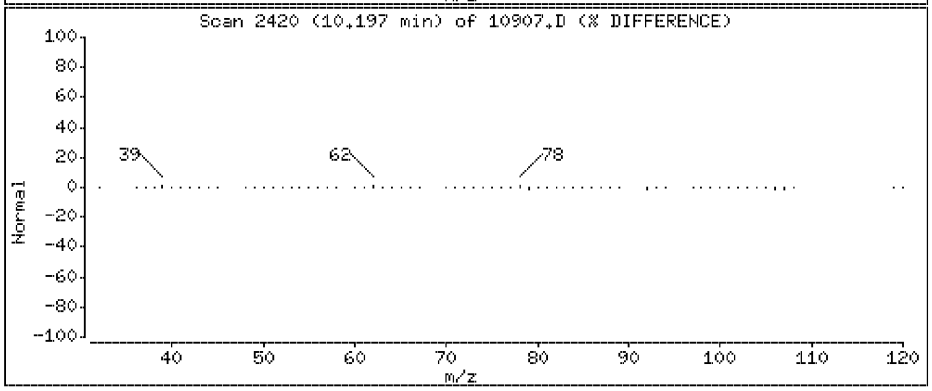












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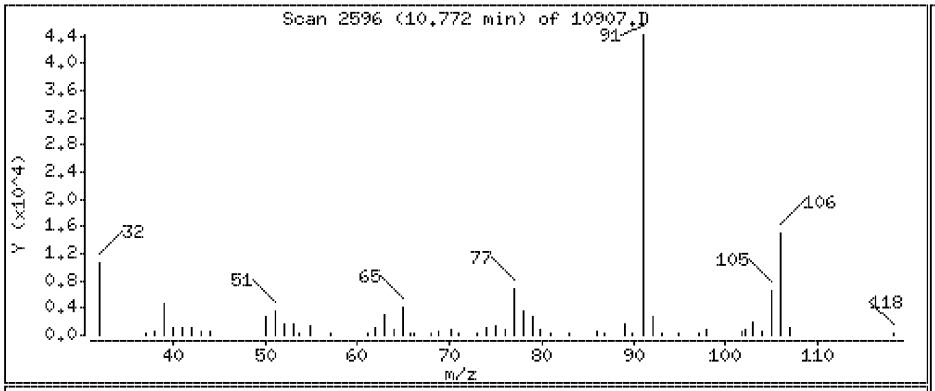
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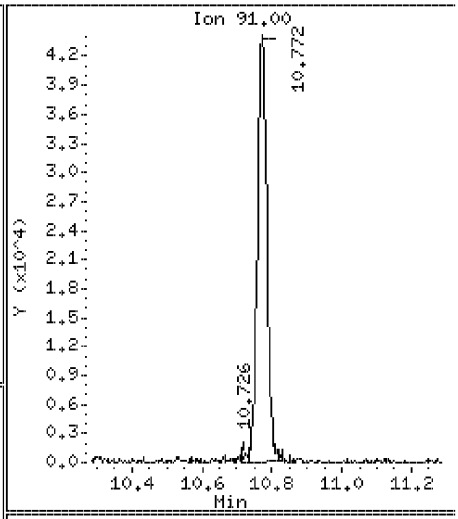
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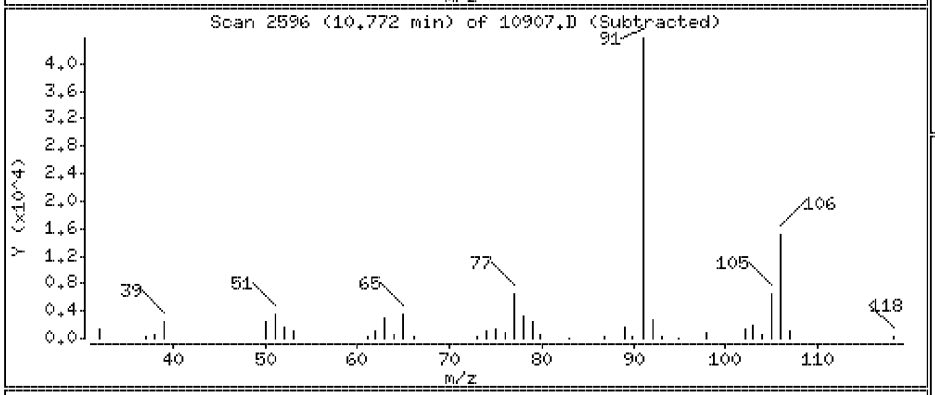
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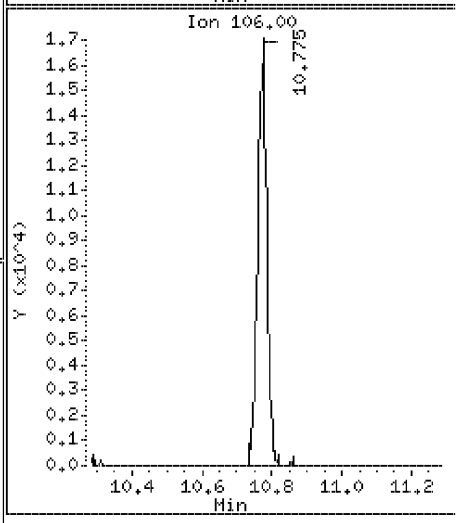
61 o-Xylene

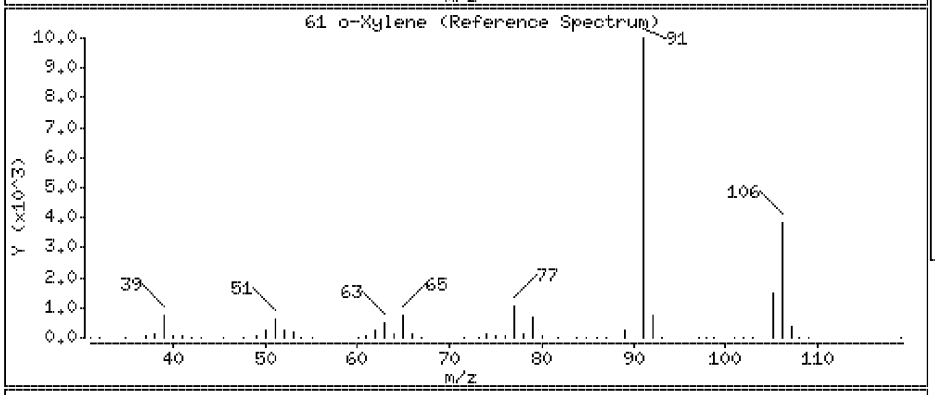
Concentration: 0.928 ppbv

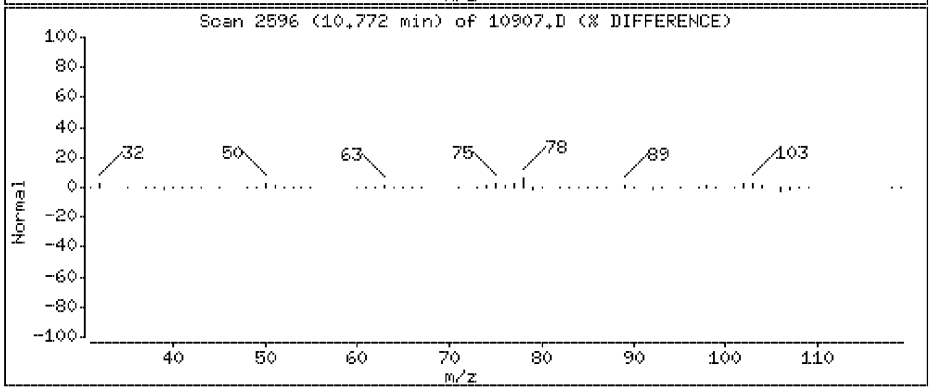












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Date : 19-APR-2013 16:49

Client ID:

Instrument: 10airD.i

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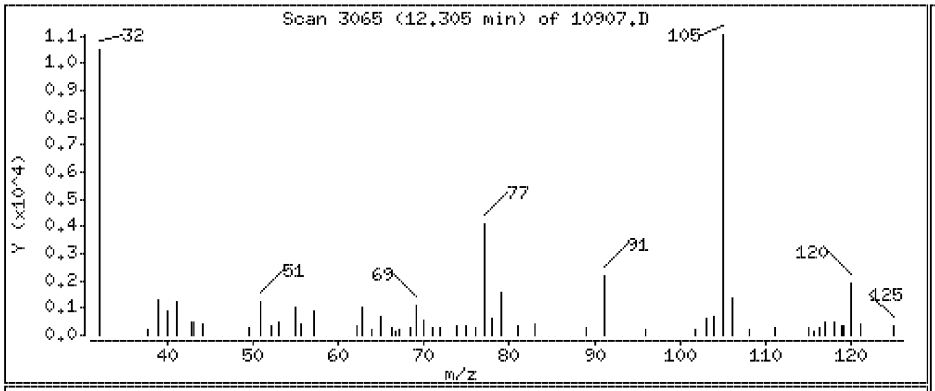
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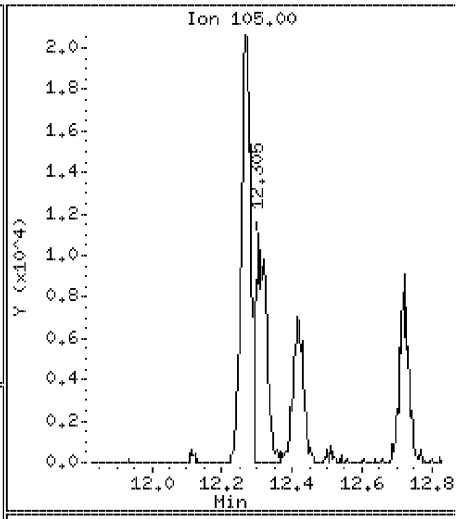
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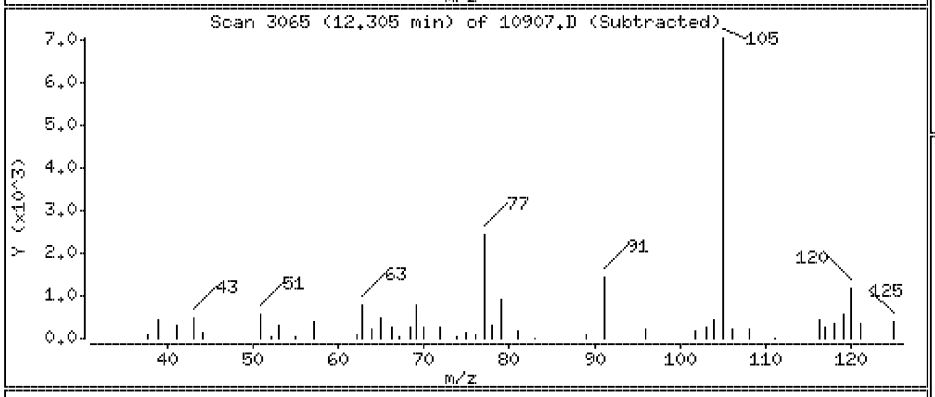
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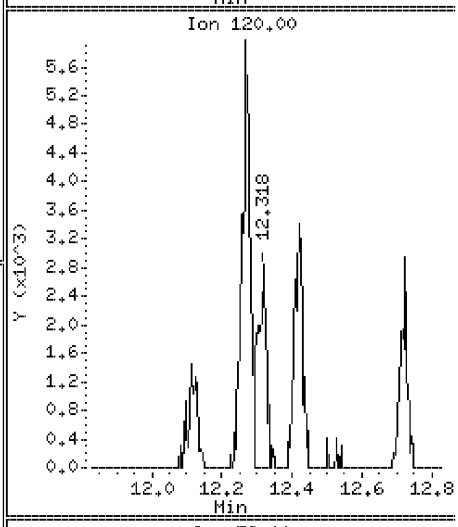
65 4-Ethyltoluene

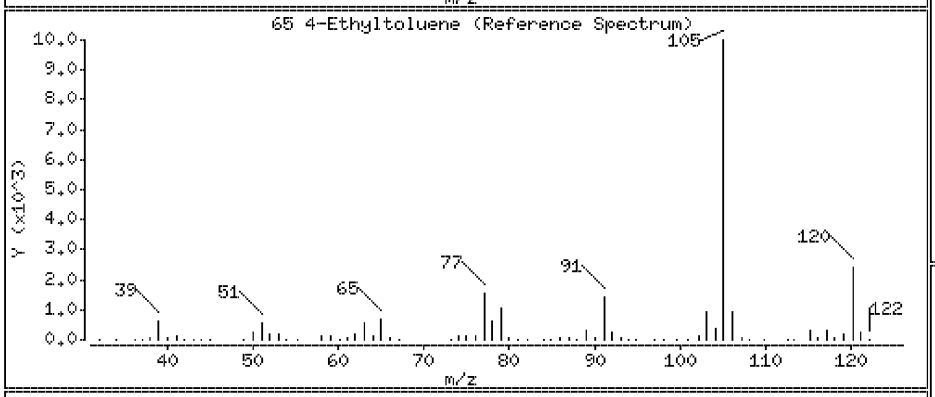
Concentration: 0.407 ppbv

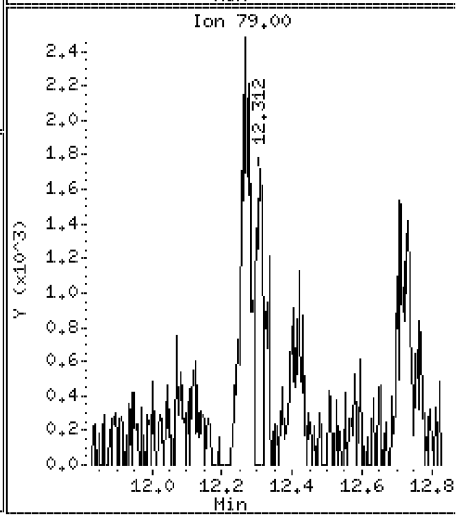


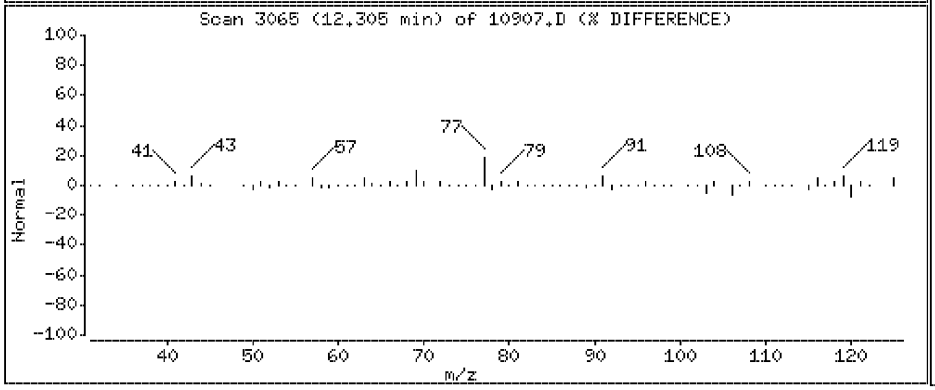












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.D

Date : 19-APR-2013 16:49

Client ID:

Instrument: 10airD.i

Sample Info:

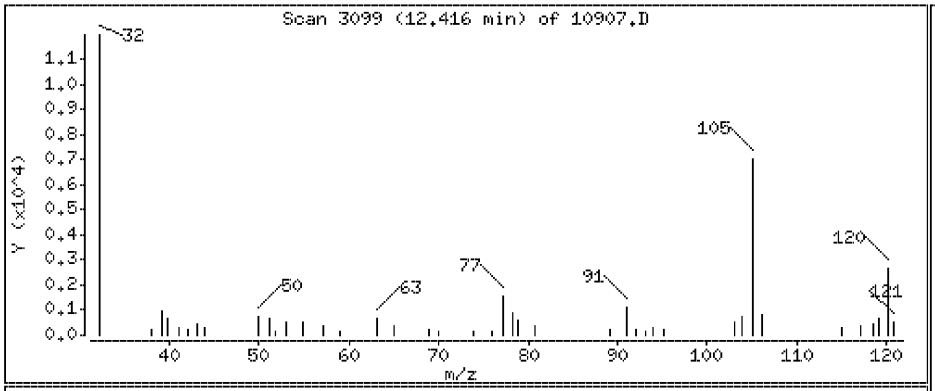
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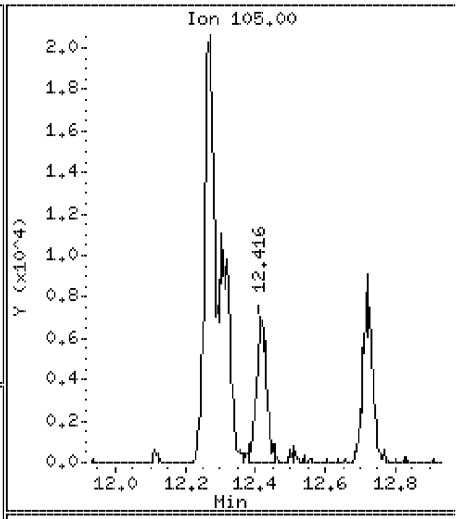
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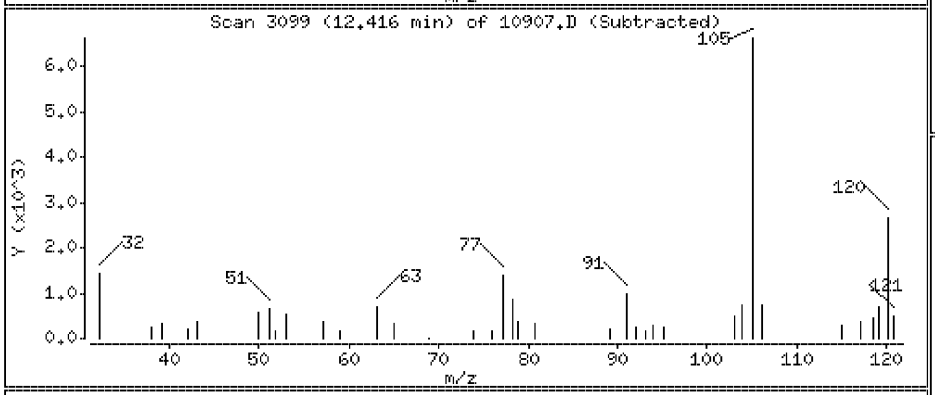
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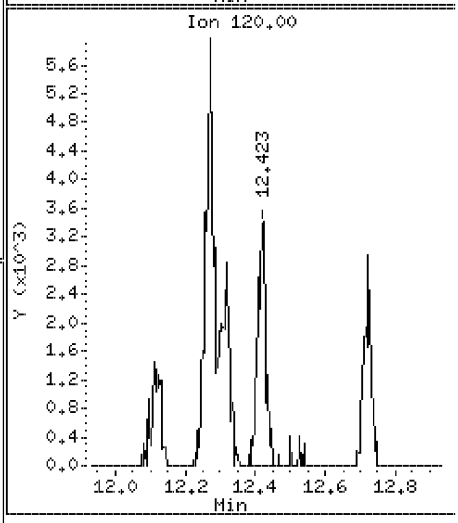
66 1,3,5-Trimethylbenzene

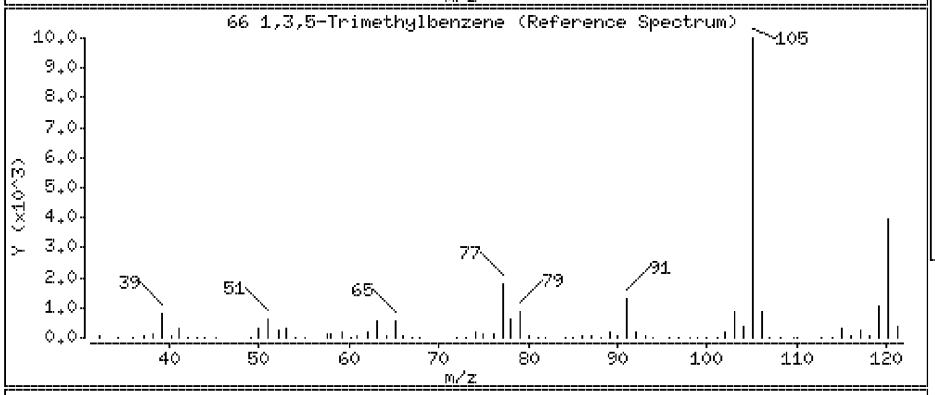
Concentration: 0.264 ppbv

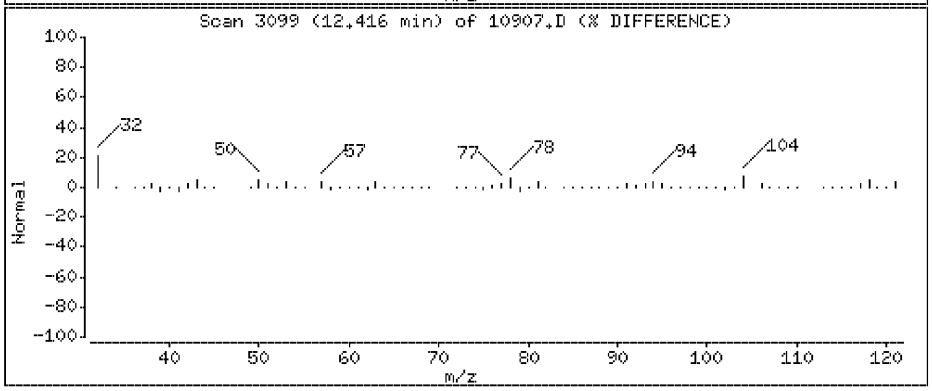












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Date : 19-APR-2013 16:49

Client ID:

Instrument: 10airD.i

Sample Info:

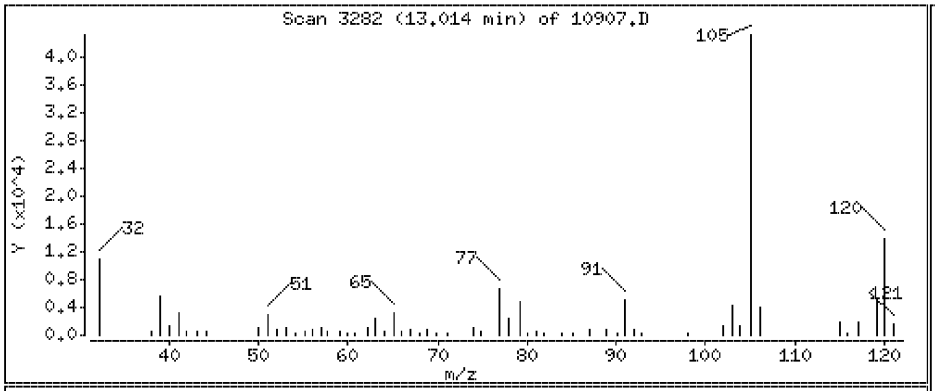
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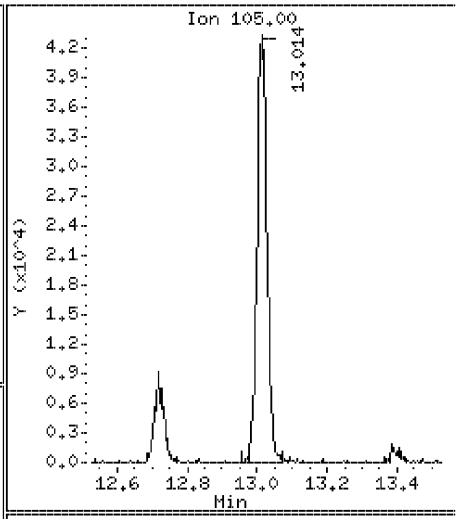
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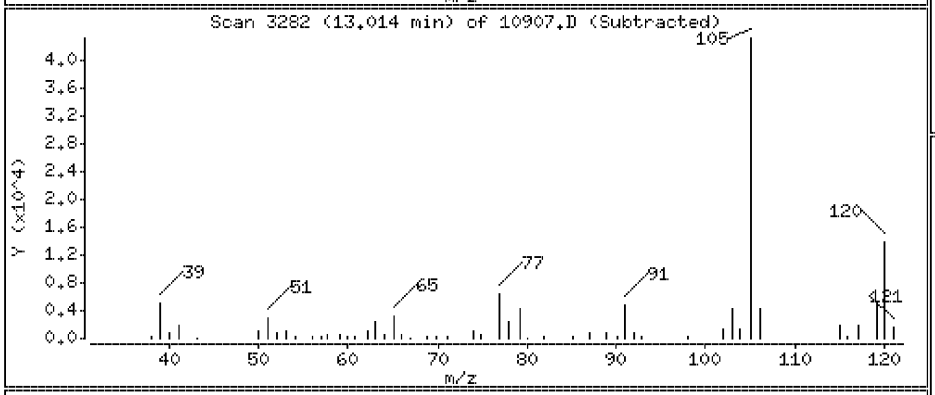
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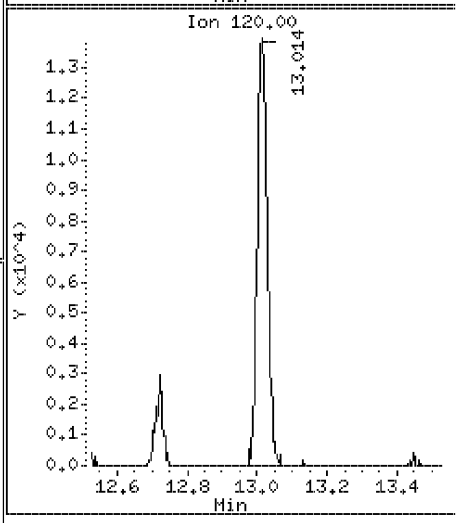
67 1,2,4-Trimethylbenzene

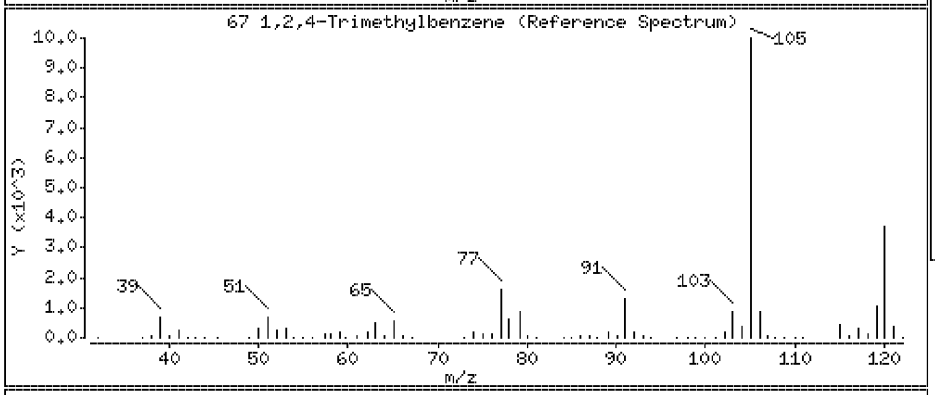
Concentration: 1.13 ppbv

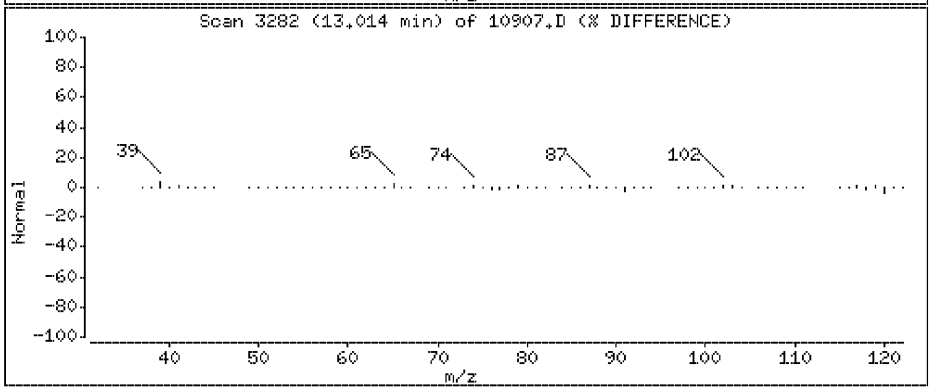












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10907.D

Date : 19-APR-2013 16:49

Client ID:

Instrument: 10airD.i

Sample Info:

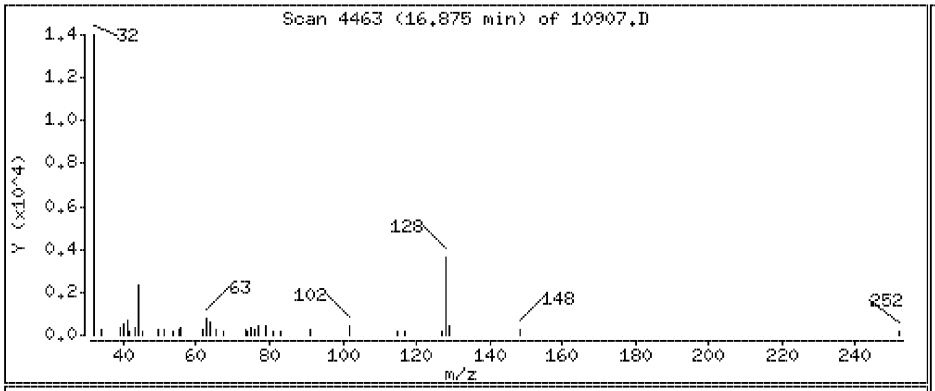
Operator: CJR

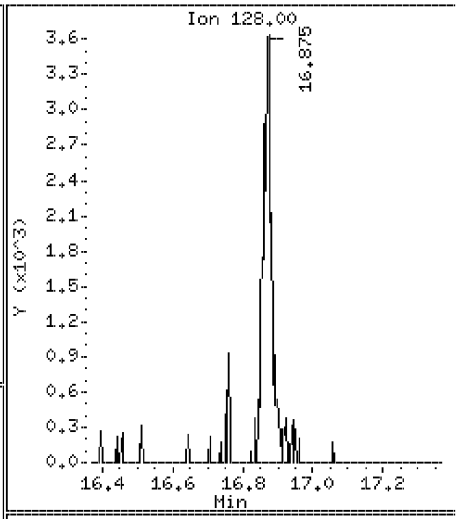
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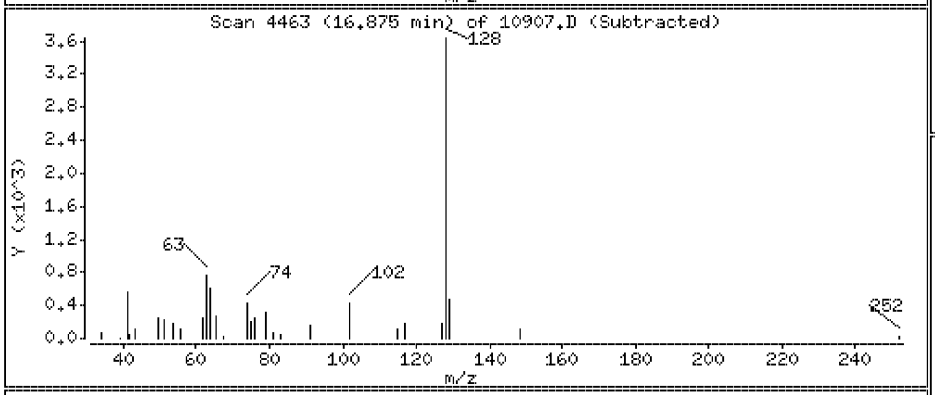
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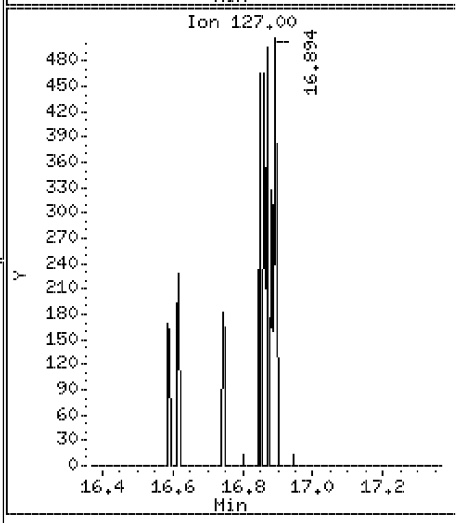
76 Naphthalene

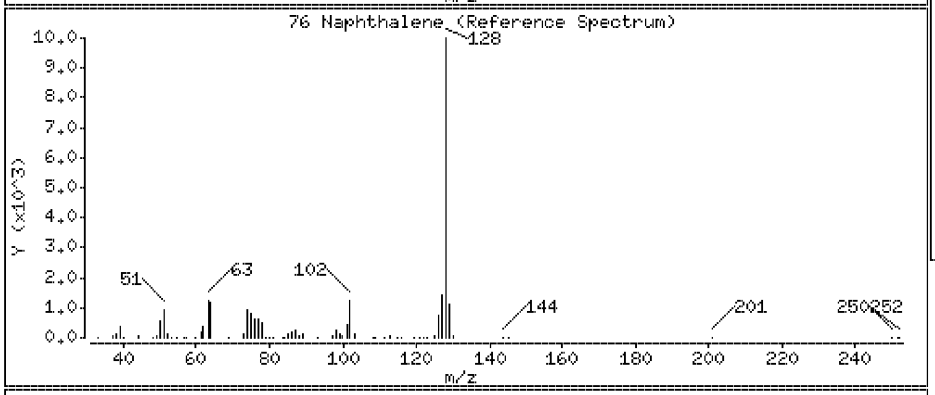
Concentration: 0.445 ppbv

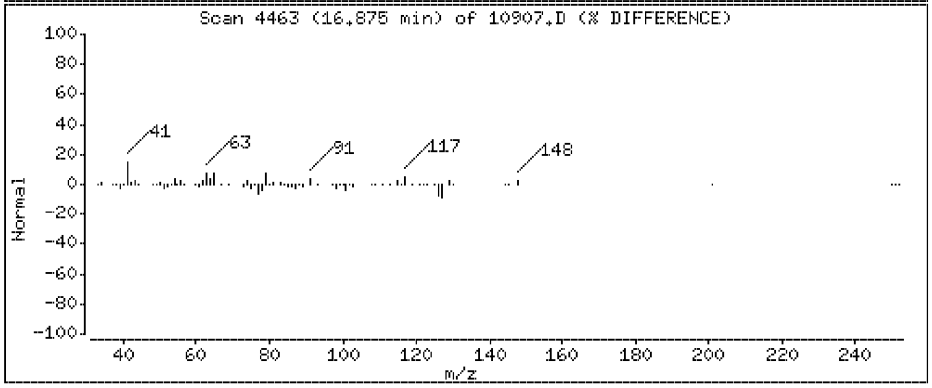






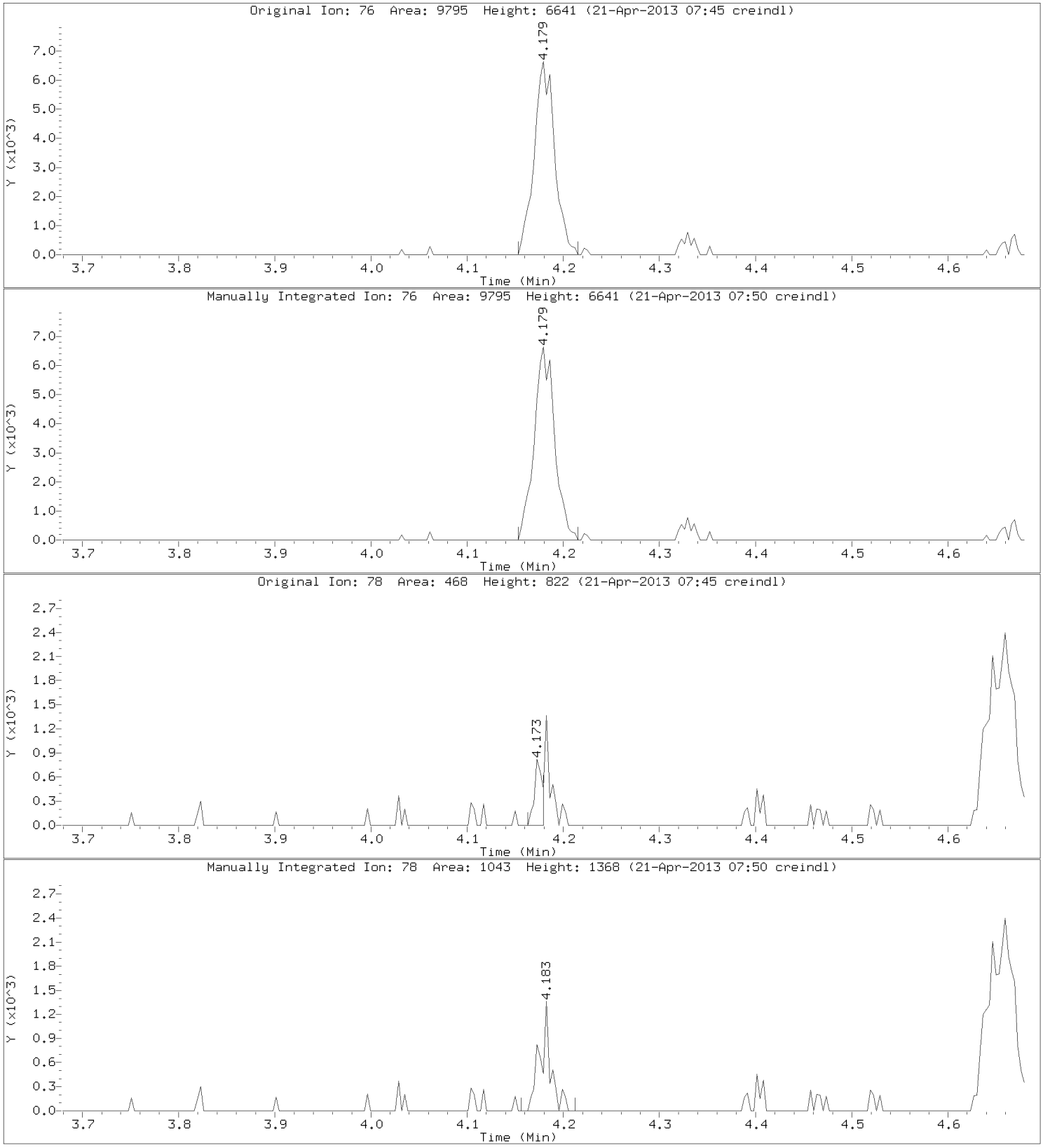






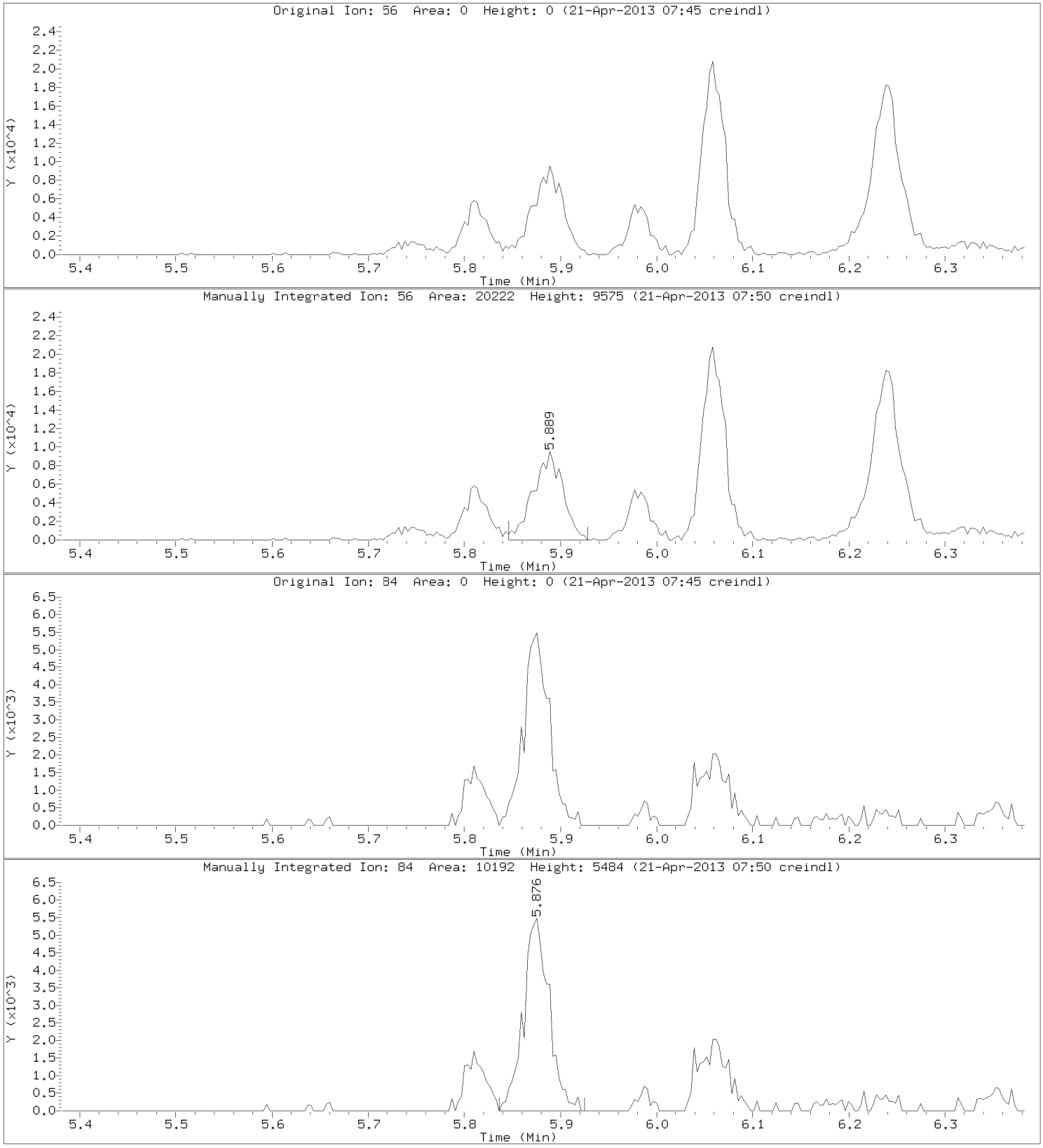
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Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003

Compound: Carbon Disulfide
CAS Number: 75-15-0

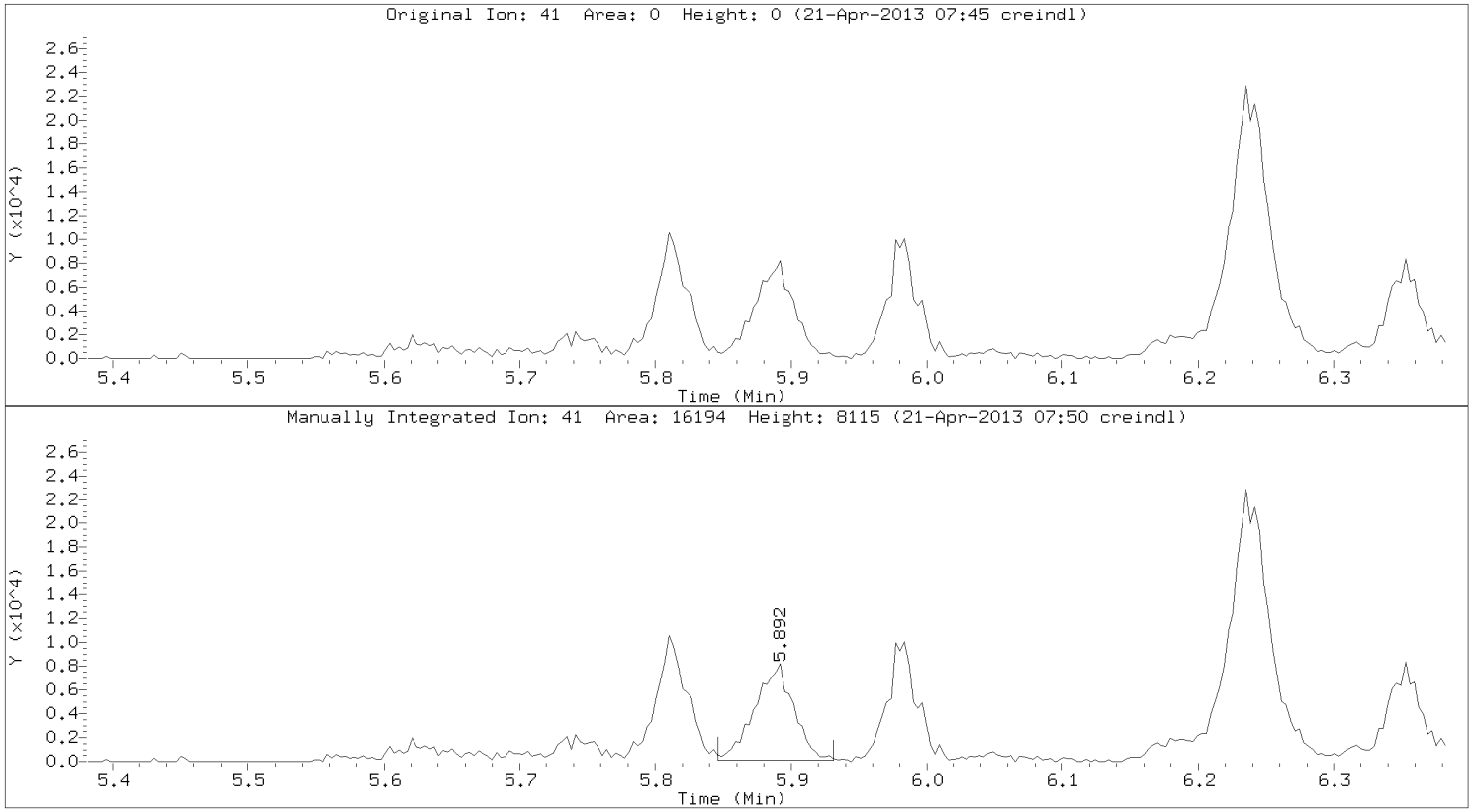


Data File: \\192.168.10.12\chem\10airD.i\041913.b/10907.d
Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003

Compound: Cyclohexane
CAS Number: 110-82-7

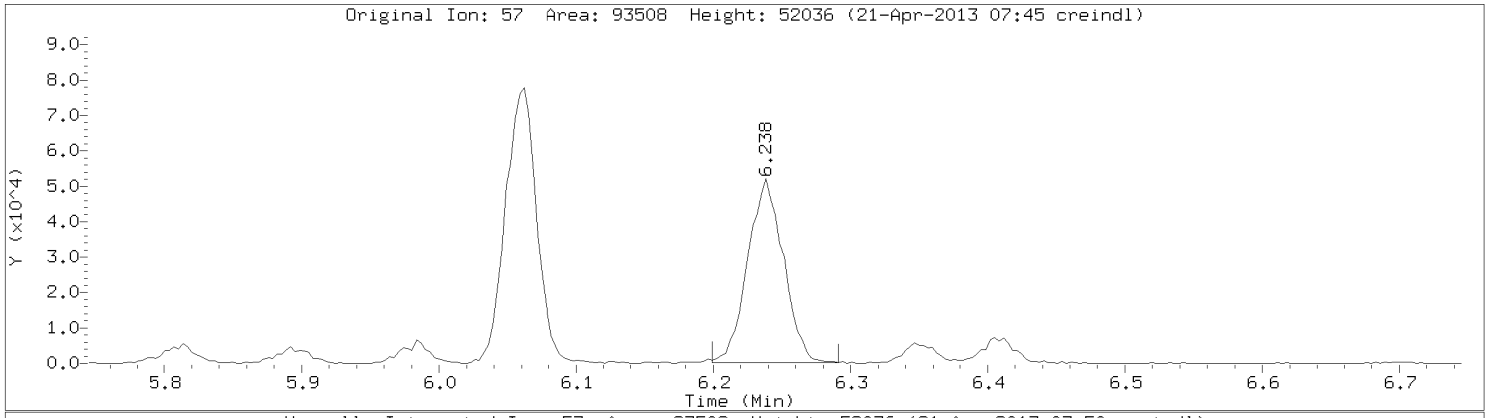


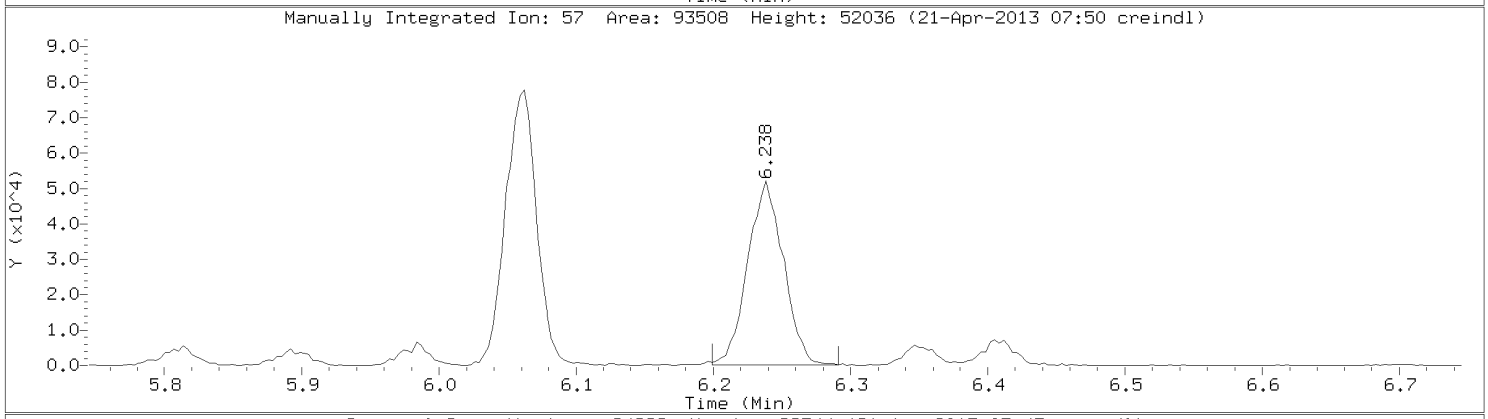
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Instrument: 10airD.i
Lab Sample ID: 10224616003

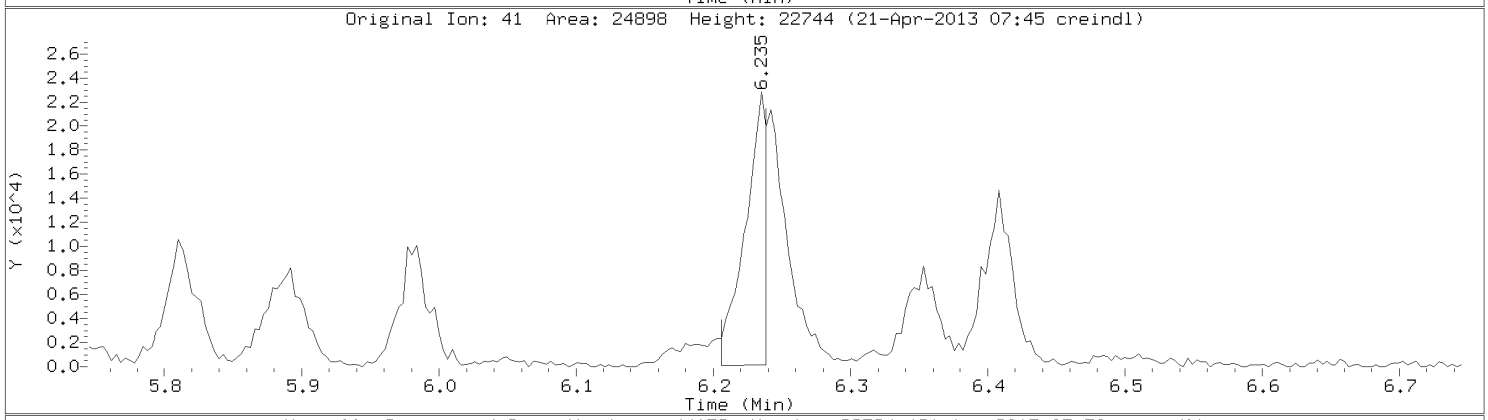


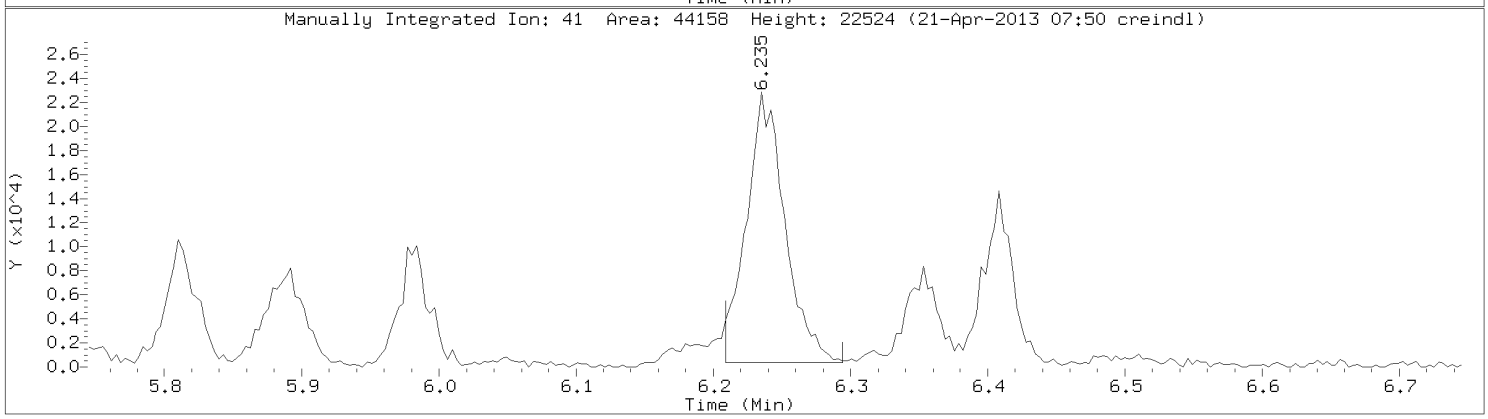
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Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

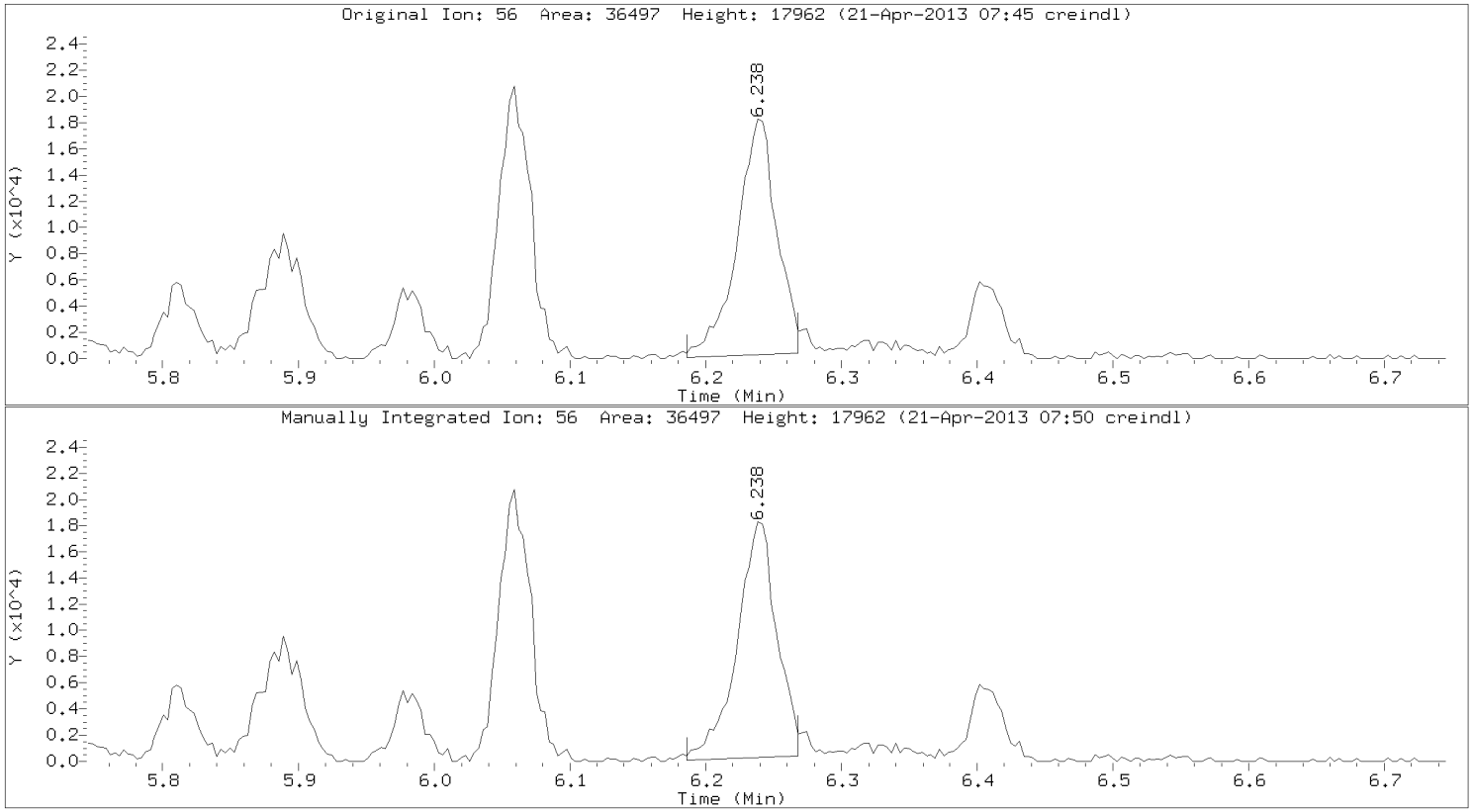






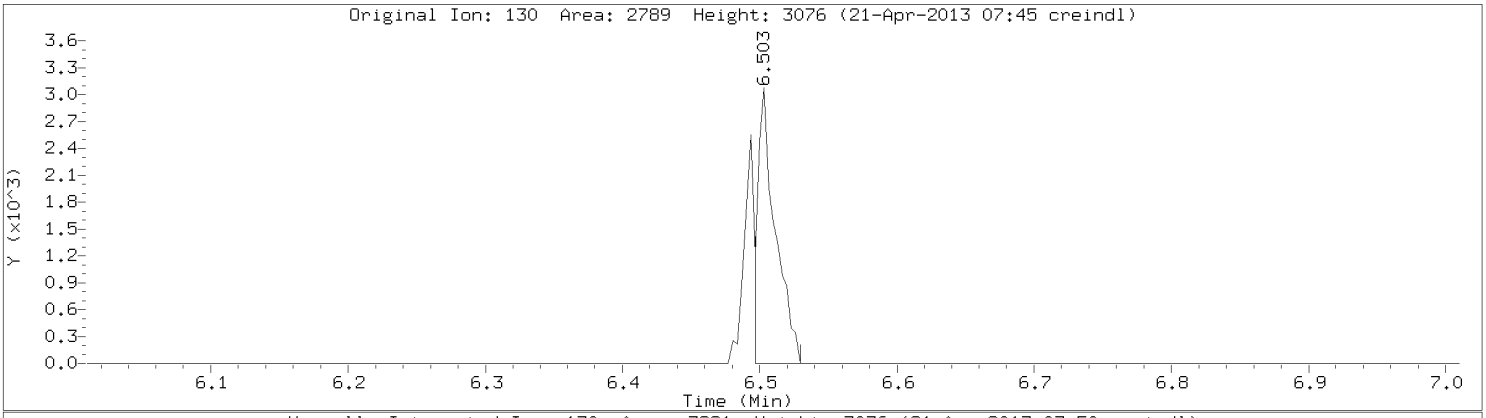


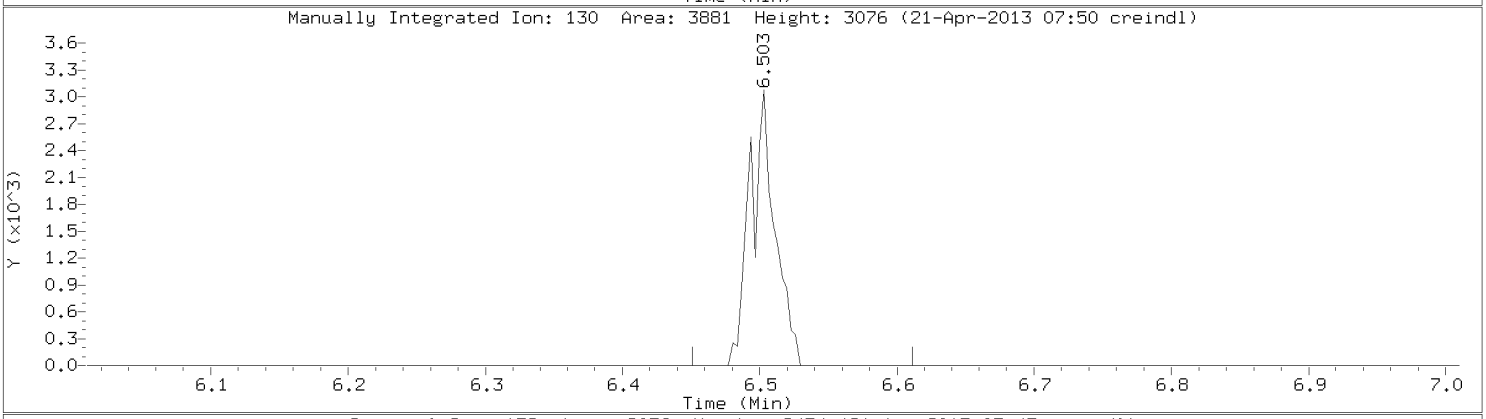
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Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003

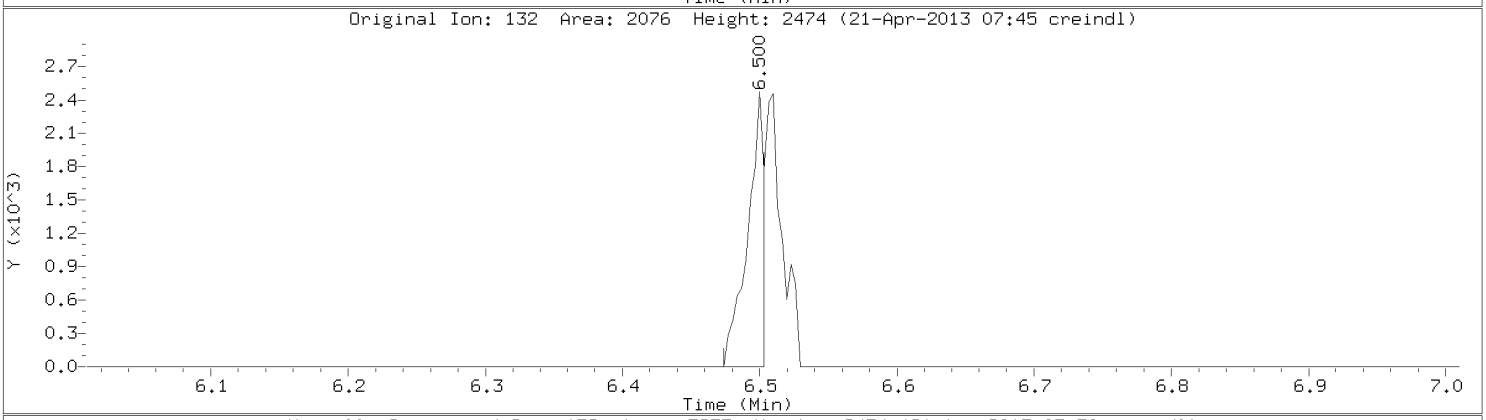


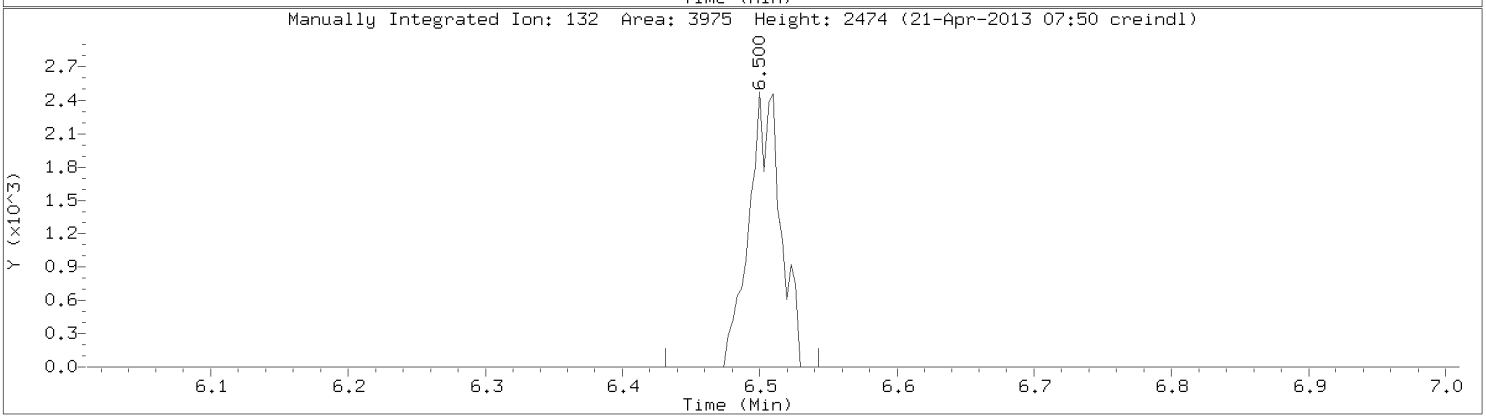
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Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003

Compound: Trichloroethene
CAS Number: 79-01-6

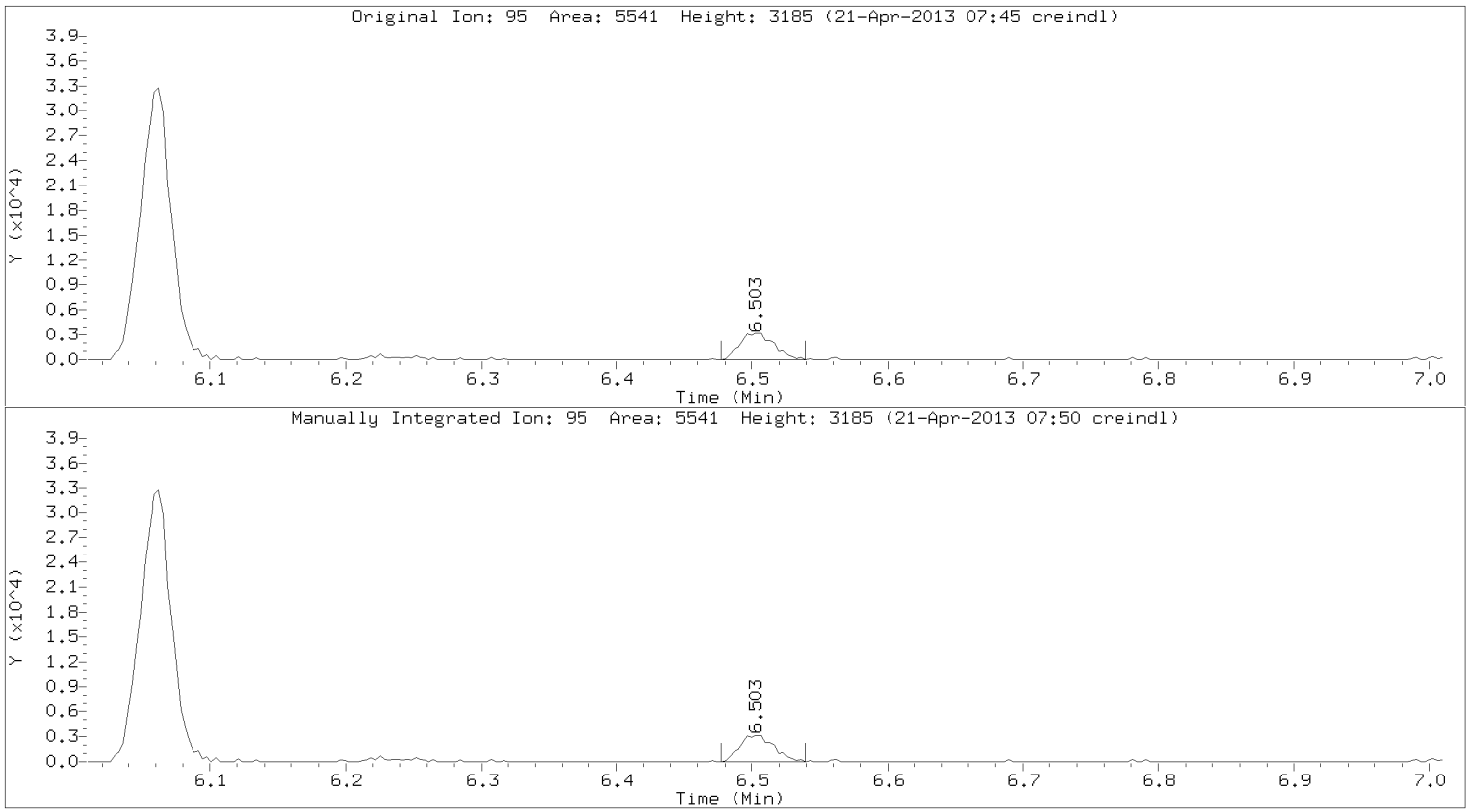






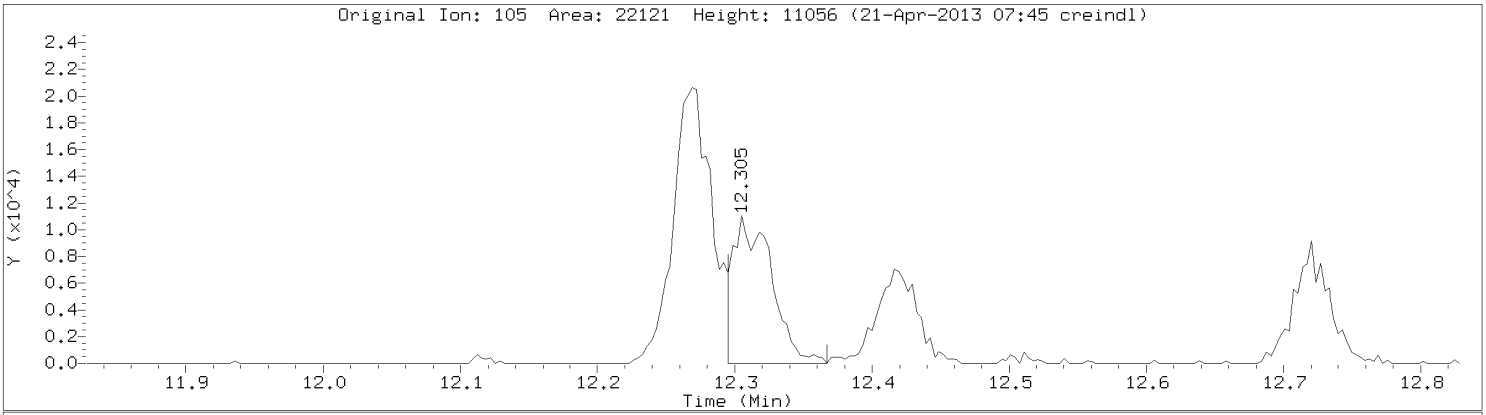


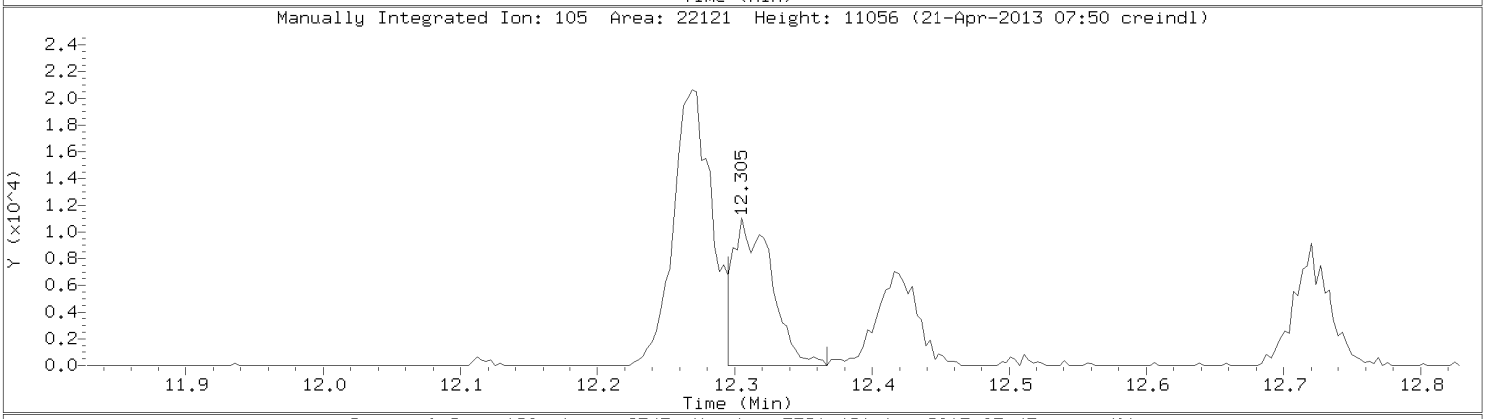
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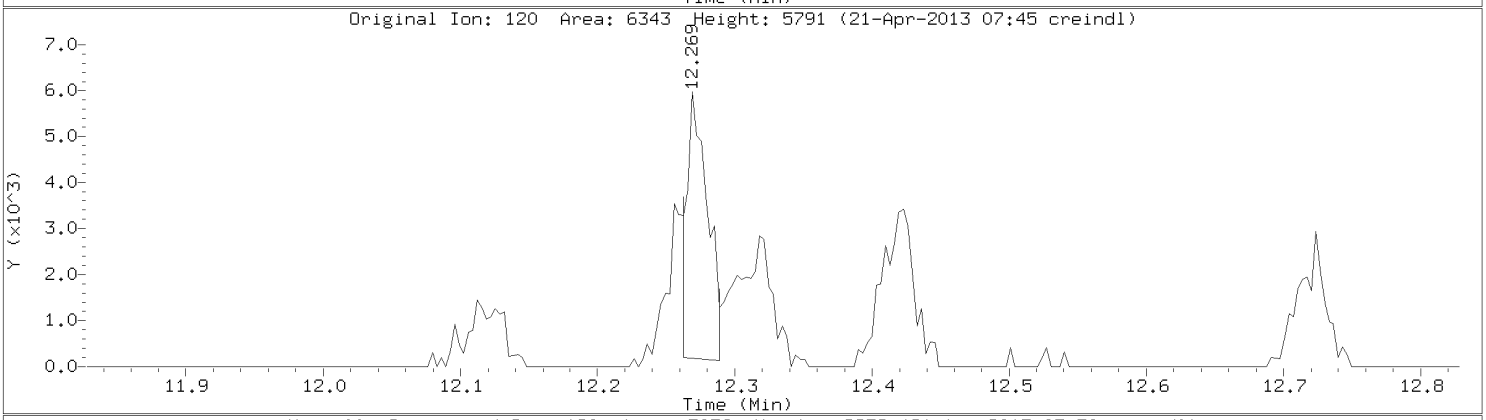


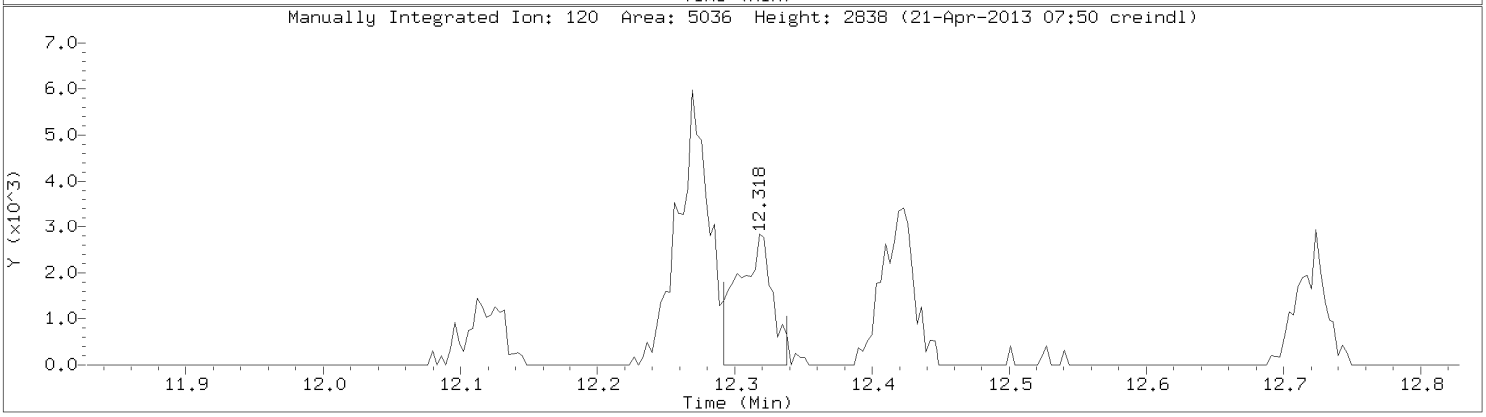
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Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

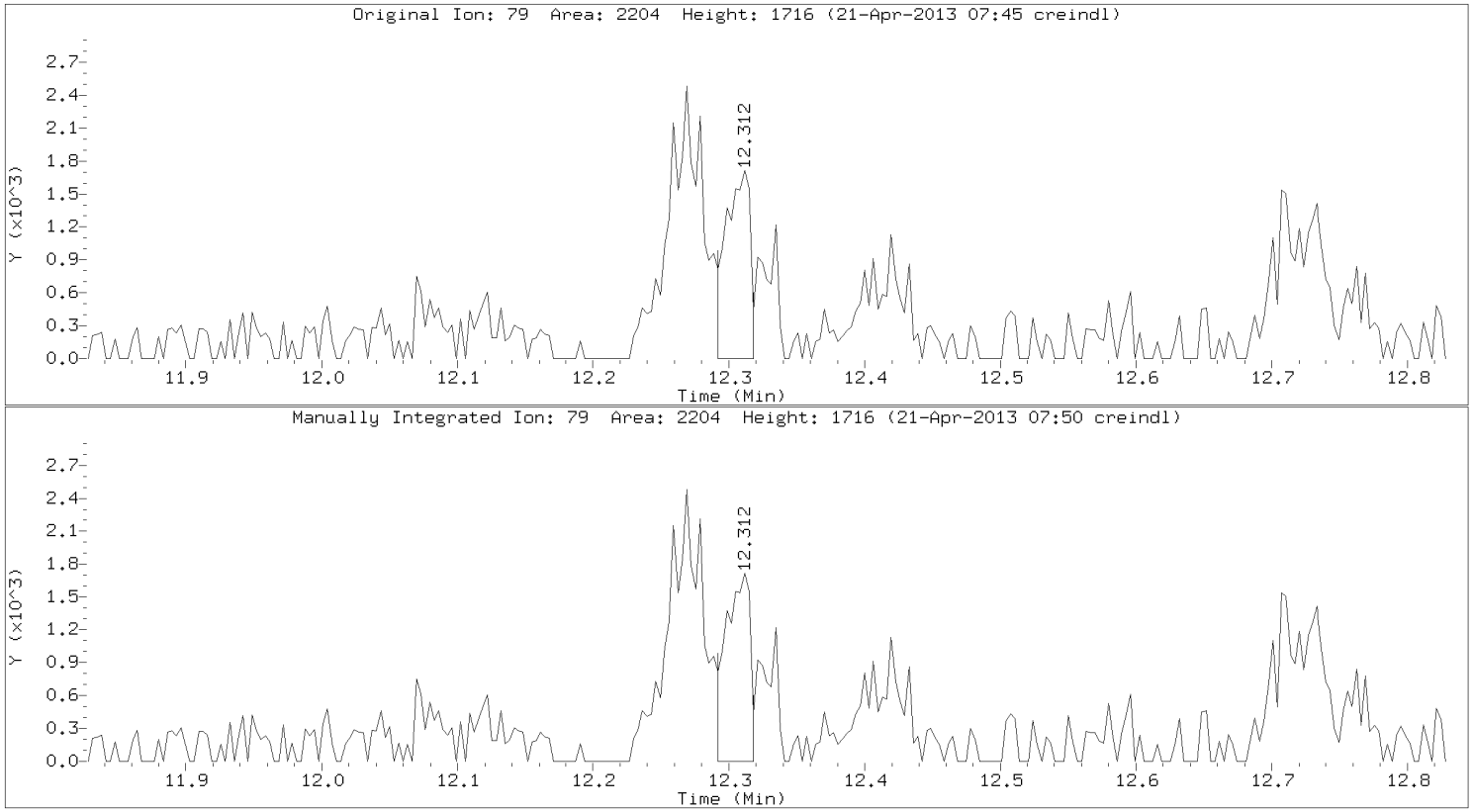






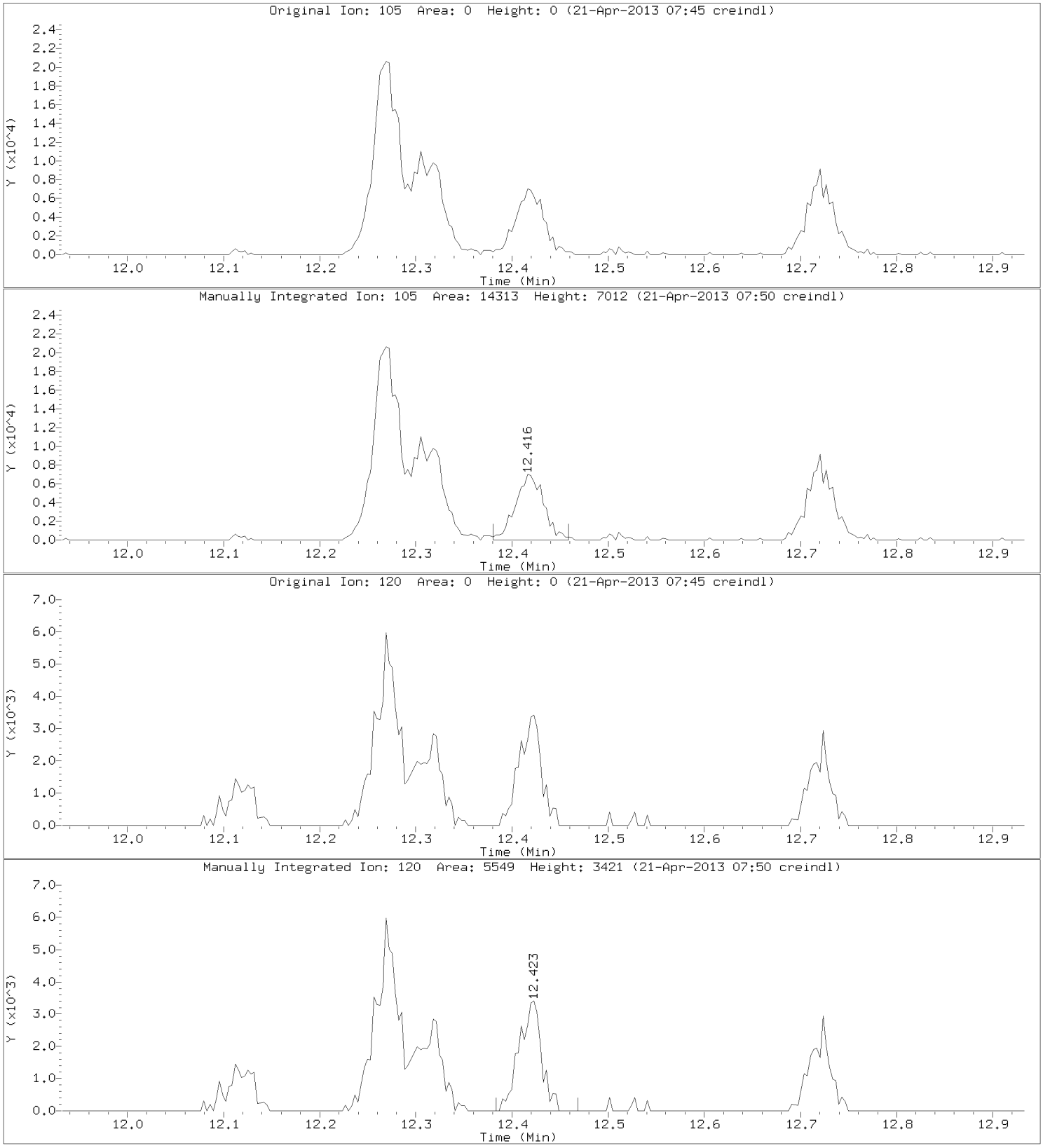


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Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003



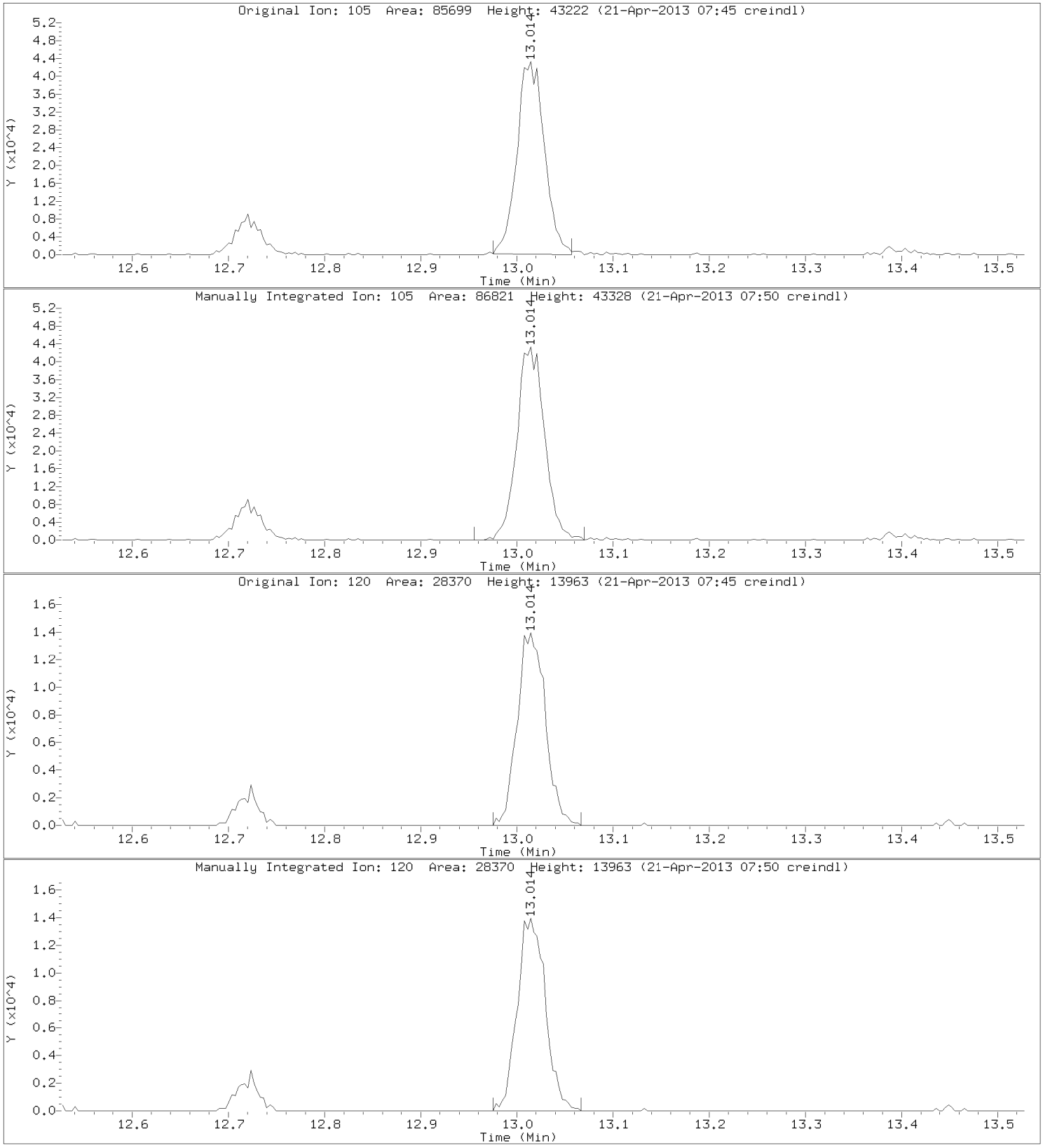
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Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003

Compound: 1,3,5-Trimethylbenzene
CAS Number: 108-67-8



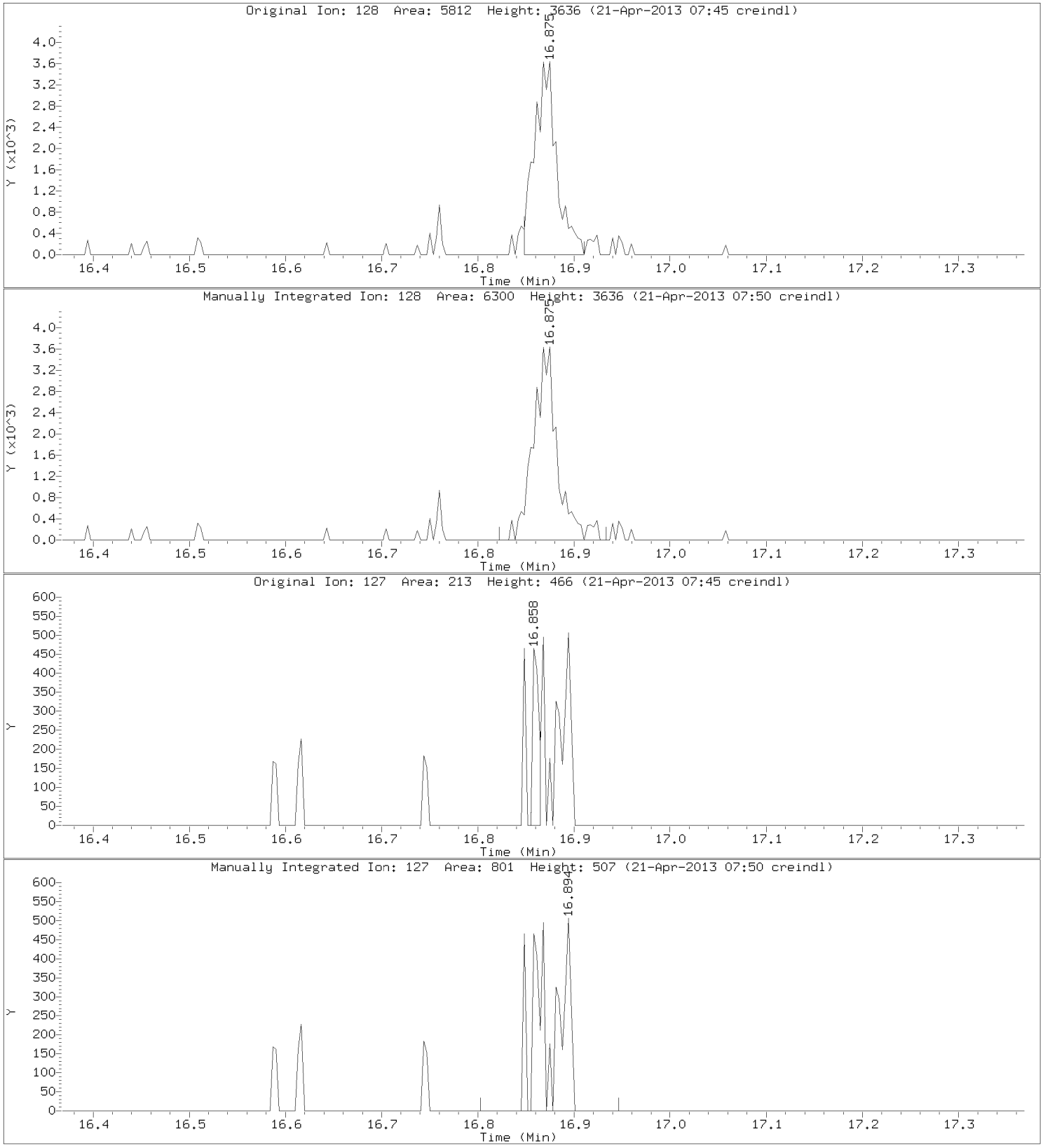
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Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003

Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6



Data File: \\192.168.10.12\chem\10airD.i\041913.b/10907.d
Injection Date: 19-APR-2013 16:49
Instrument: 10airD.i
Lab Sample ID: 10224616003

Compound: Naphthalene
CAS Number: 91-20-3



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.d
Report Date: 19-Apr-2013 07:36

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10819.d
Lab Smp Id: 10224616004
Inj Date : 18-APR-2013 20:32
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17165
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 19-Apr-2013 07:11 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 19
Dil Factor: 1.49000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.490	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	Compound Not Detected.					
2	Dichlorodifluoromethane	85	2.953	2.950	(0.487)	47427	0.32673	0.487
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	3.048	3.052	(0.503)	9978	0.31115	0.464
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	Compound Not Detected.					
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	3.430	3.424	(0.566)	1709483	79.3307	118(A)
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	3.643	3.643	(0.601)	20027	0.15167	0.226
13	Acetone	43	Compound Not Detected.					
14	Isopropyl Alcohol	45	3.711	3.702	(0.613)	11132050	247.076	368(AQ)
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	3.983	3.983	(0.657)	4381	0.05207	0.0776
19	Methylene chloride	49	4.045	4.045	(0.668)	11754	0.30092	0.448
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	Compound Not Detected.					
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.d
Report Date: 19-Apr-2013 07:36

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ppbv)	FINAL (ppbv)
	24	Vinyl Acetate	43	Compound Not Detected.					
	25	1,1-Dichloroethane	63	Compound Not Detected.					
$	26	Hexane-d14(S)	66	4.659	4.660	(0.769)	540829	9.00427	9.00
	27	Methyl Ethyl Ketone	72	4.731	4.738	(0.781)	23181	1.24773	1.86(Q)
	28	n-Hexane	57	4.774	4.777	(0.788)	24045	0.42875	0.639(Q)
	29	cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30	Ethyl Acetate	43	4.953	4.964	(0.818)	235479	4.46194	6.65(Q)
	31	Chloroform	83	5.074	5.085	(0.838)	21578	0.20588	0.307(M)
	32	Tetrahydrofuran	42	Compound Not Detected.					
	33	1,1,1-Trichloroethane	97	Compound Not Detected.					
	34	1,2-Dichloroethane	62	Compound Not Detected.					
	35	Benzene	78	5.849	5.856	(0.965)	28442	0.23153	0.345
	36	Carbon tetrachloride	117	Compound Not Detected.					
	37	Cyclohexane	56	5.888	5.882	(0.972)	7522	0.41658	0.621(QM)
*	38	1,4-Difluorobenzene	114	6.058	6.069	(1.000)	1348316	10.0000	
	39	2,2,4-Trimethylpentane	57	Compound Not Detected.					
	40	Heptane	43	6.408	6.415	(1.058)	10360	0.63114	0.940(QM)
	41	1,2-Dichloropropane	63	Compound Not Detected.					
	42	Trichloroethene	130	6.503	6.510	(1.073)	4488	0.13611	0.203(QM)
	43	1,4-Dioxane	88	Compound Not Detected.					
	44	Bromodichloromethane	83	Compound Not Detected.					
	45	Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46	cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47	trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48	Toluene-d8 (S)	98	7.826	7.837	(1.292)	1204524	9.75881	9.76
	49	Toluene	91	7.918	7.925	(1.307)	208392	1.23446	1.84
	50	1,1,2-Trichloroethane	97	Compound Not Detected.					
	51	Methyl Butyl Ketone	43	Compound Not Detected.					
	52	Dibromochloromethane	129	Compound Not Detected.					
	53	1,2-Dibromoethane	107	Compound Not Detected.					
	54	Tetrachloroethene	166	Compound Not Detected.					
*	55	Chlorobenzene - d5	117	9.676	9.684	(1.000)	725629	10.0000	
	56	Chlorobenzene	112	Compound Not Detected.					
	57	Ethyl Benzene	91	10.033	10.040	(1.037)	14914	0.20820	0.310(M)
	58	m&p-Xylene	91	10.196	10.210	(1.054)	46945	0.35231	0.525
	59	Bromoform	173	Compound Not Detected.					
	60	Styrene	104	Compound Not Detected.					
	61	o-Xylene	91	10.771	10.785	(1.113)	17736	0.14050	0.209(M)
	62	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63	Isopropylbenzene	105	Compound Not Detected.					
	64	N-Propylbenzene	91	Compound Not Detected.					
	65	4-Ethyltoluene	105	Compound Not Detected.					
	66	1,3,5-Trimethylbenzene	105	Compound Not Detected.					
	67	1,2,4-Trimethylbenzene	105	13.017	13.028	(1.345)	20165	0.26530	0.395(M)
	68	1,3-Dichlorobenzene	146	Compound Not Detected.					
	69	Sec- Butylbenzene	105	Compound Not Detected.					
$	70	1,4-dichlorobenzene-d4 (S)	150	13.448	13.466	(1.390)	366186	8.98101	8.98
	71	Benzyl Chloride	91	Compound Not Detected.					
	72	1,4-Dichlorobenzene	146	Compound Not Detected.					
	73	1,2-Dichlorobenzene	146	Compound Not Detected.					
	74	N-Butylbenzene	91	Compound Not Detected.					
	75	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76	Naphthalene	128	Compound Not Detected.					
	77	Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.d
Report Date: 19-Apr-2013 07:36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.d
Report Date: 19-Apr-2013 07:36

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10819.d
Lab Smp Id: 10224616004
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17165

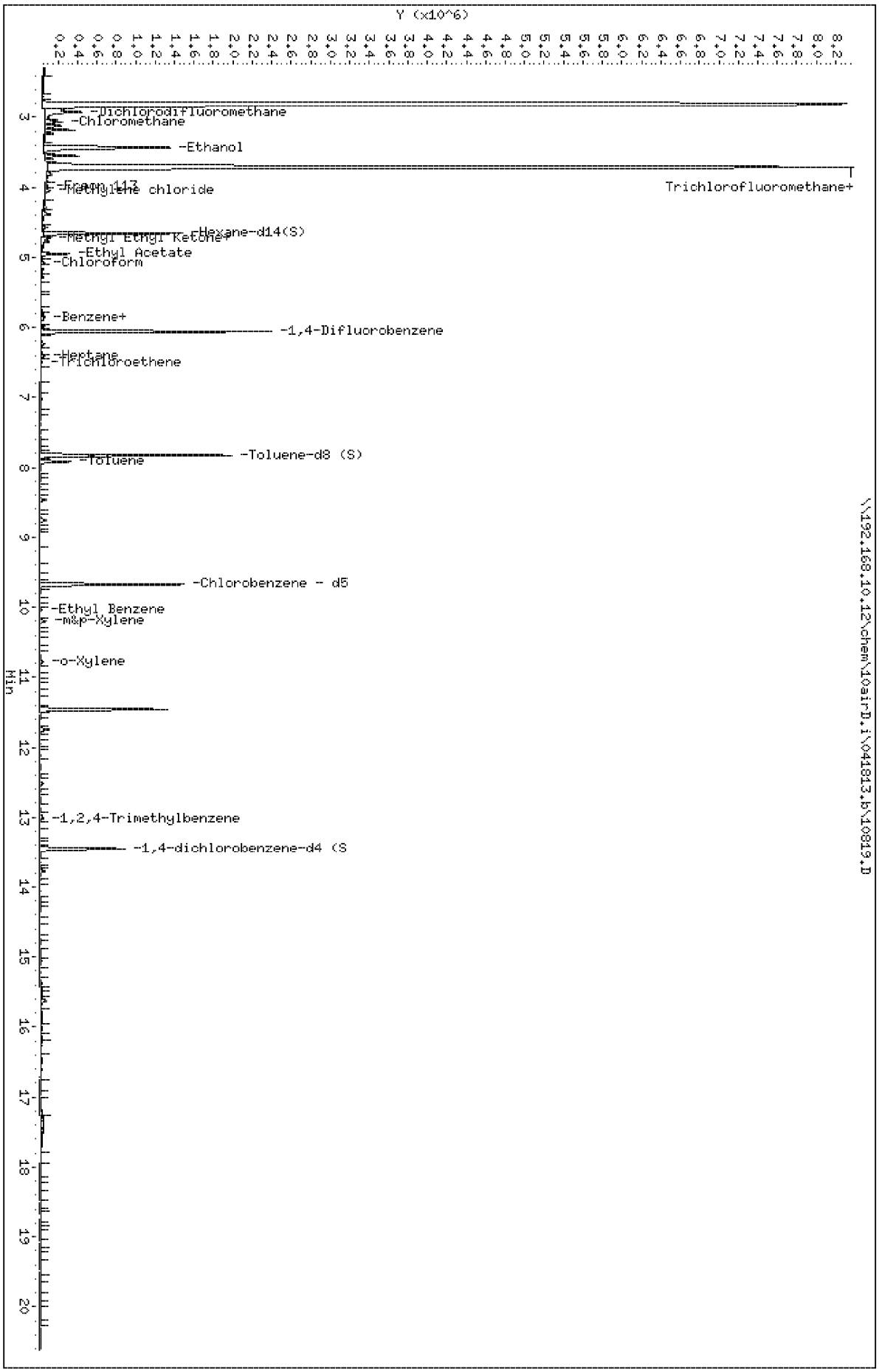
Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1348316	-5.87
55 Chlorobenzene - d	825122	495073	1155171	725629	-12.06

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.04

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D
Date : 18-APR-2013 20:32
Client ID:
Sample Info:
Column phase: J&W DB-5

Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D

Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

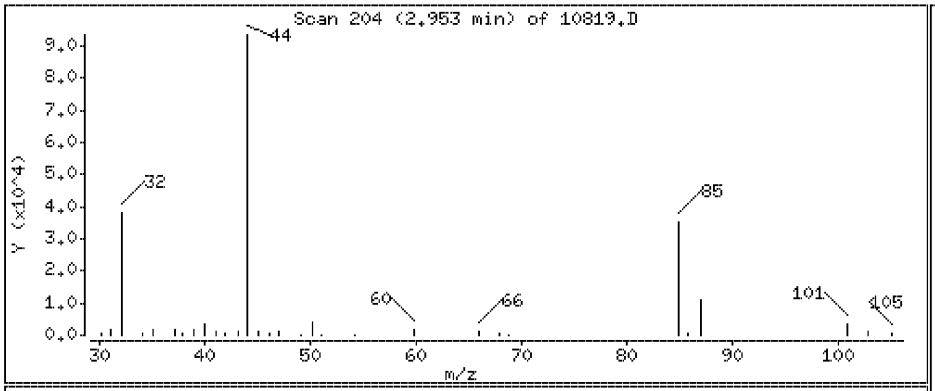
Operator: CJR

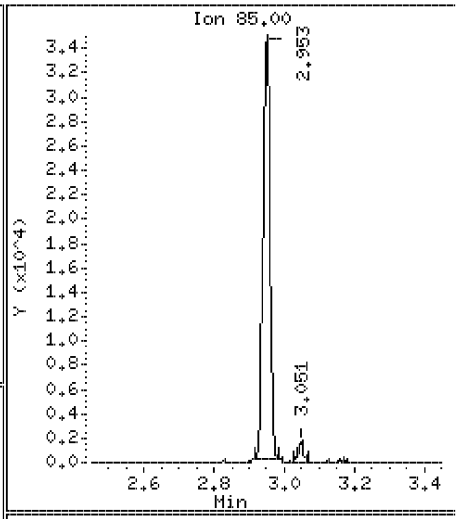
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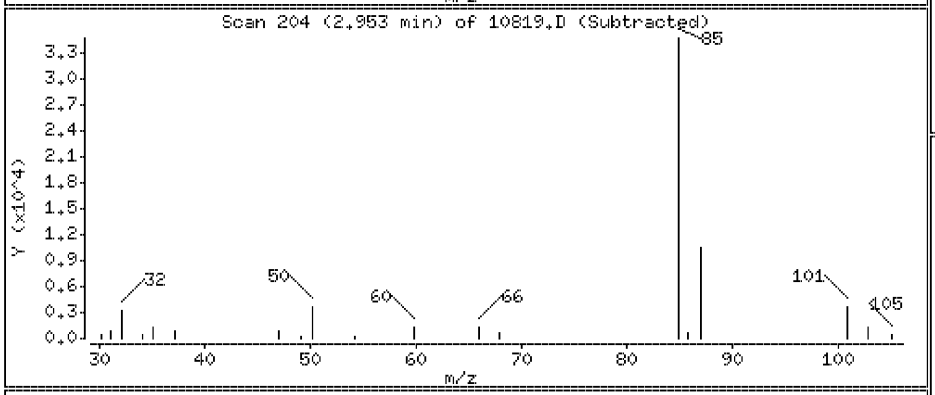
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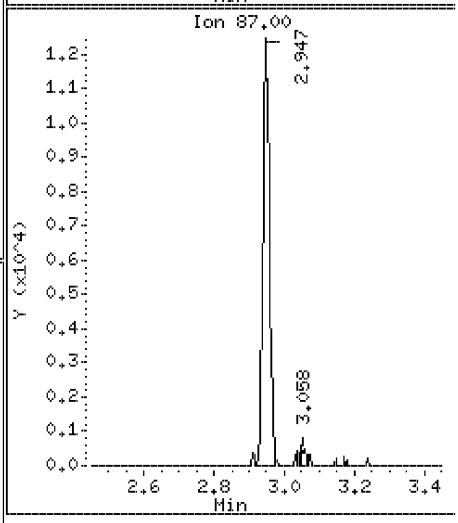
2 Dichlorodifluoromethane

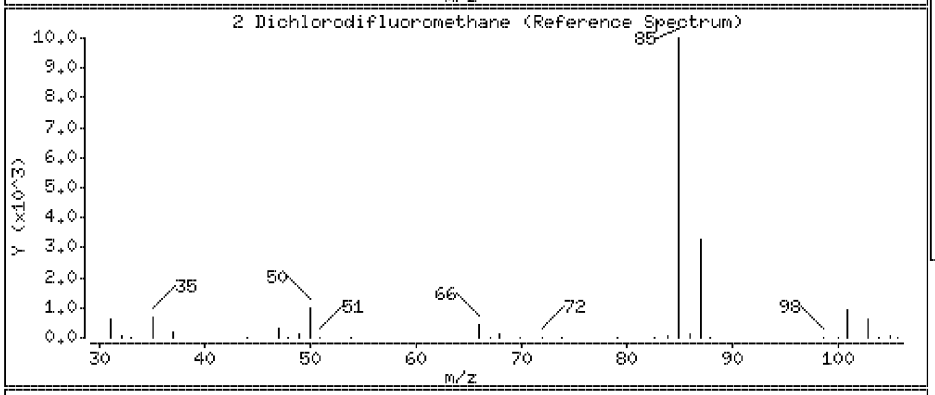
Concentration: 0.487 ppbv

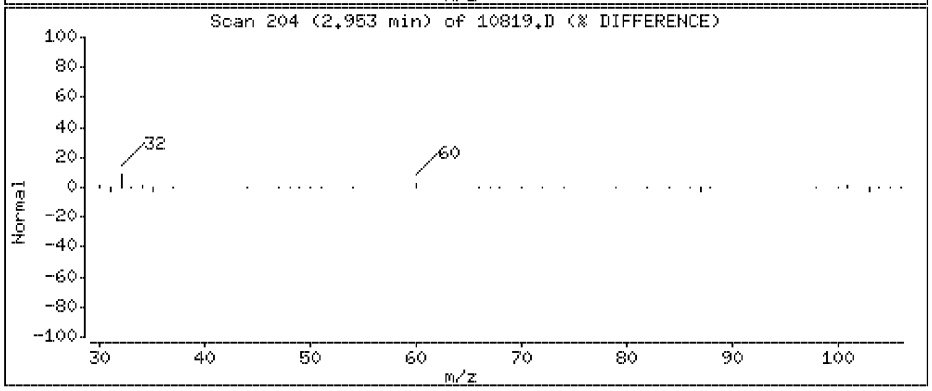












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D

Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

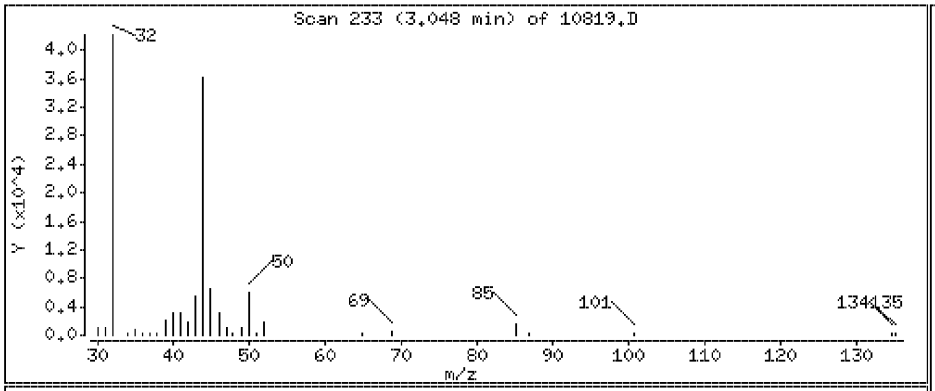
Operator: CJR

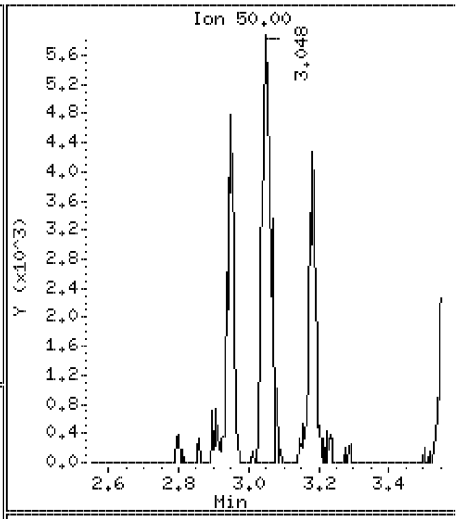
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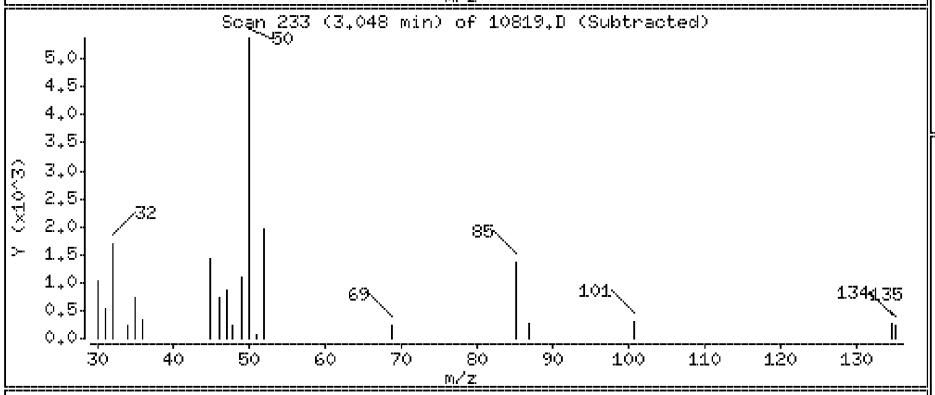
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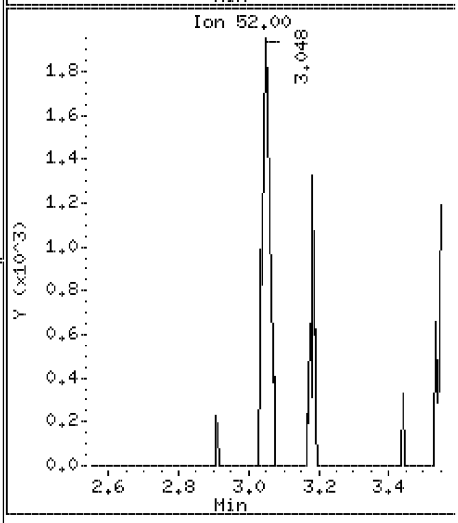
4 Chloromethane

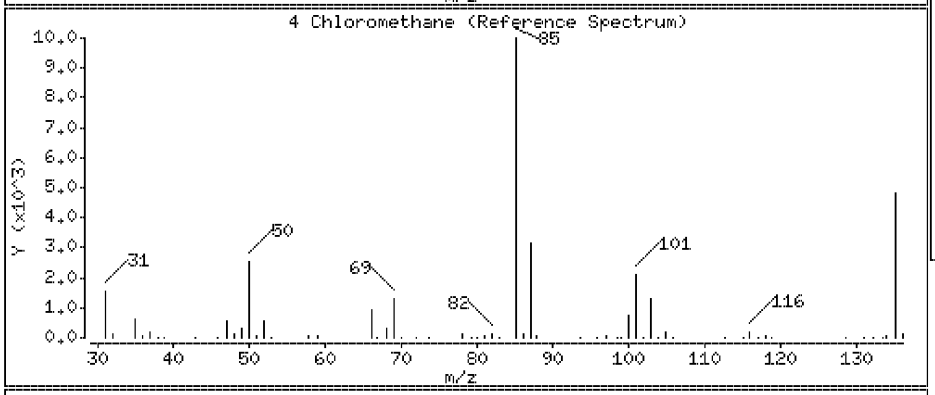
Concentration: 0.464 ppbv

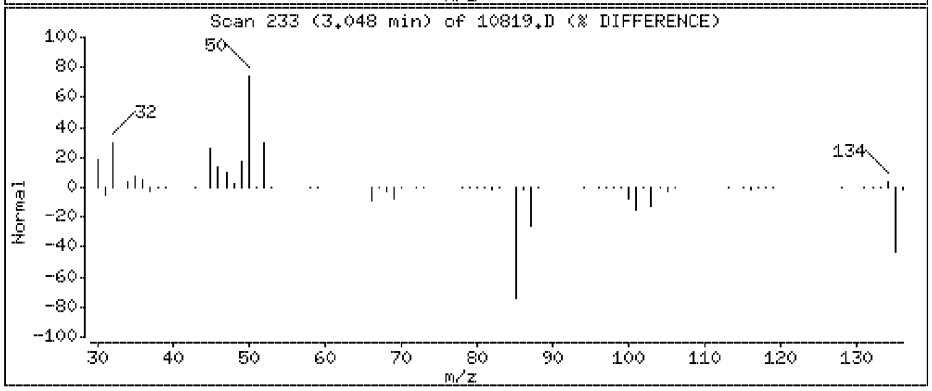












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D

Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

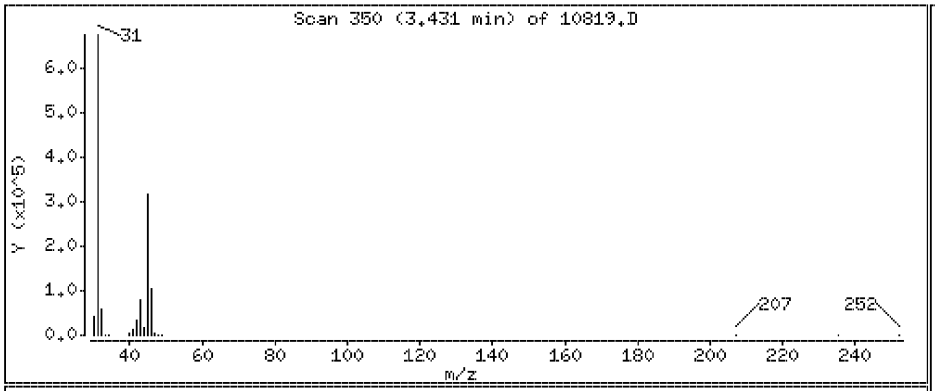
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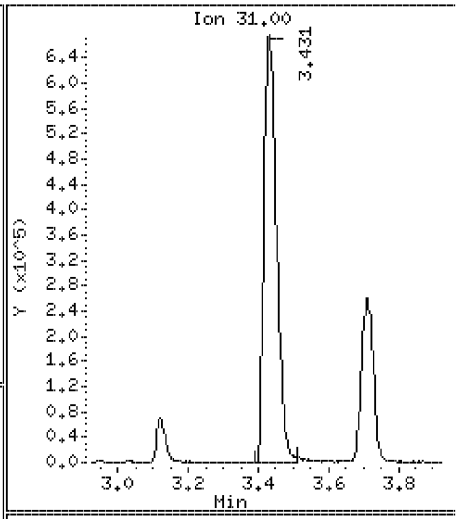
Column phase: J&W DB-5

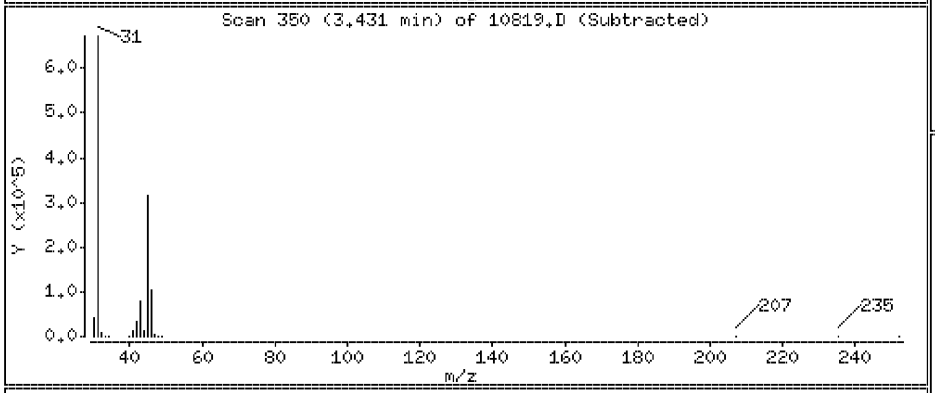
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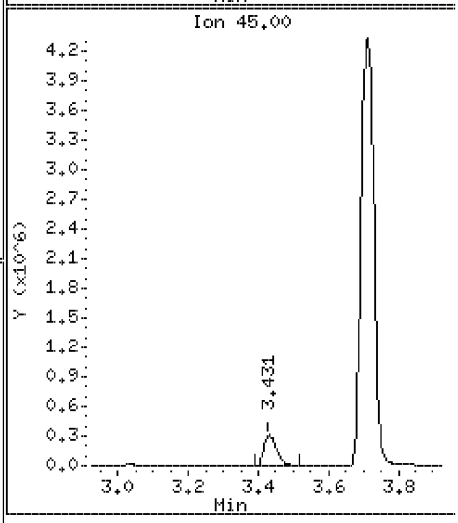
9 Ethanol

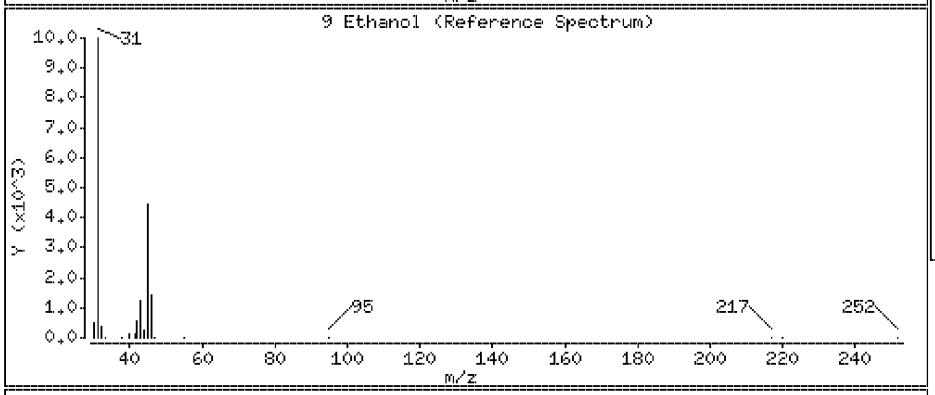
Concentration: 118 ppbv

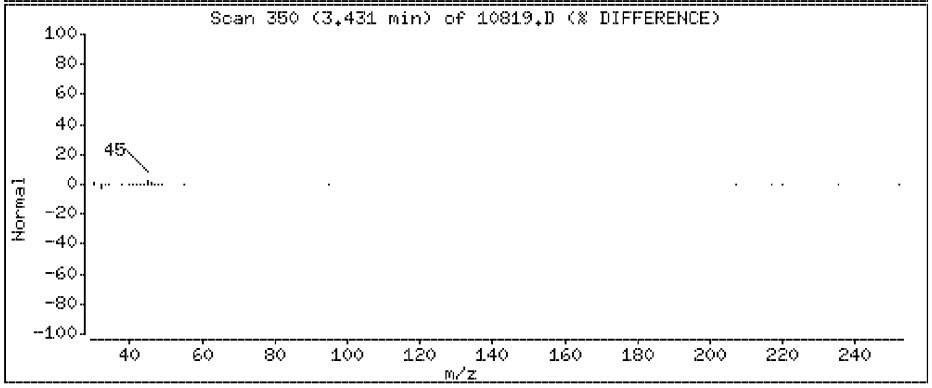












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D

Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

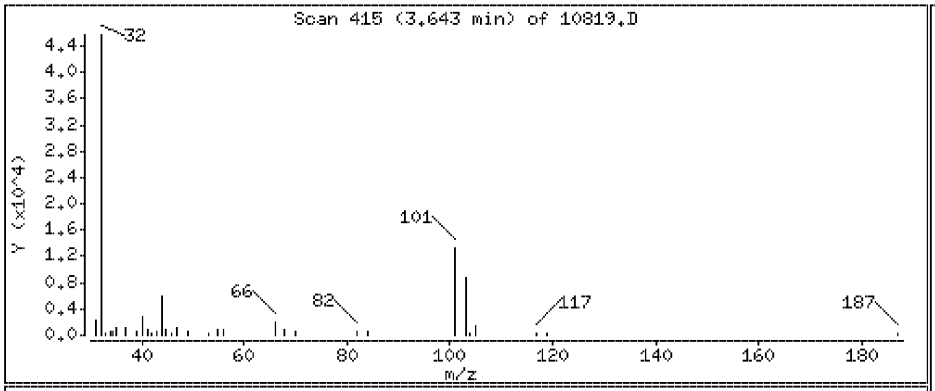
Operator: CJR

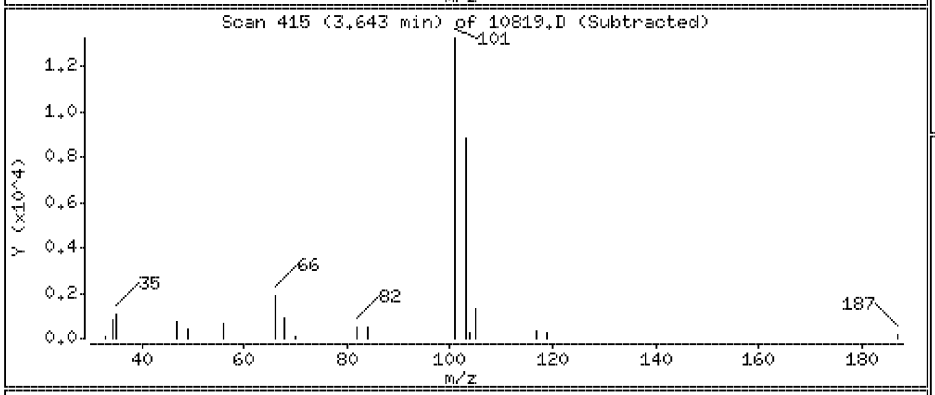
Column phase: J&W DB-5

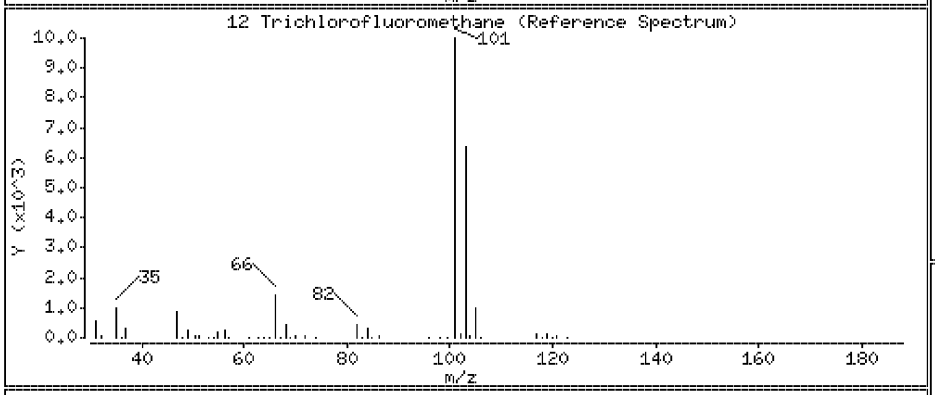
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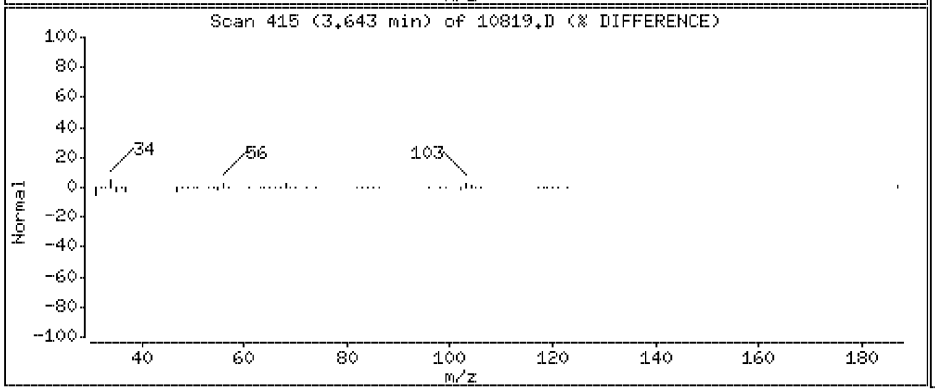
12 Trichlorofluoromethane

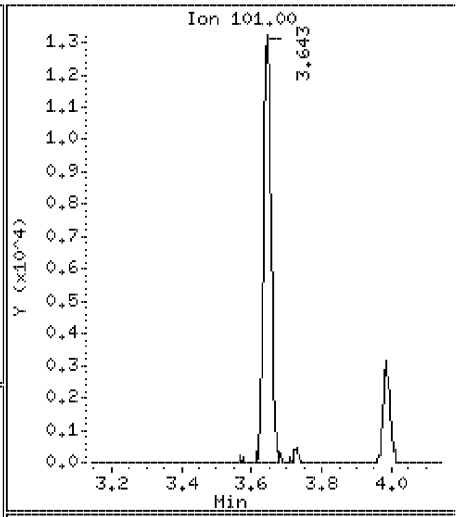
Concentration: 0.226 ppbv

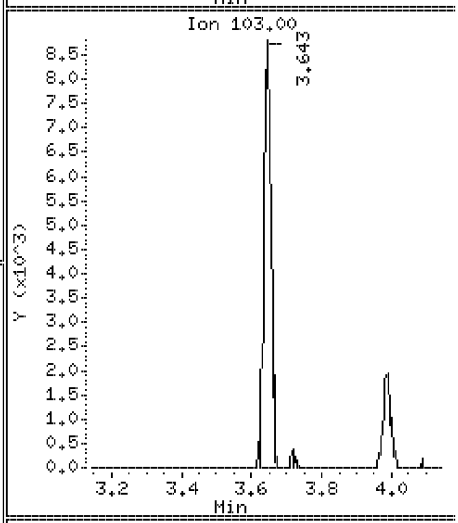


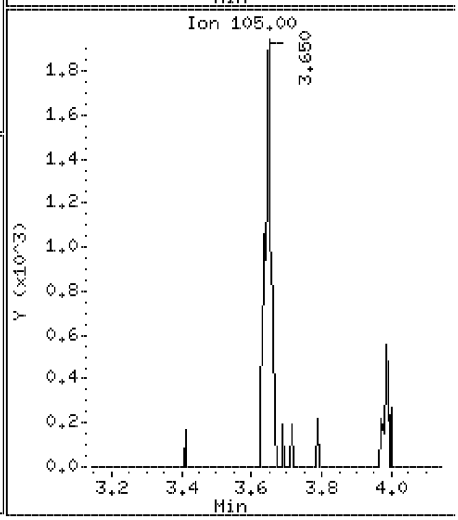












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D

Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

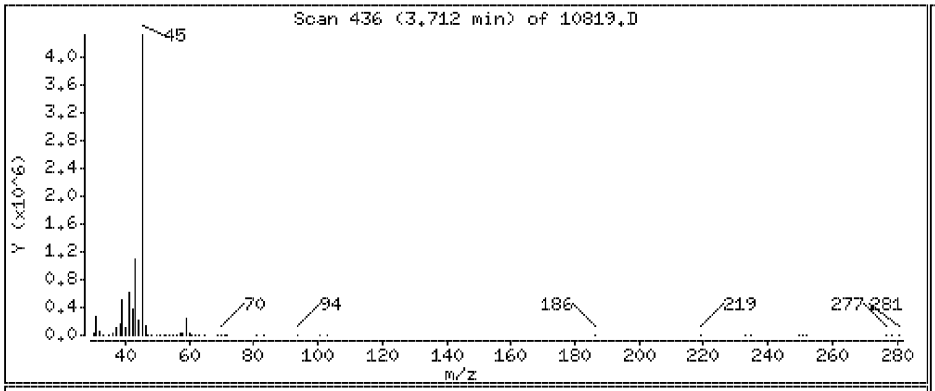
Operator: CJR

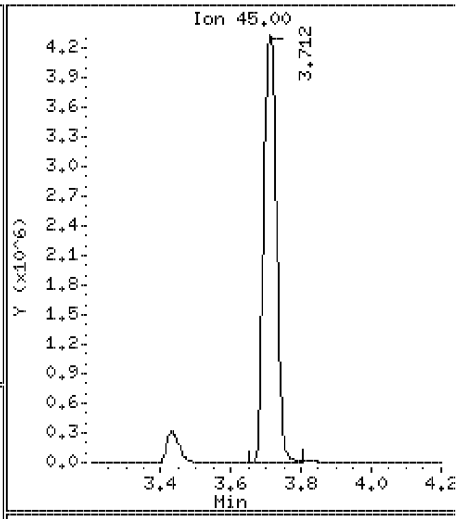
Column phase: J&W DB-5

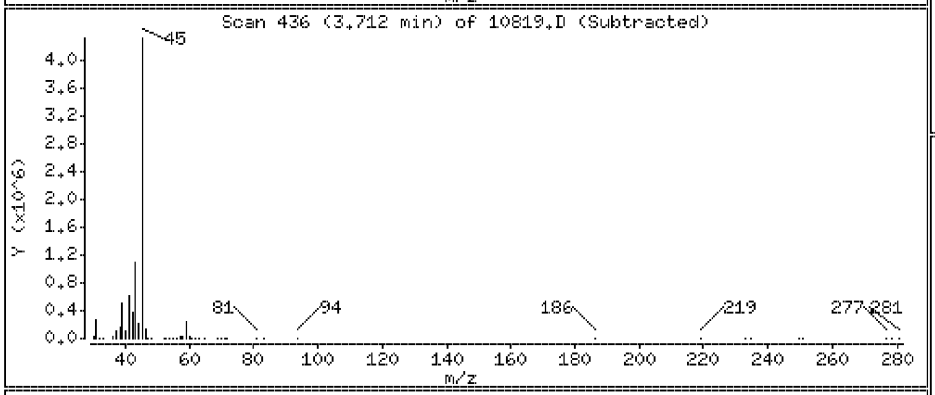
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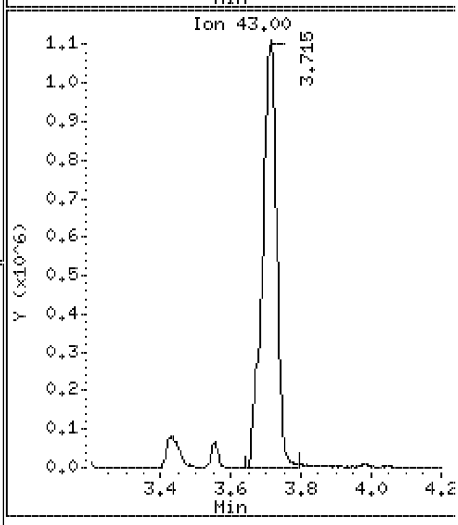
14 Isopropyl Alcohol

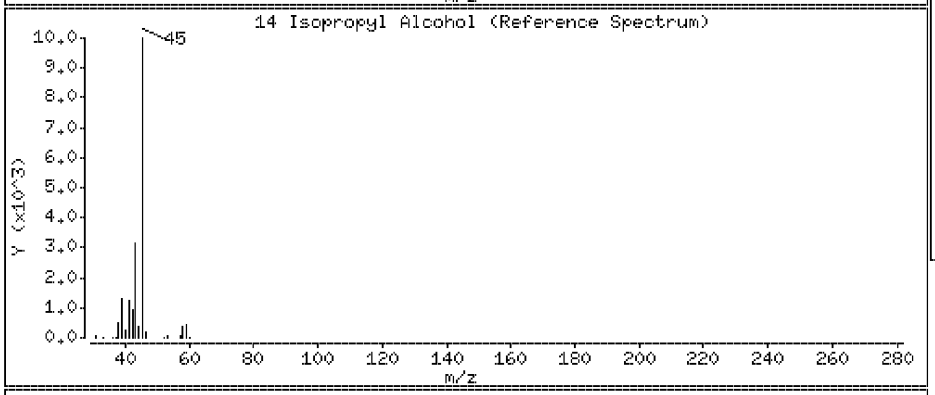
Concentration: 368 ppbv

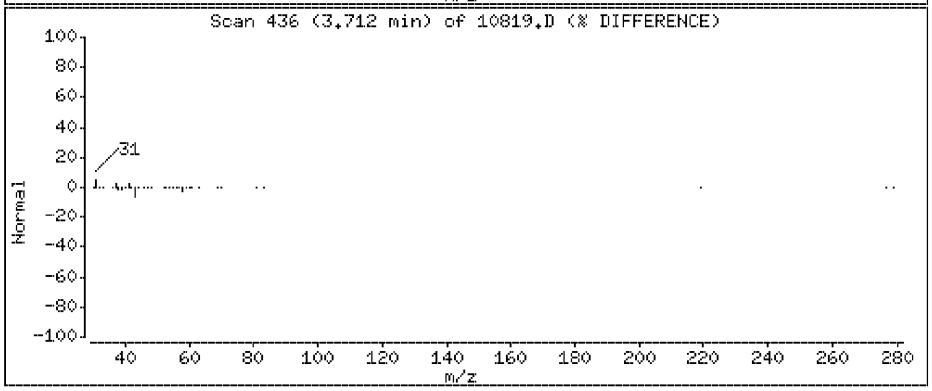












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D

Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

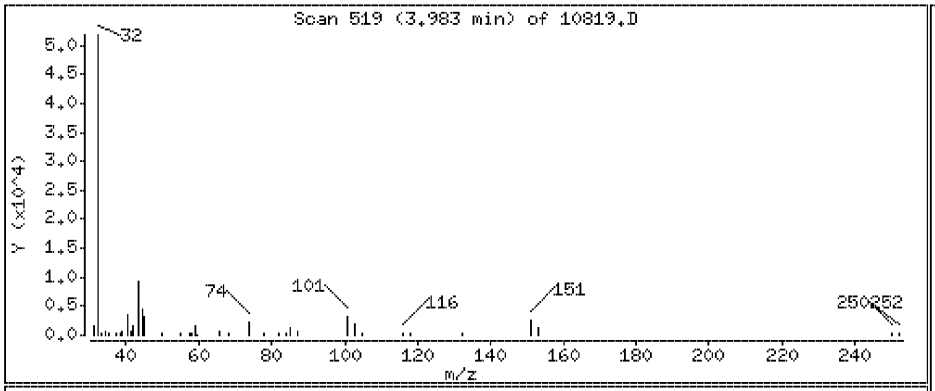
Operator: CJR

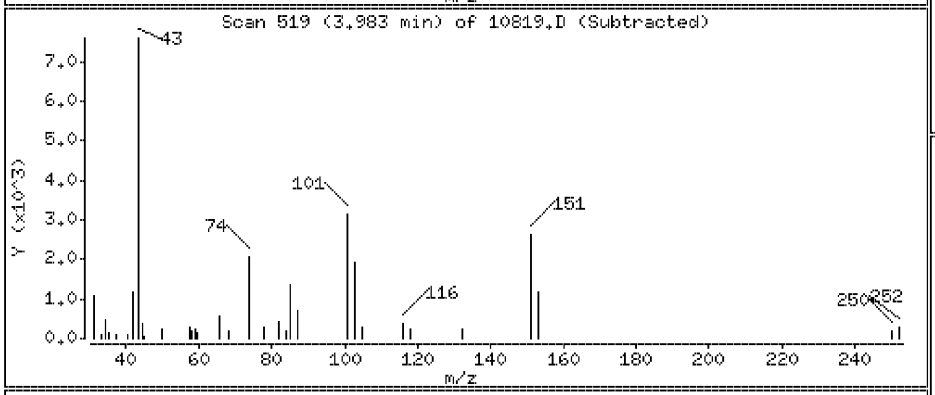
Column phase: J&W DB-5

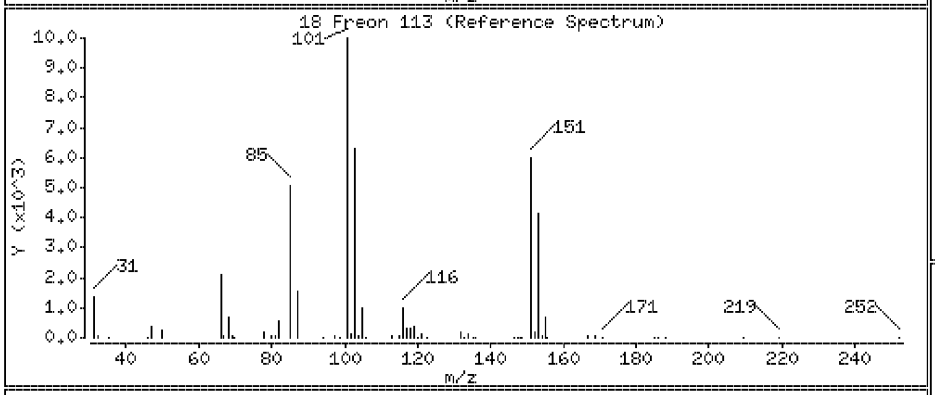
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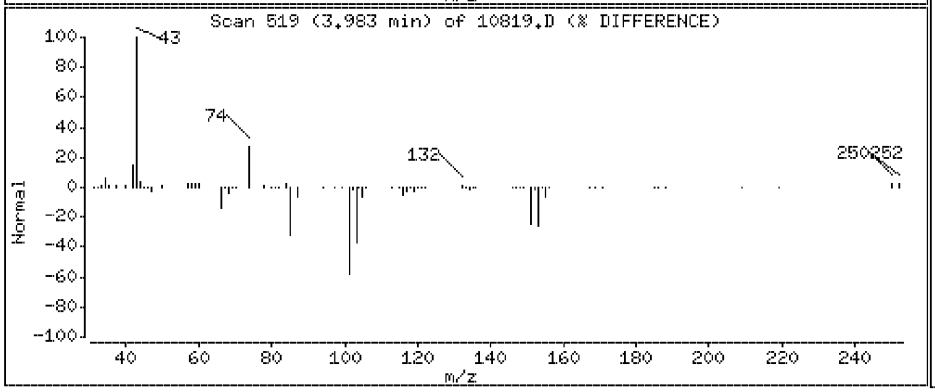
18 Freon 113

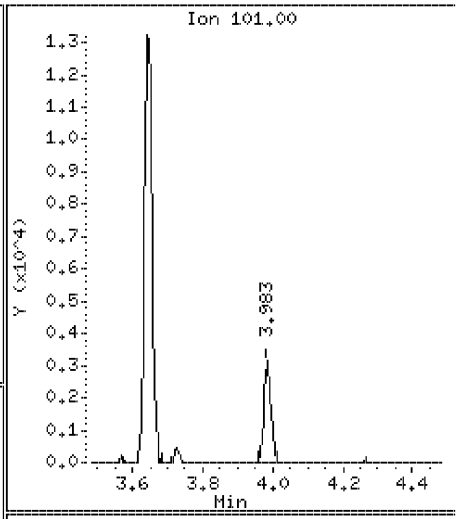
Concentration: 0.0776 ppbv

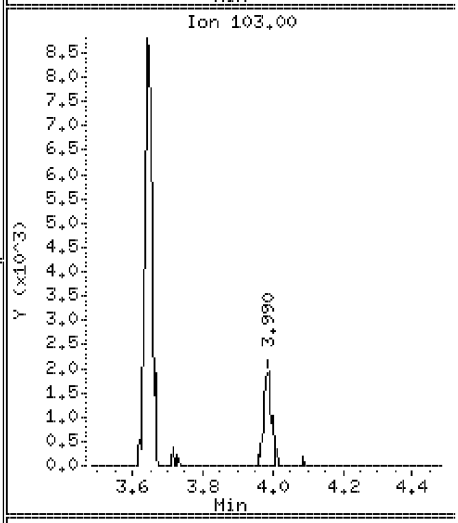


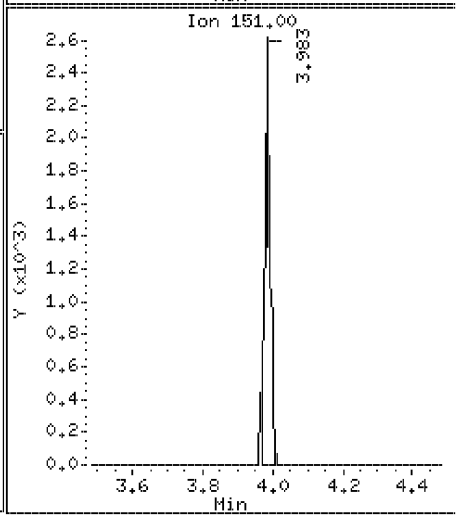












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D

Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

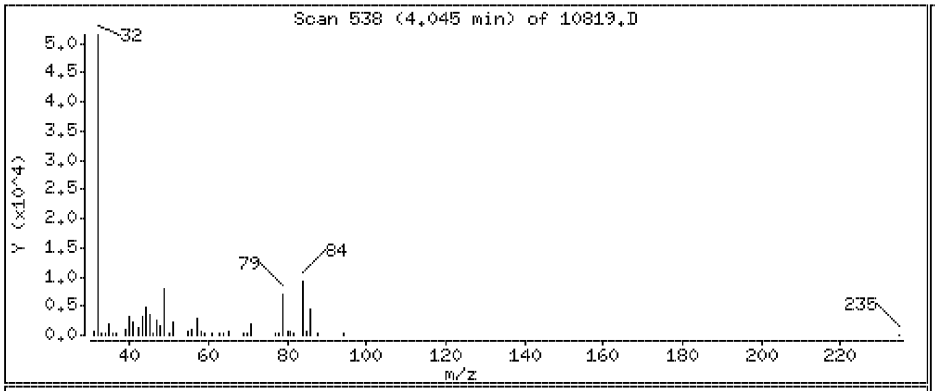
Operator: CJR

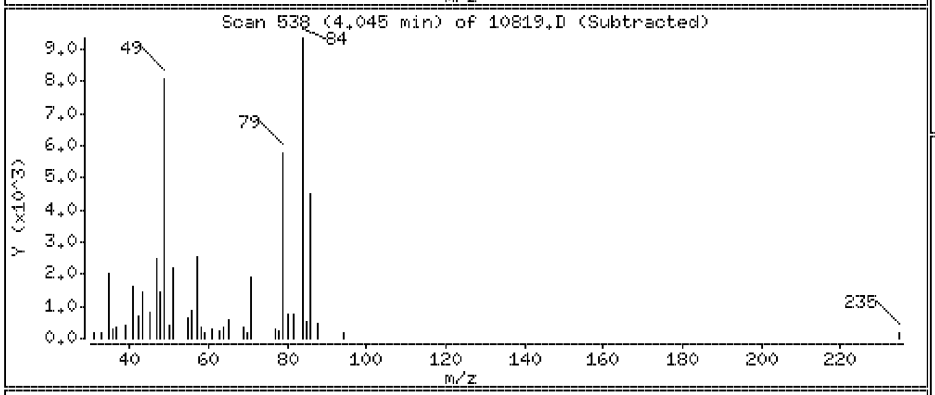
Column phase: J&W DB-5

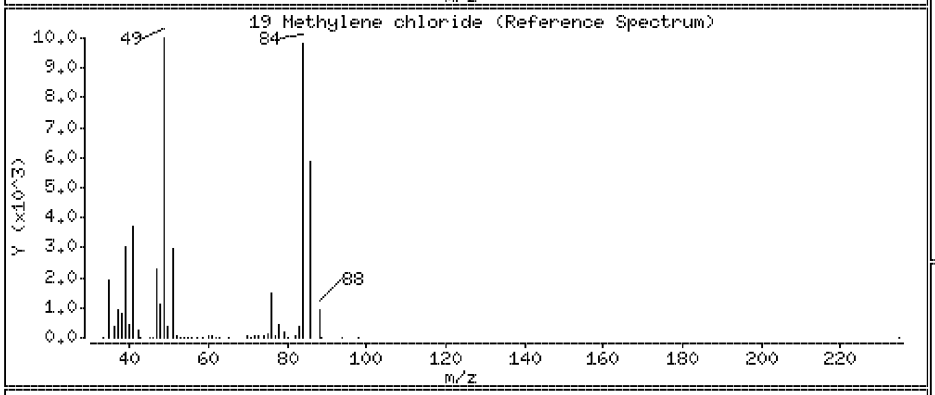
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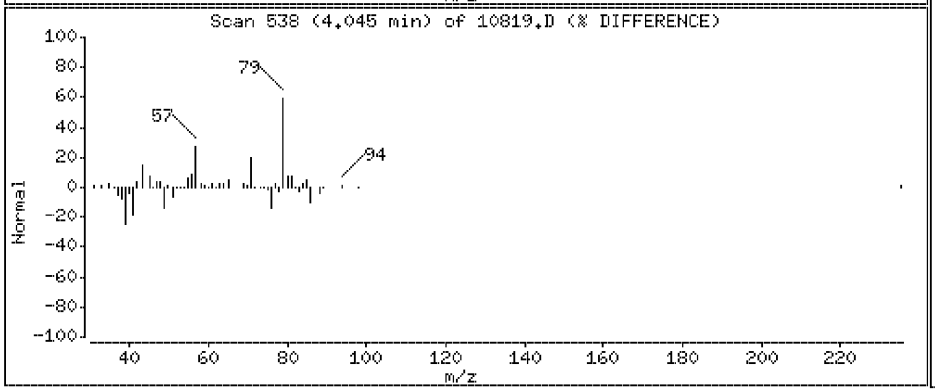
19 Methylene chloride

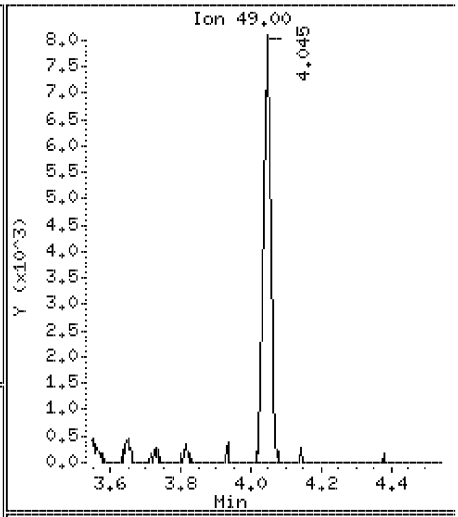
Concentration: 0.448 ppbv

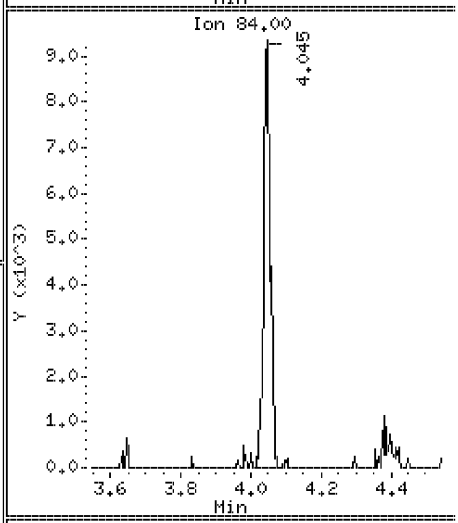


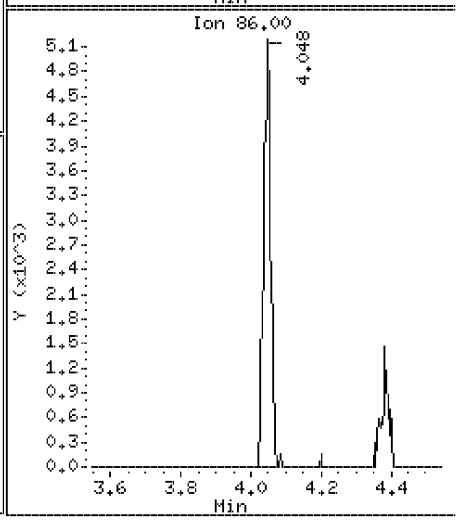












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D

Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

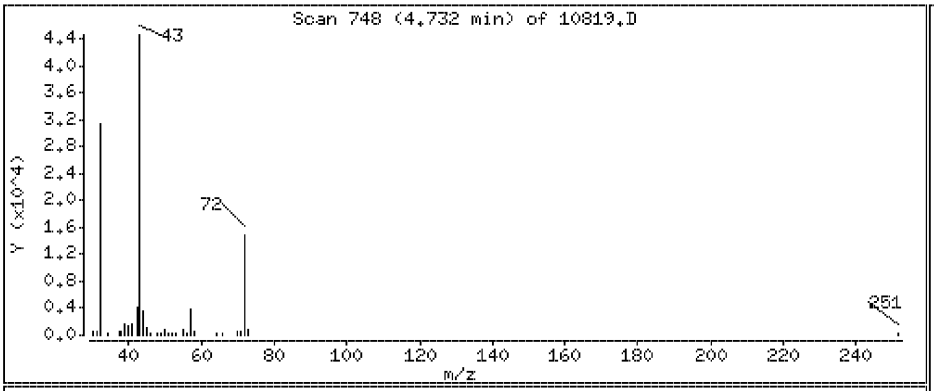
Operator: CJR

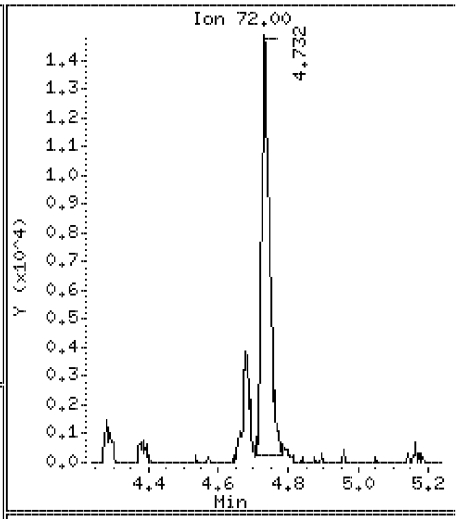
Column phase: J&W DB-5

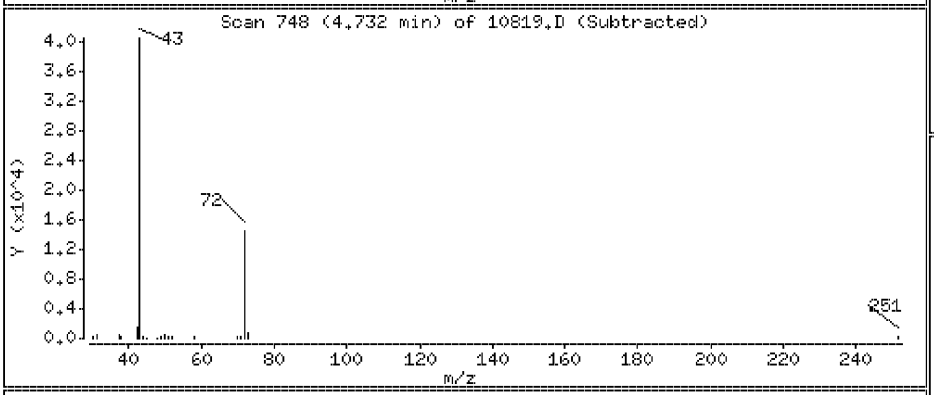
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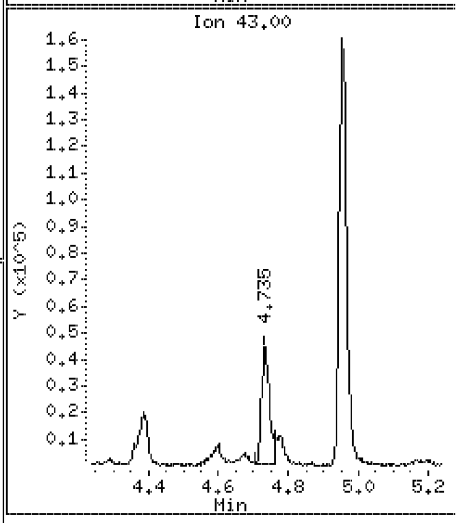
27 Methyl Ethyl Ketone

Concentration: 1.86 ppbv









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Date : 18-APR-2013 20:32

Client ID:

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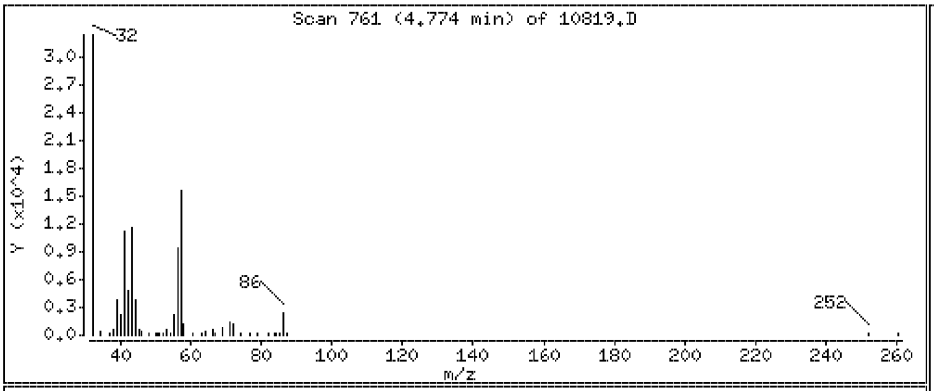
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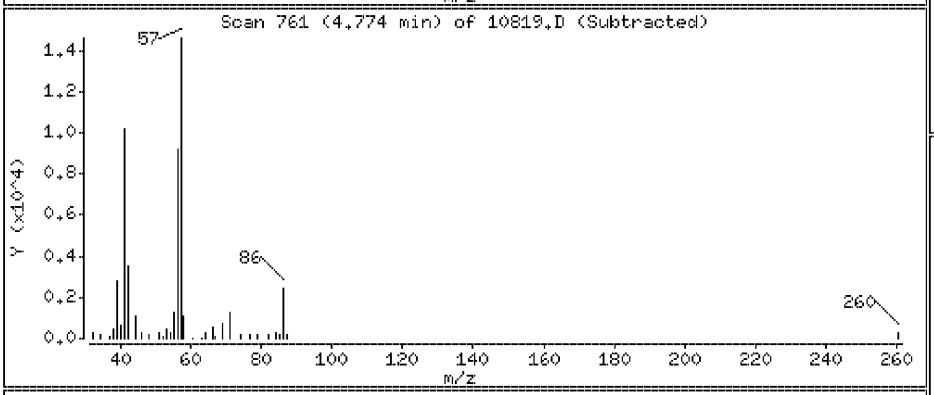
Column phase: J&W DB-5

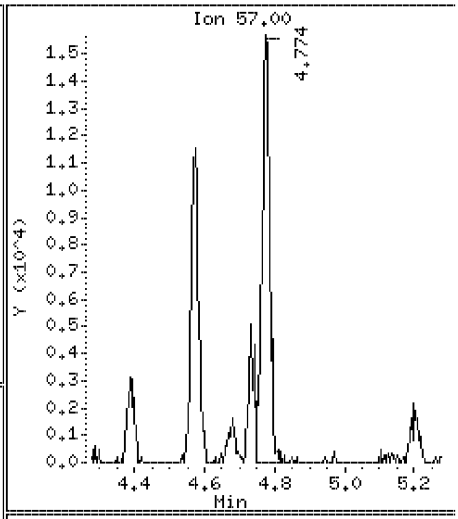
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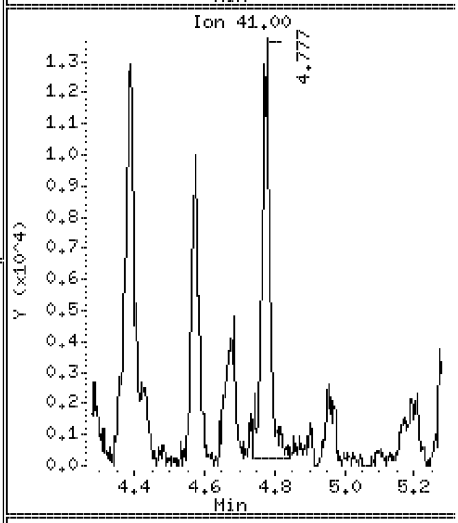
28 n-Hexane

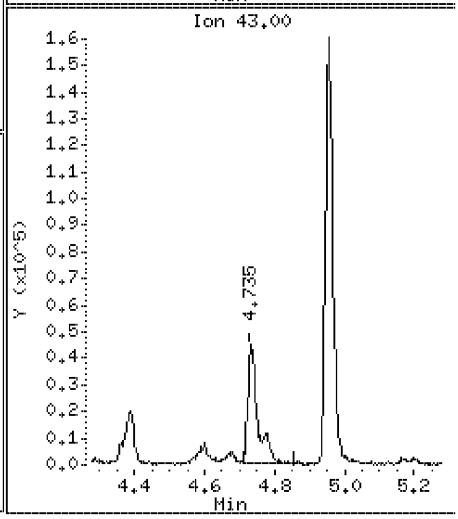
Concentration: 0.639 ppbv











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Date : 18-APR-2013 20:32

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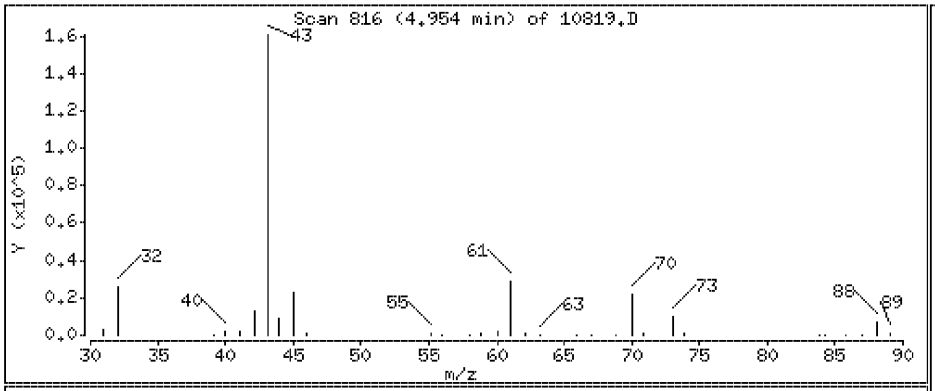
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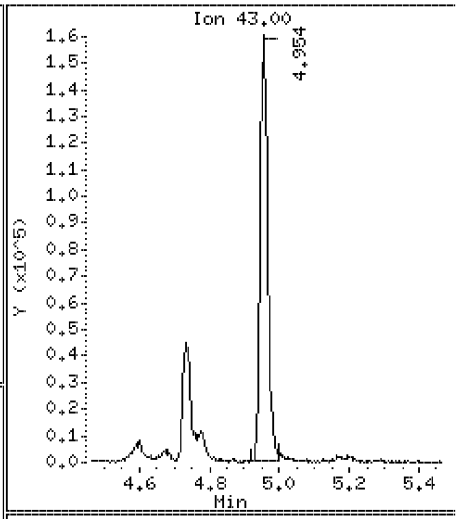
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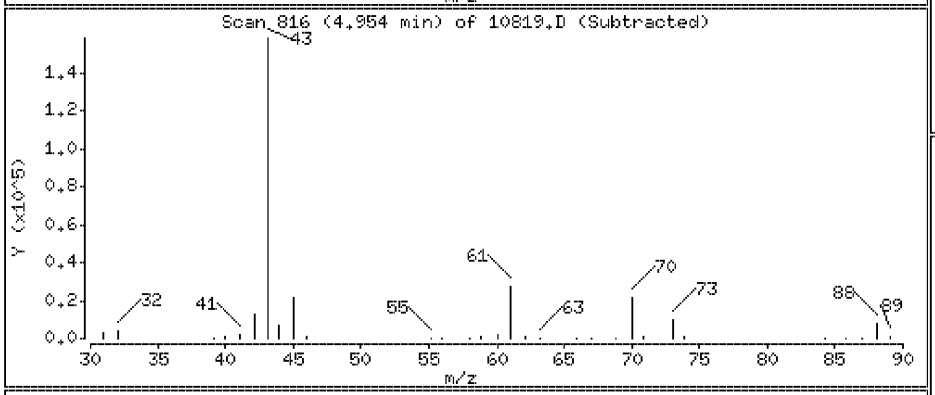
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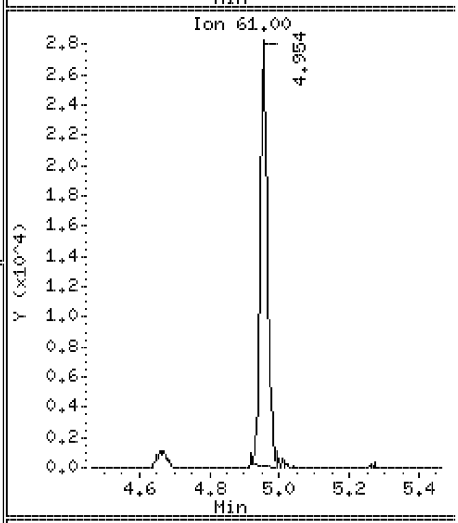
30 Ethyl Acetate

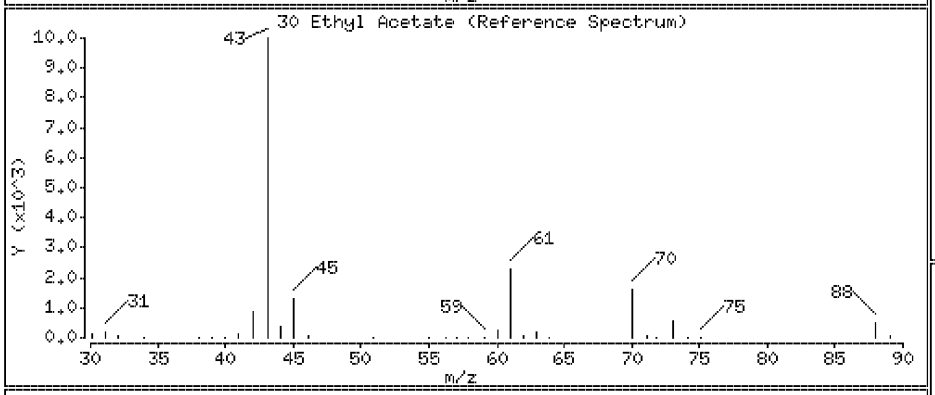
Concentration: 6.65 ppbv

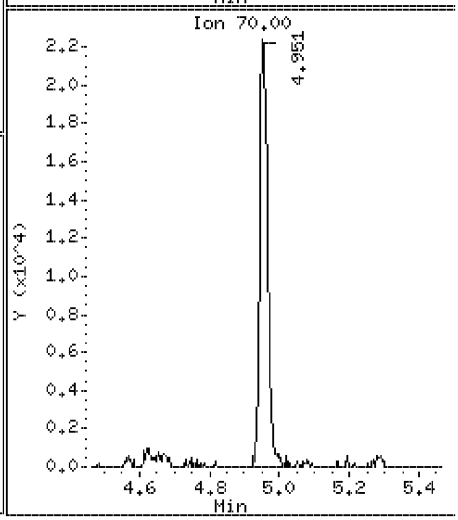


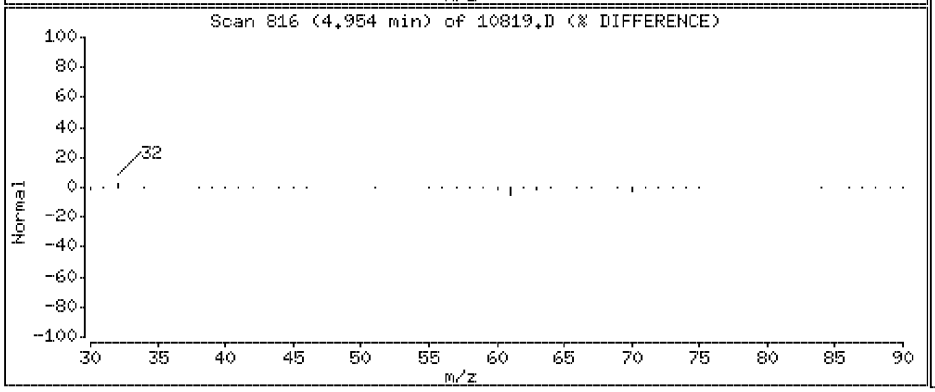












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Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

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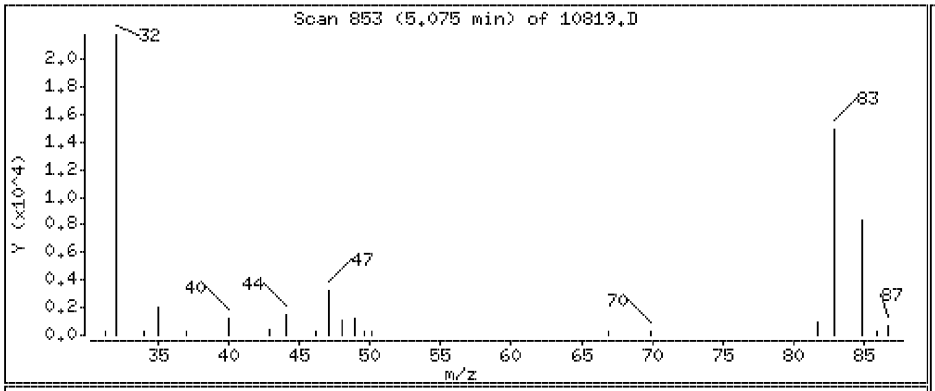
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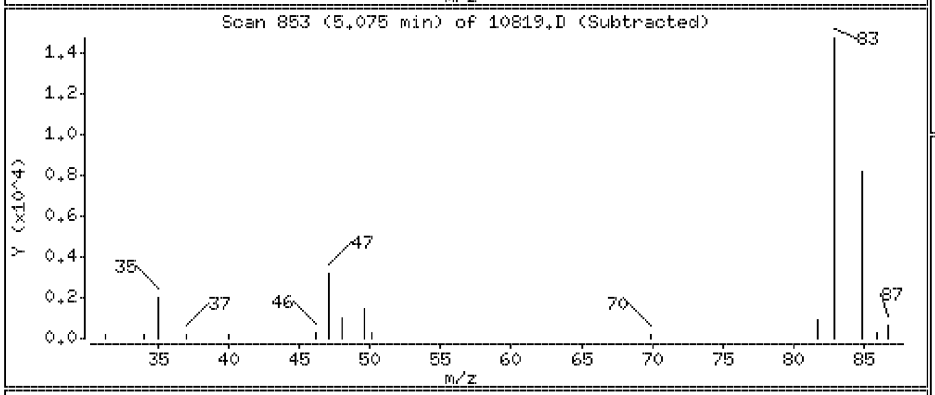
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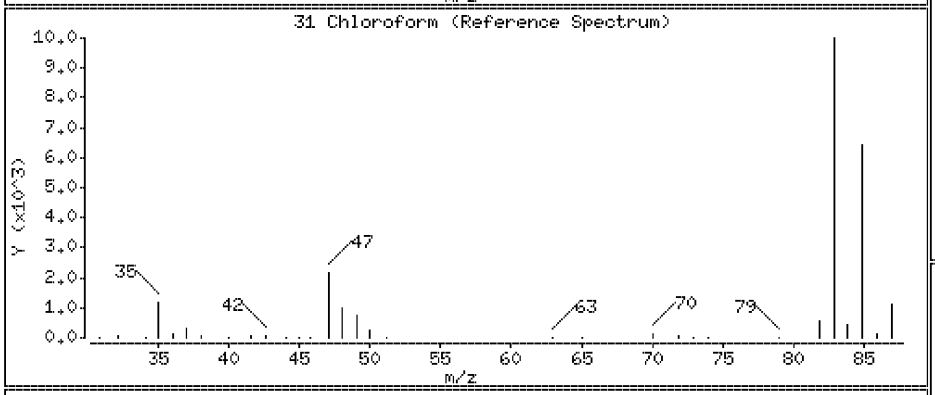
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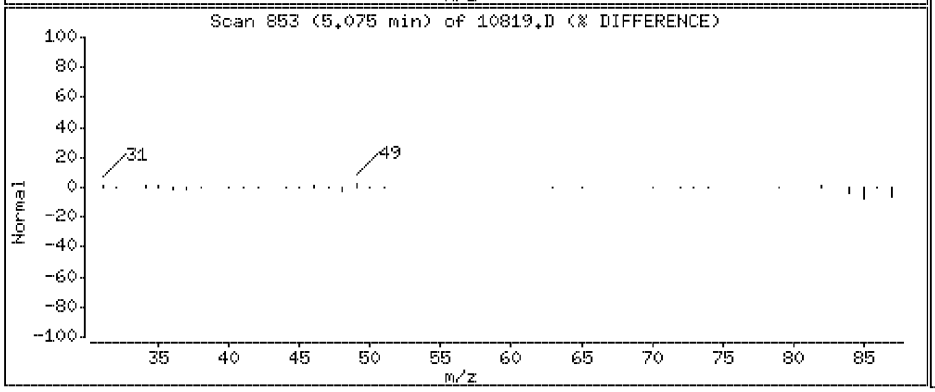
31 Chloroform

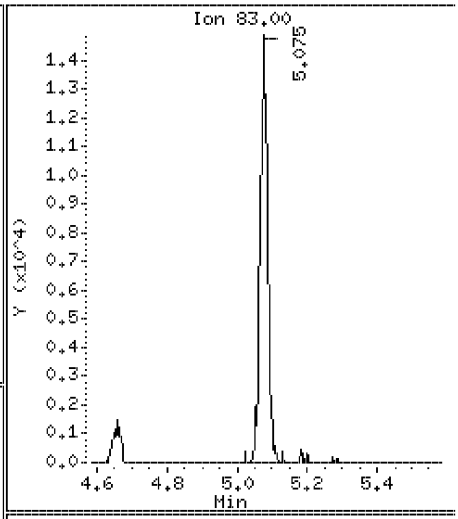
Concentration: 0.307 ppbv

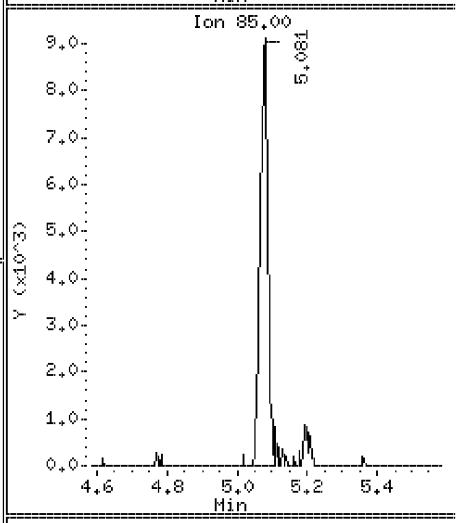


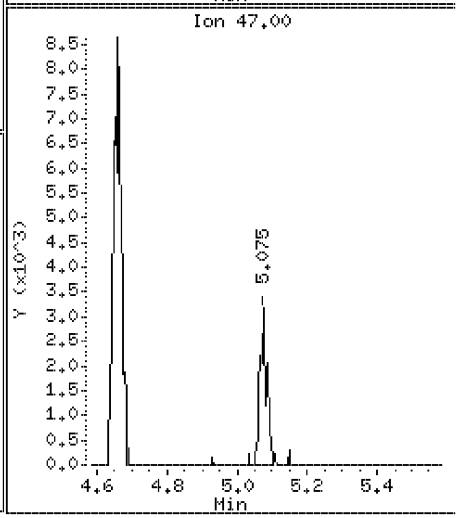












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Date : 18-APR-2013 20:32

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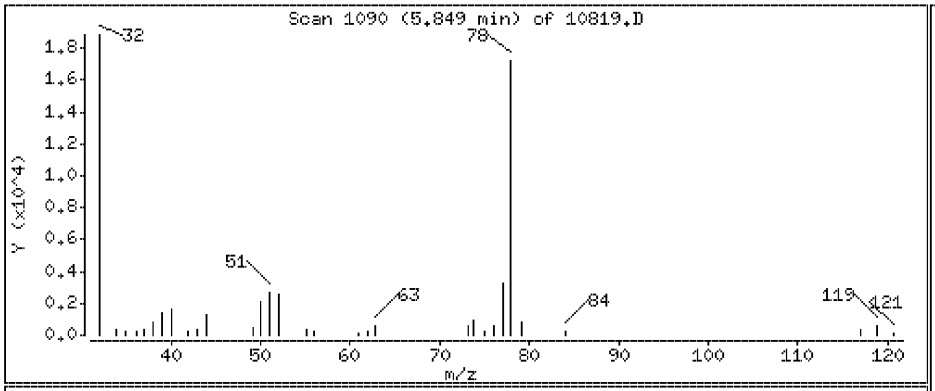
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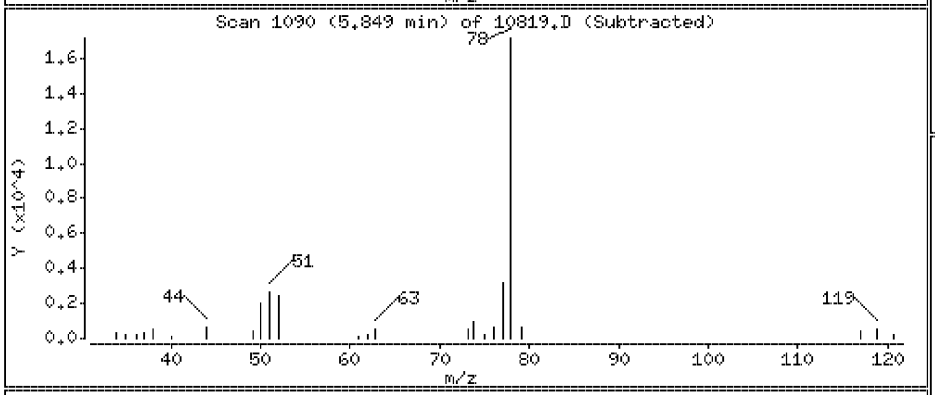
Column phase: J&W DB-5

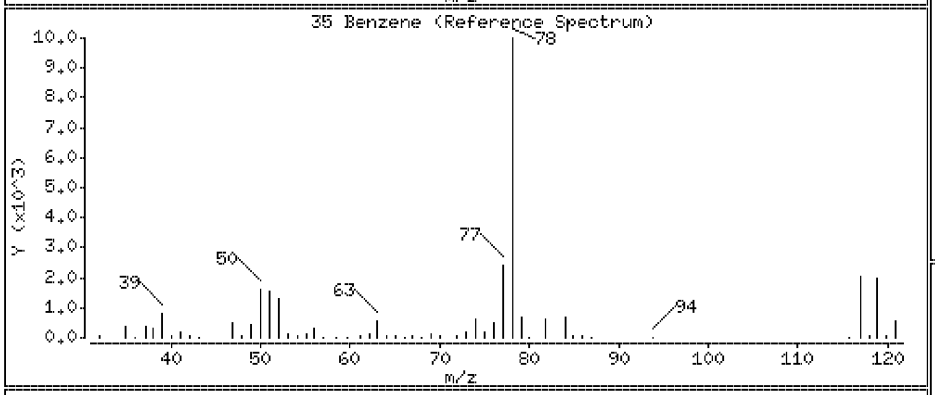
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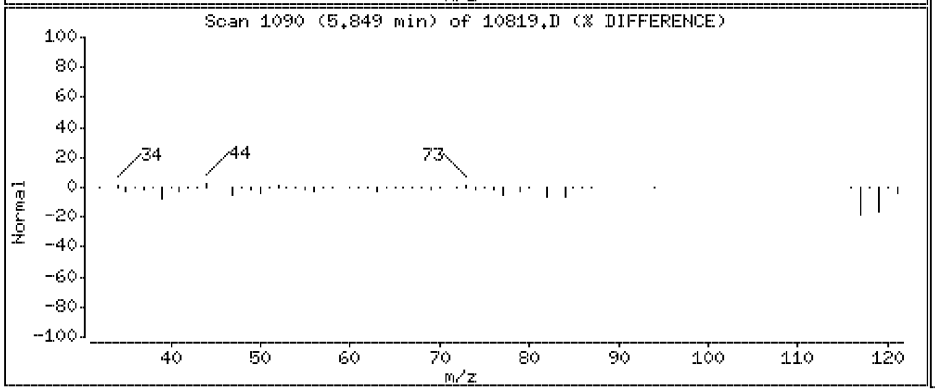
35 Benzene

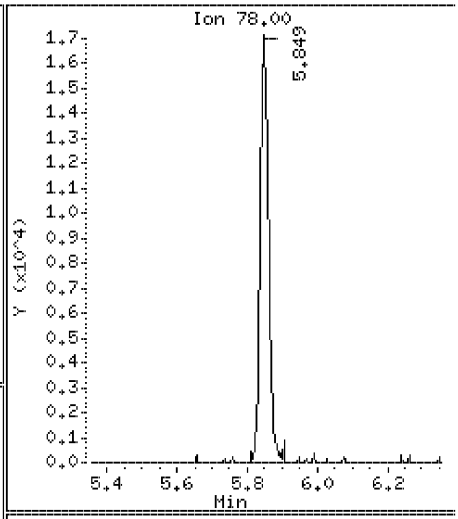
Concentration: 0.345 ppbv

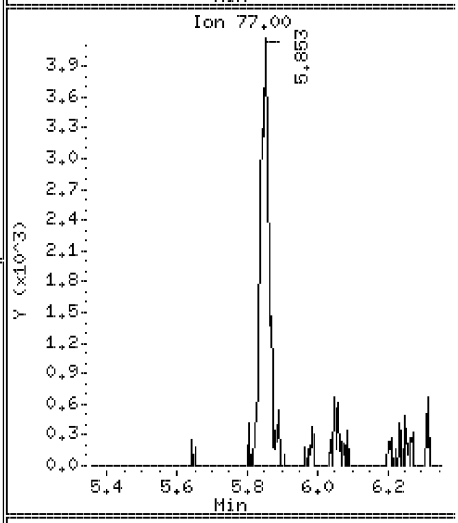


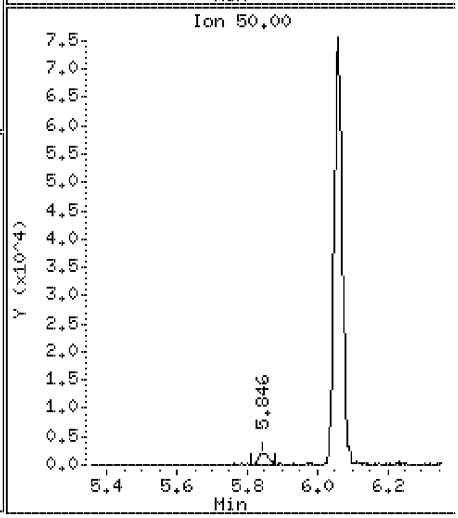












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Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

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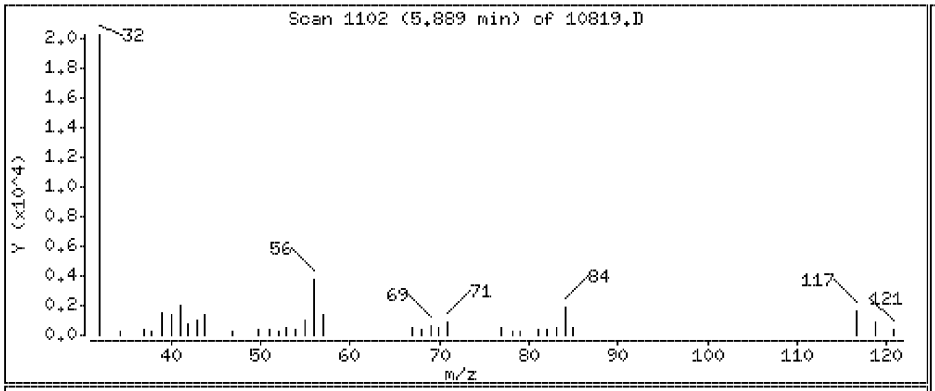
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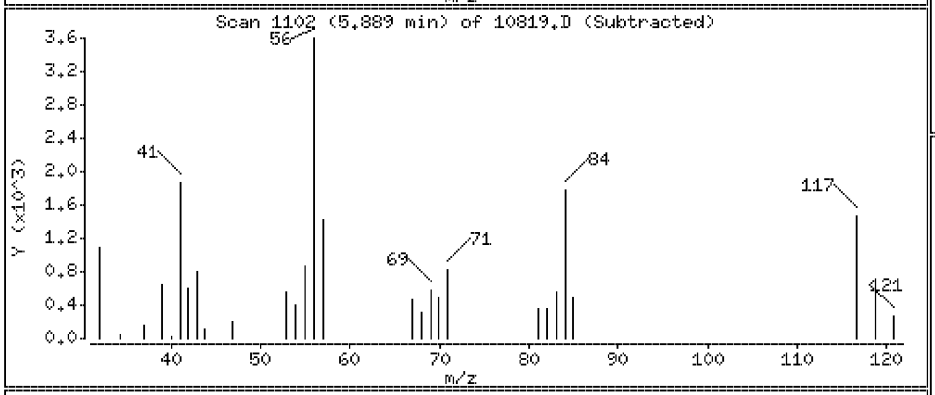
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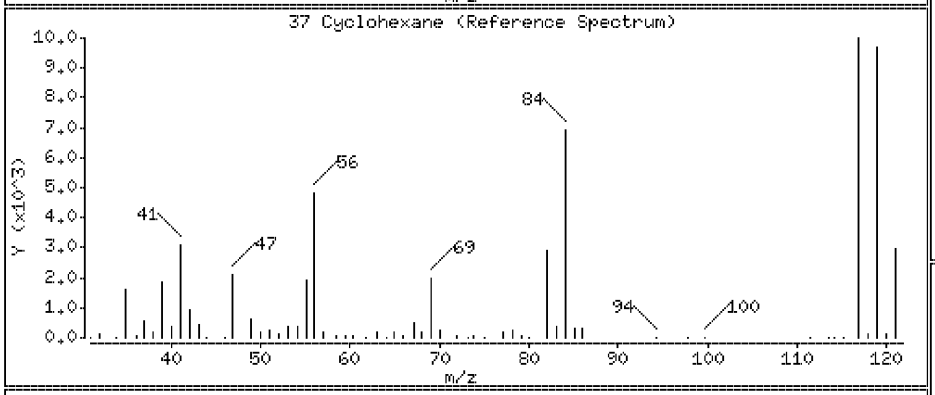
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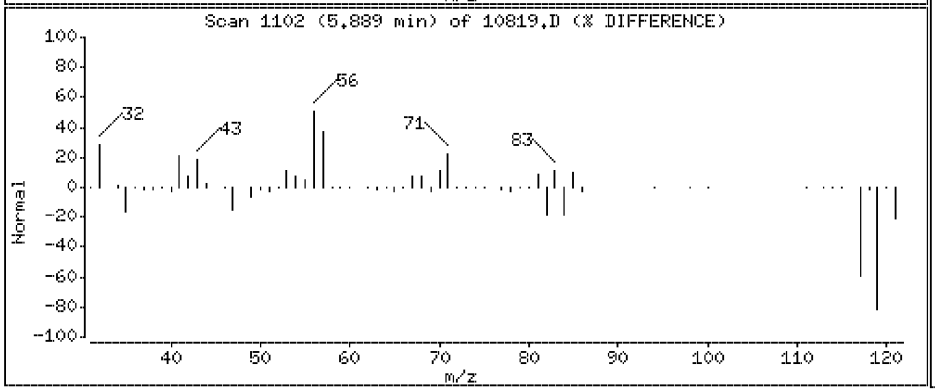
37 Cyclohexane

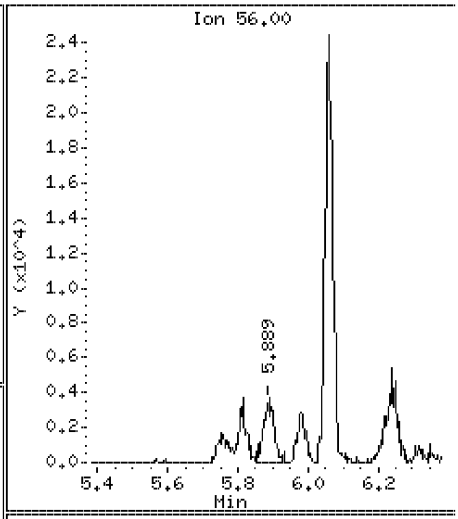
Concentration: 0.621 ppbv

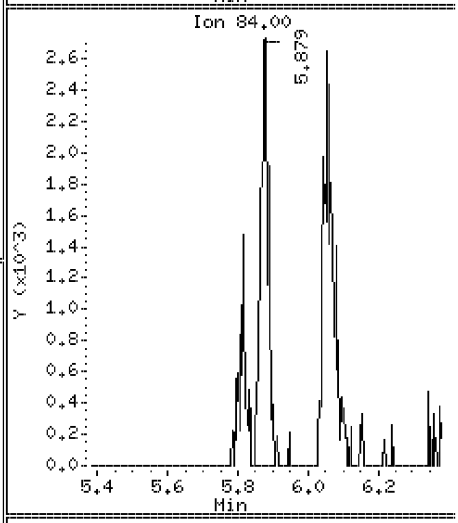


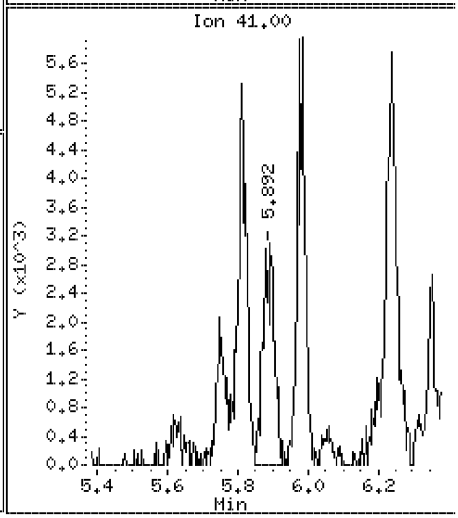












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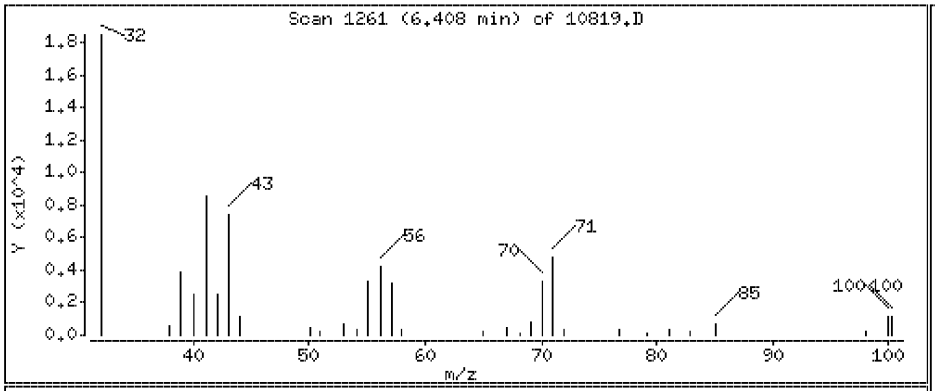
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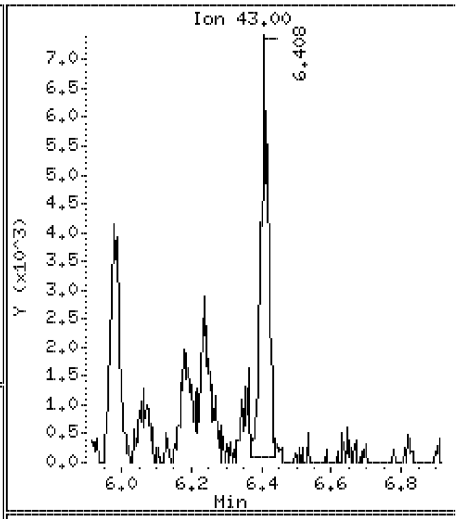
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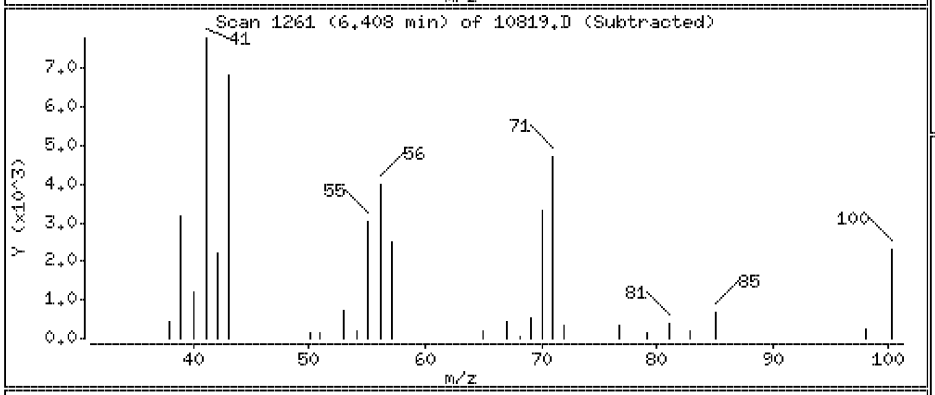
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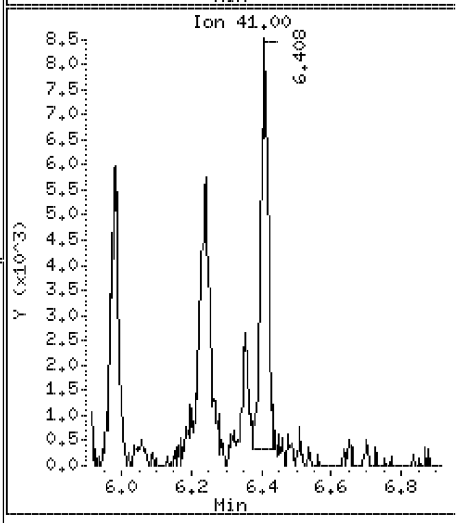
40 Heptane

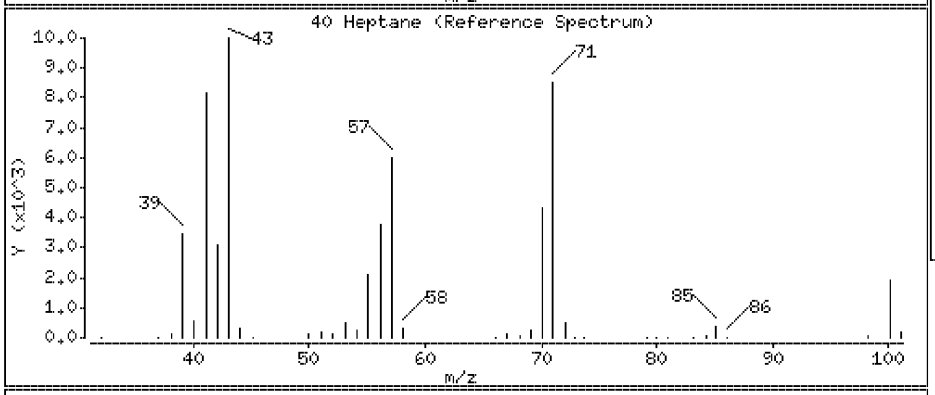
Concentration: 0.940 ppbv

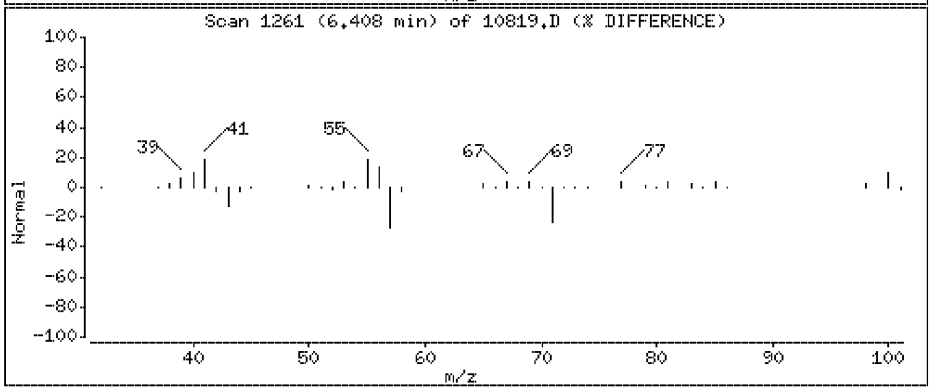












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Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

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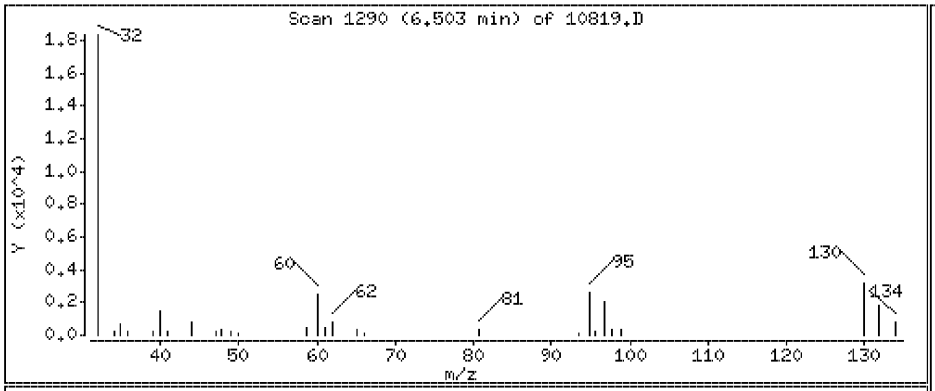
Operator: CJR

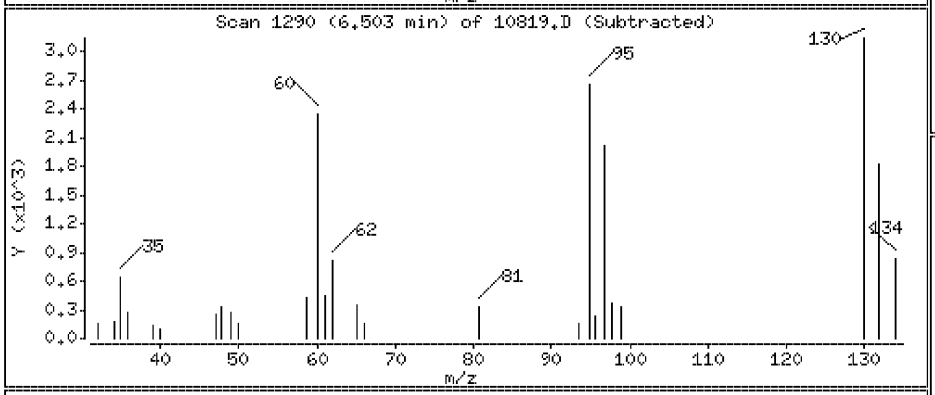
Column phase: J&W DB-5

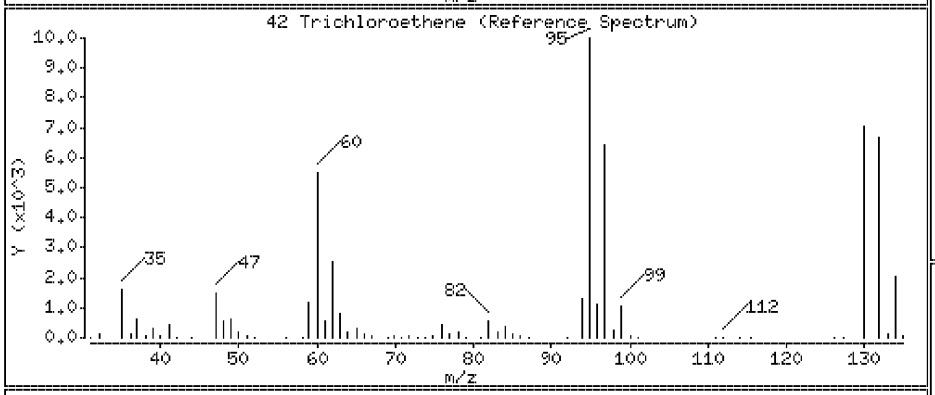
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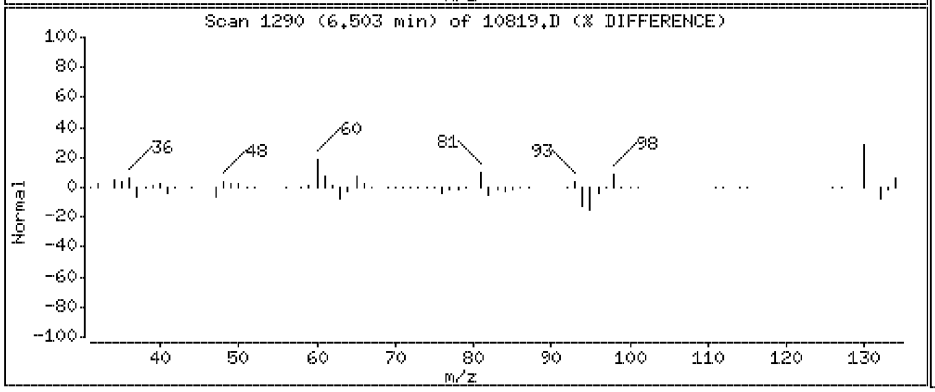
42 Trichloroethene

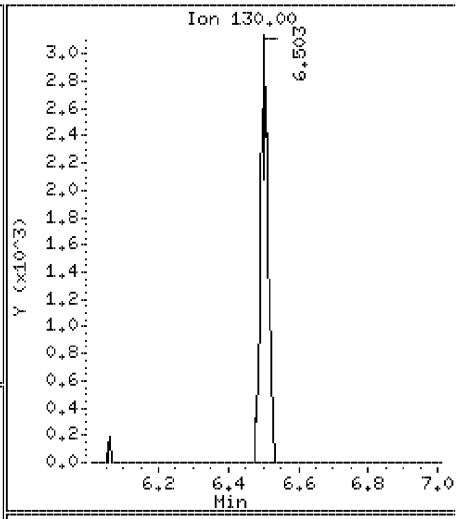
Concentration: 0.203 ppbv

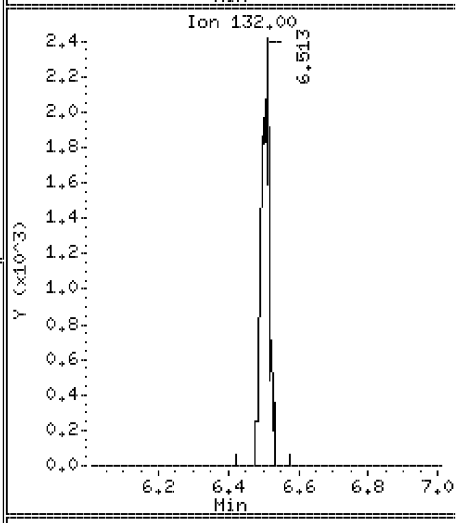


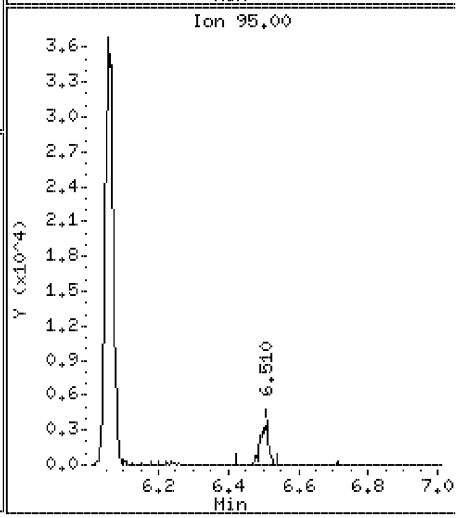












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10819.D

Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

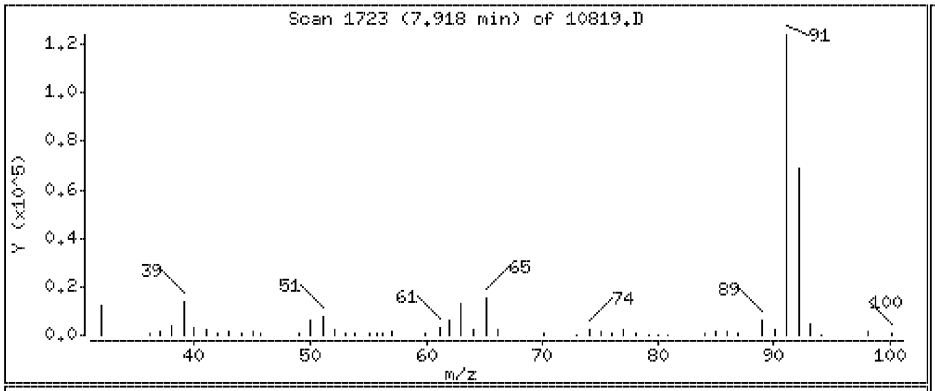
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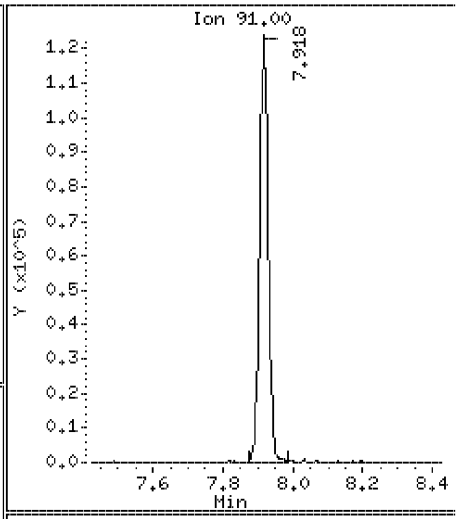
Column phase: J&W DB-5

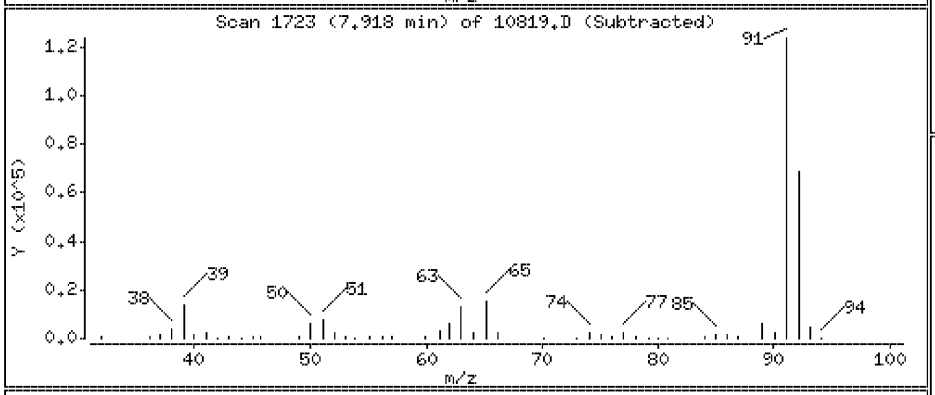
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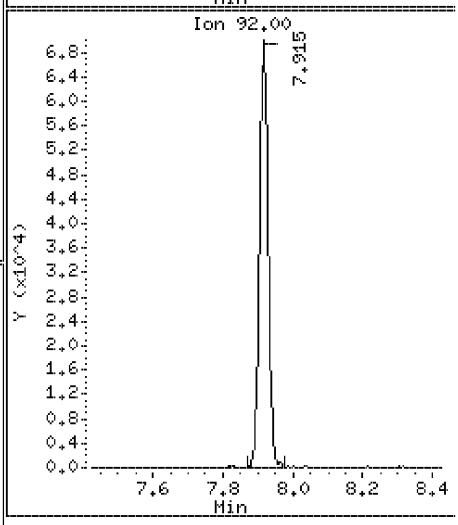
49 Toluene

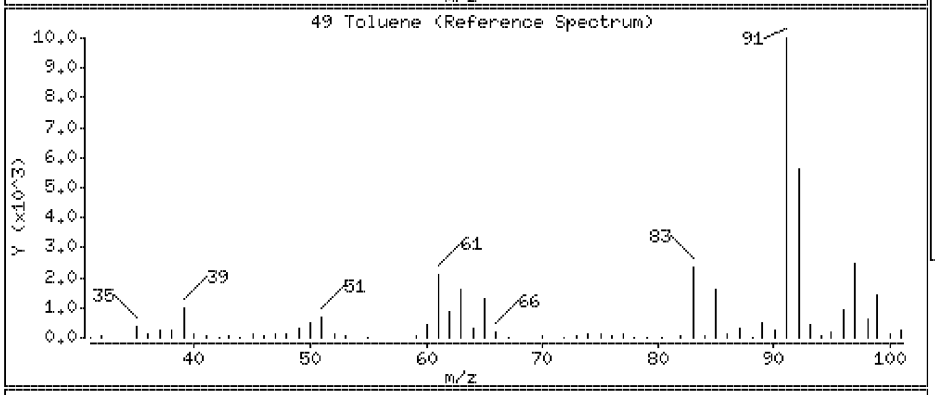
Concentration: 1.84 ppbv

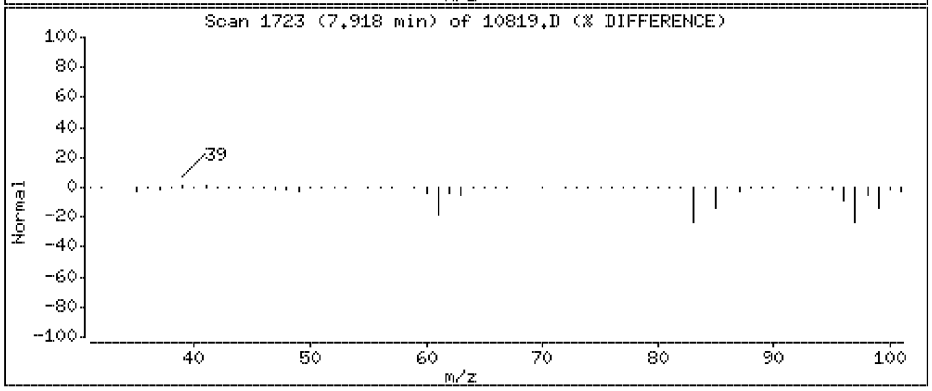












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Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

Sample Info:

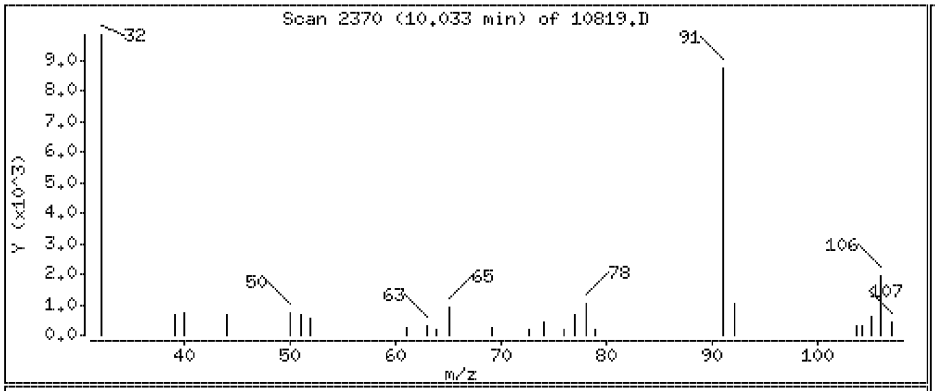
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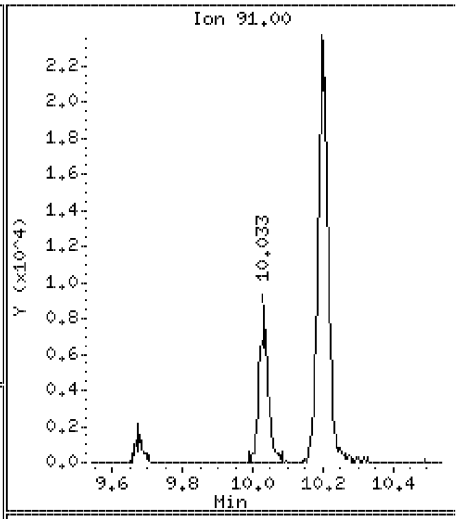
Column phase: J&W DB-5

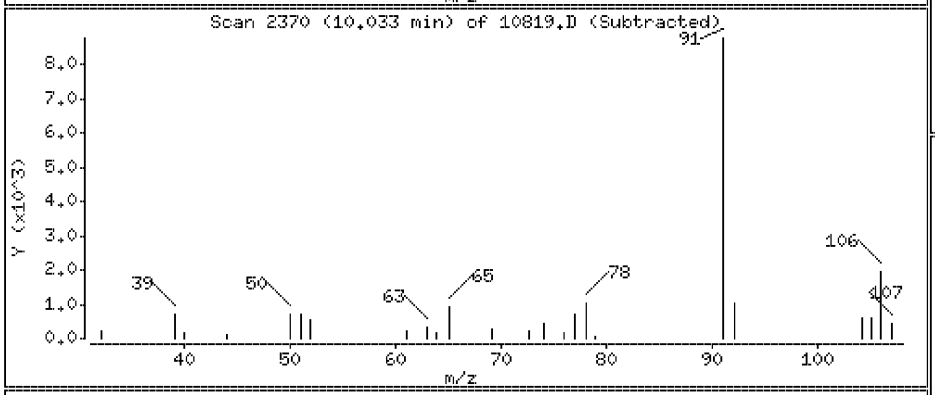
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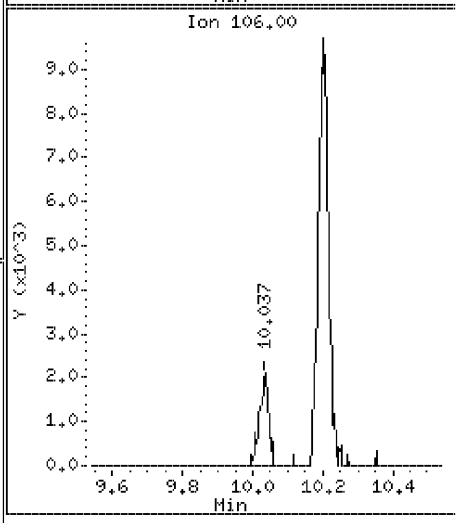
57 Ethyl Benzene

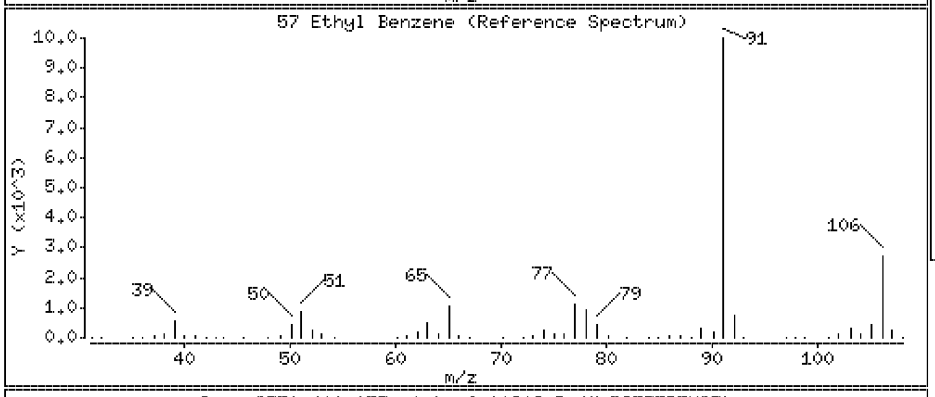
Concentration: 0.310 ppbv

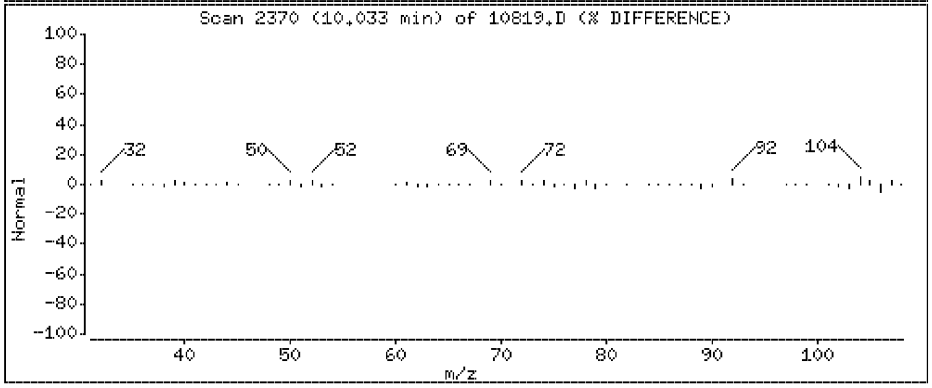












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Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

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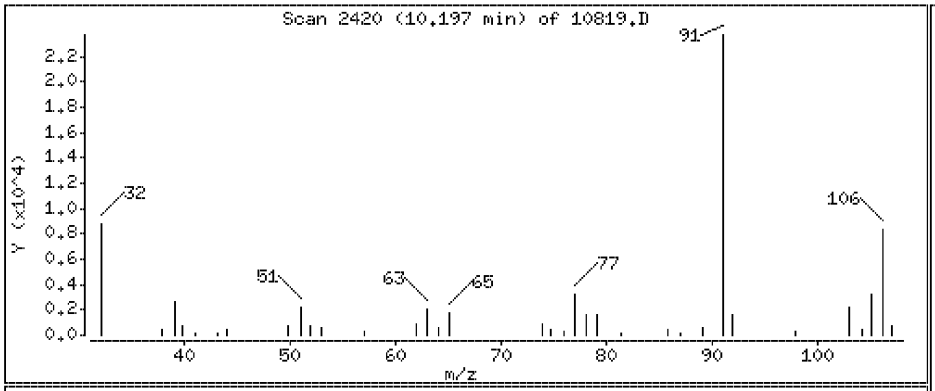
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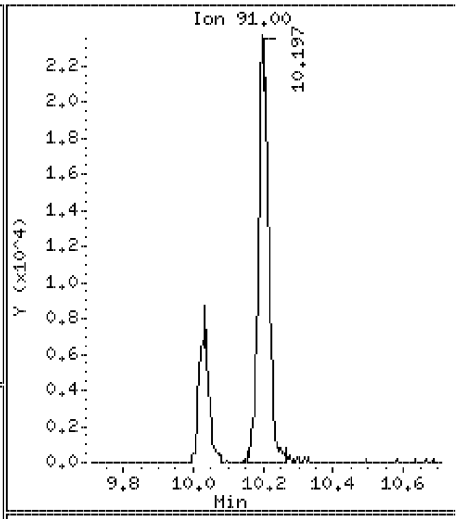
Column phase: J&W DB-5

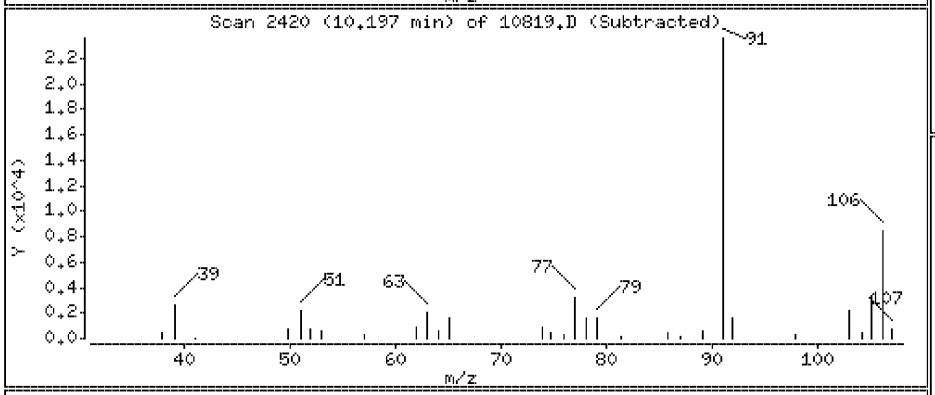
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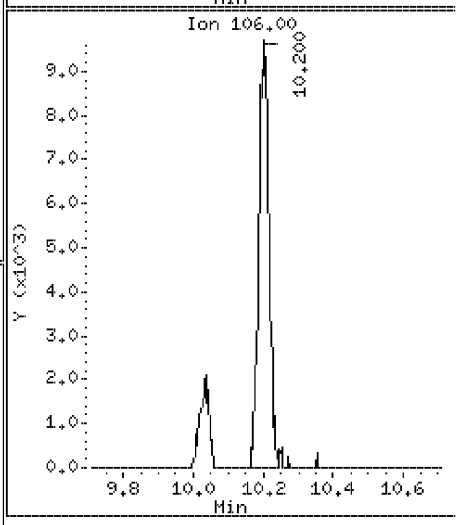
58 m&p-Xylene

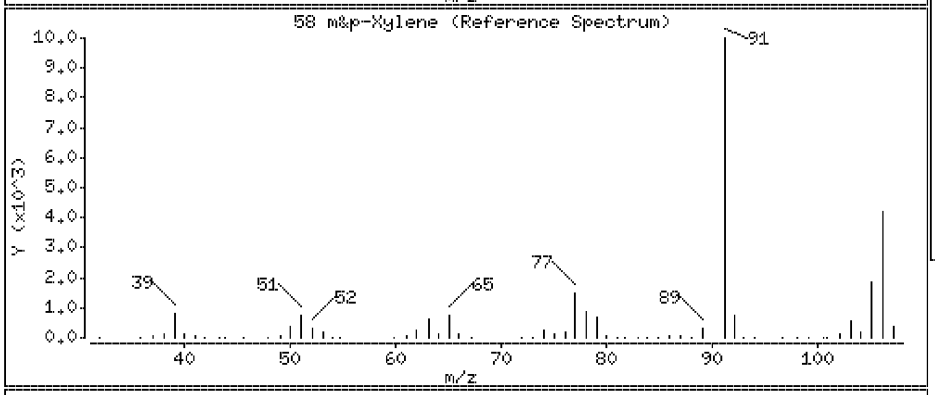
Concentration: 0.525 ppbv

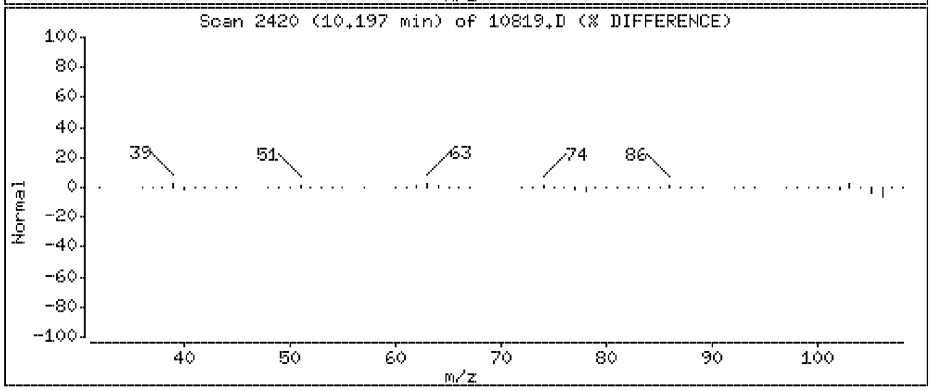












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Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

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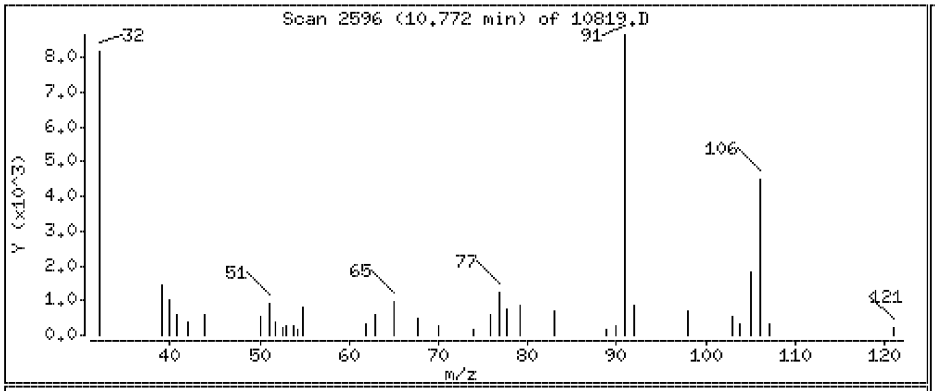
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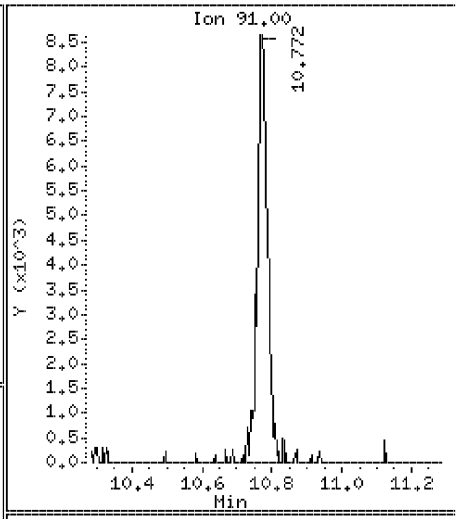
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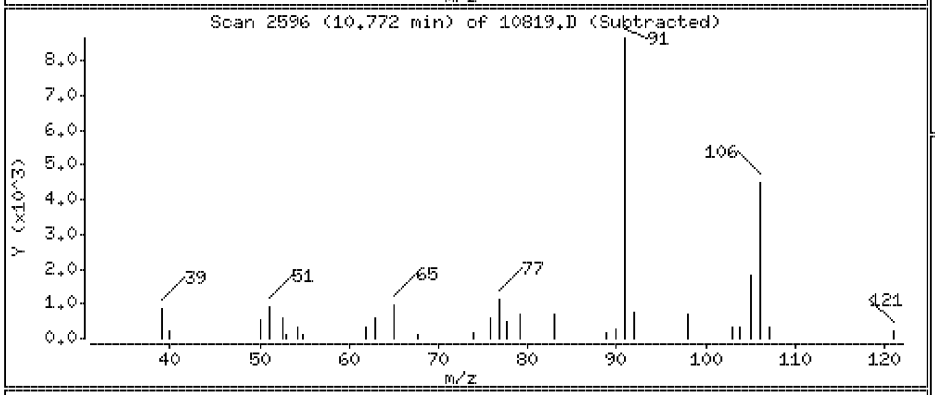
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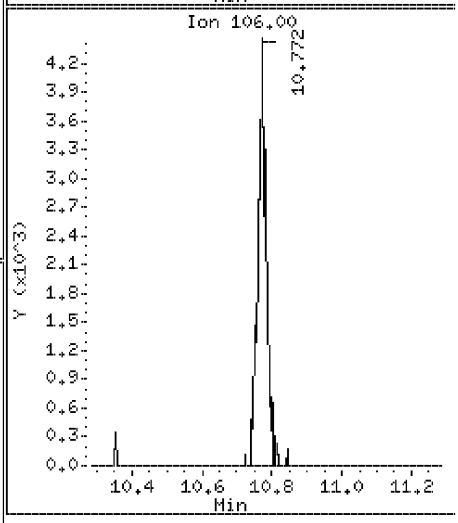
61 o-Xylene

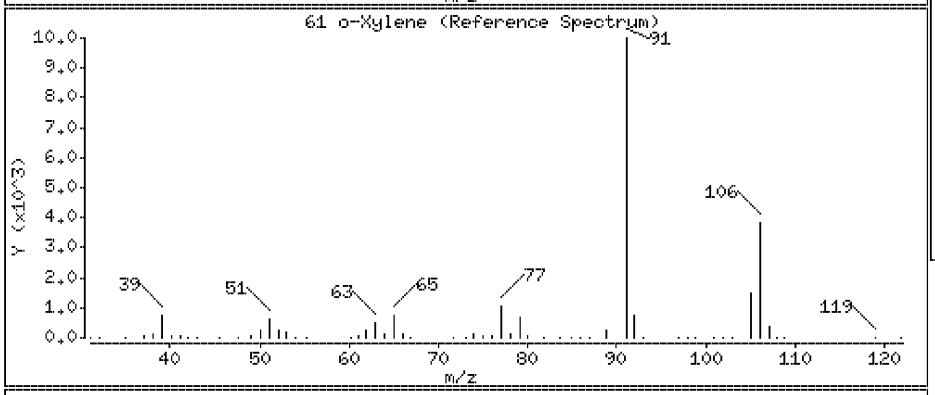
Concentration: 0.209 ppbv

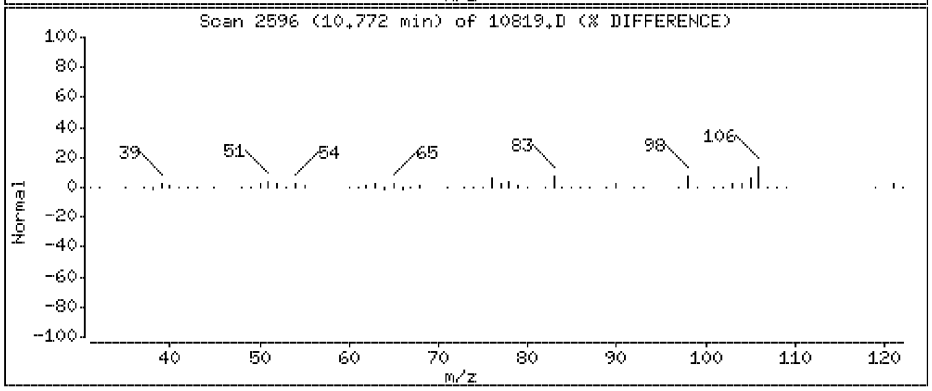












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Date : 18-APR-2013 20:32

Client ID:

Instrument: 10airD.i

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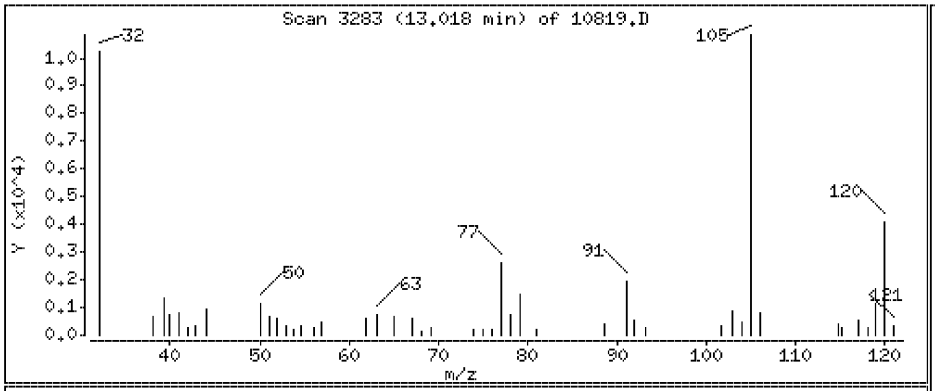
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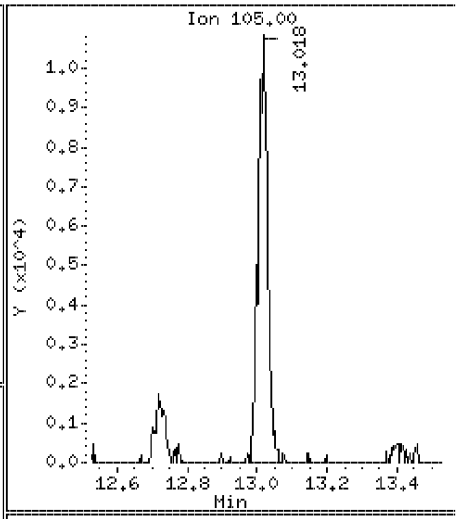
Column phase: J&W DB-5

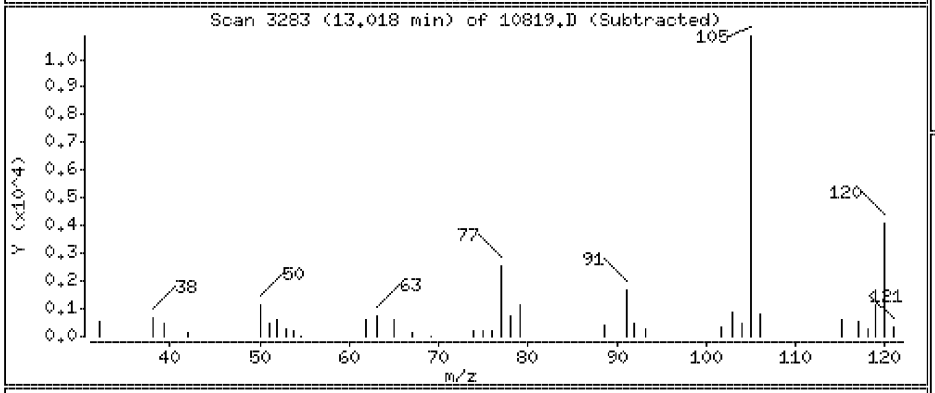
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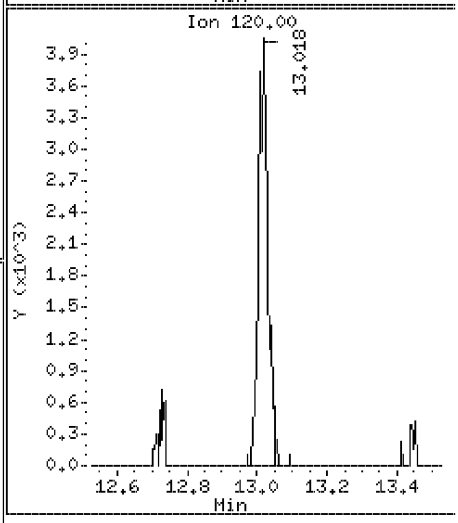
67 1,2,4-Trimethylbenzene

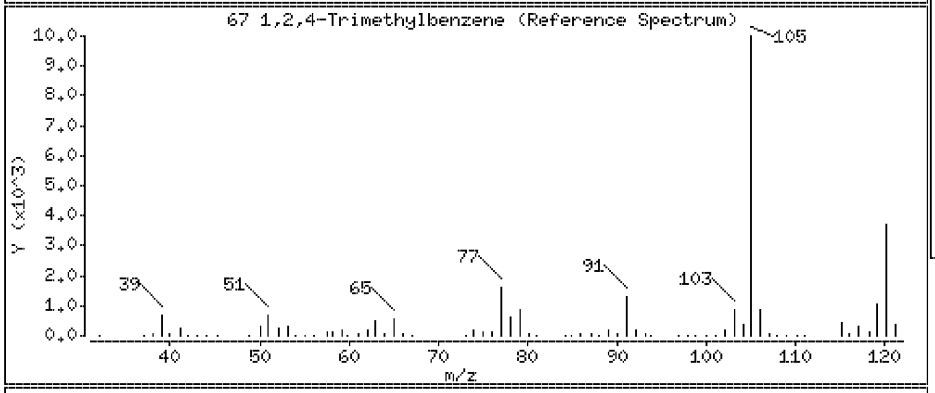
Concentration: 0.395 ppbv

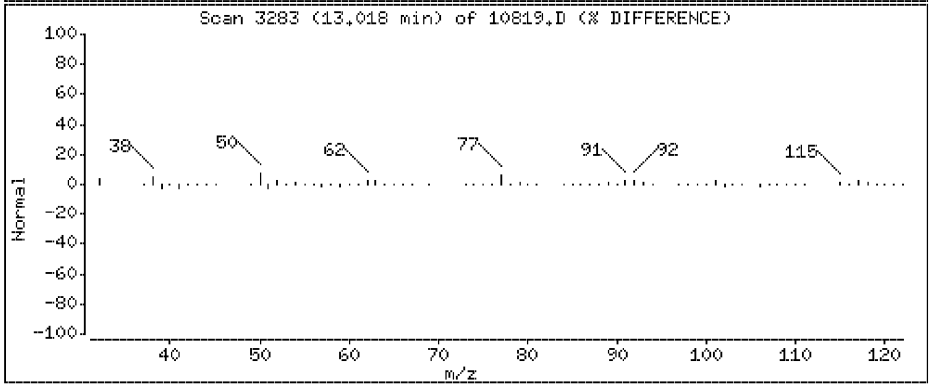






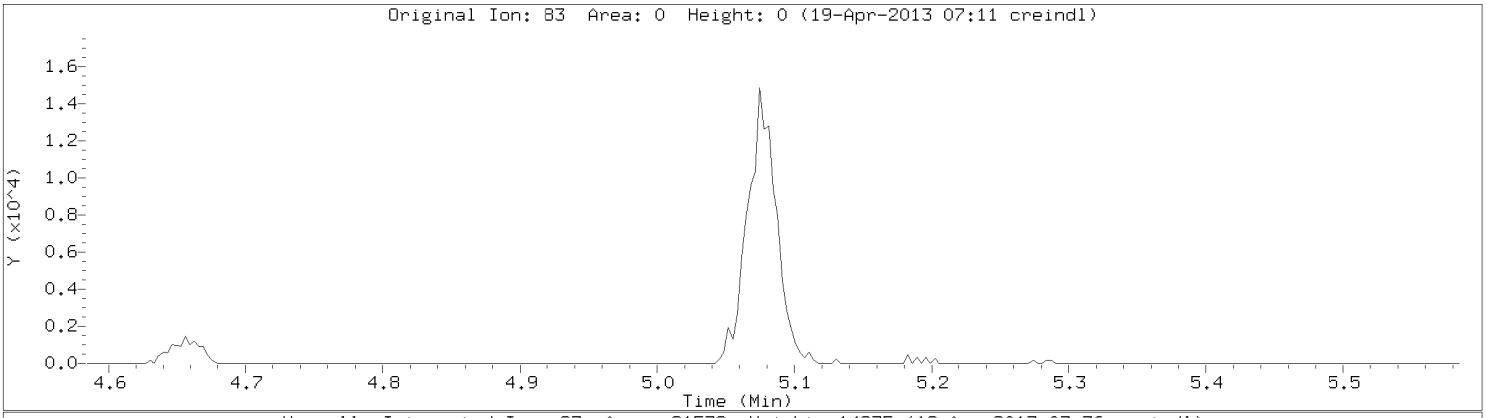


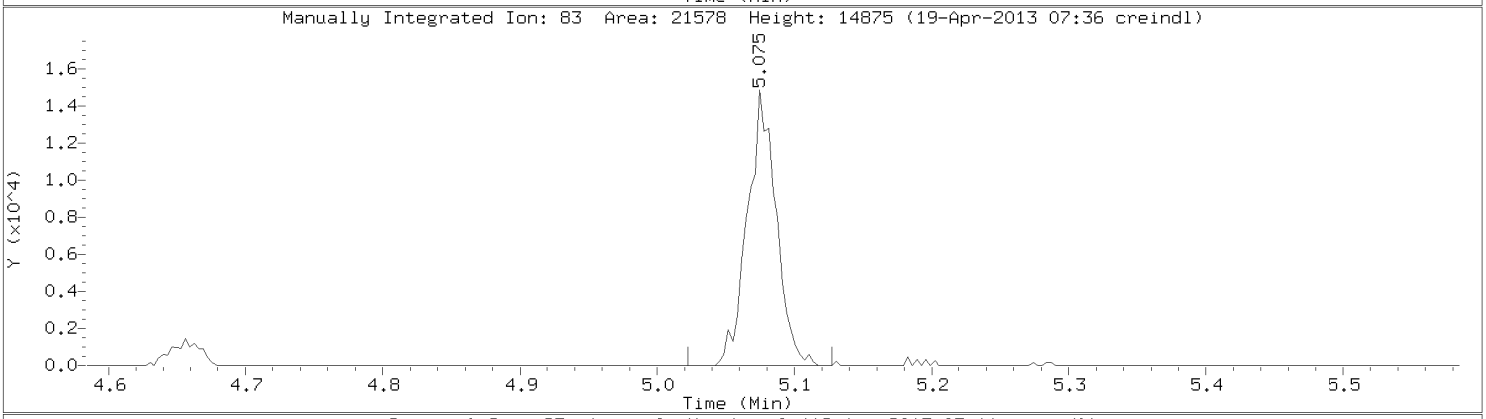


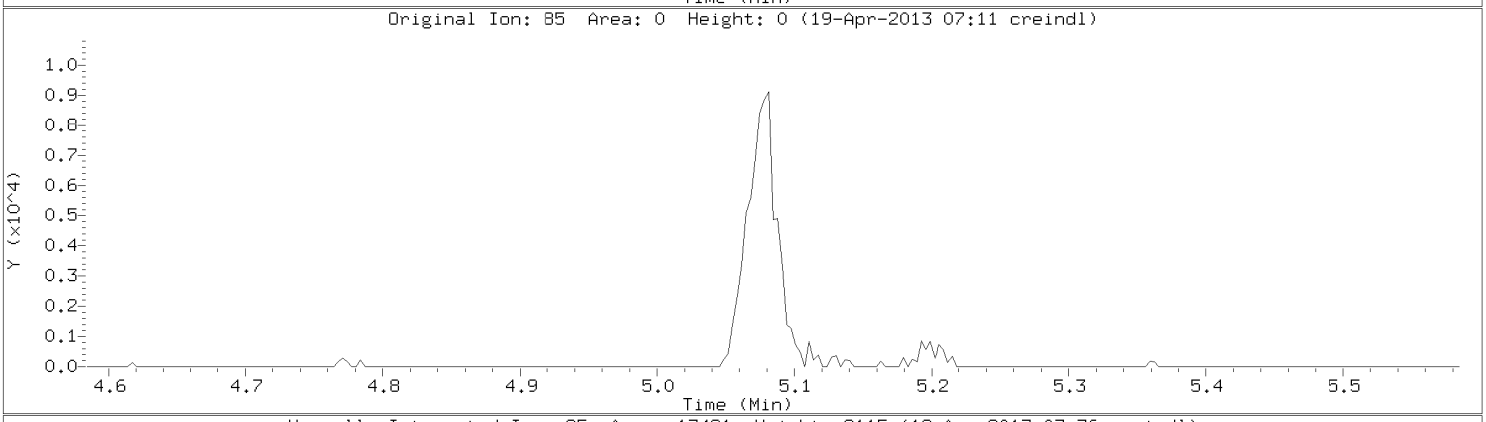


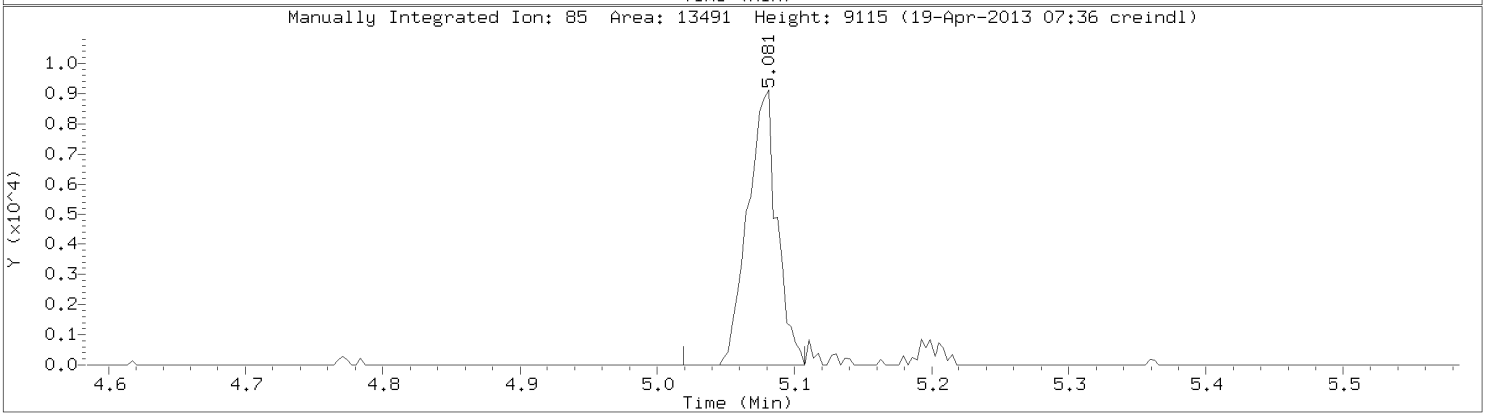
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10819.d
Injection Date: 18-APR-2013 20:32
Instrument: 10airD.i
Lab Sample ID: 10224616004

Compound: Chloroform
CAS Number: 67-66-3

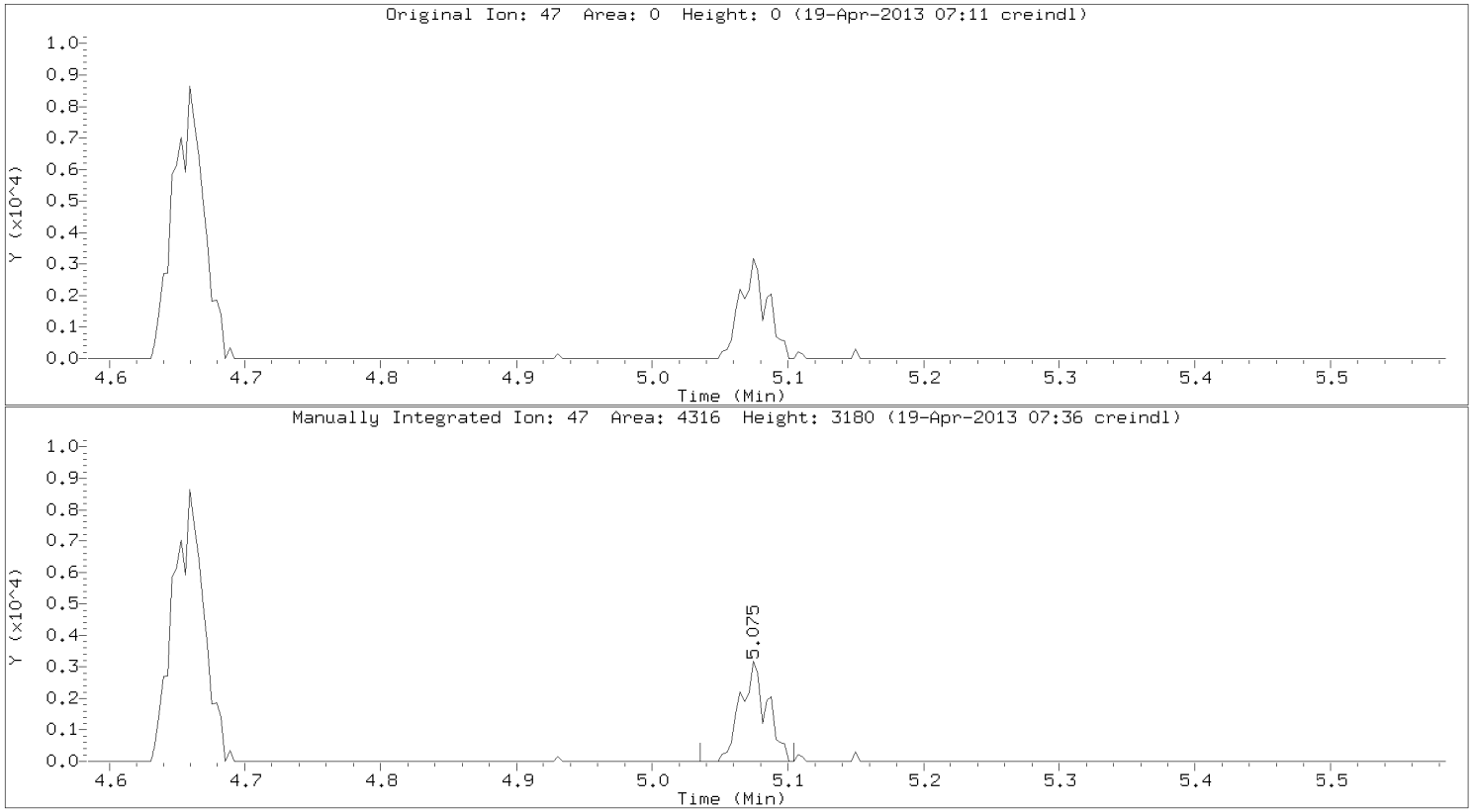






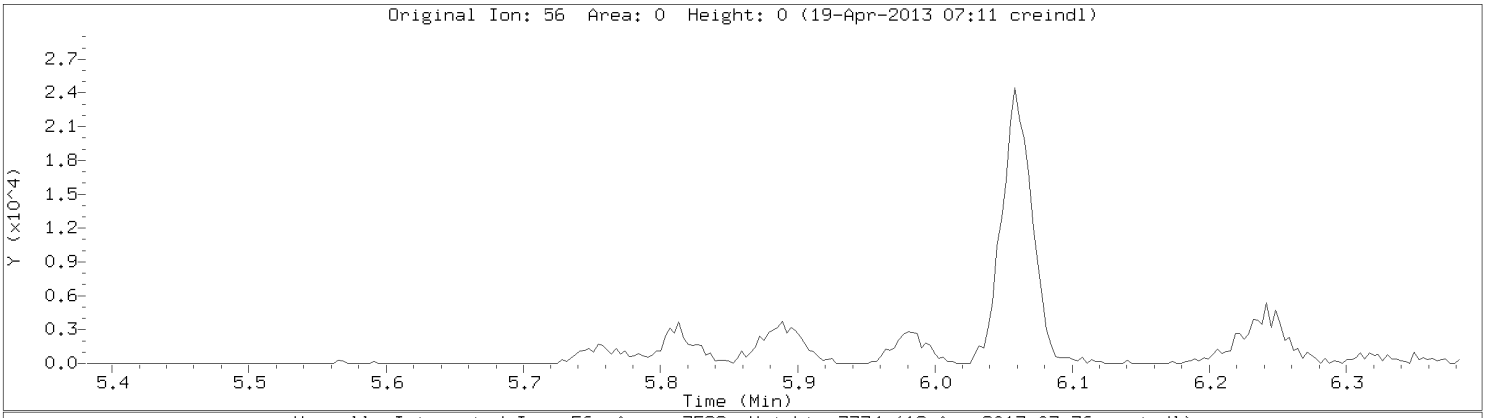


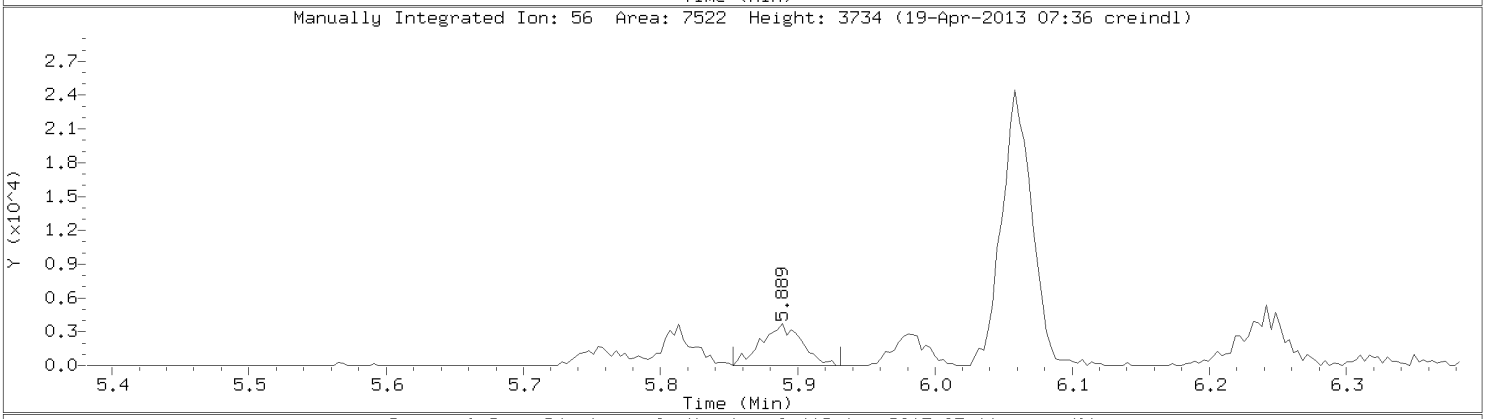
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Instrument: 10airD.i
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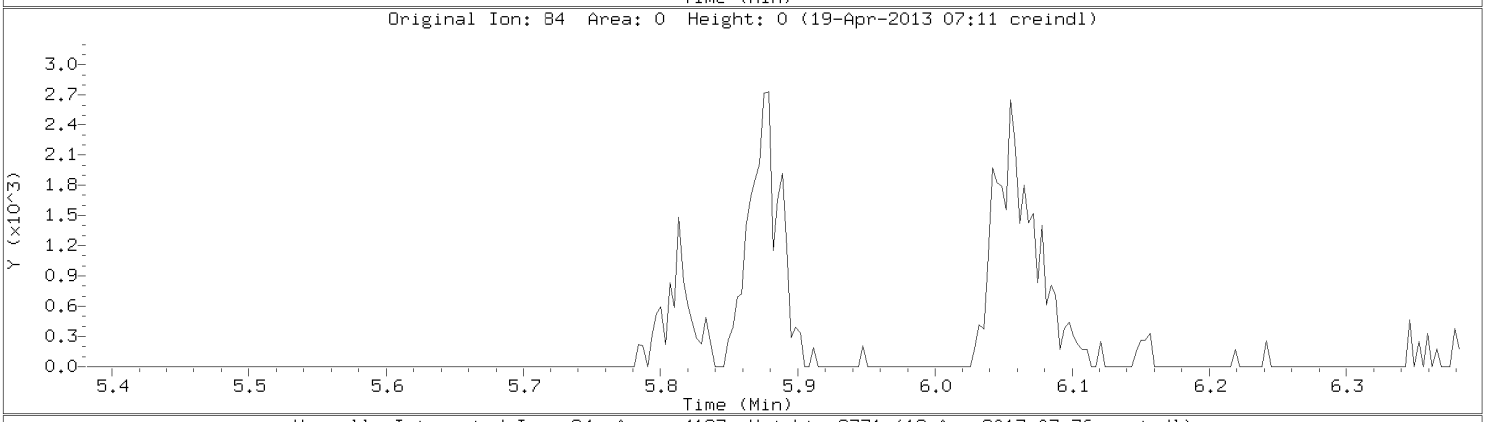


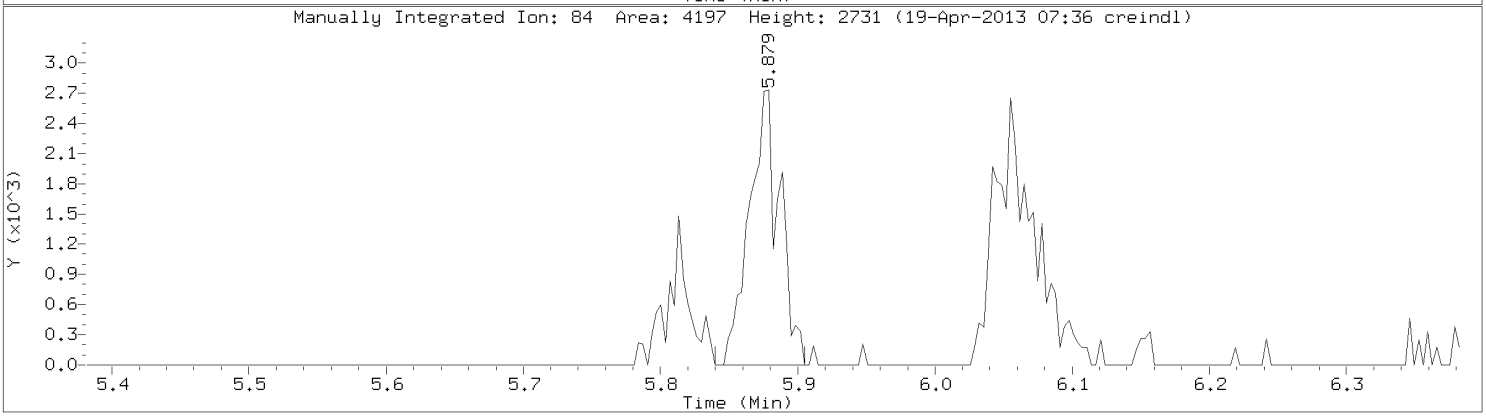
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Injection Date: 18-APR-2013 20:32
Instrument: 10airD.i
Lab Sample ID: 10224616004

Compound: Cyclohexane
CAS Number: 110-82-7

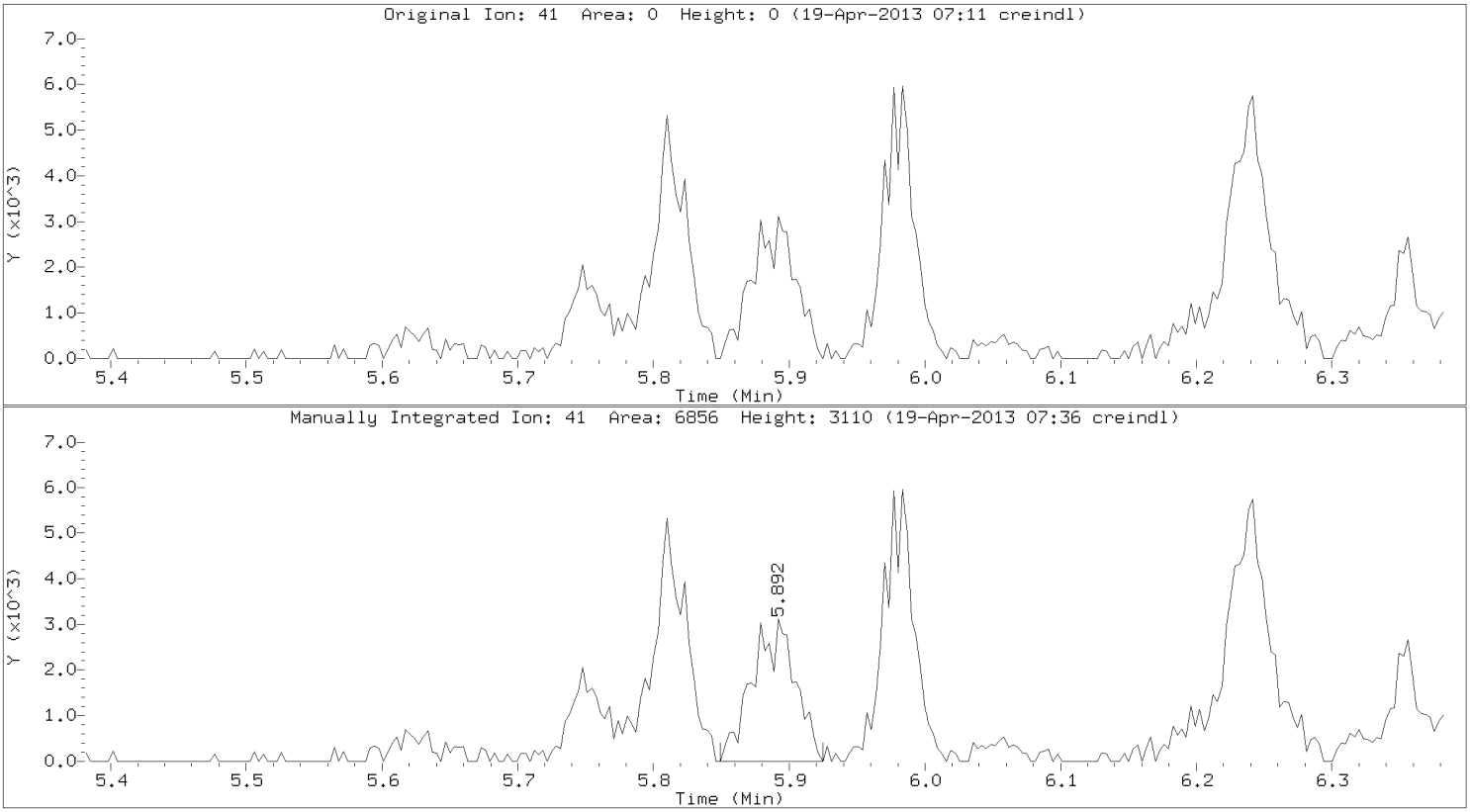






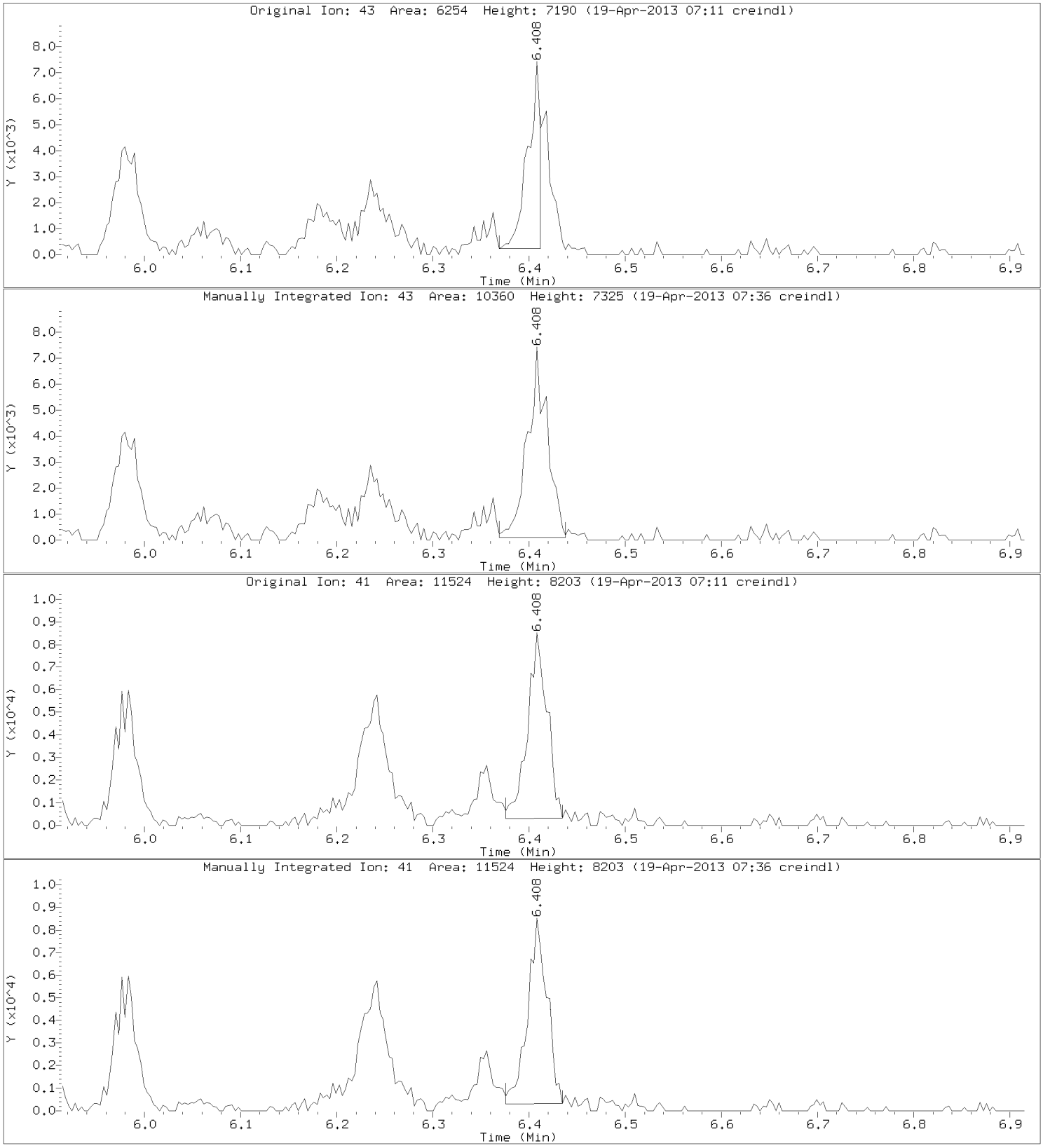


Data File: \\192.168.10.12\chem\10airD.i\041813.b/10819.d
Injection Date: 18-APR-2013 20:32
Instrument: 10airD.i
Lab Sample ID: 10224616004



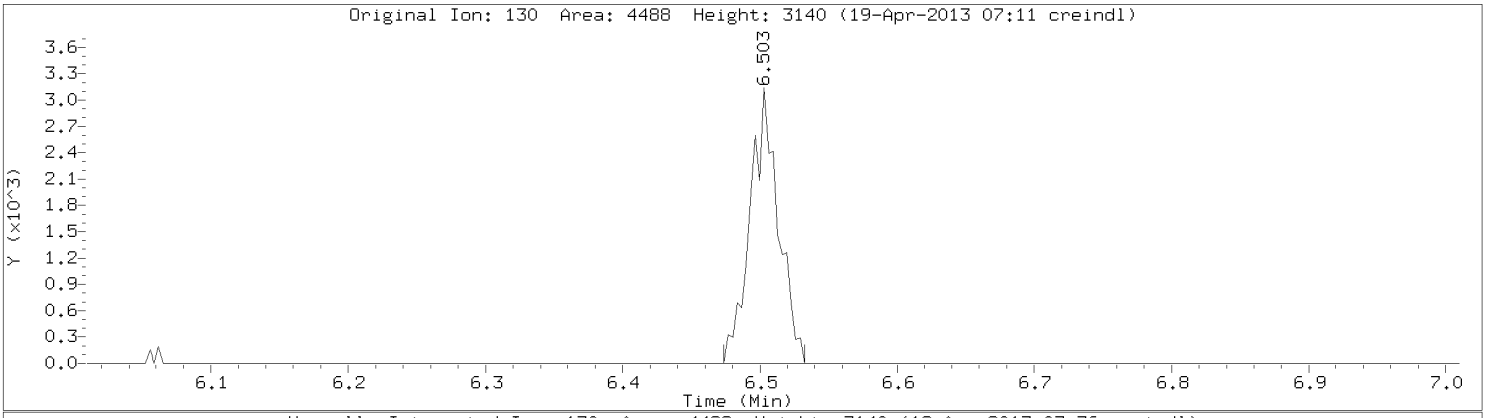
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Instrument: 10airD.i
Lab Sample ID: 10224616004

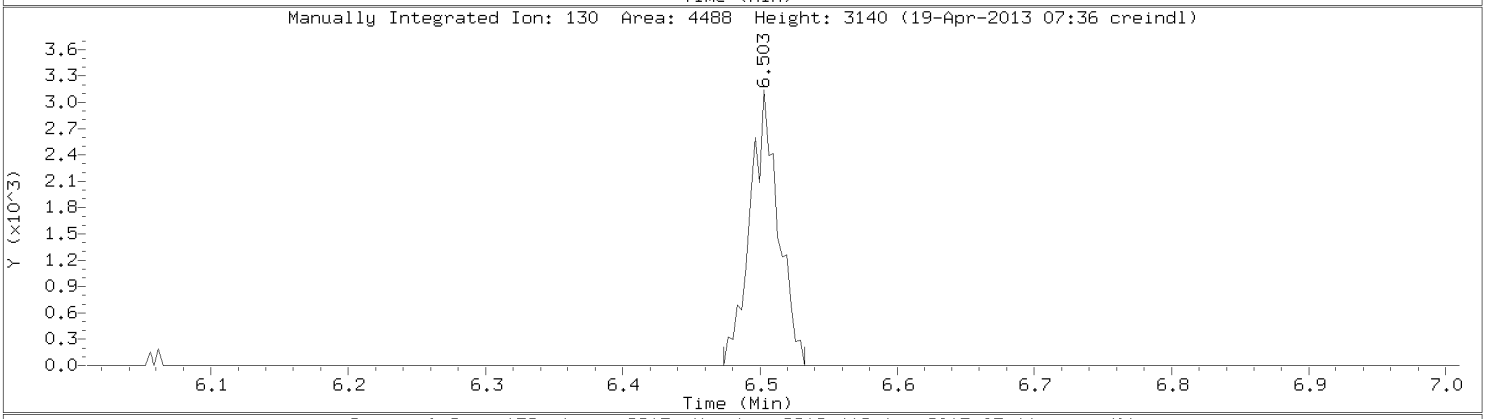
Compound: Heptane
CAS Number: 142-82-5

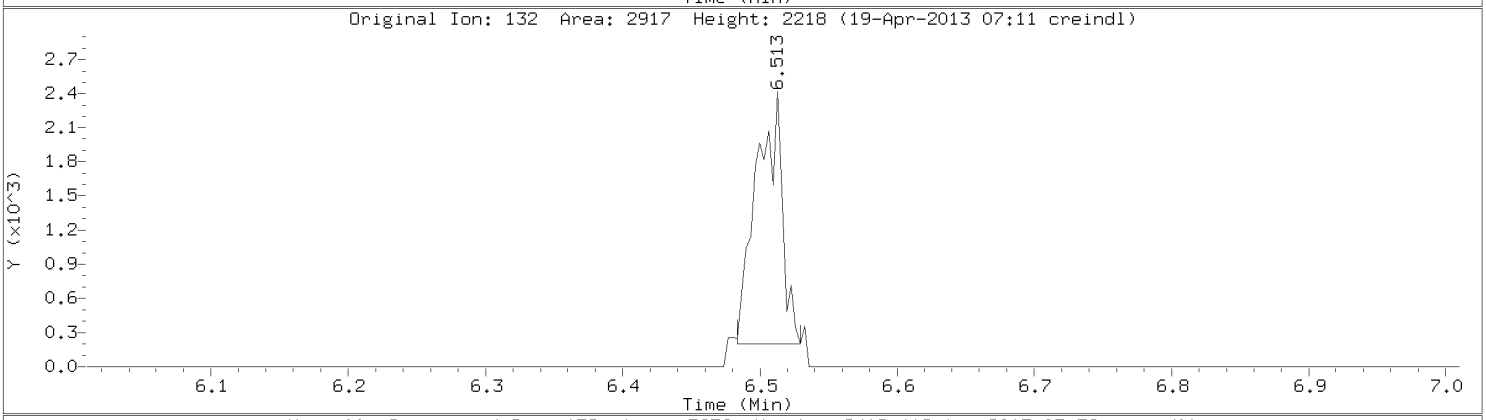


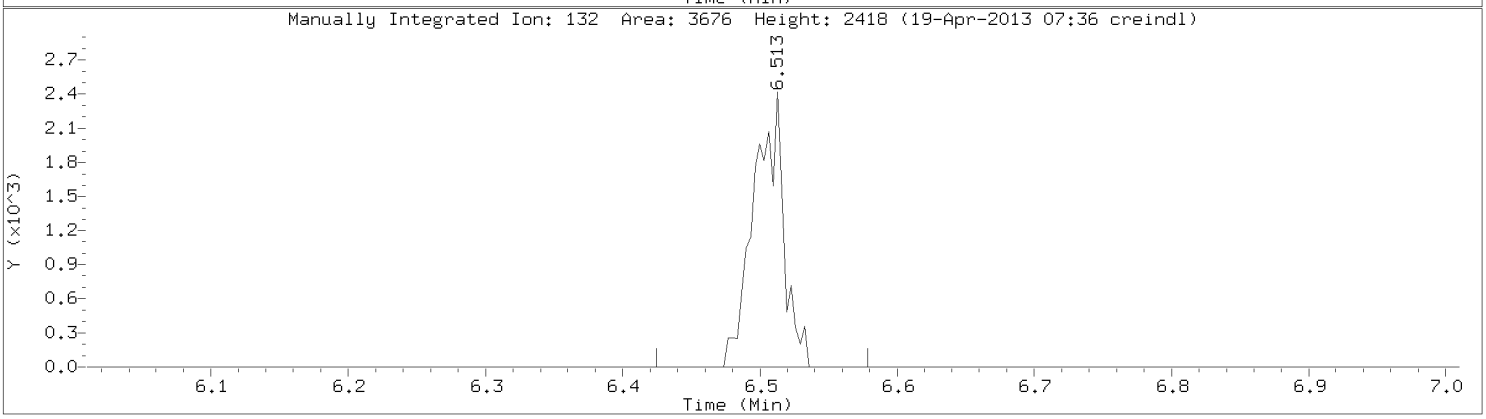
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Injection Date: 18-APR-2013 20:32
Instrument: 10airD.i
Lab Sample ID: 10224616004

Compound: Trichloroethene
CAS Number: 79-01-6

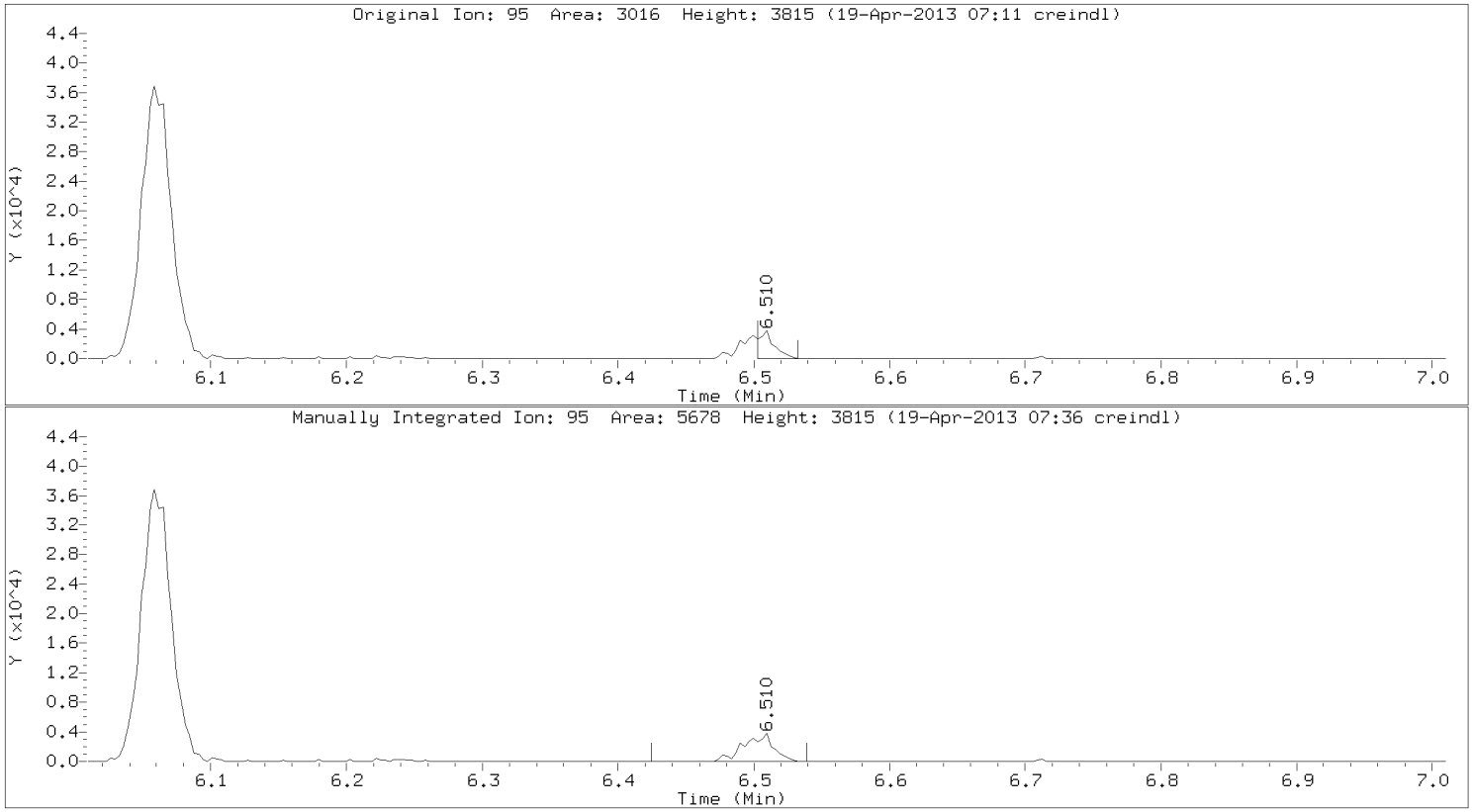






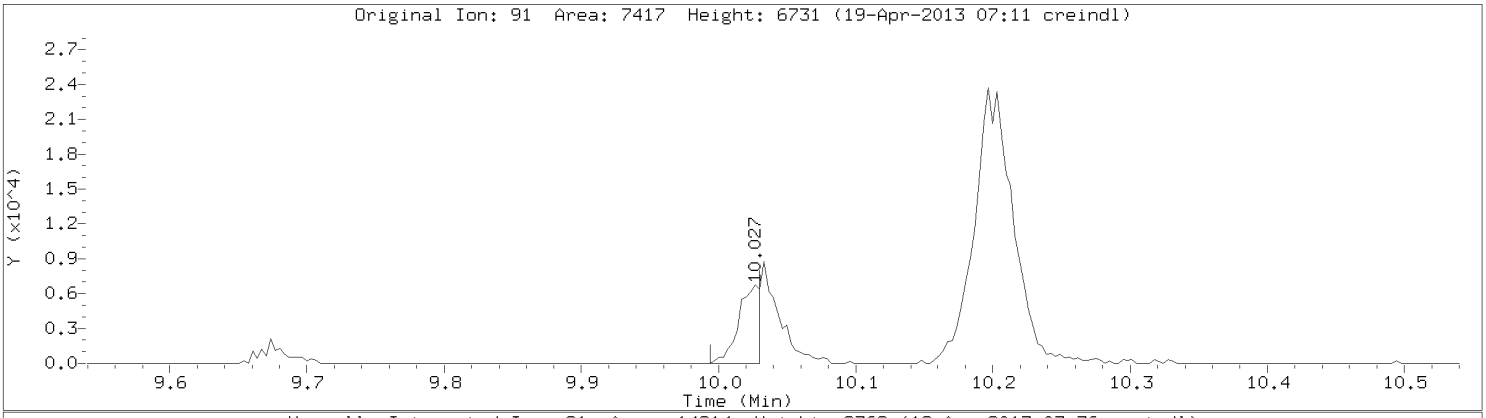


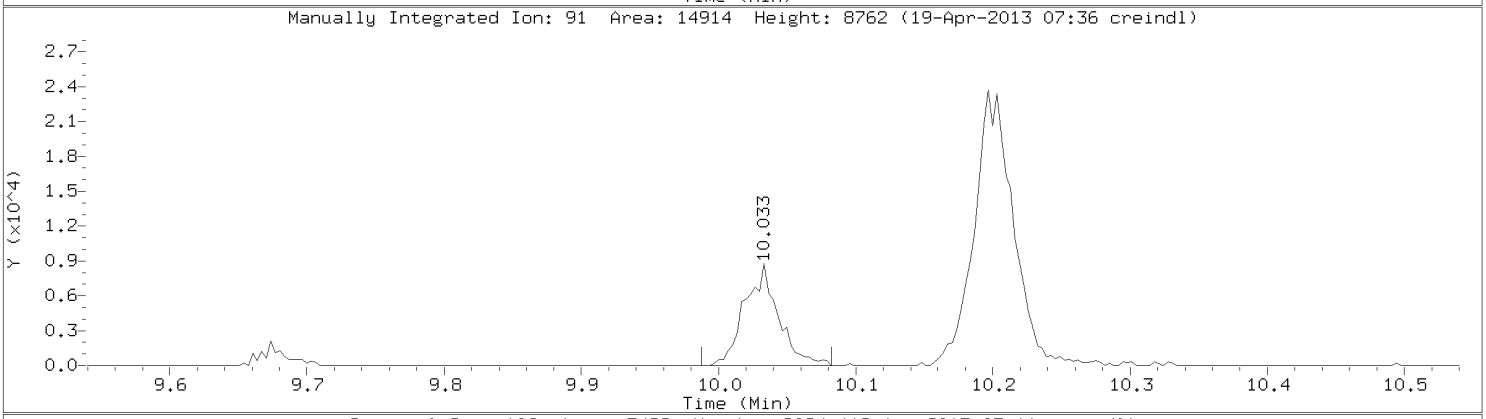
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Injection Date: 18-APR-2013 20:32
Instrument: 10airD.i
Lab Sample ID: 10224616004

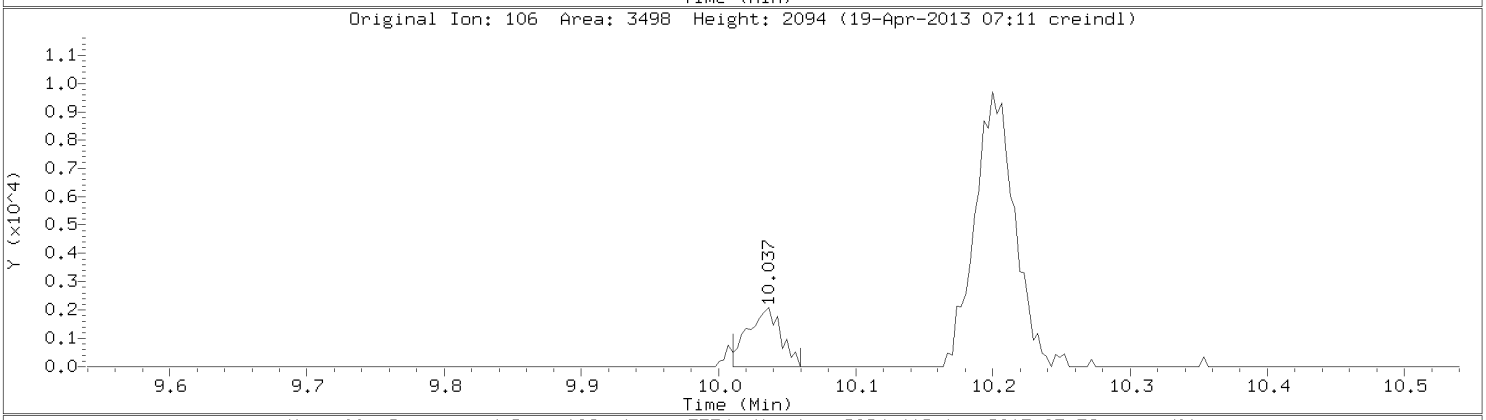


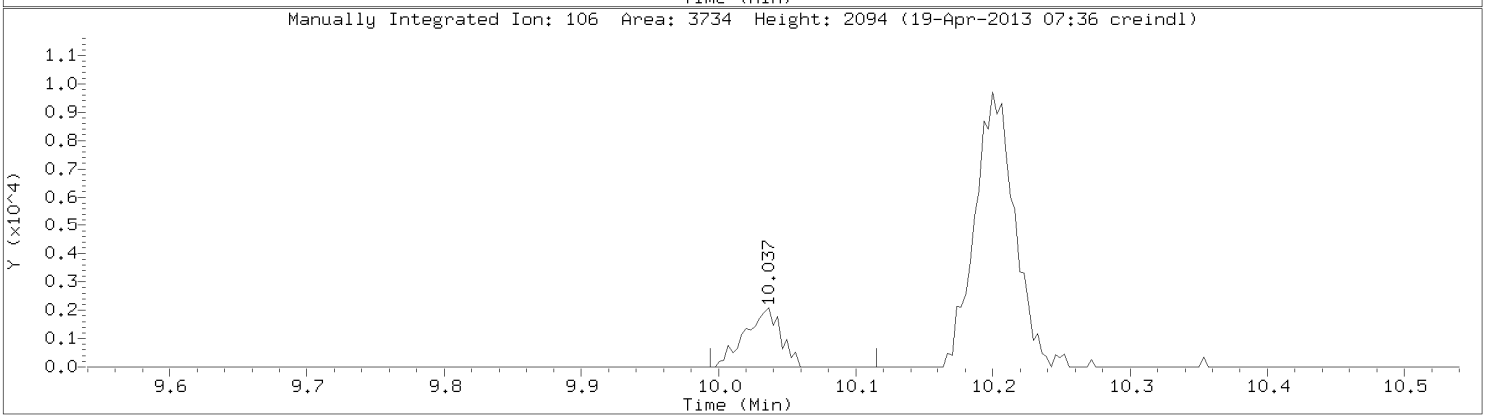
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Injection Date: 18-APR-2013 20:32
Instrument: 10airD.i
Lab Sample ID: 10224616004

Compound: Ethyl Benzene
CAS Number: 100-41-4



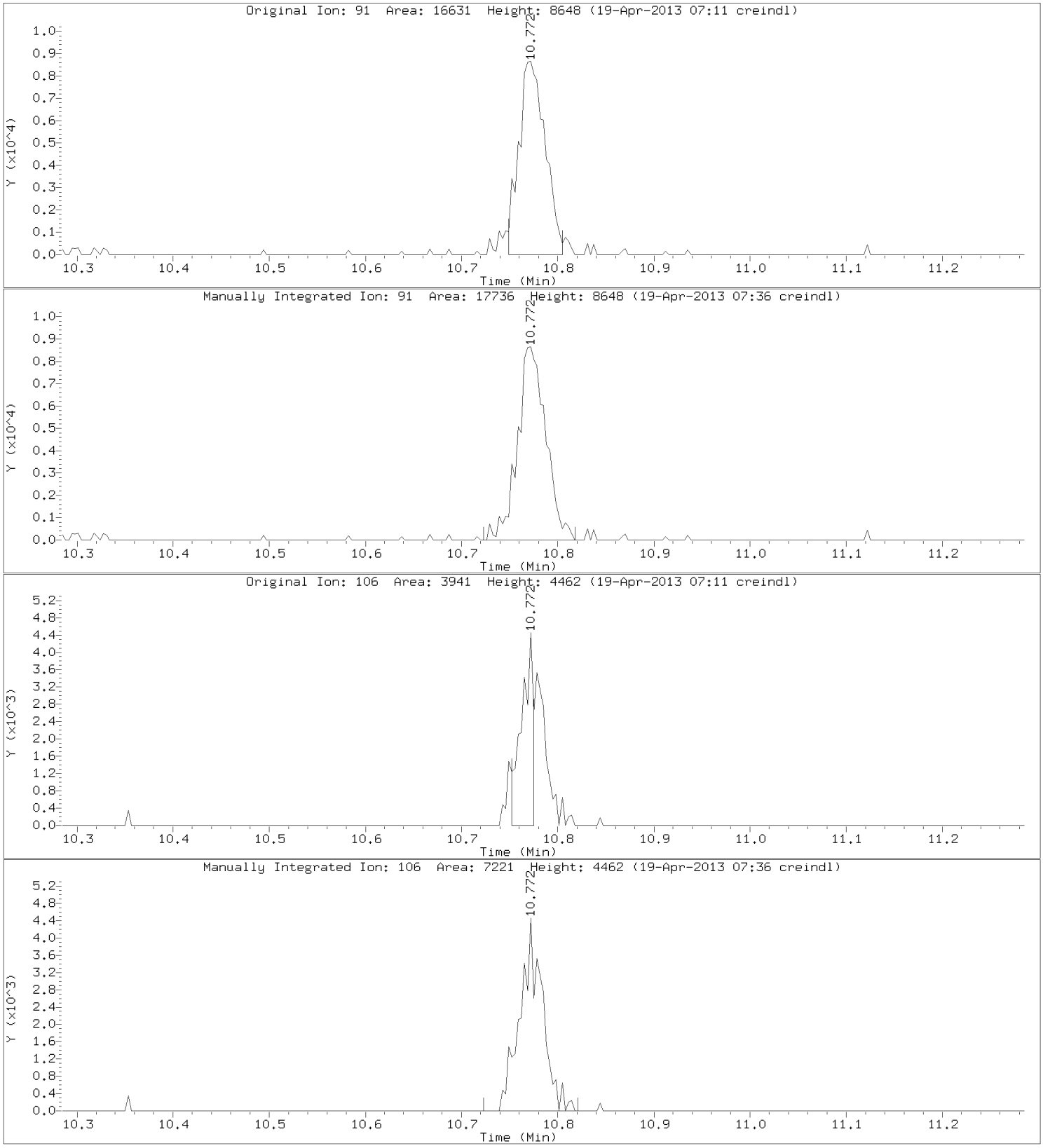






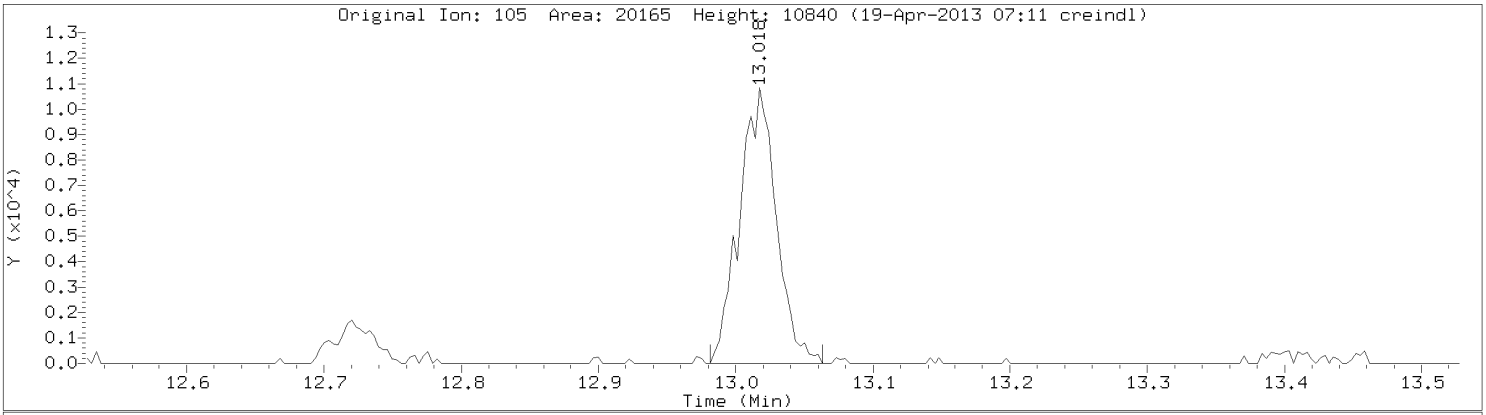
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Injection Date: 18-APR-2013 20:32
Instrument: 10airD.i
Lab Sample ID: 10224616004

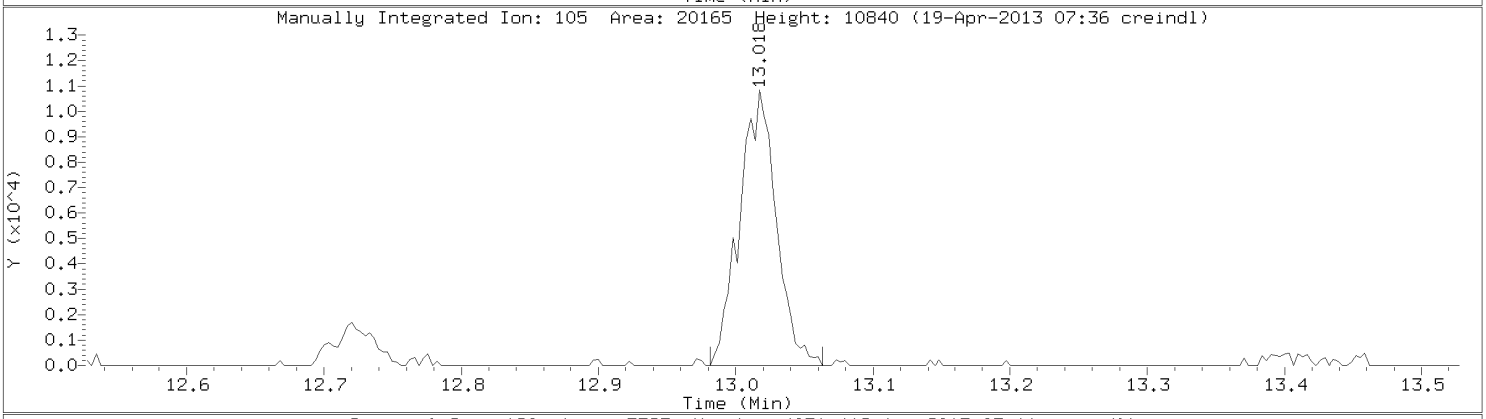
Compound: o-Xylene
CAS Number: 95-47-6

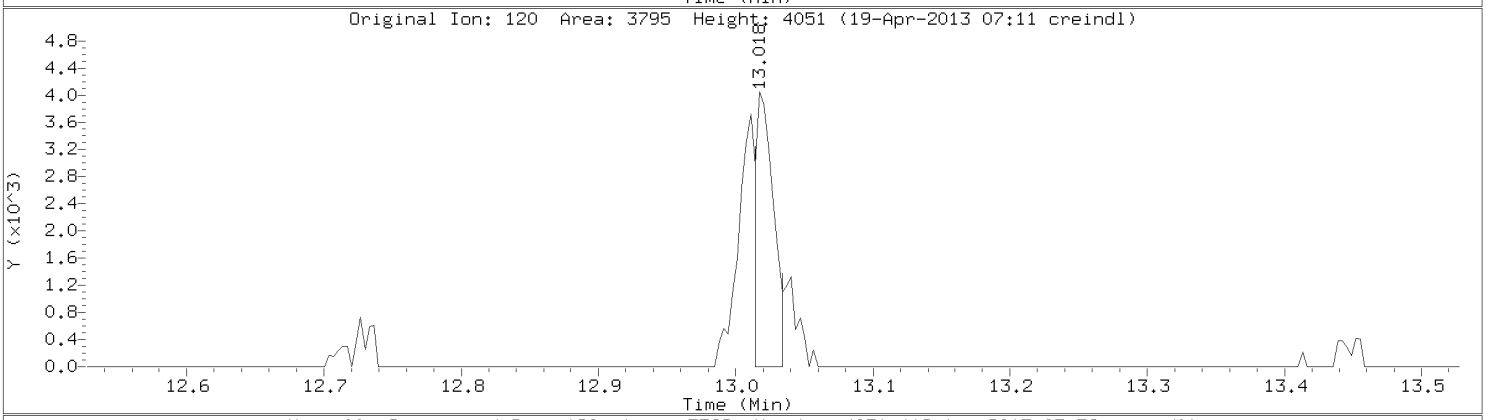


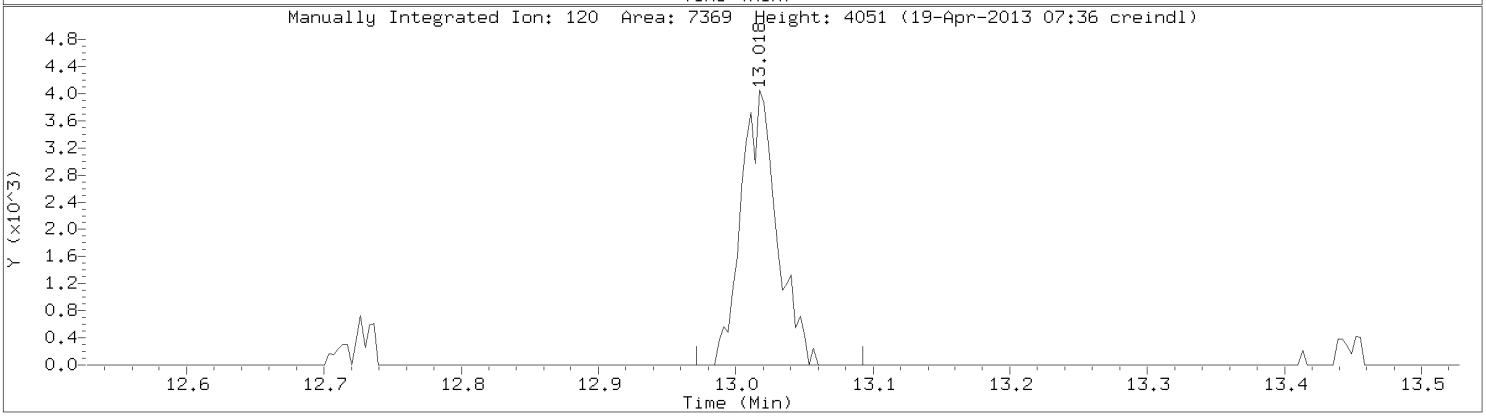
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10819.d
Injection Date: 18-APR-2013 20:32
Instrument: 10airD.i
Lab Sample ID: 10224616004

Compound: 1,2,4-Trimethylbenzene
CAS Number: 95-63-6









Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.d
Report Date: 19-Apr-2013 07:28

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10815.d
Lab Smp Id: 10224616005
Inj Date : 18-APR-2013 18:03
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17165
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 19-Apr-2013 07:11 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 15
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.340	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	Compound Not Detected.					
2	Dichlorodifluoromethane	85	2.950	2.950	(0.487)	51332	0.31099	0.417
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	Compound Not Detected.					
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	Compound Not Detected.					
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	3.427	3.424	(0.565)	433224	17.6798	23.7
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	3.646	3.643	(0.602)	21492	0.14314	0.192
13	Acetone	43	Compound Not Detected.					
14	Isopropyl Alcohol	45	3.702	3.702	(0.611)	6090686	118.914	159(AQ)
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	Compound Not Detected.					
19	Methylene chloride	49	4.042	4.045	(0.667)	8260	0.18597	0.249
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	Compound Not Detected.					
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.d
Report Date: 19-Apr-2013 07:28

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ppbv)	FINAL (ppbv)
	24	Vinyl Acetate	43	Compound Not Detected.					
	25	1,1-Dichloroethane	63	Compound Not Detected.					
$	26	Hexane-d14(S)	66	4.656	4.660	(0.768)	615667	9.01436	9.01
	27	Methyl Ethyl Ketone	72	4.738	4.738	(0.782)	10220	0.48377	0.648(QM)
	28	n-Hexane	57	4.774	4.777	(0.788)	22018	0.34527	0.463(M)
	29	cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30	Ethyl Acetate	43	4.963	4.964	(0.819)	36920	0.61522	0.824(Q)
	31	Chloroform	83	Compound Not Detected.					
	32	Tetrahydrofuran	42	Compound Not Detected.					
	33	1,1,1-Trichloroethane	97	Compound Not Detected.					
	34	1,2-Dichloroethane	62	Compound Not Detected.					
	35	Benzene	78	5.852	5.856	(0.965)	20619	0.14761	0.198
	36	Carbon tetrachloride	117	Compound Not Detected.					
	37	Cyclohexane	56	5.888	5.882	(0.971)	6469	0.37673	0.505(QM)
*	38	1,4-Difluorobenzene	114	6.062	6.069	(1.000)	1533173	10.0000	
	39	2,2,4-Trimethylpentane	57	Compound Not Detected.					
	40	Heptane	43	6.408	6.415	(1.057)	9002	0.57878	0.776(M)
	41	1,2-Dichloropropane	63	Compound Not Detected.					
	42	Trichloroethene	130	6.503	6.510	(1.073)	12129	0.32350	0.433
	43	1,4-Dioxane	88	Compound Not Detected.					
	44	Bromodichloromethane	83	Compound Not Detected.					
	45	Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46	cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47	trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48	Toluene-d8 (S)	98	7.827	7.837	(1.291)	1359443	9.68596	9.68
	49	Toluene	91	7.921	7.925	(1.307)	86659	0.45145	0.605
	50	1,1,2-Trichloroethane	97	Compound Not Detected.					
	51	Methyl Butyl Ketone	43	Compound Not Detected.					
	52	Dibromochloromethane	129	Compound Not Detected.					
	53	1,2-Dibromoethane	107	Compound Not Detected.					
	54	Tetrachloroethene	166	Compound Not Detected.					
*	55	Chlorobenzene - d5	117	9.677	9.684	(1.000)	845092	10.0000	
	56	Chlorobenzene	112	Compound Not Detected.					
	57	Ethyl Benzene	91	10.026	10.040	(1.036)	11066	0.17652	0.236(M)
	58	m&p-Xylene	91	10.200	10.210	(1.054)	38008	0.24960	0.334
	59	Bromoform	173	Compound Not Detected.					
	60	Styrene	104	Compound Not Detected.					
	61	o-Xylene	91	10.772	10.785	(1.113)	16603	0.11667	0.156
	62	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63	Isopropylbenzene	105	Compound Not Detected.					
	64	N-Propylbenzene	91	Compound Not Detected.					
	65	4-Ethyltoluene	105	Compound Not Detected.					
	66	1,3,5-Trimethylbenzene	105	Compound Not Detected.					
	67	1,2,4-Trimethylbenzene	105	13.014	13.028	(1.345)	22026	0.25671	0.344
	68	1,3-Dichlorobenzene	146	Compound Not Detected.					
	69	Sec- Butylbenzene	105	Compound Not Detected.					
$	70	1,4-dichlorobenzene-d4 (S)	150	13.449	13.466	(1.390)	424735	8.94441	8.94
	71	Benzyl Chloride	91	Compound Not Detected.					
	72	1,4-Dichlorobenzene	146	Compound Not Detected.					
	73	1,2-Dichlorobenzene	146	Compound Not Detected.					
	74	N-Butylbenzene	91	Compound Not Detected.					
	75	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76	Naphthalene	128	Compound Not Detected.					
	77	Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.d
Report Date: 19-Apr-2013 07:28

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.d
Report Date: 19-Apr-2013 07:28

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10815.d
Lab Smp Id: 10224616005
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17165

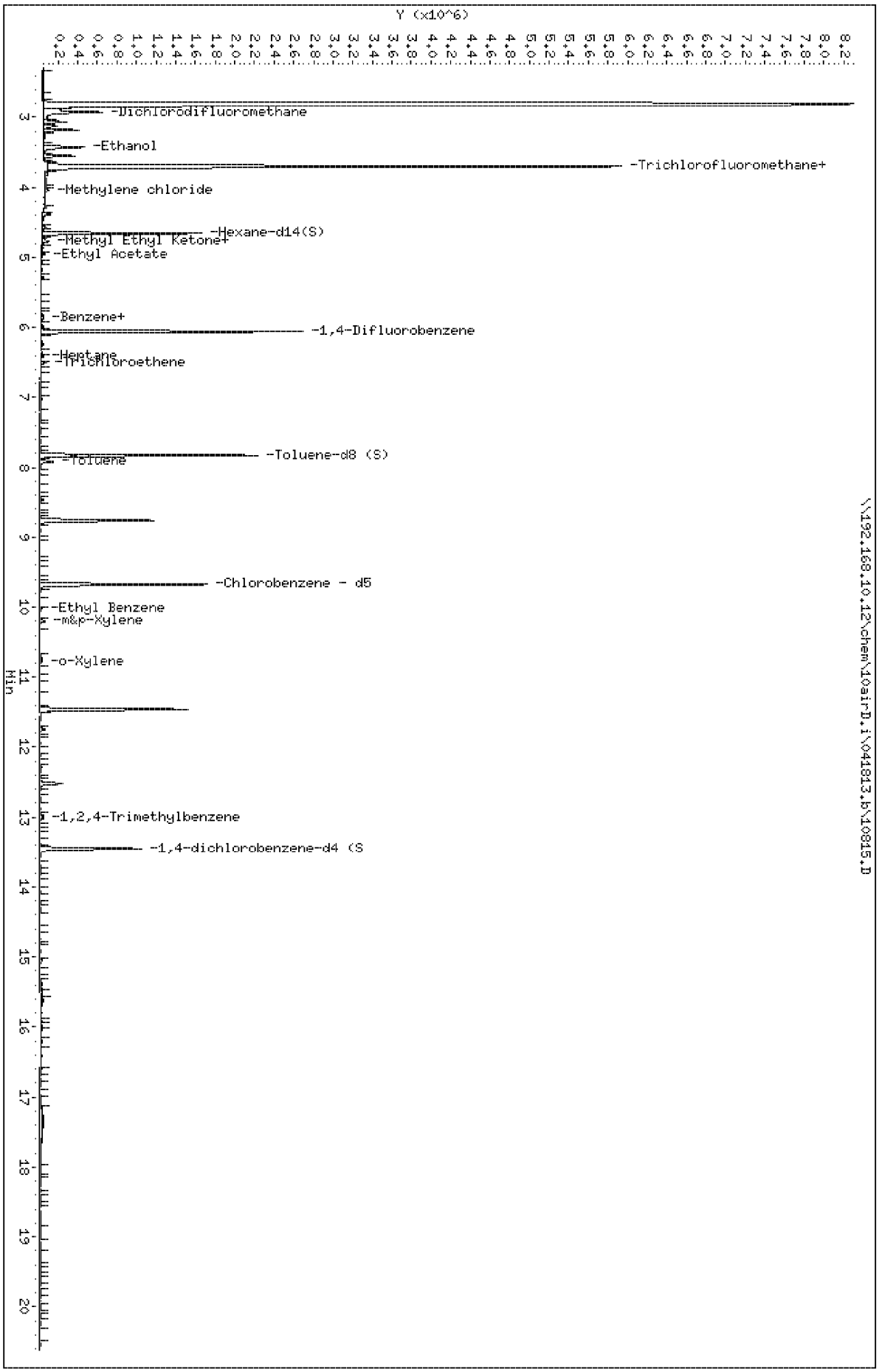
Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1533173	7.03
55 Chlorobenzene - d	825122	495073	1155171	845092	2.42

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.D
Date : 18-APR-2013 18:03
Client ID:
Sample Info:
Column phase: J&W DB-5

Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.D

Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

Sample Info:

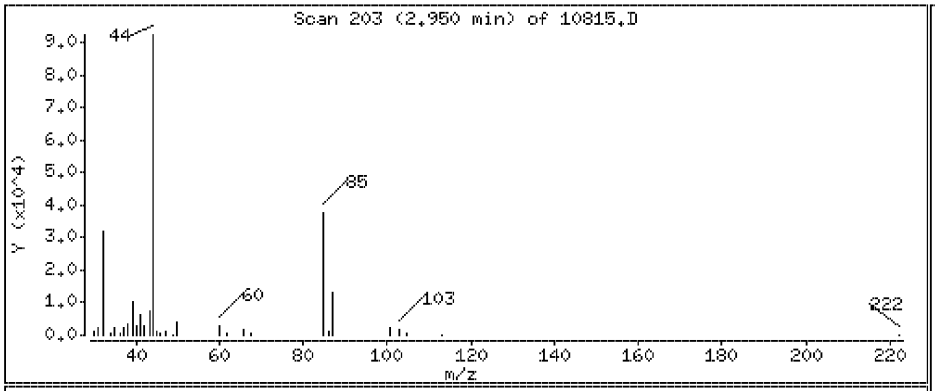
Operator: CJR

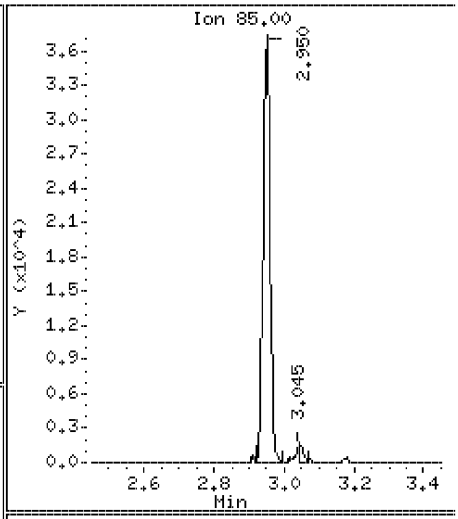
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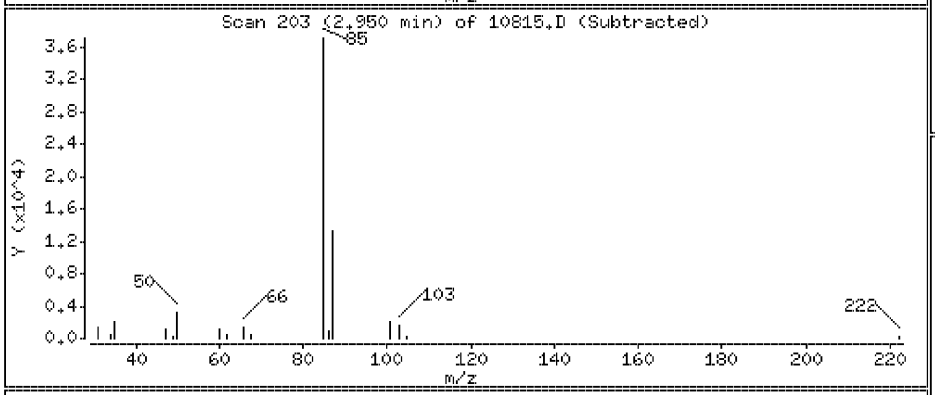
Column diameter: 0.32

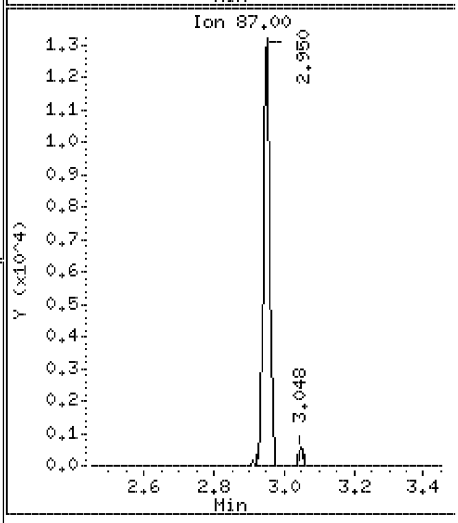
2 Dichlorodifluoromethane

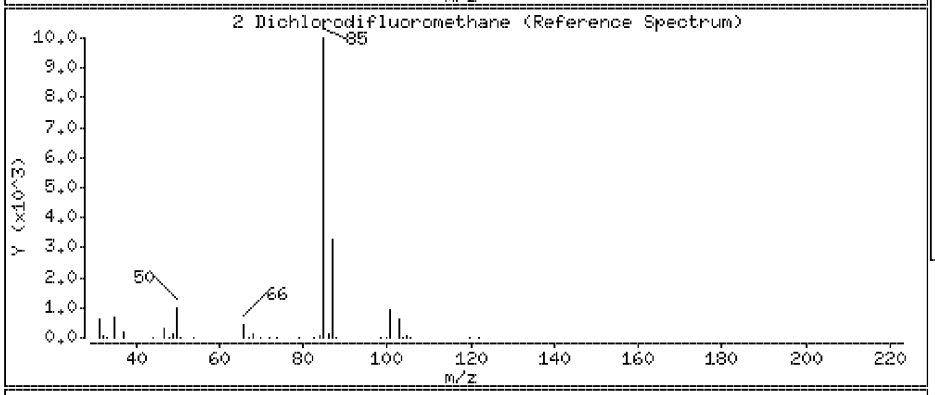
Concentration: 0.417 ppbv

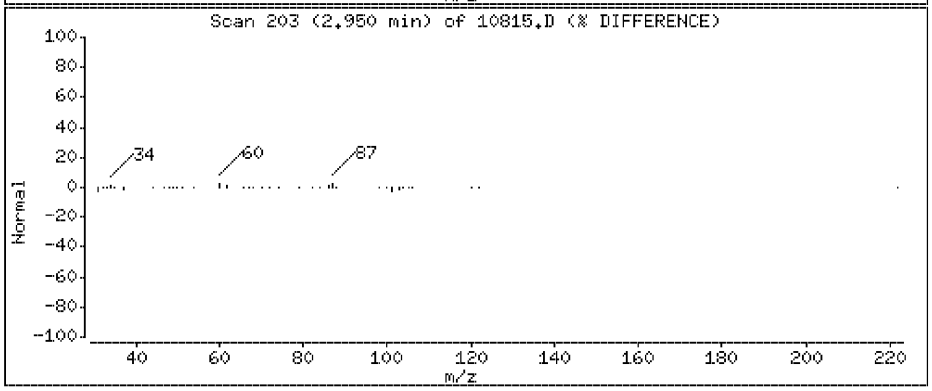












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.D

Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

Sample Info:

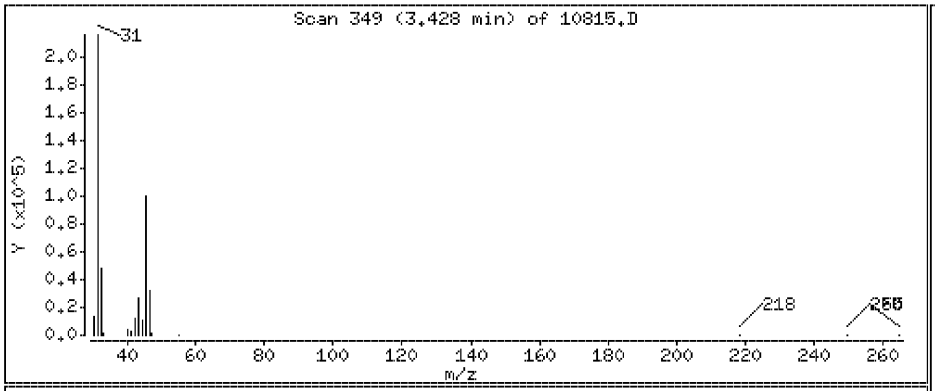
Operator: CJR

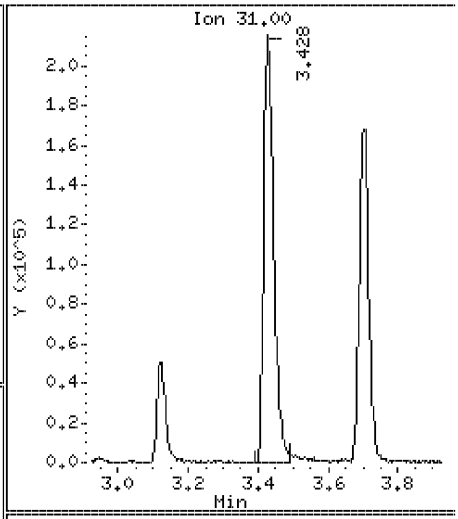
Column phase: J&W DB-5

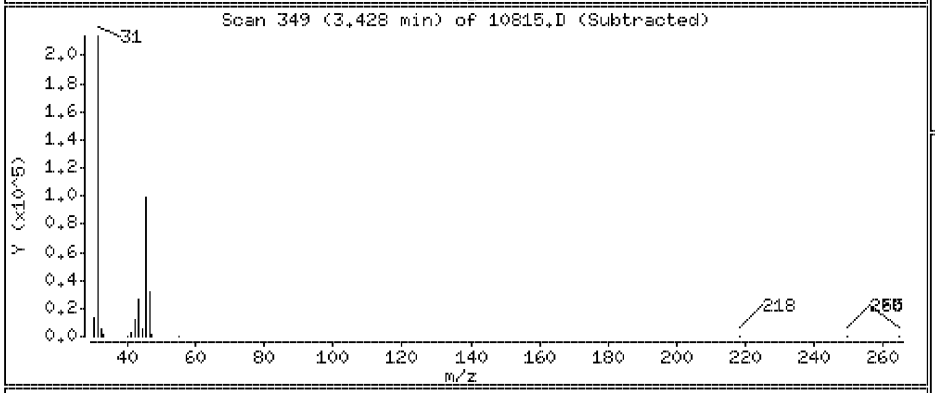
Column diameter: 0.32

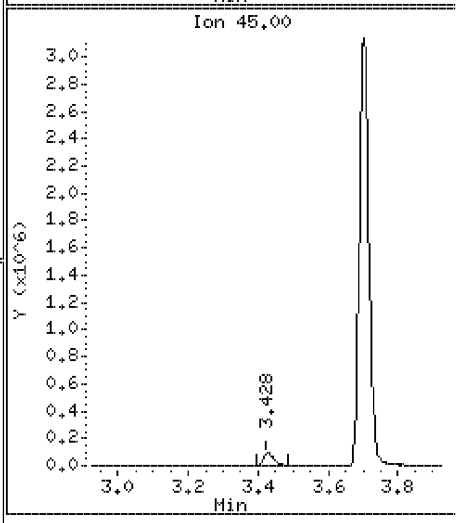
9 Ethanol

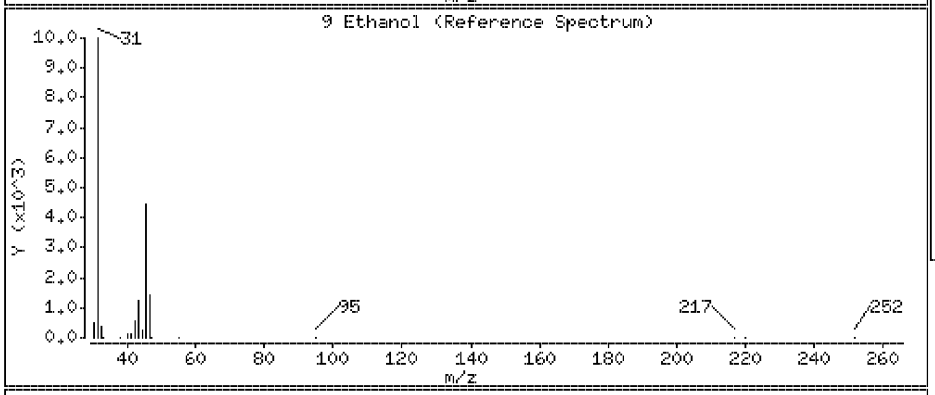
Concentration: 23.7 ppbv

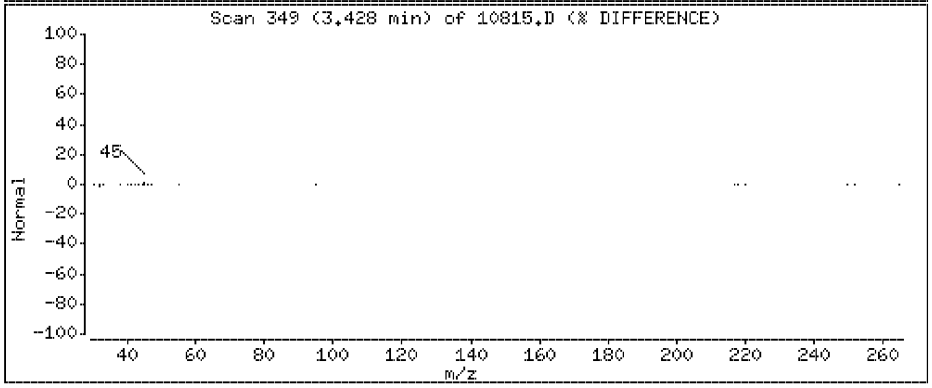












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.D

Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

Sample Info:

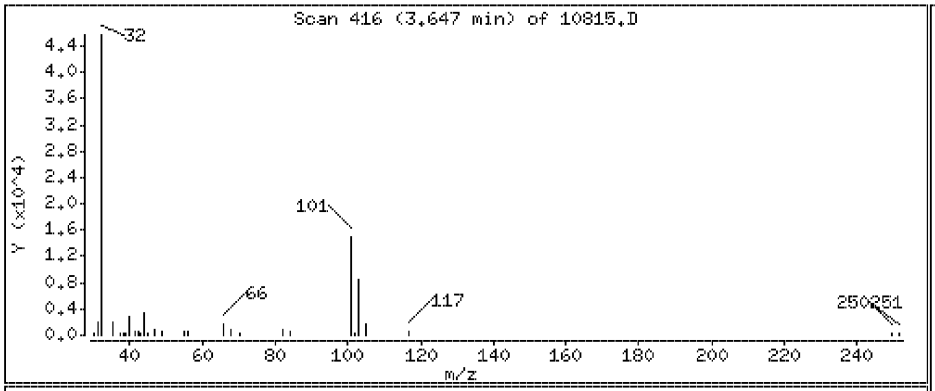
Operator: CJR

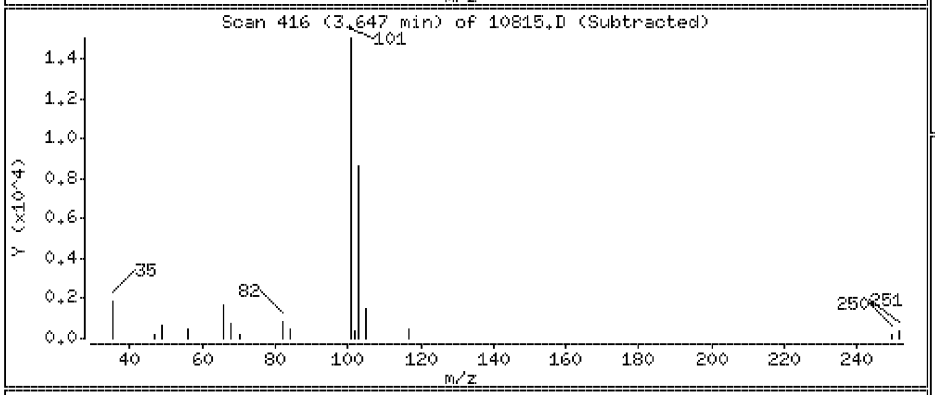
Column phase: J&W DB-5

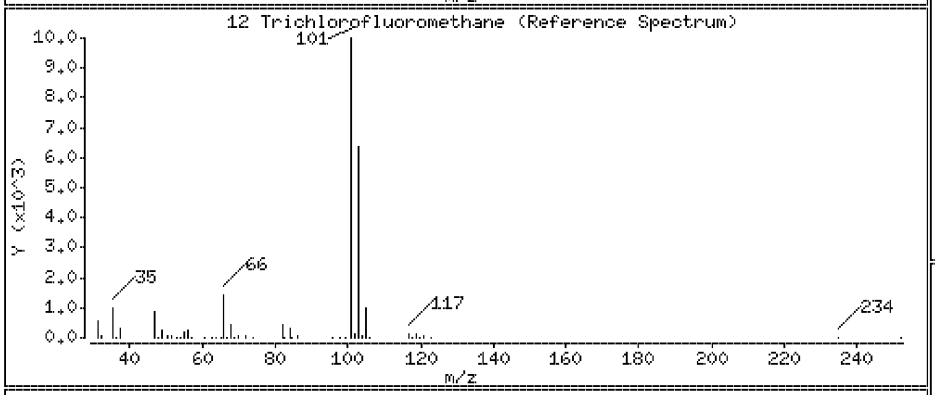
Column diameter: 0.32

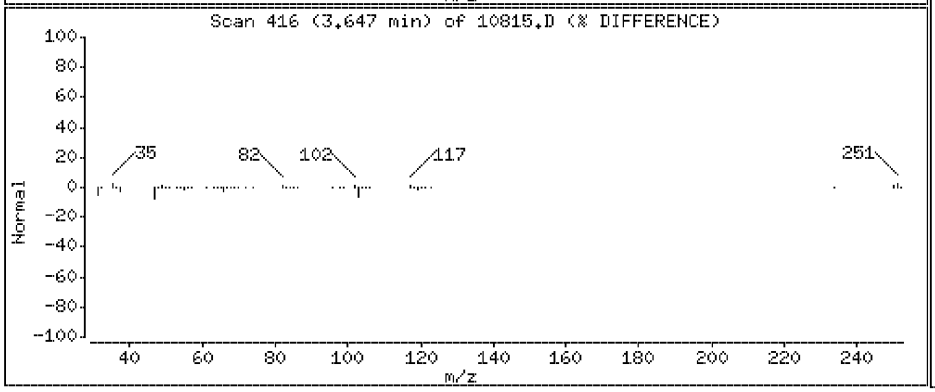
12 Trichlorofluoromethane

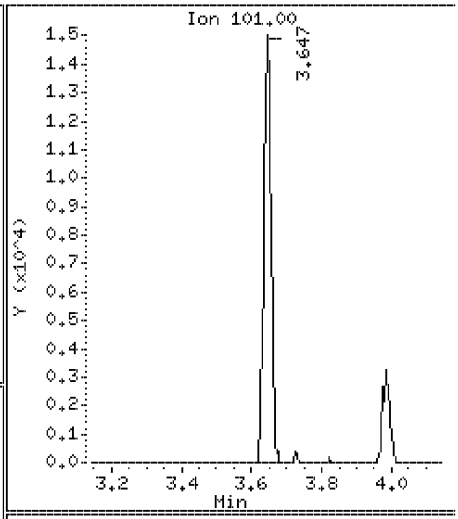
Concentration: 0.192 ppbv

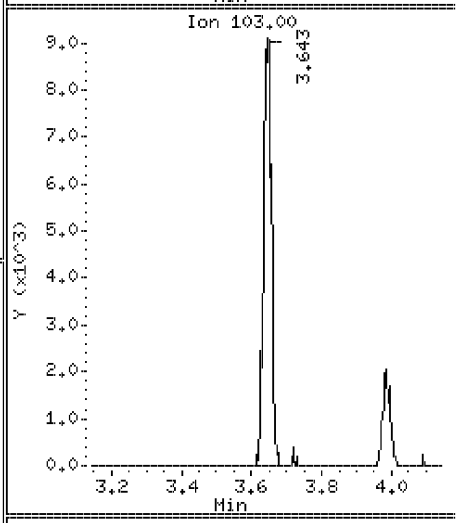


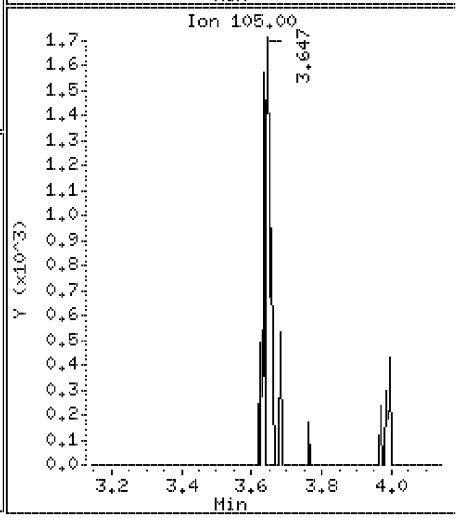












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.D

Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

Sample Info:

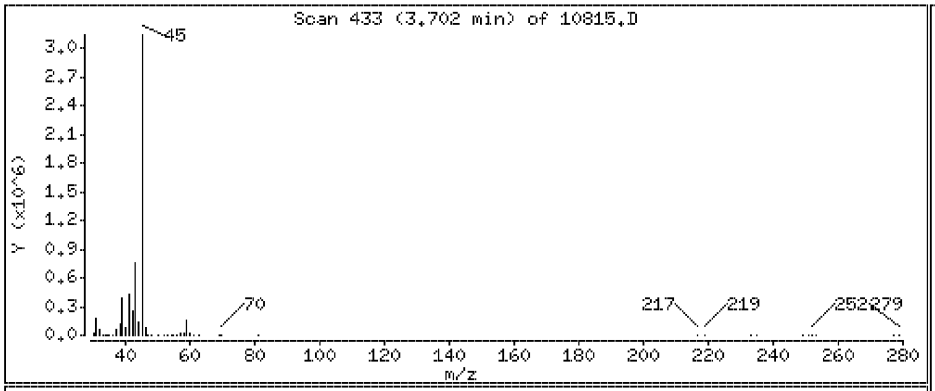
Operator: CJR

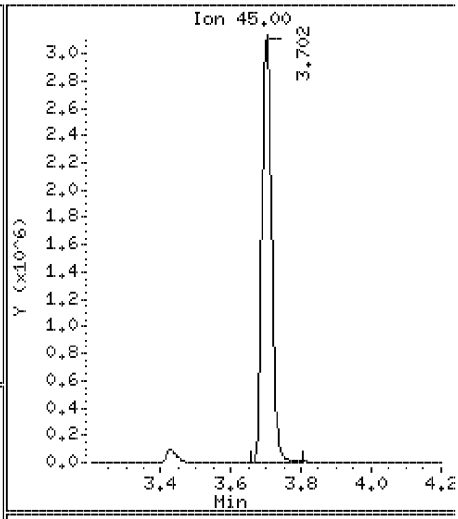
Column phase: J&W DB-5

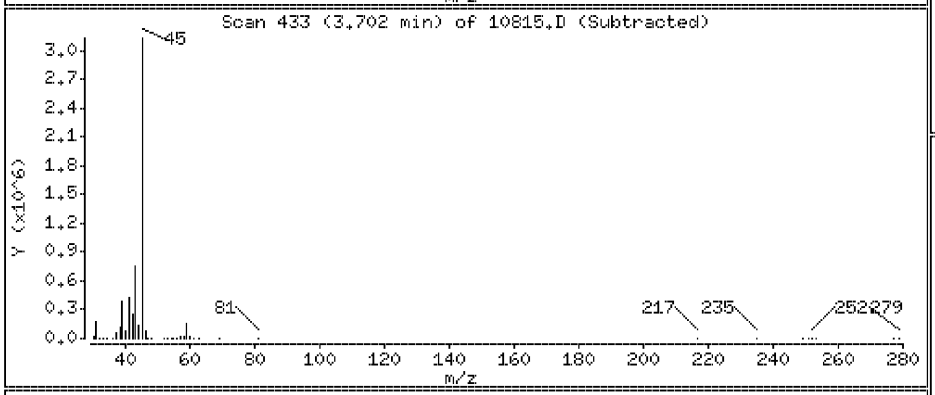
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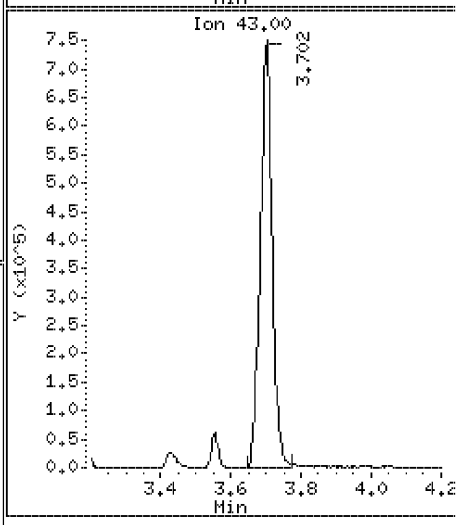
14 Isopropyl Alcohol

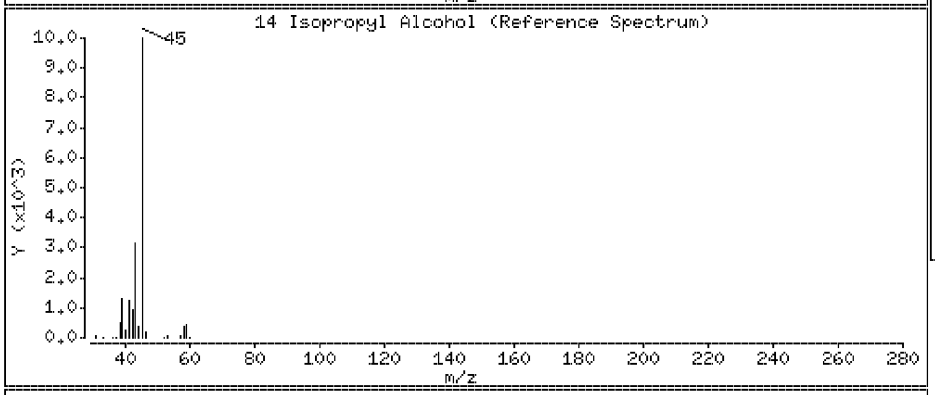
Concentration: 159 ppbv

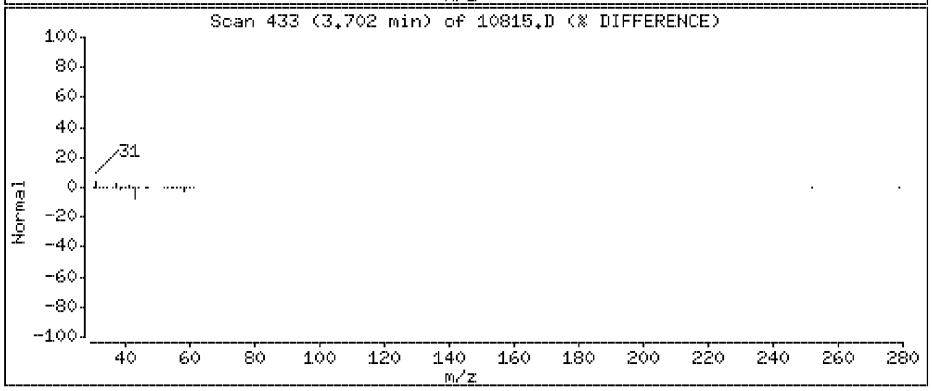












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Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

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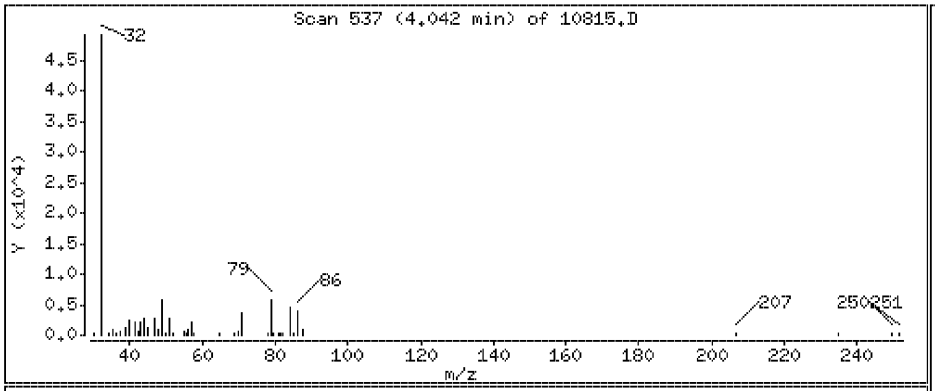
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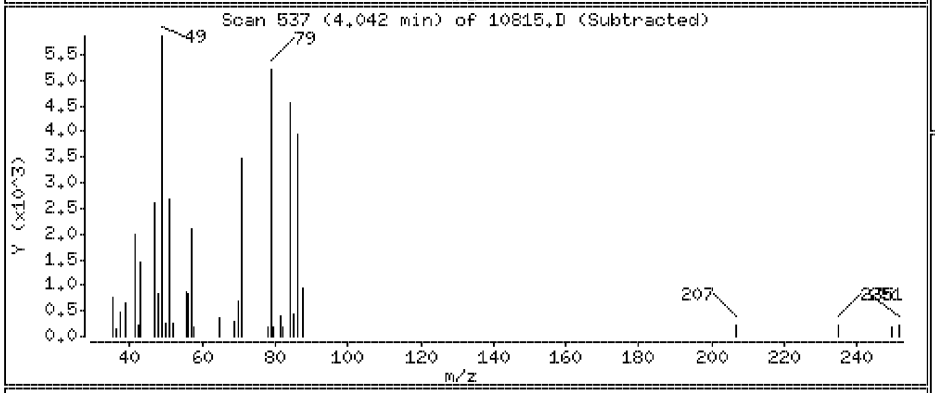
Column phase: J&W DB-5

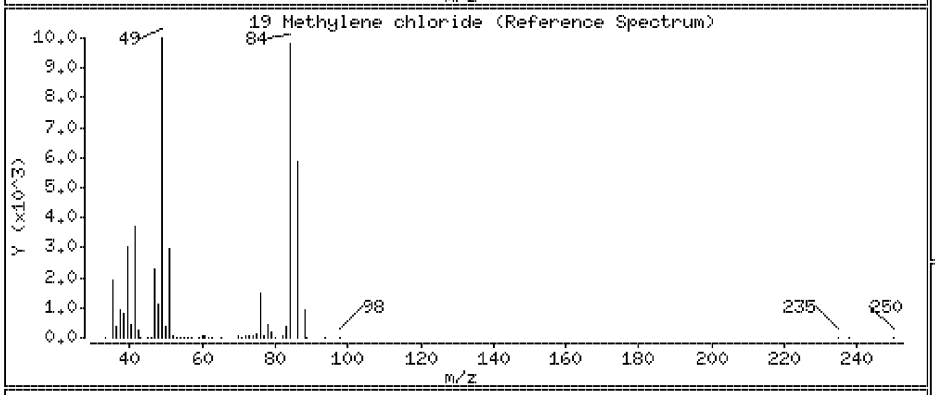
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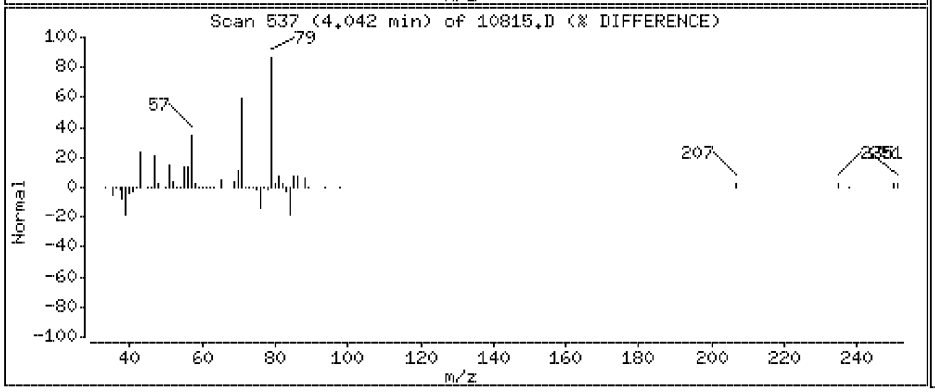
19 Methylene chloride

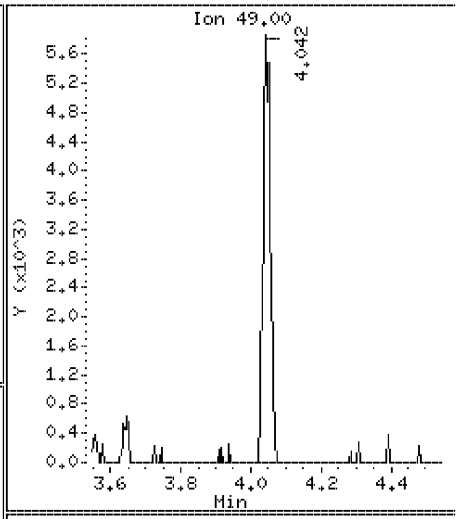
Concentration: 0.249 ppbv

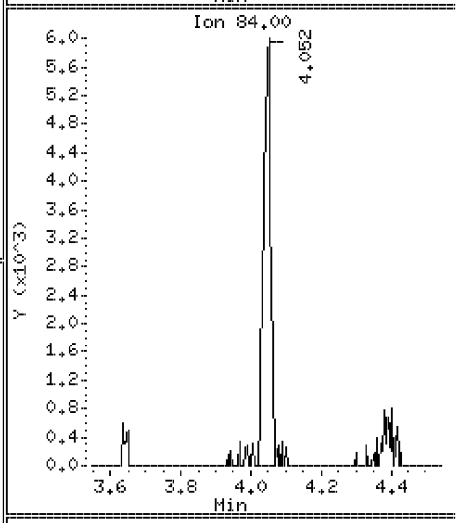


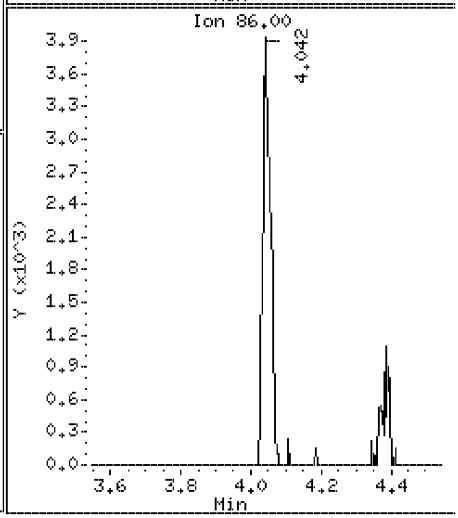












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Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

Sample Info:

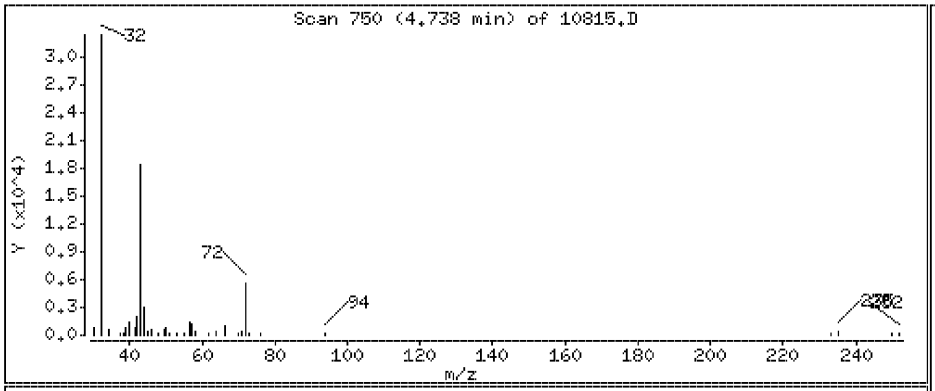
Operator: CJR

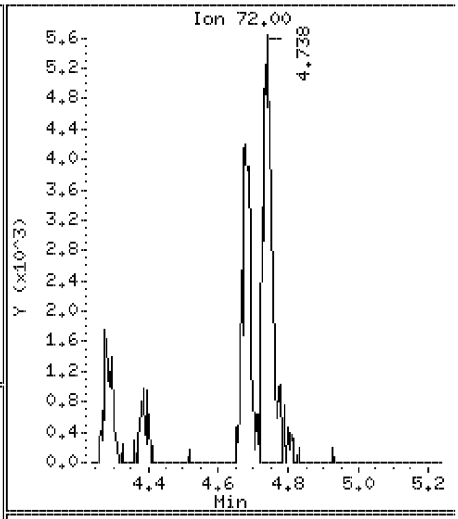
Column phase: J&W DB-5

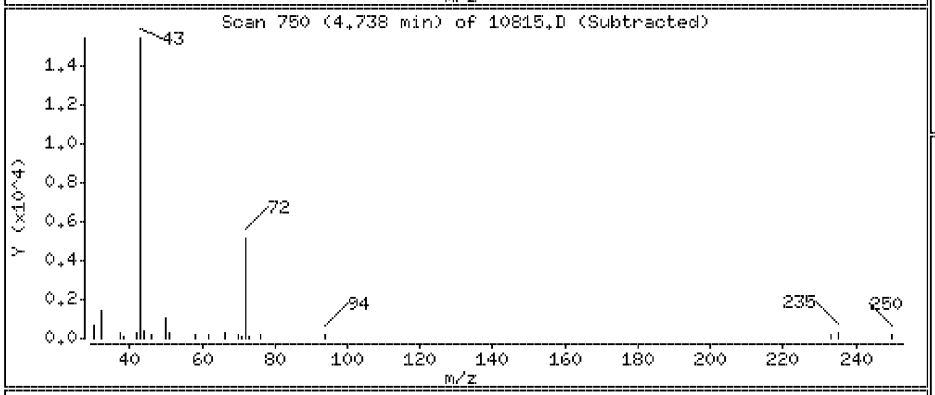
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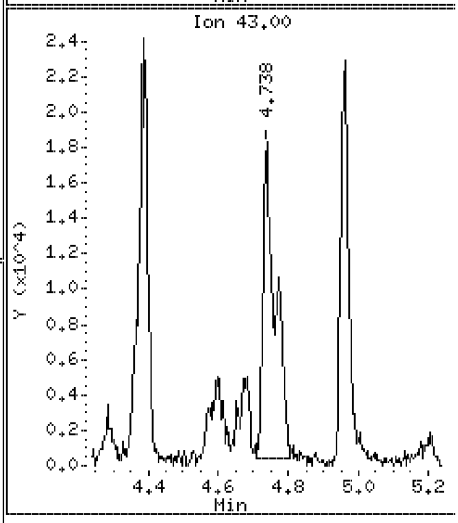
27 Methyl Ethyl Ketone

Concentration: 0.648 ppbv









Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.D

Date : 18-APR-2013 18:03

Client ID:

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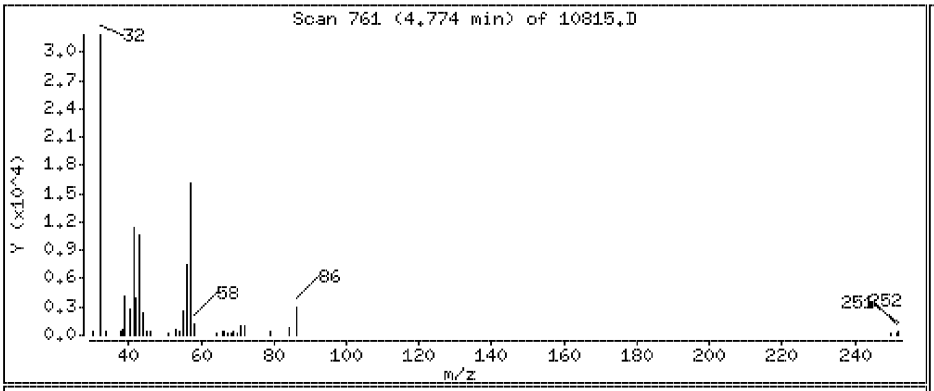
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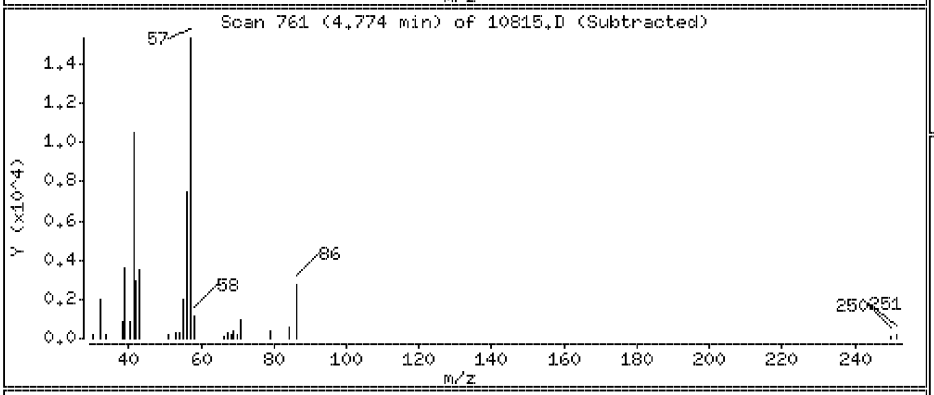
Column phase: J&W DB-5

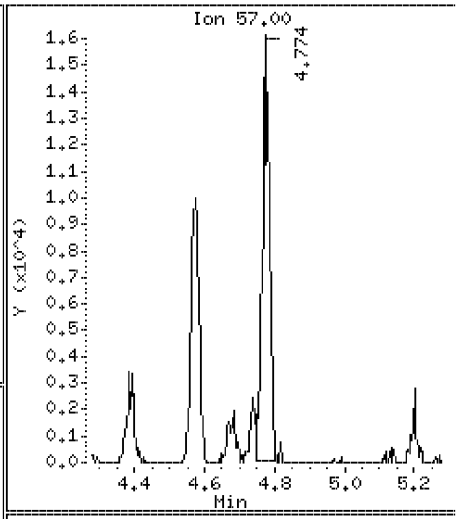
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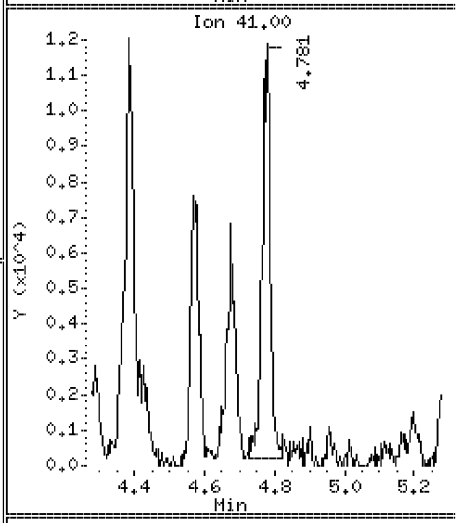
28 n-Hexane

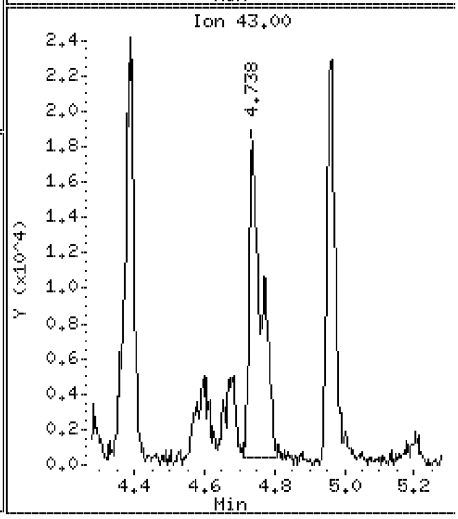
Concentration: 0.463 ppbv











Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.D

Date : 18-APR-2013 18:03

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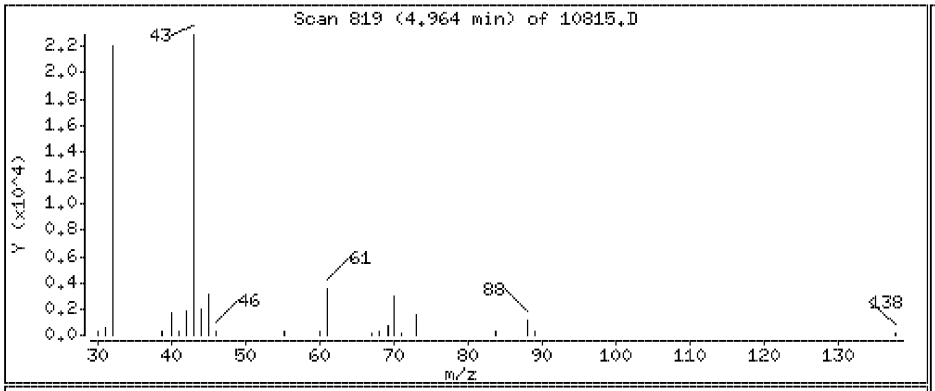
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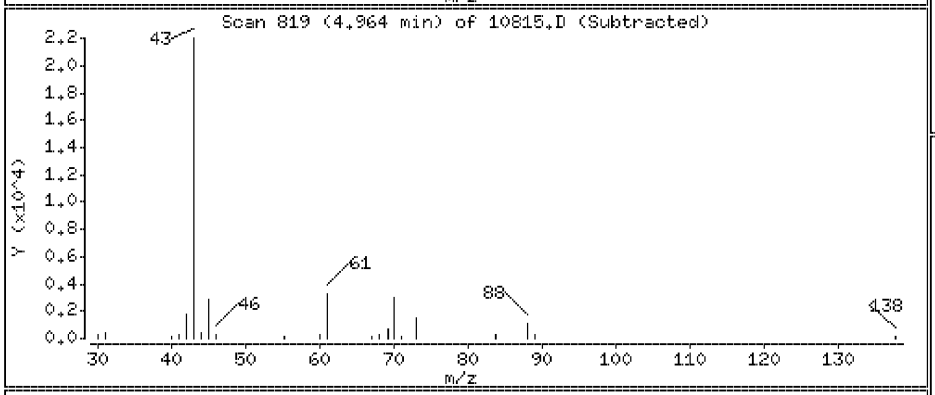
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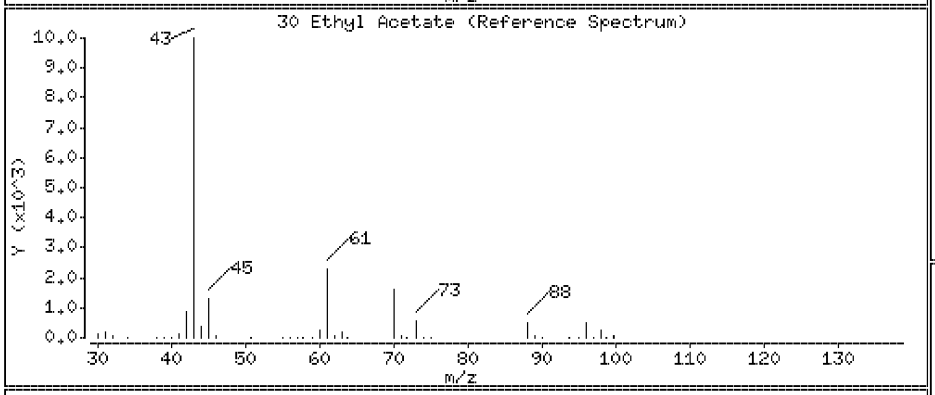
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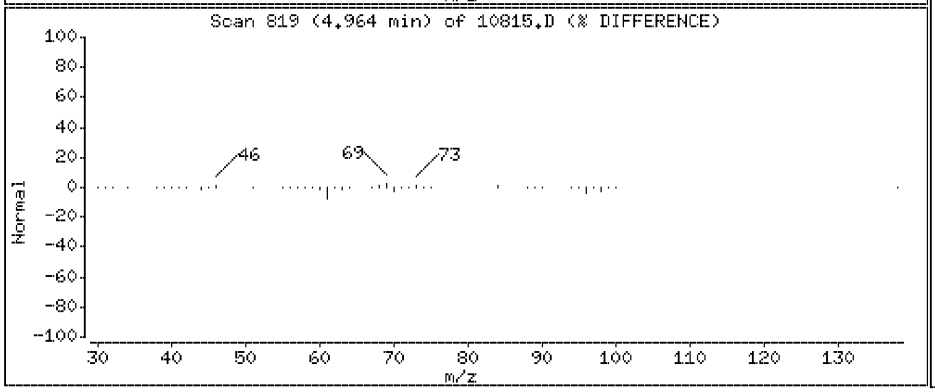
30 Ethyl Acetate

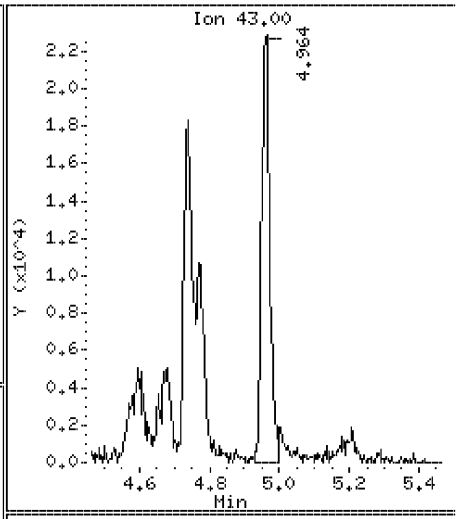
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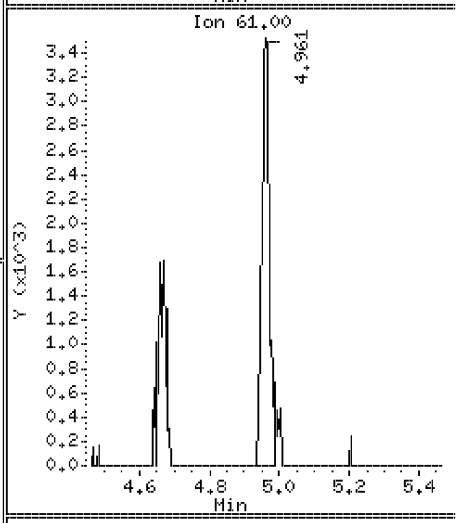


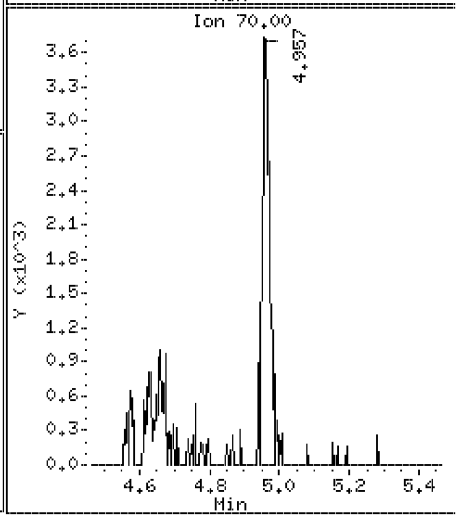












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Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

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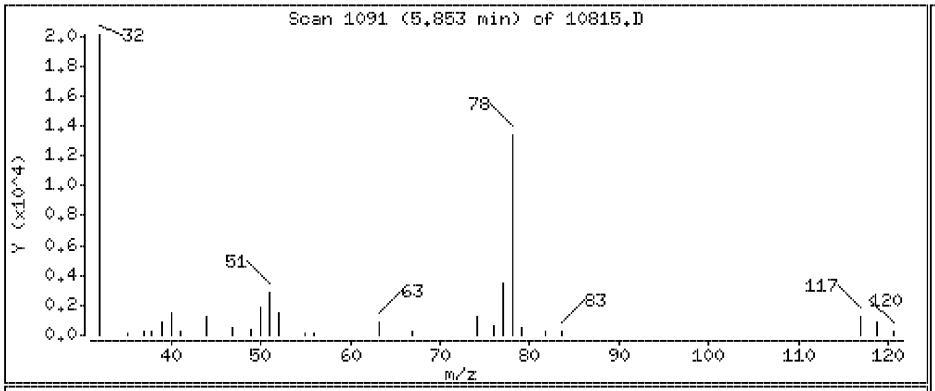
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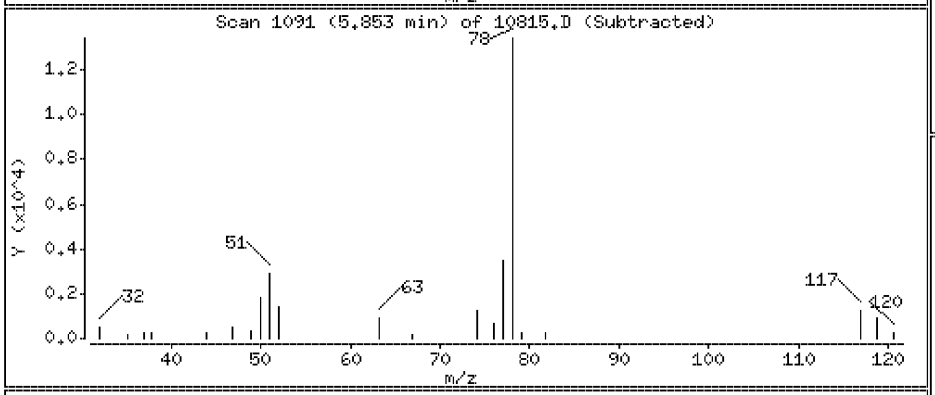
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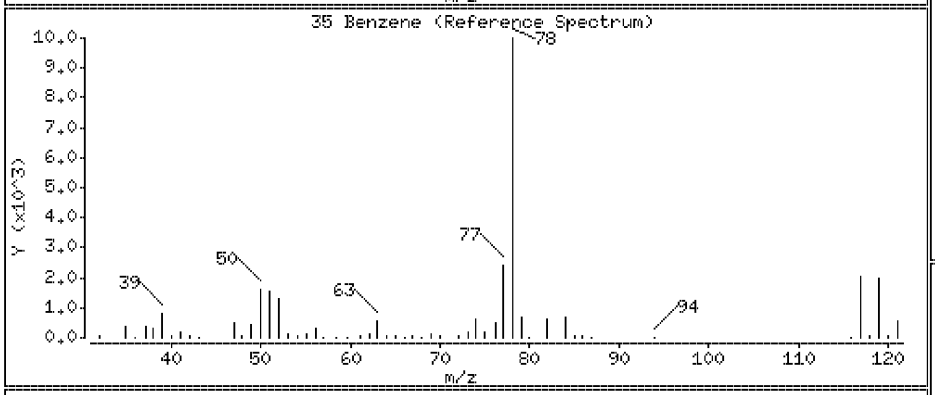
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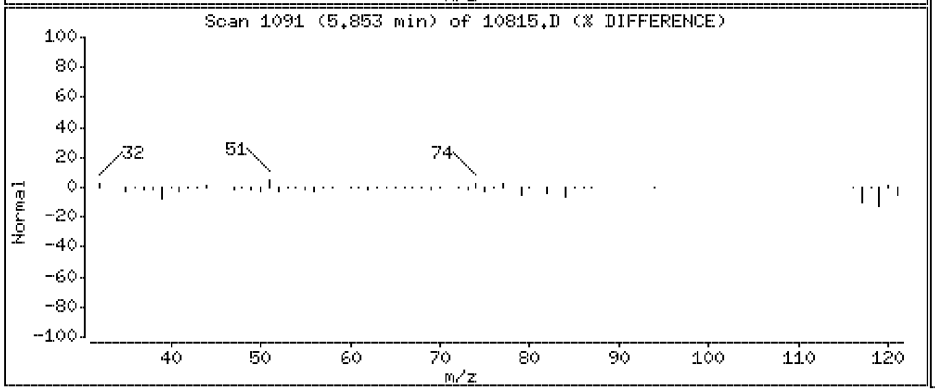
35 Benzene

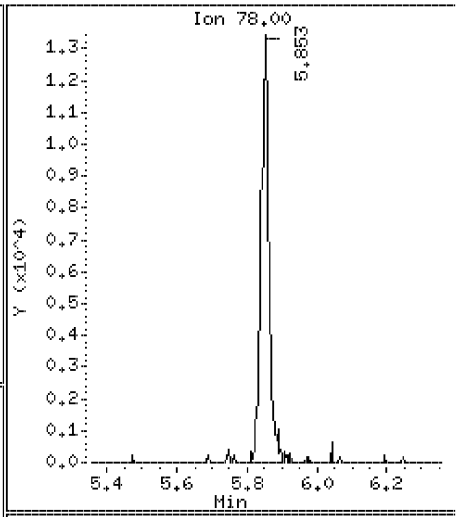
Concentration: 0.198 ppbv

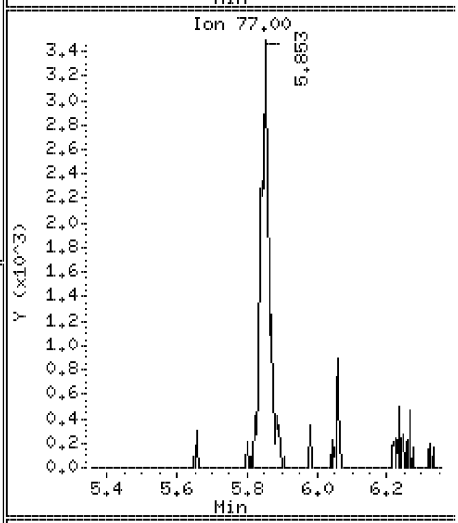


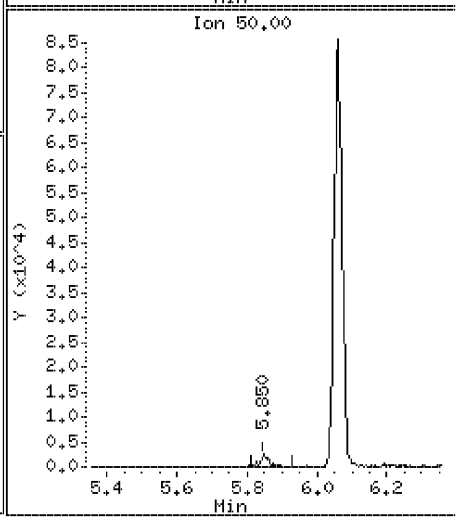












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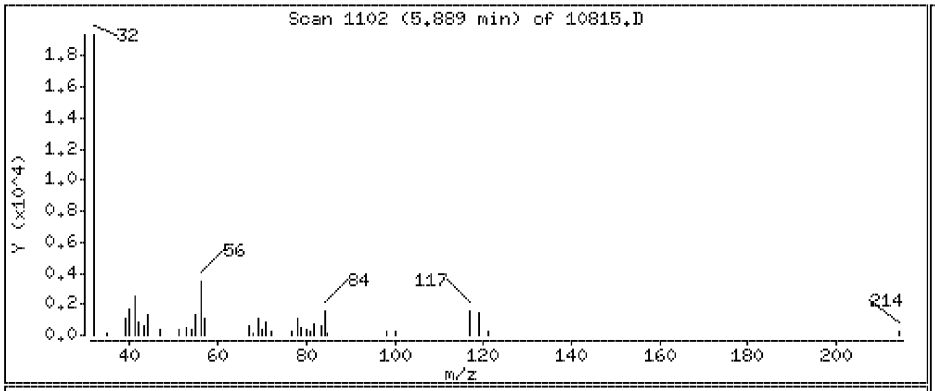
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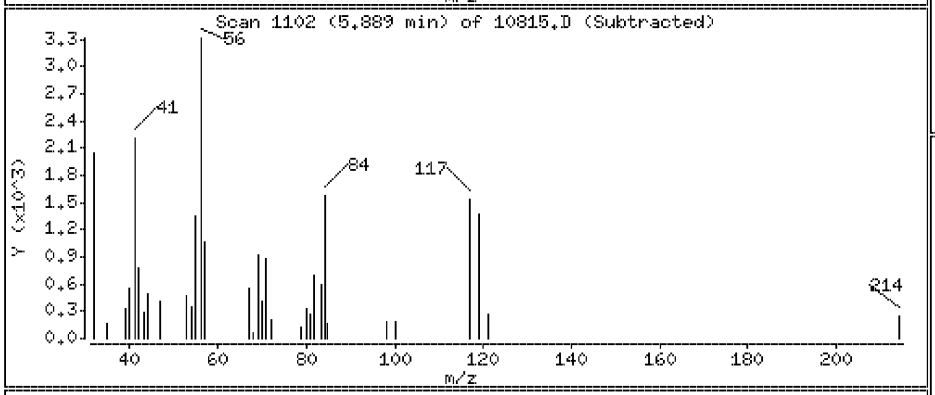
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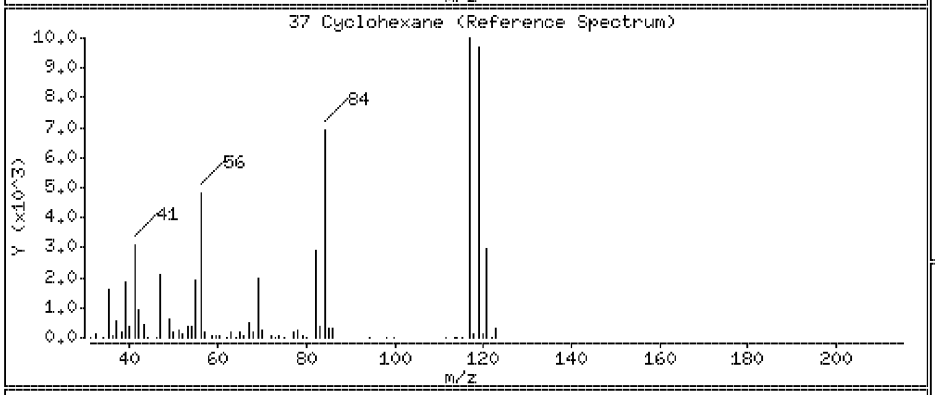
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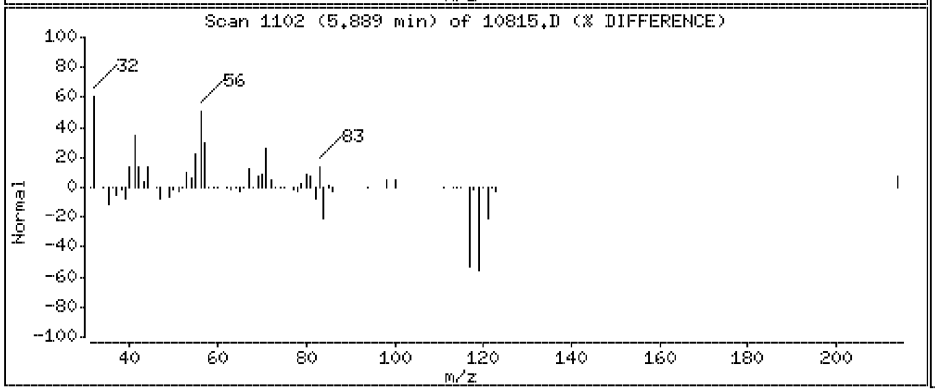
37 Cyclohexane

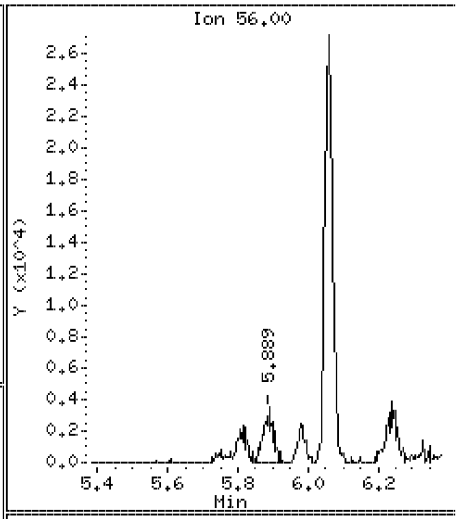
Concentration: 0.505 ppbv

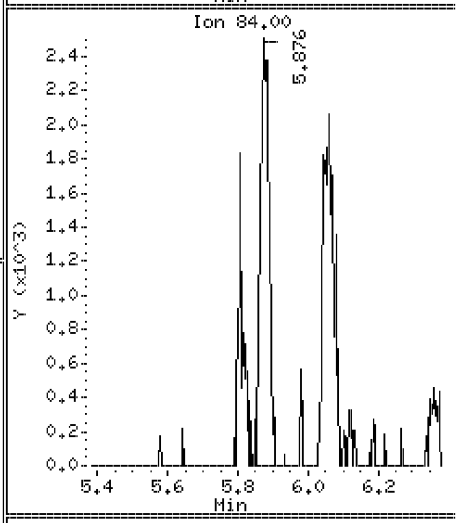


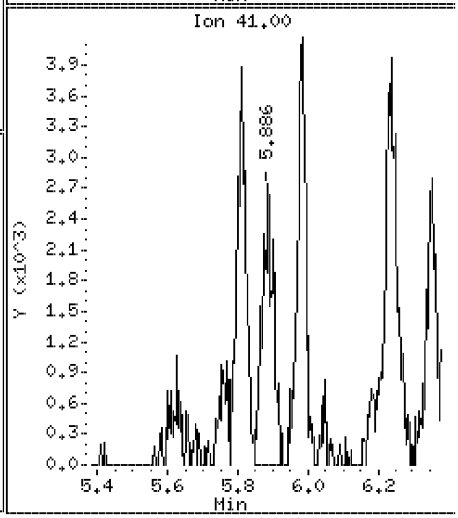












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Date : 18-APR-2013 18:03

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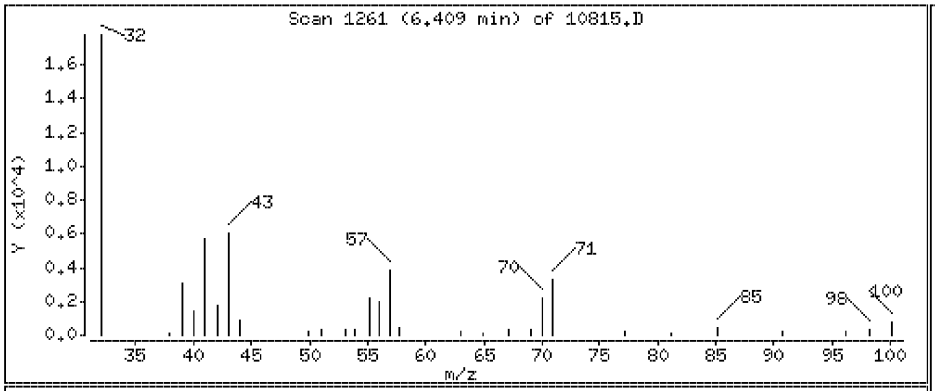
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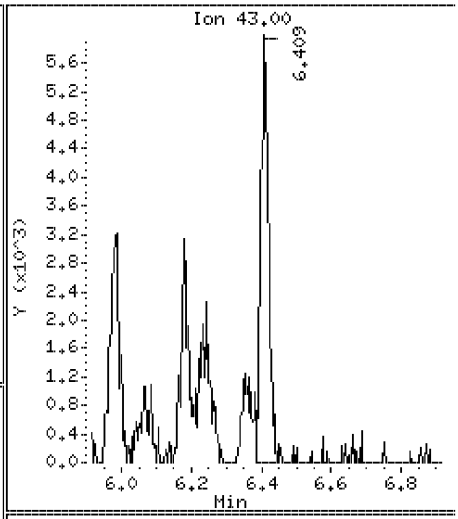
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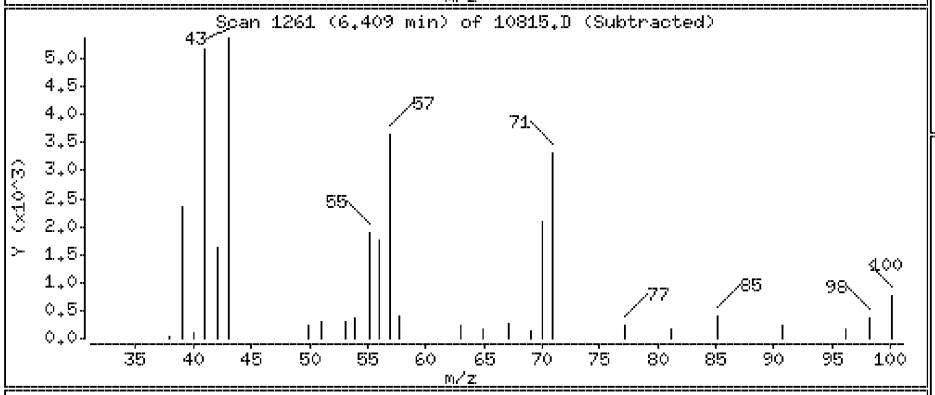
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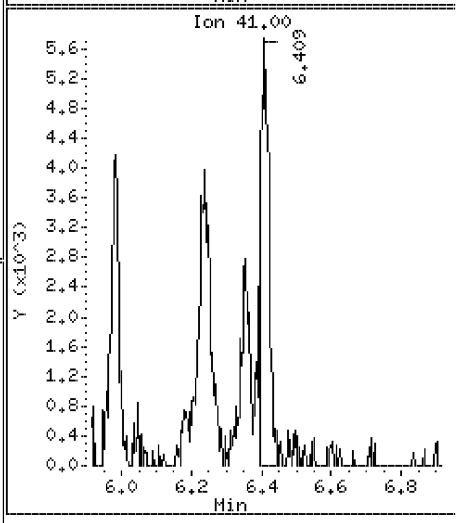
40 Heptane

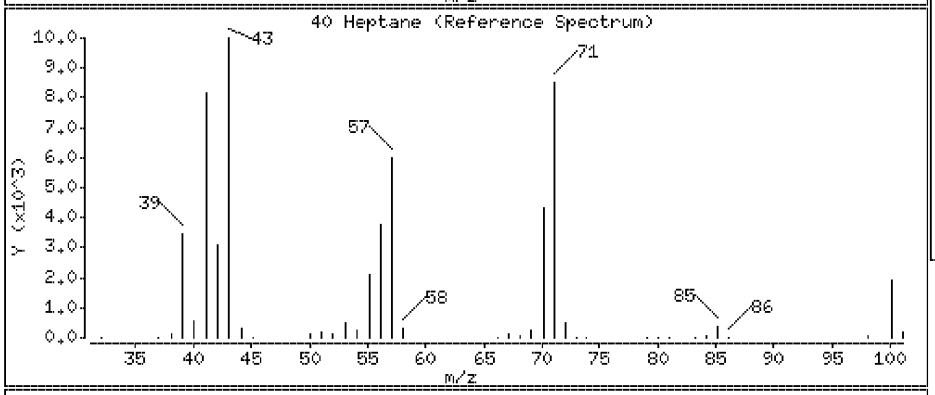
Concentration: 0.776 ppbv

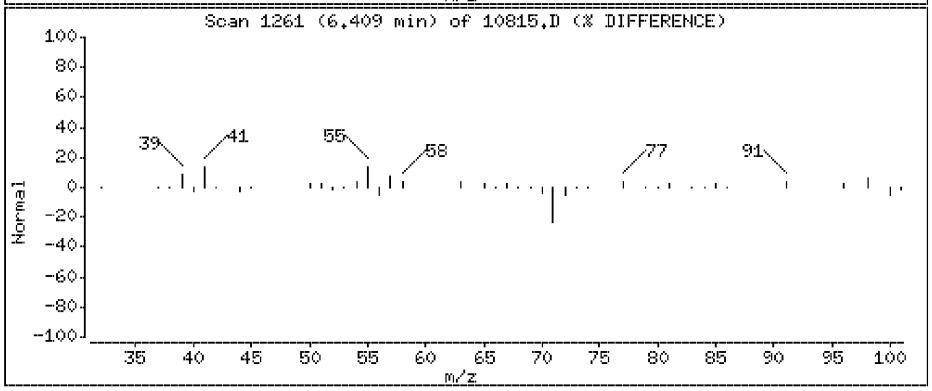












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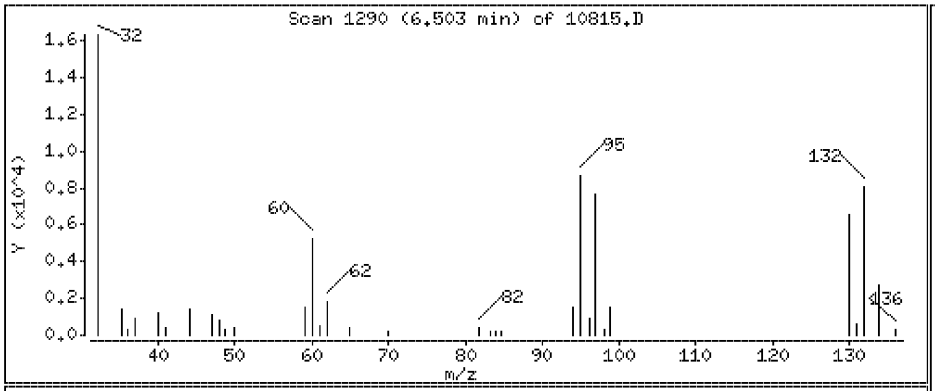
Operator: CJR

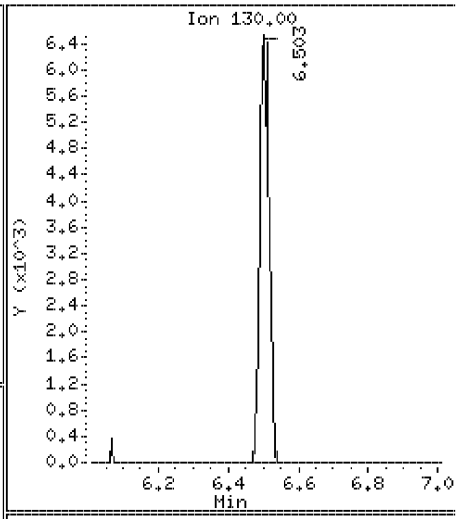
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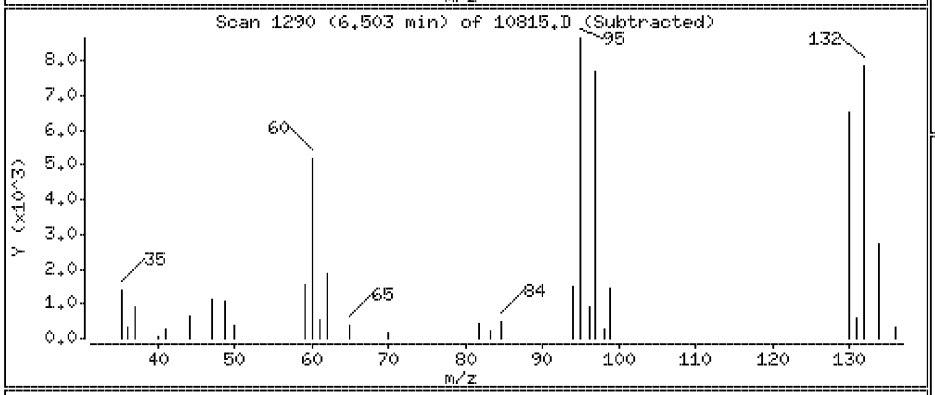
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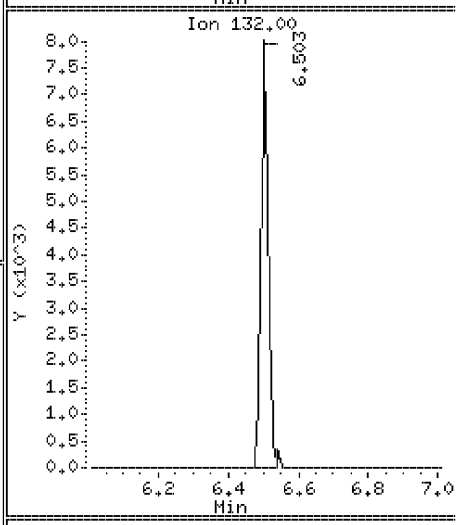
42 Trichloroethene

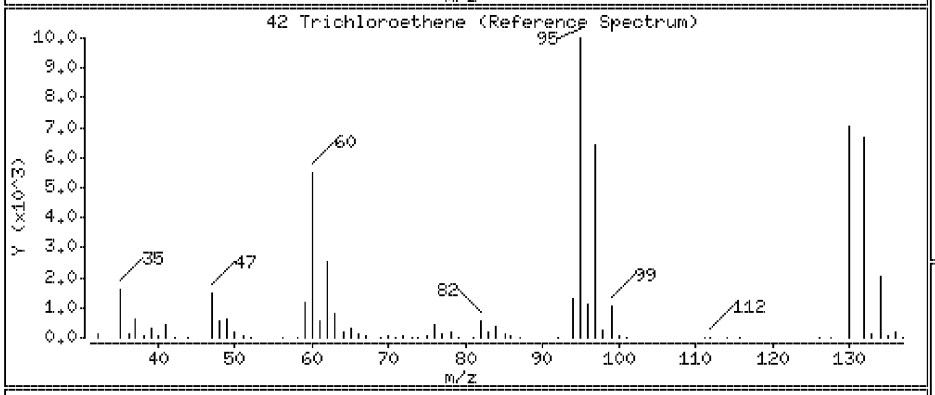
Concentration: 0.433 ppbv

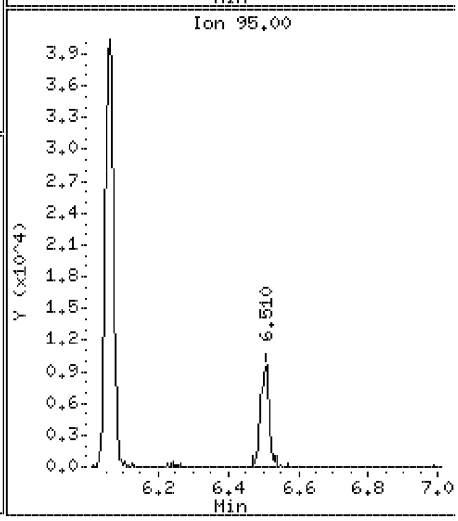


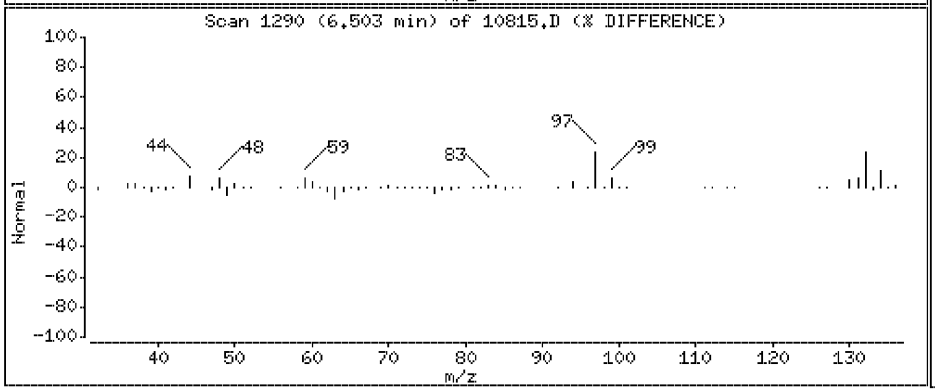












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10815.D

Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

Sample Info:

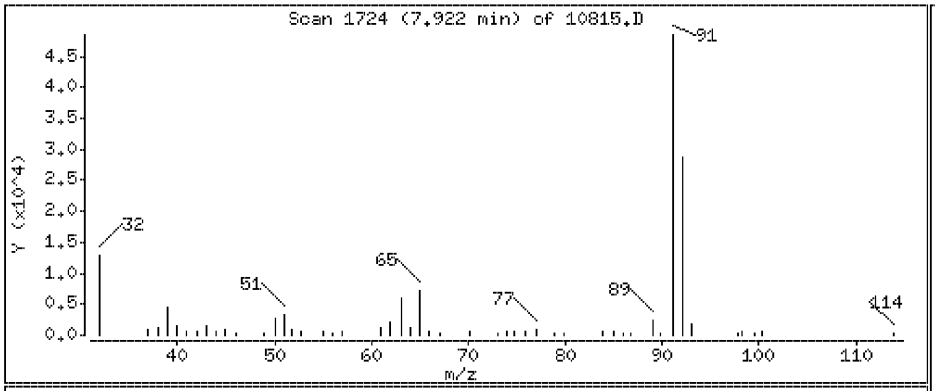
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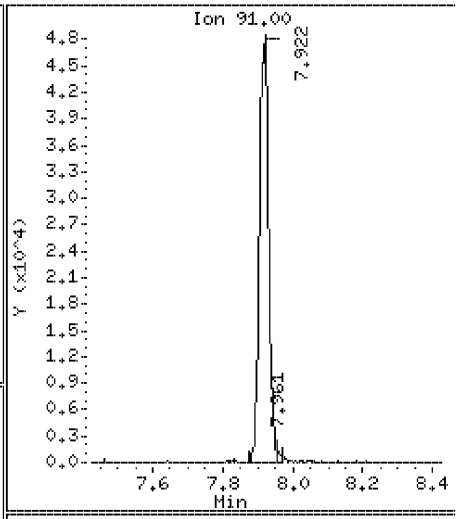
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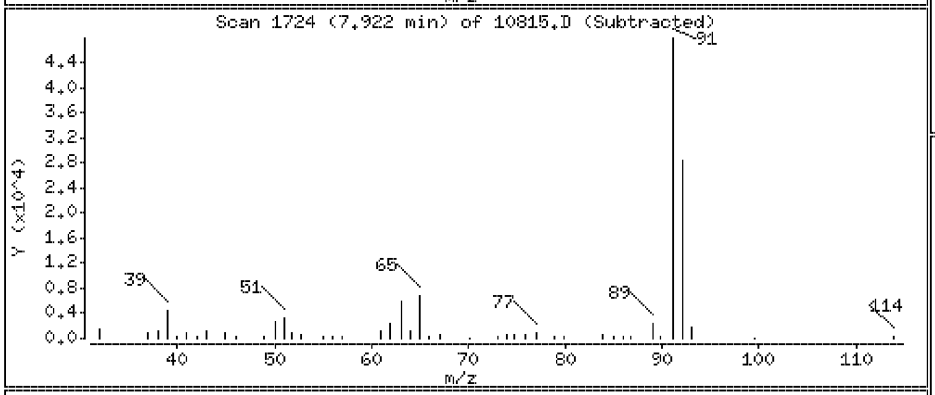
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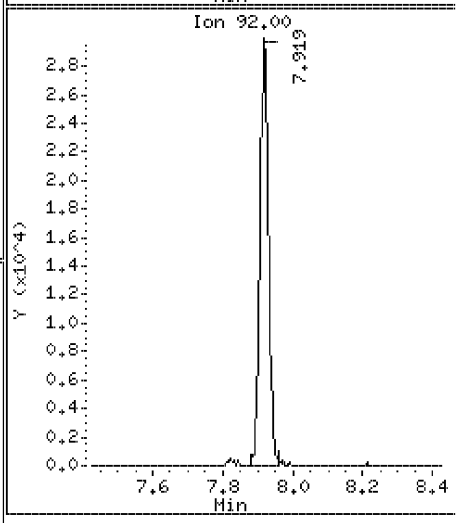
49 Toluene

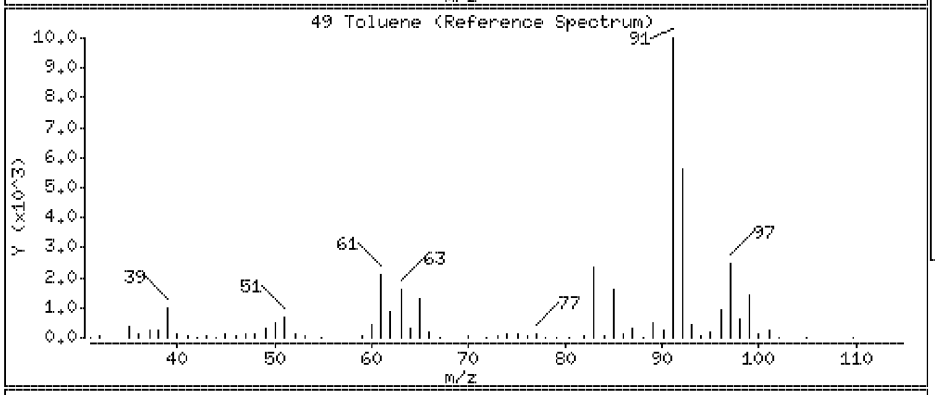
Concentration: 0.605 ppbv

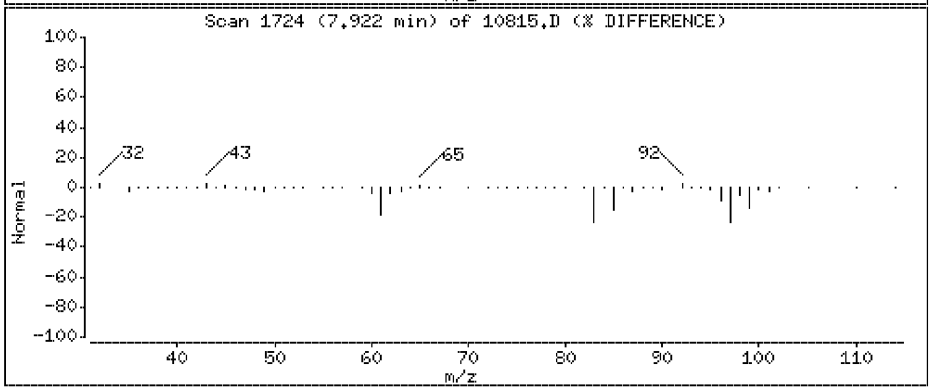












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Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

Sample Info:

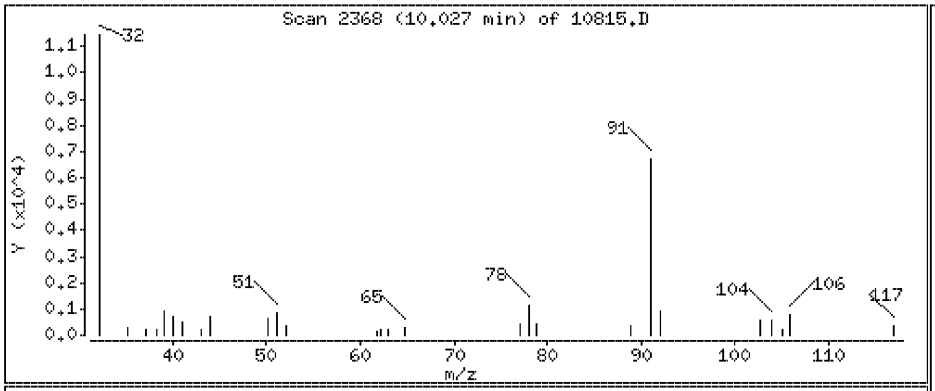
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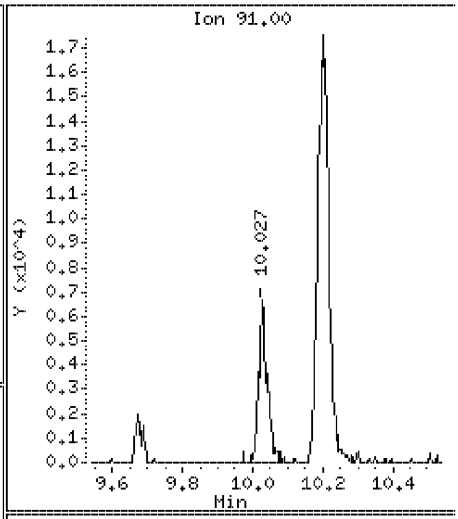
Column phase: J&W DB-5

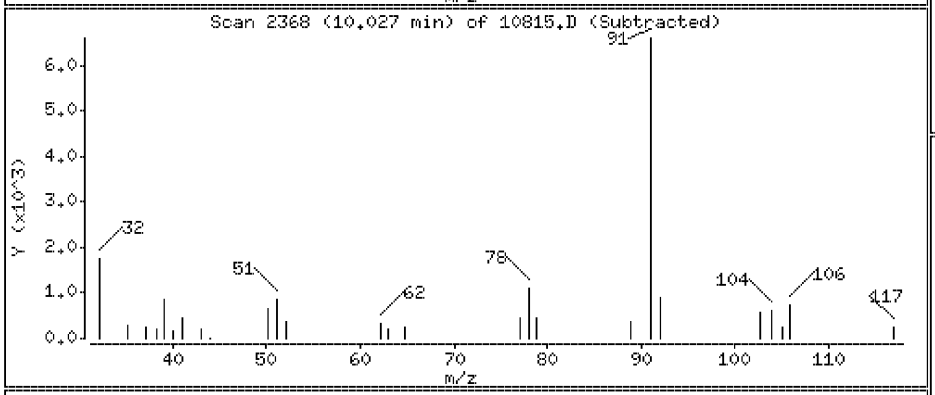
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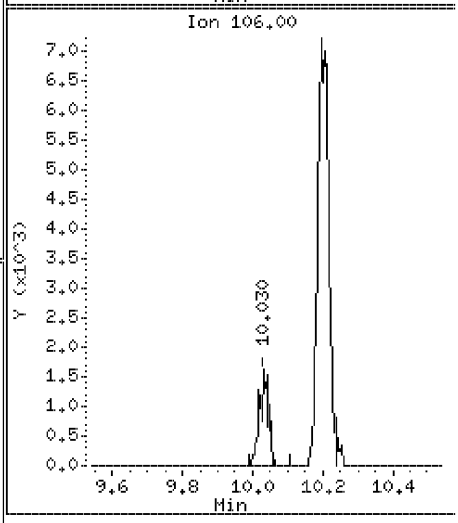
57 Ethyl Benzene

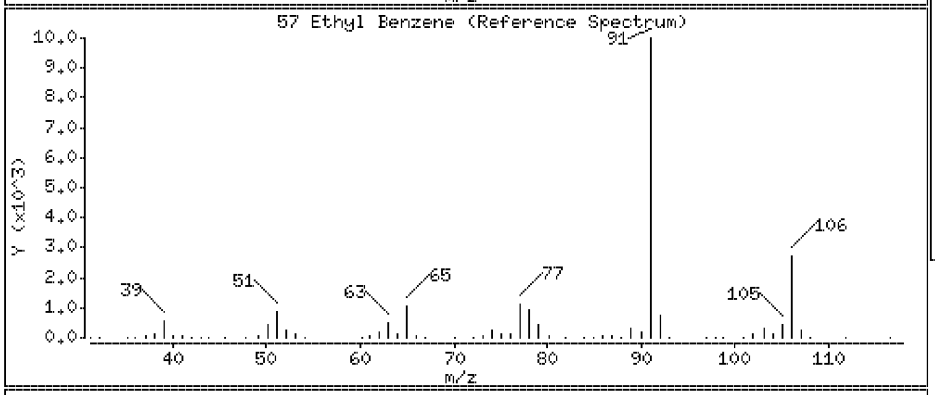
Concentration: 0.236 ppbv

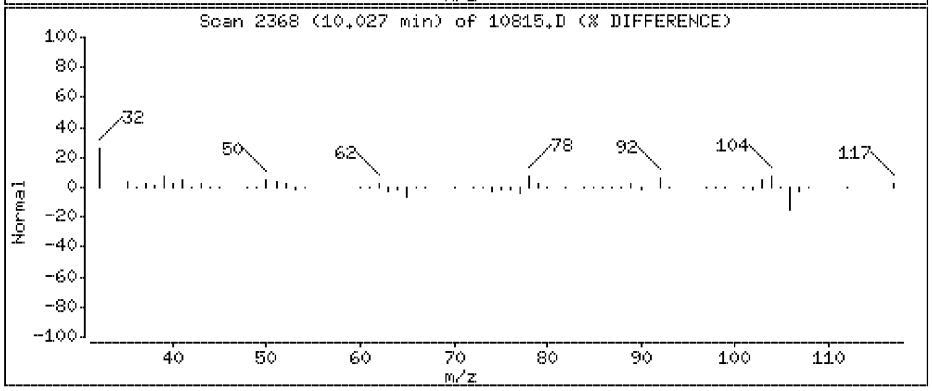












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Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

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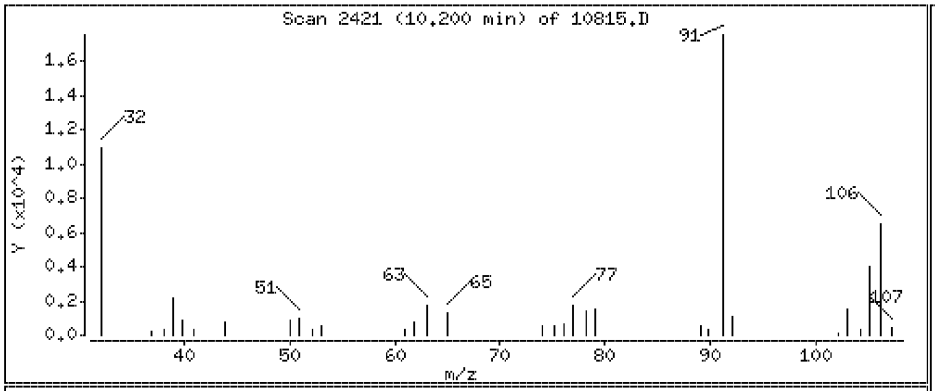
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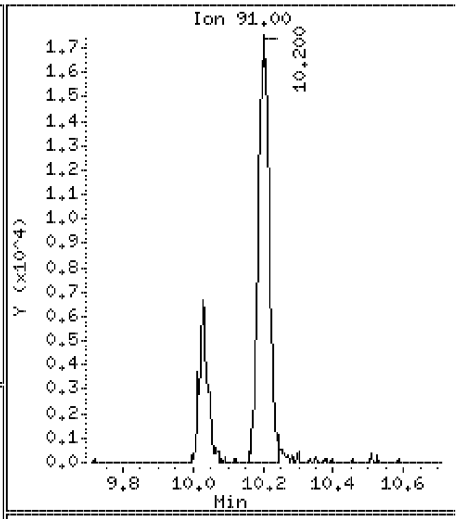
Column phase: J&W DB-5

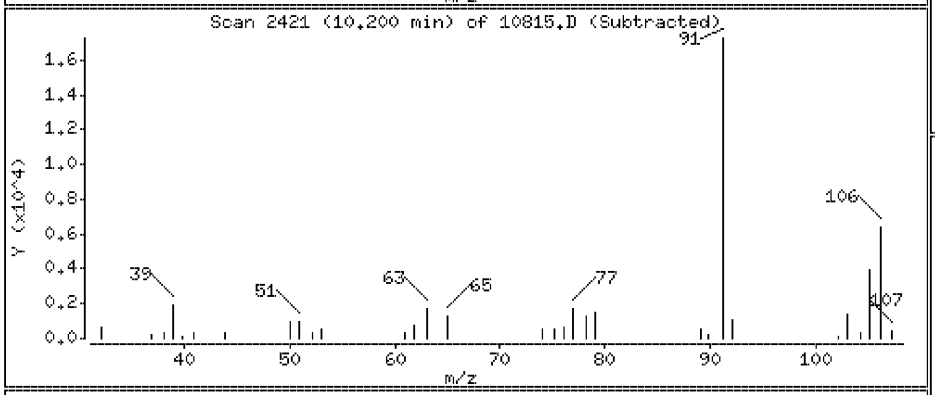
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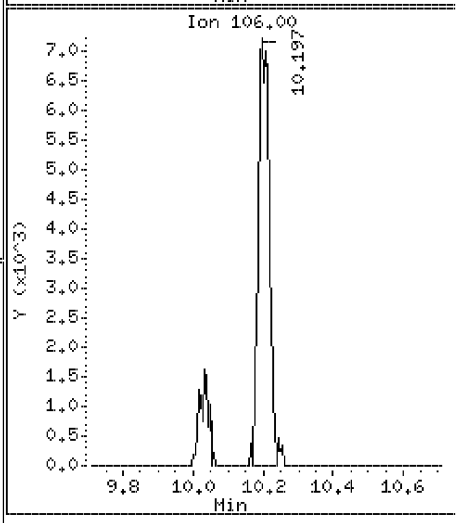
58 m&p-Xylene

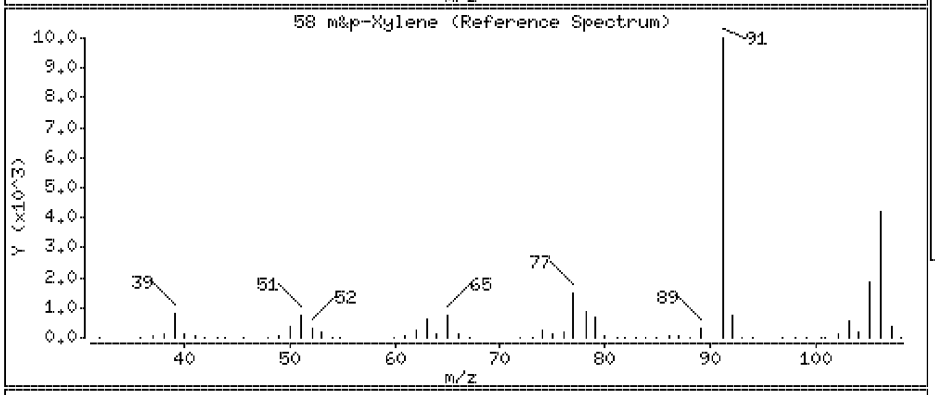
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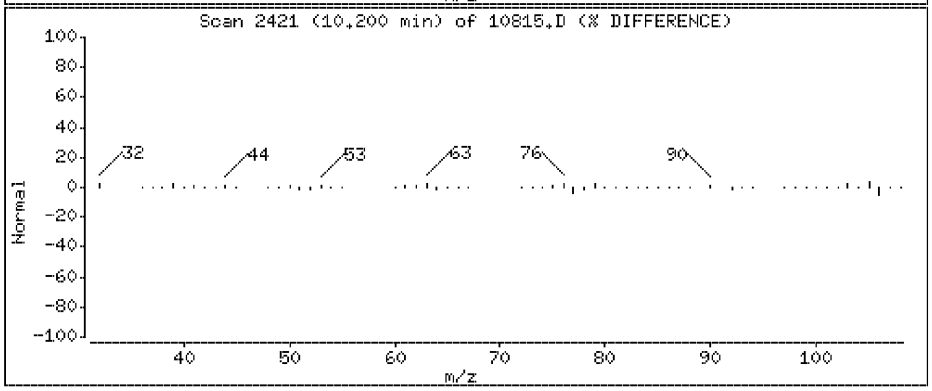












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Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

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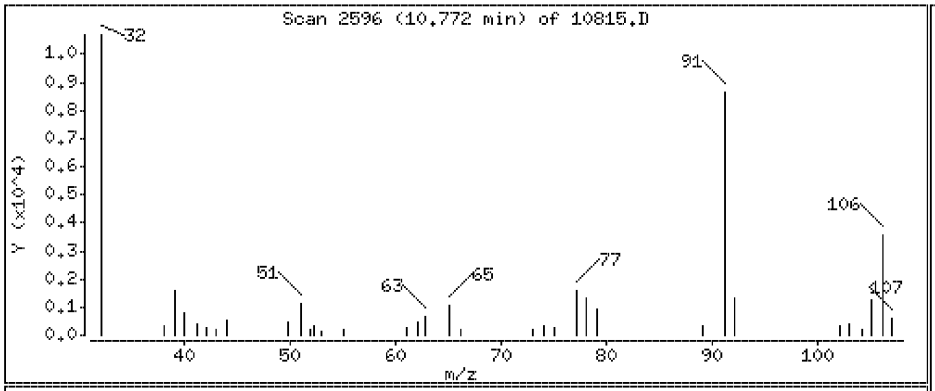
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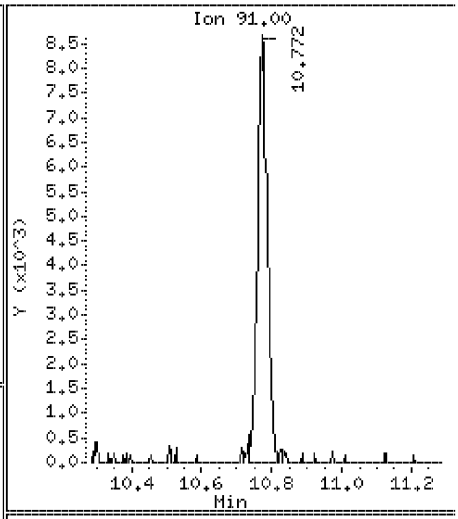
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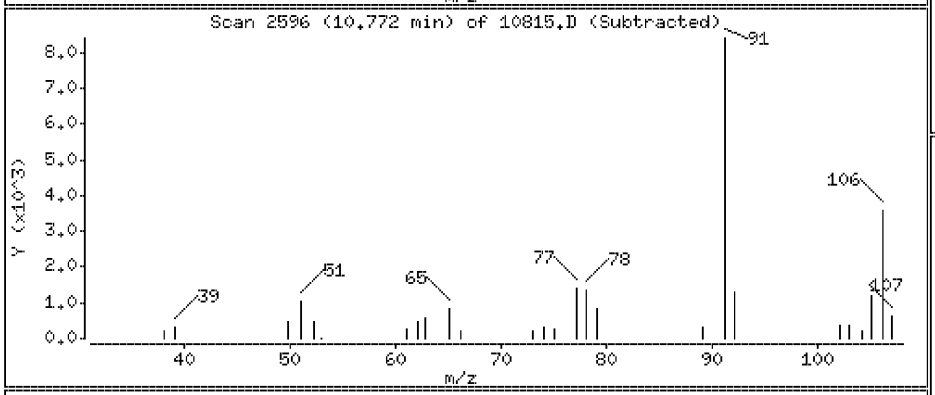
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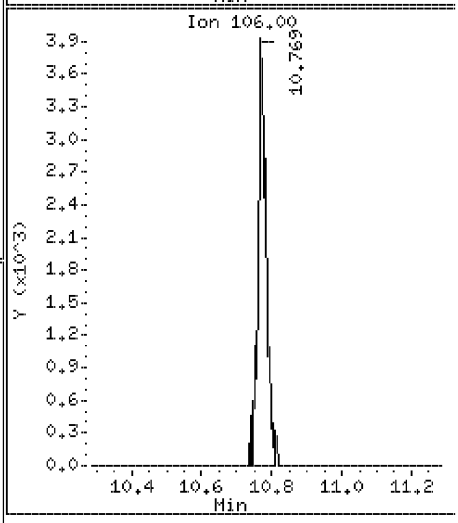
61 o-Xylene

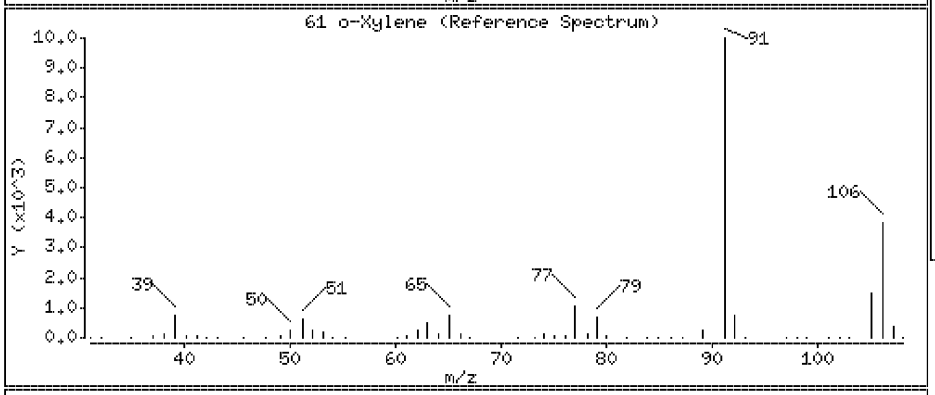
Concentration: 0.156 ppbv

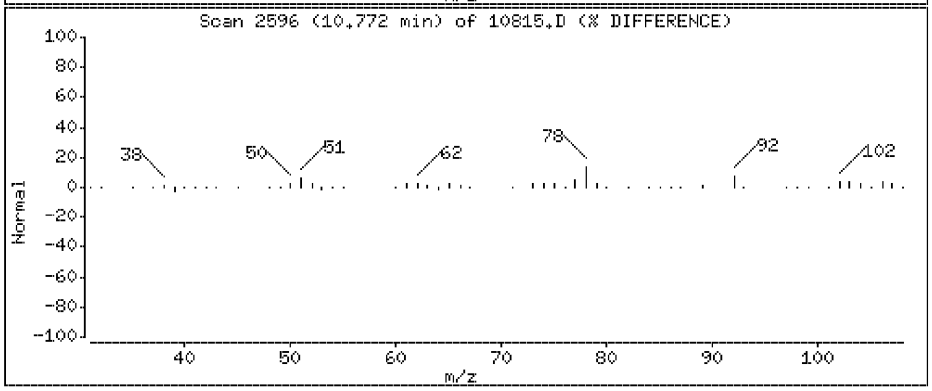












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Date : 18-APR-2013 18:03

Client ID:

Instrument: 10airD.i

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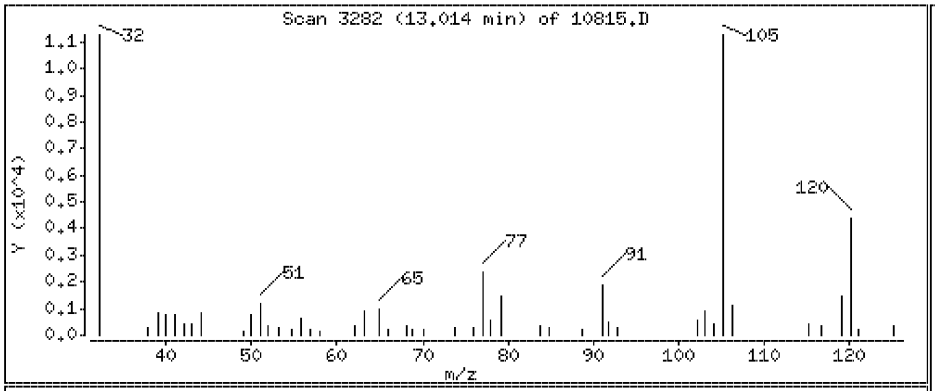
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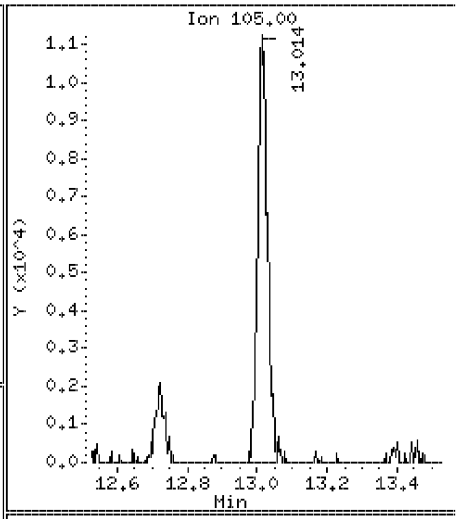
Column phase: J&W DB-5

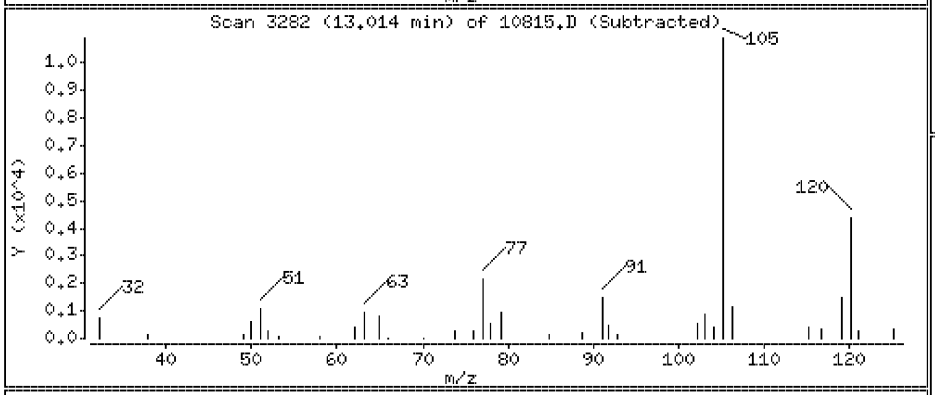
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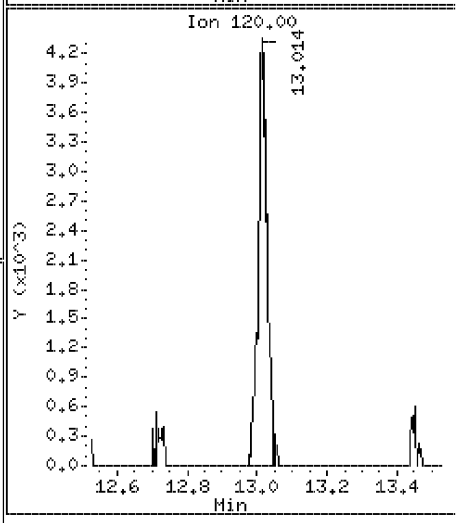
67 1,2,4-Trimethylbenzene

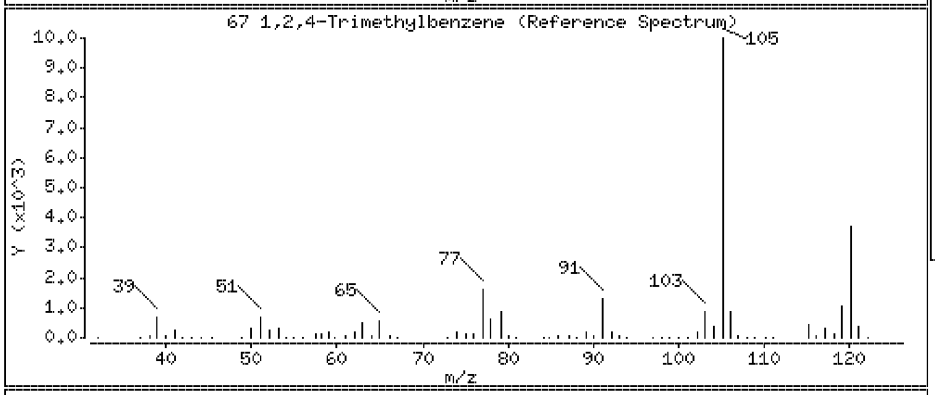
Concentration: 0.344 ppbv

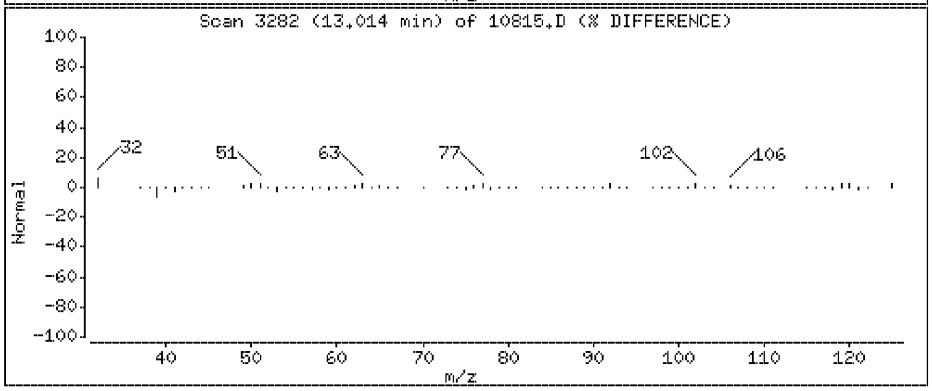






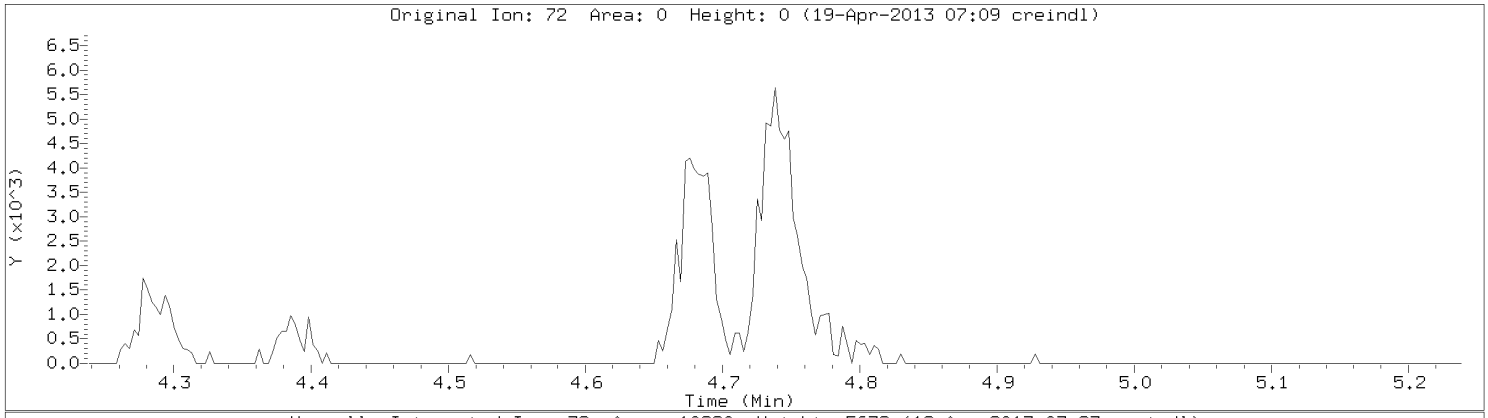


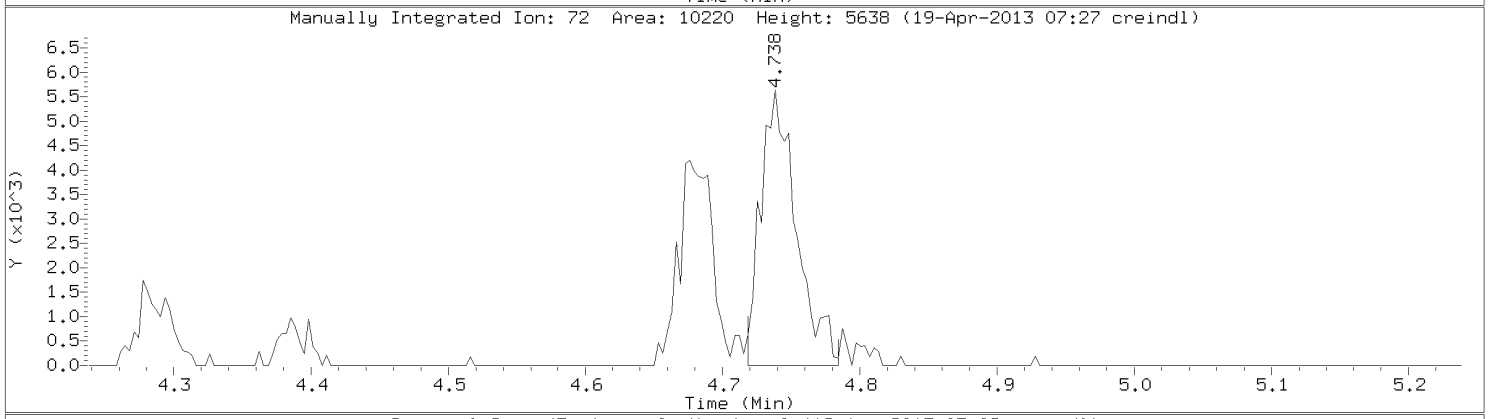


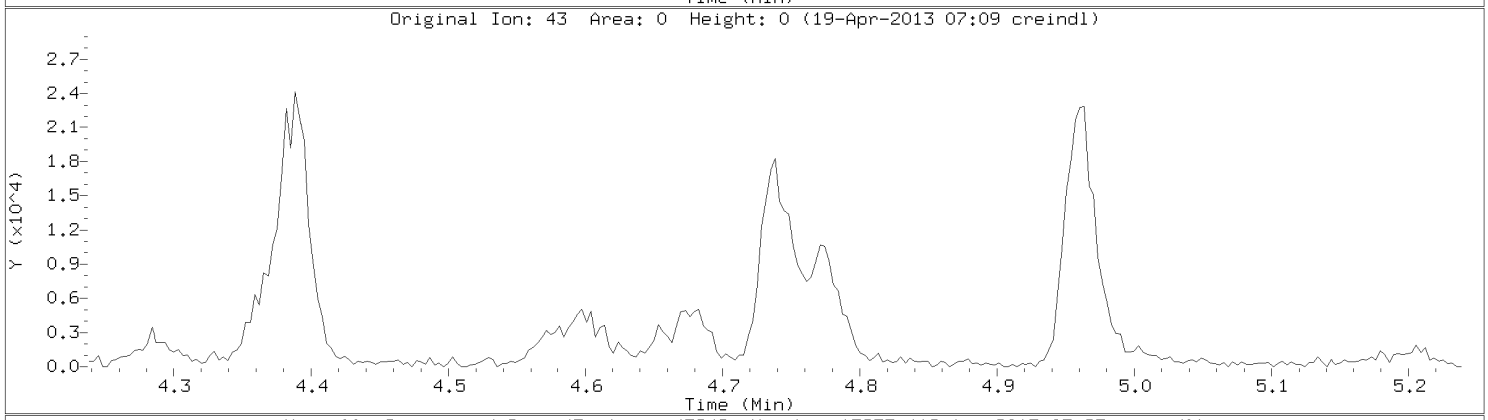


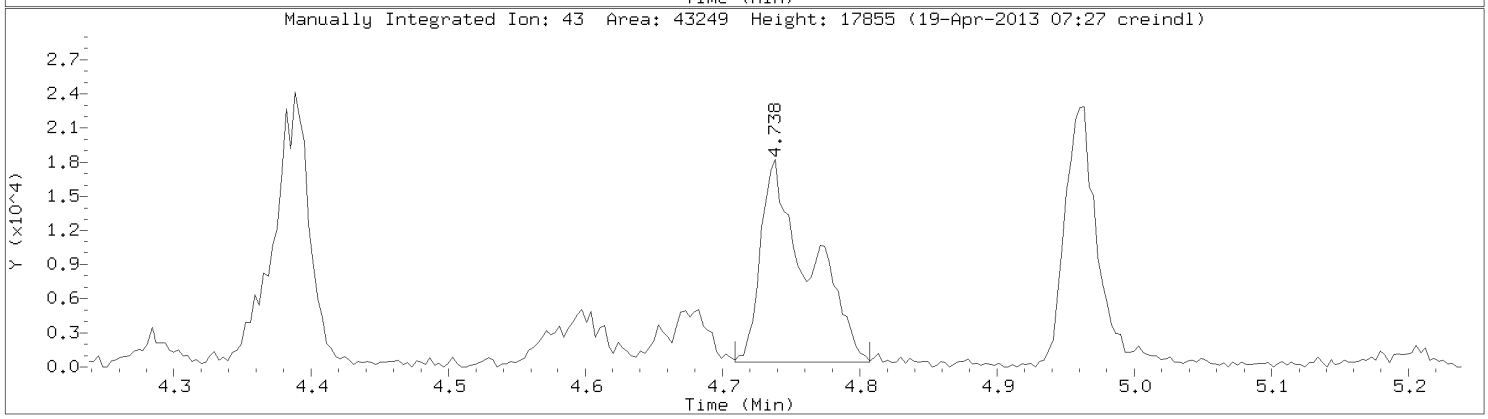
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Injection Date: 18-APR-2013 18:03
Instrument: 10airD.i
Lab Sample ID: 10224616005

Compound: Methyl Ethyl Ketone
CAS Number: 78-93-3



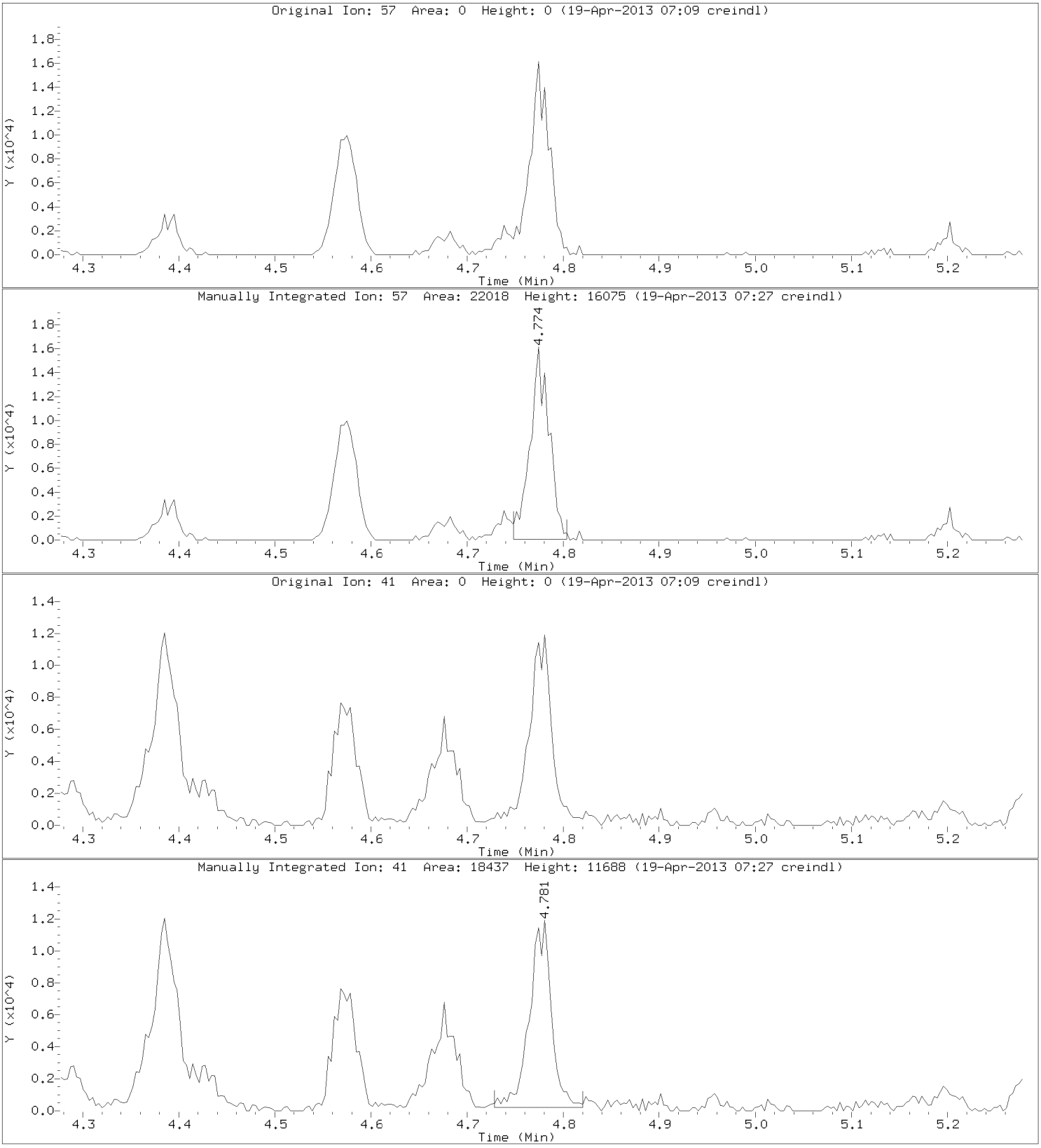




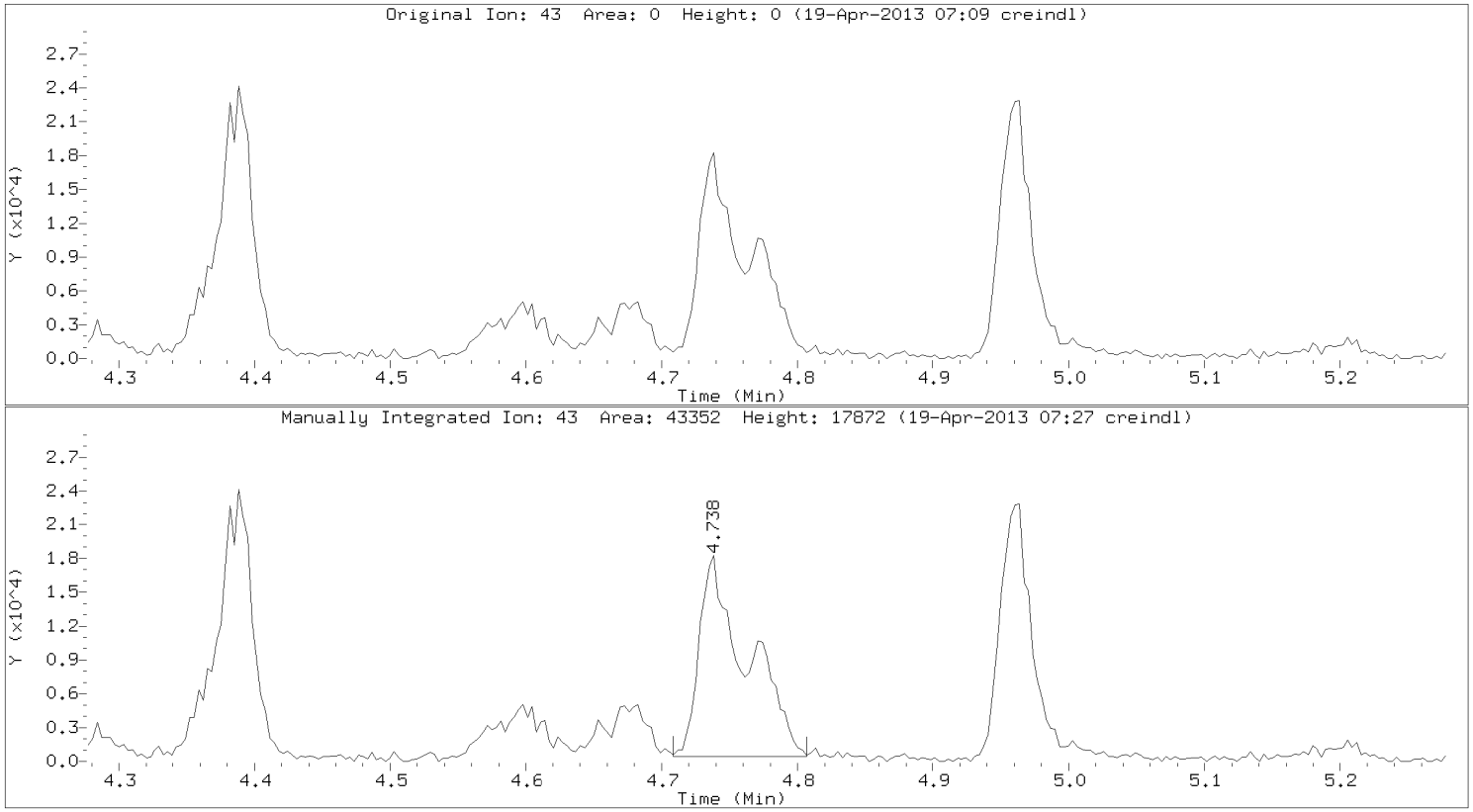


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Injection Date: 18-APR-2013 18:03
Instrument: 10airD.i
Lab Sample ID: 10224616005

Compound: n-Hexane
CAS Number: 110-54-3

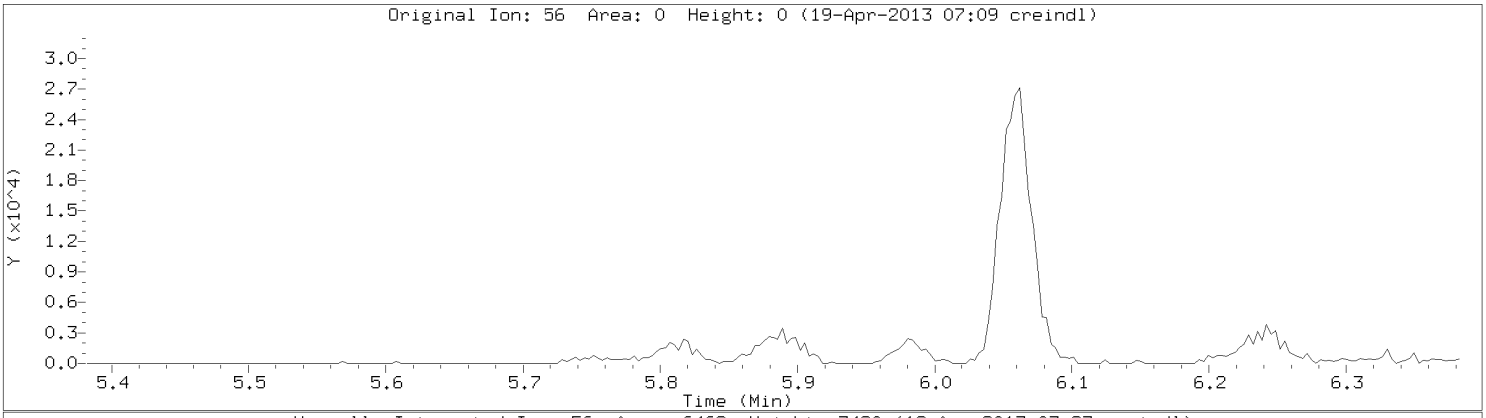


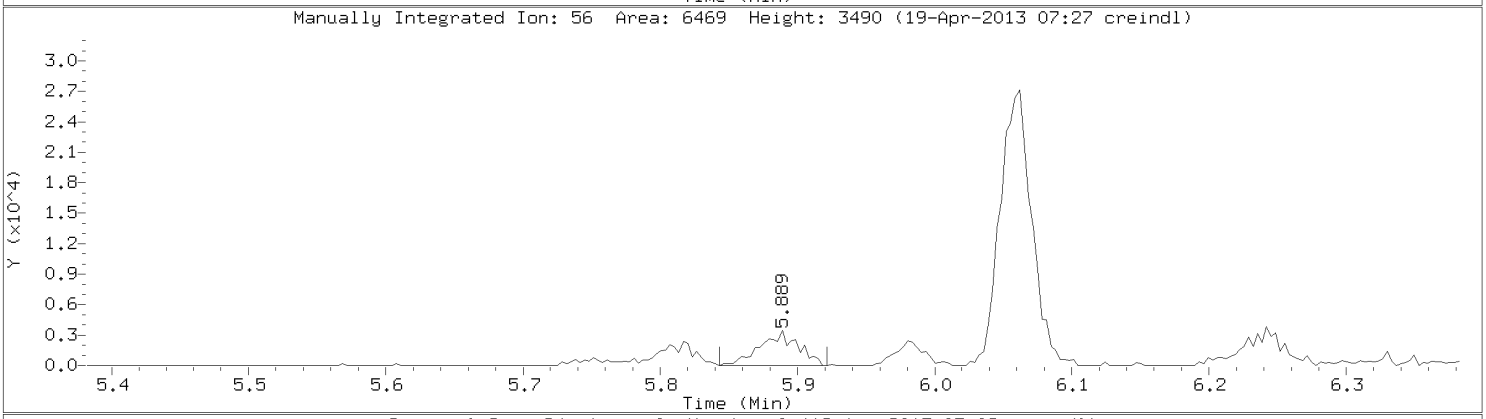
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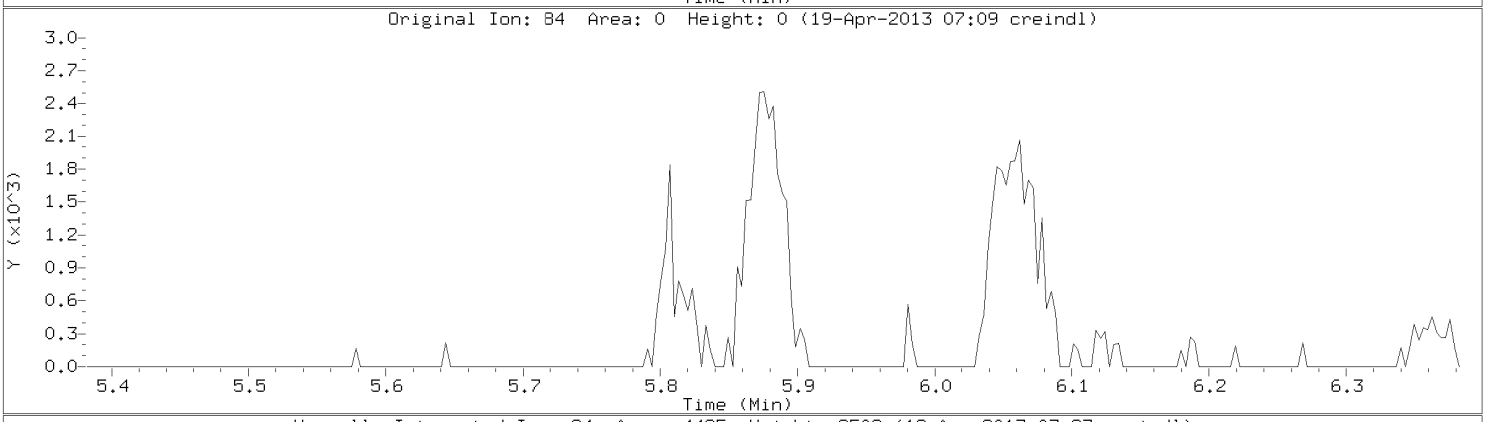


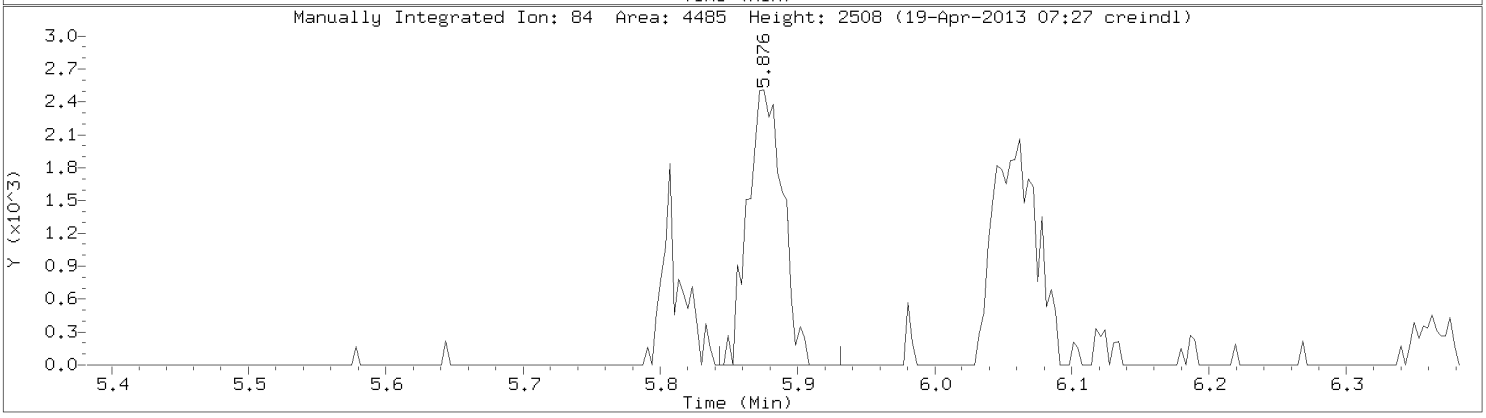
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Injection Date: 18-APR-2013 18:03
Instrument: 10airD.i
Lab Sample ID: 10224616005

Compound: Cyclohexane
CAS Number: 110-82-7

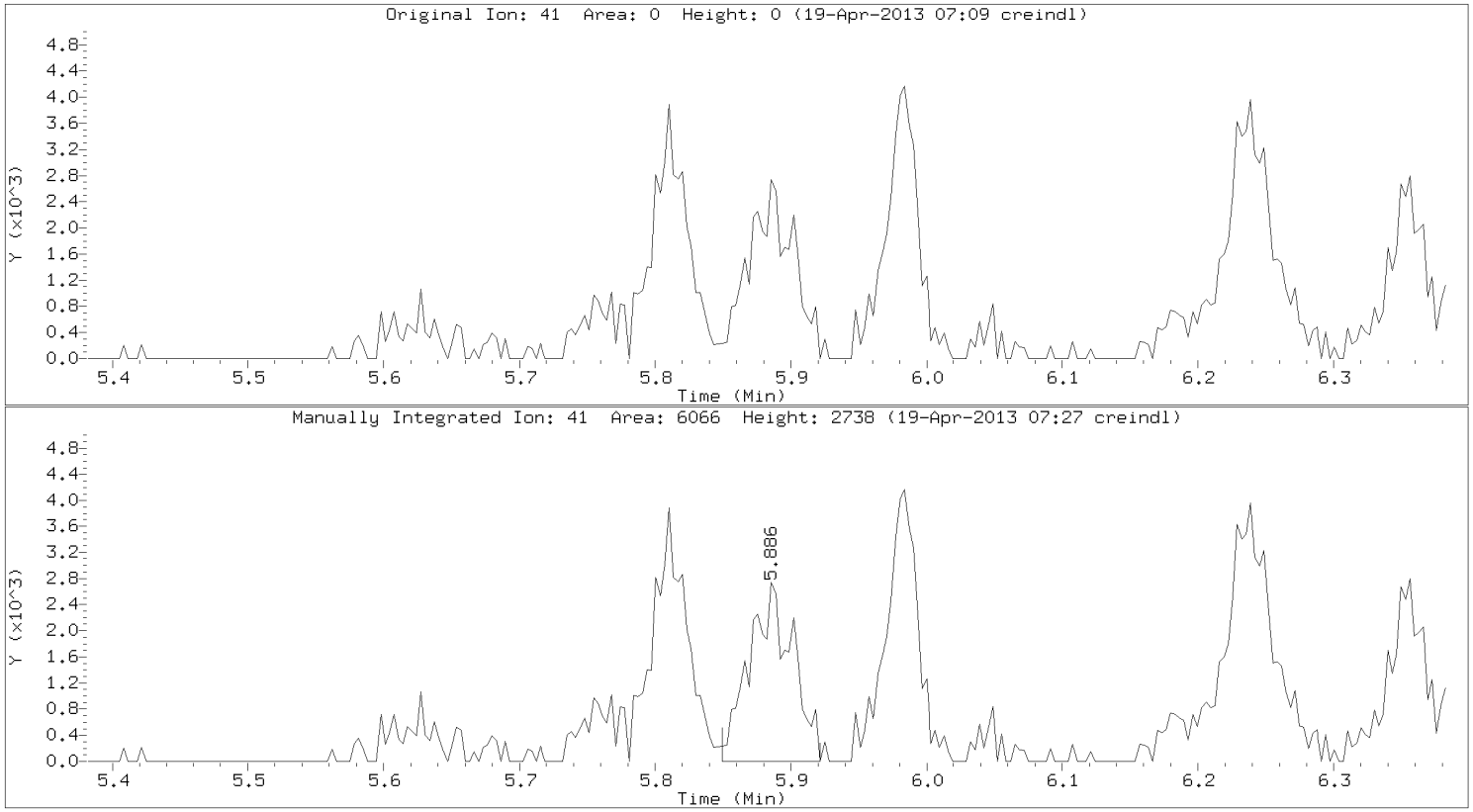






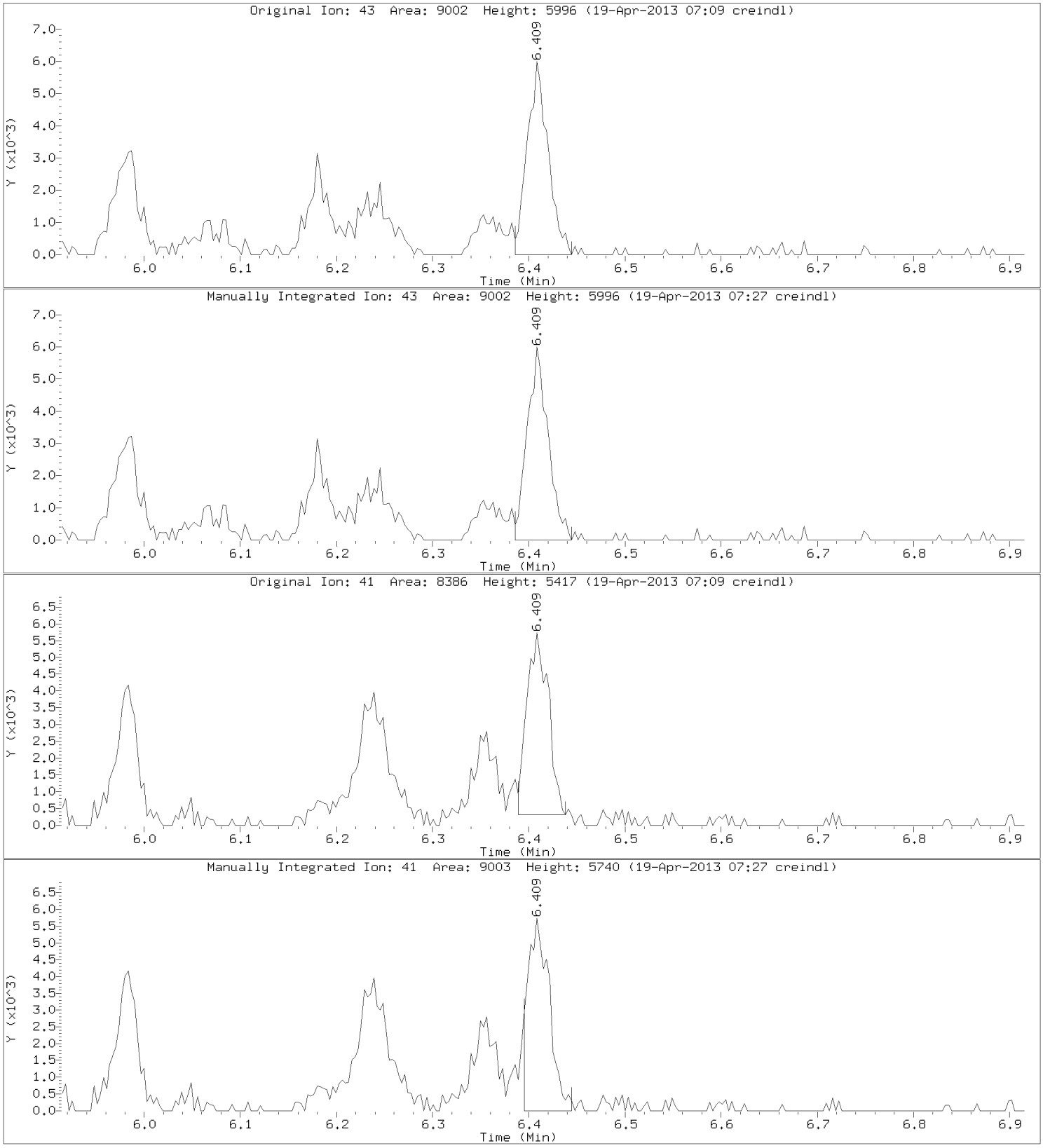


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Injection Date: 18-APR-2013 18:03
Instrument: 10airD.i
Lab Sample ID: 10224616005



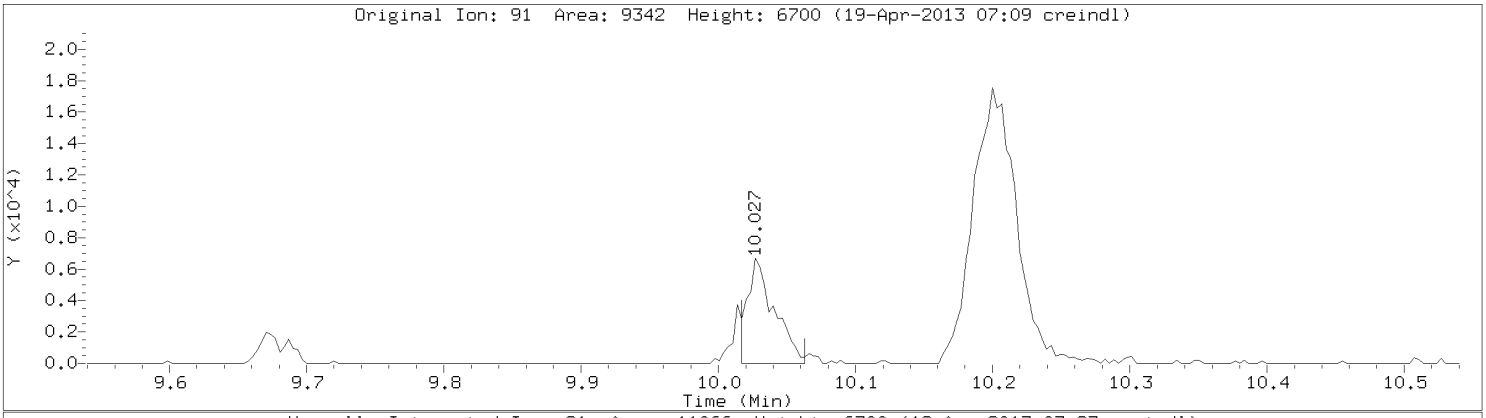
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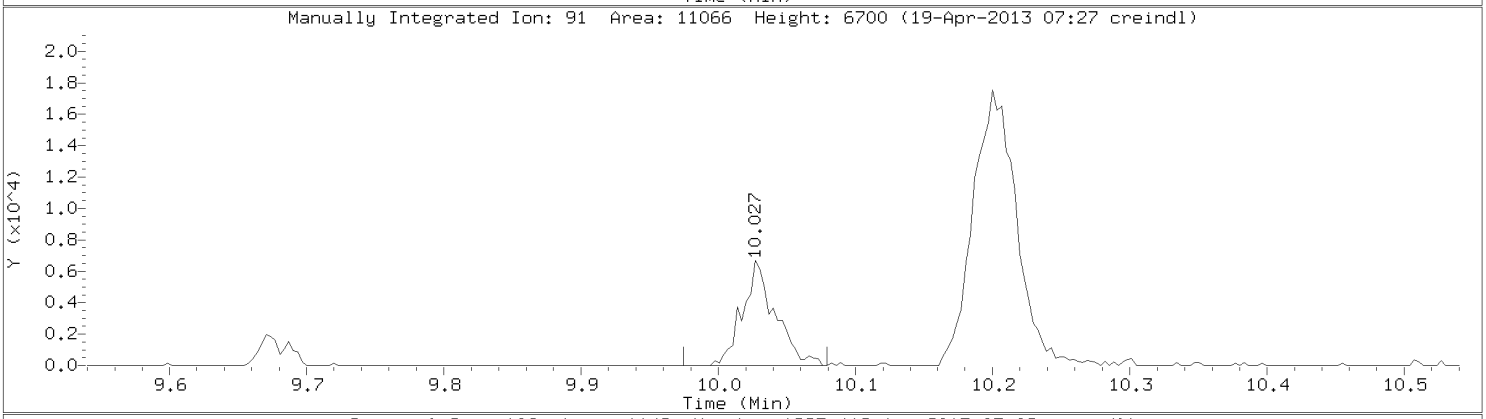
Compound: Heptane
CAS Number: 142-82-5

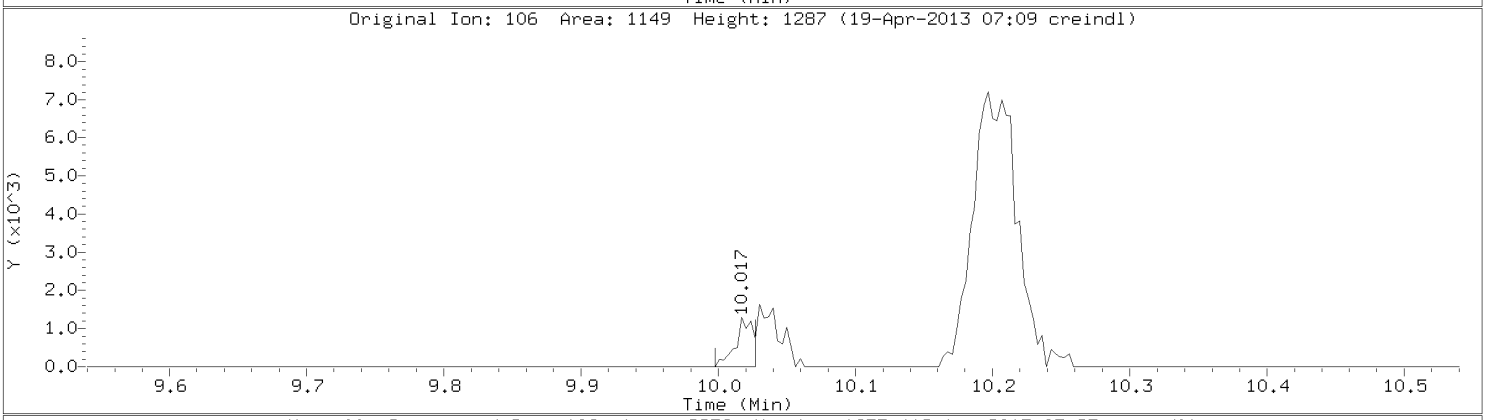


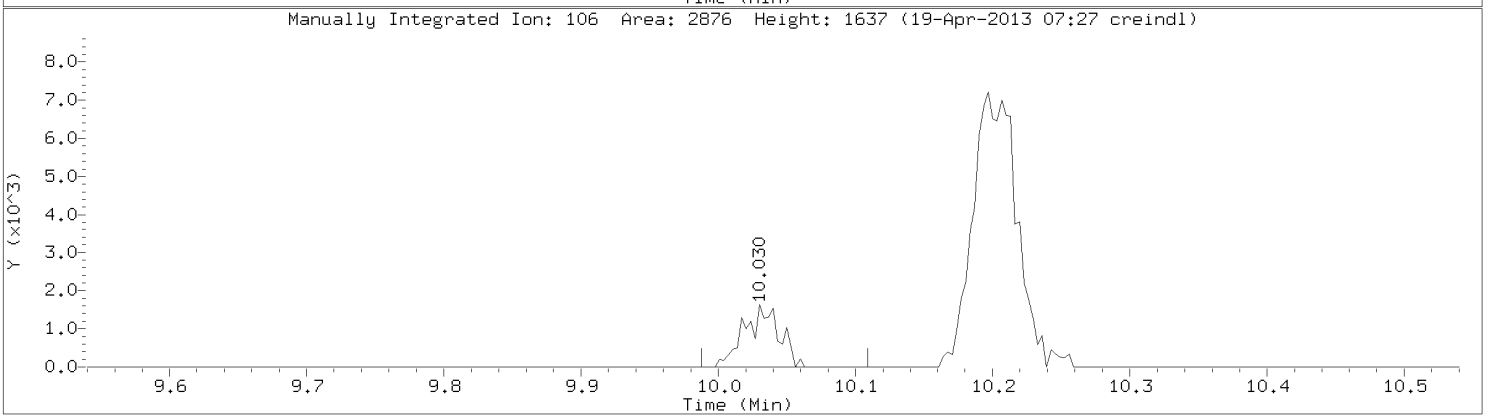
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Injection Date: 18-APR-2013 18:03
Instrument: 10airD.i
Lab Sample ID: 10224616005

Compound: Ethyl Benzene
CAS Number: 100-41-4









Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.d
Report Date: 21-Apr-2013 07:53

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041913.b\10909.d
Lab Smp Id: 10224616006
Inj Date : 19-APR-2013 17:54
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17167
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Meth Date : 21-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 9
Dil Factor: 1.68840
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.688	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	Compound Not Detected.					
2	Dichlorodifluoromethane	85	Compound Not Detected.					
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	Compound Not Detected.					
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	Compound Not Detected.					
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	3.443	3.424	(0.568)	6827	0.37208	0.628(M)
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	Compound Not Detected.					
13	Acetone	43	3.688	3.673	(0.609)	33446	0.22029	0.372
14	Isopropyl Alcohol	45	3.718	3.702	(0.614)	7170	0.24511	0.414(Q)
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	Compound Not Detected.					
19	Methylene chloride	49	4.041	4.045	(0.667)	90627	2.72927	4.61
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	Compound Not Detected.					
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.d
Report Date: 21-Apr-2013 07:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	24 Vinyl Acetate	43	Compound Not Detected.					
	25 1,1-Dichloroethane	63	Compound Not Detected.					
$	26 Hexane-d14(S)	66	4.656	4.660	(0.769)	518181	10.1484	10.1
	27 Methyl Ethyl Ketone	72	Compound Not Detected.					
	28 n-Hexane	57	4.777	4.777	(0.789)	22251	0.46672	0.788(Q)
	29 cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30 Ethyl Acetate	43	Compound Not Detected.					
	31 Chloroform	83	Compound Not Detected.					
	32 Tetrahydrofuran	42	Compound Not Detected.					
	33 1,1,1-Trichloroethane	97	Compound Not Detected.					
	34 1,2-Dichloroethane	62	Compound Not Detected.					
	35 Benzene	78	5.852	5.856	(0.966)	6949	0.06654	0.112
	36 Carbon tetrachloride	117	Compound Not Detected.					
	37 Cyclohexane	56	Compound Not Detected.					
*	38 1,4-Difluorobenzene	114	6.058	6.069	(1.000)	1146207	10.0000	
	39 2,2,4-Trimethylpentane	57	Compound Not Detected.					
	40 Heptane	43	Compound Not Detected.					
	41 1,2-Dichloropropane	63	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,4-Dioxane	88	Compound Not Detected.					
	44 Bromodichloromethane	83	Compound Not Detected.					
	45 Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47 trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48 Toluene-d8 (S)	98	7.823	7.837	(1.291)	962118	9.16934	9.17
	49 Toluene	91	Compound Not Detected.					
	50 1,1,2-Trichloroethane	97	Compound Not Detected.					
	51 Methyl Butyl Ketone	43	Compound Not Detected.					
	52 Dibromochloromethane	129	Compound Not Detected.					
	53 1,2-Dibromoethane	107	Compound Not Detected.					
	54 Tetrachloroethene	166	Compound Not Detected.					
*	55 Chlorobenzene - d5	117	9.677	9.684	(1.000)	564578	10.0000	
	56 Chlorobenzene	112	Compound Not Detected.					
	57 Ethyl Benzene	91	Compound Not Detected.					
	58 m&p-Xylene	91	Compound Not Detected.					
	59 Bromoform	173	Compound Not Detected.					
	60 Styrene	104	Compound Not Detected.					
	61 o-Xylene	91	Compound Not Detected.					
	62 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63 Isopropylbenzene	105	Compound Not Detected.					
	64 N-Propylbenzene	91	Compound Not Detected.					
	65 4-Ethyltoluene	105	Compound Not Detected.					
	66 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
	67 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
	68 1,3-Dichlorobenzene	146	Compound Not Detected.					
	69 Sec- Butylbenzene	105	Compound Not Detected.					
$	70 1,4-dichlorobenzene-d4 (S)	150	13.449	13.466	(1.390)	219198	6.90956	6.91(R)
	71 Benzyl Chloride	91	Compound Not Detected.					
	72 1,4-Dichlorobenzene	146	Compound Not Detected.					
	73 1,2-Dichlorobenzene	146	Compound Not Detected.					
	74 N-Butylbenzene	91	Compound Not Detected.					
	75 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76 Naphthalene	128	Compound Not Detected.					
	77 Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.d
Report Date: 21-Apr-2013 07:53

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.d
Report Date: 21-Apr-2013 07:53

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10909.d
Lab Smp Id: 10224616006
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Misc Info: 17167

Calibration Date: 19-APR-2013
Calibration Time: 12:14
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

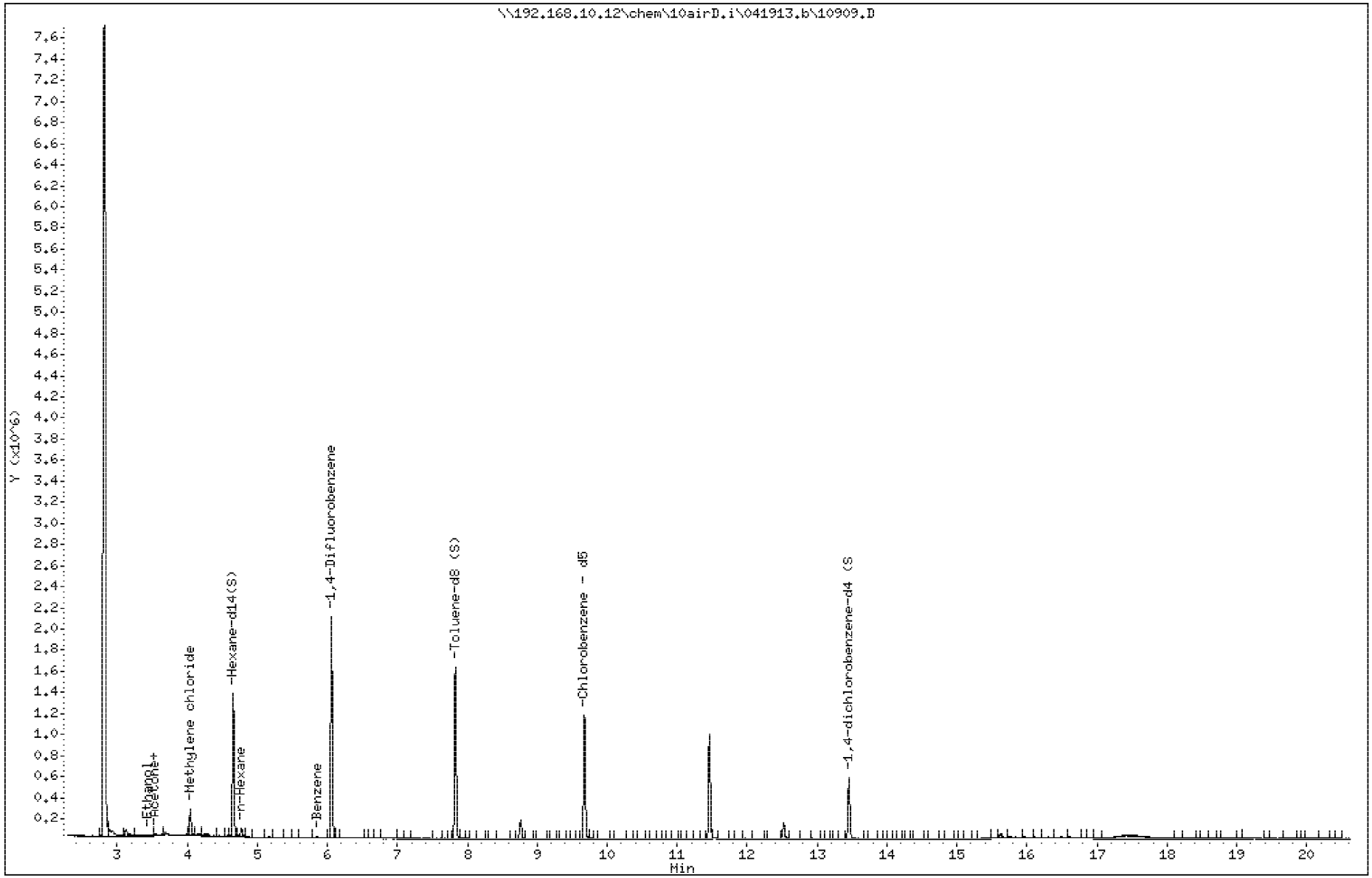
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1146207	-19.98
55 Chlorobenzene - d	825122	495073	1155171	564578	-31.58

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.D
Date : 19-APR-2013 17:54
Client ID:
Sample Info:

Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.D

Date : 19-APR-2013 17:54

Client ID:

Instrument: 10airD.i

Sample Info:

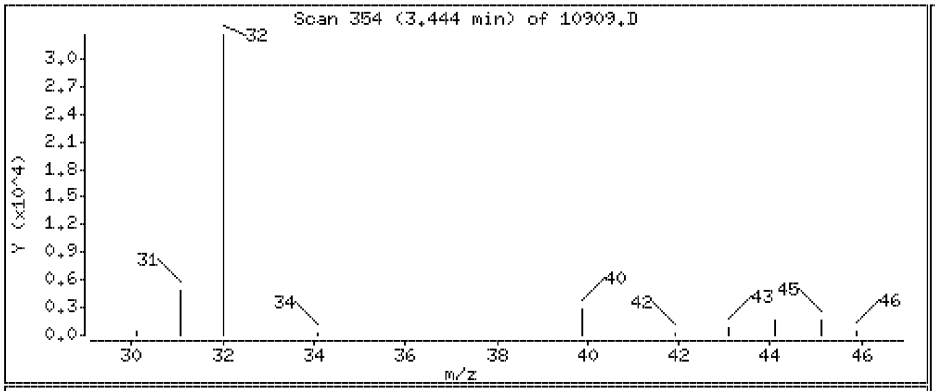
Operator: CJR

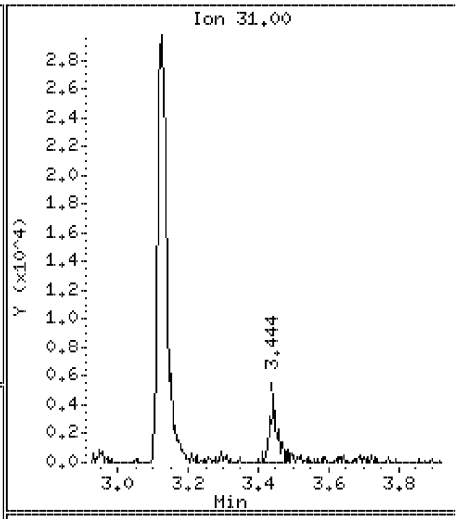
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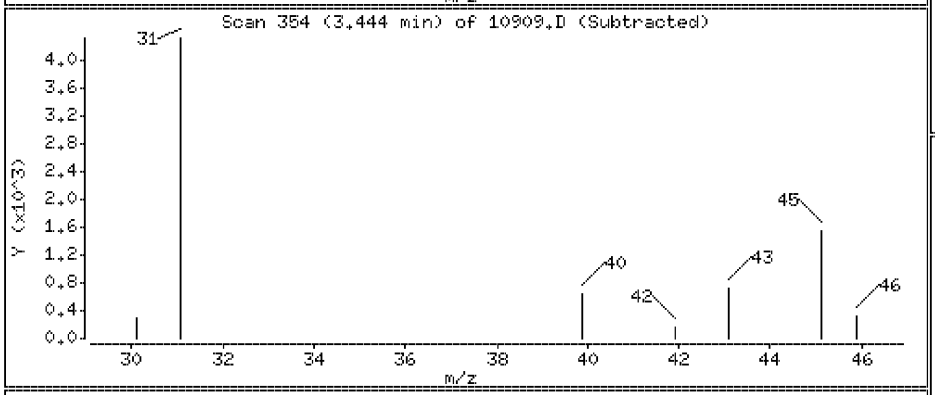
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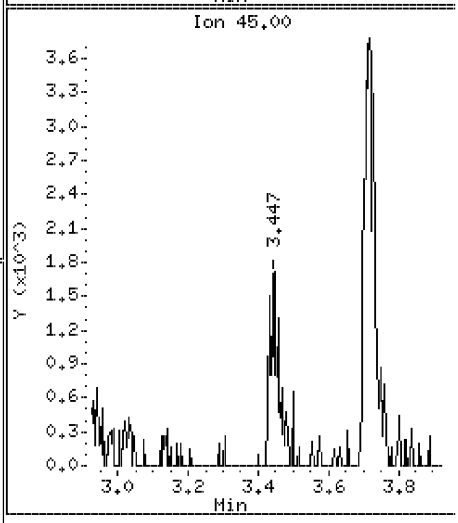
9 Ethanol

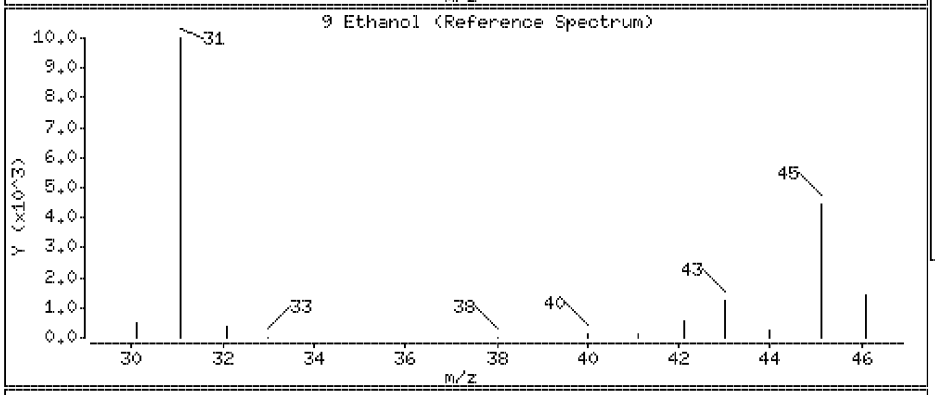
Concentration: 0.628 ppbv

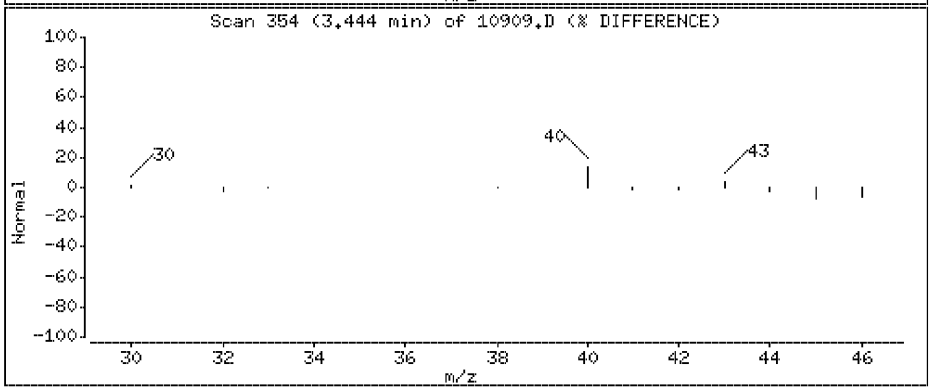












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.D

Date : 19-APR-2013 17:54

Client ID:

Instrument: 10airD.i

Sample Info:

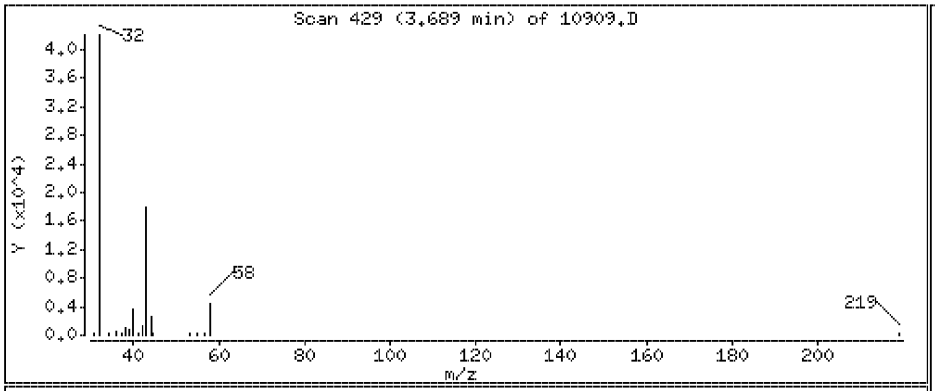
Operator: CJR

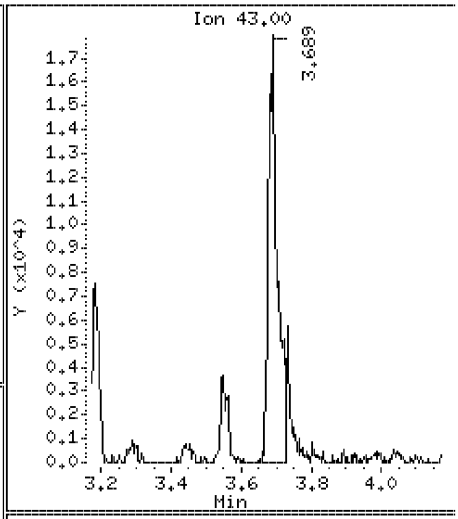
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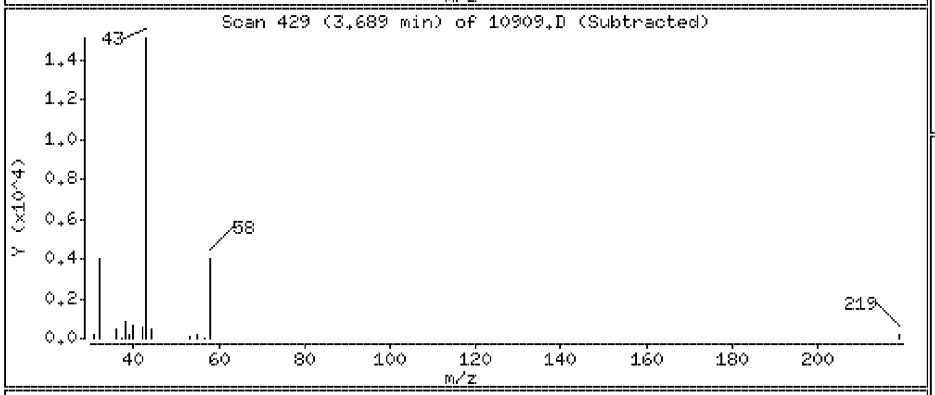
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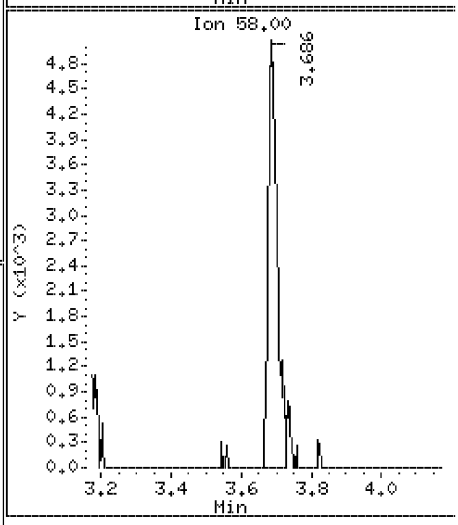
13 Acetone

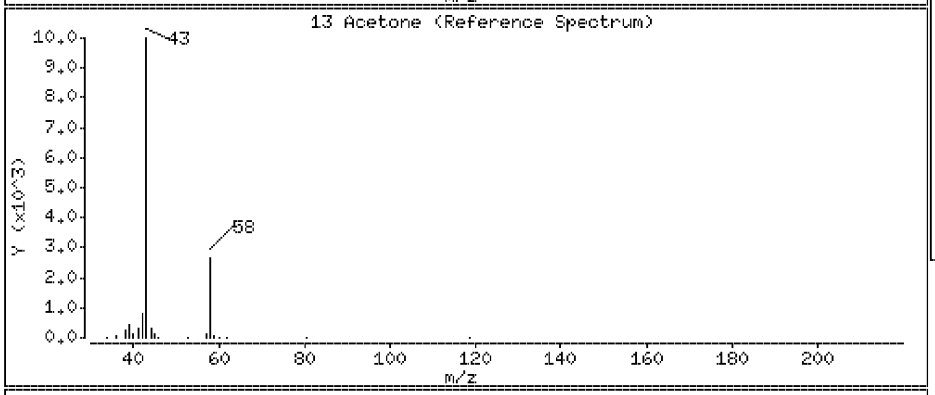
Concentration: 0.372 ppbv

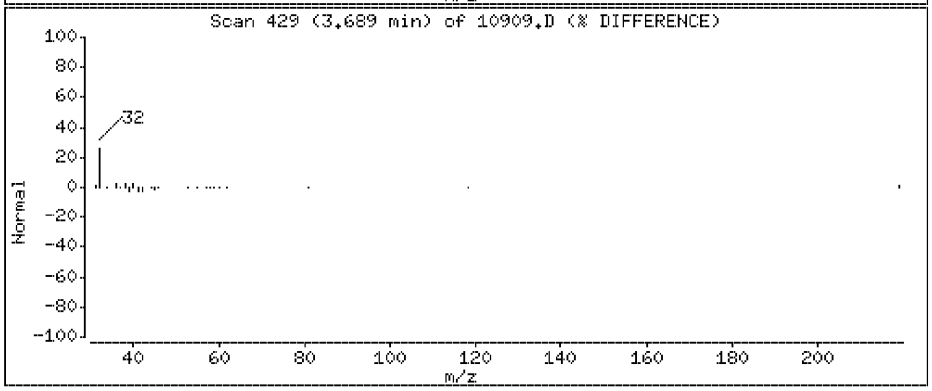












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.D

Date : 19-APR-2013 17:54

Client ID:

Instrument: 10airD.i

Sample Info:

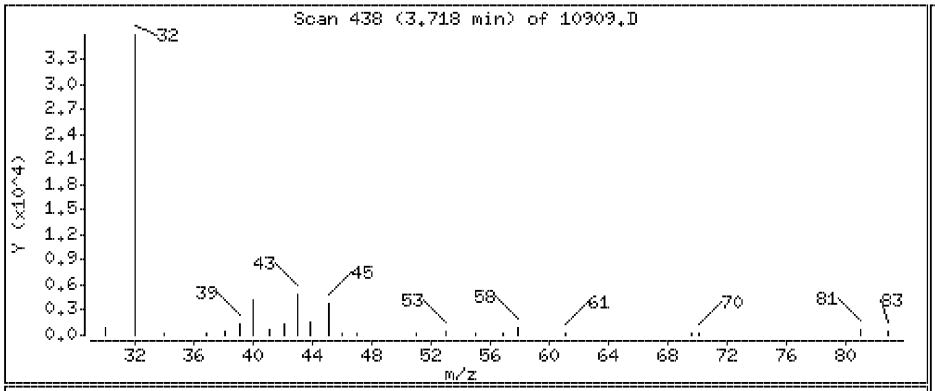
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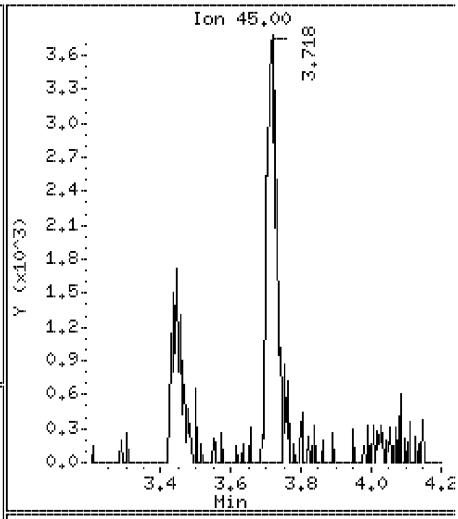
Column phase: J&W DB-5

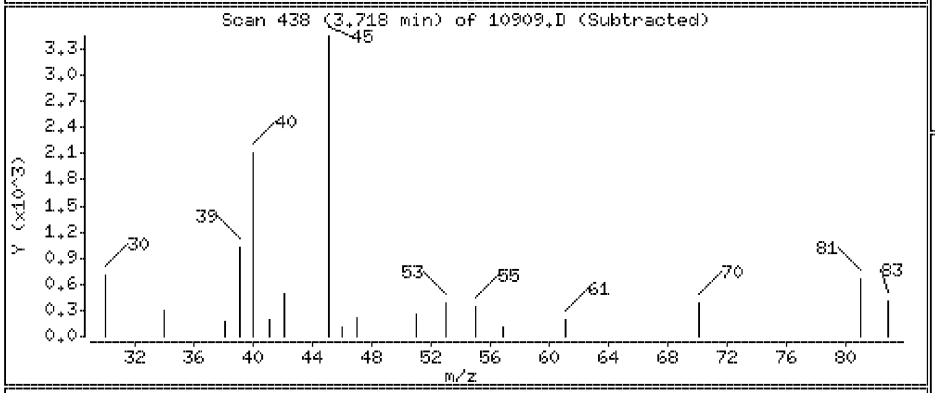
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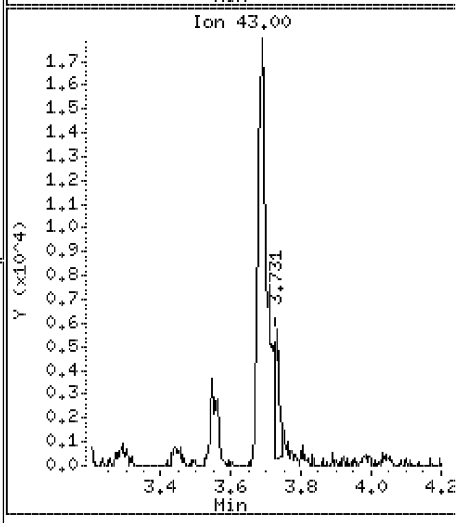
14 Isopropyl Alcohol

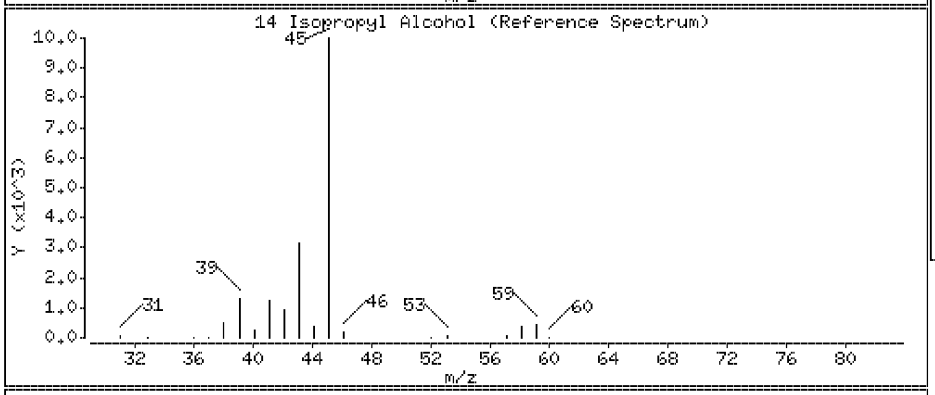
Concentration: 0.414 ppbv

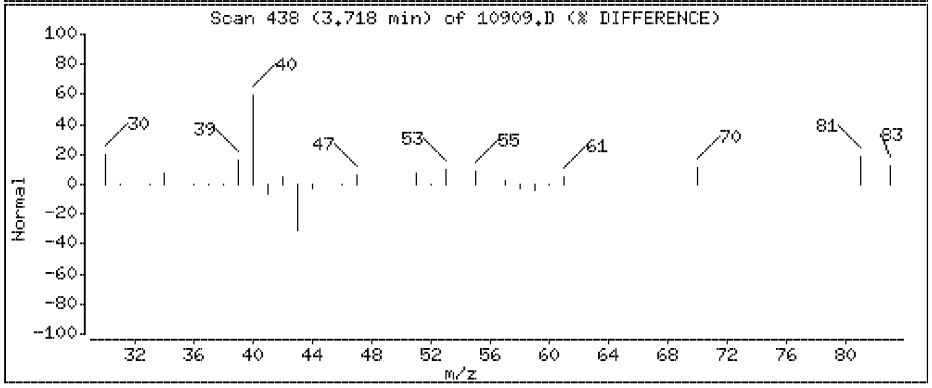












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.D

Date : 19-APR-2013 17:54

Client ID:

Instrument: 10airD.i

Sample Info:

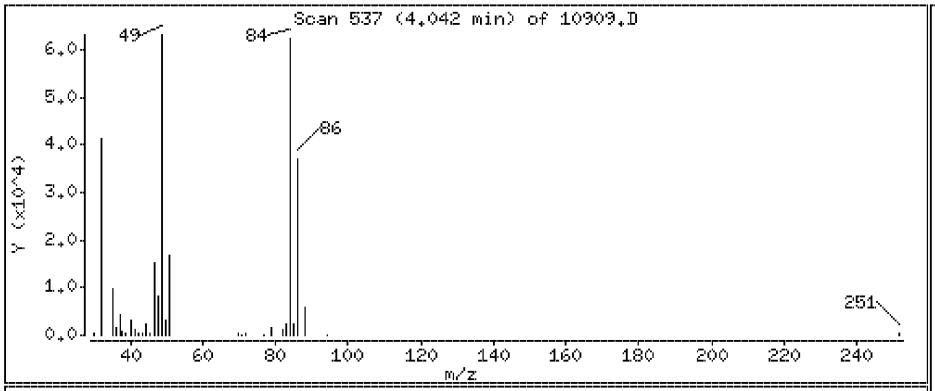
Operator: CJR

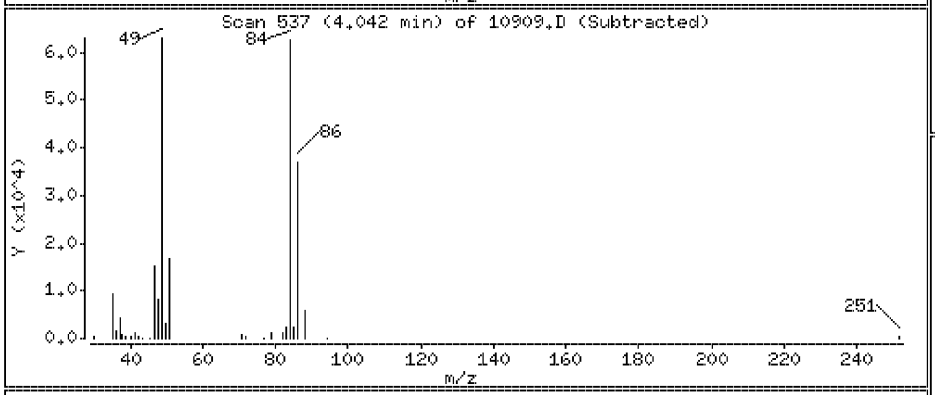
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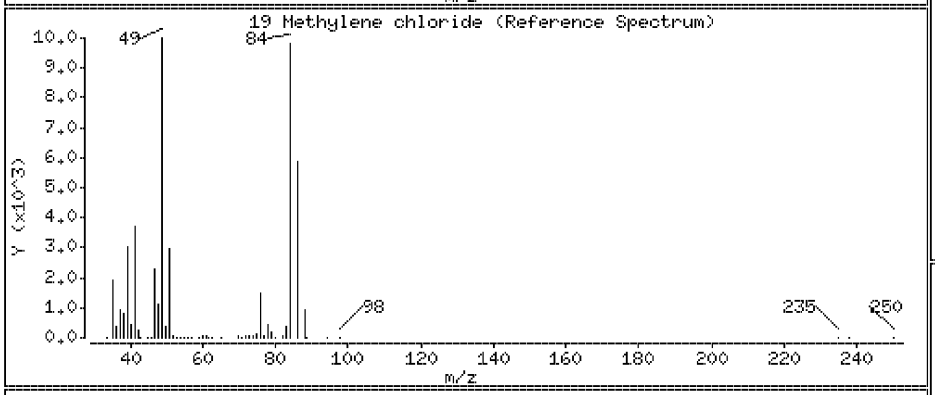
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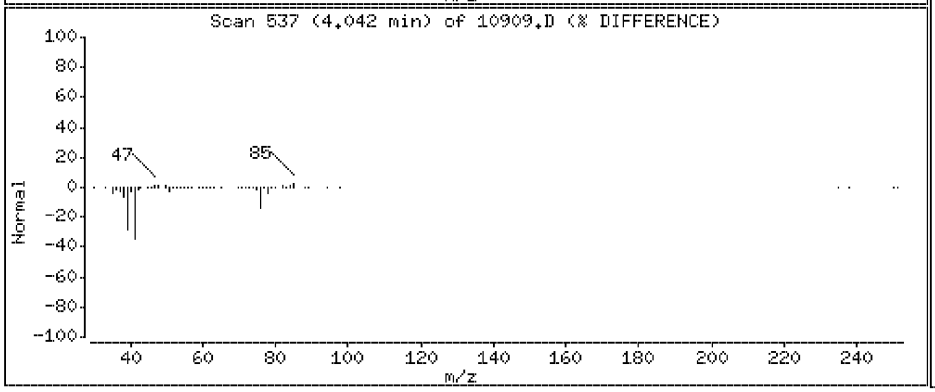
19 Methylene chloride

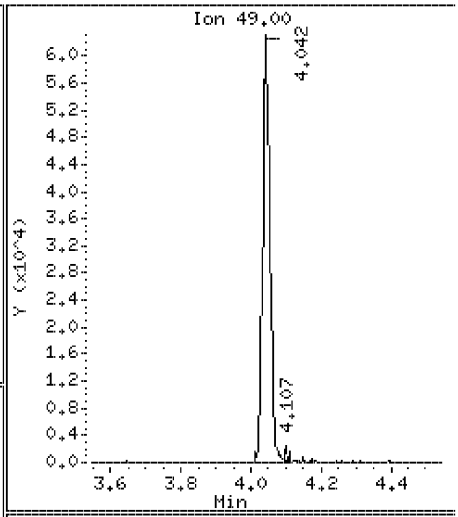
Concentration: 4.61 ppbv

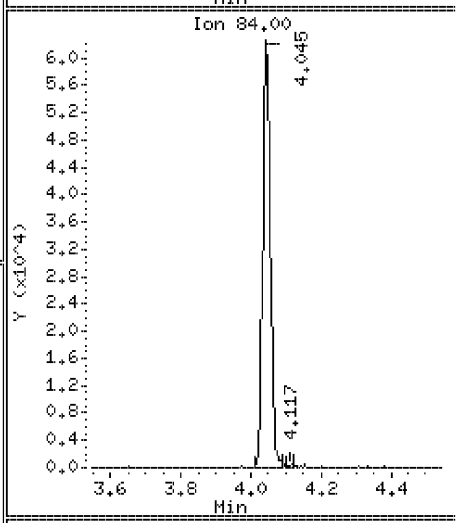


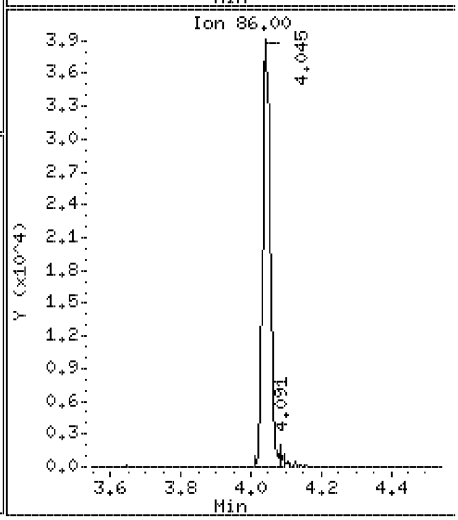












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.D

Date : 19-APR-2013 17:54

Client ID:

Instrument: 10airD.i

Sample Info:

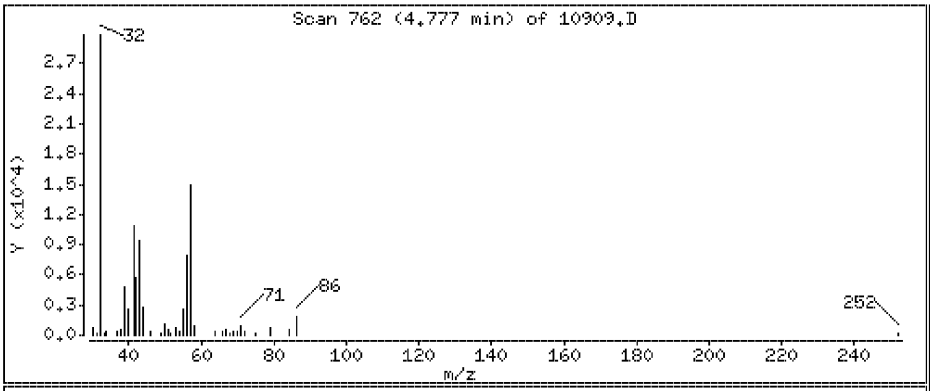
Operator: CJR

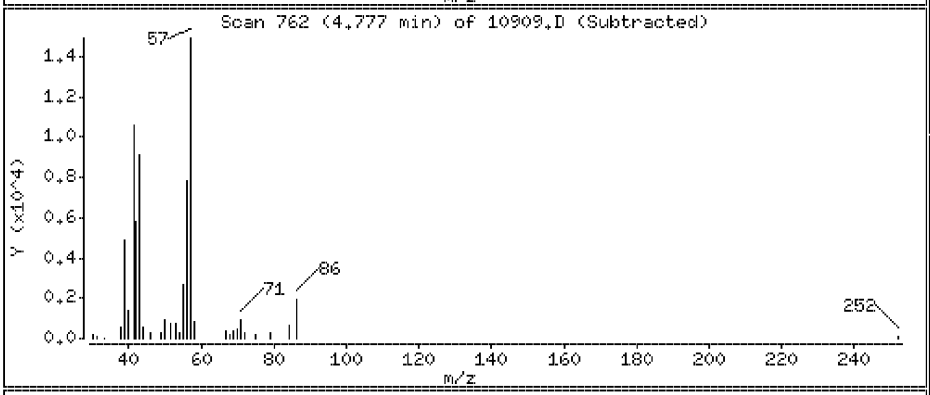
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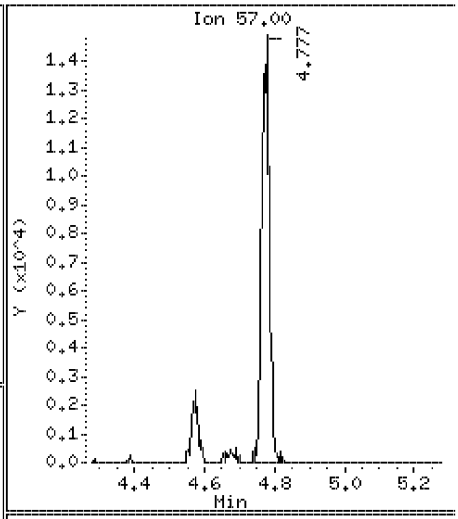
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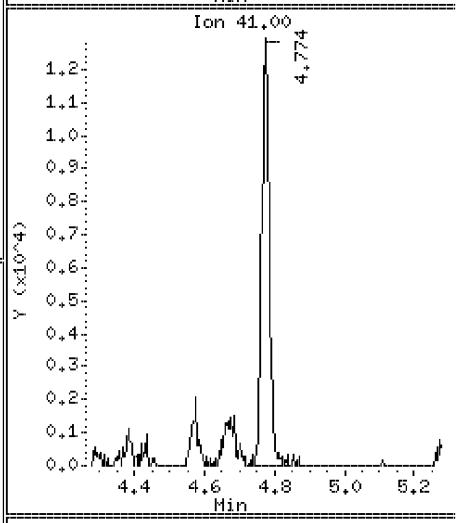
28 n-Hexane

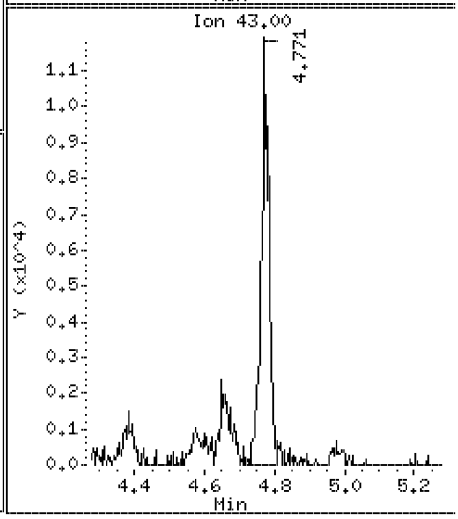
Concentration: 0.788 ppbv











Data File: \\192.168.10.12\chem\10airD.i\041913.b\10909.D

Date : 19-APR-2013 17:54

Client ID:

Instrument: 10airD.i

Sample Info:

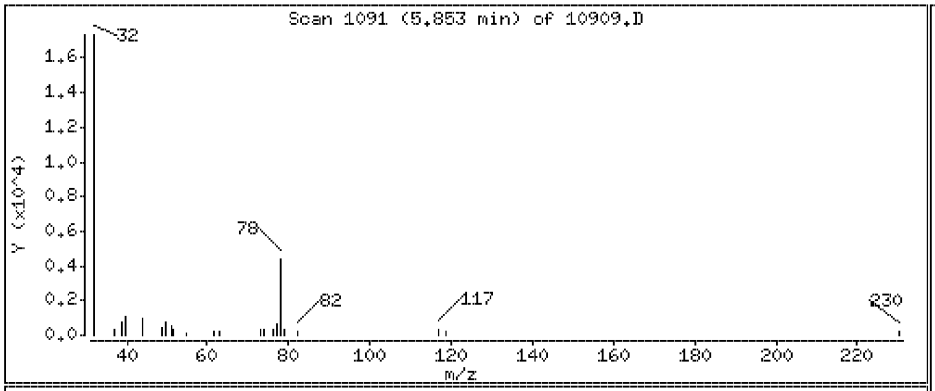
Operator: CJR

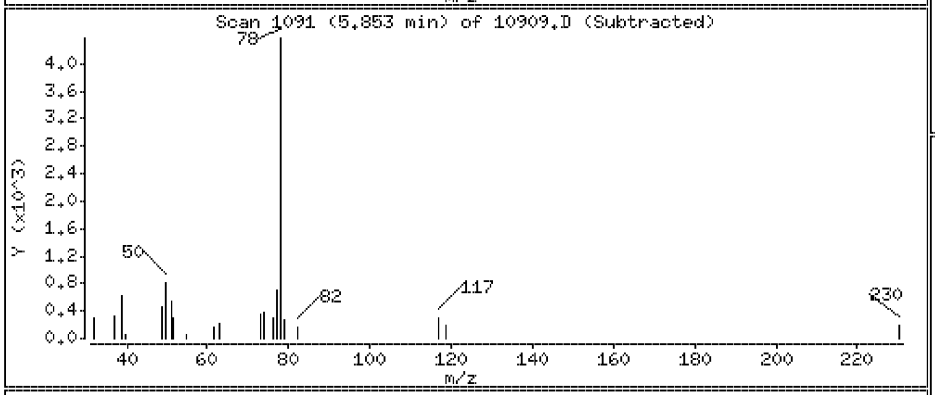
Column phase: J&W DB-5

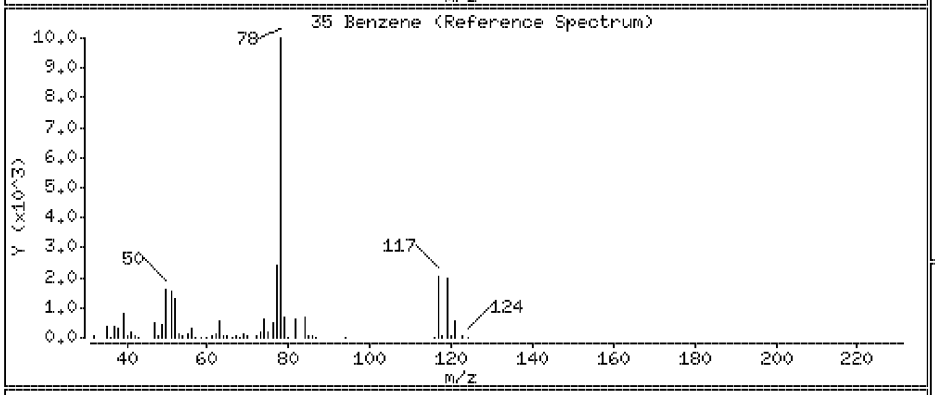
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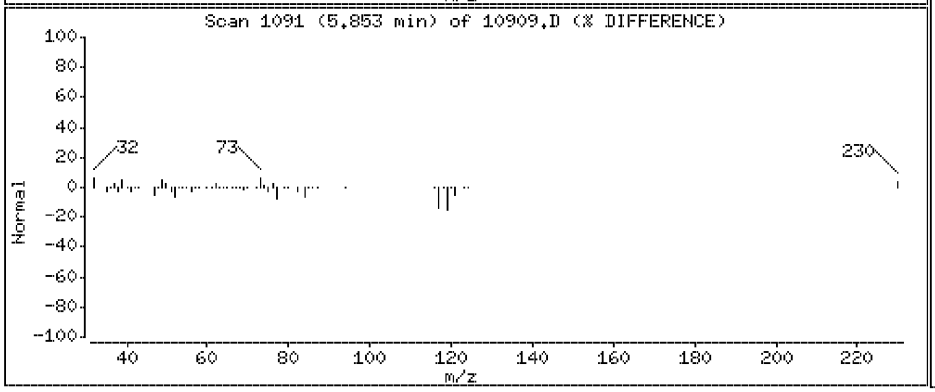
35 Benzene

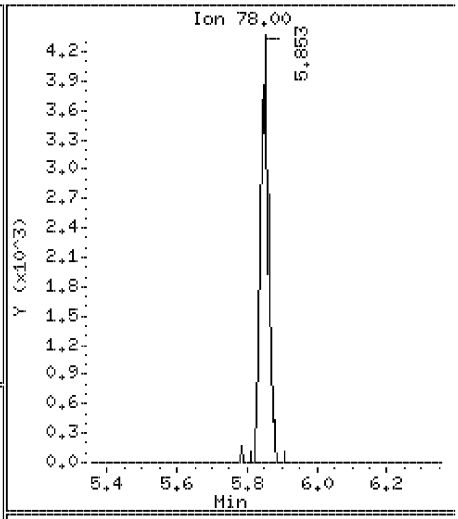
Concentration: 0.112 ppbv

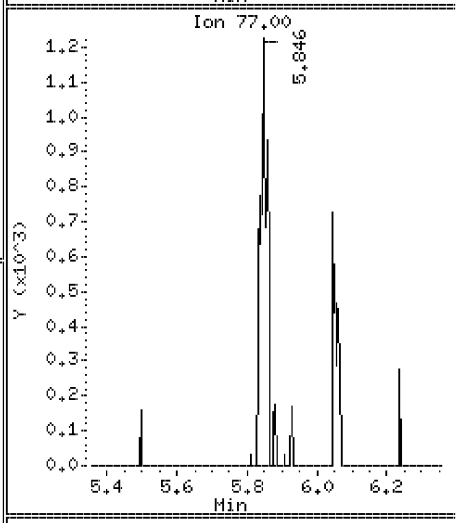


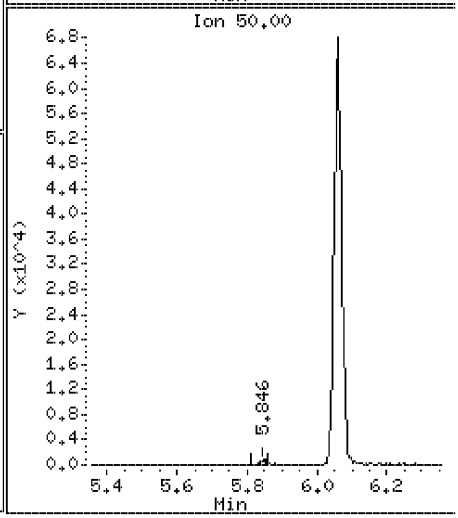






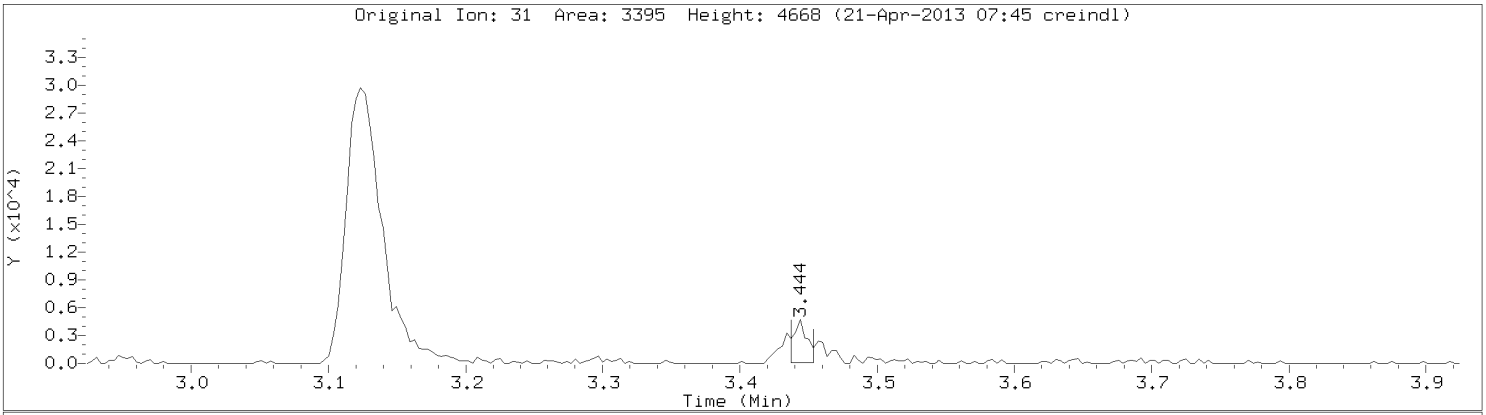


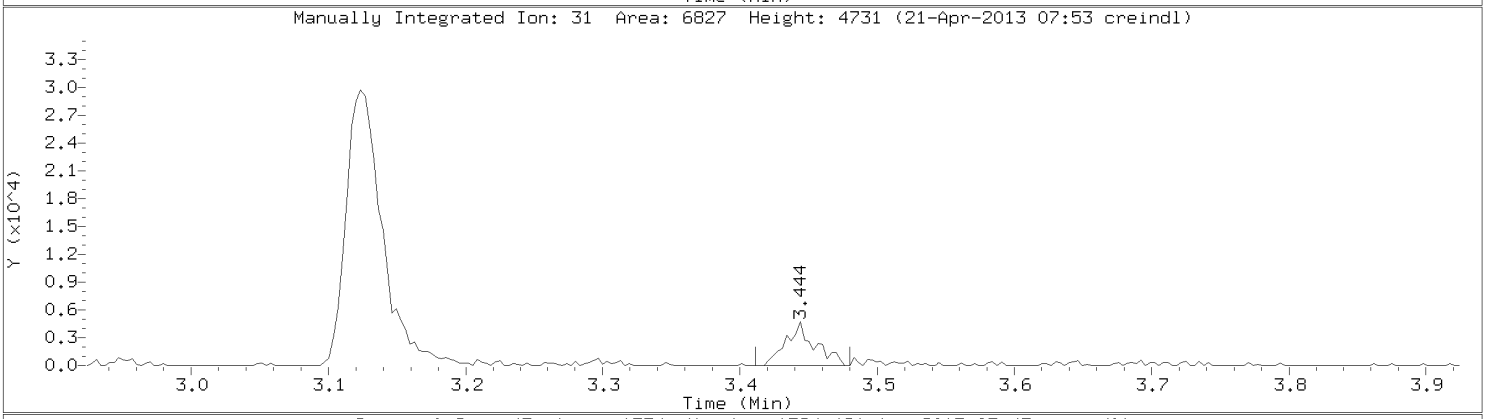


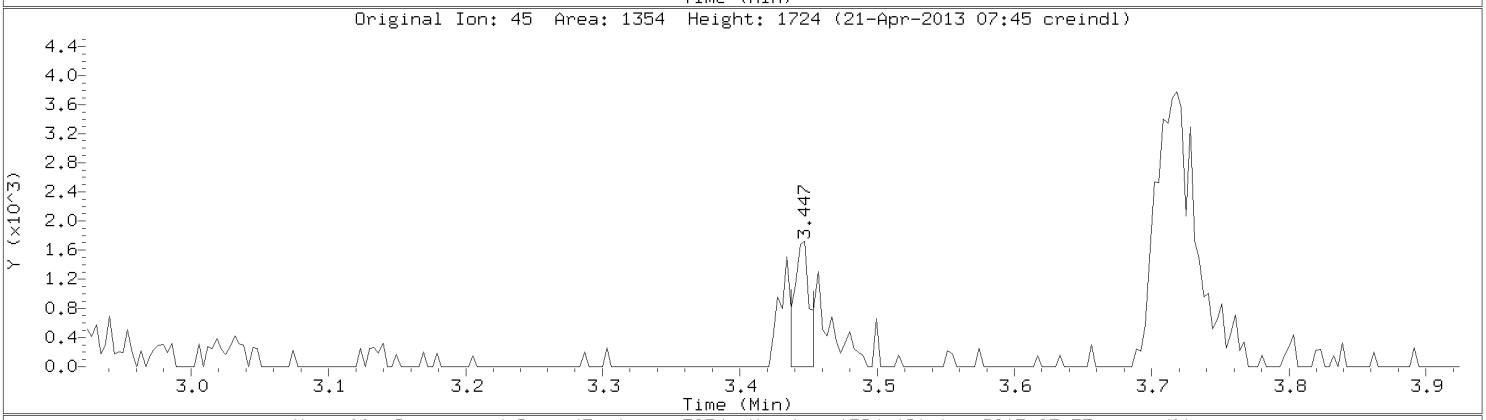


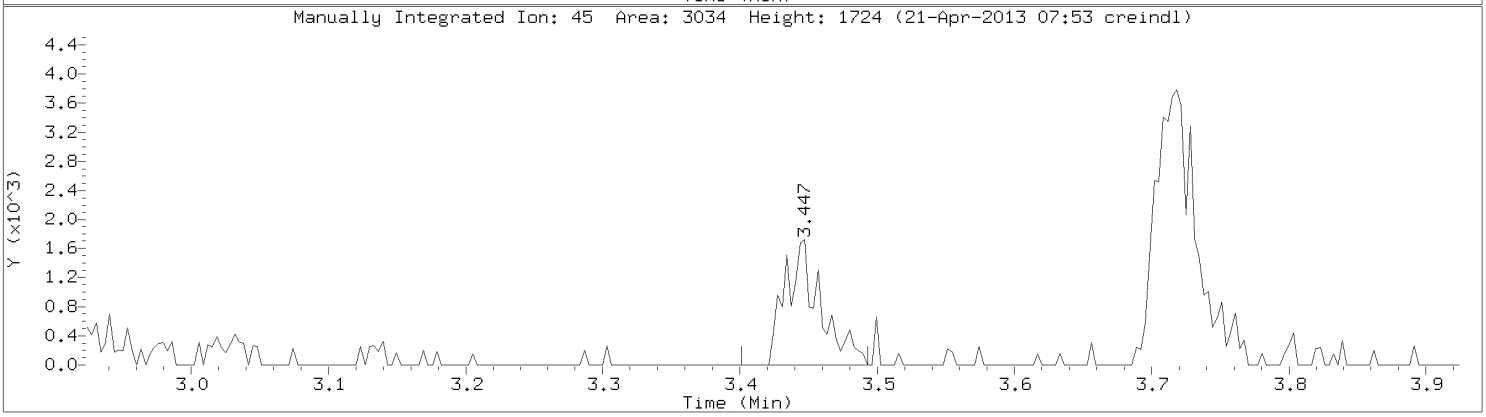
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10909.d
Injection Date: 19-APR-2013 17:54
Instrument: 10airD.i
Lab Sample ID: 10224616006

Compound: Ethanol
CAS Number: 64-17-5









Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.d
Report Date: 21-Apr-2013 07:57

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041913.b\10911.d
Lab Smp Id: 10224616007
Inj Date : 19-APR-2013 19:15
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17167
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Meth Date : 21-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 11
Dil Factor: 31.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	31.000	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
1	Propylene	41	Compound Not Detected.					
2	Dichlorodifluoromethane	85	Compound Not Detected.					
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	Compound Not Detected.					
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	Compound Not Detected.					
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	Compound Not Detected.					
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	Compound Not Detected.					
13	Acetone	43	Compound Not Detected.					
14	Isopropyl Alcohol	45	Compound Not Detected.					
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	Compound Not Detected.					
19	Methylene chloride	49	4.048	4.045	(0.668)	35837	0.91260	28.3
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	4.182	4.179	(0.690)	16708	0.13432	4.16(M)
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.d
Report Date: 21-Apr-2013 07:57

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	24 Vinyl Acetate	43	Compound Not Detected.					
	25 1,1-Dichloroethane	63	Compound Not Detected.					
$	26 Hexane-d14(S)	66	4.663	4.660	(0.769)	544003	9.00904	9.01
	27 Methyl Ethyl Ketone	72	Compound Not Detected.					
	28 n-Hexane	57	4.780	4.777	(0.789)	295799	5.24646	163(Q)
	29 cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30 Ethyl Acetate	43	Compound Not Detected.					
	31 Chloroform	83	5.081	5.085	(0.838)	101506	0.96334	29.9
	32 Tetrahydrofuran	42	Compound Not Detected.					
	33 1,1,1-Trichloroethane	97	Compound Not Detected.					
	34 1,2-Dichloroethane	62	Compound Not Detected.					
	35 Benzene	78	5.849	5.856	(0.965)	117910	0.95473	29.6
	36 Carbon tetrachloride	117	Compound Not Detected.					
	37 Cyclohexane	56	5.895	5.882	(0.973)	59992	1.55058	48.1(QM)
*	38 1,4-Difluorobenzene	114	6.061	6.069	(1.000)	1355511	10.0000	
	39 2,2,4-Trimethylpentane	57	Compound Not Detected.					
	40 Heptane	43	6.415	6.415	(1.058)	194596	4.55702	141
	41 1,2-Dichloropropane	63	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,4-Dioxane	88	Compound Not Detected.					
	44 Bromodichloromethane	83	Compound Not Detected.					
	45 Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47 trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48 Toluene-d8 (S)	98	7.827	7.837	(1.291)	1226593	9.88486	9.88
	49 Toluene	91	7.918	7.925	(1.306)	1006148	5.92851	184
	50 1,1,2-Trichloroethane	97	Compound Not Detected.					
	51 Methyl Butyl Ketone	43	Compound Not Detected.					
	52 Dibromochloromethane	129	Compound Not Detected.					
	53 1,2-Dibromoethane	107	Compound Not Detected.					
	54 Tetrachloroethene	166	8.902	8.909	(0.920)	227581	3.93773	122
*	55 Chlorobenzene - d5	117	9.677	9.684	(1.000)	754580	10.0000	
	56 Chlorobenzene	112	Compound Not Detected.					
	57 Ethyl Benzene	91	10.033	10.040	(1.037)	162775	1.03697	32.1
	58 m&p-Xylene	91	10.196	10.210	(1.054)	817302	5.65622	175
	59 Bromoform	173	Compound Not Detected.					
	60 Styrene	104	10.700	10.707	(1.106)	25994	0.59734	18.5(M)
	61 o-Xylene	91	10.775	10.785	(1.113)	203416	1.35831	42.1
	62 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63 Isopropylbenzene	105	Compound Not Detected.					
	64 N-Propylbenzene	91	Compound Not Detected.					
	65 4-Ethyltoluene	105	12.314	12.328	(1.273)	67240	0.52861	16.4(M)
	66 1,3,5-Trimethylbenzene	105	12.419	12.433	(1.283)	72365	0.55602	17.2
	67 1,2,4-Trimethylbenzene	105	13.017	13.028	(1.345)	205211	1.48067	45.9
	68 1,3-Dichlorobenzene	146	Compound Not Detected.					
	69 Sec- Butylbenzene	105	Compound Not Detected.					
$	70 1,4-dichlorobenzene-d4 (S)	150	13.452	13.466	(1.390)	392154	9.24888	9.25
	71 Benzyl Chloride	91	Compound Not Detected.					
	72 1,4-Dichlorobenzene	146	Compound Not Detected.					
	73 1,2-Dichlorobenzene	146	Compound Not Detected.					
	74 N-Butylbenzene	91	Compound Not Detected.					
	75 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76 Naphthalene	128	Compound Not Detected.					
	77 Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.d
Report Date: 21-Apr-2013 07:57

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.d
Report Date: 21-Apr-2013 07:57

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10911.d
Lab Smp Id: 10224616007
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Misc Info: 17167

Calibration Date: 19-APR-2013
Calibration Time: 12:14
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

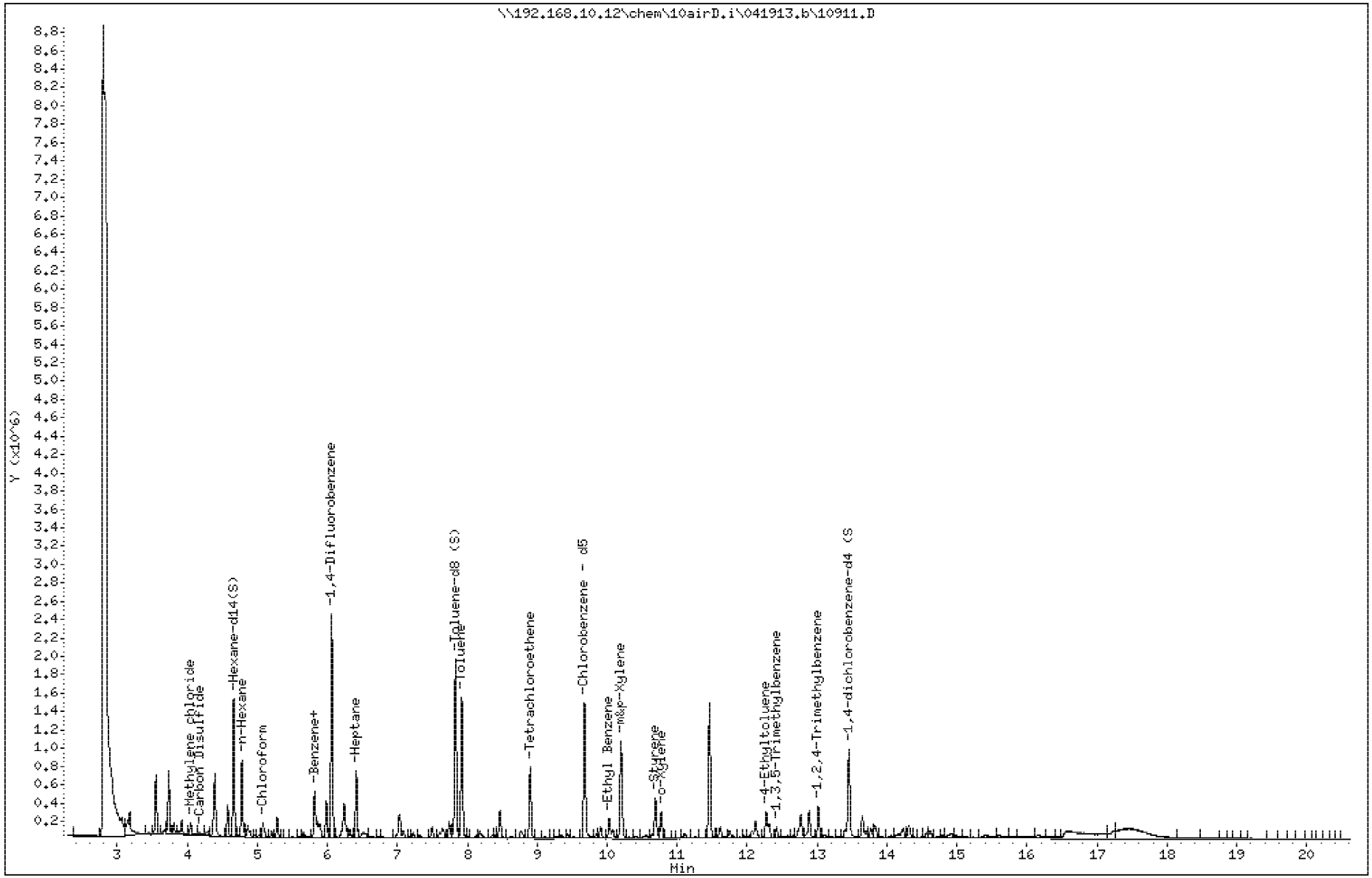
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1355511	-5.37
55 Chlorobenzene - d	825122	495073	1155171	754580	-8.55

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D
Date : 19-APR-2013 19:15
Client ID:
Sample Info:

Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D

Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

Sample Info:

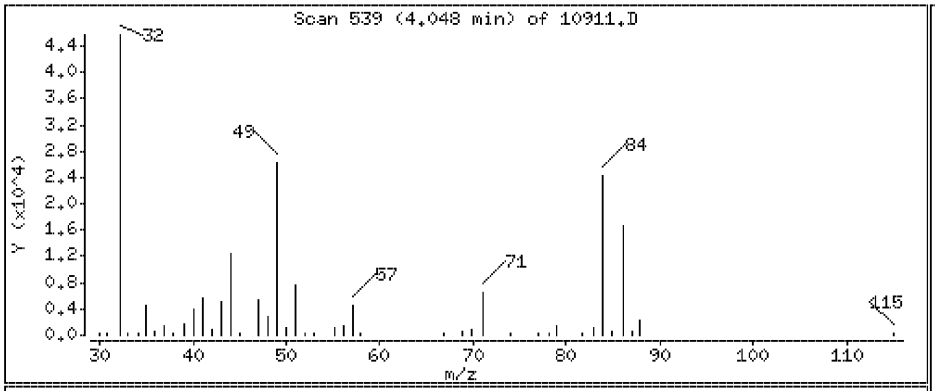
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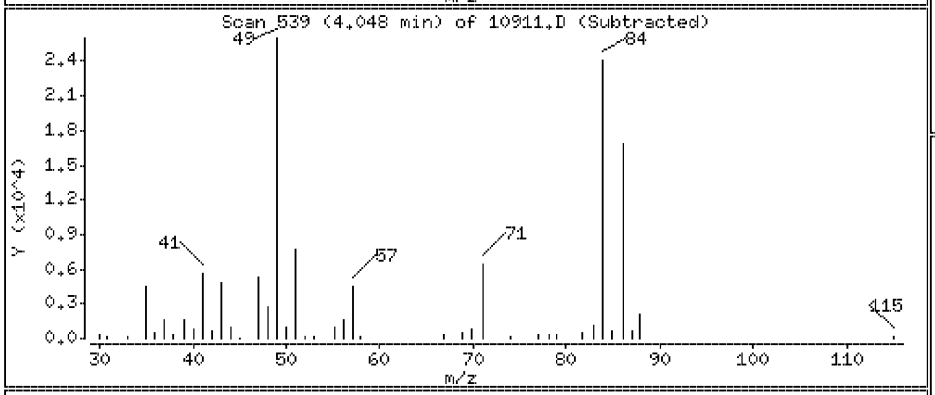
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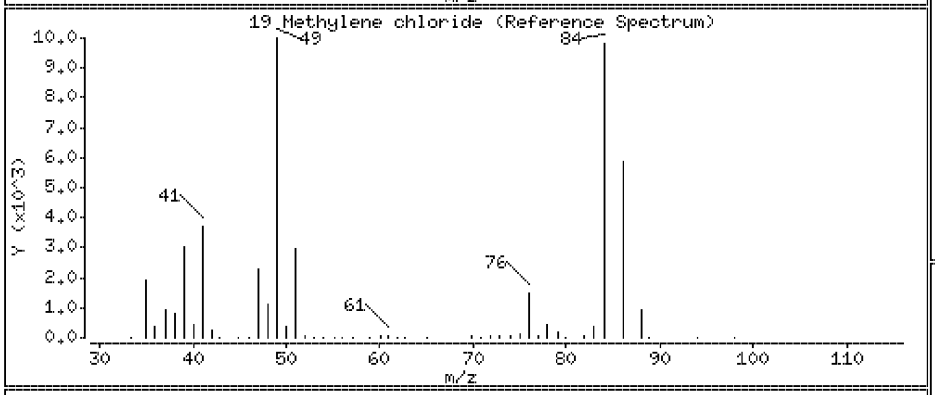
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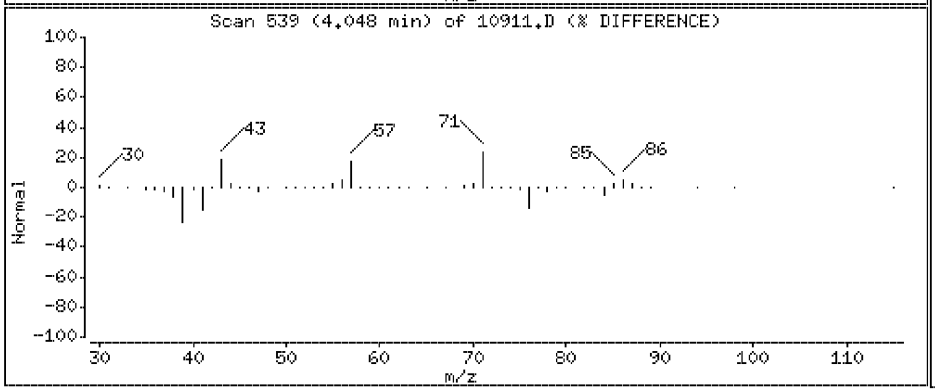
19 Methylene chloride

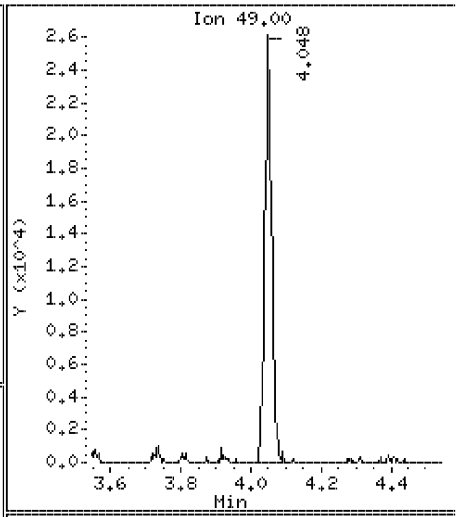
Concentration: 28.3 ppbv

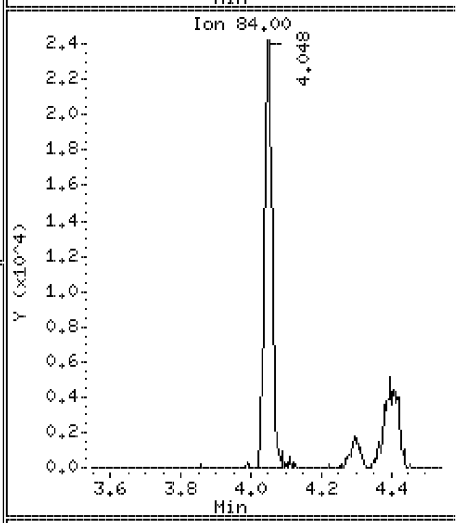


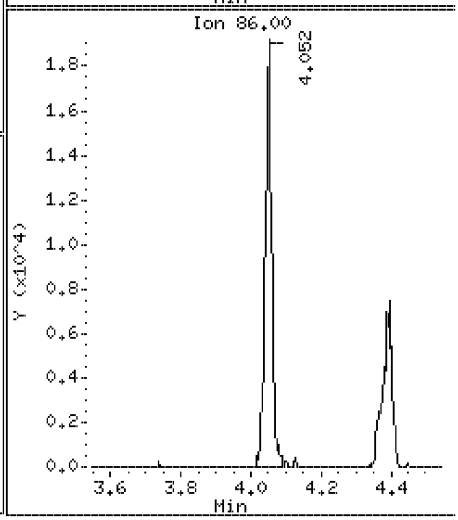












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D

Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

Sample Info:

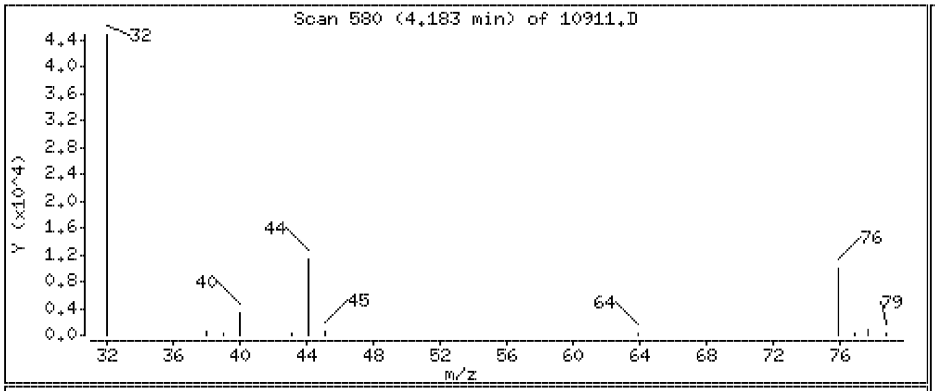
Operator: CJR

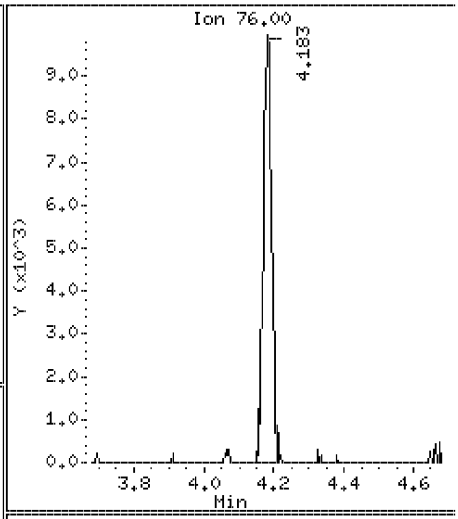
Column phase: J&W DB-5

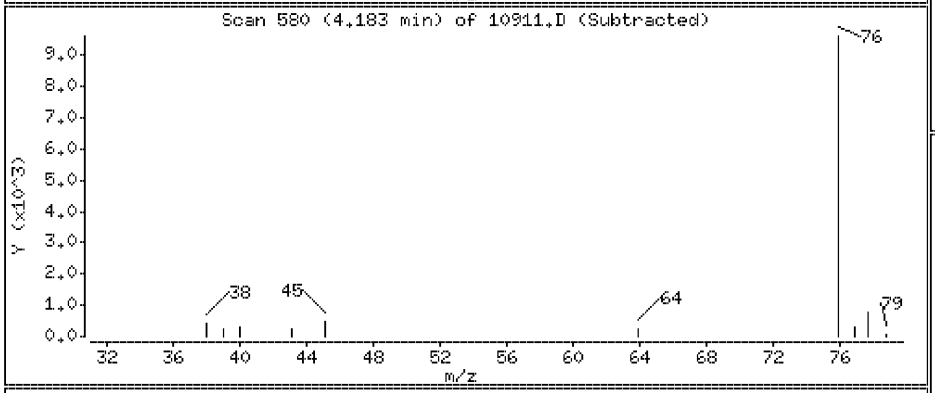
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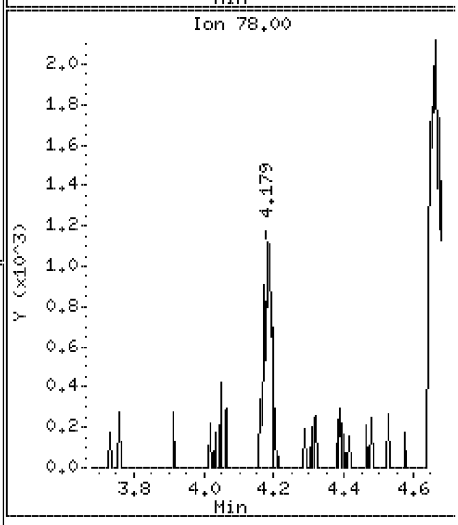
21 Carbon Disulfide

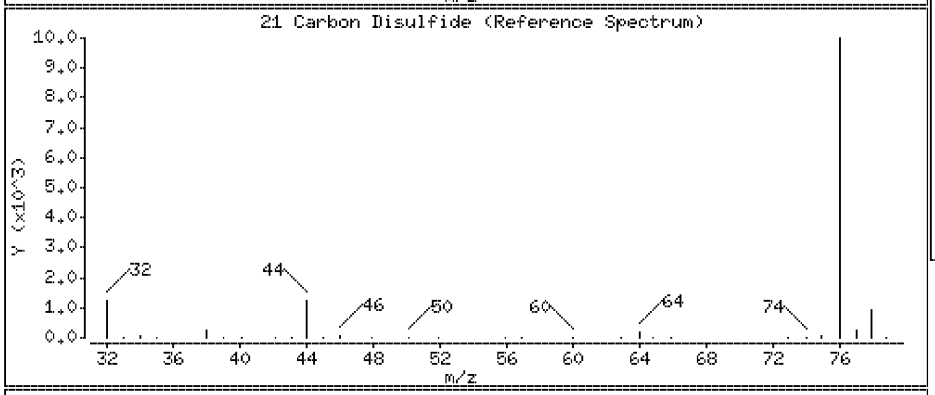
Concentration: 4.16 ppbv

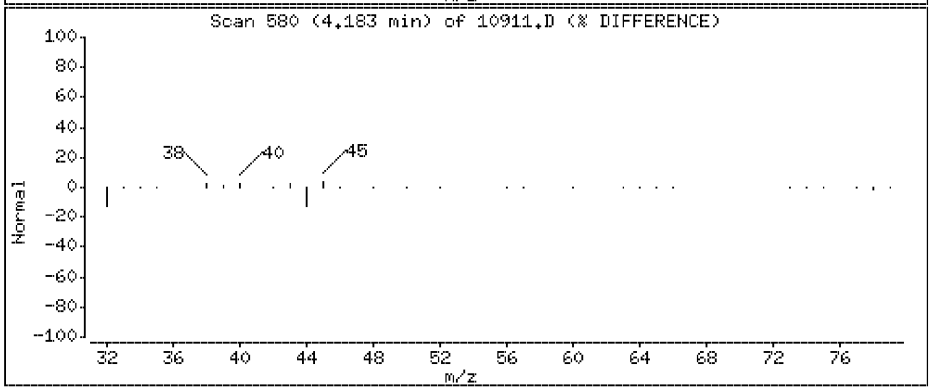












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D

Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

Sample Info:

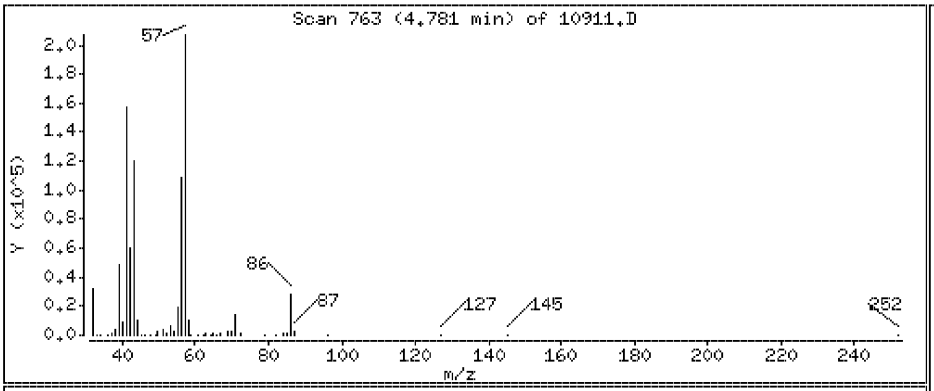
Operator: CJR

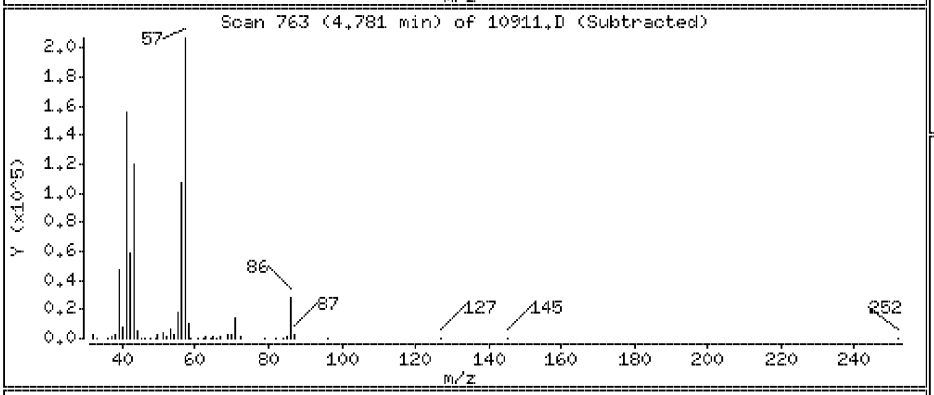
Column phase: J&W DB-5

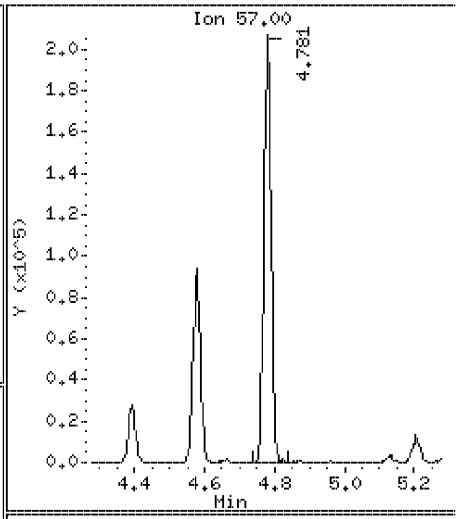
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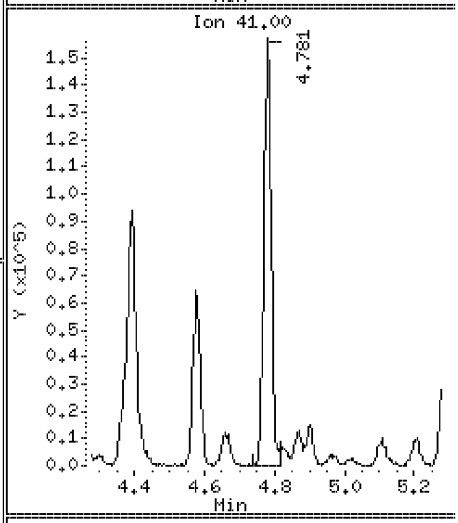
28 n-Hexane

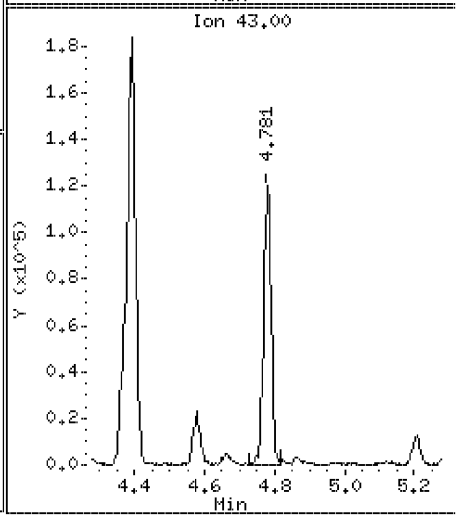
Concentration: 163 ppbv











Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D

Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

Sample Info:

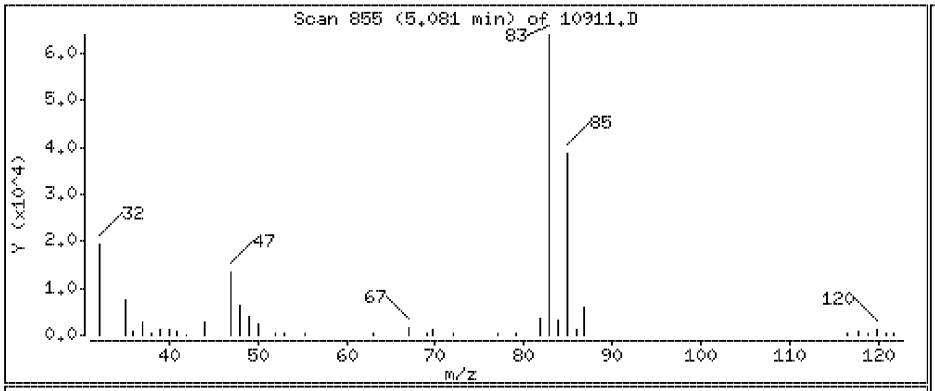
Operator: CJR

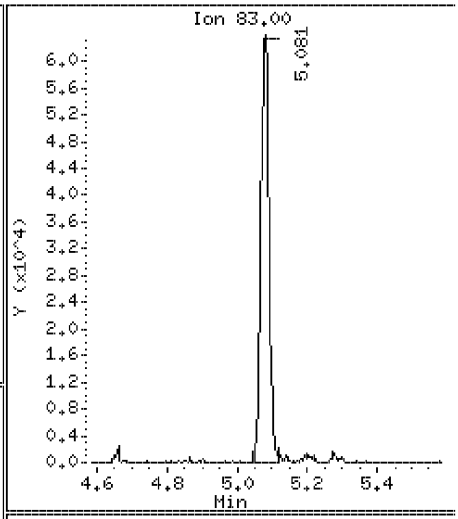
Column phase: J&W DB-5

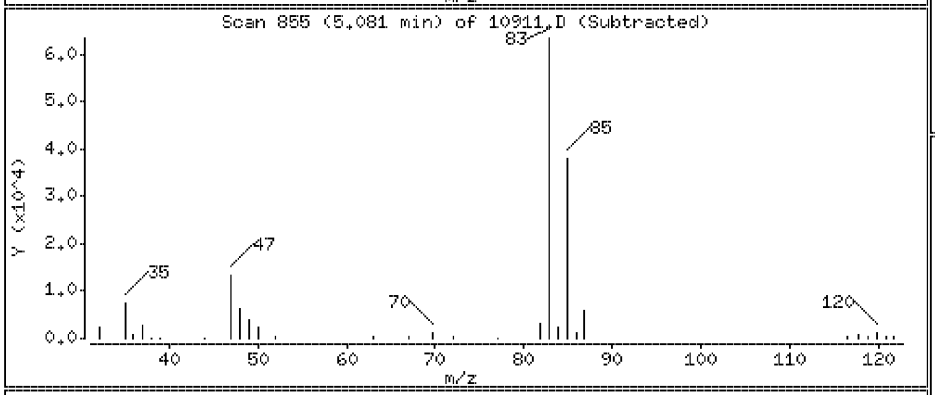
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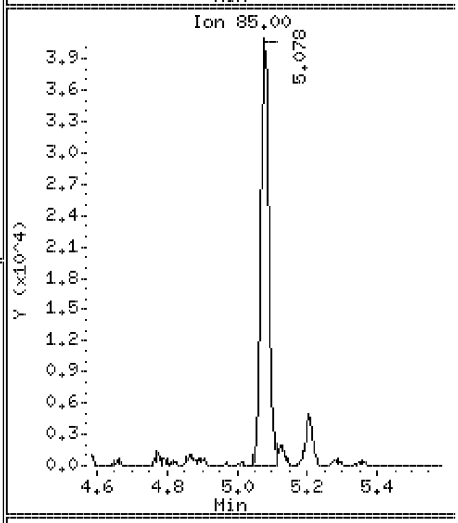
31 Chloroform

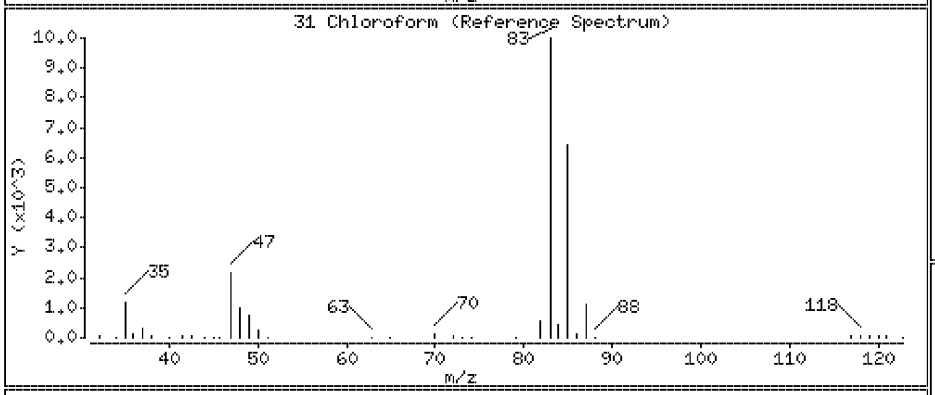
Concentration: 29.9 ppbv

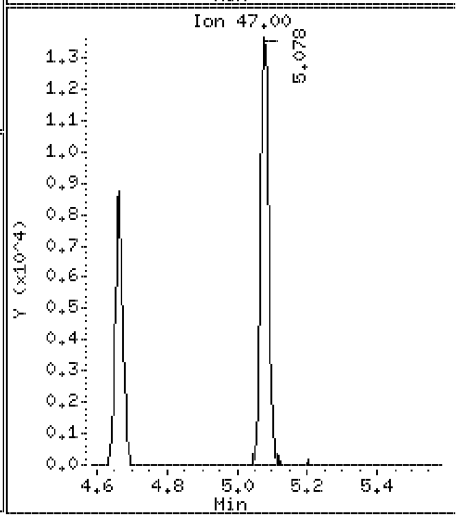


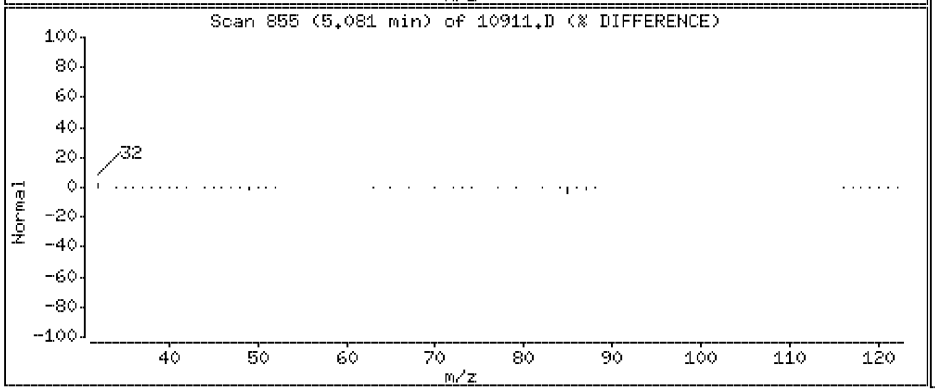












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D

Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

Sample Info:

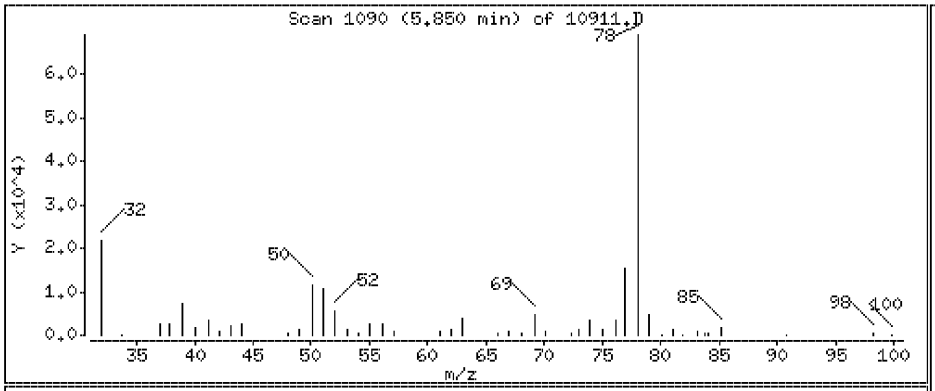
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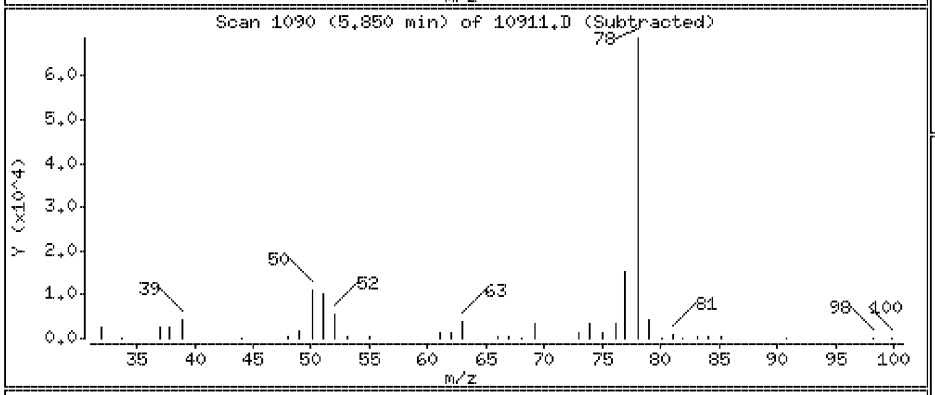
Column phase: J&W DB-5

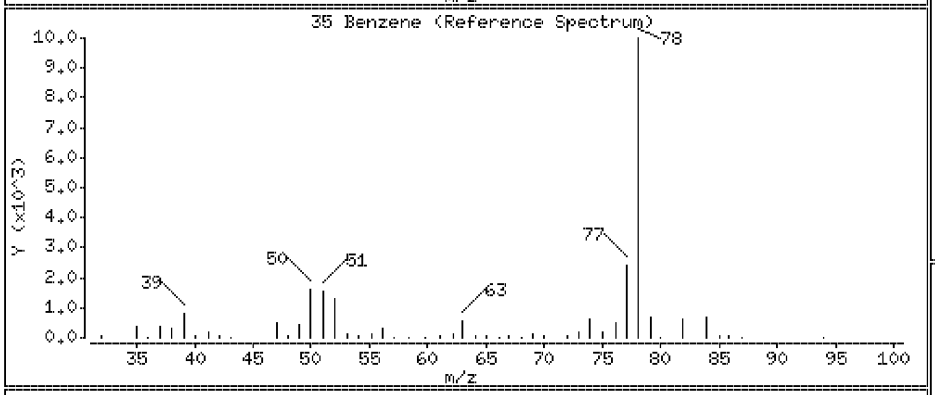
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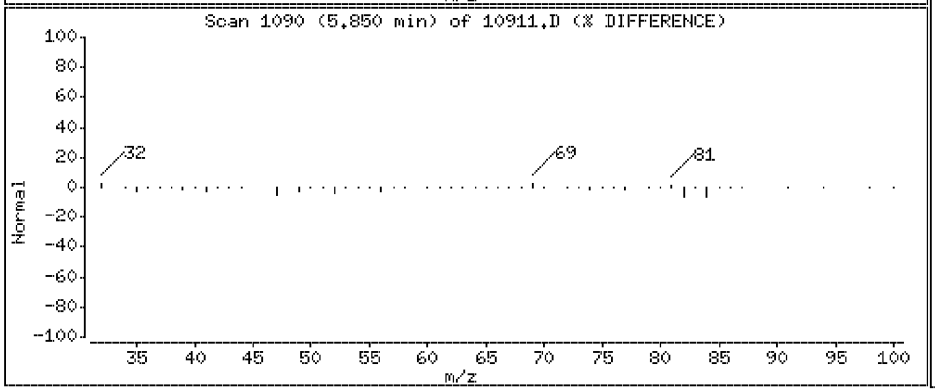
35 Benzene

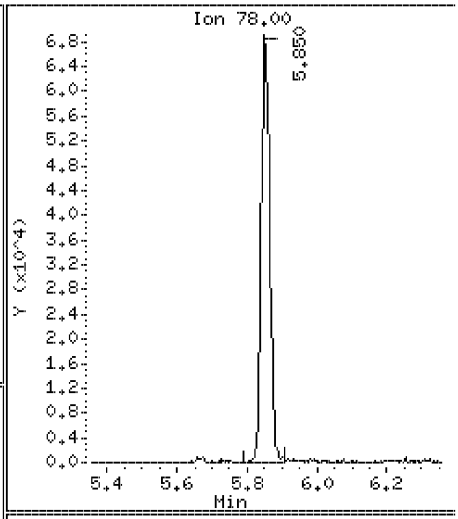
Concentration: 29.6 ppbv

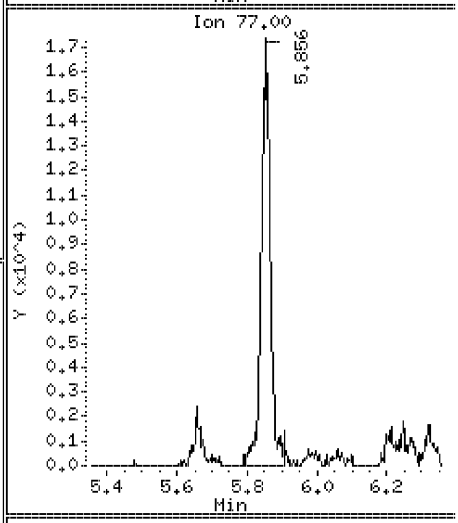


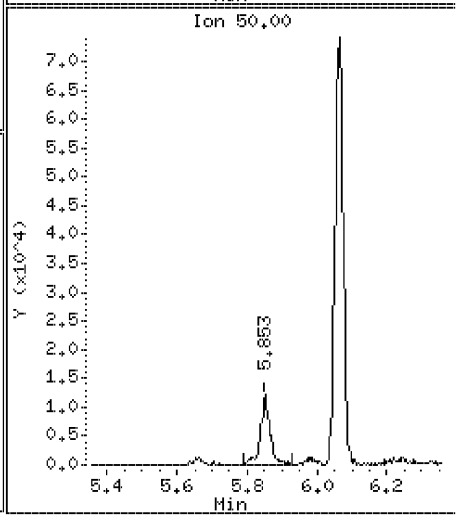












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Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

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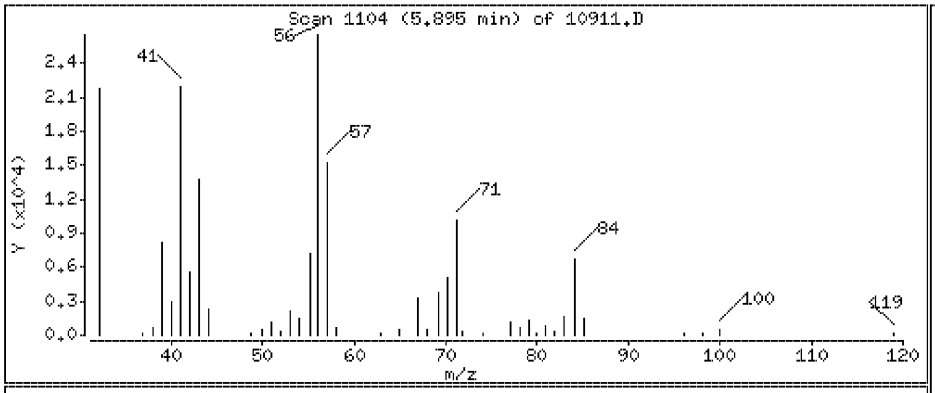
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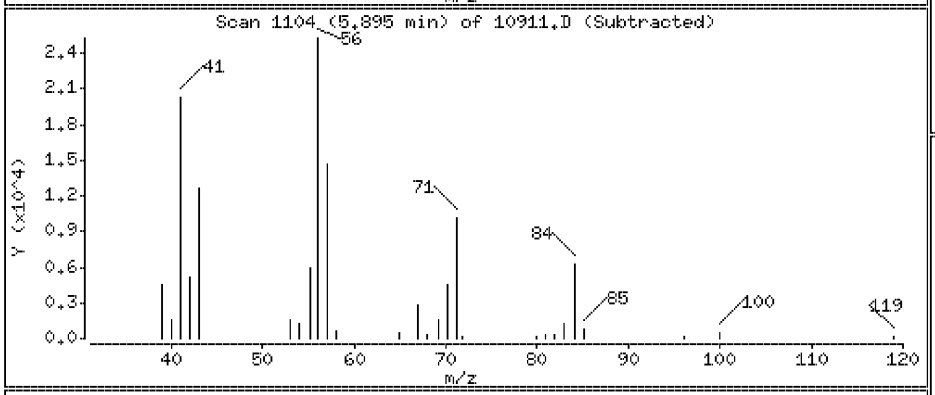
Column phase: J&W DB-5

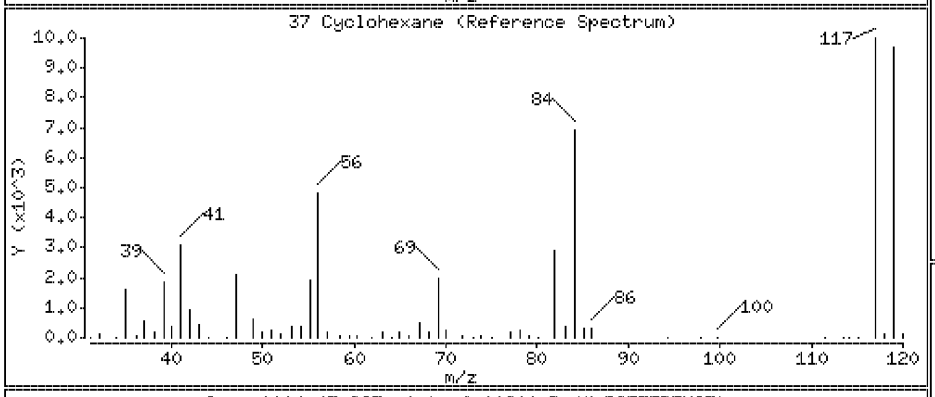
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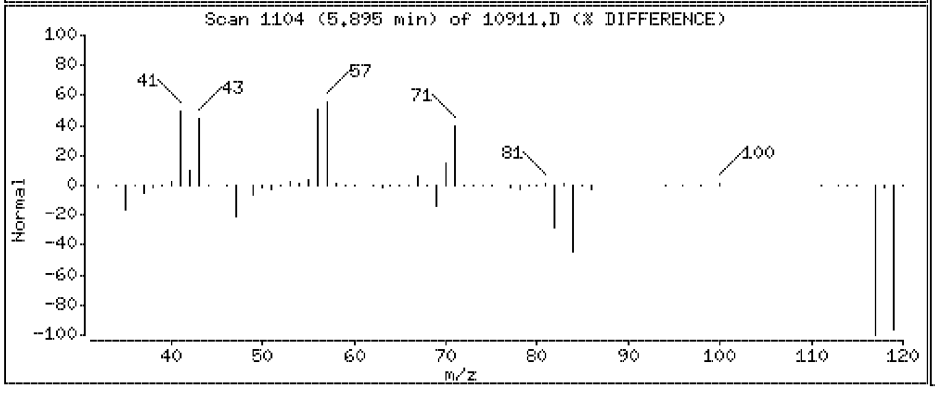
37 Cyclohexane

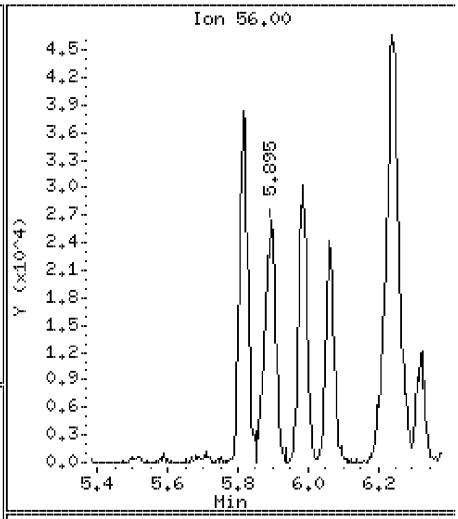
Concentration: 48.1 ppbv

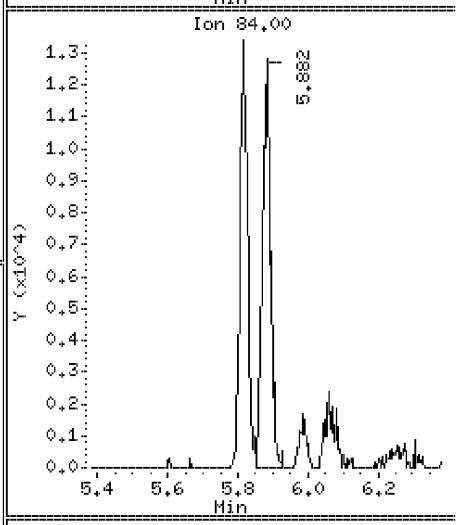


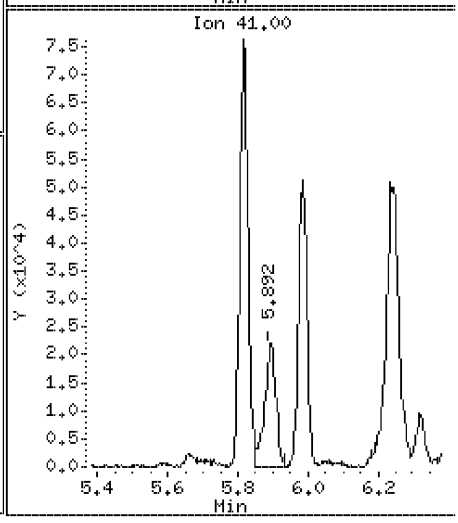












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Date : 19-APR-2013 19:15

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Instrument: 10airD.i

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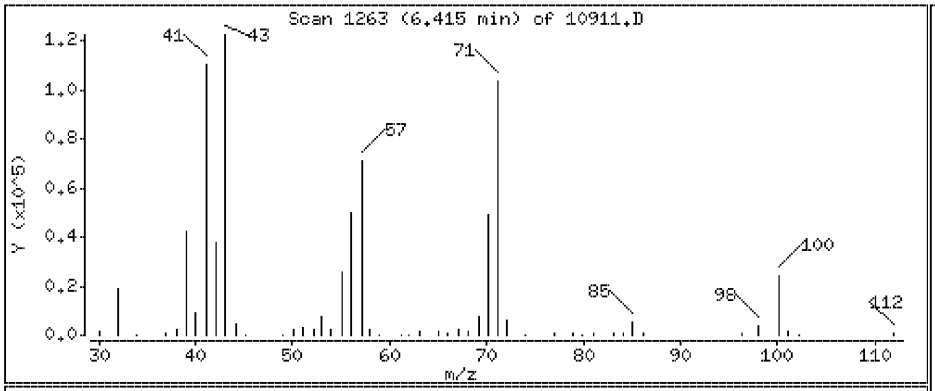
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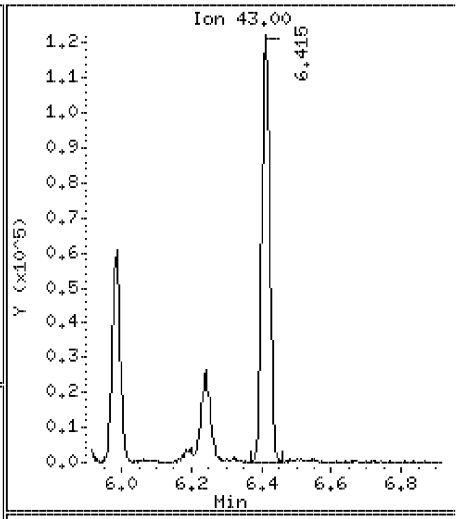
Column phase: J&W DB-5

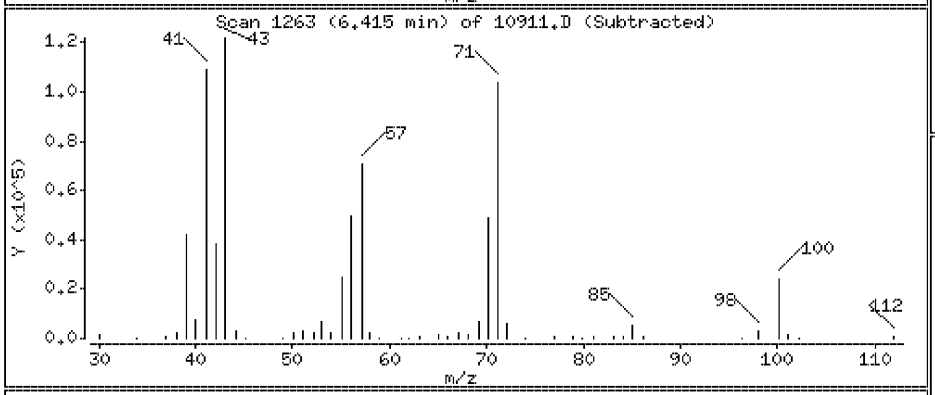
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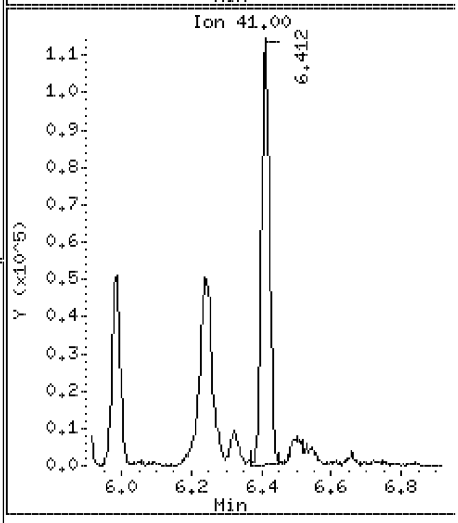
40 Heptane

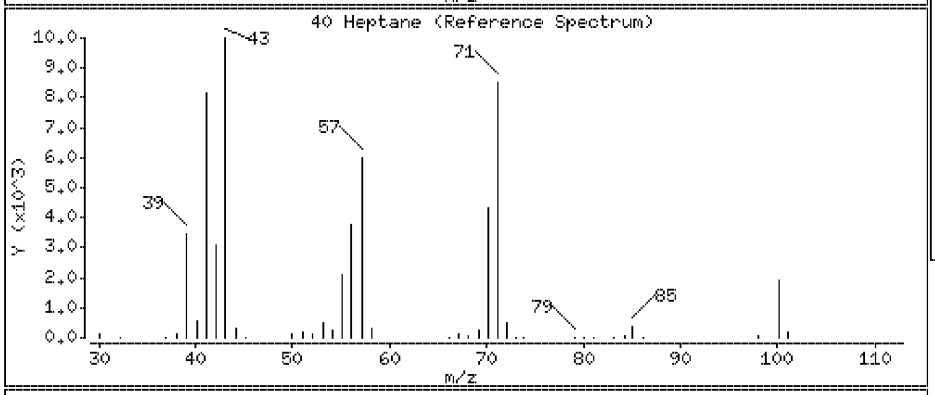
Concentration: 141 ppbv

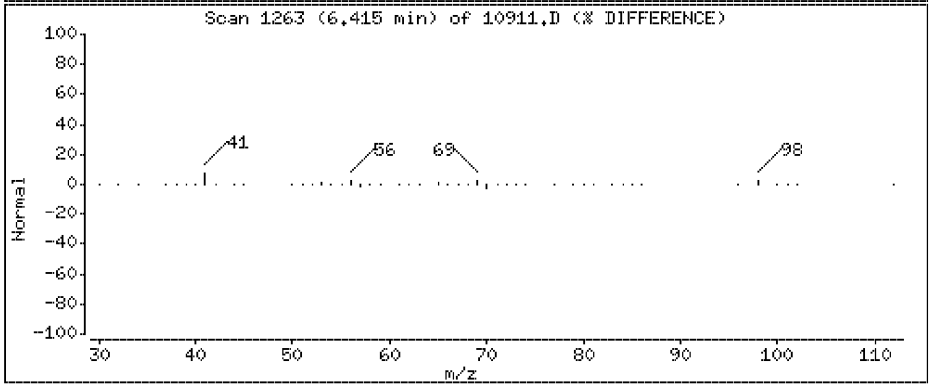












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Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

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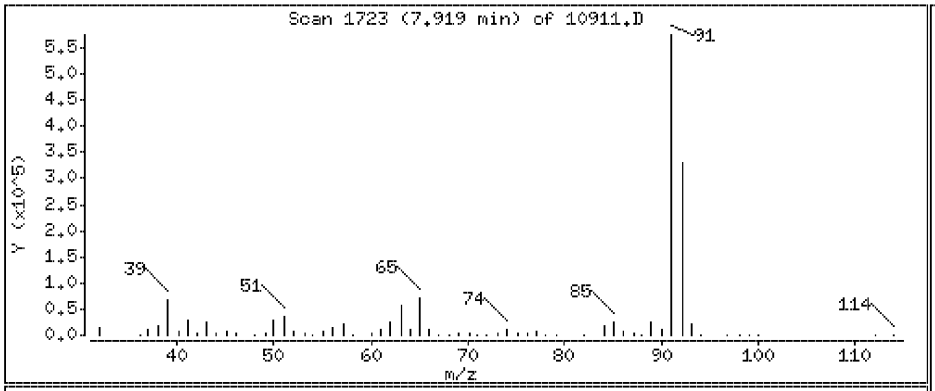
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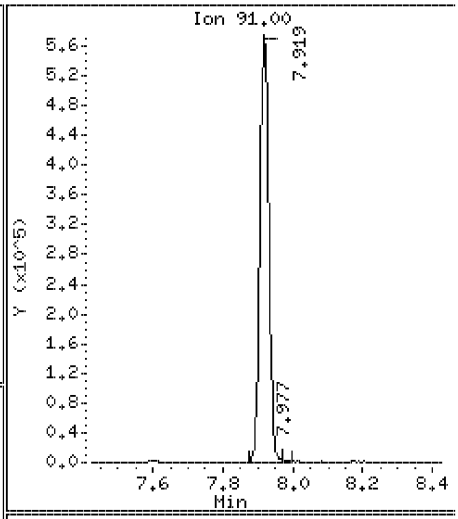
Column phase: J&W DB-5

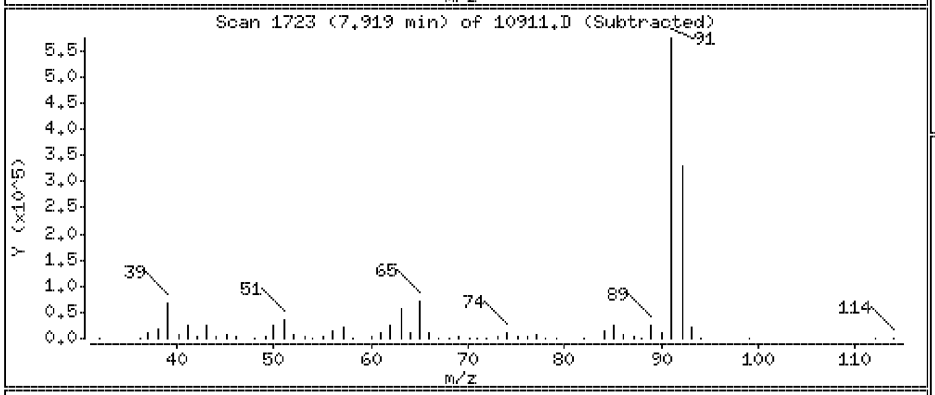
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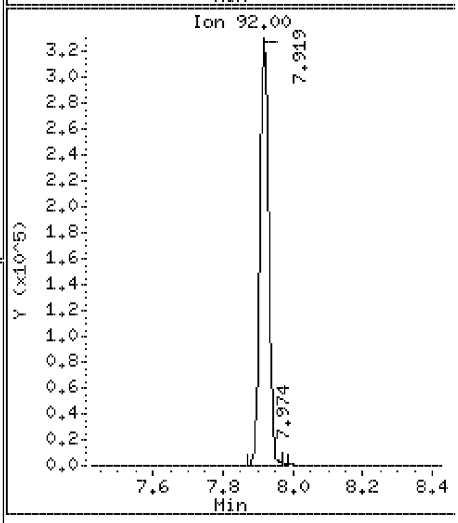
49 Toluene

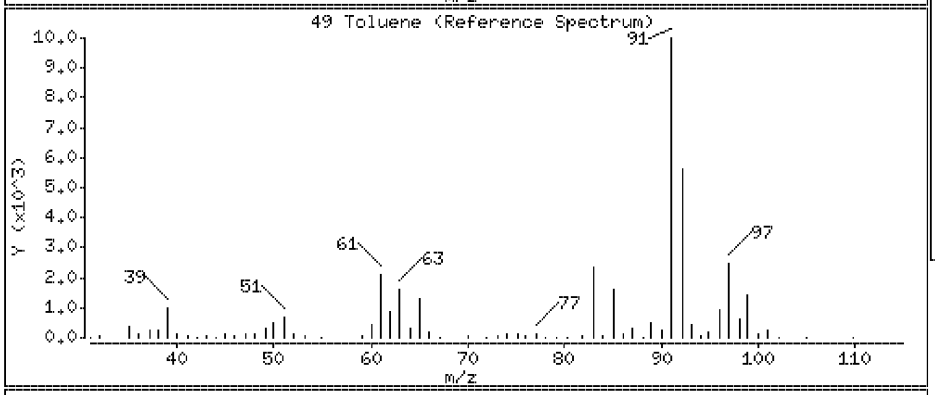
Concentration: 184 ppbv

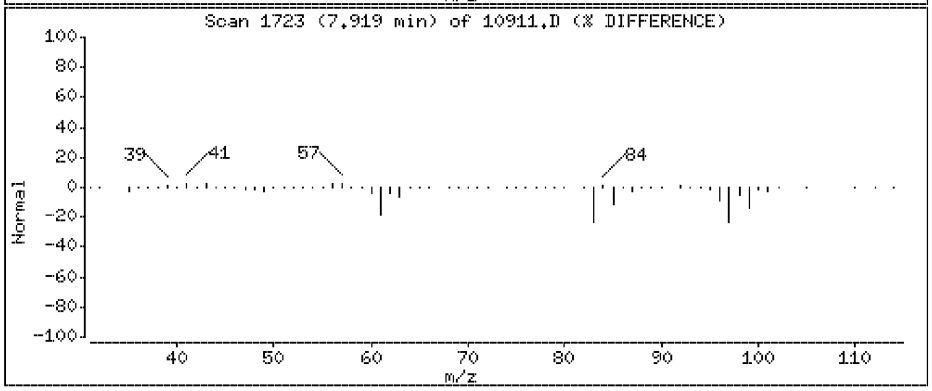












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Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

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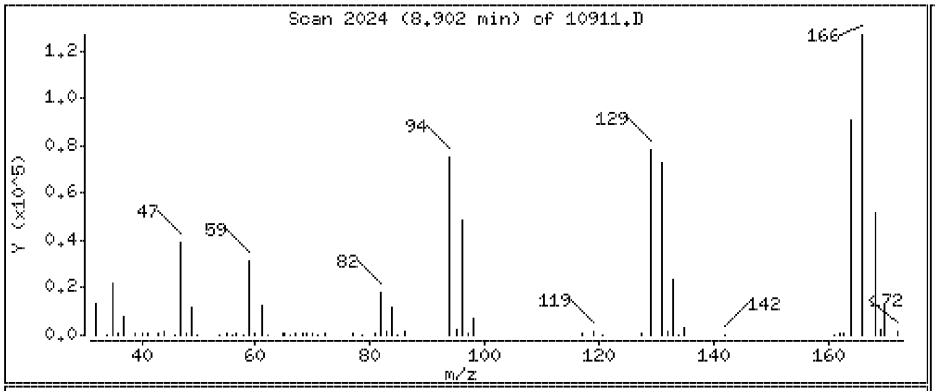
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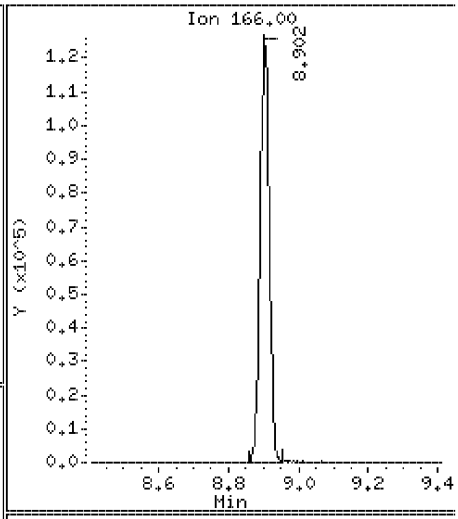
Column phase: J&W DB-5

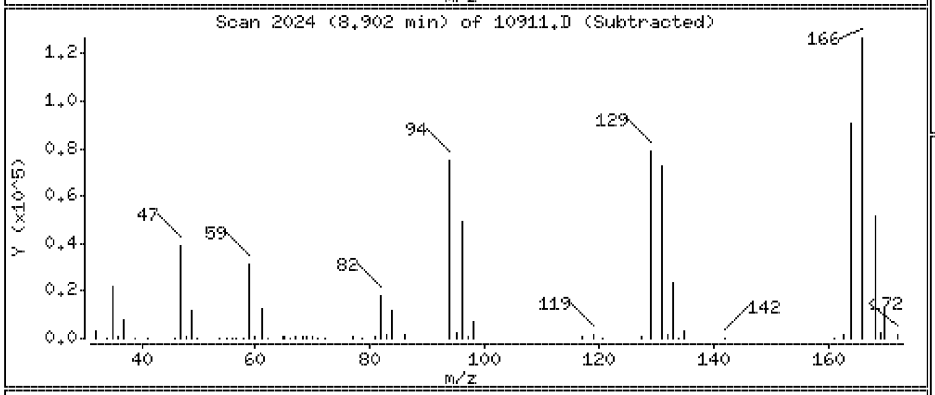
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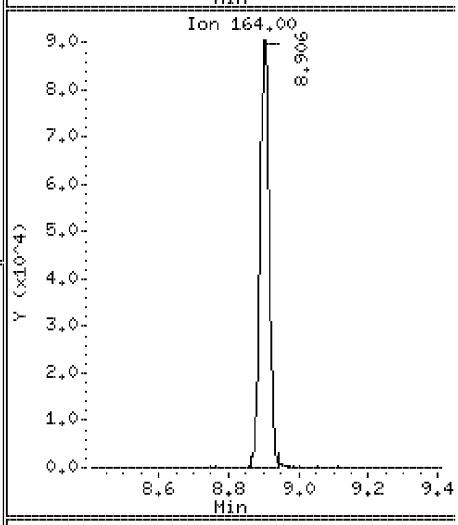
54 Tetrachloroethene

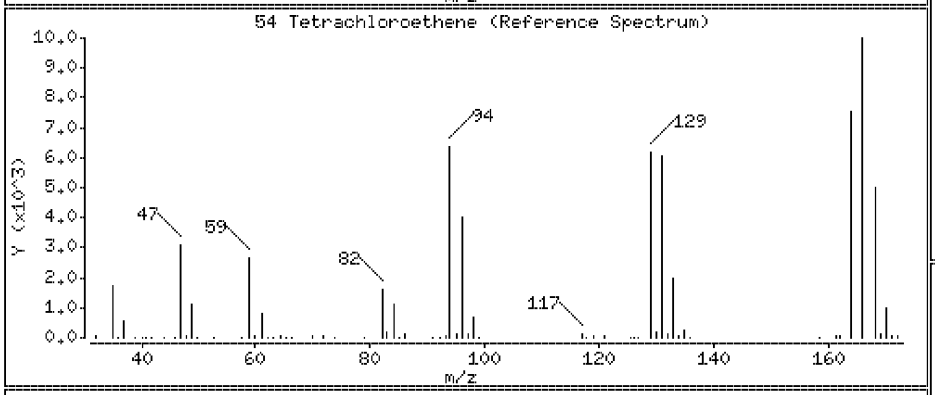
Concentration: 122 ppbv

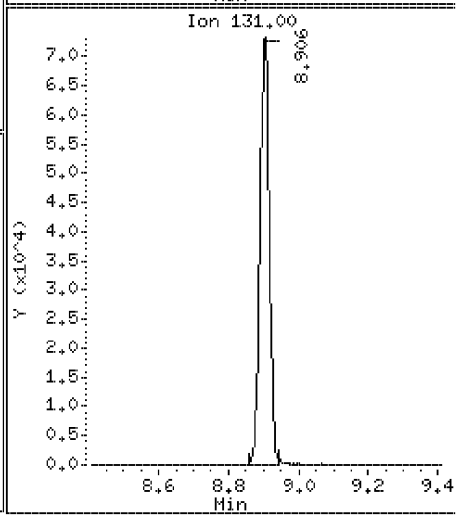


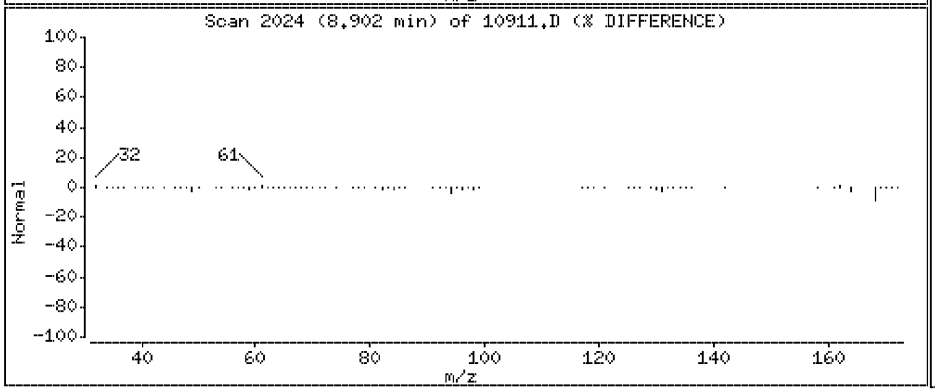












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Date : 19-APR-2013 19:15

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Instrument: 10airD.i

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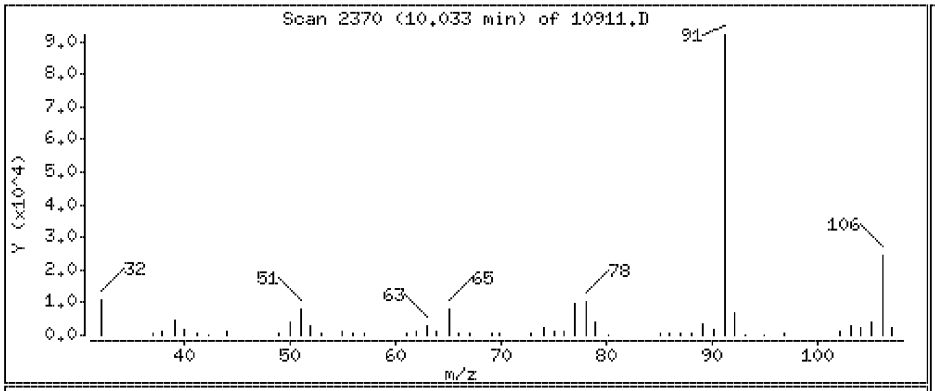
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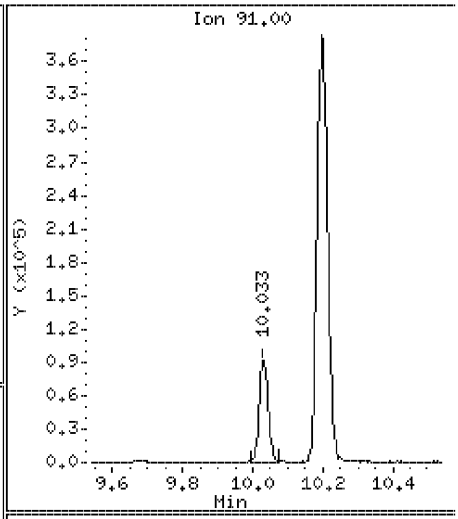
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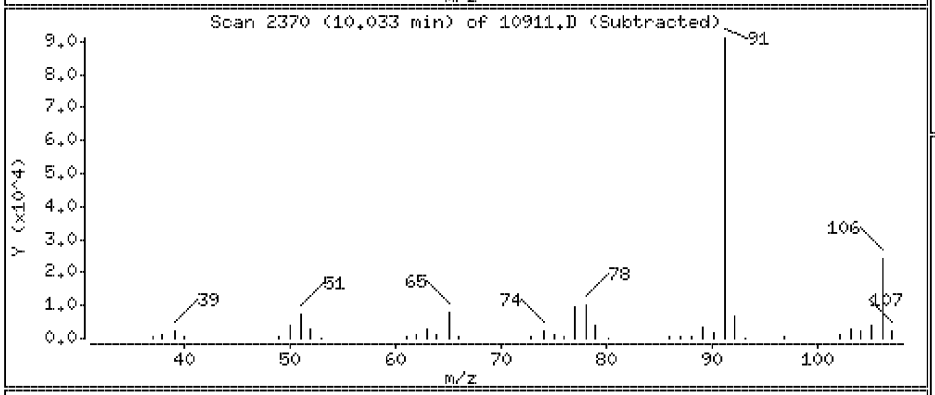
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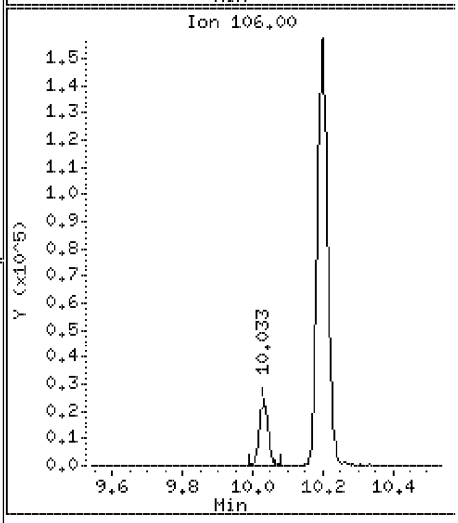
57 Ethyl Benzene

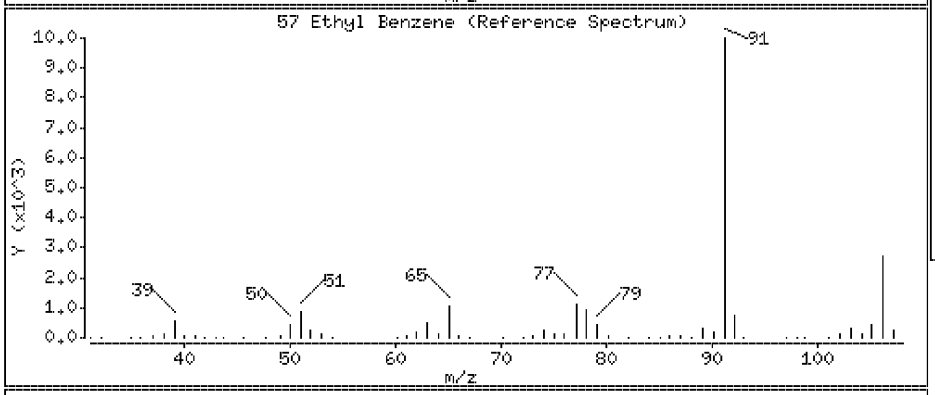
Concentration: 32.1 ppbv

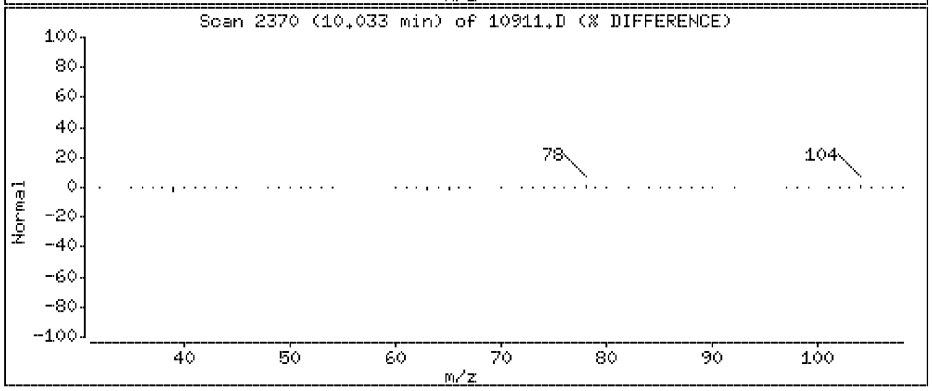












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Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

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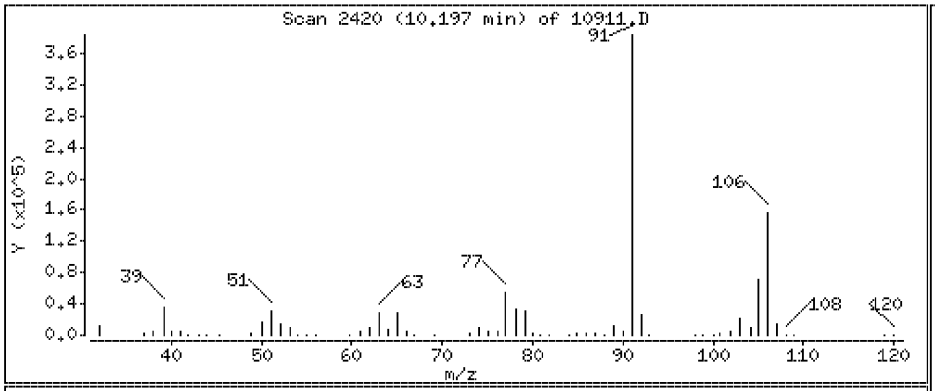
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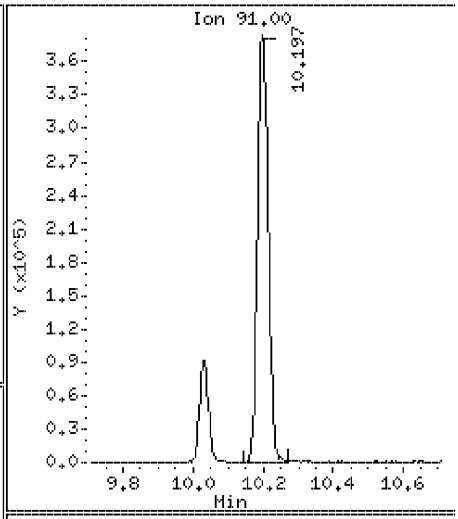
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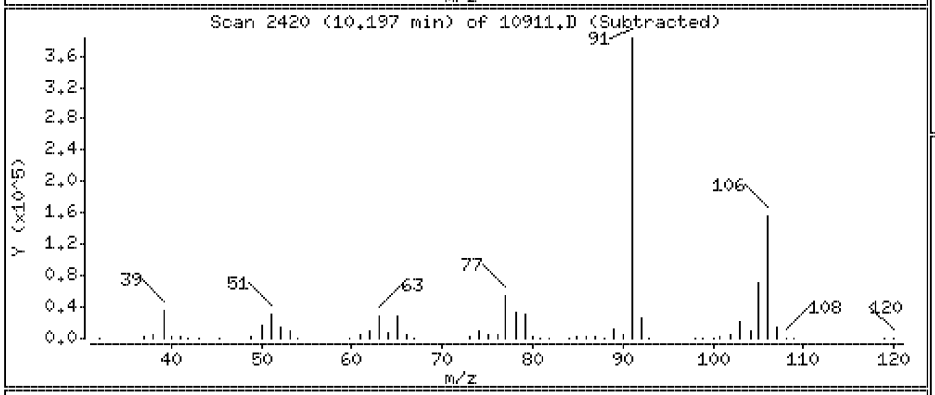
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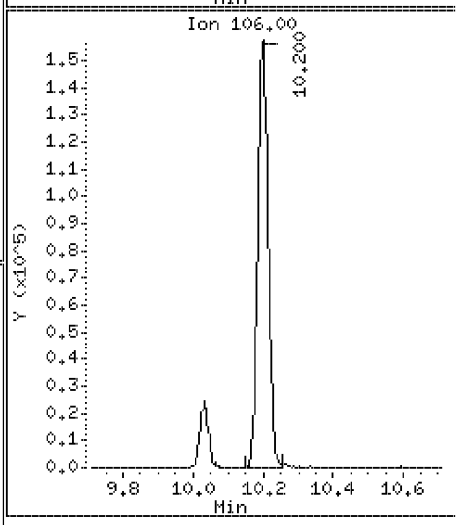
58 m&p-Xylene

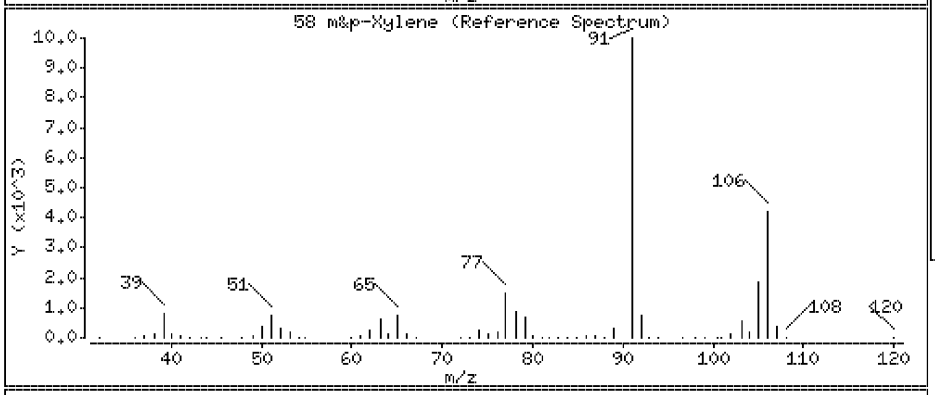
Concentration: 175 ppbv

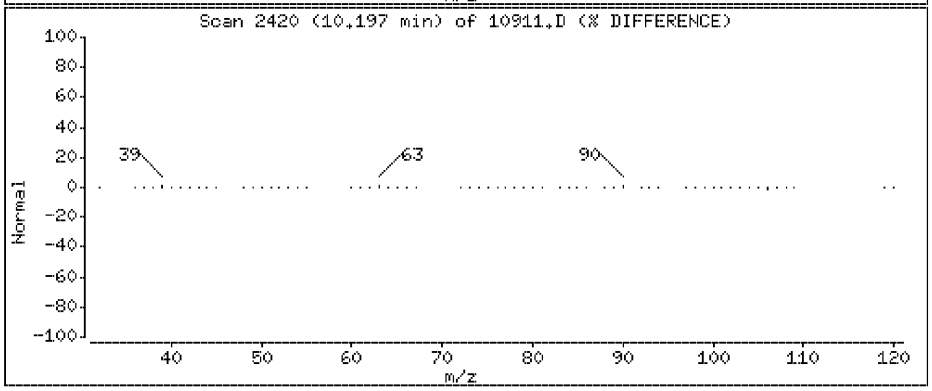












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Date : 19-APR-2013 19:15

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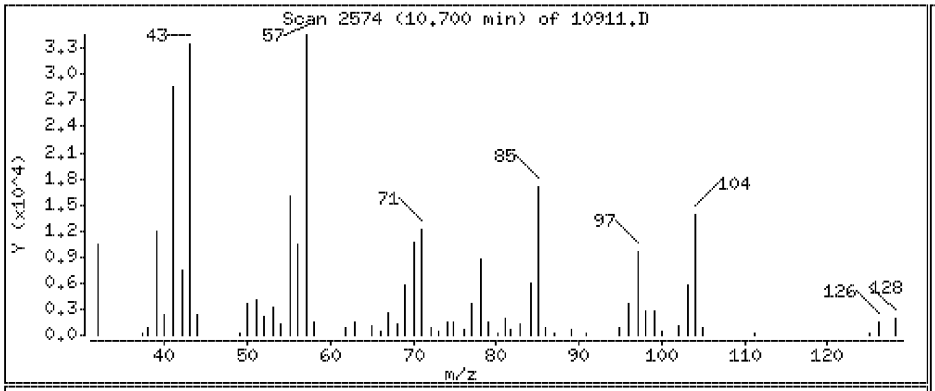
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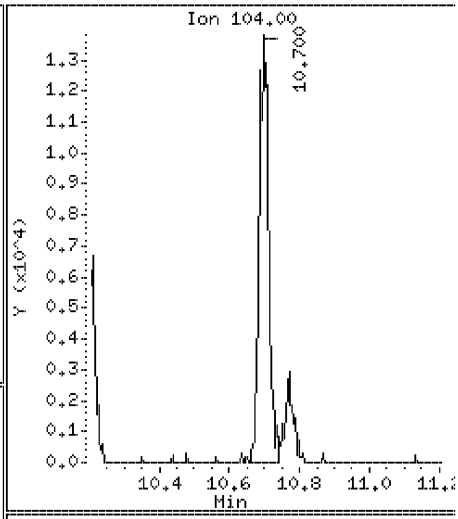
Column phase: J&W DB-5

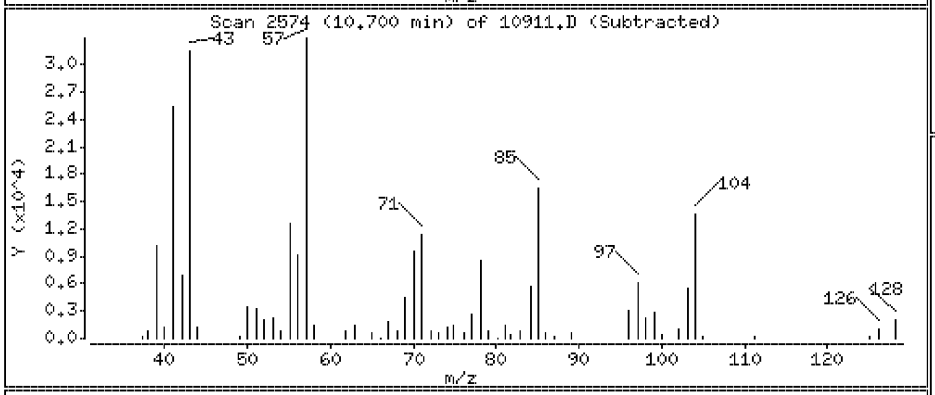
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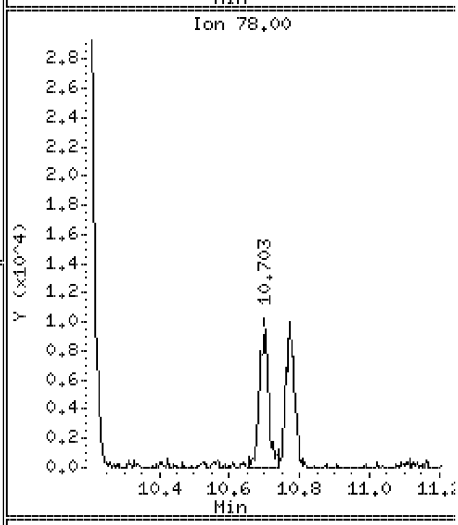
60 Styrene

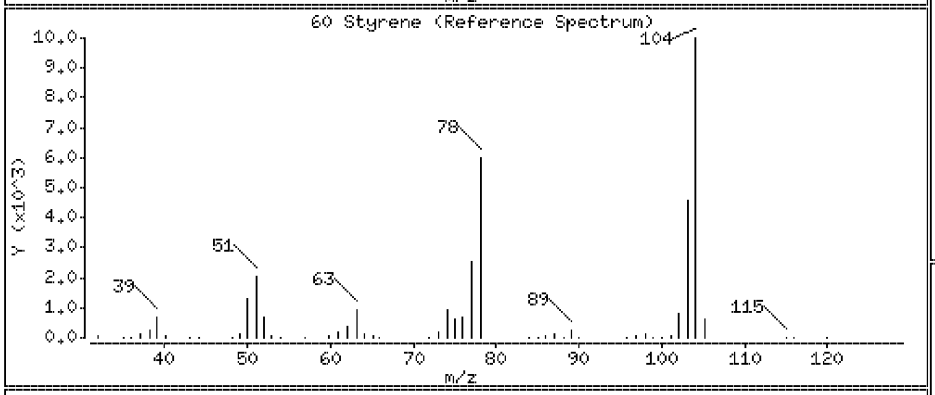
Concentration: 18.5 ppbv

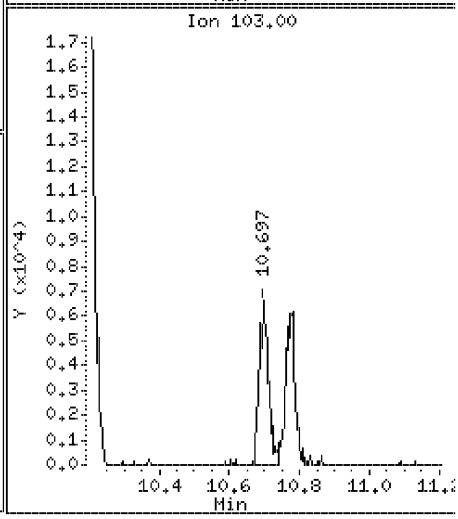


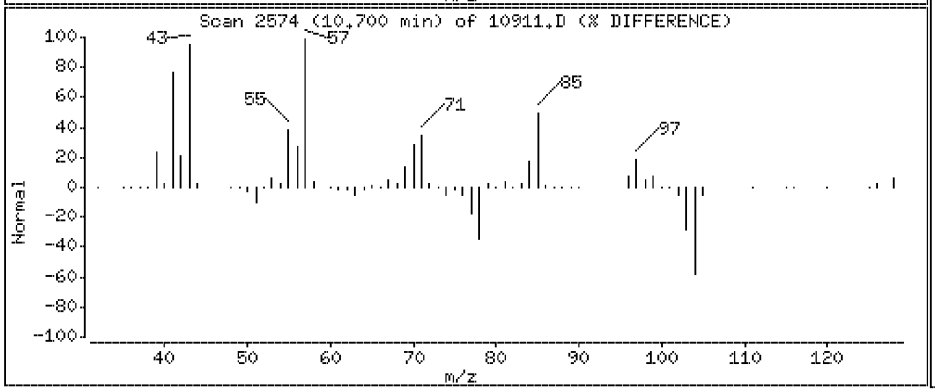












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D

Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

Sample Info:

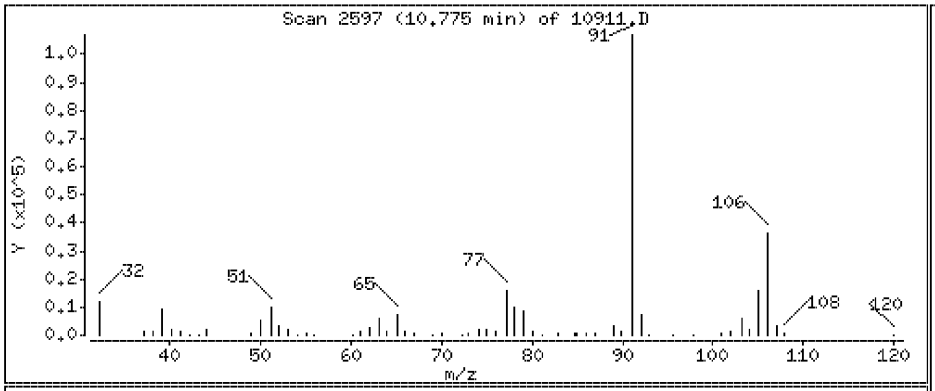
Operator: CJR

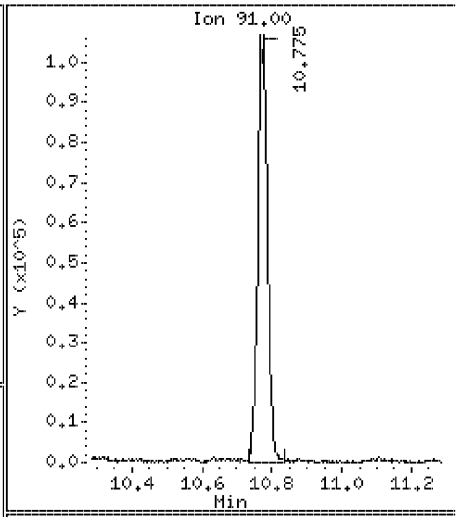
Column phase: J&W DB-5

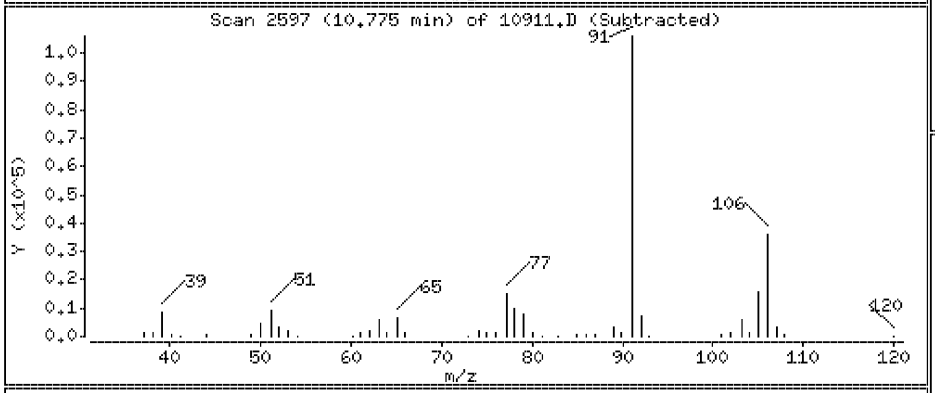
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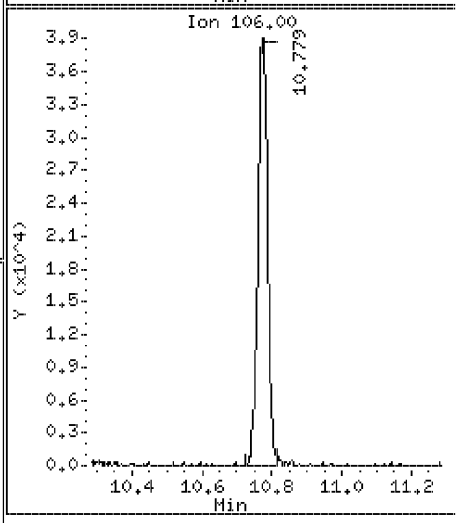
61 o-Xylene

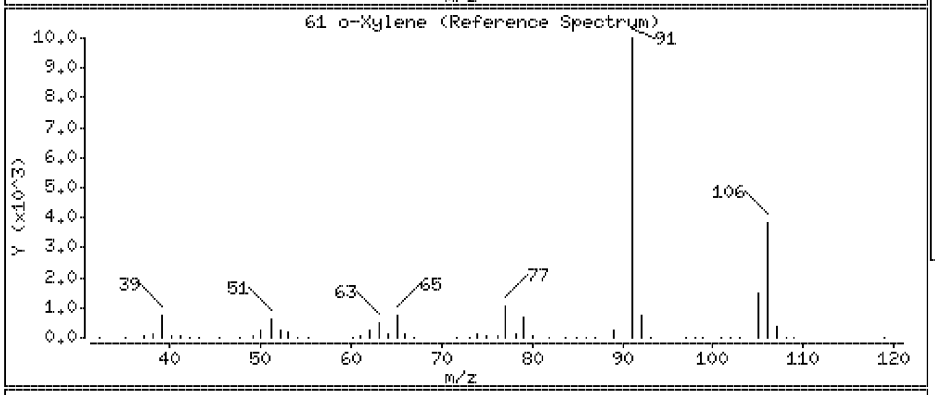
Concentration: 42.1 ppbv

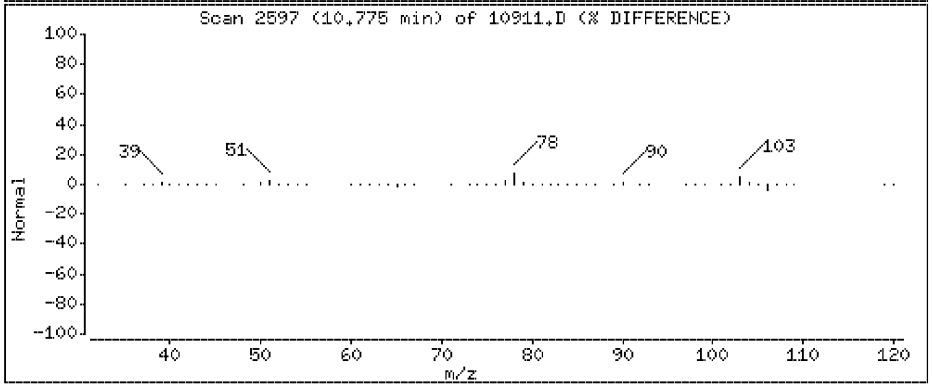












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D

Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

Sample Info:

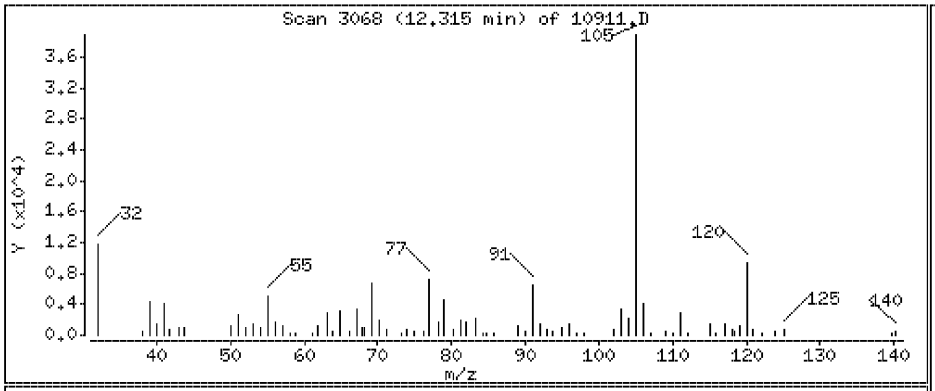
Operator: CJR

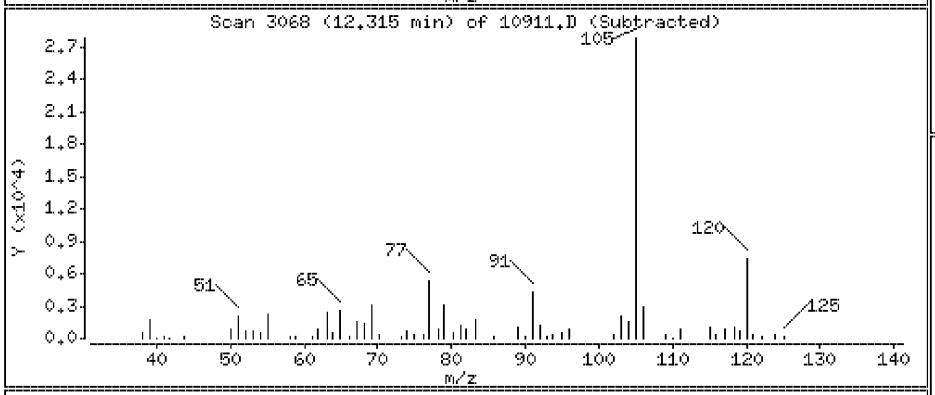
Column phase: J&W DB-5

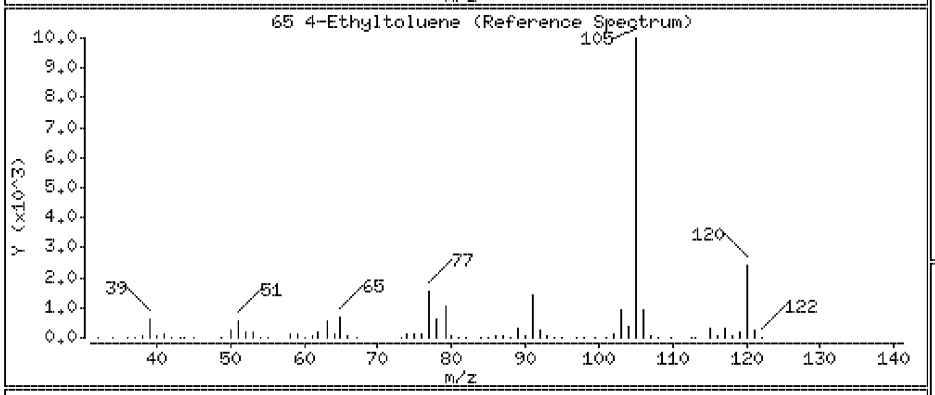
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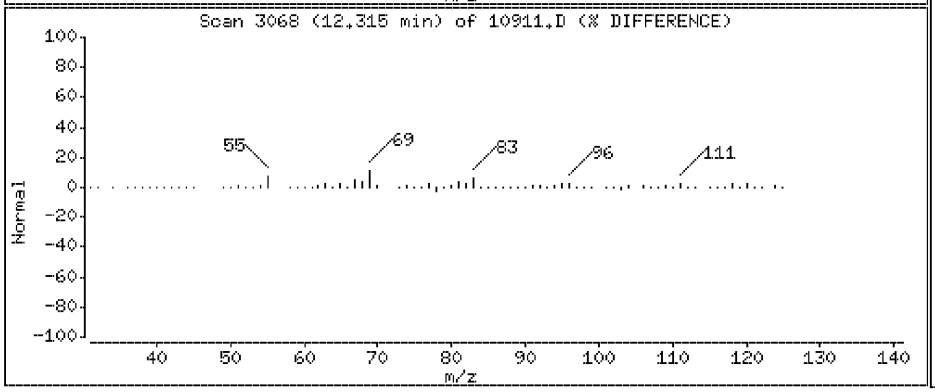
65 4-Ethyltoluene

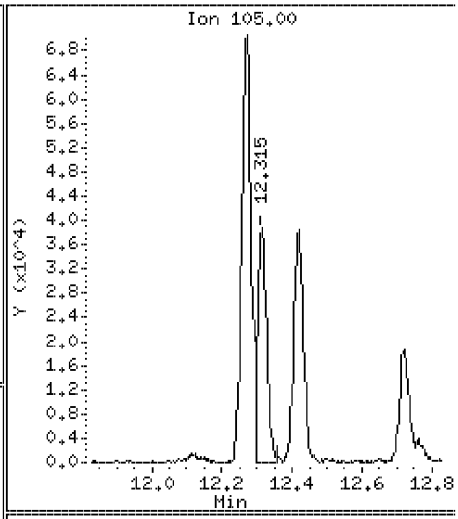
Concentration: 16.4 ppbv

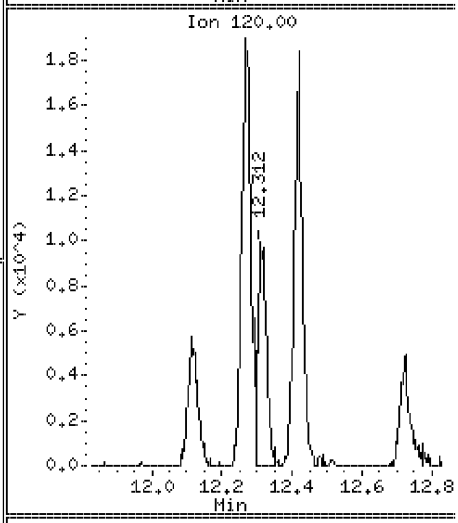


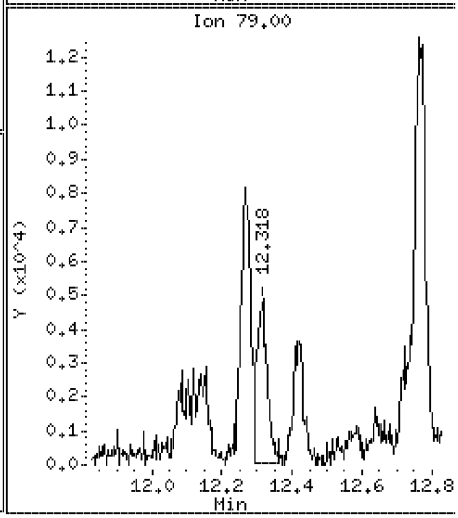












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D

Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

Sample Info:

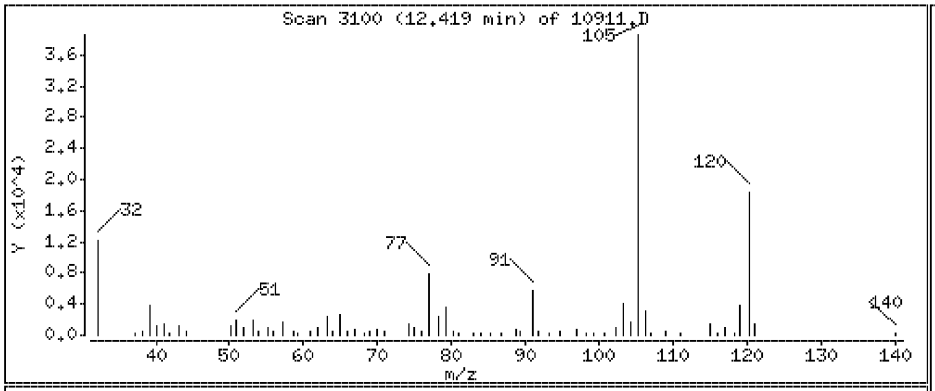
Operator: CJR

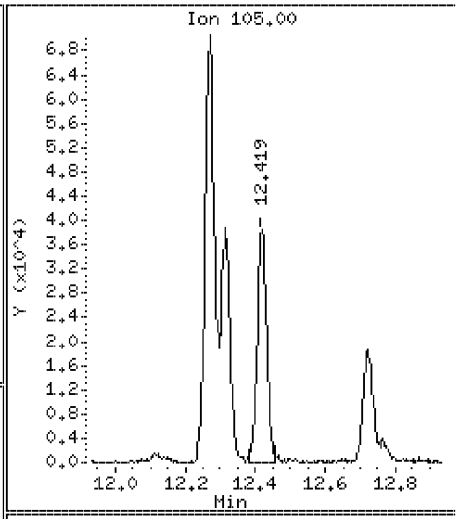
Column phase: J&W DB-5

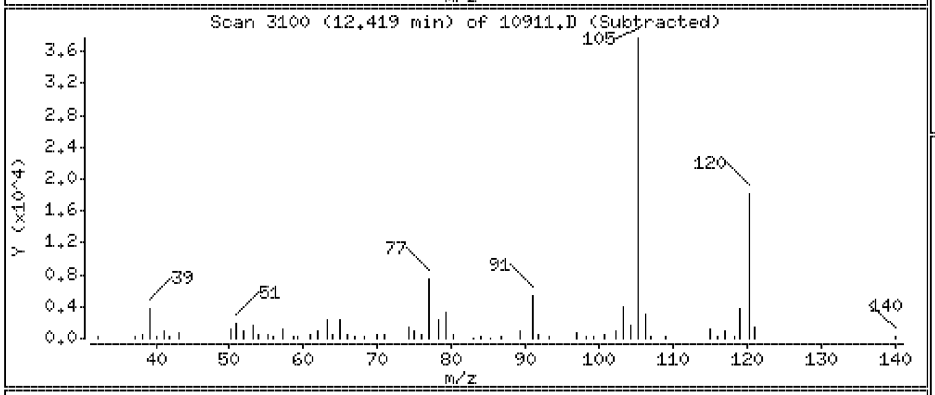
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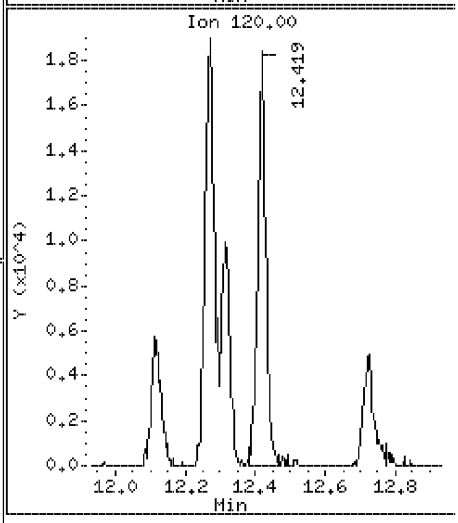
66 1,3,5-Trimethylbenzene

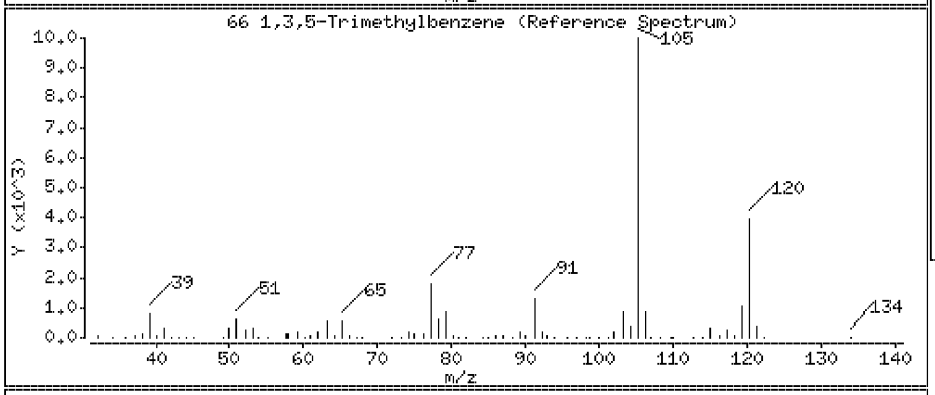
Concentration: 17.2 ppbv

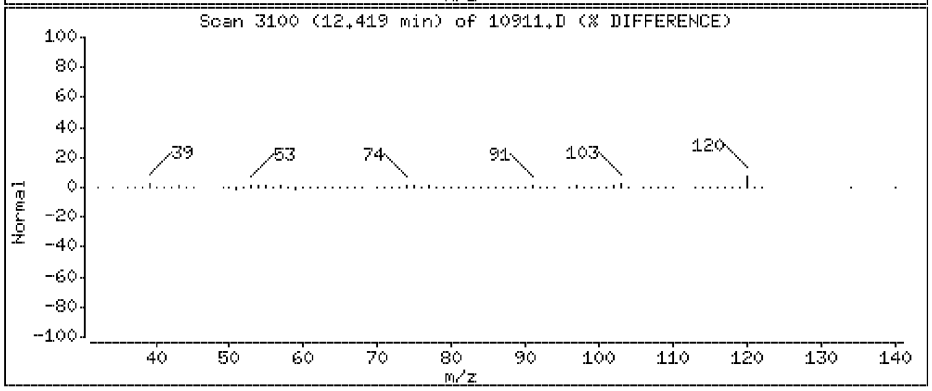












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10911.D

Date : 19-APR-2013 19:15

Client ID:

Instrument: 10airD.i

Sample Info:

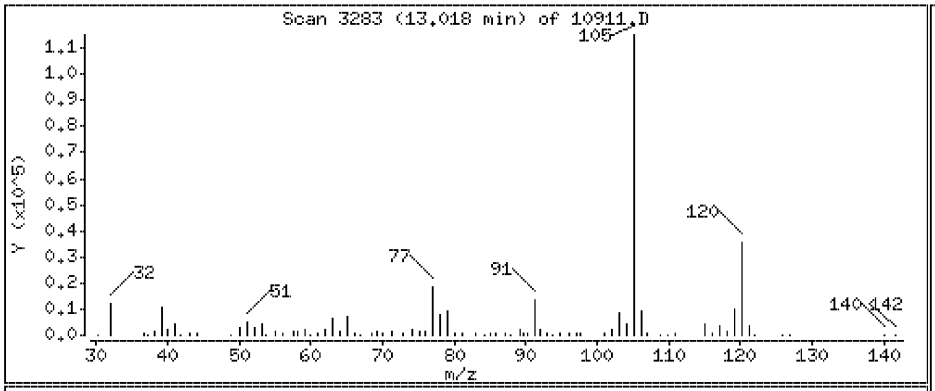
Operator: CJR

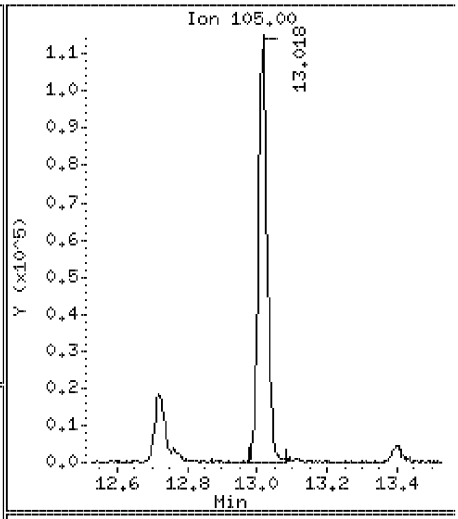
Column phase: J&W DB-5

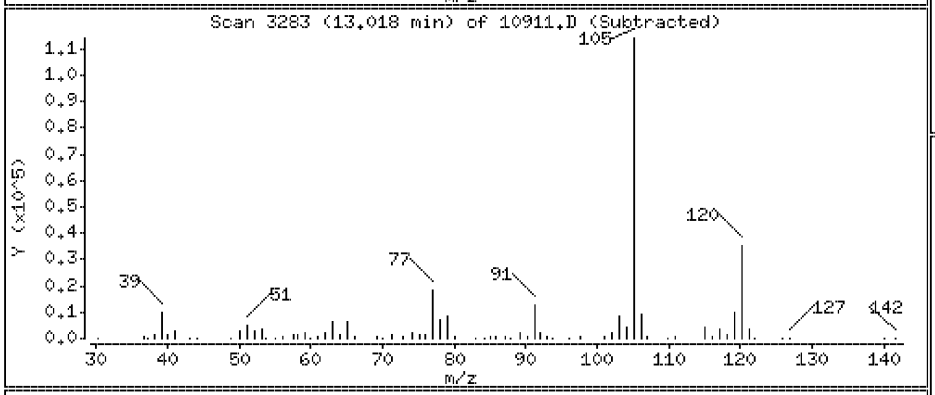
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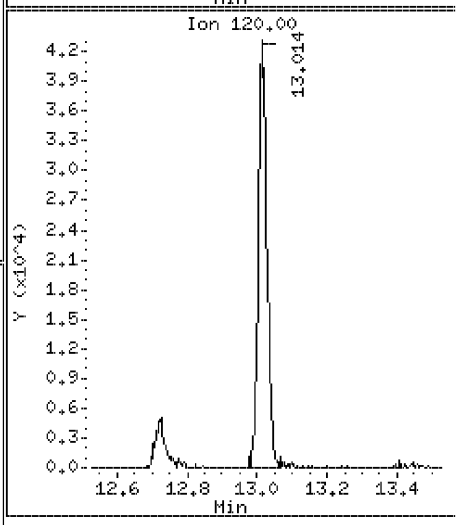
67 1,2,4-Trimethylbenzene

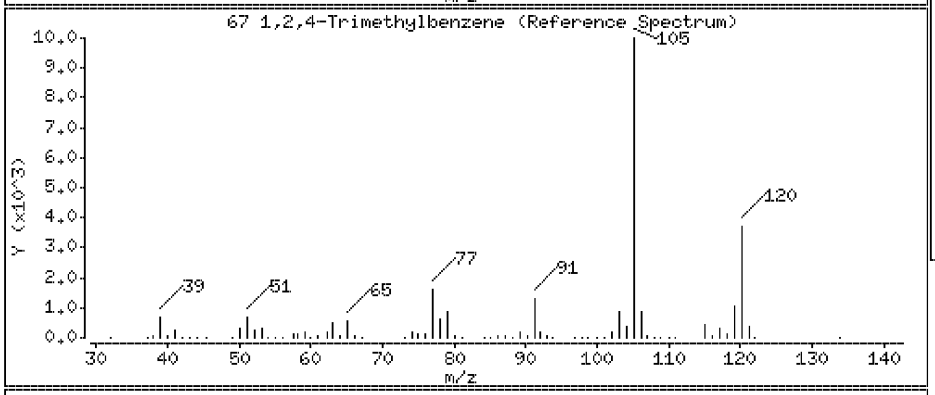
Concentration: 45.9 ppbv

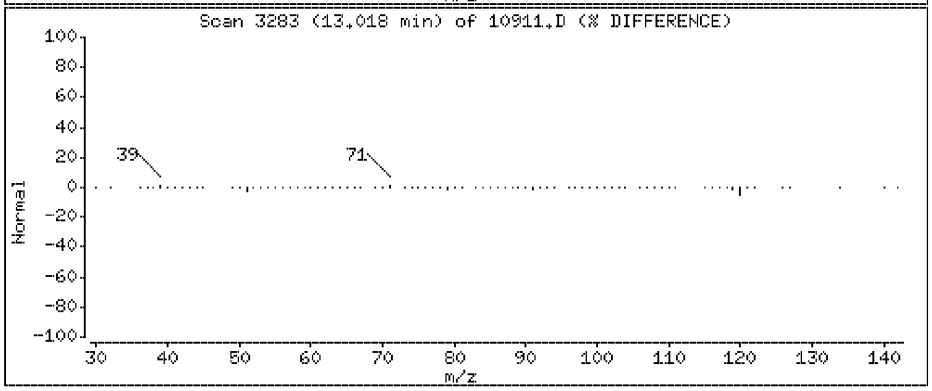






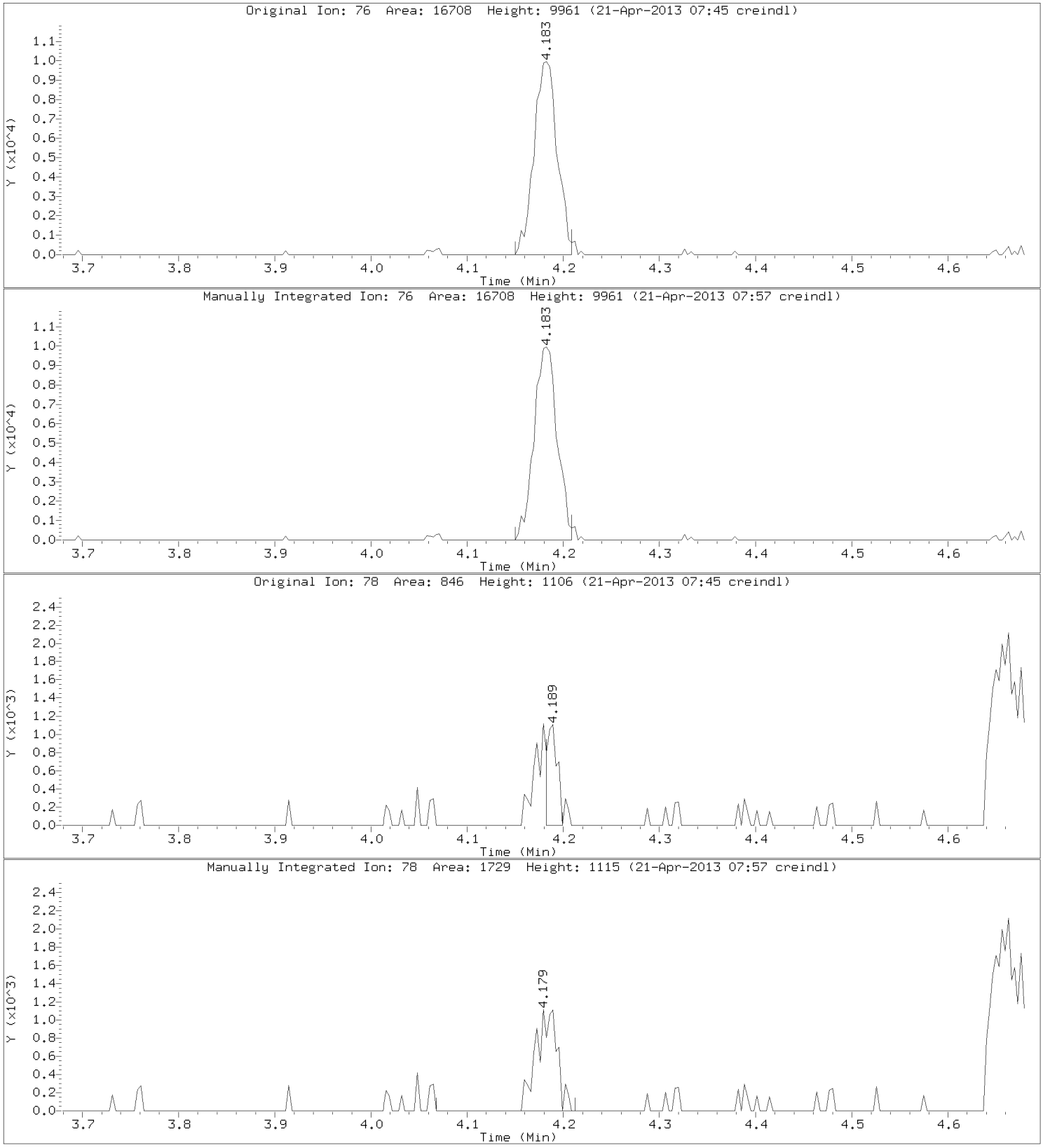






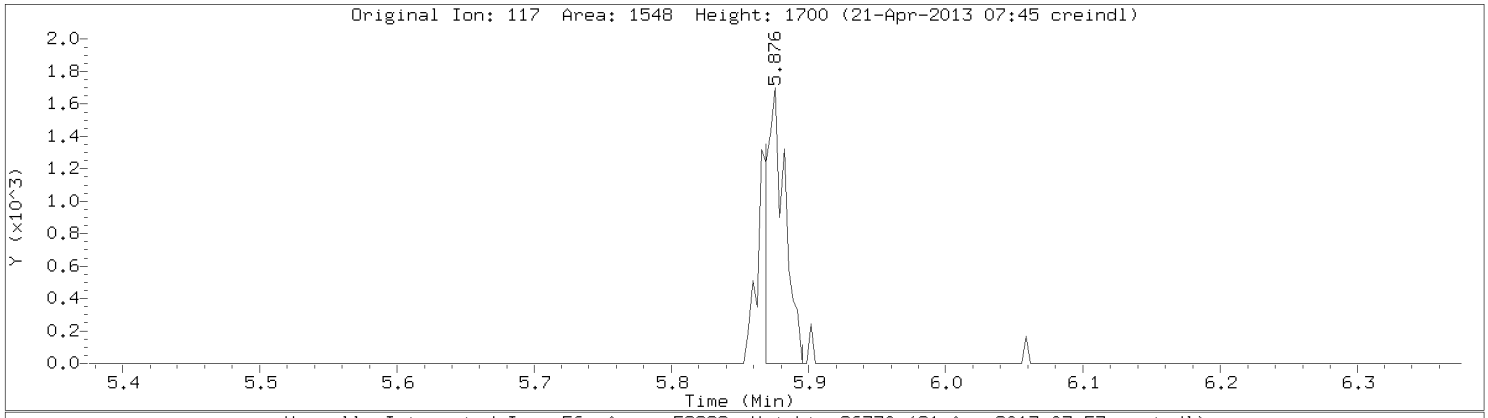
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10911.d
Injection Date: 19-APR-2013 19:15
Instrument: 10airD.i
Lab Sample ID: 10224616007

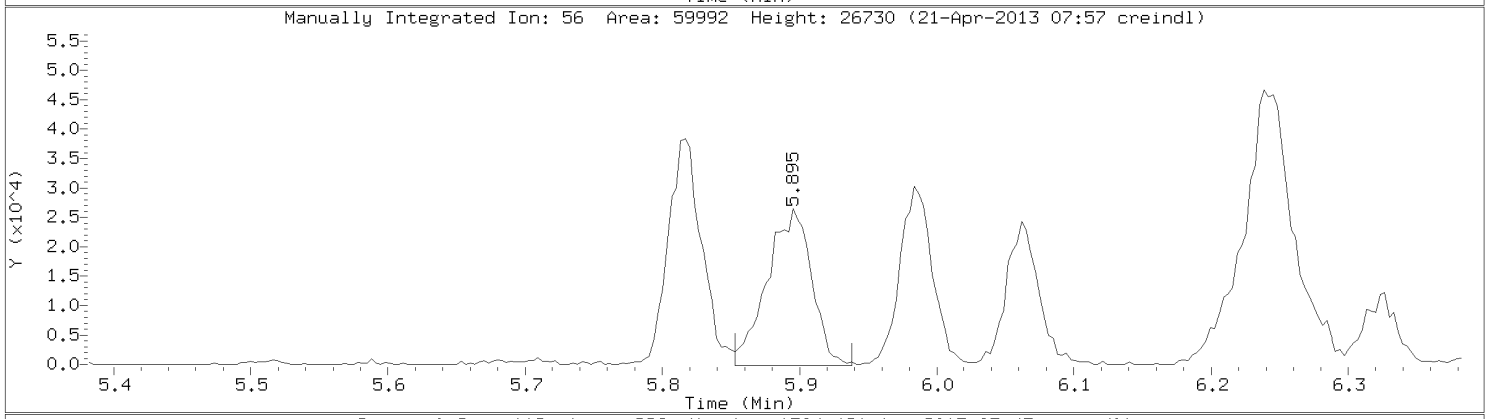
Compound: Carbon Disulfide
CAS Number: 75-15-0

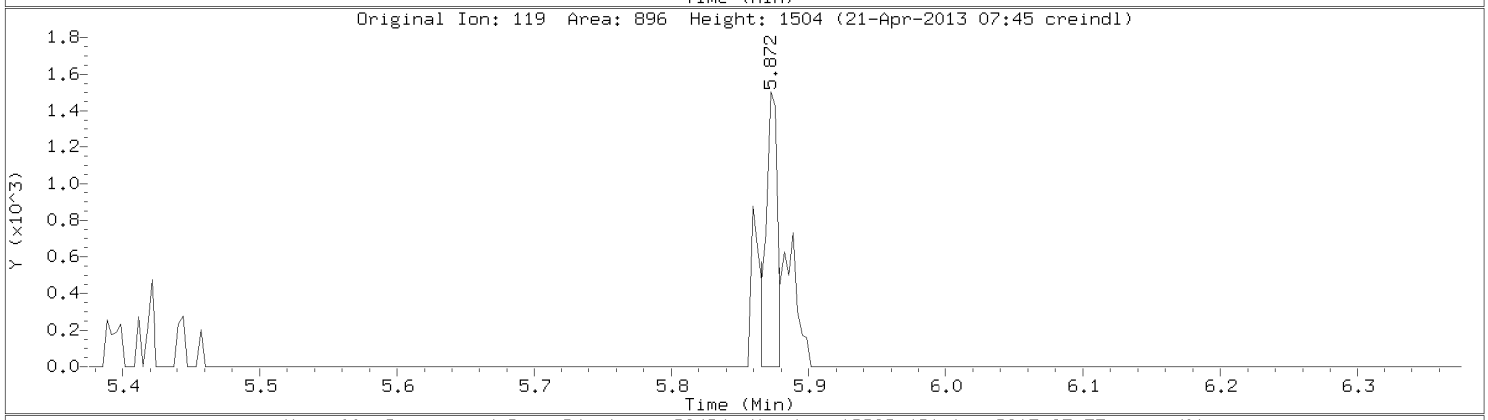


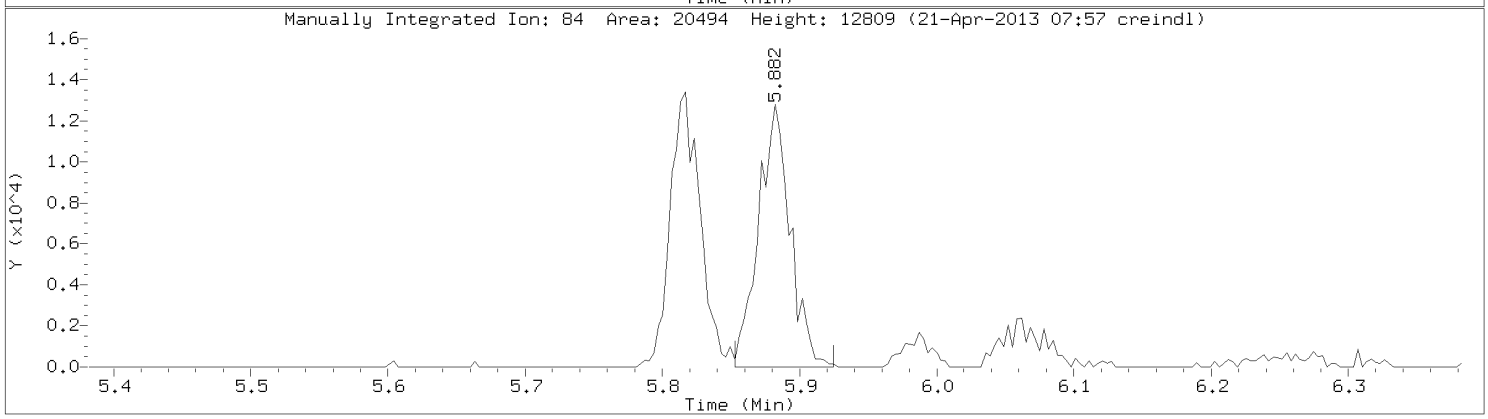
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Injection Date: 19-APR-2013 19:15
Instrument: 10airD.i
Lab Sample ID: 10224616007

Compound: Cyclohexane
CAS Number: 110-82-7

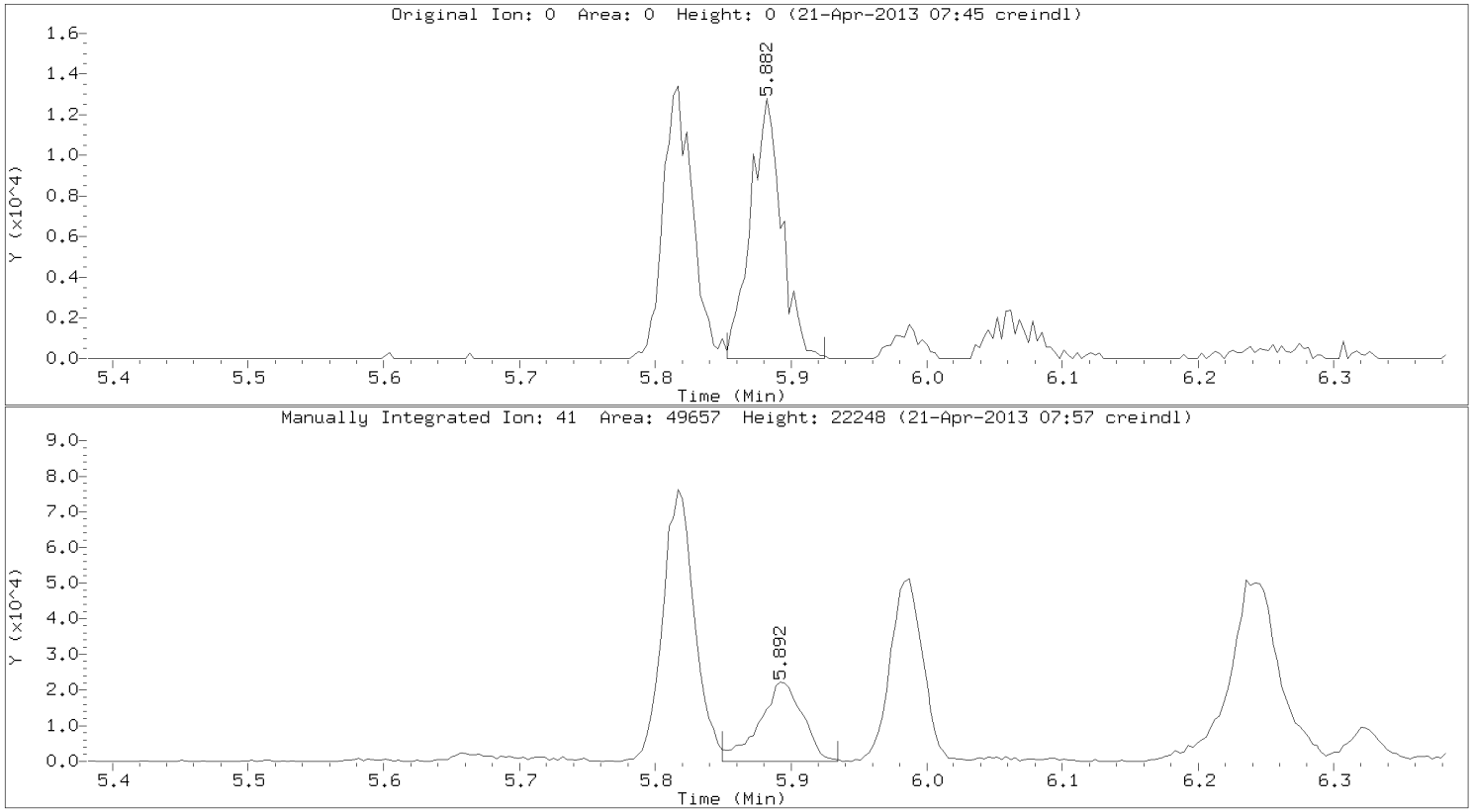






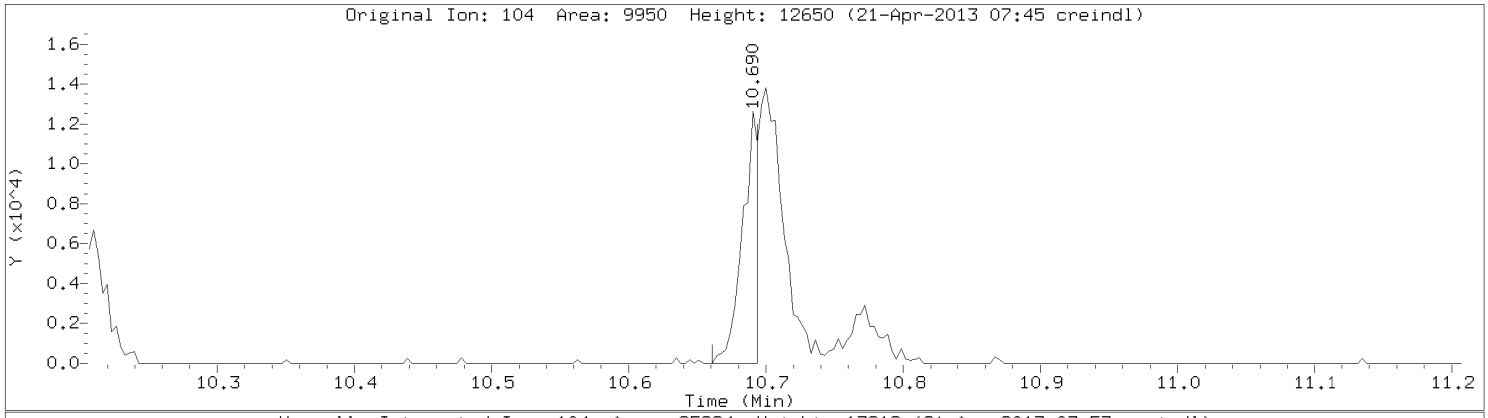


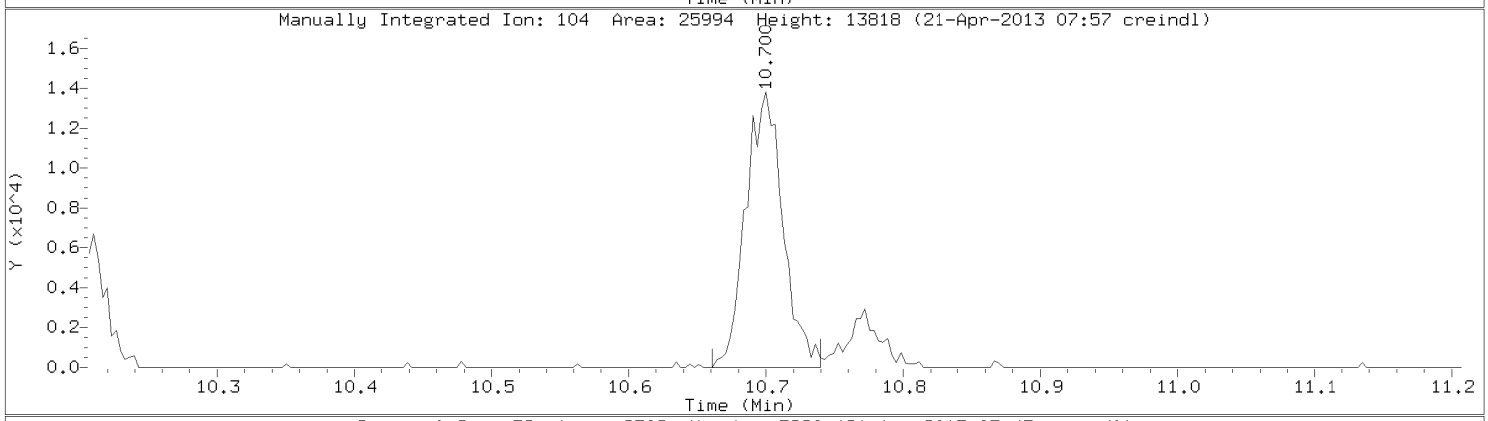
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Injection Date: 19-APR-2013 19:15
Instrument: 10airD.i
Lab Sample ID: 10224616007

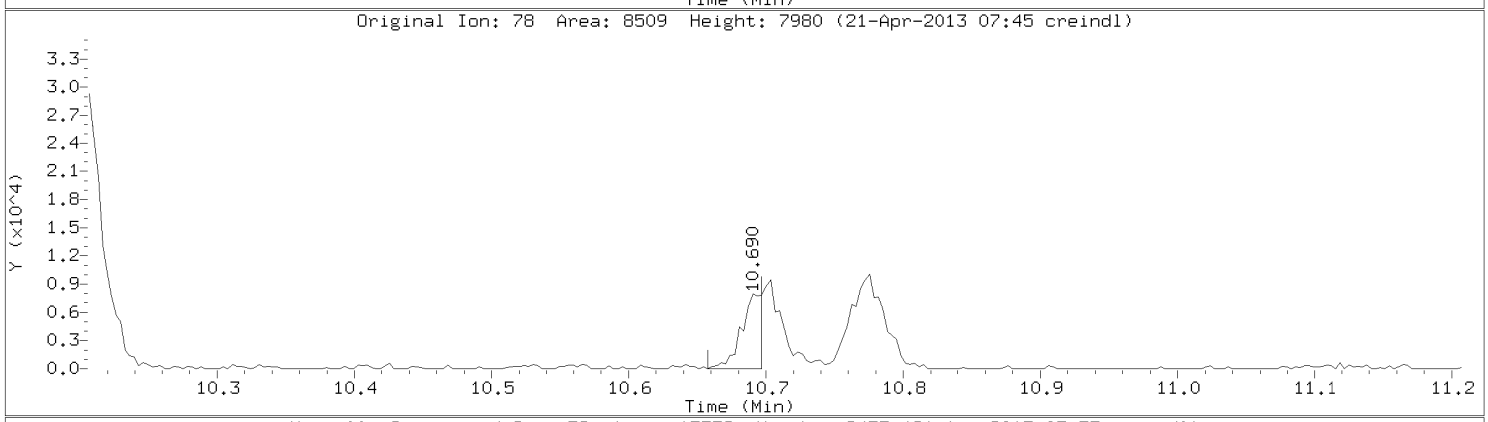


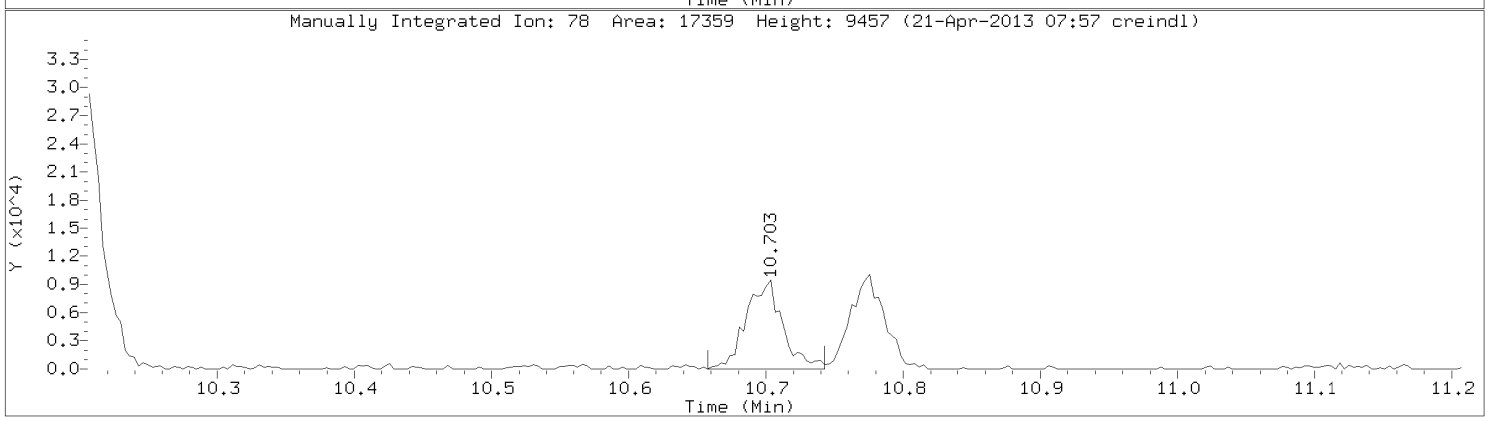
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10911.d
Injection Date: 19-APR-2013 19:15
Instrument: 10airD.i
Lab Sample ID: 10224616007

Compound: Styrene
CAS Number: 100-42-5

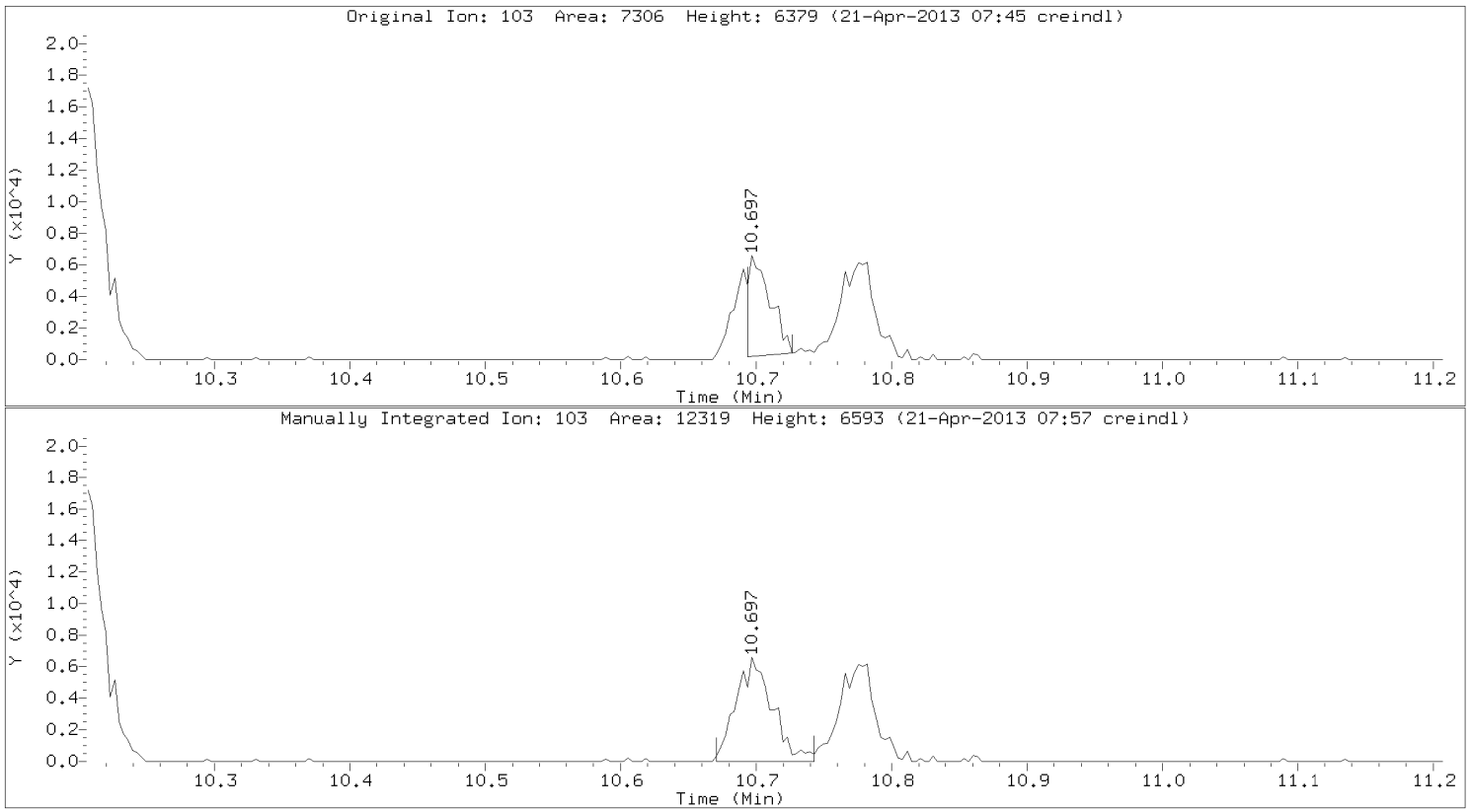






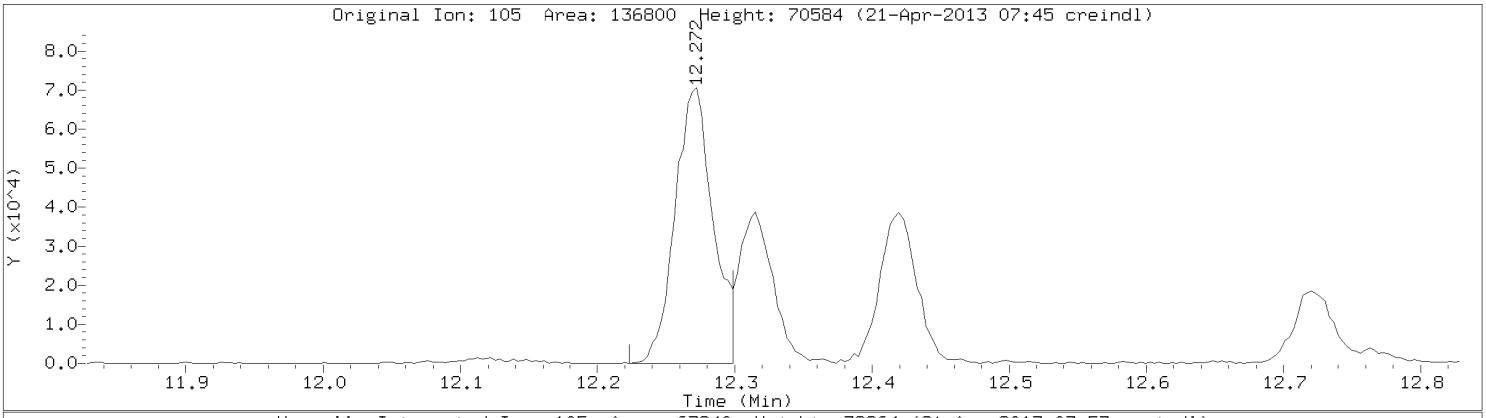


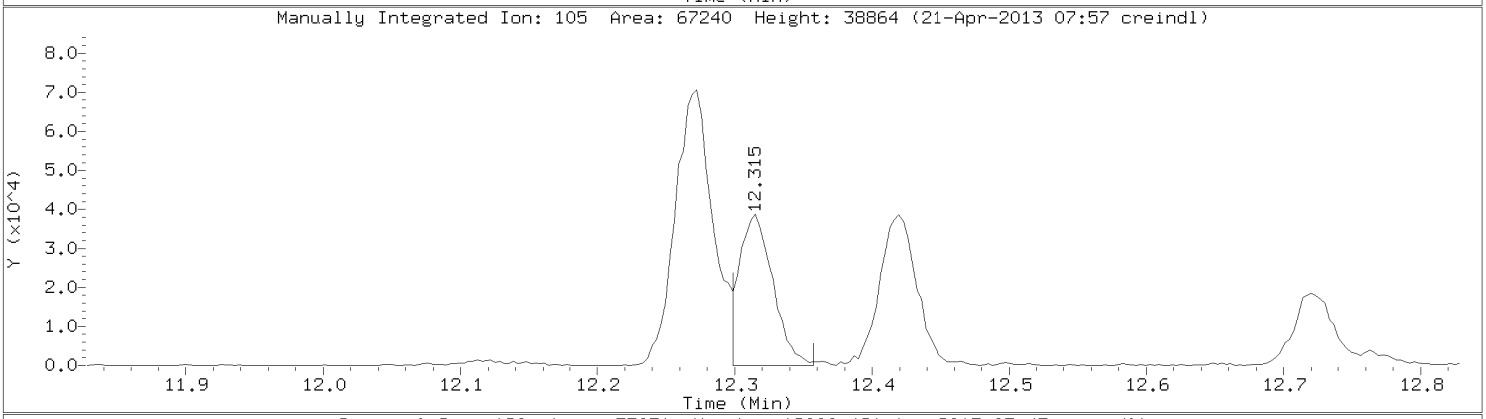
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Instrument: 10airD.i
Lab Sample ID: 10224616007

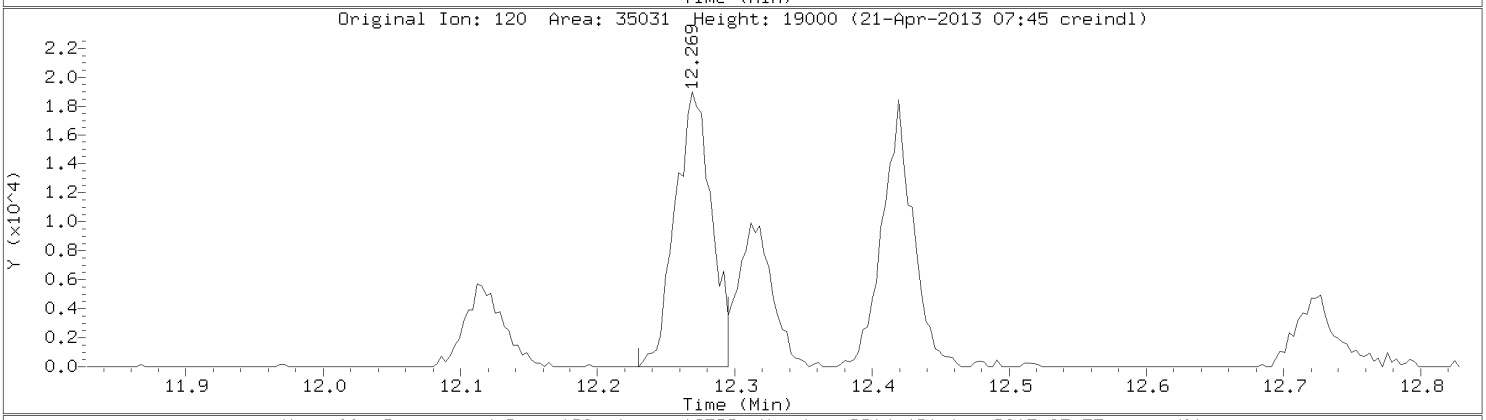


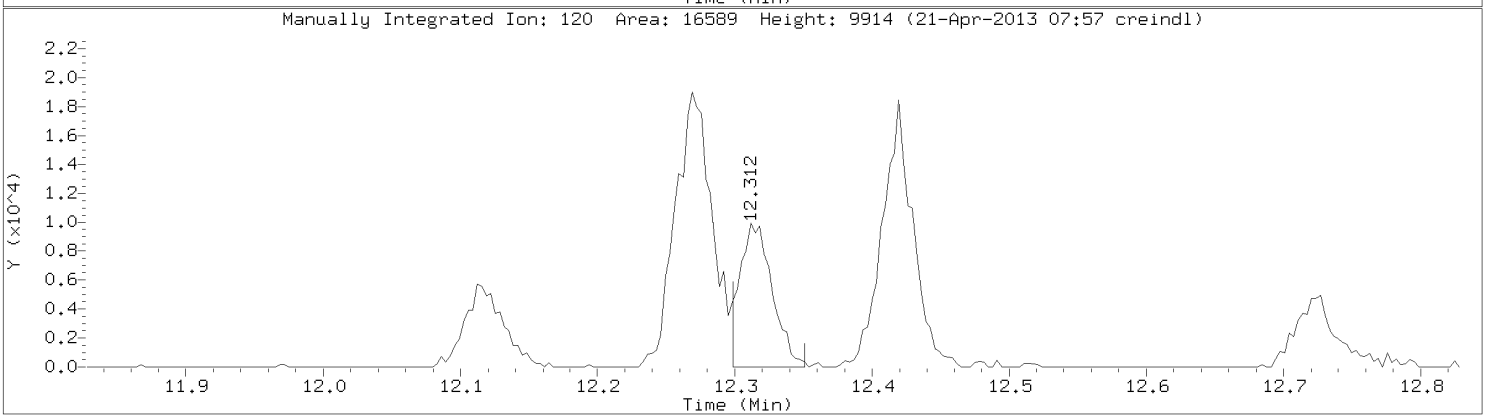
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10911.d
Injection Date: 19-APR-2013 19:15
Instrument: 10airD.i
Lab Sample ID: 10224616007

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

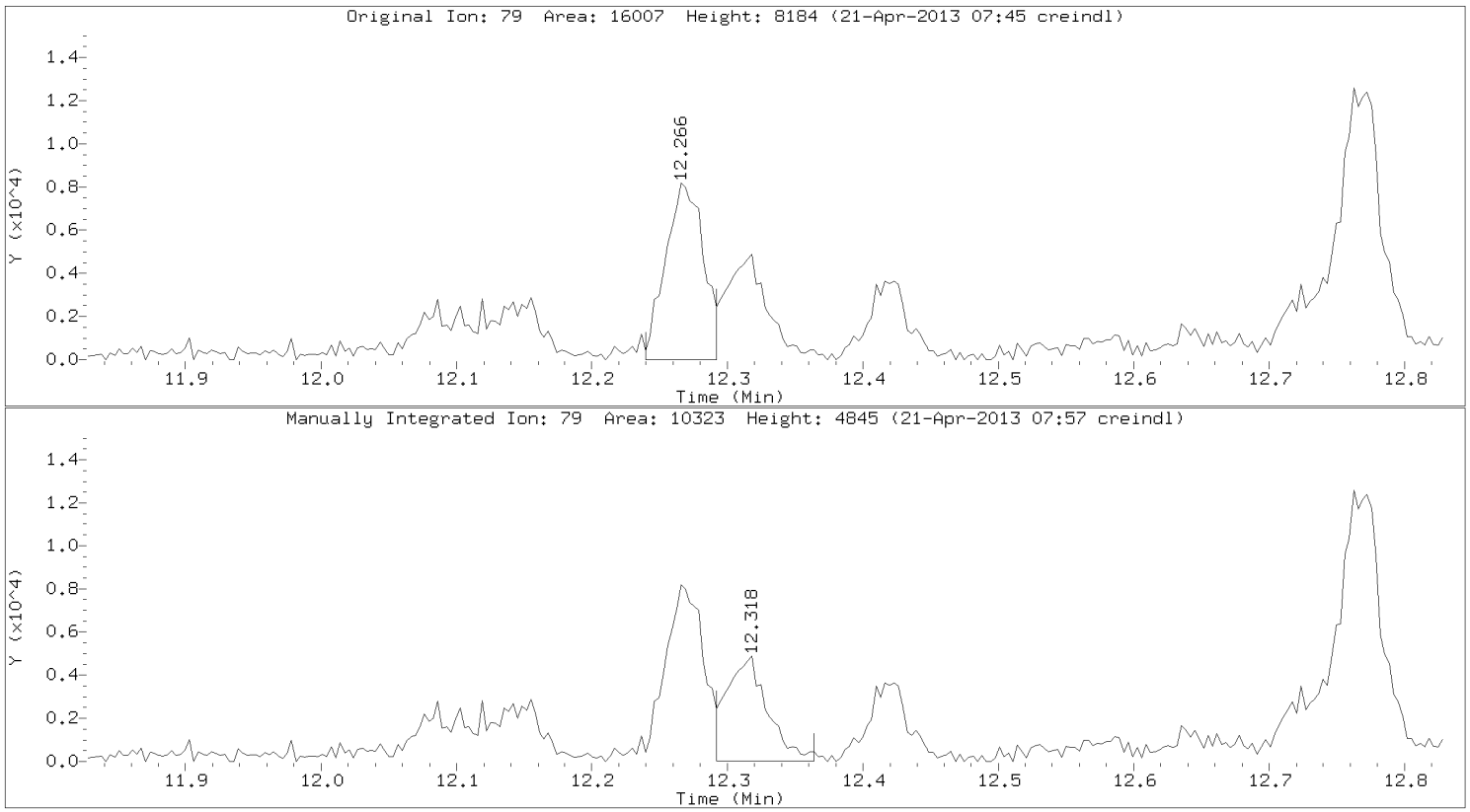








Data File: \\192.168.10.12\chem\10airD.i\041913.b/10911.d
Injection Date: 19-APR-2013 19:15
Instrument: 10airD.i
Lab Sample ID: 10224616007



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10817.d
Report Date: 22-Apr-2013 09:36

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10817.d
Lab Smp Id: 10224616008
Inj Date : 18-APR-2013 19:12
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17180
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 19-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 17
Dil Factor: 1.44000
Integrator: HP RTE Compound Sublist: 17180.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.440	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
	14 Isopropyl Alcohol	45	Compound Not Detected.					
*	38 1,4-Difluorobenzene	114	6.085	6.069	(1.000)	1484337	10.0000	
	51 Methyl Butyl Ketone	43	Compound Not Detected.					
*	55 Chlorobenzene - d5	117	9.687	9.684	(1.000)	782947	10.0000	
	71 Benzyl Chloride	91	Compound Not Detected.					
	73 1,2-Dichlorobenzene	146	Compound Not Detected.					
	75 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76 Naphthalene	128	16.871	16.867	(1.742)	47467	1.47483	2.12
	77 Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10817.d
Report Date: 22-Apr-2013 09:36

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10817.d
Lab Smp Id: 10224616008
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17180

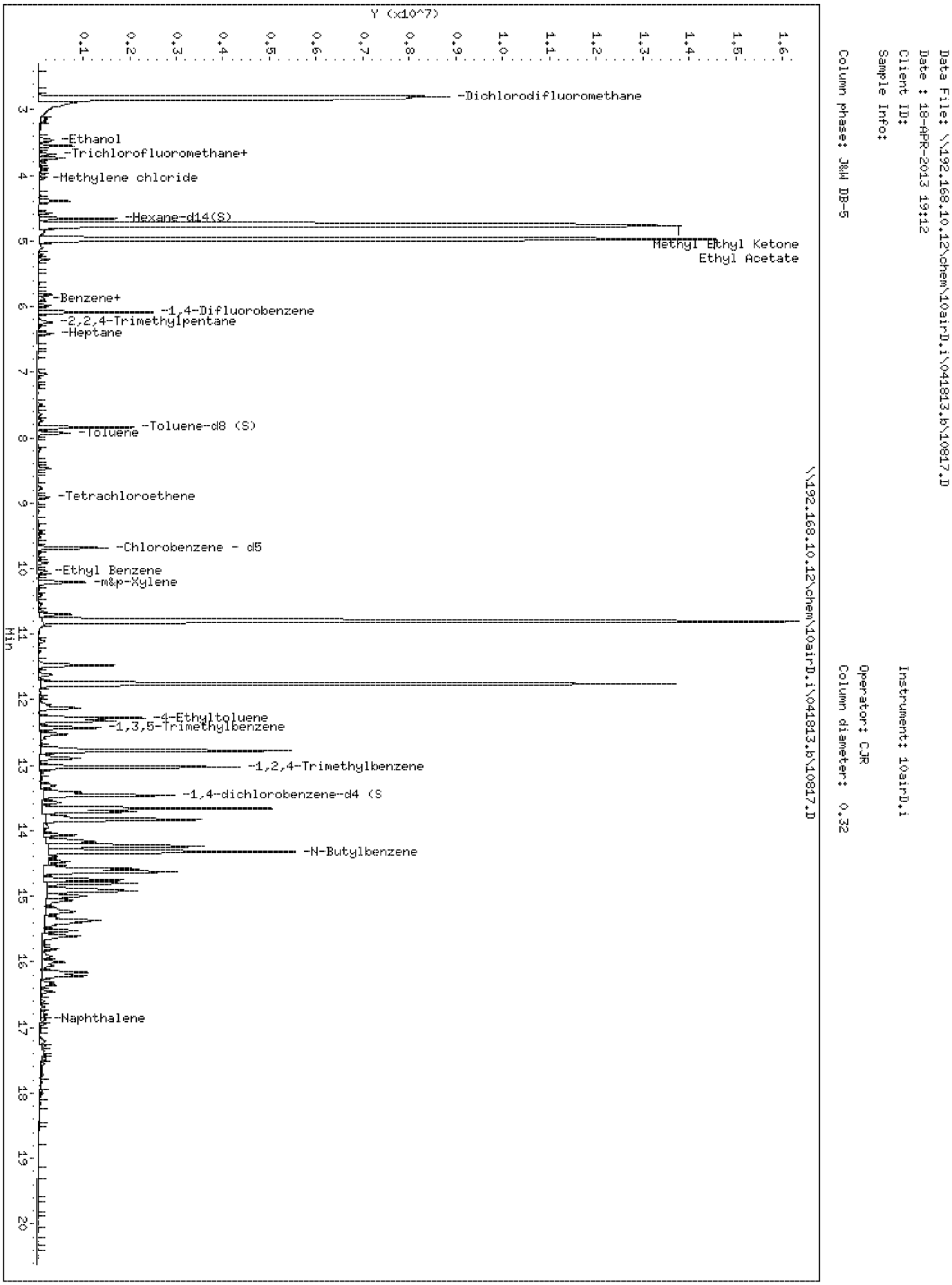
Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1484337	3.62
55 Chlorobenzene - d	825122	495073	1155171	782947	-5.11

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.09	0.33
55 Chlorobenzene - d	9.68	9.35	10.01	9.69	0.07

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.


Data File: \\192.168.10.12\chem\10airD.i\041813.b\10817.D
Date : 18-APR-2013 19:12
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32
Y (x10^7)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
-Dichlorodifluoromethane
-Ethanol
-Trichlorofluoromethane+
-Methylene chloride
-Hexane-d14(S)
Methyl Ethyl Ketone
Ethyl Acetate
-Benzene+
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
-Heptane
-Toluene-d8 (S)
-Toluene
-Tetrachloroethene
-Chlorobenzene - d5
-Ethyl Benzene
-m&p-Xylene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,4-dichlorobenzene-d4 (S
-N-Butylbenzene
-Naphthalene
Min
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
\\192.168.10.12\chem\10airD.i\041813.b\10817.D

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10817.D

Date : 18-APR-2013 19:12

Client ID:

Instrument: 10airD.i

Sample Info:

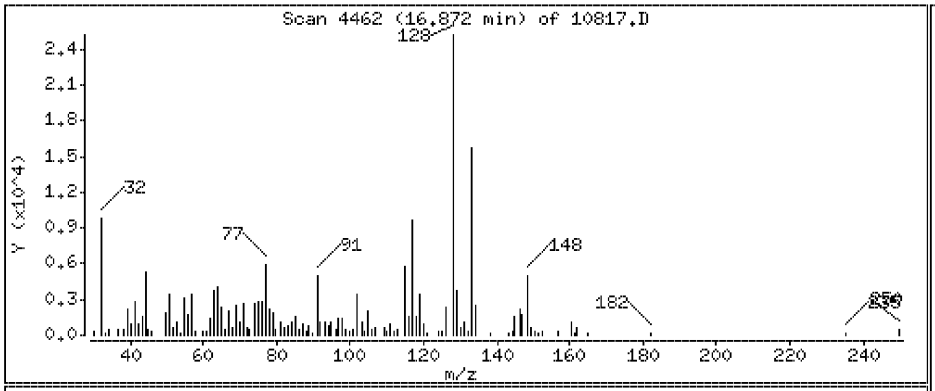
Operator: CJR

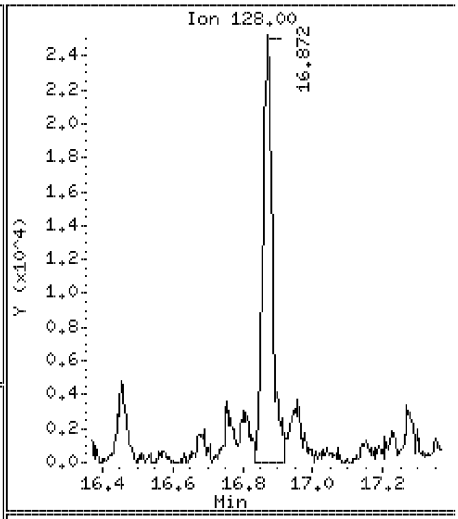
Column phase: J&W DB-5

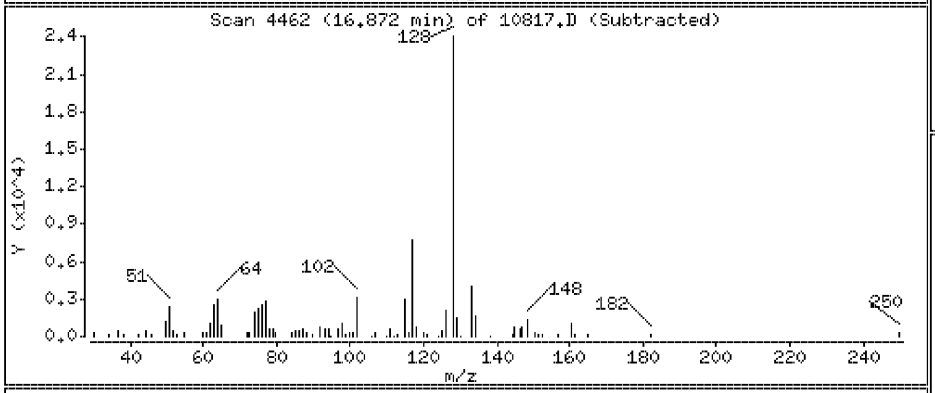
Column diameter: 0.32

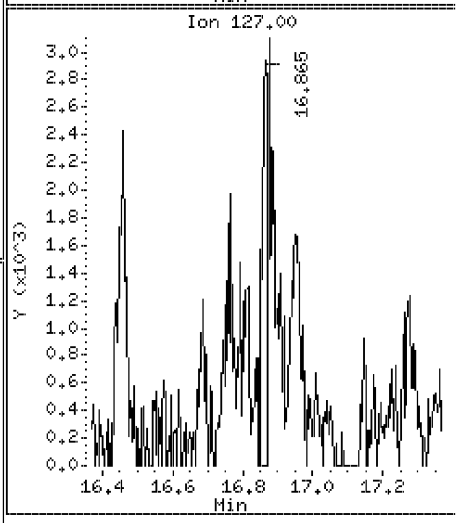
76 Naphthalene

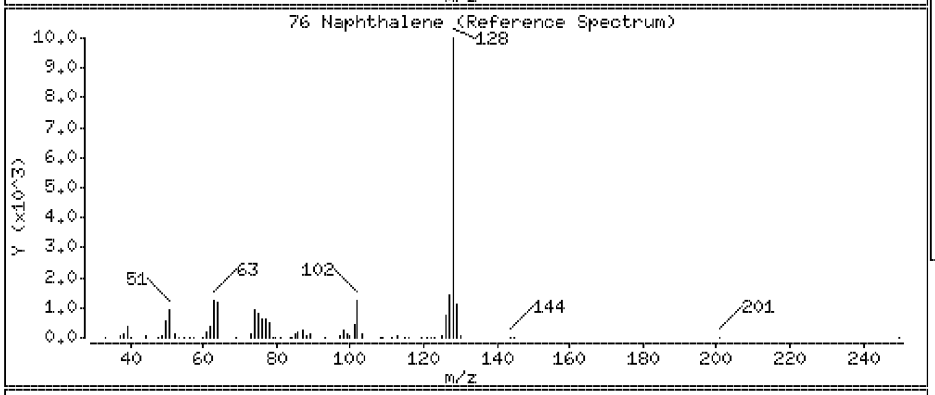
Concentration: 2.12 ppbv

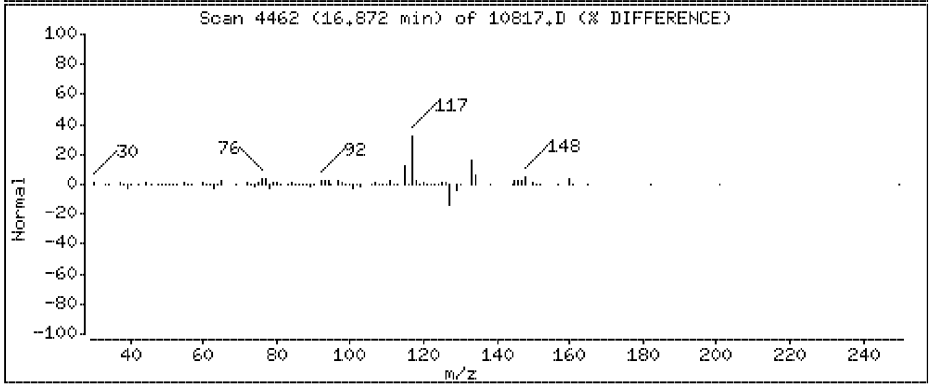












Data File: \\192.168.10.12\chem\10airD.i\041813.b/10817.d
Injection Date: 18-APR-2013 19:12
Instrument: 10airD.i
Lab Sample ID: 10224616008
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.d
Report Date: 22-Apr-2013 11:31

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\042113.b\11120.d
Lab Smp Id: 10224616008
Inj Date : 21-APR-2013 17:47
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17180
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Meth Date : 22-Apr-2013 10:03 drandall Quant Type: ISTD
Cal Date : 21-APR-2013 13:15 Cal File: 11111.d
Als bottle: 20
Dil Factor: 123.49440
Integrator: HP RTE Compound Sublist: 17180.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	123.494	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1 Propylene	41	Compound Not Detected.					
2 Dichlorodifluoromethane	85	Compound Not Detected.					
3 Dichlorotetrafluoroethane	85	Compound Not Detected.					
4 Chloromethane	50	Compound Not Detected.					
5 Vinyl chloride	62	Compound Not Detected.					
6 1,3-Butadiene	54	Compound Not Detected.					
7 Bromomethane	94	Compound Not Detected.					
8 Chloroethane	64	Compound Not Detected.					
9 Ethanol	31	3.443	3.424	(0.568)	13829	1.02884	127(M)
10 Vinyl Bromide	106	Compound Not Detected.					
11 Acrolein	56	Compound Not Detected.					
12 Trichlorofluoromethane	101	Compound Not Detected.					
13 Acetone	43	Compound Not Detected.					
15 1,1-Dichloroethene	61	Compound Not Detected.					
16 Acrylonitrile	53	Compound Not Detected.					
17 Tert Butyl Alcohol	59	Compound Not Detected.					
18 Freon 113	101	Compound Not Detected.					
19 Methylene chloride	49	4.042	4.049	(0.667)	16690	0.52677	65.0
20 Allyl Chloride	76	Compound Not Detected.					
21 Carbon Disulfide	76	Compound Not Detected.					
22 trans-1,2-dichloroethene	96	Compound Not Detected.					
23 Methyl Tert Butyl Ether	73	Compound Not Detected.					
24 Vinyl Acetate	43	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.d
Report Date: 22-Apr-2013 11:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
25	1,1-Dichloroethane	63	Compound Not Detected.					
27	Methyl Ethyl Ketone	72	4.725	4.742	(0.779)	449926	33.2675	4110(AQ)
28	n-Hexane	57	Compound Not Detected.					
29	cis-1,2-Dichloroethene	96	Compound Not Detected.					
30	Ethyl Acetate	43	4.953	4.964	(0.817)	590091	15.2333	1880(Q)
31	Chloroform	83	Compound Not Detected.					
32	Tetrahydrofuran	42	Compound Not Detected.					
33	1,1,1-Trichloroethane	97	Compound Not Detected.					
34	1,2-Dichloroethane	62	Compound Not Detected.					
35	Benzene	78	Compound Not Detected.					
36	Carbon tetrachloride	117	Compound Not Detected.					
37	Cyclohexane	56	Compound Not Detected.					
* 38	1,4-Difluorobenzene	114	6.062	6.072	(1.000)	867696	10.0000	
39	2,2,4-Trimethylpentane	57	Compound Not Detected.					
40	Heptane	43	Compound Not Detected.					
41	1,2-Dichloropropane	63	Compound Not Detected.					
42	Trichloroethene	130	Compound Not Detected.					
43	1,4-Dioxane	88	Compound Not Detected.					
44	Bromodichloromethane	83	Compound Not Detected.					
45	Methyl Isobutyl Ketone	43	Compound Not Detected.					
46	cis-1,3-Dichloropropene	75	Compound Not Detected.					
47	trans-1,3-Dichloropropene	75	Compound Not Detected.					
49	Toluene	91	7.915	7.929	(1.306)	13631	0.15758	19.5
50	1,1,2-Trichloroethane	97	Compound Not Detected.					
52	Dibromochloromethane	129	Compound Not Detected.					
53	1,2-Dibromoethane	107	Compound Not Detected.					
54	Tetrachloroethene	166	8.902	8.909	(0.920)	3830	0.09473	11.7(M)
* 55	Chlorobenzene - d5	117	9.680	9.684	(1.000)	413214	10.0000	
56	Chlorobenzene	112	Compound Not Detected.					
57	Ethyl Benzene	91	10.039	10.040	(1.037)	3160	0.15344	18.9(M)
58	m&p-Xylene	91	10.203	10.210	(1.054)	16192	0.29420	36.3(M)
59	Bromoform	173	Compound Not Detected.					
60	Styrene	104	Compound Not Detected.					
61	o-Xylene	91	Compound Not Detected.					
62	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
63	Isopropylbenzene	105	Compound Not Detected.					
64	N-Propylbenzene	91	Compound Not Detected.					
65	4-Ethyltoluene	105	12.311	12.325	(1.272)	31126	0.66349	81.9(M)
66	1,3,5-Trimethylbenzene	105	12.416	12.433	(1.283)	20942	0.43802	54.1(M)
67	1,2,4-Trimethylbenzene	105	13.017	13.028	(1.345)	83414	1.08247	134
68	1,3-Dichlorobenzene	146	Compound Not Detected.					
69	Sec- Butylbenzene	105	Compound Not Detected.					
72	1,4-Dichlorobenzene	146	Compound Not Detected.					

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.d
Report Date: 22-Apr-2013 11:31

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 11120.d
Lab Smp Id: 10224616008
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\042113.b\TO15_111-13.m
Misc Info: 17180

Calibration Date: 21-APR-2013
Calibration Time: 12:16
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1201629	720977	1682281	867696	-27.79
55 Chlorobenzene - d	638533	383120	893946	413214	-35.29

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D
Date : 21-APR-2013 17:47
Client ID:
Sample Info:

Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32

Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

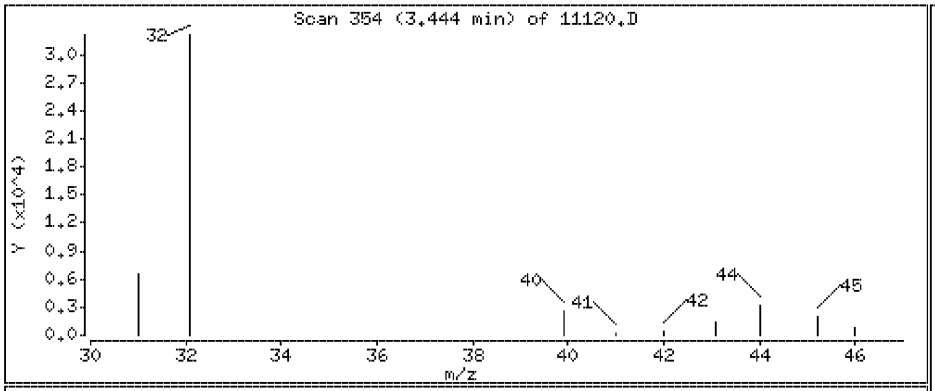
Operator: CJR

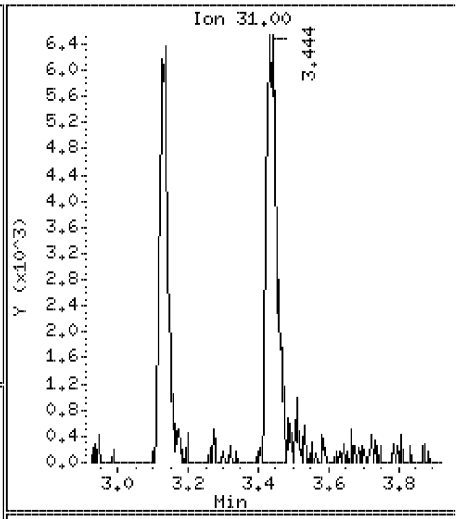
Column phase: J&W DB-5

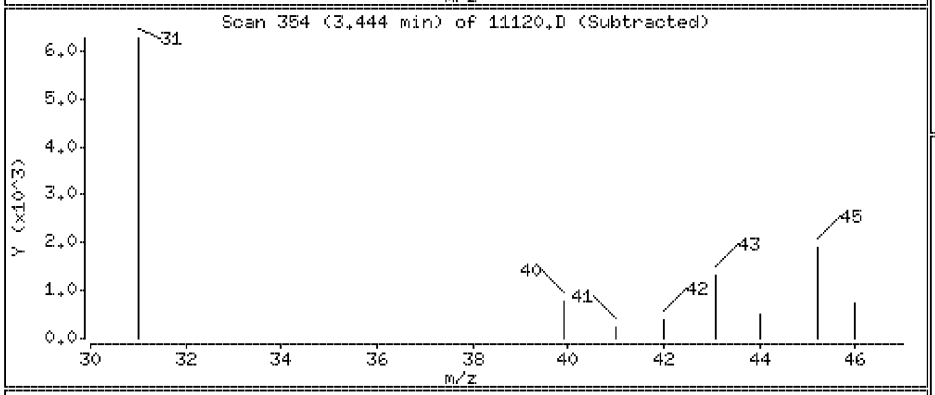
Column diameter: 0.32

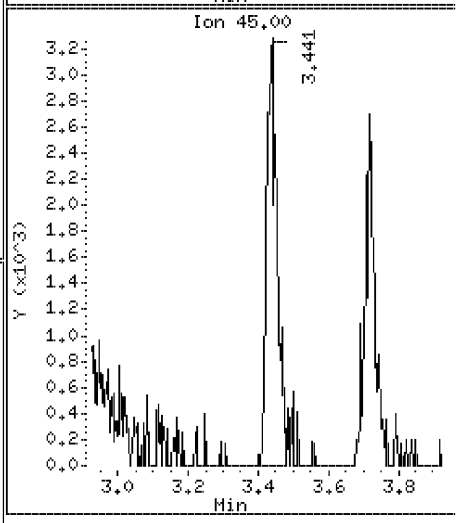
9 Ethanol

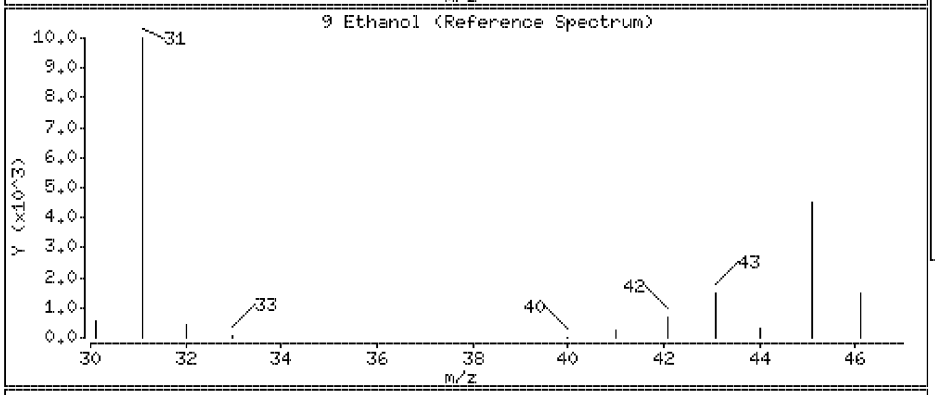
Concentration: 127 ppbv

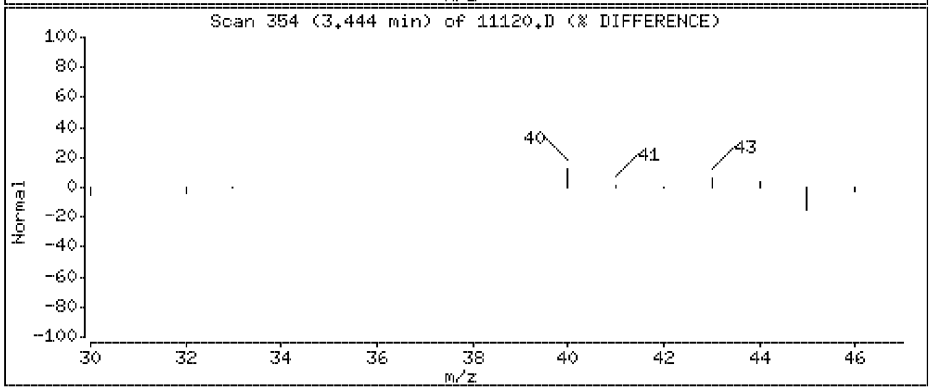












Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

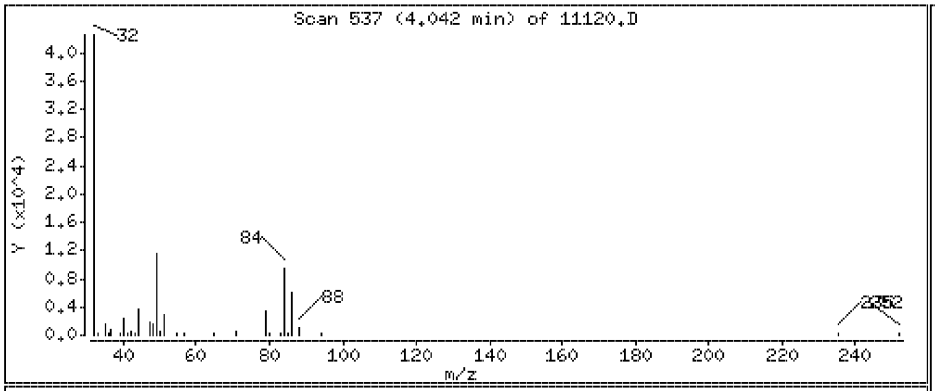
Operator: CJR

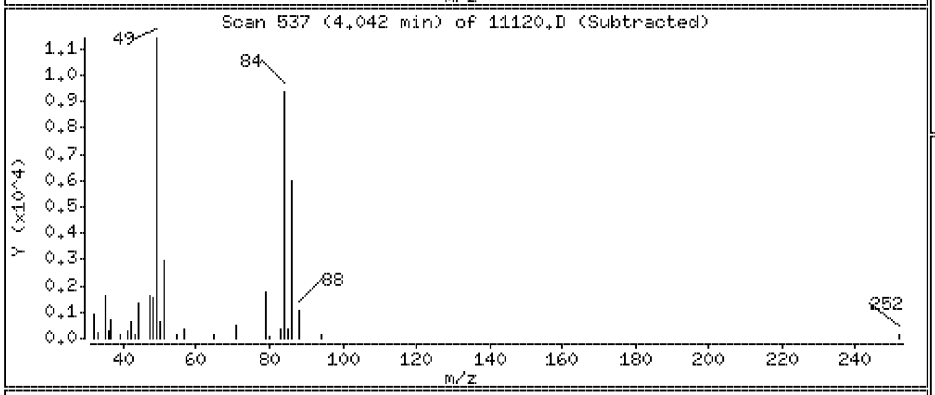
Column phase: J&W DB-5

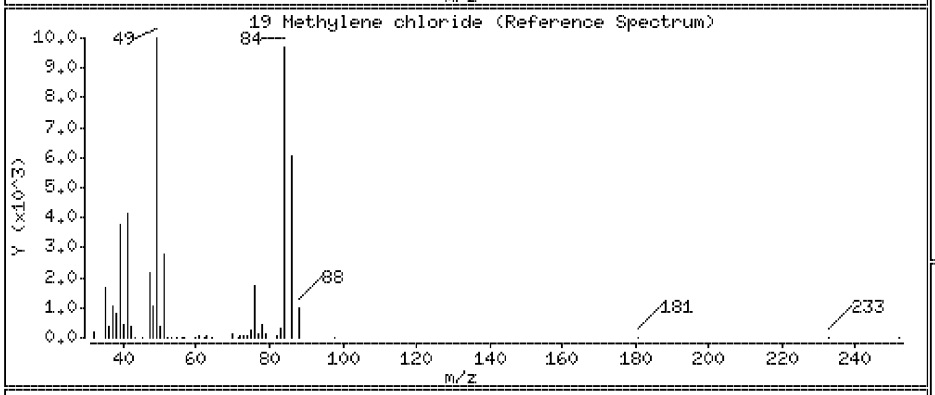
Column diameter: 0.32

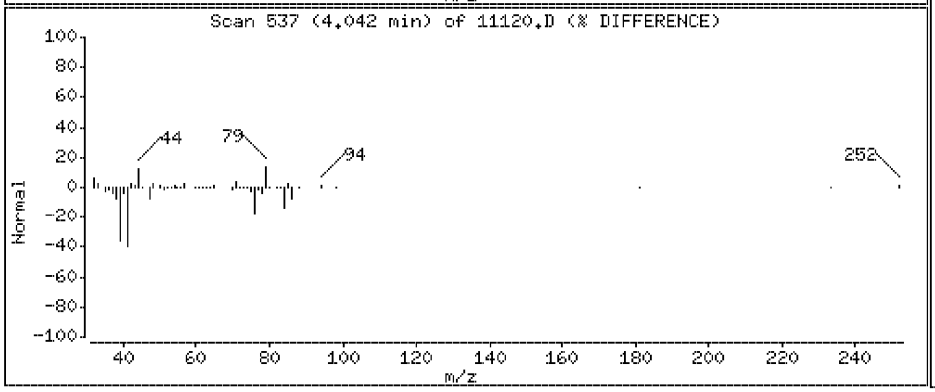
19 Methylene chloride

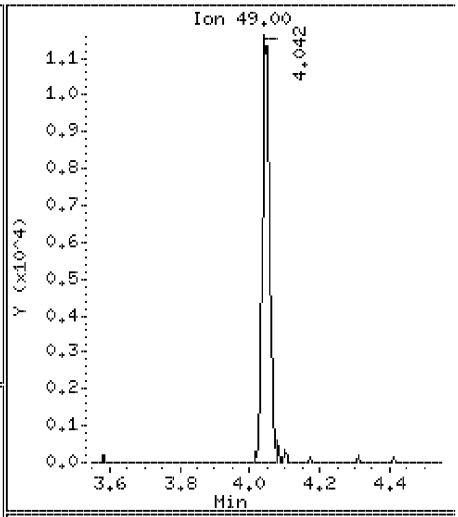
Concentration: 65.0 ppbv

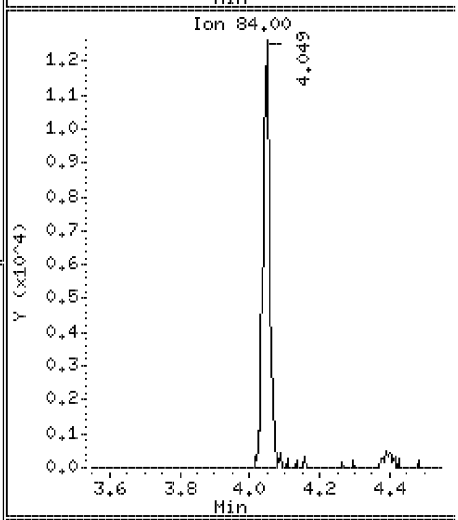


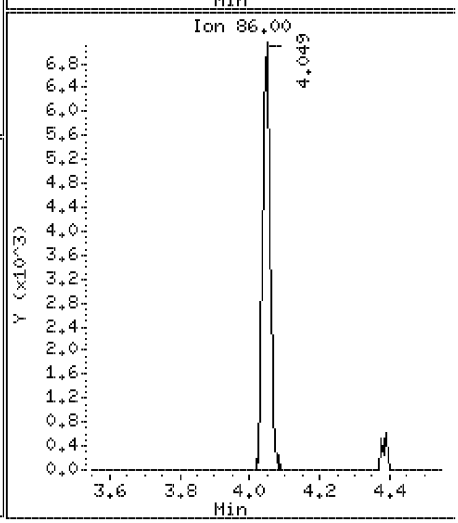












Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

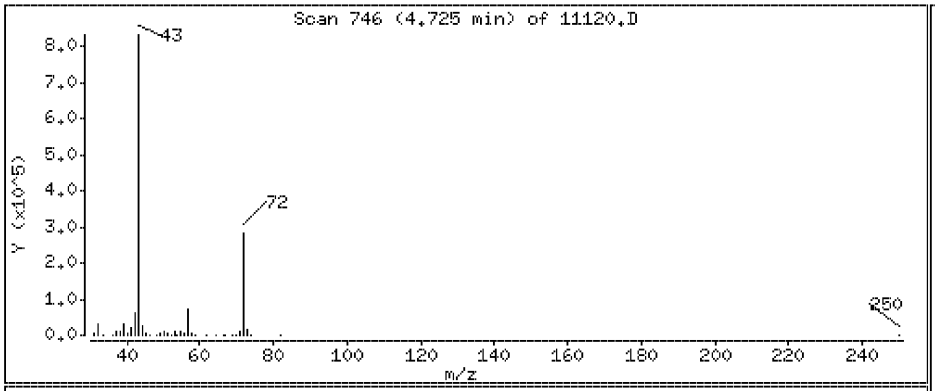
Operator: CJR

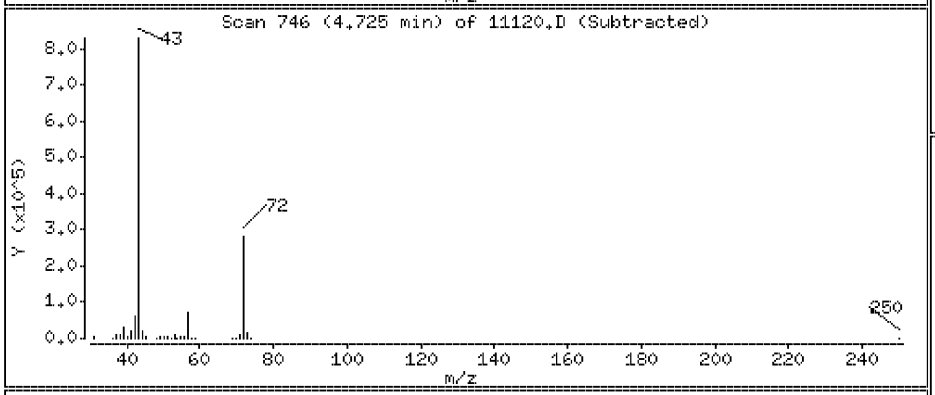
Column phase: J&W DB-5

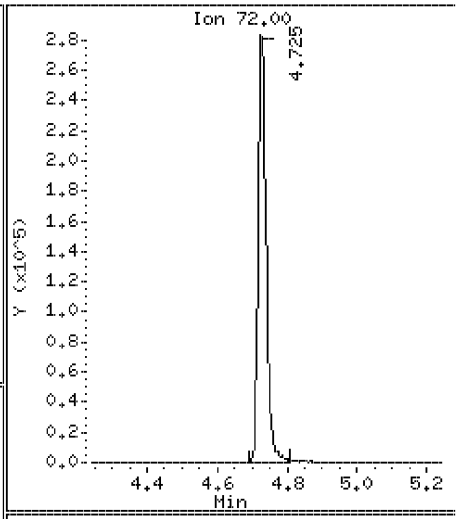
Column diameter: 0.32

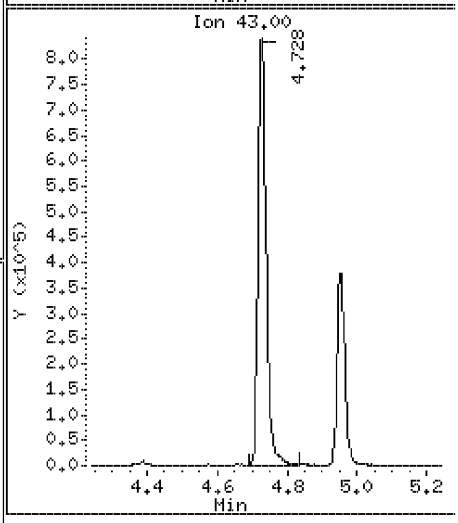
27 Methyl Ethyl Ketone

Concentration: 4110 ppbv









Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

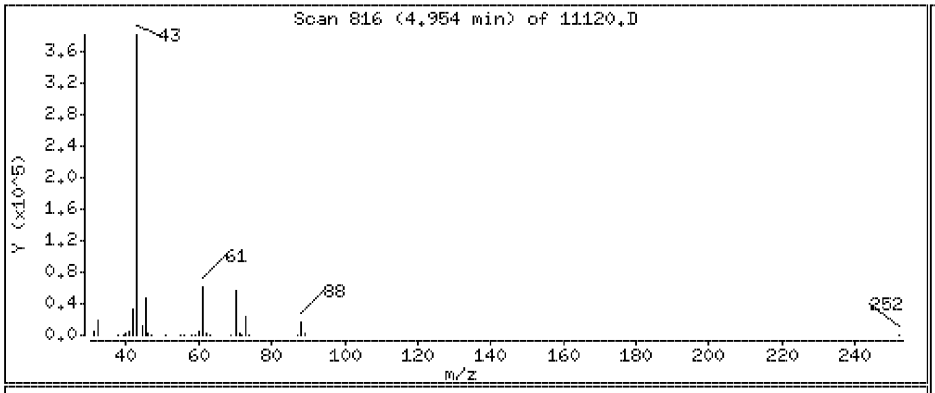
Operator: CJR

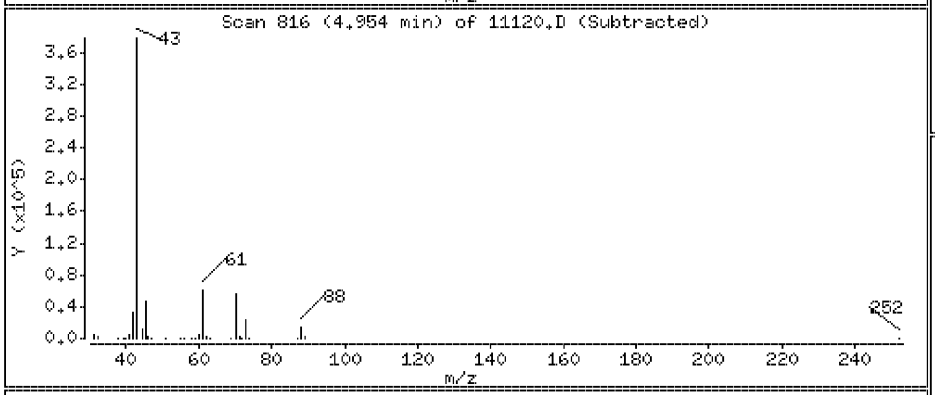
Column phase: J&W DB-5

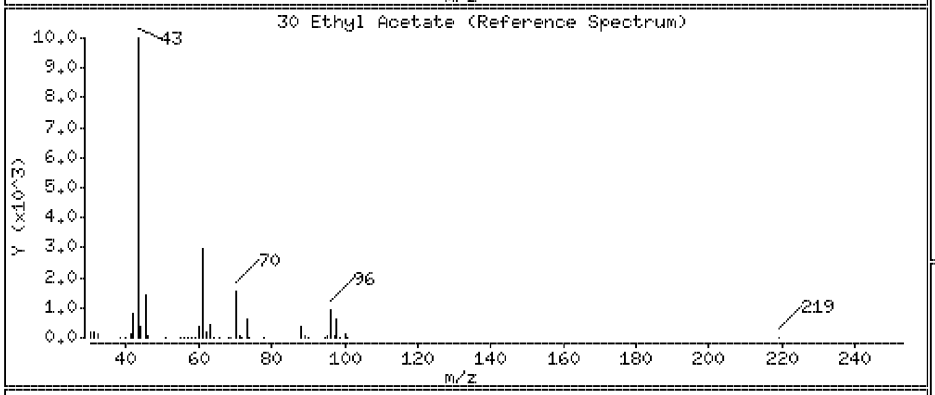
Column diameter: 0.32

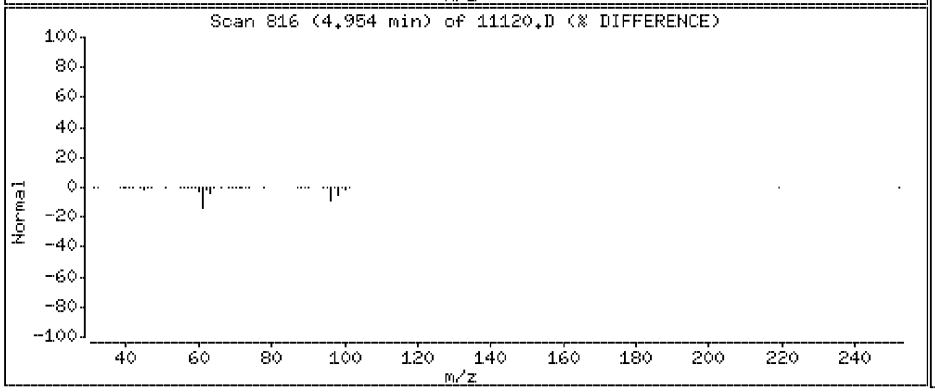
30 Ethyl Acetate

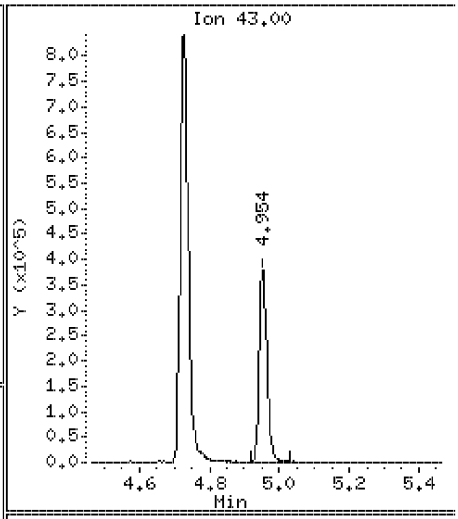
Concentration: 1880 ppbv

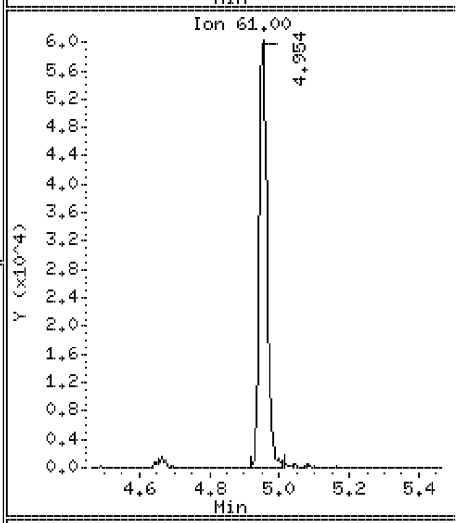


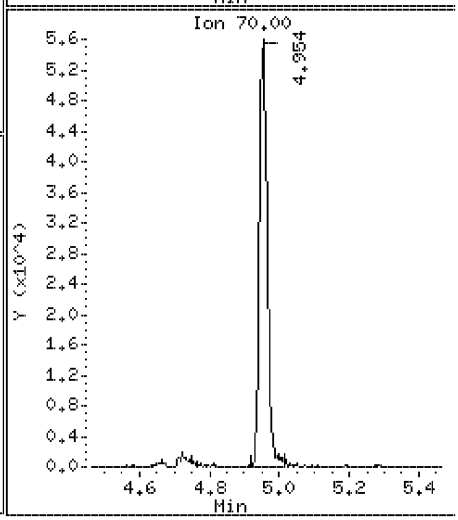












Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

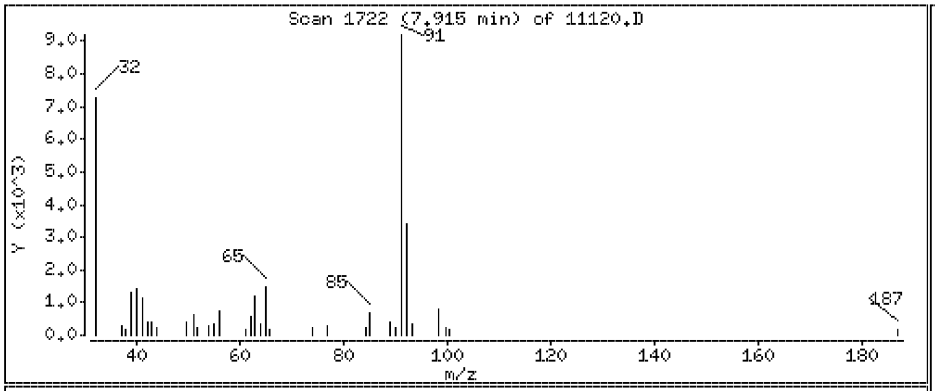
Operator: CJR

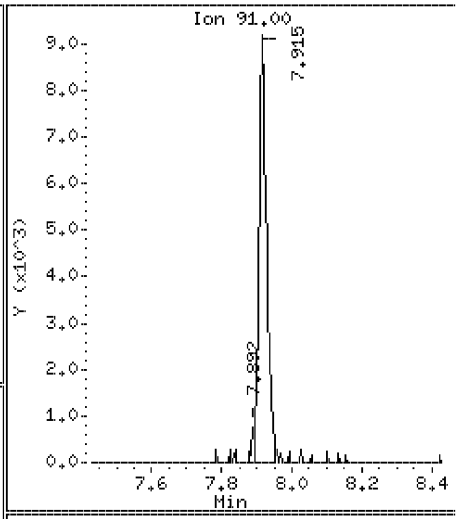
Column phase: J&W DB-5

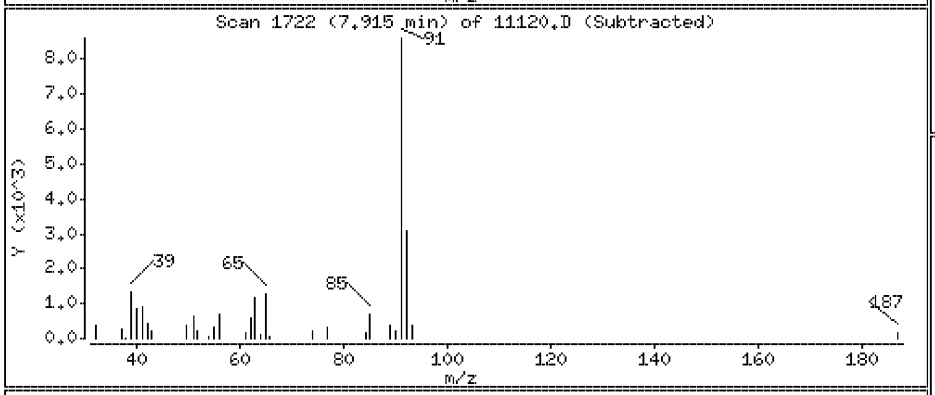
Column diameter: 0.32

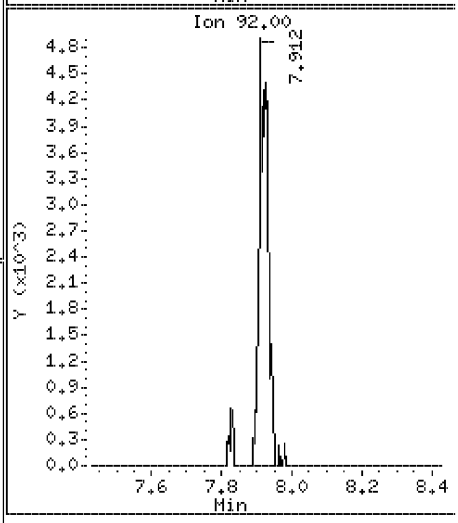
49 Toluene

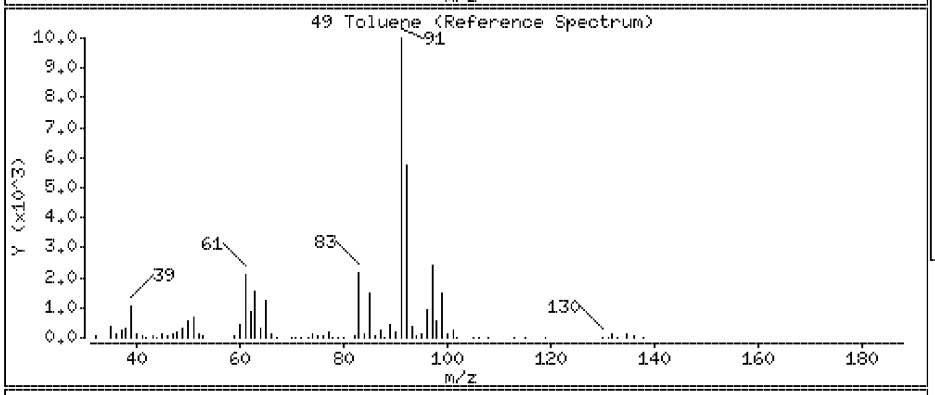
Concentration: 19.5 ppbv

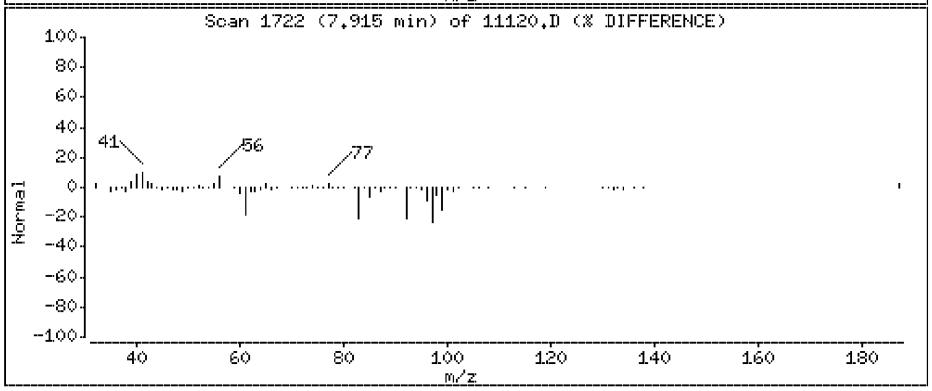












Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

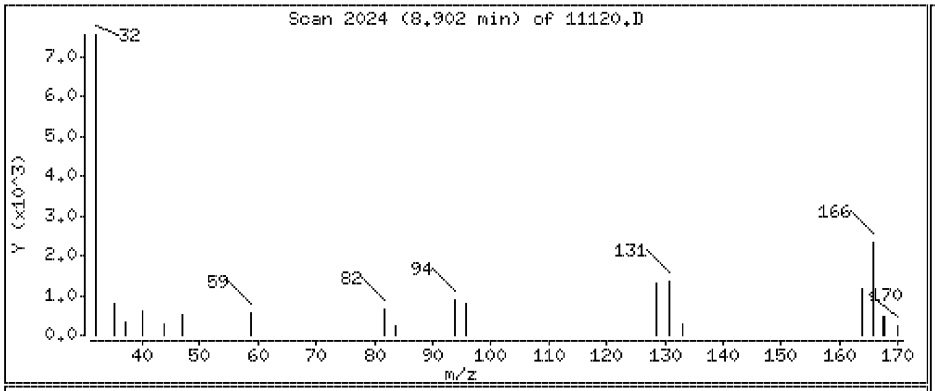
Operator: CJR

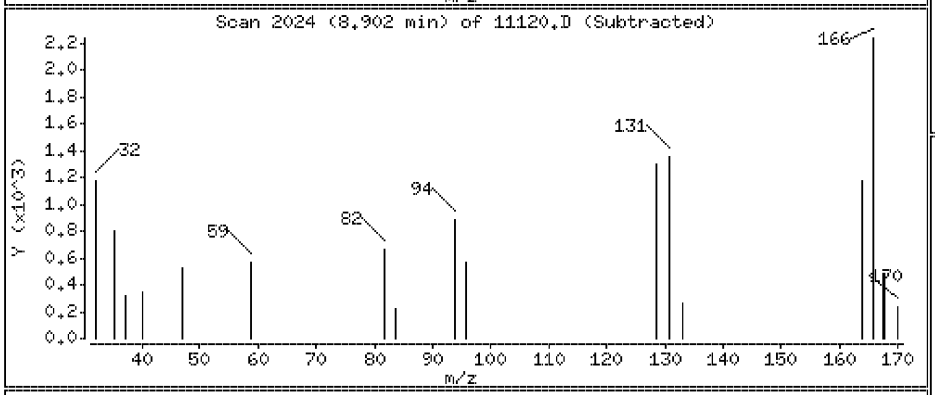
Column phase: J&W DB-5

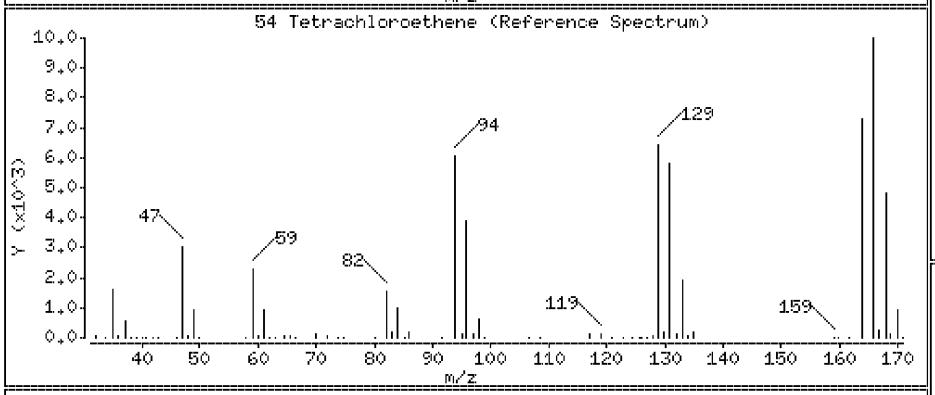
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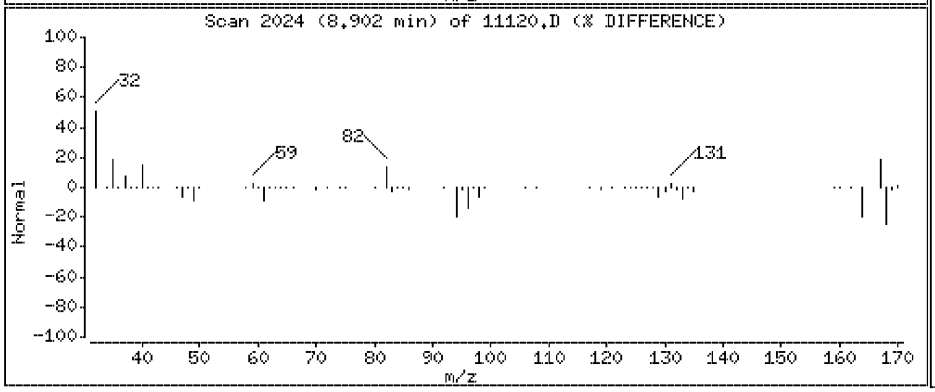
54 Tetrachloroethene

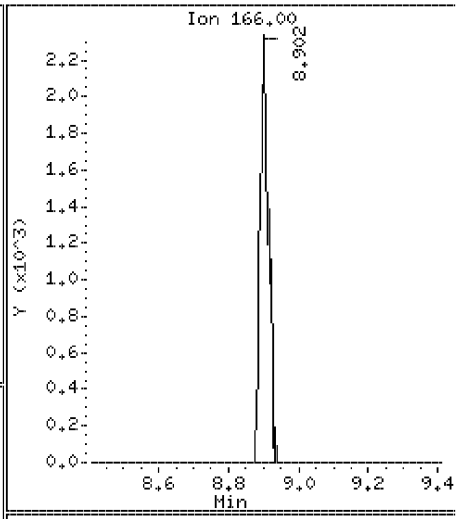
Concentration: 11.7 ppbv

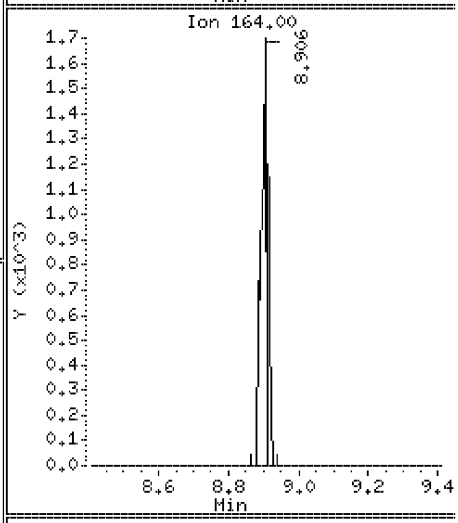


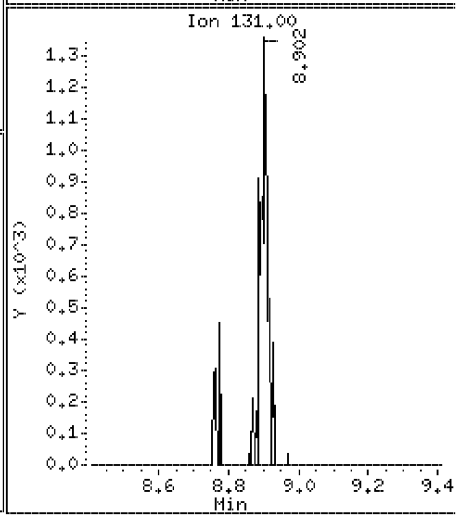












Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

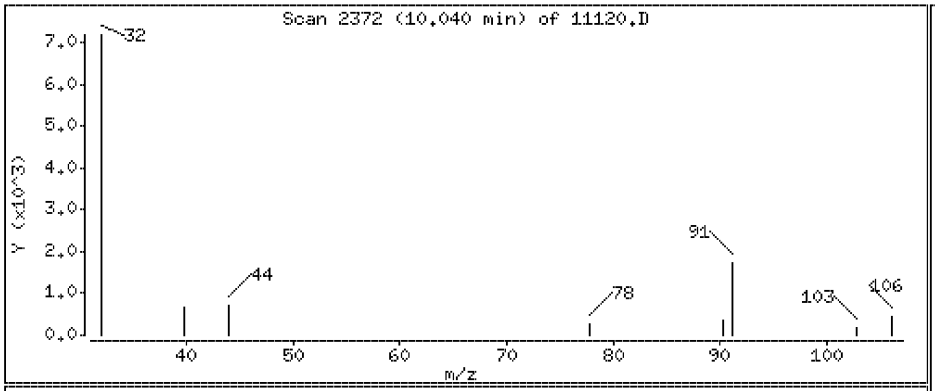
Operator: CJR

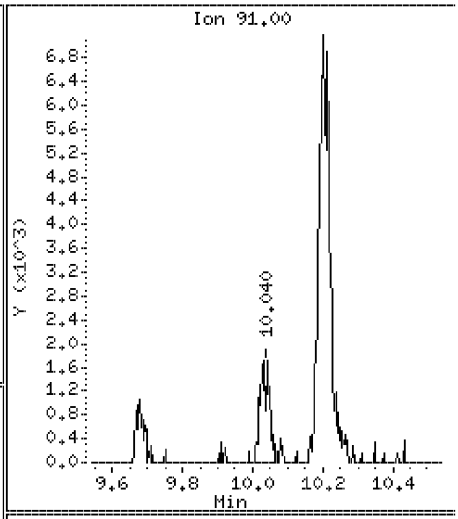
Column phase: J&W DB-5

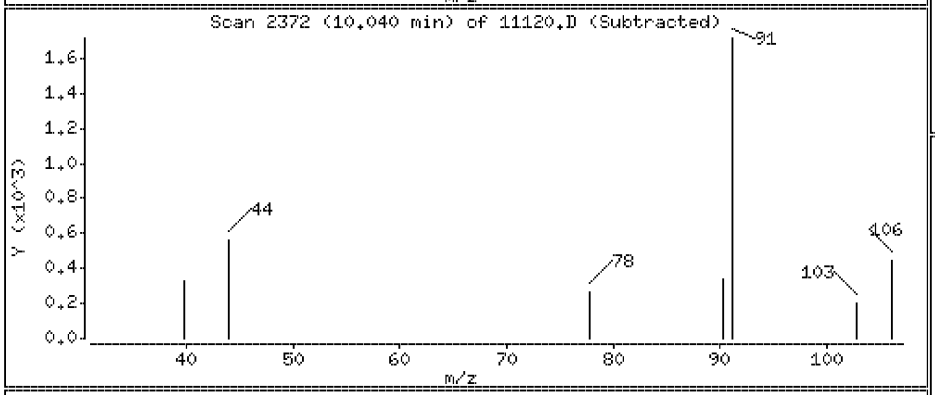
Column diameter: 0.32

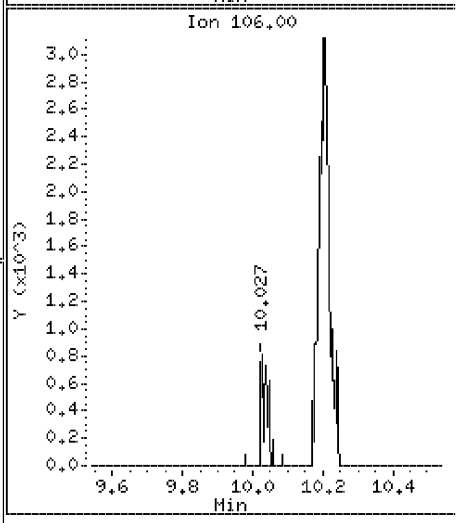
57 Ethyl Benzene

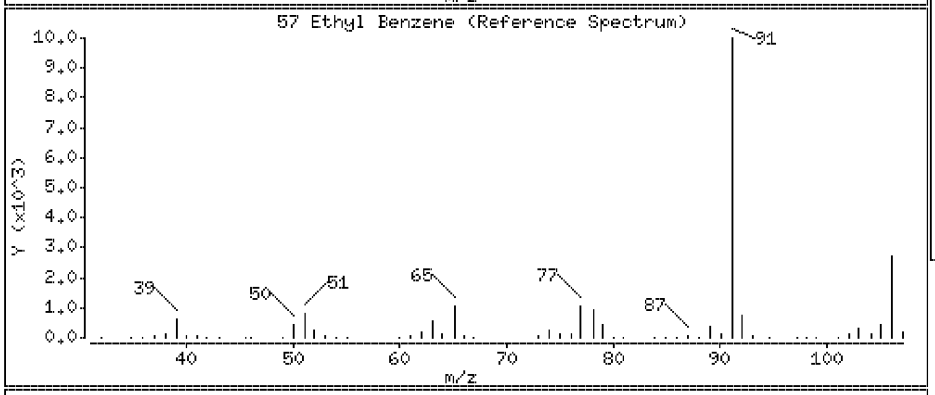
Concentration: 18.9 ppbv

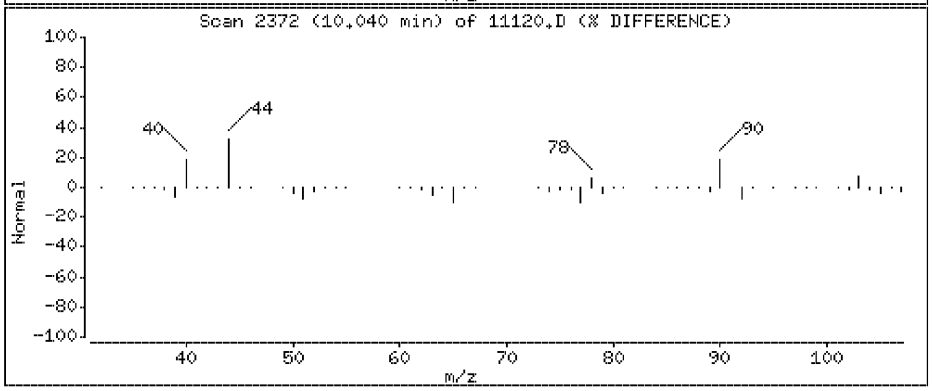












Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

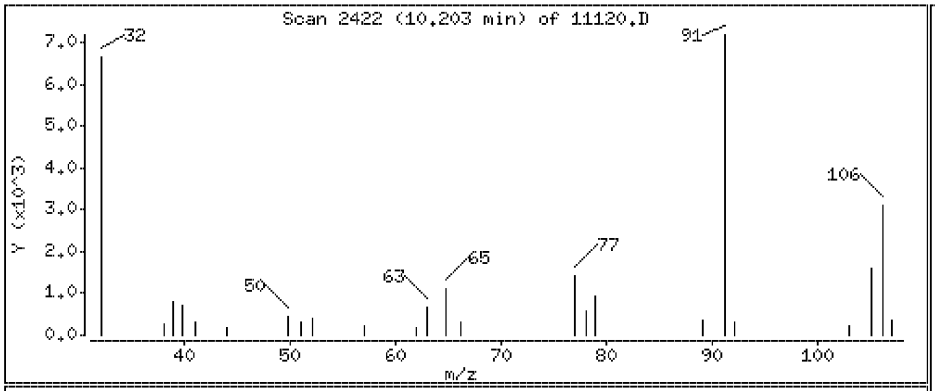
Operator: CJR

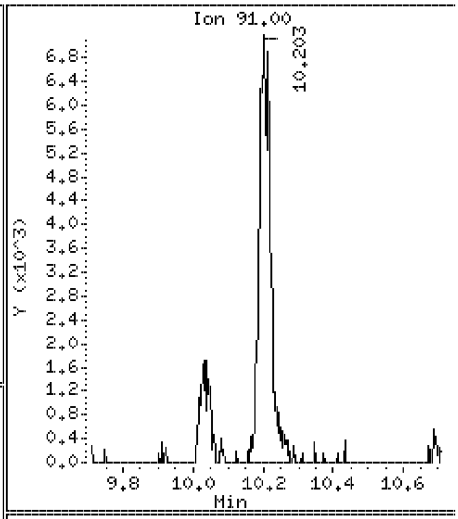
Column phase: J&W DB-5

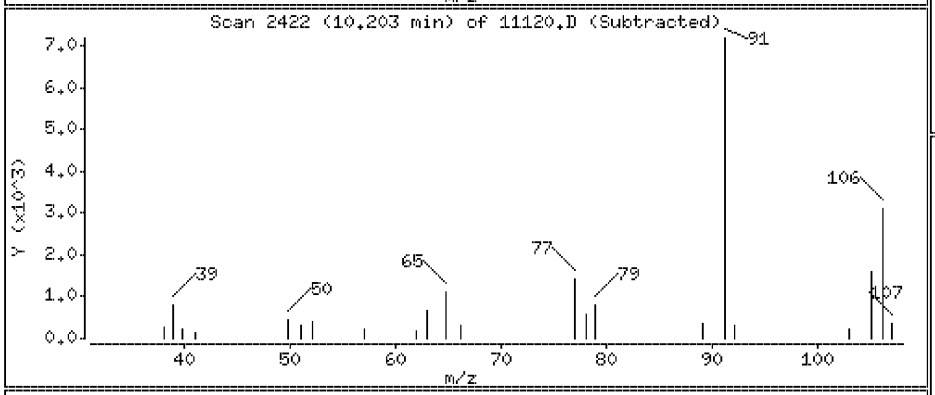
Column diameter: 0.32

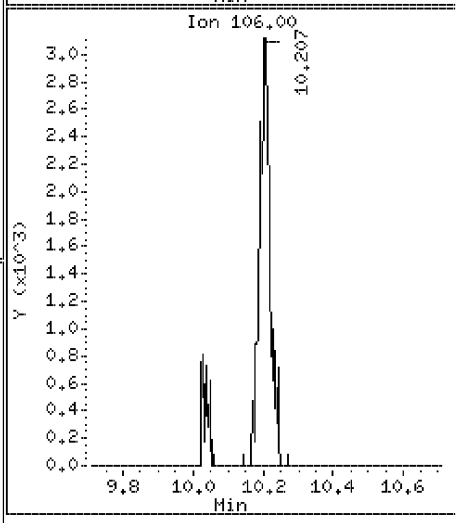
58 m&p-Xylene

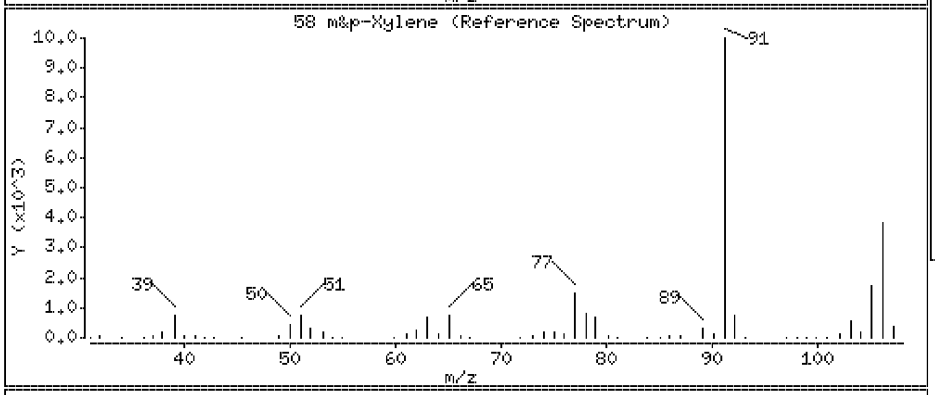
Concentration: 36.3 ppbv

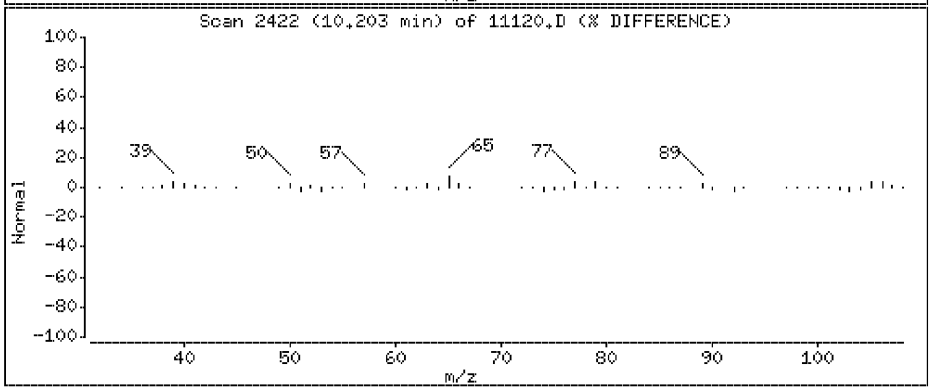












Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

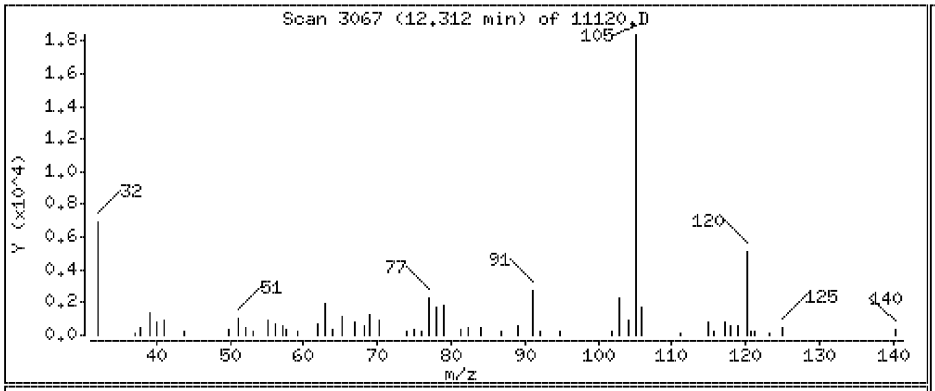
Operator: CJR

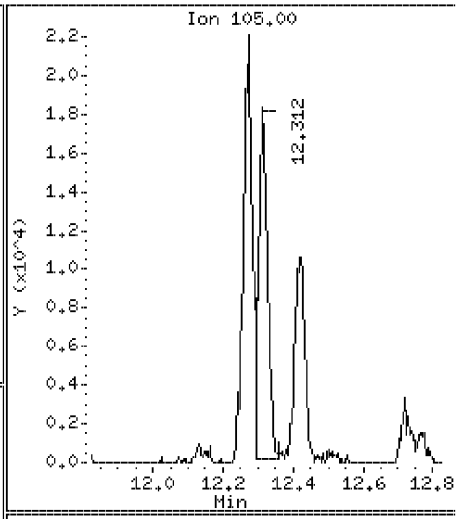
Column phase: J&W DB-5

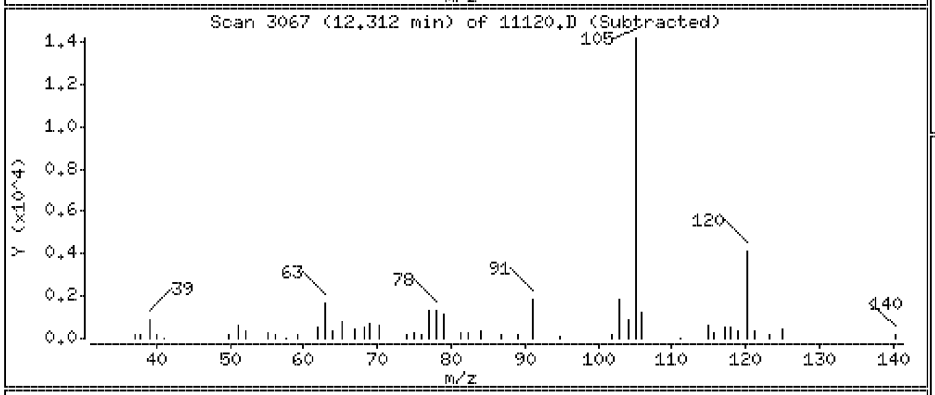
Column diameter: 0.32

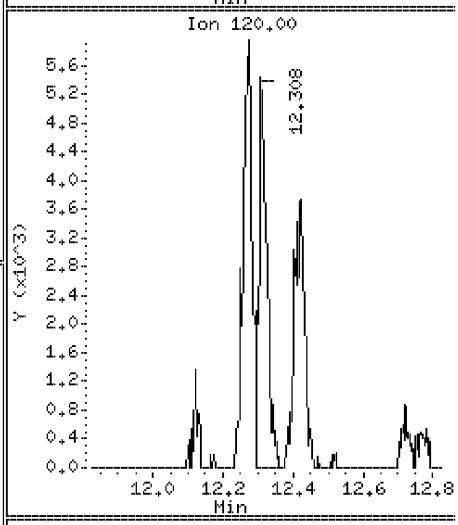
65 4-Ethyltoluene

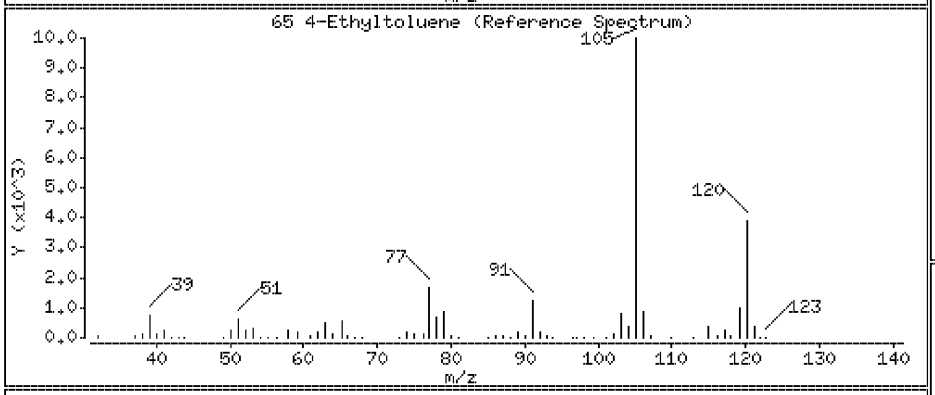
Concentration: 81.9 ppbv

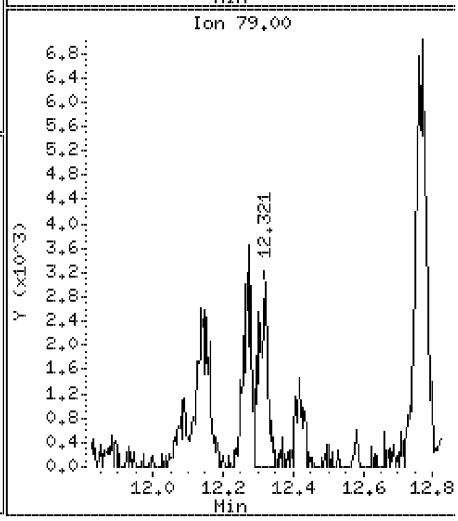


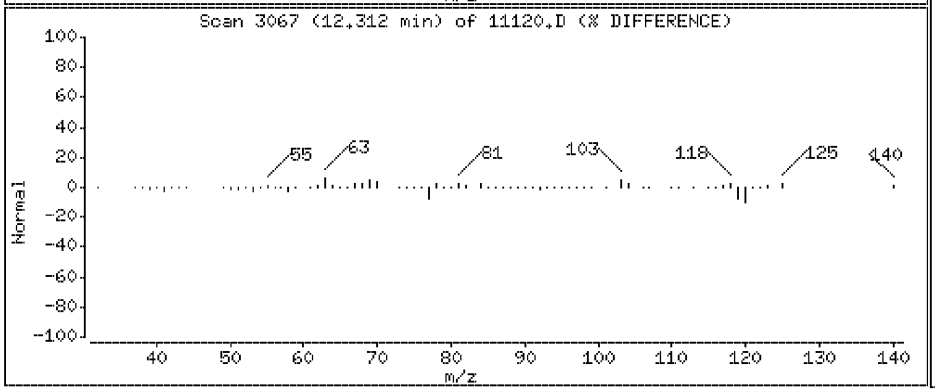












Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

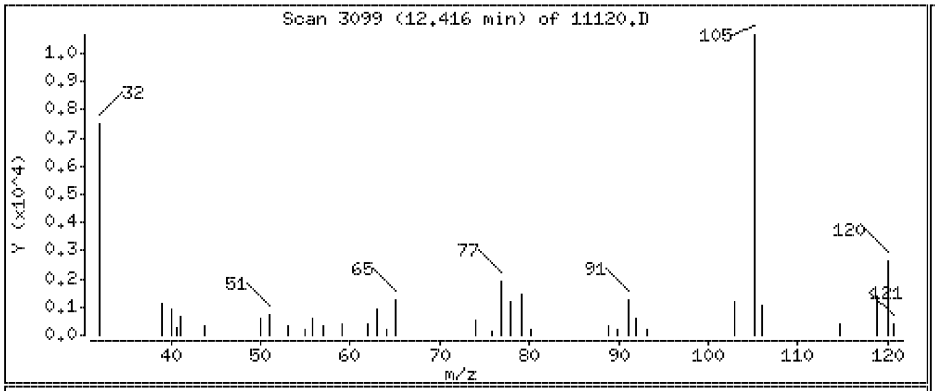
Operator: CJR

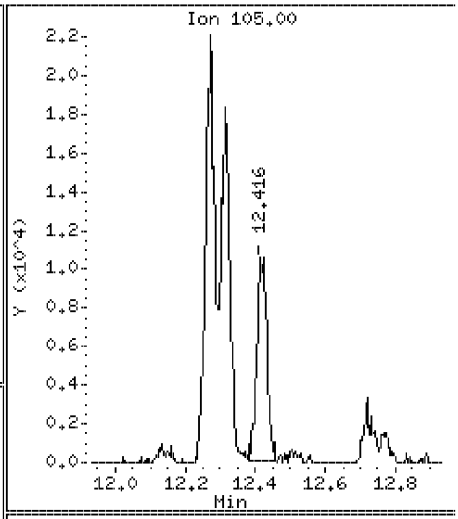
Column phase: J&W DB-5

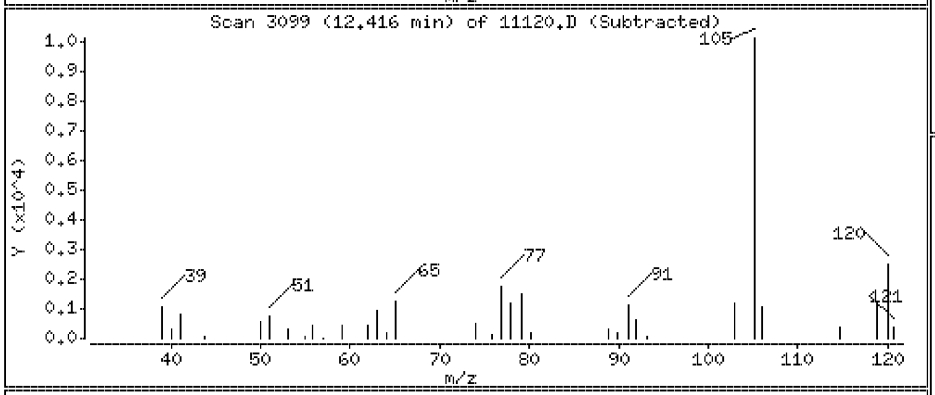
Column diameter: 0.32

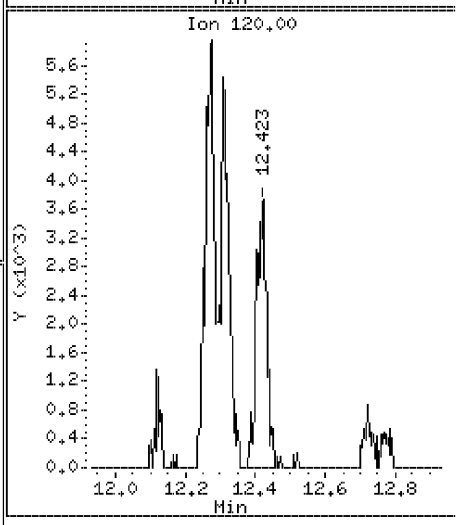
66 1,3,5-Trimethylbenzene

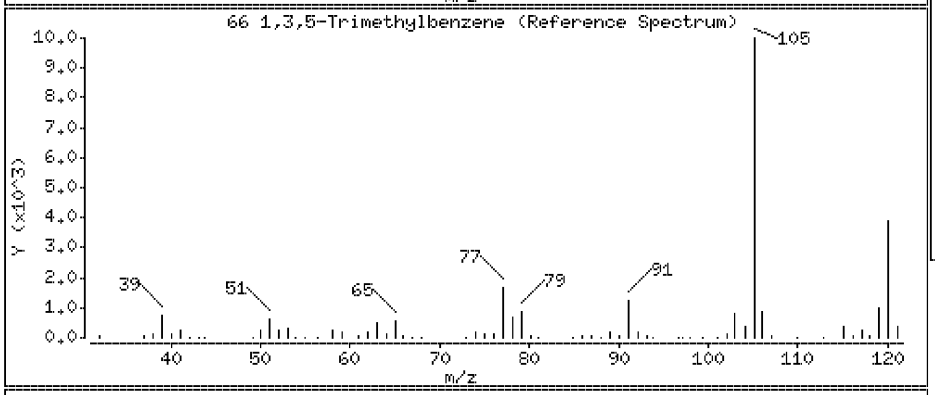
Concentration: 54.1 ppbv

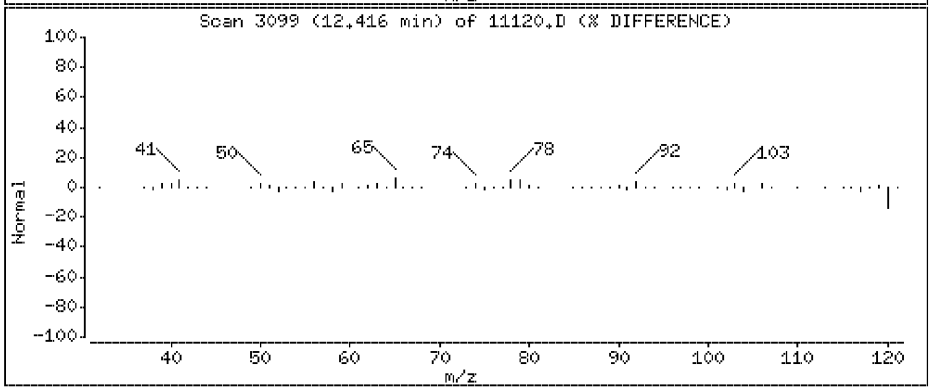












Data File: \\192.168.10.12\chem\10airD.i\042113.b\11120.D

Date : 21-APR-2013 17:47

Client ID:

Instrument: 10airD.i

Sample Info:

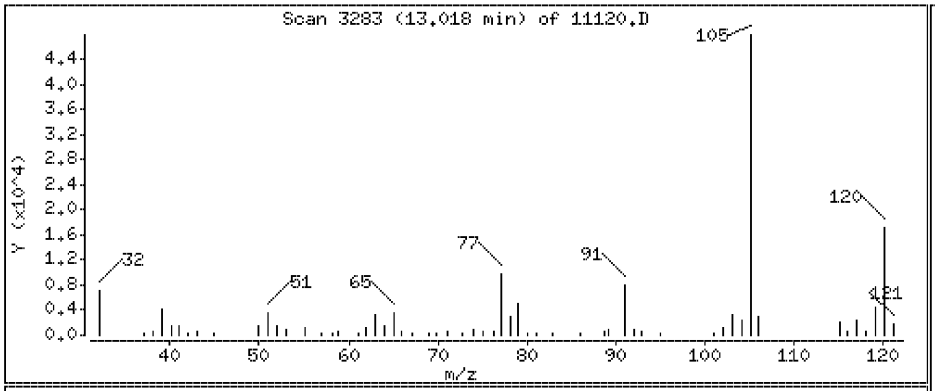
Operator: CJR

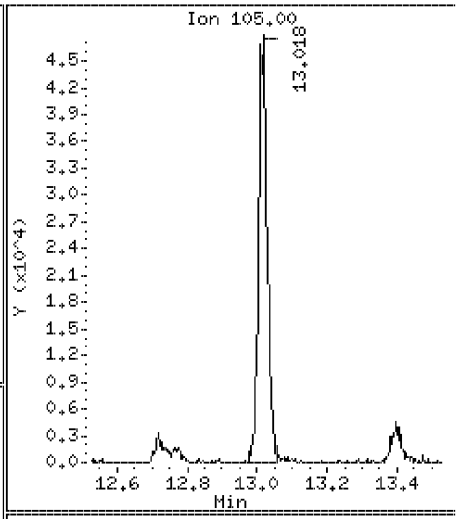
Column phase: J&W DB-5

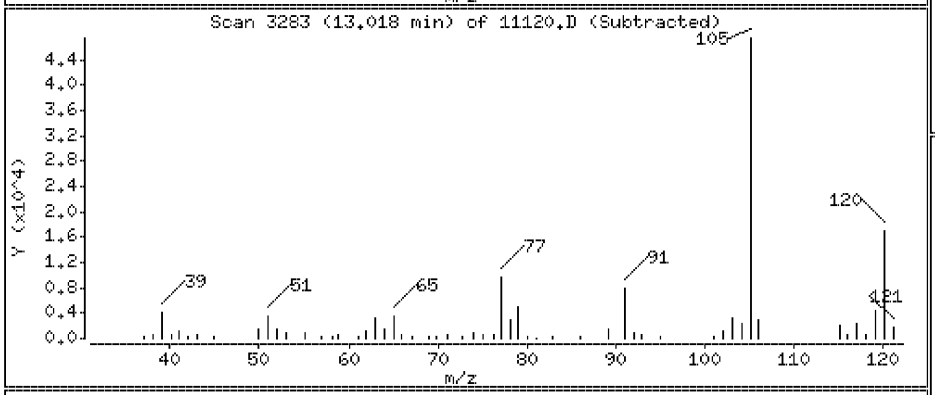
Column diameter: 0.32

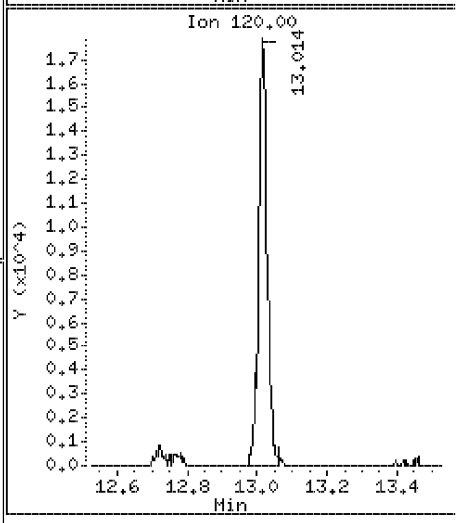
67 1,2,4-Trimethylbenzene

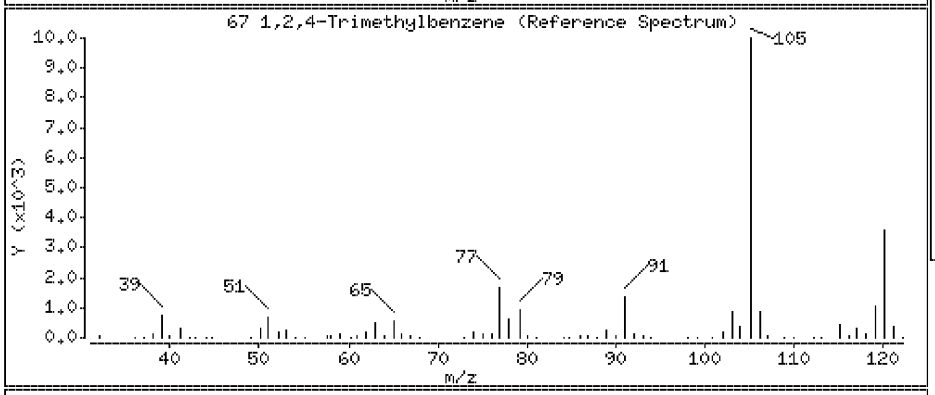
Concentration: 134 ppbv

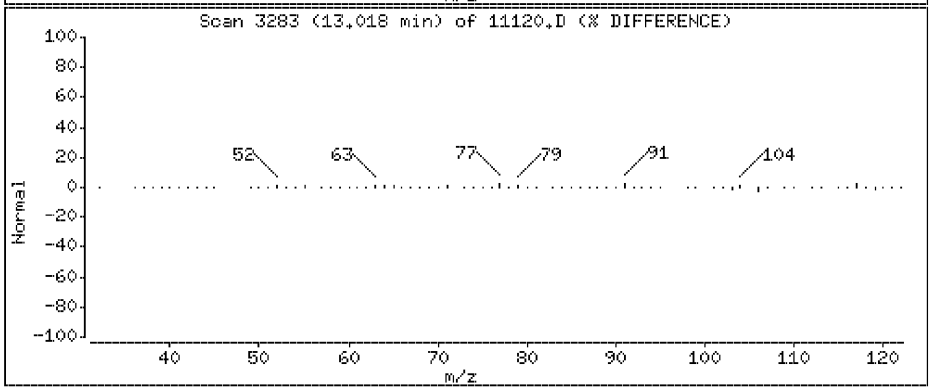






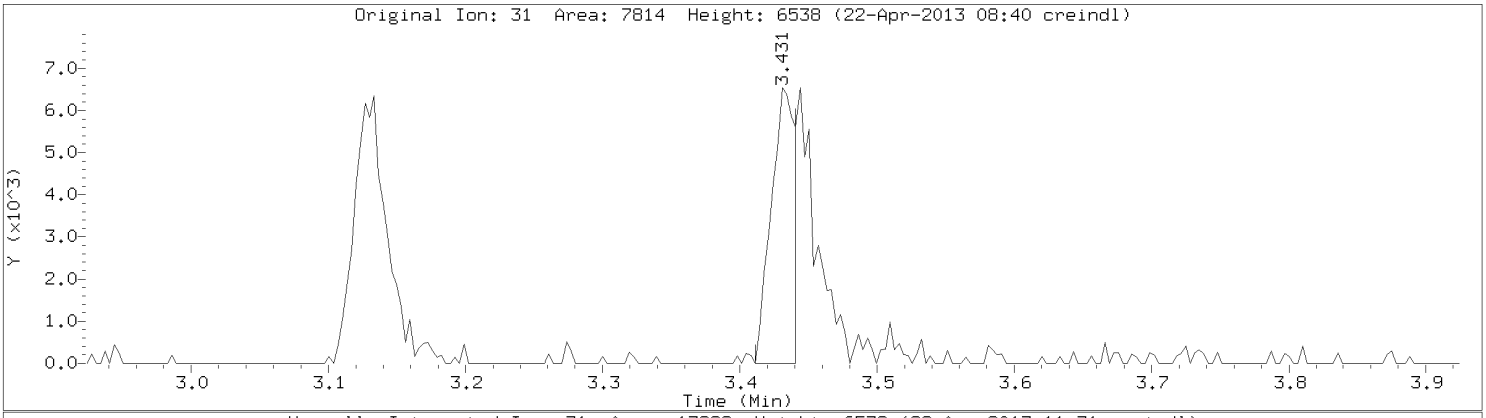


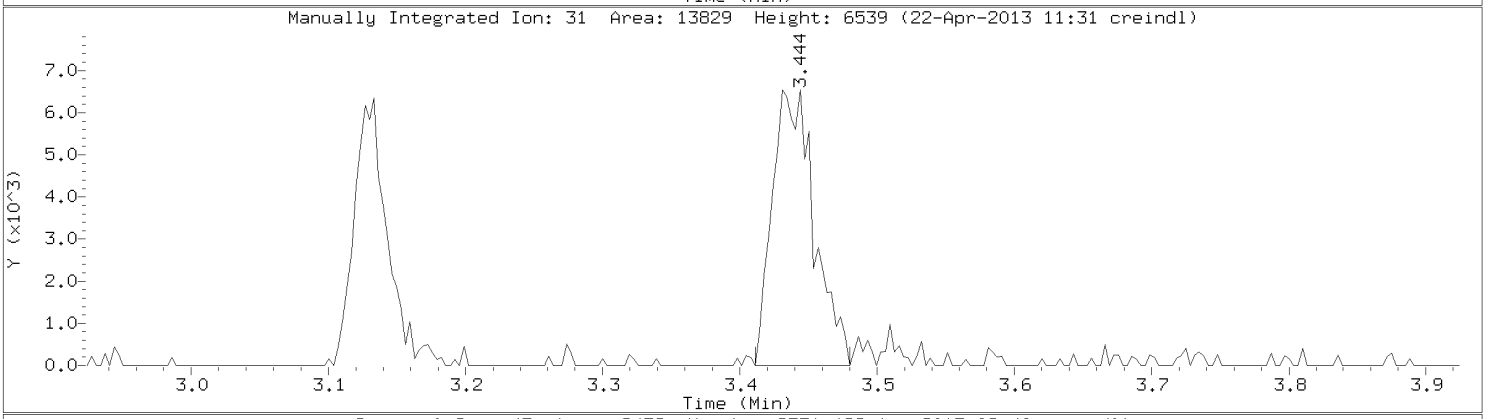


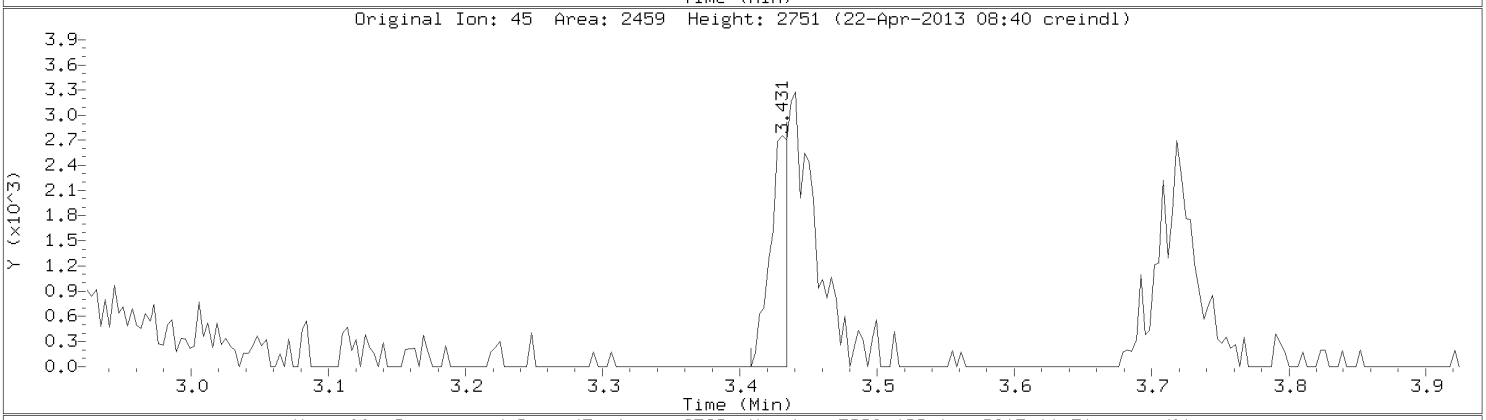


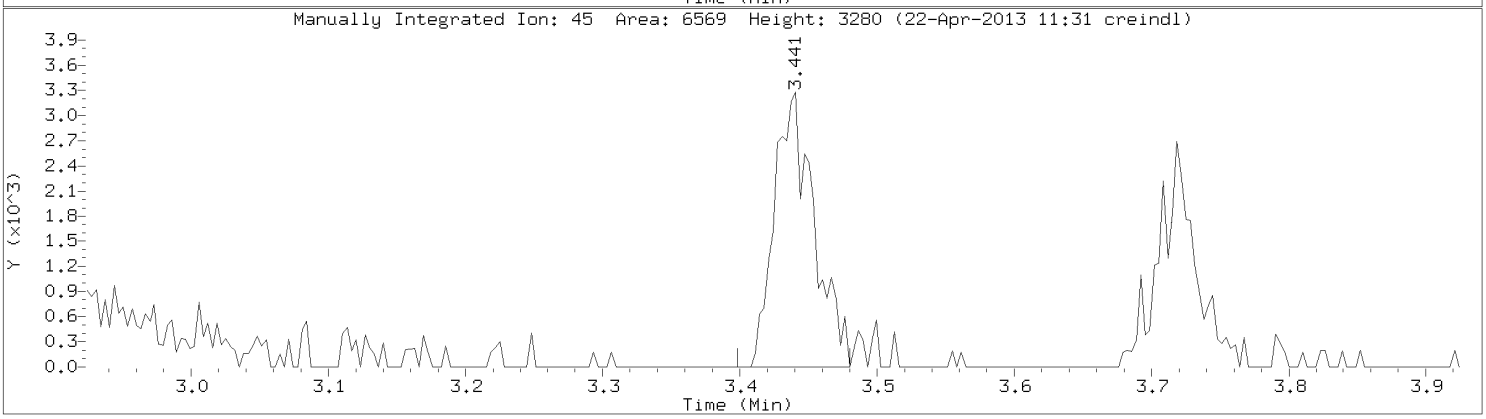
Data File: \\192.168.10.12\chem\10airD.i\042113.b/11120.d
Injection Date: 21-APR-2013 17:47
Instrument: 10airD.i
Lab Sample ID: 10224616008

Compound: Ethanol
CAS Number: 64-17-5



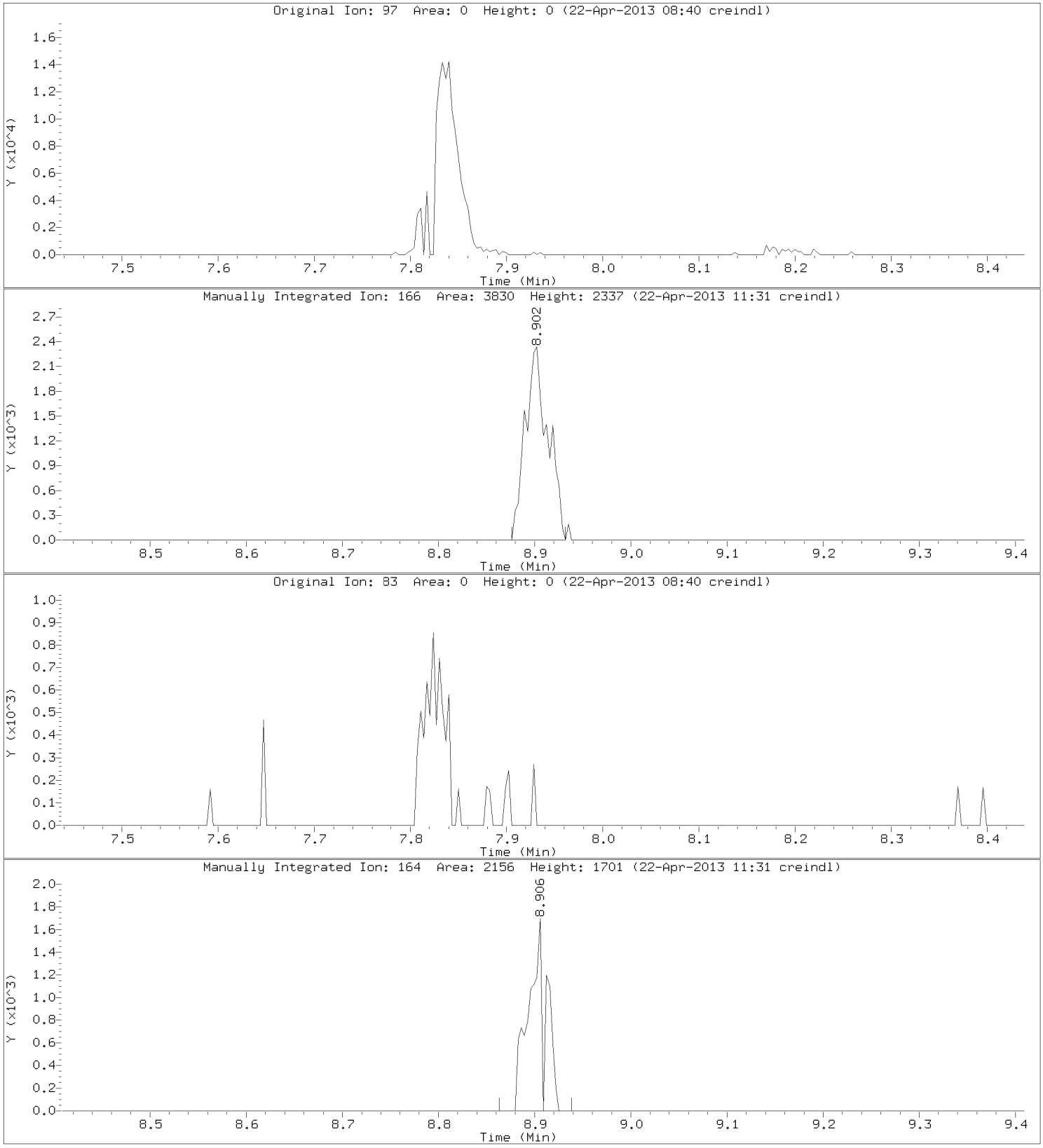




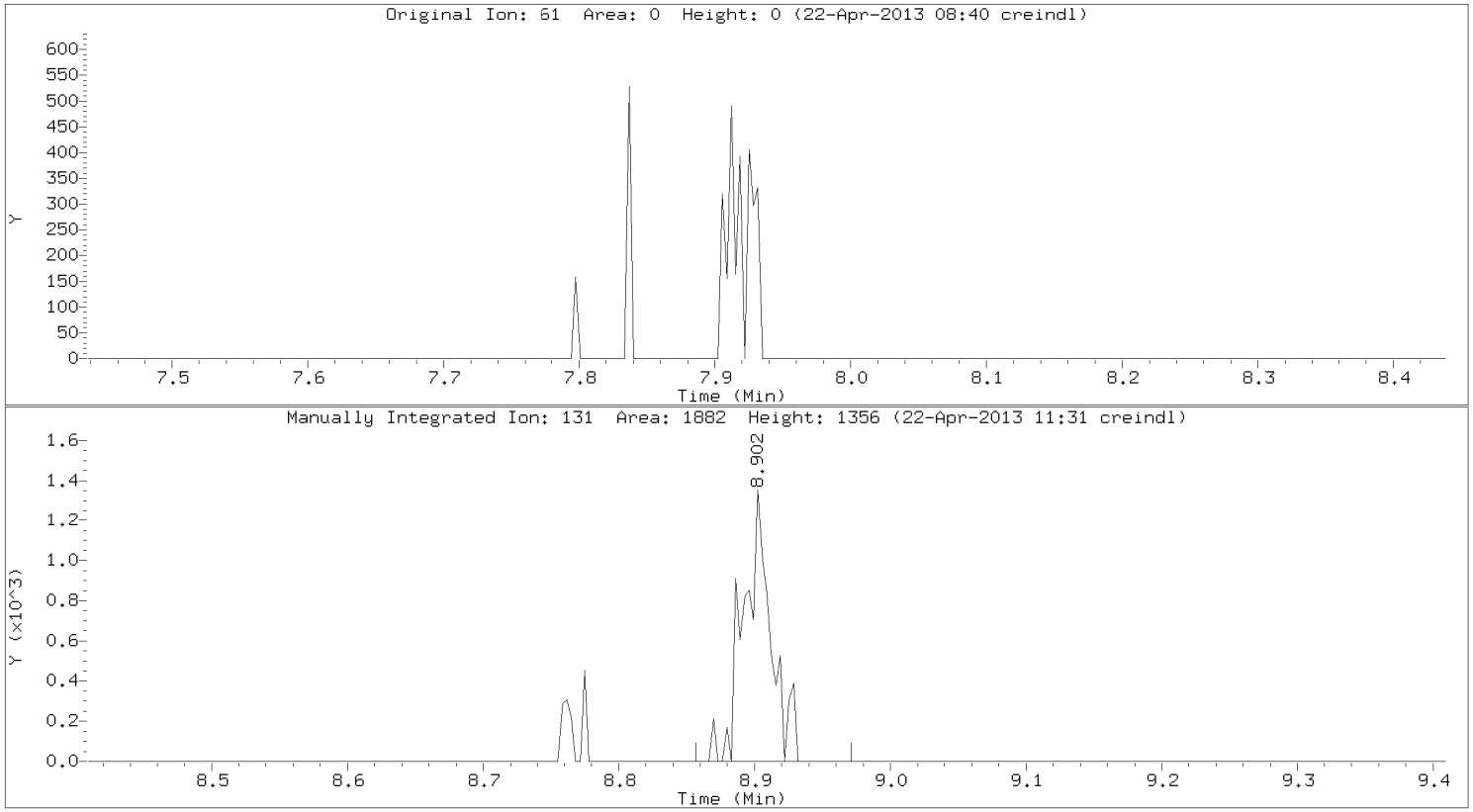


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Injection Date: 21-APR-2013 17:47
Instrument: 10airD.i
Lab Sample ID: 10224616008

Compound: Tetrachloroethene
CAS Number: 127-18-4

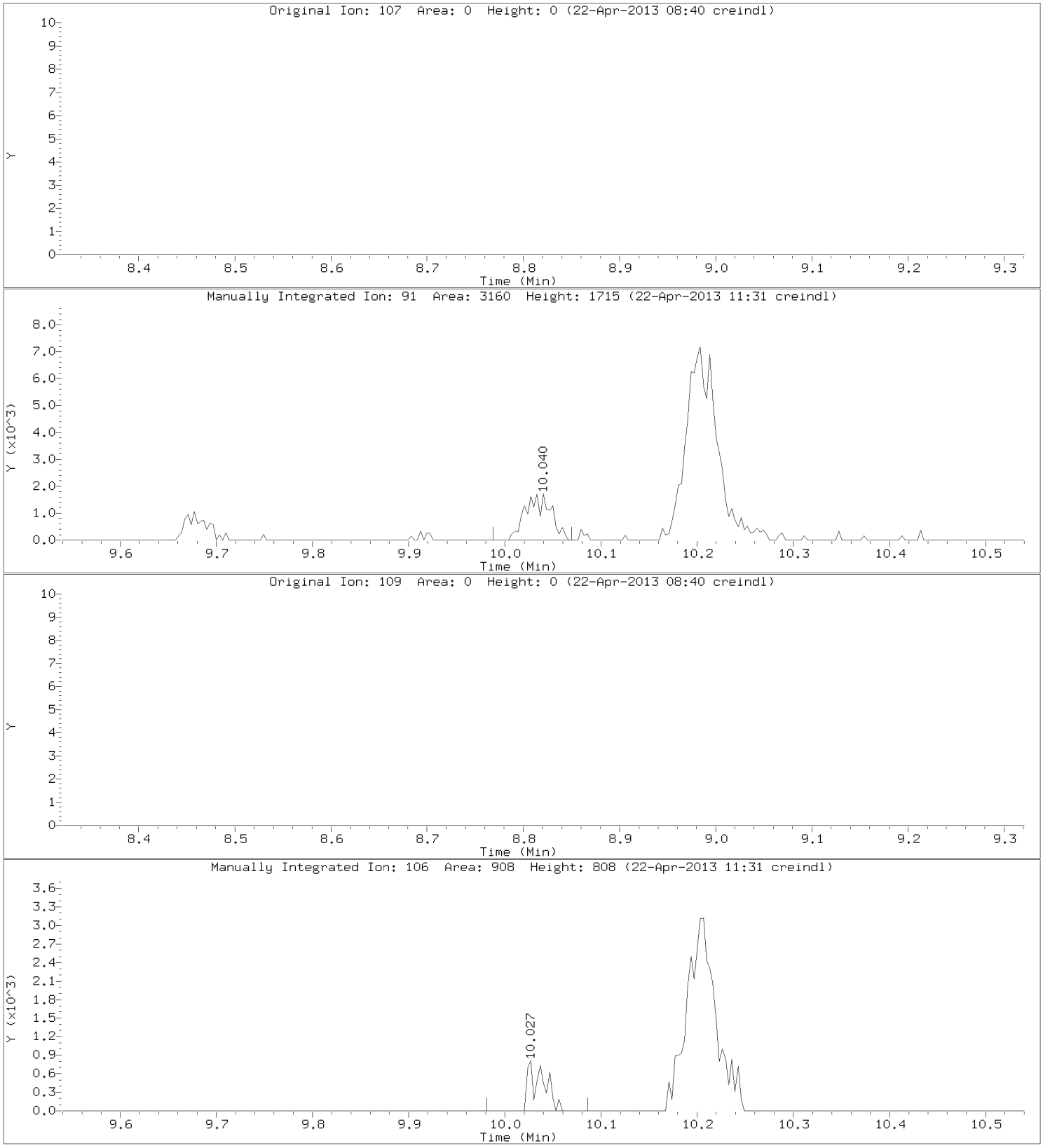


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Injection Date: 21-APR-2013 17:47
Instrument: 10airD.i
Lab Sample ID: 10224616008



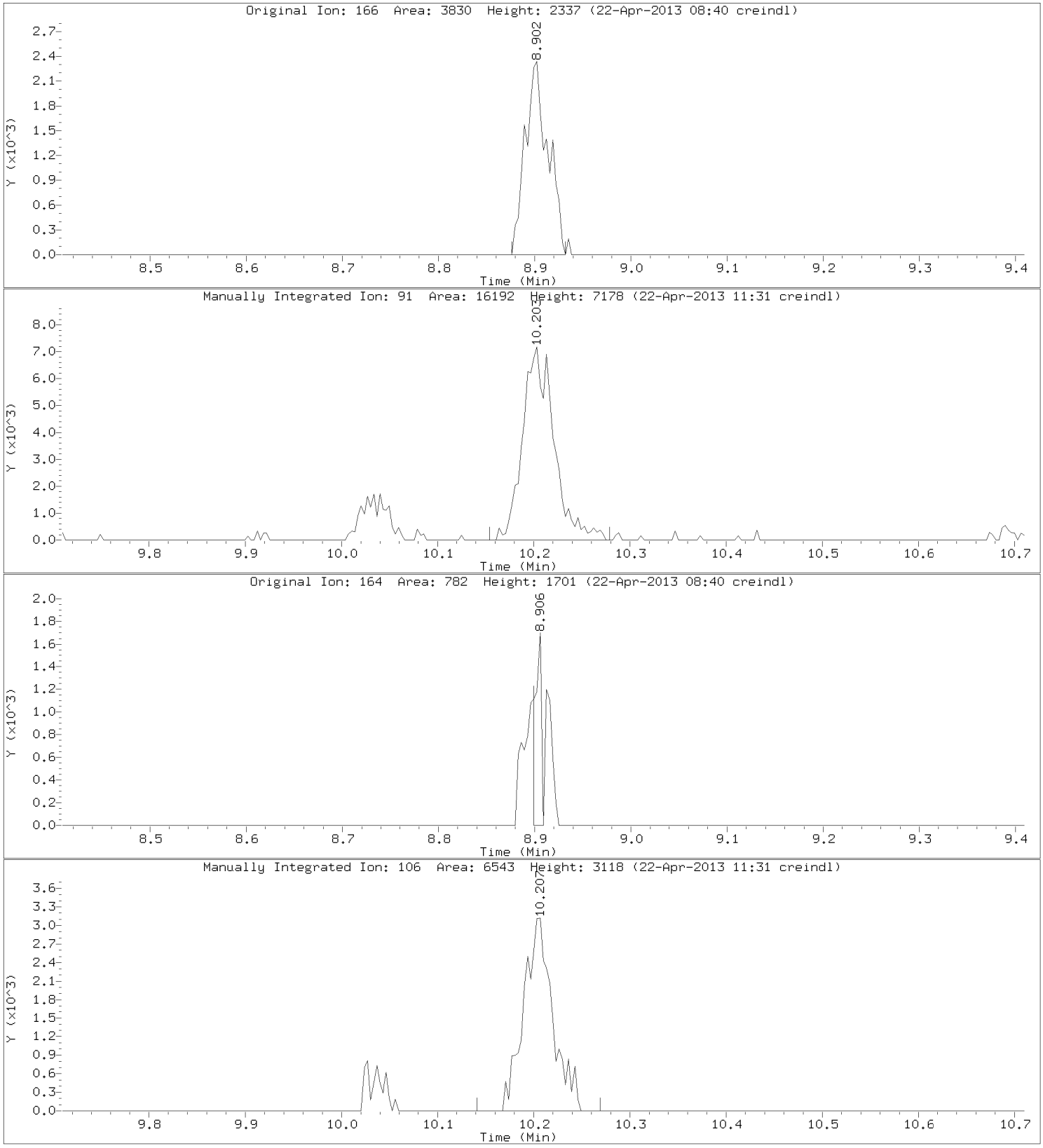
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Injection Date: 21-APR-2013 17:47
Instrument: 10airD.i
Lab Sample ID: 10224616008

Compound: Ethyl Benzene
CAS Number: 100-41-4



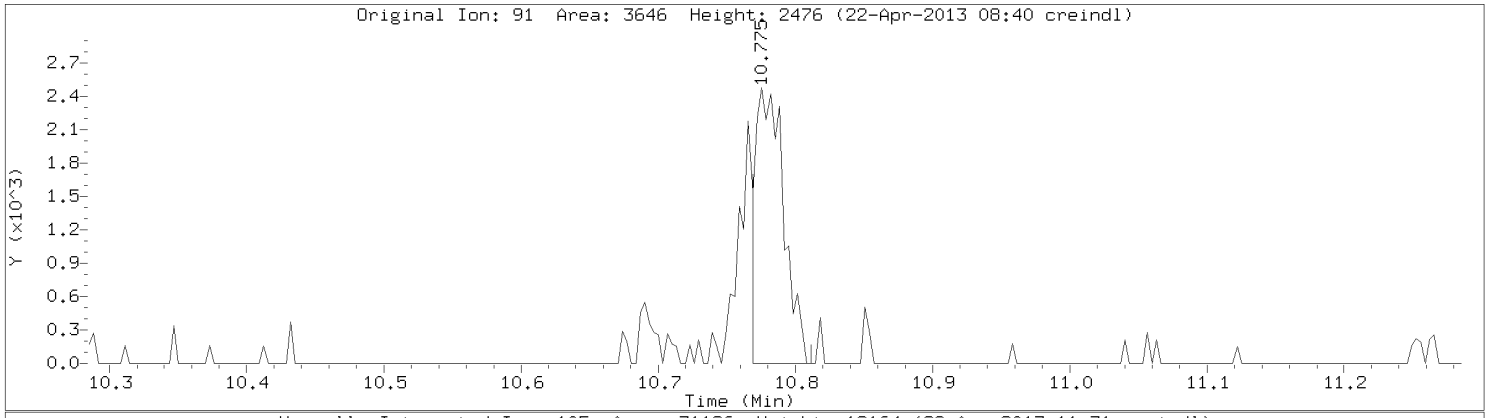
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Instrument: 10airD.i
Lab Sample ID: 10224616008

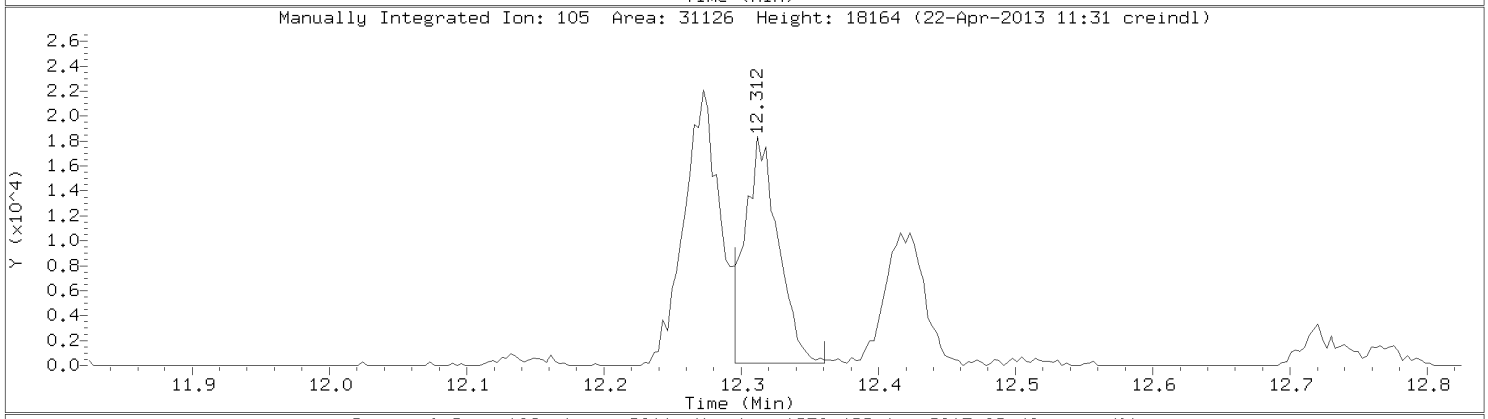
Compound: m&p-Xylene
CAS Number: 7816-60-0

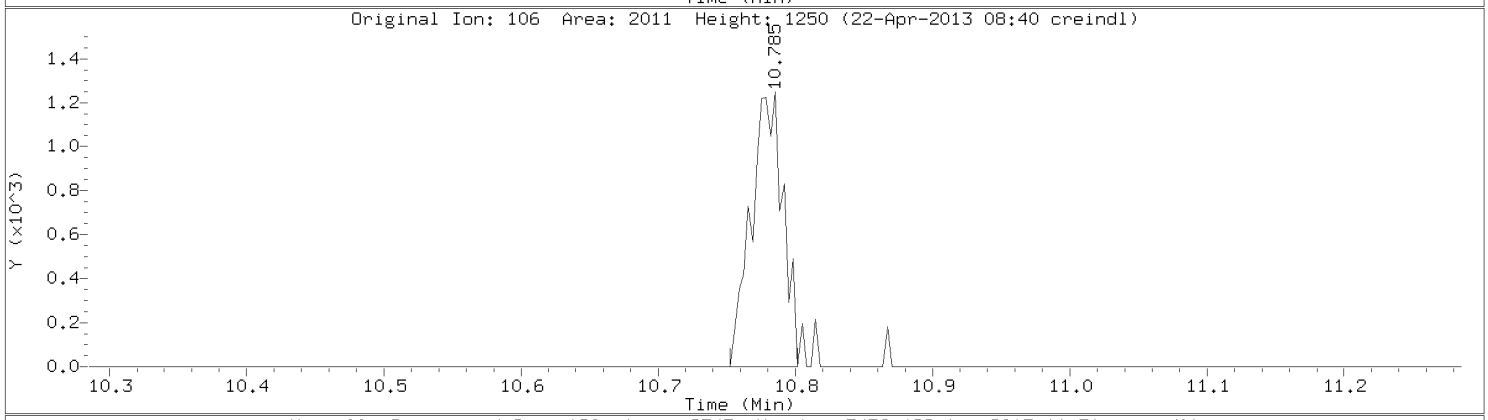


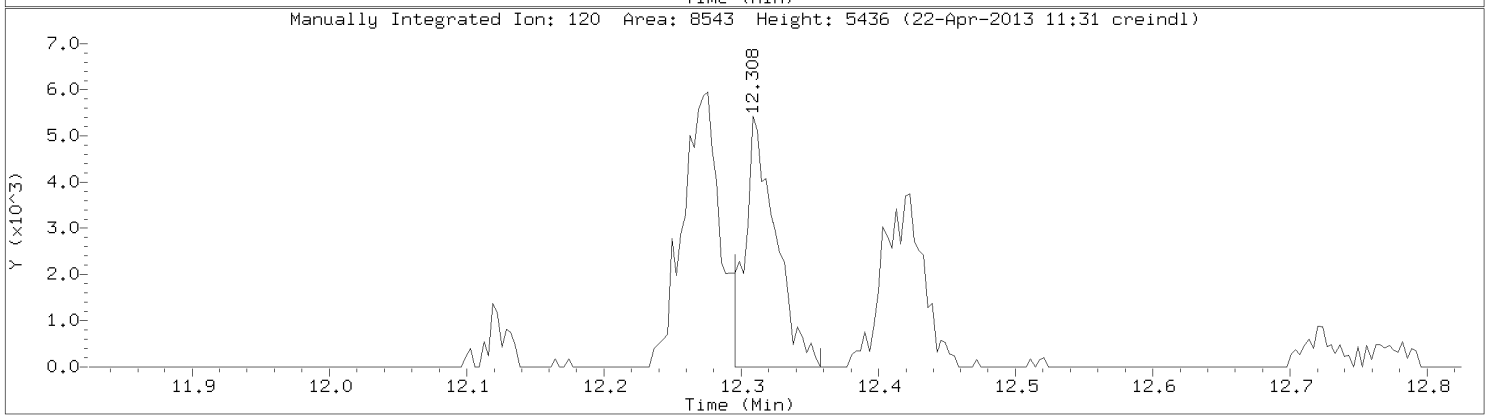
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Injection Date: 21-APR-2013 17:47
Instrument: 10airD.i
Lab Sample ID: 10224616008

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

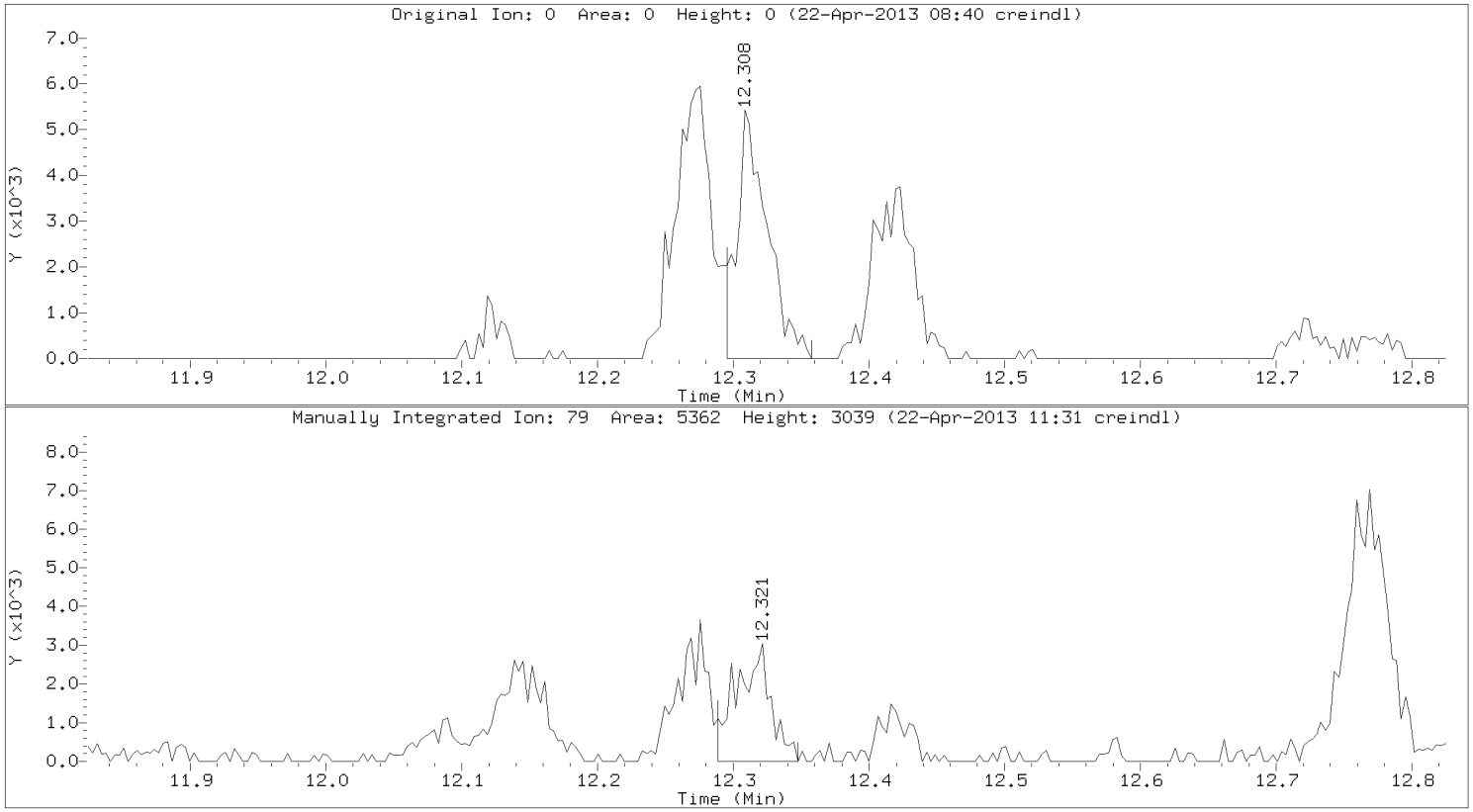






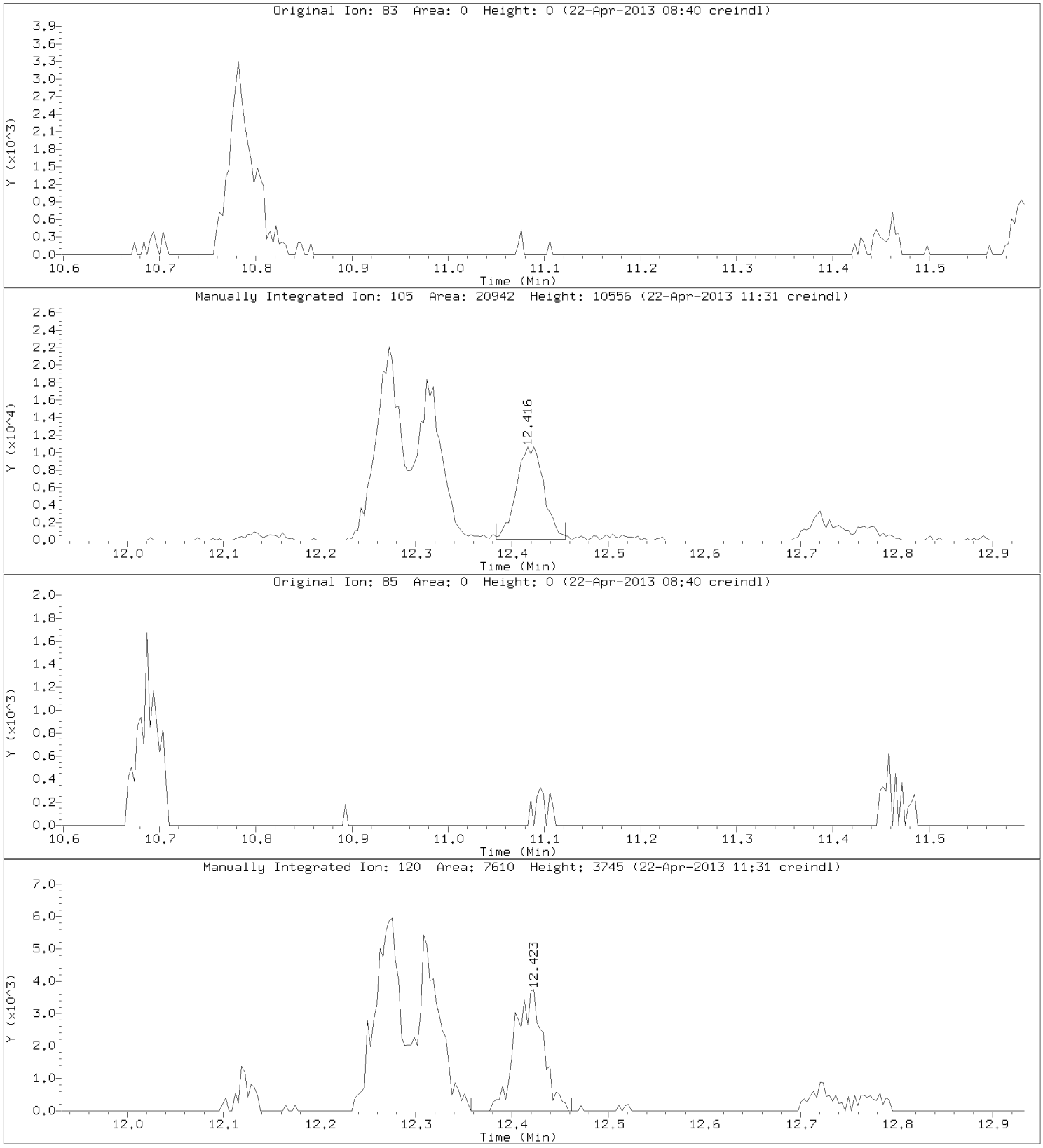


Data File: \\192.168.10.12\chem\10airD.i\042113.b/11120.d
Injection Date: 21-APR-2013 17:47
Instrument: 10airD.i
Lab Sample ID: 10224616008



Data File: \\192.168.10.12\chem\10airD.i\042113.b/11120.d
Injection Date: 21-APR-2013 17:47
Instrument: 10airD.i
Lab Sample ID: 10224616008

Compound: 1,3,5-Trimethylbenzene
CAS Number: 108-67-8



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.d
Report Date: 19-Apr-2013 07:42

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10823.d
Lab Smp Id: 10224616009
Inj Date : 18-APR-2013 22:38
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17165
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 19-Apr-2013 07:11 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 23
Dil Factor: 1.55000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.550	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	2.920	2.924	(0.482)	42394	2.69157	4.17
2	Dichlorodifluoromethane	85	2.947	2.950	(0.486)	49179	0.26798	0.415
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	Compound Not Detected.					
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	Compound Not Detected.					
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	3.430	3.424	(0.566)	37067	1.36002	2.11(M)
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	3.646	3.643	(0.602)	20949	0.12550	0.194(M)
13	Acetone	43	3.679	3.673	(0.607)	195309	2.09504	3.25(M)
14	Isopropyl Alcohol	45	Compound Not Detected.					
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	Compound Not Detected.					
19	Methylene chloride	49	4.048	4.045	(0.668)	67441	1.36569	2.12
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	Compound Not Detected.					
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.d
Report Date: 19-Apr-2013 07:42

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ppbv)	FINAL (ppbv)
	24	Vinyl Acetate	43	Compound Not Detected.					
	25	1,1-Dichloroethane	63	Compound Not Detected.					
$	26	Hexane-d14(S)	66	4.659	4.660	(0.769)	652129	8.58798	8.59
	27	Methyl Ethyl Ketone	72	Compound Not Detected.					
	28	n-Hexane	57	4.780	4.777	(0.789)	267875	3.77818	5.86(Q)
	29	cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30	Ethyl Acetate	43	Compound Not Detected.					
	31	Chloroform	83	Compound Not Detected.					
	32	Tetrahydrofuran	42	Compound Not Detected.					
	33	1,1,1-Trichloroethane	97	Compound Not Detected.					
	34	1,2-Dichloroethane	62	Compound Not Detected.					
	35	Benzene	78	5.849	5.856	(0.965)	193145	1.24364	1.93
	36	Carbon tetrachloride	117	Compound Not Detected.					
	37	Cyclohexane	56	5.898	5.882	(0.973)	81051	1.64705	2.55(QM)
*	38	1,4-Difluorobenzene	114	6.062	6.069	(1.000)	1704600	10.0000	
	39	2,2,4-Trimethylpentane	57	6.241	6.245	(1.030)	381215	2.41042	3.74
	40	Heptane	43	6.411	6.415	(1.058)	180402	3.46698	5.37
	41	1,2-Dichloropropane	63	Compound Not Detected.					
	42	Trichloroethene	130	6.509	6.510	(1.074)	9519	0.22836	0.354
	43	1,4-Dioxane	88	Compound Not Detected.					
	44	Bromodichloromethane	83	Compound Not Detected.					
	45	Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46	cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47	trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48	Toluene-d8 (S)	98	7.827	7.837	(1.291)	1569210	10.0561	10.0
	49	Toluene	91	7.915	7.925	(1.306)	1805921	8.46181	13.1
	50	1,1,2-Trichloroethane	97	Compound Not Detected.					
	51	Methyl Butyl Ketone	43	Compound Not Detected.					
	52	Dibromochloromethane	129	Compound Not Detected.					
	53	1,2-Dibromoethane	107	Compound Not Detected.					
	54	Tetrachloroethene	166	8.902	8.909	(0.920)	279094	3.76919	5.84
*	55	Chlorobenzene - d5	117	9.677	9.684	(1.000)	966759	10.0000	
	56	Chlorobenzene	112	Compound Not Detected.					
	57	Ethyl Benzene	91	10.030	10.040	(1.036)	360118	1.70276	2.64
	58	m&p-Xylene	91	10.196	10.210	(1.054)	1530997	8.26289	12.8
	59	Bromoform	173	Compound Not Detected.					
	60	Styrene	104	10.700	10.707	(1.106)	64545	0.85287	1.32
	61	o-Xylene	91	10.772	10.785	(1.113)	431083	2.23431	3.46
	62	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63	Isopropylbenzene	105	Compound Not Detected.					
	64	N-Propylbenzene	91	Compound Not Detected.					
	65	4-Ethyltoluene	105	12.315	12.328	(1.273)	193269	1.00293	1.55(M)
	66	1,3,5-Trimethylbenzene	105	12.416	12.433	(1.283)	192191	1.06726	1.65
	67	1,2,4-Trimethylbenzene	105	13.017	13.028	(1.345)	629986	3.37067	5.22
	68	1,3-Dichlorobenzene	146	Compound Not Detected.					
	69	Sec- Butylbenzene	105	Compound Not Detected.					
$	70	1,4-dichlorobenzene-d4 (S)	150	13.449	13.466	(1.390)	512592	9.43608	9.44
	71	Benzyl Chloride	91	Compound Not Detected.					
	72	1,4-Dichlorobenzene	146	Compound Not Detected.					
	73	1,2-Dichlorobenzene	146	Compound Not Detected.					
	74	N-Butylbenzene	91	Compound Not Detected.					
	75	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76	Naphthalene	128	16.871	16.867	(1.743)	7914	0.28148	0.436(M)
	77	Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.d
Report Date: 19-Apr-2013 07:42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.d
Report Date: 19-Apr-2013 07:42

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10823.d
Lab Smp Id: 10224616009
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17165

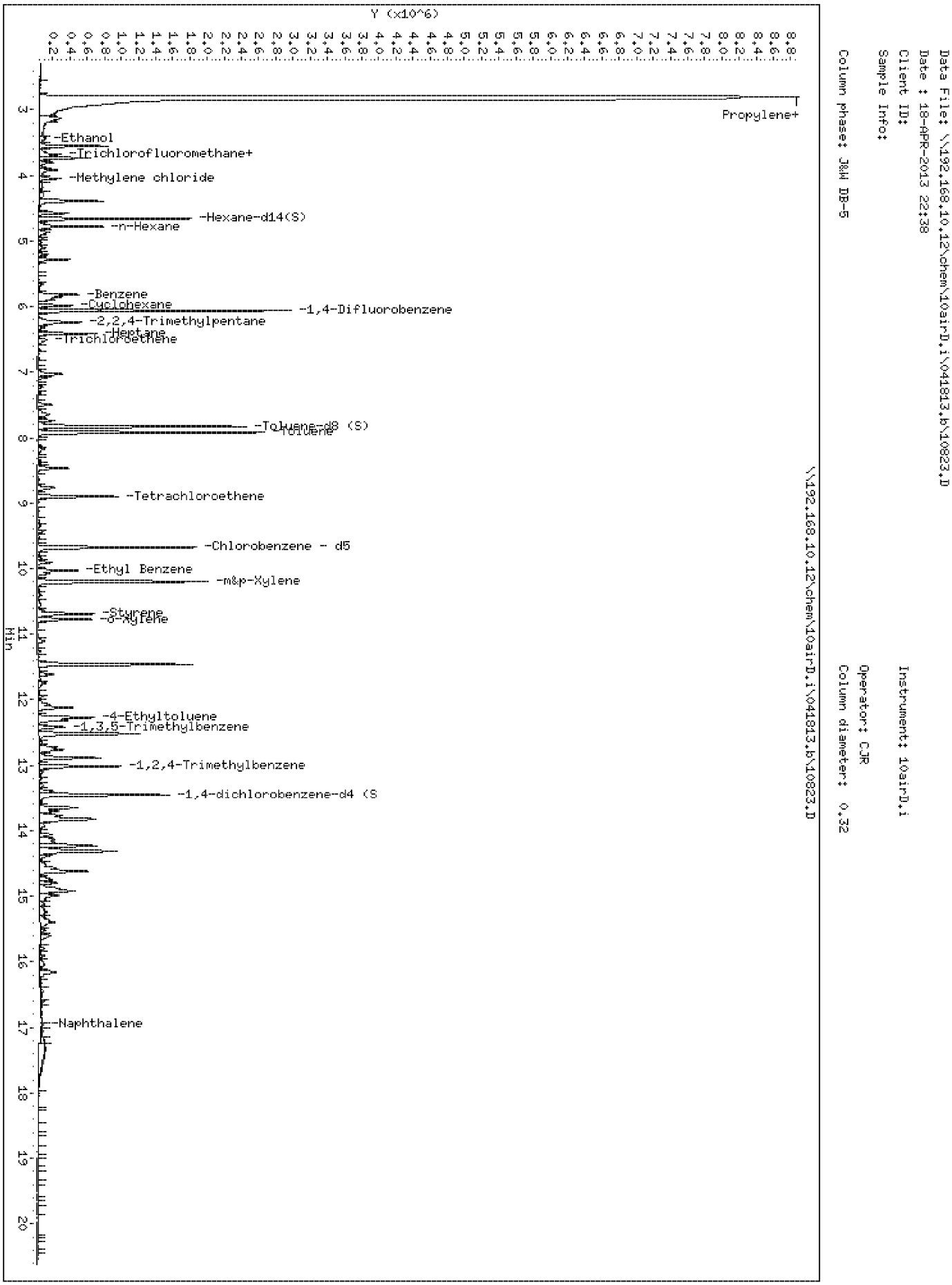
Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1704600	19.00
55 Chlorobenzene - d	825122	495073	1155171	966759	17.17

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.05
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.


Y (x10^6)
Propylene+
-Ethanol
-Trichlorofluoromethane+
-Methylene chloride
-Hexane-d14(S)
-n-Hexane
-Benzene
-Cyclohexane
-1,4-Difluorobenzene
-2,2,4-Trimethylpentane
-Heptane
-Trichloroethene
-Toluene-d8 (S)
-Toluene
-Tetrachloroethene
-Chlorobenzene - d5
-Ethyl Benzene
-m&p-Xylene
-Styrene
-o-Xylene
-4-Ethyltoluene
-1,3,5-Trimethylbenzene
-1,2,4-Trimethylbenzene
-1,4-dichlorobenzene-d4 (S
-Naphthalene
Min
\\192.168.10.12\chem\10airD.i\041813.b\10823.D
Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D
Date : 18-APR-2013 22:38
Client ID:
Sample Info:
Column phase: J&W DB-5
Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

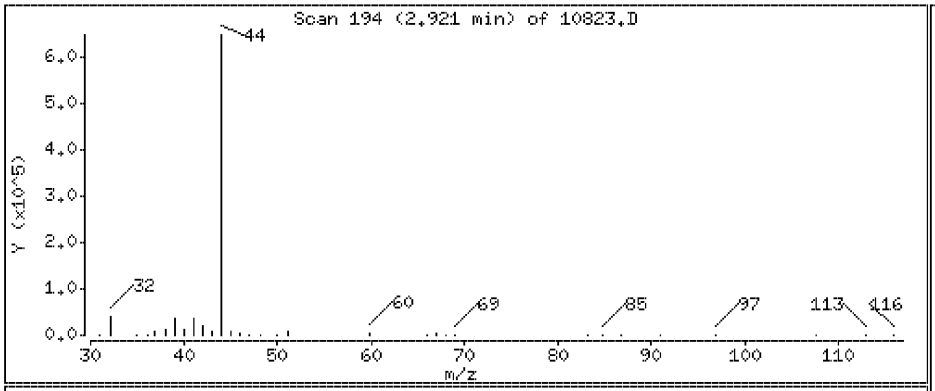
Operator: CJR

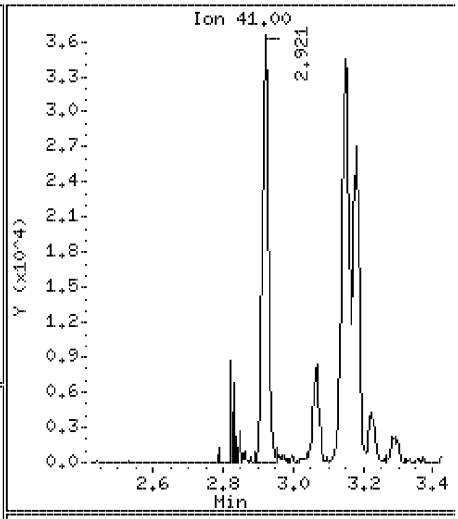
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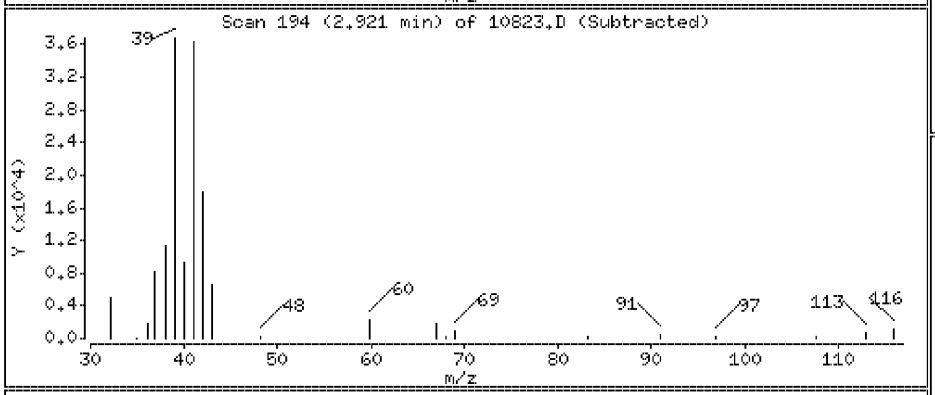
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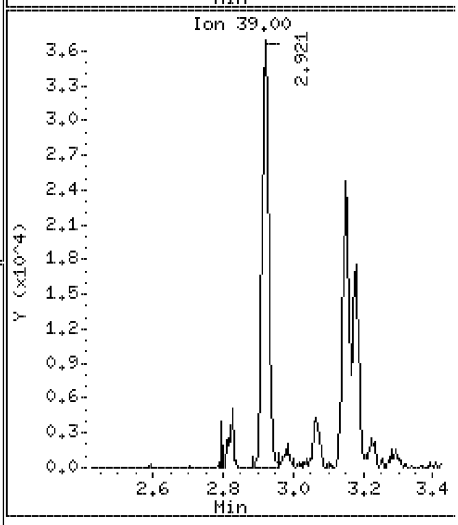
1 Propylene

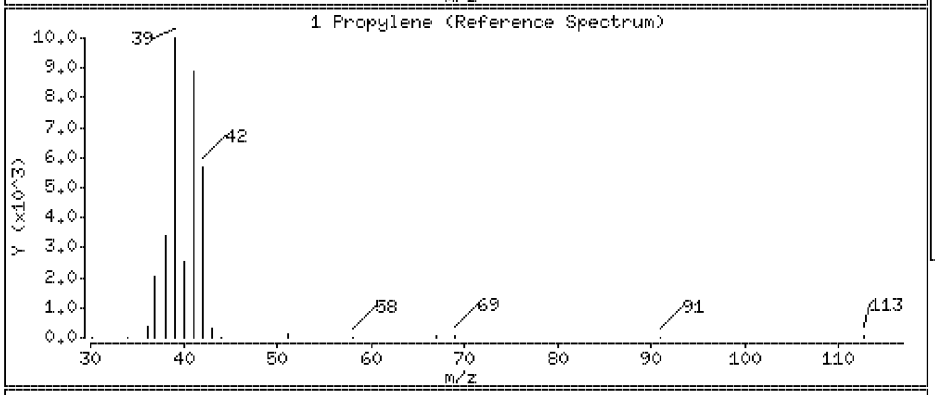
Concentration: 4.17 ppbv

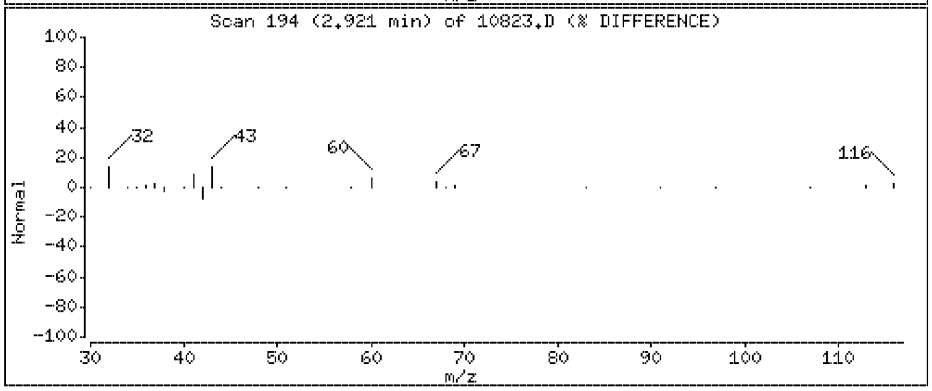












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

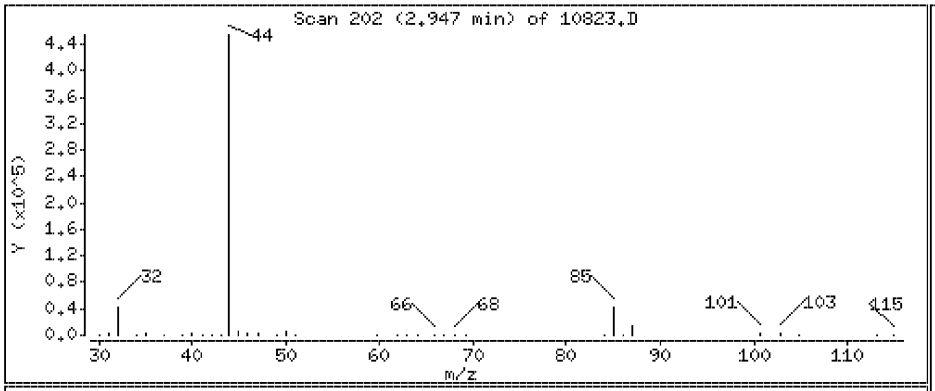
Operator: CJR

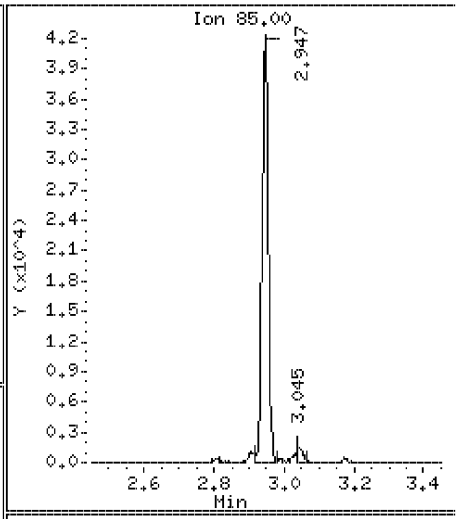
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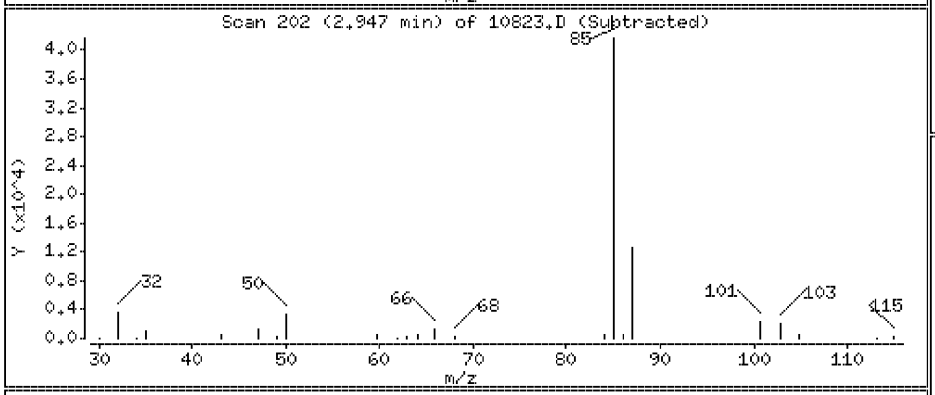
Column diameter: 0.32

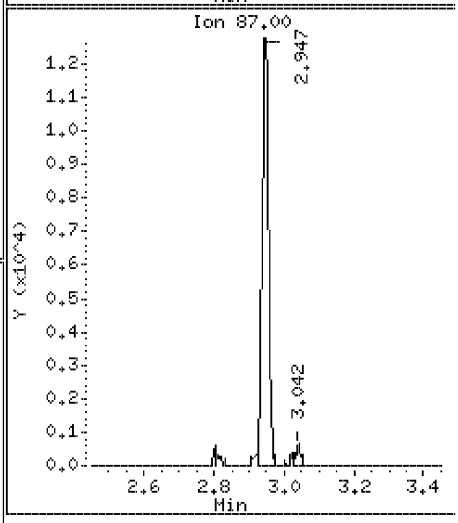
2 Dichlorodifluoromethane

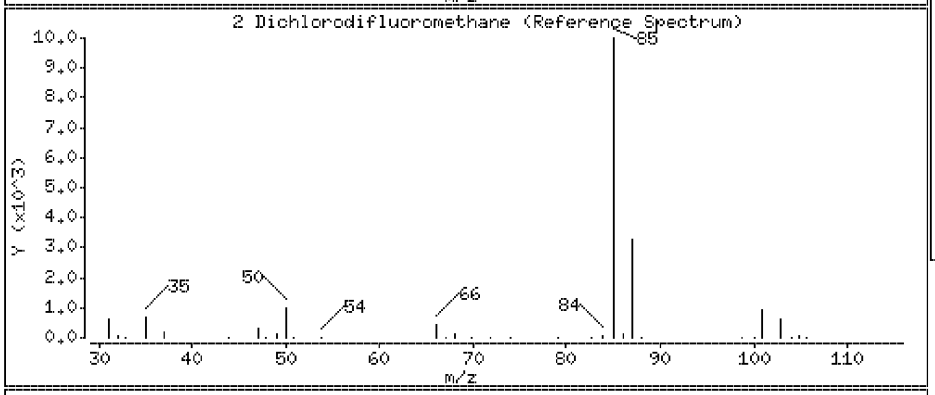
Concentration: 0.415 ppbv

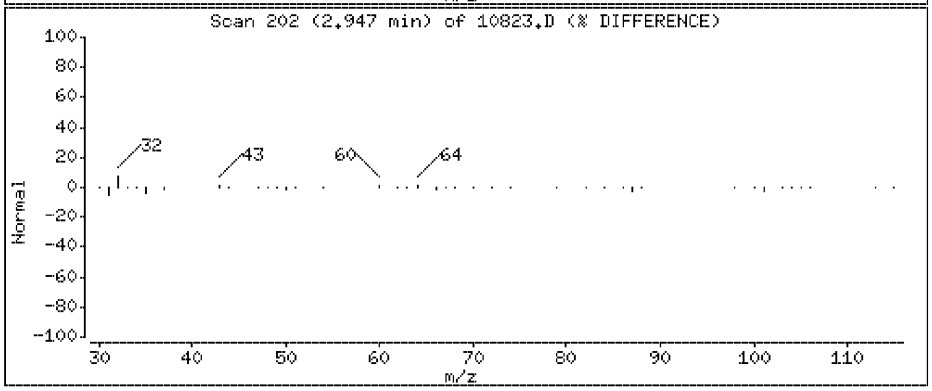












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

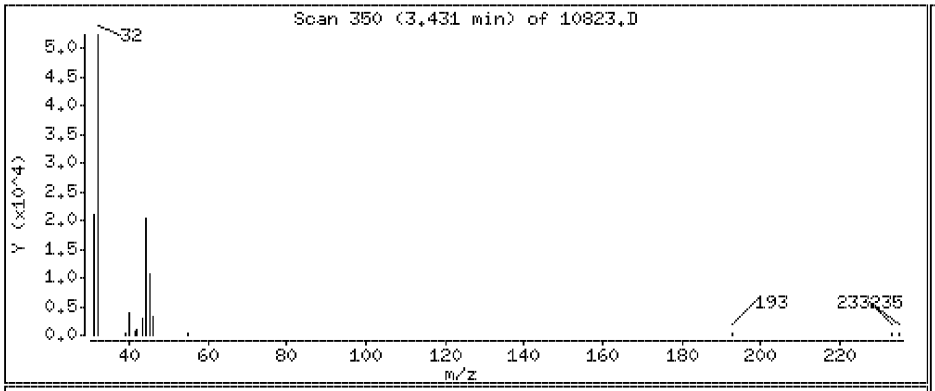
Operator: CJR

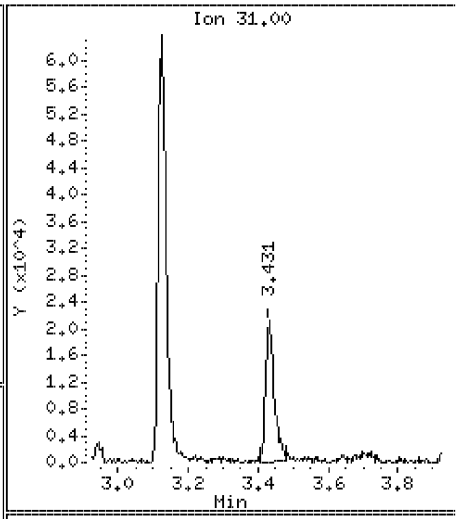
Column phase: J&W DB-5

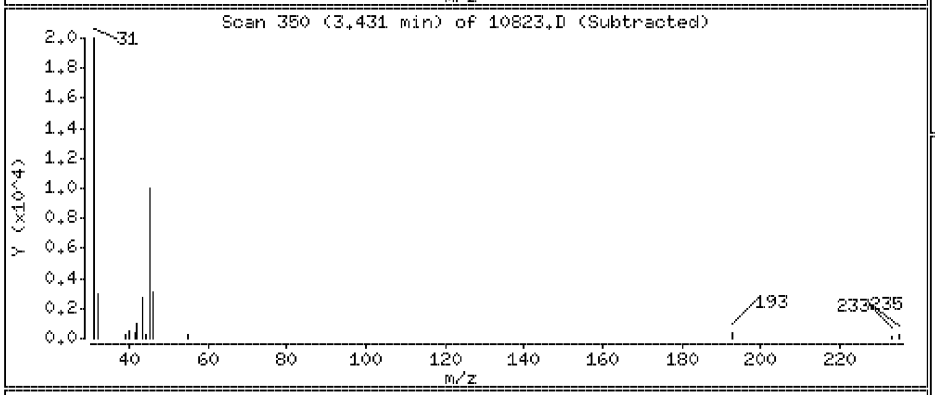
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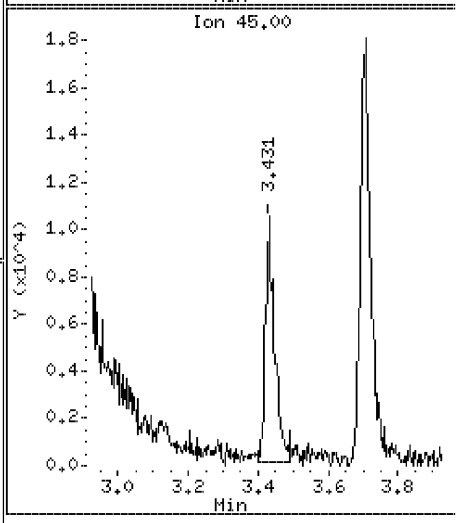
9 Ethanol

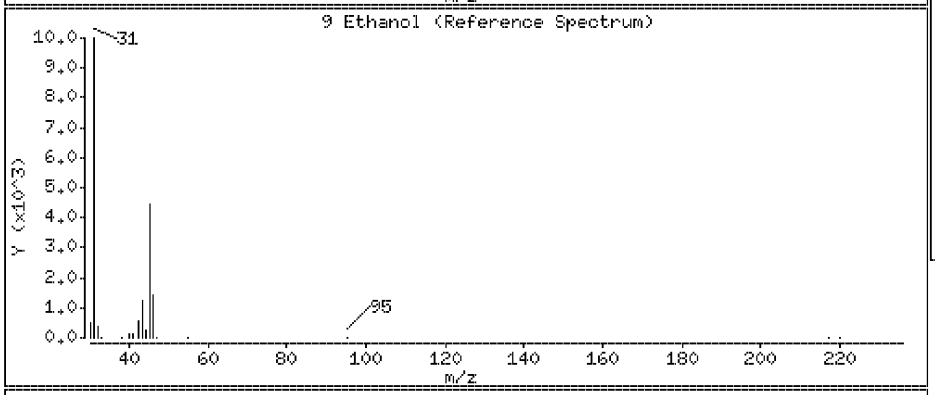
Concentration: 2.11 ppbv

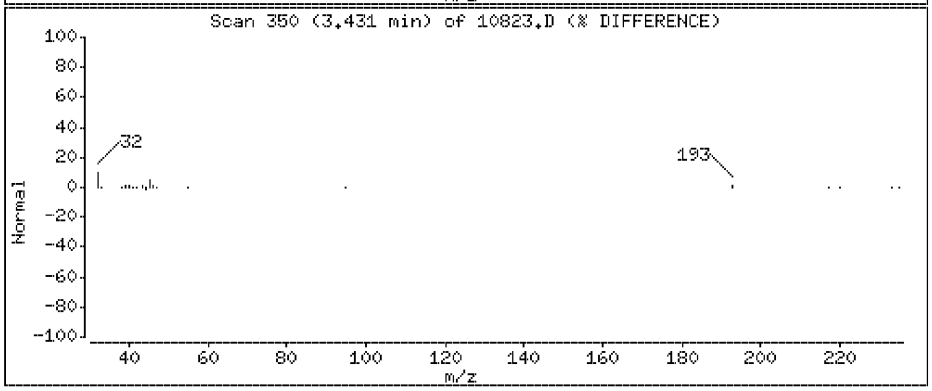












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

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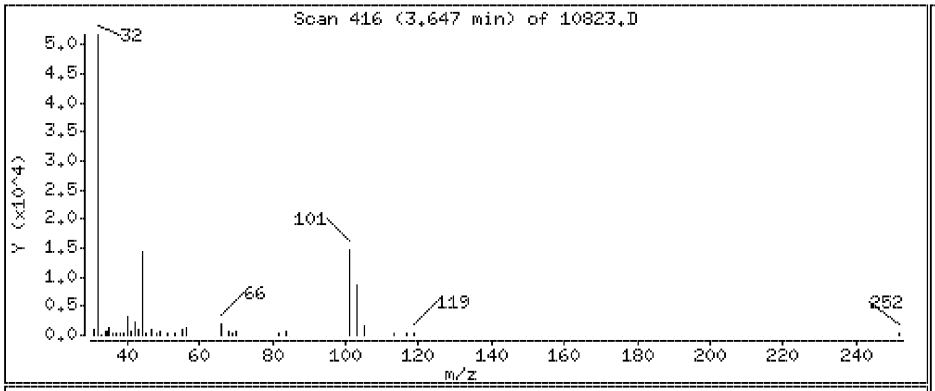
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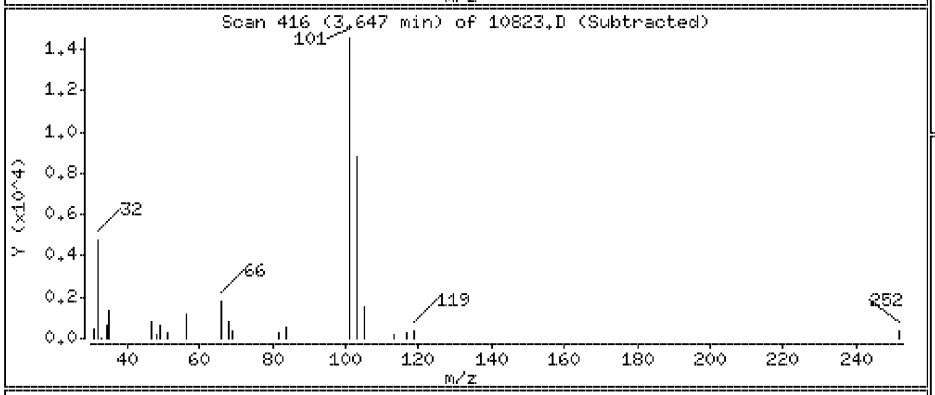
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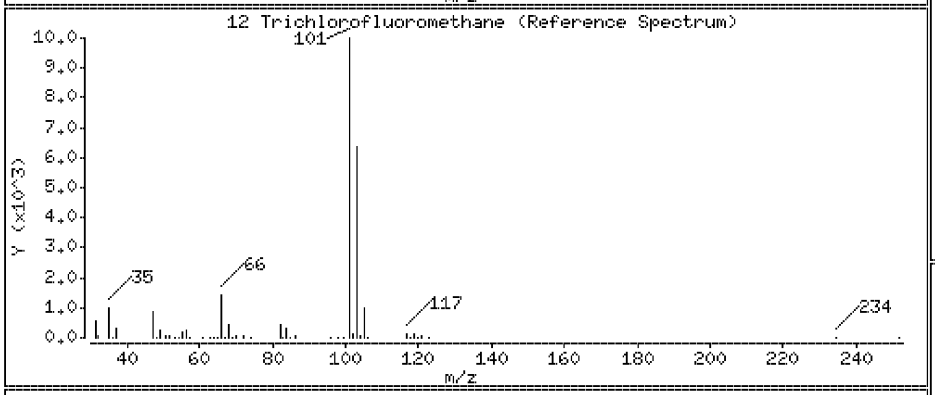
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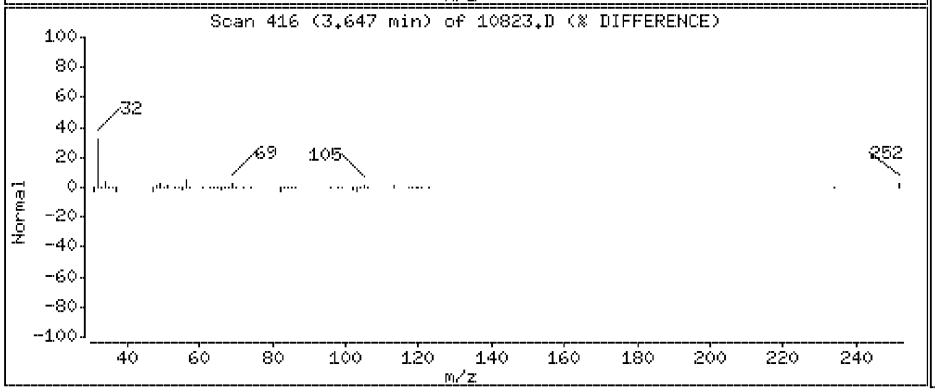
12 Trichlorofluoromethane

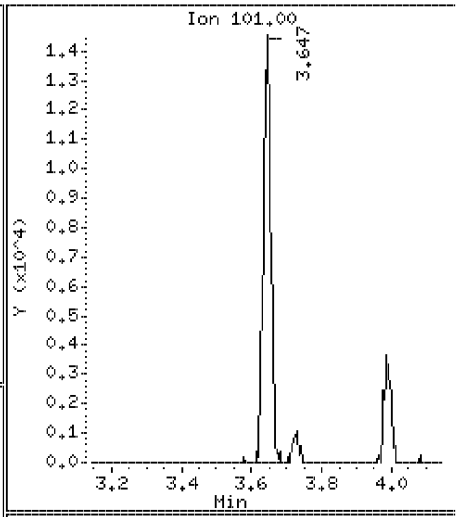
Concentration: 0.194 ppbv

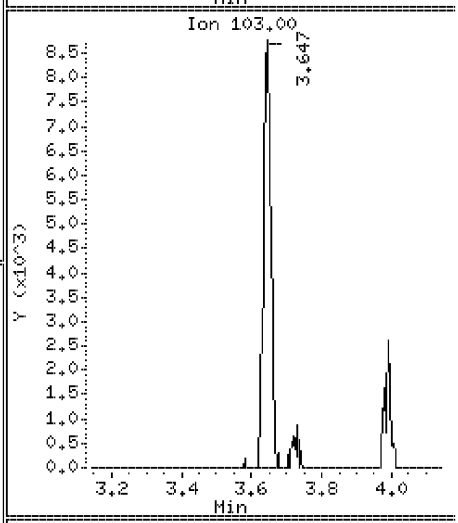


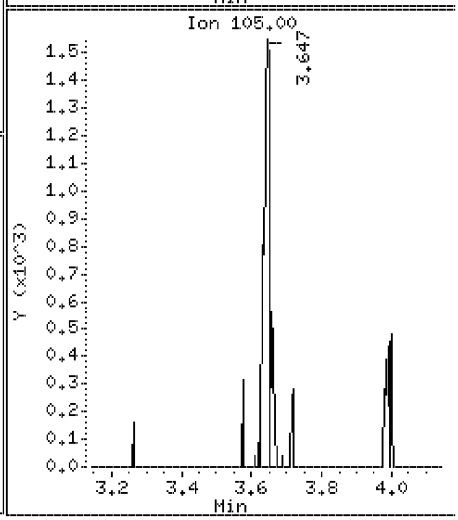












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Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

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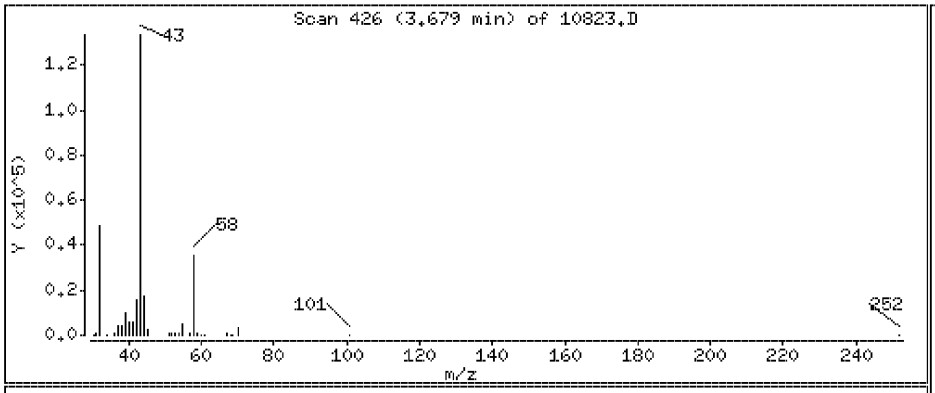
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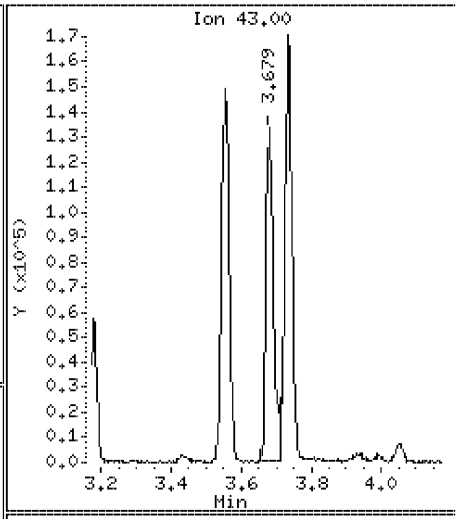
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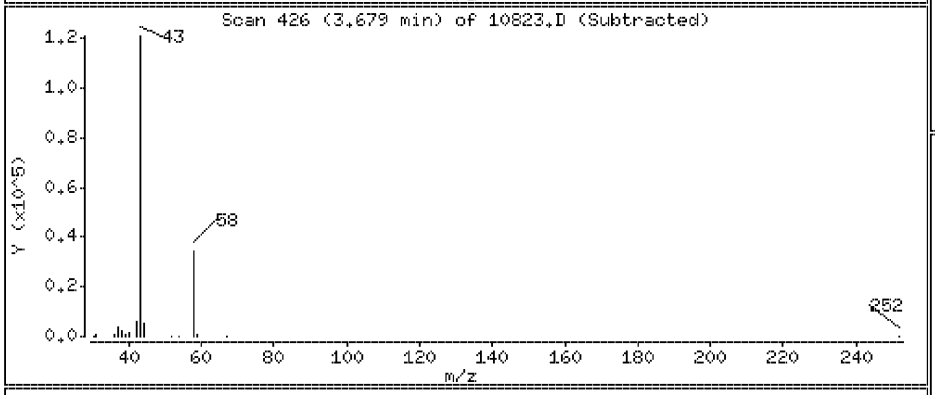
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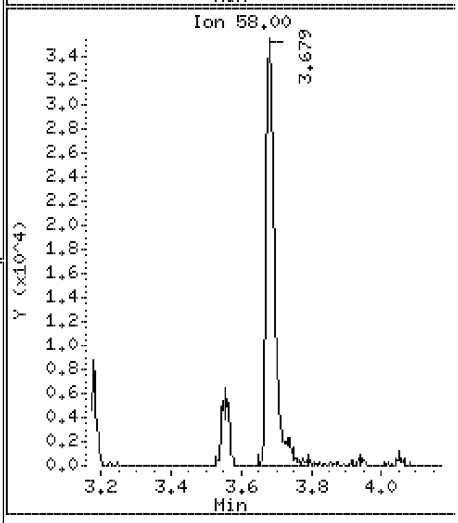
13 Acetone

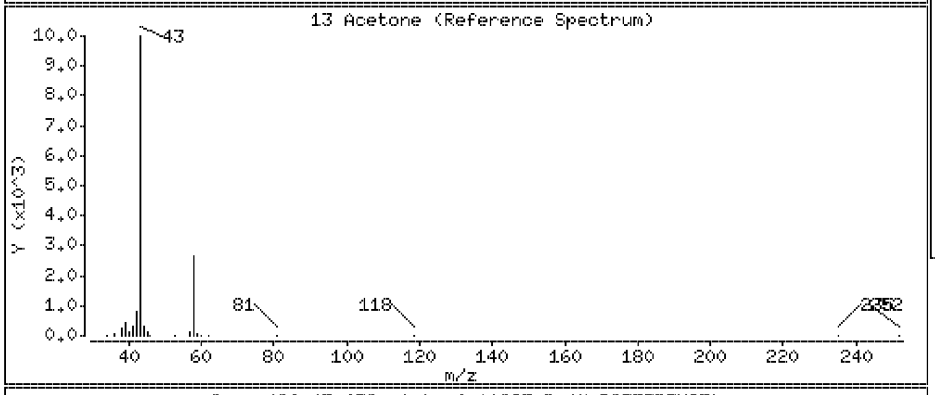
Concentration: 3.25 ppbv

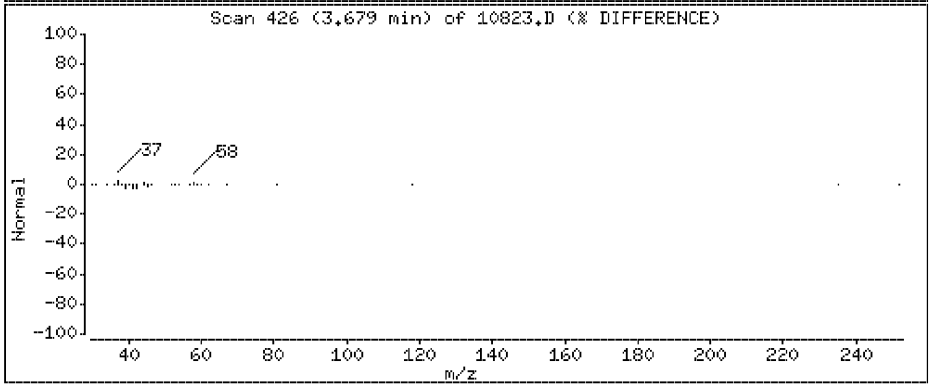












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Date : 18-APR-2013 22:38

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Instrument: 10airD.i

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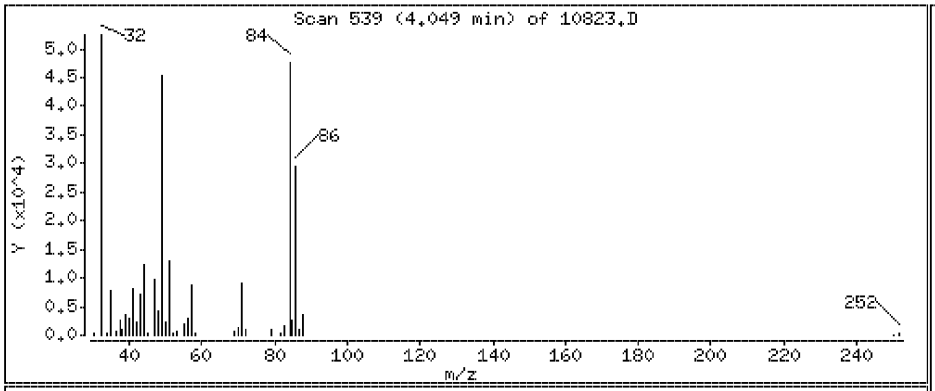
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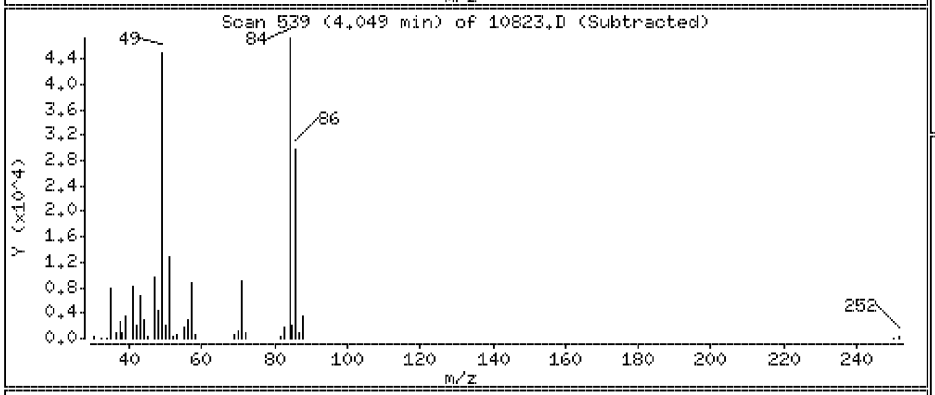
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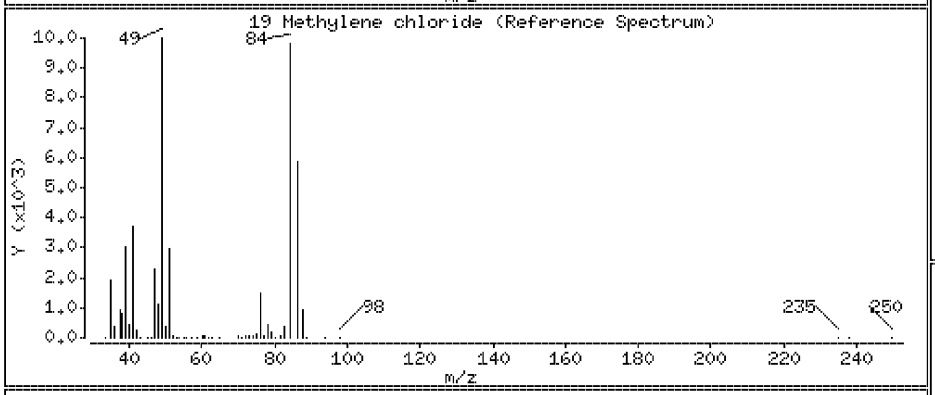
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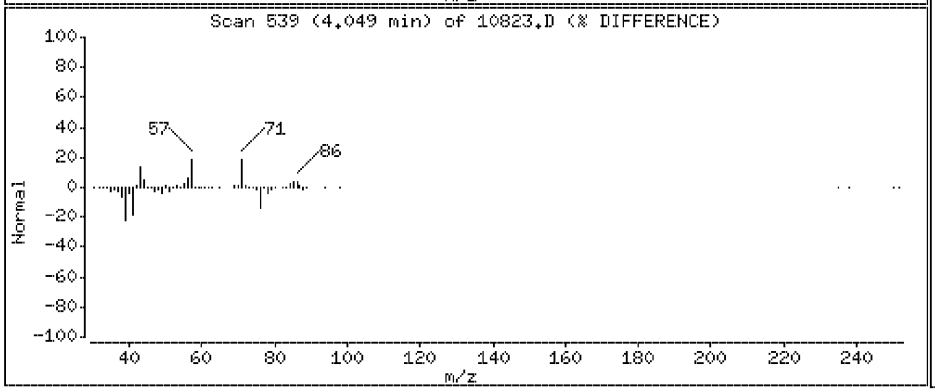
19 Methylene chloride

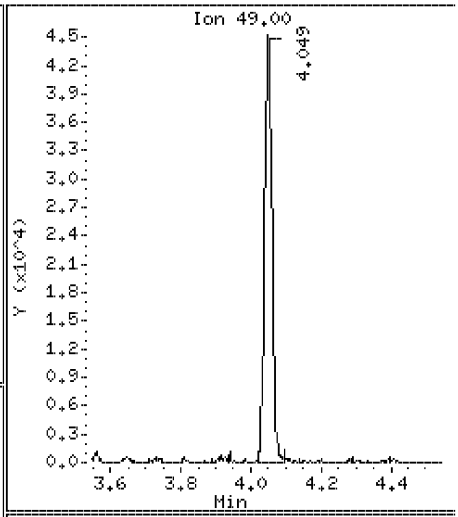
Concentration: 2.12 ppbv

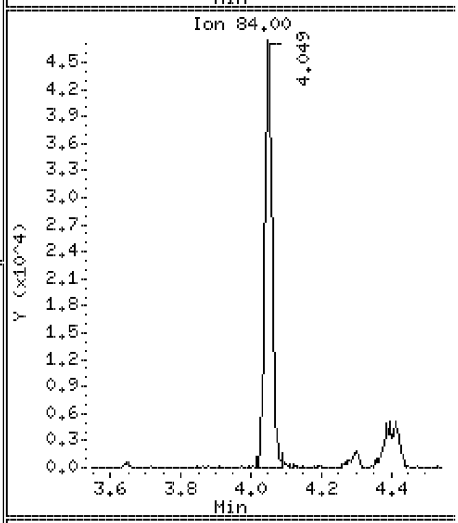


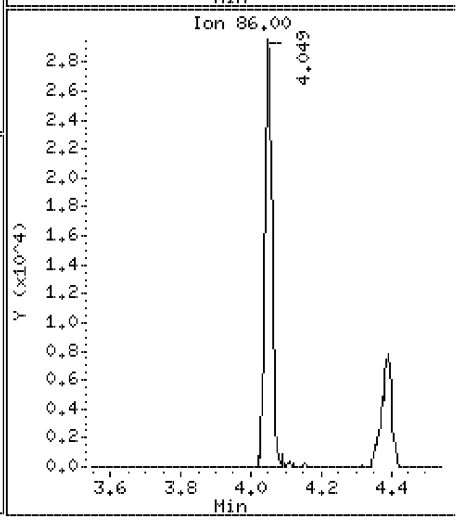












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Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

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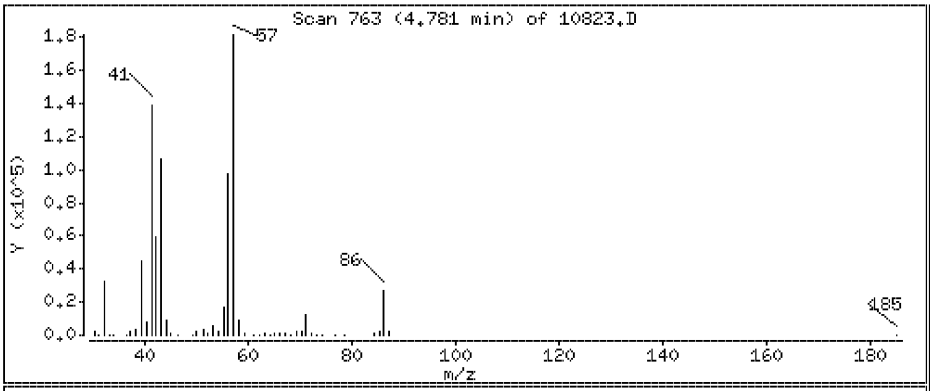
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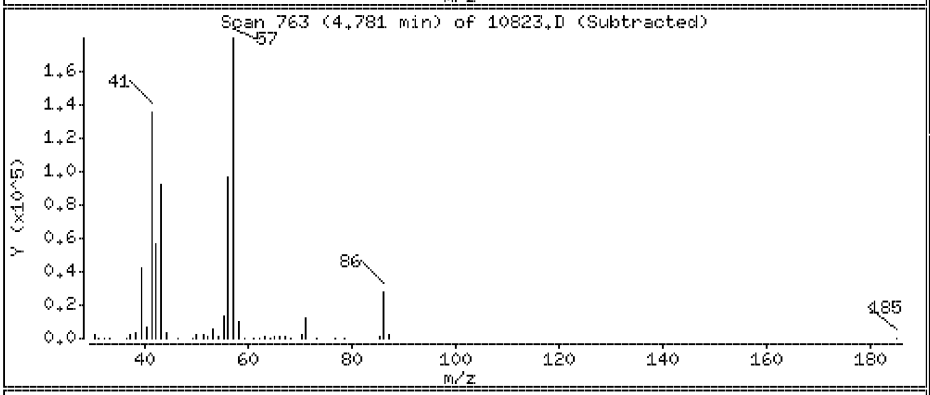
Column phase: J&W DB-5

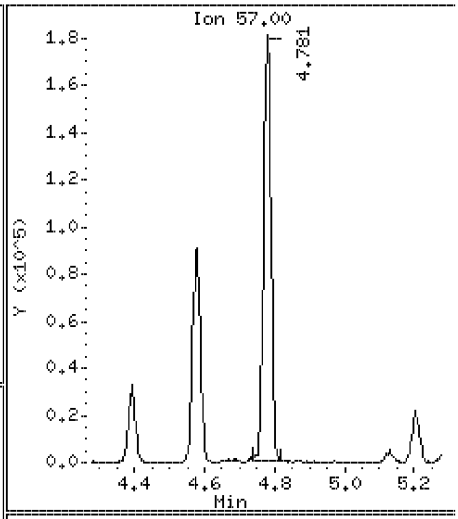
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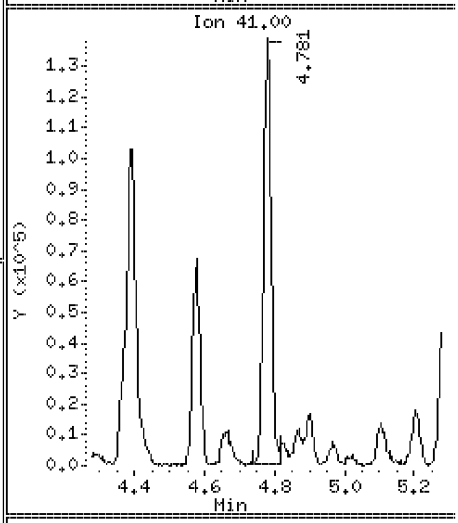
28 n-Hexane

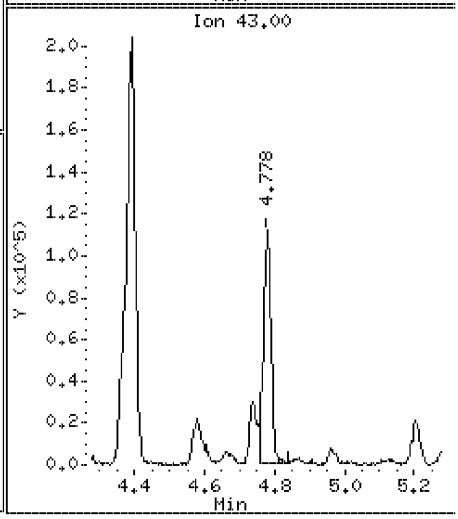
Concentration: 5.86 ppbv











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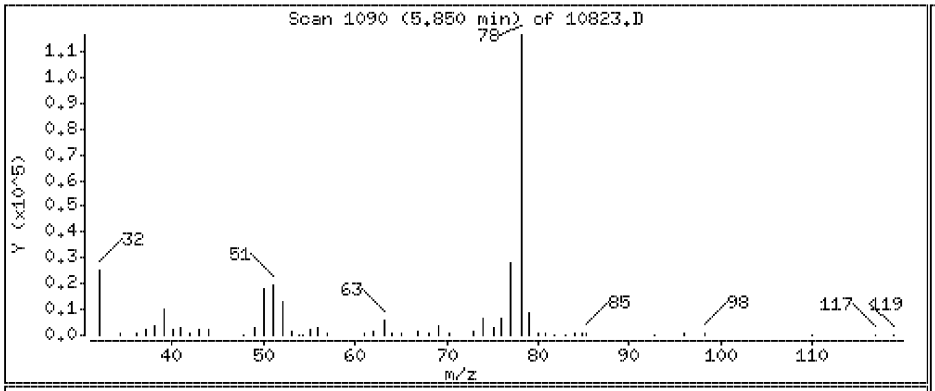
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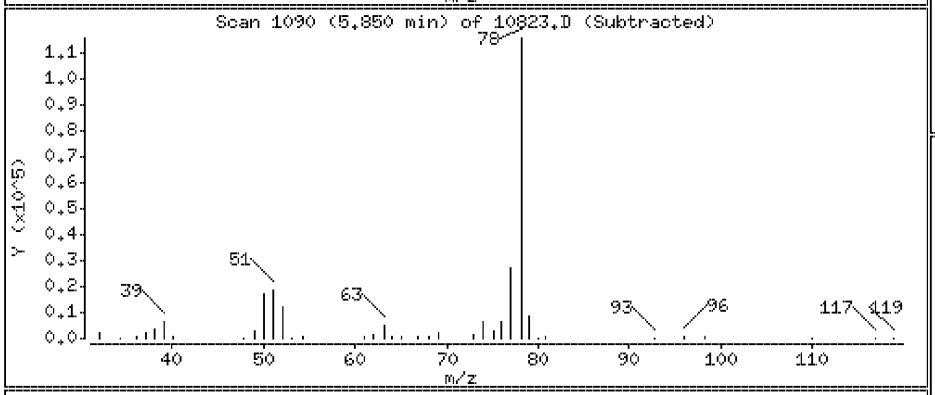
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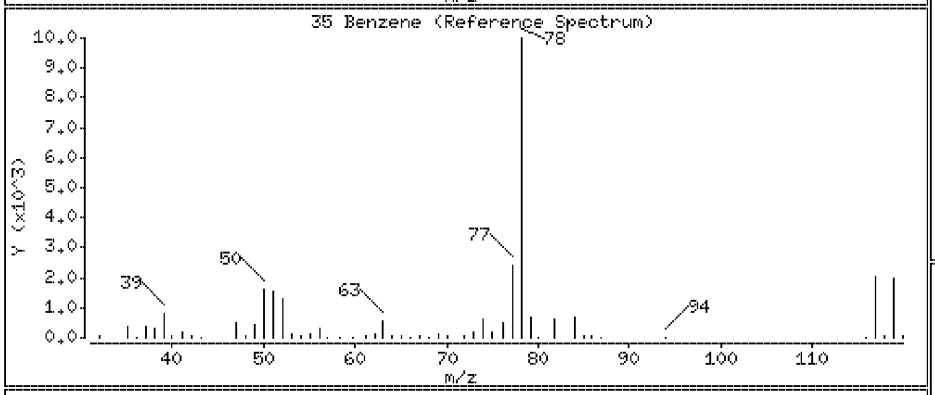
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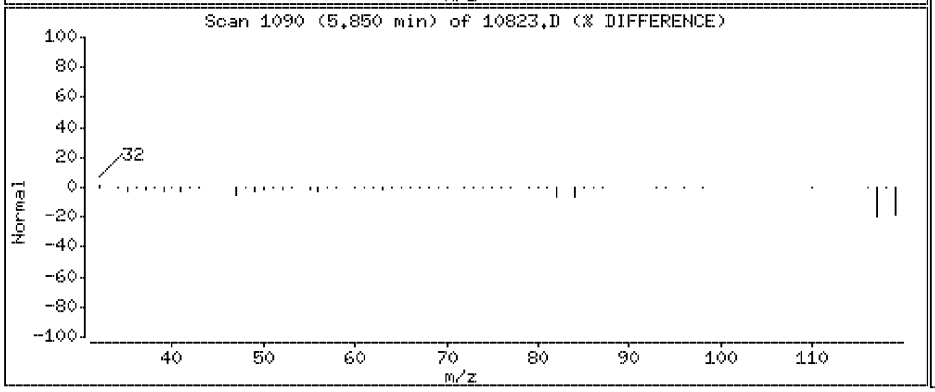
35 Benzene

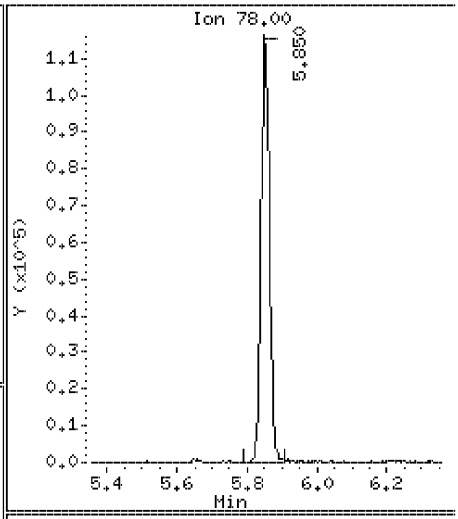
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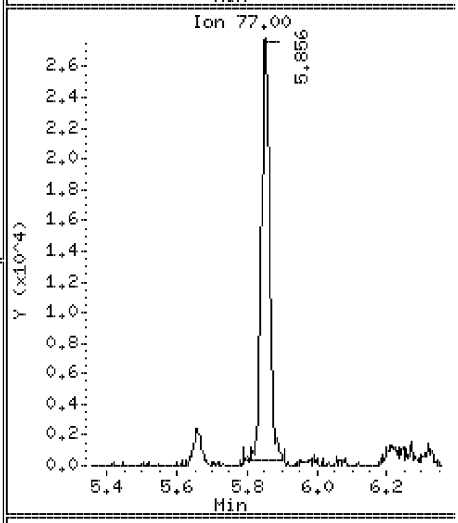


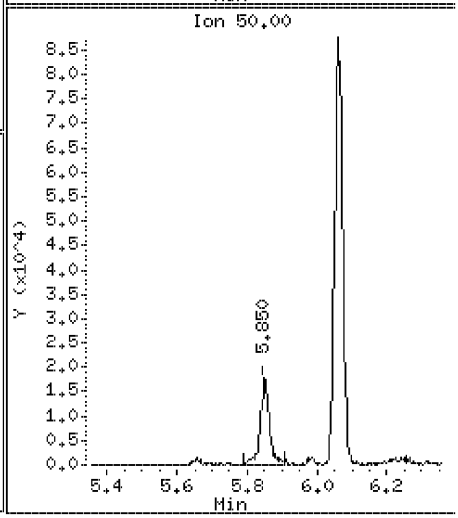












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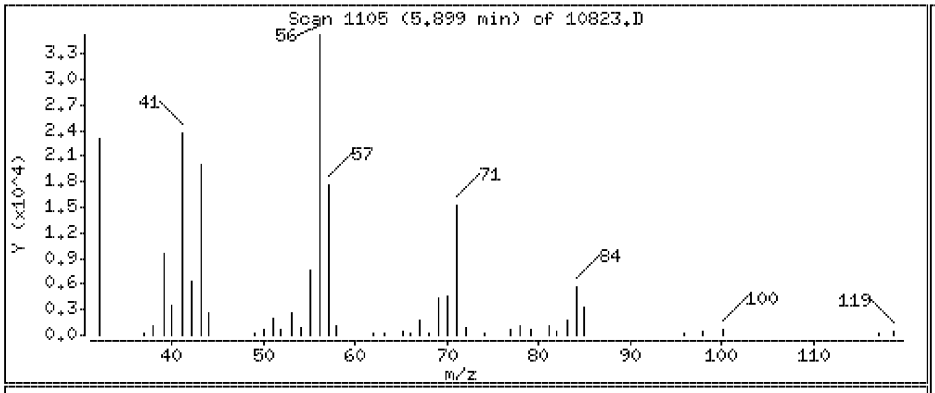
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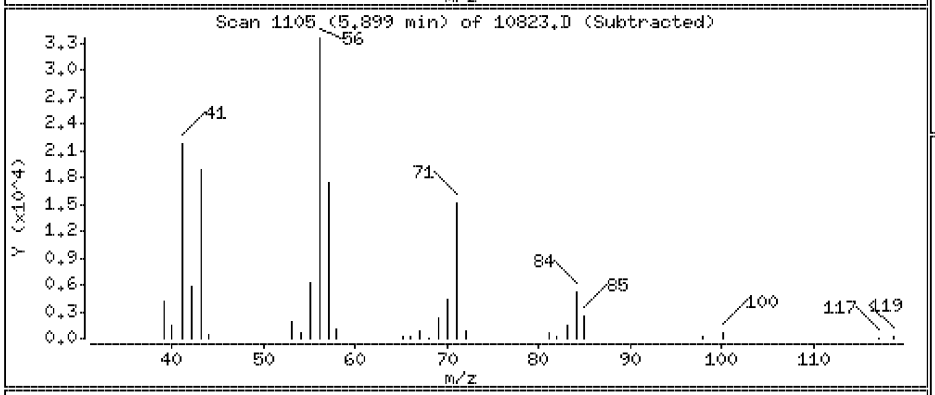
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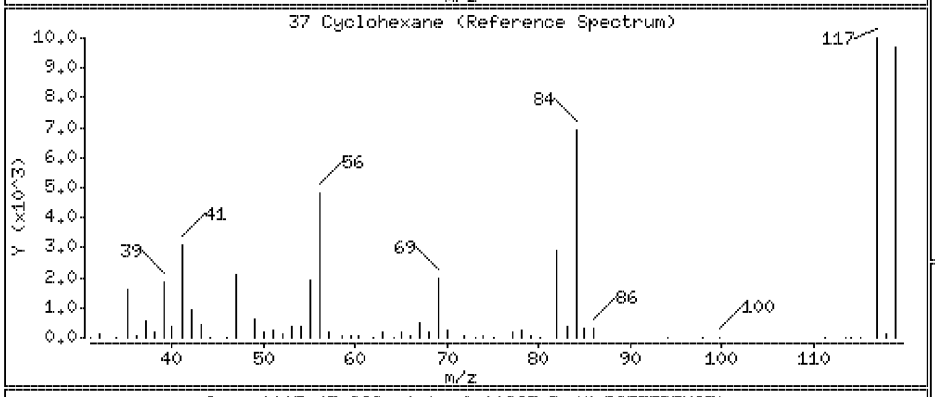
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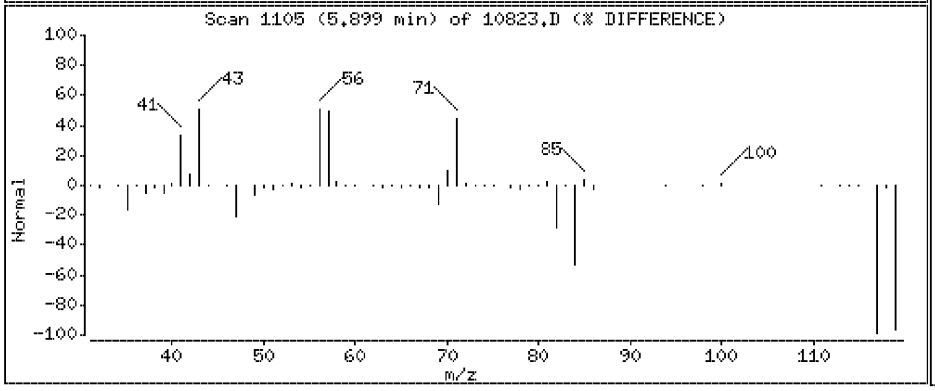
37 Cyclohexane

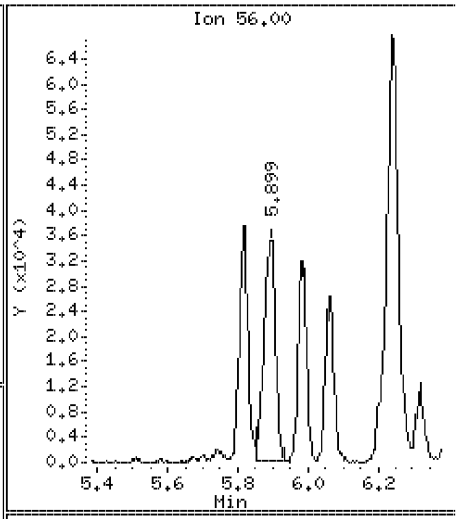
Concentration: 2.55 ppbv

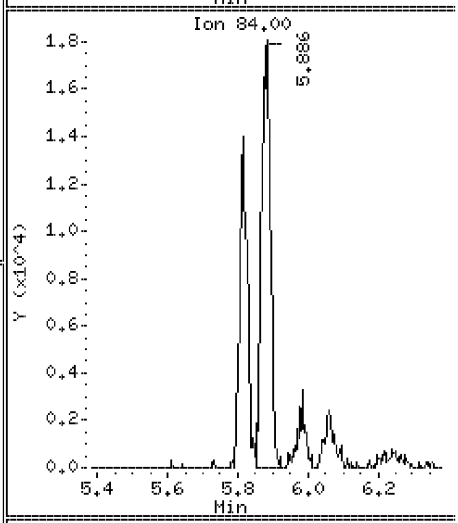


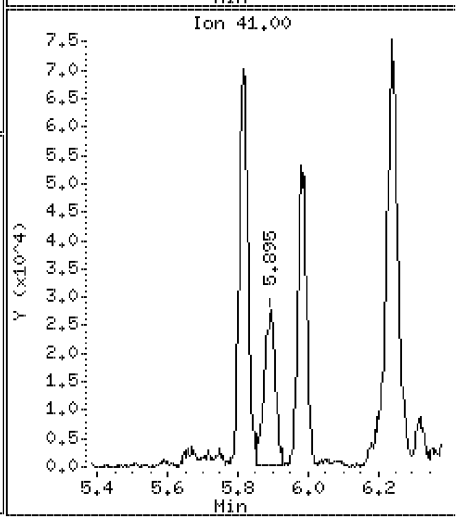












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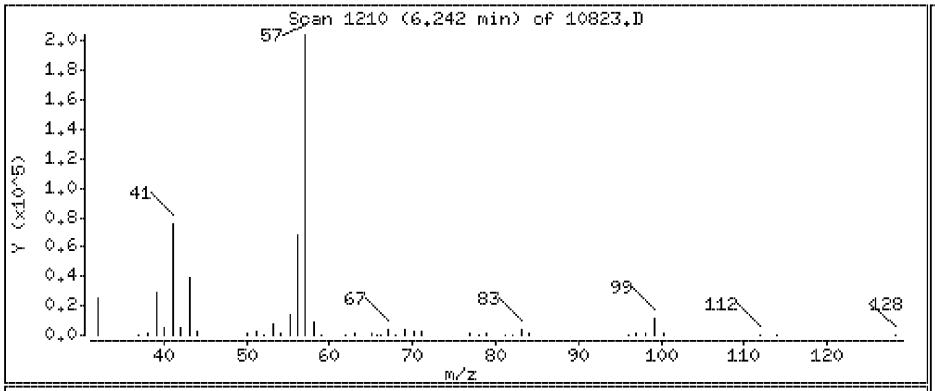
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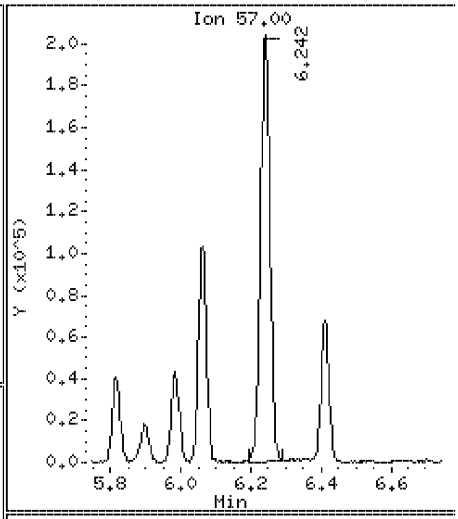
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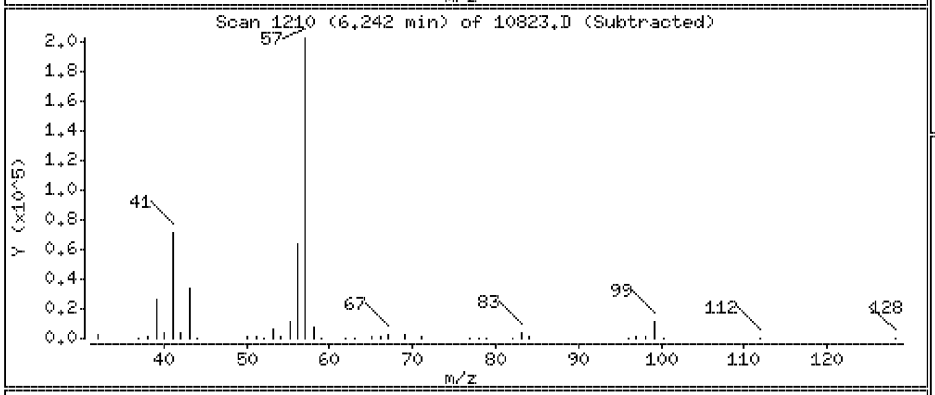
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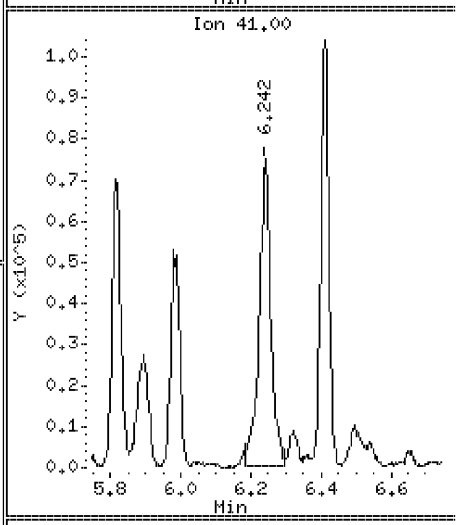
39 2,2,4-Trimethylpentane

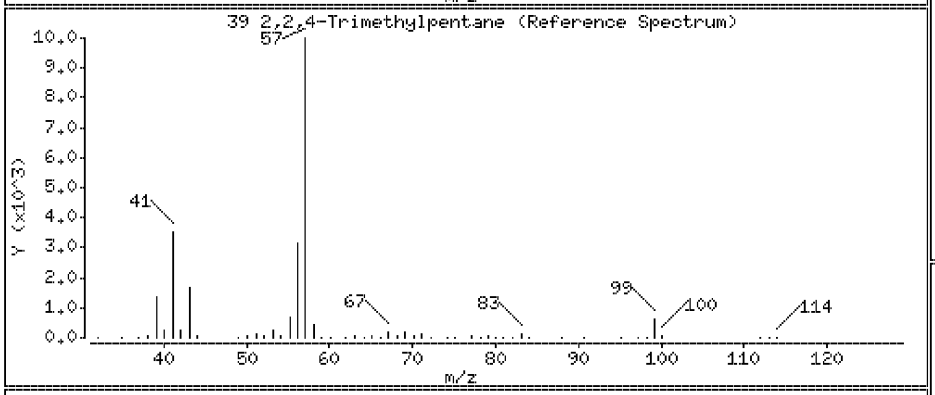
Concentration: 3.74 ppbv

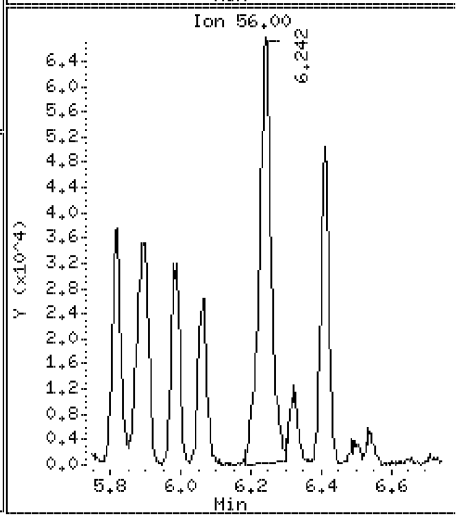


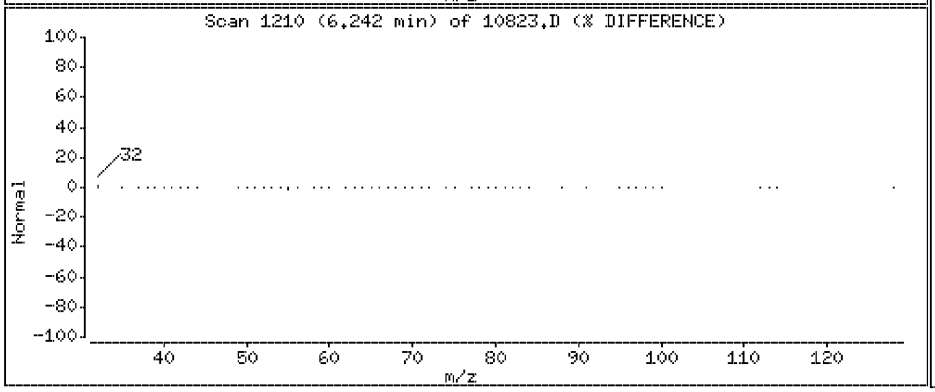












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Date : 18-APR-2013 22:38

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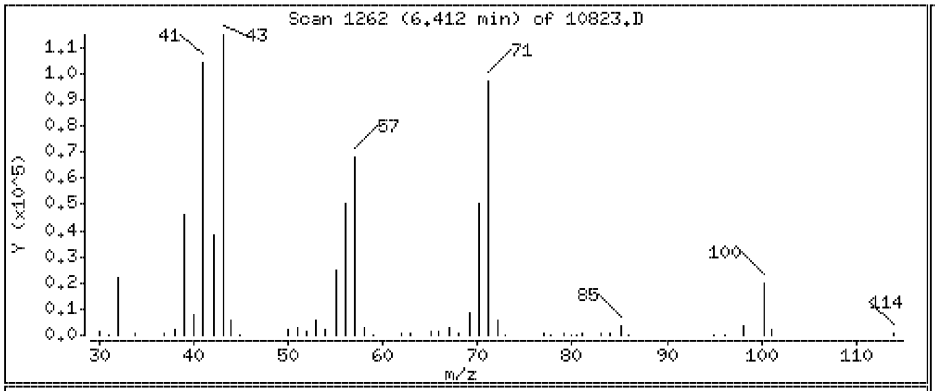
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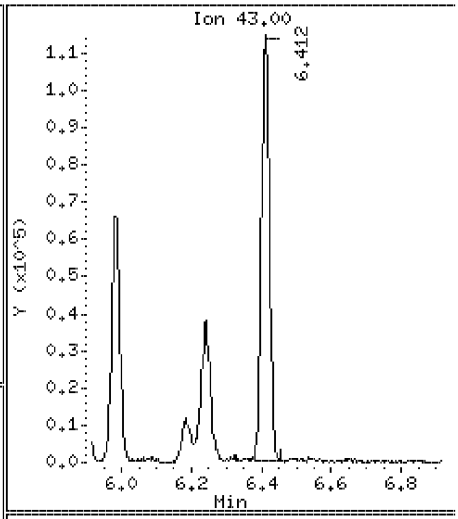
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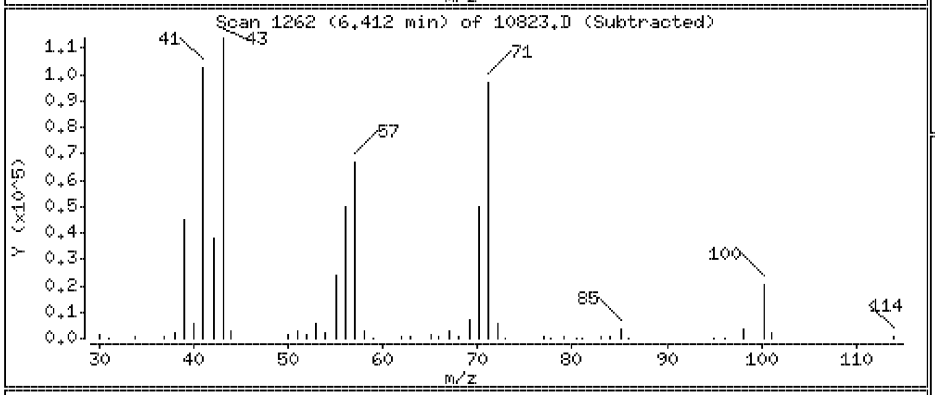
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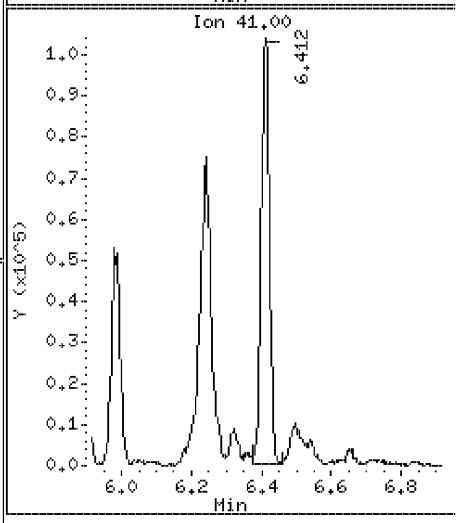
40 Heptane

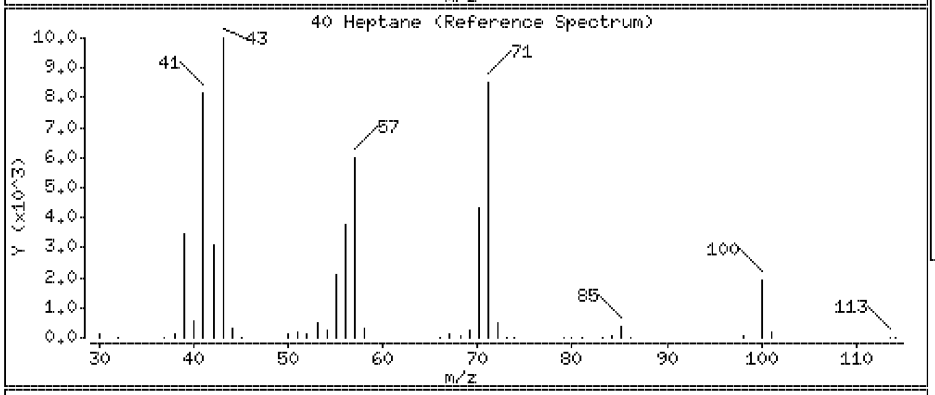
Concentration: 5.37 ppbv

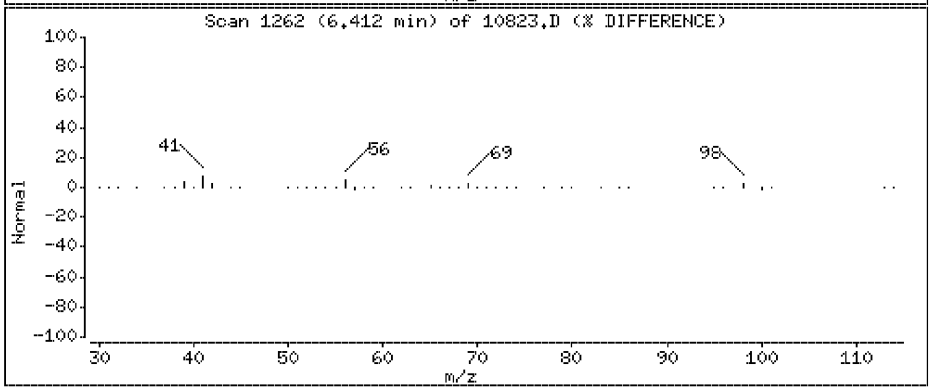












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

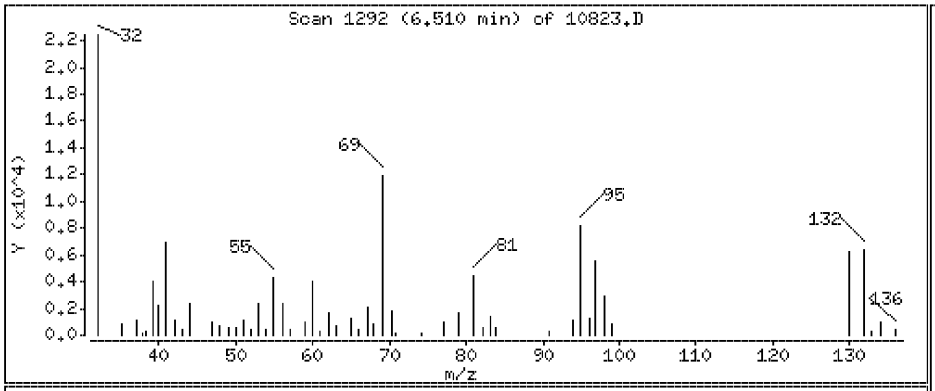
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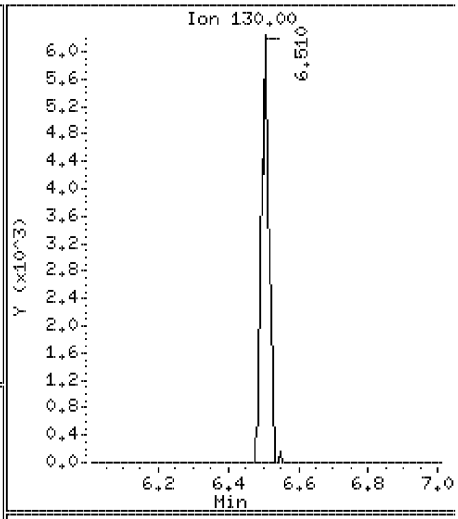
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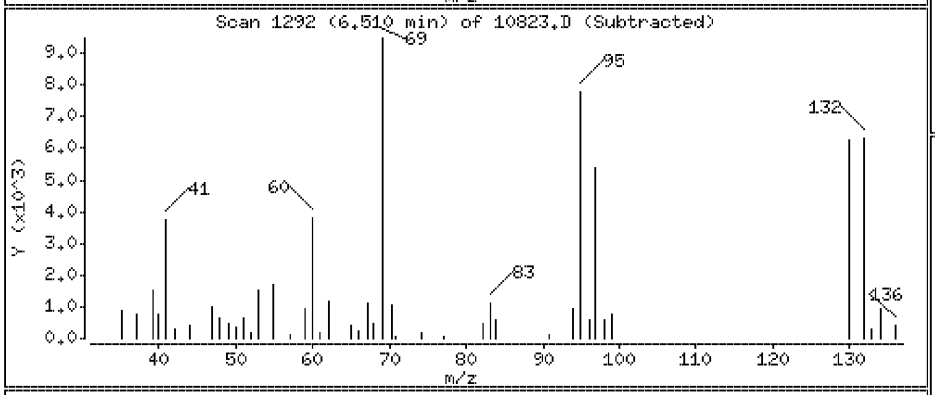
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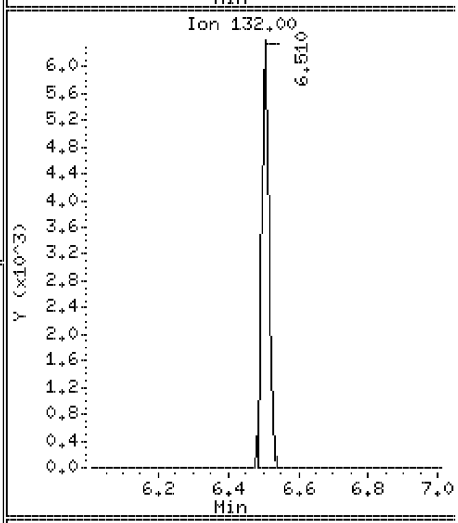
42 Trichloroethene

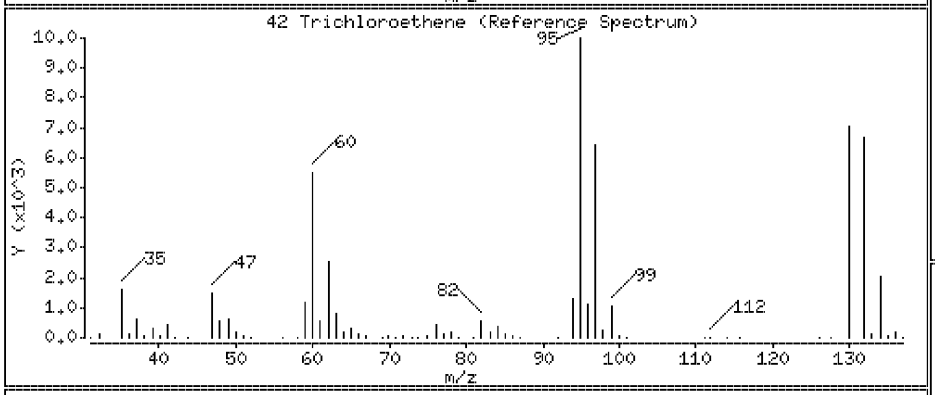
Concentration: 0.354 ppbv

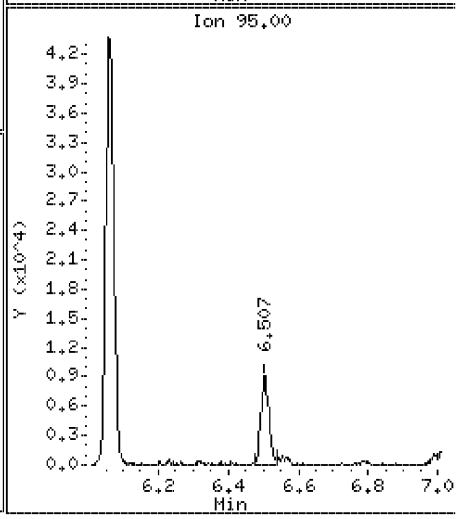


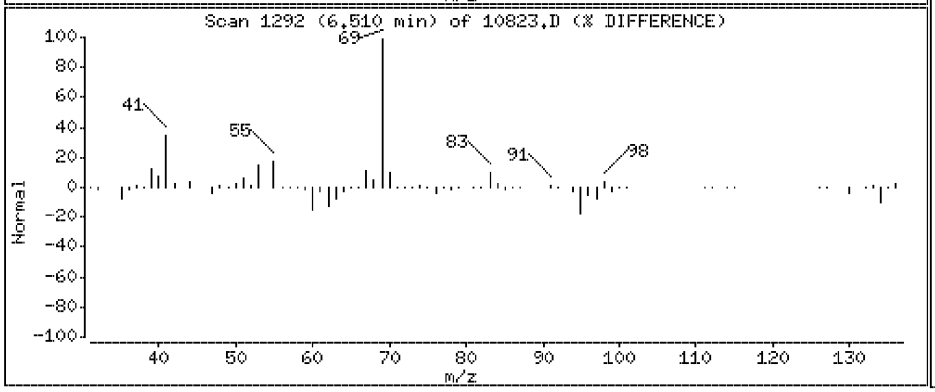












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

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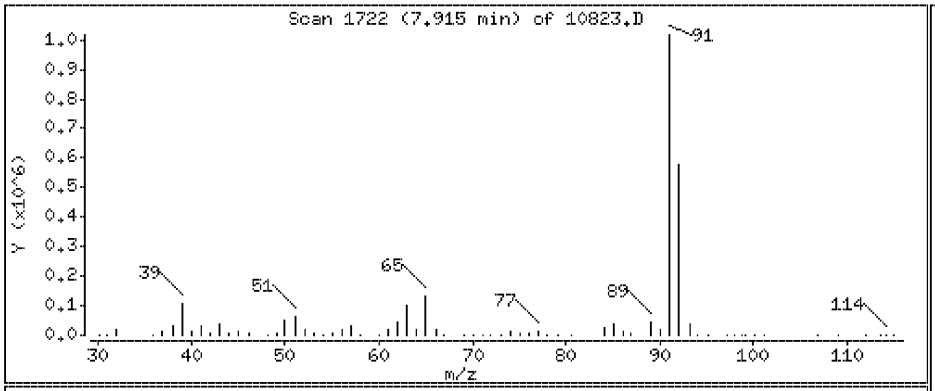
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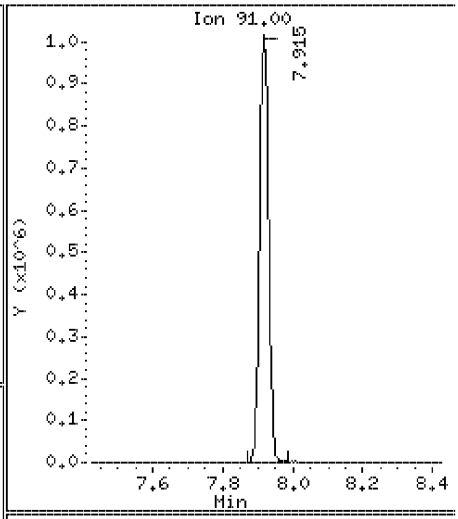
Column phase: J&W DB-5

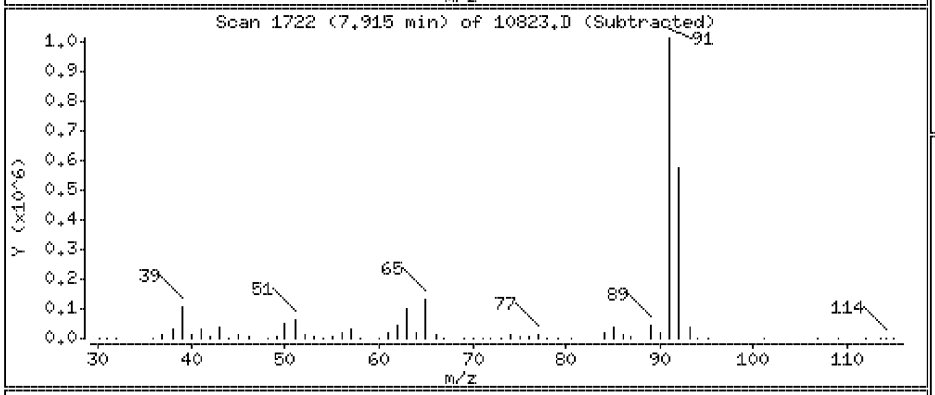
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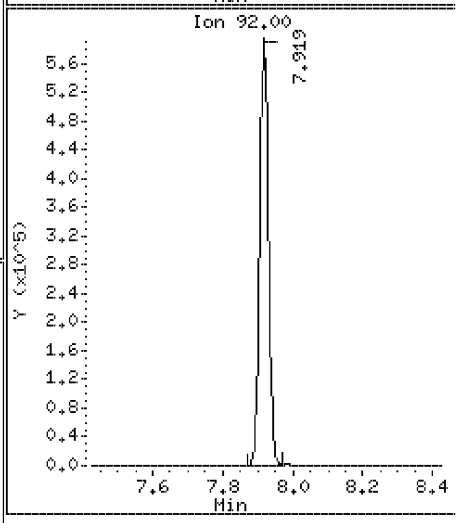
49 Toluene

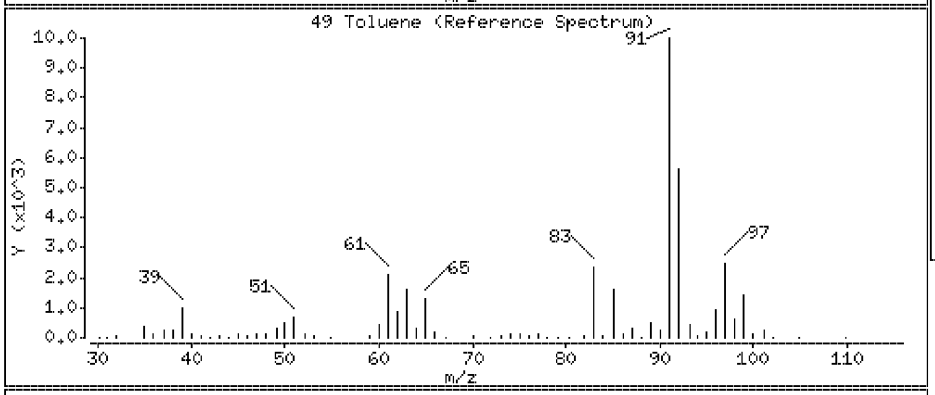
Concentration: 13.1 ppbv

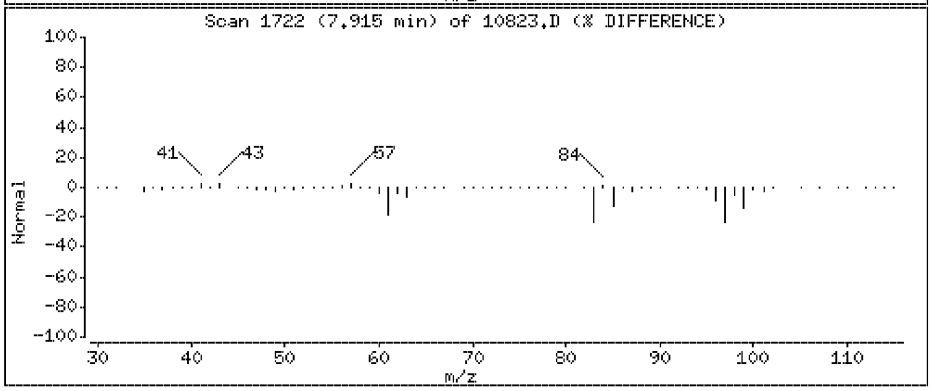












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Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

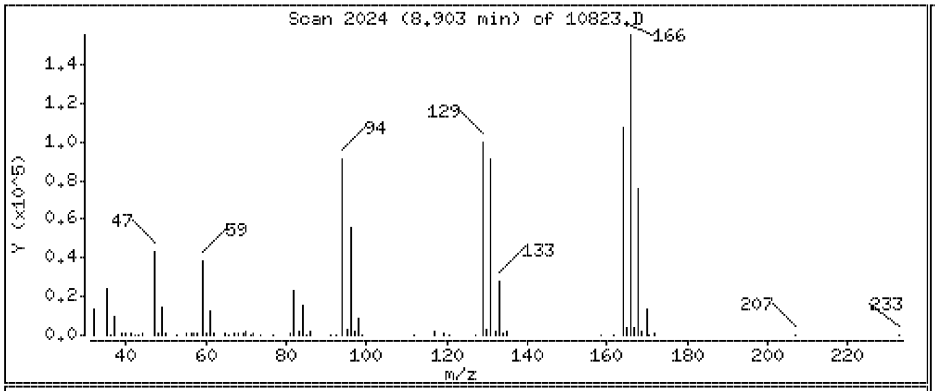
Operator: CJR

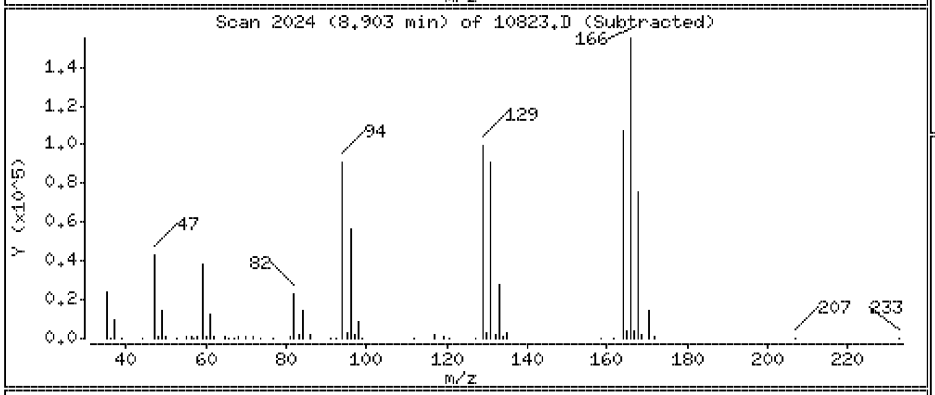
Column phase: J&W DB-5

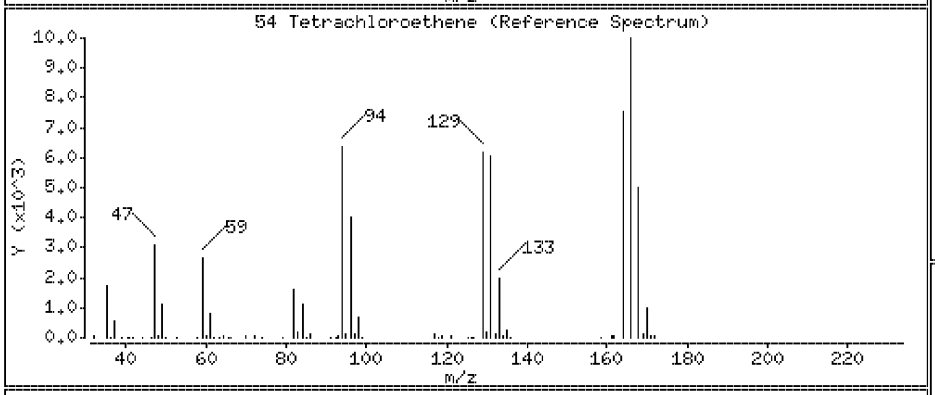
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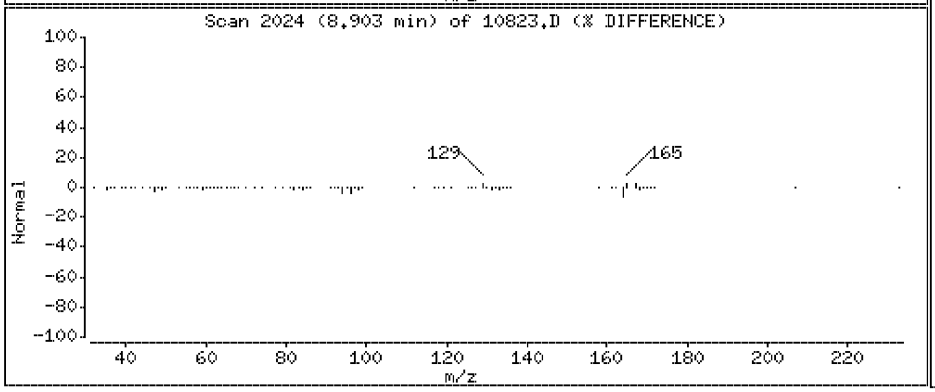
54 Tetrachloroethene

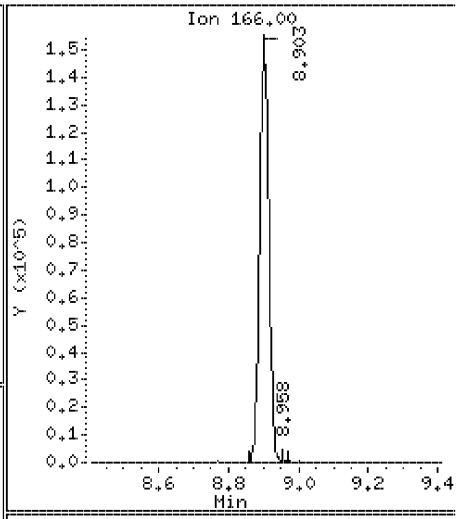
Concentration: 5.84 ppbv

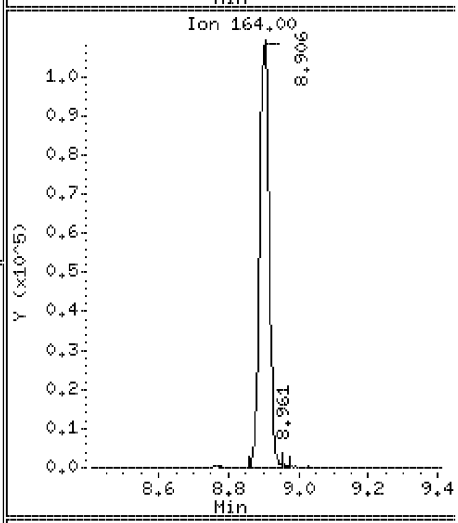


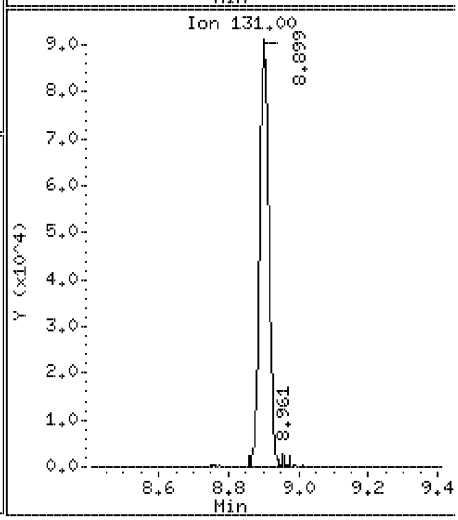












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

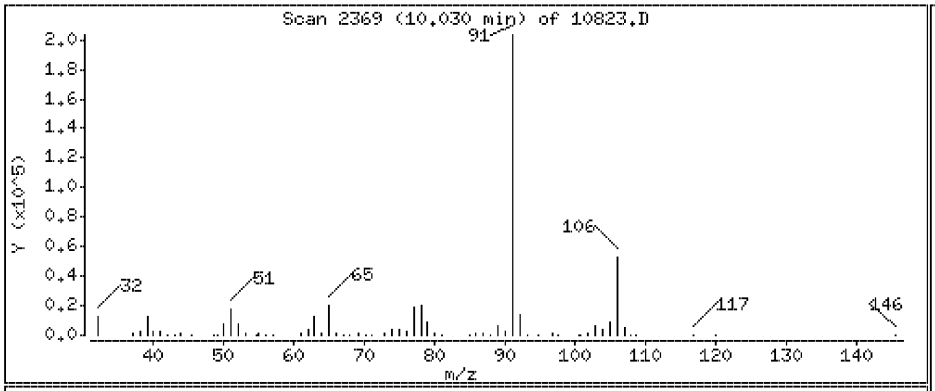
Operator: CJR

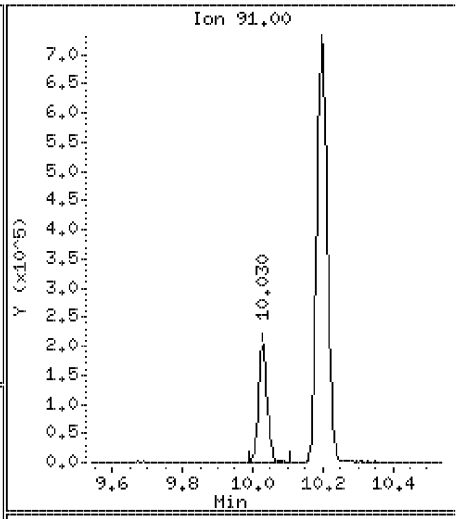
Column phase: J&W DB-5

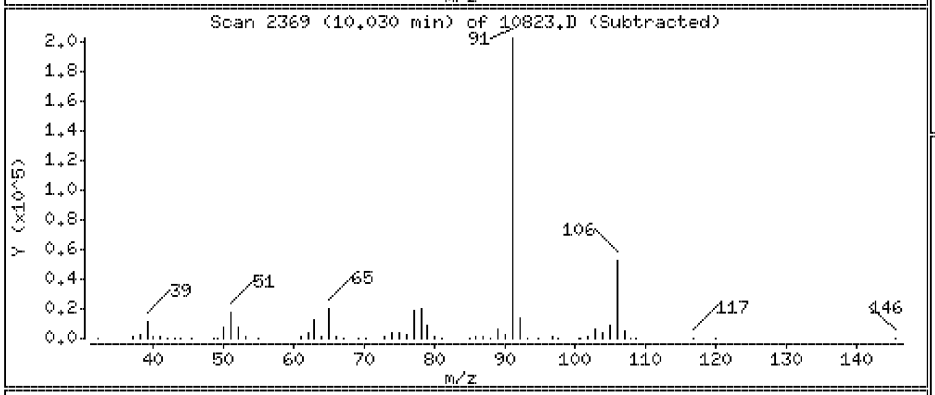
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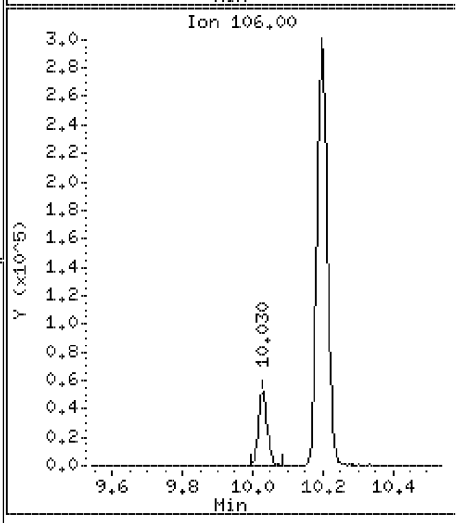
57 Ethyl Benzene

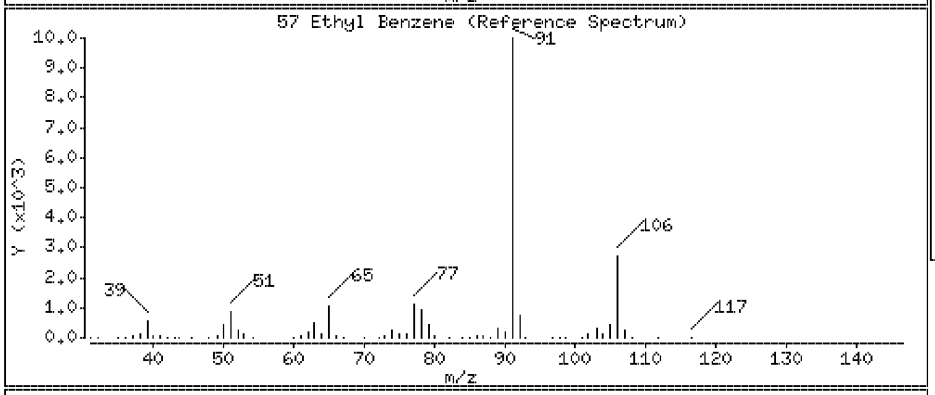
Concentration: 2.64 ppbv

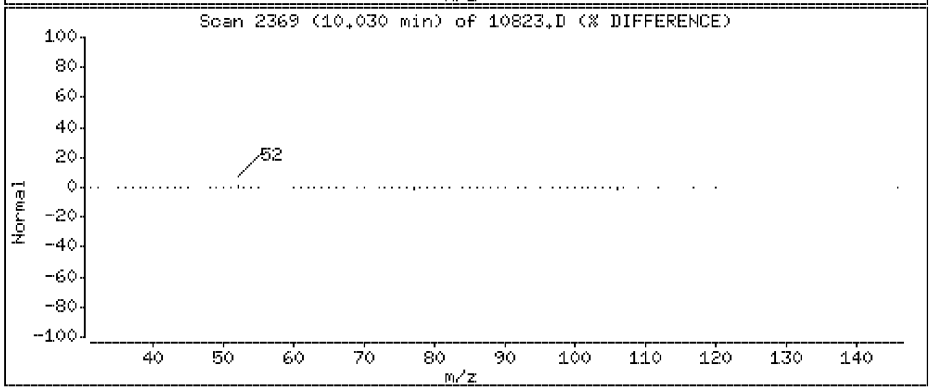












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

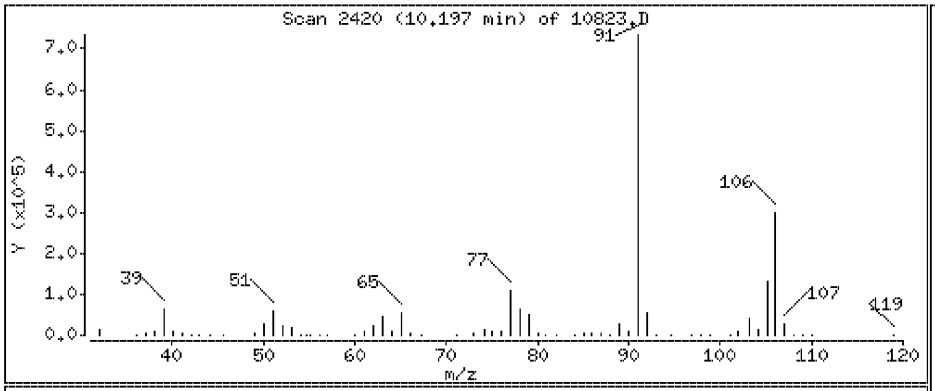
Operator: CJR

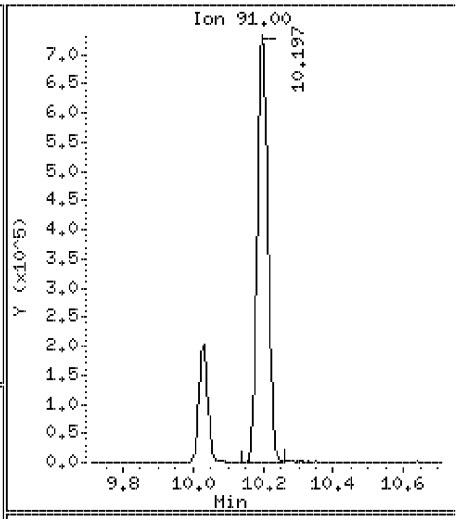
Column phase: J&W DB-5

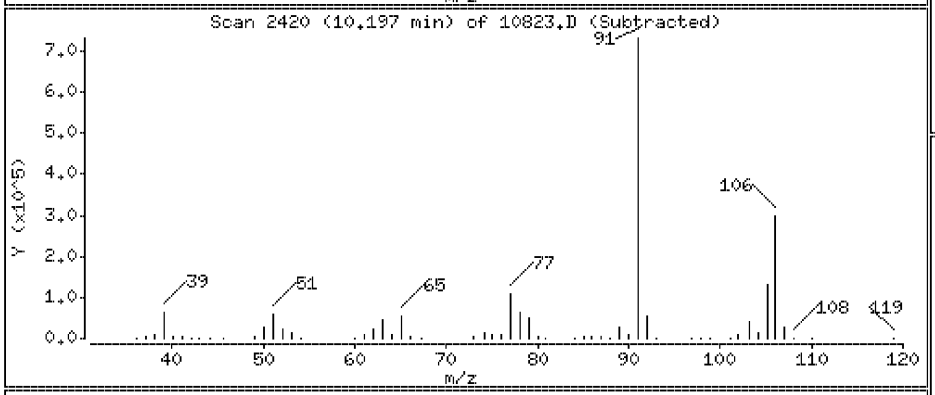
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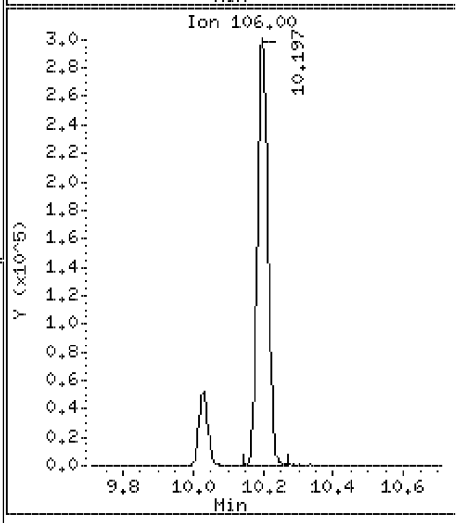
58 m&p-Xylene

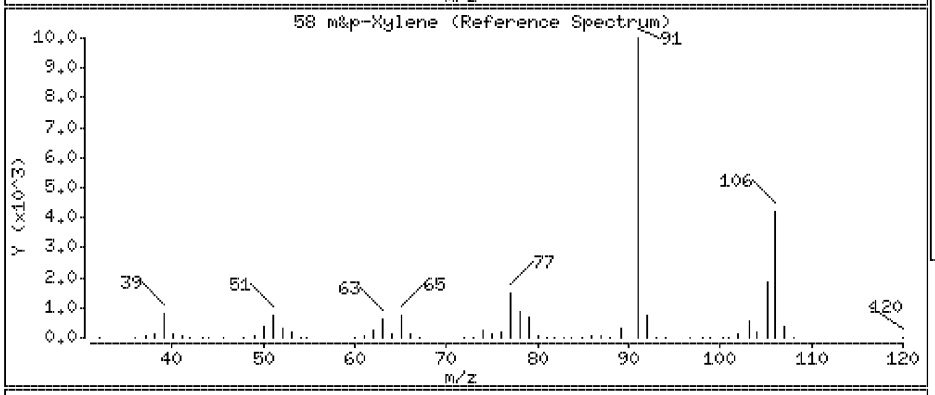
Concentration: 12.8 ppbv

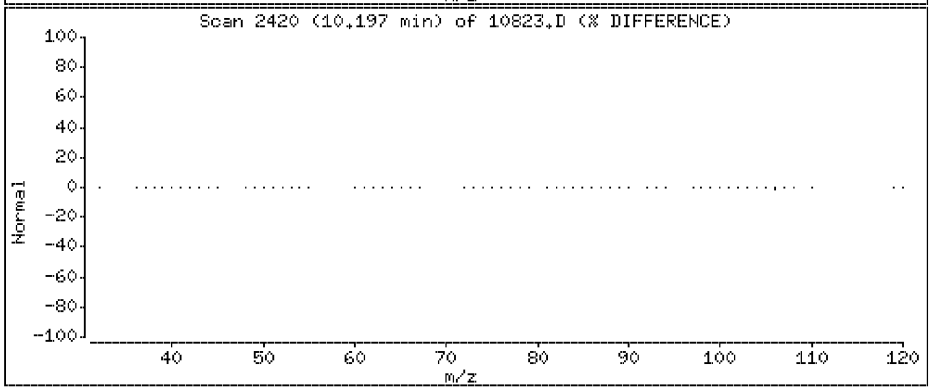












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Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

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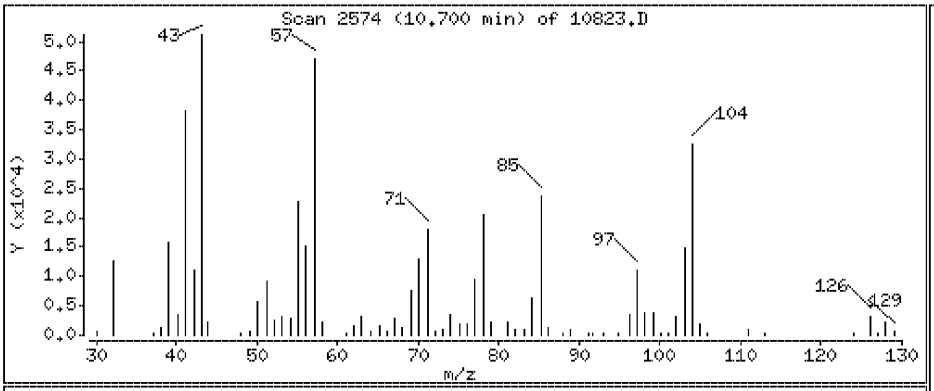
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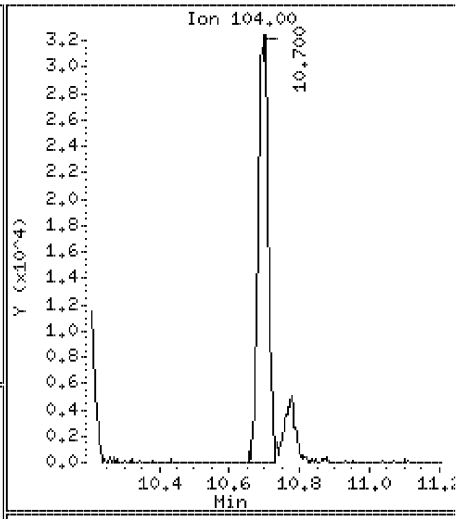
Column phase: J&W DB-5

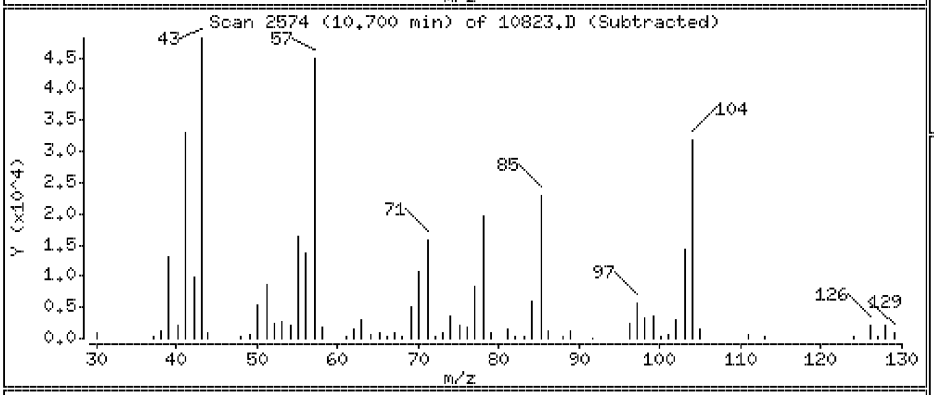
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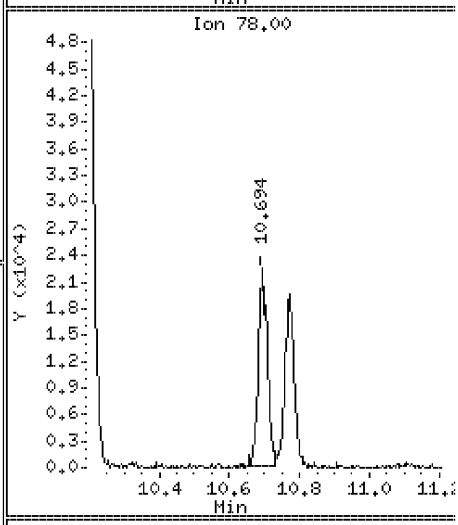
60 Styrene

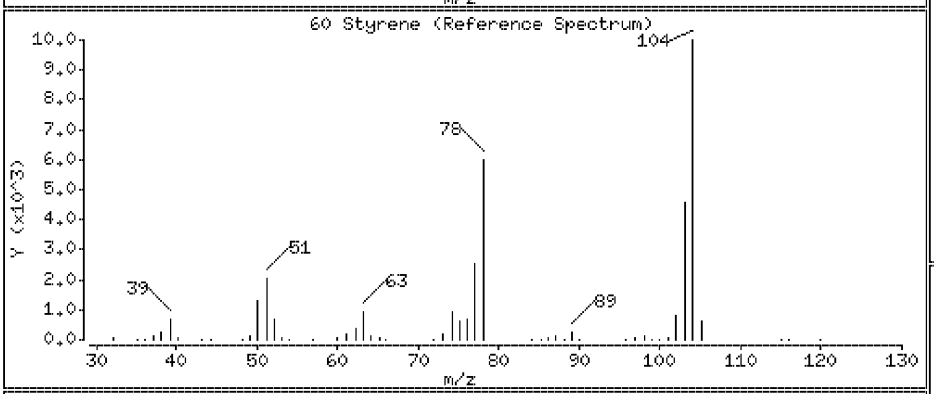
Concentration: 1.32 ppbv

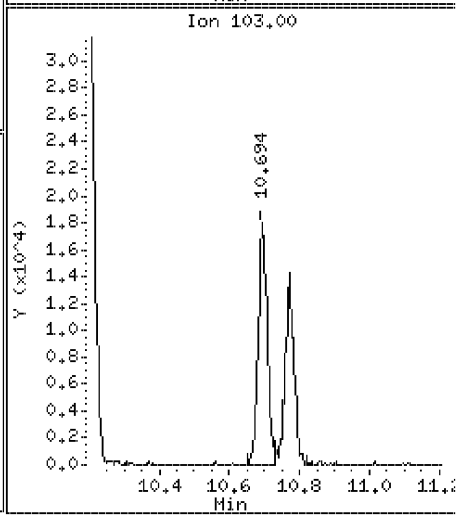


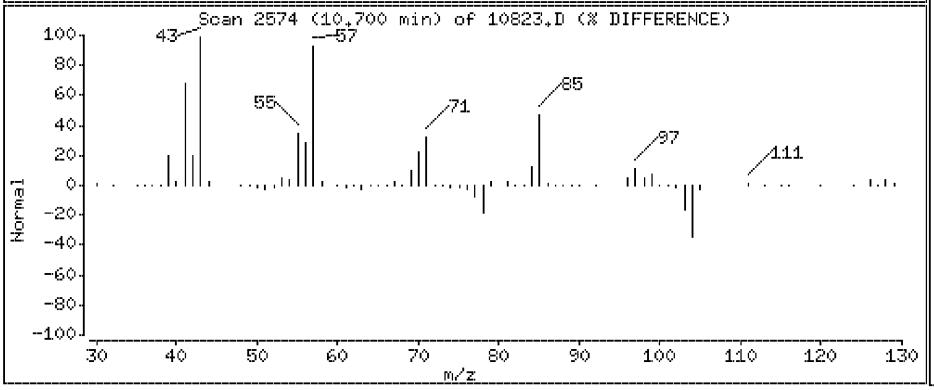












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Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

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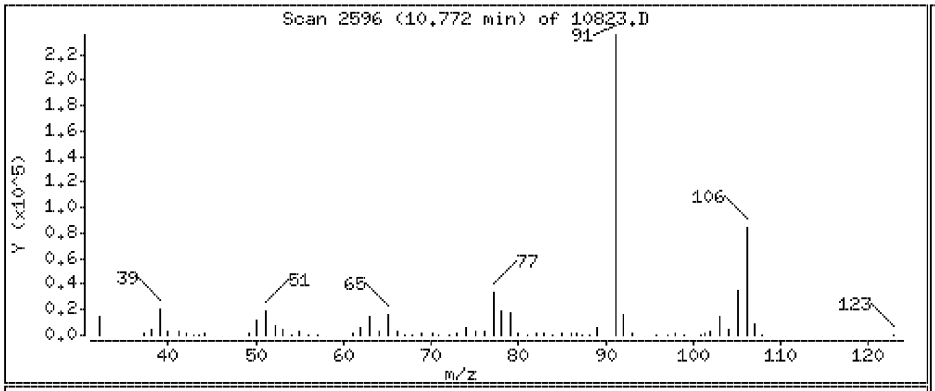
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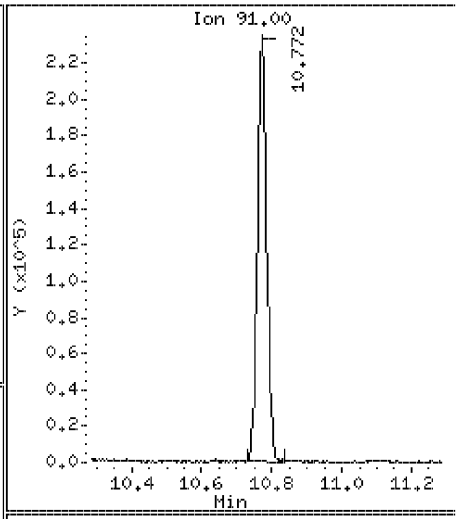
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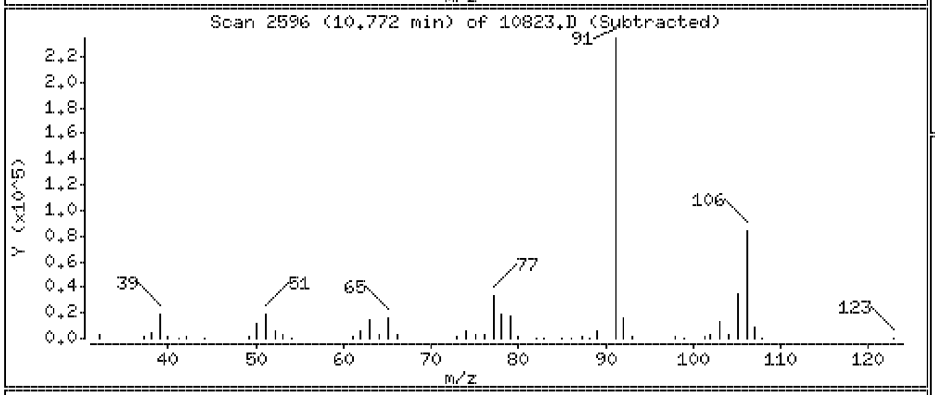
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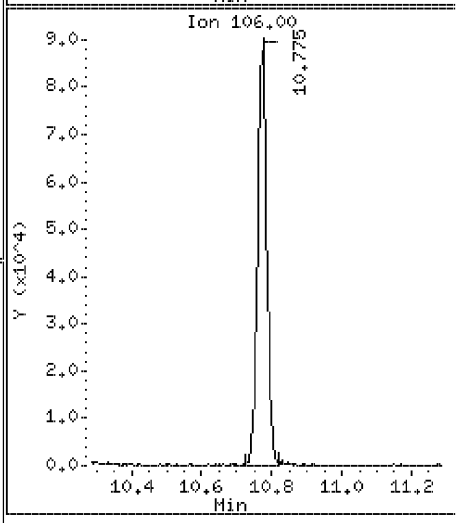
61 o-Xylene

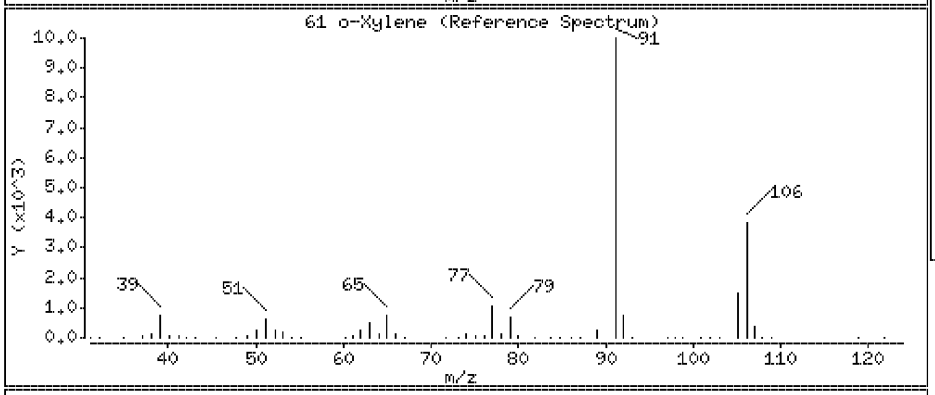
Concentration: 3.46 ppbv

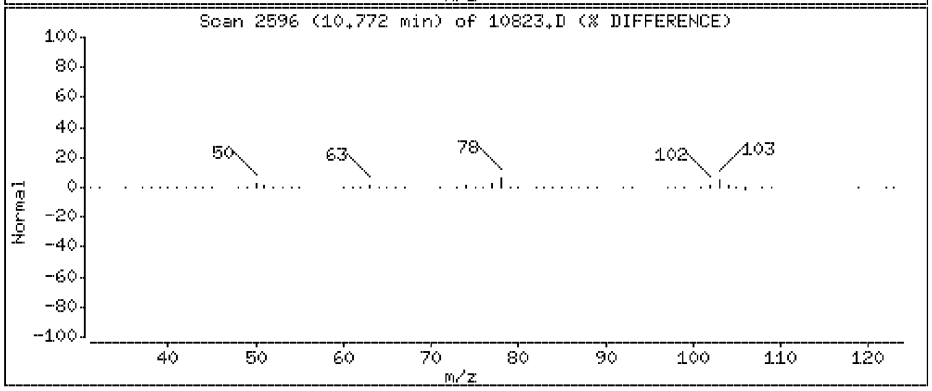












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Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

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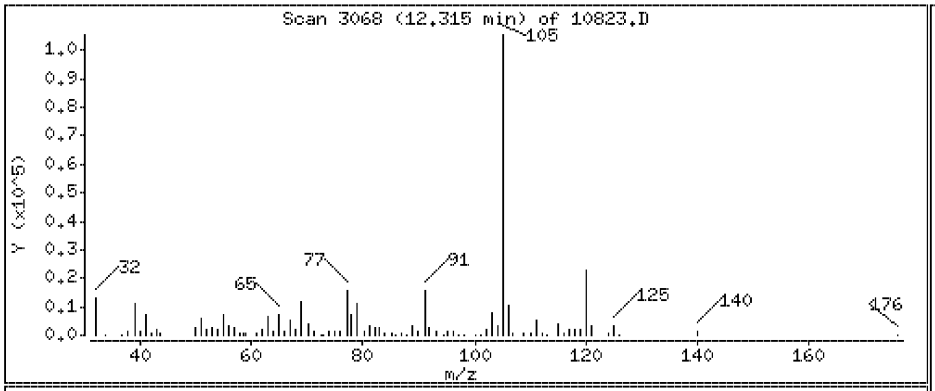
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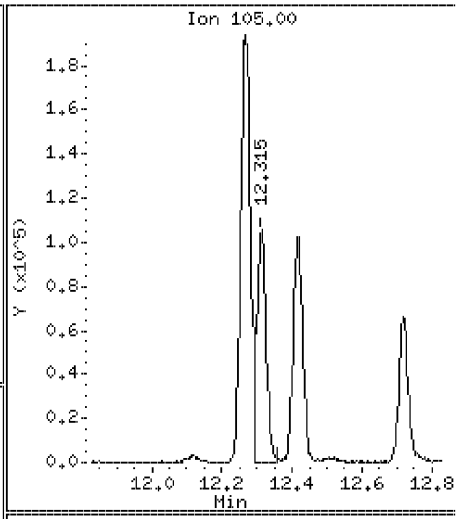
Column phase: J&W DB-5

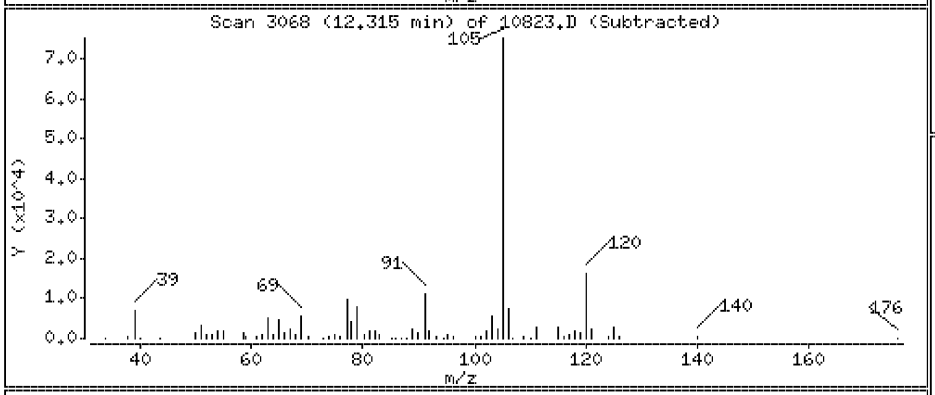
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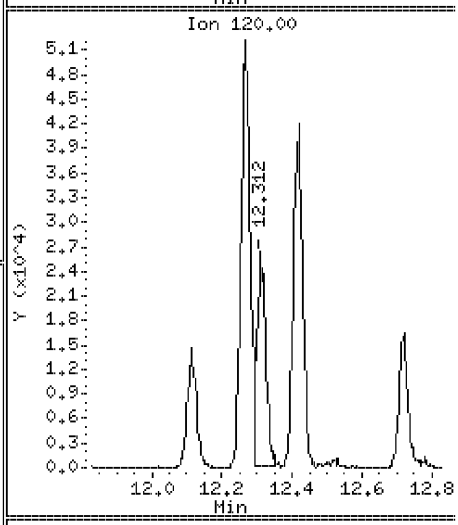
65 4-Ethyltoluene

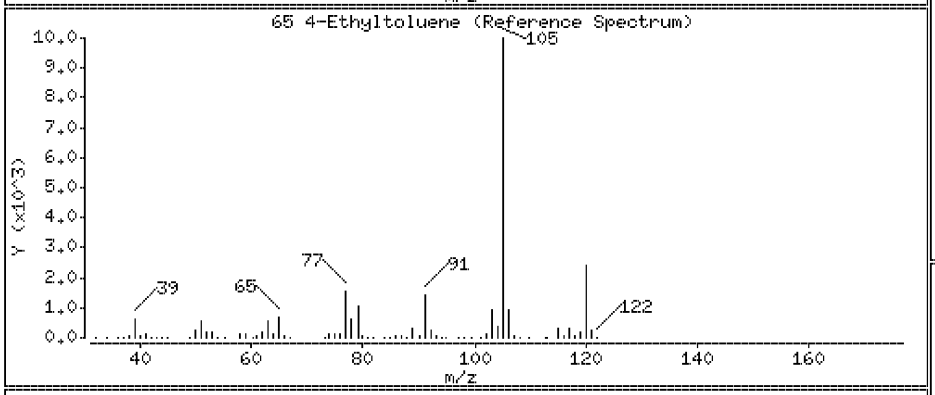
Concentration: 1.55 ppbv

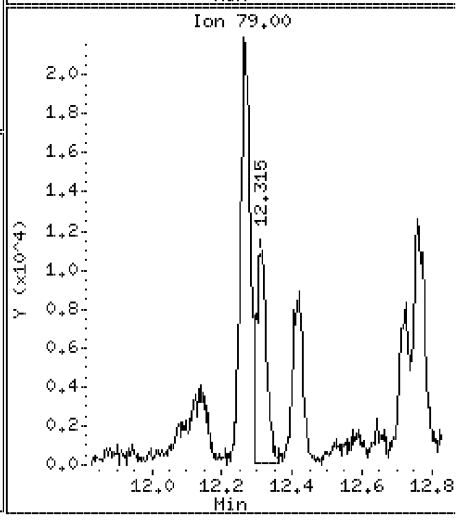


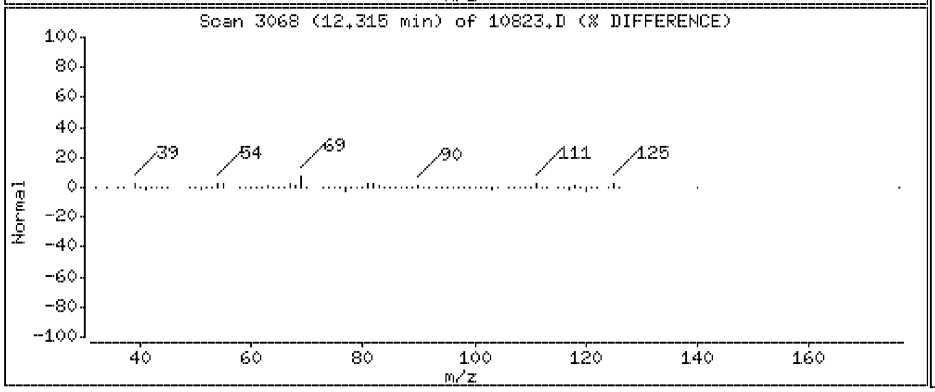












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

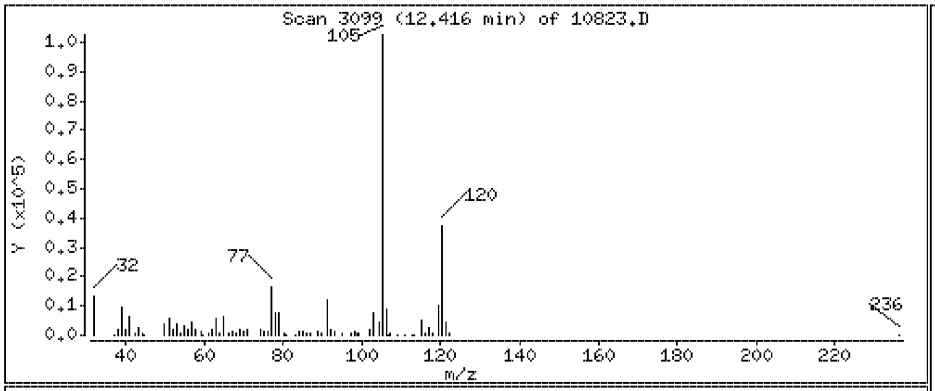
Operator: CJR

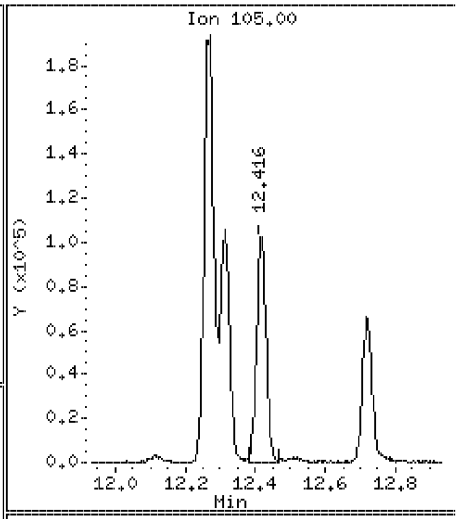
Column phase: J&W DB-5

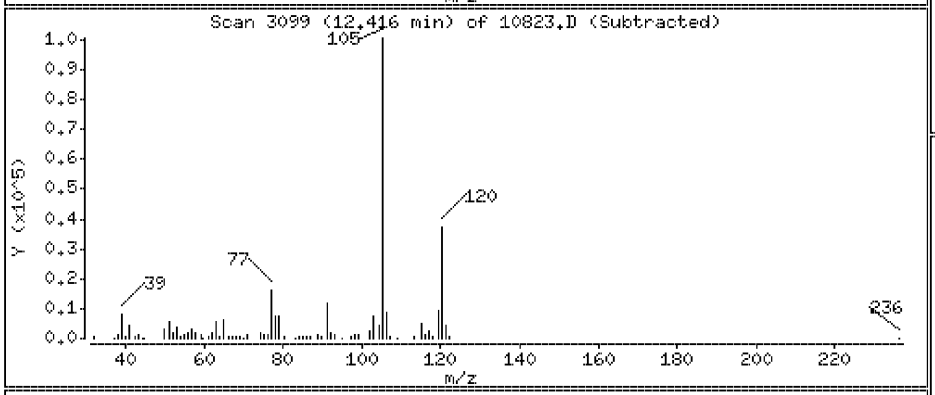
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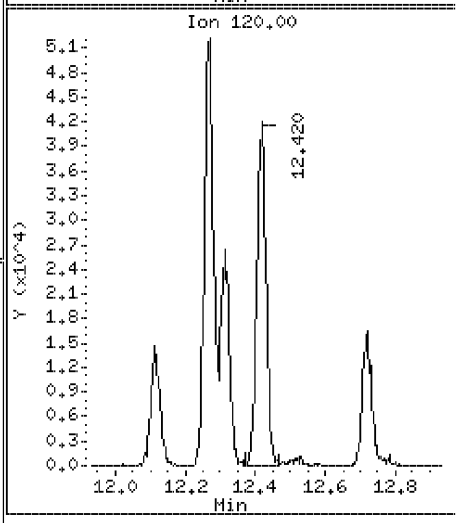
66 1,3,5-Trimethylbenzene

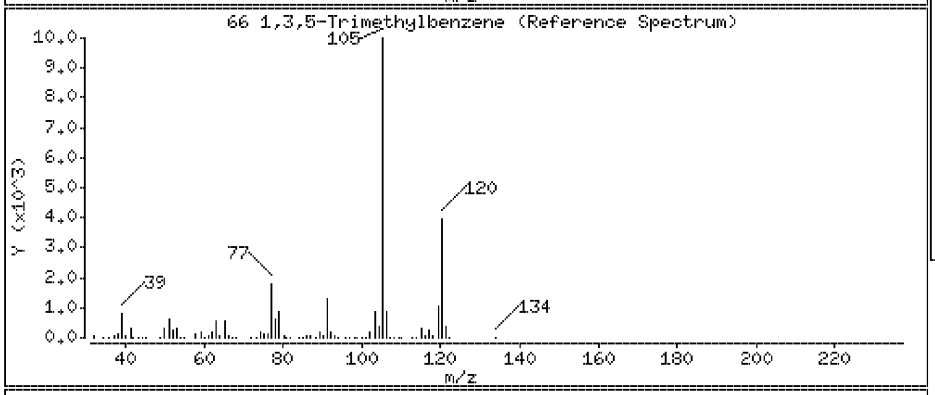
Concentration: 1.65 ppbv

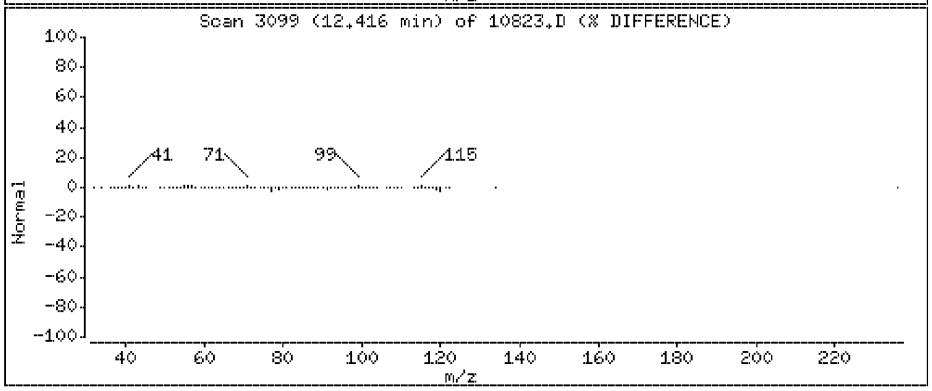












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

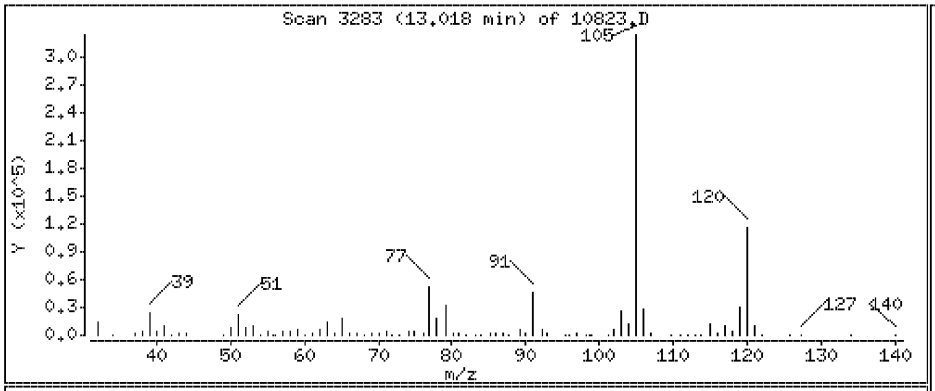
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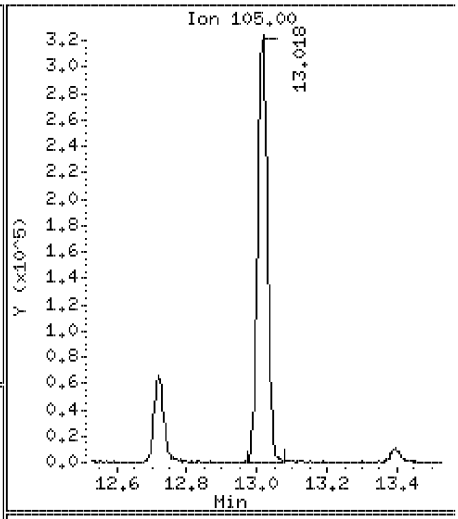
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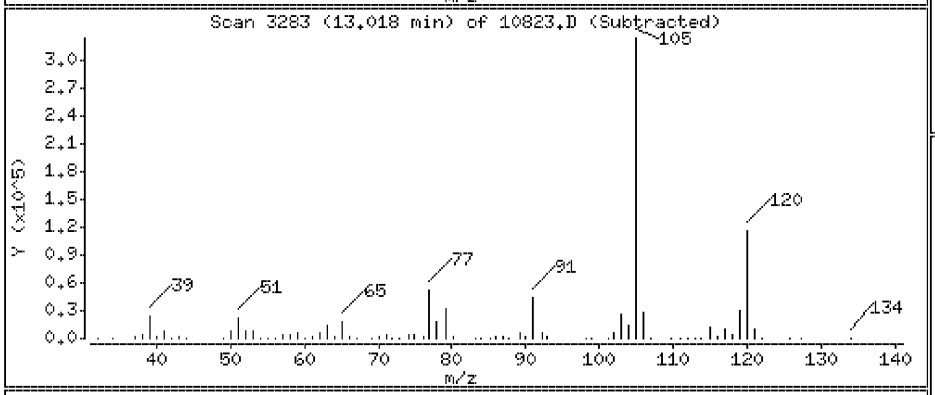
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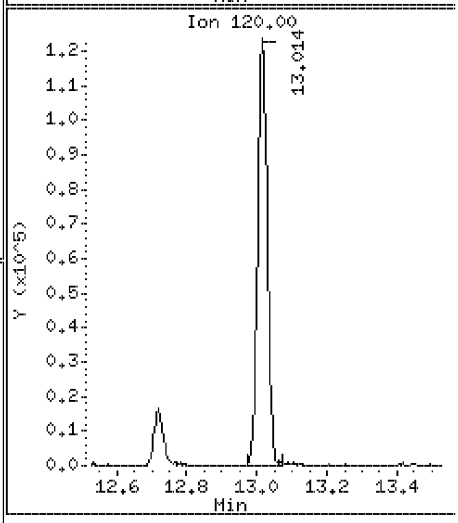
67 1,2,4-Trimethylbenzene

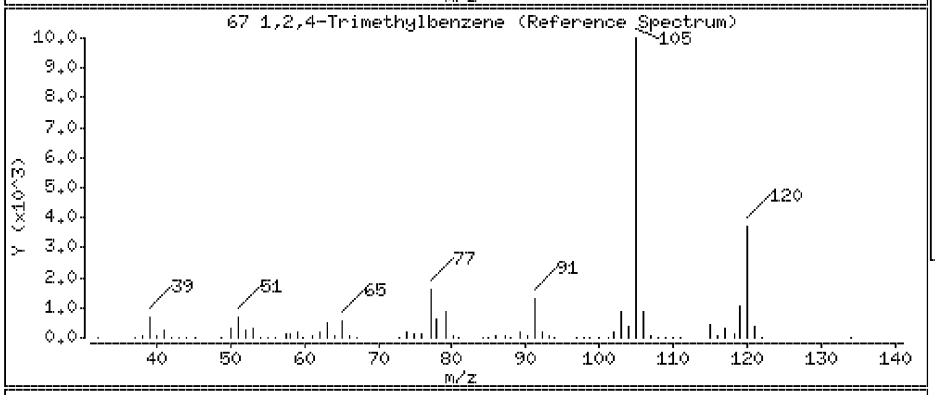
Concentration: 5.22 ppbv

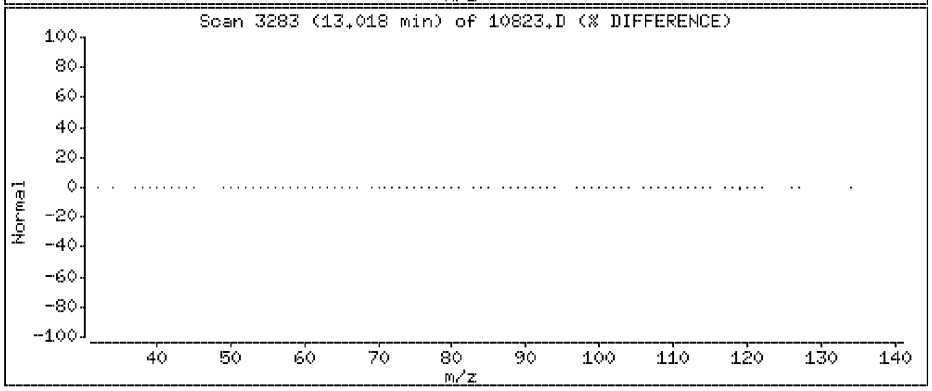












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10823.D

Date : 18-APR-2013 22:38

Client ID:

Instrument: 10airD.i

Sample Info:

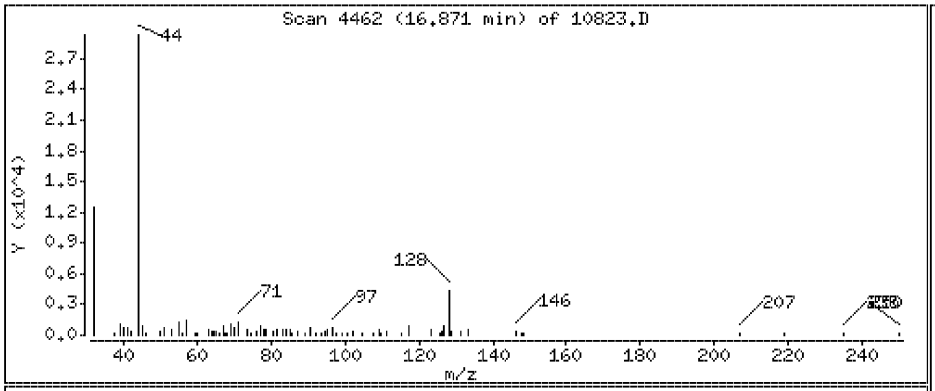
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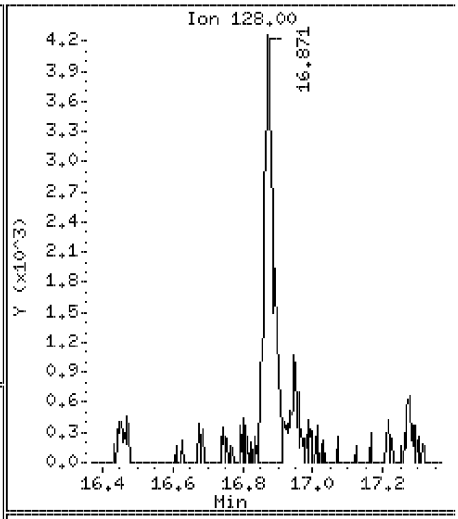
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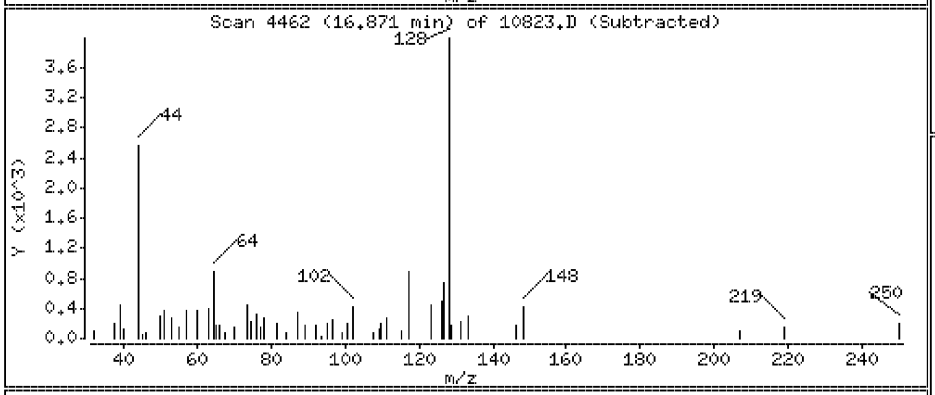
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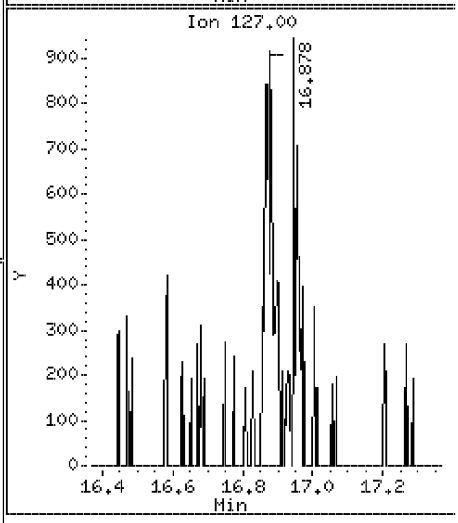
76 Naphthalene

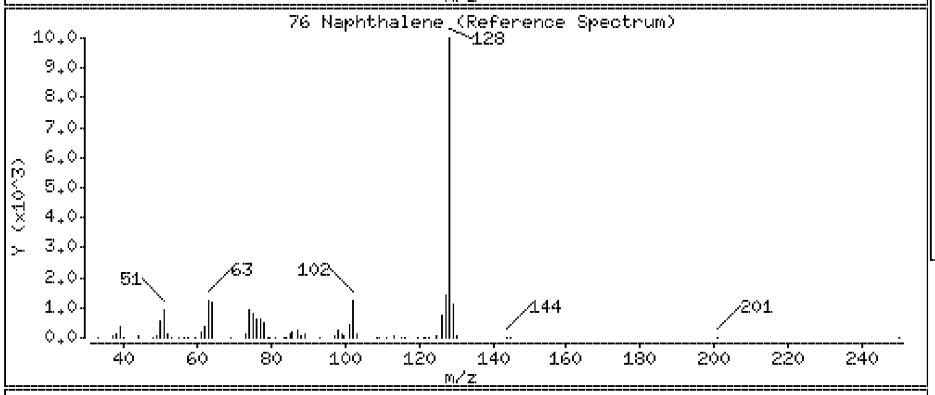
Concentration: 0.436 ppbv

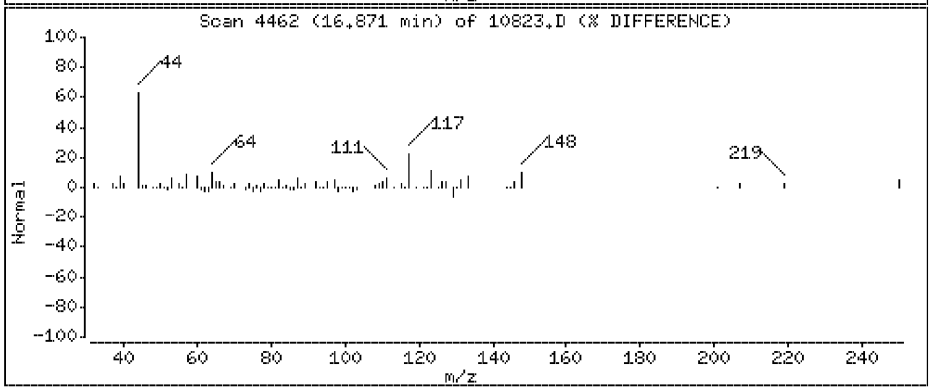






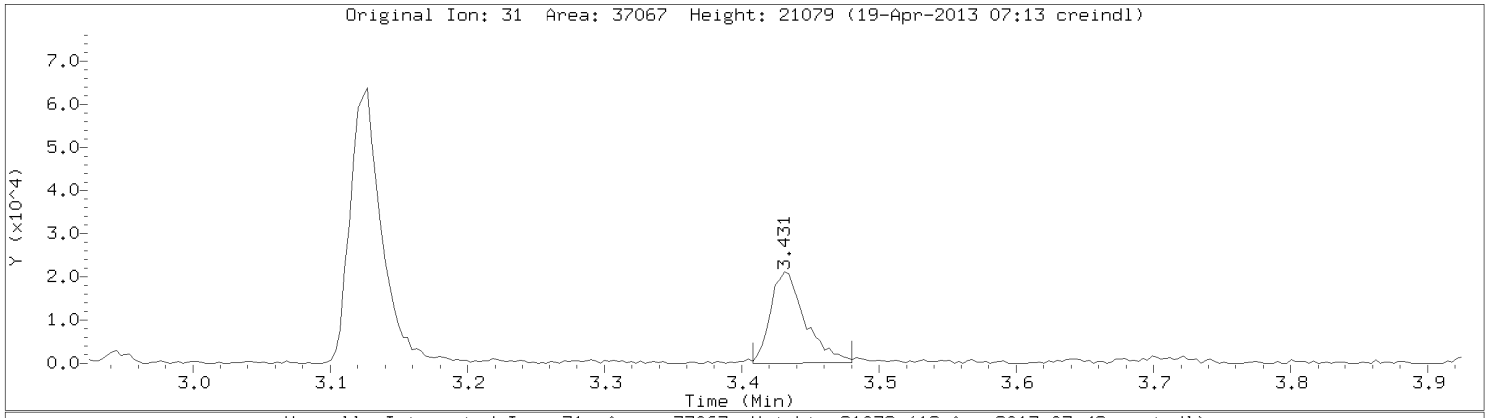


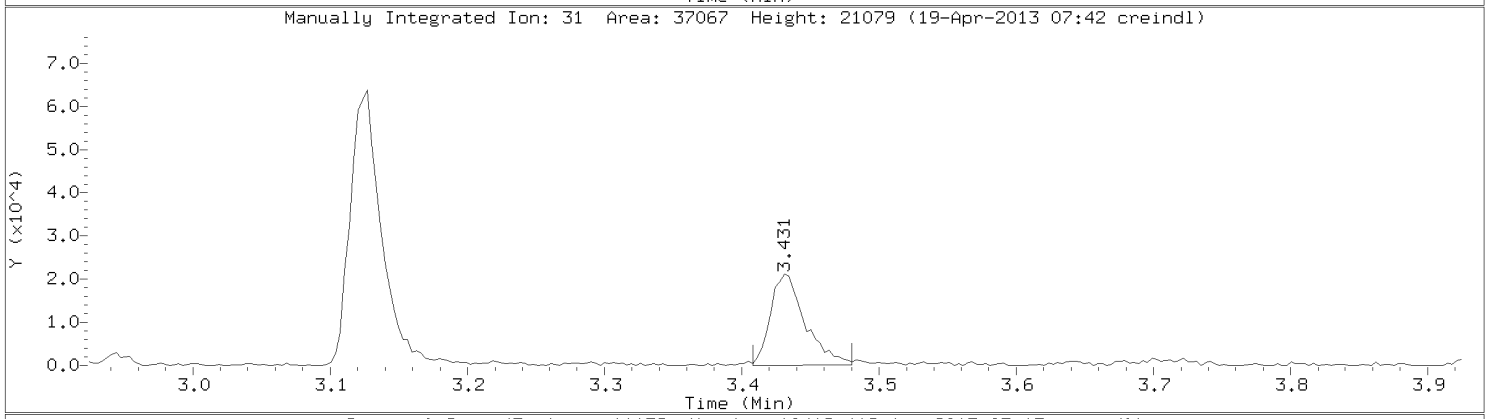


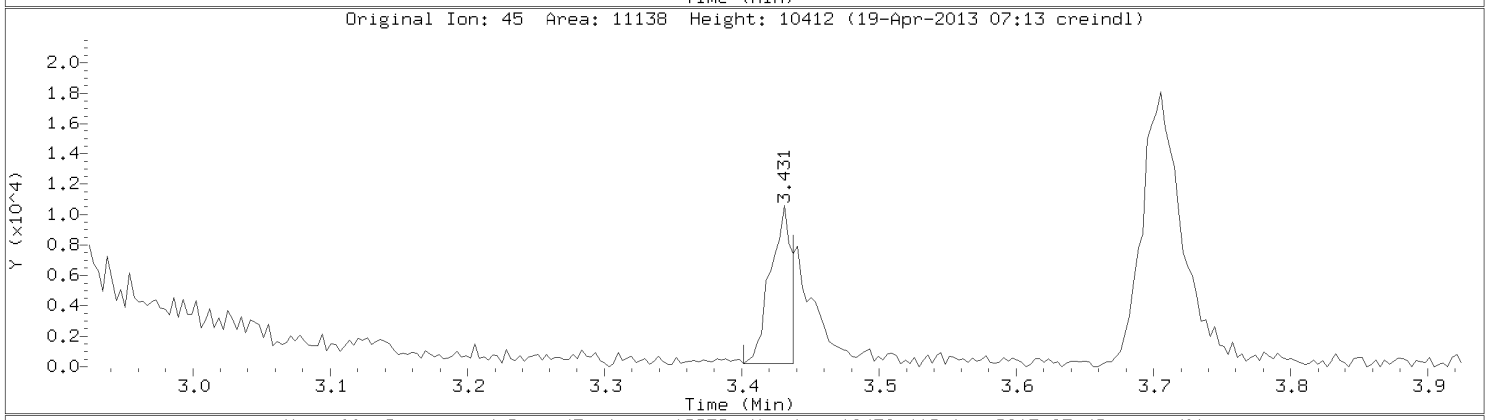


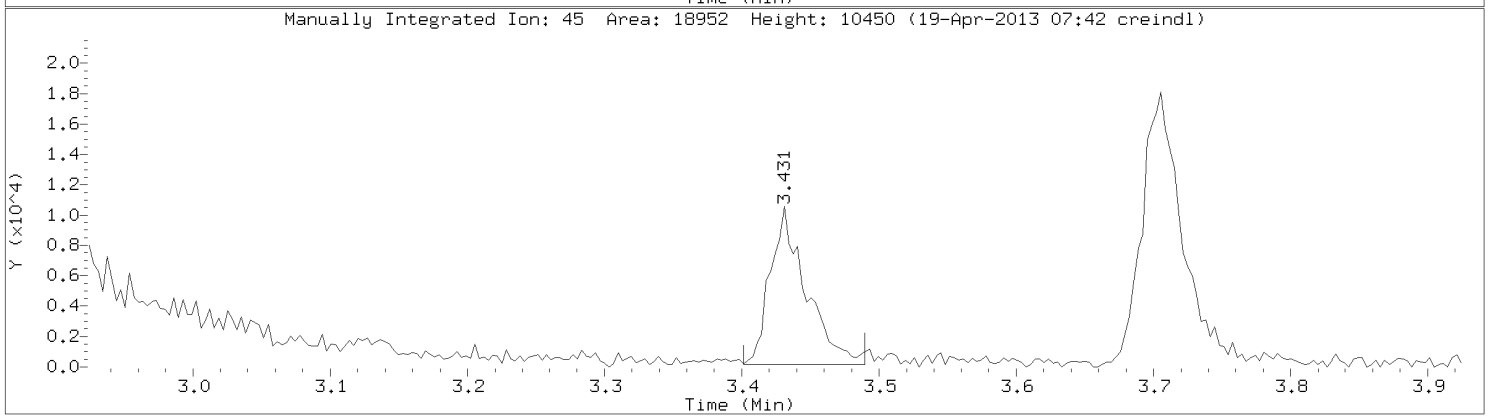
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Injection Date: 18-APR-2013 22:38
Instrument: 10airD.i
Lab Sample ID: 10224616009

Compound: Ethanol
CAS Number: 64-17-5



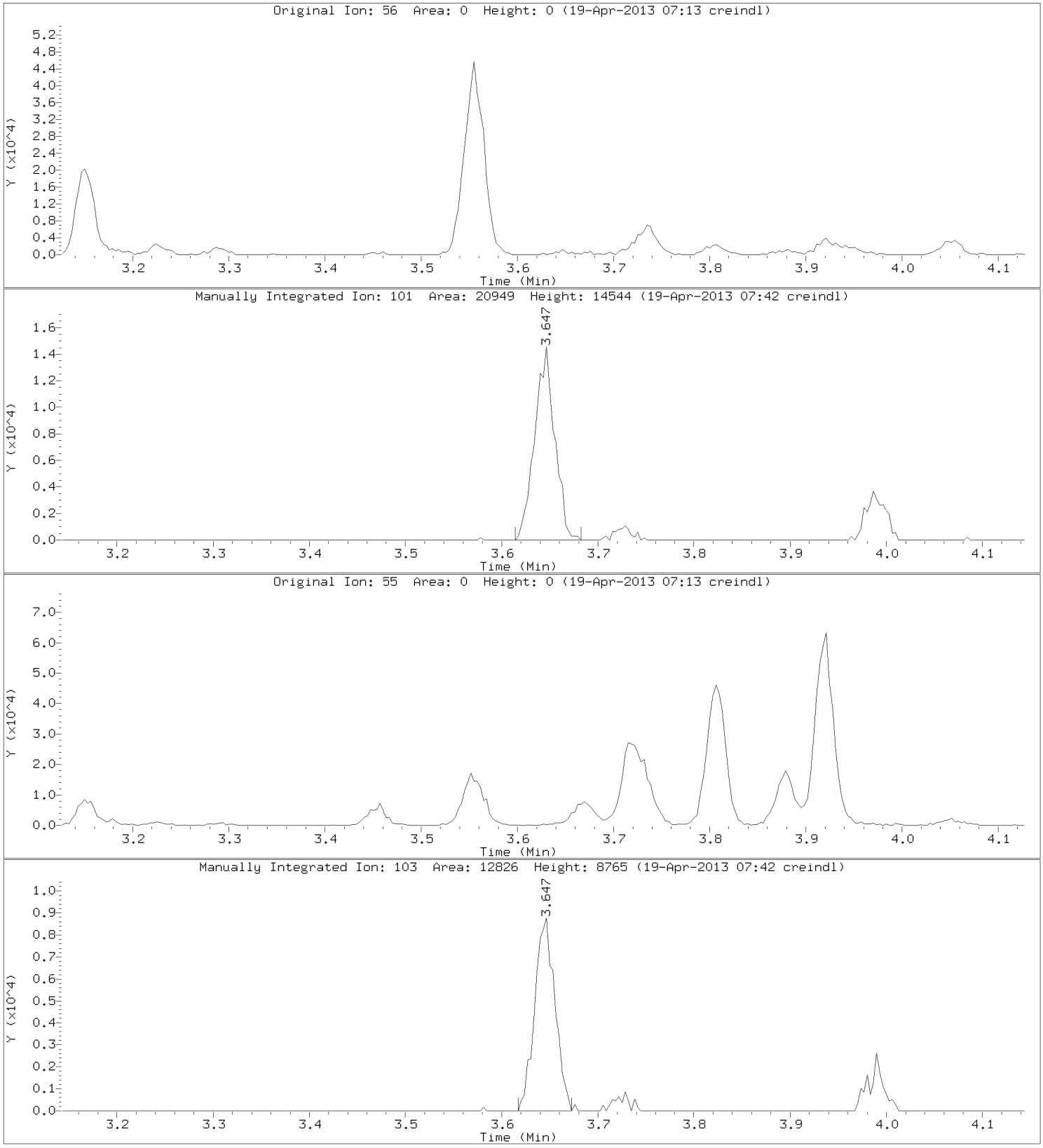




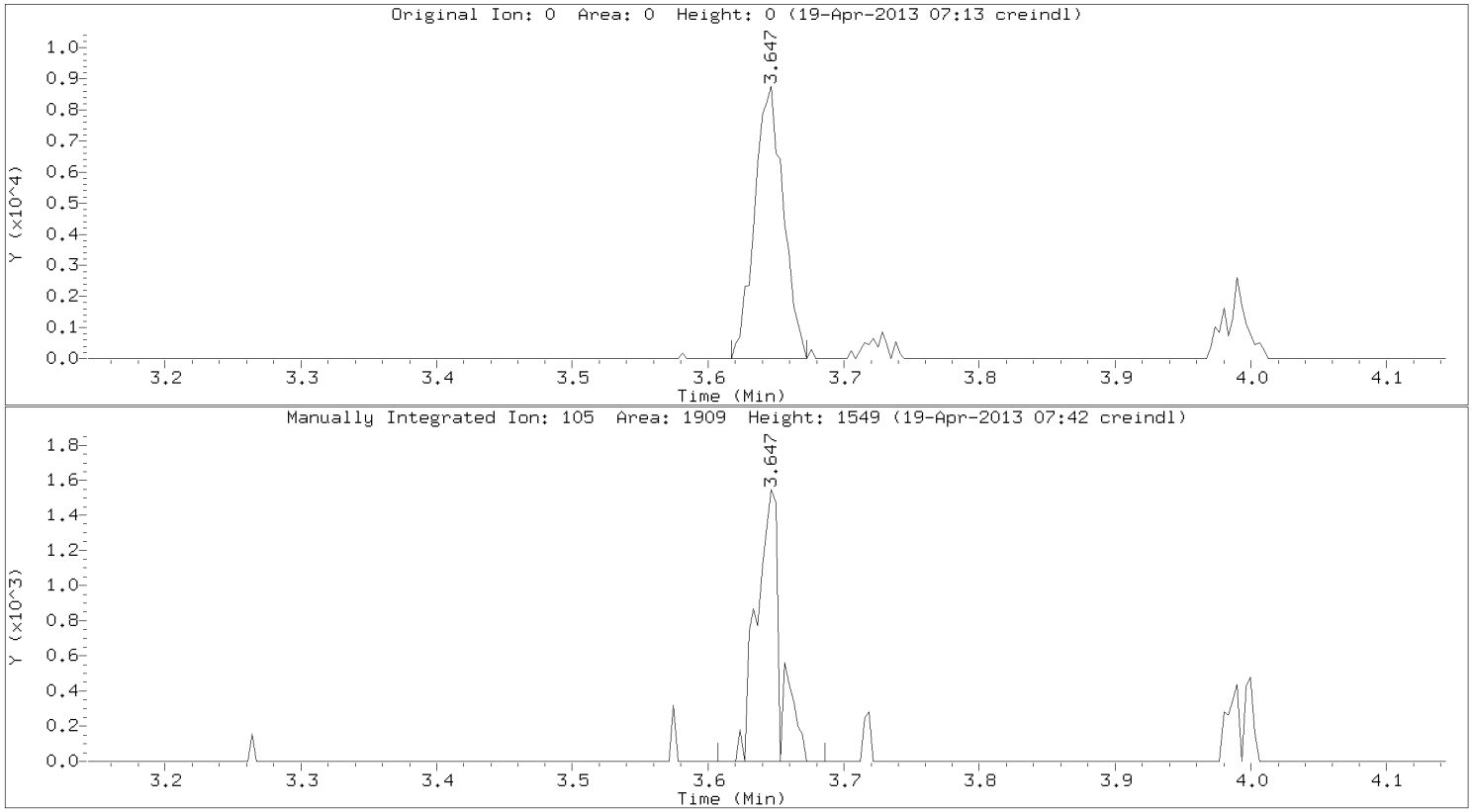


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Injection Date: 18-APR-2013 22:38
Instrument: 10airD.i
Lab Sample ID: 10224616009

Compound: Trichlorofluoromethane
CAS Number: 75-69-4

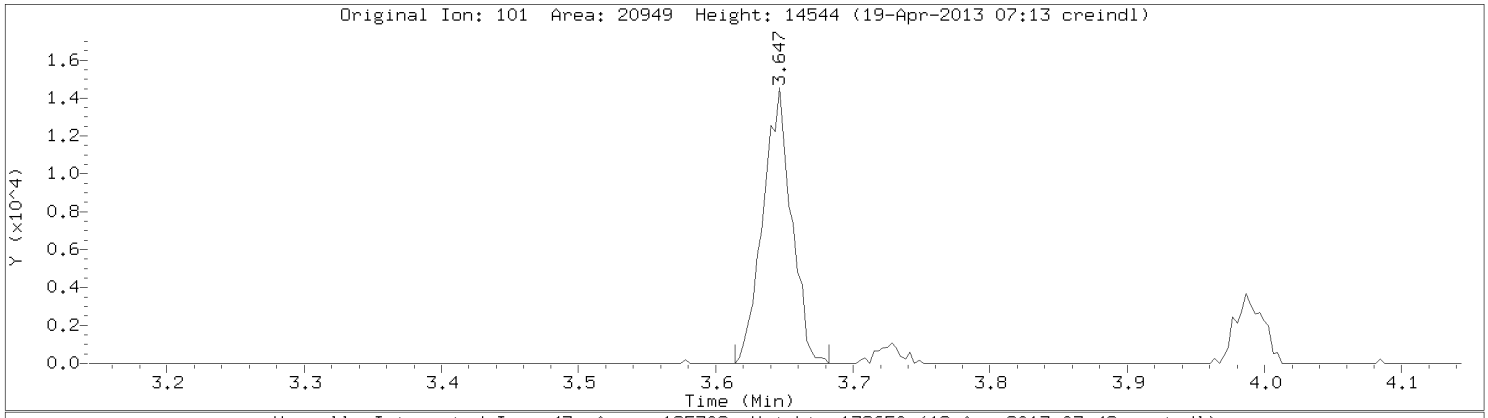


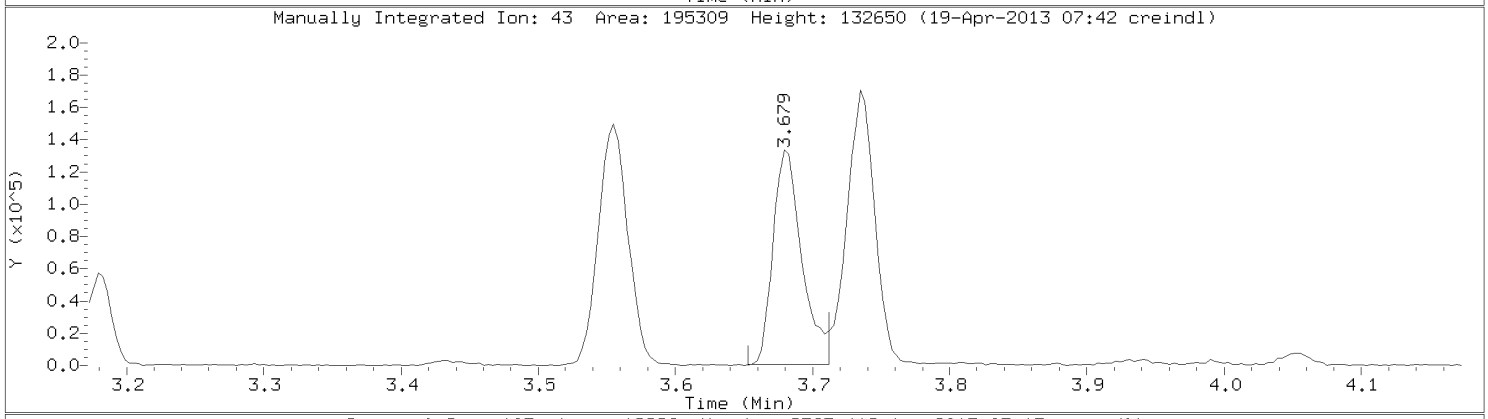
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Instrument: 10airD.i
Lab Sample ID: 10224616009

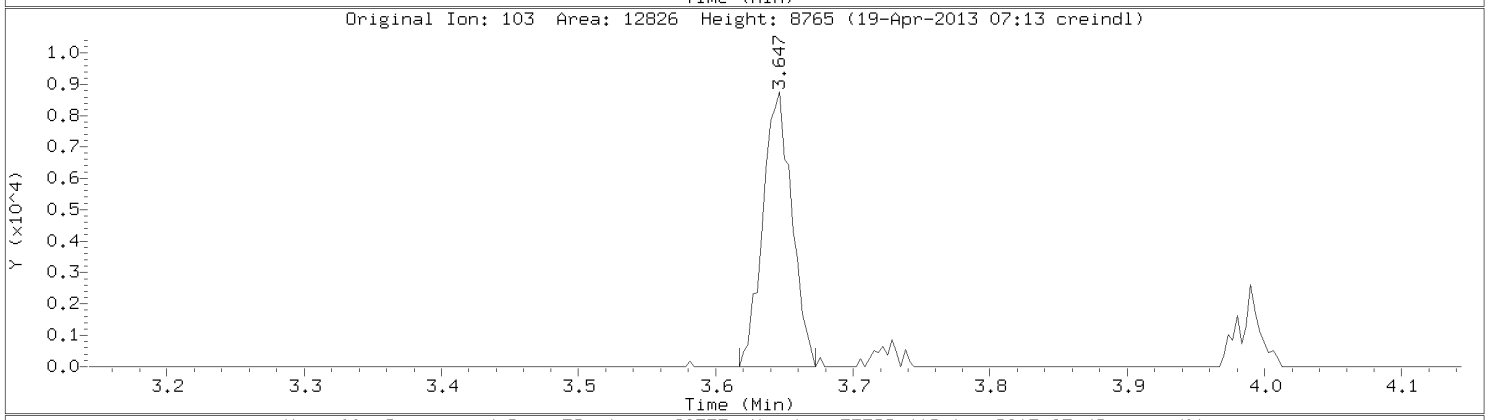


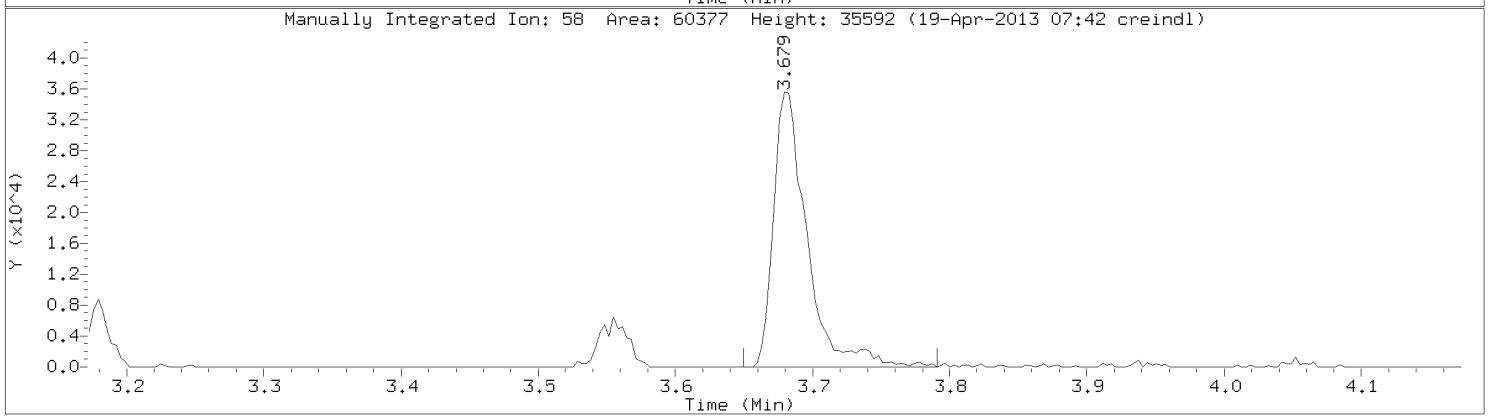
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Injection Date: 18-APR-2013 22:38
Instrument: 10airD.i
Lab Sample ID: 10224616009

Compound: Acetone
CAS Number: 67-64-1



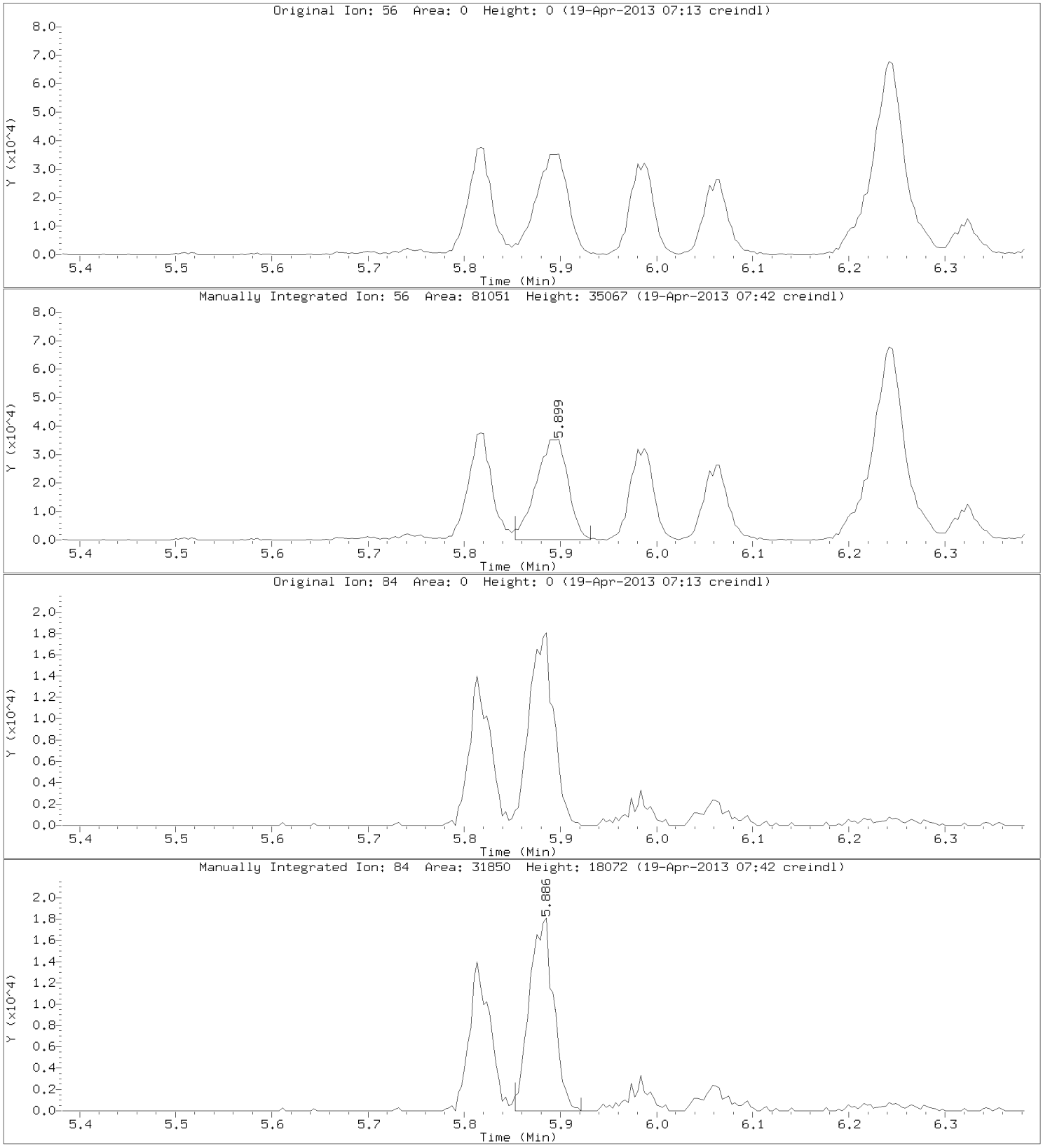




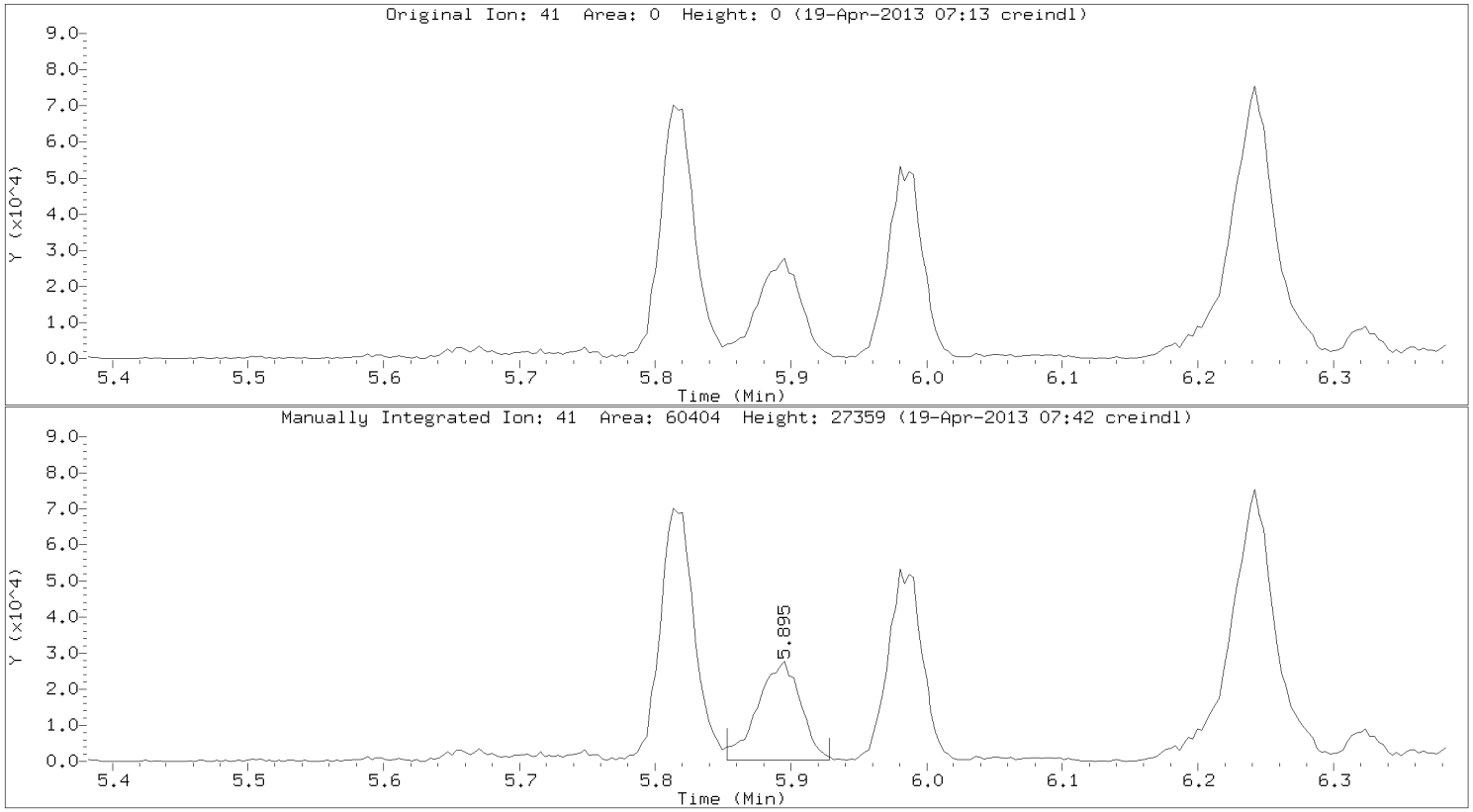


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Injection Date: 18-APR-2013 22:38
Instrument: 10airD.i
Lab Sample ID: 10224616009

Compound: Cyclohexane
CAS Number: 110-82-7

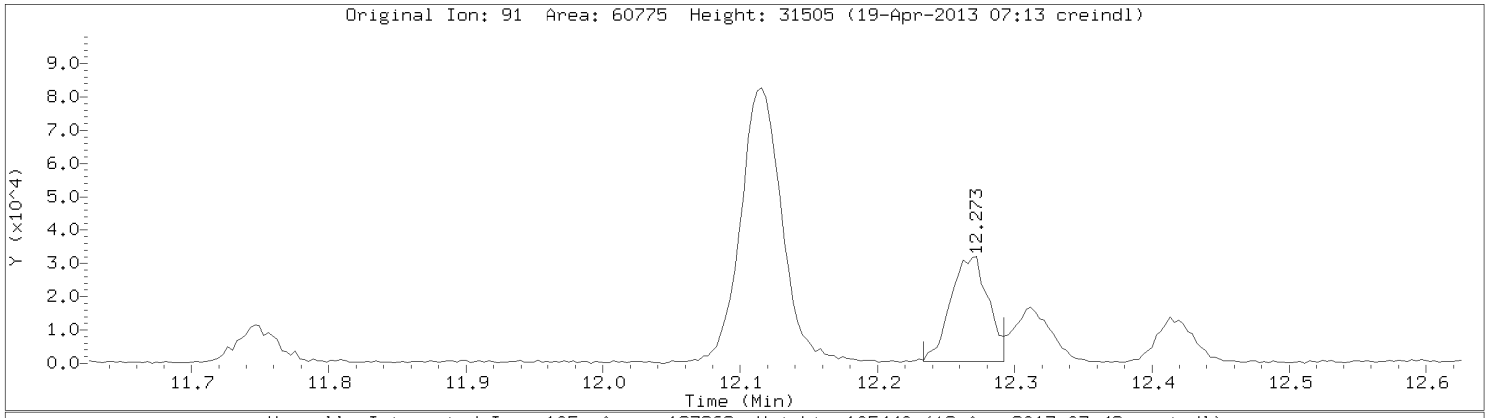


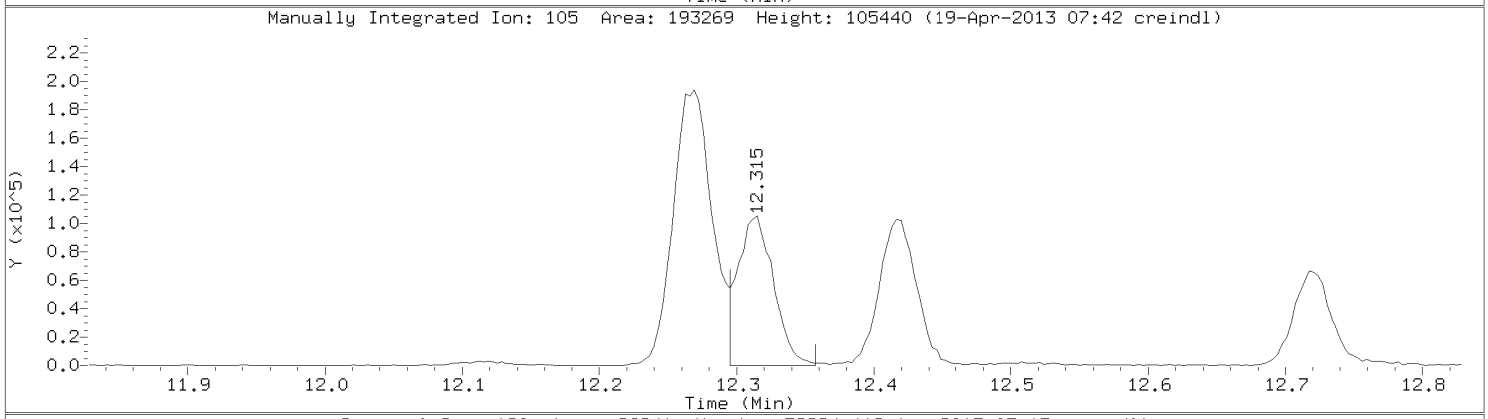
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Lab Sample ID: 10224616009

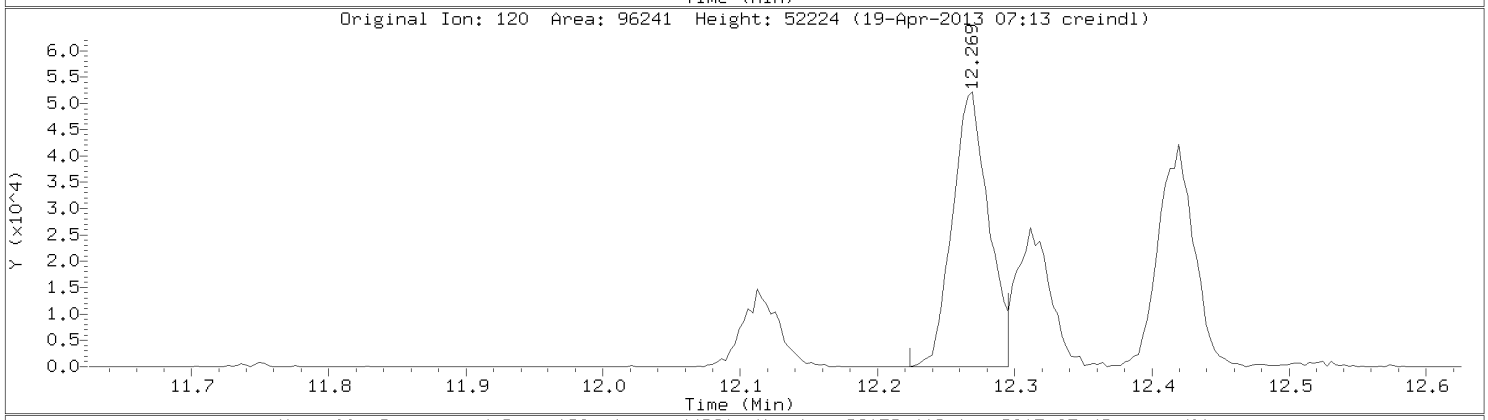


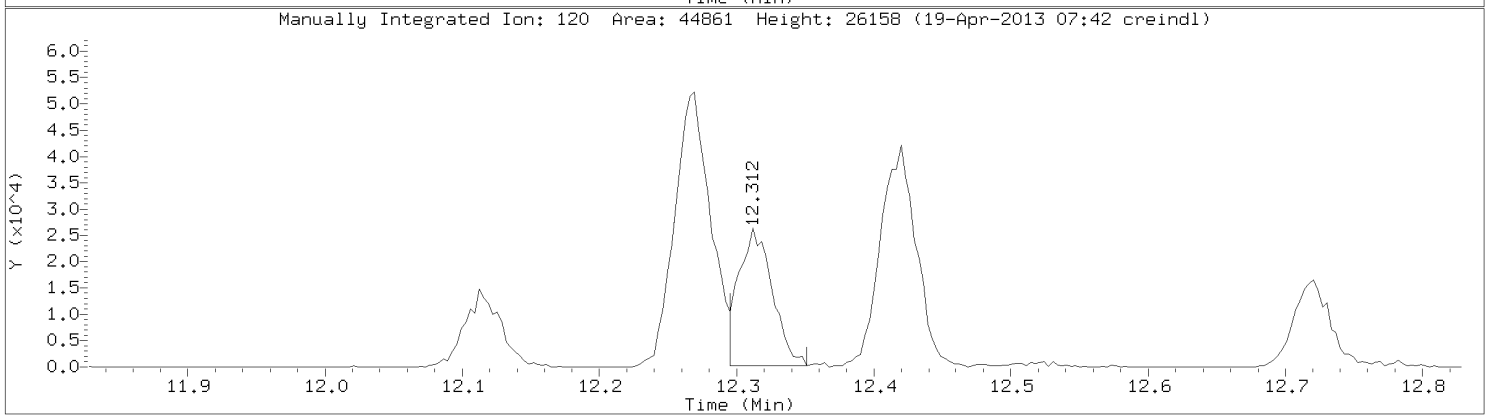
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Injection Date: 18-APR-2013 22:38
Instrument: 10airD.i
Lab Sample ID: 10224616009

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

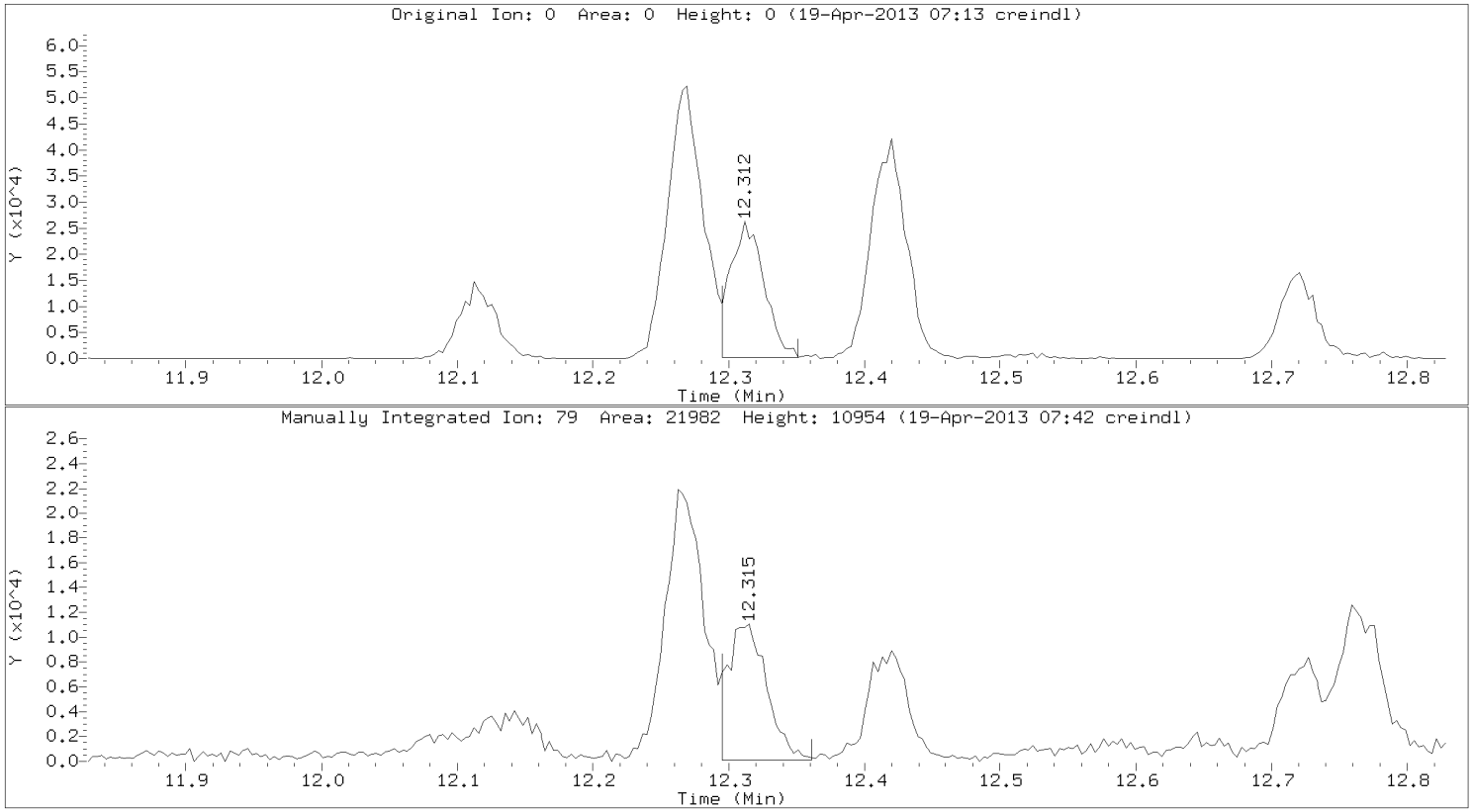






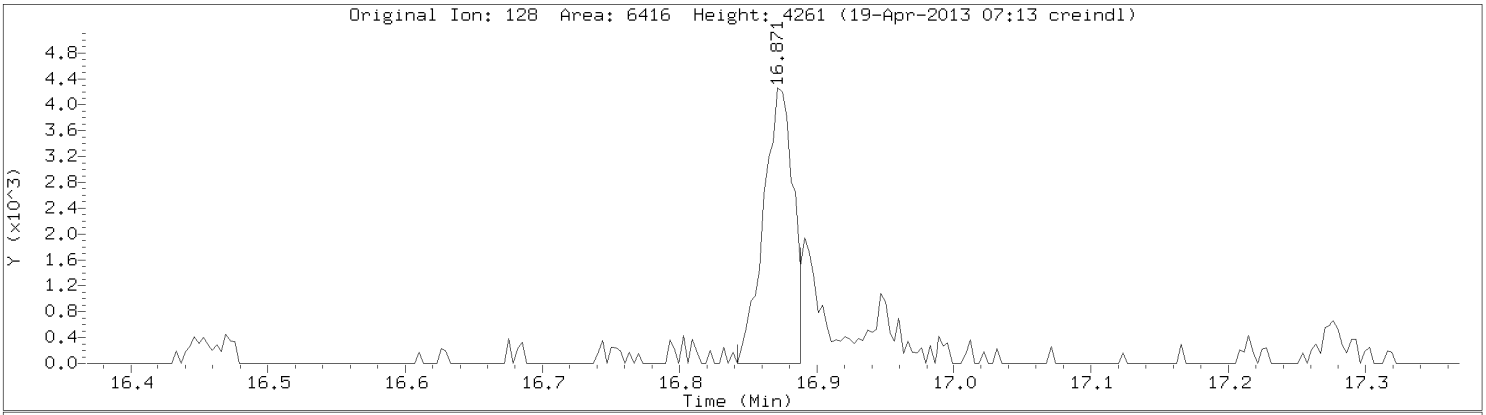


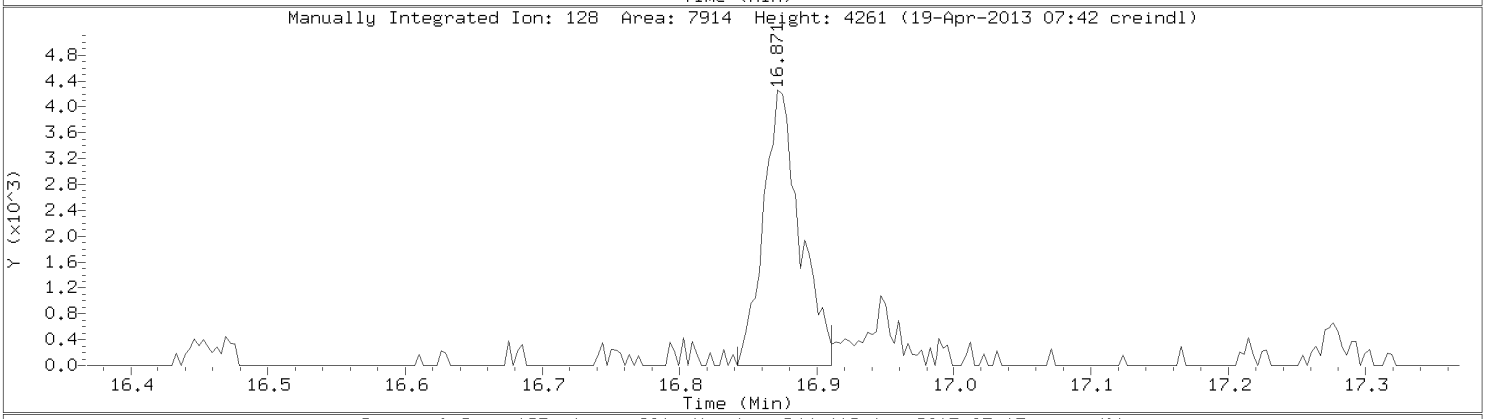
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Injection Date: 18-APR-2013 22:38
Instrument: 10airD.i
Lab Sample ID: 10224616009

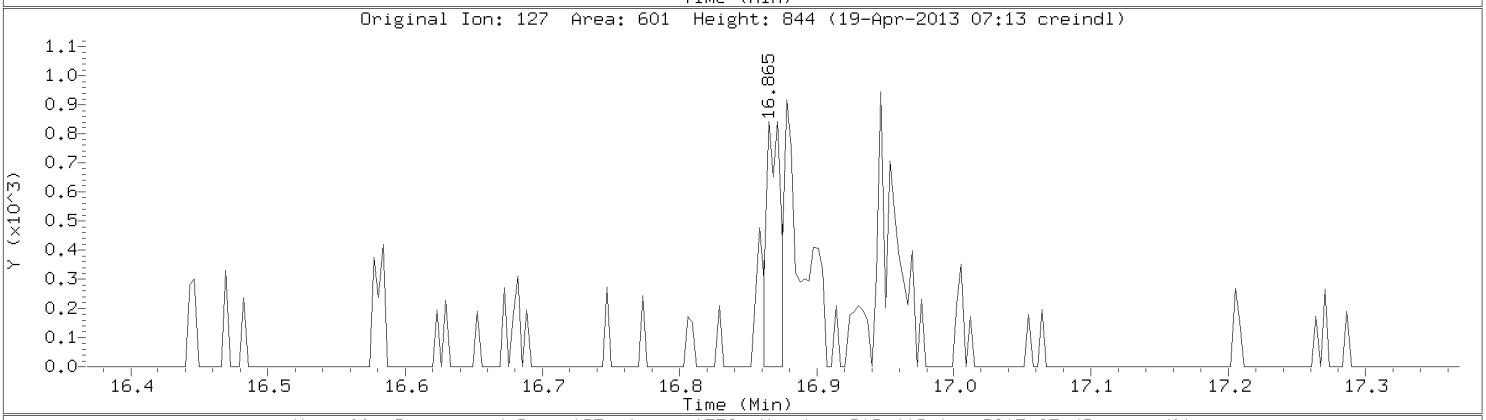


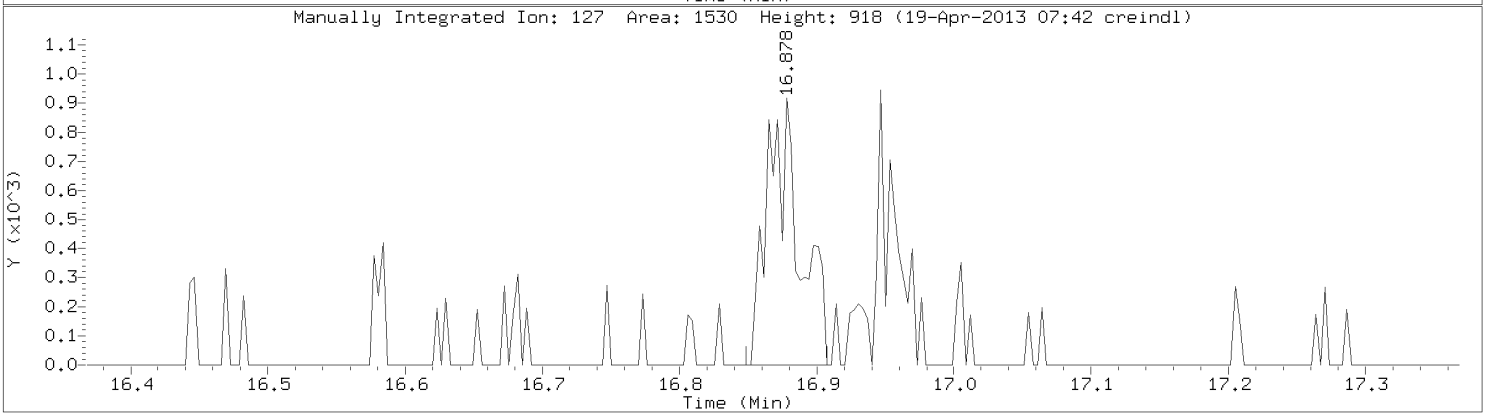
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10823.d
Injection Date: 18-APR-2013 22:38
Instrument: 10airD.i
Lab Sample ID: 10224616009

Compound: Naphthalene
CAS Number: 91-20-3









Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.d
Report Date: 21-Apr-2013 07:55

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041913.b\10910.d
Lab Smp Id: 10224616010
Inj Date : 19-APR-2013 18:46
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17167
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Meth Date : 21-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 10
Dil Factor: 1.55000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.550	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
1	Propylene	41	Compound Not Detected.					
2	Dichlorodifluoromethane	85	Compound Not Detected.					
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	Compound Not Detected.					
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	Compound Not Detected.					
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	3.460	3.424	(0.570)	159324	8.01039	12.4(M)
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	Compound Not Detected.					
13	Acetone	43	3.695	3.673	(0.608)	10385597	182.794	283(AH)
14	Isopropyl Alcohol	45	Compound Not Detected.					
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	Compound Not Detected.					
19	Methylene chloride	49	4.078	4.045	(0.671)	38091	1.05659	1.64(MH)
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	4.163	4.179	(0.685)	244183	2.13830	3.31
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.d
Report Date: 21-Apr-2013 07:55

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	24 Vinyl Acetate	43	Compound Not Detected.					
	25 1,1-Dichloroethane	63	Compound Not Detected.					
$	26 Hexane-d14(S)	66	4.682	4.660	(0.771)	81461	1.46948	1.47(RM)
	27 Methyl Ethyl Ketone	72	4.748	4.738	(0.782)	388559	22.6605	35.1(Q)
	28 n-Hexane	57	4.797	4.777	(0.790)	117798	2.27585	3.53(Q)
	29 cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30 Ethyl Acetate	43	Compound Not Detected.					
	31 Chloroform	83	5.101	5.085	(0.840)	206720	2.13702	3.31
	32 Tetrahydrofuran	42	Compound Not Detected.					
	33 1,1,1-Trichloroethane	97	5.584	5.569	(0.919)	8615	0.09210	0.143(M)
	34 1,2-Dichloroethane	62	Compound Not Detected.					
	35 Benzene	78	5.872	5.856	(0.967)	158313	1.39632	2.16
	36 Carbon tetrachloride	117	Compound Not Detected.					
	37 Cyclohexane	56	5.908	5.882	(0.973)	39198	1.17652	1.82(QM)
*	38 1,4-Difluorobenzene	114	6.075	6.069	(1.000)	1244419	10.0000	
	39 2,2,4-Trimethylpentane	57	6.258	6.245	(1.030)	260889	2.27693	3.53
	40 Heptane	43	6.421	6.415	(1.057)	143739	3.74650	5.81
	41 1,2-Dichloropropane	63	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,4-Dioxane	88	Compound Not Detected.					
	44 Bromodichloromethane	83	Compound Not Detected.					
	45 Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47 trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48 Toluene-d8 (S)	98	7.833	7.837	(1.289)	775278	6.80556	6.80(R)
	49 Toluene	91	7.925	7.925	(1.305)	1054953	6.77101	10.5
	50 1,1,2-Trichloroethane	97	Compound Not Detected.					
	51 Methyl Butyl Ketone	43	Compound Not Detected.					
	52 Dibromochloromethane	129	Compound Not Detected.					
	53 1,2-Dibromoethane	107	Compound Not Detected.					
	54 Tetrachloroethene	166	8.909	8.909	(0.920)	155236	4.59646	7.12
*	55 Chlorobenzene - d5	117	9.683	9.684	(1.000)	440945	10.0000	
	56 Chlorobenzene	112	Compound Not Detected.					
	57 Ethyl Benzene	91	10.030	10.040	(1.036)	143476	1.50267	2.33
	58 m&p-Xylene	91	10.203	10.210	(1.054)	596394	7.05932	10.9
	59 Bromoform	173	Compound Not Detected.					
	60 Styrene	104	10.700	10.707	(1.105)	24542	0.76505	1.18(M)
	61 o-Xylene	91	10.772	10.785	(1.112)	189057	2.14910	3.33
	62 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63 Isopropylbenzene	105	Compound Not Detected.					
	64 N-Propylbenzene	91	Compound Not Detected.					
	65 4-Ethyltoluene	105	Compound Not Detected.					
	66 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
	67 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
	68 1,3-Dichlorobenzene	146	Compound Not Detected.					
	69 Sec- Butylbenzene	105	Compound Not Detected.					
$	70 1,4-dichlorobenzene-d4 (S)	150	13.472	13.466	(1.391)	176297	7.11538	7.12
	71 Benzyl Chloride	91	Compound Not Detected.					
	72 1,4-Dichlorobenzene	146	Compound Not Detected.					
	73 1,2-Dichlorobenzene	146	Compound Not Detected.					
	74 N-Butylbenzene	91	14.361	14.335	(1.483)	364444	3.57400	5.54
	75 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76 Naphthalene	128	16.865	16.867	(1.742)	6901	0.45134	0.700(M)
	77 Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.d
Report Date: 21-Apr-2013 07:55

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.d
Report Date: 21-Apr-2013 07:55

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10910.d
Lab Smp Id: 10224616010
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Misc Info: 17167

Calibration Date: 19-APR-2013
Calibration Time: 12:14
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

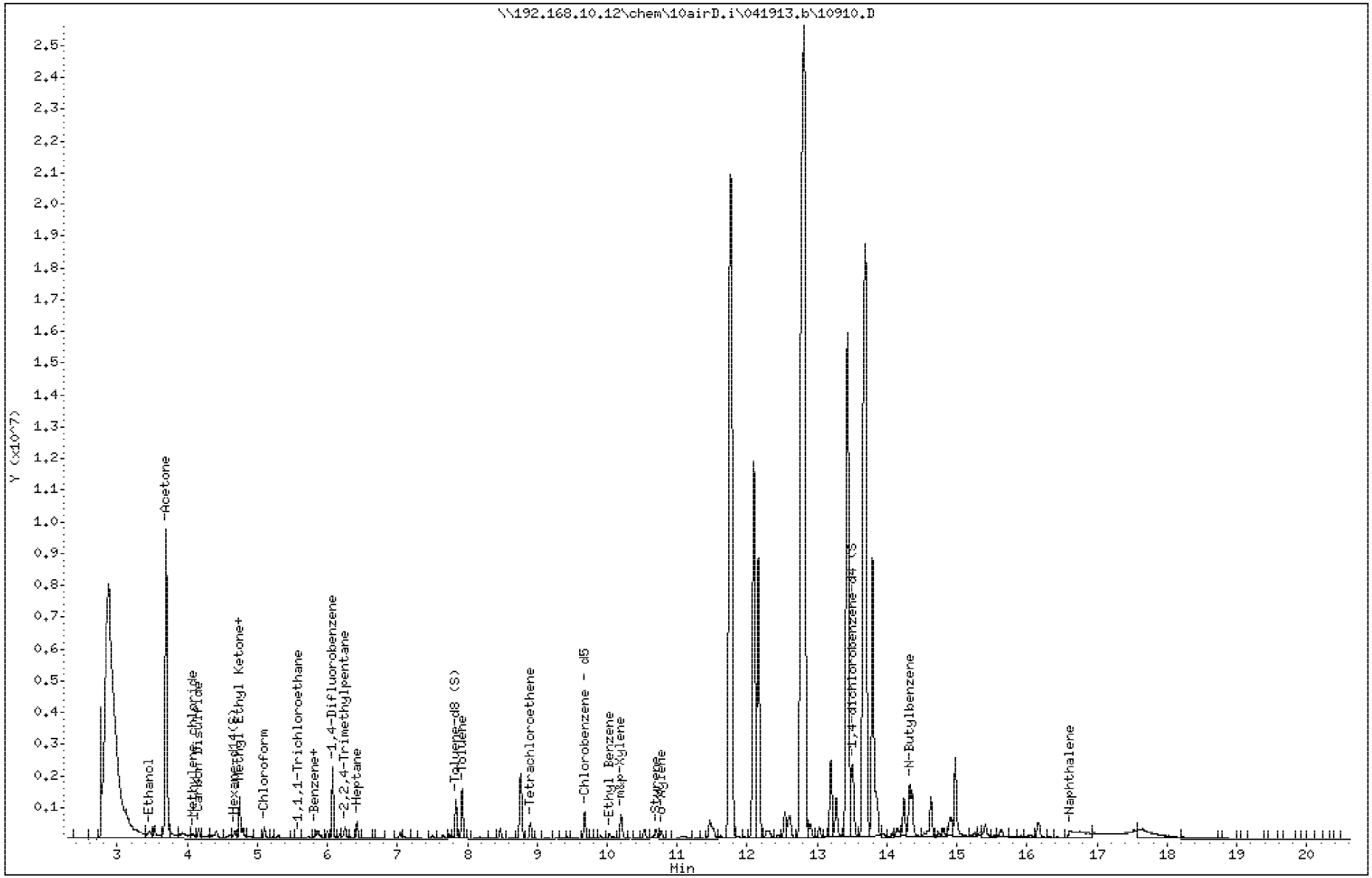
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1244419	-13.12
55 Chlorobenzene - d	825122	495073	1155171	440945	-46.56 <-

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.08	0.16
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D
Date : 19-APR-2013 18:46
Client ID:
Sample Info:

Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32



Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D

Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

Sample Info:

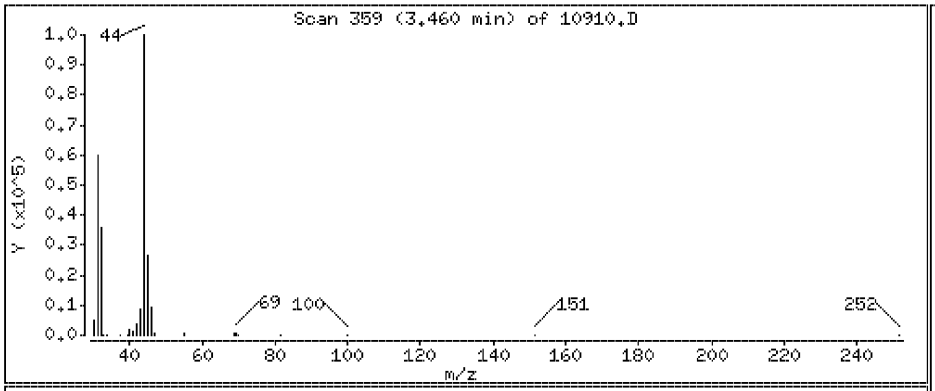
Operator: CJR

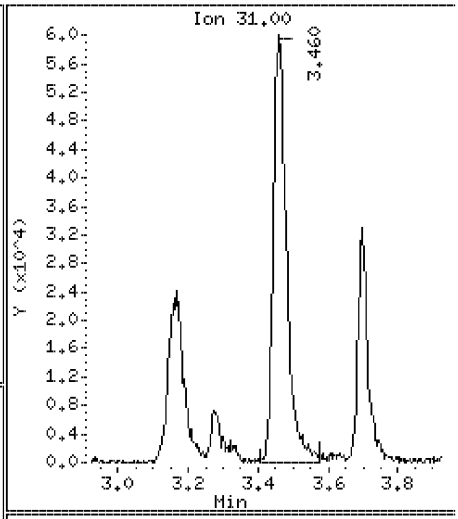
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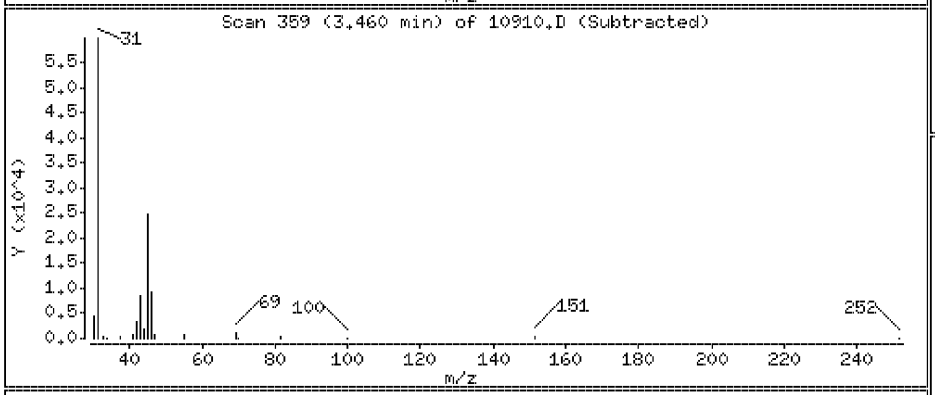
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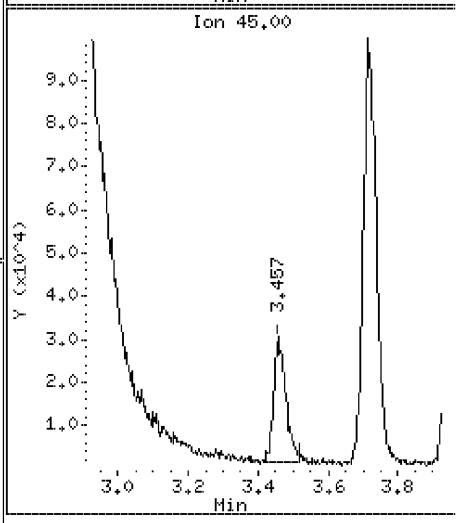
9 Ethanol

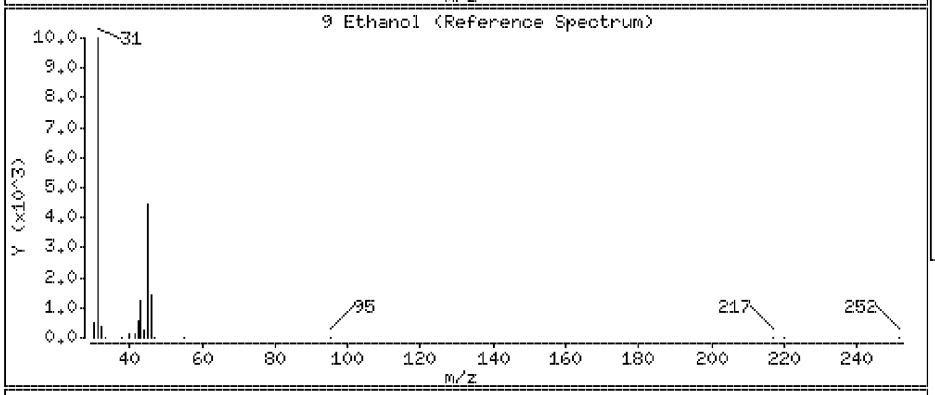
Concentration: 12.4 ppbv

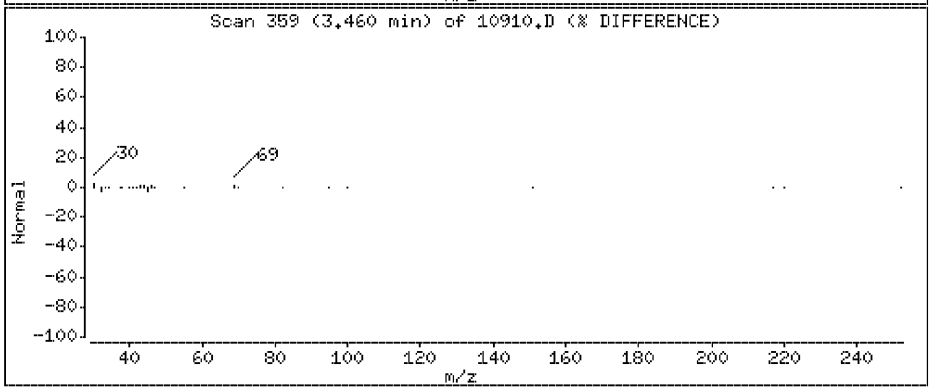












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D

Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

Sample Info:

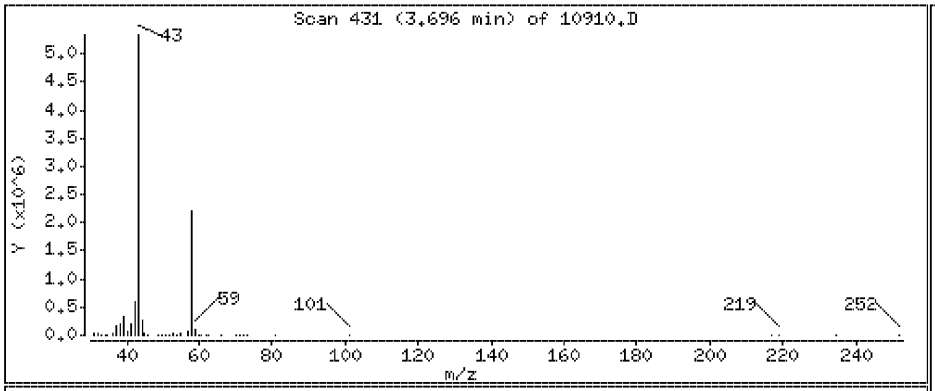
Operator: CJR

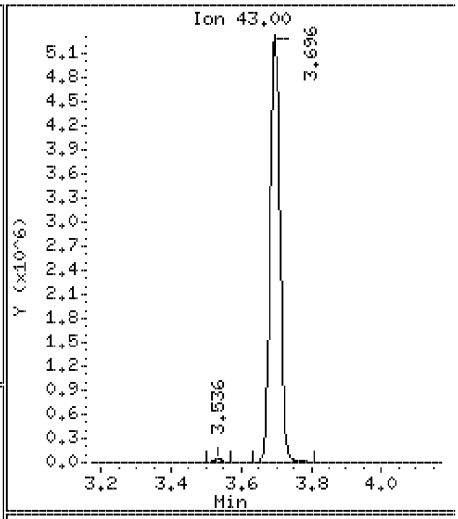
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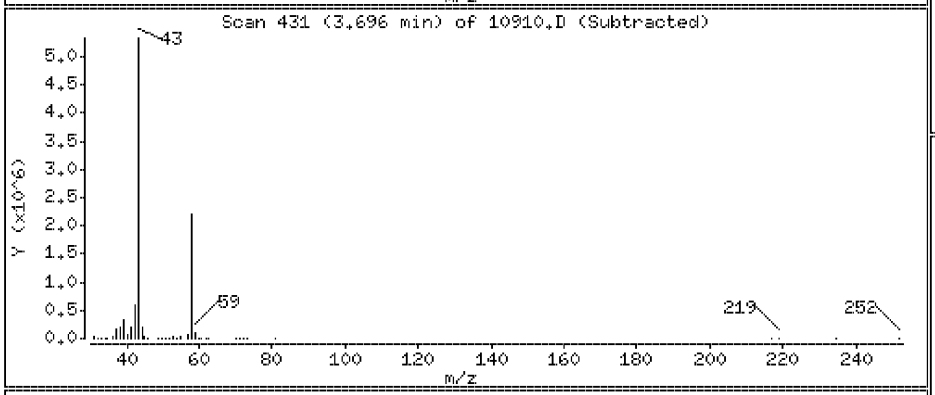
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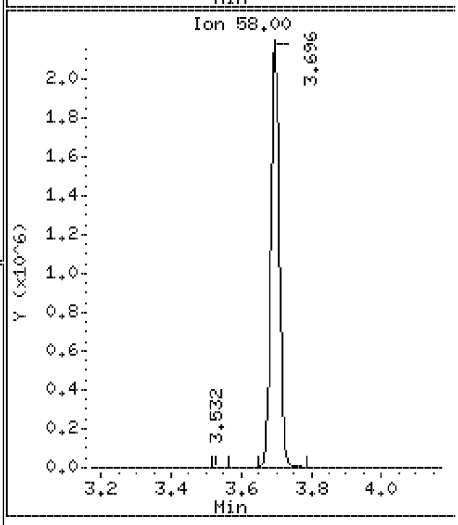
13 Acetone

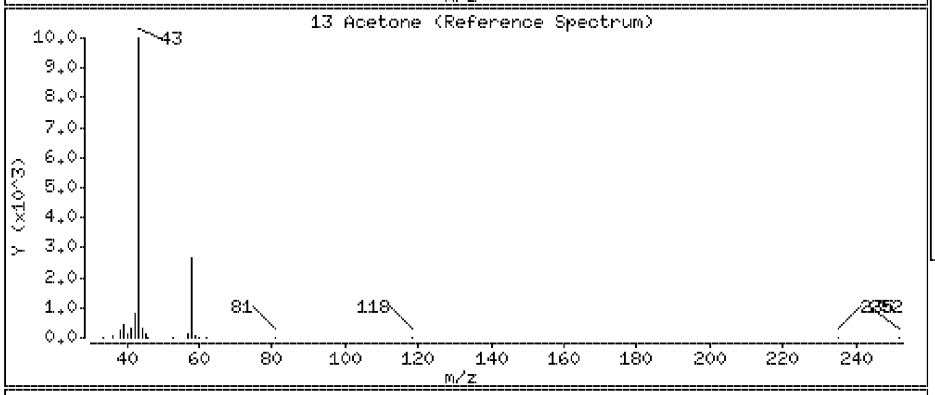
Concentration: 283 ppbv

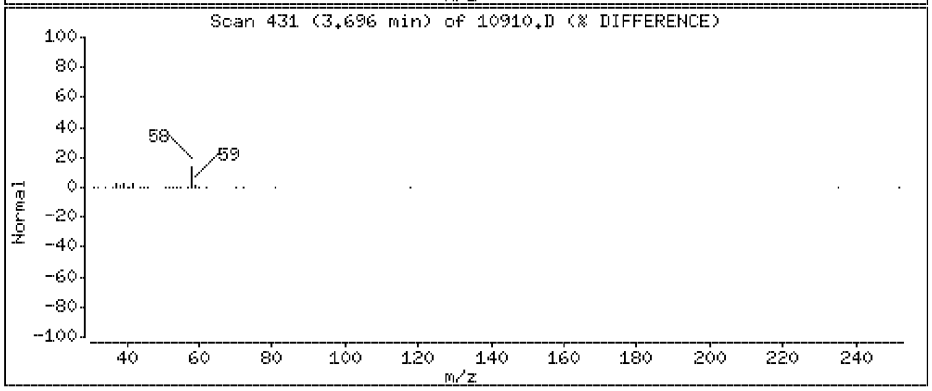












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D

Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

Sample Info:

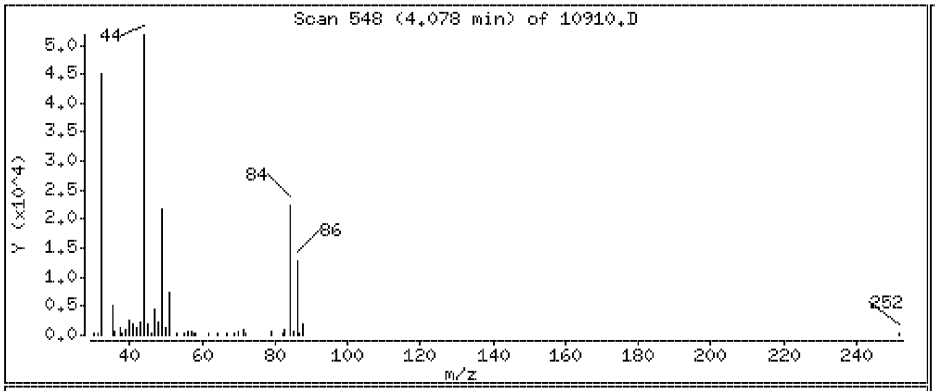
Operator: CJR

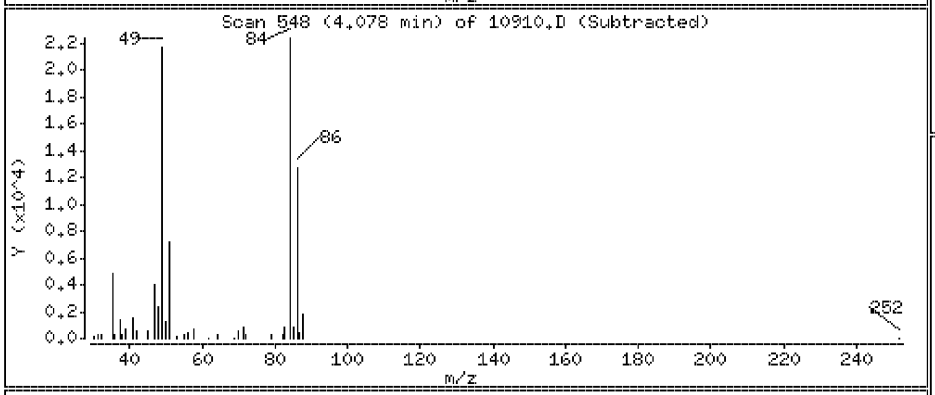
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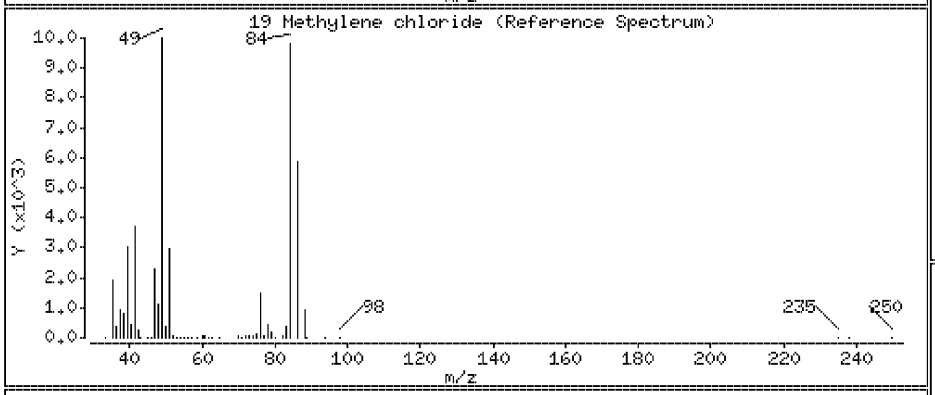
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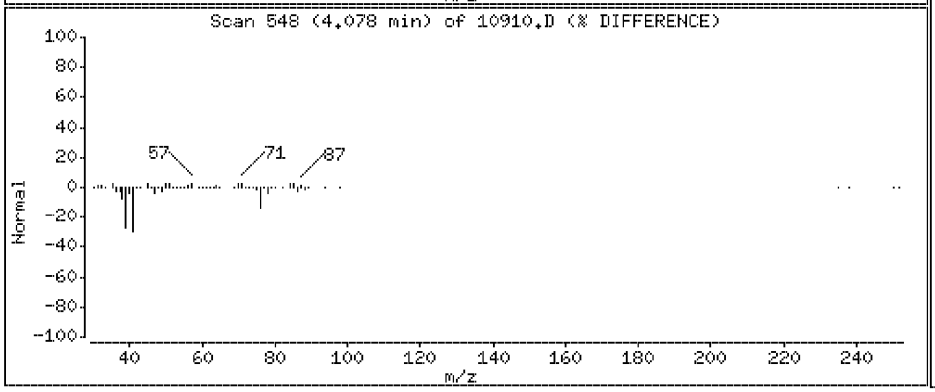
19 Methylene chloride

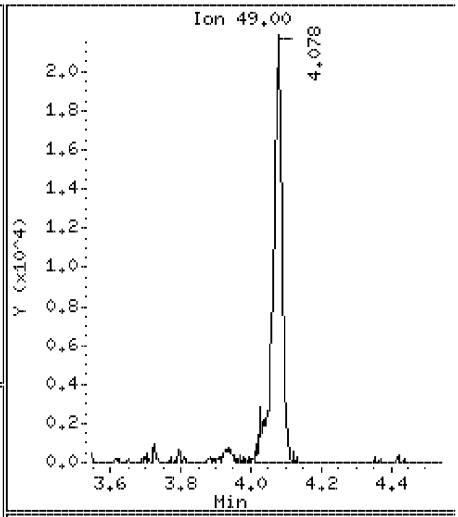
Concentration: 1.64 ppbv

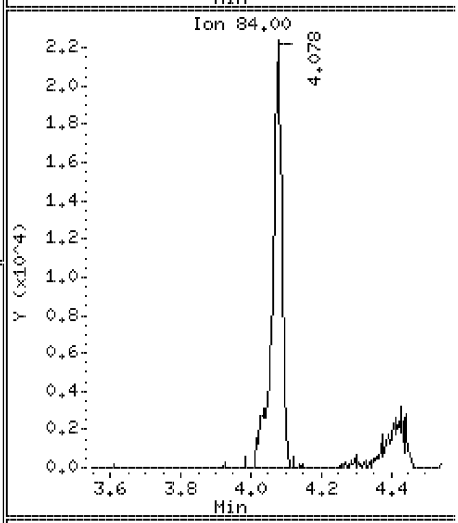


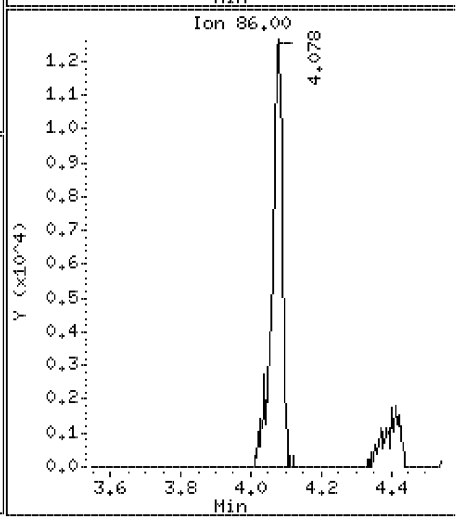












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D

Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

Sample Info:

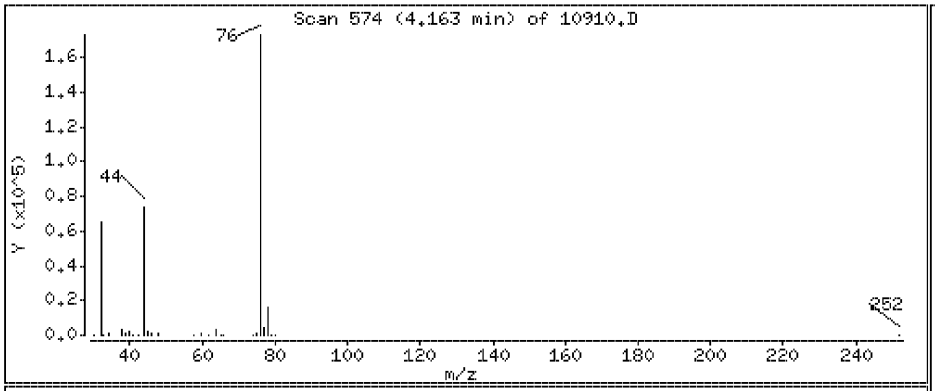
Operator: CJR

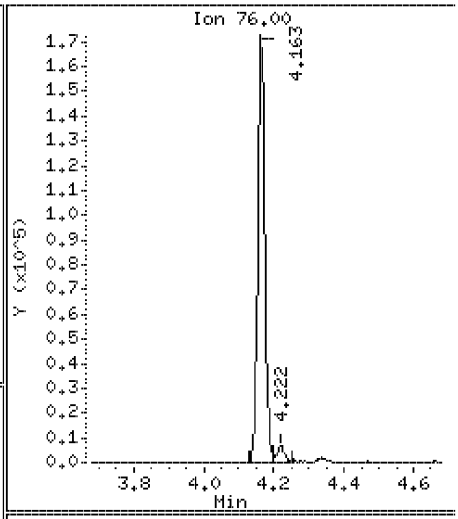
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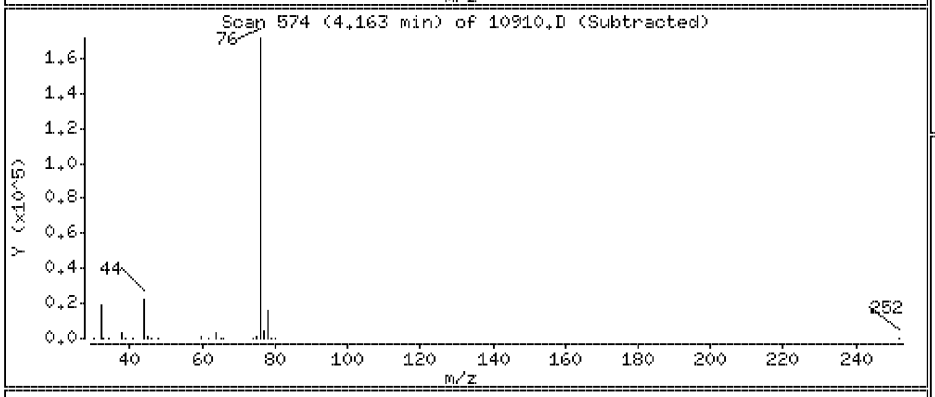
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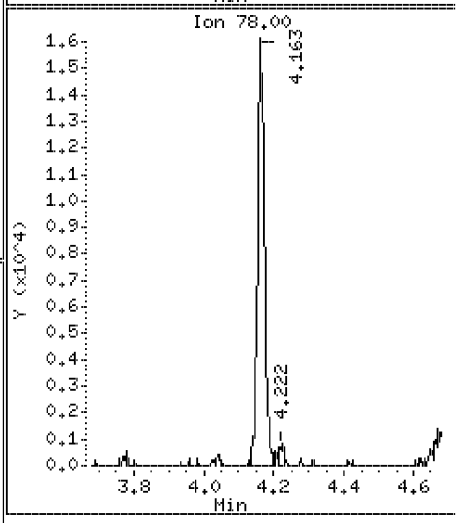
21 Carbon Disulfide

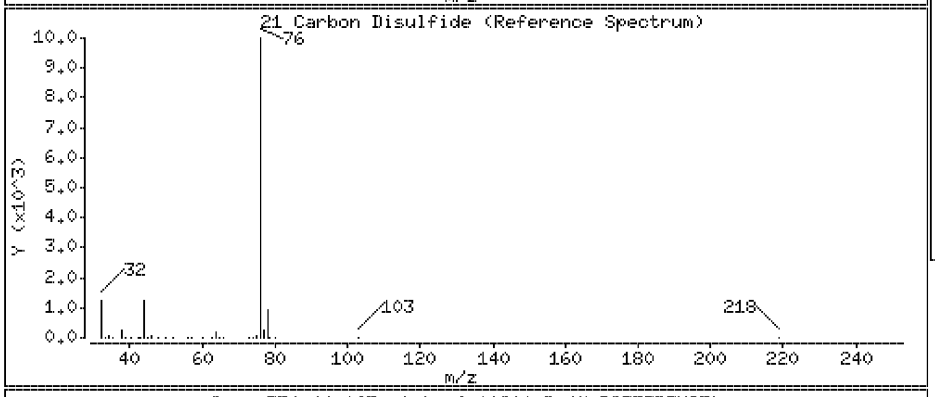
Concentration: 3.31 ppbv

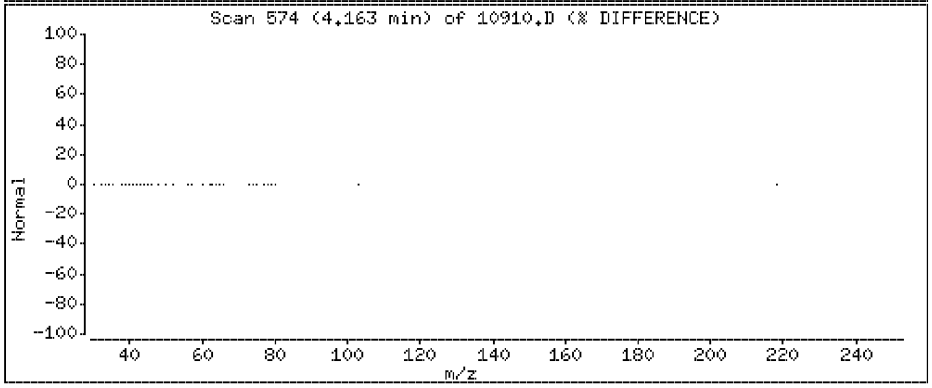












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D

Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

Sample Info:

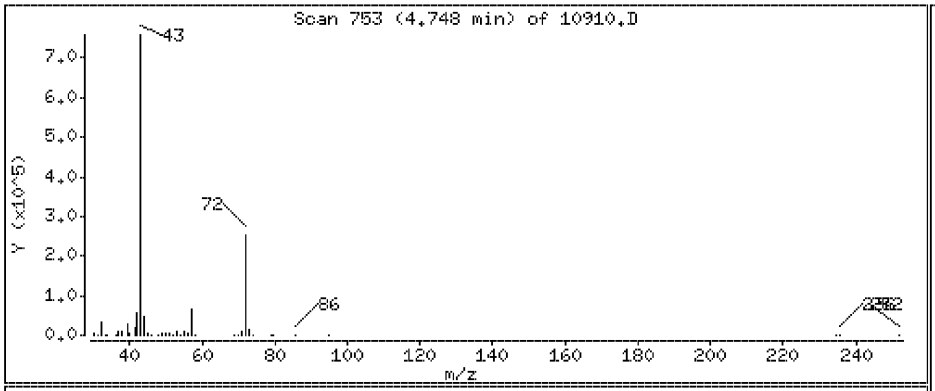
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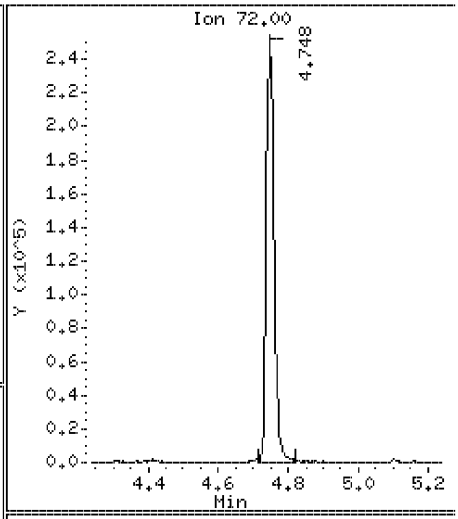
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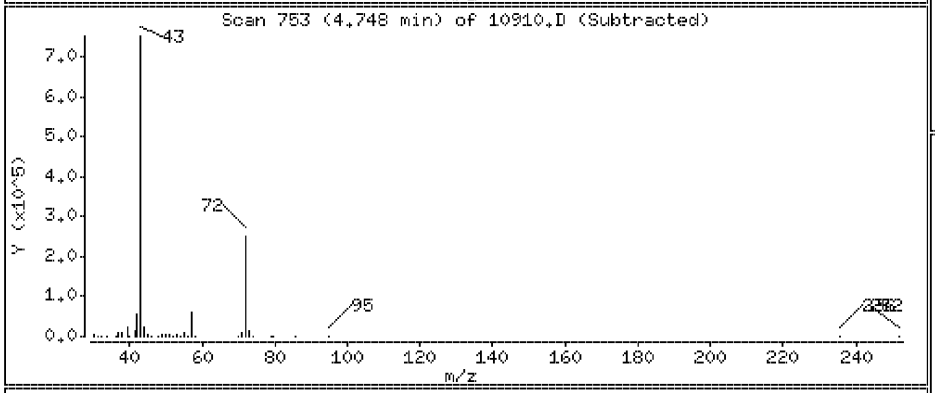
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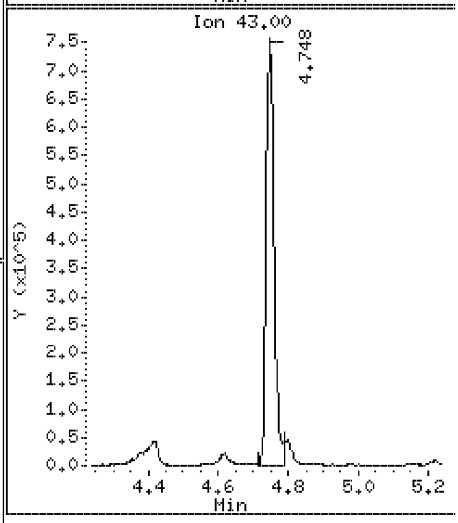
27 Methyl Ethyl Ketone

Concentration: 35.1 ppbv









Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D

Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

Sample Info:

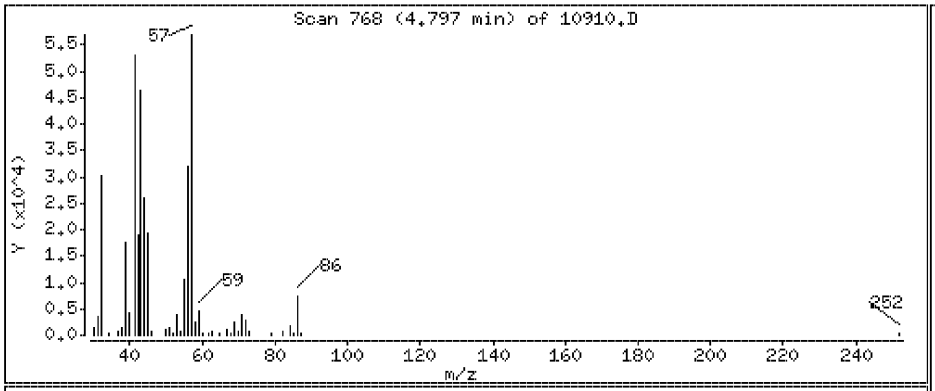
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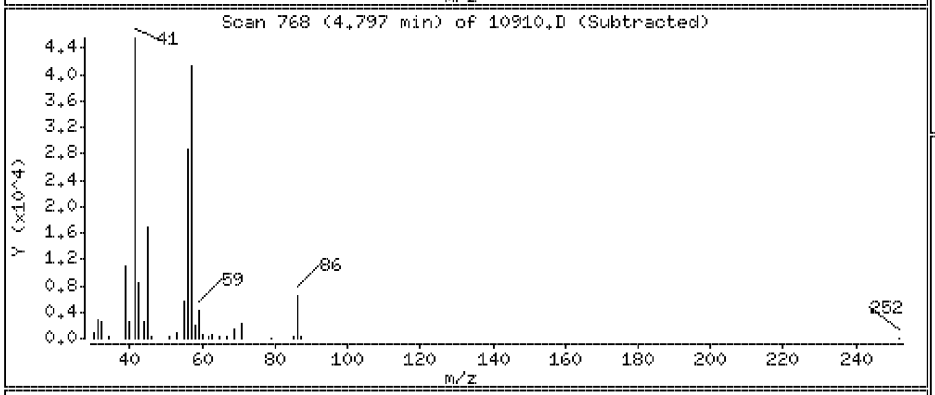
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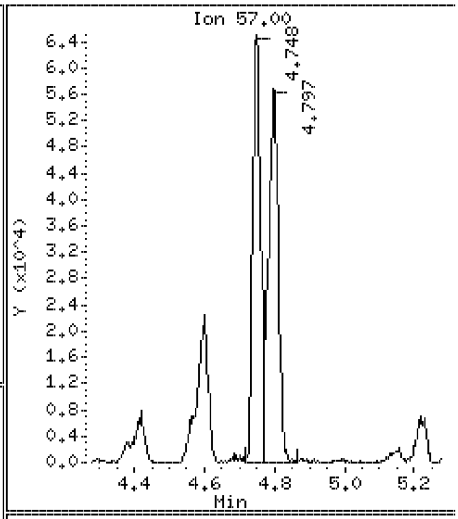
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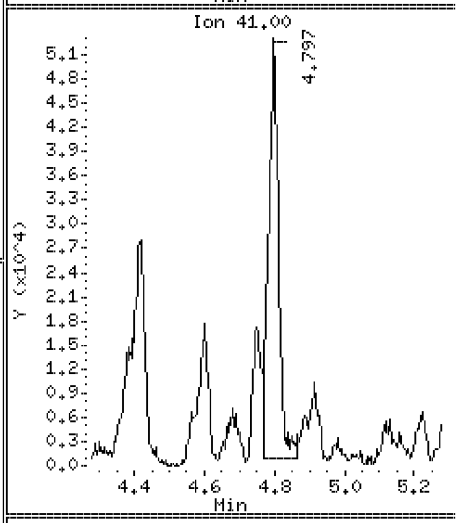
28 n-Hexane

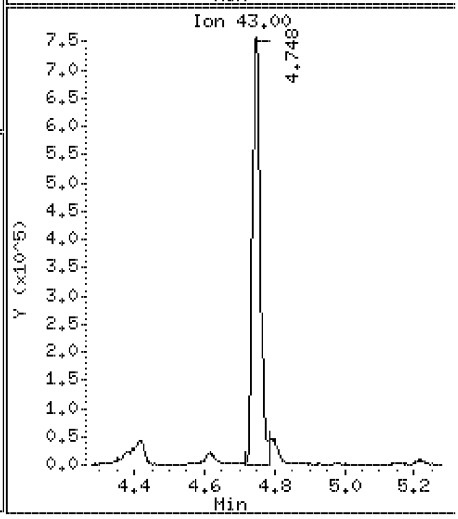
Concentration: 3.53 ppbv











Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D

Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

Sample Info:

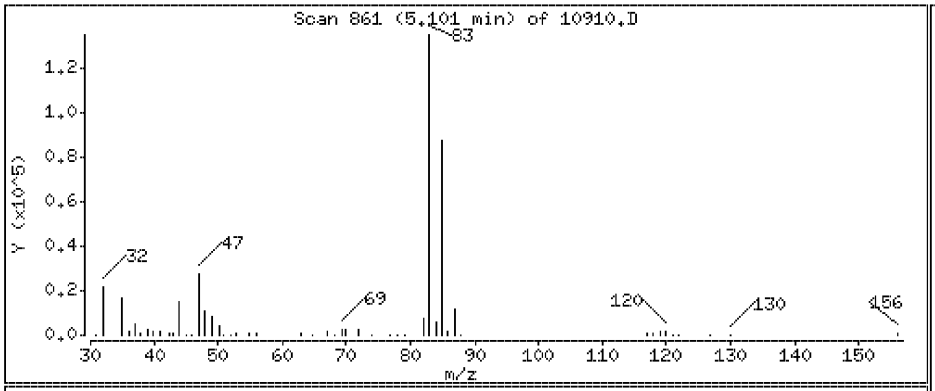
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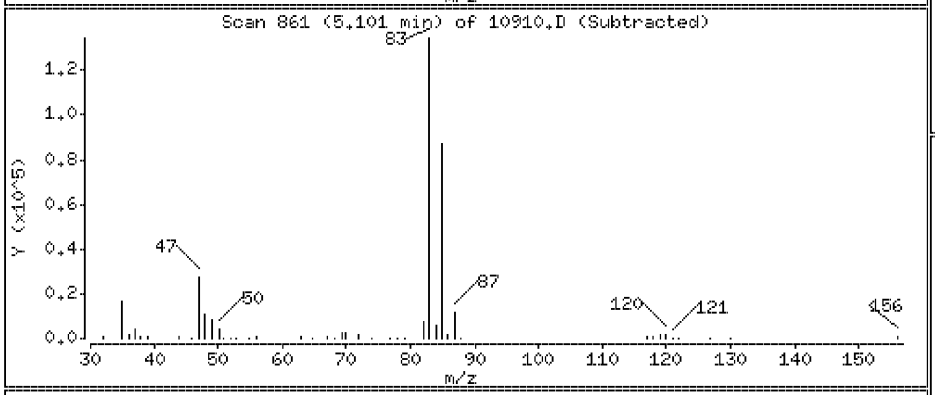
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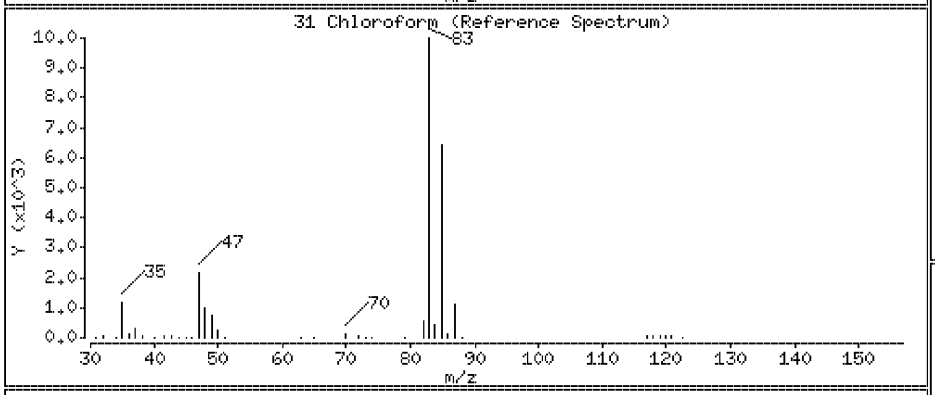
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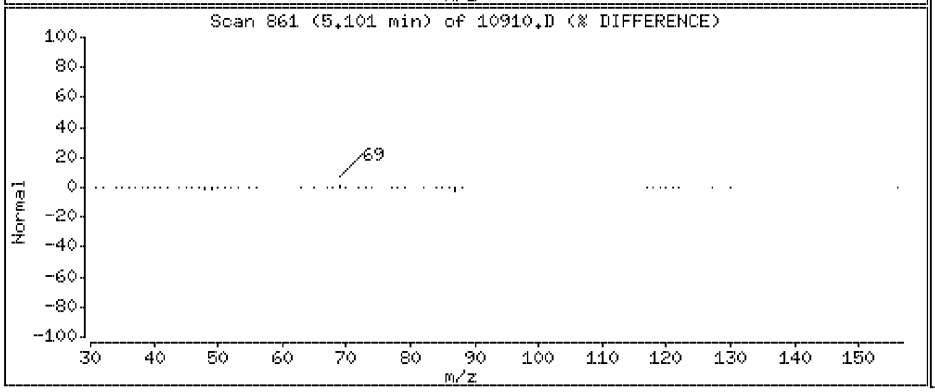
31 Chloroform

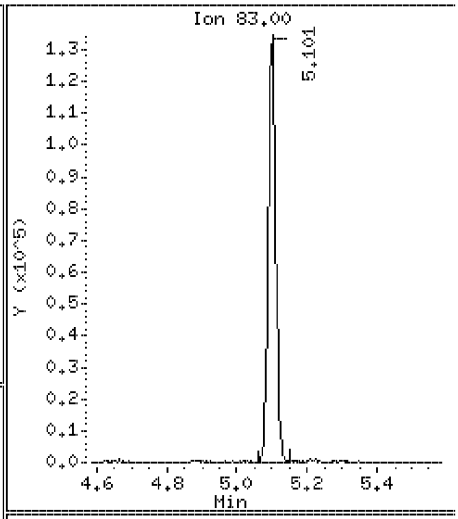
Concentration: 3.31 ppbv

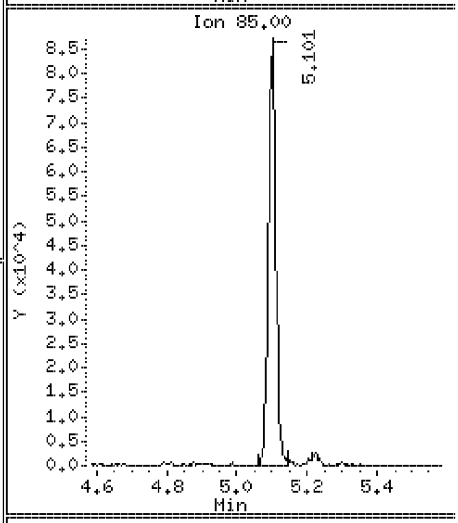


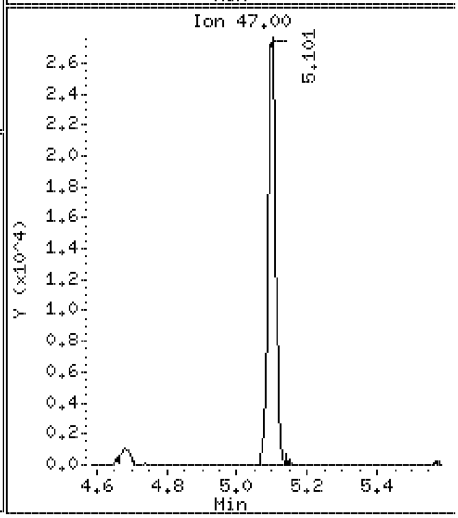












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D

Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

Sample Info:

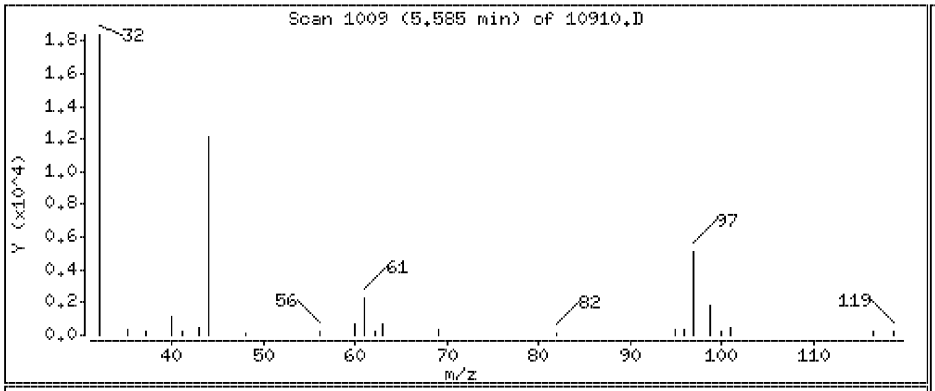
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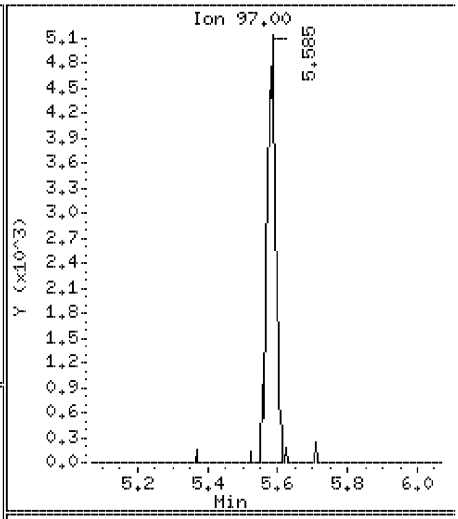
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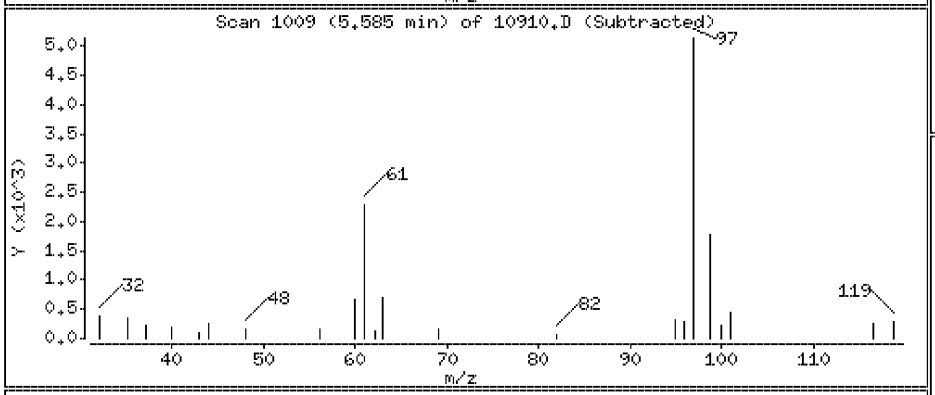
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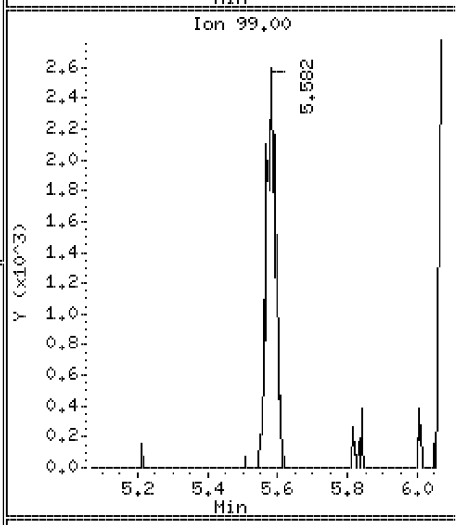
33 1,1,1-Trichloroethane

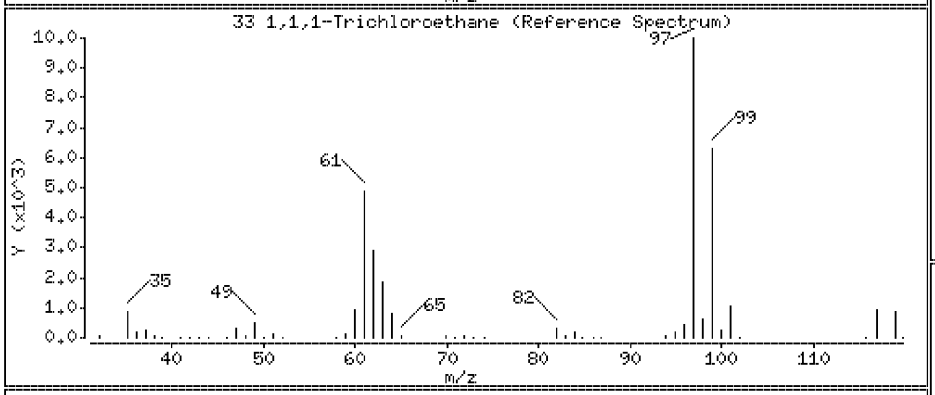
Concentration: 0.143 ppbv

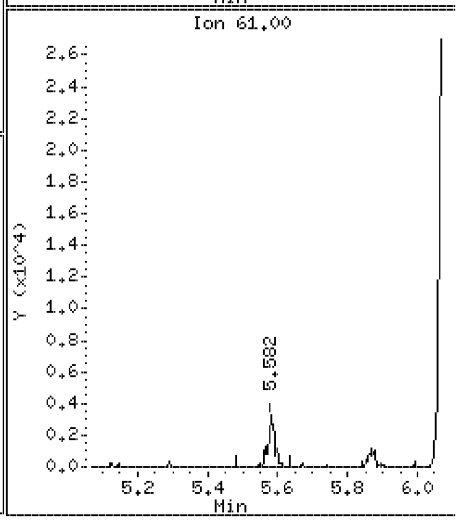


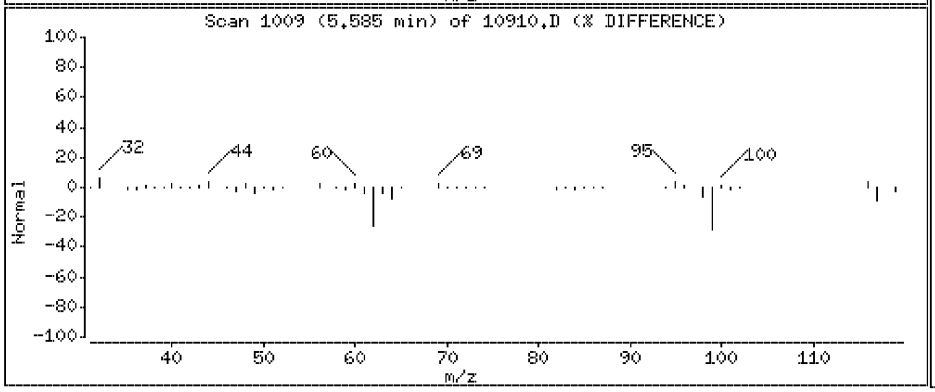












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Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

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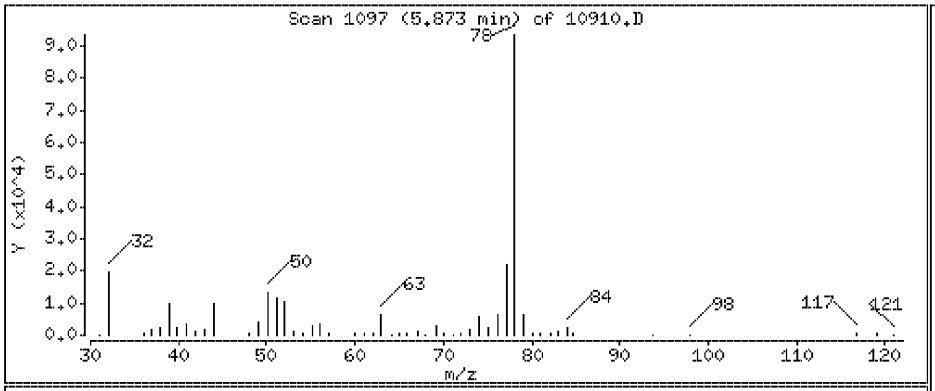
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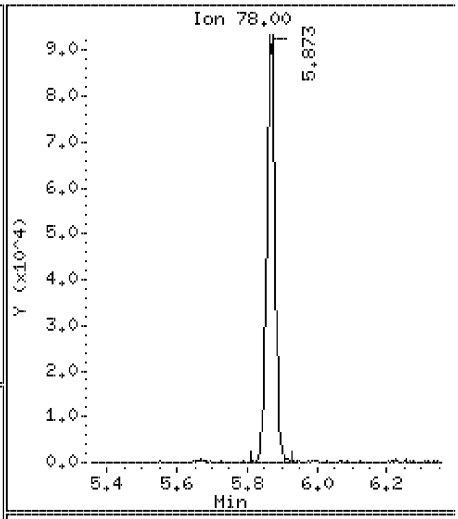
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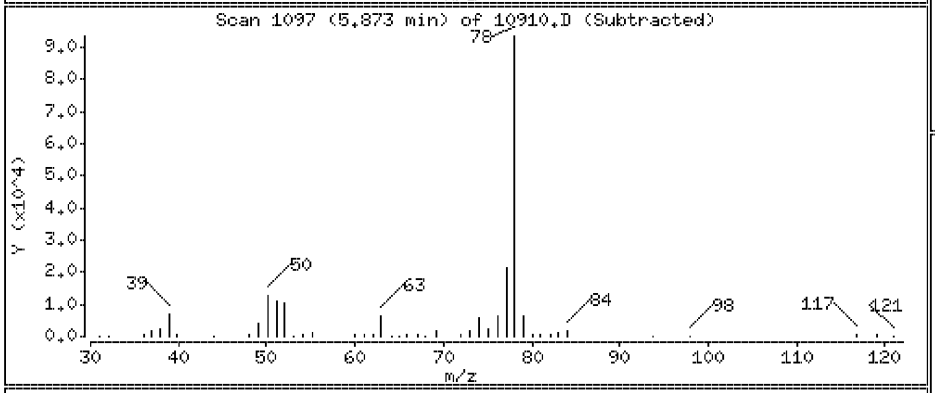
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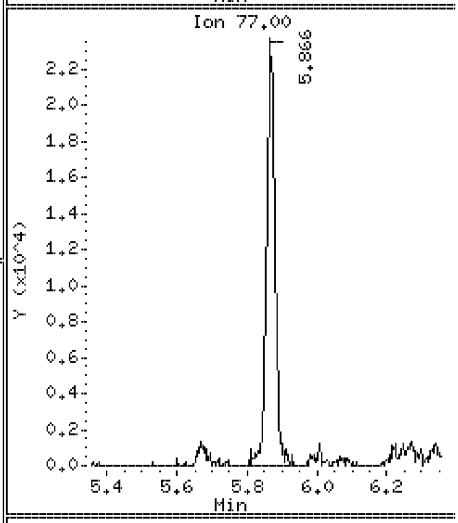
35 Benzene

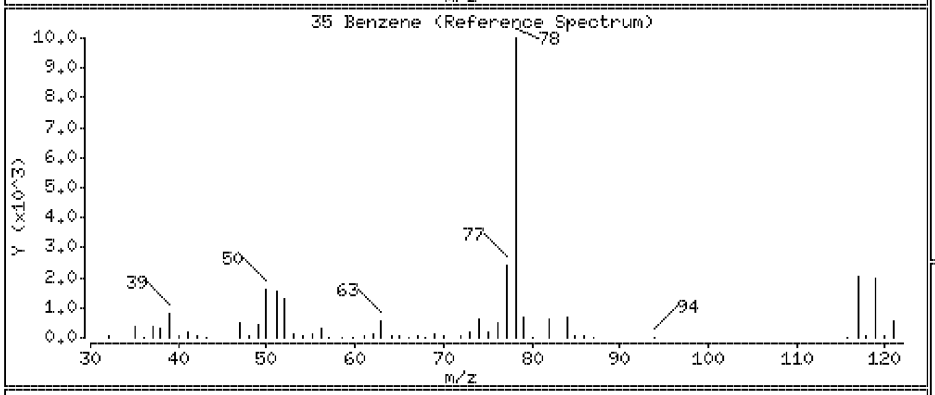
Concentration: 2.16 ppbv

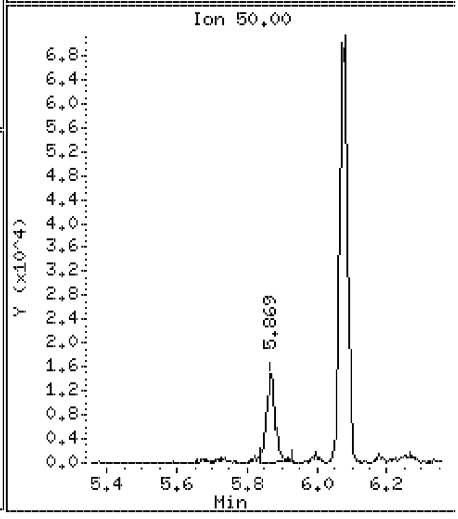


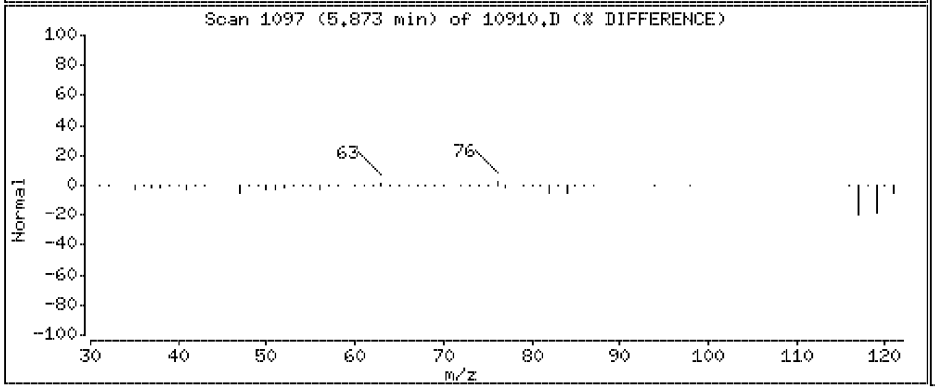












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Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

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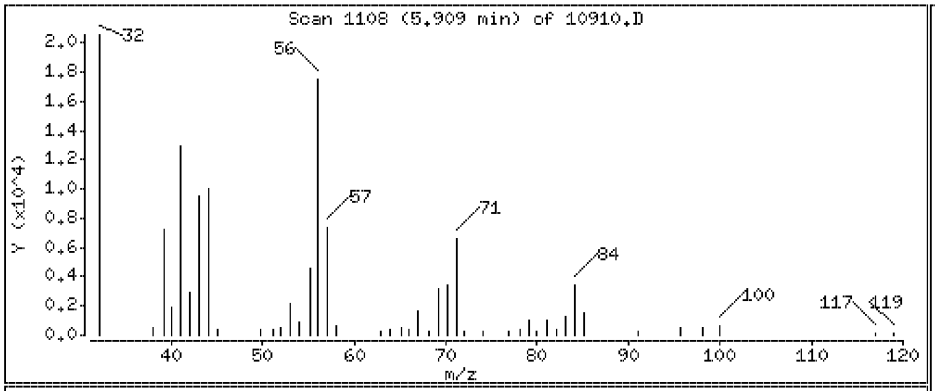
Operator: CJR

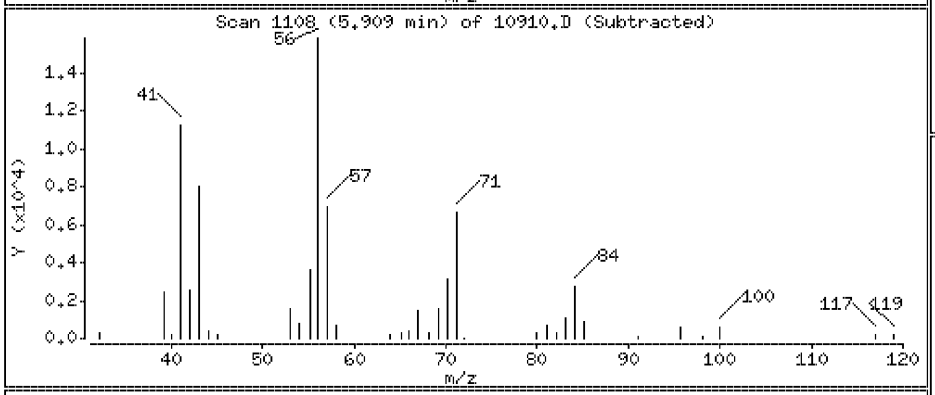
Column phase: J&W DB-5

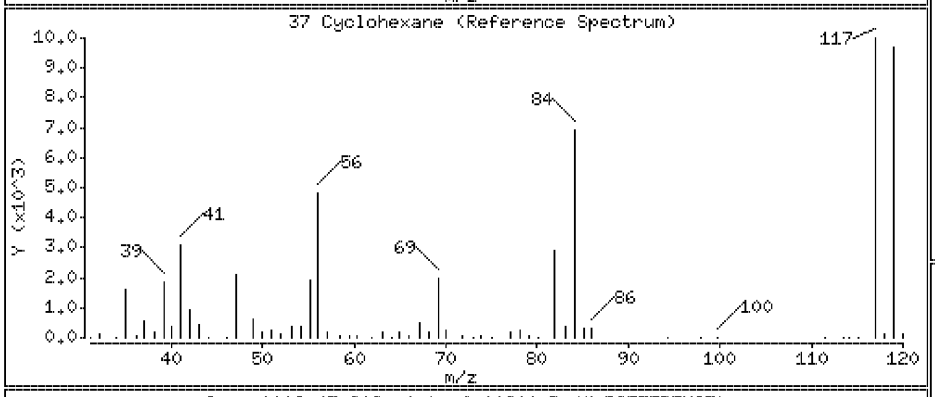
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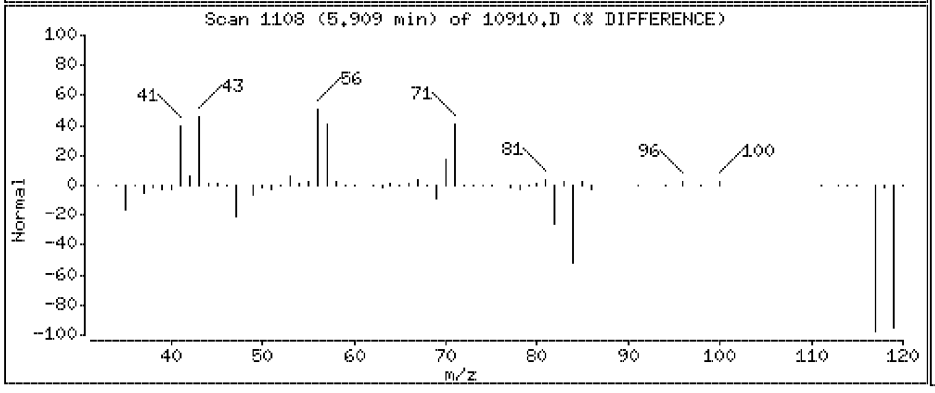
37 Cyclohexane

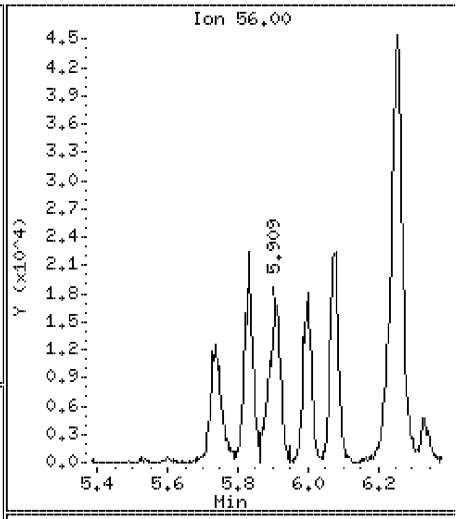
Concentration: 1.82 ppbv

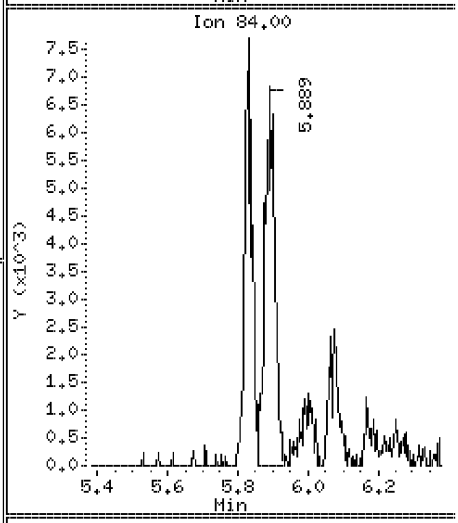


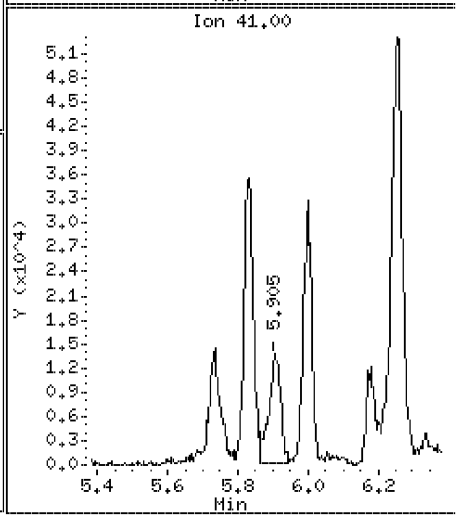












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Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

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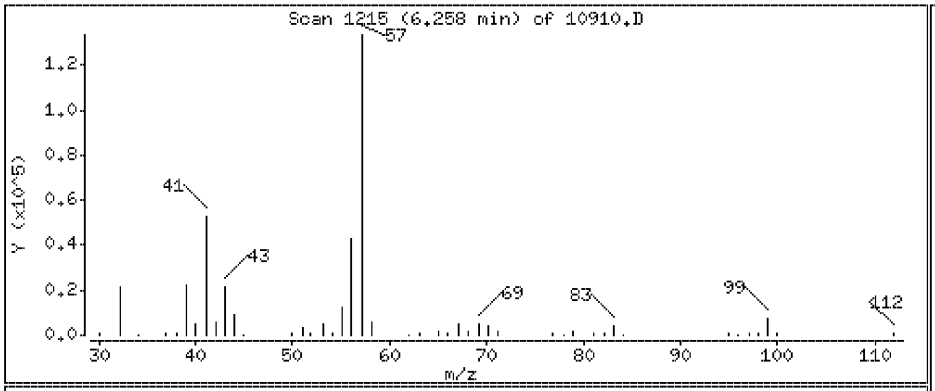
Operator: CJR

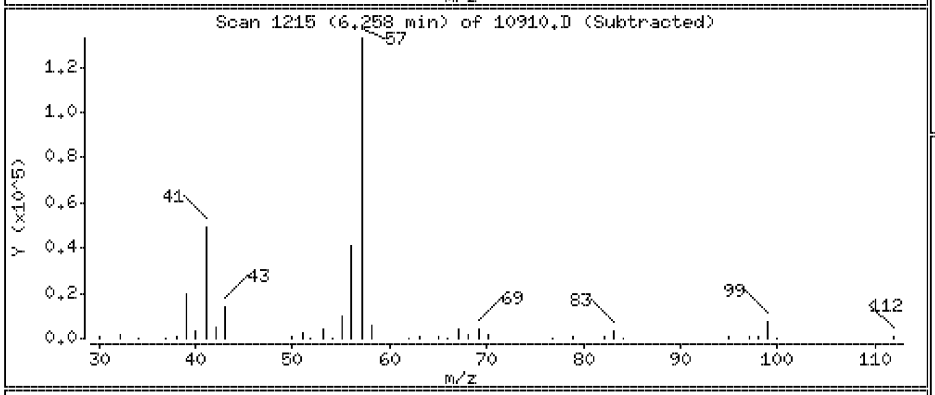
Column phase: J&W DB-5

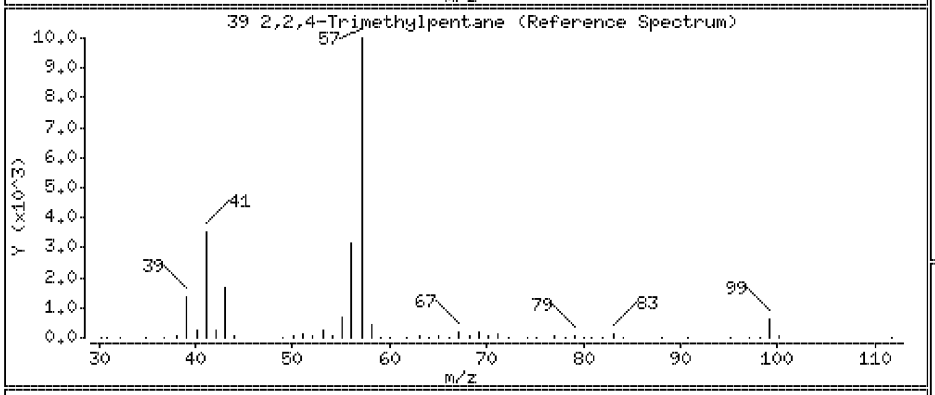
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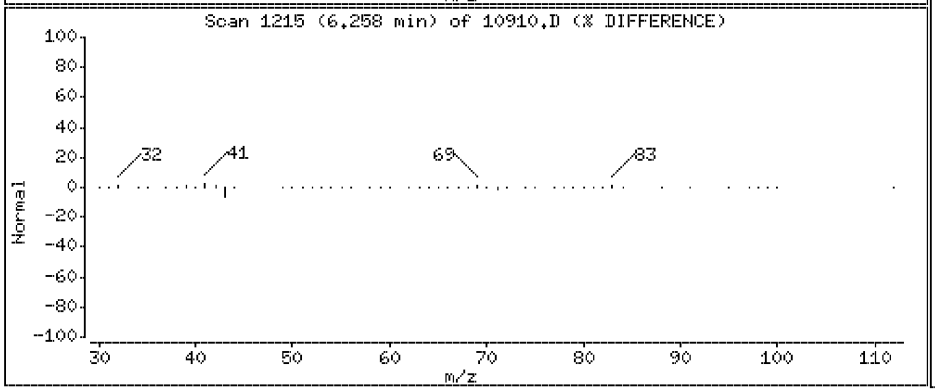
39 2,2,4-Trimethylpentane

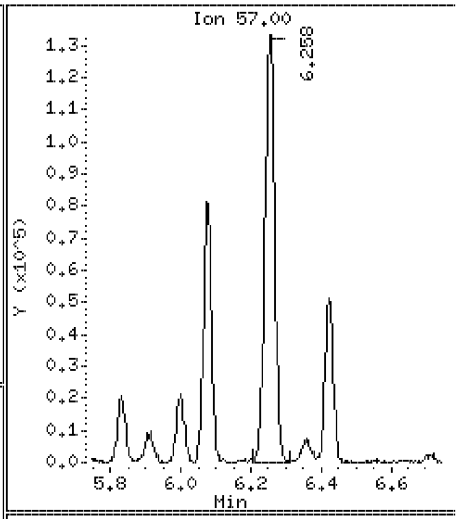
Concentration: 3.53 ppbv

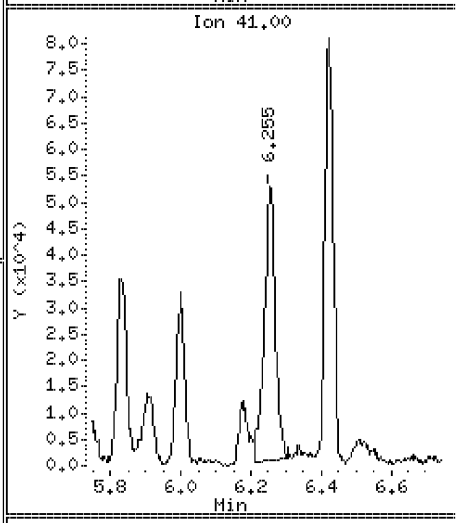


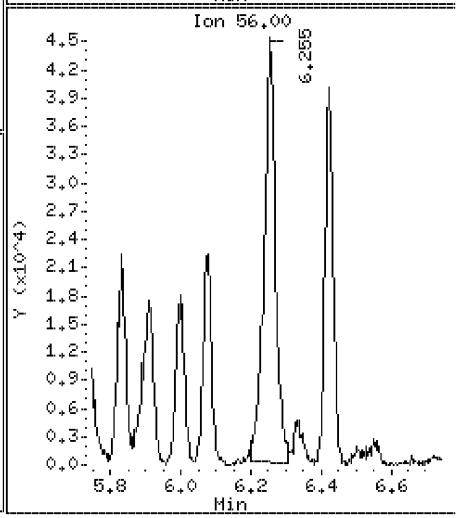












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Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

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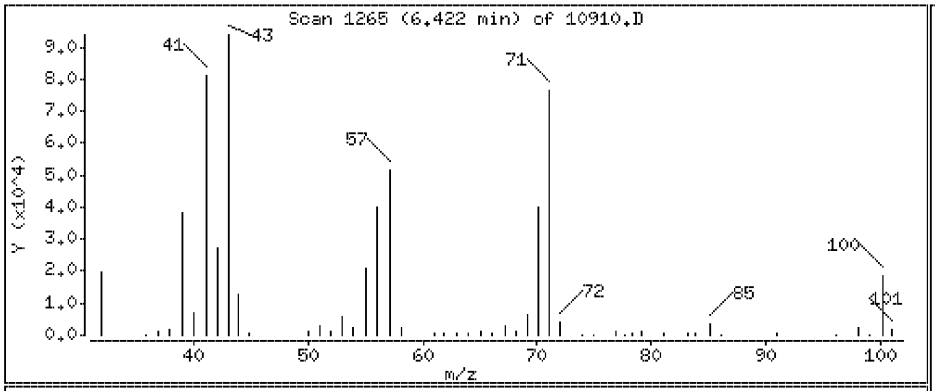
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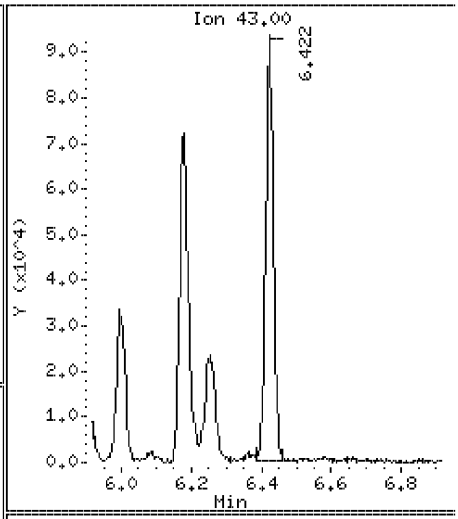
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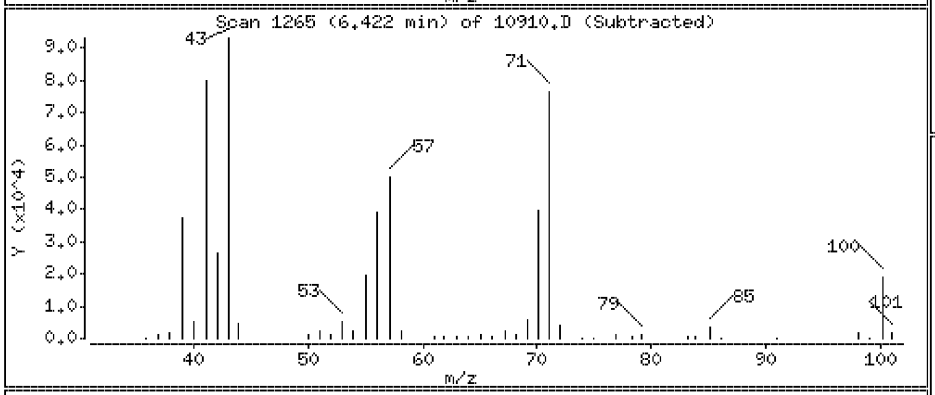
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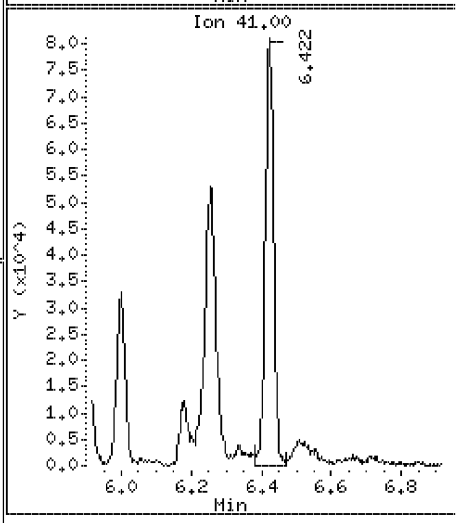
40 Heptane

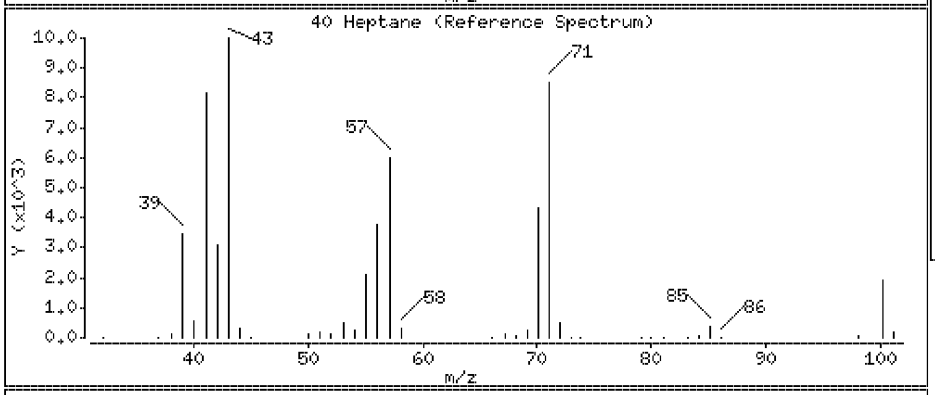
Concentration: 5.81 ppbv

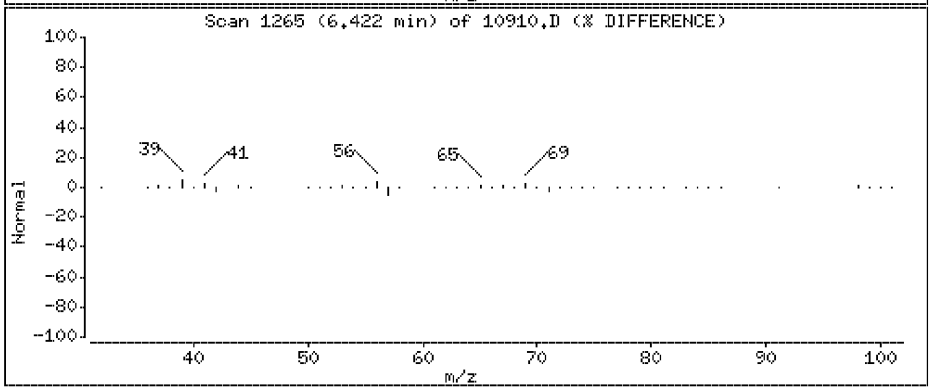












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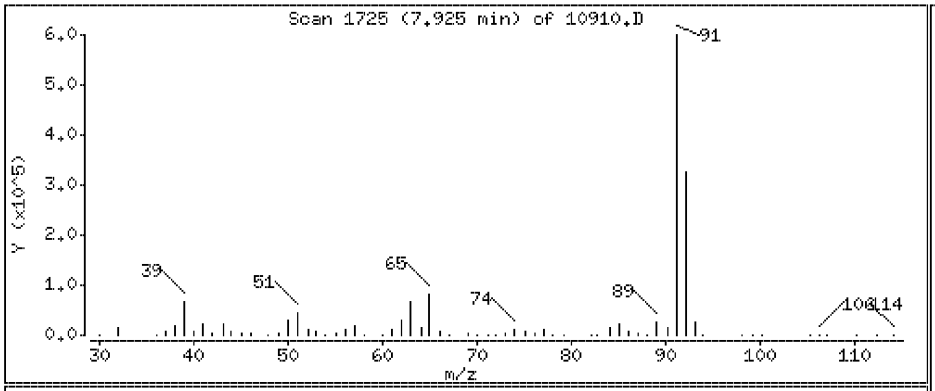
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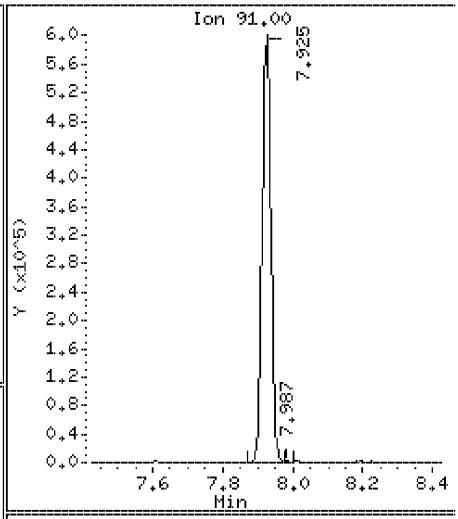
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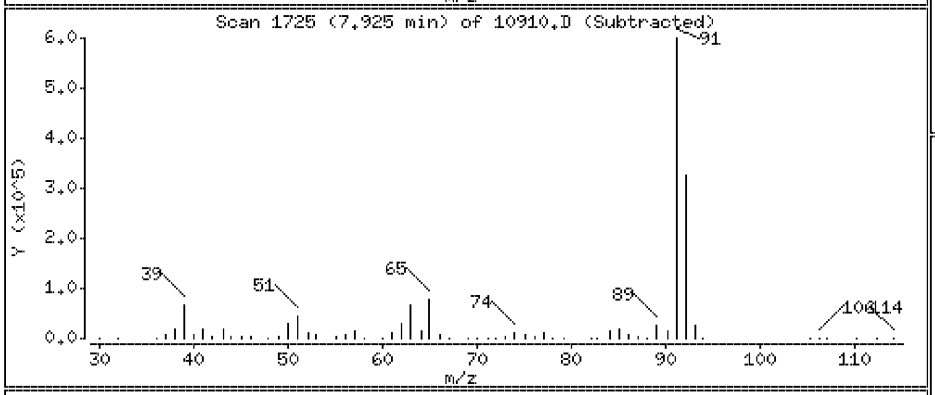
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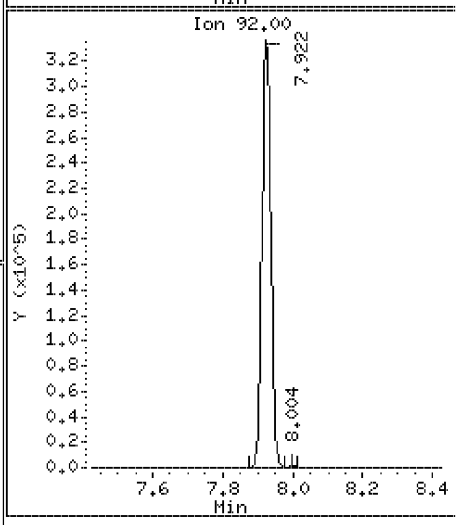
49 Toluene

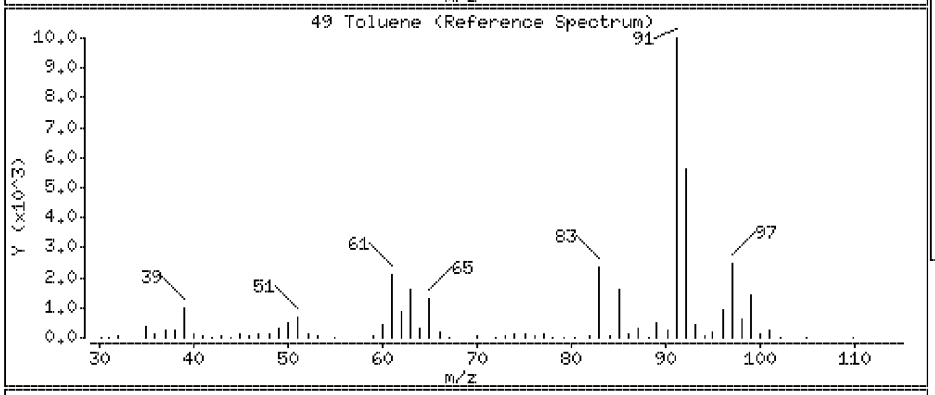
Concentration: 10.5 ppbv

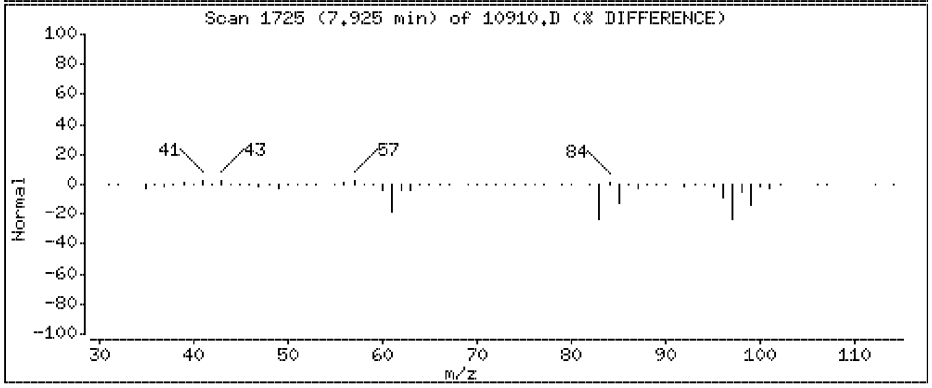












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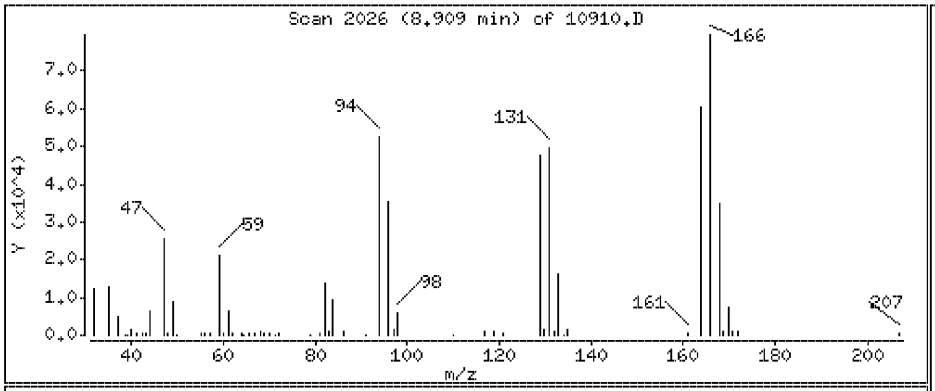
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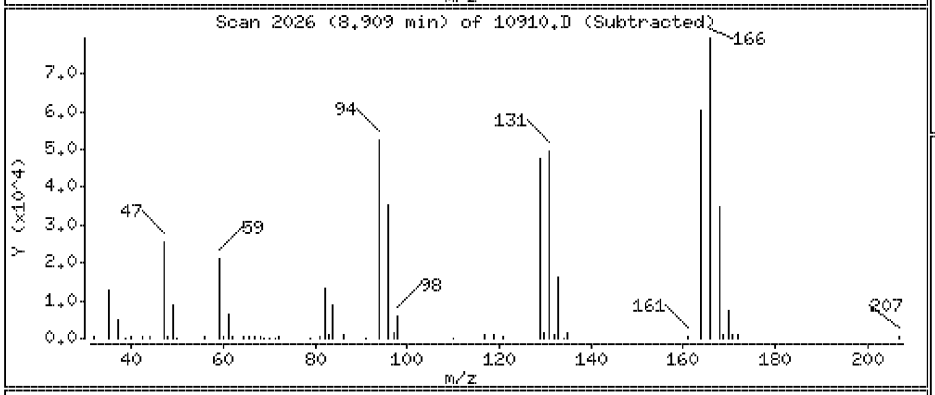
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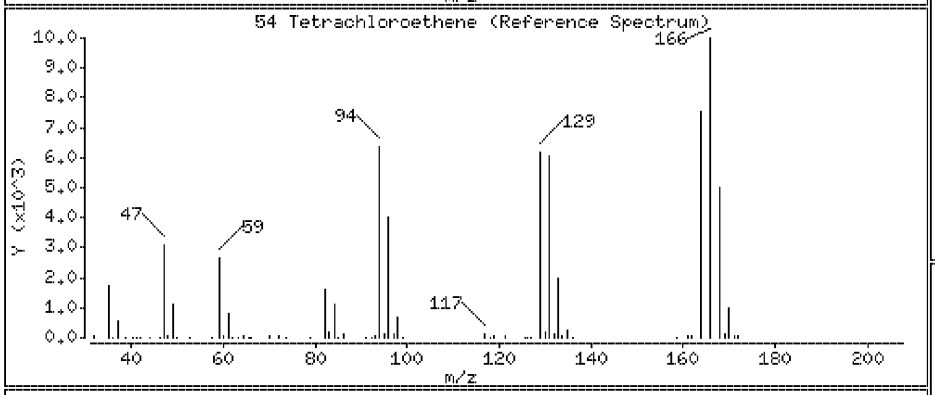
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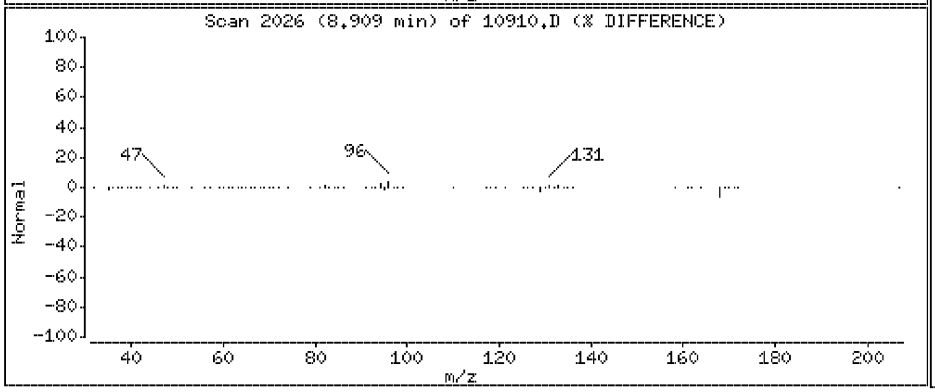
54 Tetrachloroethene

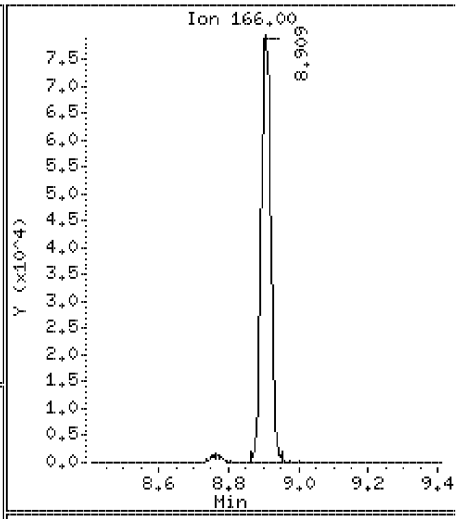
Concentration: 7.12 ppbv

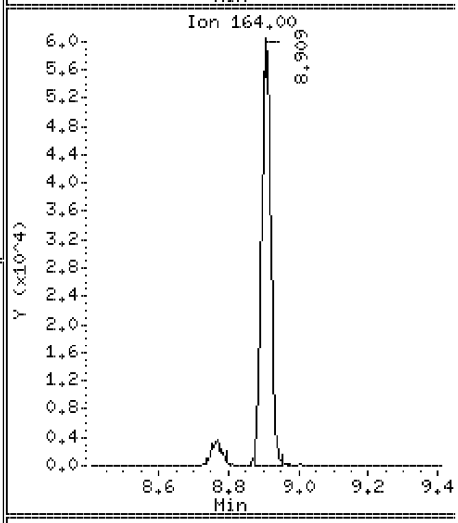


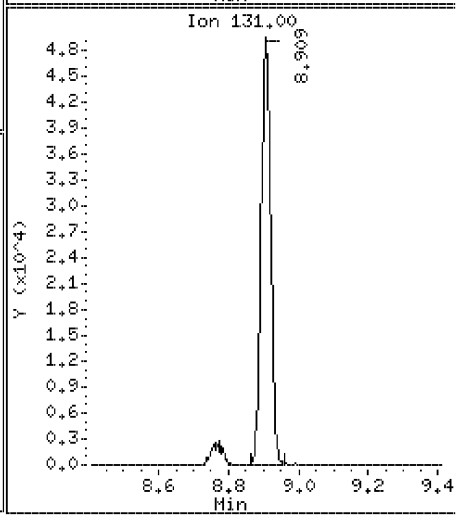












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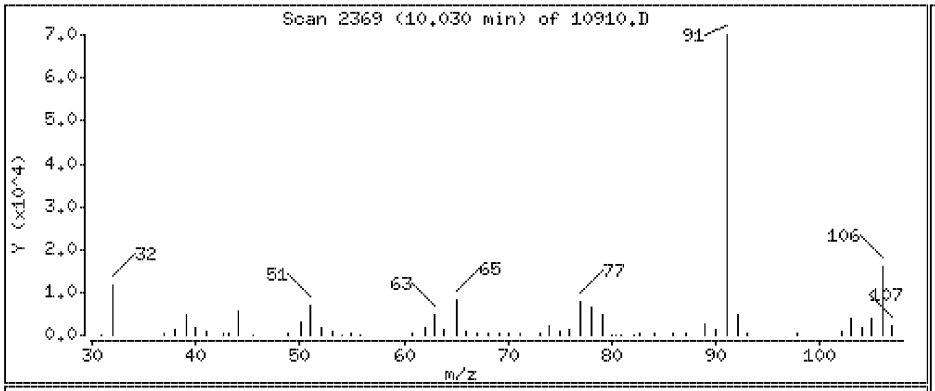
Operator: CJR

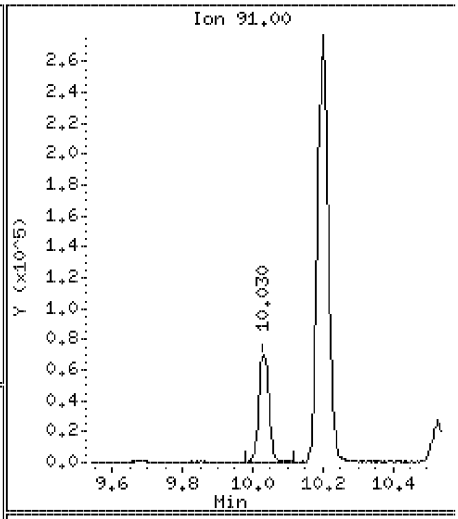
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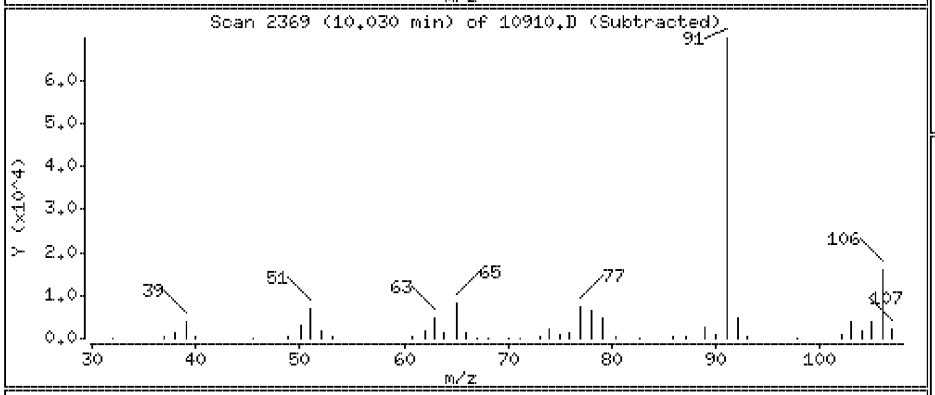
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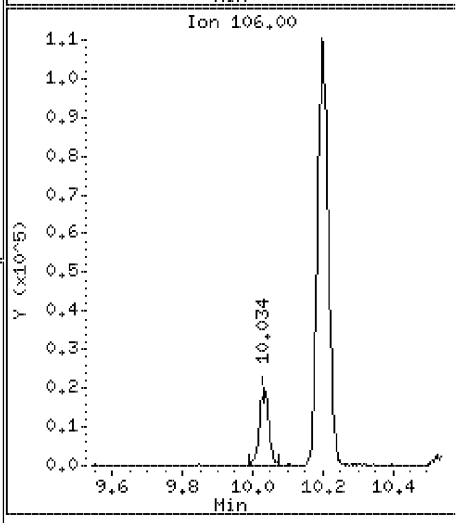
57 Ethyl Benzene

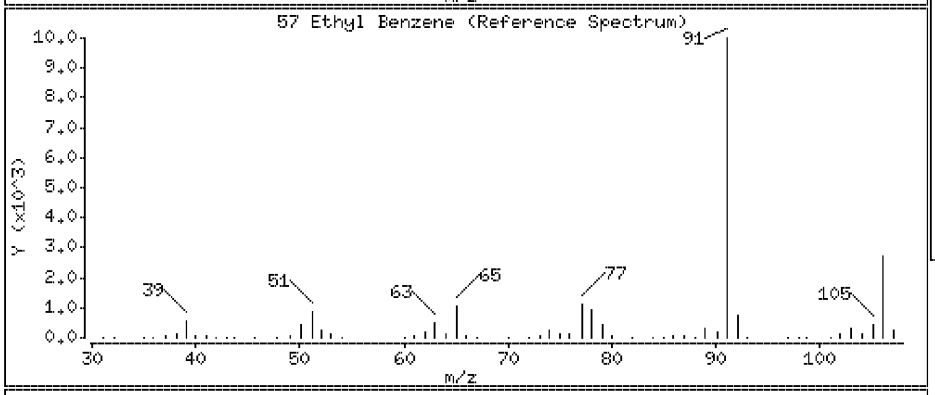
Concentration: 2.33 ppbv

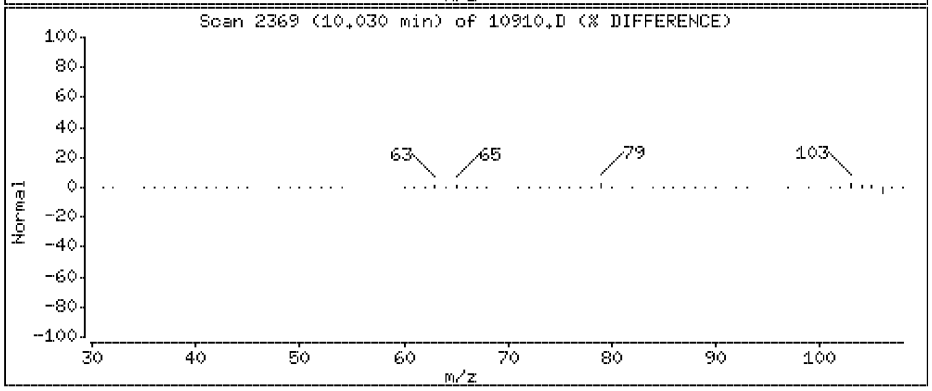












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10910.D

Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

Sample Info:

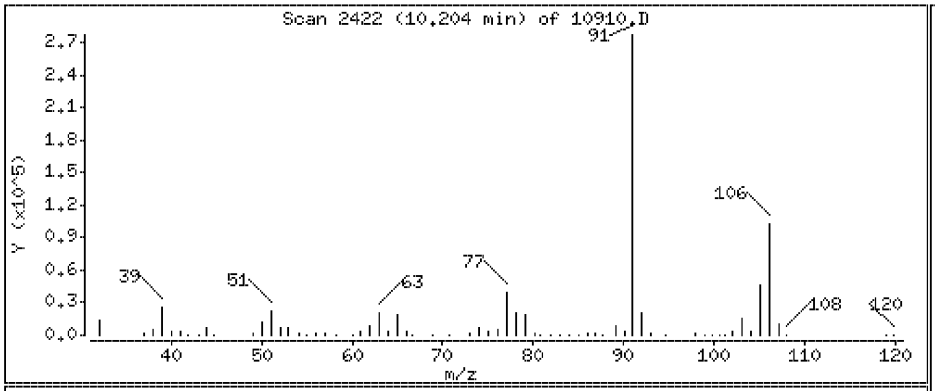
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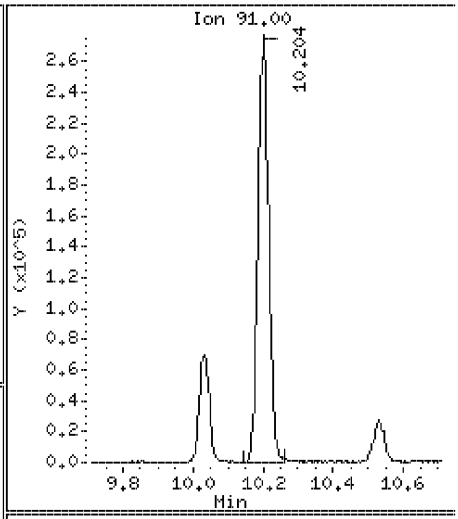
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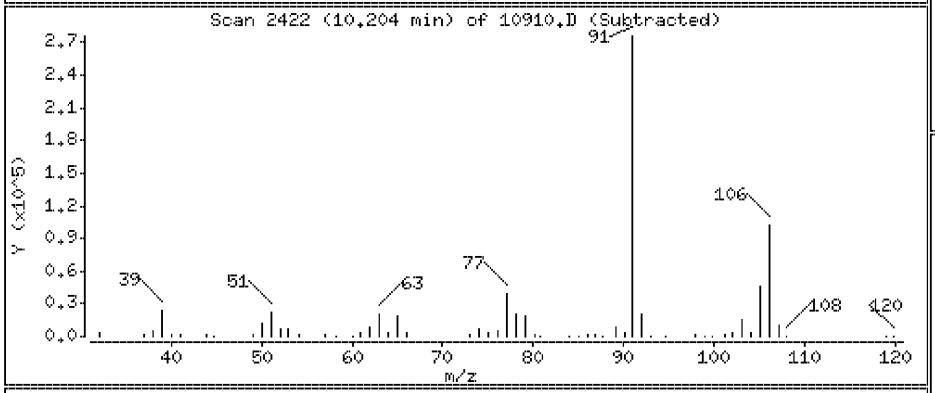
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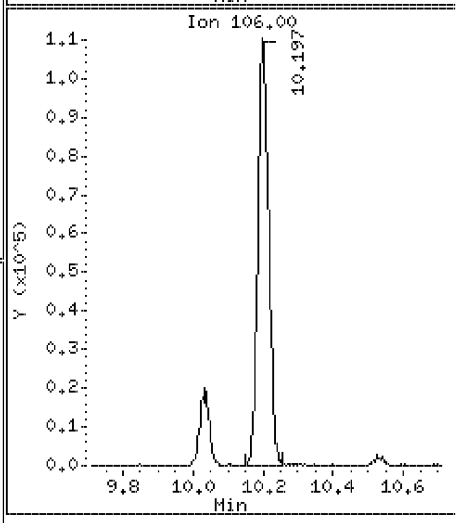
58 m&p-Xylene

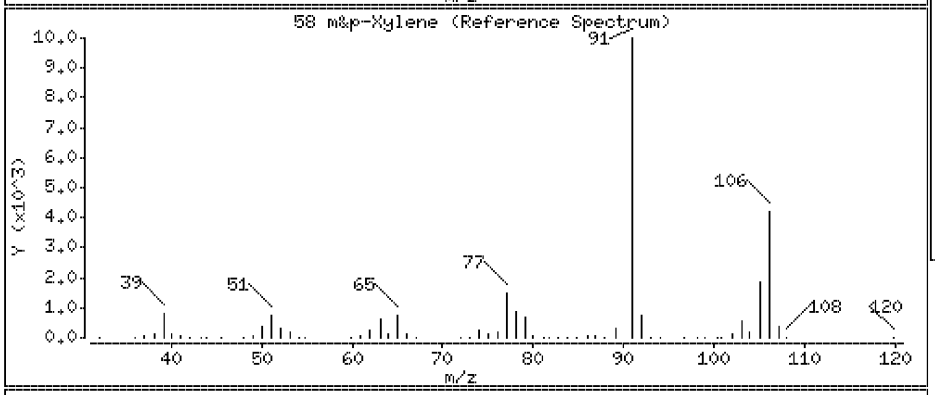
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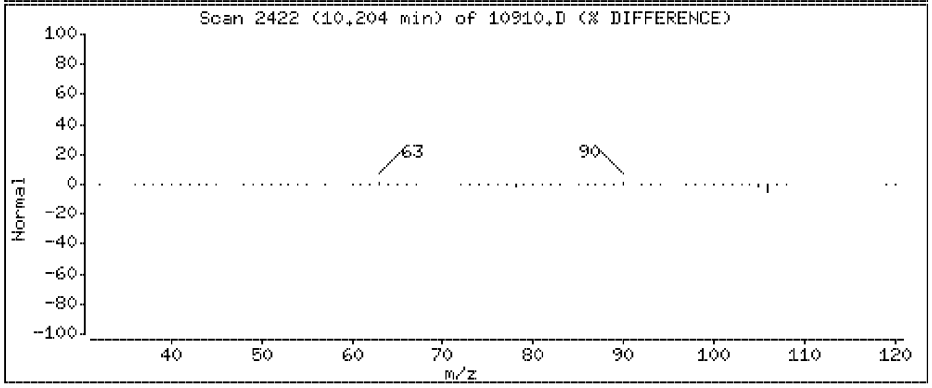












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Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

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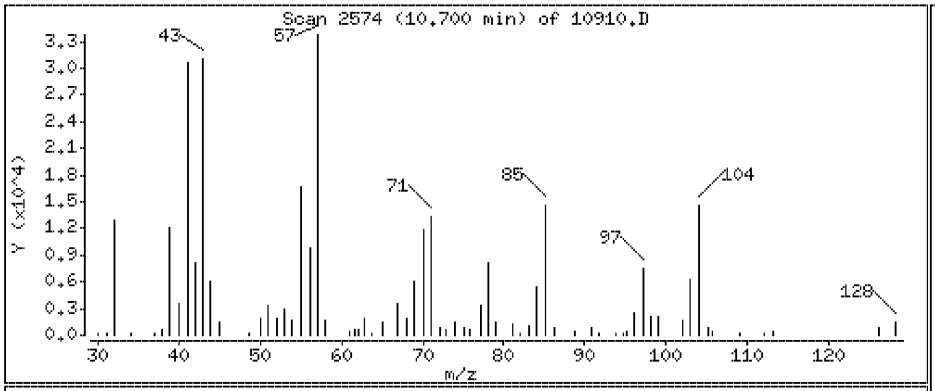
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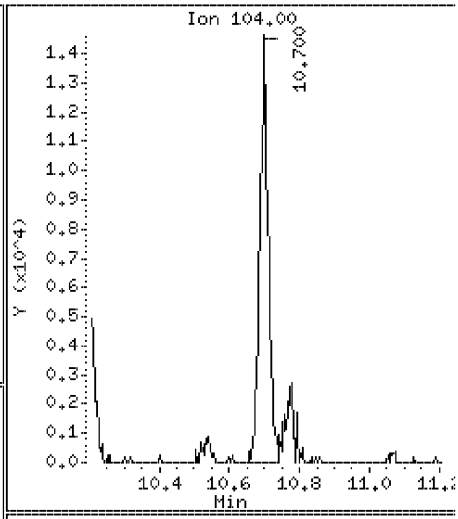
Column phase: J&W DB-5

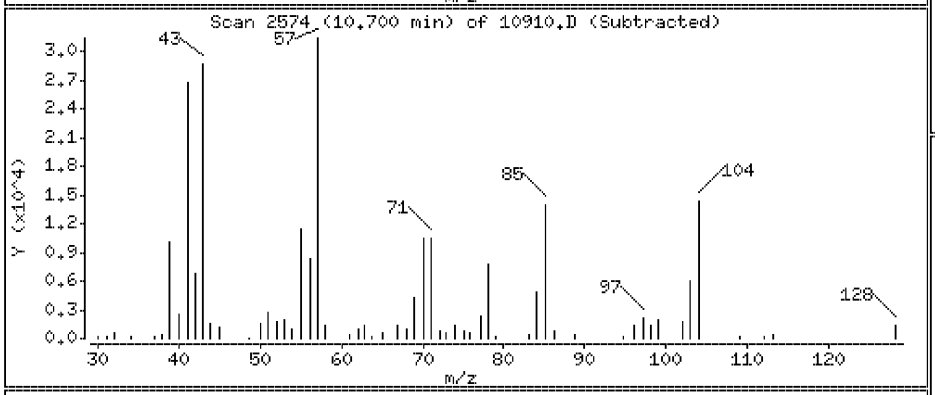
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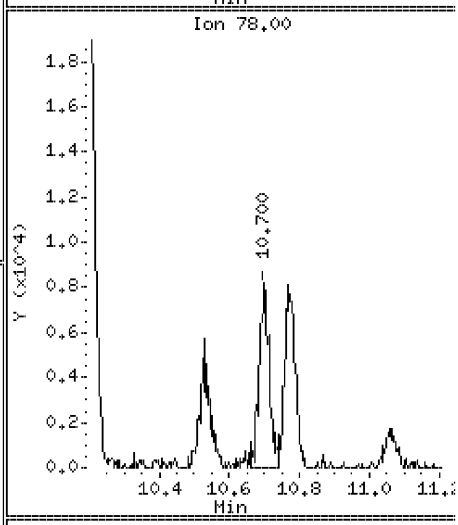
60 Styrene

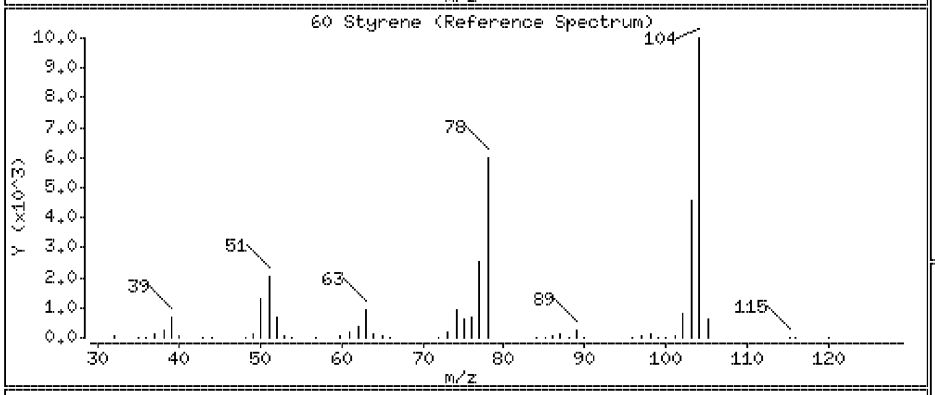
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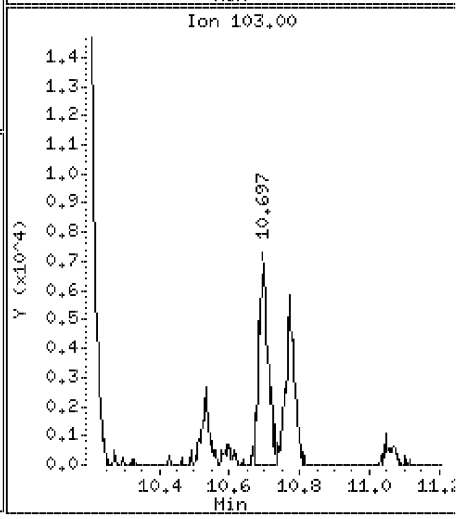


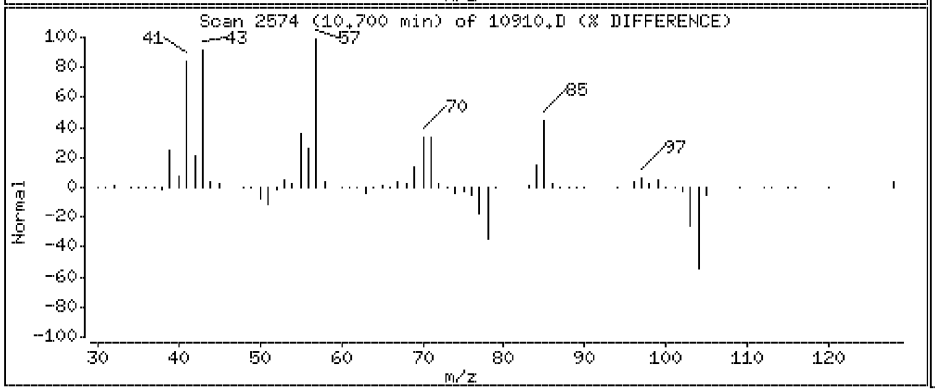












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Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

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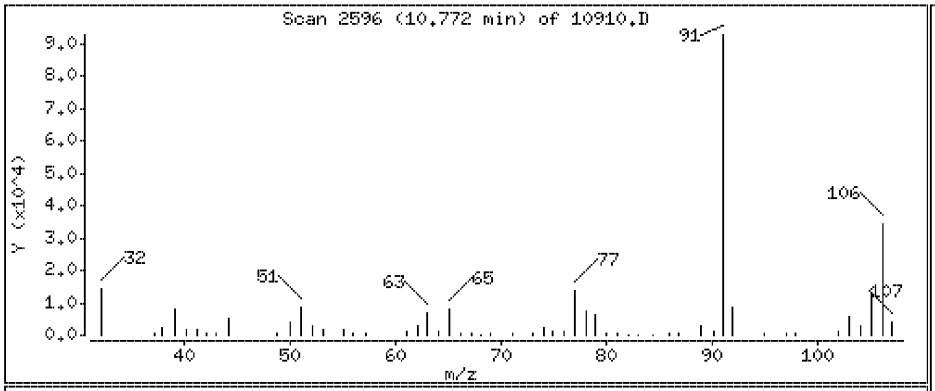
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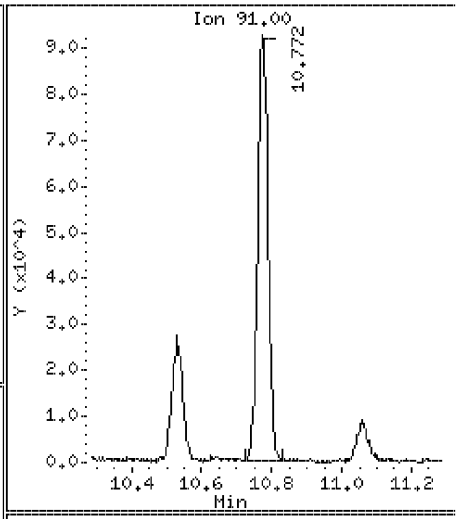
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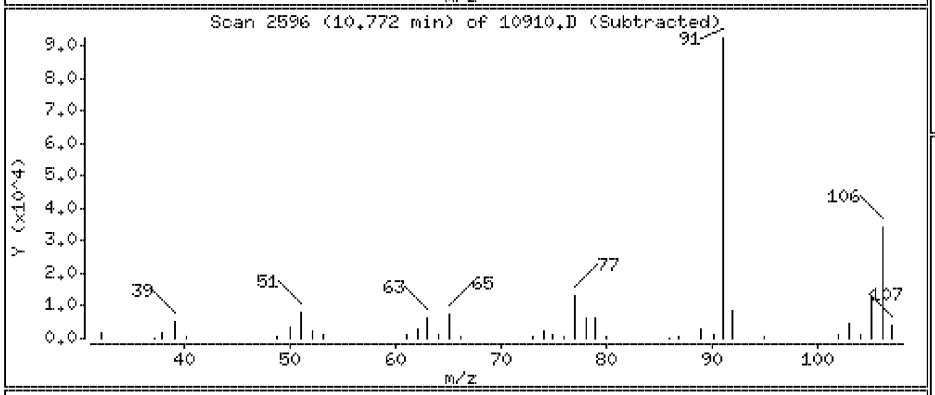
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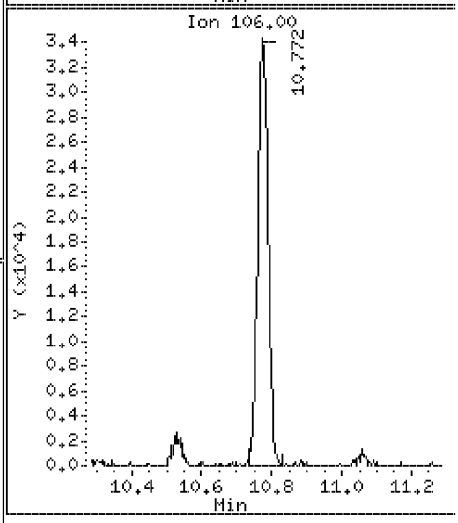
61 o-Xylene

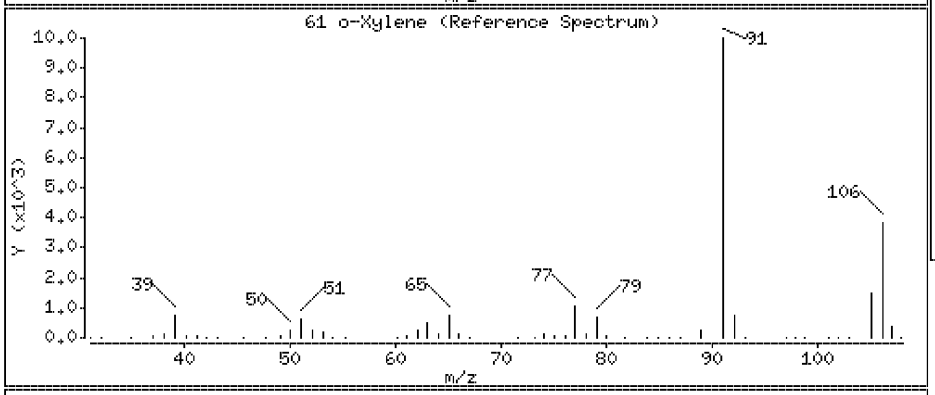
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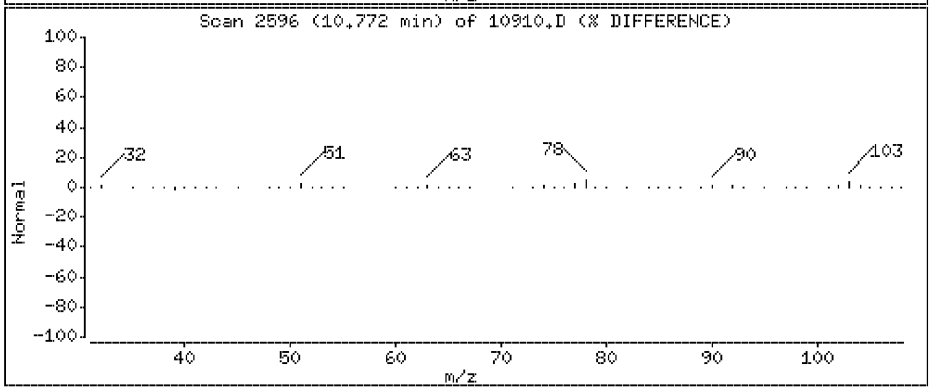












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Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

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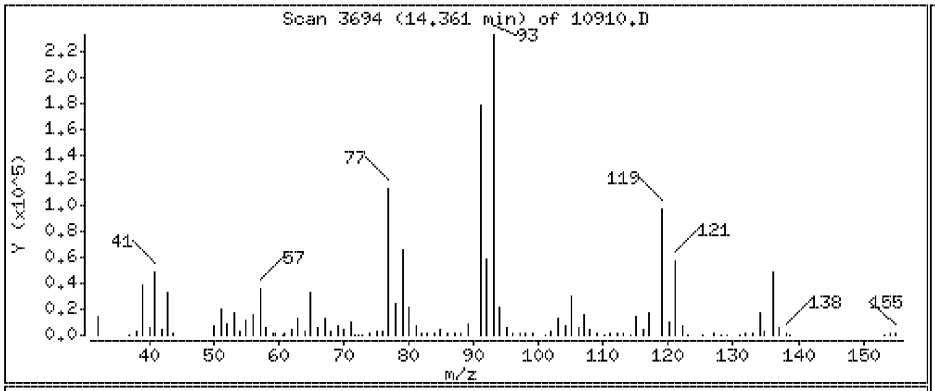
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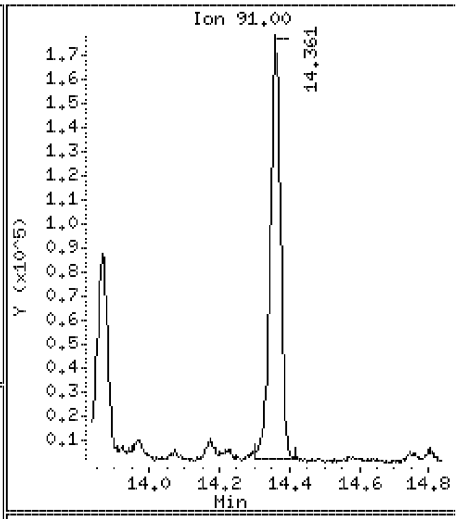
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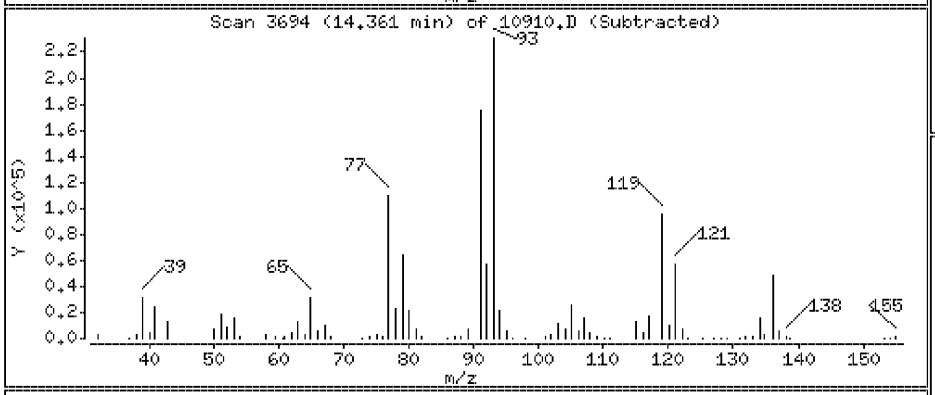
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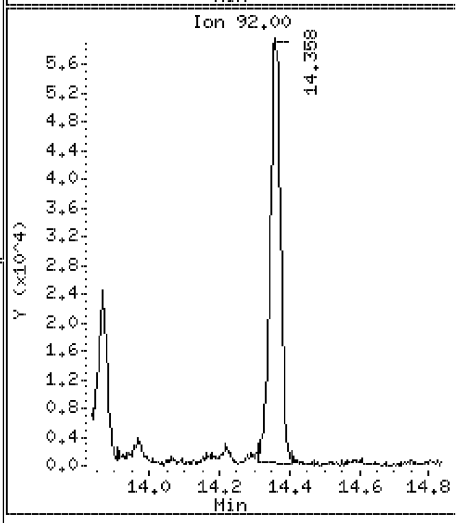
74 N-Butylbenzene

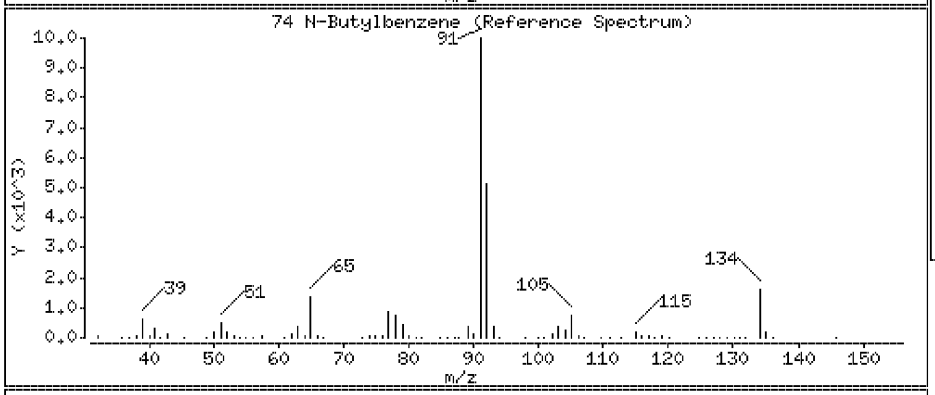
Concentration: 5.54 ppbv

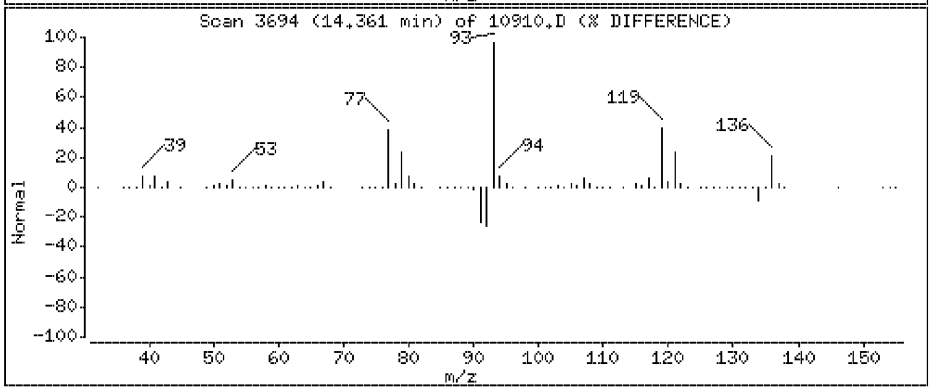












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Date : 19-APR-2013 18:46

Client ID:

Instrument: 10airD.i

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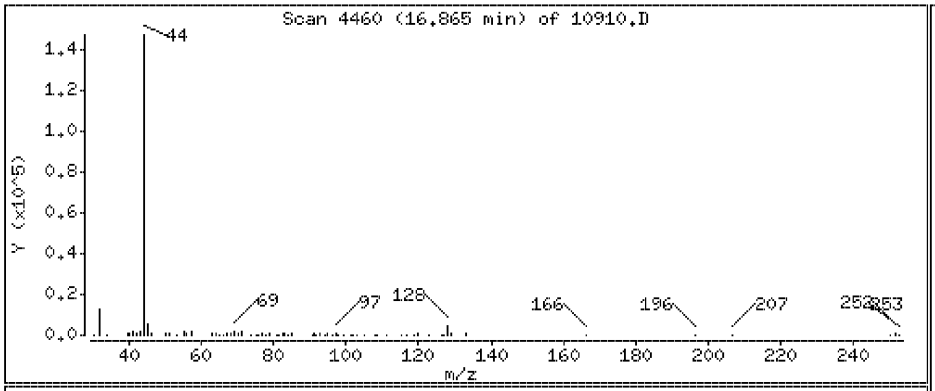
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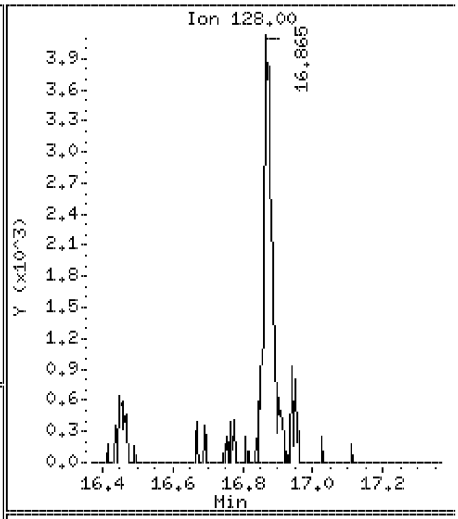
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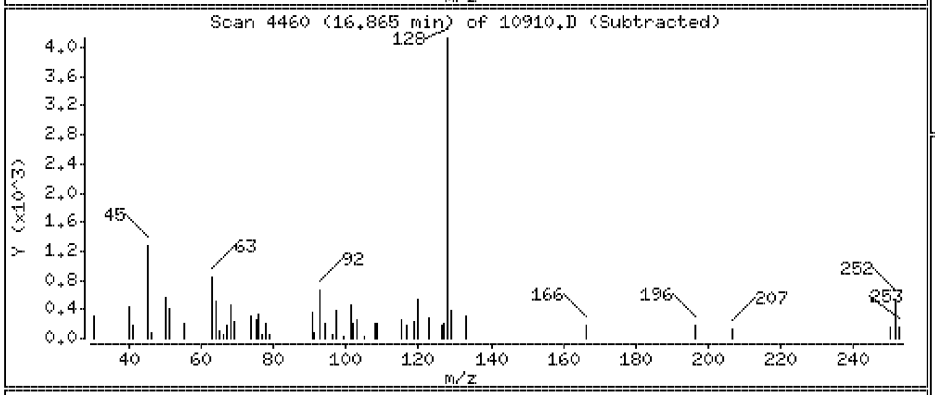
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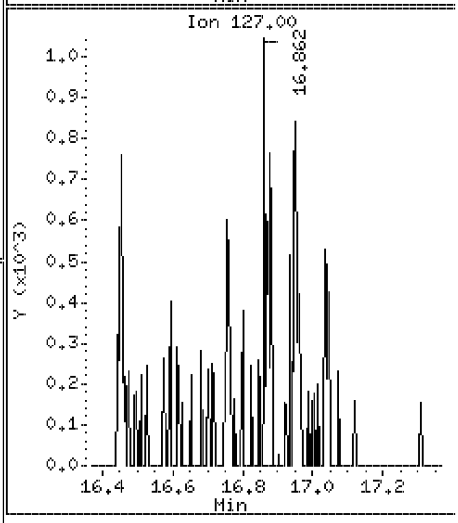
76 Naphthalene

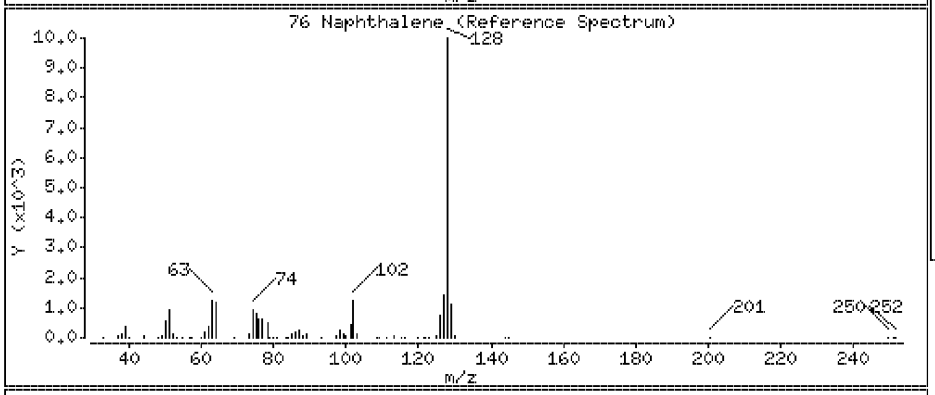
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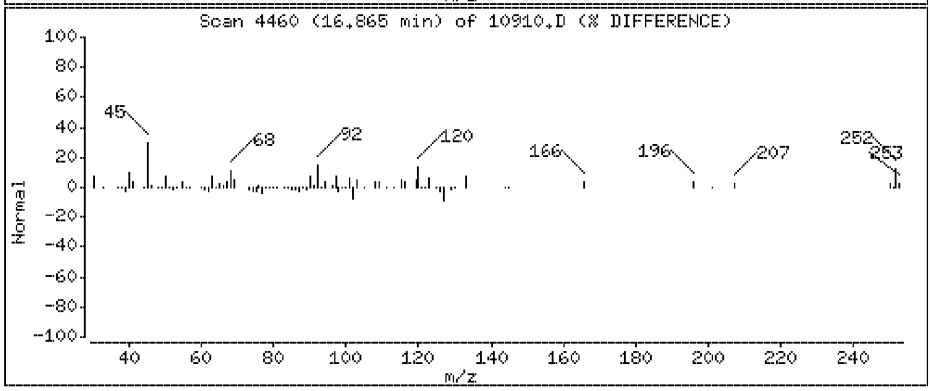






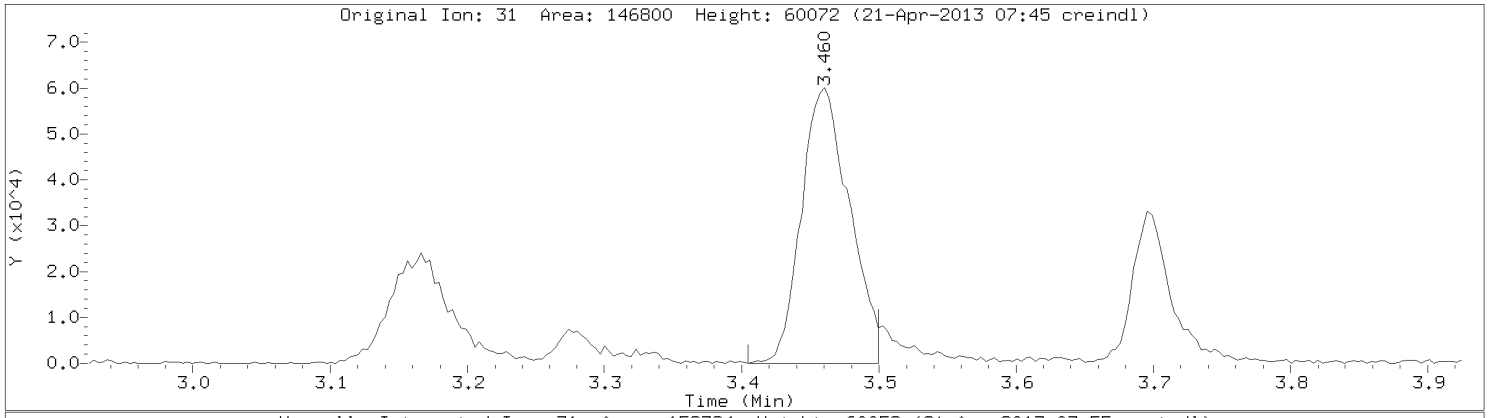


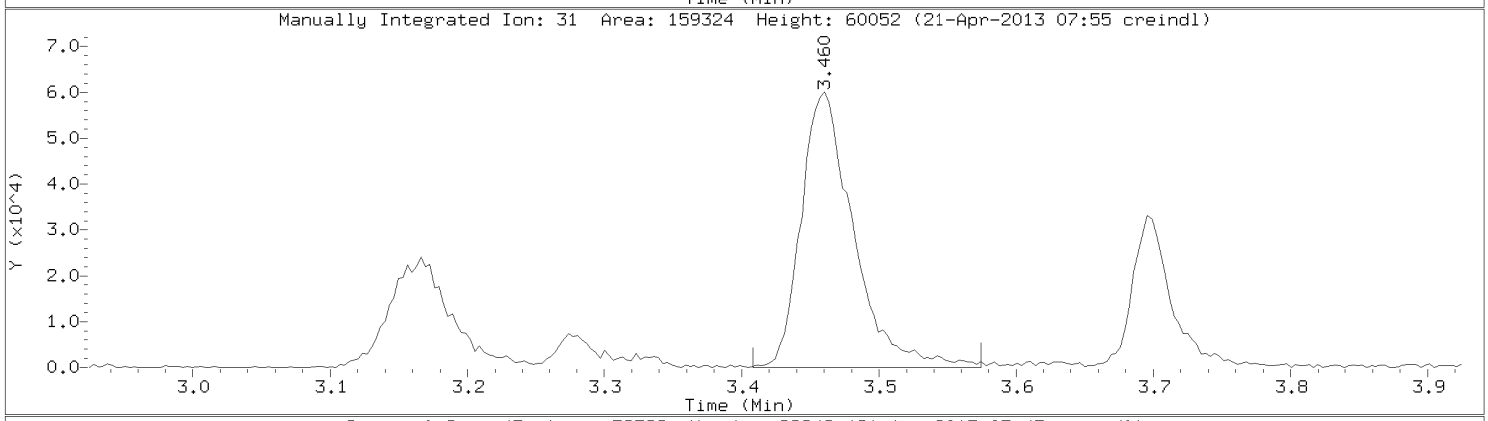


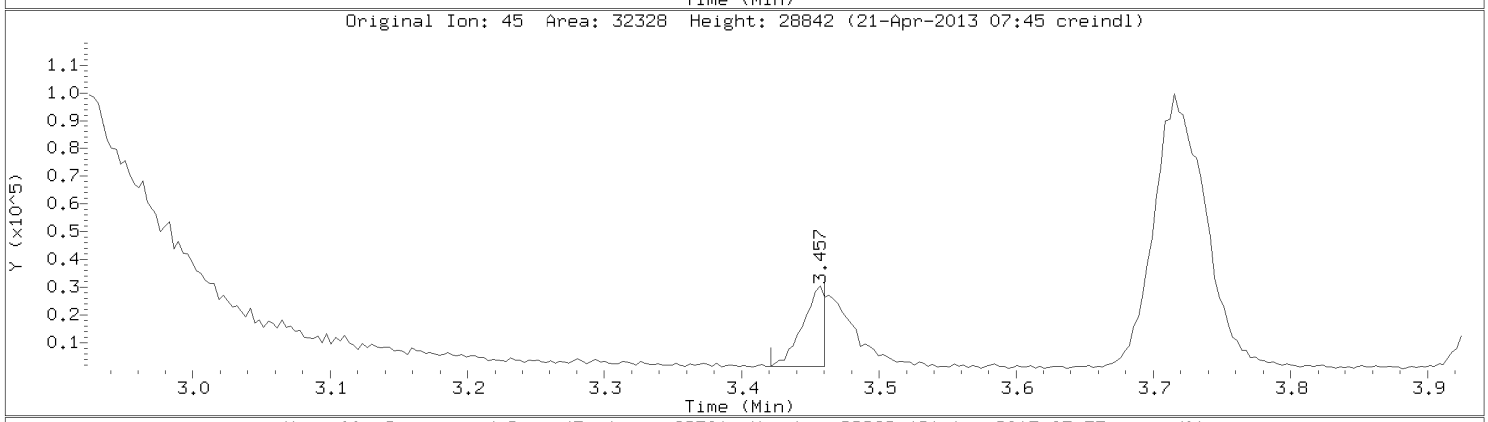


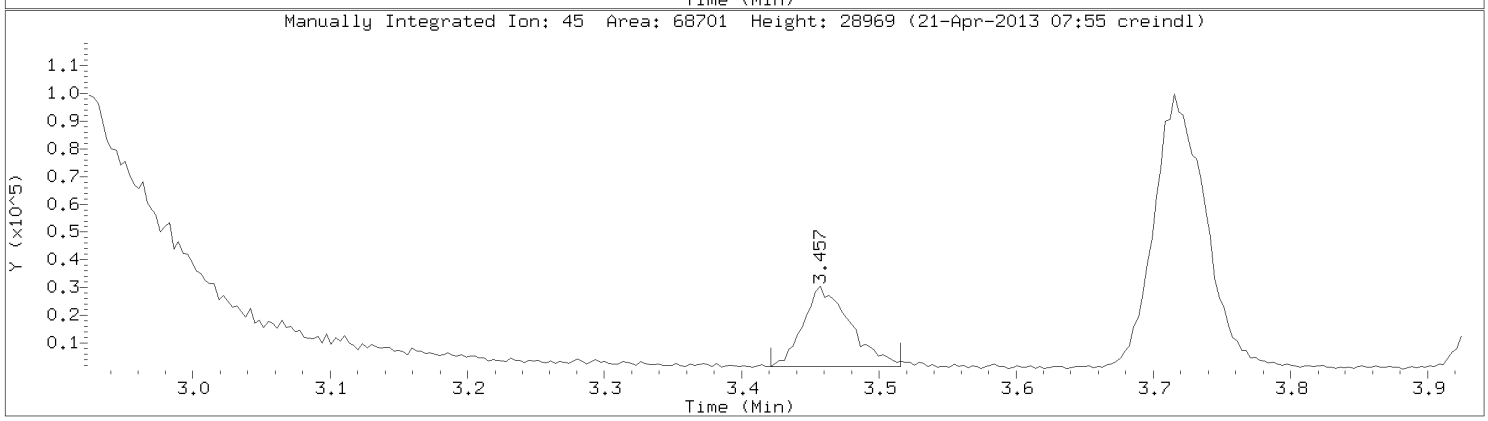
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Injection Date: 19-APR-2013 18:46
Instrument: 10airD.i
Lab Sample ID: 10224616010

Compound: Ethanol
CAS Number: 64-17-5



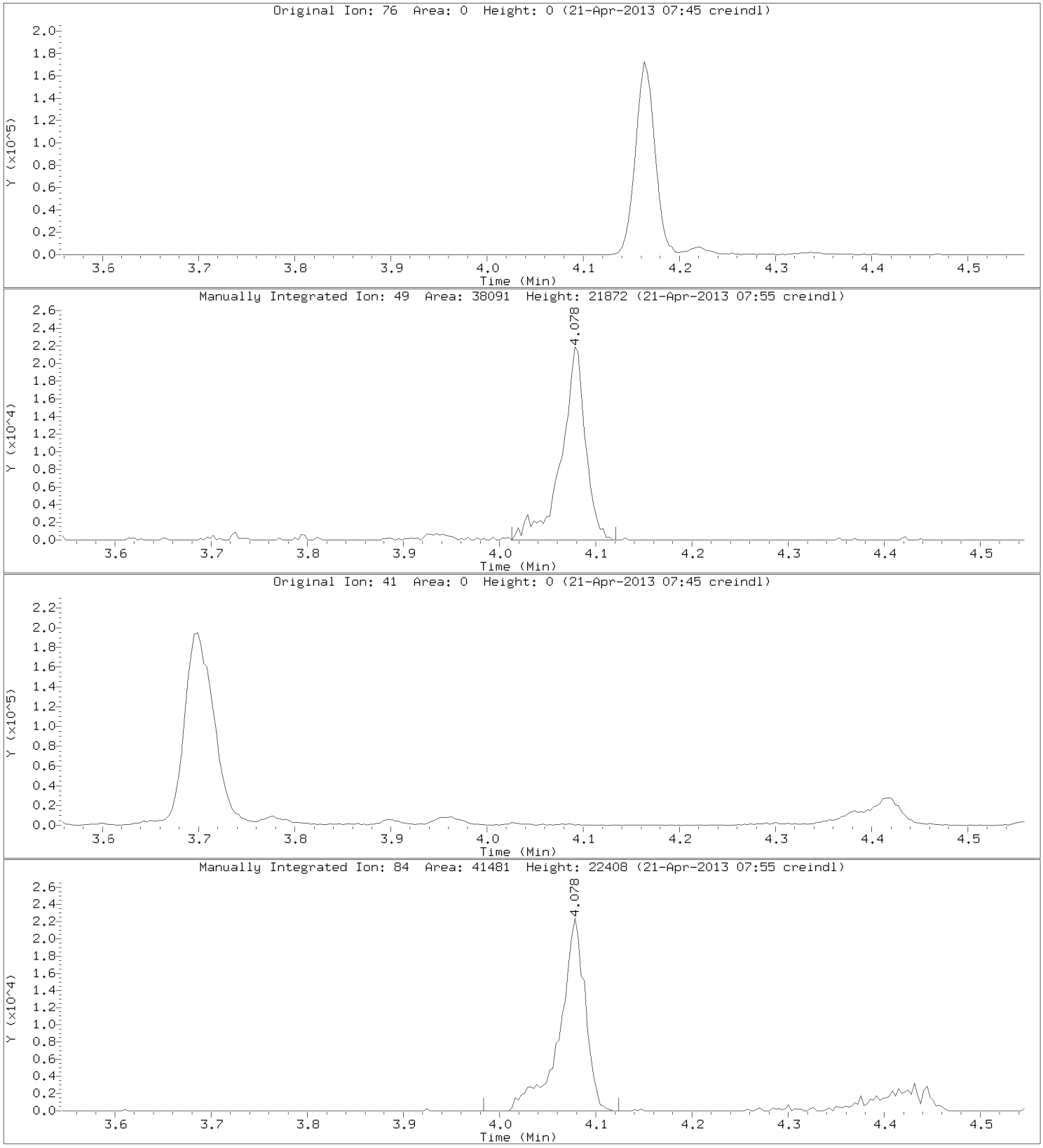




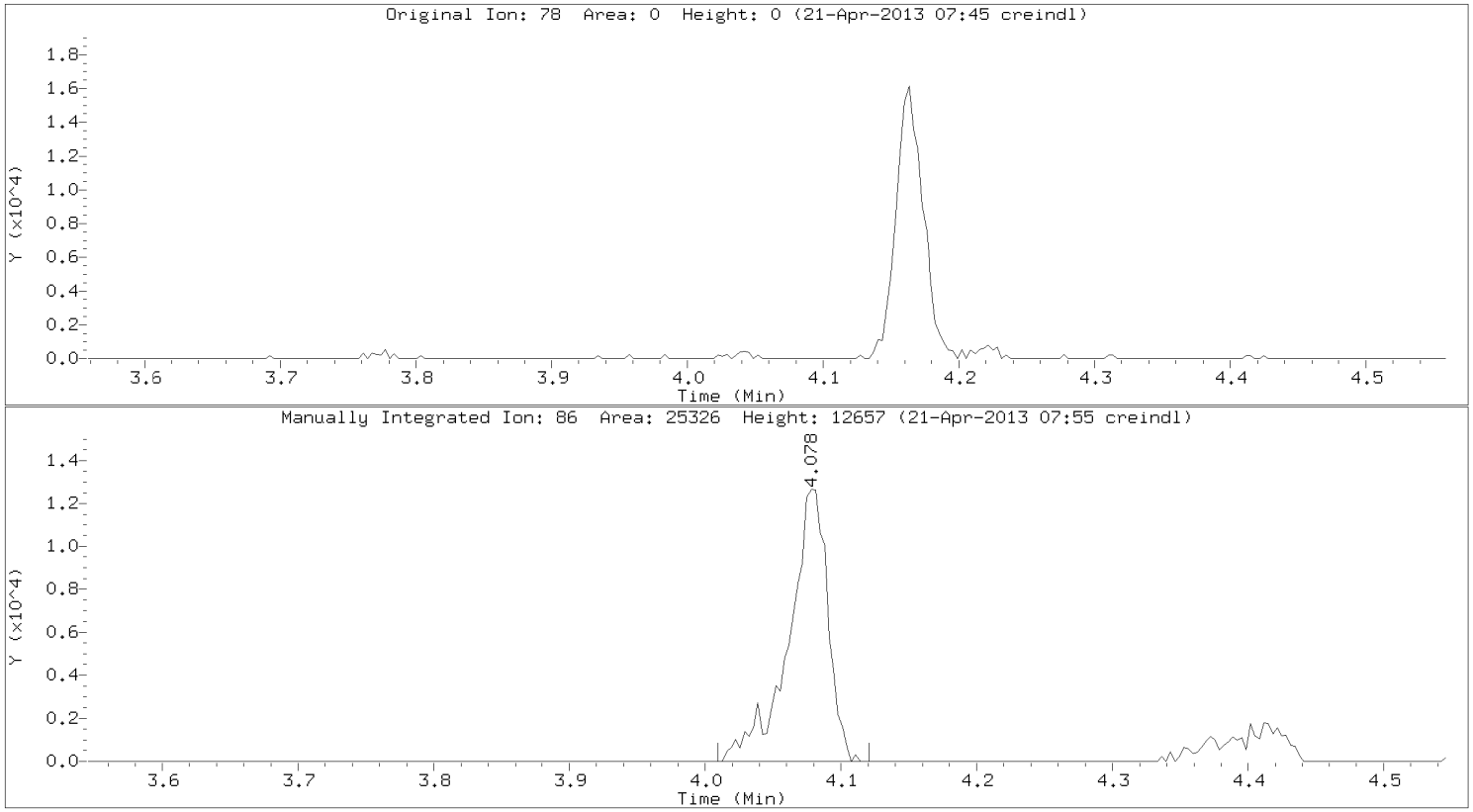


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Injection Date: 19-APR-2013 18:46
Instrument: 10airD.i
Lab Sample ID: 10224616010

Compound: Methylene chloride
CAS Number: 75-09-2

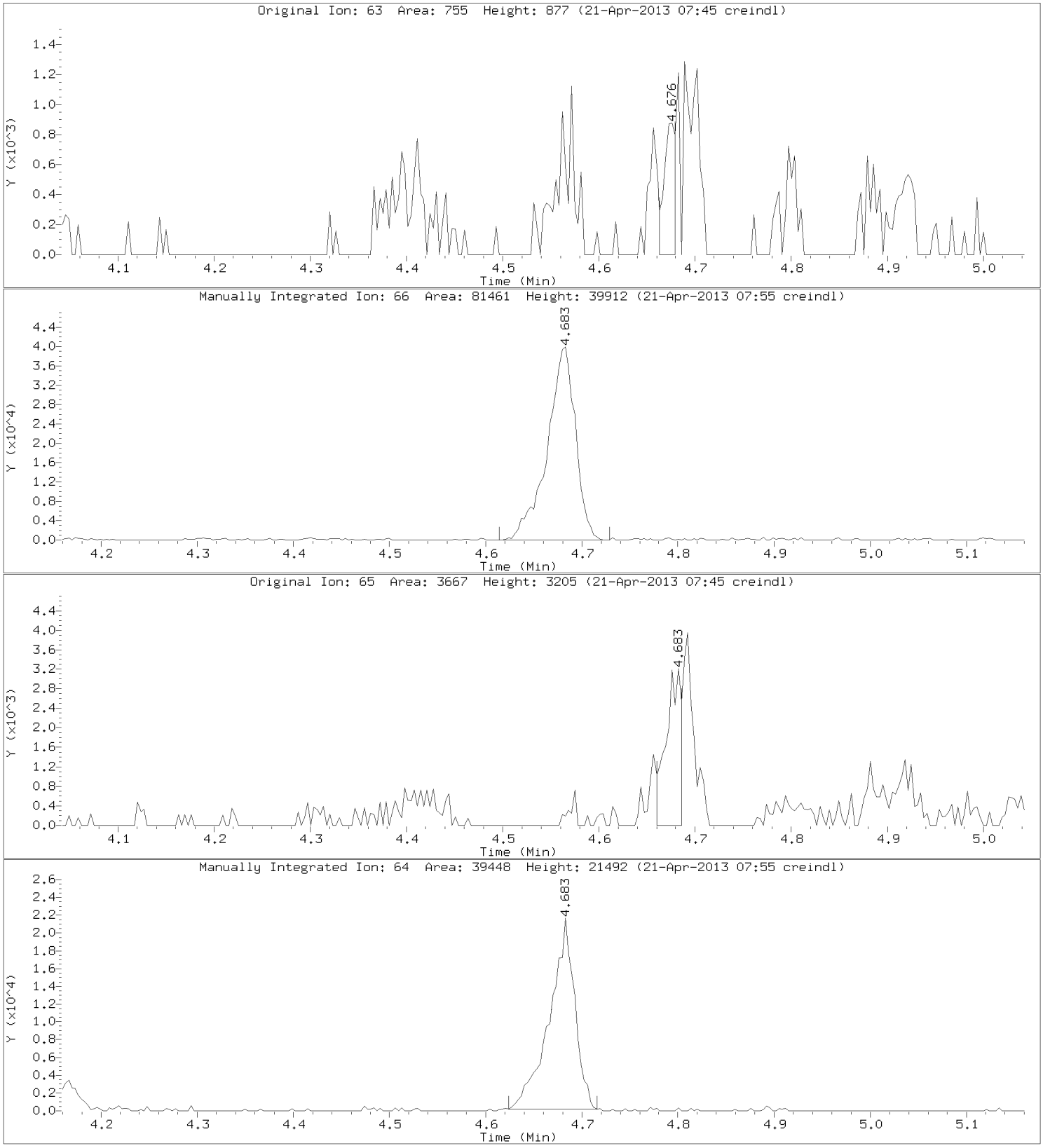


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Instrument: 10airD.i
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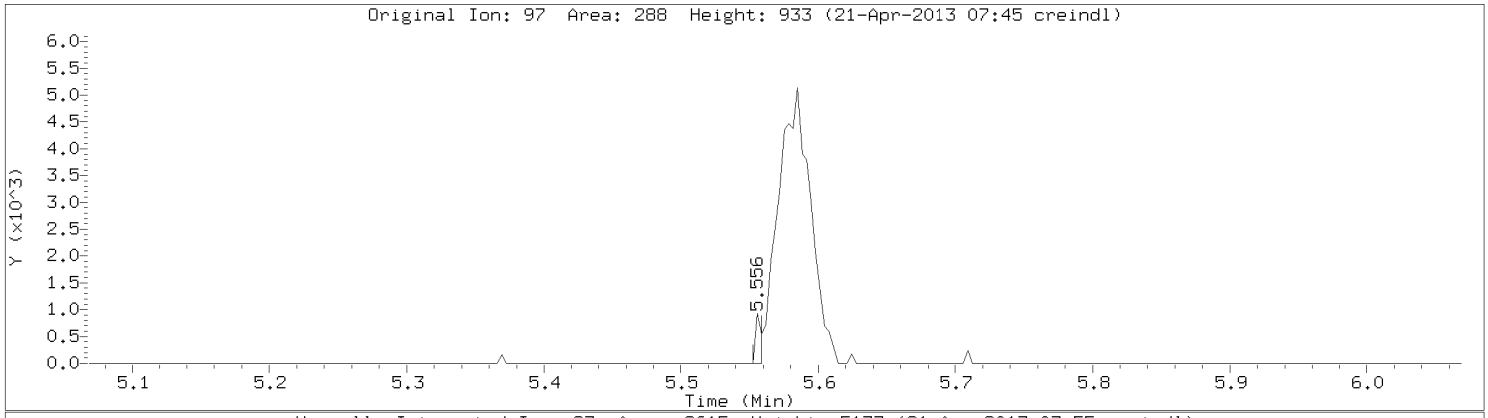
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Instrument: 10airD.i
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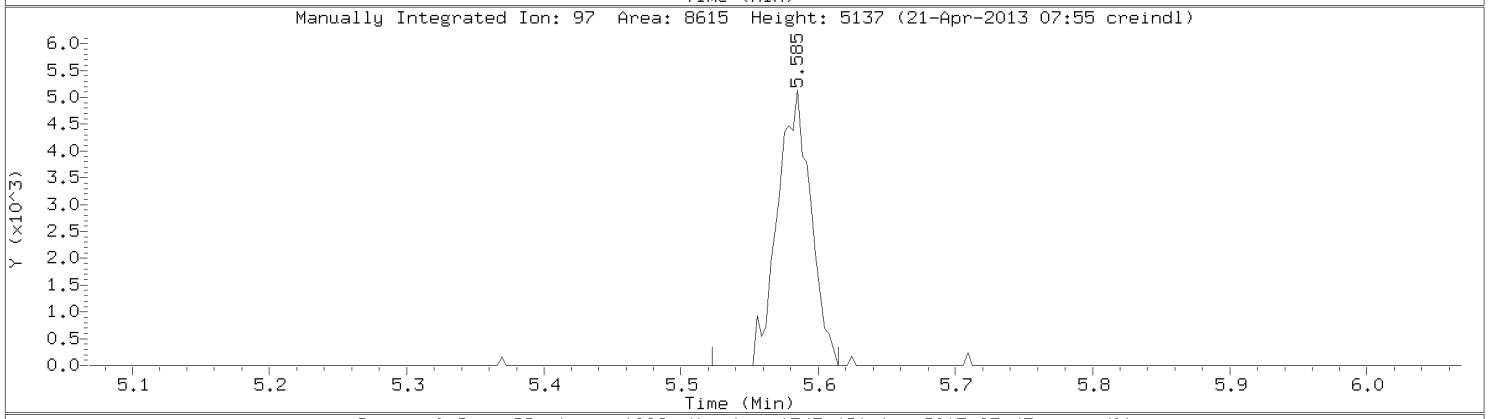
Compound: Hexane-d14(S)
CAS Number:

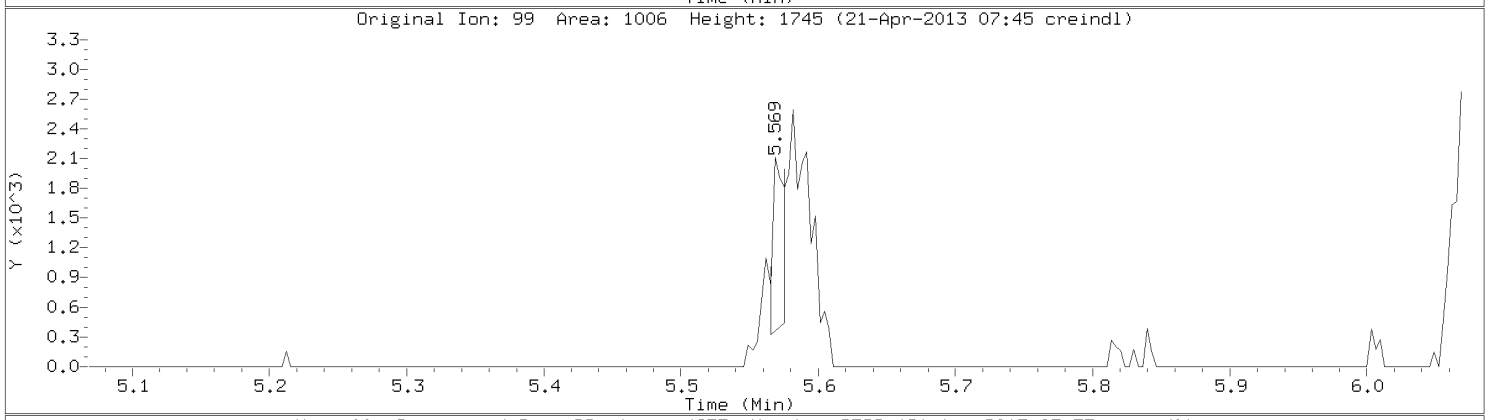


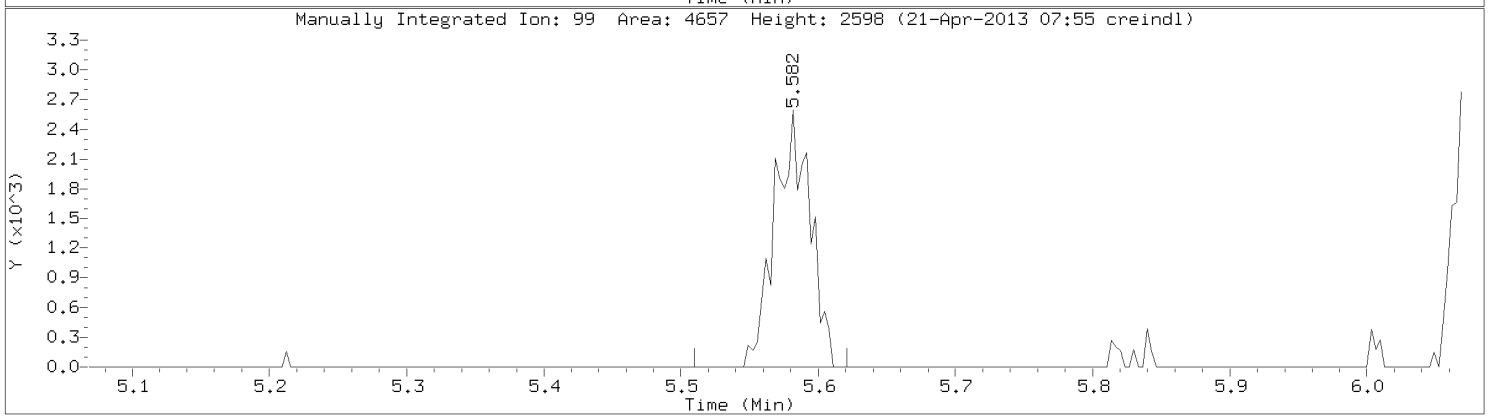
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Injection Date: 19-APR-2013 18:46
Instrument: 10airD.i
Lab Sample ID: 10224616010

Compound: 1,1,1-Trichloroethane
CAS Number: 71-55-6

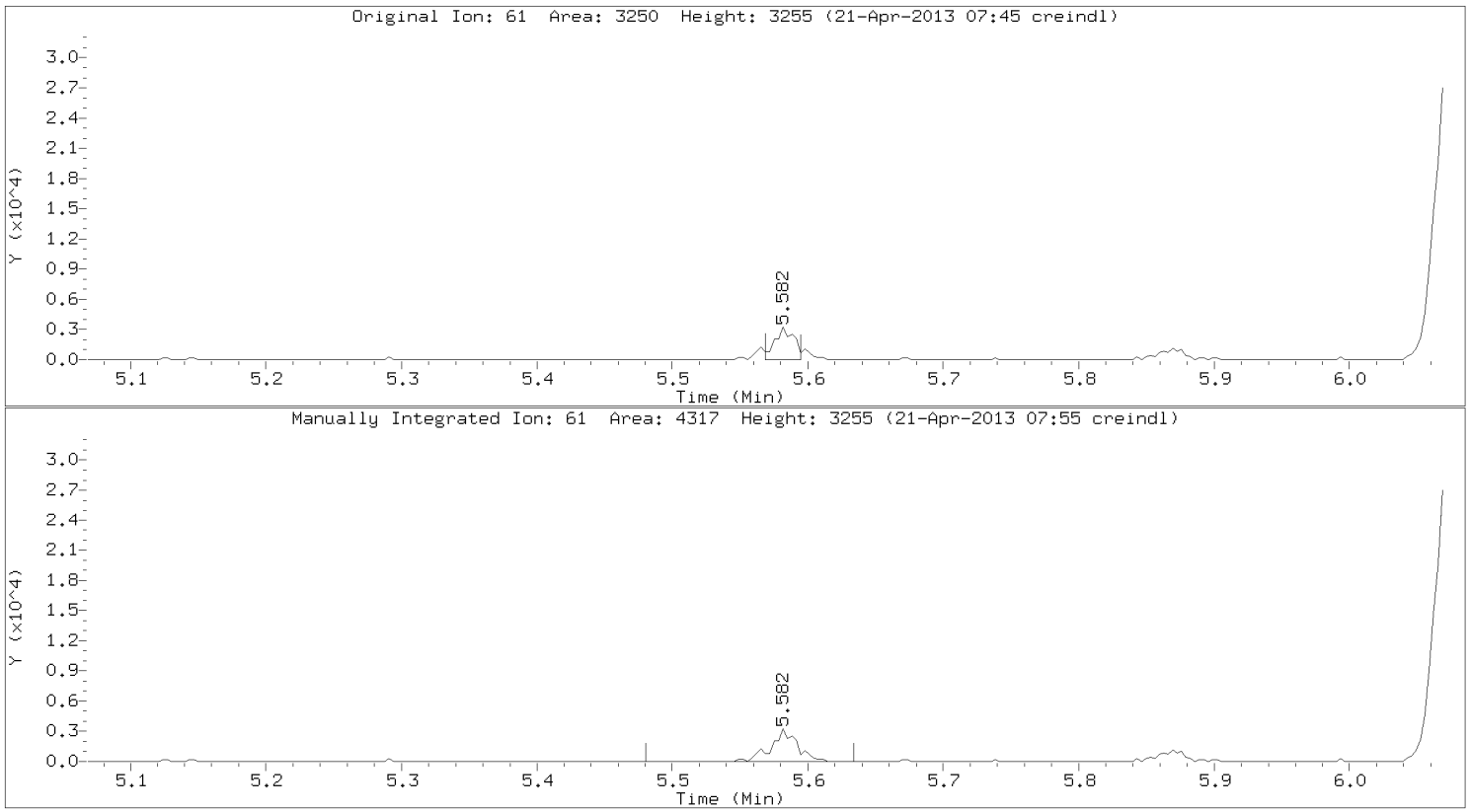






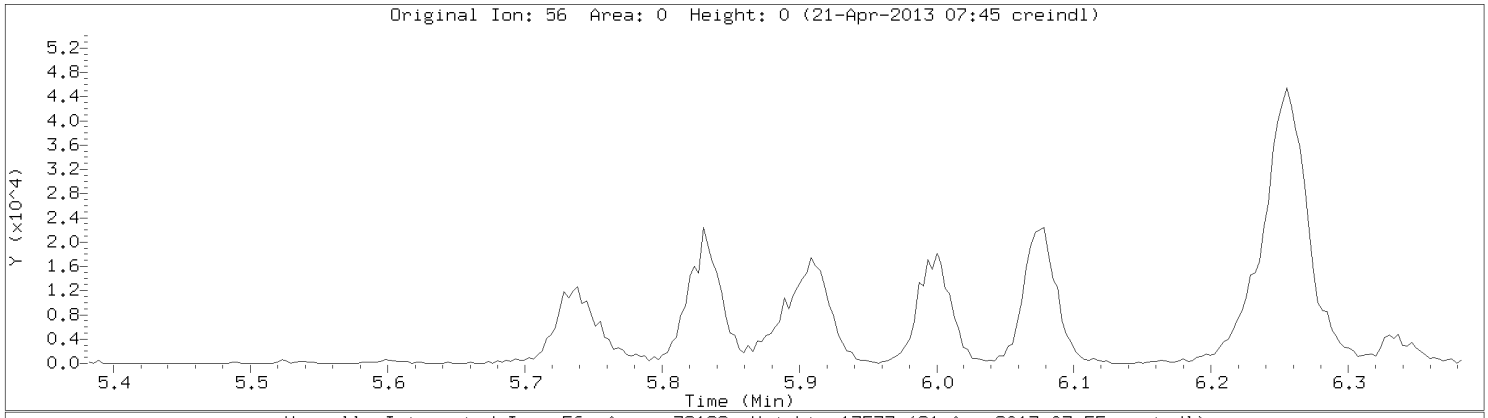


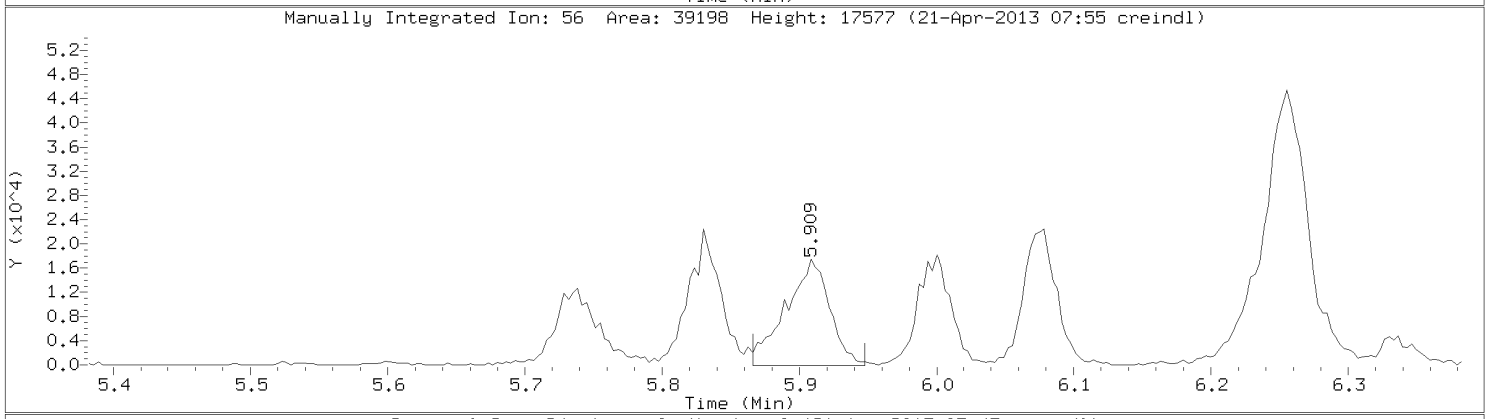
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Injection Date: 19-APR-2013 18:46
Instrument: 10airD.i
Lab Sample ID: 10224616010

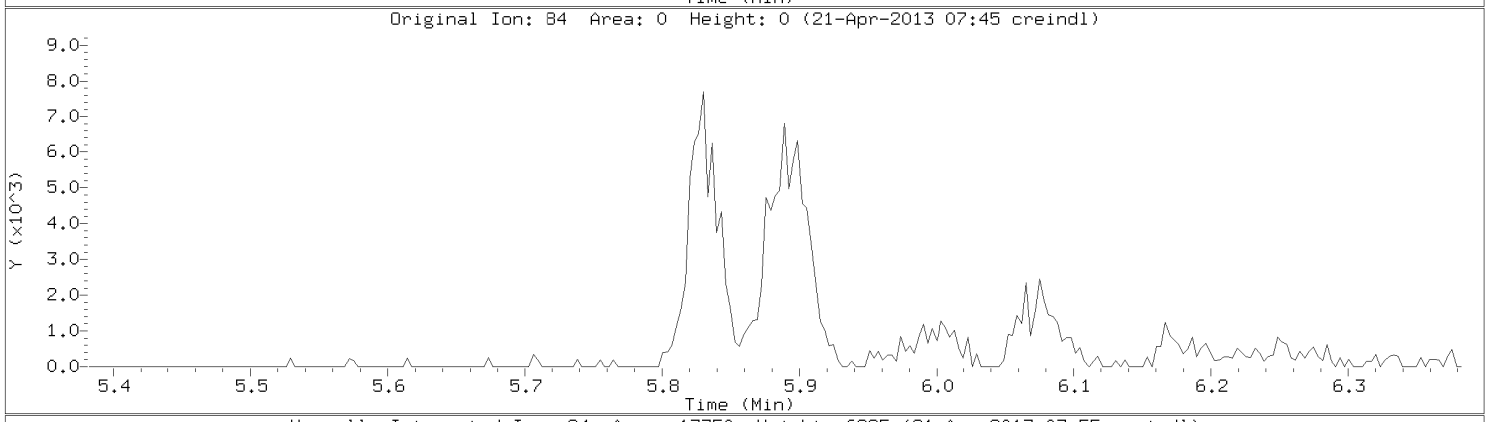


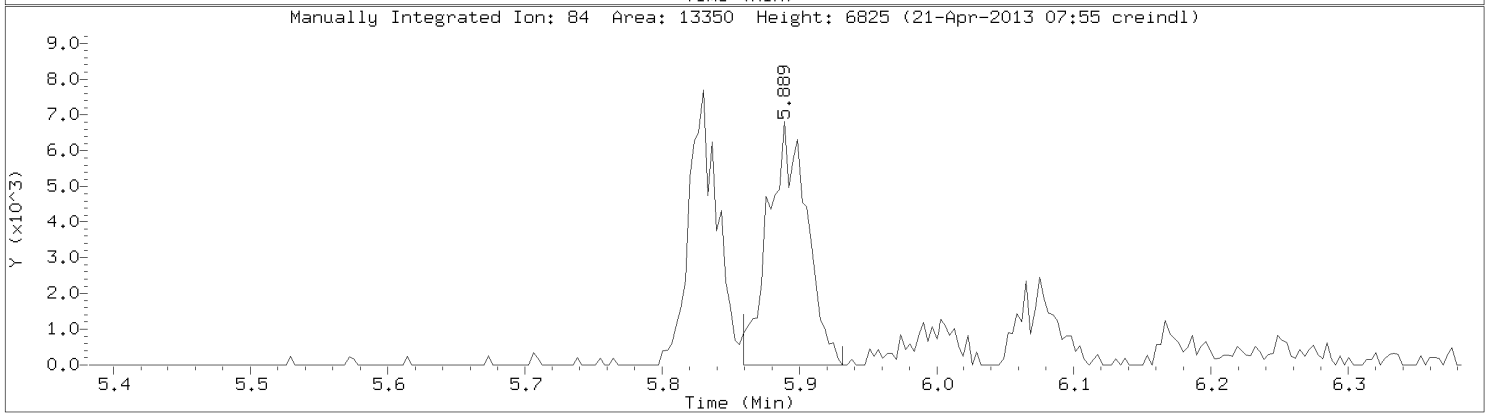
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Injection Date: 19-APR-2013 18:46
Instrument: 10airD.i
Lab Sample ID: 10224616010

Compound: Cyclohexane
CAS Number: 110-82-7

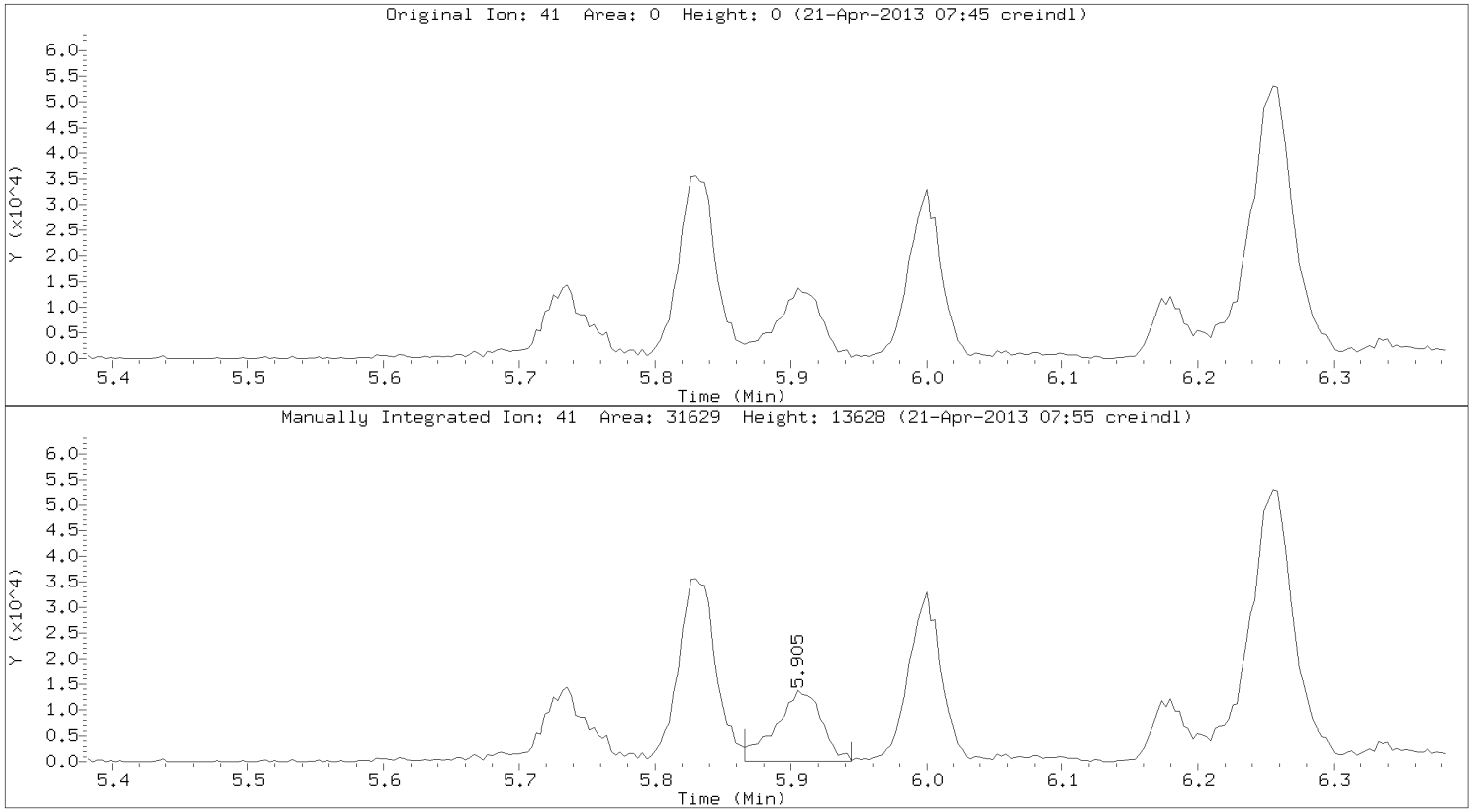






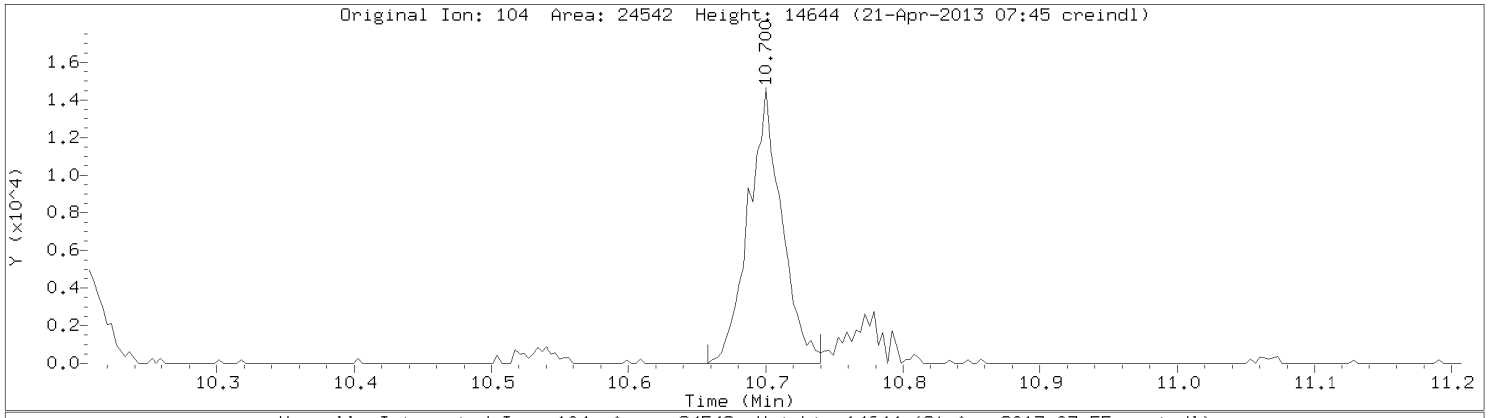


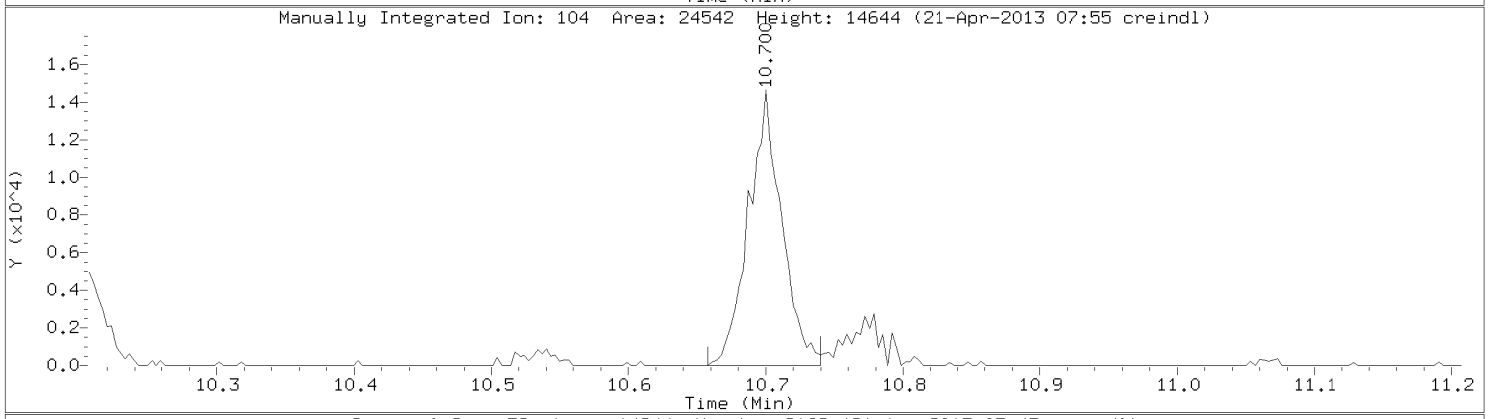
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Injection Date: 19-APR-2013 18:46
Instrument: 10airD.i
Lab Sample ID: 10224616010

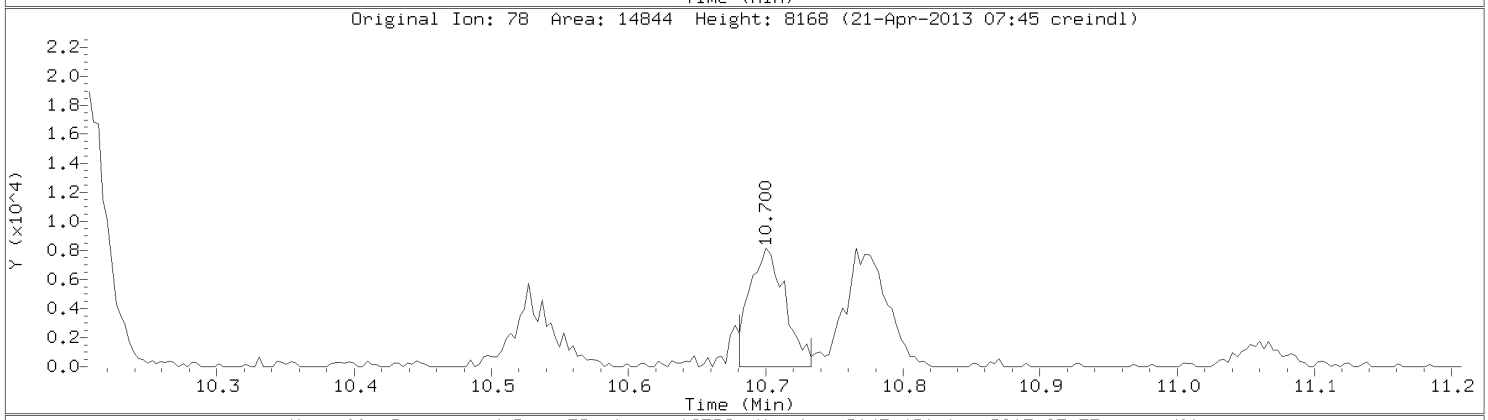


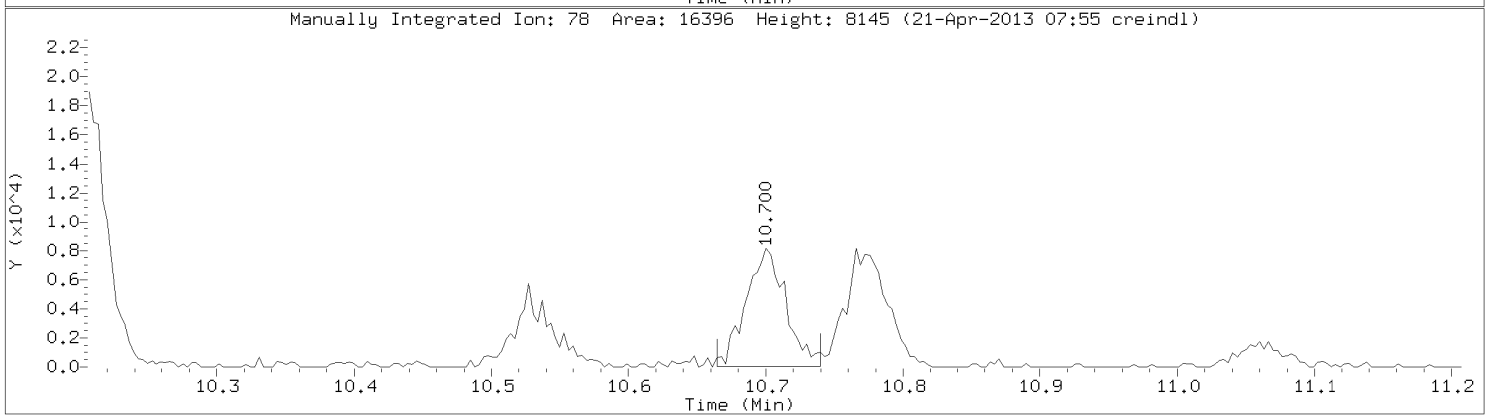
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Injection Date: 19-APR-2013 18:46
Instrument: 10airD.i
Lab Sample ID: 10224616010

Compound: Styrene
CAS Number: 100-42-5

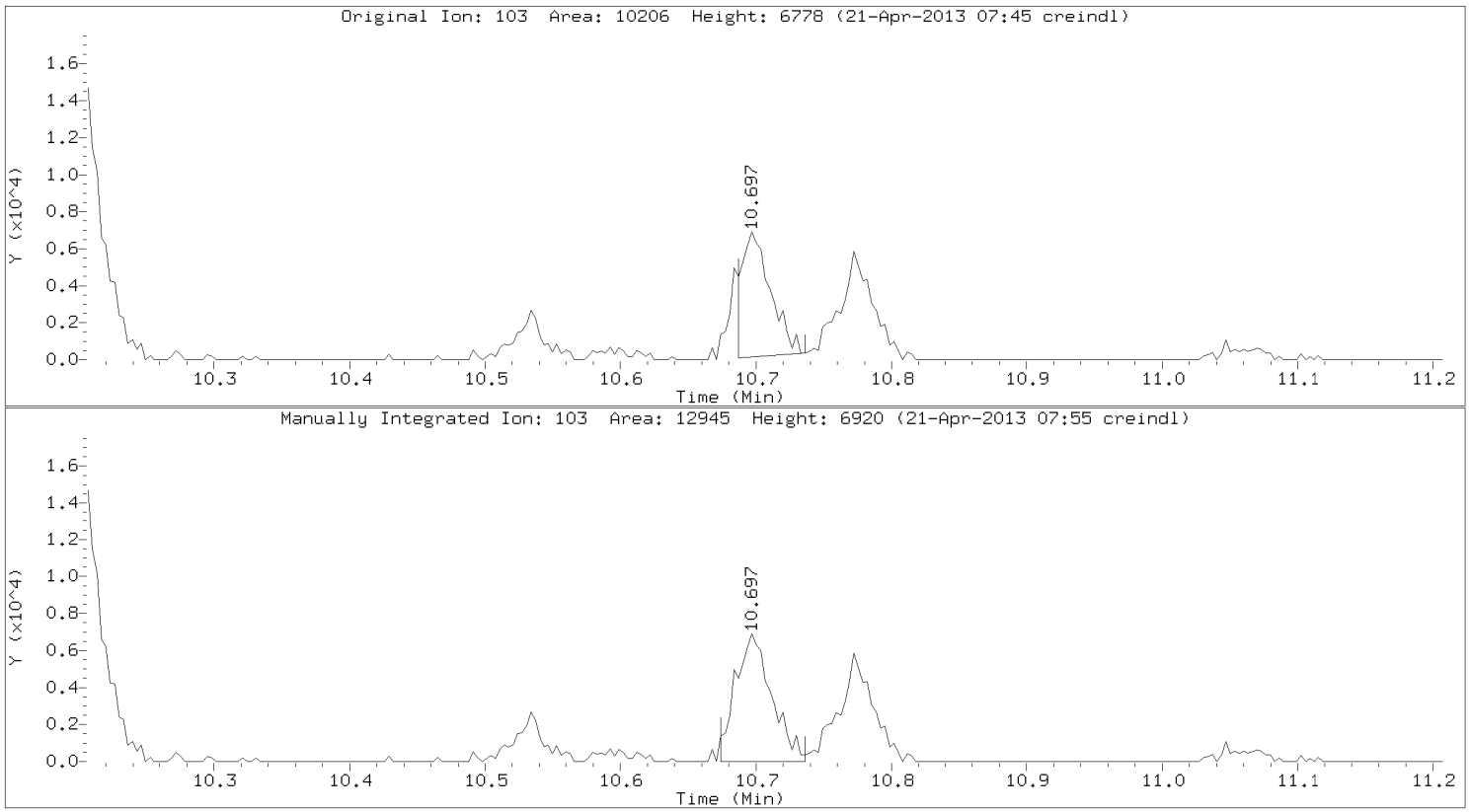






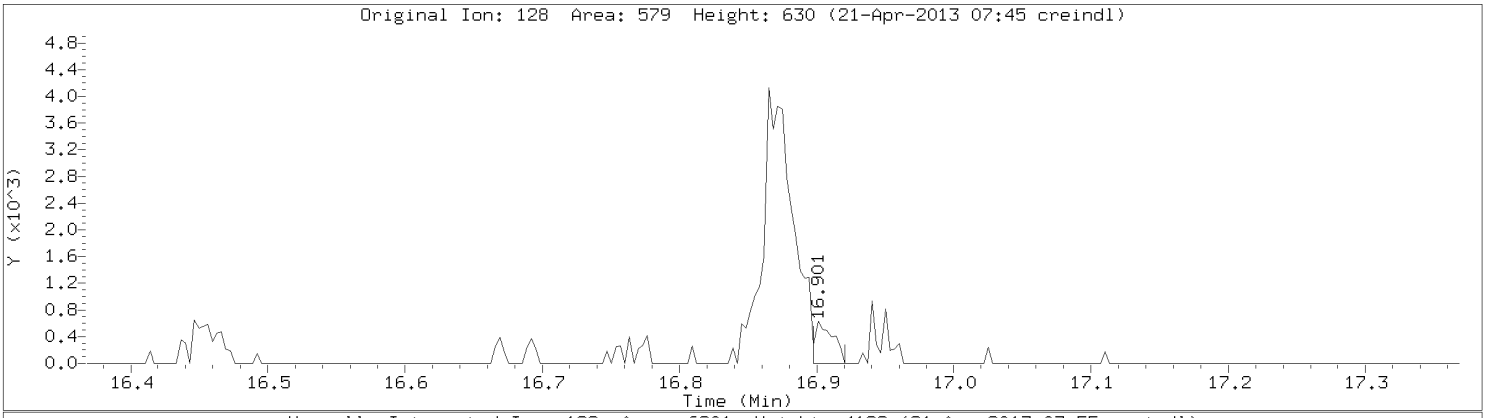


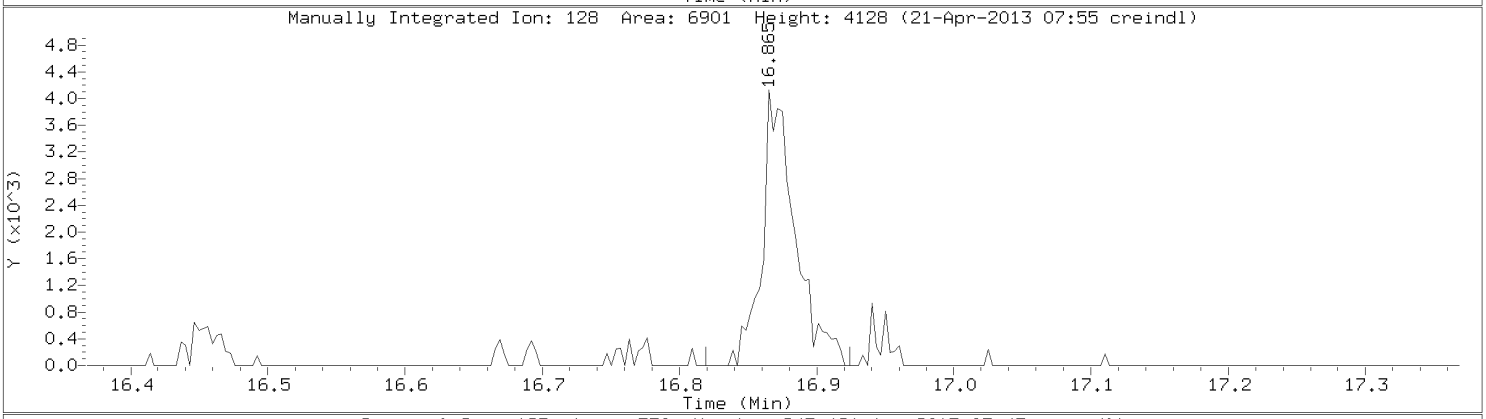
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Injection Date: 19-APR-2013 18:46
Instrument: 10airD.i
Lab Sample ID: 10224616010

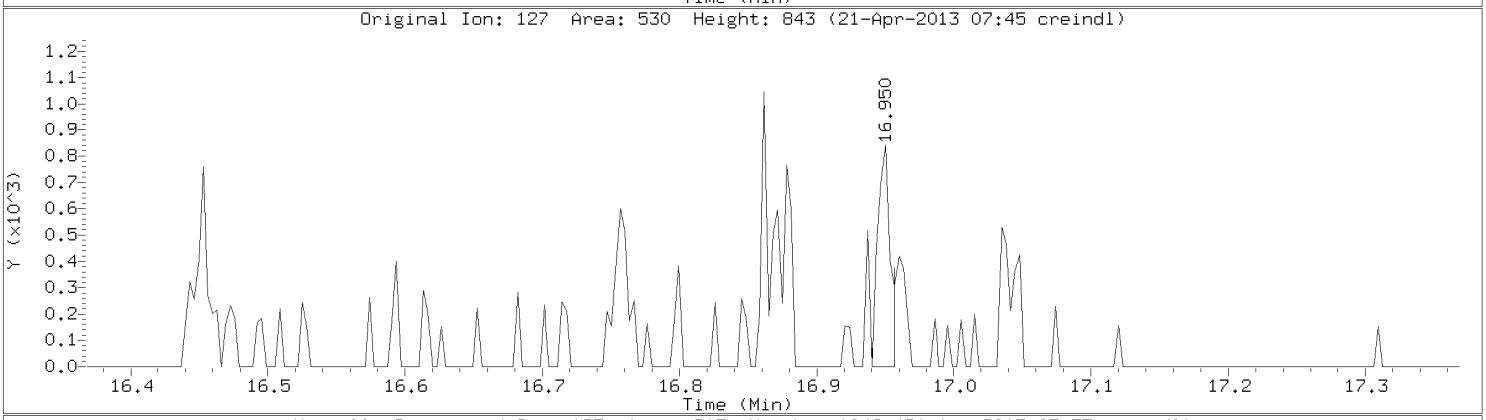


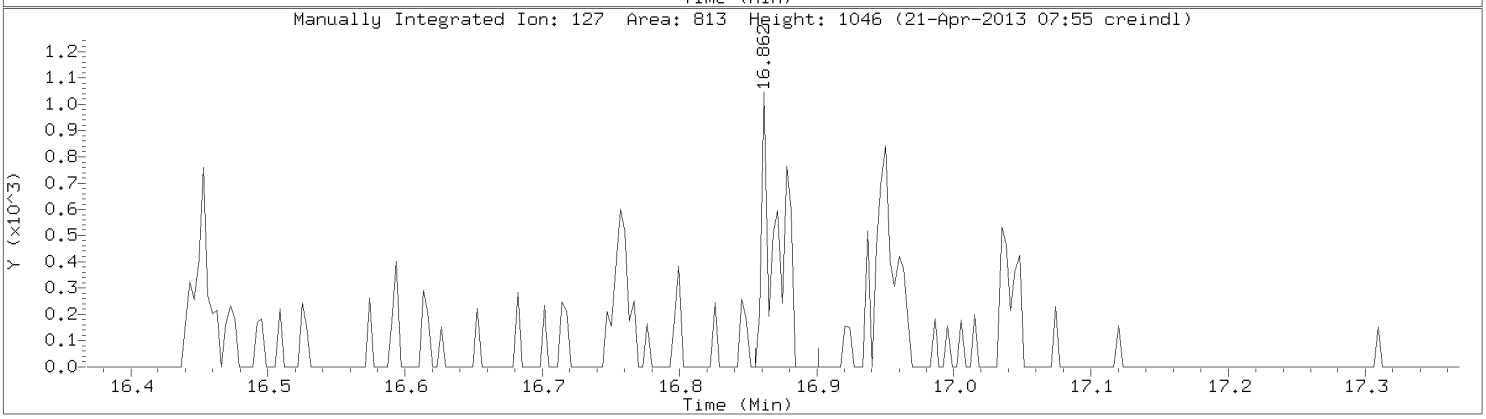
Data File: \\192.168.10.12\chem\10airD.i\041913.b/10910.d
Injection Date: 19-APR-2013 18:46
Instrument: 10airD.i
Lab Sample ID: 10224616010

Compound: Naphthalene
CAS Number: 91-20-3









Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.d
Report Date: 19-Apr-2013 07:56

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041813.b\10814.d
Lab Smp Id: 1412388
Inj Date : 18-APR-2013 17:33
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17165
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Meth Date : 19-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 14 QC Sample: DUP
Dil Factor: 1.26000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10MNCREINDL

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.260	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
1	Propylene	41	Compound Not Detected.					
2	Dichlorodifluoromethane	85	2.950	2.950	(0.487)	54219	0.34537	0.435(R)
3	Dichlorotetrafluoroethane	85	Compound Not Detected.					
4	Chloromethane	50	3.048	3.052	(0.503)	8836	0.25477	0.321(RM)
5	Vinyl chloride	62	Compound Not Detected.					
6	1,3-Butadiene	54	Compound Not Detected.					
7	Bromomethane	94	Compound Not Detected.					
8	Chloroethane	64	Compound Not Detected.					
9	Ethanol	31	3.424	3.424	(0.565)	330488	14.1807	17.9(R)
10	Vinyl Bromide	106	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
12	Trichlorofluoromethane	101	3.646	3.643	(0.602)	21854	0.15304	0.193(R)
13	Acetone	43	Compound Not Detected.					
14	Isopropyl Alcohol	45	3.698	3.702	(0.610)	3626478	74.4656	93.8(AQR)
15	1,1-Dichloroethene	61	Compound Not Detected.					
16	Acrylonitrile	53	Compound Not Detected.					
17	Tert Butyl Alcohol	59	Compound Not Detected.					
18	Freon 113	101	Compound Not Detected.					
19	Methylene chloride	49	4.042	4.045	(0.667)	13082	0.30968	0.390(RM)
20	Allyl Chloride	76	Compound Not Detected.					
21	Carbon Disulfide	76	Compound Not Detected.					
22	trans-1,2-dichloroethene	96	Compound Not Detected.					
23	Methyl Tert Butyl Ether	73	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.d
Report Date: 19-Apr-2013 07:56

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)
	24 Vinyl Acetate	43	Compound Not Detected.					
	25 1,1-Dichloroethane	63	Compound Not Detected.					
$	26 Hexane-d14(S)	66	4.656	4.660	(0.769)	625791	9.63379	9.63
	27 Methyl Ethyl Ketone	72	Compound Not Detected.					
	28 n-Hexane	57	4.777	4.777	(0.789)	68345	1.12685	1.42(QR)
	29 cis-1,2-Dichloroethene	96	Compound Not Detected.					
	30 Ethyl Acetate	43	Compound Not Detected.					
	31 Chloroform	83	Compound Not Detected.					
	32 Tetrahydrofuran	42	Compound Not Detected.					
	33 1,1,1-Trichloroethane	97	Compound Not Detected.					
	34 1,2-Dichloroethane	62	Compound Not Detected.					
	35 Benzene	78	5.849	5.856	(0.965)	53287	0.40109	0.505(R)
	36 Carbon tetrachloride	117	Compound Not Detected.					
	37 Cyclohexane	56	5.885	5.882	(0.971)	21229	0.67985	0.857(QRM)
*	38 1,4-Difluorobenzene	114	6.058	6.069	(1.000)	1458184	10.0000	
	39 2,2,4-Trimethylpentane	57	6.238	6.245	(1.030)	100637	0.93516	1.18(R)
	40 Heptane	43	6.411	6.415	(1.058)	18193	0.76962	0.970(R)
	41 1,2-Dichloropropane	63	Compound Not Detected.					
	42 Trichloroethene	130	Compound Not Detected.					
	43 1,4-Dioxane	88	Compound Not Detected.					
	44 Bromodichloromethane	83	Compound Not Detected.					
	45 Methyl Isobutyl Ketone	43	Compound Not Detected.					
	46 cis-1,3-Dichloropropene	75	Compound Not Detected.					
	47 trans-1,3-Dichloropropene	75	Compound Not Detected.					
$	48 Toluene-d8 (S)	98	7.823	7.837	(1.291)	1345768	10.0816	10.1
	49 Toluene	91	7.918	7.925	(1.307)	311136	1.70422	2.15(R)
	50 1,1,2-Trichloroethane	97	Compound Not Detected.					
	51 Methyl Butyl Ketone	43	Compound Not Detected.					
	52 Dibromochloromethane	129	Compound Not Detected.					
	53 1,2-Dibromoethane	107	Compound Not Detected.					
	54 Tetrachloroethene	166	Compound Not Detected.					
*	55 Chlorobenzene - d5	117	9.677	9.684	(1.000)	808667	10.0000	
	56 Chlorobenzene	112	Compound Not Detected.					
	57 Ethyl Benzene	91	10.033	10.040	(1.037)	71774	0.49782	0.627(R)
	58 m&p-Xylene	91	10.193	10.210	(1.053)	282894	1.83726	2.31(R)
	59 Bromoform	173	Compound Not Detected.					
	60 Styrene	104	Compound Not Detected.					
	61 o-Xylene	91	10.775	10.785	(1.113)	79459	0.50722	0.639(RM)
	62 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
	63 Isopropylbenzene	105	Compound Not Detected.					
	64 N-Propylbenzene	91	Compound Not Detected.					
	65 4-Ethyltoluene	105	12.314	12.328	(1.273)	19850	0.25223	0.318(RM)
	66 1,3,5-Trimethylbenzene	105	12.419	12.433	(1.283)	13242	0.16090	0.203(RM)
	67 1,2,4-Trimethylbenzene	105	13.017	13.028	(1.345)	79527	0.61650	0.777(R)
	68 1,3-Dichlorobenzene	146	Compound Not Detected.					
	69 Sec- Butylbenzene	105	Compound Not Detected.					
$	70 1,4-dichlorobenzene-d4 (S)	150	13.452	13.466	(1.390)	418627	9.21288	9.21
	71 Benzyl Chloride	91	Compound Not Detected.					
	72 1,4-Dichlorobenzene	146	Compound Not Detected.					
	73 1,2-Dichlorobenzene	146	Compound Not Detected.					
	74 N-Butylbenzene	91	Compound Not Detected.					
	75 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	76 Naphthalene	128	Compound Not Detected.					
	77 Hexachlorobutadiene	225	Compound Not Detected.					

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.d
Report Date: 19-Apr-2013 07:56

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	CONCENTRATIONS FINAL (ppbv)

QC Flag Legend

A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.d
Report Date: 19-Apr-2013 07:56

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10814.d
Lab Smp Id: 1412388
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041813.b\TO15_106-13.m
Misc Info: 17165

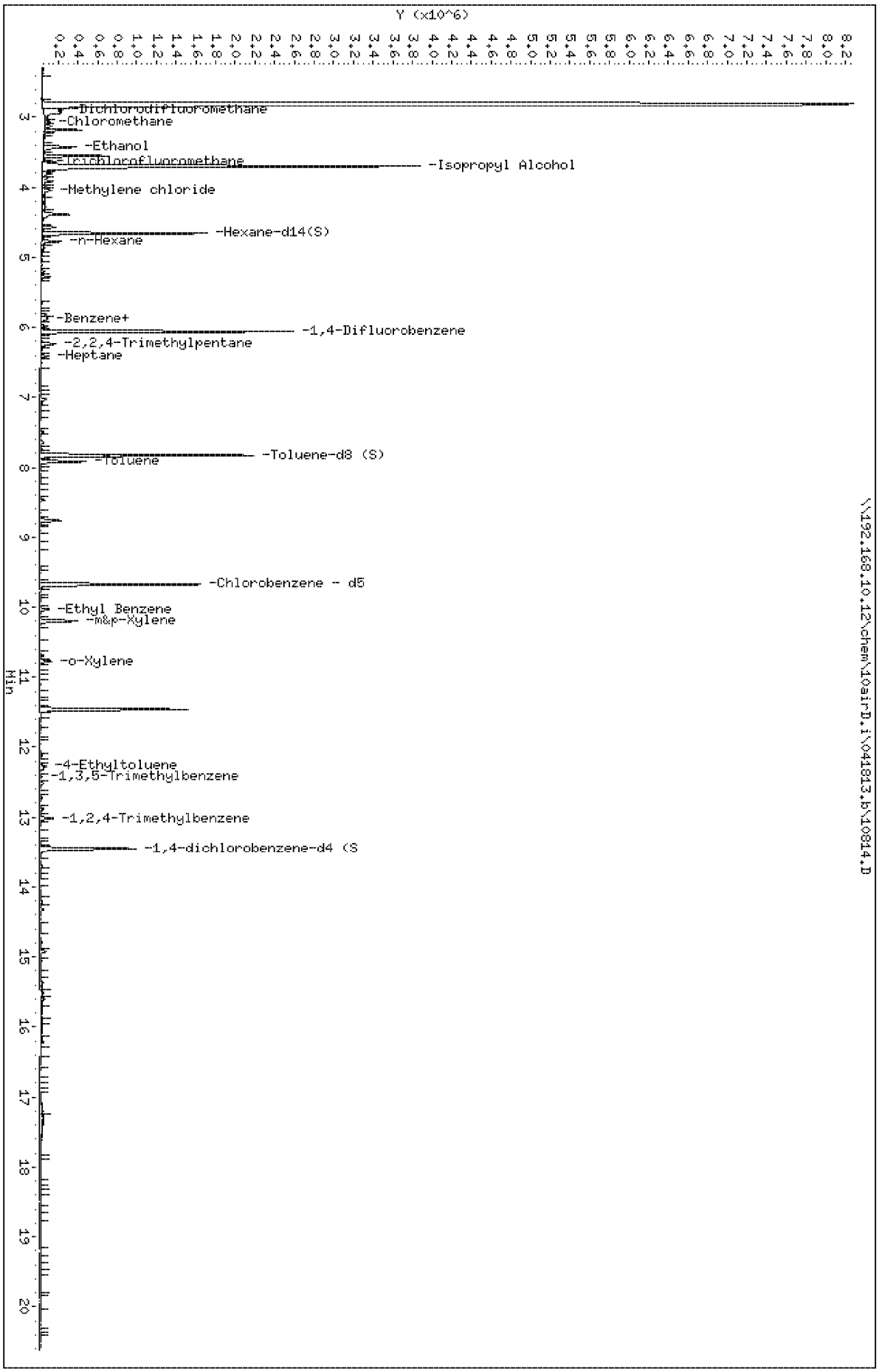
Calibration Date: 18-APR-2013
Calibration Time: 11:08
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1458184	1.80
55 Chlorobenzene - d	825122	495073	1155171	808667	-1.99

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.11
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.



Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D
Date : 18-APR-2013 17:33
Client ID:
Sample Info:
Column phase: J&W DB-5

Instrument: 10airD.i
Operator: CJR
Column diameter: 0.32

Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

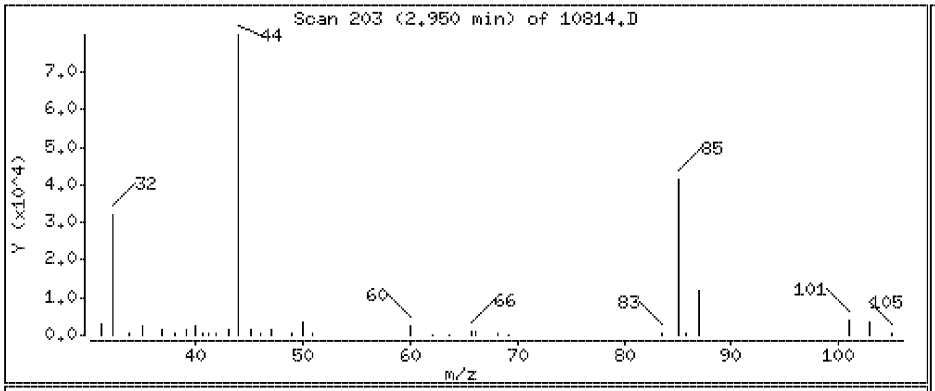
Operator: CJR

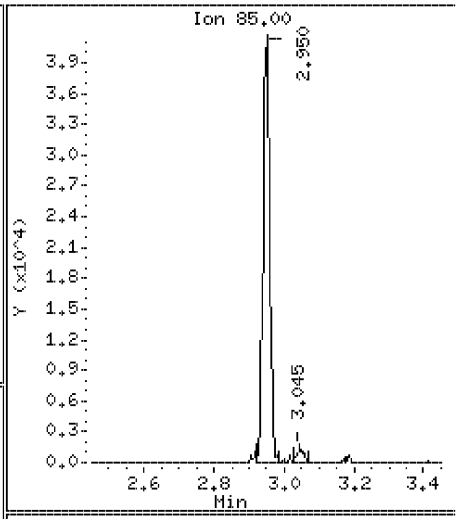
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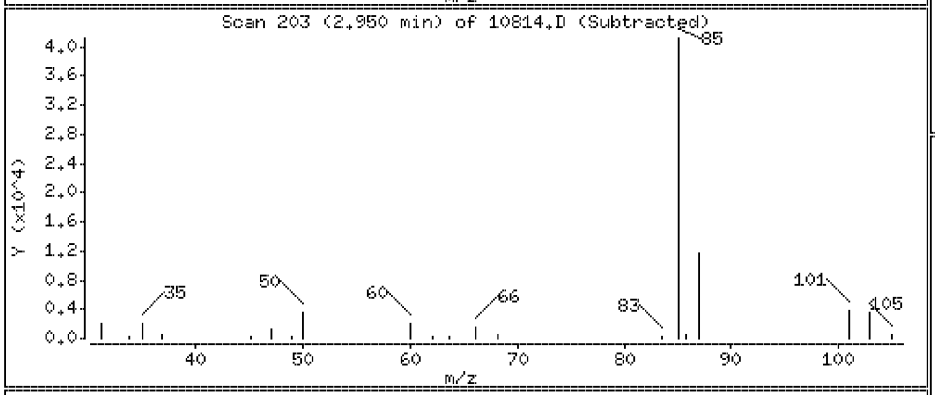
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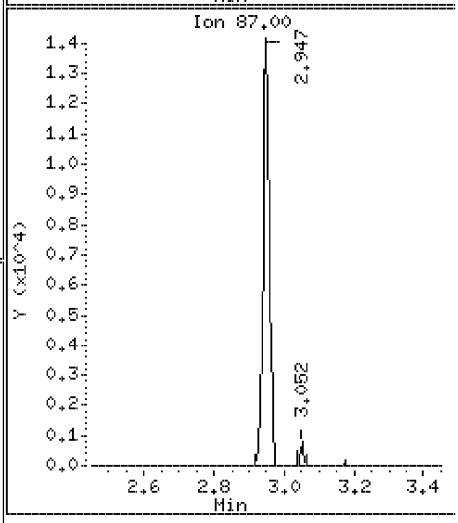
2 Dichlorodifluoromethane

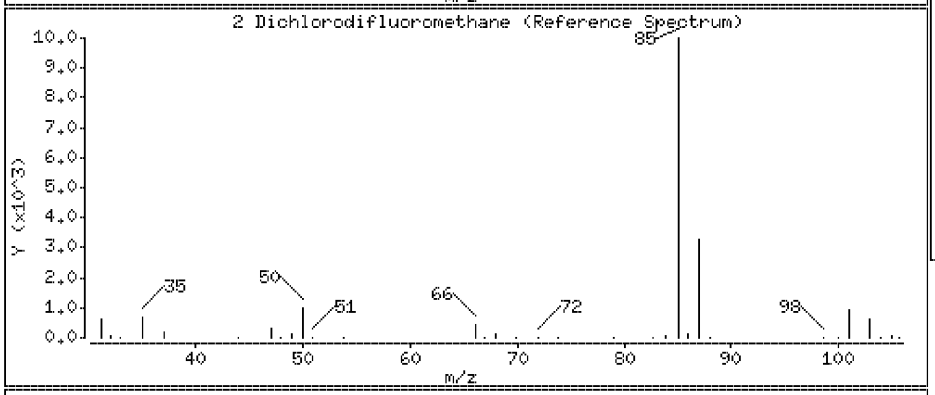
Concentration: 0.435 ppbv

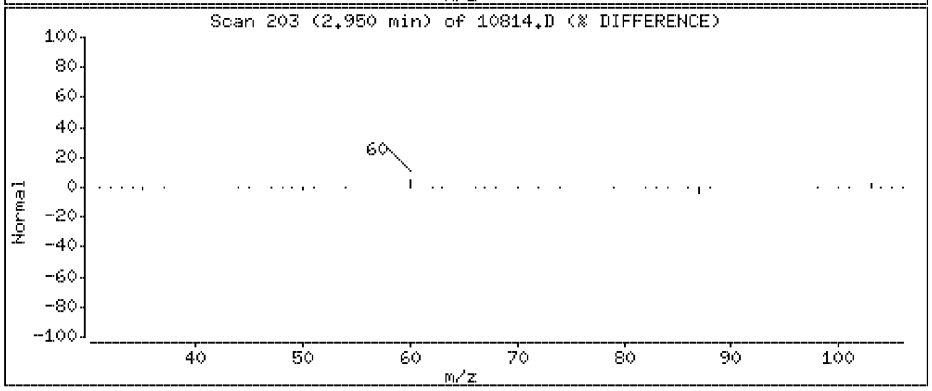












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

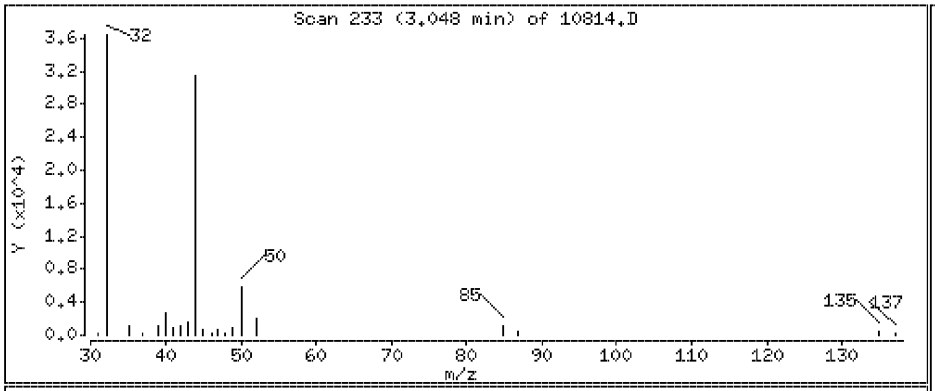
Operator: CJR

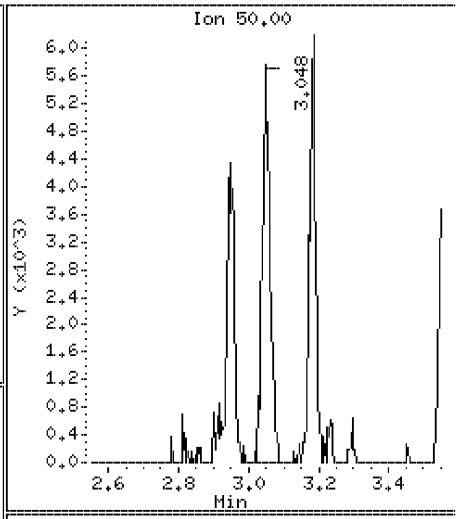
Column phase: J&W DB-5

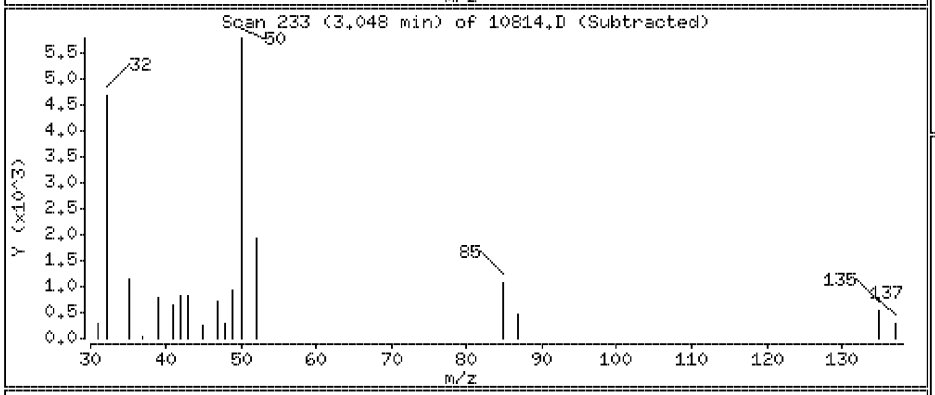
Column diameter: 0.32

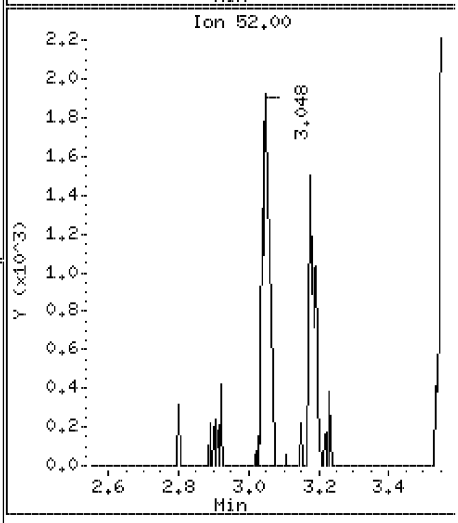
4 Chloromethane

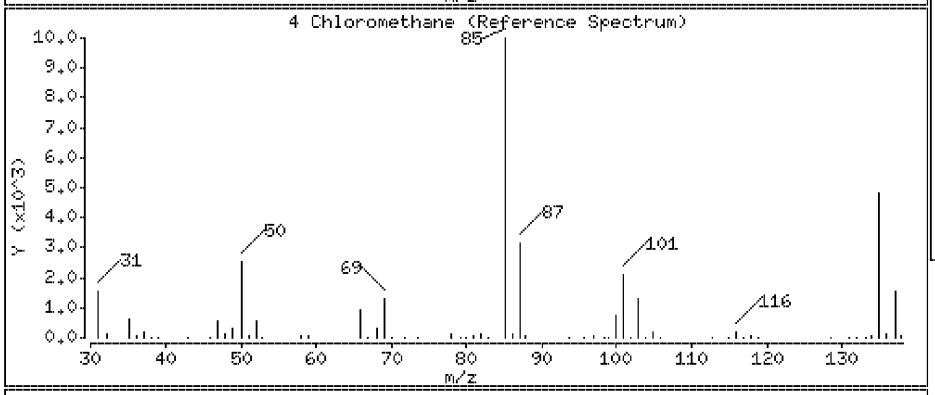
Concentration: 0.321 ppbv

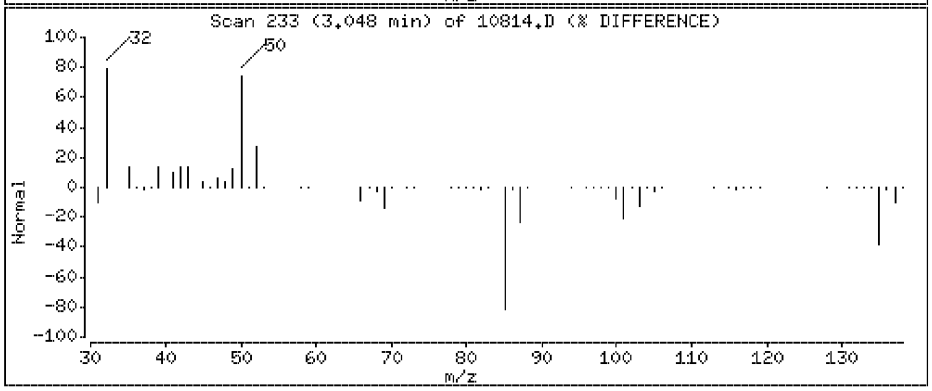












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

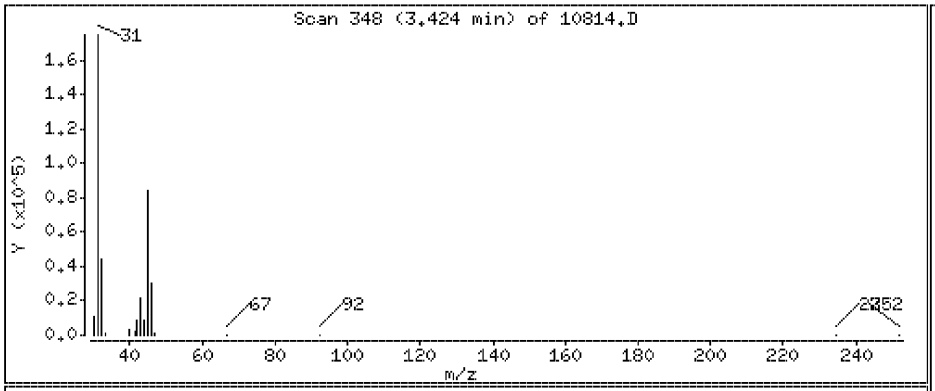
Operator: CJR

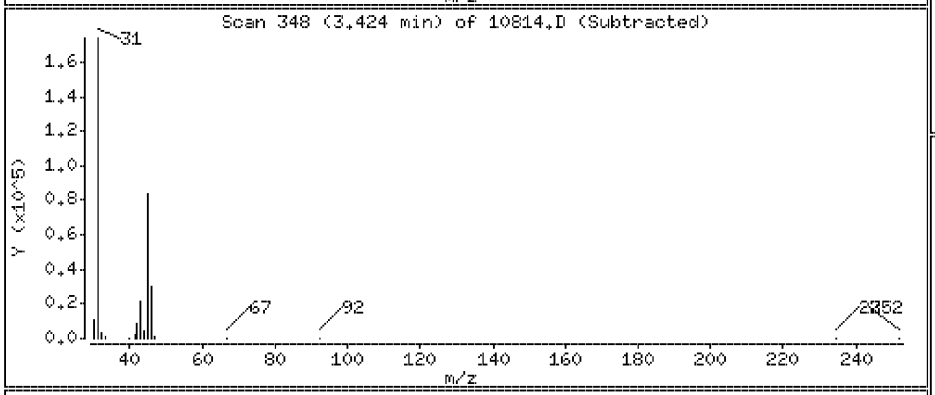
Column phase: J&W DB-5

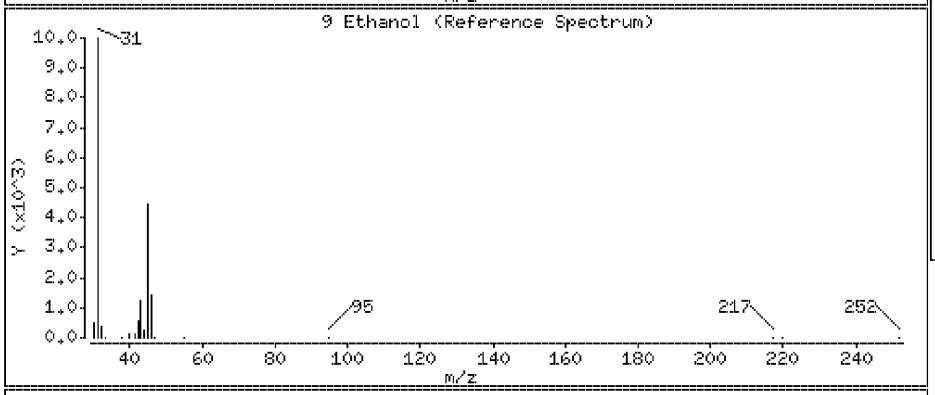
Column diameter: 0.32

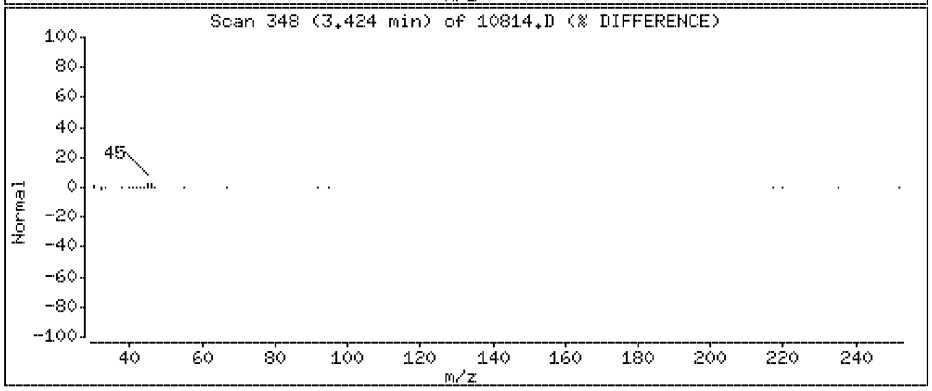
9 Ethanol

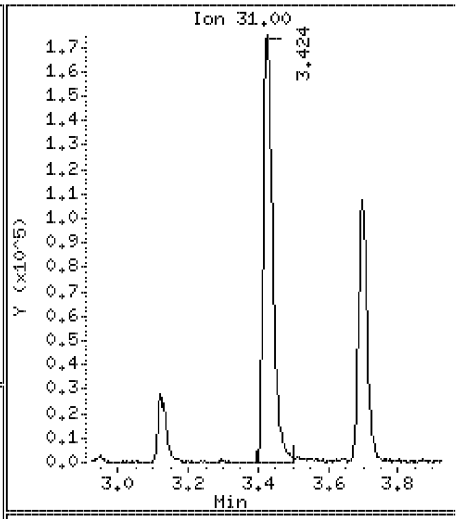
Concentration: 17.9 ppbv

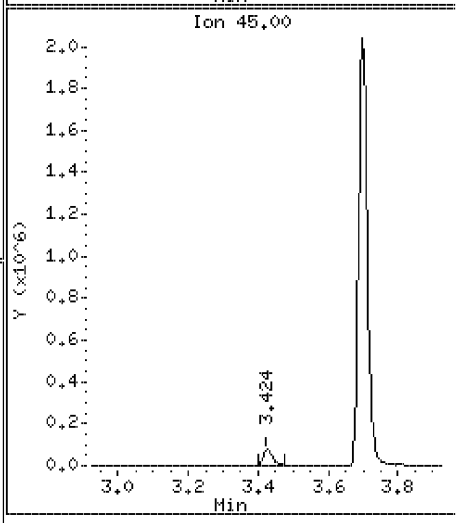












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

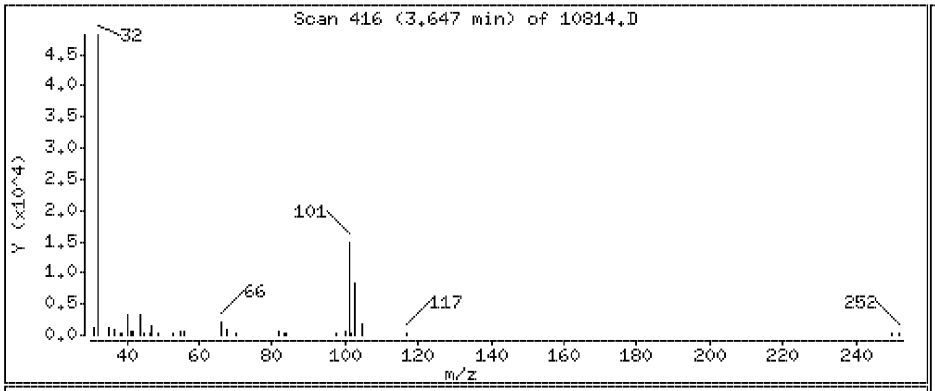
Operator: CJR

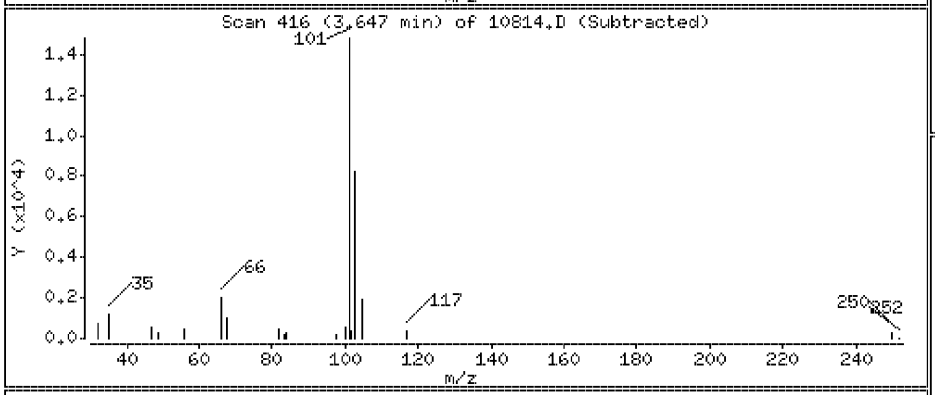
Column phase: J&W DB-5

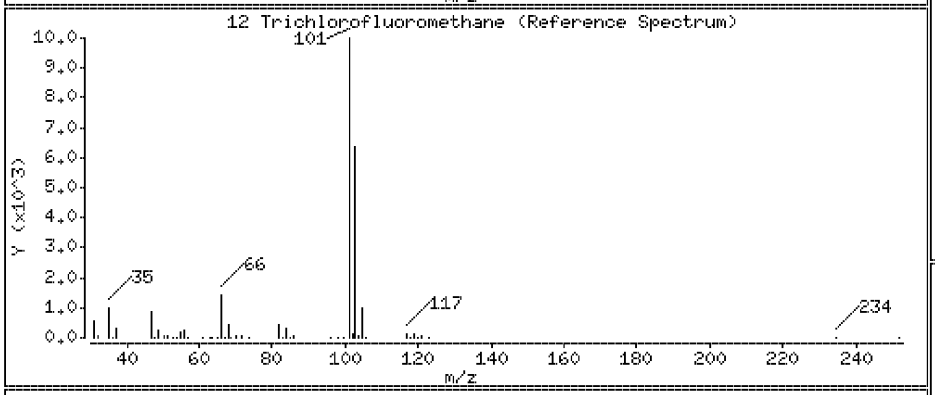
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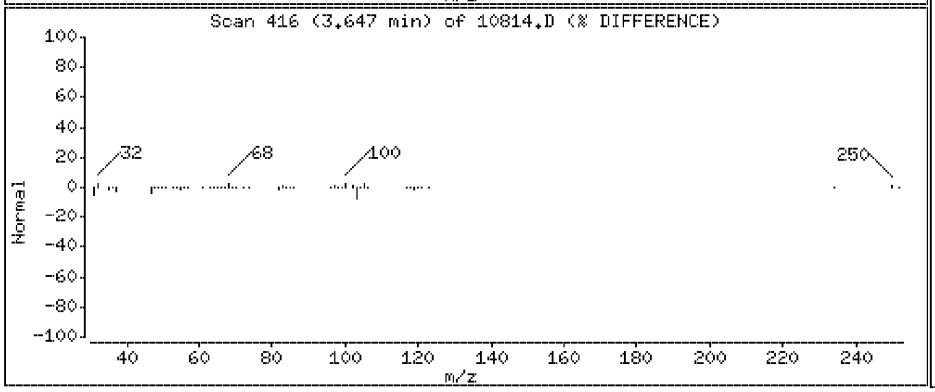
12 Trichlorofluoromethane

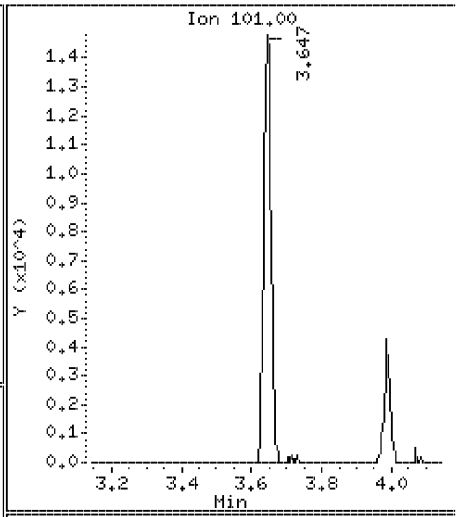
Concentration: 0.193 ppbv

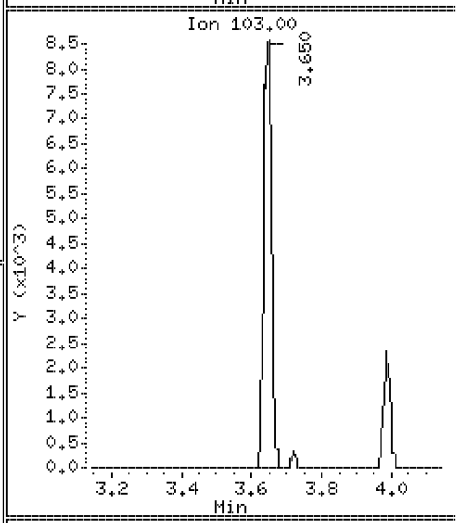


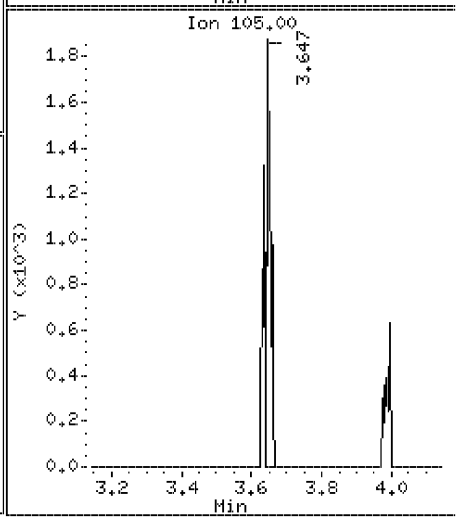












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

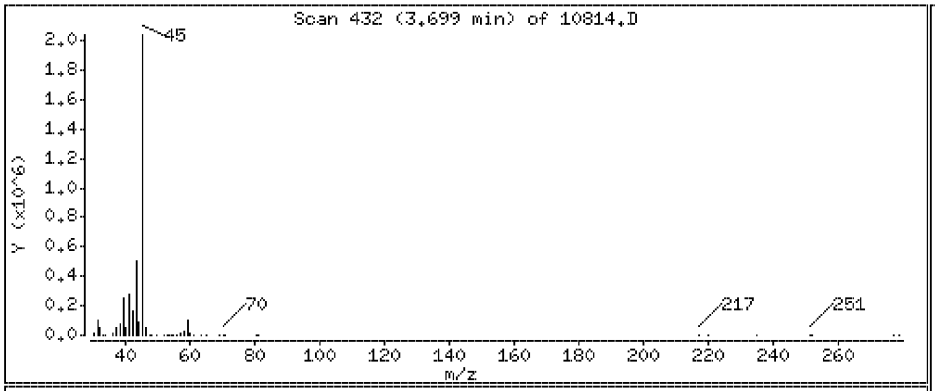
Operator: CJR

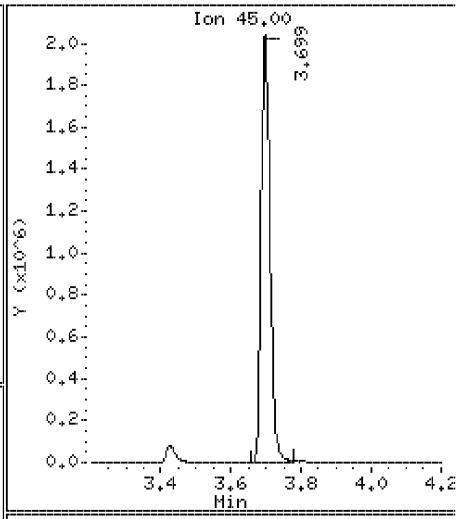
Column phase: J&W DB-5

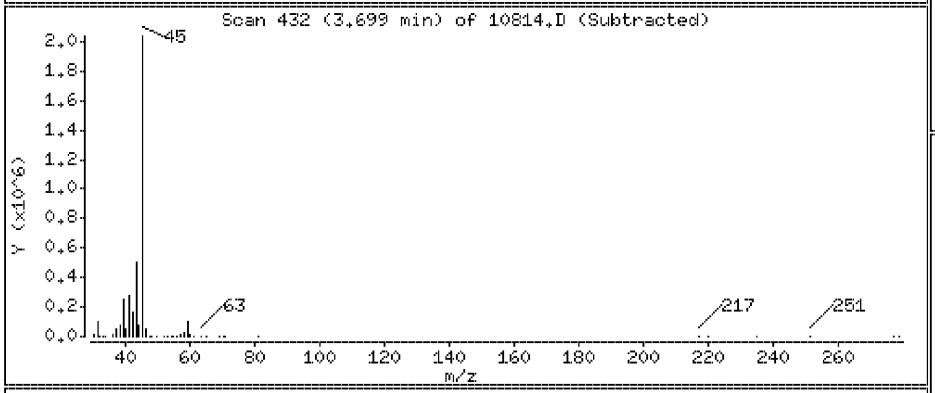
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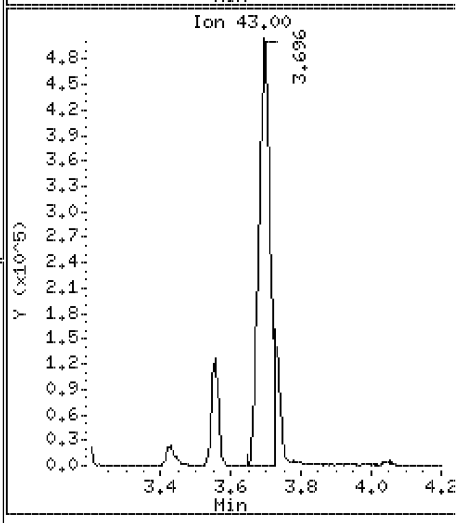
14 Isopropyl Alcohol

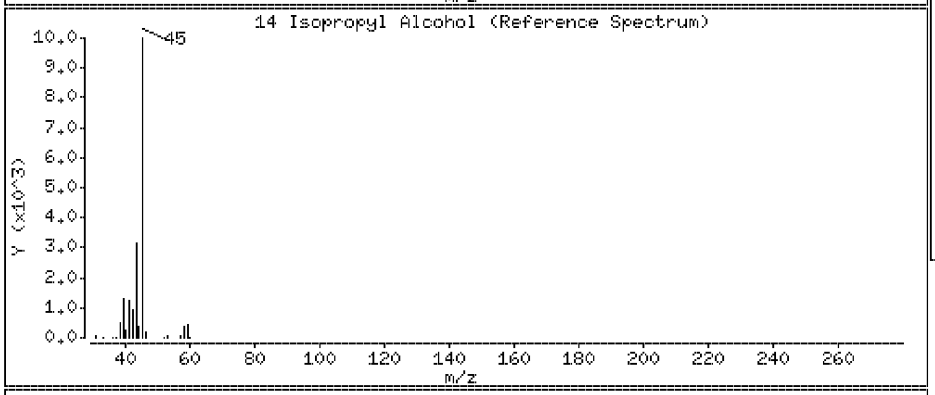
Concentration: 93.8 ppbv

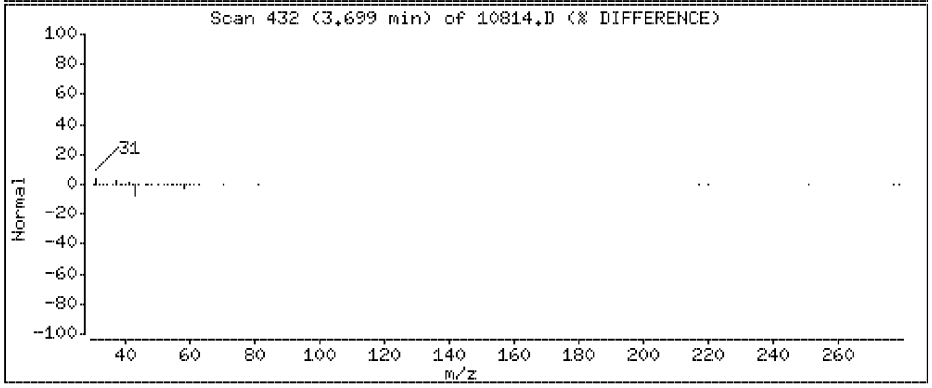












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

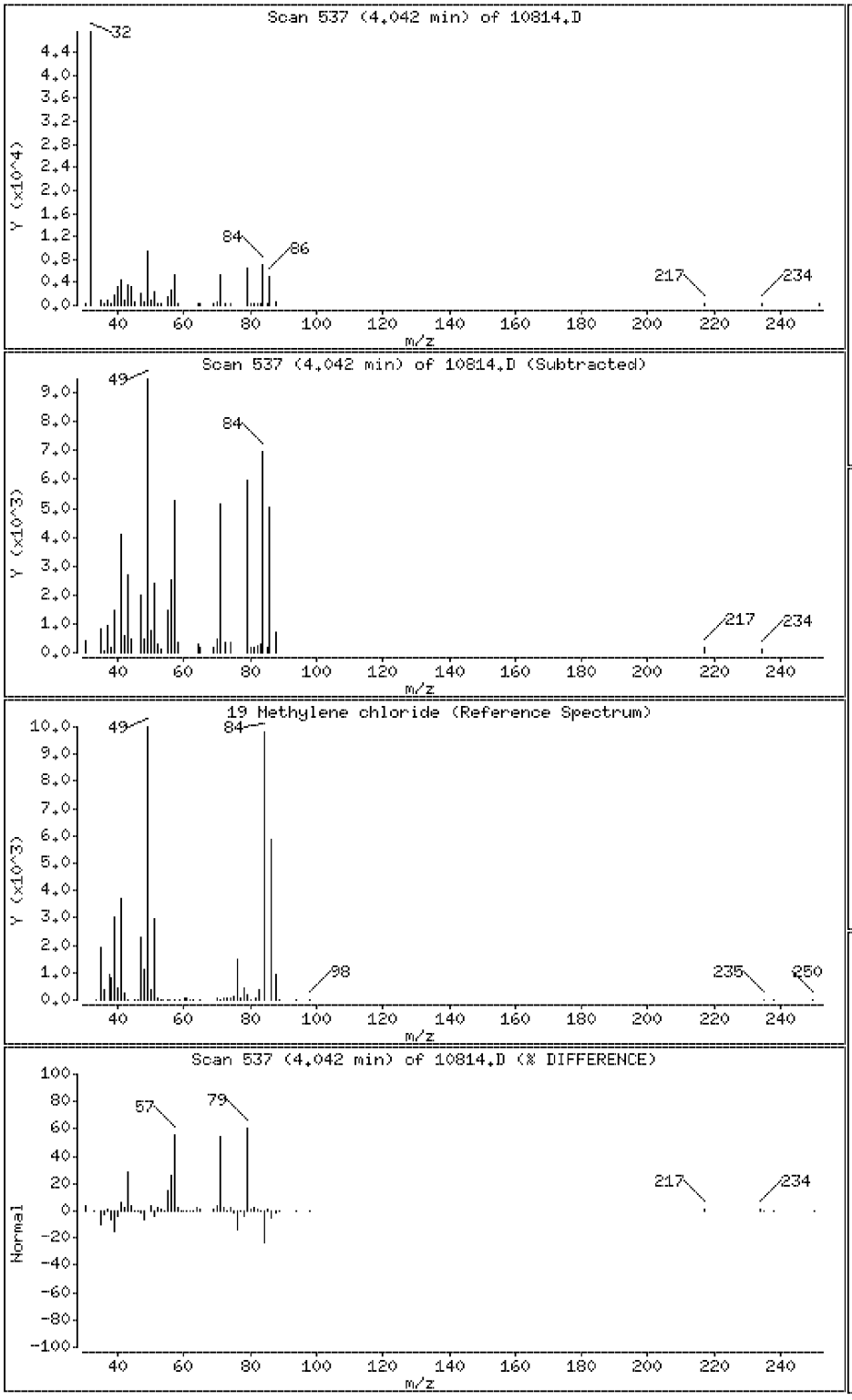
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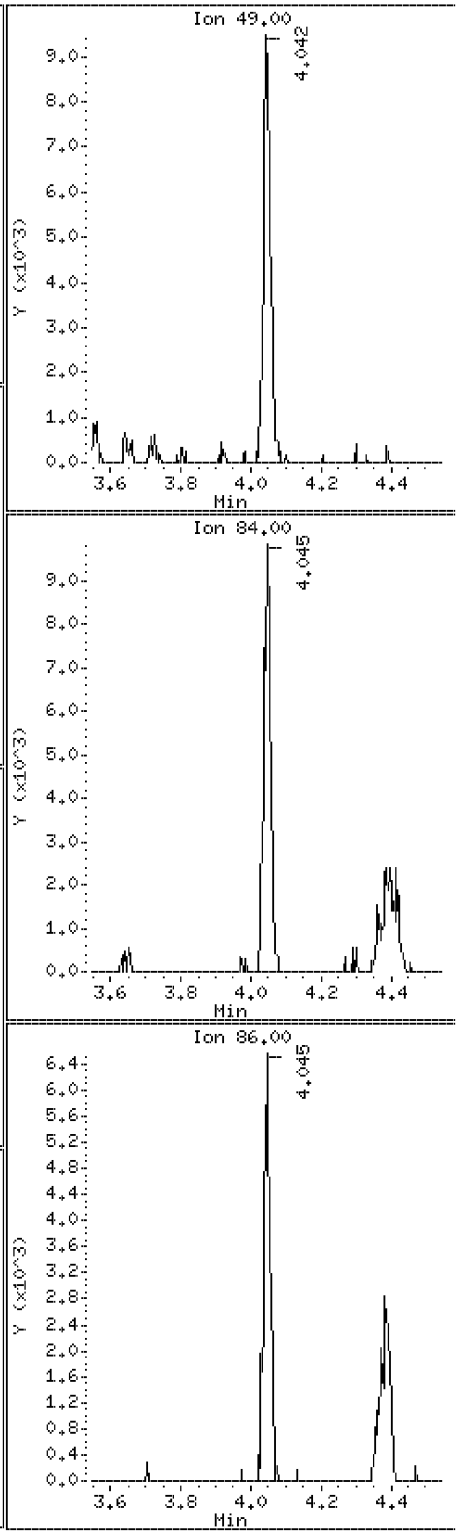
Column phase: J&W DB-5

Column diameter: 0.32

19 Methylene chloride

Concentration: 0.390 ppbv





Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

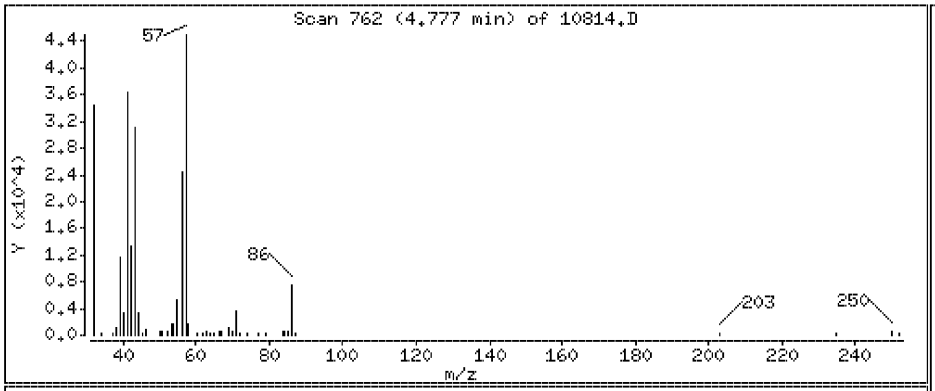
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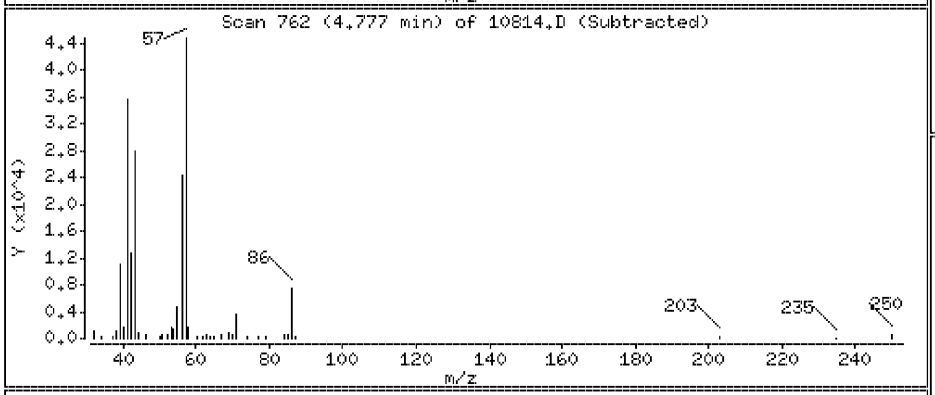
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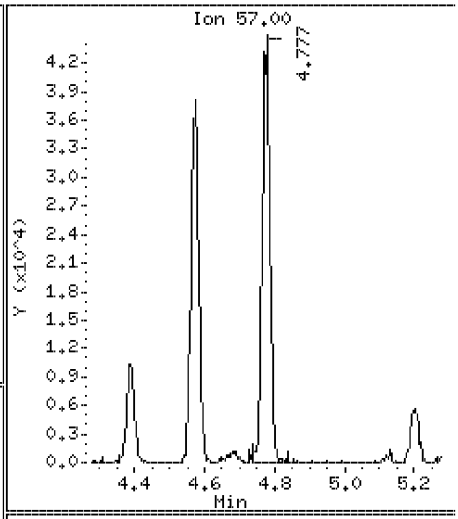
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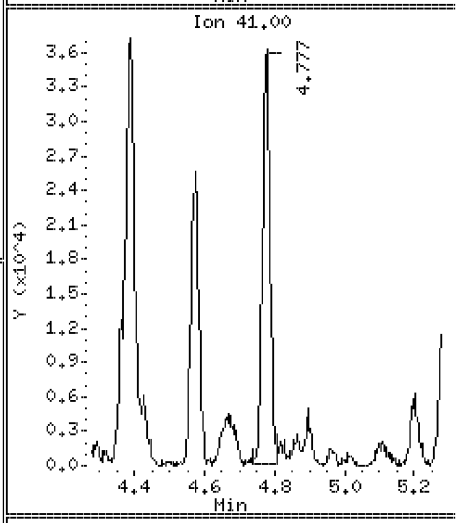
28 n-Hexane

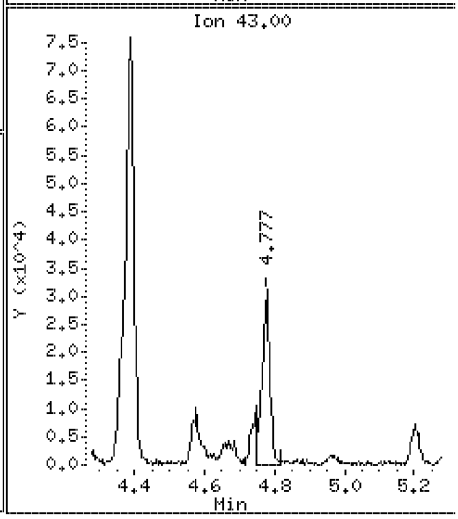
Concentration: 1.42 ppbv











Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

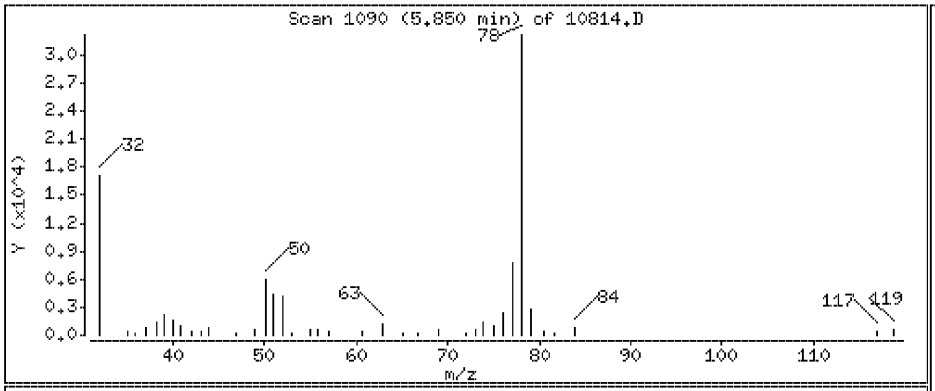
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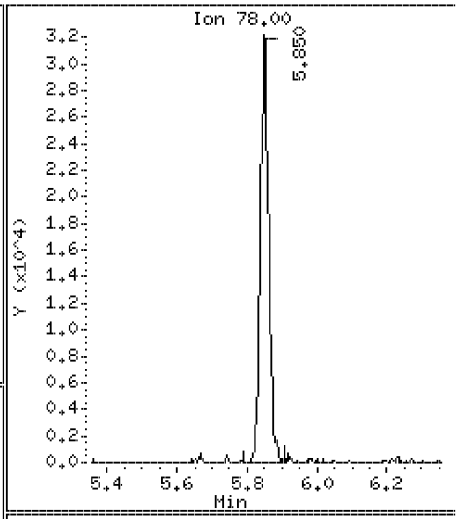
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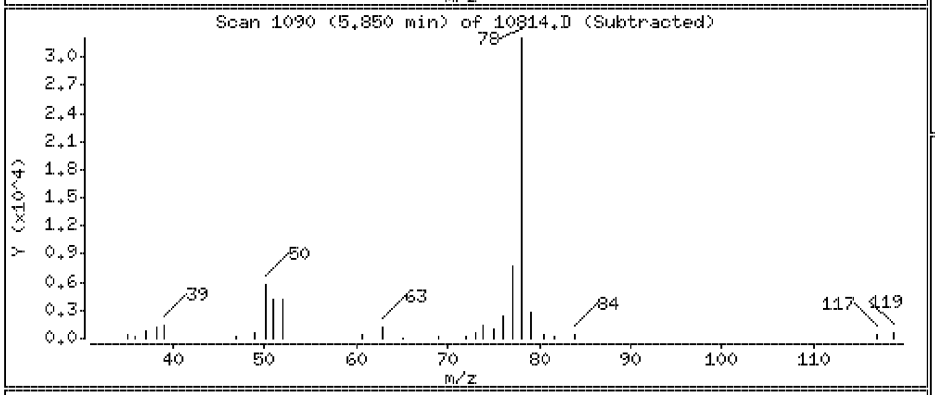
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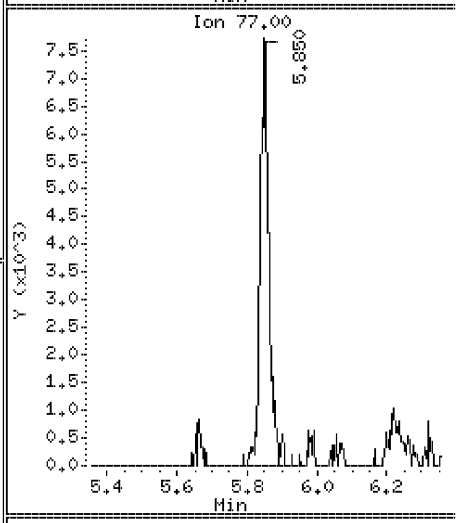
35 Benzene

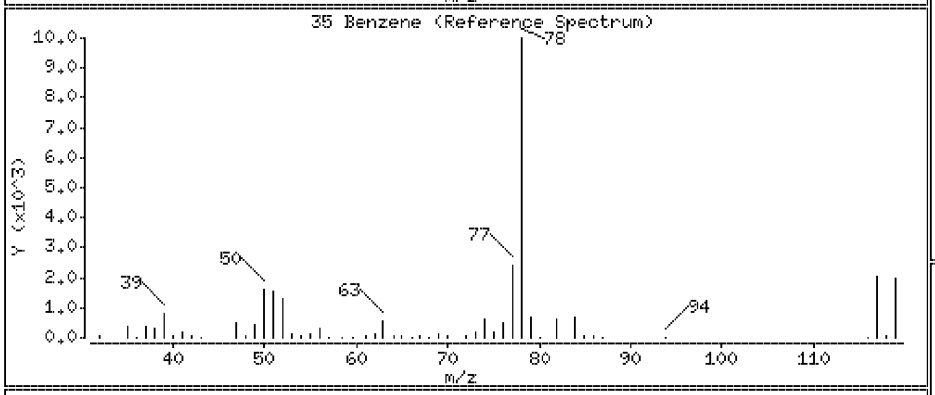
Concentration: 0.505 ppbv

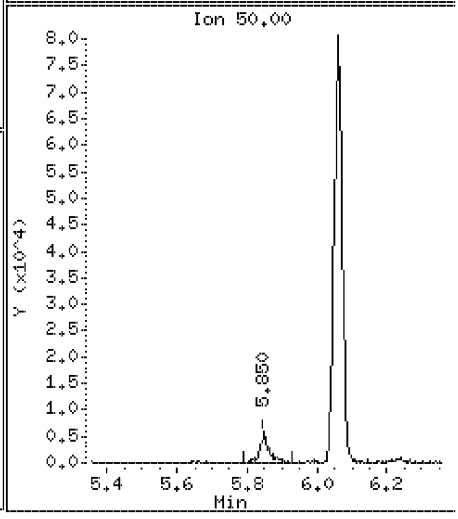


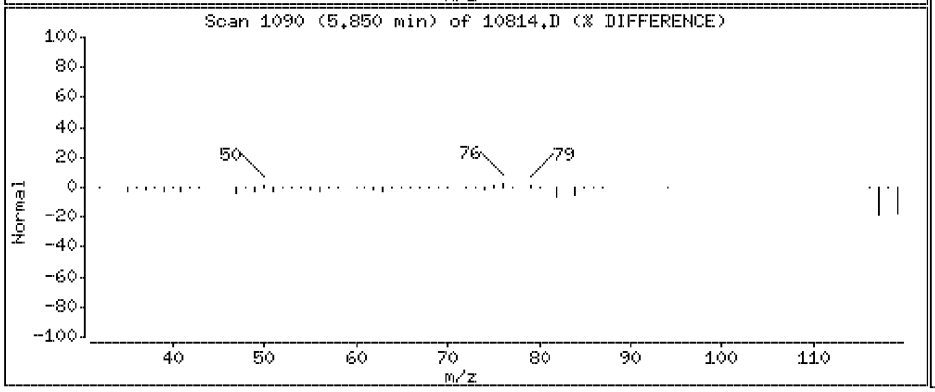












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

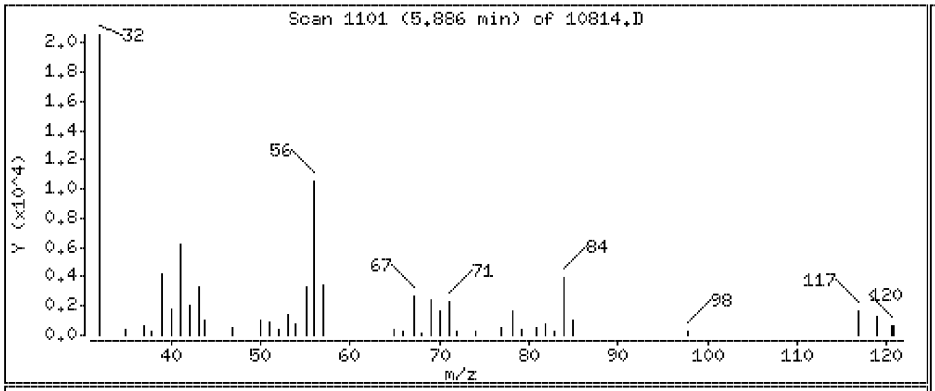
Operator: CJR

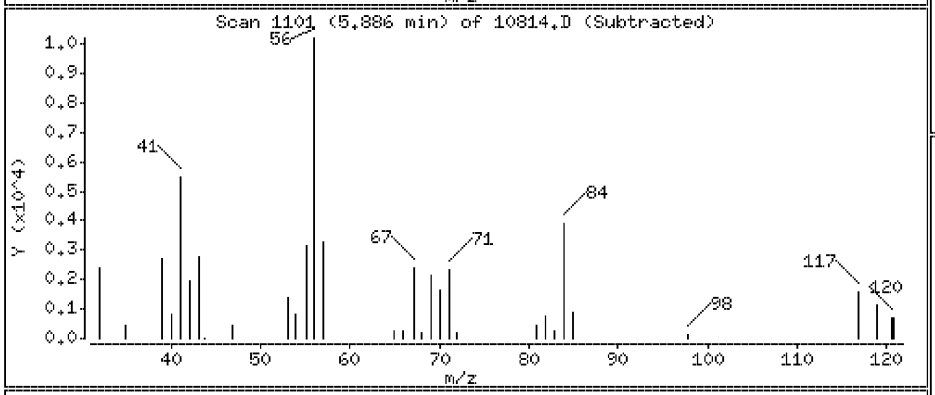
Column phase: J&W DB-5

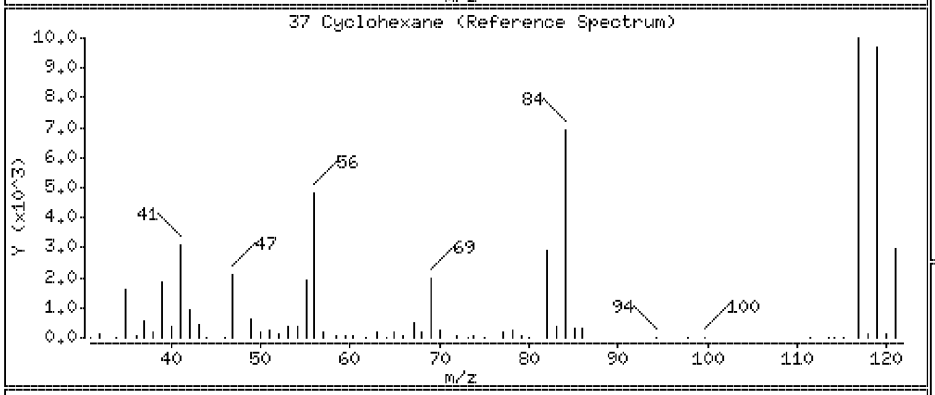
Column diameter: 0.32

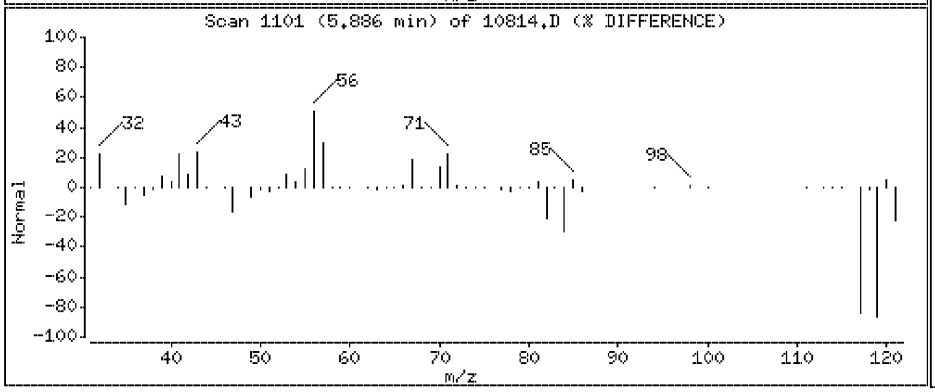
37 Cyclohexane

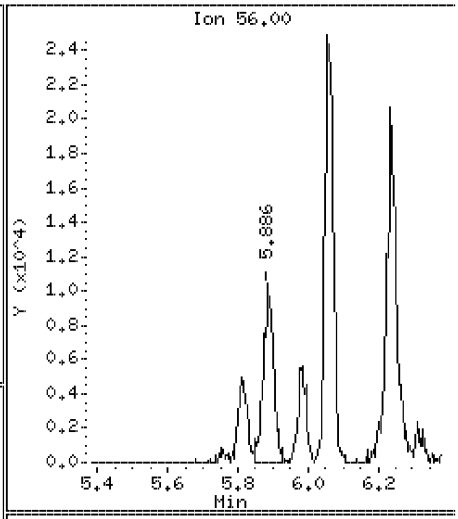
Concentration: 0.857 ppbv

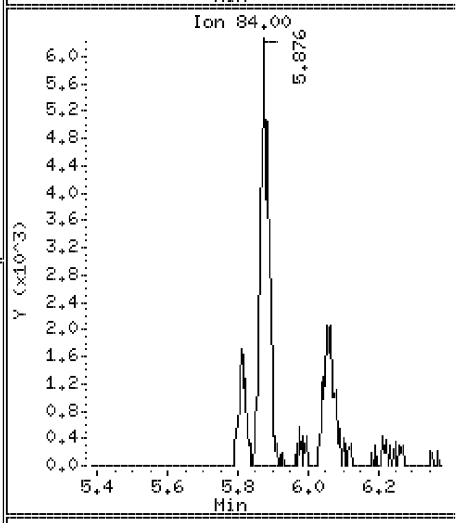


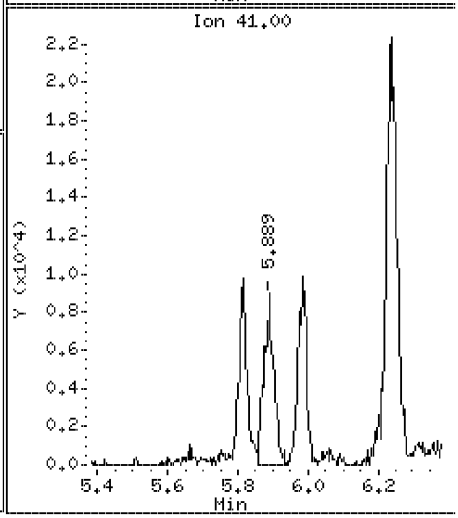












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

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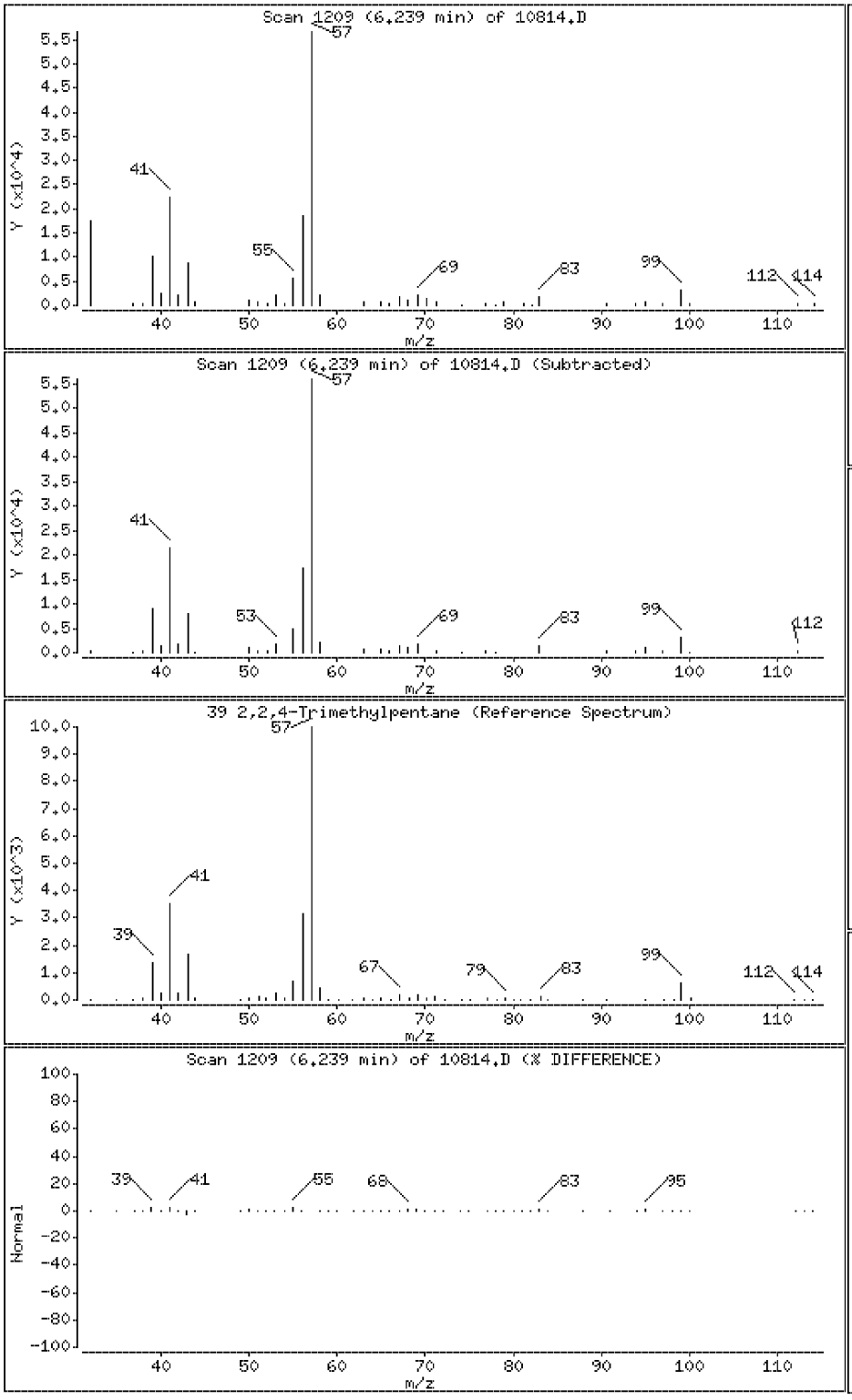
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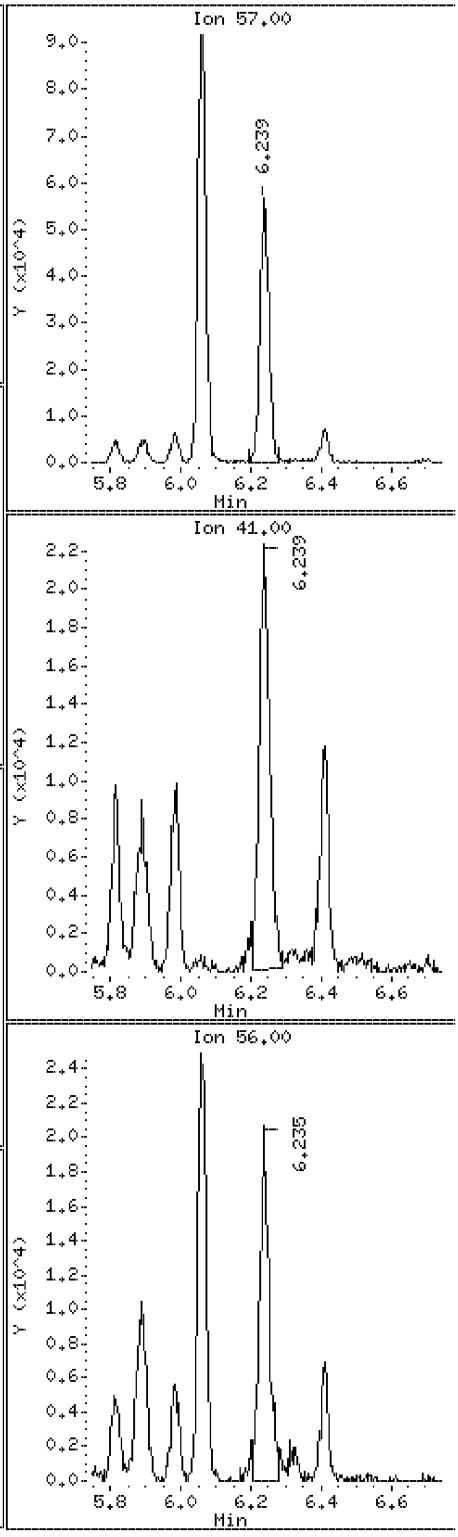
Column phase: J&W DB-5

Column diameter: 0.32

39 2,2,4-Trimethylpentane

Concentration: 1.18 ppbv





Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

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Instrument: 10airD.i

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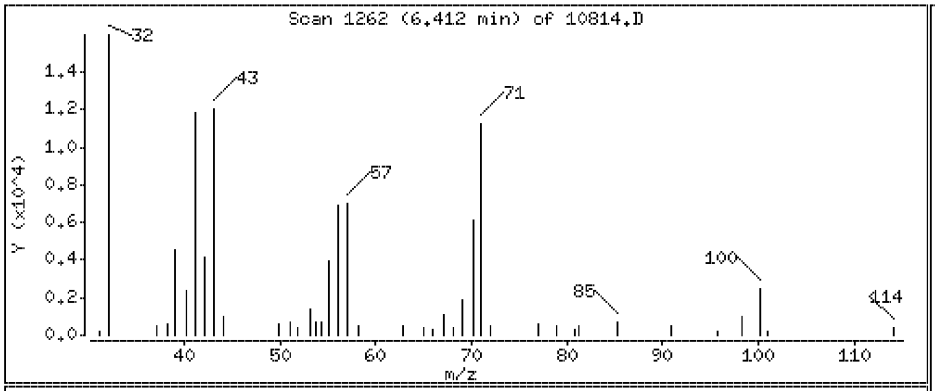
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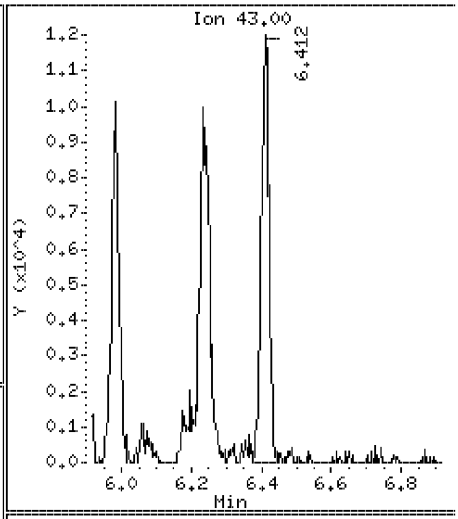
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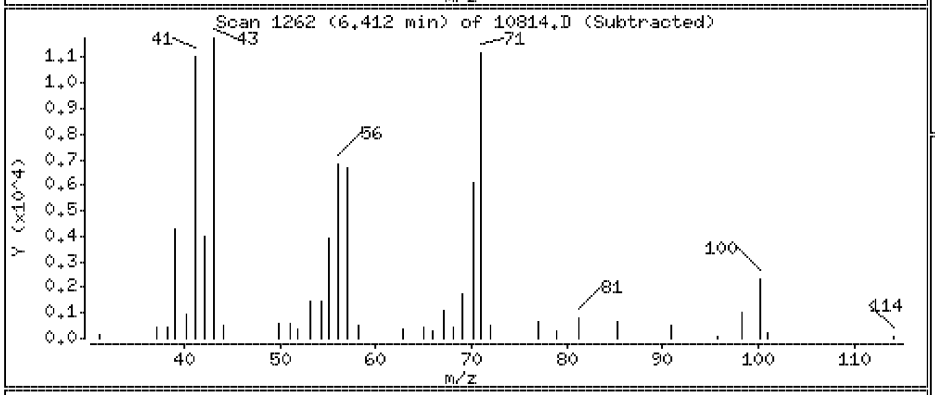
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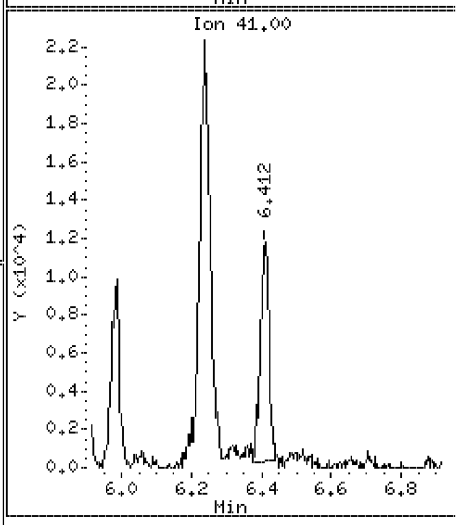
40 Heptane

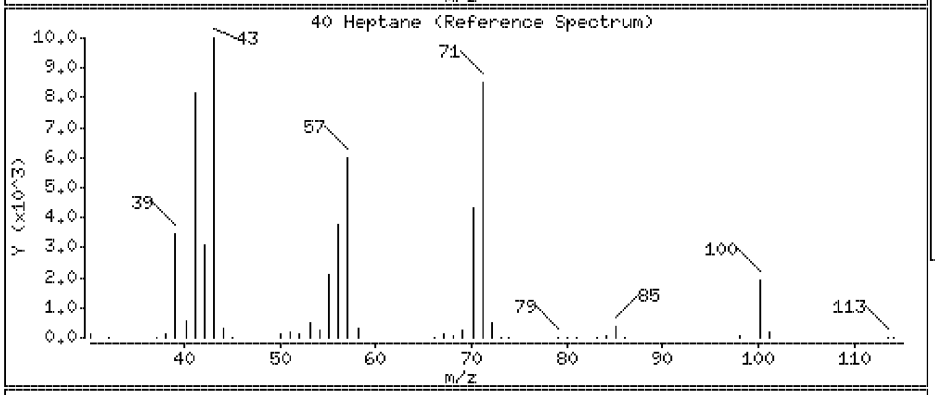
Concentration: 0.970 ppbv

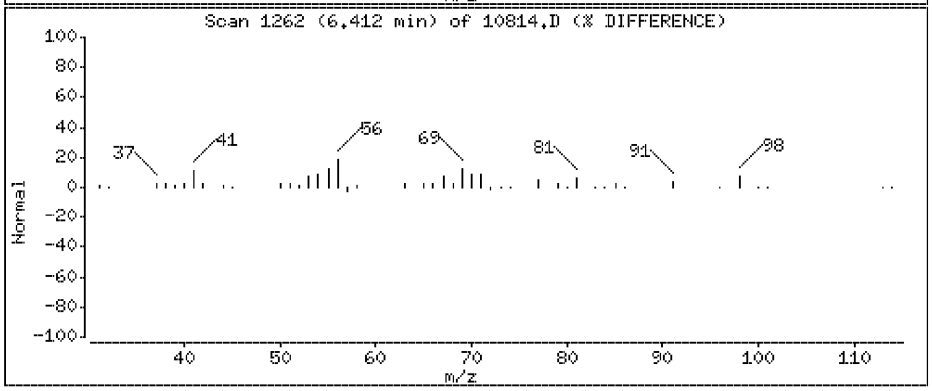












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

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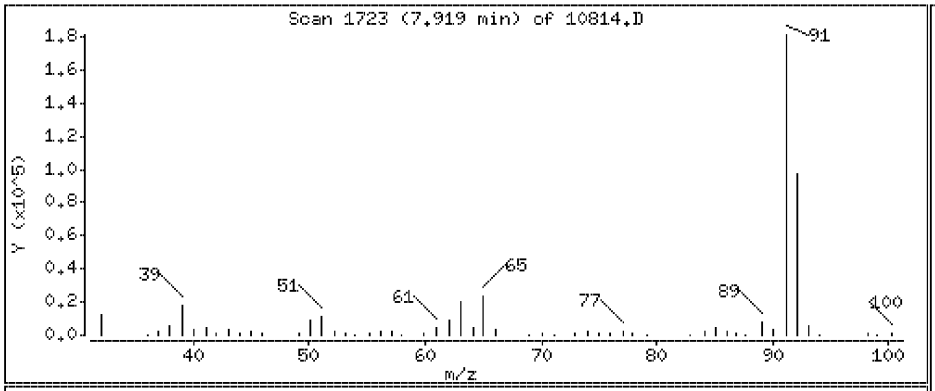
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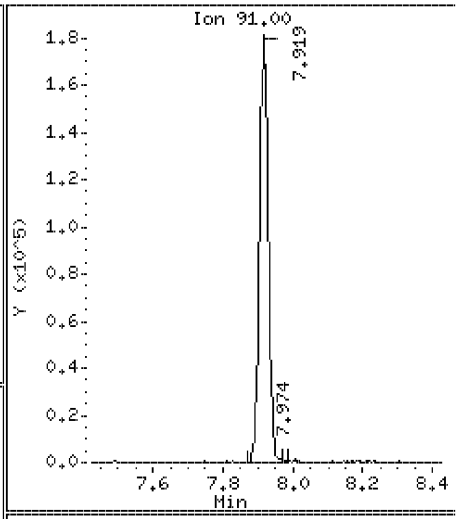
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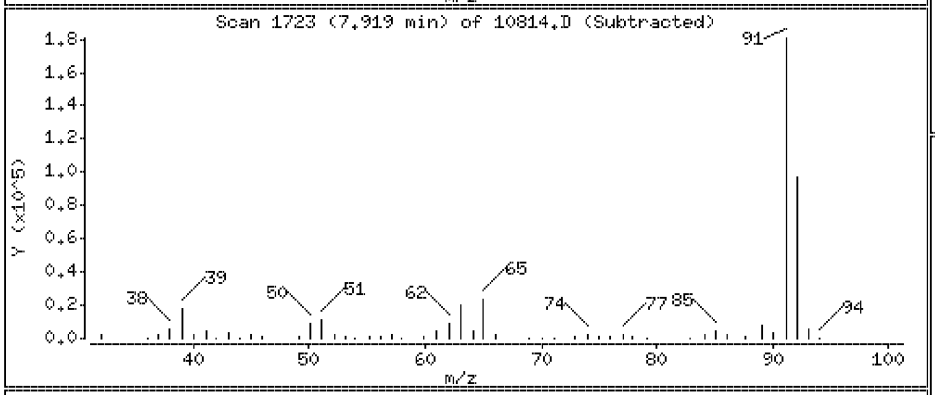
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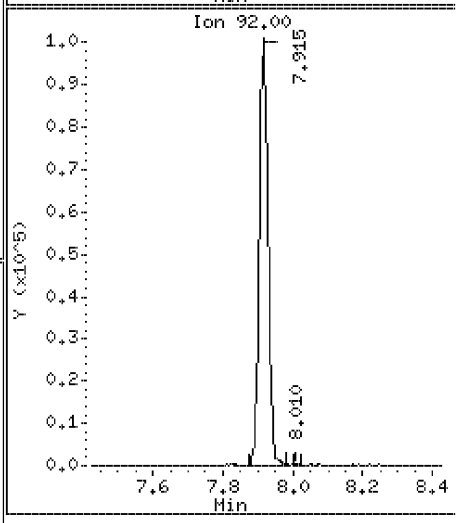
49 Toluene

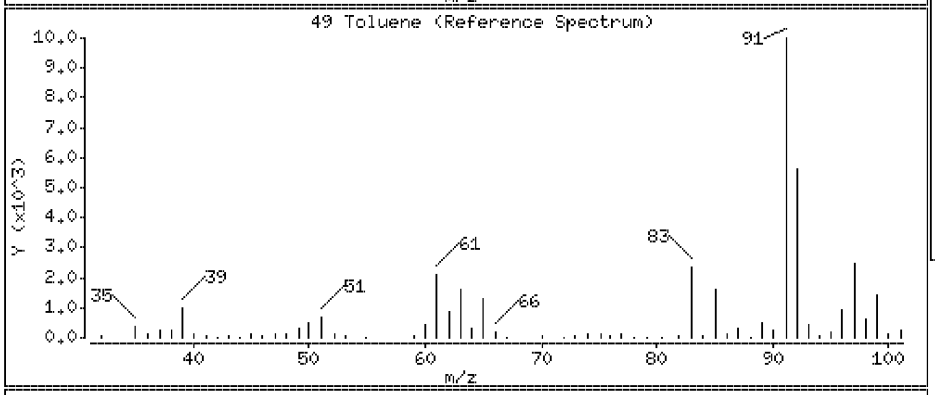
Concentration: 2.15 ppbv

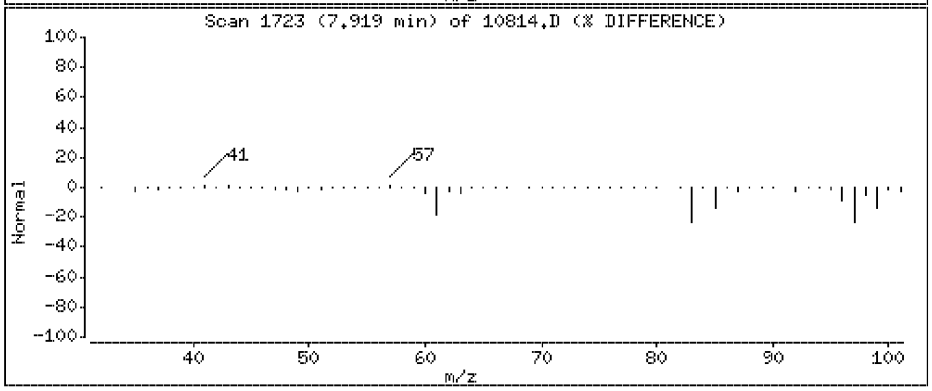












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

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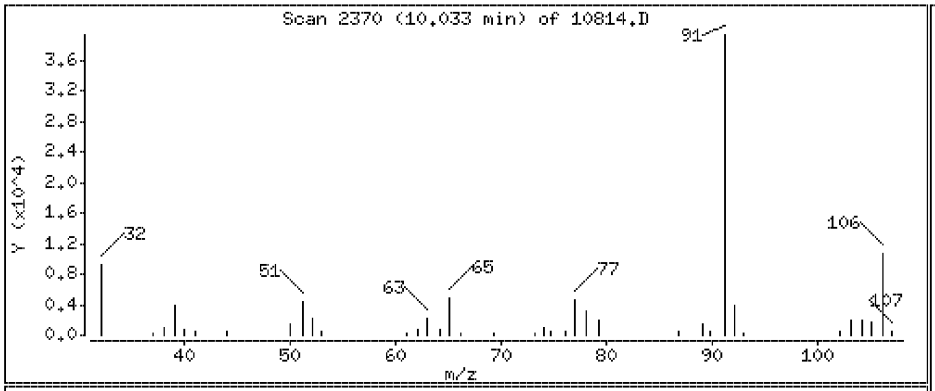
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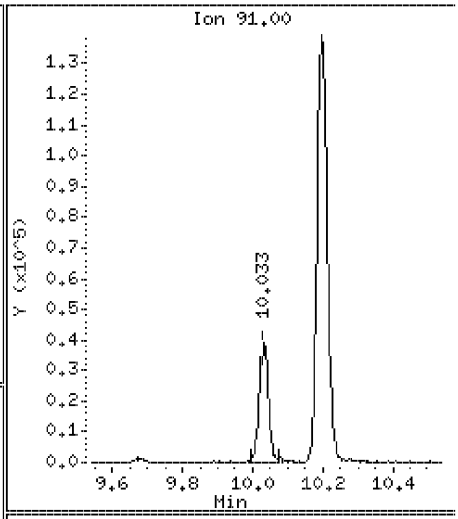
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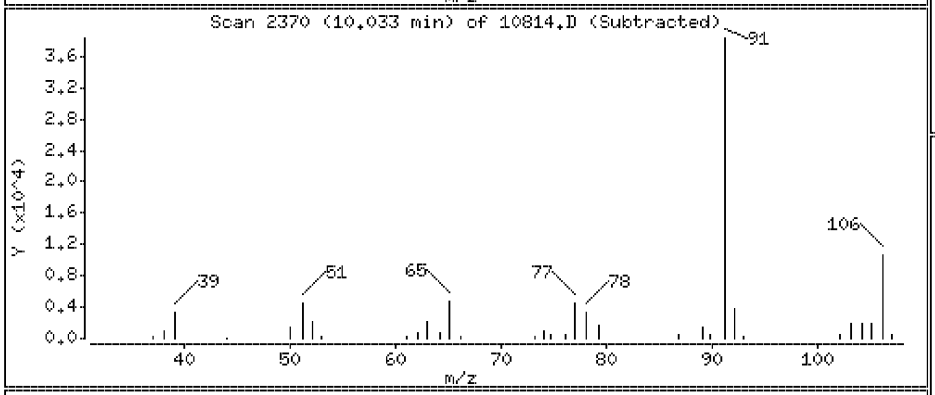
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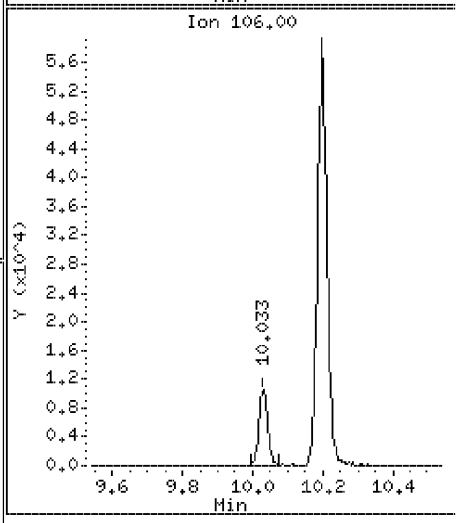
57 Ethyl Benzene

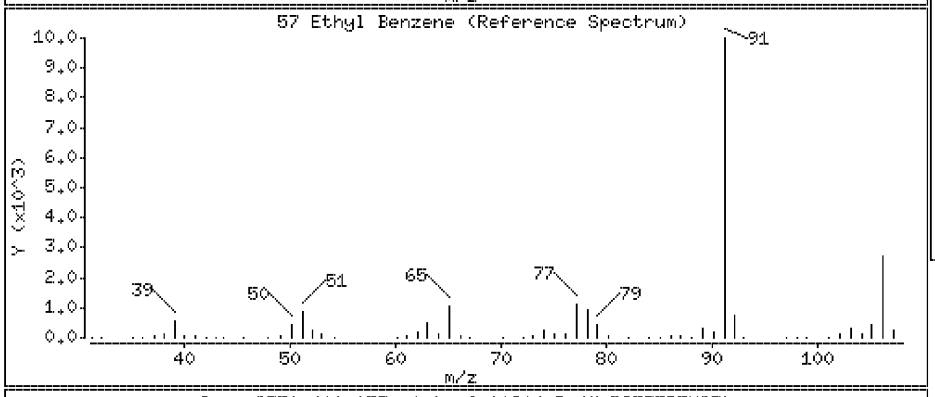
Concentration: 0.627 ppbv

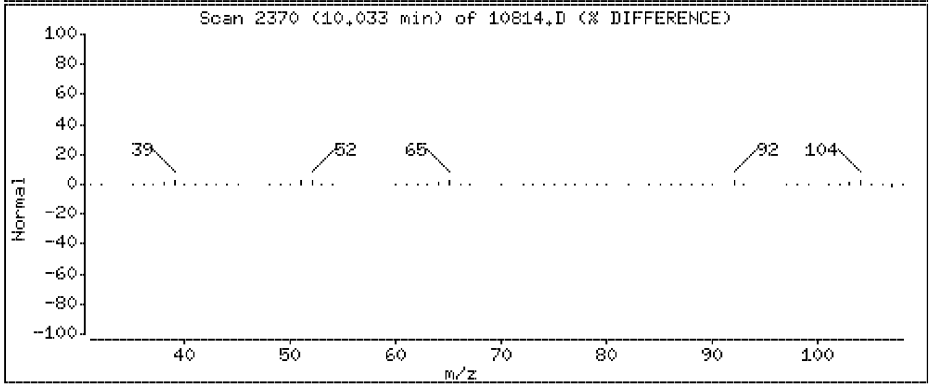












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

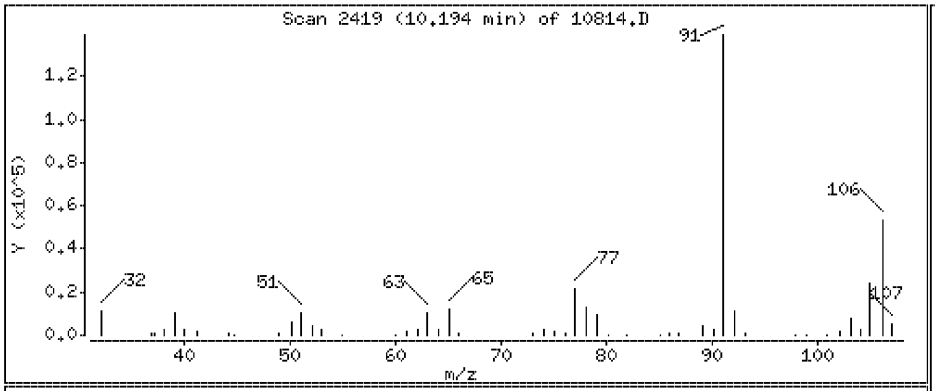
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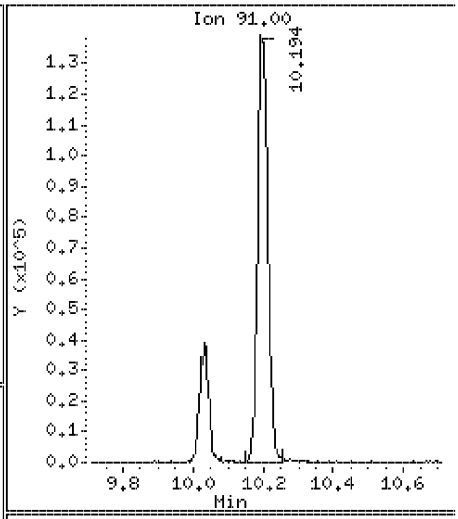
Column phase: J&W DB-5

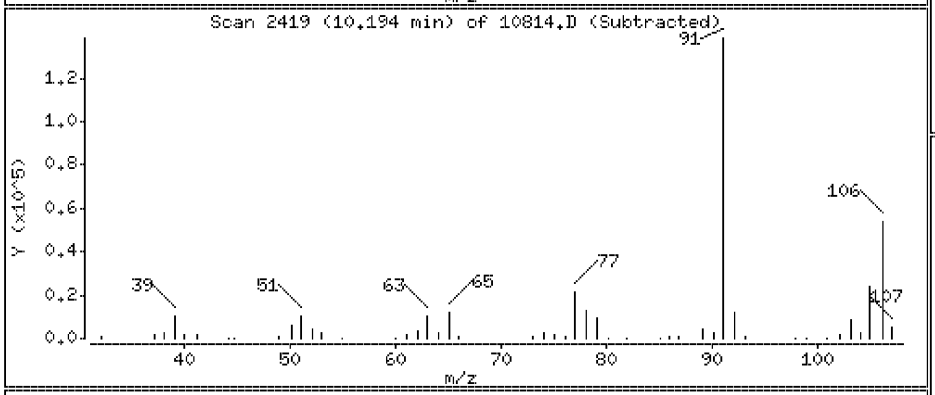
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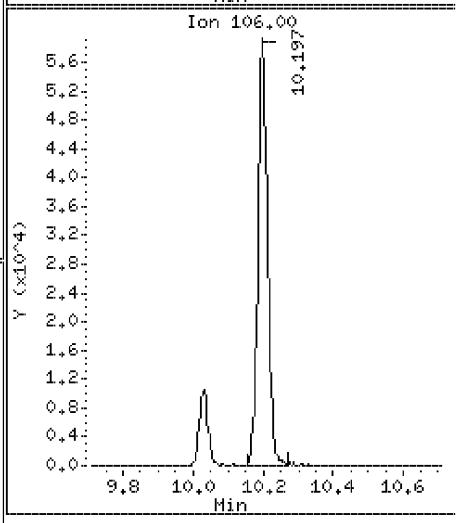
58 m&p-Xylene

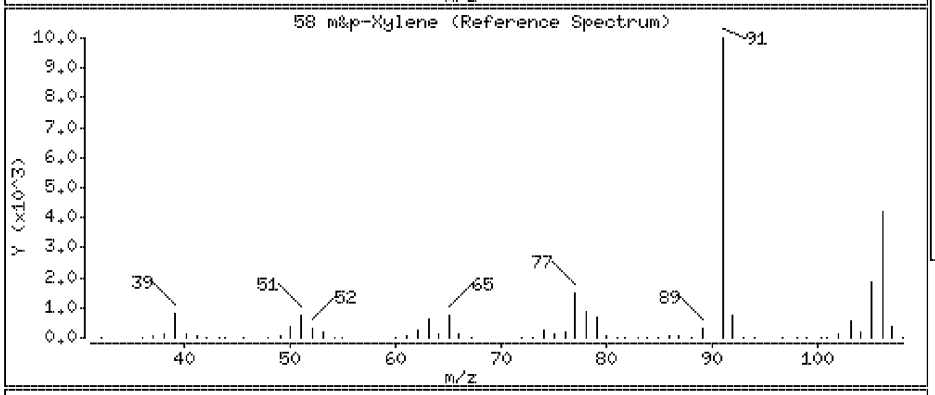
Concentration: 2.31 ppbv

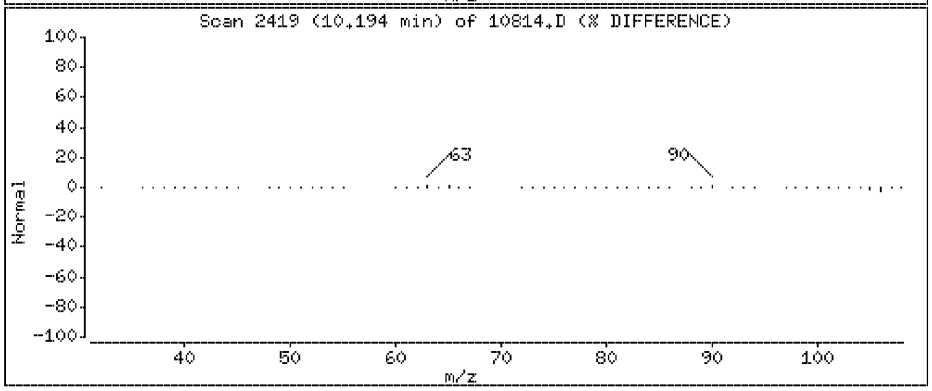












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

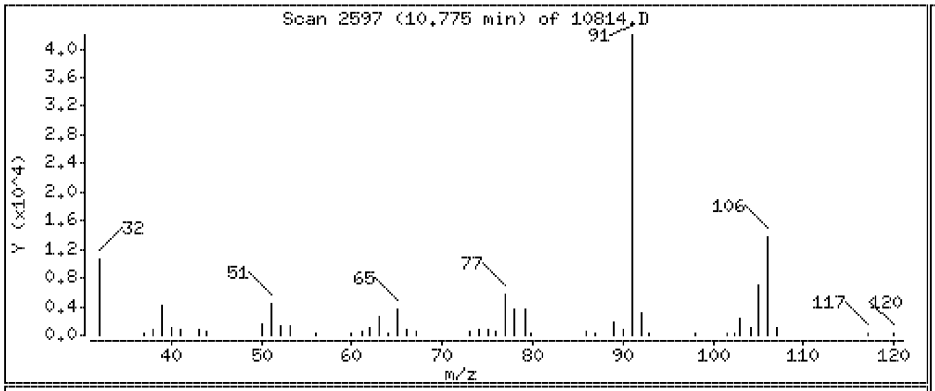
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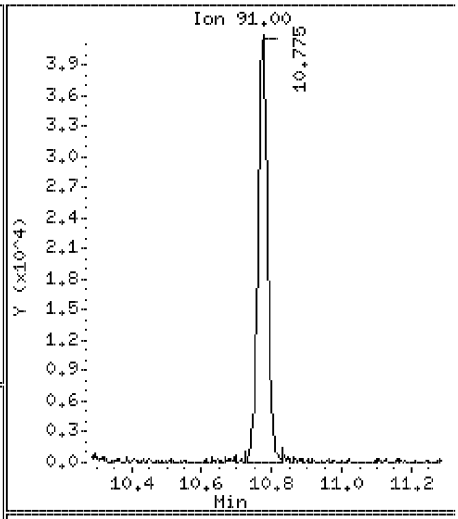
Column phase: J&W DB-5

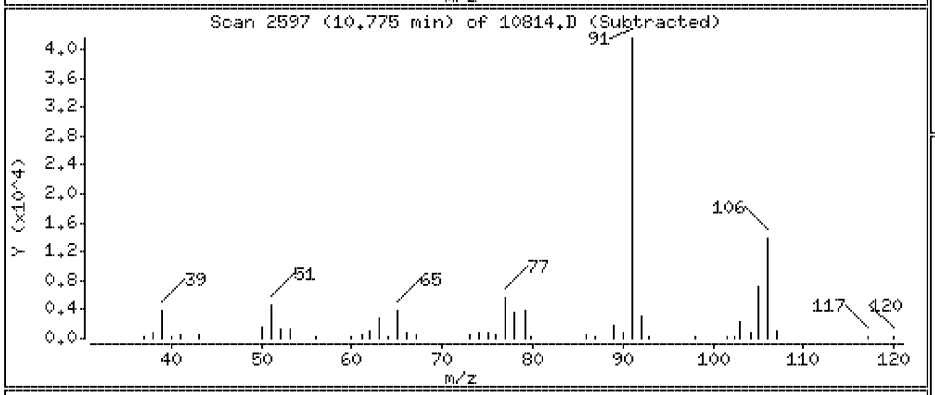
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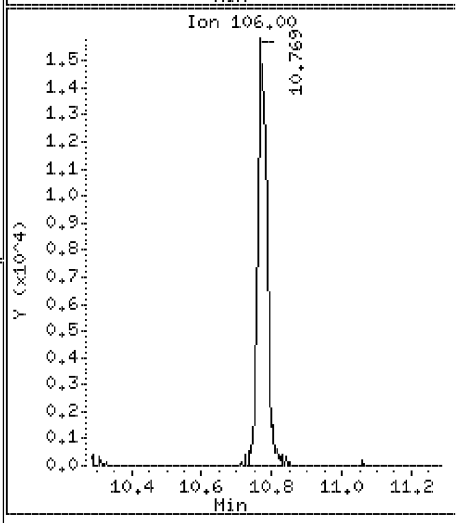
61 o-Xylene

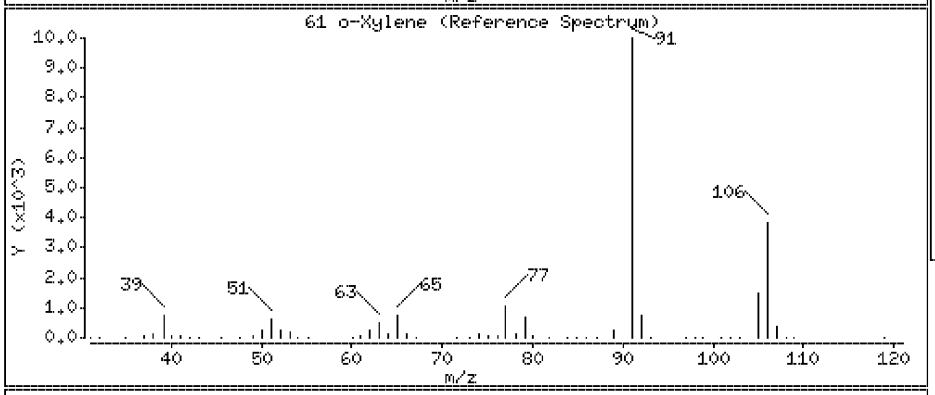
Concentration: 0.639 ppbv

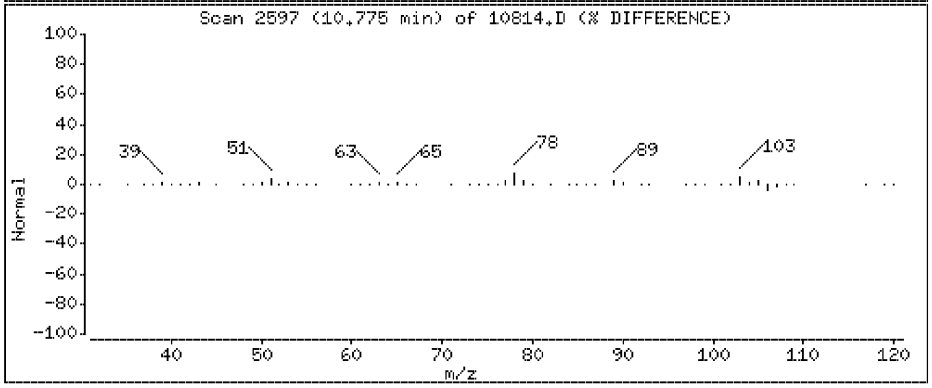












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Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

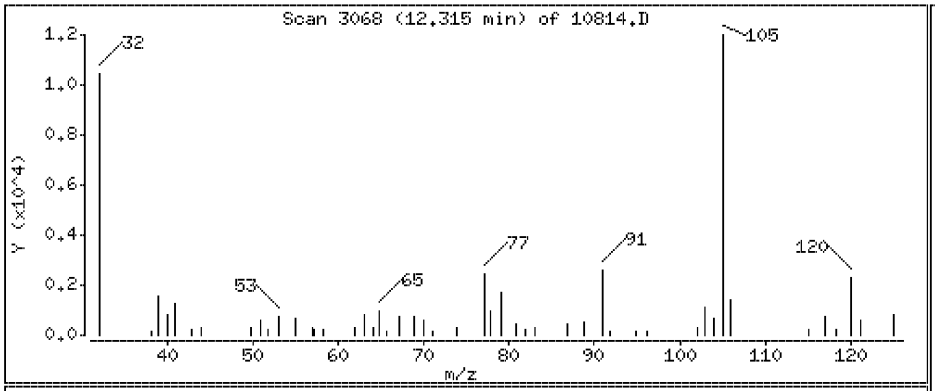
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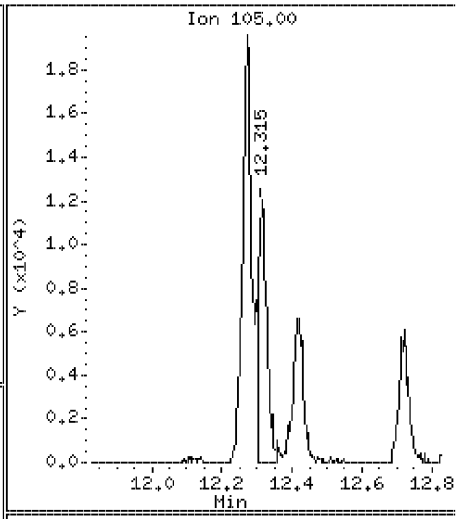
Column phase: J&W DB-5

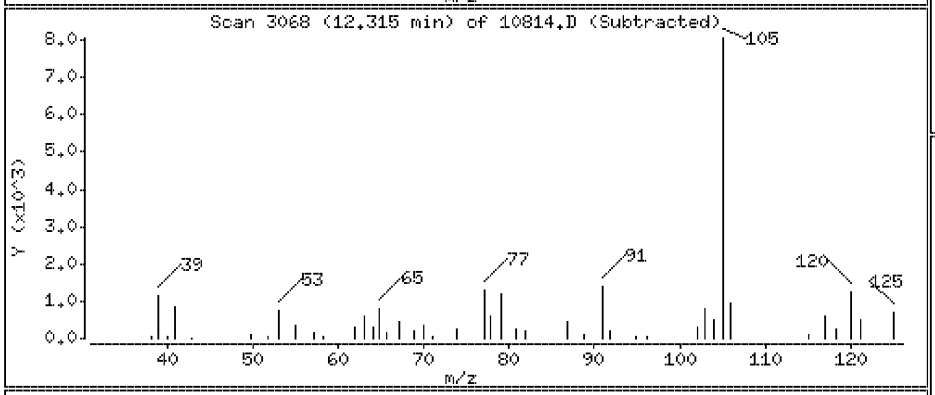
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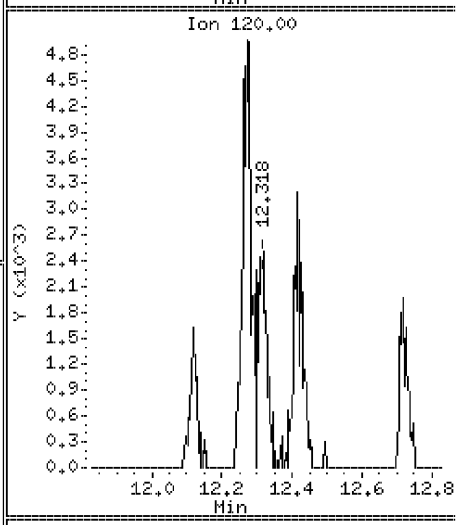
65 4-Ethyltoluene

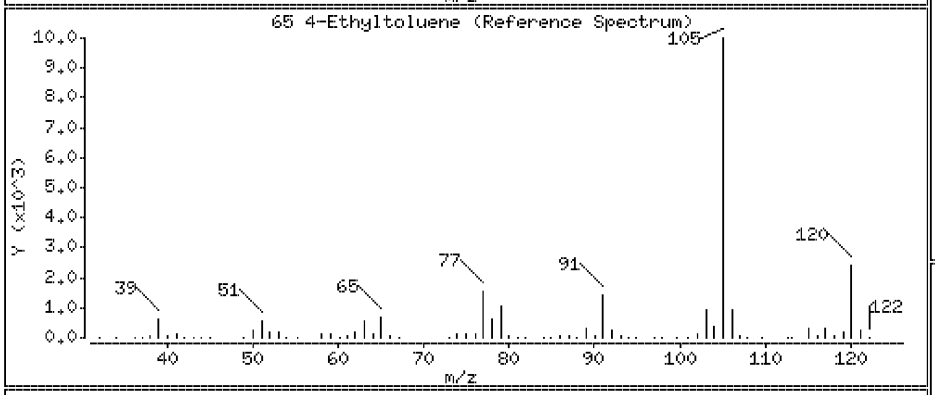
Concentration: 0.318 ppbv

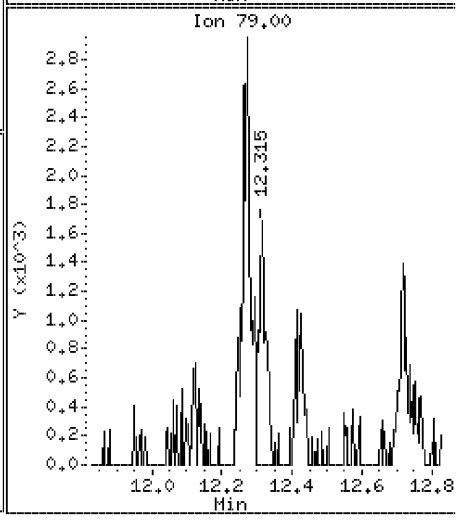


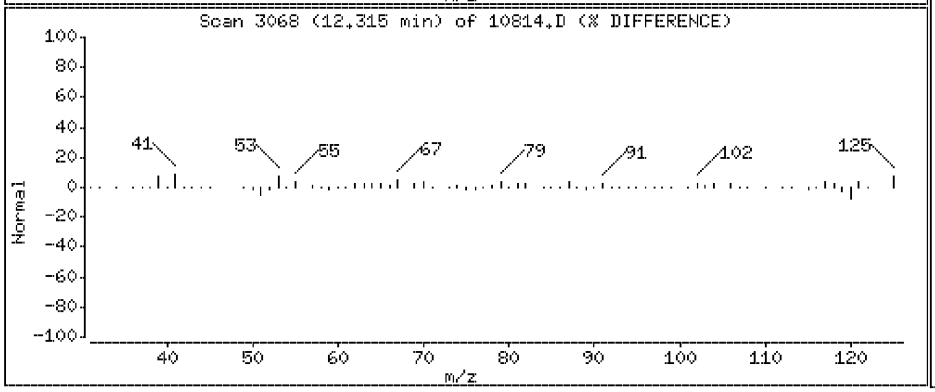












Data File: \\192.168.10.12\chem\10airD.i\041813.b\10814.D

Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

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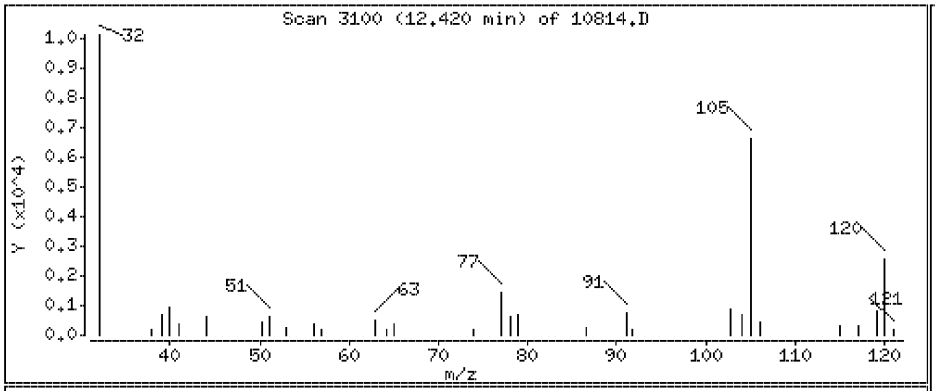
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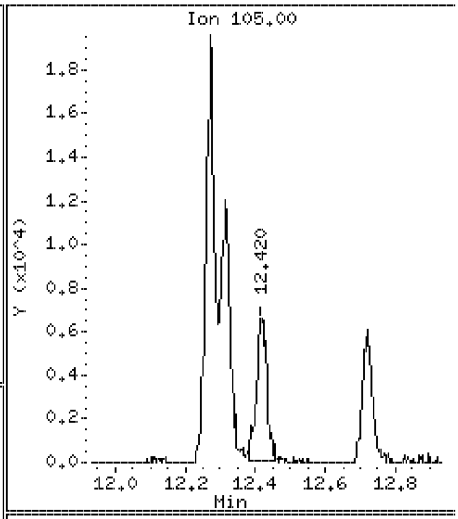
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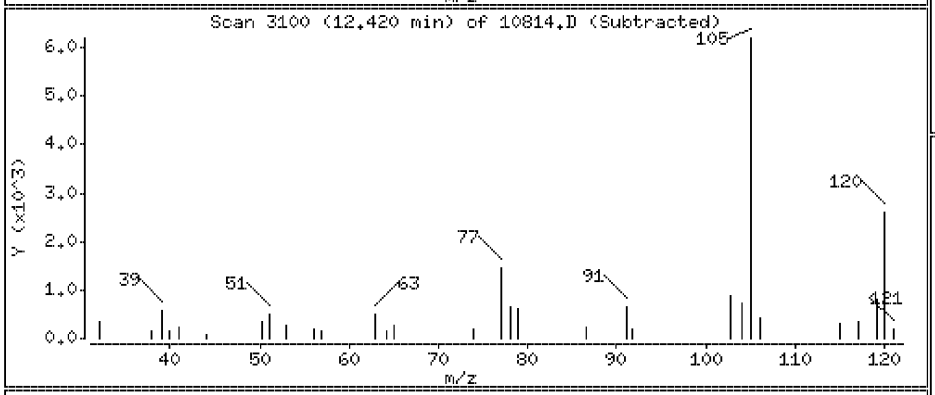
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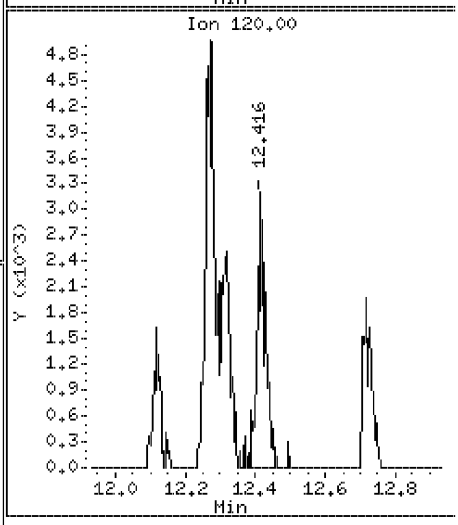
66 1,3,5-Trimethylbenzene

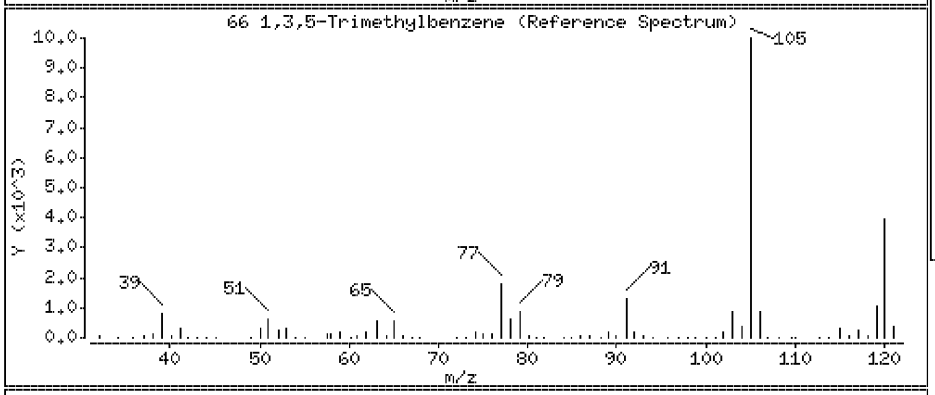
Concentration: 0.203 ppbv

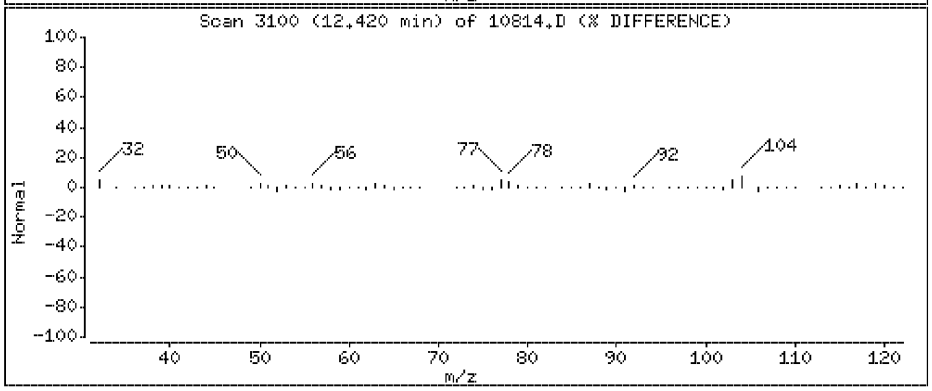












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Date : 18-APR-2013 17:33

Client ID:

Instrument: 10airD.i

Sample Info:

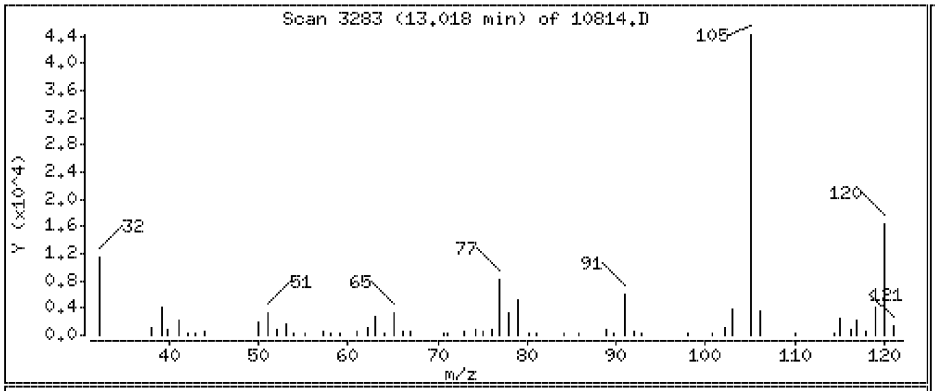
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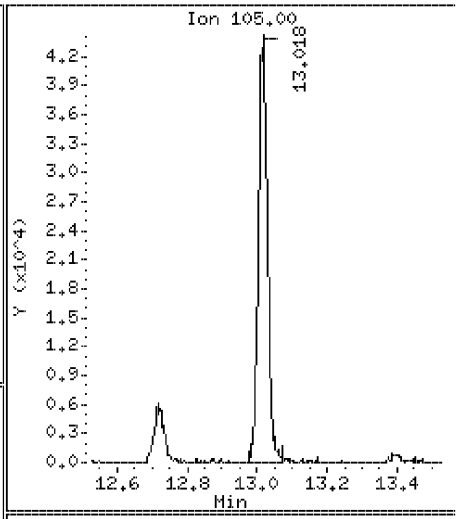
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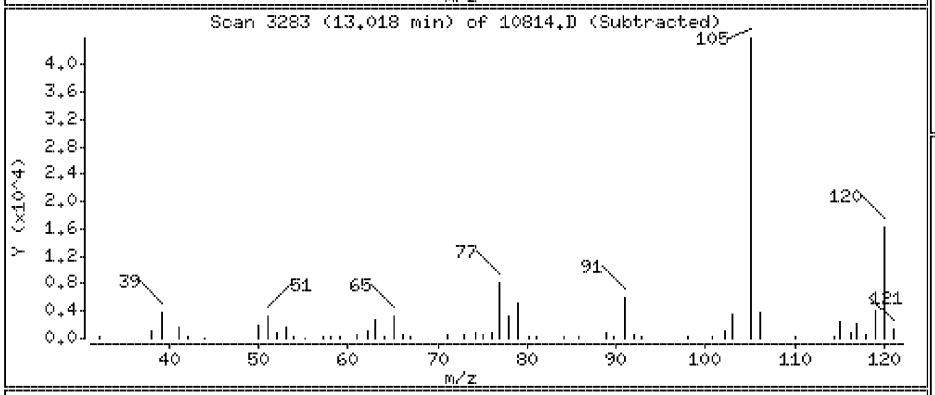
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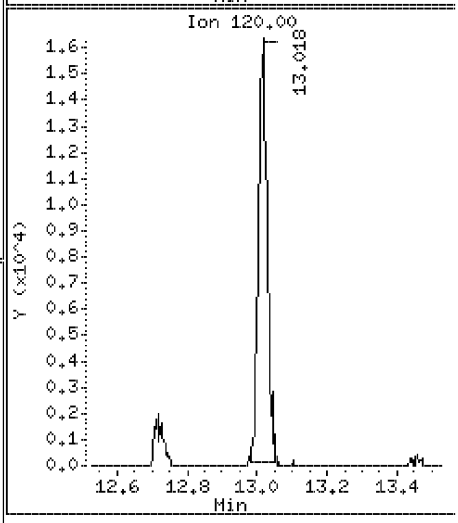
67 1,2,4-Trimethylbenzene

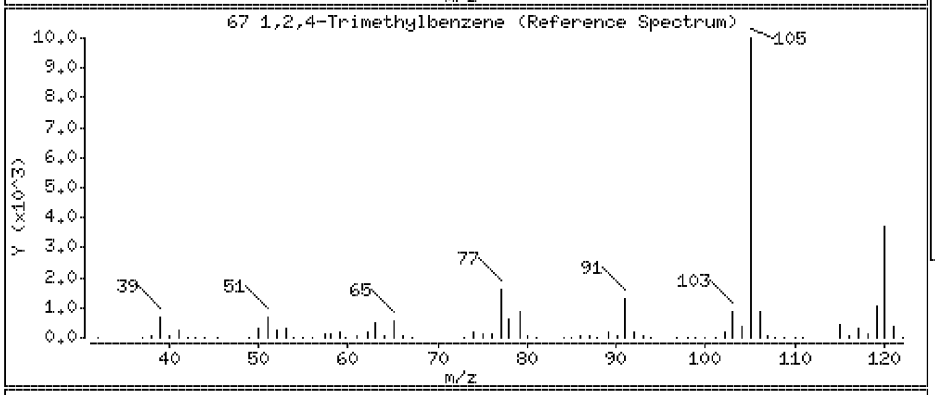
Concentration: 0.777 ppbv

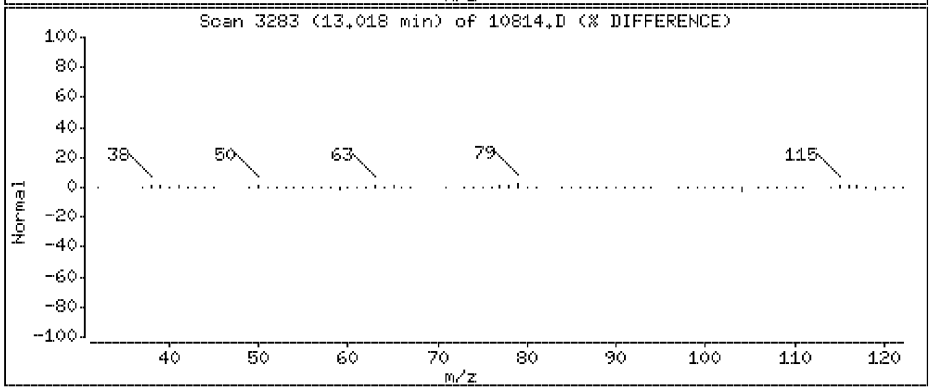






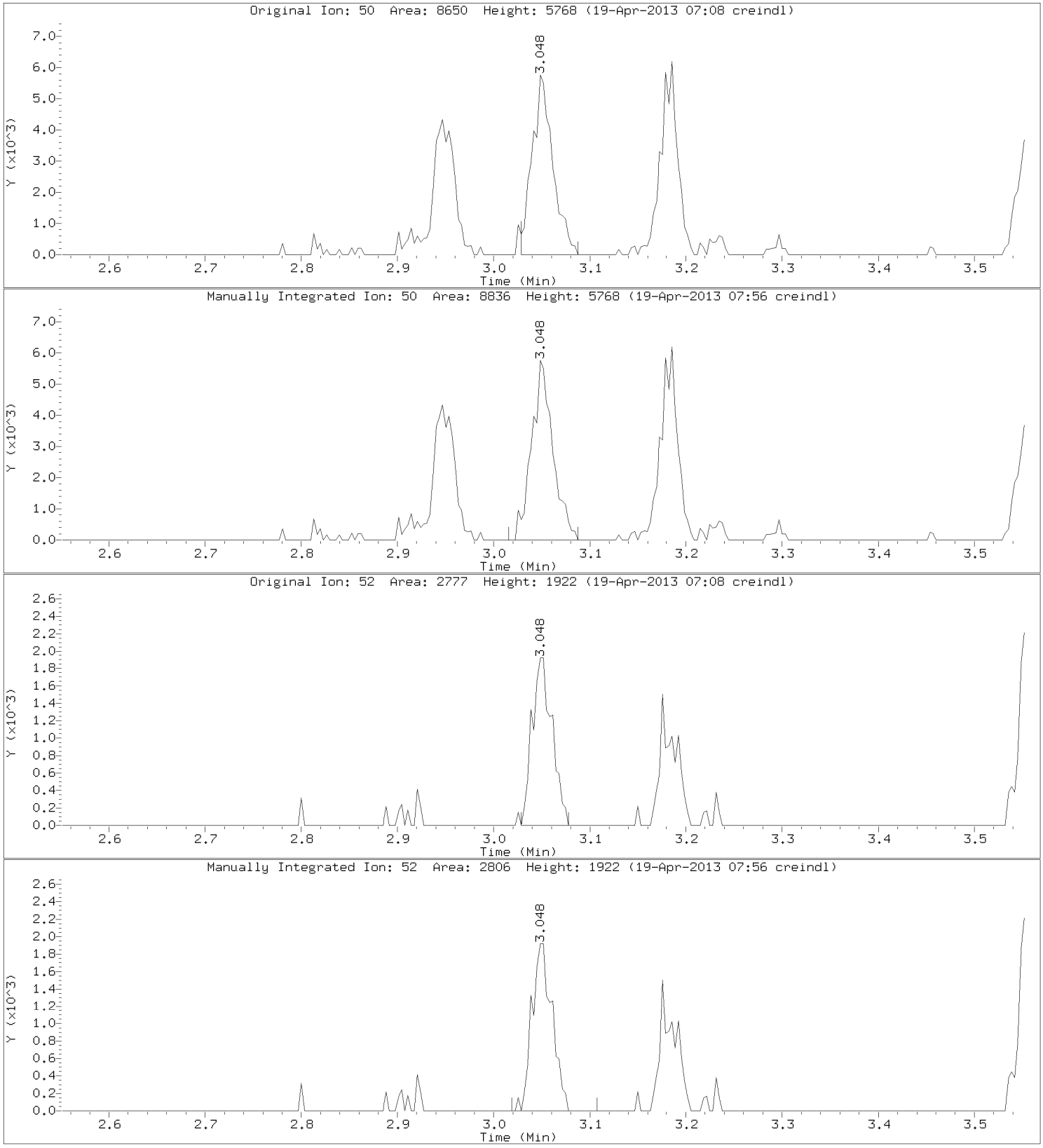






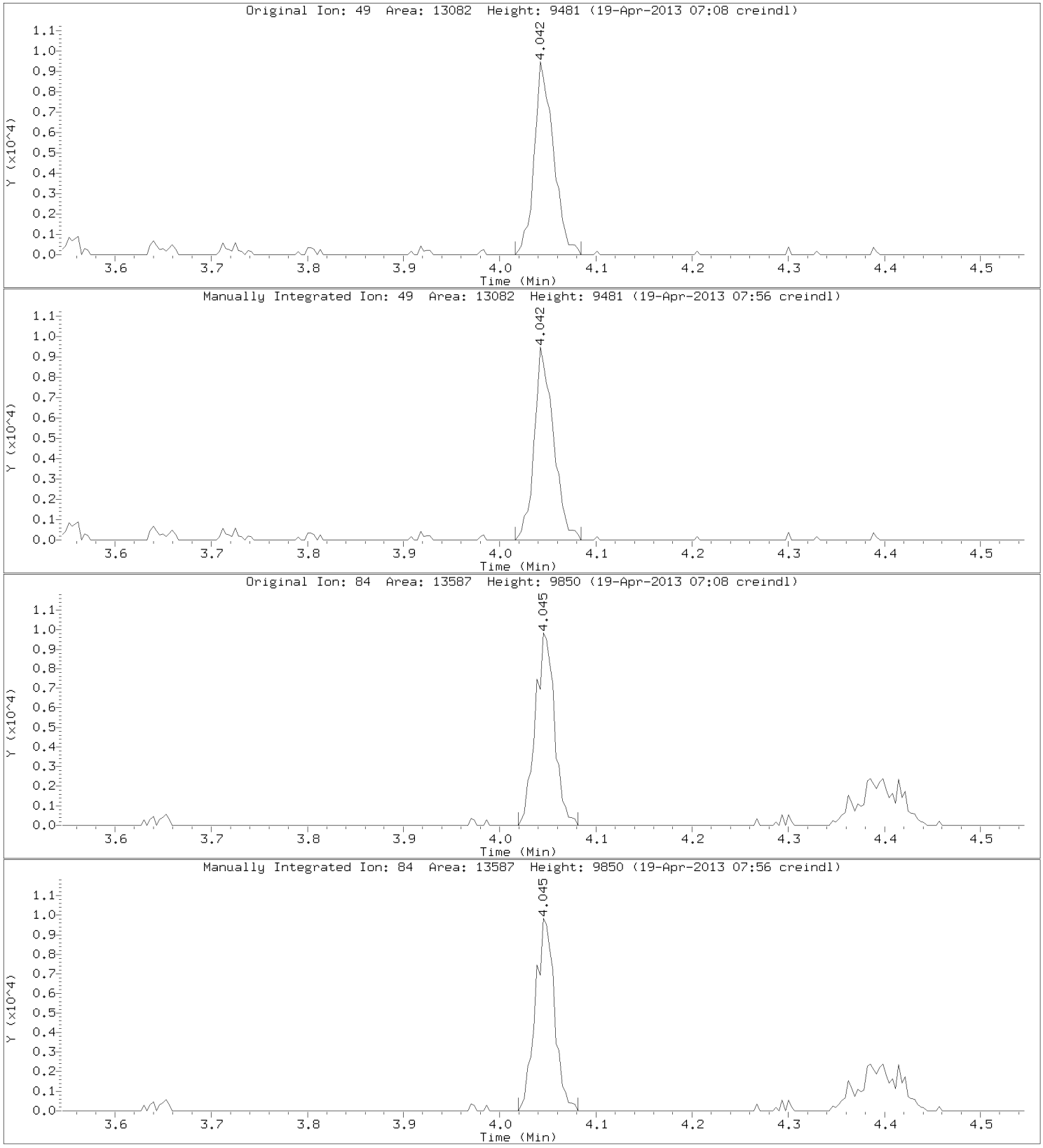
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Injection Date: 18-APR-2013 17:33
Instrument: 10airD.i
Lab Sample ID: 1412388

Compound: Chloromethane
CAS Number: 74-87-3

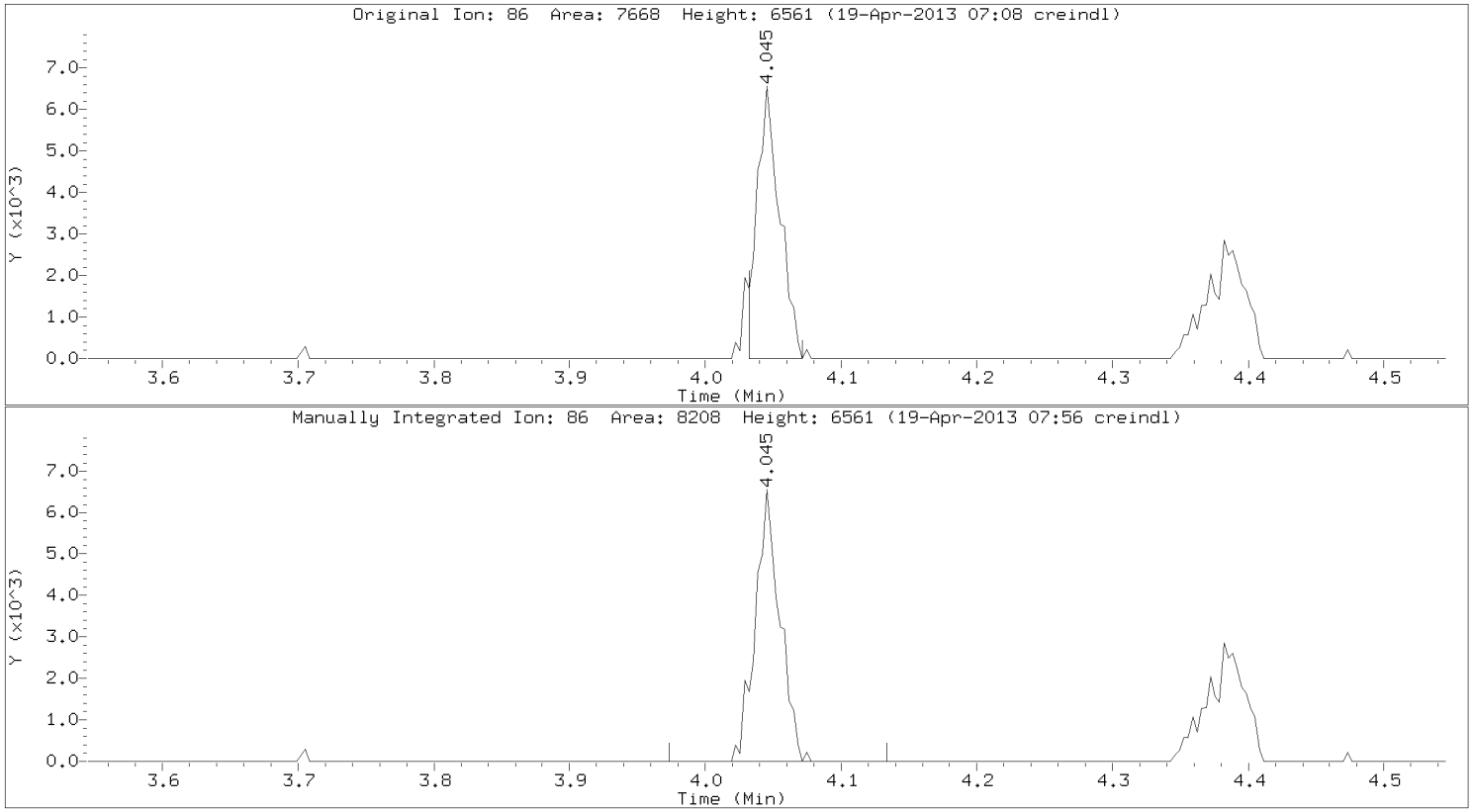


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Injection Date: 18-APR-2013 17:33
Instrument: 10airD.i
Lab Sample ID: 1412388

Compound: Methylene chloride
CAS Number: 75-09-2

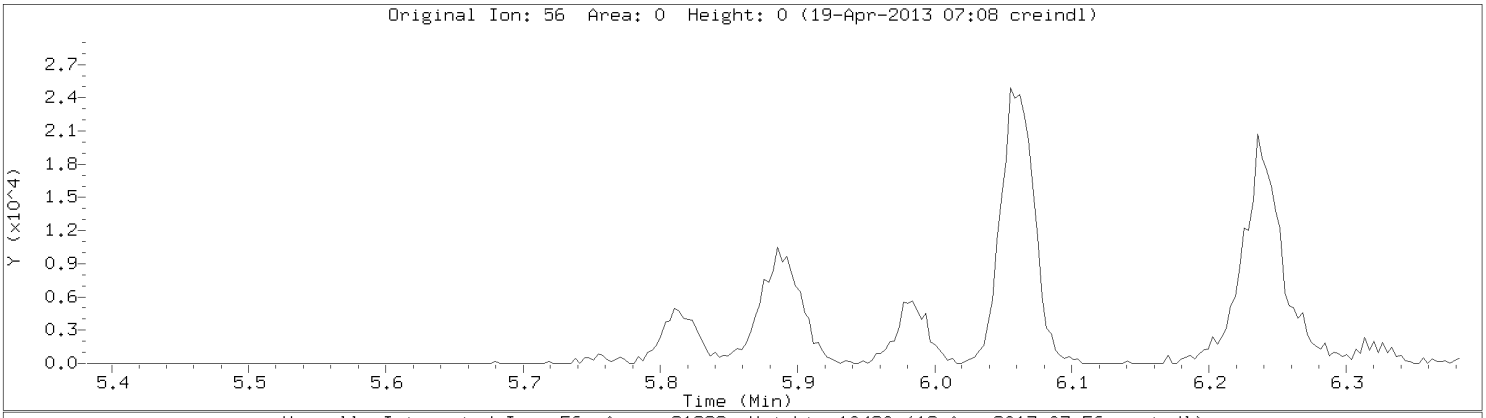


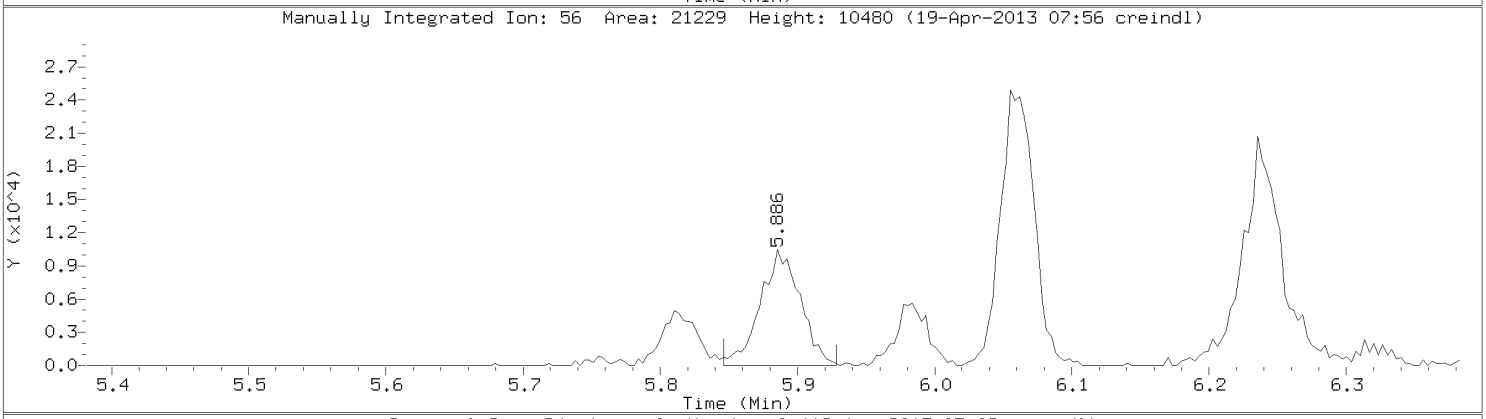
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Injection Date: 18-APR-2013 17:33
Instrument: 10airD.i
Lab Sample ID: 1412388

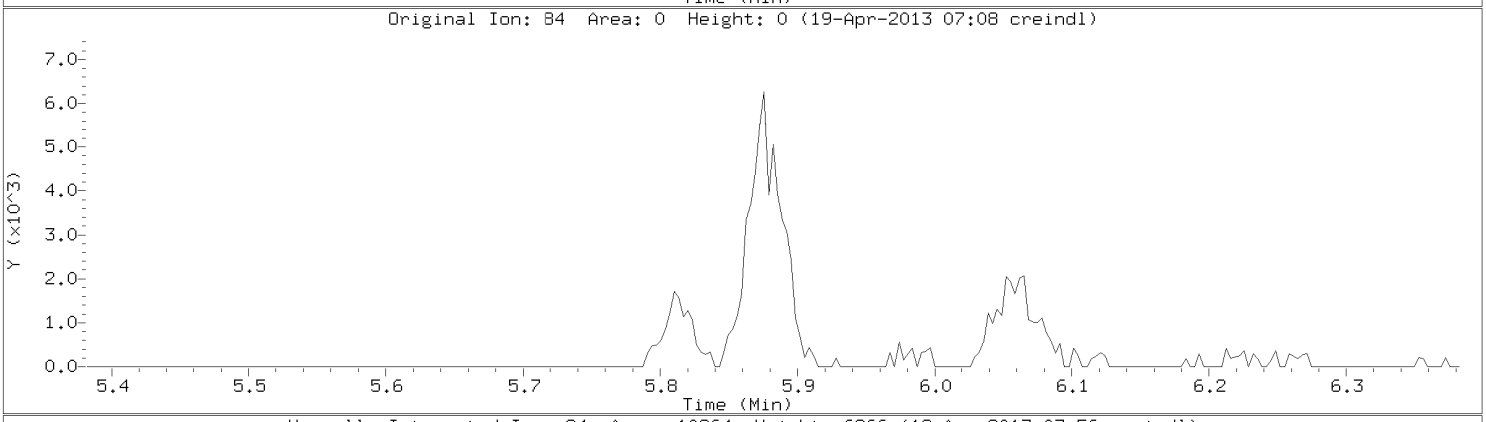


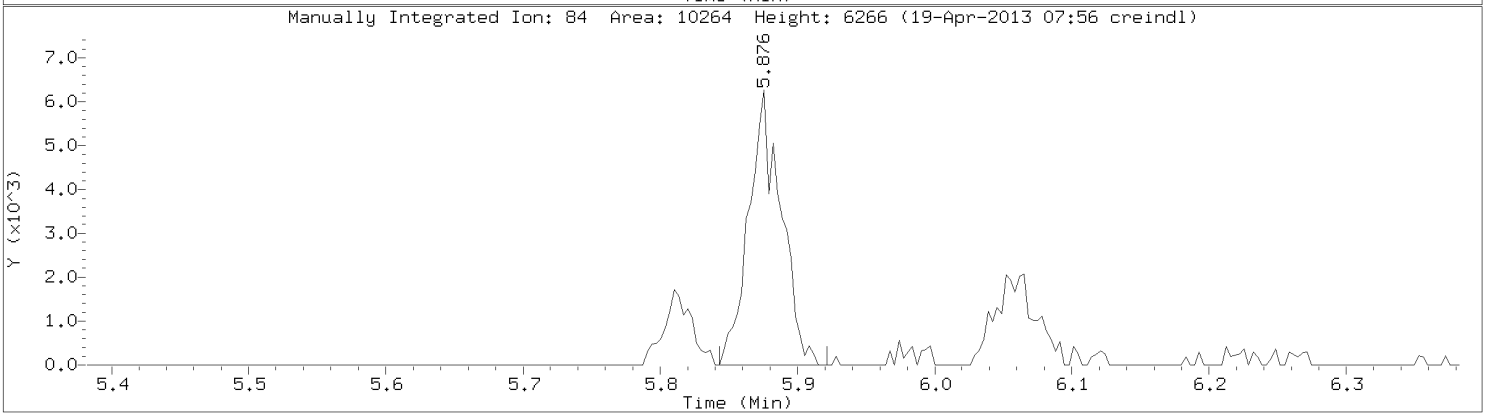
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Injection Date: 18-APR-2013 17:33
Instrument: 10airD.i
Lab Sample ID: 1412388

Compound: Cyclohexane
CAS Number: 110-82-7

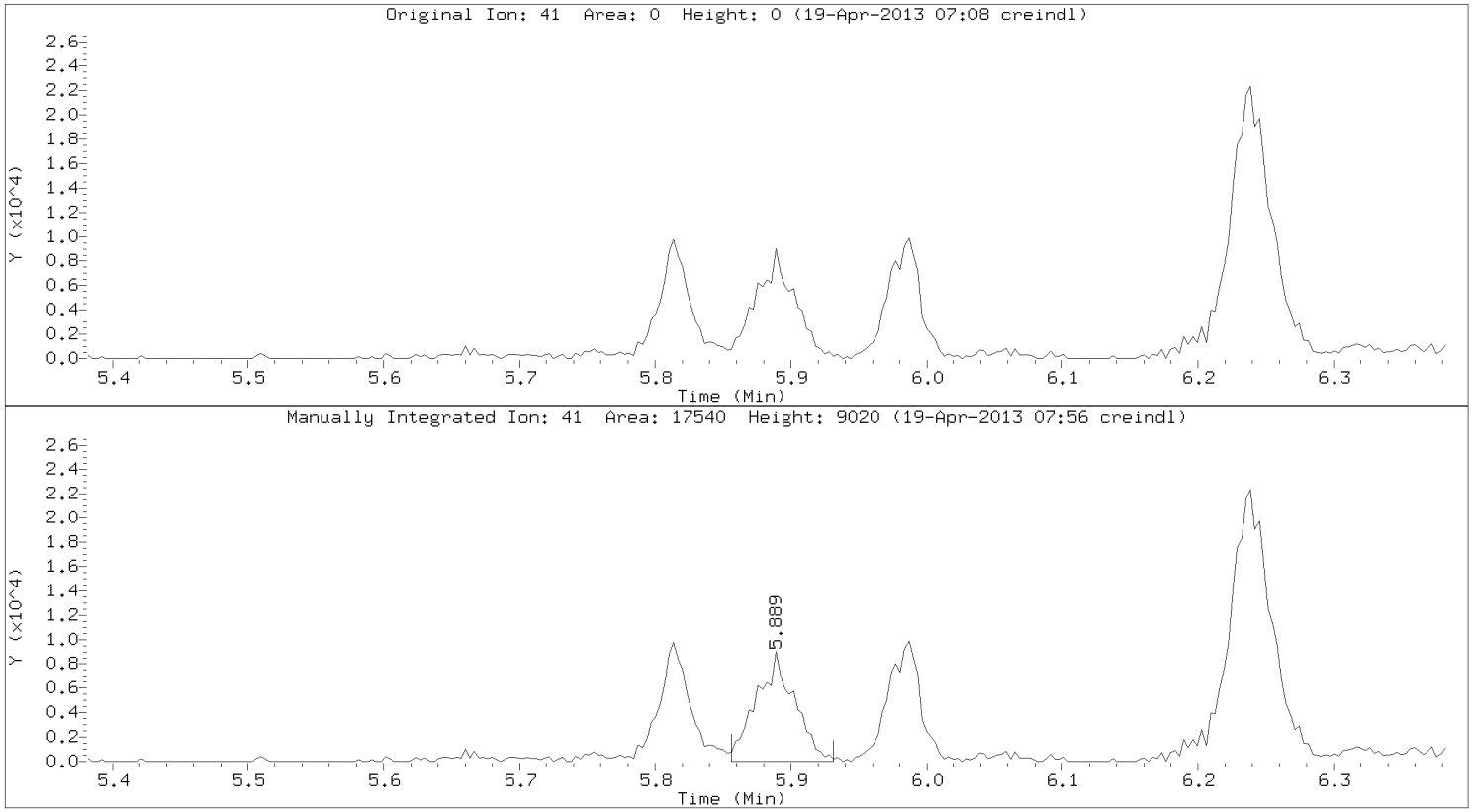






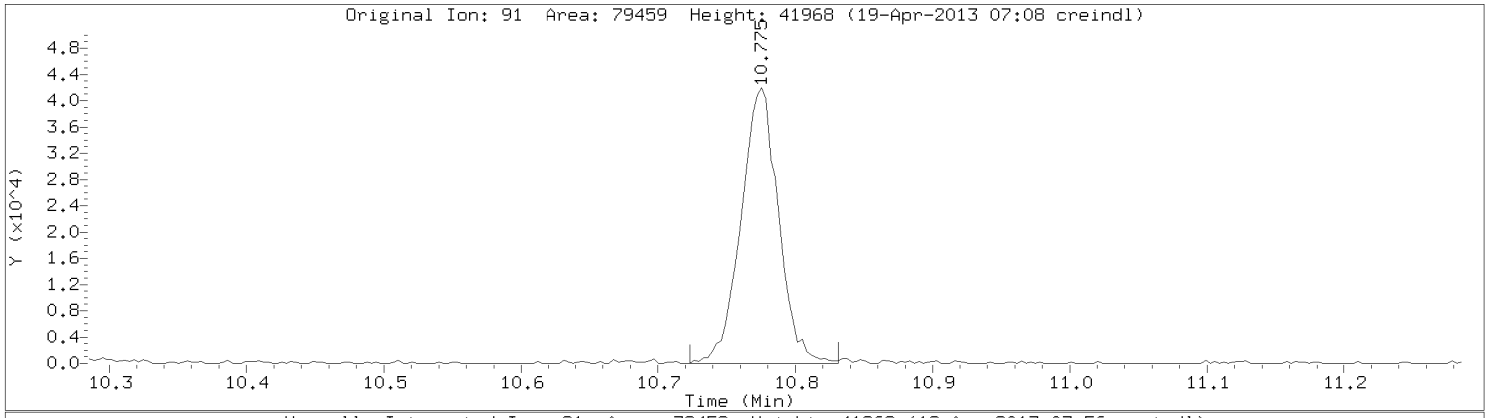


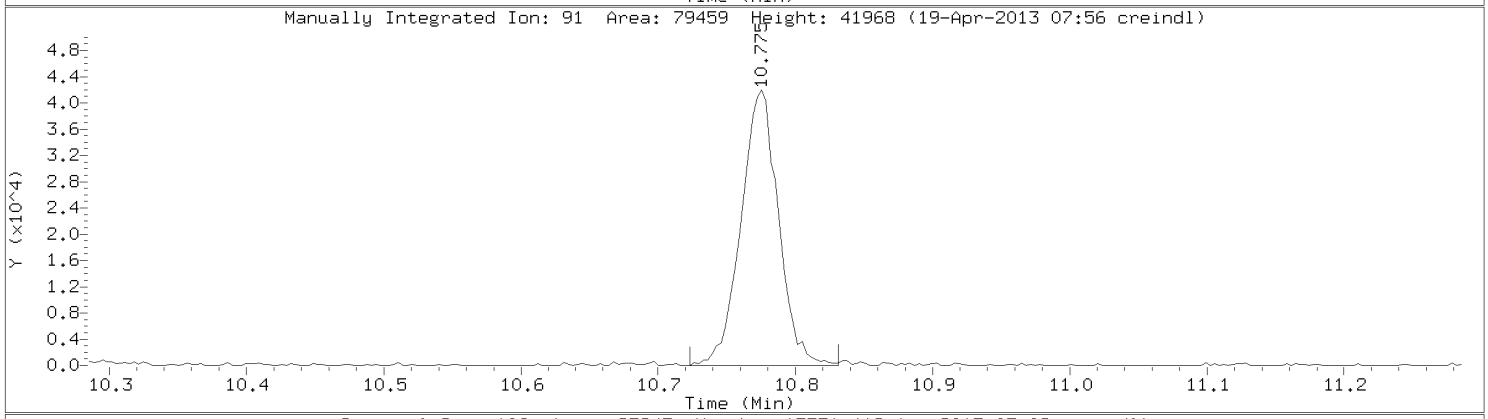
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Instrument: 10airD.i
Lab Sample ID: 1412388

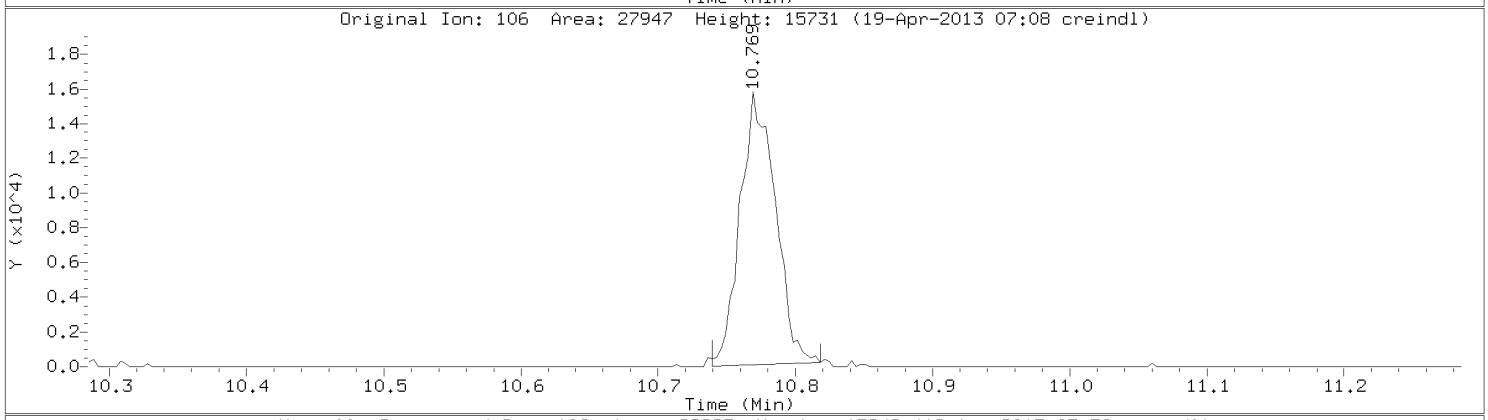


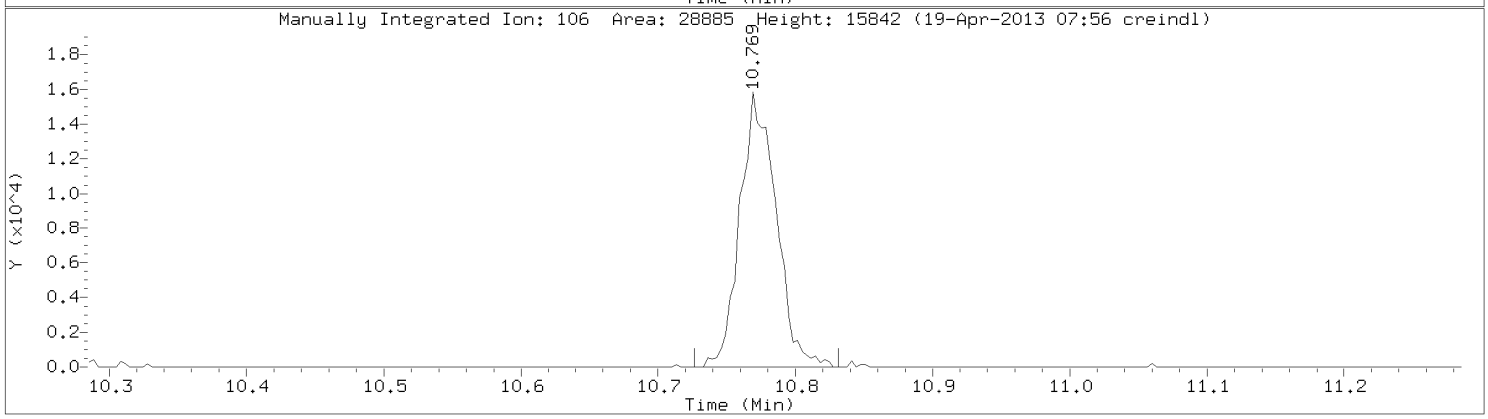
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10814.d
Injection Date: 18-APR-2013 17:33
Instrument: 10airD.i
Lab Sample ID: 1412388

Compound: o-Xylene
CAS Number: 95-47-6



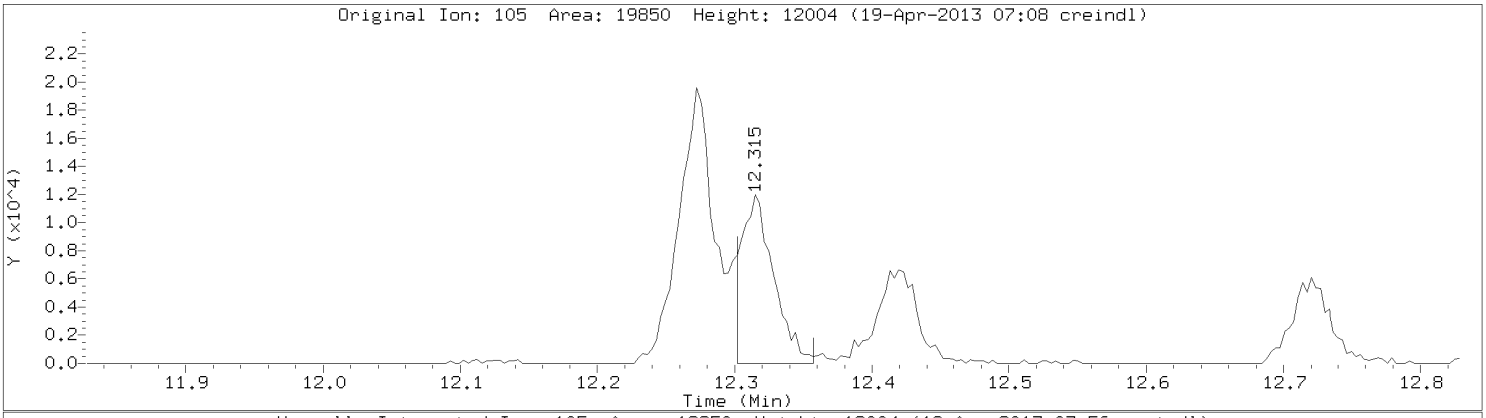


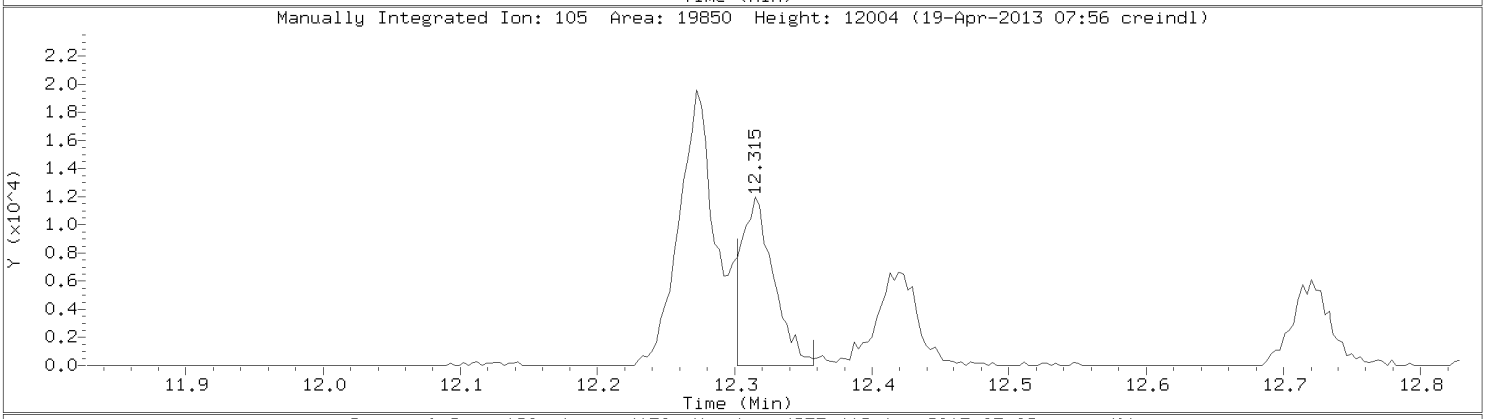


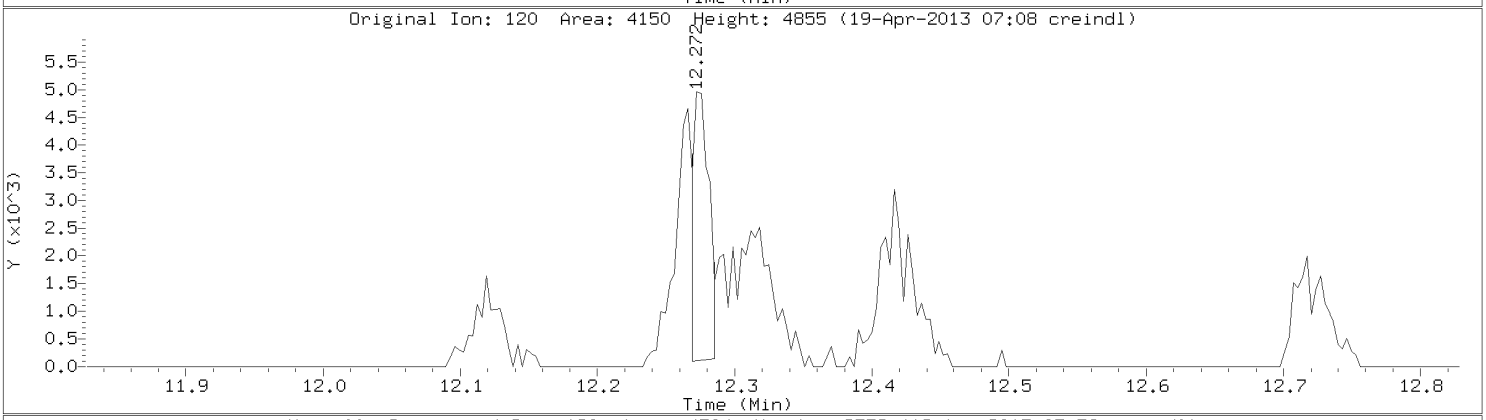


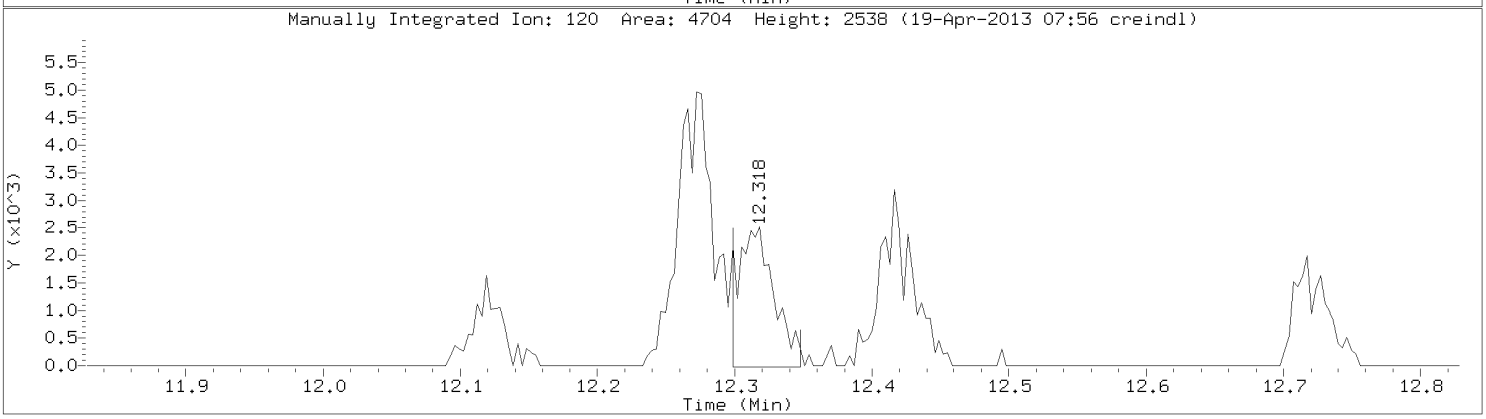
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10814.d
Injection Date: 18-APR-2013 17:33
Instrument: 10airD.i
Lab Sample ID: 1412388

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

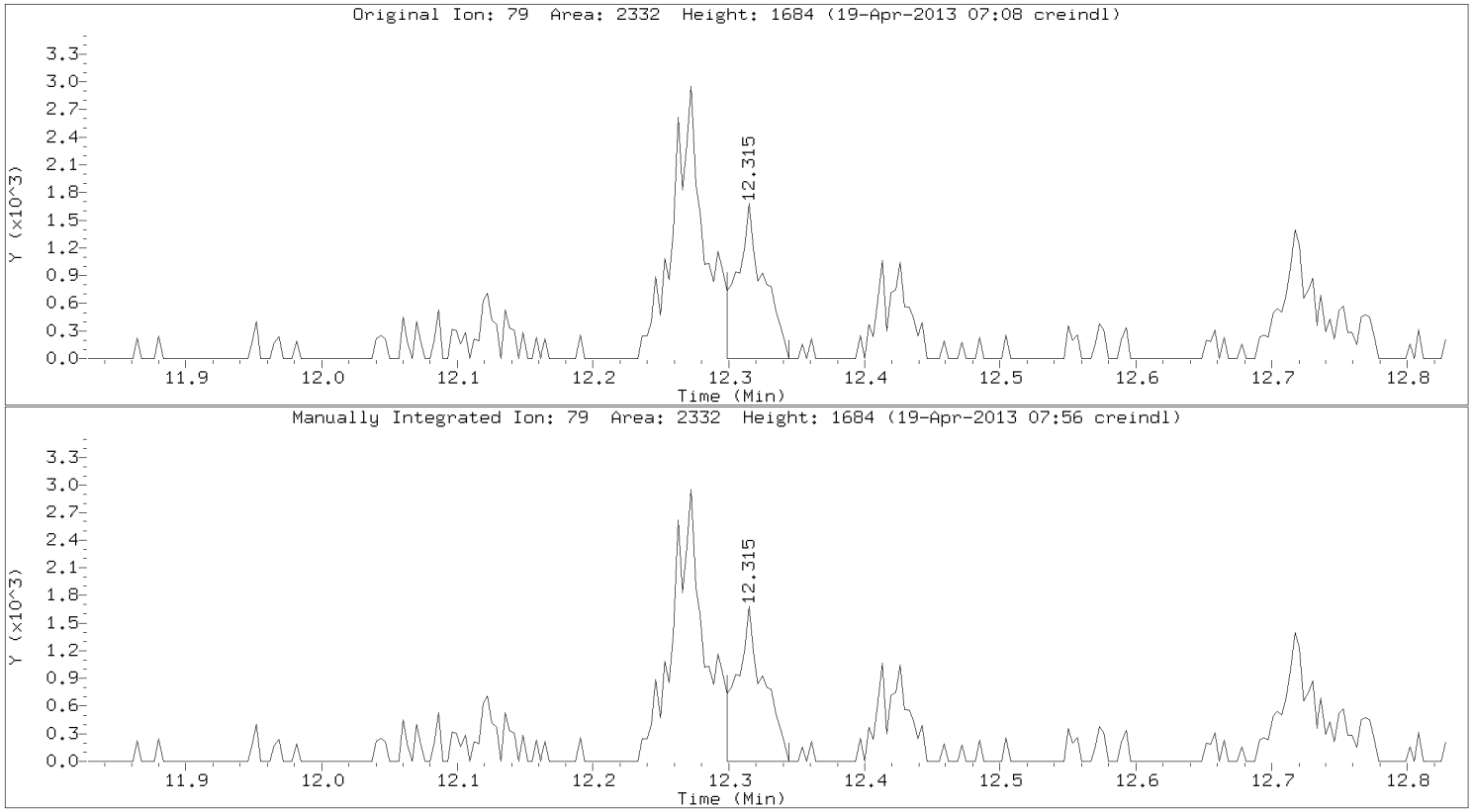






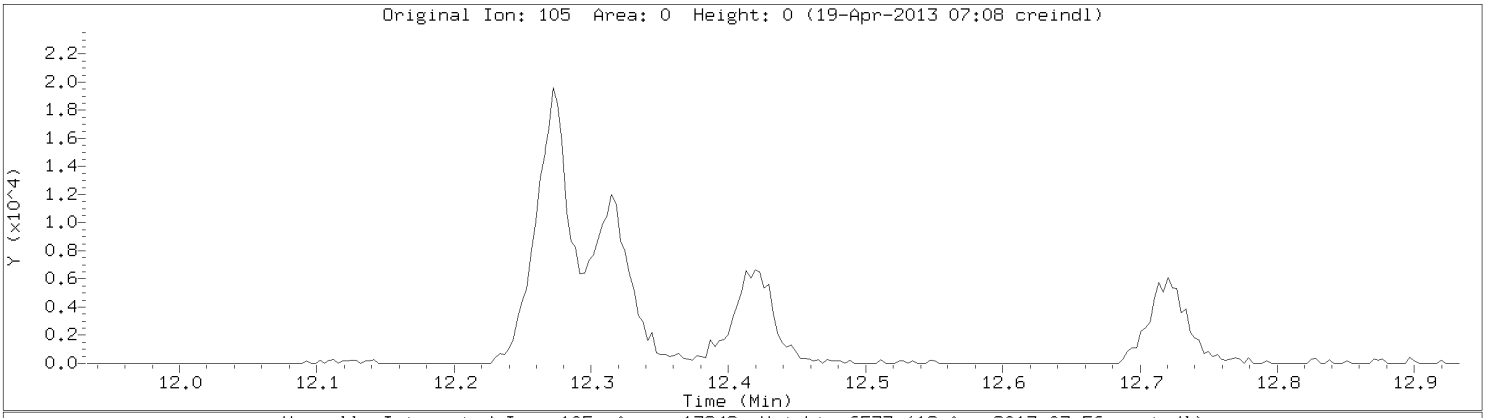


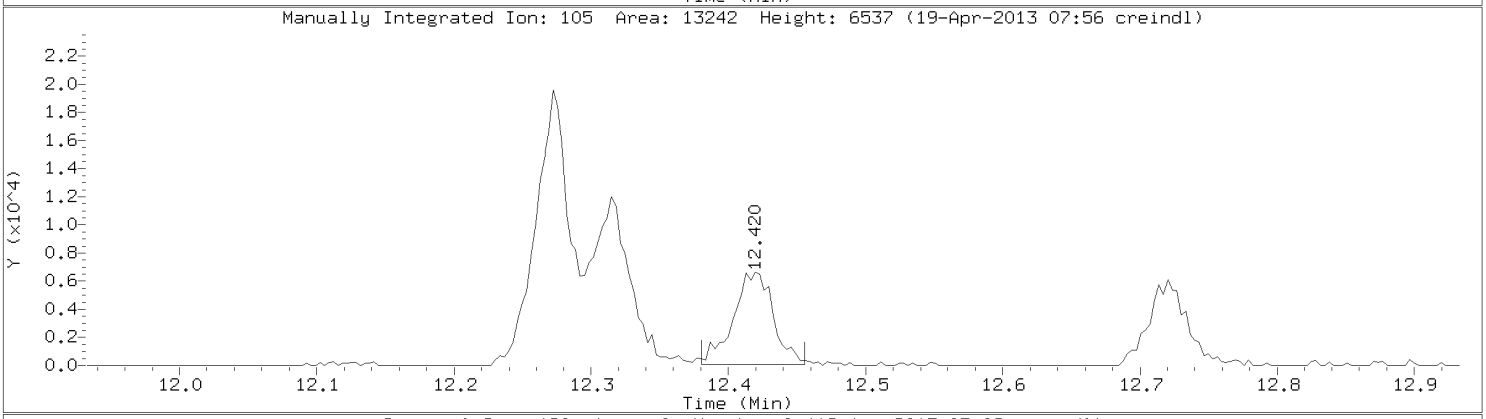
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Injection Date: 18-APR-2013 17:33
Instrument: 10airD.i
Lab Sample ID: 1412388

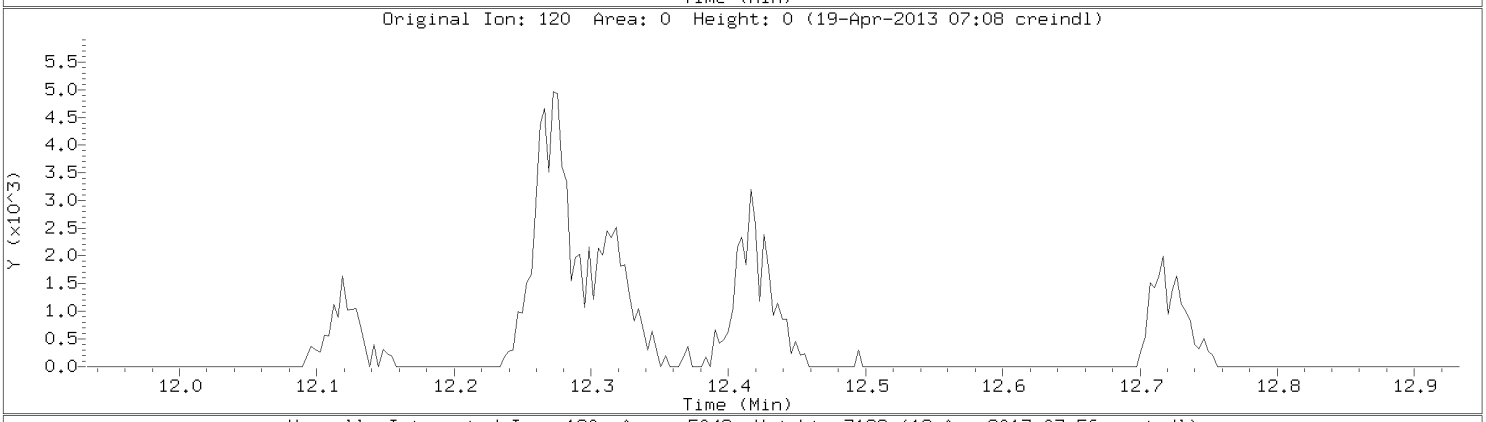


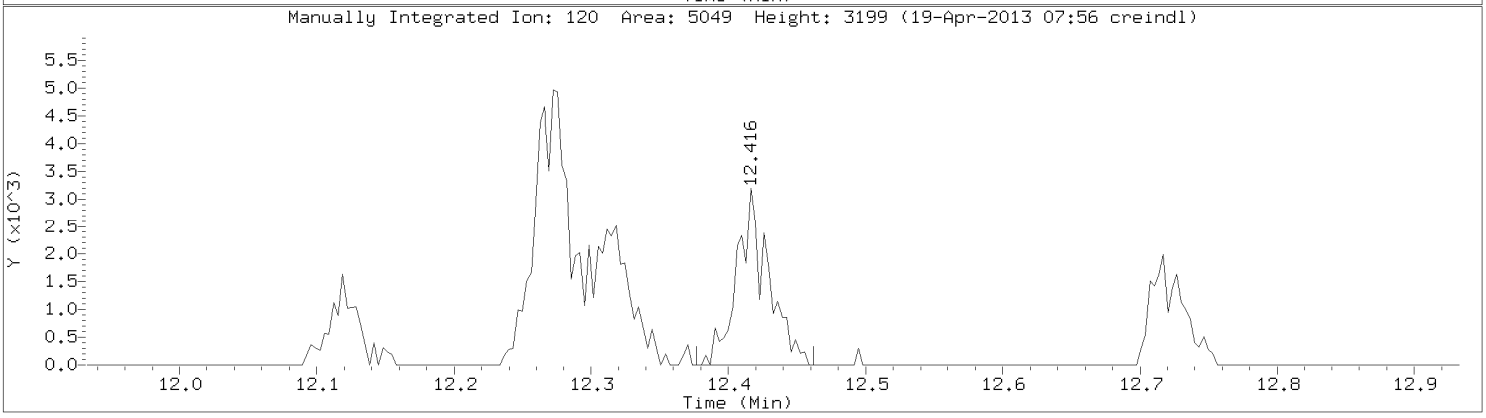
Data File: \\192.168.10.12\chem\10airD.i\041813.b/10814.d
Injection Date: 18-APR-2013 17:33
Instrument: 10airD.i
Lab Sample ID: 1412388

Compound: 1,3,5-Trimethylbenzene
CAS Number: 108-67-8









Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.d
Report Date: 21-Apr-2013 08:41

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\041913.b\10908.d
Lab Smp Id: 1413420
Inj Date : 19-APR-2013 17:18
Operator : CJR Inst ID: 10airD.i
Smp Info :
Misc Info : 17167
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Meth Date : 21-Apr-2013 07:45 creindl Quant Type: ISTD
Cal Date : 16-APR-2013 13:45 Cal File: 10611.d
Als bottle: 8 QC Sample: DUP
Dil Factor: 1.34000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.340	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
	5 Vinyl chloride	62	Compound Not Detected.					
	13 Acetone	43	Compound Not Detected.					
	22 trans-1,2-dichloroethene	96	Compound Not Detected.					
	29 cis-1,2-Dichloroethene	96	Compound Not Detected.					
	31 Chloroform	83	Compound Not Detected.					
*	38 1,4-Difluorobenzene	114	6.061	6.069	(1.000)	1207795	10.0000	
	42 Trichloroethene	130	6.509	6.510	(1.074)	3640	0.12324	0.165(QRM)
	51 Methyl Butyl Ketone	43	Compound Not Detected.					
	54 Tetrachloroethene	166	Compound Not Detected.					
*	55 Chlorobenzene - d5	117	9.677	9.684	(1.000)	677661	10.0000	
	58 m&p-Xylene	91	10.196	10.210	(1.054)	268886	2.08181	2.79(R)
	61 o-Xylene	91	10.768	10.785	(1.113)	83207	0.62906	0.843(R)
	64 N-Propylbenzene	91	Compound Not Detected.					
	67 1,2,4-Trimethylbenzene	105	13.014	13.028	(1.345)	87318	0.76836	1.03(R)
	73 1,2-Dichlorobenzene	146	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.d
Report Date: 21-Apr-2013 08:41

Pace Analytical Services, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: 10airD.i
Lab File ID: 10908.d
Lab Smp Id: 1413420
Analysis Type: VOA
Quant Type: ISTD
Operator: CJR
Method File: \\192.168.10.12\chem\10airD.i\041913.b\TO15_106-13.m
Misc Info: 17167

Calibration Date: 19-APR-2013
Calibration Time: 12:14
Level: LOW
Sample Type: AIR

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	1432419	859451	2005387	1207795	-15.68
55 Chlorobenzene - d	825122	495073	1155171	677661	-17.87

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
38 1,4-Difluorobenze	6.07	5.74	6.40	6.06	-0.06
55 Chlorobenzene - d	9.68	9.35	10.01	9.68	-0.04

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D
Date : 19-APR-2013 17:18
Client ID:
Sample Info:

Instrument: 10airD.i
Operator: CJR
Column phase: J&W DB-5
Column diameter: 0.32

10224616

Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

Sample Info:

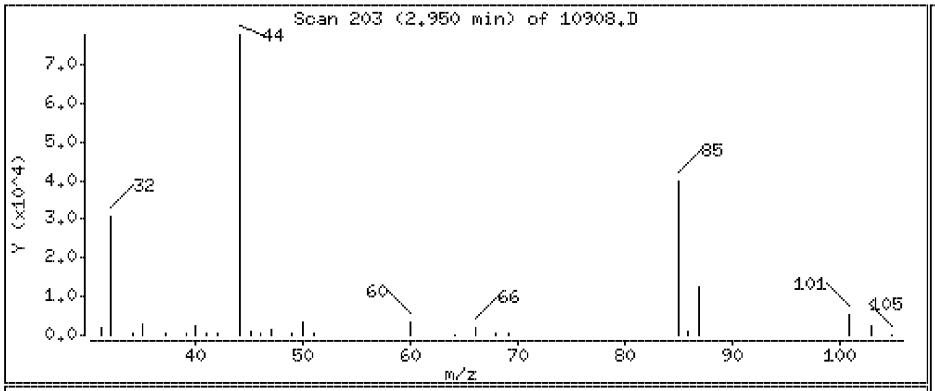
Operator: CJR

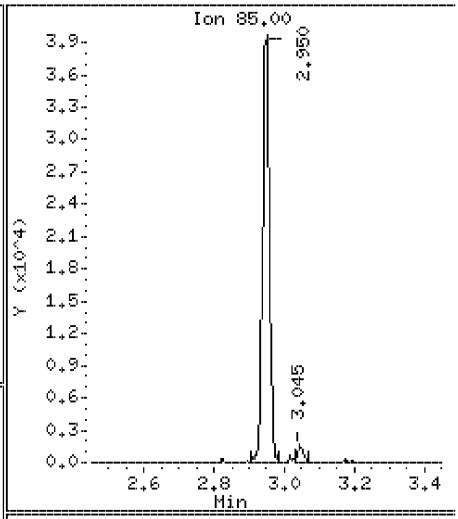
Column phase: J&W DB-5

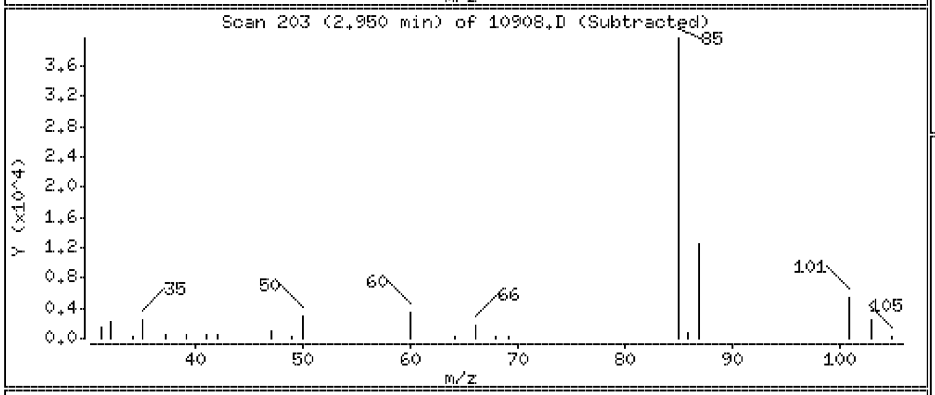
Column diameter: 0.32

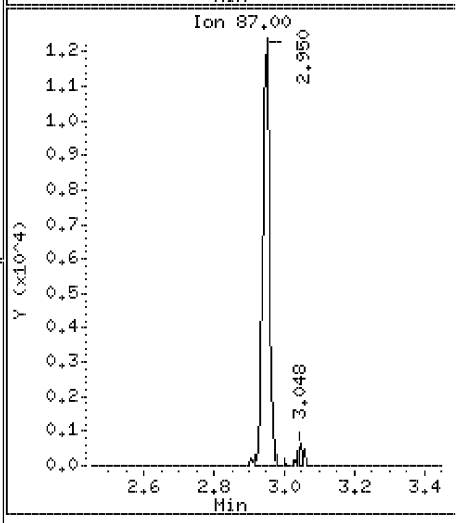
2 Dichlorodifluoromethane

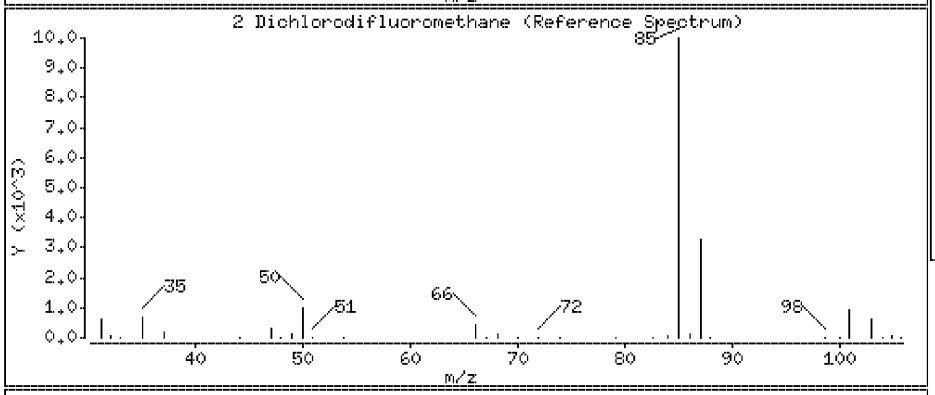
Concentration: 0.548 ppbv

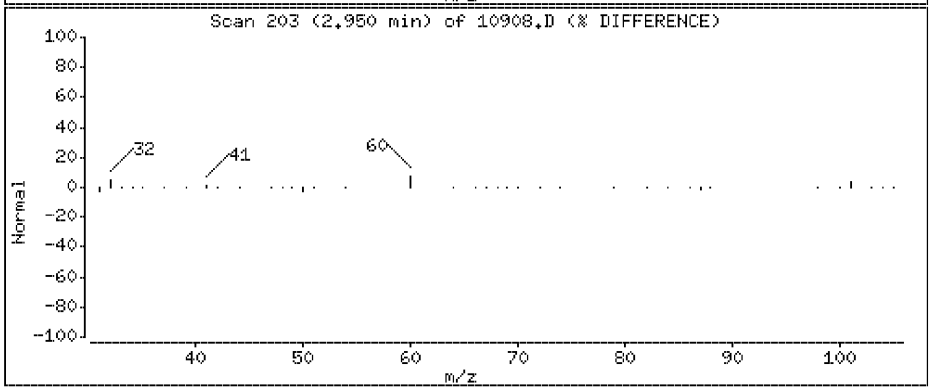












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

Sample Info:

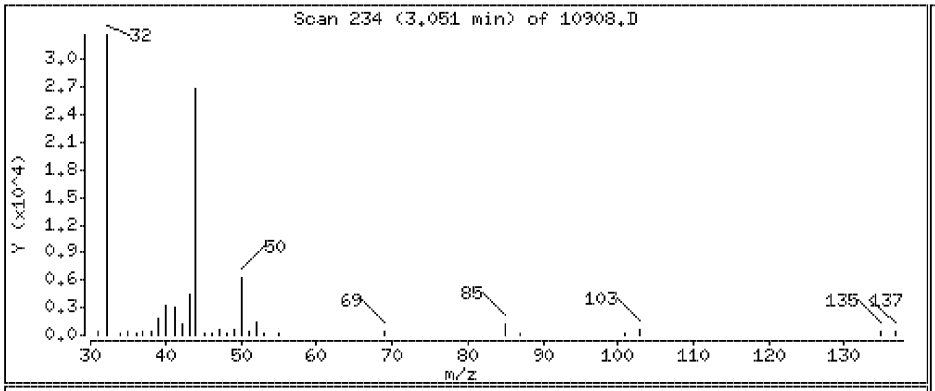
Operator: CJR

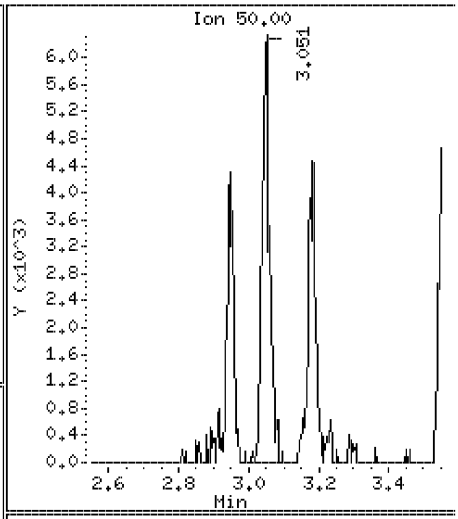
Column phase: J&W DB-5

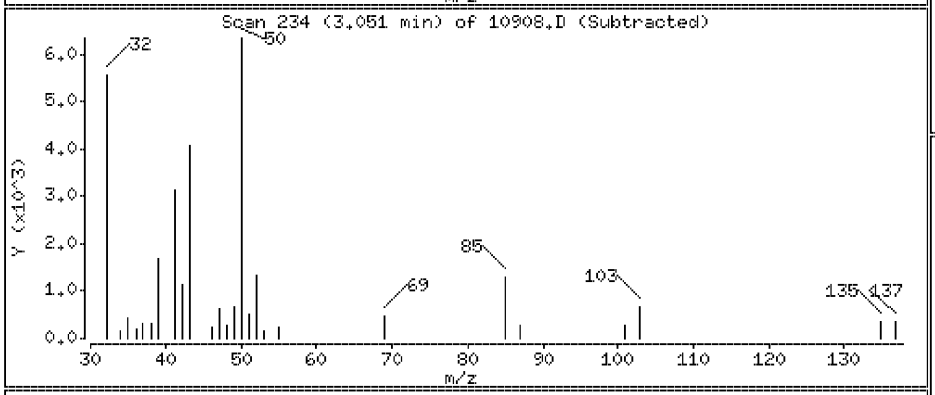
Column diameter: 0.32

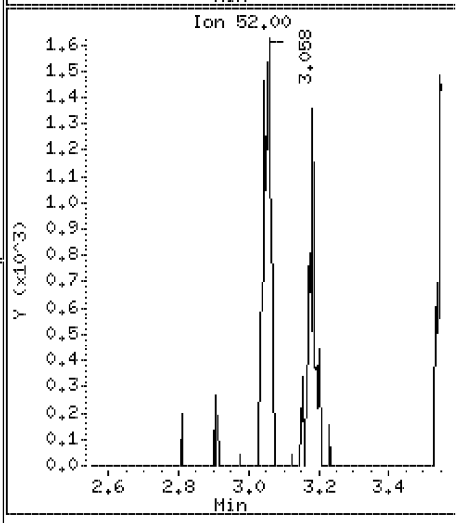
4 Chloromethane

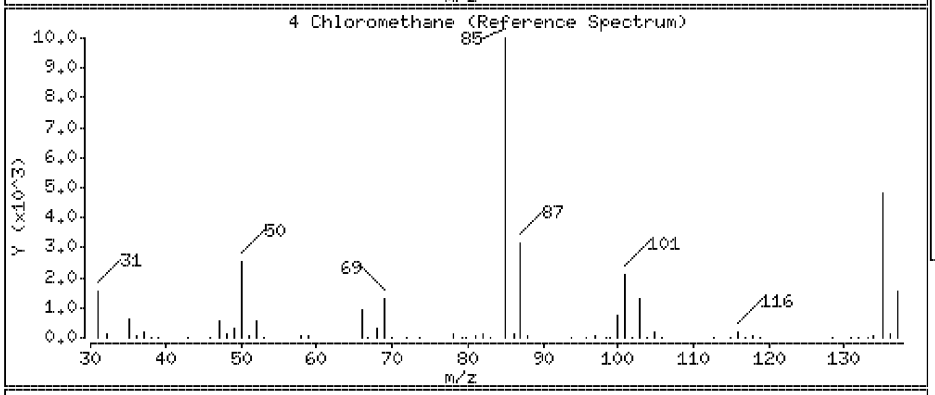
Concentration: 0.435 ppbv

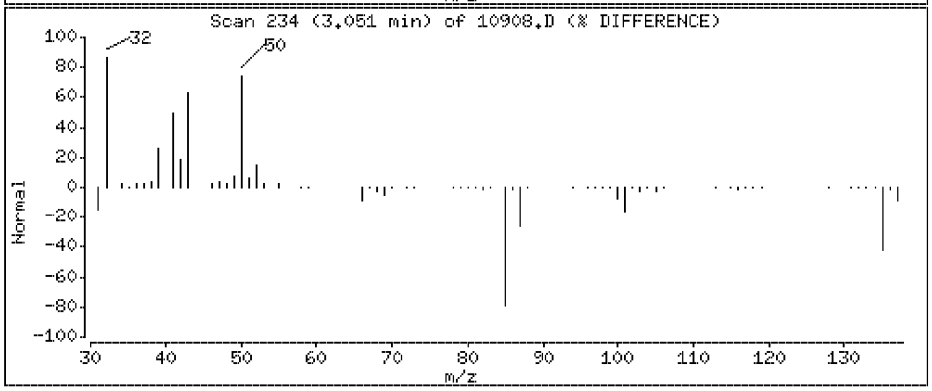












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

Sample Info:

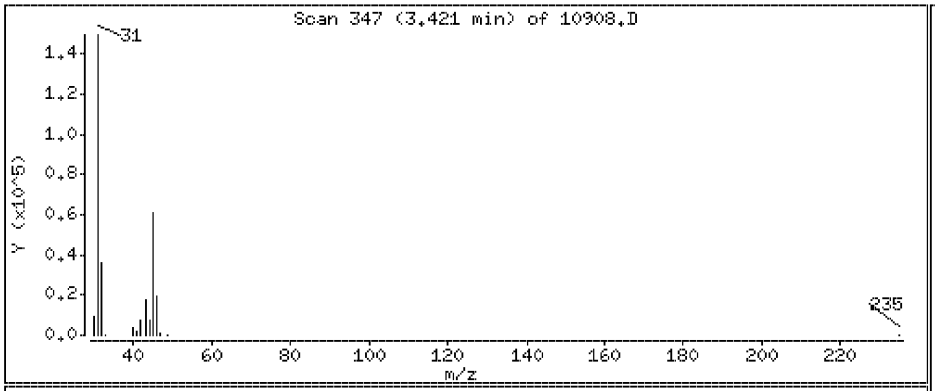
Operator: CJR

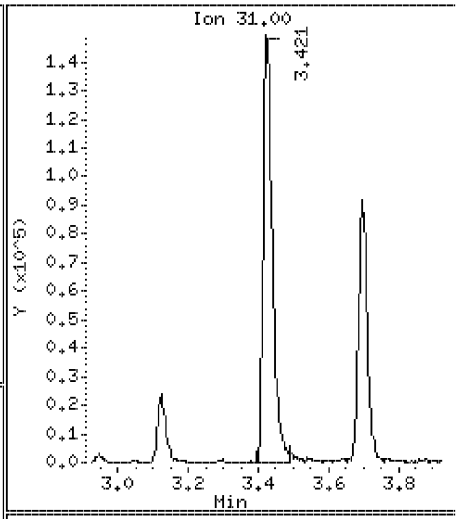
Column phase: J&W DB-5

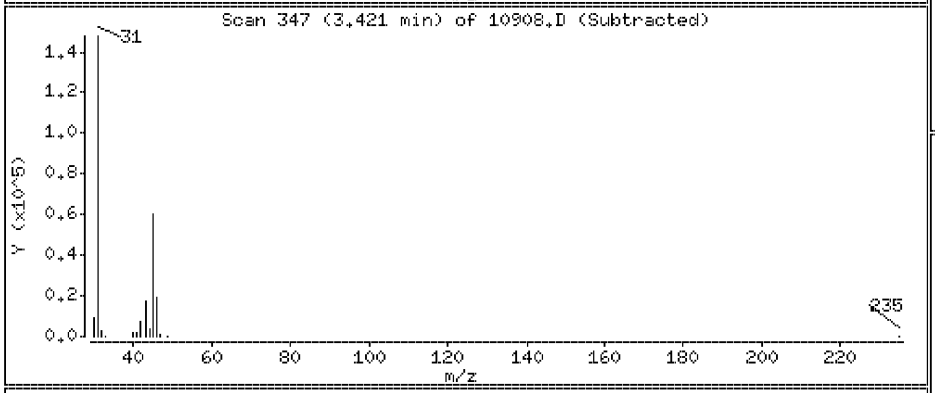
Column diameter: 0.32

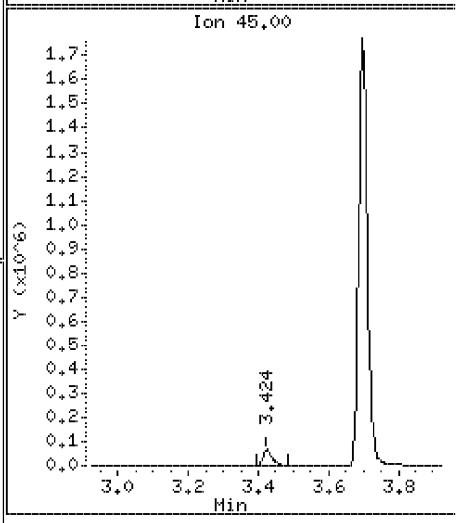
9 Ethanol

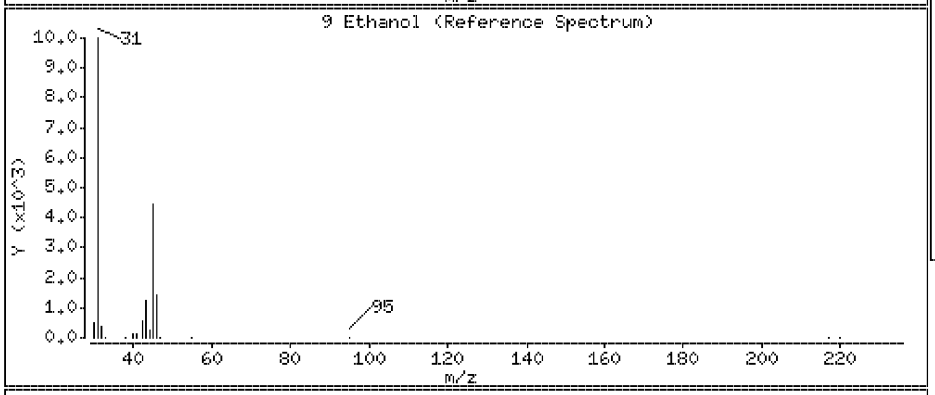
Concentration: 19.1 ppbv

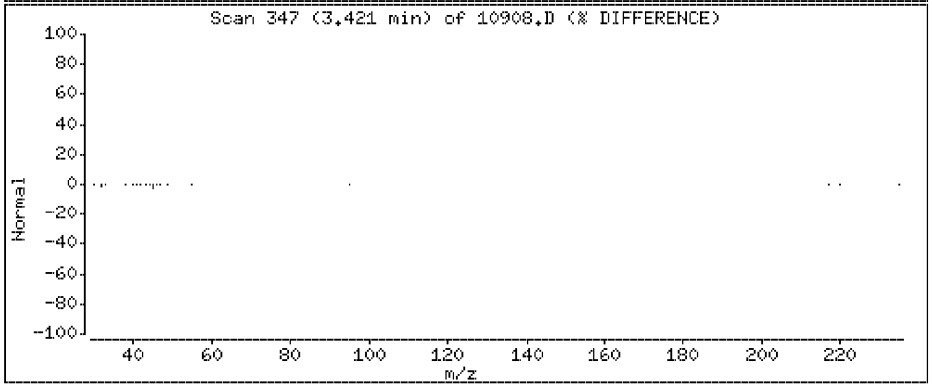












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

Sample Info:

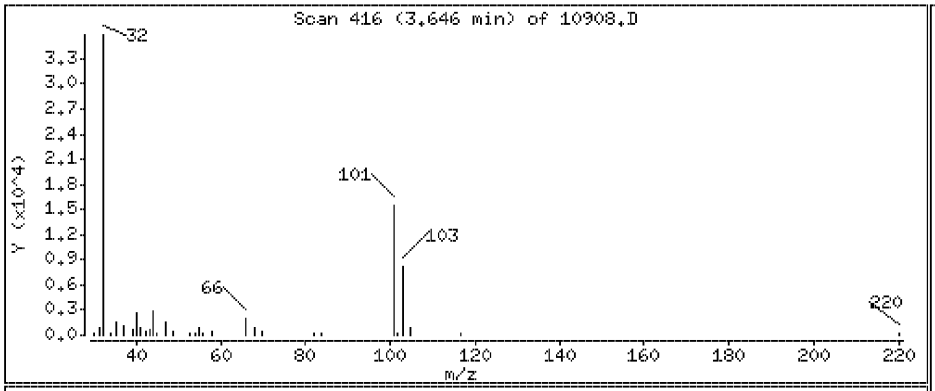
Operator: CJR

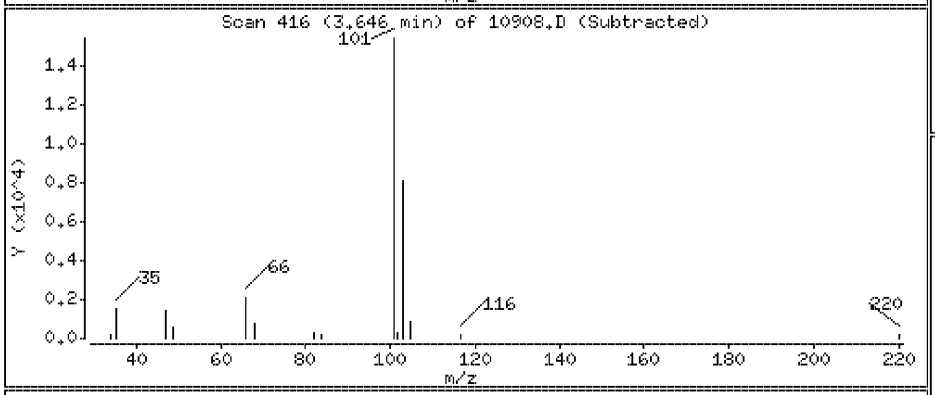
Column phase: J&W DB-5

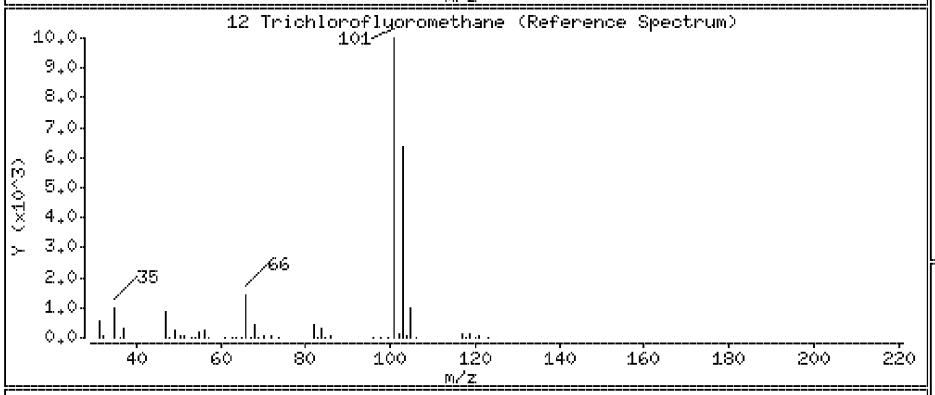
Column diameter: 0.32

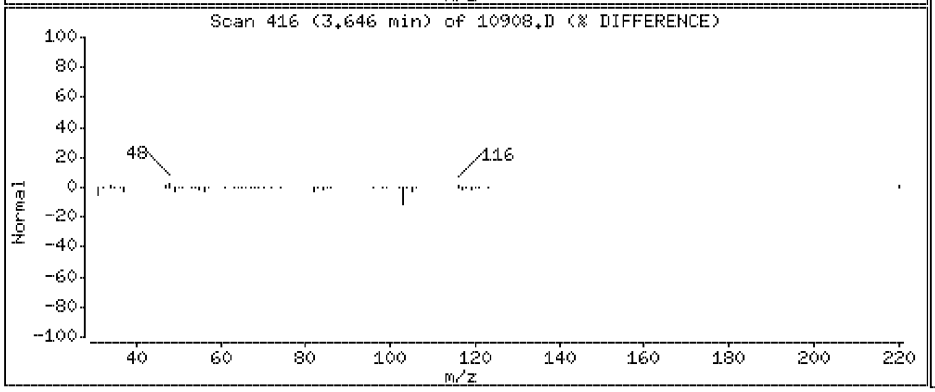
12 Trichlorofluoromethane

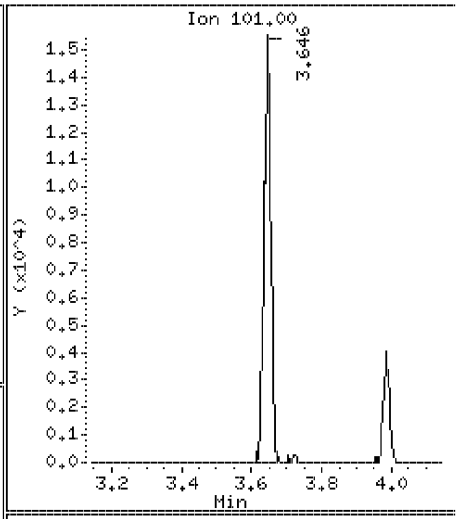
Concentration: 0.238 ppbv

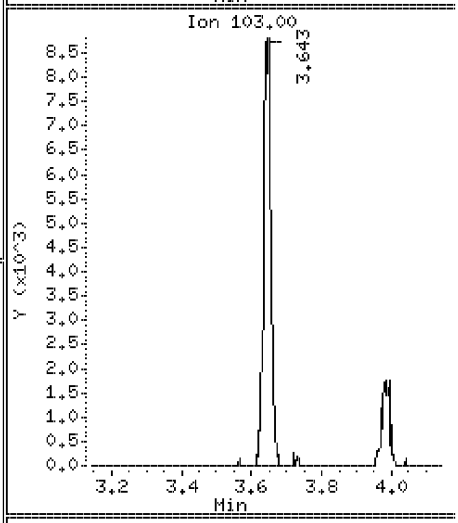


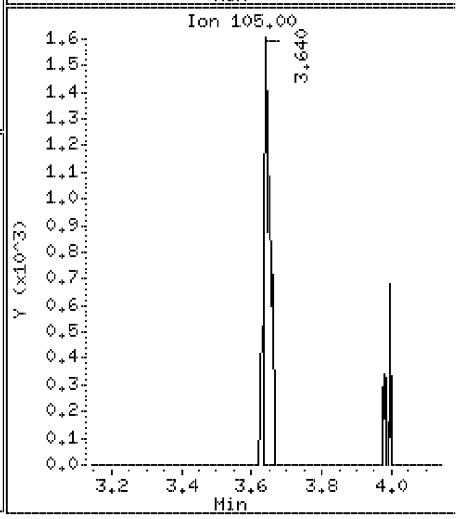












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

Sample Info:

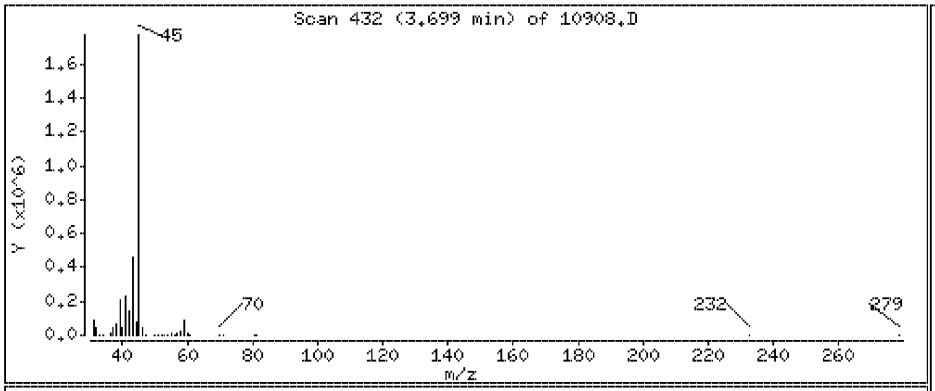
Operator: CJR

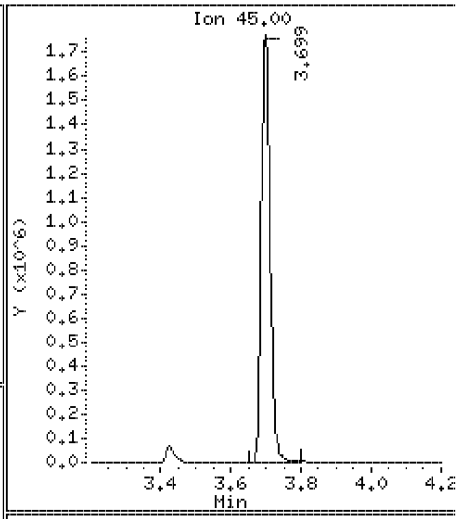
Column phase: J&W DB-5

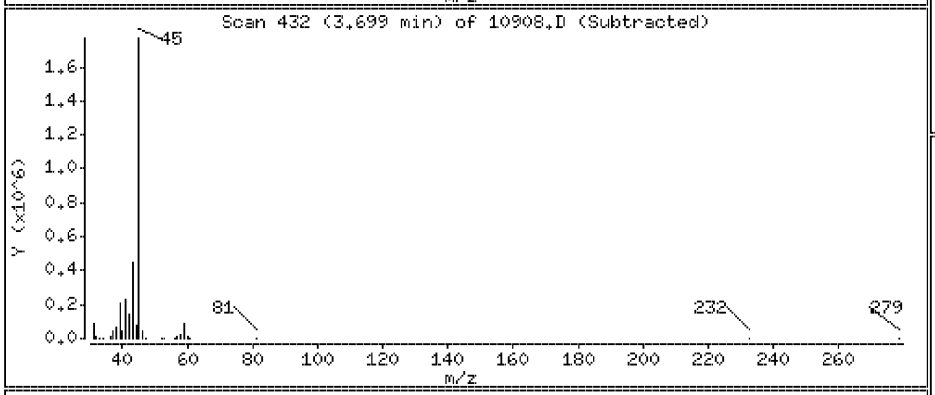
Column diameter: 0.32

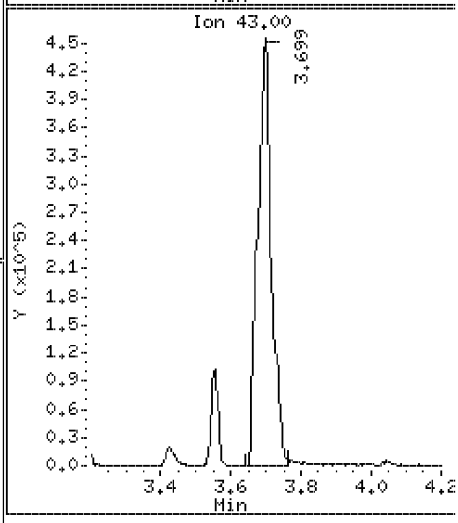
14 Isopropyl Alcohol

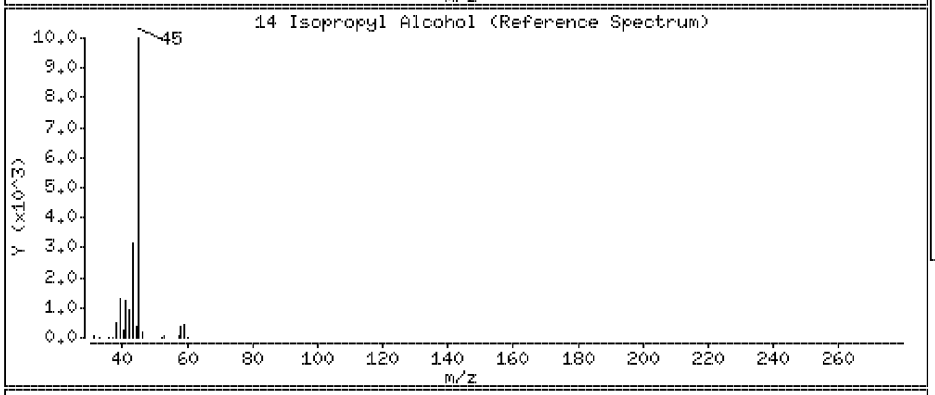
Concentration: 103 ppbv

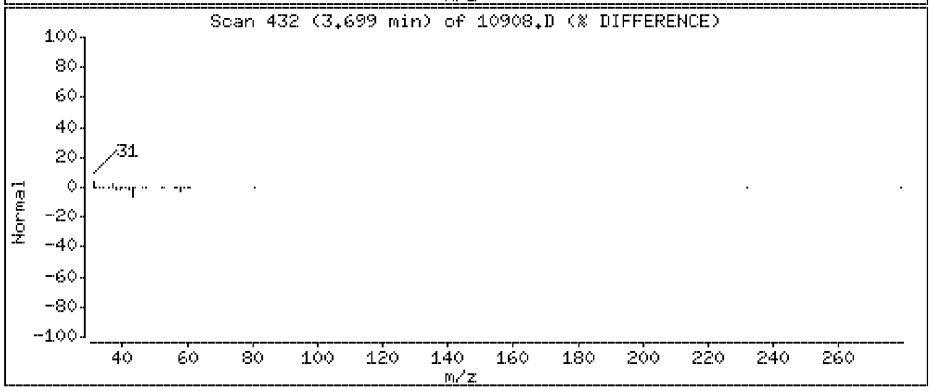












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

Sample Info:

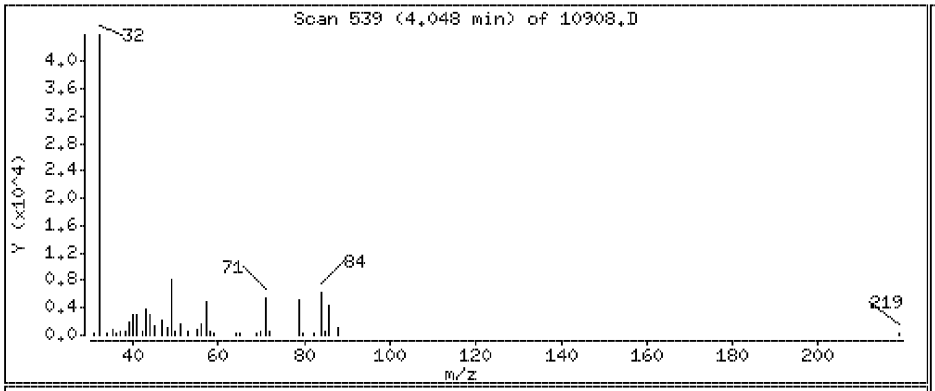
Operator: CJR

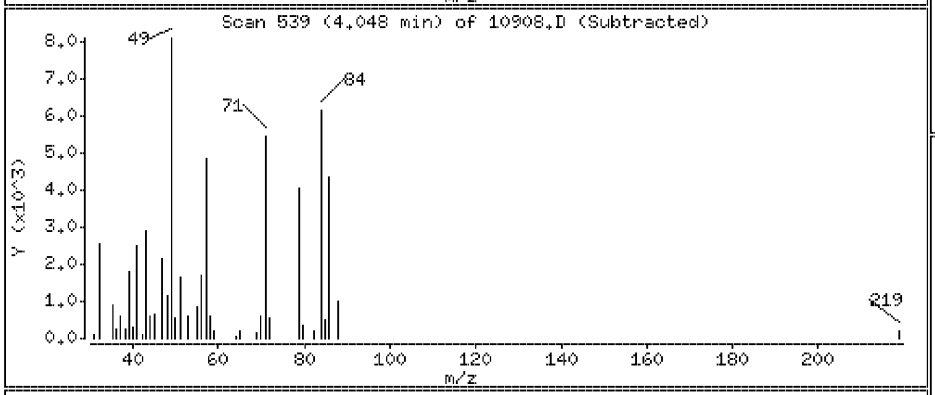
Column phase: J&W DB-5

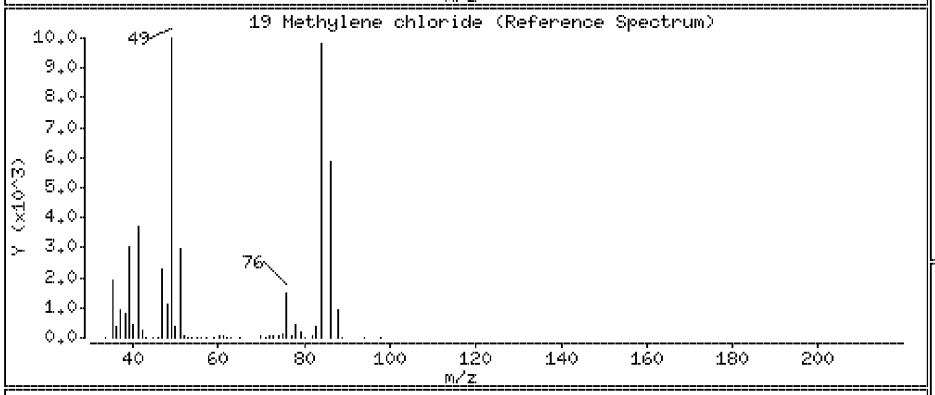
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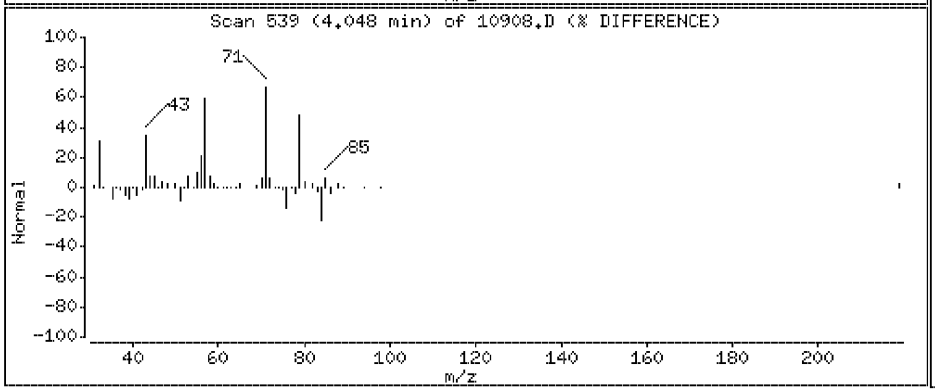
19 Methylene chloride

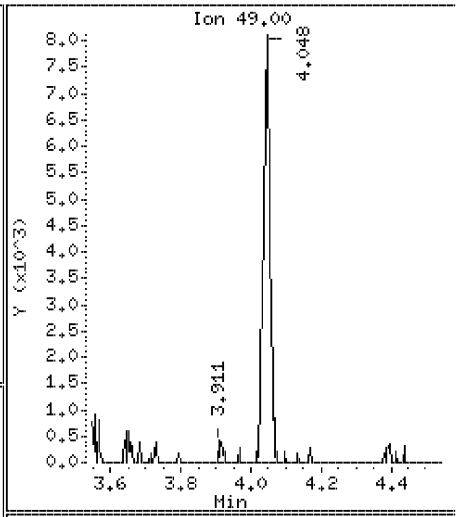
Concentration: 0.393 ppbv

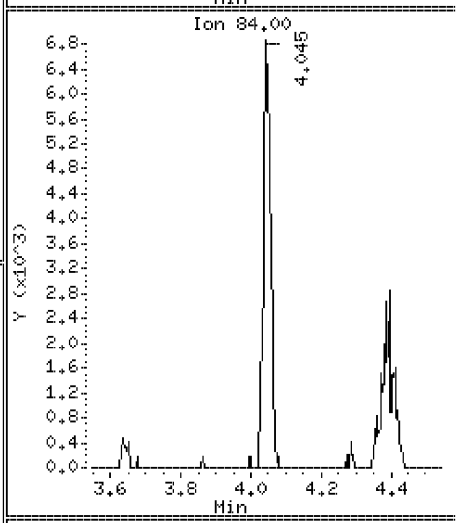


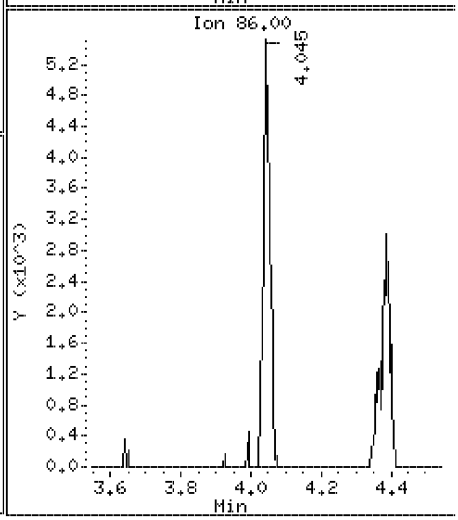












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

Sample Info:

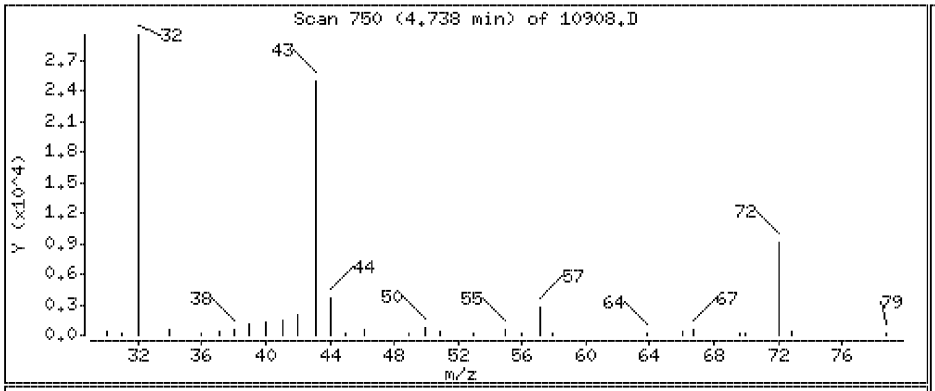
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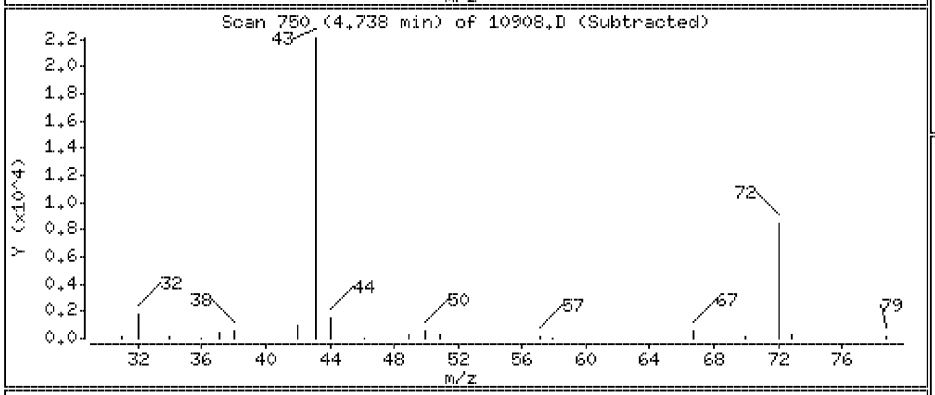
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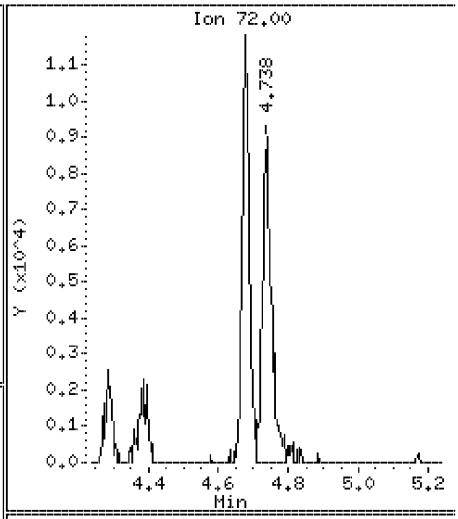
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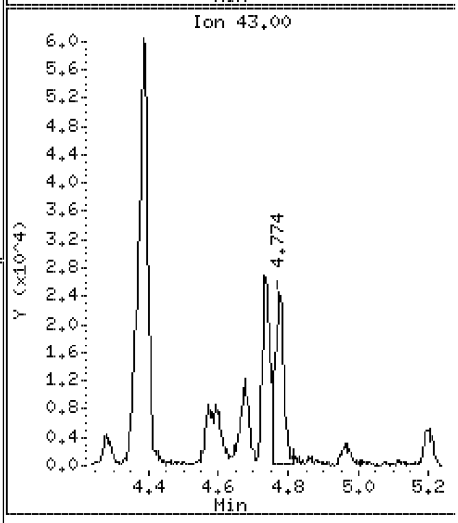
27 Methyl Ethyl Ketone

Concentration: 1.30 ppbv









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Date : 19-APR-2013 17:18

Client ID:

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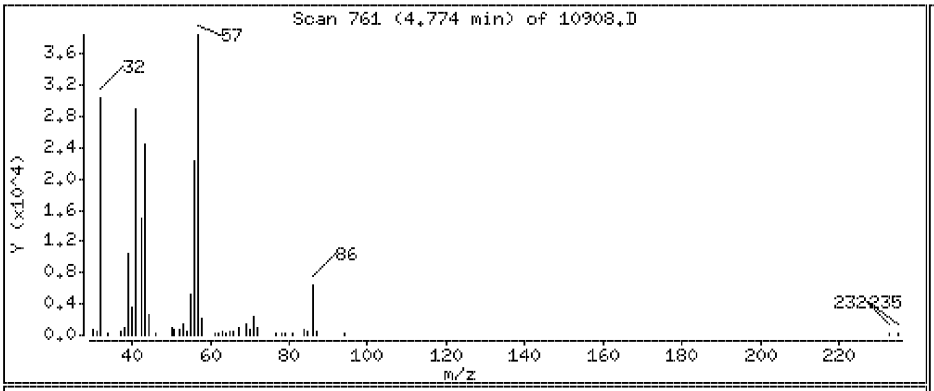
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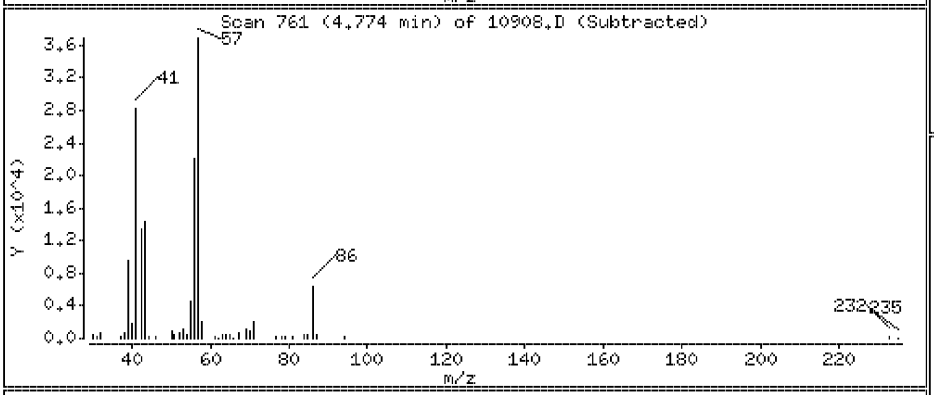
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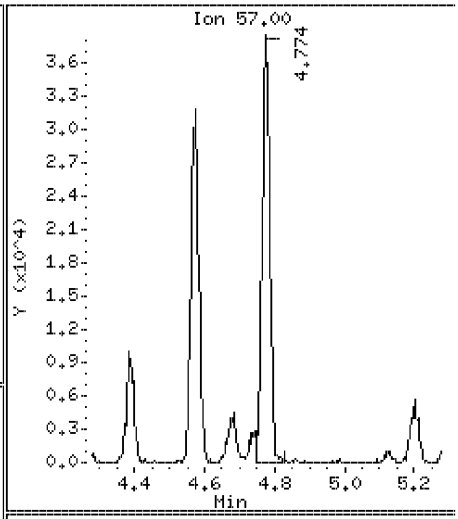
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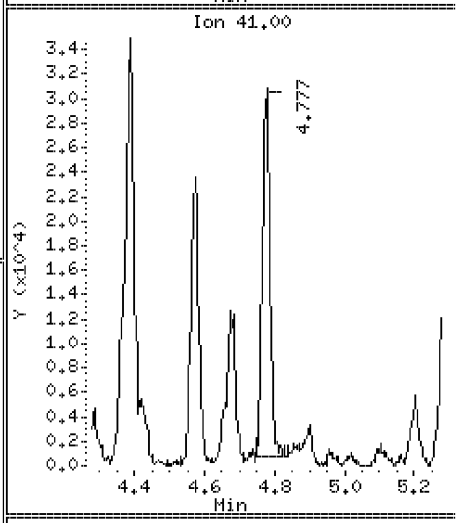
28 n-Hexane

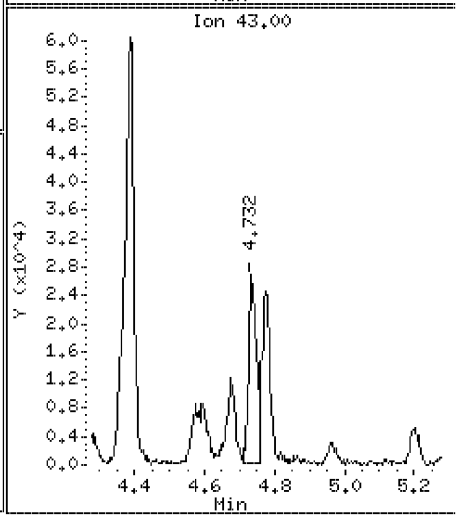
Concentration: 1.54 ppbv











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Date : 19-APR-2013 17:18

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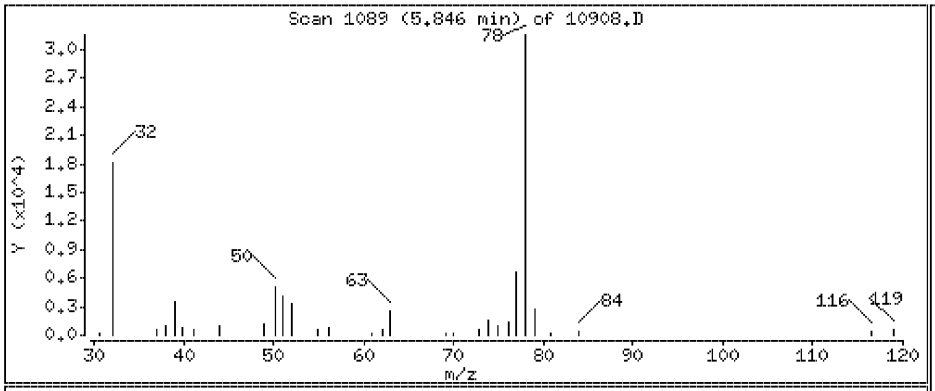
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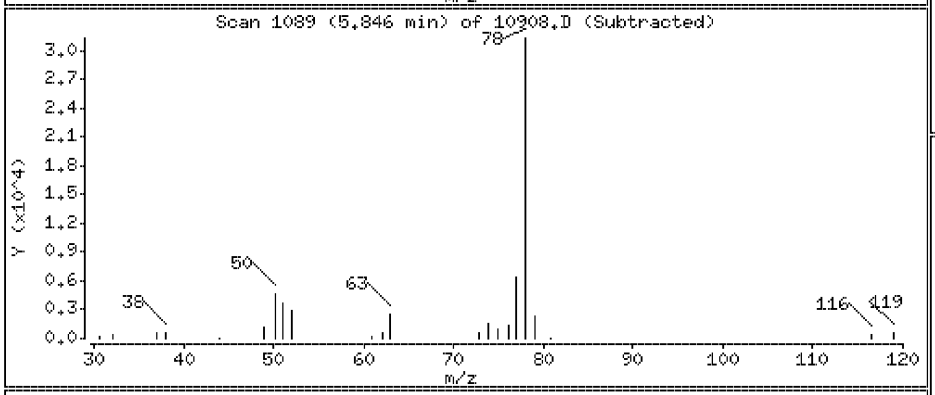
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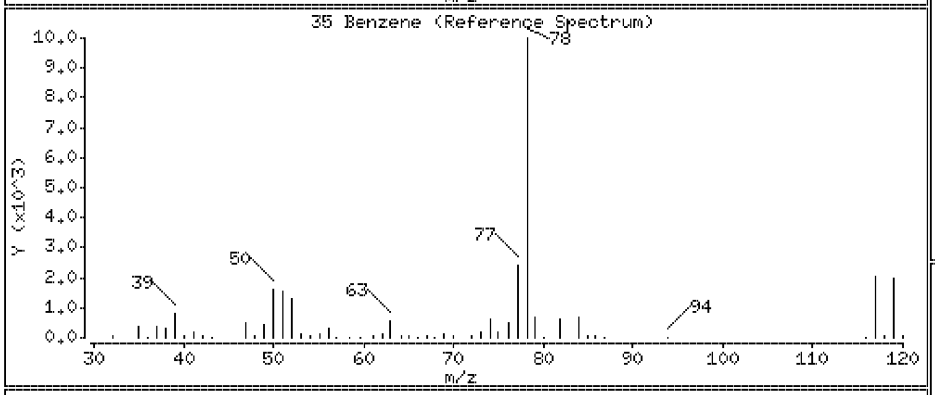
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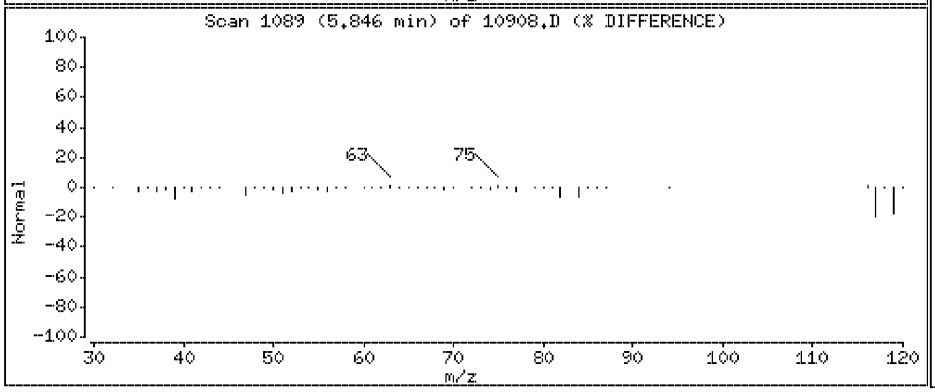
35 Benzene

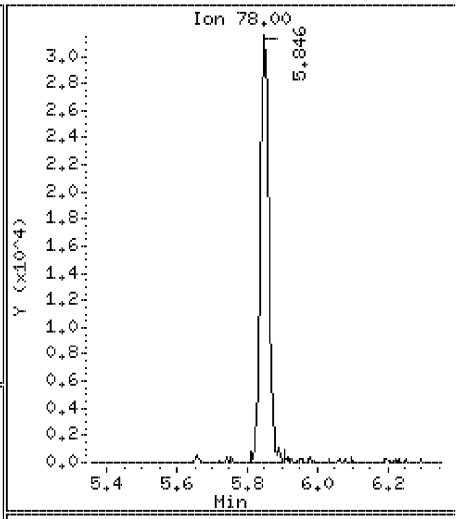
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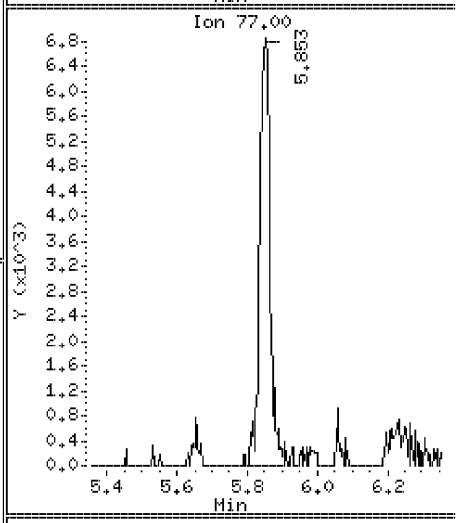


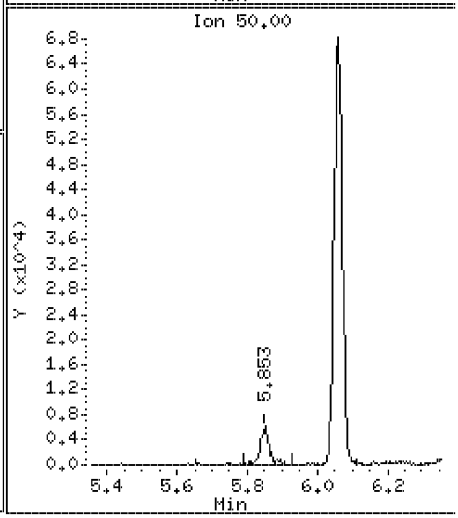












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Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

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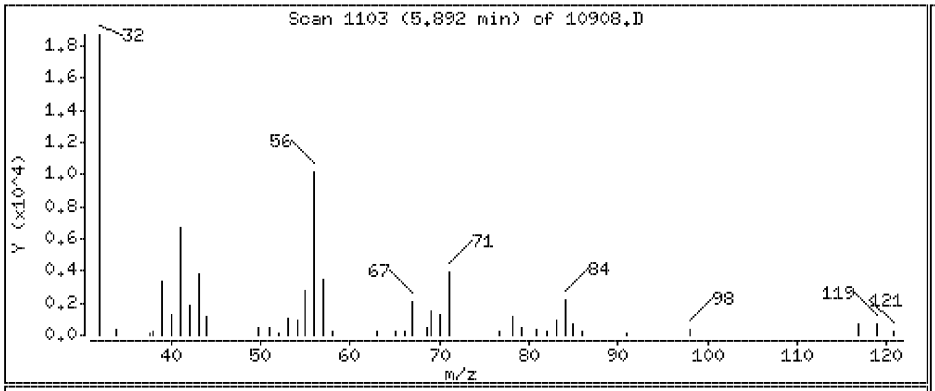
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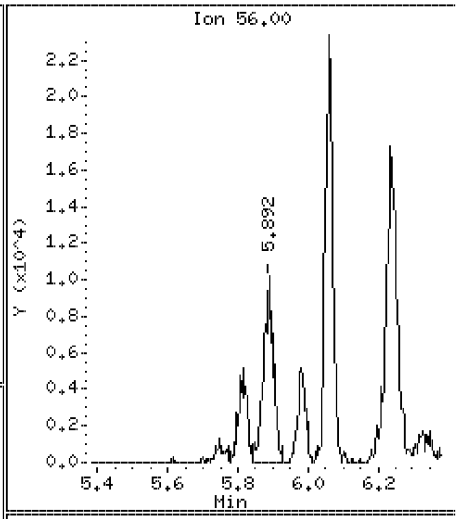
Column phase: J&W DB-5

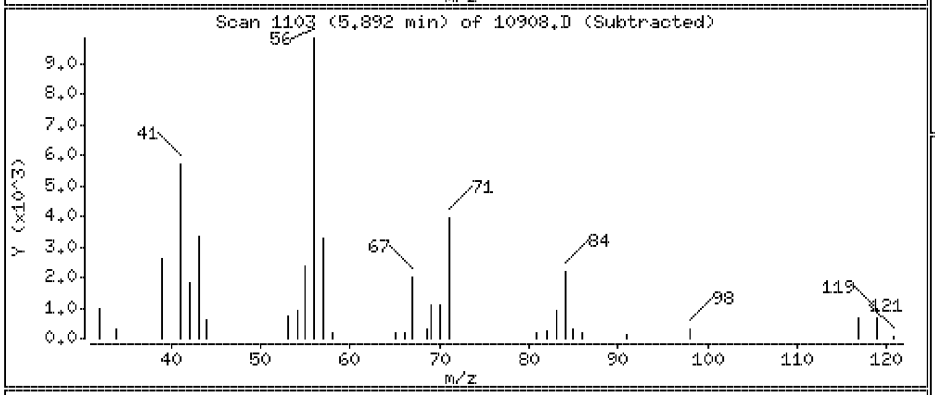
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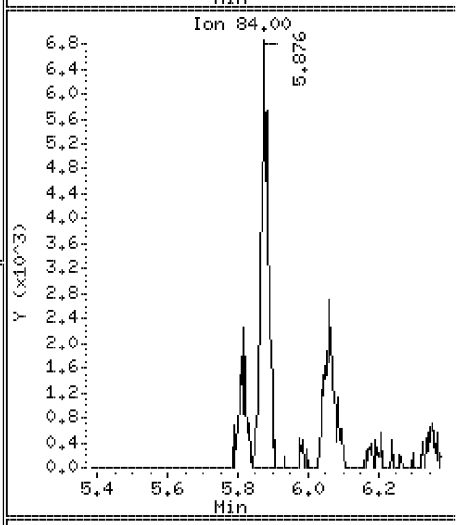
37 Cyclohexane

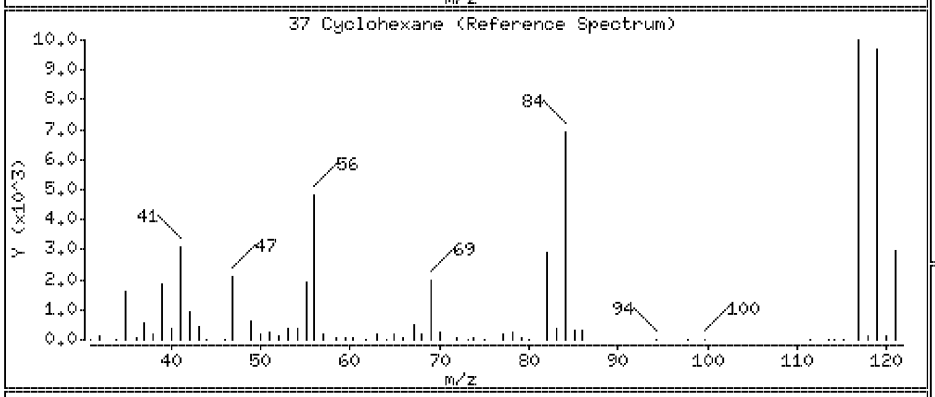
Concentration: 0.984 ppbv

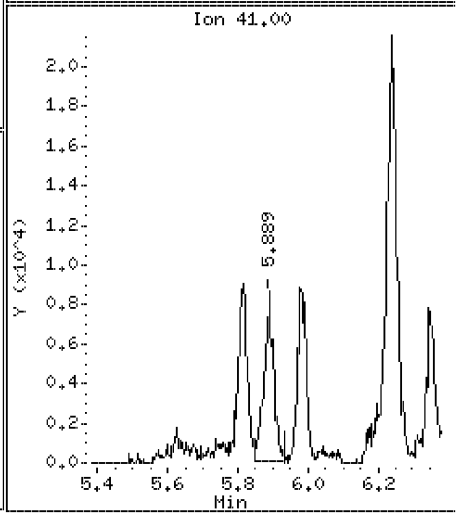


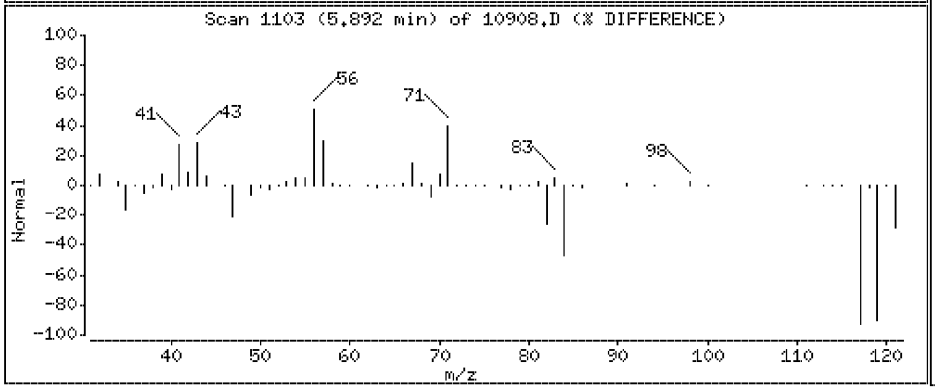












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Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

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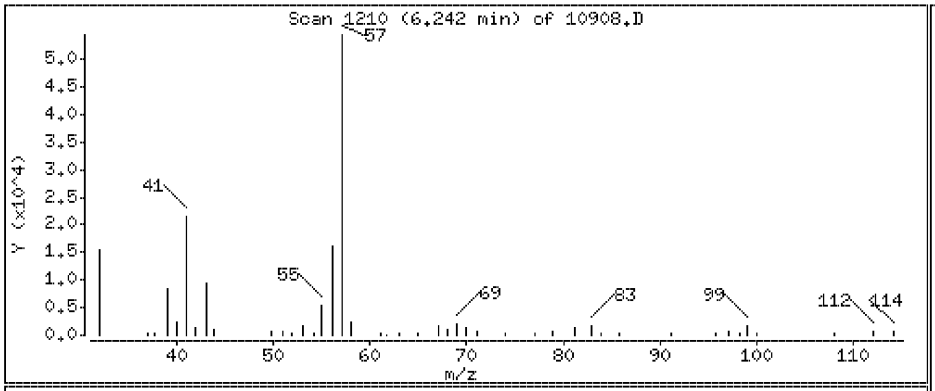
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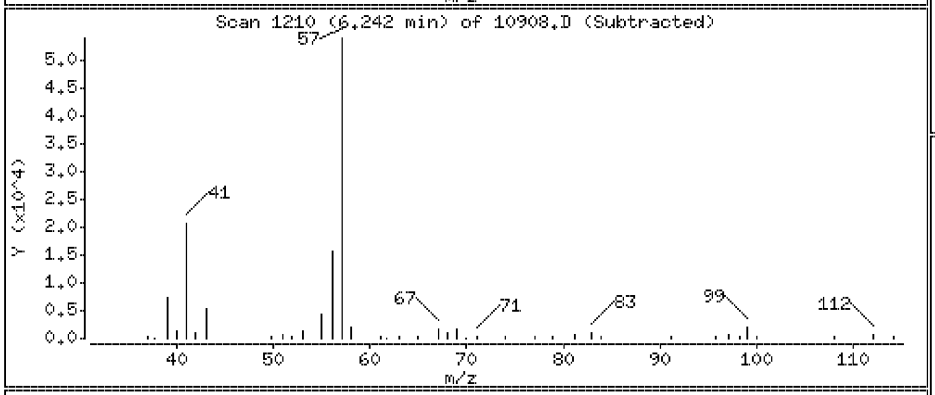
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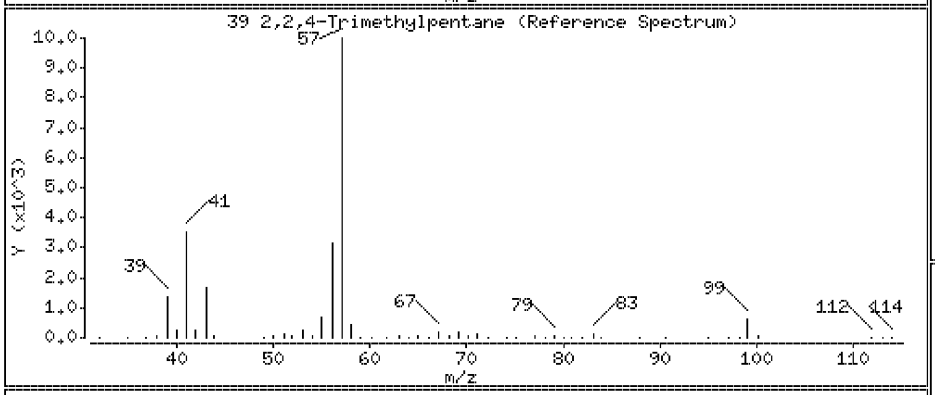
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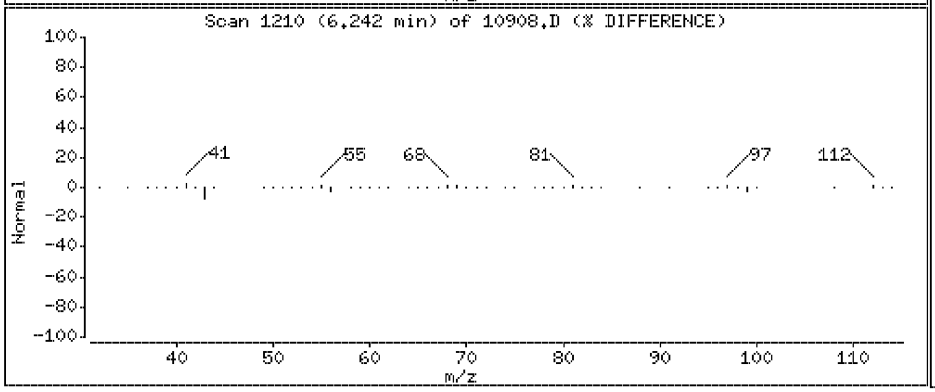
39 2,2,4-Trimethylpentane

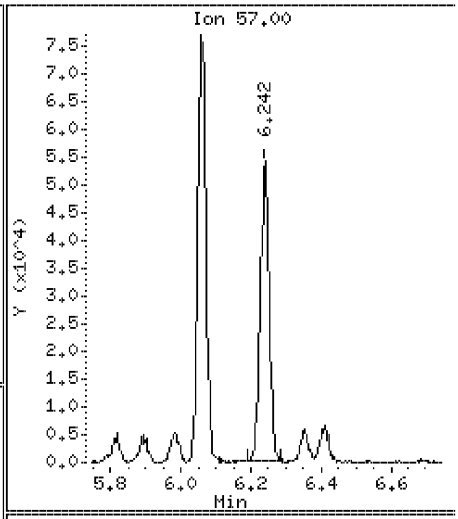
Concentration: 1.36 ppbv

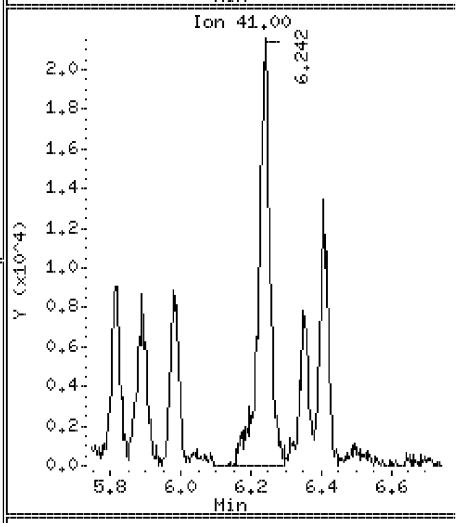


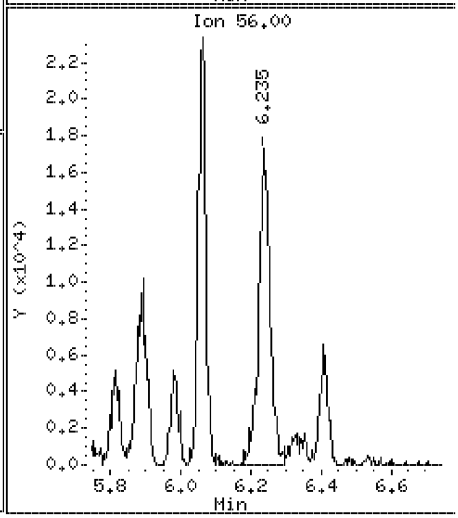












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Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

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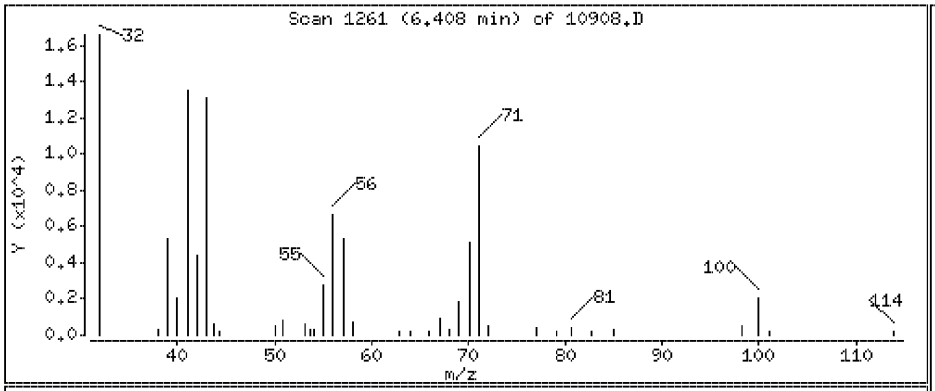
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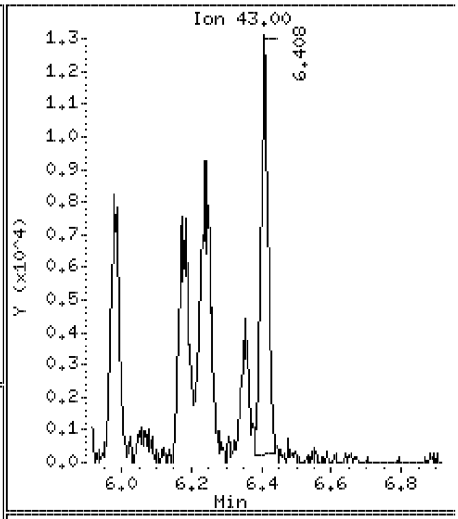
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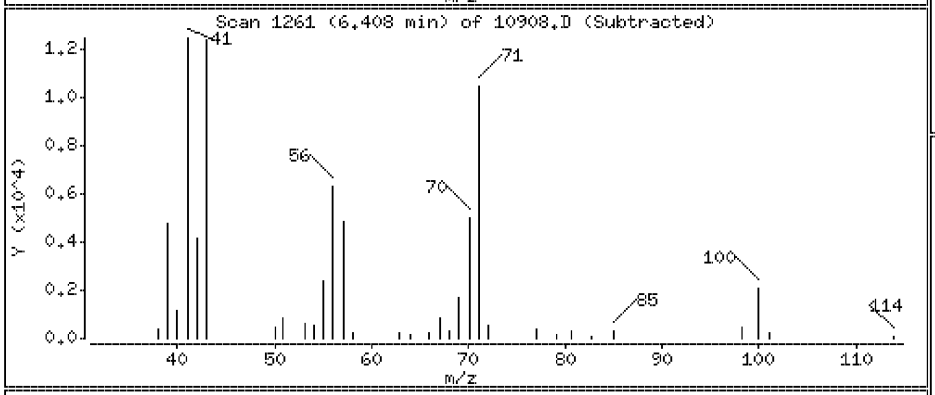
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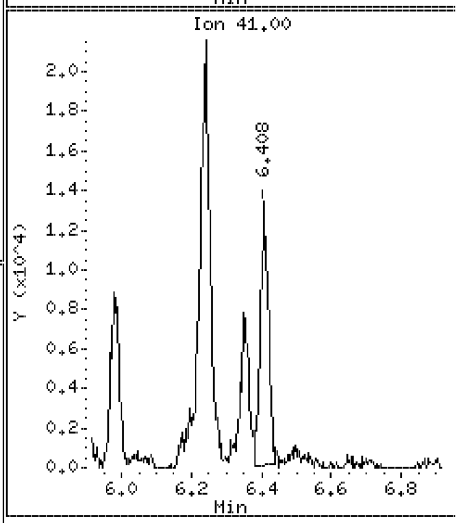
40 Heptane

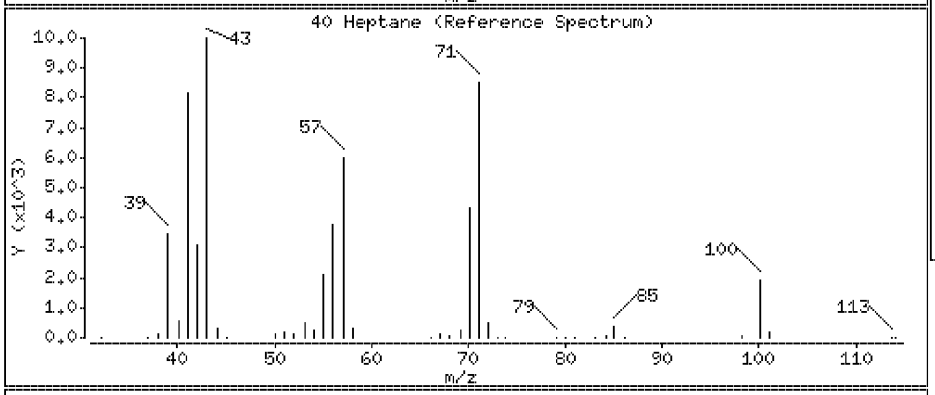
Concentration: 1.13 ppbv

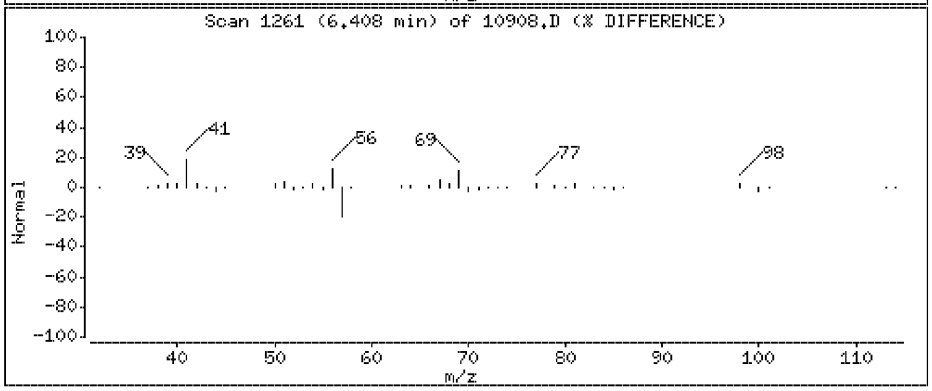












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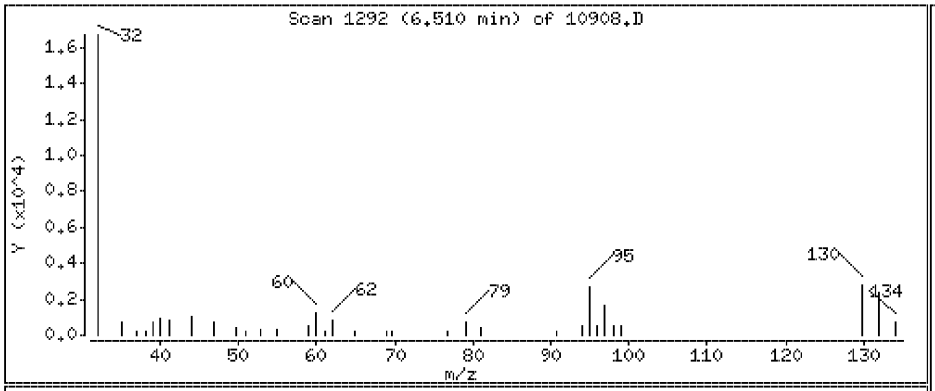
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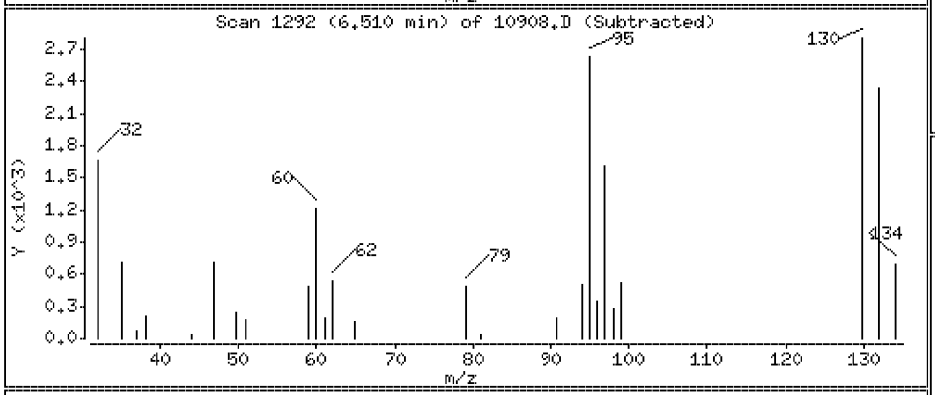
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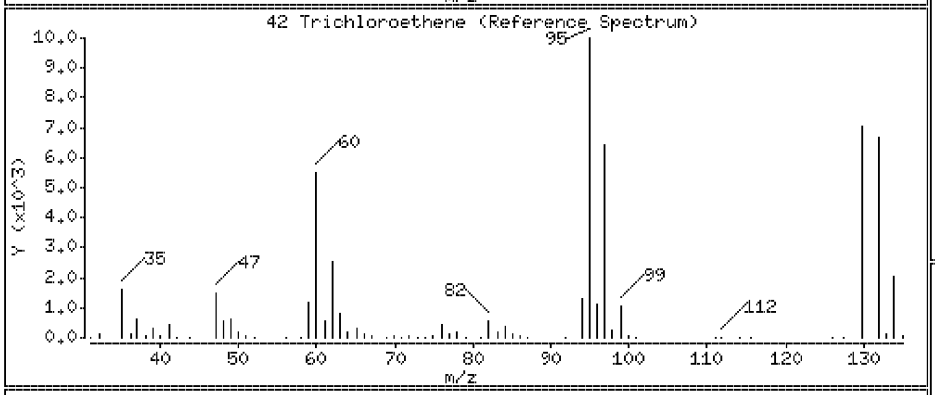
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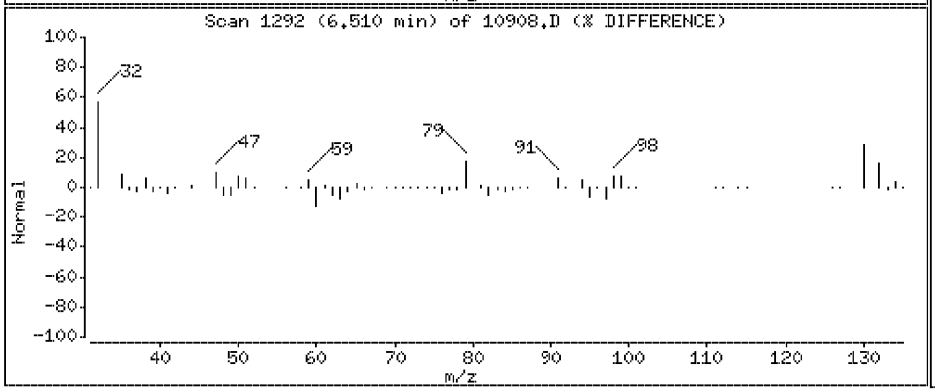
42 Trichloroethene

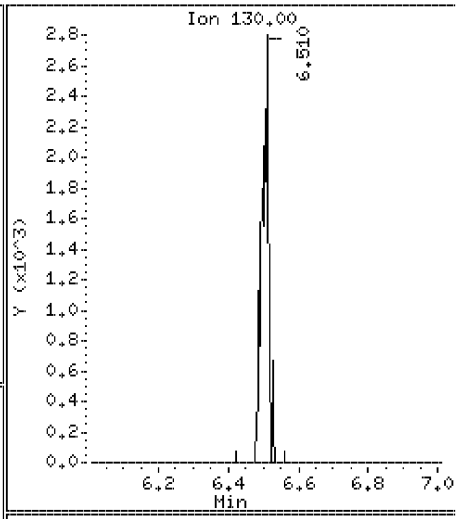
Concentration: 0.165 ppbv

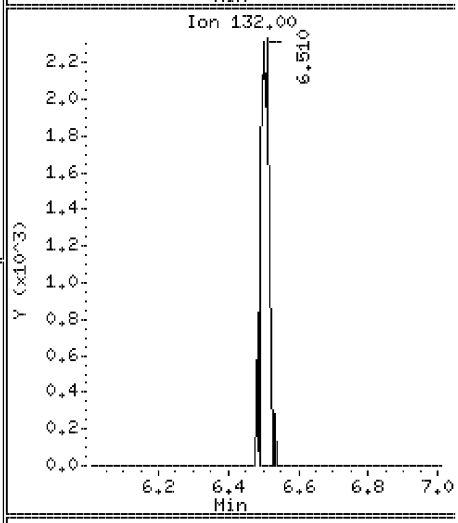


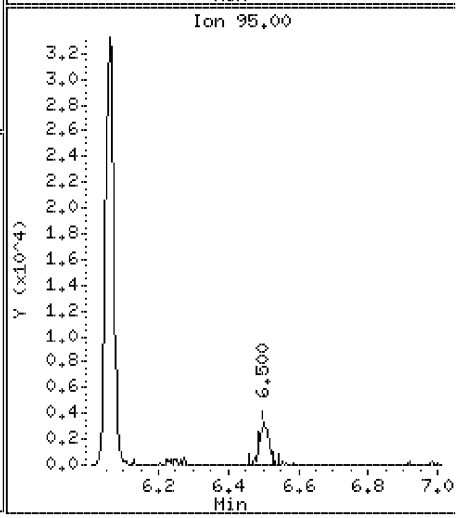












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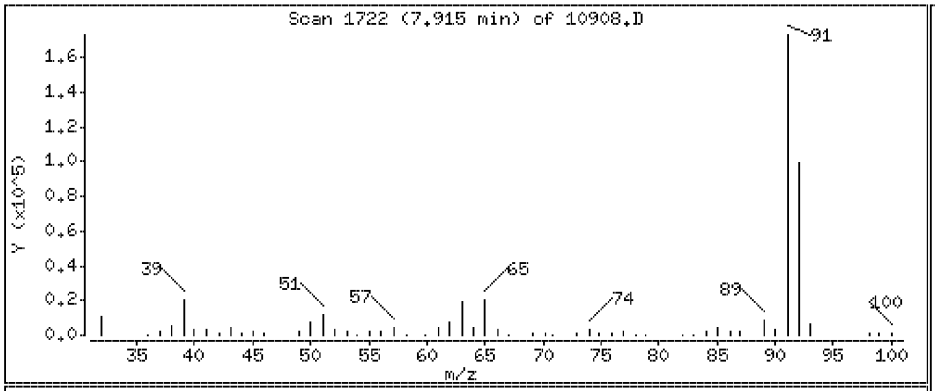
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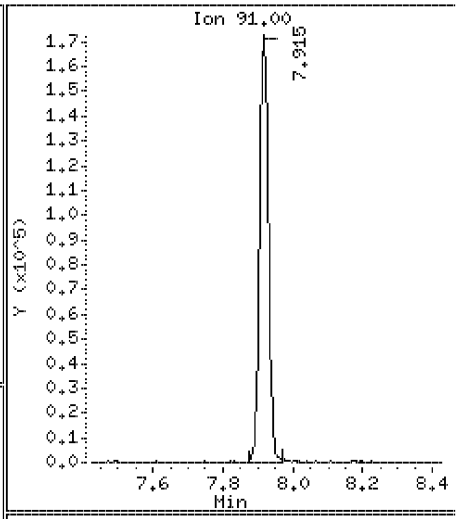
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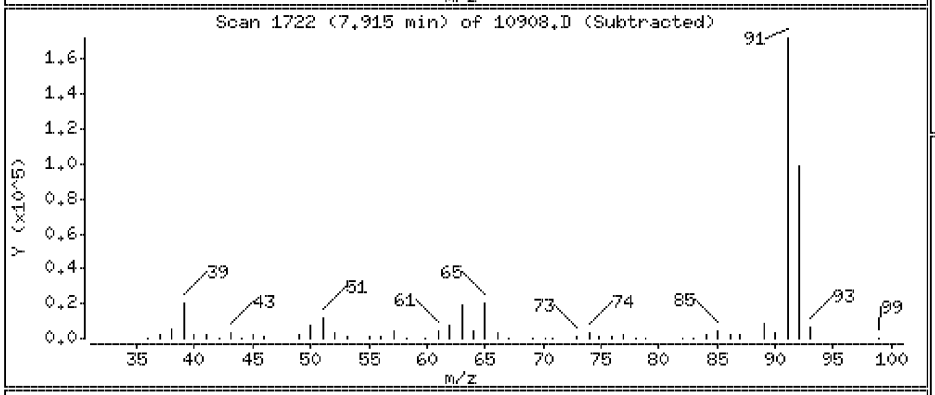
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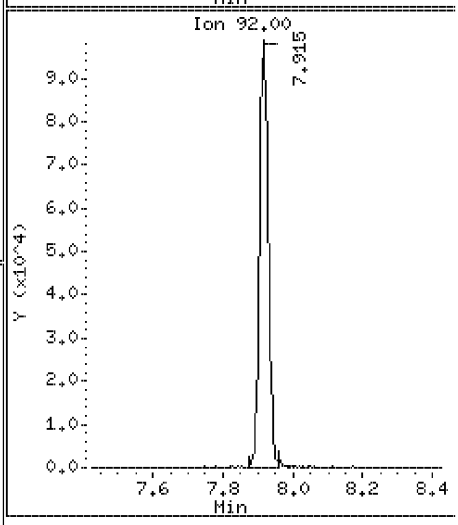
49 Toluene

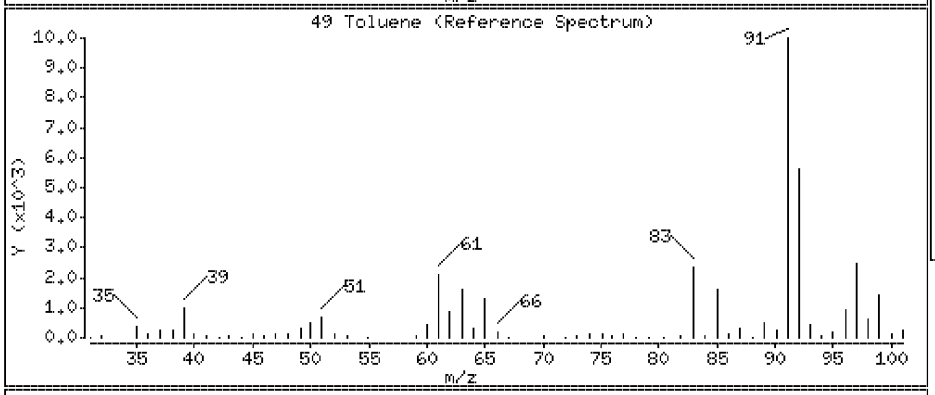
Concentration: 2.66 ppbv

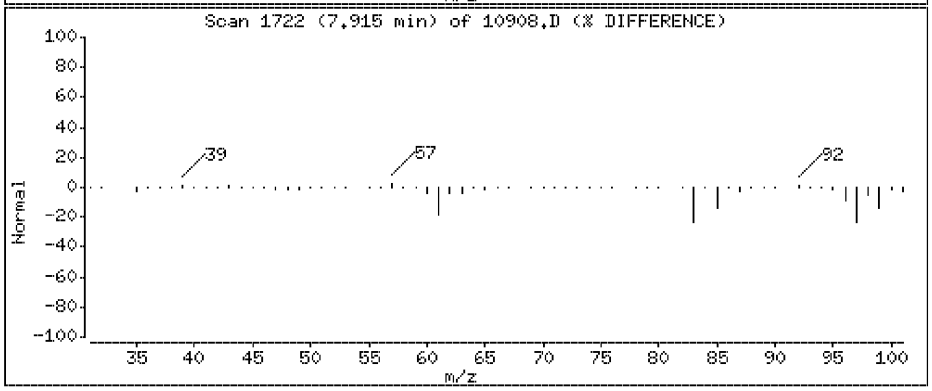












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

Sample Info:

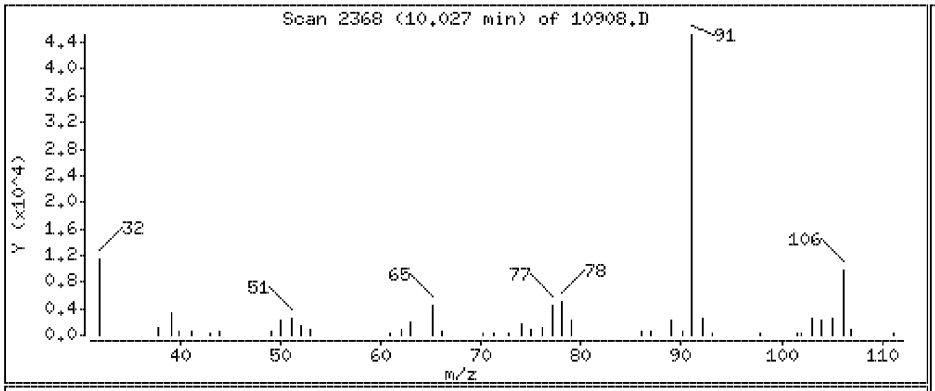
Operator: CJR

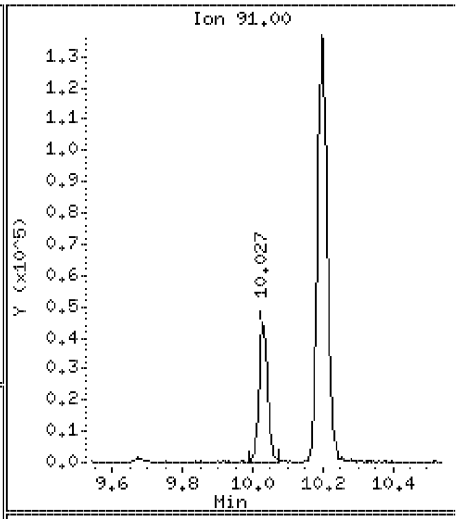
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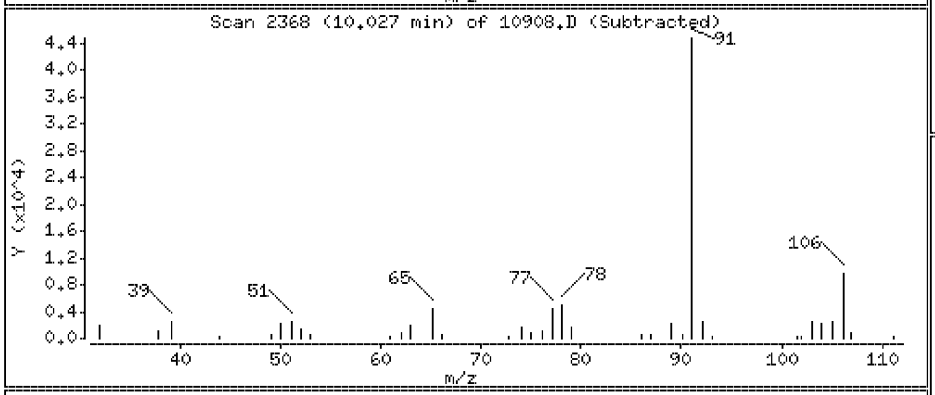
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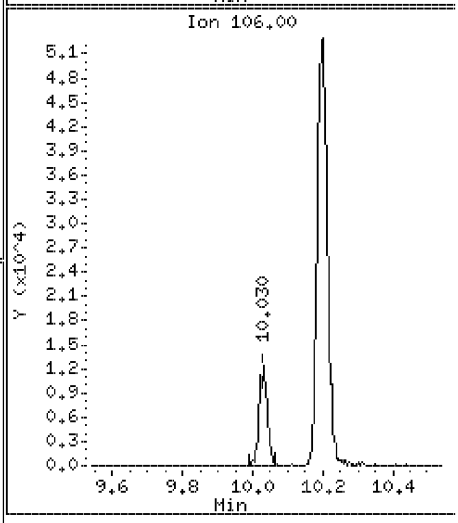
57 Ethyl Benzene

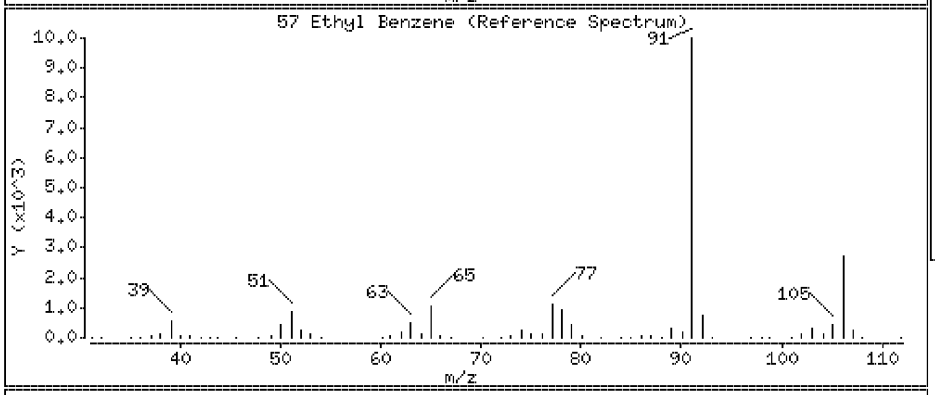
Concentration: 0.809 ppbv

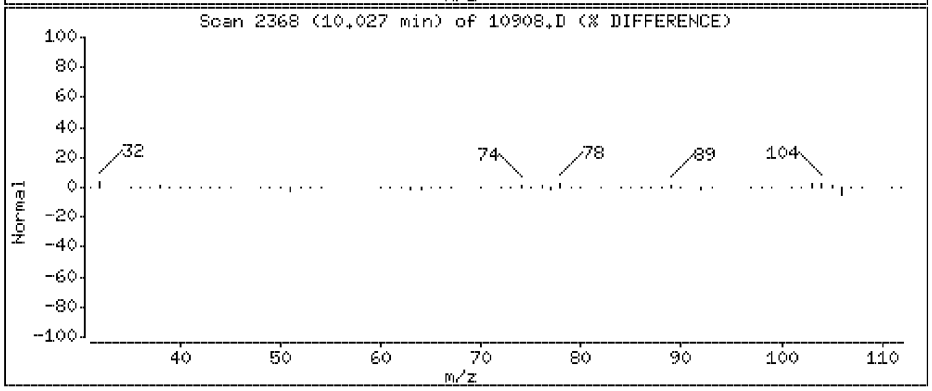












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

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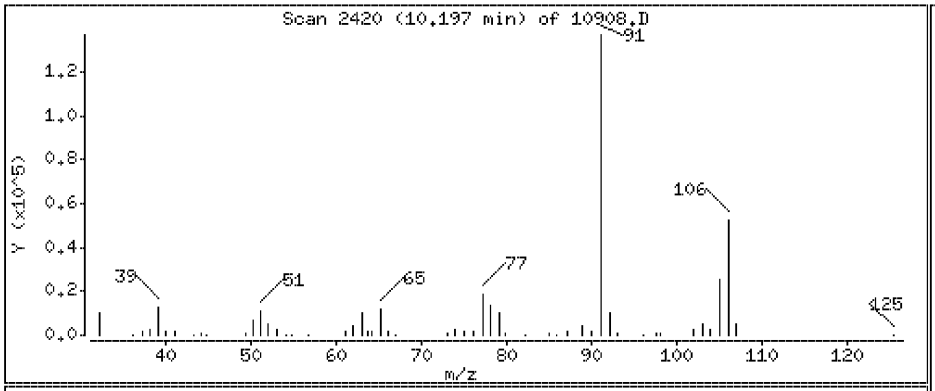
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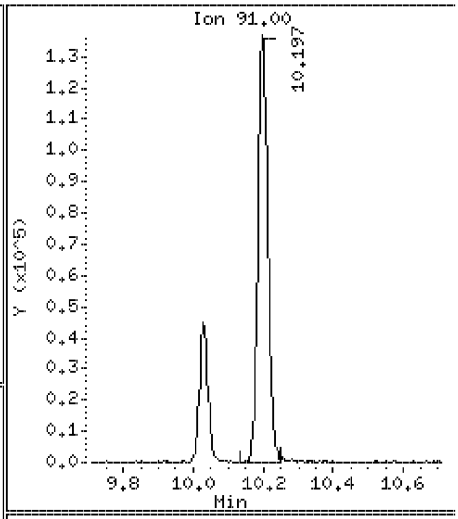
Column phase: J&W DB-5

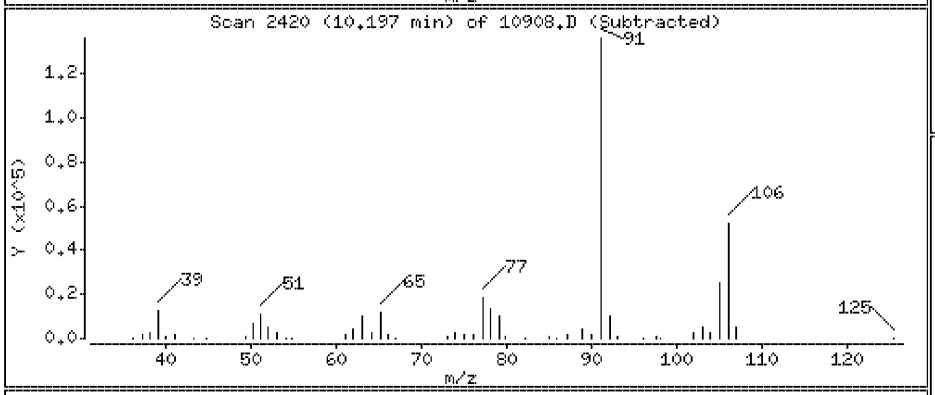
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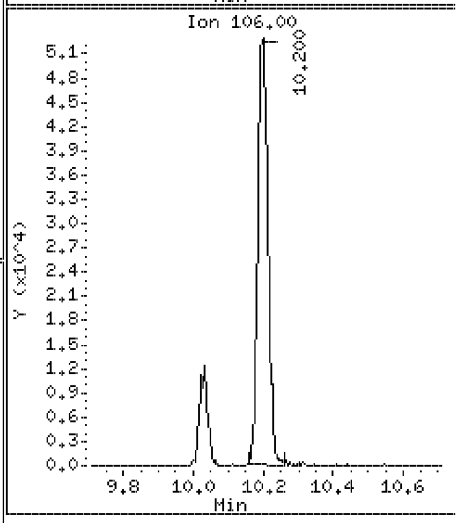
58 m&p-Xylene

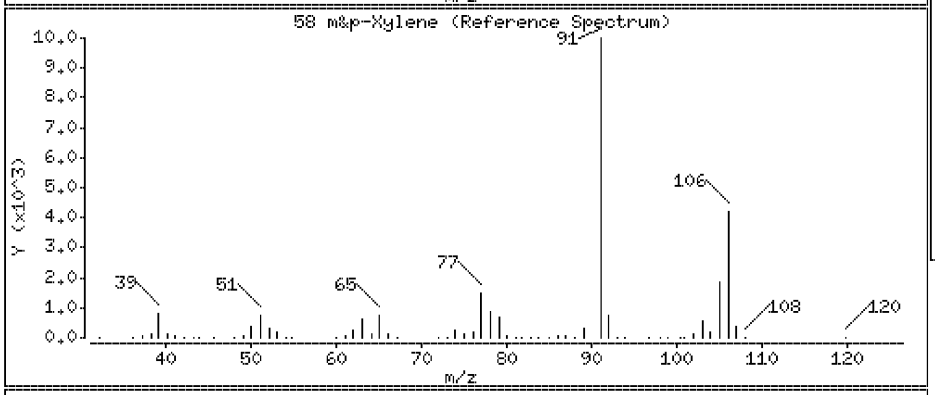
Concentration: 2.79 ppbv

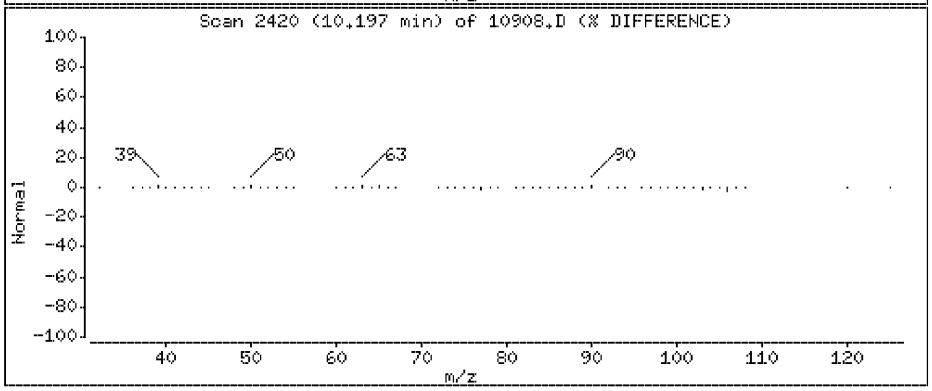












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

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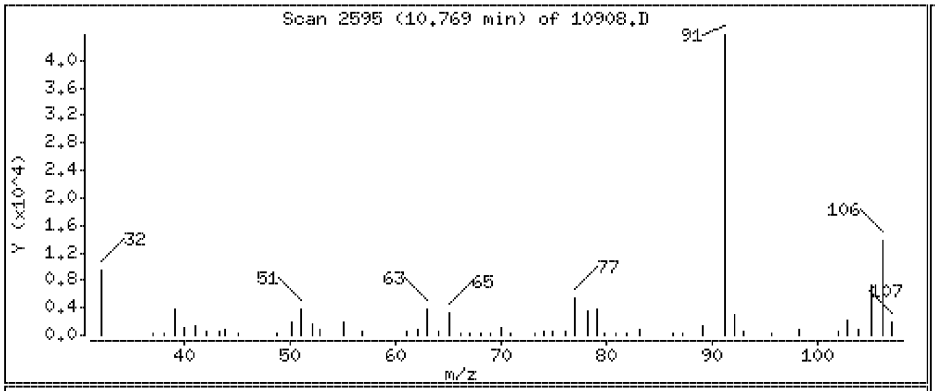
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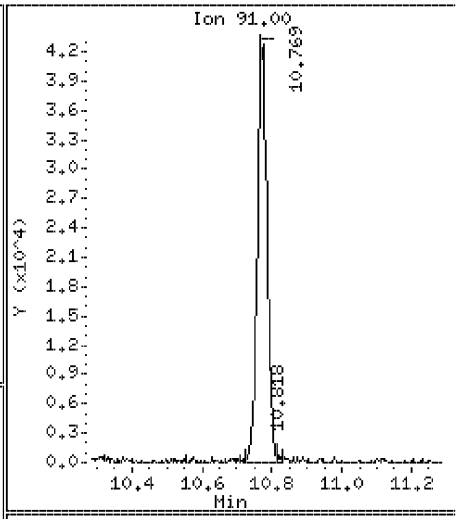
Column phase: J&W DB-5

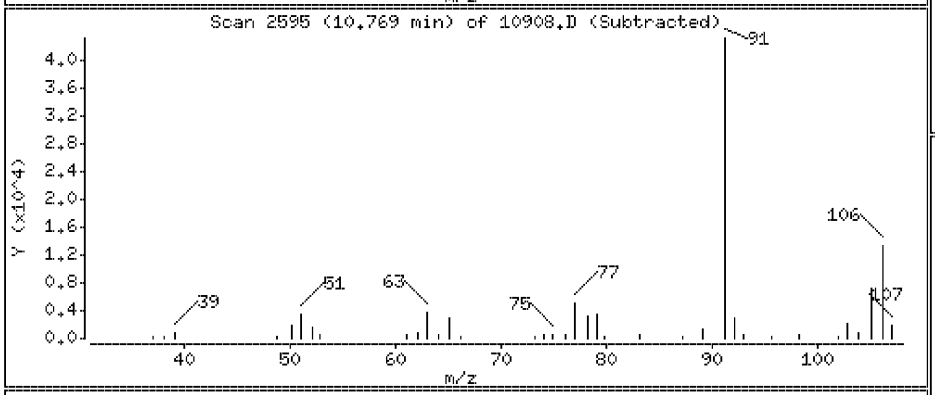
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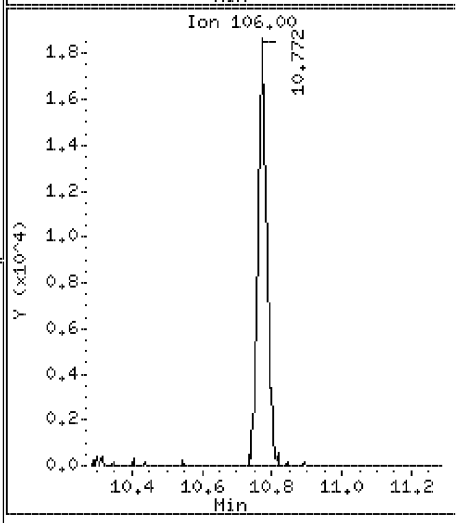
61 o-Xylene

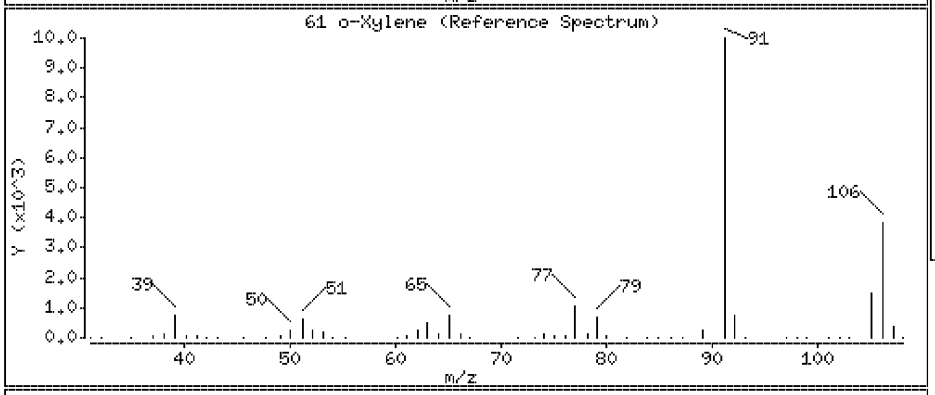
Concentration: 0.843 ppbv

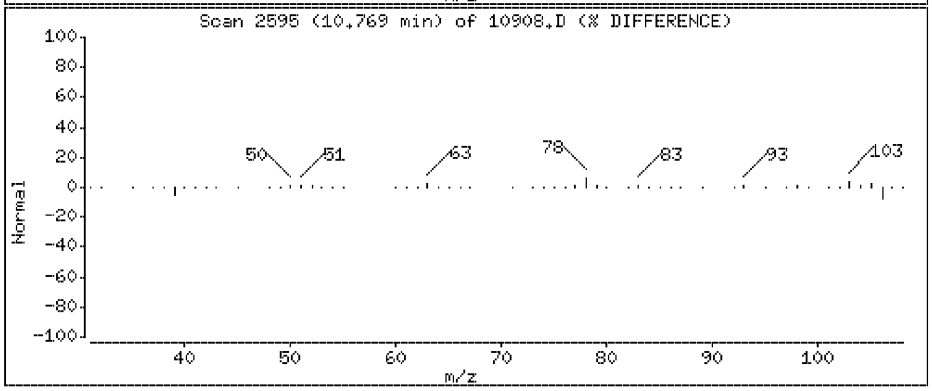












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Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

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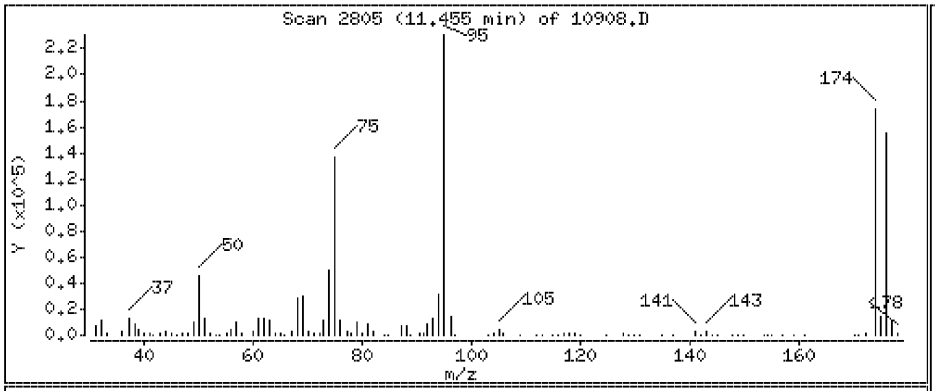
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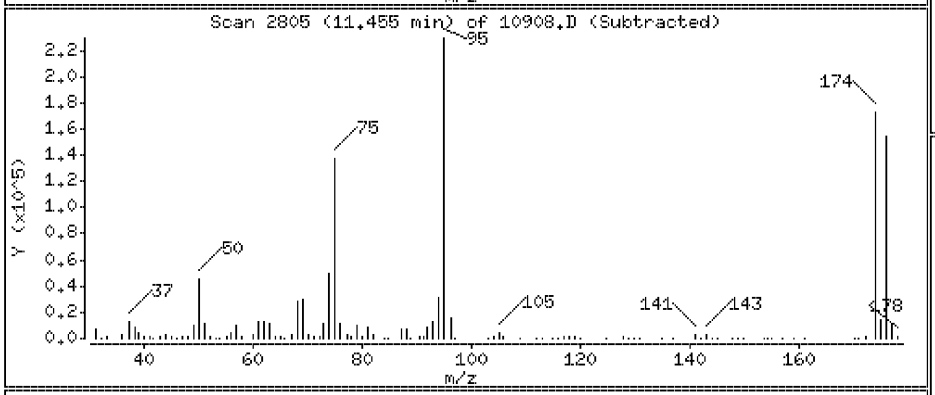
Column phase: J&W DB-5

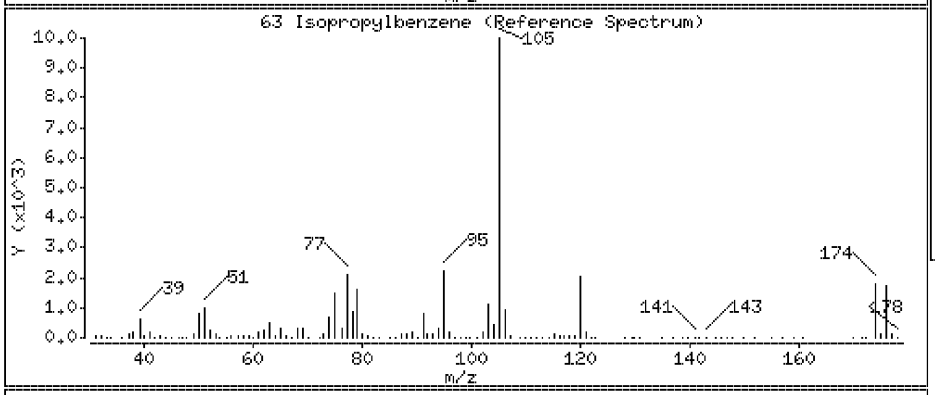
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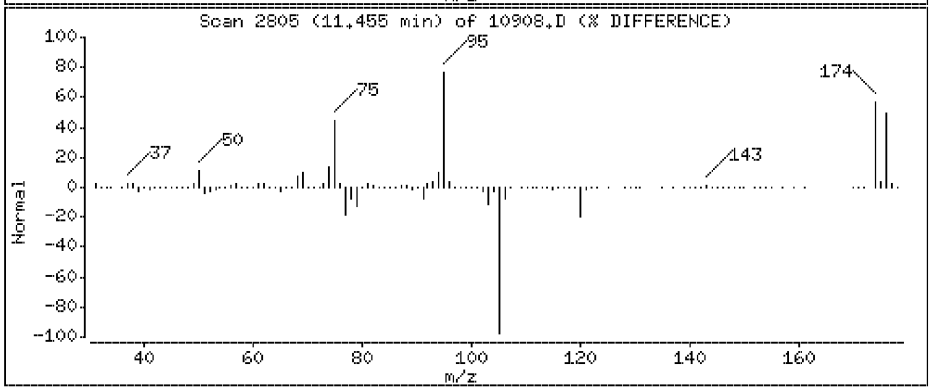
63 Isopropylbenzene

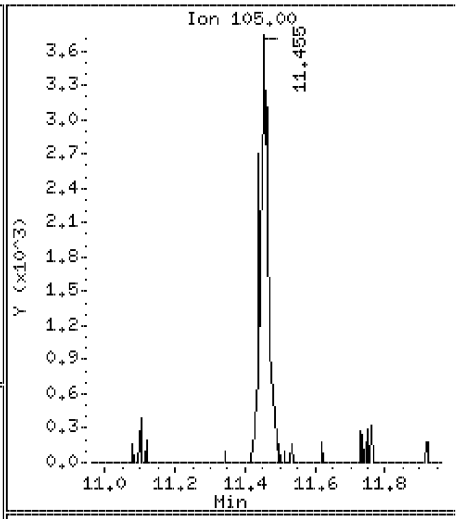
Concentration: 0.0562 ppbv

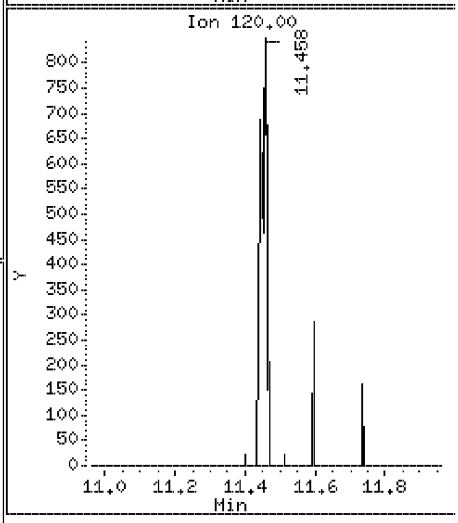












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Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

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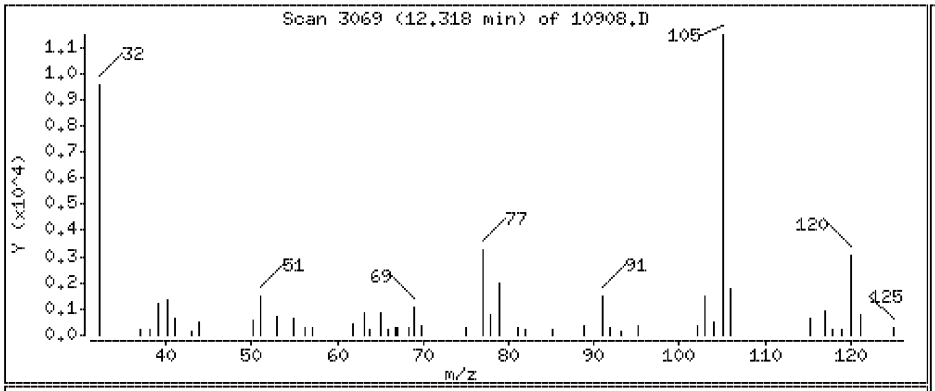
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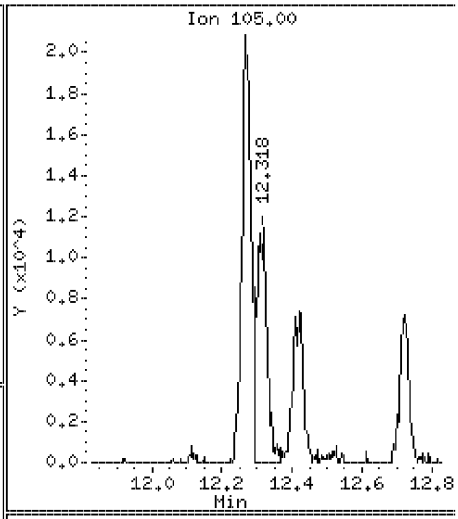
Column phase: J&W DB-5

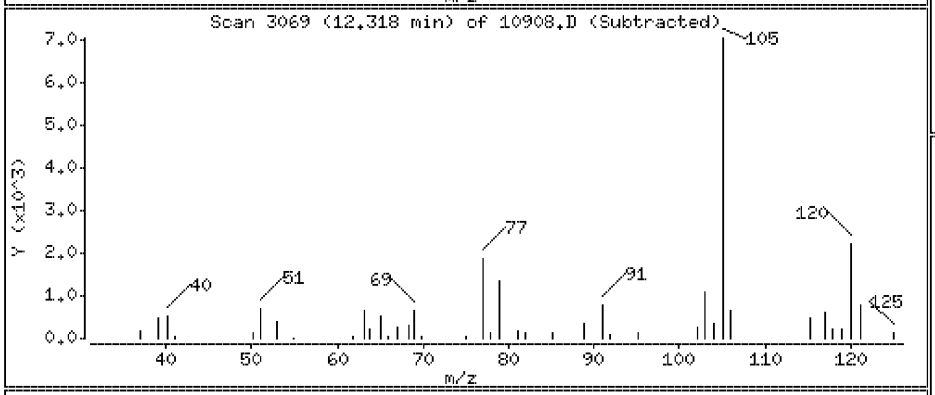
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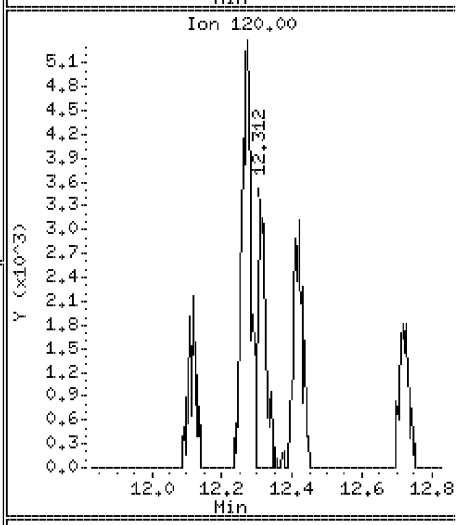
65 4-Ethyltoluene

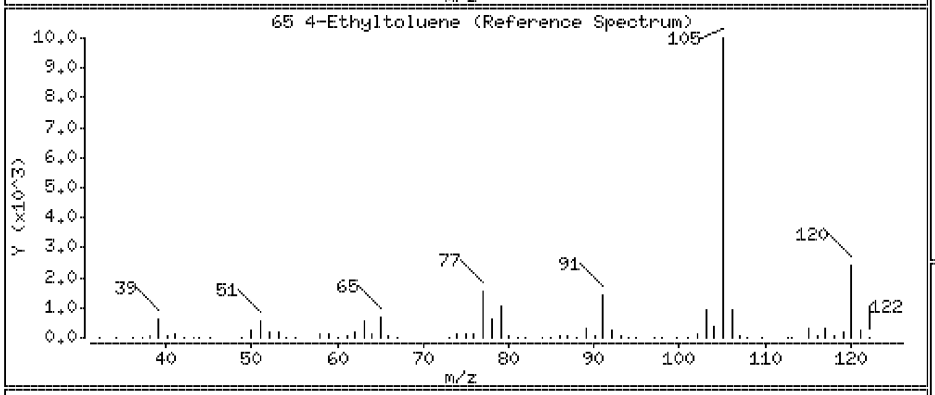
Concentration: 0.398 ppbv

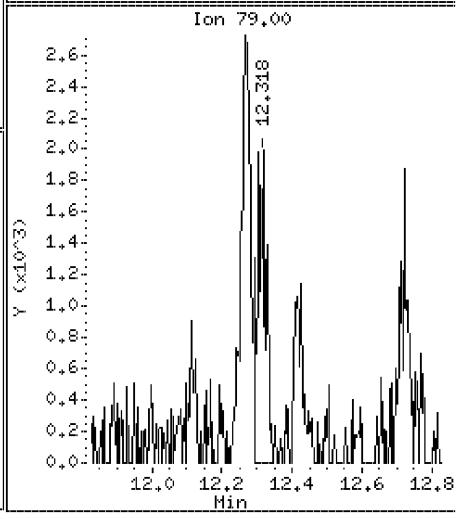


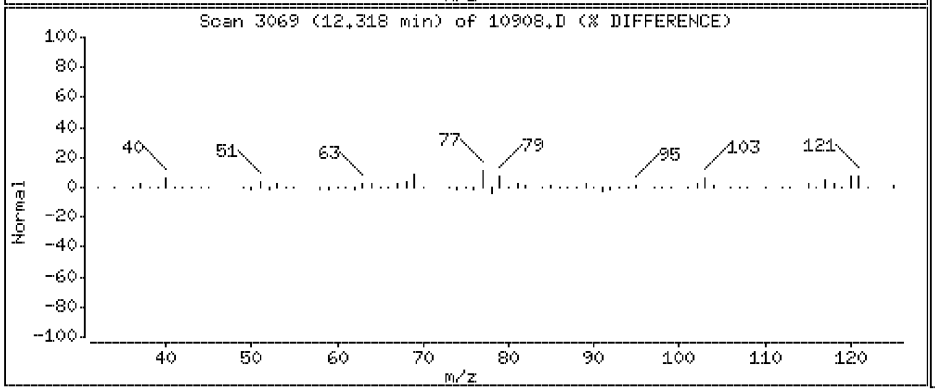












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Date : 19-APR-2013 17:18

Client ID:

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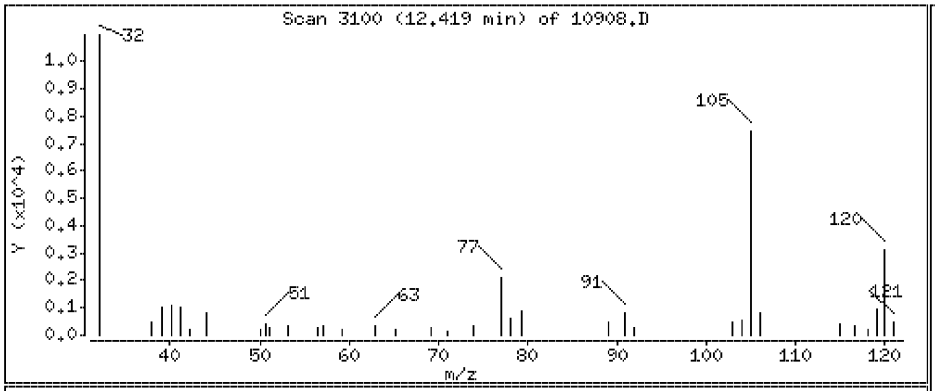
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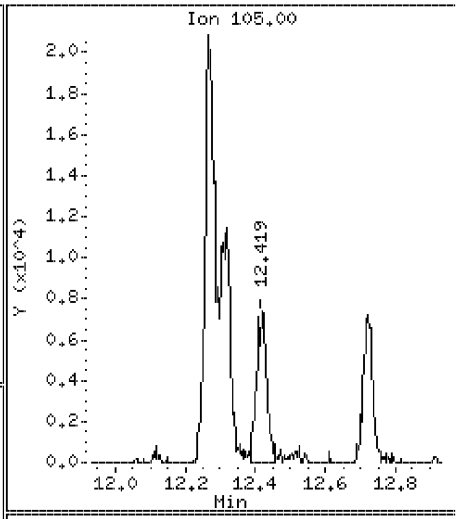
Column phase: J&W DB-5

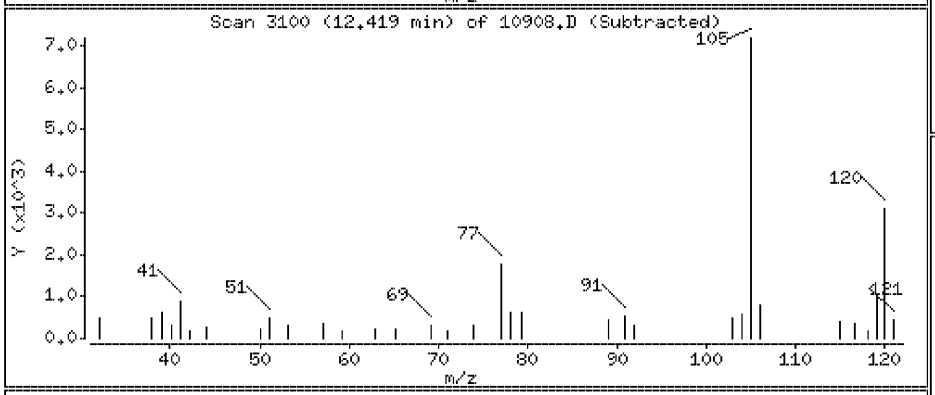
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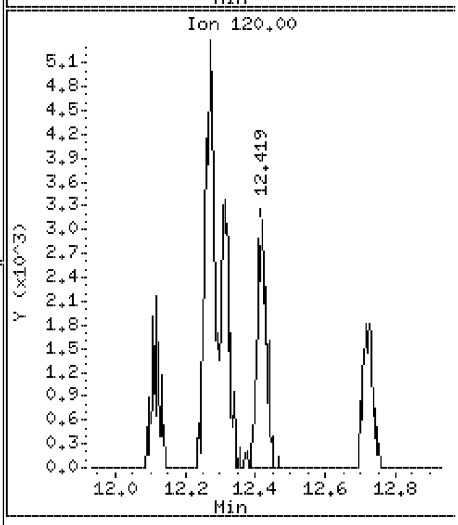
66 1,3,5-Trimethylbenzene

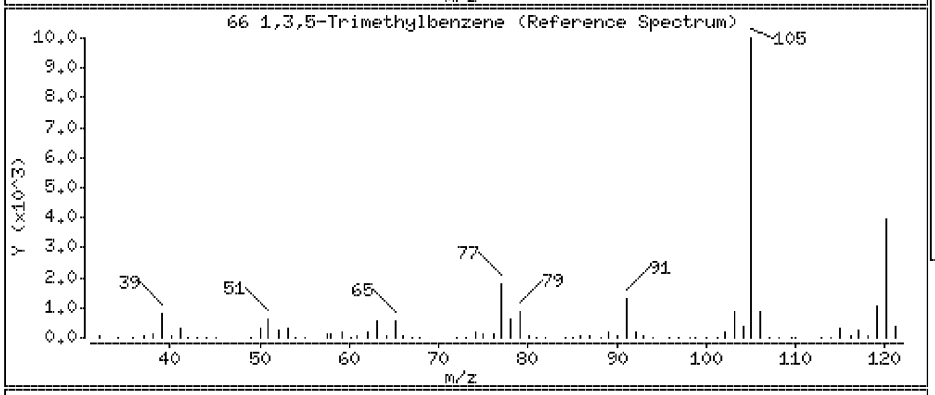
Concentration: 0.252 ppbv

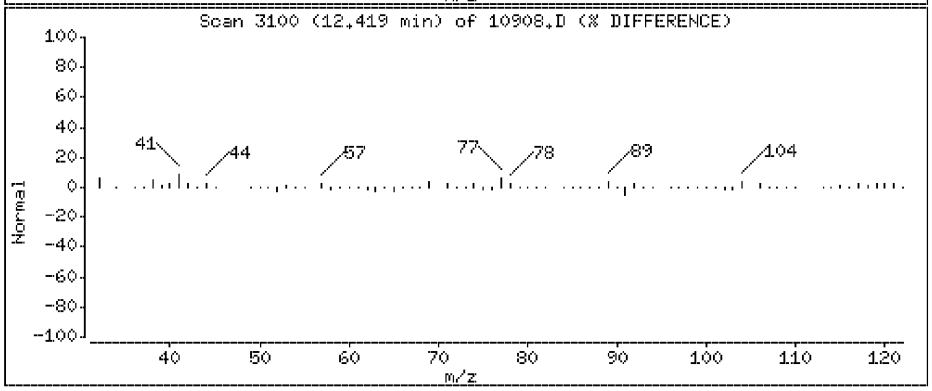












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Date : 19-APR-2013 17:18

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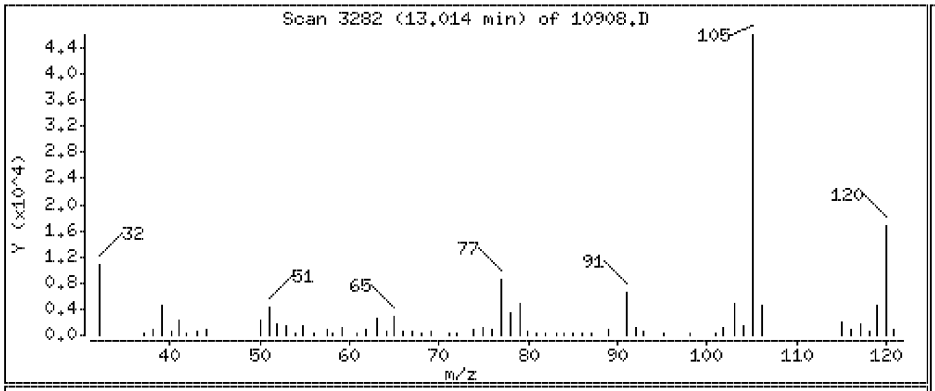
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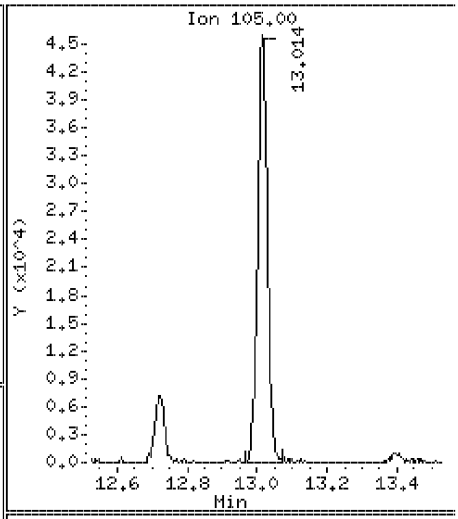
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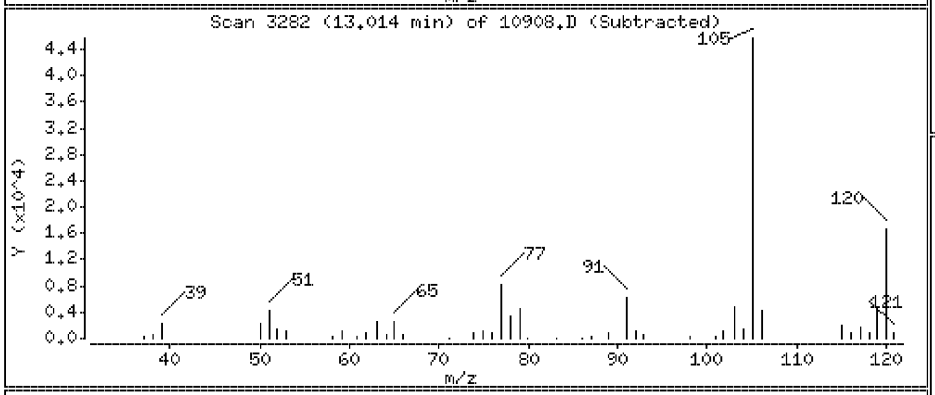
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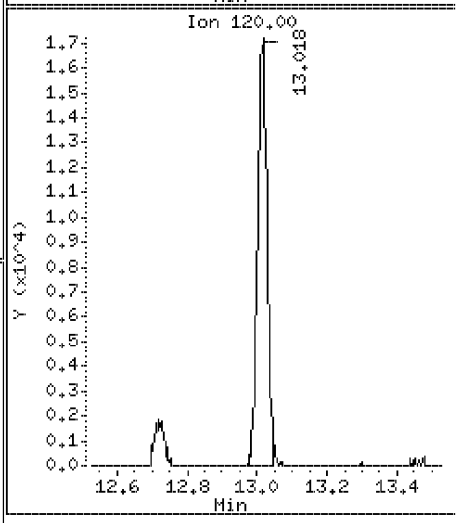
67 1,2,4-Trimethylbenzene

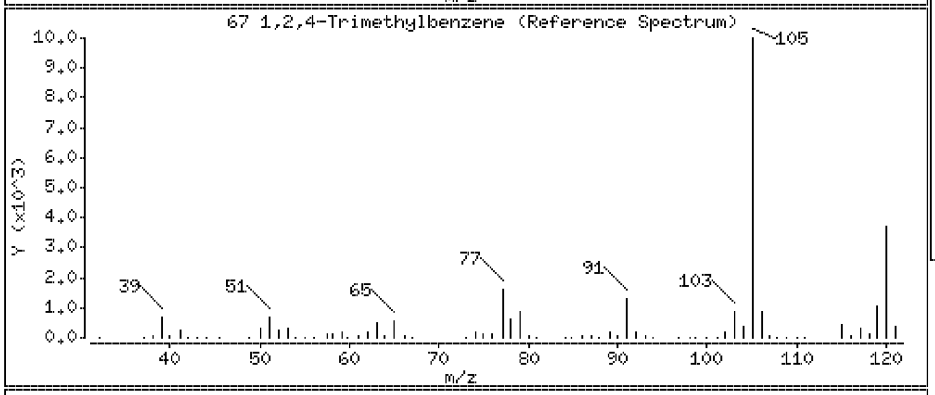
Concentration: 1.03 ppbv

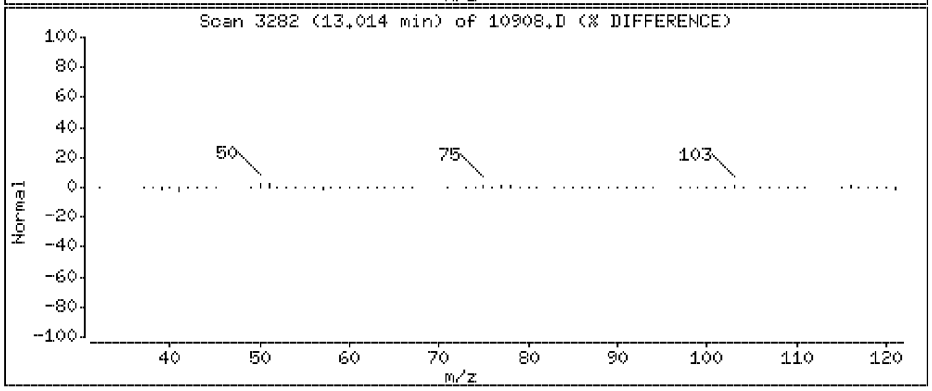












Data File: \\192.168.10.12\chem\10airD.i\041913.b\10908.D

Date : 19-APR-2013 17:18

Client ID:

Instrument: 10airD.i

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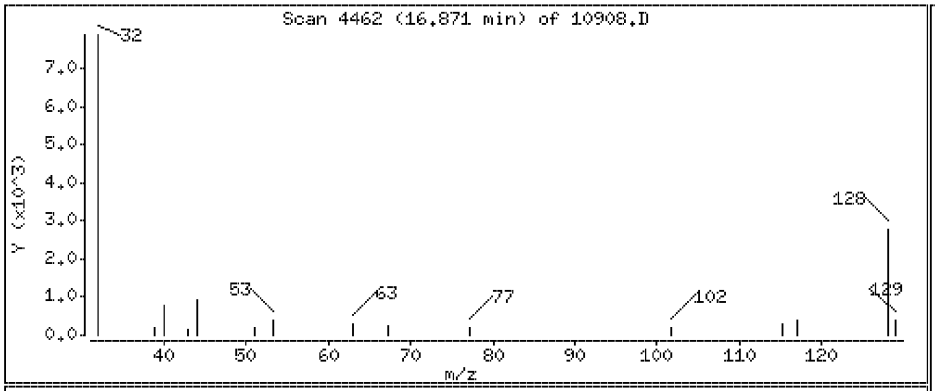
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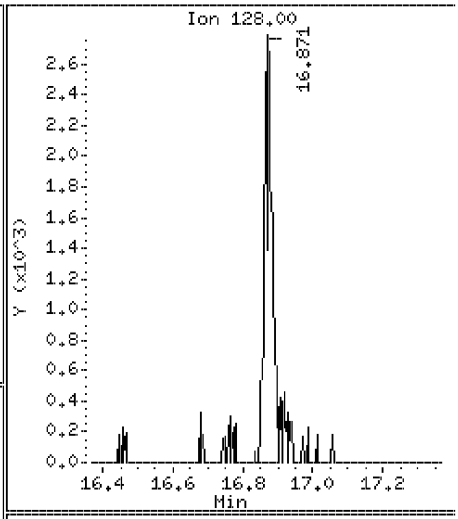
Column phase: J&W DB-5

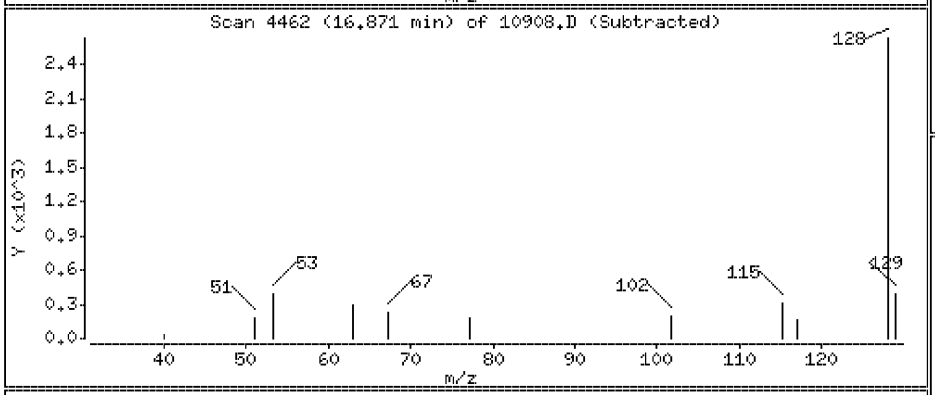
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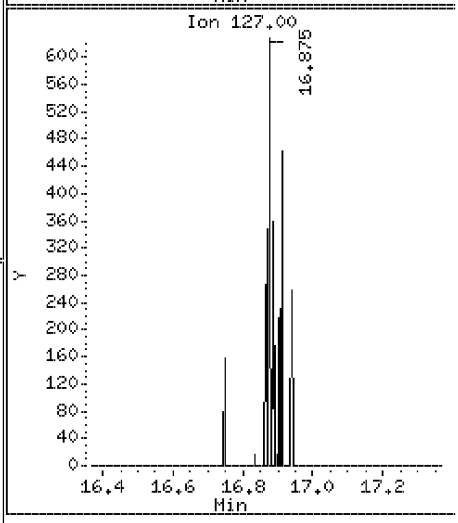
76 Naphthalene

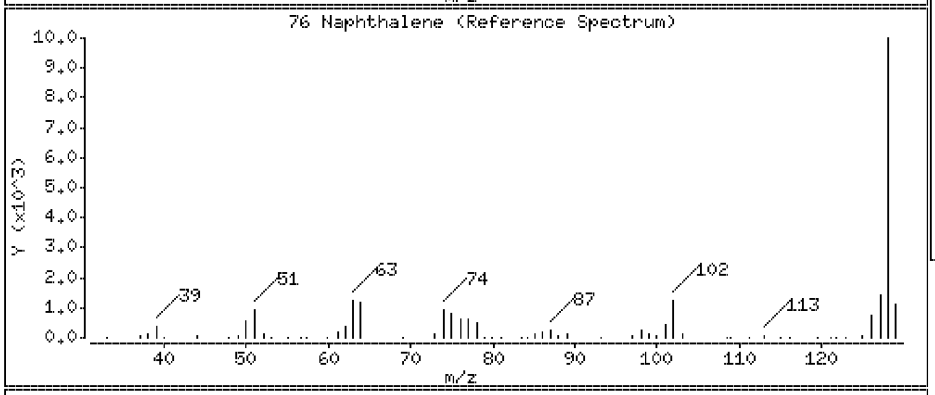
Concentration: 0.311 ppbv

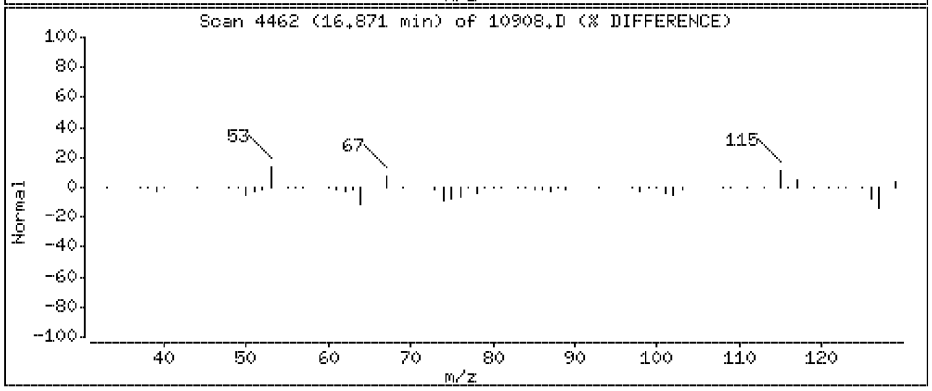






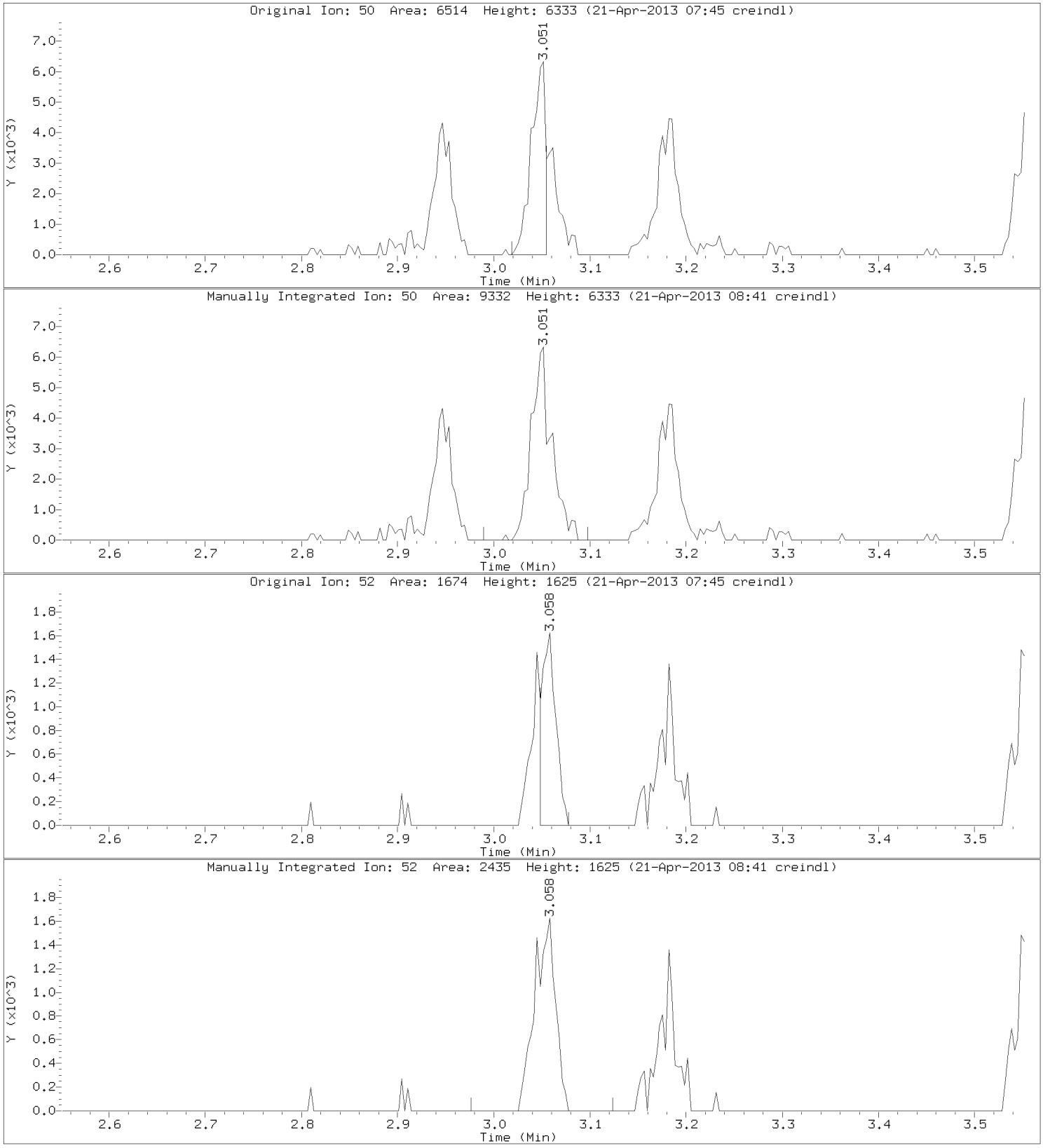






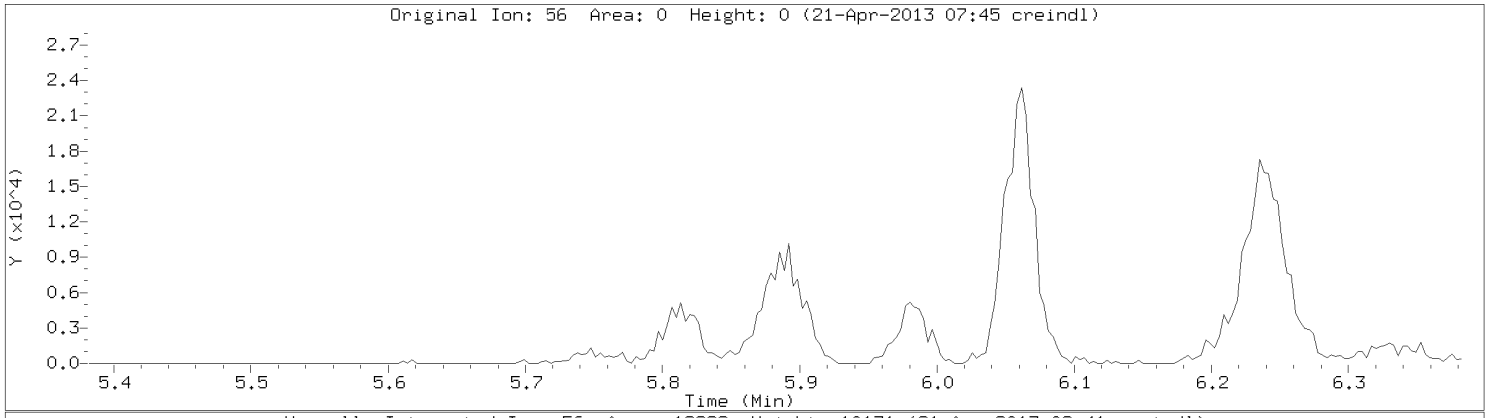
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Injection Date: 19-APR-2013 17:18
Instrument: 10airD.i
Lab Sample ID: 1413420

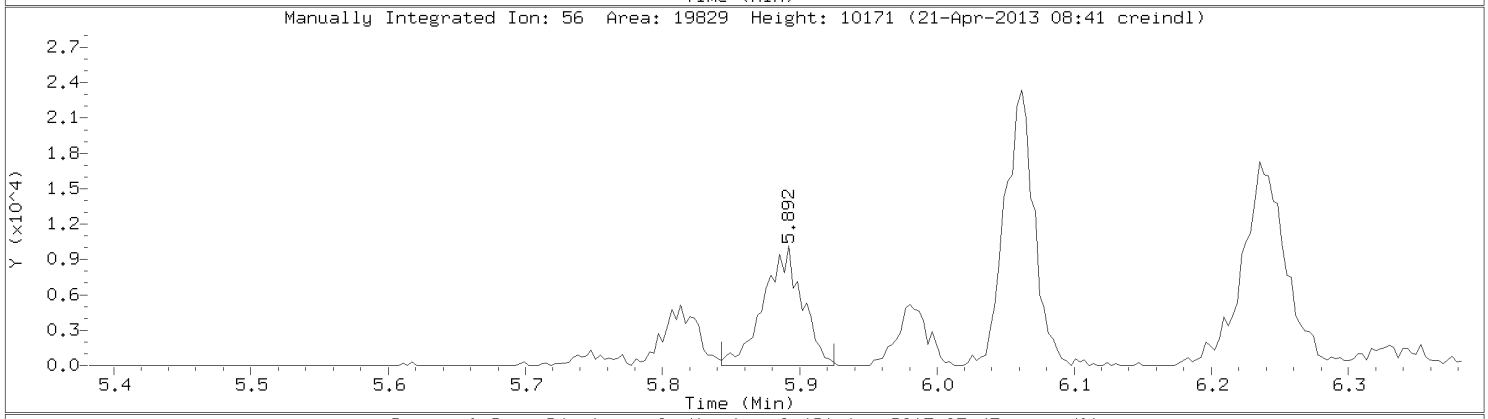
Compound: Chloromethane
CAS Number: 74-87-3

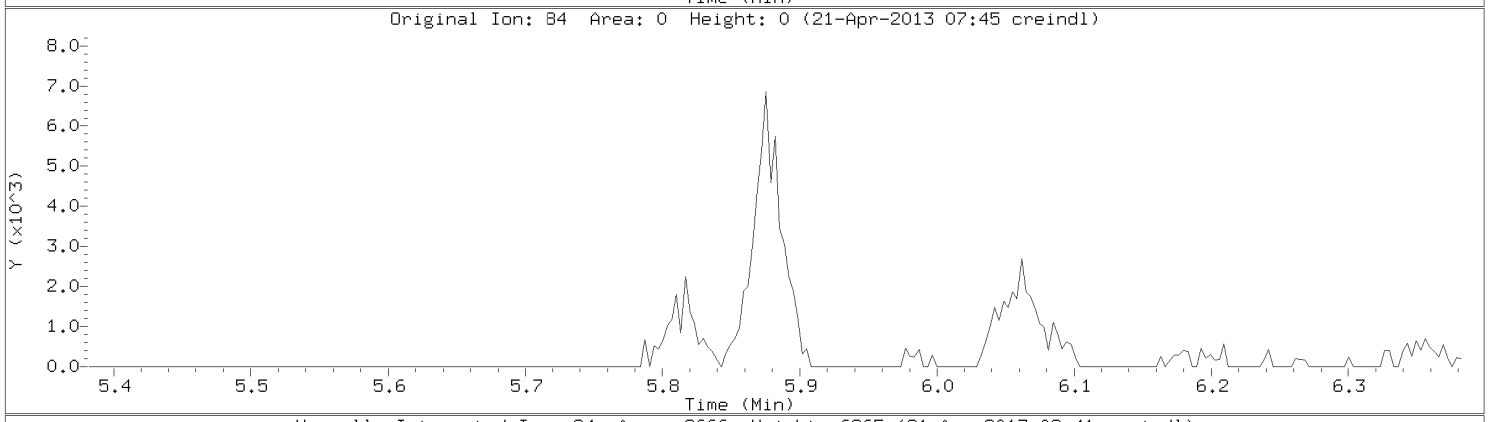


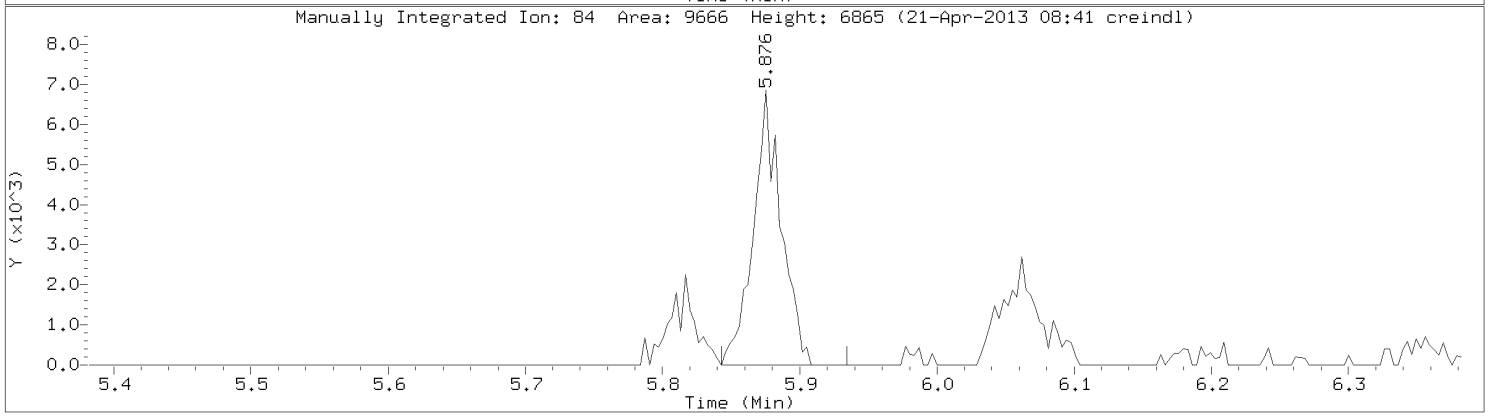
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Injection Date: 19-APR-2013 17:18
Instrument: 10airD.i
Lab Sample ID: 1413420

Compound: Cyclohexane
CAS Number: 110-82-7

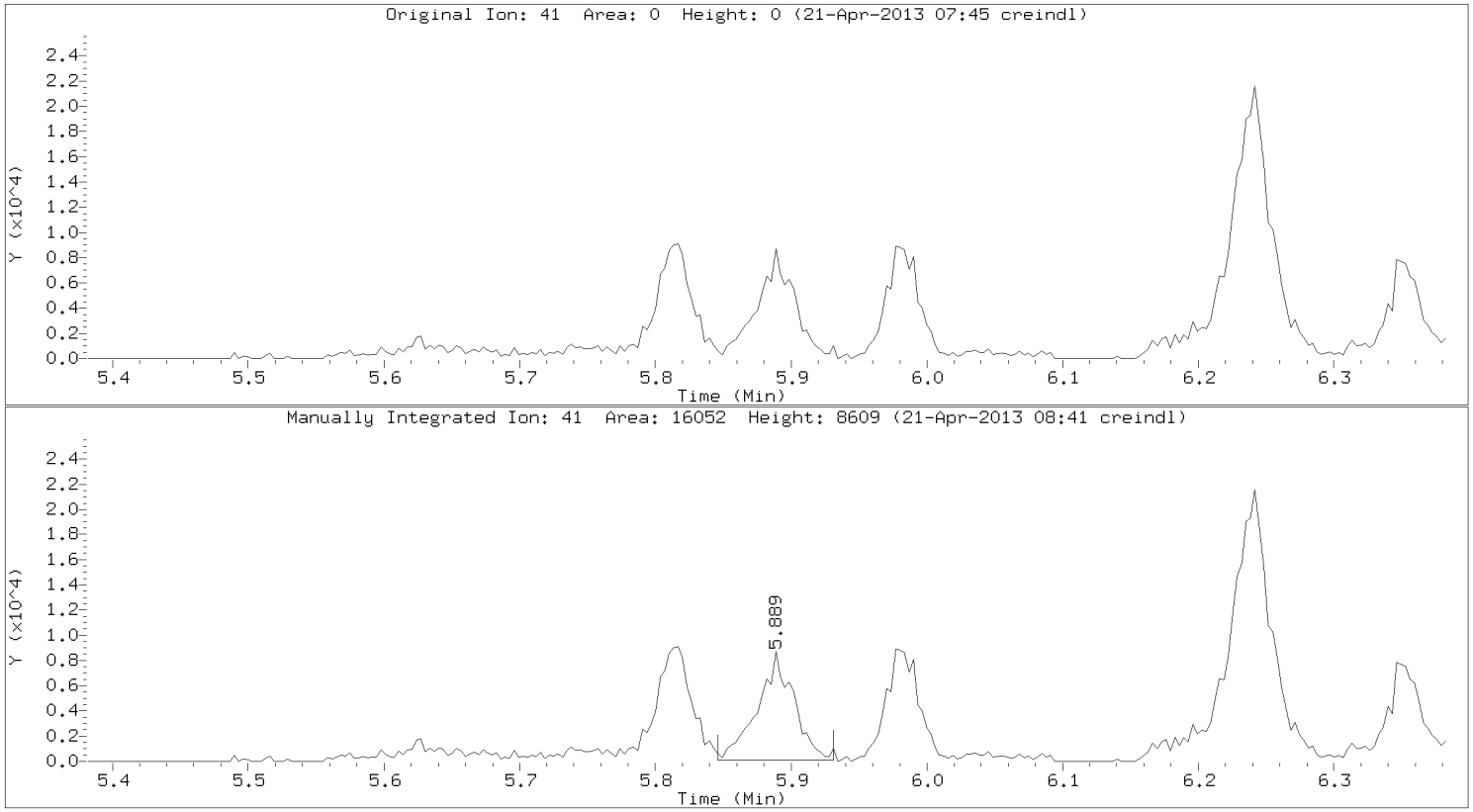






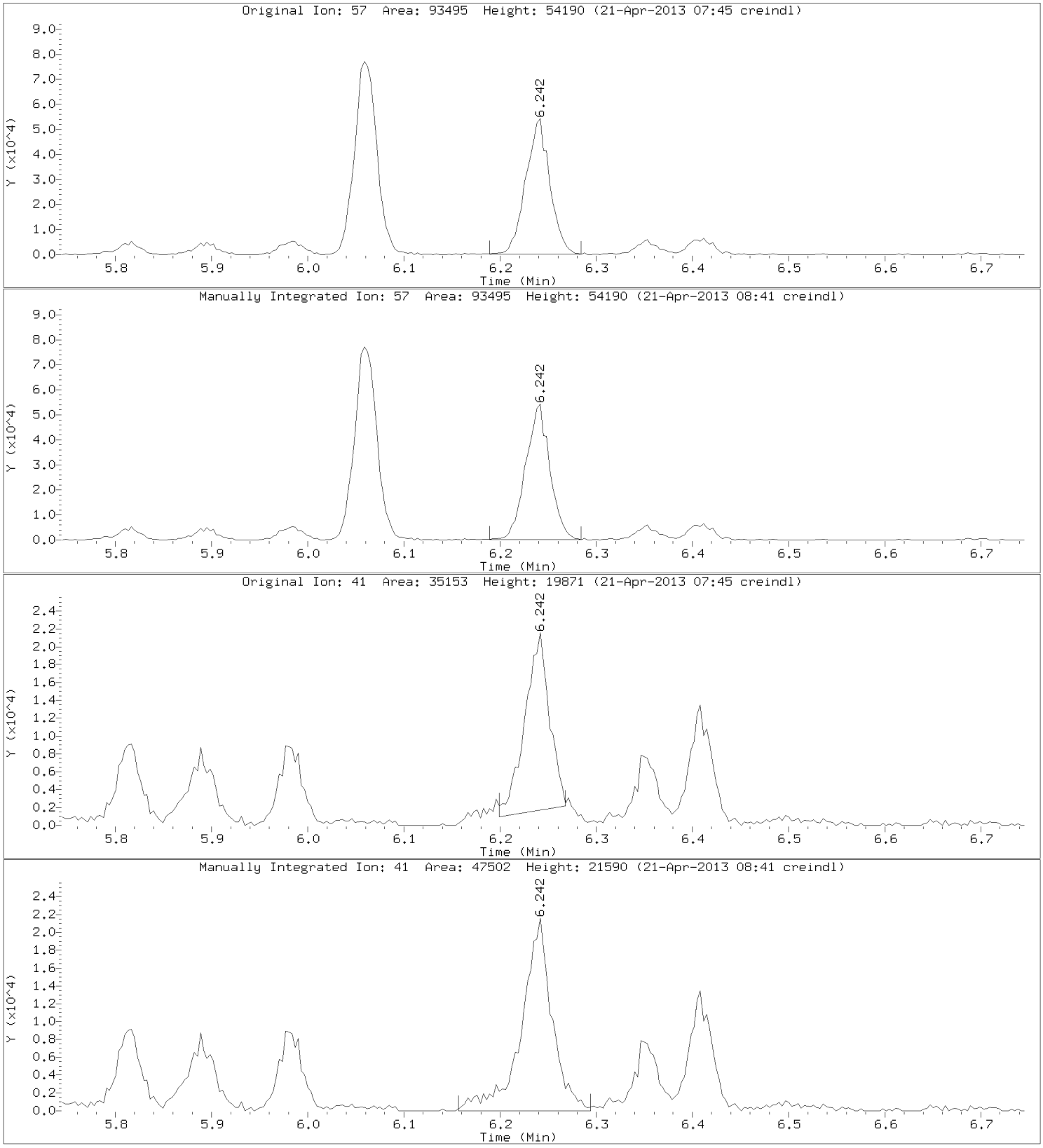


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Instrument: 10airD.i
Lab Sample ID: 1413420

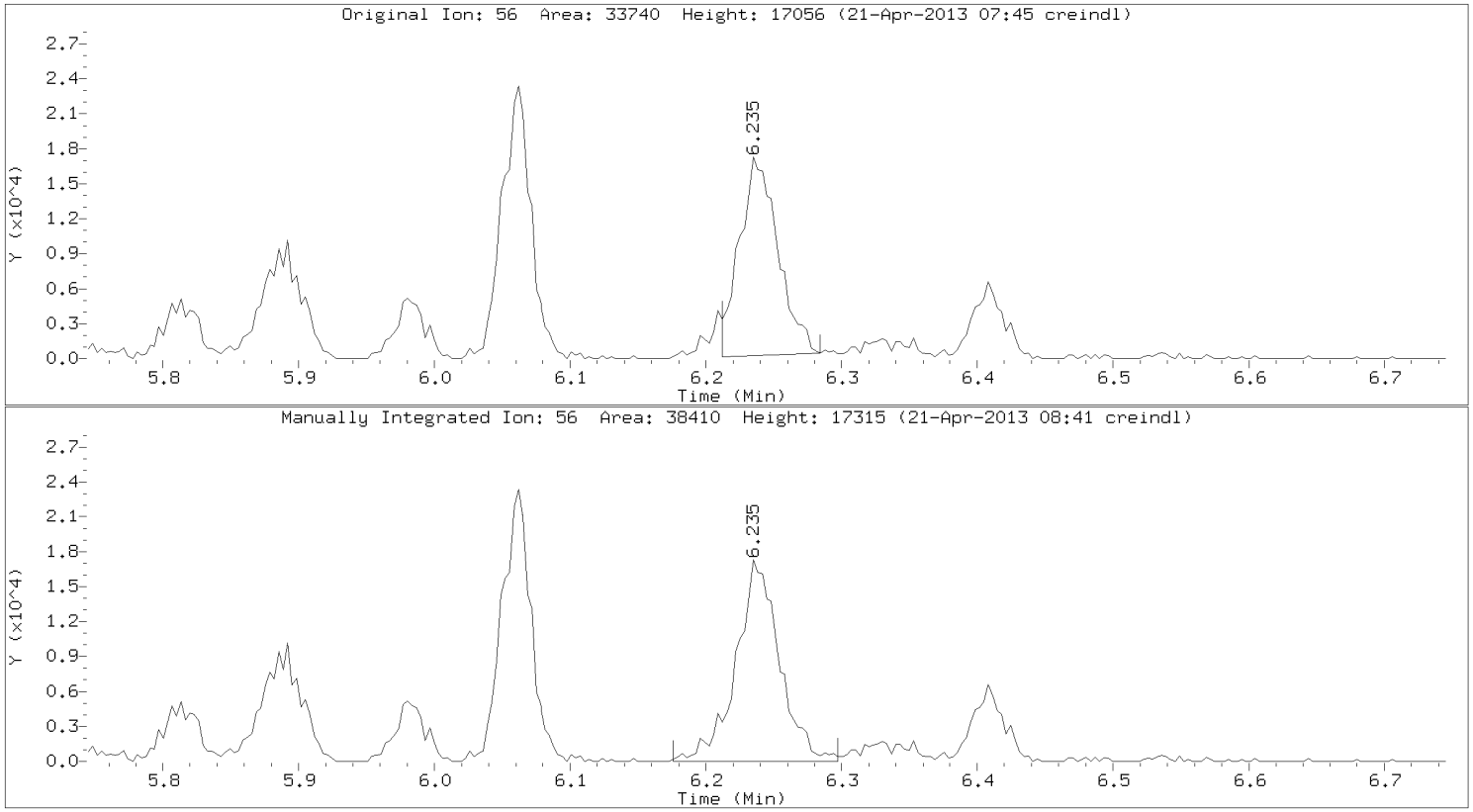


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Injection Date: 19-APR-2013 17:18
Instrument: 10airD.i
Lab Sample ID: 1413420

Compound: 2,2,4-Trimethylpentane
CAS Number: 540-84-1

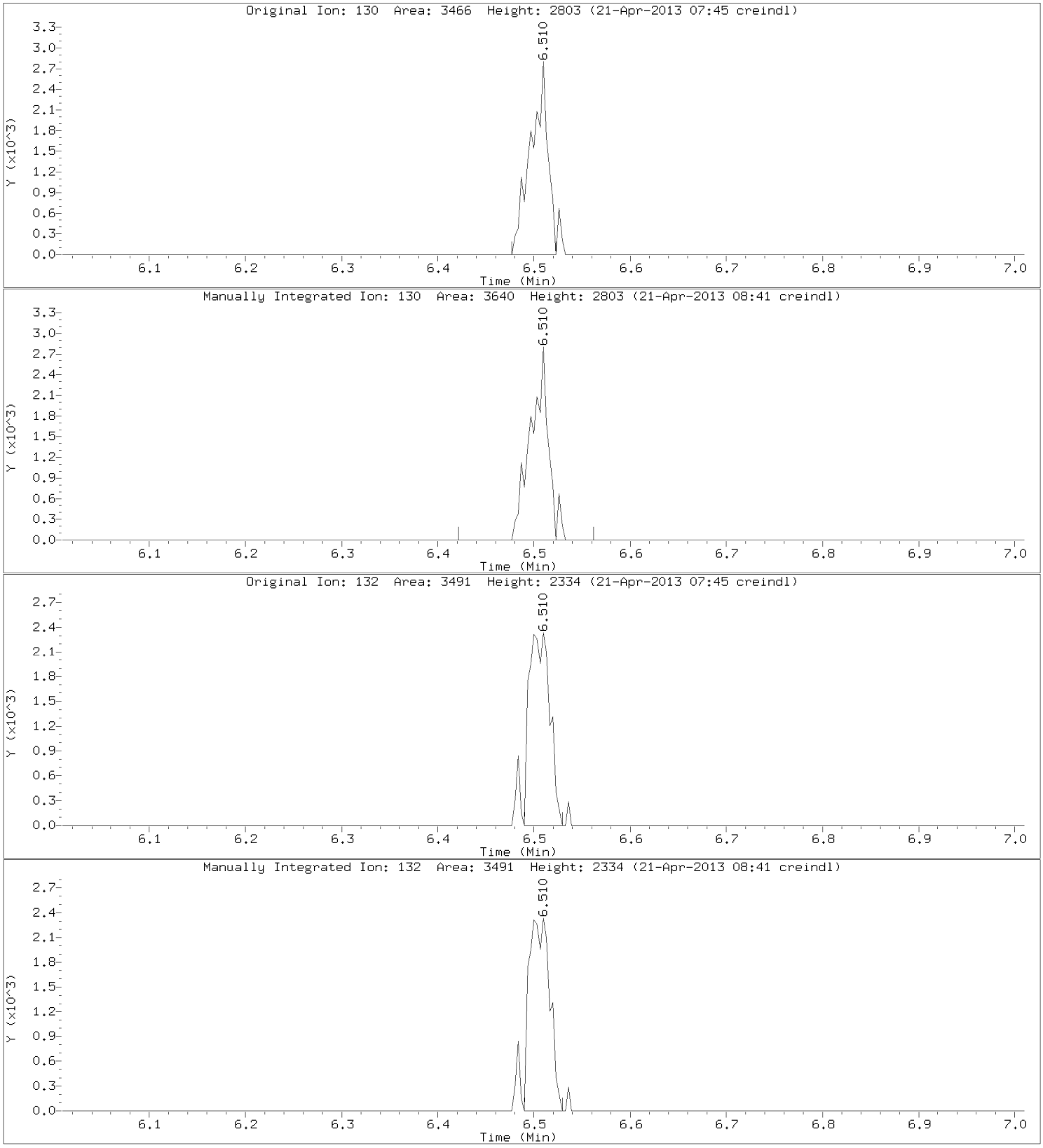


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Instrument: 10airD.i
Lab Sample ID: 1413420

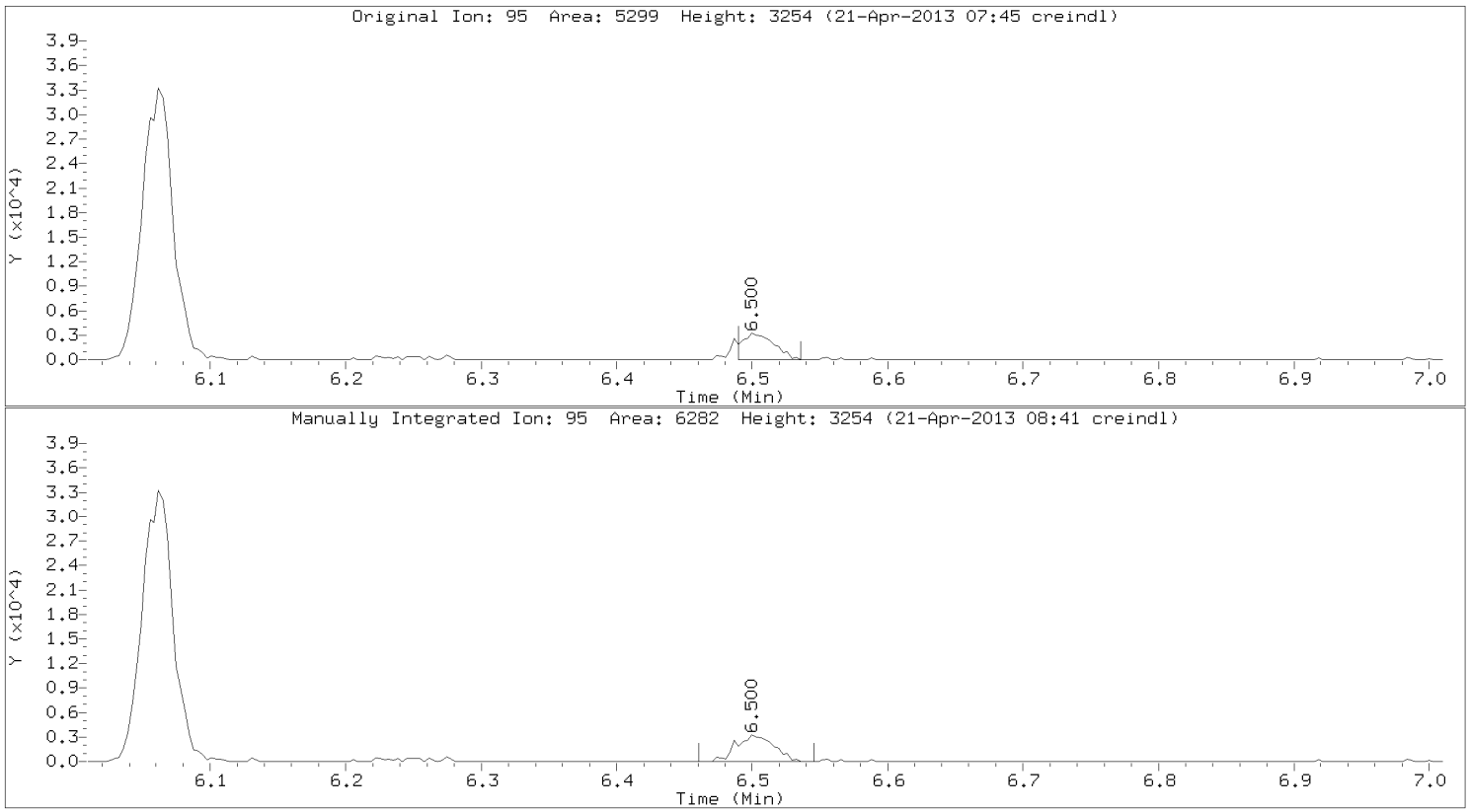


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Injection Date: 19-APR-2013 17:18
Instrument: 10airD.i
Lab Sample ID: 1413420

Compound: Trichloroethene
CAS Number: 79-01-6

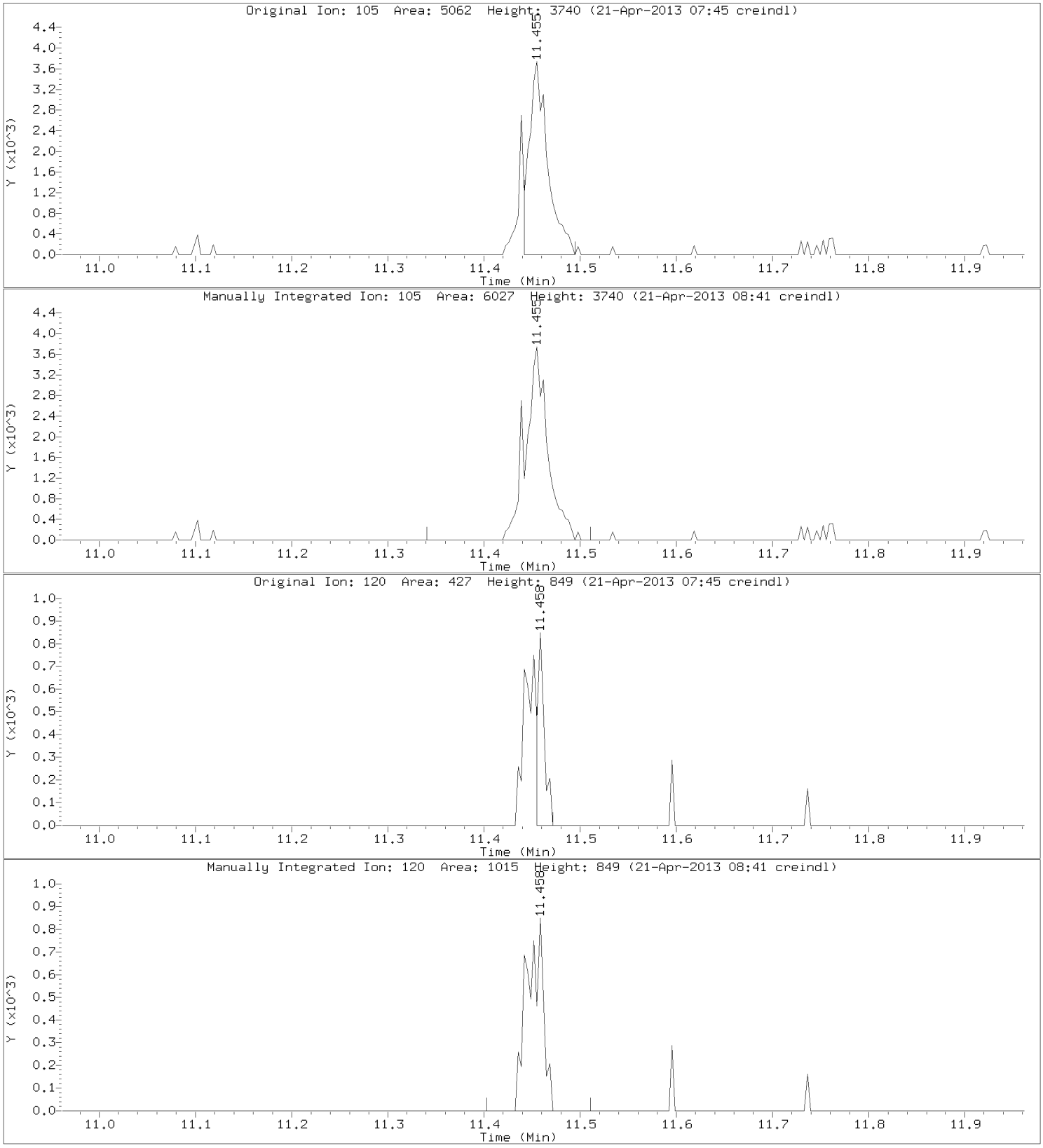


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Instrument: 10airD.i
Lab Sample ID: 1413420



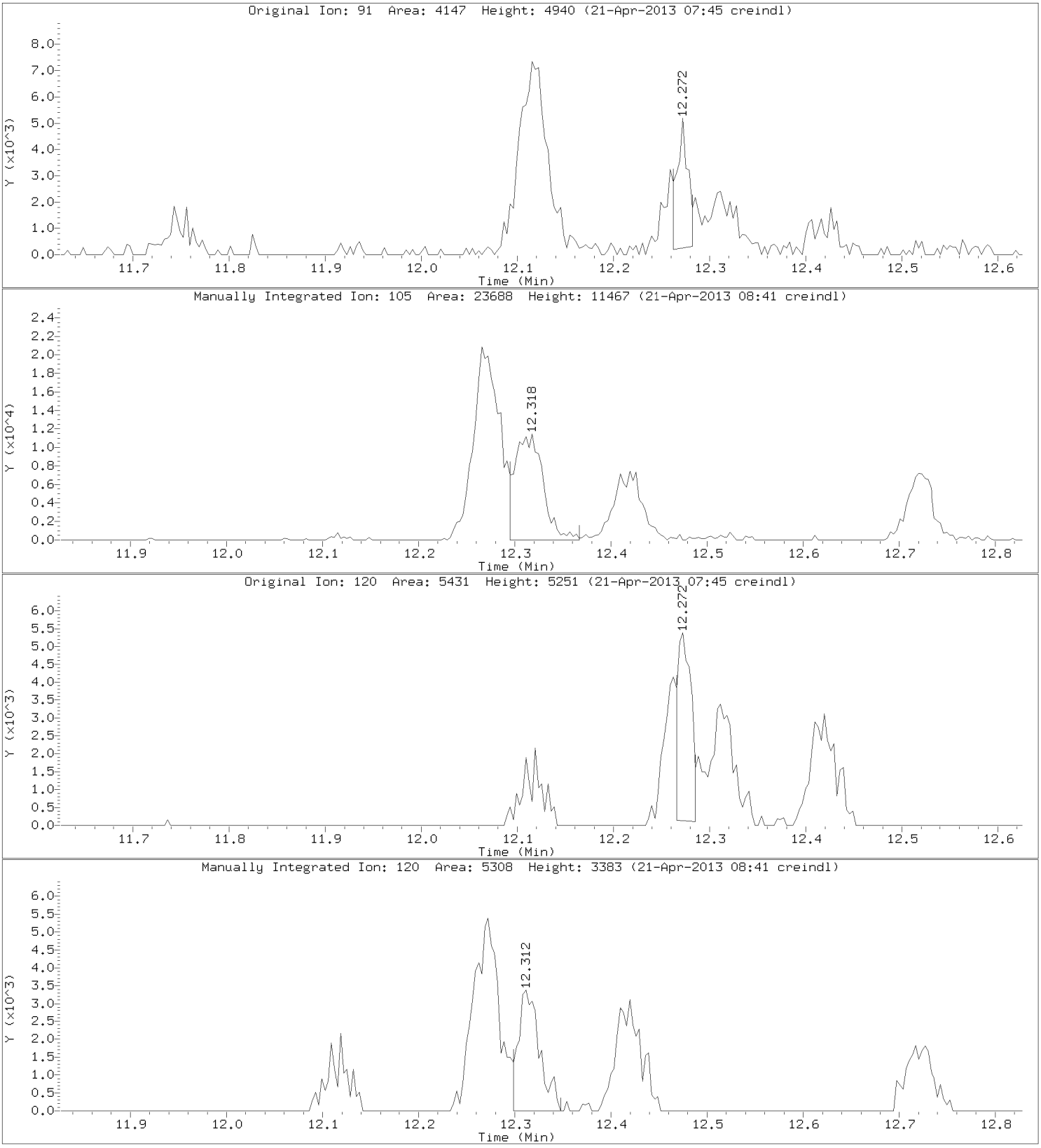
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Injection Date: 19-APR-2013 17:18
Instrument: 10airD.i
Lab Sample ID: 1413420

Compound: Isopropylbenzene
CAS Number:

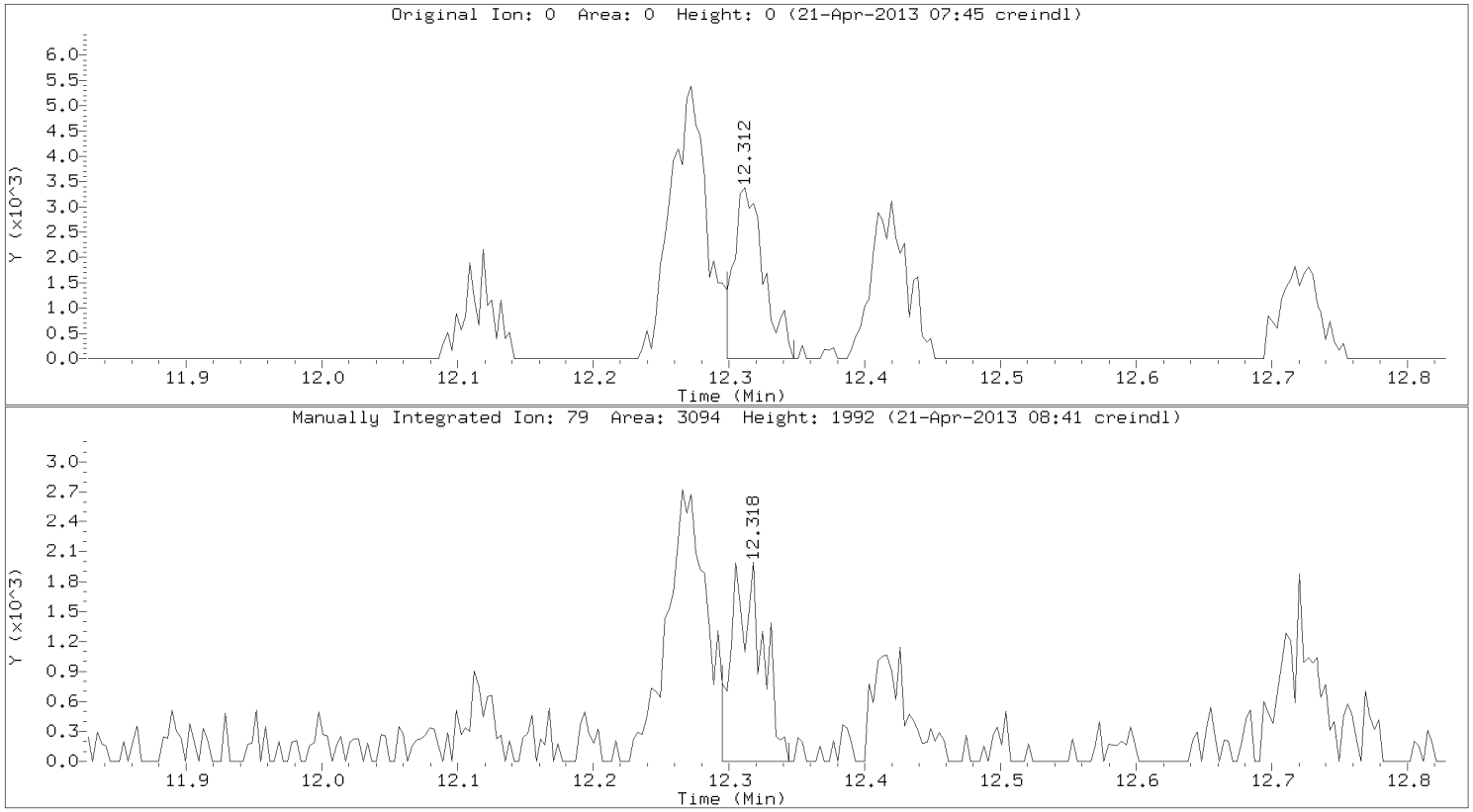


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Injection Date: 19-APR-2013 17:18
Instrument: 10airD.i
Lab Sample ID: 1413420

Compound: 4-Ethyltoluene
CAS Number: 622-96-8

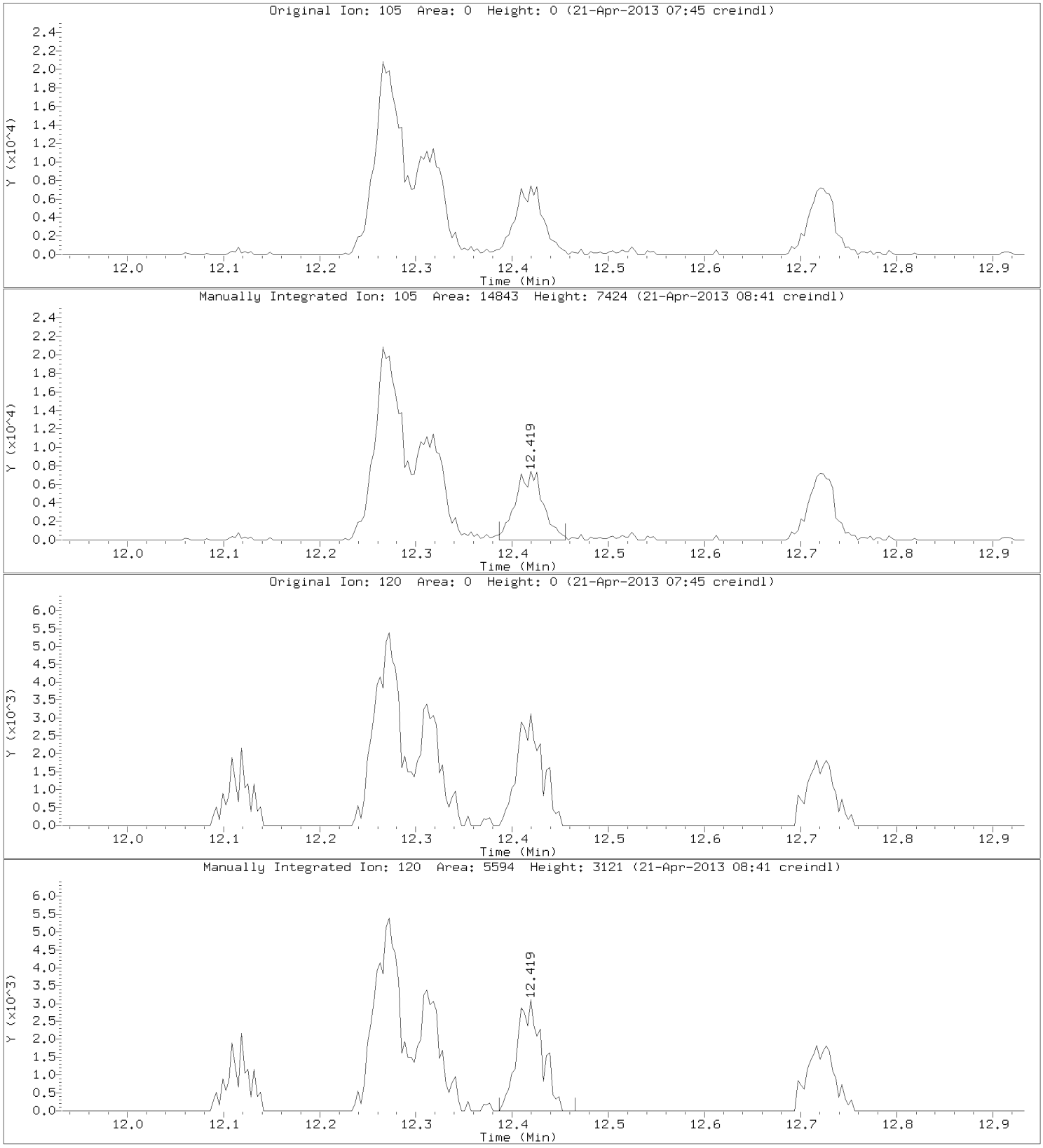


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Instrument: 10airD.i
Lab Sample ID: 1413420



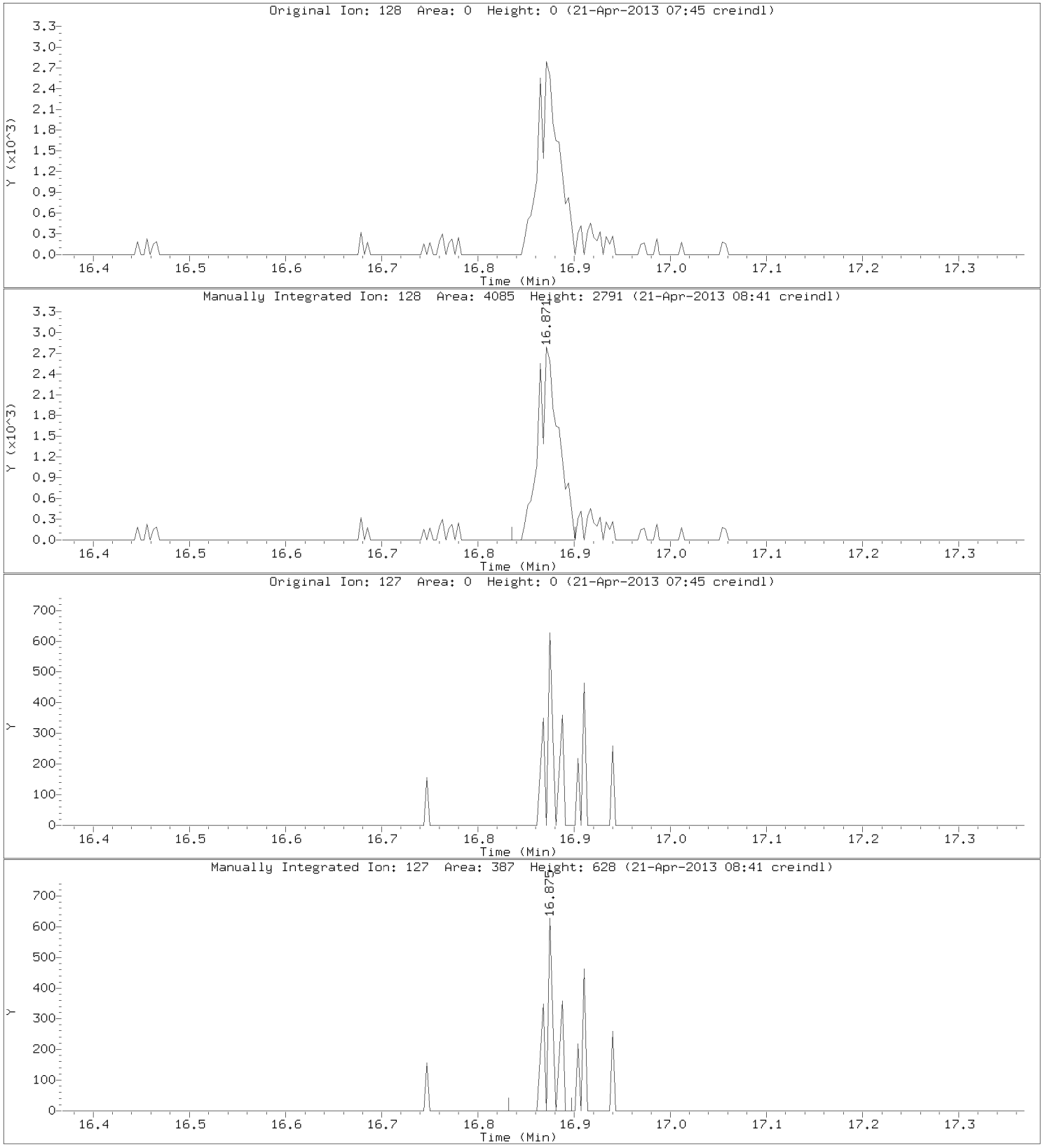
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Injection Date: 19-APR-2013 17:18
Instrument: 10airD.i
Lab Sample ID: 1413420

Compound: 1,3,5-Trimethylbenzene
CAS Number: 108-67-8



Data File: \\192.168.10.12\chem\10airD.i\041913.b/10908.d
Injection Date: 19-APR-2013 17:18
Instrument: 10airD.i
Lab Sample ID: 1413420

Compound: Naphthalene
CAS Number: 91-20-3



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5/2/2013
Mr. Keith Green
WSP Environmental Strategies LLC
11190 Sunrise Valley Dr.
Suite 300
Reston VA 20191

Project Name: Yakona Road
Project #: 4184/10
Workorder #: 1304135

Dear Mr. Keith Green

The following report includes the data for the above referenced project for sample(s) received on 4/5/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

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WORK ORDER #: 1304135

Work Order Summary

CLIENT:	Mr. Keith Green WSP Environment & Energy, LLC 11190 Sunrise Valley Dr. Suite 300 Reston, VA 20191	**BILL TO:**	Accounts Payable-NY WSP Environment & Energy, LLC 512 Seventh Ave New York, NY 10018
PHONE:	703-709-6500	**P.O. #**	4184/10
FAX:		**PROJECT #**	4184/10 Yakona Road
DATE RECEIVED:	04/05/2013	**CONTACT:**	Ausha Scott
DATE COMPLETED:	05/02/2013		

FRACTION #	NAME	TEST
01A	1644-A-040313	Modified TO-17 VI
02A	1644-B-040313	Modified TO-17 VI
03A	1646-A-040313	Modified TO-17 VI
04A	1646-B-040313	Modified TO-17 VI
05A	1644/46-BK-040313	Modified TO-17 VI
06A	1644/46-TRP-040313	Modified TO-17 VI
07A	1644-F-040413	Modified TO-17 VI
08A	1644-R-040413	Modified TO-17 VI
09A	1646-F-040413	Modified TO-17 VI
10A	1646-R-040413	Modified TO-17 VI
11A	Lab Blank	Modified TO-17 VI
11B	Lab Blank	Modified TO-17 VI
12A	CCV	Modified TO-17 VI
12B	CCV	Modified TO-17 VI
13A	LCS	Modified TO-17 VI
13AA	LCSD	Modified TO-17 VI
13B	LCS	Modified TO-17 VI
13BB	LCSD	Modified TO-17 VI

CERTIFIED BY: Heidi Hayes DATE: 05/02/13

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.
Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
WSP Environmental Strategies LLC
Workorder# 1304135

Ten TO-17 VI Tube samples were received on April 05, 2013. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for compound separation and detection.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

Requirement	***TO-17***	***ATL Modifications***
Initial Calibration	%RSD</=30% with 2 allowed out up to 40%	VOC list: %RSD</=30% with 2 allowed out up to 40% SVOC list: %RSD</=30% with 2 allowed out up to 40%
Daily Calibration	%D for each target compound within +/-30%.	Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within +/-40%D
Audit Accuracy	70-130%	Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%.
Distributed Volume Pairs	Collection of distributed volume pairs required for monitoring ambient air to insure high quality.	If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A sampling volume of 6.42 L was used to convert ng to ug/m3 for sample 1644/46-TRP-040313 and the associated Lab Blank.

The TPH pattern in samples 1644-A-040313, 1644-B-040313, 1646-A-040313, 1644-F-040413, 1644-R-040413, 1646-F-040413 and 1646-R-040413 did not resemble that of diesel fuel. The hydrocarbons were distributed in the lighter carbon range of diesel.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: 1644-A-040313

Lab ID#: 1304135-01A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1800	280

Client Sample ID: 1644-B-040313

Lab ID#: 1304135-02A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1100	170

Client Sample ID: 1646-A-040313

Lab ID#: 1304135-03A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1700	280

Client Sample ID: 1646-B-040313

Lab ID#: 1304135-04A

No Detections Were Found.

Client Sample ID: 1644/46-BK-040313

Lab ID#: 1304135-05A

No Detections Were Found.

Client Sample ID: 1644/46-TRP-040313

Lab ID#: 1304135-06A

No Detections Were Found.

Client Sample ID: 1644-F-040413

Lab ID#: 1304135-07A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	13000	2100

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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: 1644-R-040413

Lab ID#: 1304135-08A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	5100	860

Client Sample ID: 1646-F-040413

Lab ID#: 1304135-09A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	3100	520

Client Sample ID: 1646-R-040413

Lab ID#: 1304135-10A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	24000	3800

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Client Sample ID: 1644-A-040313

Lab ID#: 1304135-01A

EPA METHOD TO-17

File Name:	**6041207**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 2:28:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 06:35 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1800	280

Air Sample Volume(L): 6.39

Container Type: TO-17 VI Tube

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Client Sample ID: 1644-B-040313

Lab ID#: 1304135-02A

EPA METHOD TO-17

File Name:	**6041208**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 2:30:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 07:13 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1100	170

Air Sample Volume(L): 6.42

Container Type: TO-17 VI Tube

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Client Sample ID: 1646-A-040313

Lab ID#: 1304135-03A

EPA METHOD TO-17

File Name:	**6041209**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 12:48:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 07:50 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1700	280

Air Sample Volume(L): 6.14

Container Type: TO-17 VI Tube

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Client Sample ID: 1646-B-040313

Lab ID#: 1304135-04A

EPA METHOD TO-17

File Name:	**6041210**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 12:50:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 08:28 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	Not Detected	Not Detected

Air Sample Volume(L): 6.00

Container Type: TO-17 VI Tube

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Client Sample ID: 1644/46-BK-040313

Lab ID#: 1304135-05A

EPA METHOD TO-17

File Name:	**6041211**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 2:26:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 09:06 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	Not Detected	Not Detected

Air Sample Volume(L): 6.22
Container Type: TO-17 VI Tube

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Client Sample ID: 1644/46-TRP-040313

Lab ID#: 1304135-06A

EPA METHOD TO-17

File Name:	**6041206**	**Date of Extraction: NA**	**Date of Collection: 4/3/13**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 05:57 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	Not Detected	Not Detected

Air Sample Volume(L): 6.42

Container Type: TO-17 VI Tube

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Client Sample ID: 1644-F-040413

Lab ID#: 1304135-07A

EPA METHOD TO-17

File Name:	**6041608e**	**Date of Extraction: NA**	**Date of Collection: 4/4/13 12:55:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 02:03 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	13000	2100

Air Sample Volume(L): 6.30

Container Type: TO-17 VI Tube

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Client Sample ID: 1644-R-040413

Lab ID#: 1304135-08A

EPA METHOD TO-17

File Name:	**6041213**	**Date of Extraction: NA**	**Date of Collection: 4/4/13 1:39:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 10:22 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	5100	860

Air Sample Volume(L): 5.88

Container Type: TO-17 VI Tube

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Client Sample ID: 1646-F-040413

Lab ID#: 1304135-09A

EPA METHOD TO-17

File Name:	**6041214**	**Date of Extraction: NA**	**Date of Collection: 4/4/13 1:09:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 11:00 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	3100	520

Air Sample Volume(L): 6.00

Container Type: TO-17 VI Tube

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Client Sample ID: 1646-R-040413

Lab ID#: 1304135-10A

EPA METHOD TO-17

File Name:	**6041215**	**Date of Extraction: NA**	**Date of Collection: 4/4/13 1:58:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 11:38 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	24000	3800

Air Sample Volume(L): 6.30

Container Type: TO-17 VI Tube

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Client Sample ID: Lab Blank

Lab ID#: 1304135-11A

EPA METHOD TO-17

File Name:	**6041205**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 03:37 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	Not Detected	Not Detected

Air Sample Volume(L): 6.42

Container Type: NA - Not Applicable

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Client Sample ID: Lab Blank

Lab ID#: 1304135-11B

EPA METHOD TO-17

File Name:	**6041607**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 12:37 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	Not Detected	Not Detected

Air Sample Volume(L): 6.42

Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: CCV
Lab ID#: 1304135-12A
EPA METHOD TO-17

File Name:	**6041202**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 01:47 PM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	88

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: CCV
Lab ID#: 1304135-12B
EPA METHOD TO-17

File Name:	**6041603**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 10:13 AM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	108

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

eurofins | Air Toxics

Client Sample ID: LCS
Lab ID#: 1304135-13A
EPA METHOD TO-17

File Name:	**6041203**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 02:25 PM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	104

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

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Client Sample ID: LCSD
Lab ID#: 1304135-13AA
EPA METHOD TO-17

File Name:	**6041204**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 03:01 PM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	123

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

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Client Sample ID: LCS
Lab ID#: 1304135-13B
EPA METHOD TO-17

File Name:	**6041605**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 11:26 AM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	108

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

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Client Sample ID: LCSD
Lab ID#: 1304135-13BB
EPA METHOD TO-17

File Name:	**6041606**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 12:01 PM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	109

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

TO-17 SAMPLE COLLECTION

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630
(916) 985-1000 FAX (916) 985-1020

Project Manager: CRAIG RAMICH
Collected by: (Print and Sign) CRAIG RAMICH
Company: WSP Email: craig.ramich@wspgroup.com
Address: 11190 SUNRISE VALLEY DR. #300 City: RESTON State: VA Zip: 20191
Phone: 703-709-6500 Fax: 703-709-8500

Project Info:
P.O. #: 4184/10
Project #: 4184/10
Project Name: YAKONA ROAD

Turn Around Time: ☑ Normal ☐ Rush (specify)

Reporting Units: ☐ ppmv ☐ ppbv ☑ µg/m3 ☐ mg/m3

Lab I.D.	Field Sample I.D. (Location)	Tube #	Date of Collection (mm/dd/yy)	Start Time (hr : min)	End Time (hr : min)	Pre-Test Flow Rate	Post-Test Flow Rate	Volume (L)	Indoor/Outdoor % RH	Indoor/Outdoor Temp	Indoor Air	Outdoor Air	Soil Vapor	Other ( )
01A	1644-A-040313	G0143570	04/03/13	13:28	14:28	0.107	0.107	6.390	26.5	13.9	☒	☐	☐	☐
02A	1644-B-040313	G0147082	04/03/13	13:29	14:30	0.106	0.105	6.420	28.5	13.3	☒	☐	☐	☐
03A	1646-A-040313	G0147378	04/03/13	11:48	12:48	0.101	0.102	6.135	29.2	17.6	☒	☐	☐	☐
04A	1646-B-040313	G0146144	04/03/13	11:50	12:50	0.102	0.098	6.000	28.5	17.0	☒	☐	☐	☐
05A	1644/46-BK-040313	G0143752	04/03/13	13:23	14:26	0.098	0.099	6.218	26.7	13.2	☐	☒	☐	☐
06A	1644/46-TRP-040313	G0147209	04/03/13	—	—	—	—	—	—	—	☐	☐	☐	☒
07A	1644-F-040413	G0132093	04/04/13	~~11:44~~ 11:55	12:55	0.106	0.105	6.300	42.0	5.0	☐	☐	☒	☐
08A	1644-R-040413	G0139979	04/04/13	12:38	13:39	0.098	0.098	5.880	34.0	7.0	☐	☐	☒	☐
09A	1646-F-040413	G0147043	04/04/13	12:09	13:09	0.100	0.100	6.000	42.0	5.0	☐	☐	☒	☐
10A	1646-R-040413	G0137191	04/04/13	12:58	13:58	0.106	0.105	6.300	34.0	7.0	☐	☐	☒	☐

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	04/04/13 6:15PM	Kathi Beck / ATL	04/05/13 07:45

Notes: Seal # 02043

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		0.8°C		Yes No None	1304135

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Certificate of Analysis
EMLAP# 102977

WSP Environment & Energy
11190 Sunrise Valley Dr Suite 300
Reston, VA 20191
Attn: Keith Green
Project : 4184-10
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 04/03/2013
Date Received: 04/03/2013
Date Analyzed: 04/05/2013
Date Reported: 04/09/2013
Project ID: 13004238

Client Sample Number: **1644-A** Lab Sample Number: **13004238-001**
Sample Location: **1644 Yakona Rd - Living Room**
Test Requested: **1005 Air, Total BACTERIAL Count w/IDs: SOP 2.2**
Positive Hole Corrected Total Count: **316 cfu/m³**
Positive Hole: **400**
Air Volume: **145 (L)**
MRL: **7**

Organism(s) Isolated:	Raw Count	count/m³	% Total	Possible Reservoirs
Bacillus species	36	248	84	Environment
Streptomyces species	7	48	16	Environment
	43	296	~100%	

Client Sample Number: **1644-A** Lab Sample Number: **13004238-001**
Sample Location: **1644 Yakona Rd - Living Room**
Test Requested: **1038 Air, Stachybotrys Culture & Total FUNGAL Count w/IDs**
Positive Hole Corrected Total Count: **165 cfu/m³**
Positive Hole: **400**
Air Volume: **145 (L)**

Organism(s) Isolated:	Raw Count	count/m³	% Total	MRL
Aspergillus niger	1	7	4	7
Aspergillus ochraceus	2	14	9	7
Aspergillus species	4	28	18	7
Chaetomium species	2	14	9	7
Cladosporium species	4	28	18	7
Mucor species	1	7	4	7
Penicillium species	9	62	39	7
	23	160	~100%	

Comments: **No Stachybotrys seen.**

Client Sample Number: **1644-B** Lab Sample Number: **13004238-002**
Sample Location: **1644 Yakona Rd - Basement**
Test Requested: **1005 Air, Total BACTERIAL Count w/IDs: SOP 2.2**
Positive Hole Corrected Total Count: **11913 cfu/m³**
Positive Hole: **400**
Air Volume: **145 (L)**
MRL: **7**

Organism(s) Isolated:	Raw Count	count/m³	% Total	Possible Reservoirs
Bacillus species	400	2759	100	Environment
	400	2759	~100%	

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Attn: Keith Green
Project : 4184-10

Date Collected: 04/03/2013
Date Received: 04/03/2013
Date Analyzed: 04/05/2013
Date Reported: 04/09/2013
Project ID: 13004238

Condition of Sample(s) Upon Receipt: Acceptable

Client Sample Number: **1644-B**
Lab Sample Number: **13004238-002**
Sample Location: **1644 Yakona Rd - Basement**
Test Requested: **1038 Air, Stachybotrys Culture & Total FUNGAL Count w/IDs**
Positive Hole Corrected Total Count: **418 cfu/m³**
Positive Hole: **400**
Air Volume: **145 (L)**

Organism(s) Isolated:	Raw Count	count/m³	% Total	MRL
Aspergillus niger	2	14	4	7
Chaetomium species	16	110	28	7
Cladosporium species	11	76	20	7
Humicola species	10	69	18	7
Mucor species	1	7	2	7
Papulaspora species	15	103	27	7
Trichoderma species	1	7	2	7
	56	386	~100%	

Comments: **No Stachybotrys seen. Unable to completely characterize sample due to overgrowth of mucoraceous organism.**

Client Sample Number: **1646-A**
Lab Sample Number: **13004238-003**
Sample Location: **1646 Yakona Rd - Living Rm**
Test Requested: **1005 Air, Total BACTERIAL Count w/IDs: SOP 2.2**
Positive Hole Corrected Total Count: **85 cfu/m³**
Positive Hole: **400**
Air Volume: **145 (L)**
MRL: **7**

Organism(s) Isolated:	Raw Count	count/m³	% Total	Possible Reservoirs
Bacillus species	8	55	66	Environment
Coag-negative Staphylococcus species	2	14	17	Human
Streptomyces species	2	14	17	Environment
	12	83	~100%	

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Reston, VA 20191
Attn: Keith Green
Project : 4184-10
Condition of Sample(s) Upon Receipt: Acceptable

Date Collected: 04/03/2013
Date Received: 04/03/2013
Date Analyzed: 04/05/2013
Date Reported: 04/09/2013
Project ID: 13004238

Client Sample Number: **1646-A** Lab Sample Number: **13004238-003**
Sample Location: **1646 Yakona Rd - Living Rm**
Test Requested: **1038 Air, Stachybotrys Culture & Total FUNGAL Count w/IDs**
Positive Hole Corrected Total Count: **187 cfu/m³**
Positive Hole: **400**
Air Volume: **145 (L)**

Organism(s) Isolated:	Raw Count	count/m³	% Total	MRL
Aspergillus versicolor	1	7	4	7
Cladosporium species	15	103	58	7
Epicoccum species	1	7	4	7
Non-sporulating colony	1	7	4	7
Penicillium species	5	34	19	7
Rhodotorula species	3	21	12	7
	26	179	~100%	

Comments: **No Stachybotrys seen.**

Client Sample Number: **1646-B** Lab Sample Number: **13004238-004**
Sample Location: **1646 Yakona Rd - Basement**
Test Requested: **1005 Air, Total BACTERIAL Count w/IDs: SOP 2.2**
Positive Hole Corrected Total Count: **285 cfu/m³**
Positive Hole: **400**
Air Volume: **145 (L)**
MRL: **7**

Organism(s) Isolated:	Raw Count	count/m³	% Total	Possible Reservoirs
Bacillus species	18	124	46	Environment
Coag-negative Staphylococcus species	18	124	46	Human
Micrococcus species	3	21	8	Human
	39	269	~100%	

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Date Collected: 04/03/2013
Date Received: 04/03/2013
Date Analyzed: 04/05/2013
Date Reported: 04/09/2013

Project : 4184-10
Project ID: 13004238

Condition of Sample(s) Upon Receipt: Acceptable

Client Sample Number: **1646-B**
Lab Sample Number: **13004238-004**
Sample Location: **1646 Yakona Rd - Basement**
Test Requested: **1038 Air, Stachybotrys Culture & Total FUNGAL Count w/IDs**
Positive Hole Corrected Total Count: **293 cfu/m³**
Positive Hole: **400**
Air Volume: **145 (L)**

Organism(s) Isolated:	Raw Count	count/m³	% Total	MRL
Alternaria species	1	7	3	7
Aspergillus sydowii	1	7	3	7
Black Yeast	1	7	3	7
Cladosporium species	23	159	57	7
Dactylaria	1	7	3	7
Epicoccum species	2	14	5	7
Penicillium species	8	55	20	7
Yeast	3	21	8	7
	40	277	~100%	

Comments: **No Stachybotrys seen.**

Client Sample Number: **1644/46-BK**
Lab Sample Number: **13004238-005**
Sample Location: **1644/1646 Yakona Rd - Outdoor (BK)**
Test Requested: **1005 Air, Total BACTERIAL Count w/IDs: SOP 2.2**
Positive Hole Corrected Total Count: **35 cfu/m³**
Positive Hole: **400**
Air Volume: **145 (L)**
MRL: **7**

Organism(s) Isolated:	Raw Count	count/m³	% Total	Possible Reservoirs
Bacillus species	5	34	100	Environment
	5	34	~100%	

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Attn: Keith Green

Date Collected: 04/03/2013
Date Received: 04/03/2013
Date Analyzed: 04/05/2013
Date Reported: 04/09/2013

Project : 4184-10
Project ID: 13004238

Condition of Sample(s) Upon Receipt: Acceptable

Client Sample Number: **1644/46-BK**
Lab Sample Number: **13004238-005**

Sample Location: **1644/1646 Yakona Rd - Outdoor (BK)**

Test Requested: **1038 Air, Stachybotrys Culture & Total FUNGAL Count w/IDs**

Positive Hole Corrected Total Count: **114 cfu/m³**

Positive Hole: **400**
Air Volume: **145 (L)**

Organism(s) Isolated:	Raw Count	count/m³	% Total	MRL
Alternaria species	1	7	6	7
Cladosporium species	13	90	81	7
Paecilomyces species	1	7	6	7
Yeast	1	7	6	7
	16	111	~100%	

Comments: **No Stachybotrys seen.**

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WSP Environment & Energy		Date Collected:	04/03/2013
11190 Sunrise Valley Dr Suite 300		Date Received:	04/03/2013
Reston, VA 20191		Date Analyzed:	04/05/2013
Attn: Keith Green		Date Reported:	04/09/2013
Project : 4184-10		**Project ID:**	**13004238**
Condition of Sample(s) Upon Receipt: Acceptable			Page 6 of 6

Footnotes and Additional Report Information

Debris Rating Table

1	Minimal (<5%) particular present	Reported values are minimally affected by particulate load.
2	5% to 25% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
3	26% to 75% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
4	75% to 90% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
5	Greater than 90% of the trace occluded with particulate	Quantification not possible due to large negative bias. A new sample should be collected at a shorter time interval or other measures taken to reduce particulate load.

1. Penicillium/Aspergillus group spores are characterized by their small size, round to ovoid shape, being unicellular, and usually colorless to lightly pigmented. There are numerous genera of fungi whose spore morphology is similar to that of the Penicillium/Aspergillus type. Two common examples would be Paecilomyces and Acremonium. Although the majority of spores placed in this group are Penicillium, Aspergillus, or a combination of both. Keep in mind that these are not the only two possibilities.

2. Ascospores are sexually produced fungal spores formed within an ascus. An ascus is a sac-like structure designed to discharge the ascospores into the environment, e.g. Ascobolus.

3. Basidiospores are typically blown indoors from outdoors and rarely have an indoor source. However, in certain situations a high basidiospore count indoors may be indicative of a wood decay problem or wet soil.

4. The Smut, Periconia, Myxomycete group is composed of three different groups whose spores have similar morphologies. Smuts are plant pathogens, Periconia is a relatively uncommon mold indoors, and Myxomycetes are not fungi but slime molds. Although these organisms do not typically proliferate indoors, their spores are potentially allergenic.

5. The colorless group contains colorless spores which were unidentifiable to a specific genus. Examples of this group include Acremonium, Aphanocladium, Beauveria, Chrysosporium, Engyodontium microconidia, yeast, some arthrospores, as well as many others.

6. Hyphae are the vegetative mode of fungi. Hyphal elements are fragments of individual Hyphae. They can break apart and become airborne much like spores and are potentially allergenic. A mass of hyphal elements is termed the mycelium. Hyphae in high concentration may be indicative of colonization.

7. Dash (-) in this report is reported as "not detected" (ND) or "<" (less than) with reference to the reportable limit.

8. The positive-hole correction factor is a statistical tool which calculates a probable count from the raw count, taking into consideration that multiple particles can impact on the same hole; for this reason the sum of the calculated counts may be less than the particle hole corrected total.

9. Due to rounding totals may not equal 100%.

10. Minimum Reporting Limits (MRL) for BULKS, DUSTS, SWABS, and WATER samples are a calculation based on the sample size and the dilution plate on which the organism was counted. Results are a compilation of counts taken from multiple dilutions and multiple medias. This means that every genus of fungi or bacteria recovered can be counted on the plate on which it is best represented.

11. If the final quantitative result is corrected for contamination based on the blank, the blank correction is stated in the sample comments section of the report.

12. Analysis conducted on non-viable spore traps is completed using Indoor Environmental Standards Organization (IESO) Standard 2210.

13. The results in this report are related to this project and these samples only.

Terminology Used in Direct Exam Reporting

Conidiophores are a type of modified hyphae from which spores are born. When seen on a surface sample in moderate to numerous concentrations they may be indicative of fungal growth.

Suzanne S. Blevins, B.S., SM (ASCP)
Laboratory Director

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13004238

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Aerobiology Client	WSP Environment & Energy

Field Contact	Craig Ramich	Date/Time: 04/03/13 1740	Collected By: Craig Ramich	
Address	11190 Sunrise Valley Drive	Date/Time: 4/3/13	Received By:	
Address	Suite 300, Reston, VA 20191	Sampler Type	Andersen ✓ / SAS	SampleAire / AeroTrap / Other / BioCulture
Phone/Fax	(703) 709-6500 / (703) 709-8505	PO# / Job# / Project Name: 4184-10		
Email	craig.ramich@wsp-group.com			

Routine	24 Hour	Same Day	4 Hour	2 Hour	5 Day (Asbestos Only)	Notes/CC Info:

	Sample No.	Test Code	Sample Location	Total Volume/Area
1	1644-A	1038/1005	1644 Yakona ~~Rd~~ Ave - Living Room	145 L
2	1644-B	1038/1005	1644 Yakona Rd - Basement	145 L
3	1646-A	1038/1005	1646 Yakona Rd - Living Room	145 L
4	1646-B	1038/1005	1646 Yakona Rd - Basement	145 L
5	1644/46-BK	1038/1005	1644/1646 Yakona Rd - Outdoor (BK)	145 L
6				
7				
8				
9				
10				
11				
12				
13				
14				

1054	Direct, Non-viable Spore Trap	1015	Culture - WATER Legionella
1051	Direct, Qualitative- **Swab/Tape**	1017	Culture - SWAB Legionella
1050	Direct, Qualitative- **Bulk**	1010	WATER - Potable - E. coli/total coliforms
1005	AIR Culture - Bacterial Count w/ ID's	1012	SWAB - E. coli/total coliforms
1030	AIR Culture - Fungal Count w/ ID's	1028	Sewage Screen (E. coli/Enterococcus/fecal coliforms)
1006	SWAB Culture - Bacterial Count w/ ID's	2056	Heterotrophic Plate Count
1031	SWAB Culture - Fungal Count w/ ID's	3001	ASBESTOS - Point count
1008	BULK Culture - Bacterial Count w/ ID's	3002	ASBESTOS - PLM Analysis
1033	BULK Culture - Fungal Count w/ ID's	3003	ASBESTOS - Particle characterization
~~1007~~ 1038	WATER Culture - Bacterial Count w/ID's	3006	ASBESTOS - PCM Analysis

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13949 W. Colfax Ave, Suite 205, Lakewood, CO 80401 - **(866) 620-9348** Fax (303) 232-3746 - email: denver@aerobiology.net

Appendix D – Pre-Sampling Homeowner Interview, Residence Inspection, and Materials Inventory

443- BACKGROUND : 125-250 ppb

443-759-4952 MELVIN TEAL MOM'S # (CAROLINE)

03/26/2013

Preliminary Questions on Home Construction and Use:

Property #: 1644 OWNED 7-8 YEARS
Address: YAKONA RD, TOWSON, MD

1. Is your home a [single family, two-family, multi-family] home? DUPLEX

   If multi-family, how many rental units are on the first floor of the building?

   Can you provide us with access to each of the first floor and basement spaces?

   If multi-family, are there rental units in the basement? How many?

2. Does your home have a basement? YES

   If yes, is the floor of the basement completely covered by a concrete floor slab (i.e., no exposed dirt or rock)? ALL CONCRETE SLABS

   If yes, does the basement underlie the entire structure? YES

   If no, is the remainder of the building slab-on-grade or does it have a crawl space?

3. Does the basement have floor drains or a sump? SUMP PUMP - AS PER OWNER, WHEN PUMP WORKS ~~SHEEN~~ IS OBSERVED OUTSIDE

4. Do you have water seeping into your basement? BASEMENT FLOODED WHEN SUMP PUMP FAILED (VISIBLE WATER LINE)

5. Is the basement unfinished or is it used as a living space? LAUNDRY ~~UNFINISHED~~

6. Do you store materials in your basement such as paints, thinners, varnishes, glues, or gas-powered equipment? YES

   How many of these containers would you say you currently store in your basement?

   Inform the owner that removing as many of these materials as possible before our visit will speed up the process and improve the sample results.

7. Have you done any recent painting in your house? NO

The second reason for this call is to schedule an initial inspection of your home. During the initial inspection, we will need to complete the following activities:

1. First, we will complete a brief questionnaire regarding the construction and heating of your home and prepare a sketch of your basement and first floor levels of your home.

2. Secondly, we will need to prepare a detailed list of any materials stored in the basement and the first floor of your home that could potentially affect the indoor air test results (i.e., paints, glues, solvents, certain cosmetics, and gasoline powered equipment). This will require that we inspect all rooms in the basement and first floor spaces of the house, including bathrooms, kitchen, and bedrooms. Each material that could potentially affect the test results will have to be inventoried on a sheet of paper, including the ingredients.

3. Depending on the amount of materials to be inventoried, we anticipate that the entire inspection could last approximately 1 hour.

INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Luis Ocampo Date Prepared 03/26/2013

Preparer's Affiliation (Company) WSP Phone No. _____

1. **OCCUPANT** Name: _____

Address: _____

_____

County: _____

Home Phone No. _____ Mobile Phone No _____

2. **OWNER OR LANDLORD**: Name: Melvin Teal
(If different than occupant)
Address: _____

_____

Phone No. _____

A. Building Construction Characteristics

Type (circle appropriate responses): (Single Family) Multiple Dwelling Commercial

Ranch	2-Family
Raised Ranch	(Duplex)
Split Level	Apartment House _____ Units
Colonial	Number of floors _____
Mobile Home	Other specify _____

Residence Age _____ General Description of Building Construction Materials

_____

_____

Is the building insulated? (Yes) / No

How air tight is the building : _____

B. Basement construction characteristics (circle all that apply):

1. Full basement, crawlspace, slab on grade, other _____
2. Basement floor: concrete, dirt, other _____
3. Concrete floor: unsealed, painted, covered; with _____
4. Foundation walls: poured concrete, block, laid up stone, other _____
5. The basement is: wet, damp, dry _____Sump present? y / n _____Water in sump? y / n ____
6. The basement is: finished, unfinished _____
7. Identify potential soil vapor entry points (e.g., cracks, utility ports etc.)
   _____WINDOW SEALS_____
8. Describe how air tight the basement is _____

   _____

C. HVAC (circle all that apply):

1. The type of heating system(s) used in this residence is/are:

Hot Air Circulation	Heat Pump
Hot Water Radiation	Unvented Kerosene Heater
Steam Radiation	Wood stove
Electric Baseboard	Other (specify) _____

2. The type(s) of fuel(s) used is/are: Natural Gas, Fuel Oil, Electric, Wood Coal Solar

   Other (specify) _____.

3. Is the heating system's power plant located in the basement or another area: _____.
4. Is there air-conditioning? Yes / No Central Air or Window Units?

   Specify the location _____
5. Are there air distribution ducts present? Yes / No
6. Describe the supply and cold air return duct work in the basement including whether there is a cold air return, the tightness of duct joints

   _____

   _____

D. Potential Indoor Sources of Pollution

1. Has the house ever had a fire? Yes / (No)
2. Is there an attached garage? Yes / (No) N/A
3. Is a vehicle normally parked in the garage? Yes / (No) N/A.
4. Is there a kerosene heater present? Yes / (No)
5. Is there a workshop, hobby or craft area in the residence? Yes / (No)
6. An inventory of all products used or stored in the home should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached product inventory form should be used for this purpose.
7. Is there a kitchen exhaust fan? (Yes) / No Where is it vented? NOT OUTSIDE JUST FAN FEATURE
   _____
8. Has the house ever been fumigated? If yes describe date, type and location of treatment. N/D
   _____

E. Water and Sewage (Circle the appropriate response)

Source of Water

(Public Water) Drilled Well Driven Well Dug Well Other (Specify) _____

Water Well Specifications:

Well Diameter _____ Grouted or Ungrouted _____

Well Depth _____ Type of Storage Tank _____

Depth to Bedrock _____ Size of Storage Tank _____

Feet of Casing _____ Describe type(s) of Treatment _____

_____

Water Quality:

Taste and/or odor problems? y / n If so, describe

_____

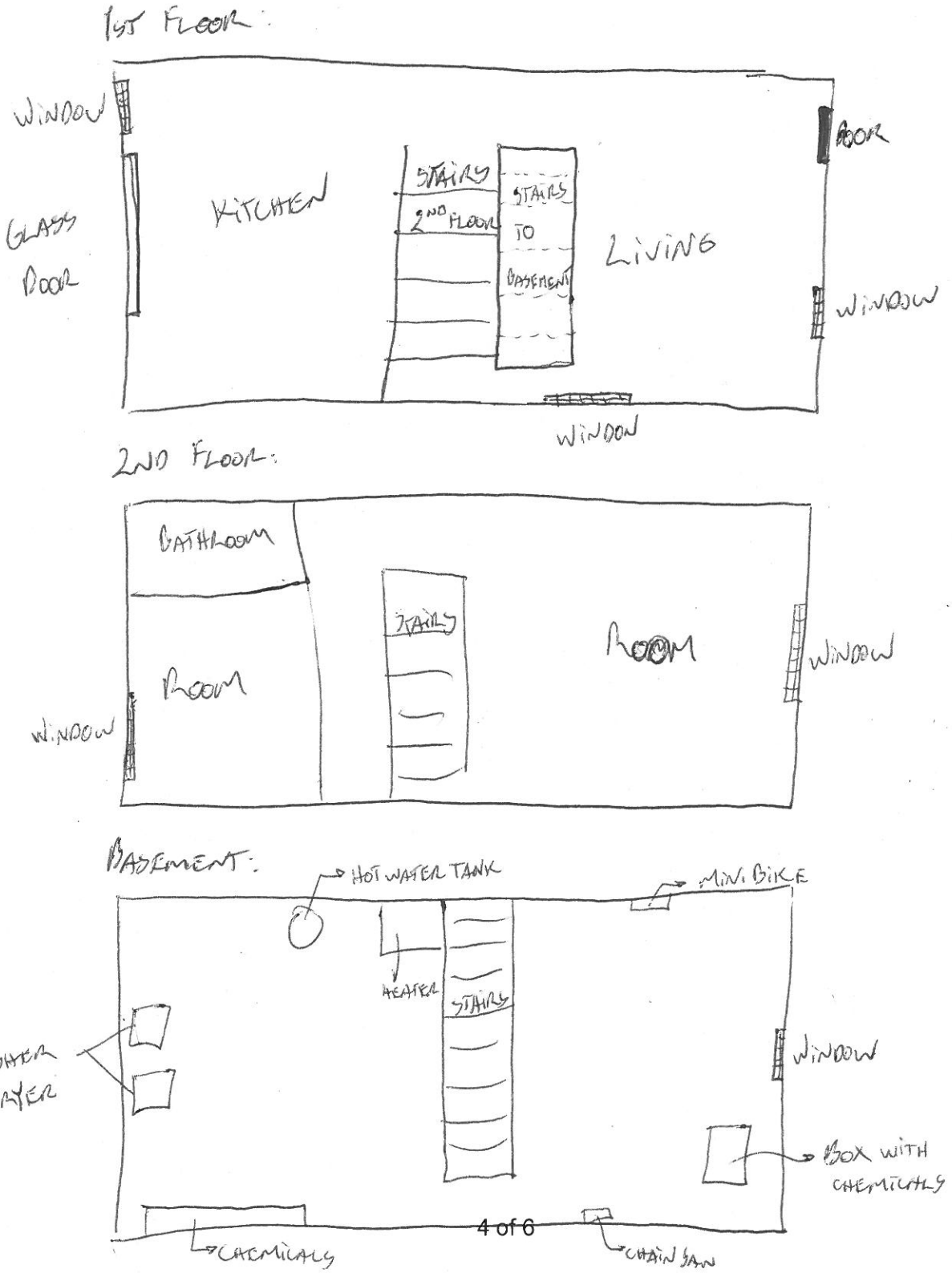
How long has the taste and/or odor been present? _____

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Other (Specify) _____

Distance from well to septic system _____ Type of septic tank additive _____

F. Plan View

Draw a plan view sketch for each floor of the residence and if applicable, indicate air sampling locations, possible indoor air pollution sources and PID meter readings.



G. Potential Outdoor Sources of Pollution

Draw a sketch of the area surrounding the residence being sampled. If applicable, provide information on the spill location (if known), potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system if applicable, and a qualifying statement to help locate the site on a topographical map.

Household Products Inventory

Occupant / residence: 1644 YAKONA RD.

Investigator: CRAIG & LUIS Date: 03/20/13

BASEMENT

Product description (dispenser, size, manufacturer, etc.)	VOC Ingredients	PID Measurement
GASOLINE (LAWN MOWER)		
HOT SHOT		350 - 500
GOOF OFF	XYLENE	ppb
RUST-OLEUM FLAT WHITE 7790	TOLUENE, XYLENE	
" " PAINTERS TOUCH FLAT BLACK	TOLUENE, XYLENE, ACETONE	
PROPENE (BENZO MATIC)	PROPANE	
DECOART PATIO PAINT		
RUST-OLEUM OIL BASED ENAMEL BLACK 7779	GLYPHOSPHATE	
ROUND UP		
SAKRETE FAST SETTING CEMENT		
ARMORALL DECK PROTECTOR		
CUTTER BACKYARD		250 - 350
ZINSSER DIP	SODIUM HYDROXIDE	
ALL PURPOSE SPACKLING PASTE		
GE CAULK-IT WHITE	METHOXYETHOXY ETHANOL	
RUST-OLEUM PAINTERS TOUCH	ACETONE, XYLENE	
MINWAX POLYSHADES STAIN	MINERAL SPIRITS	
BEHR ULTRA PAINT & PRIMER		
OFF SKINTASTIC		
WARREN CHARCOAL STARTER	COMBUSTIBLE MIXTURE	
TIKI TORCH FUEL	COMBUSTIBLE LIQUID	
RUST-OLEUM ULTRA COVER FLAT BLACK 249127	ACETONE, XYLENE	
1 SHOT LETTERING ENAMEL	TRIMETHYLBENZENE, MINERAL SPIRITS +	
SPARVAR PAINT SPRAY 5-122	XYLENE	
KRYLON SPRAY PAINT BABY BLUE 1902		
FIX WOOD PATCH	ACETONE, MEK, NAPTHA	
ELMER'S WOOD FILLER		
GOOF OFF		
GASOLINE (MINI BIKE)		811
A/C UNITS (3) FOR	FREON	
CHAIN OIL (CHAIN SAW), GASOLINE MIX		424
ENGINE PAINT	EXTREMELY FLAMMABLE	
(2) RUST-OLEUM FLAT WHITE		
COLOR CREATIONS SPRAY PAINT	TOLUENE, ACETONE	
KRYLON SPRAY PAINT BLACK 1601	KETONE, ESTERS ALCOHOLS	
AMERICAN ACCENTS SPRAY PAINT 7923	XYLENE, TOLUENE, ACETONE	
(2) ROYAL PURPLE HIGH PERFORMANCE OIL		
PAINT THINNER (KLEAN STRIP)		
(XX) KILZ PRIMER		
(2) RUST-OLEUM DARK HUNTER GREEN		
DESIGNERS CHOICE SPRAY PAINT		
GROUT SEALER		

TOLUENE XYLENE
EXTREMELY FLAMMABLE
PROPANE, BUTYL ACETATE

KILZ		150 ppb
(3) BEHR LATEX		
GOOP CRAFTERS	TOLUENE	
(2) MINWAX POLYURETHANE	ALIPHATIC HYDROCARBONS	
KLEAN STRIP MINERAL SPIRITS		190 ppb
(2) VHT ENGINE METALLIC	KETONES	
DUPLICOLOR ENGINE ENAMEL	EXTREMELY FLAMMABLE	
RUST-OLEUM META BLACK METALLIC NIGHT 7250	TOLUENE, ACETONE, XYLENE	
" METALLIC 244228	" " "	
"		
" SUNRISE RED 7762		
(3) DUPLI-COLOR WHEEL COATING	KETONES, TOLUENE, XYLENE	
DAP SPRAY & GO CHROME PLATE FINISH		
DUPLICOLOR ACRYLIC ENAMEL DA1684 ALUMINUM		
" CALIPER PAINT BLP100 RED		
RUST-OLEUM SATIN 7777 BLACK	TOLUENE, XYLENE	
IRWIN SPRAY-LINE OIL		
(9) LATEX PAINT VINYL POLYMER		
BLEACH HOME STORE		
OXYDOL LAUNDRY DETERGENT		
200 HENRY WET PATCH ROOF CEMENT		
GREASED LIGHTNING	GLYCOL ETHER	275 ppb
NU SILVER PURE SILVER PLATE		
CARROL UNO WIPES	GLYCOL ETHER	
(2) COMET SOFT CLEANSER W/ BLEACH		
WINDEX		
AWESOME ORANGE DEGREASER	BUTOXY ETHANOL	
MR CLEAN		
MOTOR OIL		
NONE		200-215 ppb
BATHROOM: OVEN GRILL & CLEANER		400 ppb
MR CLEAN		
LIVINGROOM: PROPANE		390-470 ppb
~~PAINT~~		

BASEMENT

KITCHEN

LIVING ROOM

2ND FLOOR

10am tomorrow.

Melvin Teal
443-791-3047

Preliminary Questions on Home Construction and Use:

Property #: 1646 Yakona - Towson, MD
Address: _____

1. Is your home a [single family, two-family, multi-family] home? Single family

   If multi-family, how many rental units are on the first floor of the building?

   Can you provide us with access to each of the first floor and basement spaces?

   If multi-family, are there rental units in the basement? How many? No

2. Does your home have a basement? Yes

   If yes, is the floor of the basement completely covered by a concrete floor slab (i.e., no exposed dirt or rock)?

   If yes, does the basement underlie the entire structure?

   If no, is the remainder of the building slab-on-grade or does it have a crawl space?

   No crawl space

3. Does the basement have floor drains or a sump? Yes

4. Do you have water seeping into your basement? Yes - flooded twice in 2012

5. Is the basement unfinished or is it used as a living space? Unfinished

6. Do you store materials in your basement such as paints, thinners, varnishes, glues, or gas-powered equipment? No

   How many of these containers would you say you currently store in your basement?

   Inform the owner that removing as many of these materials as possible before our visit will speed up the process and improve the sample results.

7. Have you done any recent painting in your house? Yes - last year

The second reason for this call is to schedule an initial inspection of your home. During the initial inspection, we will need to complete the following activities:

1. First, we will complete a brief questionnaire regarding the construction and heating of your home and prepare a sketch of your basement and first floor levels of your home.

2. Secondly, we will need to prepare a detailed list of any materials stored in the basement and the first floor of your home that could potentially affect the indoor air test results (i.e., paints, glues, solvents, certain cosmetics, and gasoline powered equipment). This will require that we inspect all rooms in the basement and first floor spaces of the house, including bathrooms, kitchen, and bedrooms. Each material that could potentially affect the test results will have to be inventoried on a sheet of paper, including the ingredients.

3. Depending on the amount of materials to be inventoried, we anticipate that the entire inspection could last approximately 1 hour.

INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Kelly Taylor Date Prepared 3/25/13

Preparer's Affiliation (Company) WSP Phone No. _____

1. **OCCUPANT** Name: _____

Address: _____

_____

County: _____

Home Phone No. _____ Mobile Phone No _____

2. **OWNER OR LANDLORD**: Name: Anthony & Celenease
(If different than occupant)
Address: _____

_____

Phone No. _____

A. Building Construction Characteristics

Type (circle appropriate responses): Single Family Multiple Dwelling Commercial

Ranch	2-Family
Raised Ranch	Duplex
Split Level	Apartment House _____ Units
Colonial	Number of floors _____
Mobile Home	Other specify _____

Residence Age _____ General Description of Building Construction Materials

_____

_____

_____

Is the building insulated? Yes / No

How air tight is the building : _____

B. Basement construction characteristics (circle all that apply):

1. Full basement, crawlspace, slab on grade, other _____
2. Basement floor: concrete, dirt, other _____
3. Concrete floor: unsealed, painted, covered; with _____
4. Foundation walls: poured concrete, block, laid up stone, other _____
5. The basement is: wet, damp, dry _____ Sump present? y / n _____ Water in sump? y / n _____
6. The basement is: finished, unfinished _____
7. Identify potential soil vapor entry points (e.g., cracks, utility ports etc.)
   window seals, cracks in slab in basement
8. Describe how air tight the basement is _____

C. HVAC (circle all that apply):

1. The type of heating system(s) used in this residence is/are:

Hot Air Circulation	Heat Pump
Hot Water Radiation	Unvented Kerosene Heater
Steam Radiation	Wood stove
Electric Baseboard	Other (specify) _____

2. The type(s) of fuel(s) used is/are: Natural Gas, Fuel Oil, Electric, Wood Coal Solar

   Other (specify) _____.

3. Is the heating system's power plant located in the basement or another area: _____.
4. Is there air-conditioning? Yes / No Central Air or Window Units?

   Specify the location _____
5. Are there air distribution ducts present? Yes / No
6. Describe the supply and cold air return duct work in the basement including whether there is a cold air return, the tightness of duct joints

D. Potential Indoor Sources of Pollution

1. Has the house ever had a fire? Yes / No - Not in last 10 yrs
2. Is there an attached garage? Yes / No n/a
3. Is a vehicle normally parked in the garage? Yes / No n/a
4. Is there a kerosene heater present? Yes / No
5. Is there a workshop, hobby or craft area in the residence? Yes / No
6. An inventory of all products used or stored in the home should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached product inventory form should be used for this purpose.
7. Is there a kitchen exhaust fan? Yes / No Where is it vented? ? not outside, just fan feature
   _____
8. Has the house ever been fumigated? If yes describe date, type and location of treatment.
   NO

E. Water and Sewage (Circle the appropriate response)

Source of Water

Public Water Drilled Well Driven Well Dug Well Other (Specify)
_____

Water Well Specifications: N/A

Well Diameter _____ Grouted or Ungrouted _____

Well Depth _____ Type of Storage Tank _____

Depth to Bedrock _____ Size of Storage Tank _____

Feet of Casing _____ Describe type(s) of Treatment _____

Water Quality:

Taste and/or odor problems? y / n If so, describe
_____

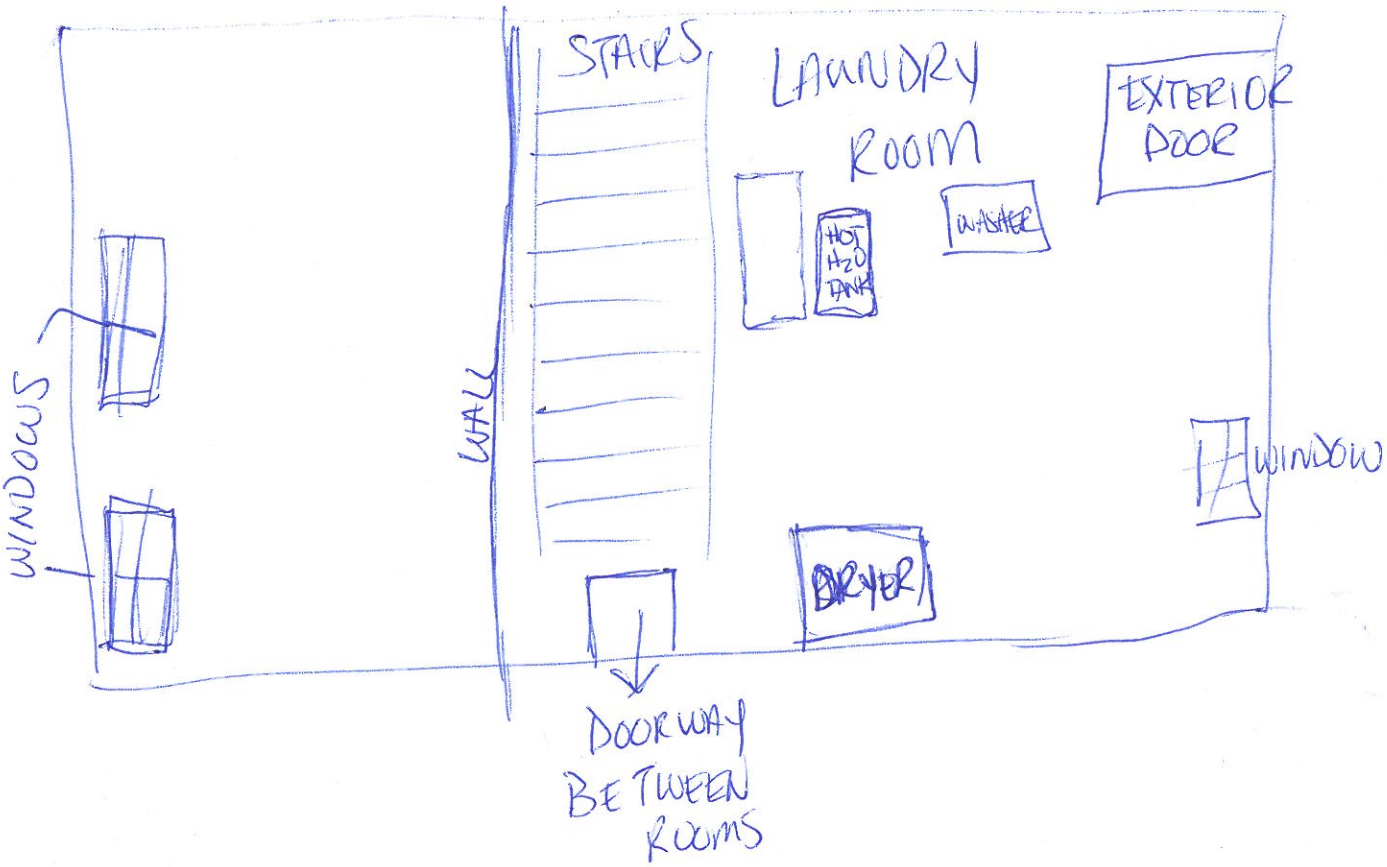
How long has the taste and/or odor been present? _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Other (Specify) _____

Distance from well to septic system _____ Type of septic tank additive _____

F. Plan View

Draw a plan view sketch for each floor of the residence and if applicable, indicate air sampling locations, possible indoor air pollution sources and PID meter readings.



G. Potential Outdoor Sources of Pollution

Draw a sketch of the area surrounding the residence being sampled. If applicable, provide information on the spill location (if known), potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system if applicable, and a qualifying statement to help locate the site on a topographical map.

* Kitchen PID background reading > 100 ppb

* Background in basement from PID 55-60 ppb *

Household Products Inventory

Occupant / residence: 1646 Yakona Rd

Investigator: Craig & Kelly Date: 3/24/13

Product description (dispenser, size, manufacturer, etc.)	VOC Ingredients	PID Measurement
GAIN LAUNDRY DETERGENT (2.9 L)	NONE	—
DOWNY FABRIC SOFTENER (1.25L)	NONE	—
ANTIFREEZE & COOLANT (1G)	NONE	—
WINDSHIELD WASHER FLUID (1G)	NONE	—
PET-CARE OXY-FAST STAIN REMOVER	NONE	—
PROVEN STAIN & ODOR REMOVER (24 fl. oz)	NONE	—
CUTTER INSECT REPELLANT (6oz)	DEET 10%	~~139~~
2 bottles → BATH & BODY WORKS BODY SPRAY (8oz)	propylene glycol; butyl methoxydibenzoylmethane; ethylhexyl salicylate ethylhexyl methoxycinnamate	177
NAIL POLISH (150 6.5oz bottles) (4m 18 bottles)		5146
M. GRAHAM CO PAINTS → 3 HAIR WICK (8oz) - RAIN ~~REPEL~~ GARDEN	- look online	202
3 ACRYLIC PAINT (3 2oz)	- look online	205
SATIN CARE (8.04oz) SHAVE CREAM	propylene glycol, isobutane	205

Appendix E – Data Validation Summary and Annotated Laboratory Reports

Data Validation Report
for Air Samples Collected at 1644 and 1646 Yakona Road
Towson, Maryland
April 3 and 4, 2013

Introduction

This data validation report includes ten air samples collected at the Yakona Road Site in Towson, Maryland on April 3 and 4, 2013. The samples were analyzed by Eurofins of Folsom, California, for volatile organic compounds (VOCs), by U.S. Environmental Protection Agency (EPA) modified Method TO-17. The data were reviewed in accordance with the method and chain-of-custody criteria outlined in the National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

SDG#	1304135
Report Date	23-Apr-13
Guidance	National Functional Guidelines for Superfund Organic Methods Data Review (June 2008)
Client Name	WSP Energy and Environment
Project Name	Yakona Road
Laboratory	Eurofins
Method Utilized	TO-17
Analytical Fraction	Volatile Organic Compounds

Volatile Organic Compounds

Ten air samples and were analyzed for VOCs by EPA Method TO-17 (modified). The data were reviewed for surrogate recovery, matrix spike/matrix spike duplicate (MS/MSD) recovery, blank contamination, instrument performance, calibration, and calculation criteria.

Reviewed	Met Criteria	
*	*	Data Completeness
*	*	Holding Times
*		Calibration
*	*	Blanks
*	*	System Monitoring Compounds
*		Laboratory Control Sample
*		Matrix Spike/ Matrix Spike Duplicate

*	*	Internal Standards Target Compound
*	*	Identification
*	*	Compound Quantification and Reported Quantitation Limits
*	*	System Performance

Calibration

The analytes were within acceptable calibration criteria.

Blanks

No analytes were detected in any method blank or the trip blank.

Field duplicates

No field duplicates were submitted for this fraction.

Matrix Spike

Several analytes had elevated recoveries in the MS/MSD. It was not necessary to qualify any of the results since data is rarely qualified for MS/MSD alone.

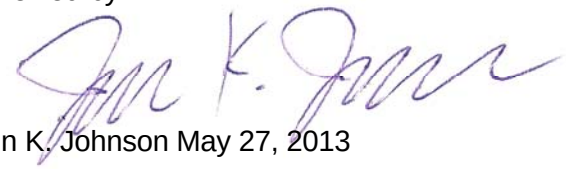
Compound Quantification

All of the samples were analyzed without dilution. It was not necessary to qualify any of the results.

<u>Overall Assessment of the Data</u>

The data presented are acceptable as qualified for site characterization activities.

Reviewed by:



John K. Johnson May 27, 2013

Data Validation Report
for Air Samples Collected at 1644 and 1646 Yakona Road
Towson, Maryland
April 3 and 4, 2013

Introduction

This Data Validation Report includes ten air samples collected at the Yakona Road Site in Towson, Maryland on April 3 and 4, 2013. The samples were analyzed by Pace Analytical Services, Inc. of Minneapolis, Minnesota, for volatile organic compounds (VOCs), by U.S. Environmental Protection Agency (EPA) Method TO-15. The data were reviewed in accordance with the method and chain-of-custody criteria outlined in the National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

SDG#	10224616
Report Date	23-Apr-13
Guidance	National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).
Client Name	WSP Energy and Environment
Project Name	Yakona Road
Laboratory	Pace Analytical
Method Utilized	TO-15
Analytical Fraction	Volatile Organic Compounds

Date Sampled	Sample ID	Laboratory ID	Parameter	Matrix
4/4/2013	1644-A-040313	10224616001	VOCs	air
4/4/2013	1644-B-040313	10224616002	VOCs	air
4/4/2013	1000-B-040313	10224616003	VOCs	air
4/4/2013	1646-A-040313	10224616004	VOCs	air
4/4/2013	1646-B-040313	10224616005	VOCs	air
4/4/2013	1644/46-BK-040313	10224616006	VOCs	air
4/4/2013	1644-F-040313	10224616007	VOCs	air
4/4/2013	1644-R-040313	10224616008	VOCs	air
4/4/2013	1646-F-040313	10224616009	VOCs	air
4/4/2013	1646-R-040313	10224616010	VOCs	air
4/4/2013	PACE0264	10224616011	VOCs	air

Date Sampled	Sample ID	Laboratory ID	Parameter	Matrix
4/4/2013	PACE0671	10224616012	VOCs	air
4/4/2013	PACE0849	10224616013	VOCs	air
4/4/2013	PACE2029	10224616014	VOCs	air
4/3/2013	Cert Can0099	10224616015	VOCs	air
4/3/2013	Cert Can0433	10224616016	VOCs	air
4/3/2013	Cert Can2033	10224616017	VOCs	air
4/3/2013	Cert Can1053	10224616018	VOCs	air
4/3/2013	Cert Can1078	10224616019	VOCs	air
4/3/2013	Cert Can0557	10224616020	VOCs	air
4/3/2013	Cert Can0262	10224616021	VOCs	air
4/3/2013	Cert Can0006	10224616022	VOCs	air
4/3/2013	Cert Can1611	10224616023	VOCs	air
4/3/2013	Cert Can1600	10224616024	VOCs	air

Volatile Organic Compounds

Ten air samples were analyzed for VOCs by EPA Method TO-15. The data were reviewed for surrogate recovery, matrix spike/matrix spike duplicate (MS/MSD) recovery, blank contamination, instrument performance, calibration, and calculation criteria.

Reviewed	Met Criteria	
*	*	Data Completeness
*	*	Holding Times
*		Calibration
*	*	Blanks
*	*	System Monitoring Compounds
*		Laboratory Control Sample
*		Matrix Spike/ Matrix Spike Duplicate
*	*	Internal Standards
*	*	Target Compound Identification
*	*	Compound Quantification and Reported Quantitation Limits
*	*	System Performance

Calibration

Several analytes exceeded the criteria for the initial calibration. Bromoform exceeded the continuing calibration criteria for the samples run on April 19, 2013. The positive and non-detectable results were qualified “J”, as estimated.

Blanks

No analytes were detected in any method blank or the trip blank.

Field duplicates

No field duplicates were submitted for this fraction.

Matrix Spike

Several analytes had elevated recoveries in the MS/MSD. It was not necessary to qualify any of the results since data is rarely qualified for MS/MSD alone.

Compound Quantification

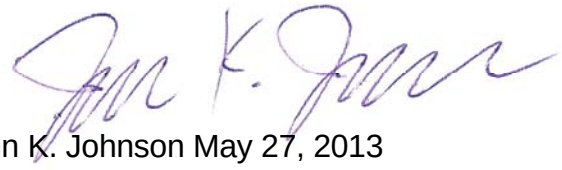
The samples listed below were diluted as indicated to bring the analytes into calibration range. It was not necessary to qualify any of the results.

Sample ID	Dilution Factor
1644-F-040313	31
1644-R-040313	123.49

Overall Assessment of the Data

The data presented are acceptable as qualified for site characterization activities.

Reviewed by:



John K. Johnson May 27, 2013

Data Validation Report
for Groundwater and Soil Samples Collected at 1644 and 1646 Yakona Road
Towson, Maryland
April 3 and 4, 2013

Introduction

This Data Validation Report includes five soil samples, six water samples and a trip blank collected at the Yakona Road Site in Towson, Maryland on April 4 and 5, 2013. The samples were analyzed by Pace Analytical Services, Inc. of Minneapolis, Minnesota, for volatile organic compounds (VOCs), gasoline range organics (GRO), polycyclic aromatic hydrocarbons (PAHs), dissolved gases, diesel range organics (DRO), by U.S. Environmental Protection Agency (EPA) Methods 8260, 8015C, 8270C, and 8015M. The data were reviewed in accordance with the method and chain-of-custody criteria outlined in the National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

SDG#	13040516
Report Date	10-Apr-13
Guidance	National Functional Guidelines for Superfund Organic Methods Data Review (June 2008)
Client Name	WSP Energy and Environment
Project Name	Yakona Road
Laboratory	Phase Separation Science
Method Utilized	8260,8015C, 8270C, 8015, 8015C, RSK 175
Analytical Fraction	Volatile Organic Compounds, gasoline range organics, polycyclic aromatic hydrocarbons, dissolved gases, diesel range organics

Date Sampled	Sample ID	Laboratory ID	Parameter VOCs 8260	Parameter GRO 8015C	Parameter PAHs 8270C	Parameter DG 8015	Parameter DRO 8015C	Matrix
4/4/2013	SB-02(2-2.5)	13040516-001	x	x	x			soil
4/4/2013	SB-04(2-2.5)	13040516-002	x	x	x			soil
4/4/2013	SB-03(2-2.5)	13040516-003	x	x	x			soil
4/4/2013	SB-01(2-2.5)	13040516-004	x	x	x			soil
4/4/2013	SB-040413(2-2.5)	13040516-005	x	x	x			soil
4/4/2013	1644-Sump	13040516-006	x	x	x	x	x	water
4/4/2013	SB-03	13040516-007	x	x	x	x	x	water
4/4/2013	SB-040413	13040516-008	x	x	x	x	x	water
4/4/2013	SB-04	13040516-009	x	x	x	x	x	water
4/5/2013	1646-Sump	13040516-010	x	x	x	x	x	water
4/5/2013	Surface water	13040516-011	x	x	x	x	x	water
4/5/2013	Trip Blank	13040516-012	x					water

Volatile Organic Compounds

Five soil samples, six water samples and a trip blank were analyzed for VOCs by EPA SW-846 Method 8260. The data were reviewed for surrogate recovery, matrix spike/matrix spike duplicate (MS/MSD) recovery, blank contamination, instrument performance, calibration, and calculation criteria.

Reviewed	Met Criteria	Data Completeness
*	*	

*	*	Holding Times
*		Calibration
*	*	Blanks
*	*	System Monitoring Compounds
*		Laboratory Control Sample
*		Matrix Spike/ Matrix Spike Duplicate
*	*	Internal Standards
		Target Compound
*	*	Identification
*	*	Compound Quantification and Reported Quantitation Limits
*	*	System Performance

Calibration

Several analytes exceeded the criteria for several calibrations. The calibrations and the associated analytes are listed below.

	ICAL 4/8/2013 1120	**CCAL** 4/8/2013 1101	**CCAL** 4/9/2013 0013
tert-Amy-alcohol	39	38	31
1,4-Dioxane	51	33	100/59
tert-Butyl Alcohol		28	31
bromomethane		-40	
acrolein		39	
acetone		-38	1644-Sump
trans-1-4-dichloro-2-butene		29	SB-03
1,2-dibromo-3-chloropropene		34	SB-040413
			SB-04
		SB-03(2-2.5)	1646-Sump
		SB-02(2-2.5)	Surface water
		SB-01(2-2.5)S	SB-03 S
		SB-01(2-2.5)SD	SB-03 SD
		SB-040413(2-2.5)	MW-4 S
		SB-01(2-2.5)	MW-4 SD

Blanks

No analytes were detected in any method blank or the trip blank.

Laboratory Control Sample

There were several recoveries outside of control limits. It was not necessary to qualify any results.

Matrix Spike

Several analytes had elevated recoveries in the MS/MSD. It was not necessary to qualify any of the results since data is rarely qualified for MS/MSD alone.

Field duplicates

Sample ID	Duplicate
SB-01(2-2.5)	SB-040413(2-2.5)
SB-04	SB-040413

Acetone was qualified J, as estimated, because of an elevated relative percent difference between the sampleSB-01(2-2.5) result and its duplicate.

Compound Quantification

All of the samples were analyzed without dilution. It was not necessary to qualify any of the results.

Diesel Range Organics

Seven water samples were analyzed for DRO by EPA SW-846 Method 8015C. The data were reviewed for surrogate recovery, blank contamination, instrument performance, calibration, and calculation criteria.

Reviewed	Met Criteria	
*	*	Data Completeness
*	*	Holding Times
*	*	Calibration
*	*	Blanks
*	*	System Monitoring Compounds
*	*	Laboratory Control Sample
*		Matrix Spike/ Matrix Spike Duplicate
*	*	Internal Standards
*	*	Target Compound Identification
*	*	Compound Quantification and Reported Quantitation Limits
*	*	System Performance

Calibration

The DRO calibrations were within acceptable limits

Blanks

No analytes were detected in any method blank or the trip blank.

Field duplicates

Sample ID	Duplicate
SB-01(2-2.5)	SB-040413(2-2.5)
SB-04	SB-040413

There was good agreement between the sample and its duplicate.

Matrix Spike

Several analytes had elevated recoveries in the MS/MSD. It was not necessary to qualify any of the results since data is rarely qualified for MS/MSD alone.

Compound Quantification

All of the samples were analyzed without dilution. It was not necessary to qualify any of the results.

Gasoline Range Organics

Five soil samples and six water samples were analyzed for GRO by EPA SW-846 Method 8015C. The data were reviewed for surrogate recovery, matrix spike/matrix spike duplicate (MS/MSD) recovery, blank contamination, instrument performance, calibration, and calculation criteria.

Reviewed	Met Criteria	
*	*	Data Completeness
*	*	Holding Times
*		Calibration
*		Blanks
*		System Monitoring Compounds
*	*	Laboratory Control Sample
*		Matrix Spike/ Matrix Spike Duplicate
*	*	Internal Standards
*	*	Target Compound Identification
*	*	Compound Quantification and Reported Quantitation Limits
*	*	System Performance

Calibration

The GRO calibrations were within acceptable limits.

Blanks

There was a positive result of 49.52 J in the method blank associated with the soil samples. It was not necessary to qualify any of the soil samples for blank contamination since there were no positive results in the environmental samples.

99

Field duplicates

Sample ID	**Duplicate**
SB-01(2-2.5)	SB-040413(2-2.5)
SB-04	SB-040413

There was good agreement between the sample and its duplicate.

Matrix Spike

Several analytes had elevated recoveries in the MS/MSD. It was not necessary to qualify any of the results since data is rarely qualified for MS/MSD alone.

Compound Quantification

All of the samples were analyzed without dilution. It was not necessary to qualify any of the results.

Polycyclic Aromatic Hydrocarbons

Five soil samples, six water samples were analyzed for PAHs by EPA SW-846 Method 8270C. The data were reviewed for surrogate recovery, matrix spike/matrix spike duplicate (MS/MSD) recovery, blank contamination, instrument performance, calibration, and calculation criteria.

Reviewed	Met Criteria	
*	*	Data Completeness
*	*	Holding Times
*		Calibration
*	*	Blanks
*	*	
*	*	Laboratory Control Sample

*	*	Matrix Spike/ Matrix Spike Duplicate
*	*	Internal Standards
*	*	Target Compound Identification
*	*	Compound Quantification and Reported Quantitation Limits
*	*	System Performance

Calibration

The PAH analytes were within acceptable calibration limits.

Blanks

No analytes were detected in any method blank or the trip blank.

Field duplicates

Sample ID	**Duplicate**
SB-01(2-2.5)	SB-040413(2-2.5)
SB-04	SB-040413

There was good agreement between the sample and its duplicate.

Matrix Spike

Several analytes had elevated recoveries in the MS/MSD. It was not necessary to qualify any of the results since data is rarely qualified for MS/MSD alone.

Compound Quantification

All of the samples were analyzed without dilution. It was not necessary to qualify any of the results.

<u>Methane</u>

Six water samples were analyzed for methane by Method RSK-175. The data were reviewed for surrogate recovery, matrix spike/matrix spike duplicate (MS/MSD) recovery, blank contamination, instrument performance, and calibration criteria.

Reviewed	Met Criteria	
*	*	Data Completeness
*	*	Holding Times
*	*	Calibration
*	*	Blanks

		System Monitoring Compounds
*	*	Laboratory Control Sample
		Matrix Spike/ Matrix Spike Duplicate
*	*	Internal Standards
		Target Compound
*	*	Identification
*	*	Compound Quantification and Reported Quantitation Limits
*	*	System Performance

Calibration

The calibrations were within acceptable limits.

Blanks

No analytes were detected in any method blank or the trip blank.

Field duplicates

No field duplicates were submitted for this fraction.

Matrix Spike

It was not necessary to qualify any of the results since data is rarely qualified for MS/MSD alone.

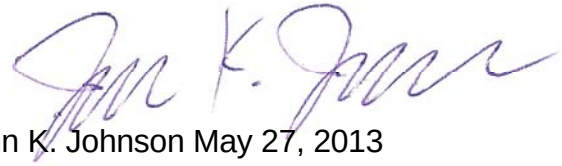
Compound Quantification

All of the samples were analyzed without dilution. It was not necessary to qualify any of the results.

Overall Assessment of the Data

The data presented are acceptable as qualified for site characterization activities.

Reviewed by:



John K. Johnson May 27, 2013

Analytical Report for

WSP Environment & Energy - Reston

Certificate of Analysis No.: 13040516

Project Manager: Keith Green
Project Name : Yakona Rd
Project Location: Towson MD
Project ID : 4184

April 10, 2013

Phase Separation Science, Inc.
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Baltimore, MD 21228
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PHASE SEPARATION SCIENCE, INC.

April 10, 2013

Keith Green
WSP Environment & Energy - Reston
11190 Sunrise Valley Dr., Ste. 300
Reston, VA 20191

Reference: PSS Work Order(s) No: **13040516**
Project Name: Yakona Rd
Project Location: Towson MD
Project ID.: 4184

Dear Keith Green :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **13040516**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on May 10, 2013. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt , the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal

Dan Prucnal
Laboratory Manager

Sample Summary

Client Name: WSP Environment & Energy - Reston

Project Name: Yakona Rd

Work Order Number(s): 13040516

Project ID: 4184

The following samples were received under chain of custody by Phase Separation Science (PSS) on 04/05/2013 at 01:00 pm

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
13040516-001	SB-02 (2-2.5)	SOIL	04/04/13 10:25
13040516-002	SB-04 (2-2.5)	SOIL	04/04/13 11:13
13040516-003	SB-03 (2-2.5)	SOIL	04/04/13 11:52
13040516-004	SB-01 (2-2.5)	SOIL	04/04/13 13:00
13040516-005	SB-040413 (2-2.5)	SOIL	04/04/13 13:10
13040516-006	1644-Sump	WATER	04/04/13 13:15
13040516-007	SB-03 (GW)	WATER	04/04/13 14:45
13040516-008	SB-040413 (GW)	WATER	04/04/13 15:15
13040516-009	SB-04 (GW)	WATER	04/04/13 15:45
13040516-010	1646-Sump	WATER	04/05/13 10:15
13040516-011	Surface Water	WATER	04/05/13 10:40
13040516-012	Trip Blank	WATER	04/05/13 00:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. The following analytical results are never reported on a dry weight basis: pH, flashpoint, moisture and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for non-potable water samples tested for compliance for Virginia Pollution Discharge Elimination System (VDPES) permits and Virginia Pollutant Abatement (VPA) permits, have a maximum holding time of 15 minutes established by 40CFR136.3.

Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the LOD.
- LOD Limit of Detection. An estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit
- U Not detected.

Case Narrative Summary

Client Name: WSP Environment & Energy - Reston

Project Name: Yakona Rd

Work Order Number(s): 13040516
Project ID: 4184

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Sample Receipt:

Per client, analyze DRO on all soils. For waters, VOA analyzed from the unpreserved VOA vials (hold time reduced to 7 days), GRO analyzed from the 2 preserved VOA vials, and Dissolved Methane analyzed from the 2 Sodium Bisulfate vials (preservative should not affect the analysis).

Client requested MS/MSD analyses for sample -007 (SB-03 GW). Insufficient sample volume was provided to perform MS/MSD for all analyses.

Analyses associated with analyst code 4010 were performed by Maryland Spectral Services

Analytical:

TCL Volatiles plus Oxygenates + TICs

Batch: 105220

The recovery of tert-Butyl alcohol slightly exceeded the laboratory control limits for the matrix spike and matrix spike duplicate (MS/MSD) but fell within the marginal exceedance limits. This analyte was not detected in the client sample and recovery was acceptable in the laboratory control sample (LCS).

The recovery of 4-Methyl-2-pentanone exceeded the laboratory control limits for the MS/MSD. This analyte was not detected in the client sample and recovery was acceptable in the laboratory control sample (LCS).

The following analytes exceeded the laboratory control limits for the LCS but were not detected in the client samples: chlorobenzene; m&p Xylene; o-Xylene; styrene; isopropylbenzene; and 1,3-Dichlorobenzene. The recoveries of all analytes except chlorobenzene fell within marginal exceedance limits.

Batch: 105222

Sample containers were unpreserved but analyses were performed within 7 days. The sample pH was measured as follows: -006 = 5; -007 = 5; -008 = 5; -009 = 5; -010 = 5; -009 = 6. The trip blank was preserved and had a pH of 3.

For the matrix spike (MS), recovery of chloroethane fell slightly below the laboratory control limits but within the marginal exceedance limits. The recovery of the matrix spike duplicate (MSD) was acceptable. The relative percent difference (RPD) between the MS and MSD exceeded laboratory control limits.

For the MS and MSD, the recovery of 1,2-Dibromo-3-chloropropane exceeded the laboratory control limits; the reovery of the LCS was acceptable and the analyte was not detected in the client sample.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-02 (2-2.5) **Date/Time Sampled: 04/04/2013 10:25** **PSS Sample ID: 13040516-001**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.8		1	4.8	04/08/13	04/08/13 15:42	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	61	04/08/13	04/08/13 11:51	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-02 (2-2.5) **Date/Time Sampled: 04/04/2013 10:25** **PSS Sample ID: 13040516-001**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

TCL Volatiles plus Oxygenates + TICs — Analytical Method: SW-846 8260 B — Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Chloromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Vinyl Chloride	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
tert-Butyl Alcohol	ND J	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
Bromomethane	ND J	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Chloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Acetone	20 J	ug/kg	20	J	1	9.8	04/08/13	04/08/13 13:55	1011
Cyclohexane	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
Trichlorofluoromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1-Dichloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Methylene chloride	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
trans-1,2-Dichloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Methyl-t-Butyl Ether	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1-Dichloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
2-Butanone (MEK)	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
cis-1,2-Dichloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Bromochloromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Chloroform	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1,1-Trichloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2-Dichloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Carbon tetrachloride	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Benzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2-Dichloropropane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Carbon Disulfide	ND	ug/kg	9.8		1	4.9	04/08/13	04/08/13 13:55	1011
Methylcyclohexane	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
Trichloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Methyl Acetate	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
Bromodichloromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
cis-1,3-Dichloropropene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011

TKJ
5/7/13

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-02 (2-2.5) **Date/Time Sampled: 04/04/2013 10:25** **PSS Sample ID: 13040516-001**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

TCL Volatiles plus Oxygenates + TICs — Analytical Method: SW-846 8260 B — Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
trans-1,3-Dichloropropene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1,2-Trichloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Toluene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
2-Hexanone (MBK)	ND	ug/kg	20		1	9.8	04/08/13	04/08/13 13:55	1011
1,2-Dibromoethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Dibromochloromethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
tert-Butyl ethyl ether	ND	ug/kg	9.8		1	4.9	04/08/13	04/08/13 13:55	1011
tert-Amyl methyl ether	ND	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
Diisopropyl ether	ND	ug/kg	9.8		1	4.9	04/08/13	04/08/13 13:55	1011
tert-Amyl ethyl ether	ND	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
tert-Amyl alcohol	NDJ	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
Bromoform	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Tetrachloroethene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Chlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Ethylbenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
m&p-Xylene	ND	ug/kg	9.8		1	4.9	04/08/13	04/08/13 13:55	1011
Styrene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
o-Xylene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Isopropylbenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,3-Dichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,4-Dichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2-Dichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	39		1	20	04/08/13	04/08/13 13:55	1011
1,2,4-Trichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
Naphthalene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011
1,2,3-Trichlorobenzene	ND	ug/kg	4.9		1	2.5	04/08/13	04/08/13 13:55	1011

JKJ
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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-02 (2-2.5) **Date/Time Sampled: 04/04/2013 10:25** **PSS Sample ID: 13040516-001**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Acenaphthylene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Anthracene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Benzo(a)anthracene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Benzo(a)pyrene	ND	ug/kg	28		1	28	04/09/13	04/09/13 18:23	1014
Benzo(b)fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Benzo(g,h,i)perylene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Benzo(k)fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Chrysene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Dibenz(a,h)Anthracene	ND	ug/kg	28		1	28	04/09/13	04/09/13 18:23	1014
Fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Fluorene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
2-Methylnaphthalene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Naphthalene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Phenanthrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014
Pyrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:23	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (2-2.5) **Date/Time Sampled: 04/01/2013 11:13** **PSS Sample ID: 13040516-002**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.9		1	4.9	04/08/13	04/08/13 16:04	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	60	04/08/13	04/08/13 12:18	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (2-2.5) **Date/Time Sampled: 04/04/2013 11:13** **PSS Sample ID: 13040516-002**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Chloromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Vinyl Chloride	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
tert-Butyl Alcohol	ND J	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
Bromomethane	ND J	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Chloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Acetone	11 J	ug/kg	20	J	1	10	04/08/13	04/08/13 15:54	1011
Cyclohexane	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
Trichlorofluoromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1-Dichloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Methylene chloride	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Methyl-t-Butyl Ether	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1-Dichloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
2-Butanone (MEK)	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Bromochloromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Chloroform	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1,1-Trichloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2-Dichloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Carbon tetrachloride	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Benzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2-Dichloropropane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Carbon Disulfide	ND	ug/kg	10		1	5	04/08/13	04/08/13 15:54	1011
Methylcyclohexane	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
Trichloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Methyl Acetate	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
Bromodichloromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (2-2.5) **Date/Time Sampled: 04/04/2013 11:15** **PSS Sample ID: 13040516-002**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
trans-1,3-Dichloropropene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1,2-Trichloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Toluene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
2-Hexanone (MBK)	ND	ug/kg	20		1	10	04/08/13	04/08/13 15:54	1011
1,2-Dibromoethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Dibromochloromethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
tert-Butyl ethyl ether	ND	ug/kg	10		1	5	04/08/13	04/08/13 15:54	1011
tert-Amyl methyl ether	ND	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
Diisopropyl ether	ND	ug/kg	10		1	5	04/08/13	04/08/13 15:54	1011
tert-Amyl ethyl ether	ND	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
tert-Amyl alcohol	ND J	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
Bromoform	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Tetrachloroethene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Chlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Ethylbenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
m&p-Xylene	ND	ug/kg	10		1	5	04/08/13	04/08/13 15:54	1011
Styrene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
o-Xylene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Isopropylbenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,3-Dichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,4-Dichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2-Dichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	40		1	20	04/08/13	04/08/13 15:54	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
Naphthalene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.0		1	2.5	04/08/13	04/08/13 15:54	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (2-2.5) **Date/Time Sampled: 04/04/2013 11:13** **PSS Sample ID:13040516-002**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 82**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Acenaphthylene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Anthracene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Benzo(a)anthracene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Benzo(a)pyrene	ND	ug/kg	28		1	28	04/09/13	04/09/13 18:51	1014
Benzo(b)fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Benzo(g,h,i)perylene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Benzo(k)fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Chrysene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Dibenz(a,h)Anthracene	ND	ug/kg	28		1	28	04/09/13	04/09/13 18:51	1014
Fluoranthene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Fluorene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
2-Methylnaphthalene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Naphthalene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Phenanthrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014
Pyrene	ND	ug/kg	200		1	100	04/09/13	04/09/13 18:51	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (2-2.5) **Date/Time Sampled: 04/04/2013 11:52** **PSS Sample ID: 13040516-003**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 85**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.7		1	4.7	04/08/13	04/08/13 17:33	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	120		1	59	04/08/13	04/08/13 15:56	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (2-2.5) **Date/Time Sampled: 04/04/2013 11:52** **PSS Sample ID: 13040516-003**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 85**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Chloromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Vinyl Chloride	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
tert-Butyl Alcohol	ND J	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
Bromomethane	ND J	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Chloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Acetone	ND J	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
Cyclohexane	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
Trichlorofluoromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1-Dichloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Methylene chloride	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
trans-1,2-Dichloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Methyl-t-Butyl Ether	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1-Dichloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
2-Butanone (MEK)	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
cis-1,2-Dichloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Bromochloromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Chloroform	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1,1-Trichloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2-Dichloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Carbon tetrachloride	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Benzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2-Dichloropropane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Carbon Disulfide	ND	ug/kg	9.2		1	4.6	04/08/13	04/08/13 13:27	1011
Methylcyclohexane	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
Trichloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Methyl Acetate	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
Bromodichloromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
cis-1,3-Dichloropropene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (2-2.5) **Date/Time Sampled: 04/04/2013 11:52** **PSS Sample ID: 13040516-003**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 85**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
trans-1,3-Dichloropropene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1,2-Trichloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Toluene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
2-Hexanone (MBK)	ND	ug/kg	18		1	9.2	04/08/13	04/08/13 13:27	1011
1,2-Dibromoethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Dibromochloromethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
tert-Butyl ethyl ether	ND	ug/kg	9.2		1	4.6	04/08/13	04/08/13 13:27	1011
tert-Amyl methyl ether	ND	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
Diisopropyl ether	ND	ug/kg	9.2		1	4.6	04/08/13	04/08/13 13:27	1011
tert-Amyl ethyl ether	ND	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
tert-Amyl alcohol	ND J	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
Bromoform	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Tetrachloroethene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Chlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Ethylbenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
m&p-Xylene	ND	ug/kg	9.2		1	4.6	04/08/13	04/08/13 13:27	1011
Styrene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
o-Xylene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Isopropylbenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,3-Dichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,4-Dichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2-Dichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	37		1	18	04/08/13	04/08/13 13:27	1011
1,2,4-Trichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
Naphthalene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011
1,2,3-Trichlorobenzene	ND	ug/kg	4.6		1	2.3	04/08/13	04/08/13 13:27	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (2-2.5) **Date/Time Sampled: 04/04/2013 11:52** **PSS Sample ID: 13040516-003**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 85**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Acenaphthylene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Anthracene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Benzo(a)anthracene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Benzo(a)pyrene	ND	ug/kg	28		1	28	04/09/13	04/09/13 19:19	1014
Benzo(b)fluoranthene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Benzo(g,h,i)perylene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Benzo(k)fluoranthene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Chrysene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Dibenz(a,h)Anthracene	ND	ug/kg	28		1	28	04/09/13	04/09/13 19:19	1014
Fluoranthene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Fluorene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
2-Methylnaphthalene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Naphthalene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Phenanthrene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014
Pyrene	ND	ug/kg	200		1	99	04/09/13	04/09/13 19:19	1014

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-01 (2-2.5) **Date/Time Sampled: 04/04/2013 13:00** **PSS Sample ID: 13040516-004**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 86**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.6		1	4.6	04/08/13	04/08/13 16:26	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	57	04/08/13	04/08/13 13:12	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-01 (2-2.5) **Date/Time Sampled: 04/04/2013 13:00** **PSS Sample ID: 13040516-004**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 86**

TCL Volatiles plus Oxygenates + TICs — Analytical Method: SW-846 8260 B — Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Chloromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Vinyl Chloride	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
tert-Butyl Alcohol	ND J	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
Bromomethane	ND J	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Chloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Acetone	12 J	ug/kg	21	J	1	11	04/08/13	04/08/13 16:49	1011
Cyclohexane	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
Trichlorofluoromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1-Dichloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Methylene chloride	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Methyl-t-Butyl Ether	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1-Dichloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
2-Butanone (MEK)	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Bromochloromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Chloroform	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1,1-Trichloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2-Dichloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Carbon tetrachloride	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Benzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2-Dichloropropane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Carbon Disulfide	ND	ug/kg	11		1	5.4	04/08/13	04/08/13 16:49	1011
Methylcyclohexane	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
Trichloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Methyl Acetate	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
Bromodichloromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-01 (2-2.5) **Date/Time Sampled: 04/04/2013 13:00** **PSS Sample ID: 13040516-004**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 86**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
trans-1,3-Dichloropropene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1,2-Trichloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Toluene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
2-Hexanone (MBK)	ND	ug/kg	21		1	11	04/08/13	04/08/13 16:49	1011
1,2-Dibromoethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Dibromochloromethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
tert-Butyl ethyl ether	ND	ug/kg	11		1	5.4	04/08/13	04/08/13 16:49	1011
tert-Amyl methyl ether	ND	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
Diisopropyl ether	ND	ug/kg	11		1	5.4	04/08/13	04/08/13 16:49	1011
tert-Amyl ethyl ether	ND	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
tert-Amyl alcohol	ND J	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
Bromoform	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Tetrachloroethene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Chlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Ethylbenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
m&p-Xylene	ND	ug/kg	11		1	5.4	04/08/13	04/08/13 16:49	1011
Styrene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
o-Xylene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Isopropylbenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,3-Dichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,4-Dichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2-Dichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	43		1	21	04/08/13	04/08/13 16:49	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
Naphthalene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.4		1	2.7	04/08/13	04/08/13 16:49	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SD-01 (2-2.5) **Date/Time Sampled: 04/04/2013 13:00** **PSS Sample ID: 13040516-004**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 86**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Acenaphthylene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Anthracene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Benzo(a)anthracene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Benzo(a)pyrene	ND	ug/kg	27		1	27	04/09/13	04/09/13 17:54	1014
Benzo(b)fluoranthene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Benzo(g,h,i)perylene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Benzo(k)fluoranthene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Chrysene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Dibenz(a,h)Anthracene	ND	ug/kg	27		1	27	04/09/13	04/09/13 17:54	1014
Fluoranthene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Fluorene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
2-Methylnaphthalene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Naphthalene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Phenanthrene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014
Pyrene	ND	ug/kg	190		1	95	04/09/13	04/09/13 17:54	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (2-2.5) **Date/Time Sampled: 04/04/2013 13:10** **PSS Sample ID: 13040516-005**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 88**

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/kg	4.5		1	4.5	04/08/13	04/08/13 16:26	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/kg	110		1	56	04/08/13	04/08/13 13:39	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (2-2.5) **Date/Time Sampled: 04/04/2013 13:10** **PSS Sample ID: 13040516-005**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 88**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Chloromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Vinyl Chloride	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
tert-Butyl Alcohol	ND J	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
Bromomethane	ND J	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Chloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Acetone	35 J	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
Cyclohexane	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
Trichlorofluoromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1-Dichloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Methylene chloride	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
trans-1,2-Dichloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Methyl-t-Butyl Ether	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1-Dichloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
2-Butanone (MEK)	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
cis-1,2-Dichloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Bromochloromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Chloroform	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1,1-Trichloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2-Dichloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Carbon tetrachloride	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Benzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2-Dichloropropane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Carbon Disulfide	ND	ug/kg	10		1	5.2	04/08/13	04/08/13 16:21	1011
Methylcyclohexane	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
Trichloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Methyl Acetate	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
Bromodichloromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
cis-1,3-Dichloropropene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (2-2.5) **Date/Time Sampled: 04/04/2013 13:10** **PSS Sample ID: 13040516-005**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 88**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5035A

Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
trans-1,3-Dichloropropene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1,2-Trichloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Toluene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
2-Hexanone (MBK)	ND	ug/kg	21		1	10	04/08/13	04/08/13 16:21	1011
1,2-Dibromoethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Dibromochloromethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
tert-Butyl ethyl ether	ND	ug/kg	10		1	5.2	04/08/13	04/08/13 16:21	1011
tert-Amyl methyl ether	ND	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
Diisopropyl ether	ND	ug/kg	10		1	5.2	04/08/13	04/08/13 16:21	1011
tert-Amyl ethyl ether	ND	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
tert-Amyl alcohol	ND	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
Bromoform	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Tetrachloroethene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Chlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Ethylbenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
m&p-Xylene	ND	ug/kg	10		1	5.2	04/08/13	04/08/13 16:21	1011
Styrene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
o-Xylene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Isopropylbenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,3-Dichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,4-Dichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2-Dichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2-Dibromo-3-chloropropane	ND	ug/kg	42		1	21	04/08/13	04/08/13 16:21	1011
1,2,4-Trichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Naphthalene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
1,2,3-Trichlorobenzene	ND	ug/kg	5.2		1	2.6	04/08/13	04/08/13 16:21	1011
Hexanal (TIC)	11	ug/kg	5.2	J	1	5.2	04/08/13	04/08/13 16:21	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (2-2.5) **Date/Time Sampled: 04/04/2013 13:10** **PSS Sample ID: 13040516-005**
Matrix: SOIL **Date/Time Received: 04/05/2013 13:00** **% Solids: 88**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3550

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Acenaphthylene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Anthracene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Benzo(a)anthracene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Benzo(a)pyrene	ND	ug/kg	26		1	26	04/09/13	04/09/13 19:48	1014
Benzo(b)fluoranthene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Benzo(g,h,i)perylene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Benzo(k)fluoranthene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Chrysene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Dibenz(a,h)Anthracene	ND	ug/kg	26		1	26	04/09/13	04/09/13 19:48	1014
Fluoranthene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Fluorene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
2-Methylnaphthalene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Naphthalene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Phenanthrene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014
Pyrene	ND	ug/kg	190		1	94	04/09/13	04/09/13 19:48	1014

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1644-Sump **Date/Time Sampled: 04/04/2013 13:15** **PSS Sample ID: 13040516-006**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0057		0.0057	04/08/13	04/08/13 12:32	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/L	0.040		1	0.04	04/08/13	04/08/13 20:53	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 18:02	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1644-Sump **Date/Time Sampled: 04/04/2013 13:15** **PSS Sample ID: 13040516-006**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
tert-Butanol	ND J	ug/L	20		1	10	04/08/13	04/09/13 05:33	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:33	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1644-Sump **Date/Time Sampled: 04/04/2013 13:15** **PSS Sample ID: 13040516-006**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:33	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
tert-Amyl alcohol	ND J	ug/L	20		1	10	04/08/13	04/09/13 05:33	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:33	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 05:33	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:33	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:33	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1P44-Sump **Date/Time Sampled: 04/04/2013 13:15** **PSS Sample ID: 13040516-005**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Benzo(a)anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Benzo(a)pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Benzo(k)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 19:31	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 19:31	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:31	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:31	1014

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (GW) **Date/Time Sampled: 04/04/2013 14:45** **PSS Sample ID: 13040516-007**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0059		0.0059	04/08/13	04/08/13 12:40	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	**0.080**	mg/L	0.050		1	0.05	04/08/13	04/08/13 20:31	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 18:27	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (GW) **Date/Time Sampled: 04/04/2013 14:45** **PSS Sample ID: 13040516-007**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
tert-Butanol	ND J	ug/L	20		1	10	04/08/13	04/09/13 05:04	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:04	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (GW) Date/Time Sampled: 04/04/2013 14:45 PSS Sample ID: 13040516-007
Matrix: WATER Date/Time Received: 04/05/2013 13:00

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:04	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
tert-Amyl alcohol	ND J	ug/L	20		1	10	04/08/13	04/09/13 05:04	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 05:04	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 05:04	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 05:04	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 05:04	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-03 (GW) **Date/Time Sampled: 04/04/2013 14:45** **PSS Sample ID: 13040516-007**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Benzo(a)anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Benzo(a)pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Benzo(k)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 19:59	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 19:59	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 19:59	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 19:59	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (GW) **Date/Time Sampled: 04/04/2013 15:15** **PSS Sample ID: 13040516-008**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0062		0.0062	04/08/13	04/08/13 12:50	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	**0.044**	mg/L	0.042		1	0.042	04/08/13	04/08/13 20:53	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 18:53	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (GW) **Date/Time Sampled: 04/04/2013 15:15** **PSS Sample ID: 13040516-008**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
tert-Butanol	ND J	ug/L	20		1	10	04/08/13	04/09/13 06:01	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:01	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (GW) **Date/Time Sampled: 04/04/2013 15:15** **PSS Sample ID: 13040516-008**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:01	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
tert-Amyl alcohol	ND	ug/L	20	J	1	10	04/08/13	04/09/13 06:01	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:01	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 06:01	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:01	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:01	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-040413 (GW) **Date/Time Sampled: 04/04/2013 15:15** **PSS Sample ID: 13040516-008**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Benzo(a)anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Benzo(a)pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Benzo(k)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 20:28	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 20:28	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 20:28	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 20:28	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (GW) **Date/Time Sampled: 04/04/2013 15:45** **PSS Sample ID: 13040516-009**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0067		0.0067	04/08/13	04/08/13 13:04	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/L	0.040		1	0.04	04/08/13	04/08/13 21:15	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 19:18	1035

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (GW) **Date/Time Sampled: 04/04/2013 15:45** **PSS Sample ID: 13040516-009**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs — Analytical Method: SW-846 8260 B — Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
tert-Butanol	ND J	ug/L	20		1	10	04/08/13	04/09/13 06:30	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:30	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (GW) **Date/Time Sampled: 04/04/2013 15:45** **PSS Sample ID: 13040516-009**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs — Analytical Method: SW-846 8260 B — Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:30	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
tert-Amyl alcohol	ND J	ug/L	20		1	10	04/08/13	04/09/13 06:30	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:30	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 06:30	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:30	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:30	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: SB-04 (GW) **Date/Time Sampled: 04/04/2013 15:45** **PSS Sample ID: 13040516-009**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Acenaphthylene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Anthracene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Benzo(a)anthracene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Benzo(a)pyrene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Benzo(b)fluoranthene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Benzo(g,h,i)perylene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Benzo(k)fluoranthene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Chrysene	ND	ug/L	2.2		1	1.1	04/08/13	04/08/13 20:56	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Fluoranthene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Fluorene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
2-Methylnaphthalene	ND	ug/L	2.2		1	2.2	04/08/13	04/08/13 20:56	1014
Naphthalene	ND	ug/L	0.56		1	0.56	04/08/13	04/08/13 20:56	1014
Phenanthrene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014
Pyrene	ND	ug/L	5.6		1	2.8	04/08/13	04/08/13 20:56	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1046-Sump **Date/Time Sampled: 04/05/2013 10:15** **PSS Sample ID: 13040516-010**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0057		0.0057	04/08/13	04/08/13 13:14	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	**0.040**	mg/L	0.040		1	0.04	04/08/13	04/08/13 21:15	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 19:44	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1646-Sump **Date/Time Sampled: 04/05/2013 10:15** **PSS Sample ID: 13040516-010**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs — Analytical Method: SW-846 8260 B — Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
tert-Butanol	ND J	ug/L	20		1	10	04/08/13	04/09/13 06:59	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:59	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1646-Sump **Date/Time Sampled: 04/05/2013 10:15** **PSS Sample ID: 13040516-010**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=5 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:59	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
tert-Amyl alcohol	ND J	ug/L	20		1	10	04/08/13	04/09/13 06:59	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 06:59	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 06:59	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 06:59	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 06:59	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: 1646 Sump Date/Time Sampled: 04/05/2013 10:15 PSS Sample ID: 13040516-010
Matrix: WATER Date/Time Received: 04/05/2013 13:00

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Benzo(a)anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Benzo(a)pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Benzo(k)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 21:24	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 21:24	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:24	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:24	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Surface Water Date/Time Sampled: 04/05/2013 10:40 PSS Sample ID: 13040516-011
Matrix: WATER Date/Time Received: 04/05/2013 13:00

Methane in Water — Analytical Method: SM 6211B/EPA 8015

	Result	Units	RL	Flag	LOD	Prepared	Analyzed	Analyst
Methane	ND	mg/L	0.0064		0.0064	04/08/13	04/08/13 13:23	4010

Total Petroleum Hydrocarbons - DRO — Analytical Method: SW-846 8015 C — Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	**0.19**	mg/L	0.049		1	0.049	04/08/13	04/08/13 21:37	1040

Total Petroleum Hydrocarbons-GRO — Analytical Method: SW-846 8015C — Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	40		1	40	04/08/13	04/08/13 20:09	1035

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CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Surface Water Date/Time Sampled: 04/05/2013 10:40 PSS Sample ID: 13040516-011
Matrix: WATER Date/Time Received: 04/05/2013 13:00

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=6 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
tert-Butanol	ND	ug/L	20		1	10	04/08/13	04/09/13 07:27	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 07:27	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Surface Water Date/Time Sampled: 04/05/2013 10:40 PSS Sample ID: 13040516-011
Matrix: WATER Date/Time Received: 04/05/2013 13:00

TCL Volatiles plus Oxygenates + TICs Analytical Method: SW-846 8260 B Preparation Method: 5030B

pH=6 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 07:27	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
tert-Amyl alcohol	ND J	ug/L	20		1	10	04/08/13	04/09/13 07:27	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 07:27	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 07:27	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 07:27	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 07:27	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Surface Water **Date/Time Sampled: 04/05/2013 10:40** **PSS Sample ID: 13040516-011**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

Polyaromatic Hydrocarbons (PAHs) Analytical Method: SW-846 8270 C Preparation Method: 3510C

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Acenaphthylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Anthracene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Benzo(a)anthracene	**0.67**	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Benzo(a)pyrene	**0.96**	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Benzo(b)fluoranthene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Benzo(g,h,i)perylene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Benzo(k)fluoranthene	**0.78**	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Chrysene	ND	ug/L	2.0		1	1	04/08/13	04/08/13 21:52	1014
Dibenz(a,h)Anthracene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Fluoranthene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Fluorene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Indeno(1,2,3-c,d)Pyrene	**0.51**	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
2-Methylnaphthalene	ND	ug/L	2.0		1	2	04/08/13	04/08/13 21:52	1014
Naphthalene	ND	ug/L	0.50		1	0.5	04/08/13	04/08/13 21:52	1014
Phenanthrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014
Pyrene	ND	ug/L	5.0		1	2.5	04/08/13	04/08/13 21:52	1014

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Trip Blank **Date/Time Sampled: 04/05/2013 00:00** **PSS Sample ID: 13040516-012**
Matrix: WATER **Date/Time Received: 04/05/2013 13:00**

TCL Volatiles plus Oxygenates + TICs — Analytical Method: SW-846 8260 B — Preparation Method: 5030B

pH=3 Library search was performed and TICs (If any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
Dichlorodifluoromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Chloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Vinyl chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
tert-Butanol	ND	ug/L	20		1	10	04/08/13	04/09/13 04:34	1011
Bromomethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Chloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Acetone	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Cyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Trichlorofluoromethane	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 04:34	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Methylene chloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
2-Butanone (MEK)	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Bromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Chloroform	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Carbon tetrachloride	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Benzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Methyl Acetate	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Methylcyclohexane	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Trichloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Carbon Disulfide	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Bromodichloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011

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PHASE SEPARATION SCIENCE, INC.

CERTIFICATE OF ANALYSIS

No: 13040516

WSP Environment & Energy - Reston, Reston, VA

April 10, 2013

Project Name: Yakona Rd
Project Location: Towson MD
Project ID: 4184

Sample ID: Trip Blank **Date/Time Sampled: 04/05/2013 00:00** **PSS Sample ID: 13040516-012**
Matrix: WATER **Date/Time Received: 04/08/2013 13:00**

TCL Volatiles plus Oxygenates + TICs — Analytical Method: SW-846 8260 B — Preparation Method: 5030B

pH=3 Library search was performed and TICs (if any) are listed below, values of TICs are estimated

	Result	Units	RL	Flag	Dil	LOD	Prepared	Analyzed	Analyst
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 04:34	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Toluene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
2-Hexanone (MBK)	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Dibromochloromethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
tert-Amyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
tert-Butyl ethyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
Diisopropyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
tert-Amyl methyl ether	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
tert-Amyl alcohol	ND	ug/L	20		1	10	04/08/13	04/09/13 04:34	1011
Bromoform	ND	ug/L	5.0		1	2.5	04/08/13	04/09/13 04:34	1011
Tetrachloroethene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Chlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Ethylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
m&p-Xylene	ND	ug/L	2.0		1	1	04/08/13	04/09/13 04:34	1011
Styrene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
o-Xylene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Isopropylbenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,3-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	10		1	5	04/08/13	04/09/13 04:34	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
Naphthalene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	0.5	04/08/13	04/09/13 04:34	1011

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5/27/13

CHAIN OF CUSTODY RECORD 130405516

Page 1 of 1

Project Number:	Site and Location:
4184	Yakona Rd, Towson, MD
Contact Name: Keith.Green@WSPGroup.com	**Contact Email:**
Sampler's Name: RJW CBR	**Sampler's Signature:**

Matrices: S = Soil; Aq = Water; A = Air; Bu = Bulk; W = Wipe; Bi = Biota; OW = Oily Waste; O = Other

Requested Analyses

	Sample Identification:	Depth	Date	Time	Matrix	Number of Containers	8260B - TCL VOCs	8015C - TPH-GRO	8270C - PAHs	8015 - DG	8015C - TPH-DRO				N° Remarks
1	SB-02 (2-2.5)	2'-2.5'	4/4/13	1025	S	4	X	X	X						
2	SB-04 (2-2.5)	2'-2.5'	"	1113	S	4	X	X	X						
3	SB-03 (2-2.5)	2'-2.5'	"	1152	S	4	X	X	X						
	MS/MSD	2'-2.5'	"	1242	S	4	X	X	X						MS of SB-01 (2-2.5)
4	SB-01 (2-2.5)	2'-2.5'	"	1300	S	4	X	X	X						
5	SB-04 0413 (2-2.5)	2'-2.5'	"	1310	S	4	X	X	X						
6	1644 - Sump	—	"	1315	AQ	9	X	X	X	X	X				
7	SB-03 (GW)	—	"	1445	AQ	9	X	X	X	X	X				
8	SB-04 0413 (GW)	—	"	1515	AQ	9	X	X	X	X	X				
9	SB-04 (GW)	—	"	1545	AQ	9	X	X	X	X	X				
	MS/MSD #2	—	"	1550	AQ	9	X	X	X	X	X				MS of SB-03 (GW)
10	1646 - Sump	—	4/5/13	1015	AQ	9	X	X	X	X	X				
11	Surface Water	—	"	1040	AQ	9	X	X	X	X	X				
12	Trip Blank (VT) 4/5/13														
	Final														

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# of Coolers:	3		
Custody Seal:	N/A		
Ice Present:	Yes	Temp:	1°C 1.0°C
Shipping Carrier:	Client		

Relinquished by (Signature):	4/6/13 1135 Date / Time	Received by (Signature):	Laboratory Name: PSS
Relinquished by (Signature):	4/5/13 1320 Date / Time	Received by (Signature):	Laboratory Location: Baltimore
Turn-Around Time: 3-DAY		Tracking Number:	Custody Seal Numbers:
			Method of Shipment: Deliver to Lab

WSP Environment & Energy

- [x] Reston Office: 11190 Sunrise Valley Dr., #300, Reston, VA 20191 / Tel: 703-709-6500
- [ ] Pittsburgh Office: 750 Holiday Dr., #410, Pittsburgh, PA 15220 / Tel: 412-604-1040
- [ ] San Jose Office: 2025 Gateway Place, #435, San Jose, CA 95110 / Tel: 408-453-6100
- [ ] New Jersey Office: 200 Cottontail Ln., Somerset, NJ 08873 / Tel: 732-564-0888
- [ ] Denver Office: 4600 South Ulster, #930, Denver, CO 80237 / Tel: 303-850-9200
- [ ] Minneapolis Office: 123 North 3rd St., #808, Minneapolis, MN 55401 / Tel: 612-343-0510
- [ ] Woburn Office: 300 Trade Center, Suite 4690, Woburn, MA 01801
- [ ] Cazenovia Office: 5 Sullivan St., Cazenovia, NY 13035 / Tel: 315-655-3900

Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	13040516	**Received By**	Cathy Thompson
Client Name	WSP Environment & Energy - Restor	**Date Received**	04/05/2013 01:00:00 PM
Project Name	Yakona Rd	**Delivered By**	Client
Project Number	4184	**Tracking No**	Not Applicable
Disposal Date	05/10/2013	**Logged In By**	Cathy Thompson

Shipping Container(s)

No. of Coolers	2	Ice	Present
		Temp (deg C)	1
Custody Seal(s) Intact?	N/A	Temp Blank Present	No
Seal(s) Signed / Dated?	N/A		

Documentation

		Sampler Name	RJW CBR
		MD DW Cert. No.	N/A
COC agrees with sample labels?	Yes		
Chain of Custody	Yes		

Sample Container

		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Total No. of Samples Received 12 Total No. of Containers Received 75

Preservation

Metals	(pH<2)	N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, COD, Phenols	(ph<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Per client, analyze DRO on all soils. For waters, VOA analyzed from the unpreserved VOA vials (hold time reduced to 7 days), GRO analyzed from the 2 preserved VOA vials, and Dissolved Methane analyzed from the 2 Sodium Bisulfate vials (preservative should not affect the analysis).

Client requested MS/MSD analyses for sample -007 (SB-03 GW). Insufficient sample volume was provided to perform MS/MSD for all analyses.

Phase Separation Science, Inc

Sample Receipt Checklist

Work Order #	13040516	**Received By**	Cathy Thompson
Client Name	WSP Environment & Energy - Restor	**Date Received**	04/05/2013 01:00:00 PM
Project Name	Yakona Rd	**Delivered By**	Client
Project Number	4184	**Tracking No**	Not Applicable
		Logged In By	Cathy Thompson

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By: _____ Date: 04/05/2013
Cathy Thompson

PM Review and Approval: _____ Date: 04/08/2013
Simon Crisp

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

April 23, 2013

Keith Green
WSP Environment and Energy
11190 Sunrise Valley Dr.
Reston, VA 20191

RE: Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Dear Keith Green:
Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carolynne Trout

Carolynne Trout

carolynne.trout@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia/DCLS Certification #: 002521
Virginia/VELAP Certification #: 460163
Washington Certification #: C754
West Virginia Certification #: 382
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10224616001	1644-A-040313	Air	04/04/13 10:46	04/05/13 09:10
10224616002	1644-B-040313	Air	04/04/13 10:49	04/05/13 09:10
10224616003	1000-B-040313	Air	04/04/13 10:49	04/05/13 09:10
10224616004	1646-A-040313	Air	04/04/13 10:30	04/05/13 09:10
10224616005	1646-B-040313	Air	04/04/13 10:30	04/05/13 09:10
10224616006	1644/46-BK-040313	Air	04/04/13 10:19	04/05/13 09:10
10224616007	1644-F-040313	Air	04/04/13 11:45	04/05/13 09:10
10224616008	1644-R-040313	Air	04/04/13 12:34	04/05/13 09:10
10224616009	1646-F-040313	Air	04/04/13 12:06	04/05/13 09:10
10224616010	1646-R-040313	Air	04/04/13 12:22	04/05/13 09:10
10224616011	PACE0264	Air	04/04/13 00:00	04/05/13 09:10
10224616012	PACE0671	Air	04/04/13 00:00	04/05/13 09:10
10224616013	PACE0849	Air	04/04/13 00:00	04/05/13 09:10
10224616014	PACE2029	Air	04/04/13 00:00	04/05/13 09:10
10224616015	Cert Can 0099	Air	04/03/13 00:00	04/05/13 16:29
10224616016	Cert Can 0433	Air	04/03/13 00:00	04/05/13 16:29
10224616017	Cert Can 2033	Air	04/03/13 00:00	04/05/13 16:29
10224616018	Cert Can 1053	Air	04/03/13 00:00	04/05/13 16:29
10224616019	Cert Can 1078	Air	04/03/13 00:00	04/05/13 16:29
10224616020	Cert Can 0557	Air	04/03/13 00:00	04/05/13 16:29
10224616021	Cert Can 0262	Air	04/03/13 00:00	04/05/13 16:29
10224616022	Cert Can 0006	Air	04/03/13 00:00	04/05/13 16:29
10224616023	Cert Can 1611	Air	04/03/13 00:00	04/05/13 16:29
10224616024	Cert Can 1600	Air	04/03/13 00:00	04/05/13 16:29

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SAMPLE ANALYTE COUNT

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10224616001	1644-A-040313	TO-15	CJR	58
10224616002	1644-B-040313	TO-15	CJR	58
10224616003	1000-B-040313	TO-15	CJR	58
10224616004	1646-A-040313	TO-15	CJR	58
10224616005	1646-B-040313	TO-15	CJR	58
10224616006	1644/46-BK-040313	TO-15	CJR	58
10224616007	1644-F-040313	TO-15	CJR	58
10224616008	1644-R-040313	TO-15	CJR	58
10224616009	1646-F-040313	TO-15	CJR	58
10224616010	1646-R-040313	TO-15	CJR	58
10224616015	Cert Can 0099	TO-15	DR1	57
10224616016	Cert Can 0433	TO-15	CJR	57
10224616017	Cert Can 2033	TO-15	DR1	57
10224616018	Cert Can 1053	TO-15	CJR	57
10224616019	Cert Can 1078	TO-15	CJR	57
10224616020	Cert Can 0557	TO-15	DR1	57
10224616021	Cert Can 0262	TO-15	CJR	57
10224616022	Cert Can 0006	TO-15	DR1	57
10224616023	Cert Can 1611	TO-15	DR1	57
10224616024	Cert Can 1600	TO-15	CJR	57

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-A-040313 **Lab ID: 10224616001** Collected: 04/04/13 10:46 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**29.2**	ug/m3	0.69	1.44		04/18/13 16:30	67-64-1	
Benzene	**1.4**	ug/m3	0.47	1.44		04/18/13 16:30	71-43-2	
Bromodichloromethane	ND	ug/m3	2.0	1.44		04/18/13 16:30	75-27-4	
Bromoform	ND	ug/m3	3.0	1.44		04/18/13 16:30	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.44		04/18/13 16:30	74-83-9	
1,3-Butadiene	ND	ug/m3	0.65	1.44		04/18/13 16:30	106-99-0	
2-Butanone (MEK)	**1.7**	ug/m3	0.86	1.44		04/18/13 16:30	78-93-3	
Carbon disulfide	ND	ug/m3	0.91	1.44		04/18/13 16:30	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.92	1.44		04/18/13 16:30	56-23-5	
Chlorobenzene	ND	ug/m3	1.4	1.44		04/18/13 16:30	108-90-7	
Chloroethane	ND	ug/m3	0.78	1.44		04/18/13 16:30	75-00-3	
Chloroform	ND	ug/m3	1.4	1.44		04/18/13 16:30	67-66-3	
Chloromethane	**0.63**	ug/m3	0.60	1.44		04/18/13 16:30	74-87-3	
Cyclohexane	**2.9**	ug/m3	1.0	1.44		04/18/13 16:30	110-82-7	
Dibromochloromethane	ND	ug/m3	2.5	1.44		04/18/13 16:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.2	1.44		04/18/13 16:30	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.44		04/18/13 16:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.8	1.44		04/18/13 16:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.8	1.44		04/18/13 16:30	106-46-7	
Dichlorodifluoromethane	**2.2**	ug/m3	1.5	1.44		04/18/13 16:30	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.2	1.44		04/18/13 16:30	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.59	1.44		04/18/13 16:30	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.2	1.44		04/18/13 16:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.2	1.44		04/18/13 16:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.2	1.44		04/18/13 16:30	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.4	1.44		04/18/13 16:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.3	1.44		04/18/13 16:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.3	1.44		04/18/13 16:30	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.0	1.44		04/18/13 16:30	76-14-2	
Ethyl acetate	**74.4**	ug/m3	1.1	1.44		04/18/13 16:30	141-78-6	
Ethylbenzene	**2.1**	ug/m3	1.3	1.44		04/18/13 16:30	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.4	1.44		04/18/13 16:30	622-96-8	
n-Heptane	**4.2**	ug/m3	1.2	1.44		04/18/13 16:30	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.2	1.44		04/18/13 16:30	87-68-3	
n-Hexane	**4.7**	ug/m3	1.0	1.44		04/18/13 16:30	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.44		04/18/13 16:30	591-78-6	
Methylene Chloride	**1.3**	ug/m3	1.0	1.44		04/18/13 16:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.2	1.44		04/18/13 16:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.44		04/18/13 16:30	1634-04-4	
Naphthalene	ND	ug/m3	1.5	1.44		04/18/13 16:30	91-20-3	
Propylene	ND	ug/m3	0.50	1.44		04/18/13 16:30	115-07-1	
Styrene	ND	ug/m3	1.3	1.44		04/18/13 16:30	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.0	1.44		04/18/13 16:30	79-34-5	
Tetrachloroethene	ND	ug/m3	0.99	1.44		04/18/13 16:30	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.86	1.44		04/18/13 16:30	109-99-9	
Toluene	**7.0**	ug/m3	1.1	1.44		04/18/13 16:30	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.44		04/18/13 16:30	120-82-1	

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JKJ
5/27/13

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-A-040313 **Lab ID: 10224616001** Collected: 04/04/13 10:46 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.6	1.44		04/18/13 16:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.79	1.44		04/18/13 16:30	79-00-5	
Trichloroethene	**2.9**	ug/m3	0.79	1.44		04/18/13 16:30	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.6	1.44		04/18/13 16:30	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.3	1.44		04/18/13 16:30	76-13-1	
1,2,4-Trimethylbenzene	**1.8**	ug/m3	1.4	1.44		04/18/13 16:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.4	1.44		04/18/13 16:30	108-67-8	
Vinyl acetate	ND	ug/m3	1.0	1.44		04/18/13 16:30	108-05-4	
Vinyl chloride	ND	ug/m3	0.37	1.44		04/18/13 16:30	75-01-4	
m&p-Xylene	**6.6**	ug/m3	2.5	1.44		04/18/13 16:30	179601-23-1	
o-Xylene	**1.9**	ug/m3	1.3	1.44		04/18/13 16:30	95-47-6	

JKT
5/27/13

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-B-040313 **Lab ID: 10224616002** Collected: 04/04/13 10:49 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Dichlorodifluoromethane	**2.2**	ug/m3	1.3	1.26		04/18/13 17:01	75-71-8	
Chloromethane	**0.63**	ug/m3	0.53	1.26		04/18/13 17:01	74-87-3	
Dichlorotetrafluoroethane	ND	ug/m3	1.8	1.26		04/18/13 17:01	76-14-2	
Vinyl chloride	ND	ug/m3	0.33	1.26		04/18/13 17:01	75-01-4	
Bromomethane	ND	ug/m3	1.0	1.26		04/18/13 17:01	74-83-9	
Chloroethane	ND	ug/m3	0.68	1.26		04/18/13 17:01	75-00-3	
Trichlorofluoromethane	ND	ug/m3	1.4	1.26		04/18/13 17:01	75-69-4	
1,1-Dichloroethene	ND	ug/m3	1.0	1.26		04/18/13 17:01	75-35-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.0	1.26		04/18/13 17:01	76-13-1	
Methylene Chloride	**1.4**	ug/m3	0.89	1.26		04/18/13 17:01	75-09-2	
1,1-Dichloroethane	ND	ug/m3	1.0	1.26		04/18/13 17:01	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.0	1.26		04/18/13 17:01	156-59-2	
Chloroform	ND	ug/m3	1.2	1.26		04/18/13 17:01	67-66-3	
1,1,1-Trichloroethane	ND	ug/m3	1.4	1.26		04/18/13 17:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.69	1.26		04/18/13 17:01	79-00-5	
1,2-Dichloroethane	ND	ug/m3	0.52	1.26		04/18/13 17:01	107-06-2	
Benzene	**1.7**	ug/m3	0.41	1.26		04/18/13 17:01	71-43-2	
Carbon tetrachloride	ND	ug/m3	0.81	1.26		04/18/13 17:01	56-23-5	
1,2-Dichloropropane	ND	ug/m3	1.2	1.26		04/18/13 17:01	78-87-5	
Trichloroethene	ND	ug/m3	0.69	1.26		04/18/13 17:01	79-01-6	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.26		04/18/13 17:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.26		04/18/13 17:01	10061-02-6	
Toluene	**8.1**	ug/m3	0.97	1.26		04/18/13 17:01	108-88-3	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.0	1.26		04/18/13 17:01	106-93-4	
Tetrachloroethene	ND	ug/m3	0.87	1.26		04/18/13 17:01	127-18-4	
Chlorobenzene	ND	ug/m3	1.2	1.26		04/18/13 17:01	108-90-7	
Ethylbenzene	**2.8**	ug/m3	1.1	1.26		04/18/13 17:01	100-41-4	
m&p-Xylene	**10.2**	ug/m3	2.2	1.26		04/18/13 17:01	179601-23-1	
Styrene	ND	ug/m3	1.1	1.26		04/18/13 17:01	100-42-5	
o-Xylene	**2.8**	ug/m3	1.1	1.26		04/18/13 17:01	95-47-6	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.88	1.26		04/18/13 17:01	79-34-5	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.26		04/18/13 17:01	108-67-8	
1,2,4-Trimethylbenzene	**3.8**	ug/m3	1.3	1.26		04/18/13 17:01	95-63-6	
1,3-Dichlorobenzene	ND	ug/m3	1.5	1.26		04/18/13 17:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.5	1.26		04/18/13 17:01	106-46-7	
1,2-Dichlorobenzene	ND	ug/m3	1.5	1.26		04/18/13 17:01	95-50-1	
1,2,4-Trichlorobenzene	ND	ug/m3	1.9	1.26		04/18/13 17:01	120-82-1	
Hexachloro-1,3-butadiene	ND	ug/m3	2.8	1.26		04/18/13 17:01	87-68-3	
Tetrahydrofuran	ND	ug/m3	0.76	1.26		04/18/13 17:01	109-99-9	
Acetone	ND	ug/m3	0.60	1.26		04/18/13 17:01	67-64-1	
2-Butanone (MEK)	ND	ug/m3	0.76	1.26		04/18/13 17:01	78-93-3	
n-Hexane	**4.9**	ug/m3	0.91	1.26		04/18/13 17:01	110-54-3	
Methyl-tert-butyl ether	ND	ug/m3	0.92	1.26		04/18/13 17:01	1634-04-4	
Dibromochloromethane	ND	ug/m3	2.2	1.26		04/18/13 17:01	124-48-1	
1,3-Butadiene	ND	ug/m3	0.57	1.26		04/18/13 17:01	106-99-0	
Carbon disulfide	ND	ug/m3	0.79	1.26		04/18/13 17:01	75-15-0	
Vinyl acetate	ND	ug/m3	0.90	1.26		04/18/13 17:01	108-05-4	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-B-040313 **Lab ID: 10224616002** Collected: 04/04/13 10:49 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Cyclohexane	**3.0**	ug/m3	0.88	1.26		04/18/13 17:01	110-82-7	
Ethyl acetate	ND	ug/m3	0.92	1.26		04/18/13 17:01	141-78-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.0	1.26		04/18/13 17:01	108-10-1	
2-Hexanone	ND	ug/m3	1.0	1.26		04/18/13 17:01	591-78-6	
Bromoform	ND	ug/m3	2.6	1.26		04/18/13 17:01	75-25-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.0	1.26		04/18/13 17:01	156-60-5	
Bromodichloromethane	ND	ug/m3	1.7	1.26		04/18/13 17:01	75-27-4	
n-Heptane	**4.0**	ug/m3	1.0	1.26		04/18/13 17:01	142-82-5	
Propylene	ND	ug/m3	0.44	1.26		04/18/13 17:01	115-07-1	
4-Ethyltoluene	**1.6**	ug/m3	1.3	1.26		04/18/13 17:01	622-96-8	
Naphthalene	ND	ug/m3	1.3	1.26		04/18/13 17:01	91-20-3	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1000-B-040313 **Lab ID: 10224616003** Collected: 04/04/13 10:49 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.64	1.34		04/19/13 16:49	67-64-1	
Benzene	**2.1**	ug/m3	0.44	1.34		04/19/13 16:49	71-43-2	
Bromodichloromethane	ND	ug/m3	1.8	1.34		04/19/13 16:49	75-27-4	
Bromoform	ND	ug/m3	2.8	1.34		04/19/13 16:49	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.34		04/19/13 16:49	74-83-9	
1,3-Butadiene	ND	ug/m3	0.60	1.34		04/19/13 16:49	106-99-0	
2-Butanone (MEK)	**3.9**	ug/m3	0.80	1.34		04/19/13 16:49	78-93-3	
Carbon disulfide	ND	ug/m3	0.84	1.34		04/19/13 16:49	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.86	1.34		04/19/13 16:49	56-23-5	
Chlorobenzene	ND	ug/m3	1.3	1.34		04/19/13 16:49	108-90-7	
Chloroethane	ND	ug/m3	0.72	1.34		04/19/13 16:49	75-00-3	
Chloroform	ND	ug/m3	1.3	1.34		04/19/13 16:49	67-66-3	
Chloromethane	**0.72**	ug/m3	0.56	1.34		04/19/13 16:49	74-87-3	
Cyclohexane	**3.5**	ug/m3	0.94	1.34		04/19/13 16:49	110-82-7	
Dibromochloromethane	ND	ug/m3	2.3	1.34		04/19/13 16:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.1	1.34		04/19/13 16:49	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/19/13 16:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/19/13 16:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/19/13 16:49	106-46-7	
Dichlorodifluoromethane	**2.6**	ug/m3	1.4	1.34		04/19/13 16:49	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.1	1.34		04/19/13 16:49	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.55	1.34		04/19/13 16:49	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.1	1.34		04/19/13 16:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.1	1.34		04/19/13 16:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.1	1.34		04/19/13 16:49	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.3	1.34		04/19/13 16:49	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		04/19/13 16:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		04/19/13 16:49	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.9	1.34		04/19/13 16:49	76-14-2	
Ethyl acetate	ND	ug/m3	0.98	1.34		04/19/13 16:49	141-78-6	
Ethylbenzene	**3.9**	ug/m3	1.2	1.34		04/19/13 16:49	100-41-4	
4-Ethyltoluene	**2.0**	ug/m3	1.3	1.34		04/19/13 16:49	622-96-8	
n-Heptane	**4.9**	ug/m3	1.1	1.34		04/19/13 16:49	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.9	1.34		04/19/13 16:49	87-68-3	
n-Hexane	**5.7**	ug/m3	0.96	1.34		04/19/13 16:49	110-54-3	
2-Hexanone	ND	ug/m3	1.1	1.34		04/19/13 16:49	591-78-6	
Methylene Chloride	**1.9**	ug/m3	0.95	1.34		04/19/13 16:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.1	1.34		04/19/13 16:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.98	1.34		04/19/13 16:49	1634-04-4	
Naphthalene	**2.4**	ug/m3 J	1.4	1.34		04/19/13 16:49	91-20-3	CH,L1
Propylene	ND	ug/m3	0.47	1.34		04/19/13 16:49	115-07-1	
Styrene	ND	ug/m3	1.2	1.34		04/19/13 16:49	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.94	1.34		04/19/13 16:49	79-34-5	
Tetrachloroethene	ND	ug/m3	0.92	1.34		04/19/13 16:49	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.80	1.34		04/19/13 16:49	109-99-9	
Toluene	**10.1**	ug/m3	1.0	1.34		04/19/13 16:49	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.0	1.34		04/19/13 16:49	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1000-B-040313 **Lab ID: 10224616003** Collected: 04/04/13 10:49 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.5	1.34		04/19/13 16:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.74	1.34		04/19/13 16:49	79-00-5	
Trichloroethene	**0.99**	ug/m3	0.74	1.34		04/19/13 16:49	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.5	1.34		04/19/13 16:49	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.1	1.34		04/19/13 16:49	76-13-1	
1,2,4-Trimethylbenzene	**5.6**	ug/m3	1.3	1.34		04/19/13 16:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.34		04/19/13 16:49	108-67-8	
Vinyl acetate	ND	ug/m3	0.96	1.34		04/19/13 16:49	108-05-4	
Vinyl chloride	ND	ug/m3	0.35	1.34		04/19/13 16:49	75-01-4	
m&p-Xylene	**13.3**	ug/m3	2.4	1.34		04/19/13 16:49	179601-23-1	
o-Xylene	**4.1**	ug/m3	1.2	1.34		04/19/13 16:49	95-47-6	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-A-040313 **Lab ID: 10224616004** Collected: 04/04/13 10:30 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.72	1.49		04/18/13 20:32	67-64-1	
Benzene	**1.1**	ug/m3	0.48	1.49		04/18/13 20:32	71-43-2	
Bromodichloromethane	ND	ug/m3	2.0	1.49		04/18/13 20:32	75-27-4	
Bromoform	ND	ug/m3	3.1	1.49		04/18/13 20:32	75-25-2	
Bromomethane	ND	ug/m3	1.2	1.49		04/18/13 20:32	74-83-9	
1,3-Butadiene	ND	ug/m3	0.67	1.49		04/18/13 20:32	106-99-0	
2-Butanone (MEK)	**5.6**	ug/m3	0.89	1.49		04/18/13 20:32	78-93-3	
Carbon disulfide	ND	ug/m3	0.94	1.49		04/18/13 20:32	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.95	1.49		04/18/13 20:32	56-23-5	
Chlorobenzene	ND	ug/m3	1.4	1.49		04/18/13 20:32	108-90-7	
Chloroethane	ND	ug/m3	0.80	1.49		04/18/13 20:32	75-00-3	
Chloroform	**1.5**	ug/m3	1.5	1.49		04/18/13 20:32	67-66-3	
Chloromethane	**0.97**	ug/m3	0.63	1.49		04/18/13 20:32	74-87-3	
Cyclohexane	**2.2**	ug/m3	1.0	1.49		04/18/13 20:32	110-82-7	
Dibromochloromethane	ND	ug/m3	2.6	1.49		04/18/13 20:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.3	1.49		04/18/13 20:32	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.49		04/18/13 20:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.8	1.49		04/18/13 20:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.8	1.49		04/18/13 20:32	106-46-7	
Dichlorodifluoromethane	**2.4**	ug/m3	1.5	1.49		04/18/13 20:32	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.2	1.49		04/18/13 20:32	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.61	1.49		04/18/13 20:32	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.2	1.49		04/18/13 20:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.2	1.49		04/18/13 20:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.2	1.49		04/18/13 20:32	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.4	1.49		04/18/13 20:32	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.4	1.49		04/18/13 20:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.4	1.49		04/18/13 20:32	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.1	1.49		04/18/13 20:32	76-14-2	
Ethyl acetate	**24.4**	ug/m3	1.1	1.49		04/18/13 20:32	141-78-6	
Ethylbenzene	**1.4**	ug/m3	1.3	1.49		04/18/13 20:32	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.5	1.49		04/18/13 20:32	622-96-8	
n-Heptane	**3.9**	ug/m3	1.2	1.49		04/18/13 20:32	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.3	1.49		04/18/13 20:32	87-68-3	
n-Hexane	**2.3**	ug/m3	1.1	1.49		04/18/13 20:32	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.49		04/18/13 20:32	591-78-6	
Methylene Chloride	**1.6**	ug/m3	1.1	1.49		04/18/13 20:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.2	1.49		04/18/13 20:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.49		04/18/13 20:32	1634-04-4	
Naphthalene	ND	ug/m3	1.6	1.49		04/18/13 20:32	91-20-3	
Propylene	ND	ug/m3	0.52	1.49		04/18/13 20:32	115-07-1	
Styrene	ND	ug/m3	1.3	1.49		04/18/13 20:32	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.0	1.49		04/18/13 20:32	79-34-5	
Tetrachloroethene	ND	ug/m3	1.0	1.49		04/18/13 20:32	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.89	1.49		04/18/13 20:32	109-99-9	
Toluene	**7.0**	ug/m3	1.1	1.49		04/18/13 20:32	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.49		04/18/13 20:32	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-A-040313 **Lab ID: 10224616004** Collected: 04/04/13 10:30 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.49		04/18/13 20:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.82	1.49		04/18/13 20:32	79-00-5	
Trichloroethene	**1.1**	ug/m3	0.82	1.49		04/18/13 20:32	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.7	1.49		04/18/13 20:32	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.4	1.49		04/18/13 20:32	76-13-1	
1,2,4-Trimethylbenzene	**2.0**	ug/m3	1.5	1.49		04/18/13 20:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.5	1.49		04/18/13 20:32	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.49		04/18/13 20:32	108-05-4	
Vinyl chloride	ND	ug/m3	0.39	1.49		04/18/13 20:32	75-01-4	
m&p-Xylene	ND	ug/m3	2.6	1.49		04/18/13 20:32	179601-23-1	
o-Xylene	ND	ug/m3	1.3	1.49		04/18/13 20:32	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-B-040313 **Lab ID: 10224616005** Collected: 04/04/13 10:30 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.64	1.34		04/18/13 18:03	67-64-1	
Benzene	**0.64**	ug/m3	0.44	1.34		04/18/13 18:03	71-43-2	
Bromodichloromethane	ND	ug/m3	1.8	1.34		04/18/13 18:03	75-27-4	
Bromoform	ND	ug/m3	2.8	1.34		04/18/13 18:03	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.34		04/18/13 18:03	74-83-9	
1,3-Butadiene	ND	ug/m3	0.60	1.34		04/18/13 18:03	106-99-0	
2-Butanone (MEK)	**1.9**	ug/m3	0.80	1.34		04/18/13 18:03	78-93-3	
Carbon disulfide	ND	ug/m3	0.84	1.34		04/18/13 18:03	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.86	1.34		04/18/13 18:03	56-23-5	
Chlorobenzene	ND	ug/m3	1.3	1.34		04/18/13 18:03	108-90-7	
Chloroethane	ND	ug/m3	0.72	1.34		04/18/13 18:03	75-00-3	
Chloroform	ND	ug/m3	1.3	1.34		04/18/13 18:03	67-66-3	
Chloromethane	ND	ug/m3	0.56	1.34		04/18/13 18:03	74-87-3	
Cyclohexane	**1.8**	ug/m3	0.94	1.34		04/18/13 18:03	110-82-7	
Dibromochloromethane	ND	ug/m3	2.3	1.34		04/18/13 18:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.1	1.34		04/18/13 18:03	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/18/13 18:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/18/13 18:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.6	1.34		04/18/13 18:03	106-46-7	
Dichlorodifluoromethane	**2.1**	ug/m3	1.4	1.34		04/18/13 18:03	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.1	1.34		04/18/13 18:03	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.55	1.34		04/18/13 18:03	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.1	1.34		04/18/13 18:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.1	1.34		04/18/13 18:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.1	1.34		04/18/13 18:03	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.3	1.34		04/18/13 18:03	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		04/18/13 18:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		04/18/13 18:03	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.9	1.34		04/18/13 18:03	76-14-2	
Ethyl acetate	**3.0**	ug/m3	0.98	1.34		04/18/13 18:03	141-78-6	
Ethylbenzene	ND	ug/m3	1.2	1.34		04/18/13 18:03	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.3	1.34		04/18/13 18:03	622-96-8	
n-Heptane	**3.2**	ug/m3	1.1	1.34		04/18/13 18:03	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.9	1.34		04/18/13 18:03	87-68-3	
n-Hexane	**1.7**	ug/m3	0.96	1.34		04/18/13 18:03	110-54-3	
2-Hexanone	ND	ug/m3	1.1	1.34		04/18/13 18:03	591-78-6	
Methylene Chloride	ND	ug/m3	0.95	1.34		04/18/13 18:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.1	1.34		04/18/13 18:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.98	1.34		04/18/13 18:03	1634-04-4	
Naphthalene	ND	ug/m3	1.4	1.34		04/18/13 18:03	91-20-3	
Propylene	ND	ug/m3	0.47	1.34		04/18/13 18:03	115-07-1	
Styrene	ND	ug/m3	1.2	1.34		04/18/13 18:03	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.94	1.34		04/18/13 18:03	79-34-5	
Tetrachloroethene	ND	ug/m3	0.92	1.34		04/18/13 18:03	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.80	1.34		04/18/13 18:03	109-99-9	
Toluene	**2.3**	ug/m3	1.0	1.34		04/18/13 18:03	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.0	1.34		04/18/13 18:03	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-B-040313 **Lab ID: 10224616005** Collected: 04/04/13 10:30 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.5	1.34		04/18/13 18:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.74	1.34		04/18/13 18:03	79-00-5	
Trichloroethene	**2.4**	ug/m3	0.74	1.34		04/18/13 18:03	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.5	1.34		04/18/13 18:03	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.1	1.34		04/18/13 18:03	76-13-1	
1,2,4-Trimethylbenzene	**1.7**	ug/m3	1.3	1.34		04/18/13 18:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.34		04/18/13 18:03	108-67-8	
Vinyl acetate	ND	ug/m3	0.96	1.34		04/18/13 18:03	108-05-4	
Vinyl chloride	ND	ug/m3	0.35	1.34		04/18/13 18:03	75-01-4	
m&p-Xylene	ND	ug/m3	2.4	1.34		04/18/13 18:03	179601-23-1	
o-Xylene	ND	ug/m3	1.2	1.34		04/18/13 18:03	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644/46-BK-040313 **Lab ID: 10224616006** Collected: 04/04/13 10:19 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**0.90**	ug/m3	0.81	1.69		04/19/13 17:54	67-64-1	
Benzene	ND	ug/m3	0.55	1.69		04/19/13 17:54	71-43-2	
Bromodichloromethane	ND	ug/m3	2.3	1.69		04/19/13 17:54	75-27-4	
Bromoform	ND	ug/m3	3.5	1.69		04/19/13 17:54	75-25-2	J
Bromomethane	ND	ug/m3	1.3	1.69		04/19/13 17:54	74-83-9	
1,3-Butadiene	ND	ug/m3	0.76	1.69		04/19/13 17:54	106-99-0	
2-Butanone (MEK)	ND	ug/m3	1.0	1.69		04/19/13 17:54	78-93-3	
Carbon disulfide	ND	ug/m3	1.1	1.69		04/19/13 17:54	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.1	1.69		04/19/13 17:54	56-23-5	
Chlorobenzene	ND	ug/m3	1.6	1.69		04/19/13 17:54	108-90-7	
Chloroethane	ND	ug/m3	0.91	1.69		04/19/13 17:54	75-00-3	
Chloroform	ND	ug/m3	1.7	1.69		04/19/13 17:54	67-66-3	
Chloromethane	ND	ug/m3	0.71	1.69		04/19/13 17:54	74-87-3	
Cyclohexane	ND	ug/m3	1.2	1.69		04/19/13 17:54	110-82-7	
Dibromochloromethane	ND	ug/m3	2.9	1.69		04/19/13 17:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.6	1.69		04/19/13 17:54	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.1	1.69		04/19/13 17:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.1	1.69		04/19/13 17:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.1	1.69		04/19/13 17:54	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.7	1.69		04/19/13 17:54	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.4	1.69		04/19/13 17:54	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.69	1.69		04/19/13 17:54	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.4	1.69		04/19/13 17:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.69		04/19/13 17:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.69		04/19/13 17:54	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.6	1.69		04/19/13 17:54	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.6	1.69		04/19/13 17:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.6	1.69		04/19/13 17:54	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.4	1.69		04/19/13 17:54	76-14-2	
Ethyl acetate	ND	ug/m3	1.2	1.69		04/19/13 17:54	141-78-6	
Ethylbenzene	ND	ug/m3	1.5	1.69		04/19/13 17:54	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.7	1.69		04/19/13 17:54	622-96-8	
n-Heptane	ND	ug/m3	1.4	1.69		04/19/13 17:54	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.7	1.69		04/19/13 17:54	87-68-3	
n-Hexane	**2.8**	ug/m3	1.2	1.69		04/19/13 17:54	110-54-3	
2-Hexanone	ND	ug/m3	1.4	1.69		04/19/13 17:54	591-78-6	
Methylene Chloride	**16.3**	ug/m3	1.2	1.69		04/19/13 17:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.4	1.69		04/19/13 17:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.2	1.69		04/19/13 17:54	1634-04-4	
Naphthalene	ND	ug/m3	1.8	1.69		04/19/13 17:54	91-20-3	
Propylene	ND	ug/m3	0.59	1.69		04/19/13 17:54	115-07-1	
Styrene	ND	ug/m3	1.5	1.69		04/19/13 17:54	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.2	1.69		04/19/13 17:54	79-34-5	
Tetrachloroethene	ND	ug/m3	1.2	1.69		04/19/13 17:54	127-18-4	
Tetrahydrofuran	ND	ug/m3	1.0	1.69		04/19/13 17:54	109-99-9	
Toluene	ND	ug/m3	1.3	1.69		04/19/13 17:54	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.6	1.69		04/19/13 17:54	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644/46-BK-040313 **Lab ID: 10224616006** Collected: 04/04/13 10:19 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.9	1.69		04/19/13 17:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.93	1.69		04/19/13 17:54	79-00-5	
Trichloroethene	ND	ug/m3	0.93	1.69		04/19/13 17:54	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.9	1.69		04/19/13 17:54	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.7	1.69		04/19/13 17:54	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.7	1.69		04/19/13 17:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.7	1.69		04/19/13 17:54	108-67-8	
Vinyl acetate	ND	ug/m3	1.2	1.69		04/19/13 17:54	108-05-4	
Vinyl chloride	ND	ug/m3	0.44	1.69		04/19/13 17:54	75-01-4	
m&p-Xylene	ND	ug/m3	3.0	1.69		04/19/13 17:54	179601-23-1	
o-Xylene	ND	ug/m3	1.5	1.69		04/19/13 17:54	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-F-040313 **Lab ID: 10224616007** Collected: 04/04/13 11:45 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	14.9	31		04/19/13 19:15	67-64-1	
Benzene	**96.1**	ug/m3	10.1	31		04/19/13 19:15	71-43-2	
Bromodichloromethane	ND	ug/m3	42.2	31		04/19/13 19:15	75-27-4	
Bromoform	ND	ug/m3	65.1	31		04/19/13 19:15	75-25-2	
Bromomethane	ND	ug/m3	24.5	31		04/19/13 19:15	74-83-9	
1,3-Butadiene	ND	ug/m3	14.0	31		04/19/13 19:15	106-99-0	
2-Butanone (MEK)	ND	ug/m3	18.6	31		04/19/13 19:15	78-93-3	
Carbon disulfide	ND	ug/m3	19.5	31		04/19/13 19:15	75-15-0	
Carbon tetrachloride	ND	ug/m3	19.8	31		04/19/13 19:15	56-23-5	
Chlorobenzene	ND	ug/m3	29.1	31		04/19/13 19:15	108-90-7	
Chloroethane	ND	ug/m3	16.7	31		04/19/13 19:15	75-00-3	
Chloroform	**148**	ug/m3	30.7	31		04/19/13 19:15	67-66-3	
Chloromethane	ND	ug/m3	13.0	31		04/19/13 19:15	74-87-3	
Cyclohexane	**168**	ug/m3	21.7	31		04/19/13 19:15	110-82-7	
Dibromochloromethane	ND	ug/m3	53.6	31		04/19/13 19:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	48.4	31		04/19/13 19:15	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	37.8	31		04/19/13 19:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	37.8	31		04/19/13 19:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	37.8	31		04/19/13 19:15	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	31.3	31		04/19/13 19:15	75-71-8	
1,1-Dichloroethane	ND	ug/m3	25.4	31		04/19/13 19:15	75-34-3	
1,2-Dichloroethane	ND	ug/m3	12.7	31		04/19/13 19:15	107-06-2	
1,1-Dichloroethene	ND	ug/m3	25.1	31		04/19/13 19:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	25.1	31		04/19/13 19:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	25.1	31		04/19/13 19:15	156-60-5	
1,2-Dichloropropane	ND	ug/m3	29.1	31		04/19/13 19:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	28.5	31		04/19/13 19:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	28.5	31		04/19/13 19:15	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	44.0	31		04/19/13 19:15	76-14-2	
Ethyl acetate	ND	ug/m3	22.6	31		04/19/13 19:15	141-78-6	
Ethylbenzene	**142**	ug/m3	27.3	31		04/19/13 19:15	100-41-4	
4-Ethyltoluene	**81.9**	ug/m3	31.0	31		04/19/13 19:15	622-96-8	
n-Heptane	**589**	ug/m3	25.7	31		04/19/13 19:15	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	68.2	31		04/19/13 19:15	87-68-3	
n-Hexane	**583**	ug/m3	22.3	31		04/19/13 19:15	110-54-3	
2-Hexanone	ND	ug/m3	25.7	31		04/19/13 19:15	591-78-6	
Methylene Chloride	**99.9**	ug/m3	22.0	31		04/19/13 19:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	25.7	31		04/19/13 19:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	22.6	31		04/19/13 19:15	1634-04-4	
Naphthalene	ND	ug/m3	33.2	31		04/19/13 19:15	91-20-3	
Propylene	ND	ug/m3	10.8	31		04/19/13 19:15	115-07-1	
Styrene	**80.2**	ug/m3	27.0	31		04/19/13 19:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	21.6	31		04/19/13 19:15	79-34-5	
Tetrachloroethene	**842**	ug/m3	21.4	31		04/19/13 19:15	127-18-4	
Tetrahydrofuran	ND	ug/m3	18.6	31		04/19/13 19:15	109-99-9	
Toluene	**704**	ug/m3	23.9	31		04/19/13 19:15	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	46.8	31		04/19/13 19:15	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-F-040313 **Lab ID: 10224616007** Collected: 04/04/13 11:45 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	34.4	31		04/19/13 19:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	17.0	31		04/19/13 19:15	79-00-5	
Trichloroethene	ND	ug/m3	17.0	31		04/19/13 19:15	79-01-6	
Trichlorofluoromethane	ND	ug/m3	35.3	31		04/19/13 19:15	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	49.6	31		04/19/13 19:15	76-13-1	
1,2,4-Trimethylbenzene	**229**	ug/m3	31.0	31		04/19/13 19:15	95-63-6	
1,3,5-Trimethylbenzene	**86.1**	ug/m3	31.0	31		04/19/13 19:15	108-67-8	
Vinyl acetate	ND	ug/m3	22.2	31		04/19/13 19:15	108-05-4	
Vinyl chloride	ND	ug/m3	8.1	31		04/19/13 19:15	75-01-4	
m&p-Xylene	**774**	ug/m3	54.6	31		04/19/13 19:15	179601-23-1	
o-Xylene	**186**	ug/m3	27.3	31		04/19/13 19:15	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-R-040313 **Lab ID: 10224616008** Collected: 04/04/13 12:34 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	59.3	123.49		04/21/13 17:47	67-64-1	
Benzene	ND	ug/m3	40.1	123.49		04/21/13 17:47	71-43-2	
Bromodichloromethane	ND	ug/m3	168	123.49		04/21/13 17:47	75-27-4	
Bromoform	ND	ug/m3	259	123.49		04/21/13 17:47	75-25-2	
Bromomethane	ND	ug/m3	97.6	123.49		04/21/13 17:47	74-83-9	
1,3-Butadiene	ND	ug/m3	55.6	123.49		04/21/13 17:47	106-99-0	
2-Butanone (MEK)	**12300**	ug/m3	74.1	123.49		04/21/13 17:47	78-93-3	
Carbon disulfide	ND	ug/m3	77.8	123.49		04/21/13 17:47	75-15-0	
Carbon tetrachloride	ND	ug/m3	79.0	123.49		04/21/13 17:47	56-23-5	
Chlorobenzene	ND	ug/m3	116	123.49		04/21/13 17:47	108-90-7	
Chloroethane	ND	ug/m3	66.7	123.49		04/21/13 17:47	75-00-3	
Chloroform	ND	ug/m3	122	123.49		04/21/13 17:47	67-66-3	
Chloromethane	ND	ug/m3	51.9	123.49		04/21/13 17:47	74-87-3	
Cyclohexane	ND	ug/m3	86.4	123.49		04/21/13 17:47	110-82-7	
Dibromochloromethane	ND	ug/m3	214	123.49		04/21/13 17:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	193	123.49		04/21/13 17:47	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.44		04/18/13 19:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	151	123.49		04/21/13 17:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	151	123.49		04/21/13 17:47	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	125	123.49		04/21/13 17:47	75-71-8	A3
1,1-Dichloroethane	ND	ug/m3	101	123.49		04/21/13 17:47	75-34-3	
1,2-Dichloroethane	ND	ug/m3	50.6	123.49		04/21/13 17:47	107-06-2	
1,1-Dichloroethene	ND	ug/m3	100	123.49		04/21/13 17:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	100	123.49		04/21/13 17:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	100	123.49		04/21/13 17:47	156-60-5	
1,2-Dichloropropane	ND	ug/m3	116	123.49		04/21/13 17:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	114	123.49		04/21/13 17:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	114	123.49		04/21/13 17:47	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	175	123.49		04/21/13 17:47	76-14-2	
Ethyl acetate	**6890**	ug/m3	90.1	123.49		04/21/13 17:47	141-78-6	
Ethylbenzene	ND	ug/m3	109	123.49		04/21/13 17:47	100-41-4	
4-Ethyltoluene	**409**	ug/m3	123	123.49		04/21/13 17:47	622-96-8	
n-Heptane	ND	ug/m3	102	123.49		04/21/13 17:47	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.2	1.44		04/18/13 19:12	87-68-3	
n-Hexane	ND	ug/m3	88.9	123.49		04/21/13 17:47	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.44		04/18/13 19:12	591-78-6	
Methylene Chloride	**230**	ug/m3	87.7	123.49		04/21/13 17:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	102	123.49		04/21/13 17:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	90.1	123.49		04/21/13 17:47	1634-04-4	
Naphthalene	**11.3**	ug/m3 J	1.5	1.44		04/18/13 19:12	91-20-3	CH,L3
Propylene	ND	ug/m3	43.2	123.49		04/21/13 17:47	115-07-1	
Styrene	ND	ug/m3	107	123.49		04/21/13 17:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	86.2	123.49		04/21/13 17:47	79-34-5	
Tetrachloroethene	ND	ug/m3	85.1	123.49		04/21/13 17:47	127-18-4	
Tetrahydrofuran	ND	ug/m3	74.1	123.49		04/21/13 17:47	109-99-9	
Toluene	ND	ug/m3	95.1	123.49		04/21/13 17:47	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.44		04/18/13 19:12	120-82-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1644-R-040313 **Lab ID: 10224616008** Collected: 04/04/13 12:34 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	137	123.49		04/21/13 17:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	67.9	123.49		04/21/13 17:47	79-00-5	
Trichloroethene	ND	ug/m3	67.9	123.49		04/21/13 17:47	79-01-6	
Trichlorofluoromethane	ND	ug/m3	141	123.49		04/21/13 17:47	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	198	123.49		04/21/13 17:47	76-13-1	
1,2,4-Trimethylbenzene	**668**	ug/m3	123	123.49		04/21/13 17:47	95-63-6	
1,3,5-Trimethylbenzene	**270**	ug/m3	123	123.49		04/21/13 17:47	108-67-8	
Vinyl acetate	ND	ug/m3	88.4	123.49		04/21/13 17:47	108-05-4	
Vinyl chloride	ND	ug/m3	32.1	123.49		04/21/13 17:47	75-01-4	
m&p-Xylene	ND	ug/m3	217	123.49		04/21/13 17:47	179601-23-1	
o-Xylene	ND	ug/m3	109	123.49		04/21/13 17:47	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-F-040313 **Lab ID: 10224616009** Collected: 04/04/13 12:06 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**7.8**	ug/m3	0.74	1.55		04/18/13 22:38	67-64-1	
Benzene	**6.3**	ug/m3	0.50	1.55		04/18/13 22:38	71-43-2	
Bromodichloromethane	ND	ug/m3	2.1	1.55		04/18/13 22:38	75-27-4	
Bromoform	ND	ug/m3	3.3	1.55		04/18/13 22:38	75-25-2	
Bromomethane	ND	ug/m3	1.2	1.55		04/18/13 22:38	74-83-9	
1,3-Butadiene	ND	ug/m3	0.70	1.55		04/18/13 22:38	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.93	1.55		04/18/13 22:38	78-93-3	
Carbon disulfide	ND	ug/m3	0.98	1.55		04/18/13 22:38	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.99	1.55		04/18/13 22:38	56-23-5	
Chlorobenzene	ND	ug/m3	1.5	1.55		04/18/13 22:38	108-90-7	
Chloroethane	ND	ug/m3	0.84	1.55		04/18/13 22:38	75-00-3	
Chloroform	ND	ug/m3	1.5	1.55		04/18/13 22:38	67-66-3	
Chloromethane	ND	ug/m3	0.65	1.55		04/18/13 22:38	74-87-3	
Cyclohexane	**8.9**	ug/m3	1.1	1.55		04/18/13 22:38	110-82-7	
Dibromochloromethane	ND	ug/m3	2.7	1.55		04/18/13 22:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.4	1.55		04/18/13 22:38	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/18/13 22:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/18/13 22:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/18/13 22:38	106-46-7	
Dichlorodifluoromethane	**2.1**	ug/m3	1.6	1.55		04/18/13 22:38	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		04/18/13 22:38	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.64	1.55		04/18/13 22:38	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.3	1.55		04/18/13 22:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		04/18/13 22:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		04/18/13 22:38	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.5	1.55		04/18/13 22:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		04/18/13 22:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		04/18/13 22:38	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.2	1.55		04/18/13 22:38	76-14-2	
Ethyl acetate	ND	ug/m3	1.1	1.55		04/18/13 22:38	141-78-6	
Ethylbenzene	**11.6**	ug/m3	1.4	1.55		04/18/13 22:38	100-41-4	
4-Ethyltoluene	**7.8**	ug/m3	1.6	1.55		04/18/13 22:38	622-96-8	
n-Heptane	**22.4**	ug/m3	1.3	1.55		04/18/13 22:38	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.4	1.55		04/18/13 22:38	87-68-3	
n-Hexane	**21.0**	ug/m3	1.1	1.55		04/18/13 22:38	110-54-3	
2-Hexanone	ND	ug/m3	1.3	1.55		04/18/13 22:38	591-78-6	
Methylene Chloride	**7.5**	ug/m3	1.1	1.55		04/18/13 22:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.3	1.55		04/18/13 22:38	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.55		04/18/13 22:38	1634-04-4	
Naphthalene	**2.3**	ug/m3 J	1.7	1.55		04/18/13 22:38	91-20-3	CH,L1
Propylene	**7.3**	ug/m3	0.54	1.55		04/18/13 22:38	115-07-1	
Styrene	**5.7**	ug/m3	1.3	1.55		04/18/13 22:38	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.1	1.55		04/18/13 22:38	79-34-5	
Tetrachloroethene	**40.3**	ug/m3	1.1	1.55		04/18/13 22:38	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.93	1.55		04/18/13 22:38	109-99-9	
Toluene	**50.2**	ug/m3	1.2	1.55		04/18/13 22:38	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.3	1.55		04/18/13 22:38	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-F-040313 **Lab ID: 10224616009** Collected: 04/04/13 12:06 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.55		04/18/13 22:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.85	1.55		04/18/13 22:38	79-00-5	
Trichloroethene	**1.9**	ug/m3	0.85	1.55		04/18/13 22:38	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.8	1.55		04/18/13 22:38	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.5	1.55		04/18/13 22:38	76-13-1	
1,2,4-Trimethylbenzene	**26.1**	ug/m3	1.5	1.55		04/18/13 22:38	95-63-6	
1,3,5-Trimethylbenzene	**8.3**	ug/m3	1.5	1.55		04/18/13 22:38	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.55		04/18/13 22:38	108-05-4	
Vinyl chloride	ND	ug/m3	0.40	1.55		04/18/13 22:38	75-01-4	
m&p-Xylene	**56.5**	ug/m3	2.7	1.55		04/18/13 22:38	179601-23-1	
o-Xylene	**15.3**	ug/m3	1.4	1.55		04/18/13 22:38	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-R-040313 **Lab ID: 10224616010** Collected: 04/04/13 12:22 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**684**	ug/m3	0.74	1.55		04/19/13 18:46	67-64-1	E
Benzene	**7.0**	ug/m3	0.50	1.55		04/19/13 18:46	71-43-2	
Bromodichloromethane	ND	ug/m3	2.1	1.55		04/19/13 18:46	75-27-4	
Bromoform	ND	ug/m3	3.3	1.55		04/19/13 18:46	75-25-2	
Bromomethane	ND	ug/m3	1.2	1.55		04/19/13 18:46	74-83-9	
1,3-Butadiene	ND	ug/m3	0.70	1.55		04/19/13 18:46	106-99-0	
2-Butanone (MEK)	**105**	ug/m3	0.93	1.55		04/19/13 18:46	78-93-3	
Carbon disulfide	**10.5**	ug/m3	0.98	1.55		04/19/13 18:46	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.99	1.55		04/19/13 18:46	56-23-5	
Chlorobenzene	ND	ug/m3	1.5	1.55		04/19/13 18:46	108-90-7	
Chloroethane	ND	ug/m3	0.84	1.55		04/19/13 18:46	75-00-3	
Chloroform	**16.4**	ug/m3	1.5	1.55		04/19/13 18:46	67-66-3	
Chloromethane	ND	ug/m3	0.65	1.55		04/19/13 18:46	74-87-3	
Cyclohexane	**6.4**	ug/m3	1.1	1.55		04/19/13 18:46	110-82-7	
Dibromochloromethane	ND	ug/m3	2.7	1.55		04/19/13 18:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.4	1.55		04/19/13 18:46	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/19/13 18:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/19/13 18:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.9	1.55		04/19/13 18:46	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.6	1.55		04/19/13 18:46	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		04/19/13 18:46	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.64	1.55		04/19/13 18:46	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.3	1.55		04/19/13 18:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		04/19/13 18:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		04/19/13 18:46	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.5	1.55		04/19/13 18:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		04/19/13 18:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.4	1.55		04/19/13 18:46	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.2	1.55		04/19/13 18:46	76-14-2	
Ethyl acetate	ND	ug/m3	1.1	1.55		04/19/13 18:46	141-78-6	
Ethylbenzene	**10.3**	ug/m3	1.4	1.55		04/19/13 18:46	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.6	1.55		04/19/13 18:46	622-96-8	
n-Heptane	**24.2**	ug/m3	1.3	1.55		04/19/13 18:46	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.4	1.55		04/19/13 18:46	87-68-3	
n-Hexane	**12.6**	ug/m3	1.1	1.55		04/19/13 18:46	110-54-3	
2-Hexanone	ND	ug/m3	1.3	1.55		04/19/13 18:46	591-78-6	
Methylene Chloride	**5.8**	ug/m3	1.1	1.55		04/19/13 18:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.3	1.55		04/19/13 18:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.55		04/19/13 18:46	1634-04-4	
Naphthalene	**3.7**	ug/m3	1.7	1.55		04/19/13 18:46	91-20-3	CH,L1
Propylene	ND	ug/m3	0.54	1.55		04/19/13 18:46	115-07-1	
Styrene	**5.1**	ug/m3	1.3	1.55		04/19/13 18:46	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.1	1.55		04/19/13 18:46	79-34-5	
Tetrachloroethene	**49.1**	ug/m3	1.1	1.55		04/19/13 18:46	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.93	1.55		04/19/13 18:46	109-99-9	
Toluene	**40.2**	ug/m3	1.2	1.55		04/19/13 18:46	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.3	1.55		04/19/13 18:46	120-82-1	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: 1646-R-040313 **Lab ID: 10224616010** Collected: 04/04/13 12:22 Received: 04/05/13 09:10 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.55		04/19/13 18:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.85	1.55		04/19/13 18:46	79-00-5	
Trichloroethene	ND	ug/m3	0.85	1.55		04/19/13 18:46	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.8	1.55		04/19/13 18:46	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.5	1.55		04/19/13 18:46	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.5	1.55		04/19/13 18:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.5	1.55		04/19/13 18:46	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.55		04/19/13 18:46	108-05-4	
Vinyl chloride	ND	ug/m3	0.40	1.55		04/19/13 18:46	75-01-4	
m&p-Xylene	**48.3**	ug/m3	2.7	1.55		04/19/13 18:46	179601-23-1	
o-Xylene	**14.7**	ug/m3	1.4	1.55		04/19/13 18:46	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0099 **Lab ID: 10224616015** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/27/13 20:35	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/27/13 20:35	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/27/13 20:35	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/27/13 20:35	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/27/13 20:35	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/27/13 20:35	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/27/13 20:35	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/27/13 20:35	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/27/13 20:35	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/27/13 20:35	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/27/13 20:35	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/27/13 20:35	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/27/13 20:35	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/27/13 20:35	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/27/13 20:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/27/13 20:35	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 20:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 20:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 20:35	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/27/13 20:35	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/27/13 20:35	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/27/13 20:35	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 20:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 20:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 20:35	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/27/13 20:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 20:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 20:35	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/27/13 20:35	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/27/13 20:35	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/27/13 20:35	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/27/13 20:35	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/27/13 20:35	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/27/13 20:35	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/27/13 20:35	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/27/13 20:35	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/27/13 20:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/27/13 20:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/27/13 20:35	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/27/13 20:35	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/27/13 20:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/27/13 20:35	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/27/13 20:35	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/27/13 20:35	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/27/13 20:35	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/27/13 20:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/27/13 20:35	71-55-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0099 **Lab ID: 10224616015** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/27/13 20:35	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/27/13 20:35	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/27/13 20:35	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/27/13 20:35	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 20:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 20:35	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/27/13 20:35	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/27/13 20:35	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/27/13 20:35	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/27/13 20:35	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0433 **Lab ID: 10224616016** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		04/01/13 13:15	67-64-1	
Benzene	ND	ug/m3	0.32	1		04/01/13 13:15	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		04/01/13 13:15	75-27-4	
Bromoform	ND	ug/m3	2.1	1		04/01/13 13:15	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		04/01/13 13:15	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		04/01/13 13:15	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		04/01/13 13:15	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		04/01/13 13:15	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		04/01/13 13:15	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		04/01/13 13:15	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		04/01/13 13:15	75-00-3	
Chloroform	ND	ug/m3	0.99	1		04/01/13 13:15	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		04/01/13 13:15	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		04/01/13 13:15	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		04/01/13 13:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		04/01/13 13:15	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 13:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 13:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 13:15	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		04/01/13 13:15	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		04/01/13 13:15	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		04/01/13 13:15	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 13:15	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 13:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 13:15	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		04/01/13 13:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 13:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 13:15	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		04/01/13 13:15	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		04/01/13 13:15	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		04/01/13 13:15	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		04/01/13 13:15	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		04/01/13 13:15	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		04/01/13 13:15	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		04/01/13 13:15	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		04/01/13 13:15	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		04/01/13 13:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		04/01/13 13:15	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		04/01/13 13:15	1634-04-4	
Propylene	ND	ug/m3	0.35	1		04/01/13 13:15	115-07-1	
Styrene	ND	ug/m3	0.87	1		04/01/13 13:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		04/01/13 13:15	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		04/01/13 13:15	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		04/01/13 13:15	109-99-9	
Toluene	ND	ug/m3	0.77	1		04/01/13 13:15	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		04/01/13 13:15	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		04/01/13 13:15	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0433 **Lab ID: 10224616016** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		04/01/13 13:15	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		04/01/13 13:15	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		04/01/13 13:15	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		04/01/13 13:15	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 13:15	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 13:15	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		04/01/13 13:15	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		04/01/13 13:15	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		04/01/13 13:15	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		04/01/13 13:15	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 2033 **Lab ID: 10224616017** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/27/13 22:04	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/27/13 22:04	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/27/13 22:04	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/27/13 22:04	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/27/13 22:04	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/27/13 22:04	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/27/13 22:04	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/27/13 22:04	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/27/13 22:04	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/27/13 22:04	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/27/13 22:04	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/27/13 22:04	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/27/13 22:04	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/27/13 22:04	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/27/13 22:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/27/13 22:04	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 22:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 22:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 22:04	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/27/13 22:04	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/27/13 22:04	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/27/13 22:04	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 22:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 22:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 22:04	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/27/13 22:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 22:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 22:04	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/27/13 22:04	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/27/13 22:04	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/27/13 22:04	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/27/13 22:04	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/27/13 22:04	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/27/13 22:04	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/27/13 22:04	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/27/13 22:04	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/27/13 22:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/27/13 22:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/27/13 22:04	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/27/13 22:04	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/27/13 22:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/27/13 22:04	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/27/13 22:04	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/27/13 22:04	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/27/13 22:04	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/27/13 22:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/27/13 22:04	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 2033 **Lab ID: 10224616017** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/27/13 22:04	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/27/13 22:04	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/27/13 22:04	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/27/13 22:04	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 22:04	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 22:04	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/27/13 22:04	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/27/13 22:04	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/27/13 22:04	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/27/13 22:04	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1053 **Lab ID: 10224616018** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		04/01/13 15:21	67-64-1	
Benzene	ND	ug/m3	0.32	1		04/01/13 15:21	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		04/01/13 15:21	75-27-4	
Bromoform	ND	ug/m3	2.1	1		04/01/13 15:21	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		04/01/13 15:21	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		04/01/13 15:21	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		04/01/13 15:21	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		04/01/13 15:21	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		04/01/13 15:21	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		04/01/13 15:21	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		04/01/13 15:21	75-00-3	
Chloroform	ND	ug/m3	0.99	1		04/01/13 15:21	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		04/01/13 15:21	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		04/01/13 15:21	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		04/01/13 15:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		04/01/13 15:21	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 15:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 15:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 15:21	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		04/01/13 15:21	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		04/01/13 15:21	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		04/01/13 15:21	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 15:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 15:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 15:21	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		04/01/13 15:21	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 15:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 15:21	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		04/01/13 15:21	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		04/01/13 15:21	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		04/01/13 15:21	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		04/01/13 15:21	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		04/01/13 15:21	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		04/01/13 15:21	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		04/01/13 15:21	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		04/01/13 15:21	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		04/01/13 15:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		04/01/13 15:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		04/01/13 15:21	1634-04-4	
Propylene	ND	ug/m3	0.35	1		04/01/13 15:21	115-07-1	
Styrene	ND	ug/m3	0.87	1		04/01/13 15:21	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		04/01/13 15:21	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		04/01/13 15:21	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		04/01/13 15:21	109-99-9	
Toluene	ND	ug/m3	0.77	1		04/01/13 15:21	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		04/01/13 15:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		04/01/13 15:21	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1053 **Lab ID: 10224616018** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		04/01/13 15:21	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		04/01/13 15:21	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		04/01/13 15:21	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		04/01/13 15:21	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 15:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 15:21	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		04/01/13 15:21	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		04/01/13 15:21	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		04/01/13 15:21	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		04/01/13 15:21	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1078 **Lab ID: 10224616019** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/27/13 15:02	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/27/13 15:02	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/27/13 15:02	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/27/13 15:02	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/27/13 15:02	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/27/13 15:02	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/27/13 15:02	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/27/13 15:02	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/27/13 15:02	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/27/13 15:02	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/27/13 15:02	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/27/13 15:02	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/27/13 15:02	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/27/13 15:02	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/27/13 15:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/27/13 15:02	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 15:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 15:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 15:02	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/27/13 15:02	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/27/13 15:02	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/27/13 15:02	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 15:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 15:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 15:02	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/27/13 15:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 15:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 15:02	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/27/13 15:02	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/27/13 15:02	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/27/13 15:02	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/27/13 15:02	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/27/13 15:02	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/27/13 15:02	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/27/13 15:02	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/27/13 15:02	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/27/13 15:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/27/13 15:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/27/13 15:02	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/27/13 15:02	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/27/13 15:02	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/27/13 15:02	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/27/13 15:02	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/27/13 15:02	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/27/13 15:02	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/27/13 15:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/27/13 15:02	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1078 **Lab ID: 10224616019** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/27/13 15:02	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/27/13 15:02	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/27/13 15:02	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/27/13 15:02	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 15:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 15:02	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/27/13 15:02	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/27/13 15:02	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/27/13 15:02	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/27/13 15:02	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0557 **Lab ID: 10224616020** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/28/13 00:33	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/28/13 00:33	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/28/13 00:33	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/28/13 00:33	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/28/13 00:33	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/28/13 00:33	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/28/13 00:33	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/28/13 00:33	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/28/13 00:33	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/28/13 00:33	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/28/13 00:33	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/28/13 00:33	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/28/13 00:33	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/28/13 00:33	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/28/13 00:33	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/28/13 00:33	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/28/13 00:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/28/13 00:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/28/13 00:33	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/28/13 00:33	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/28/13 00:33	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/28/13 00:33	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/28/13 00:33	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/28/13 00:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/28/13 00:33	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/28/13 00:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/28/13 00:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/28/13 00:33	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/28/13 00:33	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/28/13 00:33	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/28/13 00:33	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/28/13 00:33	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/28/13 00:33	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/28/13 00:33	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/28/13 00:33	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/28/13 00:33	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/28/13 00:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/28/13 00:33	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/28/13 00:33	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/28/13 00:33	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/28/13 00:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/28/13 00:33	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/28/13 00:33	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/28/13 00:33	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/28/13 00:33	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/28/13 00:33	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/28/13 00:33	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0557 **Lab ID: 10224616020** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/28/13 00:33	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/28/13 00:33	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/28/13 00:33	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/28/13 00:33	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/28/13 00:33	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/28/13 00:33	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/28/13 00:33	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/28/13 00:33	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/28/13 00:33	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/28/13 00:33	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0262 **Lab ID: 10224616021** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		04/01/13 14:18	67-64-1	
Benzene	ND	ug/m3	0.32	1		04/01/13 14:18	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		04/01/13 14:18	75-27-4	
Bromoform	ND	ug/m3	2.1	1		04/01/13 14:18	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		04/01/13 14:18	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		04/01/13 14:18	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		04/01/13 14:18	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		04/01/13 14:18	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		04/01/13 14:18	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		04/01/13 14:18	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		04/01/13 14:18	75-00-3	
Chloroform	ND	ug/m3	0.99	1		04/01/13 14:18	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		04/01/13 14:18	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		04/01/13 14:18	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		04/01/13 14:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		04/01/13 14:18	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:18	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		04/01/13 14:18	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		04/01/13 14:18	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		04/01/13 14:18	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:18	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		04/01/13 14:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 14:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 14:18	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		04/01/13 14:18	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		04/01/13 14:18	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		04/01/13 14:18	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		04/01/13 14:18	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		04/01/13 14:18	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		04/01/13 14:18	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		04/01/13 14:18	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		04/01/13 14:18	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		04/01/13 14:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		04/01/13 14:18	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		04/01/13 14:18	1634-04-4	
Propylene	ND	ug/m3	0.35	1		04/01/13 14:18	115-07-1	
Styrene	ND	ug/m3	0.87	1		04/01/13 14:18	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		04/01/13 14:18	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		04/01/13 14:18	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		04/01/13 14:18	109-99-9	
Toluene	ND	ug/m3	0.77	1		04/01/13 14:18	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		04/01/13 14:18	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		04/01/13 14:18	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0262 **Lab ID: 10224616021** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		04/01/13 14:18	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		04/01/13 14:18	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		04/01/13 14:18	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		04/01/13 14:18	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 14:18	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 14:18	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		04/01/13 14:18	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		04/01/13 14:18	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		04/01/13 14:18	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		04/01/13 14:18	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0006 **Lab ID: 10224616022** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/27/13 19:35	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/27/13 19:35	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/27/13 19:35	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/27/13 19:35	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/27/13 19:35	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/27/13 19:35	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/27/13 19:35	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/27/13 19:35	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/27/13 19:35	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/27/13 19:35	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/27/13 19:35	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/27/13 19:35	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/27/13 19:35	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/27/13 19:35	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/27/13 19:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/27/13 19:35	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 19:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 19:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/27/13 19:35	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/27/13 19:35	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/27/13 19:35	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/27/13 19:35	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 19:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 19:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/27/13 19:35	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/27/13 19:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 19:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/27/13 19:35	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/27/13 19:35	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/27/13 19:35	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/27/13 19:35	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/27/13 19:35	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/27/13 19:35	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/27/13 19:35	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/27/13 19:35	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/27/13 19:35	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/27/13 19:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/27/13 19:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/27/13 19:35	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/27/13 19:35	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/27/13 19:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/27/13 19:35	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/27/13 19:35	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/27/13 19:35	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/27/13 19:35	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/27/13 19:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/27/13 19:35	71-55-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 0006 **Lab ID: 10224616022** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/27/13 19:35	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/27/13 19:35	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/27/13 19:35	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/27/13 19:35	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 19:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/27/13 19:35	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/27/13 19:35	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/27/13 19:35	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/27/13 19:35	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/27/13 19:35	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1611 **Lab ID: 10224616023** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		03/08/13 07:23	67-64-1	
Benzene	ND	ug/m3	0.32	1		03/08/13 07:23	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		03/08/13 07:23	75-27-4	
Bromoform	ND	ug/m3	2.1	1		03/08/13 07:23	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		03/08/13 07:23	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		03/08/13 07:23	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		03/08/13 07:23	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		03/08/13 07:23	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		03/08/13 07:23	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		03/08/13 07:23	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		03/08/13 07:23	75-00-3	
Chloroform	ND	ug/m3	0.99	1		03/08/13 07:23	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		03/08/13 07:23	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		03/08/13 07:23	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		03/08/13 07:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		03/08/13 07:23	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		03/08/13 07:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		03/08/13 07:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		03/08/13 07:23	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		03/08/13 07:23	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		03/08/13 07:23	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		03/08/13 07:23	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		03/08/13 07:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/08/13 07:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		03/08/13 07:23	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		03/08/13 07:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/08/13 07:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		03/08/13 07:23	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		03/08/13 07:23	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		03/08/13 07:23	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		03/08/13 07:23	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		03/08/13 07:23	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		03/08/13 07:23	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		03/08/13 07:23	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		03/08/13 07:23	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		03/08/13 07:23	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		03/08/13 07:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		03/08/13 07:23	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		03/08/13 07:23	1634-04-4	
Propylene	ND	ug/m3	0.35	1		03/08/13 07:23	115-07-1	
Styrene	ND	ug/m3	0.87	1		03/08/13 07:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		03/08/13 07:23	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		03/08/13 07:23	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		03/08/13 07:23	109-99-9	
Toluene	ND	ug/m3	0.77	1		03/08/13 07:23	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		03/08/13 07:23	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		03/08/13 07:23	71-55-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1611 **Lab ID: 10224616023** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		03/08/13 07:23	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		03/08/13 07:23	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		03/08/13 07:23	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		03/08/13 07:23	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		03/08/13 07:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		03/08/13 07:23	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		03/08/13 07:23	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		03/08/13 07:23	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		03/08/13 07:23	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		03/08/13 07:23	95-47-6	

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1600 **Lab ID: 10224616024** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
Acetone	ND	ug/m3	0.48	1		04/01/13 14:49	67-64-1	
Benzene	ND	ug/m3	0.32	1		04/01/13 14:49	71-43-2	
Bromodichloromethane	ND	ug/m3	1.4	1		04/01/13 14:49	75-27-4	
Bromoform	ND	ug/m3	2.1	1		04/01/13 14:49	75-25-2	
Bromomethane	ND	ug/m3	0.79	1		04/01/13 14:49	74-83-9	
1,3-Butadiene	ND	ug/m3	0.45	1		04/01/13 14:49	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.60	1		04/01/13 14:49	78-93-3	
Carbon disulfide	ND	ug/m3	0.63	1		04/01/13 14:49	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.64	1		04/01/13 14:49	56-23-5	
Chlorobenzene	ND	ug/m3	0.94	1		04/01/13 14:49	108-90-7	
Chloroethane	ND	ug/m3	0.54	1		04/01/13 14:49	75-00-3	
Chloroform	ND	ug/m3	0.99	1		04/01/13 14:49	67-66-3	
Chloromethane	ND	ug/m3	0.42	1		04/01/13 14:49	74-87-3	
Cyclohexane	ND	ug/m3	0.70	1		04/01/13 14:49	110-82-7	
Dibromochloromethane	ND	ug/m3	1.7	1		04/01/13 14:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	1.6	1		04/01/13 14:49	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.2	1		04/01/13 14:49	106-46-7	
Dichlorodifluoromethane	ND	ug/m3	1.0	1		04/01/13 14:49	75-71-8	
1,1-Dichloroethane	ND	ug/m3	0.82	1		04/01/13 14:49	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.41	1		04/01/13 14:49	107-06-2	
1,1-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	0.81	1		04/01/13 14:49	156-60-5	
1,2-Dichloropropane	ND	ug/m3	0.94	1		04/01/13 14:49	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 14:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	0.92	1		04/01/13 14:49	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.4	1		04/01/13 14:49	76-14-2	
Ethyl acetate	ND	ug/m3	0.73	1		04/01/13 14:49	141-78-6	
Ethylbenzene	ND	ug/m3	0.88	1		04/01/13 14:49	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.0	1		04/01/13 14:49	622-96-8	
n-Heptane	ND	ug/m3	0.83	1		04/01/13 14:49	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.2	1		04/01/13 14:49	87-68-3	
n-Hexane	ND	ug/m3	0.72	1		04/01/13 14:49	110-54-3	
2-Hexanone	ND	ug/m3	0.83	1		04/01/13 14:49	591-78-6	
Methylene Chloride	ND	ug/m3	0.71	1		04/01/13 14:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	0.83	1		04/01/13 14:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.73	1		04/01/13 14:49	1634-04-4	
Propylene	ND	ug/m3	0.35	1		04/01/13 14:49	115-07-1	
Styrene	ND	ug/m3	0.87	1		04/01/13 14:49	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.70	1		04/01/13 14:49	79-34-5	
Tetrachloroethene	ND	ug/m3	0.69	1		04/01/13 14:49	127-18-4	
Tetrahydrofuran	ND	ug/m3	0.60	1		04/01/13 14:49	109-99-9	
Toluene	ND	ug/m3	0.77	1		04/01/13 14:49	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	1.5	1		04/01/13 14:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.1	1		04/01/13 14:49	71-55-6	

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JKJ
5/27/17

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ANALYTICAL RESULTS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Sample: Cert Can 1600 **Lab ID: 10224616024** Collected: 04/03/13 00:00 Received: 04/05/13 16:29 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Individual Can Certification	Analytical Method: TO-15							
1,1,2-Trichloroethane	ND	ug/m3	0.55	1		04/01/13 14:49	79-00-5	
Trichloroethene	ND	ug/m3	0.55	1		04/01/13 14:49	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.1	1		04/01/13 14:49	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	1.6	1		04/01/13 14:49	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 14:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.0	1		04/01/13 14:49	108-67-8	
Vinyl acetate	ND	ug/m3	0.72	1		04/01/13 14:49	108-05-4	
Vinyl chloride	ND	ug/m3	0.26	1		04/01/13 14:49	75-01-4	
m&p-Xylene	ND	ug/m3	1.8	1		04/01/13 14:49	179601-23-1	
o-Xylene	ND	ug/m3	0.88	1		04/01/13 14:49	95-47-6	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

QC Batch: AIR/17165 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10224616001, 10224616002, 10224616004, 10224616005, 10224616009

METHOD BLANK: 1411878 Matrix: Air
Associated Lab Samples: 10224616001, 10224616002, 10224616004, 10224616005, 10224616009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	04/18/13 12:25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	04/18/13 12:25	
1,1,2-Trichloroethane	ug/m3	ND	0.55	04/18/13 12:25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	04/18/13 12:25	
1,1-Dichloroethane	ug/m3	ND	0.82	04/18/13 12:25	
1,1-Dichloroethene	ug/m3	ND	0.81	04/18/13 12:25	
1,2,4-Trichlorobenzene	ug/m3	ND	1.5	04/18/13 12:25	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	04/18/13 12:25	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	04/18/13 12:25	
1,2-Dichlorobenzene	ug/m3	ND	1.2	04/18/13 12:25	
1,2-Dichloroethane	ug/m3	ND	0.41	04/18/13 12:25	
1,2-Dichloropropane	ug/m3	ND	0.94	04/18/13 12:25	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	04/18/13 12:25	
1,3-Butadiene	ug/m3	ND	0.45	04/18/13 12:25	
1,3-Dichlorobenzene	ug/m3	ND	1.2	04/18/13 12:25	
1,4-Dichlorobenzene	ug/m3	ND	1.2	04/18/13 12:25	
2-Butanone (MEK)	ug/m3	ND	0.60	04/18/13 12:25	
2-Hexanone	ug/m3	ND	0.83	04/18/13 12:25	
4-Ethyltoluene	ug/m3	ND	1.0	04/18/13 12:25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	04/18/13 12:25	
Acetone	ug/m3	ND	0.48	04/18/13 12:25	
Benzene	ug/m3	ND	0.32	04/18/13 12:25	
Bromodichloromethane	ug/m3	ND	1.4	04/18/13 12:25	
Bromoform	ug/m3	ND	2.1	04/18/13 12:25	
Bromomethane	ug/m3	ND	0.79	04/18/13 12:25	
Carbon disulfide	ug/m3	ND	0.63	04/18/13 12:25	
Carbon tetrachloride	ug/m3	ND	0.64	04/18/13 12:25	
Chlorobenzene	ug/m3	ND	0.94	04/18/13 12:25	
Chloroethane	ug/m3	ND	0.54	04/18/13 12:25	
Chloroform	ug/m3	ND	0.99	04/18/13 12:25	
Chloromethane	ug/m3	ND	0.42	04/18/13 12:25	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	04/18/13 12:25	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	04/18/13 12:25	
Cyclohexane	ug/m3	ND	0.70	04/18/13 12:25	
Dibromochloromethane	ug/m3	ND	1.7	04/18/13 12:25	
Dichlorodifluoromethane	ug/m3	ND	1.0	04/18/13 12:25	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	04/18/13 12:25	
Ethyl acetate	ug/m3	ND	0.73	04/18/13 12:25	
Ethylbenzene	ug/m3	ND	0.88	04/18/13 12:25	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	04/18/13 12:25	
m&p-Xylene	ug/m3	ND	1.8	04/18/13 12:25	
Methyl-tert-butyl ether	ug/m3	ND	0.73	04/18/13 12:25	
Methylene Chloride	ug/m3	ND	0.71	04/18/13 12:25	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

METHOD BLANK: 1411878 Matrix: Air

Associated Lab Samples: 10224616001, 10224616002, 10224616004, 10224616005, 10224616009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/m3	ND	0.83	04/18/13 12:25	
n-Hexane	ug/m3	ND	0.72	04/18/13 12:25	
Naphthalene	ug/m3	ND	1.1	04/18/13 12:25	
o-Xylene	ug/m3	ND	0.88	04/18/13 12:25	
Propylene	ug/m3	ND	0.35	04/18/13 12:25	
Styrene	ug/m3	ND	0.87	04/18/13 12:25	
Tetrachloroethene	ug/m3	ND	0.69	04/18/13 12:25	
Tetrahydrofuran	ug/m3	ND	0.60	04/18/13 12:25	
Toluene	ug/m3	ND	0.77	04/18/13 12:25	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	04/18/13 12:25	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	04/18/13 12:25	
Trichloroethene	ug/m3	ND	0.55	04/18/13 12:25	
Trichlorofluoromethane	ug/m3	ND	1.1	04/18/13 12:25	
Vinyl acetate	ug/m3	ND	0.72	04/18/13 12:25	
Vinyl chloride	ug/m3	ND	0.26	04/18/13 12:25	

LABORATORY CONTROL SAMPLE: 1411879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	54.7	98	69-131	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	76.7	110	66-135	
1,1,2-Trichloroethane	ug/m3	55.5	55.8	101	68-132	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	71.5	92	65-130	
1,1-Dichloroethane	ug/m3	41.2	37.8	92	66-131	
1,1-Dichloroethene	ug/m3	40.3	37.4	93	64-136	
1,2,4-Trichlorobenzene	ug/m3	75.5	157	207	30-150	CH,L3
1,2,4-Trimethylbenzene	ug/m3	50	48.9	98	71-135	
1,2-Dibromoethane (EDB)	ug/m3	78.1	86.6	111	72-132	
1,2-Dichlorobenzene	ug/m3	61.2	57.8	95	68-148	
1,2-Dichloroethane	ug/m3	41.2	40.7	99	66-136	
1,2-Dichloropropane	ug/m3	47	48.3	103	68-133	
1,3,5-Trimethylbenzene	ug/m3	50	49.4	99	69-136	
1,3-Butadiene	ug/m3	22.5	23.7	105	69-134	
1,3-Dichlorobenzene	ug/m3	61.2	58.9	96	70-134	
1,4-Dichlorobenzene	ug/m3	61.2	60.4	99	66-134	
2-Butanone (MEK)	ug/m3	30	28.3	94	69-141	
2-Hexanone	ug/m3	41.7	39.5	95	74-132	
4-Ethyltoluene	ug/m3	50	48.8	98	71-134	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	38.0	91	74-131	
Acetone	ug/m3	24.2	24.2	100	62-142	
Benzene	ug/m3	32.5	29.0	89	72-136	
Bromodichloromethane	ug/m3	68.2	71.6	105	69-135	
Bromoform	ug/m3	105	126	120	72-133	
Bromomethane	ug/m3	39.5	35.8	91	65-125	
Carbon disulfide	ug/m3	31.7	28.6	90	68-127	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

LABORATORY CONTROL SAMPLE: 1411879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/m3	64	63.1	99	64-133	
Chlorobenzene	ug/m3	46.8	48.4	103	65-135	
Chloroethane	ug/m3	26.8	25.3	94	63-129	
Chloroform	ug/m3	49.7	47.8	96	66-129	
Chloromethane	ug/m3	21	19.9	95	57-135	
cis-1,2-Dichloroethene	ug/m3	40.3	38.3	95	73-135	
cis-1,3-Dichloropropene	ug/m3	46.2	42.6	92	75-137	
Cyclohexane	ug/m3	35	32.2	92	73-139	
Dibromochloromethane	ug/m3	86.6	98.8	114	73-130	
Dichlorodifluoromethane	ug/m3	50.3	45.7	91	64-131	
Dichlorotetrafluoroethane	ug/m3	71.1	65.8	93	64-131	
Ethyl acetate	ug/m3	36.6	40.8	111	73-136	
Ethylbenzene	ug/m3	44.2	43.3	98	74-136	
Hexachloro-1,3-butadiene	ug/m3	108	258	238	30-150	CH,L3
m&p-Xylene	ug/m3	44.2	42.3	96	72-135	
Methyl-tert-butyl ether	ug/m3	36.7	34.2	93	71-134	
Methylene Chloride	ug/m3	35.3	32.8	93	59-140	
n-Heptane	ug/m3	41.7	37.1	89	73-136	
n-Hexane	ug/m3	35.8	27.3	76	67-136	
Naphthalene	ug/m3	53.3	120	226	30-150	CH,L1
o-Xylene	ug/m3	44.2	43.5	99	74-135	
Propylene	ug/m3	17.5	16.3	93	66-138	
Styrene	ug/m3	43.3	41.2	95	73-135	
Tetrachloroethene	ug/m3	69	73.7	107	66-135	
Tetrahydrofuran	ug/m3	30	27.8	93	73-130	
Toluene	ug/m3	38.3	30.2	79	71-134	
trans-1,2-Dichloroethene	ug/m3	40.3	36.1	90	68-129	
trans-1,3-Dichloropropene	ug/m3	46.2	42.5	92	75-129	
Trichloroethene	ug/m3	54.6	58.4	107	68-134	
Trichlorofluoromethane	ug/m3	57.1	50.2	88	61-134	
Vinyl acetate	ug/m3	35.8	35.9	100	70-139	
Vinyl chloride	ug/m3	26	24.6	95	64-134	

SAMPLE DUPLICATE: 1412388

Parameter	Units	10224616002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	3.8	3.9	1	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

SAMPLE DUPLICATE: 1412388

Parameter	Units	10224616002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	1J		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	ND	ND		25	
2-Hexanone	ug/m3	ND	ND		25	
4-Ethyltoluene	ug/m3	1.6	1.6	.8	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	ND	ND		25	
Benzene	ug/m3	1.7	1.6	.8	25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	0.63	0.67	7	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	3.0	3.0	1	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.2	2.2	2	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	2.8	2.8	.1	25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	10.2	10.2	.3	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	1.4	1.4	.3	25	
n-Heptane	ug/m3	4.0	4.0	2	25	
n-Hexane	ug/m3	4.9	5.1	3	25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	2.8	2.8	1	25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	8.1	8.2	2	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	ND		25	
Trichlorofluoromethane	ug/m3	ND	1.1J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

QC Batch: AIR/17167 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10224616003, 10224616006, 10224616007, 10224616010

METHOD BLANK: 1412429 Matrix: Air
Associated Lab Samples: 10224616003, 10224616006, 10224616007, 10224616010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	04/19/13 15:49	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	04/19/13 15:49	
1,1,2-Trichloroethane	ug/m3	ND	0.55	04/19/13 15:49	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	04/19/13 15:49	
1,1-Dichloroethane	ug/m3	ND	0.82	04/19/13 15:49	
1,1-Dichloroethene	ug/m3	ND	0.81	04/19/13 15:49	
1,2,4-Trichlorobenzene	ug/m3	ND	1.5	04/19/13 15:49	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	04/19/13 15:49	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	04/19/13 15:49	
1,2-Dichlorobenzene	ug/m3	ND	1.2	04/19/13 15:49	
1,2-Dichloroethane	ug/m3	ND	0.41	04/19/13 15:49	
1,2-Dichloropropane	ug/m3	ND	0.94	04/19/13 15:49	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	04/19/13 15:49	
1,3-Butadiene	ug/m3	ND	0.45	04/19/13 15:49	
1,3-Dichlorobenzene	ug/m3	ND	1.2	04/19/13 15:49	
1,4-Dichlorobenzene	ug/m3	ND	1.2	04/19/13 15:49	
2-Butanone (MEK)	ug/m3	ND	0.60	04/19/13 15:49	
2-Hexanone	ug/m3	ND	0.83	04/19/13 15:49	
4-Ethyltoluene	ug/m3	ND	1.0	04/19/13 15:49	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	04/19/13 15:49	
Acetone	ug/m3	ND	0.48	04/19/13 15:49	
Benzene	ug/m3	ND	0.32	04/19/13 15:49	
Bromodichloromethane	ug/m3	ND	1.4	04/19/13 15:49	
Bromoform	ug/m3	ND	2.1	04/19/13 15:49	
Bromomethane	ug/m3	ND	0.79	04/19/13 15:49	
Carbon disulfide	ug/m3	ND	0.63	04/19/13 15:49	
Carbon tetrachloride	ug/m3	ND	0.64	04/19/13 15:49	
Chlorobenzene	ug/m3	ND	0.94	04/19/13 15:49	
Chloroethane	ug/m3	ND	0.54	04/19/13 15:49	
Chloroform	ug/m3	ND	0.99	04/19/13 15:49	
Chloromethane	ug/m3	ND	0.42	04/19/13 15:49	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	04/19/13 15:49	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	04/19/13 15:49	
Cyclohexane	ug/m3	ND	0.70	04/19/13 15:49	
Dibromochloromethane	ug/m3	ND	1.7	04/19/13 15:49	
Dichlorodifluoromethane	ug/m3	ND	1.0	04/19/13 15:49	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	04/19/13 15:49	
Ethyl acetate	ug/m3	ND	0.73	04/19/13 15:49	
Ethylbenzene	ug/m3	ND	0.88	04/19/13 15:49	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	04/19/13 15:49	
m&p-Xylene	ug/m3	ND	1.8	04/19/13 15:49	
Methyl-tert-butyl ether	ug/m3	ND	0.73	04/19/13 15:49	
Methylene Chloride	ug/m3	ND	0.71	04/19/13 15:49	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

METHOD BLANK: 1412429 Matrix: Air

Associated Lab Samples: 10224616003, 10224616006, 10224616007, 10224616010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/m3	ND	0.83	04/19/13 15:49	
n-Hexane	ug/m3	ND	0.72	04/19/13 15:49	
Naphthalene	ug/m3	ND	1.1	04/19/13 15:49	
o-Xylene	ug/m3	ND	0.88	04/19/13 15:49	
Propylene	ug/m3	ND	0.35	04/19/13 15:49	
Styrene	ug/m3	ND	0.87	04/19/13 15:49	
Tetrachloroethene	ug/m3	ND	0.69	04/19/13 15:49	
Tetrahydrofuran	ug/m3	ND	0.60	04/19/13 15:49	
Toluene	ug/m3	ND	0.77	04/19/13 15:49	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	04/19/13 15:49	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	04/19/13 15:49	
Trichloroethene	ug/m3	ND	0.55	04/19/13 15:49	
Trichlorofluoromethane	ug/m3	ND	1.1	04/19/13 15:49	
Vinyl acetate	ug/m3	ND	0.72	04/19/13 15:49	
Vinyl chloride	ug/m3	ND	0.26	04/19/13 15:49	

LABORATORY CONTROL SAMPLE: 1412430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	57.9	104	69-131	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	82.4	118	66-135	
1,1,2-Trichloroethane	ug/m3	55.5	57.8	104	68-132	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	71.7	92	65-130	
1,1-Dichloroethane	ug/m3	41.2	39.0	95	66-131	
1,1-Dichloroethene	ug/m3	40.3	37.5	93	64-136	
1,2,4-Trichlorobenzene	ug/m3	75.5	161	214	30-150	CH,L3
1,2,4-Trimethylbenzene	ug/m3	50	52.6	105	71-135	
1,2-Dibromoethane (EDB)	ug/m3	78.1	90.3	116	72-132	
1,2-Dichlorobenzene	ug/m3	61.2	62.5	102	68-148	
1,2-Dichloroethane	ug/m3	41.2	43.3	105	66-136	
1,2-Dichloropropane	ug/m3	47	50.0	106	68-133	
1,3,5-Trimethylbenzene	ug/m3	50	53.7	107	69-136	
1,3-Butadiene	ug/m3	22.5	22.6	100	69-134	
1,3-Dichlorobenzene	ug/m3	61.2	62.5	102	70-134	
1,4-Dichlorobenzene	ug/m3	61.2	64.8	106	66-134	
2-Butanone (MEK)	ug/m3	30	29.4	98	69-141	
2-Hexanone	ug/m3	41.7	41.9	101	74-132	
4-Ethyltoluene	ug/m3	50	51.5	103	71-134	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	38.4	92	74-131	
Acetone	ug/m3	24.2	23.4	97	62-142	
Benzene	ug/m3	32.5	30.2	93	72-136	
Bromodichloromethane	ug/m3	68.2	75.3	111	69-135	
Bromoform	ug/m3	105	136	129	72-133	
Bromomethane	ug/m3	39.5	35.7	90	65-125	
Carbon disulfide	ug/m3	31.7	28.6	90	68-127	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

LABORATORY CONTROL SAMPLE: 1412430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/m3	64	67.0	105	64-133	
Chlorobenzene	ug/m3	46.8	50.5	108	65-135	
Chloroethane	ug/m3	26.8	24.3	91	63-129	
Chloroform	ug/m3	49.7	51.1	103	66-129	
Chloromethane	ug/m3	21	19.7	94	57-135	
cis-1,2-Dichloroethene	ug/m3	40.3	40.3	100	73-135	
cis-1,3-Dichloropropene	ug/m3	46.2	44.3	96	75-137	
Cyclohexane	ug/m3	35	33.4	95	73-139	
Dibromochloromethane	ug/m3	86.6	104	121	73-130	
Dichlorodifluoromethane	ug/m3	50.3	48.1	96	64-131	
Dichlorotetrafluoroethane	ug/m3	71.1	65.6	92	64-131	
Ethyl acetate	ug/m3	36.6	44.0	120	73-136	
Ethylbenzene	ug/m3	44.2	45.9	104	74-136	
Hexachloro-1,3-butadiene	ug/m3	108	274	253	30-150	CH,L3
m&p-Xylene	ug/m3	44.2	45.1	102	72-135	
Methyl-tert-butyl ether	ug/m3	36.7	33.1	90	71-134	
Methylene Chloride	ug/m3	35.3	32.5	92	59-140	
n-Heptane	ug/m3	41.7	39.1	94	73-136	
n-Hexane	ug/m3	35.8	27.8	78	67-136	
Naphthalene	ug/m3	53.3	123	230	30-150	CH,L1
o-Xylene	ug/m3	44.2	46.4	105	74-135	
Propylene	ug/m3	17.5	16.5	94	66-138	
Styrene	ug/m3	43.3	43.3	100	73-135	
Tetrachloroethene	ug/m3	69	78.8	114	66-135	
Tetrahydrofuran	ug/m3	30	30.0	100	73-130	
Toluene	ug/m3	38.3	31.3	82	71-134	
trans-1,2-Dichloroethene	ug/m3	40.3	37.0	92	68-129	
trans-1,3-Dichloropropene	ug/m3	46.2	43.5	94	75-129	
Trichloroethene	ug/m3	54.6	59.8	109	68-134	
Trichlorofluoromethane	ug/m3	57.1	51.4	90	61-134	
Vinyl acetate	ug/m3	35.8	35.7	100	70-139	
Vinyl chloride	ug/m3	26	24.7	95	64-134	

SAMPLE DUPLICATE: 1413420

Parameter	Units	10224616003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	5.6	5.1	9	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

SAMPLE DUPLICATE: 1413420

Parameter	Units	10224616003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	3.9	3.9	.4	25	
2-Hexanone	ug/m3	ND	ND		25	
4-Ethyltoluene	ug/m3	2.0	2.0	2	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	ND	ND		25	
Benzene	ug/m3	2.1	2.1	1	25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	0.72	0.91	23	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	3.5	3.4	3	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.6	2.8	5	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	3.9	3.6	8	25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	13.3	12.3	8	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	1.9	1.4	30	25	R1
n-Heptane	ug/m3	4.9	4.7	4	25	
n-Hexane	ug/m3	5.7	5.5	4	25	
Naphthalene	ug/m3	2.4	1.7	35	25	CH,L1,R1
o-Xylene	ug/m3	4.1	3.7	10	25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	10.1	10.2	1	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	0.99	0.90	9	25	
Trichlorofluoromethane	ug/m3	ND	1.4J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

QC Batch: AIR/17180
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10224616008

METHOD BLANK: 1413527
Matrix: Air
Associated Lab Samples: 10224616008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	04/21/13 15:16	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	04/21/13 15:16	
1,1,2-Trichloroethane	ug/m3	ND	0.55	04/21/13 15:16	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	04/21/13 15:16	
1,1-Dichloroethane	ug/m3	ND	0.82	04/21/13 15:16	
1,1-Dichloroethene	ug/m3	ND	0.81	04/21/13 15:16	
1,2,4-Trichlorobenzene	ug/m3	ND	1.5	04/18/13 12:25	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	04/21/13 15:16	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	04/21/13 15:16	
1,2-Dichlorobenzene	ug/m3	ND	1.2	04/18/13 12:25	
1,2-Dichloroethane	ug/m3	ND	0.41	04/21/13 15:16	
1,2-Dichloropropane	ug/m3	ND	0.94	04/21/13 15:16	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	04/21/13 15:16	
1,3-Butadiene	ug/m3	ND	0.45	04/21/13 15:16	
1,3-Dichlorobenzene	ug/m3	ND	1.2	04/21/13 15:16	
1,4-Dichlorobenzene	ug/m3	ND	1.2	04/21/13 15:16	
2-Butanone (MEK)	ug/m3	ND	0.60	04/21/13 15:16	
2-Hexanone	ug/m3	ND	0.83	04/18/13 12:25	
4-Ethyltoluene	ug/m3	ND	1.0	04/21/13 15:16	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	04/21/13 15:16	
Acetone	ug/m3	ND	0.48	04/21/13 15:16	
Benzene	ug/m3	ND	0.32	04/21/13 15:16	
Bromodichloromethane	ug/m3	ND	1.4	04/21/13 15:16	
Bromoform	ug/m3	ND	2.1	04/21/13 15:16	
Bromomethane	ug/m3	ND	0.79	04/21/13 15:16	
Carbon disulfide	ug/m3	ND	0.63	04/21/13 15:16	
Carbon tetrachloride	ug/m3	ND	0.64	04/21/13 15:16	
Chlorobenzene	ug/m3	ND	0.94	04/21/13 15:16	
Chloroethane	ug/m3	ND	0.54	04/21/13 15:16	
Chloroform	ug/m3	ND	0.99	04/21/13 15:16	
Chloromethane	ug/m3	ND	0.42	04/21/13 15:16	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	04/21/13 15:16	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	04/21/13 15:16	
Cyclohexane	ug/m3	ND	0.70	04/21/13 15:16	
Dibromochloromethane	ug/m3	ND	1.7	04/21/13 15:16	
Dichlorodifluoromethane	ug/m3	ND	1.0	04/21/13 15:16	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	04/21/13 15:16	
Ethyl acetate	ug/m3	ND	0.73	04/21/13 15:16	
Ethylbenzene	ug/m3	ND	0.88	04/21/13 15:16	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	04/18/13 12:25	
m&p-Xylene	ug/m3	ND	1.8	04/21/13 15:16	
Methyl-tert-butyl ether	ug/m3	ND	0.73	04/21/13 15:16	
Methylene Chloride	ug/m3	ND	0.71	04/21/13 15:16	

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QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

METHOD BLANK: 1413527 Matrix: Air

Associated Lab Samples: 10224616008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
n-Heptane	ug/m3	ND	0.83	04/21/13 15:16	
n-Hexane	ug/m3	ND	0.72	04/21/13 15:16	
Naphthalene	ug/m3	ND	1.1	04/18/13 12:25	
o-Xylene	ug/m3	ND	0.88	04/21/13 15:16	
Propylene	ug/m3	ND	0.35	04/21/13 15:16	
Styrene	ug/m3	ND	0.87	04/21/13 15:16	
Tetrachloroethene	ug/m3	ND	0.69	04/21/13 15:16	
Tetrahydrofuran	ug/m3	ND	0.60	04/21/13 15:16	
Toluene	ug/m3	ND	0.77	04/21/13 15:16	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	04/21/13 15:16	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	04/21/13 15:16	
Trichloroethene	ug/m3	ND	0.55	04/21/13 15:16	
Trichlorofluoromethane	ug/m3	ND	1.1	04/21/13 15:16	
Vinyl acetate	ug/m3	ND	0.72	04/21/13 15:16	
Vinyl chloride	ug/m3	ND	0.26	04/21/13 15:16	

LABORATORY CONTROL SAMPLE: 1413528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	57.4	103	69-131	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	85.2	122	66-135	
1,1,2-Trichloroethane	ug/m3	55.5	59.2	107	68-132	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	71.4	92	65-130	
1,1-Dichloroethane	ug/m3	41.2	39.2	95	66-131	
1,1-Dichloroethene	ug/m3	40.3	38.5	96	64-136	
1,2,4-Trichlorobenzene	ug/m3	75.5	157	207	30-150	CH,L3
1,2,4-Trimethylbenzene	ug/m3	50	56.2	112	71-135	
1,2-Dibromoethane (EDB)	ug/m3	78.1	87.5	112	72-132	
1,2-Dichlorobenzene	ug/m3	61.2	57.8	95	68-148	
1,2-Dichloroethane	ug/m3	41.2	43.7	106	66-136	
1,2-Dichloropropane	ug/m3	47	52.0	111	68-133	
1,3,5-Trimethylbenzene	ug/m3	50	53.1	106	69-136	
1,3-Butadiene	ug/m3	22.5	24.2	108	69-134	
1,3-Dichlorobenzene	ug/m3	61.2	67.2	110	70-134	
1,4-Dichlorobenzene	ug/m3	61.2	68.9	113	66-134	
2-Butanone (MEK)	ug/m3	30	31.5	105	69-141	
2-Hexanone	ug/m3	41.7	39.5	95	74-132	
4-Ethyltoluene	ug/m3	50	51.3	103	71-134	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	54.1	130	74-131	
Acetone	ug/m3	24.2	27.4	114	62-142	
Benzene	ug/m3	32.5	38.5	119	72-136	
Bromodichloromethane	ug/m3	68.2	73.3	108	69-135	
Bromoform	ug/m3	105	127	121	72-133	
Bromomethane	ug/m3	39.5	35.3	89	65-125	
Carbon disulfide	ug/m3	31.7	28.4	90	68-127	

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

LABORATORY CONTROL SAMPLE: 1413528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/m3	64	63.5	99	64-133	
Chlorobenzene	ug/m3	46.8	51.3	110	65-135	
Chloroethane	ug/m3	26.8	25.2	94	63-129	
Chloroform	ug/m3	49.7	50.9	102	66-129	
Chloromethane	ug/m3	21	20.0	95	57-135	
cis-1,2-Dichloroethene	ug/m3	40.3	42.1	105	73-135	
cis-1,3-Dichloropropene	ug/m3	46.2	43.9	95	75-137	
Cyclohexane	ug/m3	35	35.3	101	73-139	
Dibromochloromethane	ug/m3	86.6	98.4	114	73-130	
Dichlorodifluoromethane	ug/m3	50.3	45.4	90	64-131	
Dichlorotetrafluoroethane	ug/m3	71.1	65.3	92	64-131	
Ethyl acetate	ug/m3	36.6	44.4	121	73-136	
Ethylbenzene	ug/m3	44.2	46.5	105	74-136	
Hexachloro-1,3-butadiene	ug/m3	108	258	238	30-150	CH,L3
m&p-Xylene	ug/m3	44.2	46.9	106	72-135	
Methyl-tert-butyl ether	ug/m3	36.7	38.2	104	71-134	
Methylene Chloride	ug/m3	35.3	30.4	86	59-140	
n-Heptane	ug/m3	41.7	42.2	101	73-136	
n-Hexane	ug/m3	35.8	34.4	96	67-136	
Naphthalene	ug/m3	53.3	120	226	30-150	CH,L1
o-Xylene	ug/m3	44.2	47.1	107	74-135	
Propylene	ug/m3	17.5	15.2	87	66-138	
Styrene	ug/m3	43.3	45.1	104	73-135	
Tetrachloroethene	ug/m3	69	75.2	109	66-135	
Tetrahydrofuran	ug/m3	30	30.0	100	73-130	
Toluene	ug/m3	38.3	46.4	121	71-134	
trans-1,2-Dichloroethene	ug/m3	40.3	37.7	94	68-129	
trans-1,3-Dichloropropene	ug/m3	46.2	42.8	93	75-129	
Trichloroethene	ug/m3	54.6	62.2	114	68-134	
Trichlorofluoromethane	ug/m3	57.1	51.6	90	61-134	
Vinyl acetate	ug/m3	35.8	39.1	109	70-139	
Vinyl chloride	ug/m3	26	25.6	98	64-134	

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QUALIFIERS

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 10224616010

[1]	The internal standard recoveries associated with this sample exceed the lower control limit (-40% of initial calibration standard). Results confirmed by second analysis.

ANALYTE QUALIFIERS

A3	The sample was analyzed by serial dilution.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 4184110 Yakona Rd.
Pace Project No.: 10224616

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10224616001	**1644-A-040313**	TO-15	AIR/17165		
10224616002	**1644-B-040313**	TO-15	AIR/17165		
10224616003	**1000-B-040313**	TO-15	AIR/17167		
10224616004	**1646-A-040313**	TO-15	AIR/17165		
10224616005	**1646-B-040313**	TO-15	AIR/17165		
10224616006	**1644/46-BK-040313**	TO-15	AIR/17167		
10224616007	**1644-F-040313**	TO-15	AIR/17167		
10224616008	**1644-R-040313**	TO-15	AIR/17180		
10224616009	**1646-F-040313**	TO-15	AIR/17165		
10224616010	**1646-R-040313**	TO-15	AIR/17167		
10224616015	**Cert Can 0099**	TO-15	AIR/17184		
10224616016	**Cert Can 0433**	TO-15	AIR/17184		
10224616017	**Cert Can 2033**	TO-15	AIR/17184		
10224616018	**Cert Can 1053**	TO-15	AIR/17184		
10224616019	**Cert Can 1078**	TO-15	AIR/17184		
10224616020	**Cert Can 0557**	TO-15	AIR/17184		
10224616021	**Cert Can 0262**	TO-15	AIR/17184		
10224616022	**Cert Can 0006**	TO-15	AIR/17184		
10224616023	**Cert Can 1611**	TO-15	AIR/17184		
10224616024	**Cert Can 1600**	TO-15	AIR/17184		

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10224616

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10224616

09487

Page: 1 of 1

Section A Required Client Information:

Company: WSP
Address: 11190 SUNRISE VALLEY DR. #300 RESTON, VA 20191
Email To: craig.ramich@wspgroup.com
Phone: 703-709-6500 Fax: 703-709-8505
Requested Due Date/TAT:

Section B Required Project Information:

Report To: CRAIG RAMICH
Copy To: KEITH GREEN keith.green@wspgroup.com
Purchase Order No.:
Project Name: YAKONA RD.
Project Number: 4184/10

Section C Invoice Information:

Attention: Per MSA
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager/Sales Rep.
Pace Profile #:

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other

Location of Sampling by State: MD

Reporting Units: ug/m³ X mg/m³ PPBV PPMV Other

Report Level: II. III. IV. Other

Valid Media Codes: Tedlar Bag TB; 1 Liter Summa Can 1LC; 6 Liter Summa Can 6LC; Low Volume Puff LVP; High Volume Puff HVP; Other PM10

ITEM #	Section D Required Client Information: AIR SAMPLE ID (Sample IDs MUST BE UNIQUE)	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START END/GRAB DATE	COLLECTED COMPOSITE START END/GRAB TIME	COLLECTED COMPOSITE END DATE	COLLECTED COMPOSITE END TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method: PM10	3C- Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15	TO15 Short List*	Pace Lab ID
1	1644-A-040313	6LC		04/03/13	10:55	04/04/13	1046	40	3.5	0099	0266							X			
2	1644-B-040313	6LC		04/03/13	1100	04/04/13	1049	27	1.5	0433	0101							X			
3	1000-B-040313	6LC		04/03/13	1100	04/04/13	1049	30	1.5	2033	0371							X			
4	1646-A-040313	6LC		04/03/13	1111	04/04/13	10:30	30	5.0	1053	0373							X			
5	1646-B-040313	6LC		04/03/13	1113	04/04/13	10:30	30	1.5	1078	0290							X			
6	1644/46-BK-040313	6LC		04/03/13	1125	04/04/13	1019	28.5	1.0	0557	0098							X			
7	1644-F-040413	6LC		04/04/13	1144	04/04/13	1145	30	5.0	0262	0186							X			
8	1644-R-040413	6LC		04/04/13	1233	04/04/13	1234	27	3.6	0006	0186							X			
9	1646-F-040413	6LC		04/04/13	1205	04/04/13	1206	30	5.0	1611	0186							X			
10	1646-R-040413	6LC		04/04/13	1221	04/04/13	1222	29	5.0	1600	0186							X			
11	LRO																				
12						LRO															

Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
WSP	04/04/13	6:15PM		4-5-13	09:10

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: LUIS OCAMPO

SIGNATURE of SAMPLER: DATE Signed (MM / DD / YY): 04/04/13

ORIGINAL

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 28Jan2013 Page 1 of 1
	Document No.: F-MN-A-106-rev.07	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: WSP

Project #: WO# : 10224616

10224616

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 8019 6570 0488; 2957 7297 5504 5515 5526

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other:

Temp. (TO17 and TO13 samples only) (°C): AMB **Corrected Temp (°C):** _____ **Thermom. Used:** ☐ B88A912167504 ☐ 80512447 ☐ 72337080

Temp should be above freezing to 6°C **Correction Factor:** _____ **Date & Initials of Person Examining Contents:** 4-5-13 JK

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Media: AIR (CAN)				11.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12.

Samples Received: 14 CANS 10 FC's, 4 GAUGES

Canisters		Flow Controllers		Stand Alone G	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
1644-A	0099	FC0366		0864	FC0352
" -B	0433	FC0101		0671	FC0232
1000-B	2033	FC0371		0849	FC0313
1646-A	1053	FC0373		2024	FC0249
" -B	1078	FC0290			
1644/46-BK	0557	FC0098			
1644-F	0862				P89
" -R	0006				186
1646-F	1611				P11
-R	1600				PACE003

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: CTM **Date:** 4/8/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

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5/2/2013
Mr. Keith Green
WSP Environmental Strategies LLC
11190 Sunrise Valley Dr.
Suite 300
Reston VA 20191

Project Name: Yakona Road
Project #: 4184/10
Workorder #: 1304135

Dear Mr. Keith Green

The following report includes the data for the above referenced project for sample(s) received on 4/5/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

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WORK ORDER #: 1304135

Work Order Summary

CLIENT:	Mr. Keith Green WSP Environment & Energy, LLC 11190 Sunrise Valley Dr. Suite 300 Reston, VA 20191	**BILL TO:**	Accounts Payable-NY WSP Environment & Energy, LLC 512 Seventh Ave New York, NY 10018
PHONE:	703-709-6500	**P.O. #**	4184/10
FAX:		**PROJECT #**	4184/10 Yakona Road
DATE RECEIVED:	04/05/2013	**CONTACT:**	Ausha Scott
DATE COMPLETED:	05/02/2013		

FRACTION #	NAME	TEST
01A	1644-A-040313	Modified TO-17 VI
02A	1644-B-040313	Modified TO-17 VI
03A	1646-A-040313	Modified TO-17 VI
04A	1646-B-040313	Modified TO-17 VI
05A	1644/46-BK-040313	Modified TO-17 VI
06A	1644/46-TRP-040313	Modified TO-17 VI
07A	1644-F-040413	Modified TO-17 VI
08A	1644-R-040413	Modified TO-17 VI
09A	1646-F-040413	Modified TO-17 VI
10A	1646-R-040413	Modified TO-17 VI
11A	Lab Blank	Modified TO-17 VI
11B	Lab Blank	Modified TO-17 VI
12A	CCV	Modified TO-17 VI
12B	CCV	Modified TO-17 VI
13A	LCS	Modified TO-17 VI
13AA	LCSD	Modified TO-17 VI
13B	LCS	Modified TO-17 VI
13BB	LCSD	Modified TO-17 VI

CERTIFIED BY: _____ DATE: 05/02/13

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-4, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2012, Expiration date: 10/17/2013.
Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
WSP Environmental Strategies LLC
Workorder# 1304135

Ten TO-17 VI Tube samples were received on April 05, 2013. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for compound separation and detection.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

Requirement	*TO-17*	*ATL Modifications*
Initial Calibration	%RSD</=30% with 2 allowed out up to 40%	VOC list: %RSD</=30% with 2 allowed out up to 40% SVOC list: %RSD</=30% with 2 allowed out up to 40%
Daily Calibration	%D for each target compound within +/-30%.	Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within +/-40%D
Audit Accuracy	70-130%	Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%.
Distributed Volume Pairs	Collection of distributed volume pairs required for monitoring ambient air to insure high quality.	If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A sampling volume of 6.42 L was used to convert ng to ug/m3 for sample 1644/46-TRP-040313 and the associated Lab Blank.

The TPH pattern in samples 1644-A-040313, 1644-B-040313, 1646-A-040313, 1644-F-040413, 1644-R-040413, 1646-F-040413 and 1646-R-040413 did not resemble that of diesel fuel. The hydrocarbons were distributed in the lighter carbon range of diesel.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: 1644-A-040313

Lab ID#: 1304135-01A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1800	280

Client Sample ID: 1644-B-040313

Lab ID#: 1304135-02A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1100	170

Client Sample ID: 1646-A-040313

Lab ID#: 1304135-03A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1700	280

Client Sample ID: 1646-B-040313

Lab ID#: 1304135-04A

No Detections Were Found.

Client Sample ID: 1644/46-BK-040313

Lab ID#: 1304135-05A

No Detections Were Found.

Client Sample ID: 1644/46-TRP-040313

Lab ID#: 1304135-06A

No Detections Were Found.

Client Sample ID: 1644-F-040413

Lab ID#: 1304135-07A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	13000	2100

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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: 1644-R-040413

Lab ID#: 1304135-08A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	5100	860

Client Sample ID: 1646-F-040413

Lab ID#: 1304135-09A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	3100	520

Client Sample ID: 1646-R-040413

Lab ID#: 1304135-10A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	24000	3800

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Client Sample ID: 1644-A-040313
Lab ID#: 1304135-01A
EPA METHOD TO-17

File Name:	**6041207**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 2:28:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 06:35 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1800	280

Air Sample Volume(L): 6.39
Container Type: TO-17 VI Tube

JKJ
5/27/13

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Client Sample ID: 1644-B-040313

Lab ID#: 1304135-02A

EPA METHOD TO-17

File Name:	**6041208**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 2:30:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 07:13 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1100	170

Air Sample Volume(L): 6.42
Container Type: TO-17 VI Tube

JKT
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Client Sample ID: 1646-A-040313

Lab ID#: 1304135-03A

EPA METHOD TO-17

File Name:	**6041209**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 12:48:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 07:50 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	1700	280

Air Sample Volume(L): 6.14
Container Type: TO-17 VI Tube

JKJ
5/27/13

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Client Sample ID: 1646-B-040313

Lab ID#: 1304135-04A

EPA METHOD TO-17

File Name:	**6041210**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 12:50:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 08:28 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	Not Detected	Not Detected

Air Sample Volume(L): 6.00
Container Type: TO-17 VI Tube

JKS
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Client Sample ID: 1644/46-BK-040313
Lab ID#: 1304135-05A
EPA METHOD TO-17

File Name:	**6041211**	**Date of Extraction: NA**	**Date of Collection: 4/3/13 2:26:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 09:06 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	Not Detected	Not Detected

Air Sample Volume(L): 6.22
Container Type: TO-17 VI Tube

JKJ
5/27/13

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Client Sample ID: 1644/46-TRP-040313

Lab ID#: 1304135-06A

EPA METHOD TO-17

File Name:	**6041206**	**Date of Extraction: NA**	**Date of Collection: 4/3/13**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 05:57 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	Not Detected	Not Detected

Air Sample Volume(L): 6.42
Container Type: TO-17 VI Tube

JKJ
5/27/13

eurofins

Client Sample ID: 1644-F-040413

Lab ID#: 1304135-07A

EPA METHOD TO-17

File Name:	**6041608e**	**Date of Extraction: NA**	**Date of Collection: 4/4/13 12:55:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 02:03 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	13000	2100

Air Sample Volume(L): 6.30
Container Type: TO-17 VI Tube

JKT
5/27/13

eurofins

Client Sample ID: 1644-R-040413

Lab ID#: 1304135-08A

EPA METHOD TO-17

File Name:	**6041213**	**Date of Extraction: NA**	**Date of Collection: 4/4/13 1:39:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 10:22 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	5100	860

Air Sample Volume(L): 5.88
Container Type: TO-17 VI Tube

JKJ
5/27/13

eurofins

Client Sample ID: 1646-F-040413

Lab ID#: 1304135-09A

EPA METHOD TO-17

File Name:	**6041214**	**Date of Extraction: NA**	**Date of Collection: 4/4/13 1:09:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 11:00 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	170	3100	520

Air Sample Volume(L): 6.00
Container Type: TO-17 VI Tube

JKJ
5/27/13

eurofins

Client Sample ID: 1646-R-040413

Lab ID#: 1304135-10A

EPA METHOD TO-17

File Name:	**6041215**	**Date of Extraction: NA**	**Date of Collection: 4/4/13 1:58:00 PM**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 11:38 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	24000	3800

Air Sample Volume(L): 6.30
Container Type: TO-17 VI Tube

JKJ
5/27/13

eurofins

Client Sample ID: Lab Blank
Lab ID#: 1304135-11A
EPA METHOD TO-17

File Name:	**6041205**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 03:37 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	Not Detected	Not Detected

Air Sample Volume(L): 6.42
Container Type: NA - Not Applicable

eurofins

Client Sample ID: Lab Blank

Lab ID#: 1304135-11B

EPA METHOD TO-17

File Name:	**6041607**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 12:37 PM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	160	Not Detected	Not Detected

Air Sample Volume(L): 6.42

Container Type: NA - Not Applicable

eurofins

Client Sample ID: CCV
Lab ID#: 1304135-12A
EPA METHOD TO-17

File Name:	**6041202**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 01:47 PM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	88

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

eurofins

Client Sample ID: CCV
Lab ID#: 1304135-12B
EPA METHOD TO-17

File Name:	**6041603**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 10:13 AM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	108

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

eurofins

Client Sample ID: LCS
Lab ID#: 1304135-13A
EPA METHOD TO-17

File Name:	**6041203**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 02:25 PM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	104

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

eurofins

Client Sample ID: LCSD
Lab ID#: 1304135-13AA
EPA METHOD TO-17

File Name:	**6041204**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/12/13 03:01 PM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	123

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

eurofins

Client Sample ID: LCS
Lab ID#: 1304135-13B
EPA METHOD TO-17

File Name:	**6041605**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 11:26 AM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	108

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

eurofins

Client Sample ID: LCSD
Lab ID#: 1304135-13BB
EPA METHOD TO-17

File Name:	**6041606**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 4/16/13 12:01 PM**

Compound	%Recovery
TPH (Diesel Range C10-C24)	109

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

Appendix F – Individual Residence Risk Tables

Table F-1

Exposure Pathways Post Interim Measures
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route (b)	Exposure Assumptions (c)	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/ Future	Groundwater	Groundwater	Indoor air	Resident	Adult	I	A9,A10	Quantitative	Current land use is residential
				Resident	Child	I	A9,A10	Quantitative	Current land use is residential
				Employee	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Employee Dependent	Child	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Maintenance worker	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Visitor	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Utility worker	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
			Groundwater	Resident	Adult	Ig		Quantitative	Current land use is residential
				Resident	Child	Ig		Quantitative	Current land use is residential
			Soil Vapor	Resident	Adult	I		Quantitative	Current land use is residential
				Resident	Child	I		Quantitative	Current land use is residential
			Sump Water	Resident	Adult	D Ig		Quantitative	Current land use is residential
				Resident	Child	D Ig		Quantitative	Current land use is residential

a/ Refer to text for additional discussion
b/ I = inhalation, D = dermal, and Ig = ingestion
c/ Number refers to exposure assumption tables; same current and future exposure assumptions have same table number

Table F-2

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
Soil	71-55-6	1,1,1-Trichloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	870 n	NA	NA	N	ND
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.56 c	NA	NA	N	ND
	79-00-5	1,1,2-Trichloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	1.1 c	NA	NA	N	ND
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	4300 n	NA	NA	N	ND
	75-34-3	1,1-Dichloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	3.3 c	NA	NA	N	ND
	75-35-4	1,1-Dichloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	24 n	NA	NA	N	ND
	87-61-6	1,2,3-Trichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	4.9 n	NA	NA	N	ND
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	22 c	NA	NA	N	ND
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	0.0054 c	NA	NA	N	ND
	106-93-4	1,2-Dibromoethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.034 c	NA	NA	N	ND
	95-50-1	1,2-Dichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	190 n	NA	NA	N	ND
	107-06-2	1,2-Dichloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.43 c	NA	NA	N	ND
	78-87-5	1,2-Dichloropropane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.94 c	NA	NA	N	ND
	541-73-1	1,3-Dichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	- -	NA	NA	N	ND
	106-46-7	1,4-Dichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	2.4 c	NA	NA	N	ND
	78-93-3	2-Butanone (MEK)	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	2800 n	NA	NA	N	ND
	591-78-6	2-Hexanone (MBK)	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	21 n	NA	NA	N	ND
	108-10-1	4-Methyl-2-Pentanone (MIBK)	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	530 n	NA	NA	N	ND
	67-64-1	Acetone	0.012 J	0.035	mg/kg	SB-040413 (2-2.5)	1/3	0.012-0.035	0.035	NA	6100 n	NA	NA	N	BSL
	71-43-2	Benzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	1.1 c	NA	NA	N	ND
	74-97-5	Bromochloromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	16 n	NA	NA	N	ND
	75-27-4	Bromodichloromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.27 c	NA	NA	N	ND
	75-25-2	Bromoform	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	62 c	NA	NA	N	ND
	74-83-9	Bromomethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.73 n	NA	NA	N	ND
	75-15-0	Carbon Disulfide	ND	ND	mg/kg	NA	0/3	0.0092-0.011	NA	NA	82 n	NA	NA	N	ND
	56-23-5	Carbon tetrachloride	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.61 c	NA	NA	N	ND
	108-90-7	Chlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	29 n	NA	NA	N	ND
	75-00-3	Chloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	1500 n	NA	NA	N	ND
	67-66-3	Chloroform	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.29 c	NA	NA	N	ND
	74-87-3	Chloromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	12 n	NA	NA	N	ND
	110-82-7	Cyclohexane	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	700 n	NA	NA	N	ND
	124-48-1	Dibromochloromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.68 c	NA	NA	N	ND
	75-71-8	Dichlorodifluoromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	9.4 n	NA	NA	N	ND
	108-20-3	Diisopropyl ether	ND	ND	mg/kg	NA	0/3	0.0092-0.011	NA	NA	240 n	NA	NA	N	ND
	100-41-4	Ethylbenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	5.4 c	NA	NA	N	ND
		Hexanal (TIC)	0.011 J	0.011 J	mg/kg	SB-040413 (2-2.5)	3/3	0.011-0.011	0.011	NA	-	NA	NA	N	BSL
	98-82-8	Isopropylbenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	210 n	NA	NA	N	ND
	79-20-9	Methyl Acetate	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	7800 n	NA	NA	N	ND
	1634-04-4	Methyl-t-Butyl Ether	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	43 c	NA	NA	N	ND
	108-87-2	Methylcyclohexane	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	-	NA	NA	N	ND
	75-09-2	Methylene chloride	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	56 c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	3.6 c	NA	NA	N	ND
	100-42-5	Styrene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	630 n	NA	NA	N	ND
	127-18-4	Tetrachloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	22 c	NA	NA	N	ND
	108-88-3	Toluene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	500 n	NA	NA	N	ND
	79-01-6	Trichloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.91 c	NA	NA	N	ND
	75-69-4	Trichlorofluoromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	79 n	NA	NA	N	ND
	75-01-4	Vinyl Chloride	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.06 c	NA	NA	N	ND
	156-59-2	cis-1,2-Dichloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	16 n	NA	NA	N	ND
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	- -	NA	NA	N	ND
	108-38-3	m&p-Xylene	ND	ND	mg/kg	NA	0/3	0.0092-0.011	NA	NA	59 n	NA	NA	N	ND
	95-47-6	o-Xylene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	69 n	NA	NA	N	ND

Table F-2

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Soil	75-85-4	tert-Amyl alcohol	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	-		NA	NA	N	ND
	919-94-8	tert-Amyl ethyl ether	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	-		NA	NA	N	ND
	994-05-8	tert-Amyl methyl ether	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	-		NA	NA	N	ND
	75-65-0	tert-Butyl Alcohol	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	-		NA	NA	N	ND
	637-92-3	tert-Butyl ethyl ether	ND	ND	mg/kg	NA	0/3	0.0092-0.011	NA	NA	-		NA	NA	N	ND
	156-60-5	trans-1,2-Dichloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	15	n	NA	NA	N	ND
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	-	-	NA	NA	N	ND
	91-57-6	2-Methylnaphthalene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	23	n	NA	NA	N	ND
	83-32-9	Acenaphthene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	340	n	NA	NA	N	ND
	208-96-8	Acenaphthylene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	-	-	NA	NA	N	ND
	120-12-7	Anthracene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	1700	n	NA	NA	N	ND
	56-55-3	Benzo(a)anthracene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.15	c	NA	NA	N	ND
	50-32-8	Benzo(a)pyrene	ND	ND	mg/kg	NA	0/3	0.026-0.028	NA	NA	0.015	c	NA	NA	N	ND
	205-99-2	Benzo(b)fluoranthene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.15	c	NA	NA	N	ND
	191-24-2	Benzo(g,h,i)perylene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	-	-	NA	NA	N	ND
	207-08-9	Benzo(k)fluoranthene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	1.5	c	NA	NA	N	ND
	218-01-9	Chrysene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	15	c	NA	NA	N	ND
	53-70-3	Dibenz(a,h)Anthracene	ND	ND	mg/kg	NA	0/3	0.026-0.028	NA	NA	0.015	c	NA	NA	N	ND
	206-44-0	Fluoranthene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	230	n	NA	NA	N	ND
	86-73-7	Fluorene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	230	n	NA	NA	N	ND
	193-39-5	Indeno(1,2,3-c,d)Pyrene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.15	c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	3.6	c	NA	NA	N	ND
	85-01-8	Phenanthrene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	-		NA	NA	N	ND
	129-00-0	Pyrene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	170	n	NA	NA	N	ND
		TPH-DRO	ND	ND	mg/kg	NA	0/3	4.5-4.7	NA	NA	2300		NA	NA	N	ND
		TPH-GRO	ND	ND	mg/kg	NA	0/3	0.11-0.12	NA	NA	2300		NA	NA	N	ND

a/ mg/kg = milligrams per kilogram; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected; J = estimated concentration.

b/ US Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (November 2012) for residential soil exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment (MDE) Guidance (2006). Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. MDE's 2008 Generic Numeric Cleanup Standards (GCNS) for Soil and Groundwater; available at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 15, 2013).

Table F-3

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Groundwater

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
Soil	71-55-6	1,1,1-Trichloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.007 n	NA	NA	N	ND
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.000026 c	NA	NA	N	ND
	79-00-5	1,1,2-Trichloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.000077 c	NA	NA	N	ND
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	13 n	NA	NA	N	ND
	75-34-3	1,1-Dichloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.00068 c	NA	NA	N	ND
	75-35-4	1,1-Dichloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.00025 n	NA	NA	N	ND
	87-61-6	1,2,3-Trichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0015 n	NA	NA	N	ND
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0029 c	NA	NA	N	ND
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	0.00000014 c	NA	NA	N	ND
	106-93-4	1,2-Dibromoethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0000018 c	NA	NA	N	ND
	95-50-1	1,2-Dichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.027 n	NA	NA	N	ND
	107-06-2	1,2-Dichloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.000042 c	NA	NA	N	ND
	78-87-5	1,2-Dichloropropane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.00013 c	NA	NA	N	ND
	541-73-1	1,3-Dichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	- -	NA	NA	N	ND
	106-46-7	1,4-Dichlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0004 c	NA	NA	N	ND
	78-93-3	2-Butanone (MEK)	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	0.1 n	NA	NA	N	ND
	591-78-6	2-Hexanone (MBK)	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	0.00079 n	NA	NA	N	ND
	108-10-1	4-Methyl-2-Pentanone (MIBK)	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	0.023 n	NA	NA	N	ND
	67-64-1	Acetone	0.012 J	0.035	mg/kg	SB-040413 (2-2.5)	2/3	0.012-0.018	0.035	NA	0.24 n	NA	NA	N	BSL
	71-43-2	Benzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0002 c	NA	NA	N	ND
	74-97-5	Bromochloromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0021 n	NA	NA	N	ND
	75-27-4	Bromodichloromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.000032 c	NA	NA	N	ND
	75-25-2	Bromoform	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0021 c	NA	NA	N	ND
	74-83-9	Bromomethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.00018 n	NA	NA	N	ND
	75-15-0	Carbon Disulfide	ND	ND	mg/kg	NA	0/3	0.0092-0.011	NA	NA	0.021 n	NA	NA	N	ND
	56-23-5	Carbon tetrachloride	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.00015 c	NA	NA	N	ND
	108-90-7	Chlorobenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0049 n	NA	NA	N	ND
	75-00-3	Chloroethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.59 n	NA	NA	N	ND
	67-66-3	Chloroform	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.000053 c	NA	NA	N	ND
	74-87-3	Chloromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0049 n	NA	NA	N	ND
	110-82-7	Cyclohexane	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	1.3 n	NA	NA	N	ND
	124-48-1	Dibromochloromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.000039 c	NA	NA	N	ND
	75-71-8	Dichlorodifluoromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.03 n	NA	NA	N	ND
	108-20-3	Diisopropyl ether	ND	ND	mg/kg	NA	0/3	0.0092-0.011	NA	NA	0.037 n	NA	NA	N	ND
	100-41-4	Ethylbenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0015 c	NA	NA	N	ND
		Hexanal (TIC)	0.011 J	0.011 J	mg/kg	SB-040413 (2-2.5)	3/3	0.011-0.011	0.011	NA	-	NA	NA	N	BSL
	98-82-8	Isopropylbenzene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.064 n	NA	NA	N	ND
	79-20-9	Methyl Acetate	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	0.32 n	NA	NA	N	ND
	1634-04-4	Methyl-t-Butyl Ether	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0028 c	NA	NA	N	ND
	108-87-2	Methylcyclohexane	ND	ND	mg/kg	NA	0/3	0.018-0.021	NA	NA	-	NA	NA	N	ND
	75-09-2	Methylene chloride	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0013 c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.00047 c	NA	NA	N	ND
	100-42-5	Styrene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.011 n	NA	NA	N	ND
	127-18-4	Tetrachloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0023 c	NA	NA	N	ND
	108-88-3	Toluene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.059 n	NA	NA	N	ND
	79-01-6	Trichloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.00016 c	NA	NA	N	ND
	75-69-4	Trichlorofluoromethane	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.069 n	NA	NA	N	ND
	75-01-4	Vinyl Chloride	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0000053 c	NA	NA	N	ND
	156-59-2	cis-1,2-Dichloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.00082 n	NA	NA	N	ND
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	- -	NA	NA	N	ND
	108-38-3	m&p-Xylene	ND	ND	mg/kg	NA	0/3	0.0092-0.011	NA	NA	0.018 n	NA	NA	N	ND
	95-47-6	o-Xylene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.019 n	NA	NA	N	ND

Table F-3

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Soil	75-85-4	tert-Amyl alcohol	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	-		NA	NA	N	ND
	919-94-8	tert-Amyl ethyl ether	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	-		NA	NA	N	ND
	994-05-8	tert-Amyl methyl ether	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	-		NA	NA	N	ND
	75-65-0	tert-Butyl Alcohol	ND	ND	mg/kg	NA	0/3	0.037-0.043	NA	NA	-		NA	NA	N	ND
	637-92-3	tert-Butyl ethyl ether	ND	ND	mg/kg	NA	0/3	0.0092-0.011	NA	NA	-		NA	NA	N	ND
	156-60-5	trans-1,2-Dichloroethene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	0.0025	n	NA	NA	N	ND
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	mg/kg	NA	0/3	0.0046-0.0054	NA	NA	-	-	NA	NA	N	ND
	91-57-6	2-Methylnaphthalene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.014	n	NA	NA	N	ND
	83-32-9	Acenaphthene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.41	n	NA	NA	N	ND
	208-96-8	Acenaphthylene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	-	-	NA	NA	N	ND
	120-12-7	Anthracene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	4.2	n	NA	NA	N	ND
	56-55-3	Benzo(a)anthracene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.01	c	NA	NA	N	ND
	50-32-8	Benzo(a)pyrene	ND	ND	mg/kg	NA	0/3	0.026-0.028	NA	NA	0.0035	c	NA	NA	N	ND
	205-99-2	Benzo(b)fluoranthene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.035	c	NA	NA	N	ND
	191-24-2	Benzo(g,h,i)perylene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	-	-	NA	NA	N	ND
	207-08-9	Benzo(k)fluoranthene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.35	c	NA	NA	N	ND
	218-01-9	Chrysene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	1.1	c	NA	NA	N	ND
	53-70-3	Dibenz(a,h)Anthracene	ND	ND	mg/kg	NA	0/3	0.026-0.028	NA	NA	0.011	c	NA	NA	N	ND
	206-44-0	Fluoranthene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	7	n	NA	NA	N	ND
	86-73-7	Fluorene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.4	n	NA	NA	N	ND
	193-39-5	Indeno(1,2,3-c,d)Pyrene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.2	c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.00047	c	NA	NA	N	ND
	85-01-8	Phenanthrene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	-		NA	NA	N	ND
	129-00-0	Pyrene	ND	ND	mg/kg	NA	0/3	0.19-0.2	NA	NA	0.95	n	NA	NA	N	ND
		TPH-DRO	ND	ND	mg/kg	NA	0/3	4.5-4.7	NA	NA	-		NA	NA	N	ND
		TPH-GRO	ND	ND	mg/kg	NA	0/3	0.11-0.12	NA	NA	-		NA	NA	N	ND

a/ mg/kg = milligrams per kilogram; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected; J = estimated concentration.

b/ US Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (November 2012) for residential soil exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment (MDE) Guidance (2006). Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. MDE's 2008 Generic Numeric Cleanup Standards (GCNS) for Soil and Groundwater; available at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 15, 2013).

Table F-4

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Indoor Air

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion	
Indoor Air	71-55-6	1,1,1-Trichloroethane	ND	ND	µg/m^3	NA	0/3	1.4-1.6	NA	NA	520	n	NA	NA	N	ND	
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	µg/m^3	NA	0/3	0.88-1	NA	NA	0.042	c	NA	NA	N	ND	
	79-00-5	1,1,2-Trichloroethane	ND	ND	µg/m^3	NA	0/3	0.69-0.79	NA	NA	0.15	c	NA	NA	N	ND	
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	µg/m^3	NA	0/3	2-2.3	NA	NA	3100	n	NA	NA	N	ND	
	75-34-3	1,1-Dichloroethane	ND	ND	µg/m^3	NA	0/3	1-1.2	NA	NA	1.5	c	NA	NA	N	ND	
	75-35-4	1,1-Dichloroethene	ND	ND	µg/m^3	NA	0/3	1-1.2	NA	NA	21	n	NA	NA	N	ND	
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	µg/m^3	NA	0/3	1.9-2.2	NA	NA	0.21	n	NA	NA	N	ND	
	95-63-6	1,2,4-Trimethylbenzene	1.8	5.6	µg/m^3	1000-B-040313	3/3	1.8-5.6	5.6	NA	0.73	n	NA	NA	Y	ASL	
	106-93-4	1,2-Dibromoethane (EDB)	ND	ND	µg/m^3	NA	0/3	2-2.2	NA	NA	0.0041	c	NA	NA	N	ND	
	95-50-1	1,2-Dichlorobenzene	ND	ND	µg/m^3	NA	0/3	1.5-1.8	NA	NA	21	n	NA	NA	N	ND	
	107-06-2	1,2-Dichloroethane	ND	ND	µg/m^3	NA	0/3	0.52-0.59	NA	NA	0.094	c	NA	NA	N	ND	
	78-87-5	1,2-Dichloropropane	ND	ND	µg/m^3	NA	0/3	1.2-1.4	NA	NA	0.24	c	NA	NA	N	ND	
	526-73-8	1,3,5-Trimethylbenzene	ND	ND	µg/m^3	NA	0/3	1.3-1.4	NA	NA	0.52	n	NA	NA	N	ND	
	106-99-0	1,3-Butadiene	ND	ND	µg/m^3	NA	0/3	0.57-0.65	NA	NA	0.081	c	NA	NA	N	ND	
	541-73-1	1,3-Dichlorobenzene	ND	ND	µg/m^3	NA	0/3	1.5-1.8	NA	NA	-	-	NA	NA	N	ND	
	106-46-7	1,4-Dichlorobenzene	ND	ND	µg/m^3	NA	0/3	1.5-1.8	NA	NA	0.22	c	NA	NA	N	ND	
	78-93-3	2-Butanone (MEK)	0.76	3.9	µg/m^3	1000-B-040313	2/3	0.76-3.9	3.9	NA	520	n	NA	NA	N	BSL	
	591-78-6	2-Hexanone	ND	ND	µg/m^3	NA	0/3	1-1.2	NA	NA	3.1	n	NA	NA	N	ND	
	622-96-8	4-Ethyltoluene	1.4	2	µg/m^3	1000-B-040313	2/3	1.4-2	2	NA	-		NA	NA	N	BSL	
	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ND	µg/m^3	NA	0/3	1-1.2	NA	NA	310	n	NA	NA	N	ND	
	67-64-1	Acetone	0.6	29.2	µg/m^3	1644-A-040313	1/3	0.6-29.2	29.2	0.9	3200	n	NA	NA	N	BSL	
	71-43-2	Benzene	1.4	2.1	µg/m^3	1000-B-040313	3/3	1.4-2.1	2.1	NA	0.31	c	NA	NA	Y	ASL	
	75-27-4	Bromodichloromethane	ND	ND	µg/m^3	NA	0/3	1.7-2	NA	NA	0.066	c	NA	NA	N	ND	
	75-25-2	Bromoform	ND	ND	µg/m^3	NA	0/3	2.6-3	NA	NA	2.2	c	NA	NA	N	ND	
	74-83-9	Bromomethane	ND	ND	µg/m^3	NA	0/3	1-1.1	NA	NA	0.52	n	NA	NA	N	ND	
	75-15-0	Carbon disulfide	ND	ND	µg/m^3	NA	0/3	0.79-0.91	NA	NA	73	n	NA	NA	N	ND	
	56-23-5	Carbon tetrachloride	ND	ND	µg/m^3	NA	0/3	0.81-0.92	NA	NA	0.41	c	NA	NA	N	ND	
	108-90-7	Chlorobenzene	ND	ND	µg/m^3	NA	0/3	1.2-1.4	NA	NA	5.2	n	NA	NA	N	ND	
	75-00-3	Chloroethane	ND	ND	µg/m^3	NA	0/3	0.68-0.78	NA	NA	1000	n	NA	NA	N	ND	
	67-66-3	Chloroform	ND	ND	µg/m^3	NA	0/3	1.2-1.4	NA	NA	0.11	c	NA	NA	N	ND	(c)
	74-87-3	Chloromethane	0.63	0.72	µg/m^3	1000-B-040313	3/3	0.63-0.72	0.72	NA	9.4	n	NA	NA	N	BSL	
	156-59-2	cis-1,2-Dichloroethene	ND	ND	µg/m^3	NA	0/3	1-1.2	NA	NA	-	-	NA	NA	N	ND	
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	µg/m^3	NA	0/3	1.2-1.3	NA	NA	-	-	NA	NA	N	ND	
	110-82-7	Cyclohexane	2.9	3.5	µg/m^3	1000-B-040313	3/3	2.9-3.5	3.5	NA	630	n	NA	NA	N	BSL	
	124-48-1	Dibromochloromethane	ND	ND	µg/m^3	NA	0/3	2.2-2.5	NA	NA	0.09	c	NA	NA	N	ND	
	75-71-8	Dichlorodifluoromethane	2.2	2.6	µg/m^3	1000-B-040313	3/3	2.2-2.6	2.6	NA	10	n	NA	NA	N	BSL	
	76-14-2	Dichlorotetrafluoroethane	ND	ND	µg/m^3	NA	0/3	1.8-2	NA	NA	-		NA	NA	N	ND	

Table F-4

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Indoor Air

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion	
Indoor Air	71-55-6	1,1,1-Trichloroethane	ND	ND	µg/m^3	NA	0/3	1.4-1.6	NA	NA	520	n	NA	NA	N	ND	
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	µg/m^3	NA	0/3	0.88-1	NA	NA	0.042	c	NA	NA	N	ND	
	79-00-5	1,1,2-Trichloroethane	ND	ND	µg/m^3	NA	0/3	0.69-0.79	NA	NA	0.15	c	NA	NA	N	ND	
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	µg/m^3	NA	0/3	2-2.3	NA	NA	3100	n	NA	NA	N	ND	
	75-34-3	1,1-Dichloroethane	ND	ND	µg/m^3	NA	0/3	1-1.2	NA	NA	1.5	c	NA	NA	N	ND	
	75-35-4	1,1-Dichloroethene	ND	ND	µg/m^3	NA	0/3	1-1.2	NA	NA	21	n	NA	NA	N	ND	
Indoor Air	141-78-6	Ethyl acetate	0.92	74.4	µg/m^3	1644-A-040313	1/3	0.92-74.4	74.4	NA	-	-	NA	NA	N	BSL	
	100-41-4	Ethylbenzene	2.1	3.9	µg/m^3	1000-B-040313	3/3	2.1-3.9	3.9	NA	0.97	c	NA	NA	Y	ASL	
	87-68-3	Hexachloro-1,3-butadiene	ND	ND	µg/m^3	NA	0/3	2.8-3.2	NA	NA	0.11	c	NA	NA	N	ND	
	108-38-3	m&p-Xylene	6.6	13.3	µg/m^3	1000-B-040313	3/3	6.6-13.3	13.3	NA	10	n	NA	NA	Y	ASL	
	75-09-2	Methylene Chloride	1.3	1.9	µg/m^3	1000-B-040313	3/3	1.3-1.9	1.9	16.3	96	c	NA	NA	N	BSL	
	1634-04-4	Methyl-tert-butyl ether	ND	ND	µg/m^3	NA	0/3	0.92-1.1	NA	NA	9.4	c	NA	NA	N	ND	
	91-20-3	Naphthalene	1.3	2.4	µg/m^3	1000-B-040313	1/3	1.3-2.4	2.4	NA	0.072	c	NA	NA	Y	ASL	
	142-82-5	n-Heptane	4	4.9	µg/m^3	1000-B-040313	3/3	4-4.9	4.9	NA	-		NA	NA	N	BSL	
	110-54-3	n-Hexane	4.7	5.7	µg/m^3	1000-B-040313	3/3	4.7-5.7	5.7	2.8	73	n	NA	NA	N	BSL	
	95-47-6	o-Xylene	1.9	4.1	µg/m^3	1000-B-040313	3/3	1.9-4.1	4.1	NA	10	n	NA	NA	N	BSL	
	115-07-1	Propylene	ND	ND	µg/m^3	NA	0/3	0.44-0.5	NA	NA	310	n	NA	NA	N	ND	
	100-42-5	Styrene	ND	ND	µg/m^3	NA	0/3	1.1-1.3	NA	NA	100	n	NA	NA	N	ND	
	127-18-4	Tetrachloroethene	ND	ND	µg/m^3	NA	0/3	0.87-0.99	NA	NA	9.4	c	NA	NA	N	ND	
	109-99-9	Tetrahydrofuran	ND	ND	µg/m^3	NA	0/3	0.76-0.86	NA	NA	210	n	NA	NA	N	ND	
	108-88-3	Toluene	7	10.1	µg/m^3	1000-B-040313	3/3	7-10.1	10.1	NA	520	n	NA	NA	N	BSL	
	156-60-5	trans-1,2-Dichloroethene	ND	ND	µg/m^3	NA	0/3	1-1.2	NA	NA	6.3	n	NA	NA	N	ND	
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	µg/m^3	NA	0/3	1.2-1.3	NA	NA	-	-	NA	NA	N	ND	
	79-01-6	Trichloroethene	0.69	2.9	µg/m^3	1644-A-040313	2/3	0.69-2.9	2.9	NA	0.43	c	NA	NA	Y	ASL	(c)
	75-69-4	Trichlorofluoromethane	ND	ND	µg/m^3	NA	0/3	1.4-1.6	NA	NA	73	n	NA	NA	N	ND	
	108-05-4	Vinyl acetate	ND	ND	µg/m^3	NA	0/3	0.9-1	NA	NA	21	n	NA	NA	N	ND	
	75-01-4	Vinyl chloride	ND	ND	µg/m^3	NA	0/3	0.33-0.37	NA	NA	0.16	c	NA	NA	N	ND	
	-	TPH-DRO	170	280	µg/m^3	1644-A-040313	3/3	0-0	280	NA	68	(d)	NA	NA	Y	ASL	

a/ µg/m3 = micrograms per cubic meter; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected.

b/ EPA RSLs (November 2012) for residential indoor air exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment Guidance. Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm

c/ Constituent not further evaluated because not related to potential historical Hess releases.

d/ Screening value from Massachusetts Department of Environmental Protection Vapor Intrusion Guidance. December 2010. Residential threshold value for C9-C12 used.

e/ Constituent not further evaluated because individual volatile organic compounds evaluated.

Table F-5

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
Groundwater	71-55-6	1,1,1-Trichloroethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	750	n	NA	NA	N	ND
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.066	c	NA	NA	N	ND
	79-00-5	1,1,2-Trichloroethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.24	c	NA	NA	N	ND
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	5300	n	NA	NA	N	ND
	75-34-3	1,1-Dichloroethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	2.4	c	NA	NA	N	ND
	75-35-4	1,1-Dichloroethene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	26	n	NA	NA	N	ND
	87-61-6	1,2,3-Trichlorobenzene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.52	n	NA	NA	N	ND
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.99	c	NA	NA	N	ND
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	ug/l	NA	0/2	10-10	NA	NA	0.00032	c	NA	NA	N	ND
	106-93-4	1,2-Dibromoethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.0065	c	NA	NA	N	ND
	95-50-1	1,2-Dichlorobenzene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	28	n	NA	NA	N	ND
	107-06-2	1,2-Dichloroethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.15	c	NA	NA	N	ND
	78-87-5	1,2-Dichloropropane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.38	c	NA	NA	N	ND
	541-73-1	1,3-Dichlorobenzene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	-	-	NA	NA	N	ND
	106-46-7	1,4-Dichlorobenzene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.42	c	NA	NA	N	ND
	78-93-3	2-Butanone (MEK)	ND	ND	ug/l	NA	0/2	10-10	NA	NA	490	n	NA	NA	N	ND
	591-78-6	2-Hexanone (MBK)	ND	ND	ug/l	NA	0/2	10-10	NA	NA	3.4	n	NA	NA	N	ND
	108-10-1	4-Methyl-2-Pentanone (MIBK)	ND	ND	ug/l	NA	0/2	5-5	NA	NA	100	n	NA	NA	N	ND
	67-64-1	Acetone	ND	ND	ug/l	NA	0/2	10-10	NA	NA	1200	n	NA	NA	N	ND
	71-43-2	Benzene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.39	c	NA	NA	N	ND
	74-97-5	Bromochloromethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	8.3	n	NA	NA	N	ND
	75-27-4	Bromodichloromethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.12	c	NA	NA	N	ND
	75-25-2	Bromoform	ND	ND	ug/l	NA	0/2	5-5	NA	NA	7.9	c	NA	NA	N	ND
	74-83-9	Bromomethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.7	n	NA	NA	N	ND
	75-15-0	Carbon Disulfide	ND	ND	ug/l	NA	0/2	10-10	NA	NA	72	n	NA	NA	N	ND
	56-23-5	Carbon tetrachloride	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.39	c	NA	NA	N	ND
	108-90-7	Chlorobenzene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	7.2	n	NA	NA	N	ND
	75-00-3	Chloroethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	2100	n	NA	NA	N	ND
	67-66-3	Chloroform	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.19	c	NA	NA	N	ND
	74-87-3	Chloromethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	19	n	NA	NA	N	ND
	110-82-7	Cyclohexane	ND	ND	ug/l	NA	0/2	10-10	NA	NA	1300	n	NA	NA	N	ND
	124-48-1	Dibromochloromethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.15	c	NA	NA	N	ND
	75-71-8	Dichlorodifluoromethane	ND	ND	ug/l	NA	0/2	1-1	NA	NA	19	n	NA	NA	N	ND
	108-20-3	Diisopropyl ether	ND	ND	ug/l	NA	0/2	10-10	NA	NA	150	n	NA	NA	N	ND
	100-41-4	Ethylbenzene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	1.3	c	NA	NA	N	ND
	98-82-8	Isopropylbenzene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	39	n	NA	NA	N	ND
	79-20-9	Methyl Acetate	ND	ND	ug/l	NA	0/2	10-10	NA	NA	1600	n	NA	NA	N	ND
	1634-04-4	Methyl-t-Butyl Ether	ND	ND	ug/l	NA	0/2	1-1	NA	NA	12	c	NA	NA	N	ND
	108-87-2	Methylcyclohexane	ND	ND	ug/l	NA	0/2	10-10	NA	NA	-		NA	NA	N	ND
	75-09-2	Methylene chloride	ND	ND	ug/l	NA	0/2	1-1	NA	NA	9.9	c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.14	c	NA	NA	N	ND
	100-42-5	Styrene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	110	n	NA	NA	N	ND
	127-18-4	Tetrachloroethene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	9.7	c	NA	NA	N	ND
	108-88-3	Toluene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	86	n	NA	NA	N	ND
	79-01-6	Trichloroethene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.44	c	NA	NA	N	ND
	75-69-4	Trichlorofluoromethane	ND	ND	ug/l	NA	0/2	5-5	NA	NA	110	n	NA	NA	N	ND
	75-01-4	Vinyl chloride	ND	ND	ug/l	NA	0/2	1-1	NA	NA	0.015	c	NA	NA	N	ND
	156-59-2	cis-1,2-Dichloroethene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	2.8	n	NA	NA	N	ND
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	-	-	NA	NA	N	ND
	108-38-3	m&p-Xylene	ND	ND	ug/l	NA	0/2	2-2	NA	NA	19	n	NA	NA	N	ND
	95-47-6	o-Xylene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	19	n	NA	NA	N	ND
	75-85-4	tert-Amyl alcohol	ND	ND	ug/l	NA	0/2	20-20	NA	NA	-		NA	NA	N	ND

Table F-5

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Groundwater	919-94-8	tert-Amyl ethyl ether	ND	ND	ug/l	NA	0/2	10-10	NA	NA	-		NA	NA	N	ND
	994-05-8	tert-Amyl methyl ether	ND	ND	ug/l	NA	0/2	10-10	NA	NA	-		NA	NA	N	ND
	75-65-0	tert-Butanol	ND	ND	ug/l	NA	0/2	20-20	NA	NA	-		NA	NA	N	ND
	637-92-3	tert-Butyl ethyl ether	ND	ND	ug/l	NA	0/2	10-10	NA	NA	-		NA	NA	N	ND
	156-60-5	trans-1,2-Dichloroethene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	8.6	n	NA	NA	N	ND
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	ug/l	NA	0/2	1-1	NA	NA	-	-	NA	NA	N	ND
	91-57-6	2-Methylnaphthalene	ND	ND	ug/l	NA	0/2	2-2.2	NA	NA	2.7	n	NA	NA	N	ND
	83-32-9	Acenaphthene	ND	ND	ug/l	NA	0/2	5-5.6	NA	NA	40	n	NA	NA	N	ND
	208-96-8	Acenaphthylene	ND	ND	ug/l	NA	0/2	5-5.6	NA	NA	-	-	NA	NA	N	ND
	120-12-7	Anthracene	ND	ND	ug/l	NA	0/2	5-5.6	NA	NA	130	n	NA	NA	N	ND
	56-55-3	Benzo(a)anthracene	ND	ND	ug/l	NA	0/2	0.5-0.56	NA	NA	0.029	c	NA	NA	N	ND
	50-32-8	Benzo(a)pyrene	ND	ND	ug/l	NA	0/2	0.5-0.56	NA	NA	0.0029	c	NA	NA	N	ND
	205-99-2	Benzo(b)fluoranthene	ND	ND	ug/l	NA	0/2	0.5-0.56	NA	NA	0.029	c	NA	NA	N	ND
	191-24-2	Benzo(g,h,i)perylene	ND	ND	ug/l	NA	0/2	5-5.6	NA	NA	-	-	NA	NA	N	ND
	207-08-9	Benzo(k)fluoranthene	ND	ND	ug/l	NA	0/2	0.5-0.56	NA	NA	0.29	c	NA	NA	N	ND
	218-01-9	Chrysene	ND	ND	ug/l	NA	0/2	2-2.2	NA	NA	2.9	c	NA	NA	N	ND
	53-70-3	Dibenz(a,h)Anthracene	ND	ND	ug/l	NA	0/2	0.5-0.56	NA	NA	0.0029	c	NA	NA	N	ND
	206-44-0	Fluoranthene	ND	ND	ug/l	NA	0/2	5-5.6	NA	NA	63	n	NA	NA	N	ND
	86-73-7	Fluorene	ND	ND	ug/l	NA	0/2	5-5.6	NA	NA	22	n	NA	NA	N	ND
	193-39-5	Indeno(1,2,3-c,d)Pyrene	ND	ND	ug/l	NA	0/2	0.5-0.56	NA	NA	0.029	c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	ug/l	NA	0/2	0.5-0.56	NA	NA	0.14	c	NA	NA	N	ND
	85-01-8	Phenanthrene	ND	ND	ug/l	NA	0/2	5-5.6	NA	NA	-		NA	NA	N	ND
	129-00-0	Pyrene	ND	ND	ug/l	NA	0/2	5-5.6	NA	NA	8.7	n	NA	NA	N	ND
	74-82-8	Methane	ND	ND	mg/l	NA	0/2	0.0062-0.0067	NA	NA	-		NA	NA	N	ND
		TPH-DRO	0.04	0.044	mg/l	SB-040413 (GW)	1/2	0.04-0.04	0.044	NA	0.047		NA	NA	N	BSL
		TPH-GRO	ND	ND	ug/l	NA	0/2	40-40	NA	NA	47		NA	NA	N	ND

a/ µg/l = micrograms per liter; mg/l = milligrams per liter; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected.

b/ US Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (November 2012) for residential soil exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment (MDE) Guidance (2006). Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. MDE's 2008 Generic Numeric Cleanup Standards (GCNS) for Soil and Groundwater; available at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 15, 2013).

Table F-6

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Soil Gas

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C;		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion	
Soil Gas	71-55-6	1,1,1-Trichloroethane	ND	ND	µg/m^3	NA	0/2	34.4-137	NA	NA	5200	n	NA	NA	N	ND	
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	µg/m^3	NA	0/2	21.6-86.2	NA	NA	0.42	c	NA	NA	N	ND	
	79-00-5	1,1,2-Trichloroethane	ND	ND	µg/m^3	NA	0/2	17-67.9	NA	NA	1.5	c	NA	NA	N	ND	
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	µg/m^3	NA	0/2	49.6-198	NA	NA	31000	n	NA	NA	N	ND	
	75-34-3	1,1-Dichloroethane	ND	ND	µg/m^3	NA	0/2	25.4-101	NA	NA	15	c	NA	NA	N	ND	
	75-35-4	1,1-Dichloroethene	ND	ND	µg/m^3	NA	0/2	25.1-100	NA	NA	210	n	NA	NA	N	ND	
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	µg/m^3	NA	0/2	2.2-46.8	NA	NA	2.1	n	NA	NA	N	ND	
	95-63-6	1,2,4-Trimethylbenzene	229	668	µg/m^3	1644-R-040313	2/2	229-668	668	NA	7.3	n	NA	NA	Y	ASL	(c)
	106-93-4	1,2-Dibromoethane (EDB)	ND	ND	µg/m^3	NA	0/2	48.4-193	NA	NA	0.041	c	NA	NA	N	ND	
	95-50-1	1,2-Dichlorobenzene	ND	ND	µg/m^3	NA	0/2	1.8-37.8	NA	NA	210	n	NA	NA	N	ND	
	107-06-2	1,2-Dichloroethane	ND	ND	µg/m^3	NA	0/2	12.7-50.6	NA	NA	0.94	c	NA	NA	N	ND	
	78-87-5	1,2-Dichloropropane	ND	ND	µg/m^3	NA	0/2	29.1-116	NA	NA	2.4	c	NA	NA	N	ND	
	526-73-8	1,3,5-Trimethylbenzene	86.1	270	µg/m^3	1644-R-040313	2/2	86.1-270	270	NA	5.2	n	NA	NA	Y	ASL	(c)
	106-99-0	1,3-Butadiene	ND	ND	µg/m^3	NA	0/2	14-55.6	NA	NA	0.81	c	NA	NA	N	ND	
	541-73-1	1,3-Dichlorobenzene	ND	ND	µg/m^3	NA	0/2	37.8-151	NA	NA	-	-	NA	NA	N	ND	
	106-46-7	1,4-Dichlorobenzene	ND	ND	µg/m^3	NA	0/2	37.8-151	NA	NA	2.2	c	NA	NA	N	ND	
	78-93-3	2-Butanone (MEK)	18.6	12300	µg/m^3	1644-R-040313	1/2	18.6-12300	12300	NA	5200	n	NA	NA	Y	ASL	(c)
	591-78-6	2-Hexanone	ND	ND	µg/m^3	NA	0/2	1.2-25.7	NA	NA	31	n	NA	NA	N	ND	
	622-96-8	4-Ethyltoluene	81.9	409	µg/m^3	1644-R-040313	2/2	81.9-409	409	NA	-		NA	NA	N	BSL	
	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ND	µg/m^3	NA	0/2	25.7-102	NA	NA	3100	n	NA	NA	N	ND	
	67-64-1	Acetone	ND	ND	µg/m^3	NA	0/2	14.9-59.3	NA	NA	32000	n	NA	NA	N	ND	
	71-43-2	Benzene	40.1	96.1	µg/m^3	1644-F-040313	1/2	40.1-96.1	96.1	NA	3.1	c	NA	NA	Y	ASL	(c)
	75-27-4	Bromodichloromethane	ND	ND	µg/m^3	NA	0/2	42.2-168	NA	NA	0.66	c	NA	NA	N	ND	
	75-25-2	Bromoform	ND	ND	µg/m^3	NA	0/2	65.1-259	NA	NA	22	c	NA	NA	N	ND	
	74-83-9	Bromomethane	ND	ND	µg/m^3	NA	0/2	24.5-97.6	NA	NA	5.2	n	NA	NA	N	ND	
	75-15-0	Carbon disulfide	ND	ND	µg/m^3	NA	0/2	19.5-77.8	NA	NA	730	n	NA	NA	N	ND	
	56-23-5	Carbon tetrachloride	ND	ND	µg/m^3	NA	0/2	19.8-79	NA	NA	4.1	c	NA	NA	N	ND	
	108-90-7	Chlorobenzene	ND	ND	µg/m^3	NA	0/2	29.1-116	NA	NA	52	n	NA	NA	N	ND	
	75-00-3	Chloroethane	ND	ND	µg/m^3	NA	0/2	16.7-66.7	NA	NA	10000	n	NA	NA	N	ND	
	67-66-3	Chloroform	122	148	µg/m^3	1644-F-040313	1/2	122-148	148	NA	1.1	c	NA	NA	Y	ASL	(d)
	74-87-3	Chloromethane	ND	ND	µg/m^3	NA	0/2	13-51.9	NA	NA	94	n	NA	NA	N	ND	
	156-59-2	cis-1,2-Dichloroethene	ND	ND	µg/m^3	NA	0/2	25.1-100	NA	NA	-	-	NA	NA	N	ND	
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	µg/m^3	NA	0/2	28.5-114	NA	NA	-	-	NA	NA	N	ND	
	110-82-7	Cyclohexane	86.4	168	µg/m^3	1644-F-040313	1/2	86.4-168	168	NA	6300	n	NA	NA	N	BSL	
	124-48-1	Dibromochloromethane	ND	ND	µg/m^3	NA	0/2	53.6-214	NA	NA	0.9	c	NA	NA	N	ND	
	75-71-8	Dichlorodifluoromethane	ND	ND	µg/m^3	NA	0/2	31.3-125	NA	NA	100	n	NA	NA	N	ND	
	76-14-2	Dichlorotetrafluoroethane	ND	ND	µg/m^3	NA	0/2	44-175	NA	NA	-		NA	NA	N	ND	
	141-78-6	Ethyl acetate	22.6	6890	µg/m^3	1644-R-040313	1/2	22.6-6890	6890	NA	-	-	NA	NA	N	BSL	
	100-41-4	Ethylbenzene	109	142	µg/m^3	1644-F-040313	1/2	109-142	142	NA	9.7	c	NA	NA	Y	ASL	(c)
	87-68-3	Hexachloro-1,3-butadiene	ND	ND	µg/m^3	NA	0/2	3.2-68.2	NA	NA	1.1	c	NA	NA	N	ND	
	108-38-3	m&p-Xylene	217	774	µg/m^3	1644-F-040313	1/2	217-774	774	NA	100	n	NA	NA	Y	ASL	(c)
	75-09-2	Methylene Chloride	99.9	230	µg/m^3	1644-R-040313	2/2	99.9-230	230	NA	960	c	NA	NA	N	BSL	
	1634-04-4	Methyl-tert-butyl ether	ND	ND	µg/m^3	NA	0/2	22.6-90.1	NA	NA	94	c	NA	NA	N	ND	
	91-20-3	Naphthalene	11.3	33.2	µg/m^3	1644-F-040313	1/2	11.3-33.2	33.2	NA	0.72	c	NA	NA	Y	ASL	(c)
	142-82-5	n-Heptane	102	589	µg/m^3	1644-F-040313	1/2	102-589	589	NA	-		NA	NA	N	BSL	
	110-54-3	n-Hexane	88.9	583	µg/m^3	1644-F-040313	1/2	88.9-583	583	NA	730	n	NA	NA	N	BSL	
	95-47-6	o-Xylene	109	186	µg/m^3	1644-F-040313	1/2	109-186	186	NA	100	n	NA	NA	Y	ASL	(c)
	115-07-1	Propylene	ND	ND	µg/m^3	NA	0/2	10.8-43.2	NA	NA	3100	n	NA	NA	N	ND	
	100-42-5	Styrene	80.2	107	µg/m^3	1644-R-040313	1/2	80.2-107	107	NA	1000	n	NA	NA	N	BSL	
	127-18-4	Tetrachloroethene	85.1	842	µg/m^3	1644-F-040313	1/2	85.1-842	842	NA	94	c	NA	NA	Y	ASL	(d)
	109-99-9	Tetrahydrofuran	ND	ND	µg/m^3	NA	0/2	18.6-74.1	NA	NA	2100	n	NA	NA	N	ND	
	108-88-3	Toluene	95.1	704	µg/m^3	1644-F-040313	1/2	95.1-704	704	NA	5200	n	NA	NA	N	BSL	

Table F-6

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Soil Gas	156-60-5	trans-1,2-Dichloroethene	ND	ND	µg/m^3	NA	0/2	25.1-100	NA	NA	63	n	NA	NA	N	ND	
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	µg/m^3	NA	0/2	28.5-114	NA	NA	-	-	NA	NA	N	ND	
	79-01-6	Trichloroethene	ND	ND	µg/m^3	NA	0/2	17-67.9	NA	NA	4.3	c	NA	NA	N	ND	
	75-69-4	Trichlorofluoromethane	ND	ND	µg/m^3	NA	0/2	35.3-141	NA	NA	730	n	NA	NA	N	ND	
	108-05-4	Vinyl acetate	ND	ND	µg/m^3	NA	0/2	22.2-88.4	NA	NA	210	n	NA	NA	N	ND	
	75-01-4	Vinyl chloride	ND	ND	µg/m^3	NA	0/2	8.1-32.1	NA	NA	1.6	c	NA	NA	N	ND	
	-	TPH-DRO	860	2100	µg/m^3	1644-F-040313	2/2	0-0	2100	NA	680	(d)	NA	NA	Y	ASL	(c)

a/ µg/m3 = micrograms per cubic meter; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected.

b/ EPA RSLs (November 2012) for residential indoor air exposure scenario times 10. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment Guidance. Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm

c/ Constituent not further evaluated because not detected in indoor air samples at concentrations above screening levels.

d/ Constituent not further evaluated because not related to potential historical Hess releases.

Table F-7

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Sump Water

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
Sump Water	71-55-6	1,1,1-Trichloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	79-00-5	1,1,2-Trichloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	75-34-3	1,1-Dichloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	75-35-4	1,1-Dichloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	87-61-6	1,2,3-Trichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	1.5 c	NA	NA	N	ND
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	µg/l	NA	0/1	10	NA	NA	-	NA	NA	N	ND
	106-93-4	1,2-Dibromoethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	95-50-1	1,2-Dichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	107-06-2	1,2-Dichloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	78-87-5	1,2-Dichloropropane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	541-73-1	1,3-Dichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	106-46-7	1,4-Dichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	78-93-3	2-Butanone (MEK)	ND	ND	µg/l	NA	0/1	10	NA	NA	-	NA	NA	N	ND
	591-78-6	2-Hexanone (MBK)	ND	ND	µg/l	NA	0/1	10	NA	NA	-	NA	NA	N	ND
	108-10-1	4-Methyl-2-Pentanone (MIBK)	ND	ND	µg/l	NA	0/1	5	NA	NA	-	NA	NA	N	ND
	67-64-1	Acetone	ND	ND	µg/l	NA	0/1	10	NA	NA	5.50E+05 n	NA	NA	N	ND
	71-43-2	Benzene	ND	ND	µg/l	NA	0/1	1	NA	NA	5 c	NA	NA	N	ND
	74-97-5	Bromochloromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	75-27-4	Bromodichloromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	75-25-2	Bromoform	ND	ND	µg/l	NA	0/1	5	NA	NA	-	NA	NA	N	ND
	74-83-9	Bromomethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	75-15-0	Carbon Disulfide	ND	ND	µg/l	NA	0/1	10	NA	NA	-	NA	NA	N	ND
	56-23-5	Carbon tetrachloride	ND	ND	µg/l	NA	0/1	1	NA	NA	3.7 c	NA	NA	N	ND
	108-90-7	Chlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	160 n	NA	NA	N	ND
	75-00-3	Chloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	67-66-3	Chloroform	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	74-87-3	Chloromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	110-82-7	Cyclohexane	ND	ND	µg/l	NA	0/1	10	NA	NA	-	NA	NA	N	ND
	124-48-1	Dibromochloromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	75-71-8	Dichlorodifluoromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	108-20-3	Diisopropyl ether	ND	ND	µg/l	NA	0/1	10	NA	NA	-	NA	NA	N	ND
	100-41-4	Ethylbenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	7.6 c	NA	NA	N	ND
	98-82-8	Isopropylbenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	340 n	NA	NA	N	ND
	79-20-9	Methyl Acetate	ND	ND	µg/l	NA	0/1	10	NA	NA	-	NA	NA	N	ND
	1634-04-4	Methyl-t-Butyl Ether	ND	ND	µg/l	NA	0/1	1	NA	NA	510 c	NA	NA	N	ND
	108-87-2	Methylcyclohexane	ND	ND	µg/l	NA	0/1	10	NA	NA	-	NA	NA	N	ND
	75-09-2	Methylene chloride	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	µg/l	NA	0/1	1	NA	NA	88 n	NA	NA	N	ND
	100-42-5	Styrene	ND	ND	µg/l	NA	0/1	1	NA	NA	1200 n	NA	NA	N	ND
	127-18-4	Tetrachloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	108-88-3	Toluene	ND	ND	µg/l	NA	0/1	1	NA	NA	650 n	NA	NA	N	ND
	79-01-6	Trichloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	75-69-4	Trichlorofluoromethane	ND	ND	µg/l	NA	0/1	5	NA	NA	-	NA	NA	N	ND
	75-01-4	Vinyl chloride	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	156-59-2	cis-1,2-Dichloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	µg/l	NA	0/1	1	NA	NA	-	NA	NA	N	ND
	108-38-3	m&p-Xylene	ND	ND	µg/l	NA	0/1	2	NA	NA	900 n	NA	NA	N	ND
	95-47-6	o-Xylene	ND	ND	µg/l	NA	0/1	1	NA	NA	900 n	NA	NA	N	ND

Table F-7

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Sump Water	75-85-4	tert-Amyl alcohol	ND	ND	µg/l	NA	0/1	20	NA	NA	-		NA	NA	N	ND
	919-94-8	tert-Amyl ethyl ether	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	994-05-8	tert-Amyl methyl ether	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	75-65-0	tert-Butanol	ND	ND	µg/l	NA	0/1	20	NA	NA	-		NA	NA	N	ND
	637-92-3	tert-Butyl ethyl ether	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	156-60-5	trans-1,2-Dichloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	91-57-6	2-Methylnaphthalene	ND	ND	µg/l	NA	0/1	2	NA	NA	-		NA	NA	N	ND
	83-32-9	Acenaphthene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	208-96-8	Acenaphthylene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	120-12-7	Anthracene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	56-55-3	Benzo(a)anthracene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	50-32-8	Benzo(a)pyrene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	205-99-2	Benzo(b)fluoranthene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	191-24-2	Benzo(g,h,i)perylene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	207-08-9	Benzo(k)fluoranthene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	218-01-9	Chrysene	ND	ND	µg/l	NA	0/1	2	NA	NA	-		NA	NA	N	ND
	53-70-3	Dibenz(a,h)Anthracene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	206-44-0	Fluoranthene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	86-73-7	Fluorene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	193-39-5	Indeno(1,2,3-c,d)Pyrene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	85-01-8	Phenanthrene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	129-00-0	Pyrene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	74-82-8	Methane	ND	ND	mg/l	NA	0/1	0.0057	NA	NA	-		NA	NA	N	ND
		TPH-DRO	ND	ND	mg/l	NA	0/1	0.04	NA	NA	0.011	n	NA	NA	N	ND
		TPH-GRO	ND	ND	µg/l	NA	0/1	40	NA	NA	18	n	NA	NA	N	ND

a/ µg/l = micrograms per liter; mg/l = milligrams per liter; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected.

b/ Refer to text for discussion of development of dermal screening levels.

Table F-8

Exposure Point Concentration Summary
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Indoor Air

Exposure Point	Chemical	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Indoor Air	1,2,4-Trimethylbenzene	µg/m3	3.37	NA	5.6	5.6	µg/m3	Maximum	Too Few Observations to Perform Statistics
	Benzene	µg/m3	1.71	NA	2.1	2.1	µg/m3	Maximum	Too Few Observations to Perform Statistics
	Ethylbenzene	µg/m3	2.84	NA	3.9	3.9	µg/m3	Maximum	Too Few Observations to Perform Statistics
	m&p-Xylene	µg/m3	9.64	NA	13.3	13.3	µg/m3	Maximum	Too Few Observations to Perform Statistics
	Naphthalene	µg/m3	1.05	NA	2.4	2.4	µg/m3	Maximum	Too Few Observations to Perform Statistics

a/ UCL = upper confidence limit; $\mu g/m^3$ = micrograms per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics.

Table F-9

Exposure Assumptions: Resident Adult
(Groundwater; Vapor Intrusion)
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Indoor air
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference
Inhalation	ET	Exposure time	hr/day	24	MDE 2008 (b), EPA 2009 (c)
	EF	Exposure frequency	day/yr	350	MDE 2008, EPA 2009
	ED	Exposure duration	yr	24	MDE 2008, EPA 2009
	CF	Conversion factor	mg/µg	1.00E-03	EPA 2009
	AT-NC	Averaging time - noncancer	hours	210,240	EPA 2009
	AT-C	Averaging time - cancer	hours	613,200	EPA 2009

a/ RME = reasonable maximum exposure; hr/day = hours per day; day/yr = days per year; yr = year; mg/ug = milligrams per microgram.

b/ MDE 2008: Maryland Department of the Environment. 2008. Cleanup Standards for Soil and Groundwater. Interim Final Guidance. June.

c/ EPA 2009: U.S. Environmental Protection Agency. 2009. Risk Assessment Guidance for Superfund: Volume I. Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) Interim Final. Office of Emergency and Remedial Response, Washington, D.C. EPA-540-R-070-002.

Table F-10

Exposure Assumptions: Resident Child
(Groundwater; Vapor Intrusion)
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Indoor air
Receptor Population: Resident
Receptor Age: Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference
Inhalation	ET	Exposure time	hr/day	24	MDE 2008 (b), EPA 2009 (c)
	EF	Exposure frequency	day/yr	350	MDE2008, EPA 2009
	ED	Exposure duration	yr	6	MDE 2008, EPA 2009
	CF	Conversion factor	mg/µg	1.00E-03	EPA 2009
	AT-NC	Averaging time - noncancer	hours	52,560	EPA 2009
	AT-C	Averaging time - cancer	hours	613,200	EPA 2009

a/ RME = reasonable maximum exposure; hr/day = hours per day; day/yr = days per year; yr = year; mg/ug = milligrams per microgram.

b/ MDE 2008: Maryland Department of the Environment. 2008. Cleanup Standards for Soil and Groundwater. Interim Final Guidance. Jun

c/ EPA 2009: U.S. Environmental Protection Agency. 2009. Risk Assessment Guidance for Superfund: Volume I. Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) Interim Final. Office of Emergency and Remedial Response, Washington, D.C. EPA-540-R-070-002.

Table F-11

Cancer Toxicity Data
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

COPC	Oral Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Oral to Dermal Adjustment Factor	Oral to Dermal Adjustment Factor Source	Adjusted Dermal Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Weight of Evidence/ Cancer Guideline Description (b)	Source	Inhalation Unit Risk $(\mu g/m^3)^{-1}$	Weight of Evidence/ Cancer Guideline Description (b)	Source
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	7.8E-06	A	IRIS
Ethylbenzene	1.1E-02	1	EPA 2012	1.1E-02	2B	CalEPA	2.5E-06	2B	CalEPA
m&p-Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA

a/ COPC = chemical of potential concern; IRIS = Integrated Risk Information System; µg/m3 = micrograms per cubic meter;NA = Not applicable/available; (mg/kg-day)-1 = milligram per kilogram per day; EPA = Environmental Protection Agency; CalEPA = California Environmental Protection Agency.
b/ U.S. Environmental Protection Agency Group: A - Human carcinogen; 2B - Possibly Carcinogenic to Humans.

Table F-12

Non-cancer Toxicity Data
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

COPC	Oral RfD Value mg/kg-day	Oral to Dermal Adjustment Factor	Oral to Dermal Adjustment Factor Source	Adjusted Oral RfD Value mg/kg-day	Primary Target Organ	Source	Inhalation RfC Value mg/m^3	Primary Target Organ	Source
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	7.00E-03	blood	PPRTV
Benzene	NA	NA	NA	NA	NA	NA	3.00E-02	blood	IRIS
Ethylbenzene	1.00E-01	1.00E+00	EPA 2012	1.00E-01	liver, kidney	IRIS	1.00E+00	fetus	IRIS
m&p-xylenes	2.00E-01	1.00E+00	EPA 2012	2.00E-01	whole body (mortality),	IRIS	NA	NA	NA
Naphthalene	2.00E-02	1.00E+00	EPA 2012	2.00E-02	whole body (decreased weight),	IRIS	NA	NA	NA

a/ COPC = chemical of potential concern; IRIS = Integrated Risk Information System; mg/m3 = milligrams per cubic meter; NA = Not applicable/available; (mg/kg-day) = milligram per kilogram-day; EPA = Environmental Protection Agency; PPRV = peer provisional reviewed value.

EPA RSLs (November 2012) for residential soil exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment Guidance. Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm.

Table F-13

Calculation of Chemical Cancer Risks
Reasonable Maximum Exposure
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	COPC	EPC		Cancer Risk Calculations				
					Value	Units	Intake/Exposure Concentration		Slope Factor/Unit Risk		Risk
							Value	Units	Value	Units	
Groundwater	Groundwater	Indoor Air	Inhalation	1,2,4-Trimethylbenzene	5.6E+00	µg/m^3	1.8E+00	µg/m^3	NA	(µg/m^3)$^{-1}$	NA
				Benzene	2.1E+00	µg/m^3	6.9E-01	µg/m^3	7.8E-06	(µg/m^3)$^{-1}$	5.4E-06
				Ethylbenzene	3.9E+00	µg/m^3	1.3E+00	µg/m^3	2.5E-06	(µg/m^3)$^{-1}$	3.2E-06
				m&p-Xylenes	1.3E+01	µg/m^3	4.4E+00	µg/m^3	NA	(µg/m^3)$^{-1}$	NA
				Naphthalene	2.4E+00	µg/m^3	7.9E-01	µg/m^3	NA	(µg/m^3)$^{-1}$	NA
			Exp. Route Total								8.6E-06
		Exposure Point Total									8.6E-06
	Exposure Medium Total										8.6E-06
Medium Total											8.6E-06
										Total of Receptor Risks Across All Media	8.6E-06

a/ COPC = chemical of potential concern; EPC = exposure point concentration; ug/m3 = micrograms per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics; NA = Not applicable/available.

Table F-14

Calculation of Chemical Non-cancer Risks
Reasonable Maximum Exposure
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timefram	Current/Future
Receptor Populatic	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	COPC	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater	Groundwater	Indoor Air	Inhalation	1,2,4-Trimethylbenzene	5.6E+00	µg/m^3	5.4E-03	mg/m^3	7.0E-03	mg/m^3	7.7E-01
				Benzene	2.1E+00	µg/m^3	2.0E-03	mg/m^3	3.0E-02	mg/m^3	6.7E-02
				Ethylbenzene	3.9E+00	µg/m^3	3.7E-03	mg/m^3	1.0E+00	mg/m^3	3.7E-03
				m&p-Xylenes	1.3E+01	µg/m^3	1.3E-02	mg/m^3	NA	mg/m^3	NA
				Naphthalene	2.4E+00	µg/m^3	2.3E-03	mg/m^3	NA	mg/m^3	NA
			Exp. Route Total								8.4E-01
		Exposure Point Total									8.4E-01
	Exposure Medium Total										8.4E-01
										Total of Receptor Hazards Across All Media	8.4E-01

a/ COPC = chemical of potential concern; EPC = exposure point concentration; RfD/RfC = reference dose/reference concentration; ug/m3 = micrograms per cubic meter; mg/m3 = milligrams per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics; NA = Not applicable/available.

Table F-15

Calculation of Chemical Cancer Risks
Reasonable Maximum Exposure
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	COPC	EPC		Cancer Risk Calculations				
					Value	Units	Intake/Exposure Concentration		Unit Risk		Risk
							Value	Units	Value	Units	
Groundwater	Groundwater	Indoor Air	Inhalation	1,2,4-Trimethylbenzene	5.6E+00	µg/m^3	4.6E-01	µg/m^3	NA	(µg/m^3)$^{-1}$	NA
				Benzene	2.1E+00	µg/m^3	1.7E-01	µg/m^3	7.8E-06	(µg/m^3)$^{-1}$	1.3E-06
				Ethylbenzene	3.9E+00	µg/m^3	3.2E-01	µg/m^3	2.5E-06	(µg/m^3)$^{-1}$	8.0E-07
				m&p-Xylenes	1.3E+01	µg/m^3	1.1E+00	µg/m^3	NA	(µg/m^3)$^{-1}$	NA
				Naphthalene	2.4E+00	µg/m^3	2.0E-01	µg/m^3	NA	(µg/m^3)$^{-1}$	NA
			Exp. Route Total								2.1E-06
		Exposure Point Total									2.1E-06
	Exposure Medium Total										2.1E-06
Medium Total											2.1E-06
										Total of Receptor Risks Across All Media	2.1E-06

a/ COPC = chemical of potential concern; EPC = exposure point concentration; ug/m3 = micrograms per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics; NA = Not applicable/available.

Table F-16

Calculation of Chemical Non-cancer Risks
Reasonable Maximum Exposure
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	COPC	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater	Groundwater	Indoor Air	Inhalation	1,2,4-Trimethylbenzene	5.6E+00	µg/m^3	5.4E-03	mg/m^3	7.0E-03	mg/m^3	7.7E-01
				Benzene	2.1E+00	µg/m^3	2.0E-03	mg/m^3	3.0E-02	mg/m^3	6.7E-02
				Ethylbenzene	3.9E+00	µg/m^3	3.7E-03	mg/m^3	1.0E+00	mg/m^3	3.7E-03
				m&p-Xylenes	1.3E+01	µg/m^3	1.3E-02	mg/m^3	NA	mg/m^3	NA
				Naphthalene	2.4E+00	µg/m^3	2.3E-03	mg/m^3	NA	mg/m^3	NA
			Exp. Route Total								8.4E-01
		Exposure Point Total									8.4E-01
	Exposure Medium Total										8.4E-01
										Total of Receptor Hazards Across All Media	8.4E-01

a/ COPC = chemical of potential concern; EPC = exposure point concentration; RfD/RfC = reference dose/reference concentration; ug/m3 = micrograms per cubic meter; mg/m3 = milligrams per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics; NA = Not applicable/available.

Table F-17

Risk Summary
Current/Future Scenario
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Receptor	Exposure Medium	Exposure Point	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
			Ingestion	Inhalation	Dermal	Exposure Route Total	Exposure Medium Total	Ingestion	Inhalation	Dermal	Exposure Route Total	Exposure Medium Total
Residential Adult	Groundwater	Vapor Intrusion		8.6E-06		8.6E-06	8.6E-06		0.84		0.84	0.84
						Receptor Total	8.6E-06				Receptor Total	0.84
Residential Child	Groundwater	Vapor Intrusion		2.1E-06		2.1E-06	2.1E-06		0.84		0.84	0.84
						Receptor Total	2.1E-06				Receptor Total	0.84

BOLD values above target risk or target hazard quotient.

a/ MDE acceptable target risk = 1 x 10-5 and target hazard quotient = 1.

Table F-18

Exposure Pathways Post Interim Measure
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route (b)	Exposure Assumptions (c)	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/ Future	Groundwater	Groundwater	Indoor air	Resident	Adult	I	A9,A10	Quantitative	Current land use is residential
				Resident	Child	I	A9,A10	Quantitative	Current land use is residential
				Employee	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Employee Dependent	Child	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Maintenance worker	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Visitor	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
				Utility worker	Adult	I		None	Other receptors potential risk bracket this receptors' relative potential risk
			Groundwater	Resident	Adult	Ig		Quantitative	Current land use is residential
				Resident	Child	Ig		Quantitative	Current land use is residential
			Soil Vapor	Resident	Adult	I		Quantitative	Current land use is residential
				Resident	Child	I		Quantitative	Current land use is residential
			Sump Water	Resident	Adult	D Ig		Quantitative	Current land use is residential
				Resident	Child	D Ig		Quantitative	Current land use is residential

a/ Refer to text for additional discussion
b/ I = inhalation, D = dermal, and Ig = ingestion
c/ Number refers to exposure assumption tables; same current and future exposure assumptions have same table number

Table F-19

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
Soil	71-55-6	1,1,1-Trichloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	870 n	NA	NA	N	ND
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.56 c	NA	NA	N	ND
	79-00-5	1,1,2-Trichloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	1.1 c	NA	NA	N	ND
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	4300 n	NA	NA	N	ND
	75-34-3	1,1-Dichloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	3.3 c	NA	NA	N	ND
	75-35-4	1,1-Dichloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	24 n	NA	NA	N	ND
	87-61-6	1,2,3-Trichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	4.9 n	NA	NA	N	ND
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	22 c	NA	NA	N	ND
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	0.0054 c	NA	NA	N	ND
	106-93-4	1,2-Dibromoethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.034 c	NA	NA	N	ND
	95-50-1	1,2-Dichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	190 n	NA	NA	N	ND
	107-06-2	1,2-Dichloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.43 c	NA	NA	N	ND
	78-87-5	1,2-Dichloropropane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.94 c	NA	NA	N	ND
	541-73-1	1,3-Dichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	- -	NA	NA	N	ND
	106-46-7	1,4-Dichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	2.4 c	NA	NA	N	ND
	78-93-3	2-Butanone (MEK)	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	2800 n	NA	NA	N	ND
	591-78-6	2-Hexanone (MBK)	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	21 n	NA	NA	N	ND
	108-10-1	4-Methyl-2-Pentanone (MIBK)	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	530 n	NA	NA	N	ND
	67-64-1	Acetone	0.011 J	0.02 J	mg/kg	SB-02 (2-2.5)	2/2	0.011-0.02	0.02	NA	6100 n	NA	NA	N	BSL
	71-43-2	Benzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	1.1 c	NA	NA	N	ND
	74-97-5	Bromochloromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	16 n	NA	NA	N	ND
	75-27-4	Bromodichloromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.27 c	NA	NA	N	ND
	75-25-2	Bromoform	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	62 c	NA	NA	N	ND
	74-83-9	Bromomethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.73 n	NA	NA	N	ND
	75-15-0	Carbon Disulfide	ND	ND	mg/kg	NA	0/2	0.0098-0.01	NA	NA	82 n	NA	NA	N	ND
	56-23-5	Carbon tetrachloride	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.61 c	NA	NA	N	ND
	108-90-7	Chlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	29 n	NA	NA	N	ND
	75-00-3	Chloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	1500 n	NA	NA	N	ND
	67-66-3	Chloroform	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.29 c	NA	NA	N	ND
	74-87-3	Chloromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	12 n	NA	NA	N	ND
	110-82-7	Cyclohexane	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	700 n	NA	NA	N	ND
	124-48-1	Dibromochloromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.68 c	NA	NA	N	ND
	75-71-8	Dichlorodifluoromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	9.4 n	NA	NA	N	ND
	108-20-3	Diisopropyl ether	ND	ND	mg/kg	NA	0/2	0.0098-0.01	NA	NA	240 n	NA	NA	N	ND
	100-41-4	Ethylbenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	5.4 c	NA	NA	N	ND
		Hexanal (TIC)	ND	ND	mg/kg	NA	0/2	0-0	NA	NA	-	NA	NA	N	ND
	98-82-8	Isopropylbenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	210 n	NA	NA	N	ND
	79-20-9	Methyl Acetate	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	7800 n	NA	NA	N	ND
	1634-04-4	Methyl-t-Butyl Ether	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	43 c	NA	NA	N	ND
	108-87-2	Methylcyclohexane	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	-	NA	NA	N	ND
	75-09-2	Methylene chloride	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	56 c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	3.6 c	NA	NA	N	ND
	100-42-5	Styrene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	630 n	NA	NA	N	ND
	127-18-4	Tetrachloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	22 c	NA	NA	N	ND
	108-88-3	Toluene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	500 n	NA	NA	N	ND
	79-01-6	Trichloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.91 c	NA	NA	N	ND
	75-69-4	Trichlorofluoromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	79 n	NA	NA	N	ND
	75-01-4	Vinyl Chloride	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.06 c	NA	NA	N	ND
	156-59-2	cis-1,2-Dichloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	16 n	NA	NA	N	ND
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	- -	NA	NA	N	ND
	108-38-3	m&p-Xylene	ND	ND	mg/kg	NA	0/2	0.0098-0.01	NA	NA	59 n	NA	NA	N	ND
	95-47-6	o-Xylene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	69 n	NA	NA	N	ND

Table F-19

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Soil	75-85-4	tert-Amyl alcohol	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	-		NA	NA	N	ND
	919-94-8	tert-Amyl ethyl ether	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	-		NA	NA	N	ND
	994-05-8	tert-Amyl methyl ether	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	-		NA	NA	N	ND
	75-65-0	tert-Butyl Alcohol	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	-		NA	NA	N	ND
	637-92-3	tert-Butyl ethyl ether	ND	ND	mg/kg	NA	0/2	0.0098-0.01	NA	NA	-		NA	NA	N	ND
	156-60-5	trans-1,2-Dichloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	15	n	NA	NA	N	ND
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	-	-	NA	NA	N	ND
	91-57-6	2-Methylnaphthalene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	23	n	NA	NA	N	ND
	83-32-9	Acenaphthene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	340	n	NA	NA	N	ND
	208-96-8	Acenaphthylene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	-	-	NA	NA	N	ND
	120-12-7	Anthracene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	1700	n	NA	NA	N	ND
	56-55-3	Benzo(a)anthracene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.15	c	NA	NA	N	ND
	50-32-8	Benzo(a)pyrene	ND	ND	mg/kg	NA	0/2	0.028-0.028	NA	NA	0.015	c	NA	NA	N	ND
	205-99-2	Benzo(b)fluoranthene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.15	c	NA	NA	N	ND
	191-24-2	Benzo(g,h,i)perylene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	-	-	NA	NA	N	ND
	207-08-9	Benzo(k)fluoranthene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	1.5	c	NA	NA	N	ND
	218-01-9	Chrysene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	15	c	NA	NA	N	ND
	53-70-3	Dibenz(a,h)Anthracene	ND	ND	mg/kg	NA	0/2	0.028-0.028	NA	NA	0.015	c	NA	NA	N	ND
	206-44-0	Fluoranthene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	230	n	NA	NA	N	ND
	86-73-7	Fluorene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	230	n	NA	NA	N	ND
	193-39-5	Indeno(1,2,3-c,d)Pyrene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.15	c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	3.6	c	NA	NA	N	ND
	85-01-8	Phenanthrene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	-		NA	NA	N	ND
	129-00-0	Pyrene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	170	n	NA	NA	N	ND
		TPH-DRO	ND	ND	mg/kg	NA	0/2	4.8-4.9	NA	NA	2,300		NA	NA	N	ND
		TPH-GRO	ND	ND	mg/kg	NA	0/2	0.12-0.12	NA	NA	2,300		NA	NA	N	ND

a/ mg/kg = milligrams per kilogram; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected; J = estimated concentration.

b/ US Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (November 2012) for residential soil exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment (MDE) Guidance (2006). Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. MDE's 2008 Generic Numeric Cleanup Standards (GCNS) for Soil and Groundwater; available at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 15, 2013).

Table F-20

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Groundwater

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)	Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
Soil	71-55-6	1,1,1-Trichloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.007 n	NA	NA	N	ND
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.000026 c	NA	NA	N	ND
	79-00-5	1,1,2-Trichloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.000077 c	NA	NA	N	ND
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	13 n	NA	NA	N	ND
	75-34-3	1,1-Dichloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.00068 c	NA	NA	N	ND
	75-35-4	1,1-Dichloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.00025 n	NA	NA	N	ND
	87-61-6	1,2,3-Trichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0015 n	NA	NA	N	ND
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0029 c	NA	NA	N	ND
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	0.00000014 c	NA	NA	N	ND
	106-93-4	1,2-Dibromoethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0000018 c	NA	NA	N	ND
	95-50-1	1,2-Dichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.027 n	NA	NA	N	ND
	107-06-2	1,2-Dichloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.000042 c	NA	NA	N	ND
	78-87-5	1,2-Dichloropropane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.00013 c	NA	NA	N	ND
	541-73-1	1,3-Dichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	- -	NA	NA	N	ND
	106-46-7	1,4-Dichlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0004 c	NA	NA	N	ND
	78-93-3	2-Butanone (MEK)	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	0.1 n	NA	NA	N	ND
	591-78-6	2-Hexanone (MBK)	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	0.00079 n	NA	NA	N	ND
	108-10-1	4-Methyl-2-Pentanone (MIBK)	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	0.023 n	NA	NA	N	ND
	67-64-1	Acetone	0.011 J	0.02 J	mg/kg	SB-02 (2-2.5)	2/2	0.011-0.02	0.02	NA	0.24 n	NA	NA	N	BSL
	71-43-2	Benzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0002 c	NA	NA	N	ND
	74-97-5	Bromochloromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0021 n	NA	NA	N	ND
	75-27-4	Bromodichloromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.000032 c	NA	NA	N	ND
	75-25-2	Bromoform	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0021 c	NA	NA	N	ND
	74-83-9	Bromomethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.00018 n	NA	NA	N	ND
	75-15-0	Carbon Disulfide	ND	ND	mg/kg	NA	0/2	0.0098-0.01	NA	NA	0.021 n	NA	NA	N	ND
	56-23-5	Carbon tetrachloride	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.00015 c	NA	NA	N	ND
	108-90-7	Chlorobenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0049 n	NA	NA	N	ND
	75-00-3	Chloroethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.59 n	NA	NA	N	ND
	67-66-3	Chloroform	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.000053 c	NA	NA	N	ND
	74-87-3	Chloromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0049 n	NA	NA	N	ND
	110-82-7	Cyclohexane	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	1.3 n	NA	NA	N	ND
	124-48-1	Dibromochloromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.000039 c	NA	NA	N	ND
	75-71-8	Dichlorodifluoromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.03 n	NA	NA	N	ND
	108-20-3	Diisopropyl ether	ND	ND	mg/kg	NA	0/2	0.0098-0.01	NA	NA	0.037 n	NA	NA	N	ND
	100-41-4	Ethylbenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0015 c	NA	NA	N	ND
		Hexanal (TIC)	ND	ND	mg/kg	NA	0/2	0-0	NA	NA	-	NA	NA	N	ND
	98-82-8	Isopropylbenzene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.064 n	NA	NA	N	ND
	79-20-9	Methyl Acetate	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	0.32 n	NA	NA	N	ND
	1634-04-4	Methyl-t-Butyl Ether	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0028 c	NA	NA	N	ND
	108-87-2	Methylcyclohexane	ND	ND	mg/kg	NA	0/2	0.02-0.02	NA	NA	-	NA	NA	N	ND
	75-09-2	Methylene chloride	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0013 c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.00047 c	NA	NA	N	ND
	100-42-5	Styrene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.011 n	NA	NA	N	ND
	127-18-4	Tetrachloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0023 c	NA	NA	N	ND
	108-88-3	Toluene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.059 n	NA	NA	N	ND
	79-01-6	Trichloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.00016 c	NA	NA	N	ND
	75-69-4	Trichlorofluoromethane	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.069 n	NA	NA	N	ND
	75-01-4	Vinyl Chloride	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0000053 c	NA	NA	N	ND
	156-59-2	cis-1,2-Dichloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.00082 n	NA	NA	N	ND
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	- -	NA	NA	N	ND
	108-38-3	m&p-Xylene	ND	ND	mg/kg	NA	0/2	0.0098-0.01	NA	NA	0.018 n	NA	NA	N	ND
	95-47-6	o-Xylene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.019 n	NA	NA	N	ND

Table F-20

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Soil	75-85-4	tert-Amyl alcohol	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	-		NA	NA	N	ND
	919-94-8	tert-Amyl ethyl ether	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	-		NA	NA	N	ND
	994-05-8	tert-Amyl methyl ether	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	-		NA	NA	N	ND
	75-65-0	tert-Butyl Alcohol	ND	ND	mg/kg	NA	0/2	0.039-0.04	NA	NA	-		NA	NA	N	ND
	637-92-3	tert-Butyl ethyl ether	ND	ND	mg/kg	NA	0/2	0.0098-0.01	NA	NA	-		NA	NA	N	ND
	156-60-5	trans-1,2-Dichloroethene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	0.0025	n	NA	NA	N	ND
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	mg/kg	NA	0/2	0.0049-0.005	NA	NA	-	-	NA	NA	N	ND
	91-57-6	2-Methylnaphthalene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.014	n	NA	NA	N	ND
	83-32-9	Acenaphthene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.41	n	NA	NA	N	ND
	208-96-8	Acenaphthylene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	-	-	NA	NA	N	ND
	120-12-7	Anthracene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	4.2	n	NA	NA	N	ND
	56-55-3	Benzo(a)anthracene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.01	c	NA	NA	N	ND
	50-32-8	Benzo(a)pyrene	ND	ND	mg/kg	NA	0/2	0.028-0.028	NA	NA	0.0035	c	NA	NA	N	ND
	205-99-2	Benzo(b)fluoranthene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.035	c	NA	NA	N	ND
	191-24-2	Benzo(g,h,i)perylene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	-	-	NA	NA	N	ND
	207-08-9	Benzo(k)fluoranthene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.35	c	NA	NA	N	ND
	218-01-9	Chrysene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	1.1	c	NA	NA	N	ND
	53-70-3	Dibenz(a,h)Anthracene	ND	ND	mg/kg	NA	0/2	0.028-0.028	NA	NA	0.011	c	NA	NA	N	ND
	206-44-0	Fluoranthene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	7	n	NA	NA	N	ND
	86-73-7	Fluorene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.4	n	NA	NA	N	ND
	193-39-5	Indeno(1,2,3-c,d)Pyrene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.2	c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.00047	c	NA	NA	N	ND
	85-01-8	Phenanthrene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	-		NA	NA	N	ND
	129-00-0	Pyrene	ND	ND	mg/kg	NA	0/2	0.2-0.2	NA	NA	0.95	n	NA	NA	N	ND
		TPH-DRO	ND	ND	mg/kg	NA	0/2	4.8-4.9	NA	NA	-		NA	NA	N	ND
		TPH-GRO	ND	ND	mg/kg	NA	0/2	0.12-0.12	NA	NA	-		NA	NA	N	ND

a/ mg/kg = milligrams per kilogram; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected; J = estimated concentration.

b/ US Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (November 2012) for residential soil exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment (MDE) Guidance (2006). Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. MDE's 2008 Generic Numeric Cleanup Standards (GCNS) for Soil and Groundwater; available at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 15, 2013).

Table F-21

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Indoor Air

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion	
Indoor Air	71-55-6	1,1,1-Trichloroethane	ND	ND	µg/m^3	NA	0/2	1.5-1.7	NA	NA	520	n	NA	NA	N	ND	
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	µg/m^3	NA	0/2	0.94-1	NA	NA	0.042	c	NA	NA	N	ND	
	79-00-5	1,1,2-Trichloroethane	ND	ND	µg/m^3	NA	0/2	0.74-0.82	NA	NA	0.15	c	NA	NA	N	ND	
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	µg/m^3	NA	0/2	2.1-2.4	NA	NA	3100	n	NA	NA	N	ND	
	75-34-3	1,1-Dichloroethane	ND	ND	µg/m^3	NA	0/2	1.1-1.2	NA	NA	1.5	c	NA	NA	N	ND	
	75-35-4	1,1-Dichloroethene	ND	ND	µg/m^3	NA	0/2	1.1-1.2	NA	NA	21	n	NA	NA	N	ND	
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	µg/m^3	NA	0/2	2-2.2	NA	NA	0.21	n	NA	NA	N	ND	
	95-63-6	1,2,4-Trimethylbenzene	1.7	2	µg/m^3	1646-A-040313	2/2	1.7-2	2	NA	0.73	n	NA	NA	Y	ASL	
	106-93-4	1,2-Dibromoethane (EDB)	ND	ND	µg/m^3	NA	0/2	2.1-2.3	NA	NA	0.0041	c	NA	NA	N	ND	
	95-50-1	1,2-Dichlorobenzene	ND	ND	µg/m^3	NA	0/2	1.6-1.8	NA	NA	21	n	NA	NA	N	ND	
	107-06-2	1,2-Dichloroethane	ND	ND	µg/m^3	NA	0/2	0.55-0.61	NA	NA	0.094	c	NA	NA	N	ND	
	78-87-5	1,2-Dichloropropane	ND	ND	µg/m^3	NA	0/2	1.3-1.4	NA	NA	0.24	c	NA	NA	N	ND	
	526-73-8	1,3,5-Trimethylbenzene	ND	ND	µg/m^3	NA	0/2	1.3-1.5	NA	NA	0.52	n	NA	NA	N	ND	
	106-99-0	1,3-Butadiene	ND	ND	µg/m^3	NA	0/2	0.6-0.67	NA	NA	0.081	c	NA	NA	N	ND	
	541-73-1	1,3-Dichlorobenzene	ND	ND	µg/m^3	NA	0/2	1.6-1.8	NA	NA	-	-	NA	NA	N	ND	
	106-46-7	1,4-Dichlorobenzene	ND	ND	µg/m^3	NA	0/2	1.6-1.8	NA	NA	0.22	c	NA	NA	N	ND	
	78-93-3	2-Butanone (MEK)	1.9	5.6	µg/m^3	1646-A-040313	2/2	1.9-5.6	5.6	NA	520	n	NA	NA	N	BSL	
	591-78-6	2-Hexanone	ND	ND	µg/m^3	NA	0/2	1.1-1.2	NA	NA	3.1	n	NA	NA	N	ND	
	622-96-8	4-Ethyltoluene	ND	ND	µg/m^3	NA	0/2	1.3-1.5	NA	NA	-		NA	NA	N	ND	
	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ND	µg/m^3	NA	0/2	1.1-1.2	NA	NA	310	n	NA	NA	N	ND	
	67-64-1	Acetone	ND	ND	µg/m^3	NA	0/2	0.64-0.72	NA	0.9	3200	n	NA	NA	N	ND	
	71-43-2	Benzene	0.64	1.1	µg/m^3	1646-A-040313	2/2	0.64-1.1	1.1	NA	0.31	c	NA	NA	Y	ASL	
	75-27-4	Bromodichloromethane	ND	ND	µg/m^3	NA	0/2	1.8-2	NA	NA	0.066	c	NA	NA	N	ND	
	75-25-2	Bromoform	ND	ND	µg/m^3	NA	0/2	2.8-3.1	NA	NA	2.2	c	NA	NA	N	ND	
	74-83-9	Bromomethane	ND	ND	µg/m^3	NA	0/2	1.1-1.2	NA	NA	0.52	n	NA	NA	N	ND	
	75-15-0	Carbon disulfide	ND	ND	µg/m^3	NA	0/2	0.84-0.94	NA	NA	73	n	NA	NA	N	ND	
	56-23-5	Carbon tetrachloride	ND	ND	µg/m^3	NA	0/2	0.86-0.95	NA	NA	0.41	c	NA	NA	N	ND	
	108-90-7	Chlorobenzene	ND	ND	µg/m^3	NA	0/2	1.3-1.4	NA	NA	5.2	n	NA	NA	N	ND	
	75-00-3	Chloroethane	ND	ND	µg/m^3	NA	0/2	0.72-0.8	NA	NA	1000	n	NA	NA	N	ND	
	67-66-3	Chloroform	1.3	1.5	µg/m^3	1646-A-040313	1/2	1.3-1.5	1.5	NA	0.11	c	NA	NA	Y	ASL	(c)
	74-87-3	Chloromethane	0.56	0.97	µg/m^3	1646-A-040313	1/2	0.56-0.97	0.97	NA	9.4	n	NA	NA	N	BSL	
	156-59-2	cis-1,2-Dichloroethene	ND	ND	µg/m^3	NA	0/2	1.1-1.2	NA	NA	-	-	NA	NA	N	ND	
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	µg/m^3	NA	0/2	1.2-1.4	NA	NA	-	-	NA	NA	N	ND	
	110-82-7	Cyclohexane	1.8	2.2	µg/m^3	1646-A-040313	2/2	1.8-2.2	2.2	NA	630	n	NA	NA	N	BSL	
	124-48-1	Dibromochloromethane	ND	ND	µg/m^3	NA	0/2	2.3-2.6	NA	NA	0.09	c	NA	NA	N	ND	
	75-71-8	Dichlorodifluoromethane	2.1	2.4	µg/m^3	1646-A-040313	2/2	2.1-2.4	2.4	NA	10	n	NA	NA	N	BSL	
	76-14-2	Dichlorotetrafluoroethane	ND	ND	µg/m^3	NA	0/2	1.9-2.1	NA	NA	-		NA	NA	N	ND	

Table F-21

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Indoor Air

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion	
Indoor Air	71-55-6	1,1,1-Trichloroethane	ND	ND	µg/m^3	NA	0/2	1.5-1.7	NA	NA	520	n	NA	NA	N	ND	
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	µg/m^3	NA	0/2	0.94-1	NA	NA	0.042	c	NA	NA	N	ND	
	79-00-5	1,1,2-Trichloroethane	ND	ND	µg/m^3	NA	0/2	0.74-0.82	NA	NA	0.15	c	NA	NA	N	ND	
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	µg/m^3	NA	0/2	2.1-2.4	NA	NA	3100	n	NA	NA	N	ND	
	75-34-3	1,1-Dichloroethane	ND	ND	µg/m^3	NA	0/2	1.1-1.2	NA	NA	1.5	c	NA	NA	N	ND	
	75-35-4	1,1-Dichloroethene	ND	ND	µg/m^3	NA	0/2	1.1-1.2	NA	NA	21	n	NA	NA	N	ND	
Indoor Air	141-78-6	Ethyl acetate	3	24.4	µg/m^3	1646-A-040313	2/2	3-24.4	24.4	NA	-	-	NA	NA	N	BSL	
	100-41-4	Ethylbenzene	1.2	1.4	µg/m^3	1646-A-040313	1/2	1.2-1.4	1.4	NA	0.97	c	NA	NA	Y	ASL	
	87-68-3	Hexachloro-1,3-butadiene	ND	ND	µg/m^3	NA	0/2	2.9-3.3	NA	NA	0.11	c	NA	NA	N	ND	
	108-38-3	m&p-Xylene	ND	ND	µg/m^3	NA	0/2	2.4-2.6	NA	NA	10	n	NA	NA	N	ND	
	75-09-2	Methylene Chloride	0.95	1.6	µg/m^3	1646-A-040313	1/2	0.95-1.6	1.6	16.3	96	c	NA	NA	N	BSL	
	1634-04-4	Methyl-tert-butyl ether	ND	ND	µg/m^3	NA	0/2	0.98-1.1	NA	NA	9.4	c	NA	NA	N	ND	
	91-20-3	Naphthalene	ND	ND	µg/m^3	NA	0/2	1.4-1.6	NA	NA	0.072	c	NA	NA	N	ND	
	142-82-5	n-Heptane	3.2	3.9	µg/m^3	1646-A-040313	2/2	3.2-3.9	3.9	NA	-		NA	NA	N	BSL	
	110-54-3	n-Hexane	1.7	2.3	µg/m^3	1646-A-040313	2/2	1.7-2.3	2.3	2.8	73	n	NA	NA	N	BSL	
	95-47-6	o-Xylene	ND	ND	µg/m^3	NA	0/2	1.2-1.3	NA	NA	10	n	NA	NA	N	ND	
	115-07-1	Propylene	ND	ND	µg/m^3	NA	0/2	0.47-0.52	NA	NA	310	n	NA	NA	N	ND	
	100-42-5	Styrene	ND	ND	µg/m^3	NA	0/2	1.2-1.3	NA	NA	100	n	NA	NA	N	ND	
	127-18-4	Tetrachloroethene	ND	ND	µg/m^3	NA	0/2	0.92-1	NA	NA	9.4	c	NA	NA	N	ND	
	109-99-9	Tetrahydrofuran	ND	ND	µg/m^3	NA	0/2	0.8-0.89	NA	NA	210	n	NA	NA	N	ND	
	108-88-3	Toluene	2.3	7	µg/m^3	1646-A-040313	2/2	2.3-7	7	NA	520	n	NA	NA	N	BSL	
	156-60-5	trans-1,2-Dichloroethene	ND	ND	µg/m^3	NA	0/2	1.1-1.2	NA	NA	6.3	n	NA	NA	N	ND	
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	µg/m^3	NA	0/2	1.2-1.4	NA	NA	-	-	NA	NA	N	ND	
	79-01-6	Trichloroethene	1.1	2.4	µg/m^3	1646-B-040313	2/2	1.1-2.4	2.4	NA	0.43	c	NA	NA	Y	ASL	(c)
	75-69-4	Trichlorofluoromethane	ND	ND	µg/m^3	NA	0/2	1.5-1.7	NA	NA	73	n	NA	NA	N	ND	
	108-05-4	Vinyl acetate	ND	ND	µg/m^3	NA	0/2	0.96-1.1	NA	NA	21	n	NA	NA	N	ND	
	75-01-4	Vinyl chloride	ND	ND	µg/m^3	NA	0/2	0.35-0.39	NA	NA	0.16	c	NA	NA	N	ND	
	-	TPH-DRO	170	280	µg/m^3		1/2	170-170	280	NA	68	(d)	NA	NA	Y	ASL	

a/ µg/m3 = micrograms per cubic meter; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected.

b/ EPA RSLs (November 2012) for residential indoor air exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment Guidance. Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm

c/ Constituent not further evaluated because not related to potential historical Hess releases.

d/ Screening value from Massachusetts Department of Environmental Protection Vapor Intrusion Guidance. December 2010. Residential threshold value for C9-C12 used.

e/ Constituent not further evaluated because individual volatile organic compounds evaluated.

Table F-22

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
Groundwater	71-55-6	1,1,1-Trichloroethane	ND	ND	ug/l	NA	0/1	1	NA	NA	750	n	NA	NA	N	ND
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NA	0/1	1	NA	NA	0.066	c	NA	NA	N	ND
	79-00-5	1,1,2-Trichloroethane	ND	ND	ug/l	NA	0/1	1	NA	NA	0.24	c	NA	NA	N	ND
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	ug/l	NA	0/1	1	NA	NA	5300	n	NA	NA	N	ND
	75-34-3	1,1-Dichloroethane	ND	ND	ug/l	NA	0/1	1	NA	NA	2.4	c	NA	NA	N	ND
	75-35-4	1,1-Dichloroethene	ND	ND	ug/l	NA	0/1	1	NA	NA	26	n	NA	NA	N	ND
	87-61-6	1,2,3-Trichlorobenzene	ND	ND	ug/l	NA	0/1	1	NA	NA	0.52	n	NA	NA	N	ND
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	ug/l	NA	0/1	1	NA	NA	0.99	c	NA	NA	N	ND
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	ug/l	NA	0/1	10	NA	NA	0.00032	c	NA	NA	N	ND
	106-93-4	1,2-Dibromoethane	ND	ND	ug/l	NA	0/1	1	NA	NA	0.0065	c	NA	NA	N	ND
	95-50-1	1,2-Dichlorobenzene	ND	ND	ug/l	NA	0/1	1	NA	NA	28	n	NA	NA	N	ND
	107-06-2	1,2-Dichloroethane	ND	ND	ug/l	NA	0/1	1	NA	NA	0.15	c	NA	NA	N	ND
	78-87-5	1,2-Dichloropropane	ND	ND	ug/l	NA	0/1	1	NA	NA	0.38	c	NA	NA	N	ND
	541-73-1	1,3-Dichlorobenzene	ND	ND	ug/l	NA	0/1	1	NA	NA	-	-	NA	NA	N	ND
	106-46-7	1,4-Dichlorobenzene	ND	ND	ug/l	NA	0/1	1	NA	NA	0.42	c	NA	NA	N	ND
	78-93-3	2-Butanone (MEK)	ND	ND	ug/l	NA	0/1	10	NA	NA	490	n	NA	NA	N	ND
	591-78-6	2-Hexanone (MBK)	ND	ND	ug/l	NA	0/1	10	NA	NA	3.4	n	NA	NA	N	ND
	108-10-1	4-Methyl-2-Pentanone (MIBK)	ND	ND	ug/l	NA	0/1	5	NA	NA	100	n	NA	NA	N	ND
	67-64-1	Acetone	ND	ND	ug/l	NA	0/1	10	NA	NA	1200	n	NA	NA	N	ND
	71-43-2	Benzene	ND	ND	ug/l	NA	0/1	1	NA	NA	0.39	c	NA	NA	N	ND
	74-97-5	Bromochloromethane	ND	ND	ug/l	NA	0/1	1	NA	NA	8.3	n	NA	NA	N	ND
	75-27-4	Bromodichloromethane	ND	ND	ug/l	NA	0/1	1	NA	NA	0.12	c	NA	NA	N	ND
	75-25-2	Bromoform	ND	ND	ug/l	NA	0/1	5	NA	NA	7.9	c	NA	NA	N	ND
	74-83-9	Bromomethane	ND	ND	ug/l	NA	0/1	1	NA	NA	0.7	n	NA	NA	N	ND
	75-15-0	Carbon Disulfide	ND	ND	ug/l	NA	0/1	10	NA	NA	72	n	NA	NA	N	ND
	56-23-5	Carbon tetrachloride	ND	ND	ug/l	NA	0/1	1	NA	NA	0.39	c	NA	NA	N	ND
	108-90-7	Chlorobenzene	ND	ND	ug/l	NA	0/1	1	NA	NA	7.2	n	NA	NA	N	ND
	75-00-3	Chloroethane	ND	ND	ug/l	NA	0/1	1	NA	NA	2100	n	NA	NA	N	ND
	67-66-3	Chloroform	ND	ND	ug/l	NA	0/1	1	NA	NA	0.19	c	NA	NA	N	ND
	74-87-3	Chloromethane	ND	ND	ug/l	NA	0/1	1	NA	NA	19	n	NA	NA	N	ND
	110-82-7	Cyclohexane	ND	ND	ug/l	NA	0/1	10	NA	NA	1300	n	NA	NA	N	ND
	124-48-1	Dibromochloromethane	ND	ND	ug/l	NA	0/1	1	NA	NA	0.15	c	NA	NA	N	ND
	75-71-8	Dichlorodifluoromethane	ND	ND	ug/l	NA	0/1	1	NA	NA	19	n	NA	NA	N	ND
	108-20-3	Diisopropyl ether	ND	ND	ug/l	NA	0/1	10	NA	NA	150	n	NA	NA	N	ND
	100-41-4	Ethylbenzene	ND	ND	ug/l	NA	0/1	1	NA	NA	1.3	c	NA	NA	N	ND
	98-82-8	Isopropylbenzene	ND	ND	ug/l	NA	0/1	1	NA	NA	39	n	NA	NA	N	ND
	79-20-9	Methyl Acetate	ND	ND	ug/l	NA	0/1	10	NA	NA	1600	n	NA	NA	N	ND
	1634-04-4	Methyl-t-Butyl Ether	ND	ND	ug/l	NA	0/1	1	NA	NA	12	c	NA	NA	N	ND
	108-87-2	Methylcyclohexane	ND	ND	ug/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	75-09-2	Methylene chloride	ND	ND	ug/l	NA	0/1	1	NA	NA	9.9	c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	ug/l	NA	0/1	1	NA	NA	0.14	c	NA	NA	N	ND
	100-42-5	Styrene	ND	ND	ug/l	NA	0/1	1	NA	NA	110	n	NA	NA	N	ND
	127-18-4	Tetrachloroethene	ND	ND	ug/l	NA	0/1	1	NA	NA	9.7	c	NA	NA	N	ND
	108-88-3	Toluene	ND	ND	ug/l	NA	0/1	1	NA	NA	86	n	NA	NA	N	ND
	79-01-6	Trichloroethene	ND	ND	ug/l	NA	0/1	1	NA	NA	0.44	c	NA	NA	N	ND
	75-69-4	Trichlorofluoromethane	ND	ND	ug/l	NA	0/1	5	NA	NA	110	n	NA	NA	N	ND
	75-01-4	Vinyl chloride	ND	ND	ug/l	NA	0/1	1	NA	NA	0.015	c	NA	NA	N	ND
	156-59-2	cis-1,2-Dichloroethene	ND	ND	ug/l	NA	0/1	1	NA	NA	2.8	n	NA	NA	N	ND
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	ug/l	NA	0/1	1	NA	NA	-	-	NA	NA	N	ND
	108-38-3	m&p-Xylene	ND	ND	ug/l	NA	0/1	2	NA	NA	19	n	NA	NA	N	ND
	95-47-6	o-Xylene	ND	ND	ug/l	NA	0/1	1	NA	NA	19	n	NA	NA	N	ND
	75-85-4	tert-Amyl alcohol	ND	ND	ug/l	NA	0/1	20	NA	NA	-		NA	NA	N	ND

Table F-22

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Groundwater	919-94-8	tert-Amyl ethyl ether	ND	ND	ug/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	994-05-8	tert-Amyl methyl ether	ND	ND	ug/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	75-65-0	tert-Butanol	ND	ND	ug/l	NA	0/1	20	NA	NA	-		NA	NA	N	ND
	637-92-3	tert-Butyl ethyl ether	ND	ND	ug/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	156-60-5	trans-1,2-Dichloroethene	ND	ND	ug/l	NA	0/1	1	NA	NA	8.6	n	NA	NA	N	ND
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	ug/l	NA	0/1	1	NA	NA	-	-	NA	NA	N	ND
	91-57-6	2-Methylnaphthalene	ND	ND	ug/l	NA	0/1	2	NA	NA	2.7	n	NA	NA	N	ND
	83-32-9	Acenaphthene	ND	ND	ug/l	NA	0/1	5	NA	NA	40	n	NA	NA	N	ND
	208-96-8	Acenaphthylene	ND	ND	ug/l	NA	0/1	5	NA	NA	-	-	NA	NA	N	ND
	120-12-7	Anthracene	ND	ND	ug/l	NA	0/1	5	NA	NA	130	n	NA	NA	N	ND
	56-55-3	Benzo(a)anthracene	ND	ND	ug/l	NA	0/1	0.5	NA	NA	0.029	c	NA	NA	N	ND
	50-32-8	Benzo(a)pyrene	ND	ND	ug/l	NA	0/1	0.5	NA	NA	0.0029	c	NA	NA	N	ND
	205-99-2	Benzo(b)fluoranthene	ND	ND	ug/l	NA	0/1	0.5	NA	NA	0.029	c	NA	NA	N	ND
	191-24-2	Benzo(g,h,i)perylene	ND	ND	ug/l	NA	0/1	5	NA	NA	-	-	NA	NA	N	ND
	207-08-9	Benzo(k)fluoranthene	ND	ND	ug/l	NA	0/1	0.5	NA	NA	0.29	c	NA	NA	N	ND
	218-01-9	Chrysene	ND	ND	ug/l	NA	0/1	2	NA	NA	2.9	c	NA	NA	N	ND
	53-70-3	Dibenz(a,h)Anthracene	ND	ND	ug/l	NA	0/1	0.5	NA	NA	0.0029	c	NA	NA	N	ND
	206-44-0	Fluoranthene	ND	ND	ug/l	NA	0/1	5	NA	NA	63	n	NA	NA	N	ND
	86-73-7	Fluorene	ND	ND	ug/l	NA	0/1	5	NA	NA	22	n	NA	NA	N	ND
	193-39-5	Indeno(1,2,3-c,d)Pyrene	ND	ND	ug/l	NA	0/1	0.5	NA	NA	0.029	c	NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	ug/l	NA	0/1	0.5	NA	NA	0.14	c	NA	NA	N	ND
	85-01-8	Phenanthrene	ND	ND	ug/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	129-00-0	Pyrene	ND	ND	ug/l	NA	0/1	5	NA	NA	8.7	n	NA	NA	N	ND
	74-82-8	Methane	ND	ND	mg/l	NA	0/1	0.0059	NA	NA	-		NA	NA	N	ND
		TPH-DRO	0.08	0.08	mg/l	SB-03 (GW)	1/1		0.08	NA	0.047		NA	NA	Y	ASL
		TPH-GRO	ND	ND	ug/l	NA	0/1	40	NA	NA	47		NA	NA	N	ND

a/ µg/l = micrograms per liter; mg/l = milligrams per liter; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected.

b/ US Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) (November 2012) for residential soil exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment (MDE) Guidance (2006). Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. MDE's 2008 Generic Numeric Cleanup Standards (GCNS) for Soil and Groundwater; available at: http://www.mde.maryland.gov/programs/land/marylandbrownfieldvcp/documents/www.mde.state.md.us/assets/document/final%20update%20no%202.1%20dated%205-20-08(1).pdf (accessed May 15, 2013).

Table F-23

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Soil Gas

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C;		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion	
Soil Gas	71-55-6	1,1,1-Trichloroethane	ND	ND	µg/m^3	NA	0/2	1.7-1.7	NA	NA	5200	n	NA	NA	N	ND	
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	µg/m^3	NA	0/2	1.1-1.1	NA	NA	0.42	c	NA	NA	N	ND	
	79-00-5	1,1,2-Trichloroethane	ND	ND	µg/m^3	NA	0/2	0.85-0.85	NA	NA	1.5	c	NA	NA	N	ND	
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	µg/m^3	NA	0/2	2.5-2.5	NA	NA	31000	n	NA	NA	N	ND	
	75-34-3	1,1-Dichloroethane	ND	ND	µg/m^3	NA	0/2	1.3-1.3	NA	NA	15	c	NA	NA	N	ND	
	75-35-4	1,1-Dichloroethene	ND	ND	µg/m^3	NA	0/2	1.3-1.3	NA	NA	210	n	NA	NA	N	ND	
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	µg/m^3	NA	0/2	2.3-2.3	NA	NA	2.1	n	NA	NA	N	ND	
	95-63-6	1,2,4-Trimethylbenzene	1.5	26.1	µg/m^3	1644-R-040313	1/2	1.5-26.1	26.1	NA	7.3	n	NA	NA	Y	ASL	(c)
	106-93-4	1,2-Dibromoethane (EDB)	ND	ND	µg/m^3	NA	0/2	2.4-2.4	NA	NA	0.041	c	NA	NA	N	ND	
	95-50-1	1,2-Dichlorobenzene	ND	ND	µg/m^3	NA	0/2	1.9-1.9	NA	NA	210	n	NA	NA	N	ND	
	107-06-2	1,2-Dichloroethane	ND	ND	µg/m^3	NA	0/2	0.64-0.64	NA	NA	0.94	c	NA	NA	N	ND	
	78-87-5	1,2-Dichloropropane	ND	ND	µg/m^3	NA	0/2	1.5-1.5	NA	NA	2.4	c	NA	NA	N	ND	
	526-73-8	1,3,5-Trimethylbenzene	1.5	8.3	µg/m^3	1644-R-040313	1/2	1.5-8.3	8.3	NA	5.2	n	NA	NA	Y	ASL	(c)
	106-99-0	1,3-Butadiene	ND	ND	µg/m^3	NA	0/2	0.7-0.7	NA	NA	0.81	c	NA	NA	N	ND	
	541-73-1	1,3-Dichlorobenzene	ND	ND	µg/m^3	NA	0/2	1.9-1.9	NA	NA	-	-	NA	NA	N	ND	
	106-46-7	1,4-Dichlorobenzene	ND	ND	µg/m^3	NA	0/2	1.9-1.9	NA	NA	2.2	c	NA	NA	N	ND	
	78-93-3	2-Butanone (MEK)	0.93	105	µg/m^3	1644-R-040313	1/2	0.93-105	105	NA	5200	n	NA	NA	N	BSL	
	591-78-6	2-Hexanone	ND	ND	µg/m^3	NA	0/2	1.3-1.3	NA	NA	31	n	NA	NA	N	ND	
	622-96-8	4-Ethyltoluene	1.6	7.8	µg/m^3	1644-R-040313	1/2	1.6-7.8	7.8	NA	-		NA	NA	N	BSL	
	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	ND	µg/m^3	NA	0/2	1.3-1.3	NA	NA	3100	n	NA	NA	N	ND	
	67-64-1	Acetone	7.8	684	µg/m^3		2/2	7.8-684	684	NA	32000	n	NA	NA	N	BSL	
	71-43-2	Benzene	6.3	7	µg/m^3	1644-F-040313	2/2	6.3-7	7	NA	3.1	c	NA	NA	Y	ASL	(c)
	75-27-4	Bromodichloromethane	ND	ND	µg/m^3	NA	0/2	2.1-2.1	NA	NA	0.66	c	NA	NA	N	ND	
	75-25-2	Bromoform	ND	ND	µg/m^3	NA	0/2	3.3-3.3	NA	NA	22	c	NA	NA	N	ND	
	74-83-9	Bromomethane	ND	ND	µg/m^3	NA	0/2	1.2-1.2	NA	NA	5.2	n	NA	NA	N	ND	
	75-15-0	Carbon disulfide	0.98	10.5	µg/m^3		1/2	0.98-10.5	10.5	NA	730	n	NA	NA	N	BSL	
	56-23-5	Carbon tetrachloride	ND	ND	µg/m^3	NA	0/2	0.99-0.99	NA	NA	4.1	c	NA	NA	N	ND	
	108-90-7	Chlorobenzene	ND	ND	µg/m^3	NA	0/2	1.5-1.5	NA	NA	52	n	NA	NA	N	ND	
	75-00-3	Chloroethane	ND	ND	µg/m^3	NA	0/2	0.84-0.84	NA	NA	10000	n	NA	NA	N	ND	
	67-66-3	Chloroform	1.5	16.4	µg/m^3	1644-F-040313	1/2	1.5-16.4	16.4	NA	1.1	c	NA	NA	Y	ASL	(d)
	74-87-3	Chloromethane	ND	ND	µg/m^3	NA	0/2	0.65-0.65	NA	NA	94	n	NA	NA	N	ND	
	156-59-2	cis-1,2-Dichloroethene	ND	ND	µg/m^3	NA	0/2	1.3-1.3	NA	NA	-	-	NA	NA	N	ND	
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	µg/m^3	NA	0/2	1.4-1.4	NA	NA	-	-	NA	NA	N	ND	
	110-82-7	Cyclohexane	6.4	8.9	µg/m^3	1644-F-040313	2/2	6.4-8.9	8.9	NA	6300	n	NA	NA	N	BSL	
	124-48-1	Dibromochloromethane	ND	ND	µg/m^3	NA	0/2	2.7-2.7	NA	NA	0.9	c	NA	NA	N	ND	
	75-71-8	Dichlorodifluoromethane	1.6	2.1	µg/m^3		1/2	1.6-2.1	2.1	NA	100	n	NA	NA	N	BSL	
	76-14-2	Dichlorotetrafluoroethane	ND	ND	µg/m^3	NA	0/2	2.2-2.2	NA	NA	-		NA	NA	N	ND	
	141-78-6	Ethyl acetate	ND	ND	µg/m^3	1644-R-040313	0/2	1.1-1.1	NA	NA	-	-	NA	NA	N	ND	
	100-41-4	Ethylbenzene	10.3	11.6	µg/m^3	1644-F-040313	2/2	10.3-11.6	11.6	NA	9.7	c	NA	NA	Y	ASL	(c)
	87-68-3	Hexachloro-1,3-butadiene	ND	ND	µg/m^3	NA	0/2	3.4-3.4	NA	NA	1.1	c	NA	NA	N	ND	
	108-38-3	m&p-Xylene	48.3	56.5	µg/m^3	1644-F-040313	2/2	48.3-56.5	56.5	NA	100	n	NA	NA	N	BSL	
	75-09-2	Methylene Chloride	5.8	7.5	µg/m^3	1644-R-040313	2/2	5.8-7.5	7.5	NA	960	c	NA	NA	N	BSL	
	1634-04-4	Methyl-tert-butyl ether	ND	ND	µg/m^3	NA	0/2	1.1-1.1	NA	NA	94	c	NA	NA	N	ND	
	91-20-3	Naphthalene	2.3	3.7	µg/m^3	1644-F-040313	2/2	2.3-3.7	3.7	NA	0.72	c	NA	NA	Y	ASL	(c)
	142-82-5	n-Heptane	22.4	24.2	µg/m^3	1644-F-040313	2/2	22.4-24.2	24.2	NA	-		NA	NA	N	BSL	
	110-54-3	n-Hexane	12.6	21	µg/m^3	1644-F-040313	2/2	12.6-21	21	NA	730	n	NA	NA	N	BSL	
	95-47-6	o-Xylene	14.7	15.3	µg/m^3	1644-F-040313	2/2	14.7-15.3	15.3	NA	100	n	NA	NA	N	BSL	
	115-07-1	Propylene	0.54	7.3	µg/m^3		1/2	0.54-7.3	7.3	NA	3100	n	NA	NA	N	BSL	
	100-42-5	Styrene	5.1	5.7	µg/m^3	1644-R-040313	2/2	5.1-5.7	5.7	NA	1000	n	NA	NA	N	BSL	
	127-18-4	Tetrachloroethene	40.3	49.1	µg/m^3	1644-F-040313	2/2	40.3-49.1	49.1	NA	94	c	NA	NA	N	BSL	
	109-99-9	Tetrahydrofuran	ND	ND	µg/m^3	NA	0/2	0.93-0.93	NA	NA	2100	n	NA	NA	N	ND	
	108-88-3	Toluene	40.2	50.2	µg/m^3	1644-F-040313	2/2	40.2-50.2	50.2	NA	5200	n	NA	NA	N	BSL	

Table F-23

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Soil Gas	156-60-5	trans-1,2-Dichloroethene	ND	ND	µg/m^3	NA	0/2	1.3-1.3	NA	NA	63	n	NA	NA	N	ND	
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	µg/m^3	NA	0/2	1.4-1.4	NA	NA	-	-	NA	NA	N	ND	
	79-01-6	Trichloroethene	0.85	1.9	µg/m^3		1/2	0.85-1.9	1.9	NA	4.3	c	NA	NA	N	BSL	
	75-69-4	Trichlorofluoromethane	ND	ND	µg/m^3	NA	0/2	1.8-1.8	NA	NA	730	n	NA	NA	N	ND	
	108-05-4	Vinyl acetate	ND	ND	µg/m^3	NA	0/2	1.1-1.1	NA	NA	210	n	NA	NA	N	ND	
	75-01-4	Vinyl chloride	ND	ND	µg/m^3	NA	0/2	0.4-0.4	NA	NA	1.6	c	NA	NA	N	ND	
	-	TPH-DRO	520	3800	µg/m^3	1644-F-040313	2/2	0-0	3800	NA	680	(d)	NA	NA	Y	ASL	(c)

a/ µg/m3 = micrograms per cubic meter; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected.

b/ EPA RSLs (November 2012) for residential indoor air exposure scenario times 10. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment Guidance. Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm

c/ Constituent not further evaluated because not detected in indoor air samples at concentrations above screening levels.

d/ Constituent not further evaluated because not related to potential historical Hess releases.

Table F-24

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Sump Water

Exposure Point	CAS-RN	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Concentration Used for Screening	Background Value	Screening Toxicity Value (N/C; b)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion
Sump Water	71-55-6	1,1,1-Trichloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	79-00-5	1,1,2-Trichloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	76-13-1	1,1,2-Trichlorotrifluoroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	75-34-3	1,1-Dichloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	75-35-4	1,1-Dichloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	87-61-6	1,2,3-Trichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	120-82-1	1,2,4-Trichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	1.5	c	NA	NA	N	ND
	96-12-8	1,2-Dibromo-3-chloropropane	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	106-93-4	1,2-Dibromoethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	95-50-1	1,2-Dichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	107-06-2	1,2-Dichloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	78-87-5	1,2-Dichloropropane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	541-73-1	1,3-Dichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	106-46-7	1,4-Dichlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	78-93-3	2-Butanone (MEK)	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	591-78-6	2-Hexanone (MBK)	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	108-10-1	4-Methyl-2-Pentanone (MIBK)	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	67-64-1	Acetone	ND	ND	µg/l	NA	0/1	10	NA	NA	5.50E+05	n	NA	NA	N	ND
	71-43-2	Benzene	ND	ND	µg/l	NA	0/1	1	NA	NA	5	c	NA	NA	N	ND
	74-97-5	Bromochloromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	75-27-4	Bromodichloromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	75-25-2	Bromoform	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	74-83-9	Bromomethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	75-15-0	Carbon Disulfide	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	56-23-5	Carbon tetrachloride	ND	ND	µg/l	NA	0/1	1	NA	NA	3.7	c	NA	NA	N	ND
	108-90-7	Chlorobenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	160	n	NA	NA	N	ND
	75-00-3	Chloroethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	67-66-3	Chloroform	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	74-87-3	Chloromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	110-82-7	Cyclohexane	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	124-48-1	Dibromochloromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	75-71-8	Dichlorodifluoromethane	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	108-20-3	Diisopropyl ether	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	100-41-4	Ethylbenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	7.6	c	NA	NA	N	ND
	98-82-8	Isopropylbenzene	ND	ND	µg/l	NA	0/1	1	NA	NA	340	n	NA	NA	N	ND
	79-20-9	Methyl Acetate	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	1634-04-4	Methyl-t-Butyl Ether	ND	ND	µg/l	NA	0/1	1	NA	NA	510	c	NA	NA	N	ND
	108-87-2	Methylcyclohexane	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	75-09-2	Methylene chloride	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	µg/l	NA	0/1	1	NA	NA	88	n	NA	NA	N	ND
	100-42-5	Styrene	ND	ND	µg/l	NA	0/1	1	NA	NA	1200	n	NA	NA	N	ND
	127-18-4	Tetrachloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	108-88-3	Toluene	ND	ND	µg/l	NA	0/1	1	NA	NA	650	n	NA	NA	N	ND
	79-01-6	Trichloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	75-69-4	Trichlorofluoromethane	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	75-01-4	Vinyl chloride	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	156-59-2	cis-1,2-Dichloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	10061-01-5	cis-1,3-Dichloropropene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	108-38-3	m&p-Xylene	ND	ND	µg/l	NA	0/1	2	NA	NA	900	n	NA	NA	N	ND
	95-47-6	o-Xylene	ND	ND	µg/l	NA	0/1	1	NA	NA	900	n	NA	NA	N	ND

Table F-24

Occurence, Distribution, And Selection of Chemicals of Potential Concern
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Sump Water	75-85-4	tert-Amyl alcohol	ND	ND	µg/l	NA	0/1	20	NA	NA	-		NA	NA	N	ND
	919-94-8	tert-Amyl ethyl ether	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	994-05-8	tert-Amyl methyl ether	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	75-65-0	tert-Butanol	ND	ND	µg/l	NA	0/1	20	NA	NA	-		NA	NA	N	ND
	637-92-3	tert-Butyl ethyl ether	ND	ND	µg/l	NA	0/1	10	NA	NA	-		NA	NA	N	ND
	156-60-5	trans-1,2-Dichloroethene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	10061-02-6	trans-1,3-Dichloropropene	ND	ND	µg/l	NA	0/1	1	NA	NA	-		NA	NA	N	ND
	91-57-6	2-Methylnaphthalene	ND	ND	µg/l	NA	0/1	2	NA	NA	-		NA	NA	N	ND
	83-32-9	Acenaphthene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	208-96-8	Acenaphthylene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	120-12-7	Anthracene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	56-55-3	Benzo(a)anthracene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	50-32-8	Benzo(a)pyrene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	205-99-2	Benzo(b)fluoranthene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	191-24-2	Benzo(g,h,i)perylene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	207-08-9	Benzo(k)fluoranthene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	218-01-9	Chrysene	ND	ND	µg/l	NA	0/1	2	NA	NA	-		NA	NA	N	ND
	53-70-3	Dibenz(a,h)Anthracene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	206-44-0	Fluoranthene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	86-73-7	Fluorene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	193-39-5	Indeno(1,2,3-c,d)Pyrene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	91-20-3	Naphthalene	ND	ND	µg/l	NA	0/1	0.5	NA	NA	-		NA	NA	N	ND
	85-01-8	Phenanthrene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	129-00-0	Pyrene	ND	ND	µg/l	NA	0/1	5	NA	NA	-		NA	NA	N	ND
	74-82-8	Methane	ND	ND	mg/l	NA	0/1	0.0057	NA	NA	-		NA	NA	N	ND
		TPH-DRO	0.04	0.04	mg/l	1646-Sump	0/1	0.04	0.04	NA	0.011	n	NA	NA	Y	ASL
		TPH-GRO	ND	ND	µg/l	NA	0/1	40	NA	NA	18	n	NA	NA	N	ND

a/ µg/l = micrograms per liter; mg/l = milligrams per liter; n = non-cancer; c = cancer; NA = not available or not applicable; "-" indicates no screening level available; TPH = total petroleum hydrocarbons; DRO = diesel range organics; GRO = gasoline range organics; BSL = Below Screening Level and ASL = Above Screening Level; ND = not detected.

b/ Refer to text for discussion of development of dermal screening levels.

Table F-25

Exposure Point Concentration Summary
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Indoor Air

Exposure Point	Chemical	Units	Arithmetic Mean	95% UCL (Distribution)	Maximum Concentration	Exposure Point Concentration			
						Value	Units	Statistic	Rationale
Indoor Air	1,2,4-Trimethylbenzene	µg/m3	1.84	NA	2	2	µg/m3	Maximum	Too Few Observations to Perform Statistics
	Benzene	µg/m3	0.84	NA	1.1	1.1	µg/m3	Maximum	Too Few Observations to Perform Statistics
	Ethylbenzene	µg/m3	0.92	NA	1.4	1.4	µg/m3	Maximum	Too Few Observations to Perform Statistics

a/ UCL = upper confidence limit; $\mu g/m^3$ = micrograms per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics.

Table F-26

Exposure Assumptions: Resident Adult
(Groundwater; Vapor Intrusion)
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Indoor air
Receptor Population: Resident
Receptor Age: Adult

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference
Inhalation	ET	Exposure time	hr/day	24	MDE 2008 (b), EPA 2009 (c)
	EF	Exposure frequency	day/yr	350	MDE2008, EPA 2009
	ED	Exposure duration	yr	24	MDE 2008, EPA 2009
	CF	Conversion factor	mg/µg	1.00E-03	EPA 2009
	AT-NC	Averaging time - noncancer	hours	210,240	EPA 2009
	AT-C	Averaging time - cancer	hours	613,200	EPA 2009

a/ RME = reasonable maximum exposure; hr/day = hours per day; day/yr = days per year; yr = year; mg/ug = milligrams per microgram.

b/ MDE 2008: Maryland Department of the Environment. 2008. Cleanup Standards for Soil and Groundwater. Interim Final Guidance. June.

c/ EPA 2009: U.S. Environmental Protection Agency. 2009. Risk Assessment Guidance for Superfund: Volume I. Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) Interim Final. Office of Emergency and Remedial Response, Washington, D.C. EPA-540-R-070-002.

Table F-27

Exposure Assumptions: Resident Child
(Groundwater; Vapor Intrusion)
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe: Current/Future
Medium: Groundwater
Exposure Medium: Air
Exposure Point: Indoor air
Receptor Population: Resident
Receptor Age: Child

Exposure Route	Parameter Code	Parameter Definition	Units	RME Value	RME Rationale/ Reference
Inhalation	ET	Exposure time	hr/day	24	MDE 2008 (a), EPA 2009 (b)
	EF	Exposure frequency	day/yr	350	MDE 2008, EPA 2009
	ED	Exposure duration	yr	6	MDE 2008, EPA 2009
	CF	Conversion factor	mg/µg	1.00E-03	EPA 2009
	AT-NC	Averaging time - noncancer	hours	52,560	EPA 2009
	AT-C	Averaging time - cancer	hours	613,200	EPA 2009

a/ RME = reasonable maximum exposure; hr/day = hours per day; day/yr = days per year; yr = year; mg/ug = milligrams per microgram.

b/ MDE 2008: Maryland Department of the Environment. 2008. Cleanup Standards for Soil and Groundwater. Interim Final Guidance. Jun

c/ EPA 2009: U.S. Environmental Protection Agency. 2009. Risk Assessment Guidance for Superfund: Volume I. Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) Interim Final. Office of Emergency and Remedial Response, Washington, D.C. EPA-540-R-070-002.

Table F-28

Cancer Toxicity Data
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

COPC	Oral Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Oral to Dermal Adjustment Factor	Oral to Dermal Adjustment Factor Source	Adjusted Dermal Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Weight of Evidence/ Cancer Guideline Description (b)	Source	Inhalation Unit Risk $(\mu g/m^3)^{-1}$	Weight of Evidence/ Cancer Guideline Description (b)	Source
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	NA	NA	NA	7.8E-06	A	IRIS
Ethylbenzene	1.1E-02	1	EPA 2012	1.1E-02	2B	CalEPA	2.5E-06	2B	CalEPA

a/ COPC = chemical of potential concern; IRIS = Integrated Risk Information System; µg/m3 = micrograms per cubic meter; NA = Not applicable/available; (mg/kg-day)-1 = milligram per kilogram per day; EPA = Environmental Protection Agency; CalEPA = California Environmental Protection Agency.
b/ U.S. Environmental Protection Agency Group: A - Human carcinogen; 2B - Possibly Carcinogenic to Humans.

Table F-29

Non-cancer Toxicity Data
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

COPC	Oral RfD Value mg/kg-day	Oral to Dermal Adjustment Factor	Oral to Dermal Adjustment Factor Source	Adjusted Oral RfD Value mg/kg-day	Primary Target Organ	Source	Inhalation RfC Value mg/m^3	Primary Target Organ	Source
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	7.00E-03	blood	PPRTV
Benzene	NA	NA	NA	NA	NA	NA	3.00E-02	blood	IRIS
Ethylbenzene	1.00E-01	1.00E+00	EPA 2012	1.00E-01	liver, kidney	IRIS	1.00E+00	fetus	IRIS
m&p-xylenes	2.00E-01	1.00E+00	EPA 2012	2.00E-01	whole body (mortality),	IRIS	NA	NA	NA
Naphthalene	2.00E-02	1.00E+00	EPA 2012	2.00E-02	whole body (decreased weight),	IRIS	NA	NA	NA

a/ COPC = chemical of potential concern; IRIS = Integrated Risk Information System; mg/m3 = milligrams per cubic meter; NA = Not applicable/available; (mg/kg-day) = milligram per kilogram-day; EPA = Environmental Protection Agency; PPRV = peer provisional reviewed value.

EPA RSLs (November 2012) for residential soil exposure scenario. RSLs based on non-carcinogenic toxicity divided by 10 per Maryland Department of the Environment Guidance. Available online at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm.

Table F-30

Calculation of Chemical Cancer Risks
Reasonable Maximum Exposure
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	CAS No.	COPC	EPC		Cancer Risk Calculations				
						Value	Units	Intake/Exposure Concentration		Slope Factor/Unit Risk		Risk
								Value	Units	Value	Units	
		Indoor Air	Inhalation	95-63-6	1,2,4-Trimethylbenzene	2.0E+00	µg/m^3	6.6E-01	µg/m^3	NA	(µg/m^3)$^{-1}$	NA
				71-43-2	Benzene	1.1E+00	µg/m^3	3.6E-01	µg/m^3	7.8E-06	(µg/m^3)$^{-1}$	2.8E-06
				100-41-4	Ethylbenzene	1.4E+00	µg/m^3	4.6E-01	µg/m^3	2.5E-06	(µg/m^3)$^{-1}$	1.2E-06
			Exp. Route Total									4.0E-06
		Exposure Point Total										4.0E-06
	Exposure Medium Total											4.0E-06
Medium Total												4.0E-06
											Total of Receptor Risks Across All Media	4.0E-06

a/ COPC = chemical of potential concern; EPC = exposure point concentration; ug/m3 = micrograms per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics; NA = Not applicable/available.

Table F-31

Calculation of Chemical Non-cancer Risks
Reasonable Maximum Exposure
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timefram	Current/Future
Receptor Populatic	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	CAS No.	COPC	EPC		Non-Cancer Hazard Calculations				
						Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
								Value	Units	Value	Units	
		Indoor Air	Inhalation	95-63-6	1,2,4-Trimethylbenzene	2.0E+00	µg/m^3	1.9E-03	mg/m^3	7.0E-03	mg/m^3	2.7E-01
				71-43-2	Benzene	1.1E+00	µg/m^3	1.1E-03	mg/m^3	3.0E-02	mg/m^3	3.5E-02
				100-41-4	Ethylbenzene	1.4E+00	µg/m^3	1.3E-03	mg/m^3	1.0E+00	mg/m^3	1.3E-03
			Exp. Route Total									3.1E-01
		Exposure Point Total										3.1E-01
	Exposure Medium Total											3.1E-01
											Total of Receptor Hazards Across All Media	3.1E-01

a/ COPC = chemical of potential concern; EPC = exposure point concentration; RfD/RfC = reference dose/reference concentration; ug/m3 = micrograms per cubic meter; mg/m3 = milligrams per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics; NA = Not applicable/available.

Table F-32

Calculation of Chemical Cancer Risks
Reasonable Maximum Exposure
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	CAS No.	COPC	EPC		Cancer Risk Calculations				
						Value	Units	Intake/Exposure Concentration		Unit Risk		Risk
								Value	Units	Value	Units	
Groundwater	Groundwater	Indoor Air	Inhalation	95-63-6	1,2,4-Trimethylbenzene	2.0E+00	µg/m^3	1.6E-01	µg/m^3	NA	(µg/m^3)$^{-1}$	NA
				71-43-2	Benzene	1.1E+00	µg/m^3	9.0E-02	µg/m^3	7.8E-06	(µg/m^3)$^{-1}$	7.1E-07
				100-41-4	Ethylbenzene	1.4E+00	µg/m^3	1.2E-01	µg/m^3	2.5E-06	(µg/m^3)$^{-1}$	2.9E-07
			Exp. Route Total									9.9E-07
		Exposure Point Total										9.9E-07
	Exposure Medium Total											9.9E-07
Medium Total												9.9E-07
											Total of Receptor Risks Across All Media	9.9E-07

a/ COPC = chemical of potential concern; EPC = exposure point concentration; ug/m3 = micrograms per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics; NA = Not applicable/available.

Table F-33

Calculation of Chemical Non-cancer Risks
Reasonable Maximum Exposure
1646 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Scenario Timeframe:	Current/Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	CAS No.	COPC	EPC		Non-Cancer Hazard Calculations				
						Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
								Value	Units	Value	Units	
		Indoor Air	Inhalation	95-63-6	1,2,4-Trimethylbenzene	2.0E+00	µg/m^3	1.9E-03	mg/m^3	7.0E-03	mg/m^3	2.7E-01
				71-43-2	Benzene	1.1E+00	µg/m^3	1.1E-03	mg/m^3	3.0E-02	mg/m^3	3.5E-02
				100-41-4	Ethylbenzene	1.4E+00	µg/m^3	1.3E-03	mg/m^3	1.0E+00	mg/m^3	1.3E-03
			Exp. Route Total									3.1E-01
		Exposure Point Total										3.1E-01
	Exposure Medium Total											3.1E-01
Total of Receptor Hazards Across All Media												3.1E-01

a/ COPC = chemical of potential concern; EPC = exposure point concentration; RfD/RfC = reference dose/reference concentration; ug/m3 = micrograms per cubic meter; mg/m3 = milligrams per cubic meter; TPH = total petroleum hydrocarbons; DRO = diesel range organics; NA = Not applicable/available.

Table F-34

Risk Summary
Current/Future Scenario
1644 Yakona Road
Yakona Road Properties
Towson, Maryland (a)

Receptor	Exposure Medium	Exposure Point	Carcinogenic Risk					Non-Carcinogenic Hazard Quotient				
			Ingestion	Inhalation	Dermal	Exposure Route Total	Exposure Medium Total	Ingestion	Inhalation	Dermal	Exposure Route Total	Exposure Medium Total
Residential Adult	Groundwater	Vapor Intrusion		4.0E-06		4.0E-06	4.0E-06		0.31		0.31	0.31
						Receptor Total	4.0E-06				Receptor Total	0.31
Residential Child	Groundwater	Vapor Intrusion		9.9E-07		9.9E-07	9.9E-07		0.31		0.31	0.31
						Receptor Total	9.9E-07				Receptor Total	0.31

BOLD values above target risk or target hazard quotient.

a/ MDE = Maryland Department of the Environment; MDE acceptable target risk = 1 x 10-5 and target hazard quotient = 1.

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