



October 8, 2012

Ms. Jenny Herman
Maryland Department of the Environment Oil Control Program
1800 Washington Boulevard
Baltimore, Maryland 21230-1719

Re: **Indoor Air Quality Sampling – Third Quarter 2012**
Gasoline Fueling Station – Royal Farms Store No. 64
7950 Pulaski Highway, Rosedale, Maryland 21237
OCP Case No. 10-0339-BA
Facility ID 3975
AEC Project No. 05-056RF064

Dear Ms. Herman:

Advantage Environmental Consultants, LLC (AEC) is presenting the results of the indoor air quality (IAQ) samples associated with Maryland Department of the Environment (MDE) Oil Control Program (OCP) Case No. 10-0339-BA. The samples were collected in accordance with AEC's Corrective Action Plan (CAP), dated October 7, 2010, MDE CAP Approval letter, dated January 26, 2011 and AEC's Supplemental Vapor Intrusion Investigation Work Plan for 1207 Chesaco Avenue dated January 10, 2012. Figures 1 and 2 in Attachment A illustrate the site and vicinity.

On September 27 through September 28, 2012 IAQ samples were obtained from the 1205 and 1207 Chesaco Avenue residences and from 7950 Pulaski Highway (i.e., Site building). Samples from the 1205 Chesaco Avenue residence were collected from the basement (1205-IAQ-01), the kitchen on the first floor (1205-IAQ-02), and the hallway on the second floor (1205-IAQ-03). Samples from the 1207 Chesaco Avenue residence were collected from the basement near the bottom of stairs (1207-IAQ-01), the first level dining room (1207-IAQ-02), and the second level dining room (1207-IAQ-03). A background ambient air sample was collected from the western (1207-AA-01) side of the exterior of the residence near the 1207 Chesaco basement door. One IAQ sample was collected from the Site building in the vicinity of the deli kiosk (7950-IAQ-01). Prior to sampling, all known volatile organic compound (VOC) containing materials were removed from the 1205 and 1207 Chesaco structures. These materials were not removed from the Site store. In addition, tenants were asked to complete an Occupied Dwelling Questionnaire for Indoor Air Surveys (see Attachment B).

Sampling in the Site building was conducted using a six-liter stainless steel summa canister equipped with an 8-hour draw regulator. All other sampling was conducted using six-liter stainless steel summa canisters equipped with a 24-hour draw regulator. Pre-cleaned, laboratory-supplied, six-liter stainless steel summa canisters were used to collect the samples. The use of equipment that affects indoor air pressure (i.e., exhaust fans, and Heating Ventilation Air Conditioning (HVAC) systems) was suspended in the 1205 and 1207 Chesaco structures during sampling.

The IAQ SUMMA canisters were positioned between 51 inches and 64 inches above floor level. The regulator valve and the ball valve were then opened and the test started. The sample containers were filled over the appropriate time period. Prior to exhausting the vacuum in the canisters near the end of the sample collection time, the canister valves were closed. Sample labels were firmly attached to the container side, and the following information was legibly and indelibly written on the labels: Facility name, Sample identification, Sampling date and time, and Sample collector's initials. After the samples were collected and labeled, they were packaged for transport to the laboratory. The samples were shipped to Maryland Spectral Services, Inc. of Baltimore, Maryland for analysis of VOCs using EPA Analytical Method TO-15.

With the exception of the sample taken from the second floor of 1207 Chesaco Avenue, all samples collected contained benzene at concentrations below the MDE residential standard of 3.1 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The 1207 second floor samples indicated a benzene concentration of $5.24 \mu\text{g}/\text{m}^3$. In addition, elevated levels of various other analyzed compounds were reported in the sample taken on the second floor of 1207 Chesaco Avenue.

Based on the analytical results of the sample obtained on the second floor of 1207 Chesaco Avenue (1207-IAQ-03), it is AEC's opinion that the source of elevated compounds is from fugitive emissions within the dwelling. Several lines of evidence regarding potential fugitive emission sources and lack of complete vapor intrusion pathways to the second floor of the 1207 Chesaco Avenue residence support this assertion and are presented below:

- Elevated levels of compounds in the 1207-IAQ-03 sample are consistent with cigarette ingredients and cigarette combustion byproducts. These compounds include acetone, benzene, 1,3-butadiene, ethyl acetate, methyl-ethyl ketone, styrene, and toluene. As indicated in the Occupied Dwelling Questionnaire – Indoor Air Assessment Survey there is demonstrated tobacco use on the second floor of the 1207 Chesaco Avenue structure. The latest questionnaires for all of the structures are included as Attachment B. Other elevated compounds unique to the 1207-IAQ-03 sample include 1,2-dichloroethane, 2-hexanone, naphthalene, and propene.
- Benzene has a vapor density that is greater than air and will sink to the lowest possible level. Benzene concentrations in samples collected from the basement (1207-IAQ-01) and first floor (1207-IAQ-02) were 1.12 and $0.93 \mu\text{g}/\text{m}^3$, which were less than the benzene concentration detected on the second floor ($5.24 \mu\text{g}/\text{m}^3$). In addition, if the petroleum release at the 7950 Pulaski Highway property were a contributing factor to the elevated concentrations in sample 1207-IAQ-03, a complete pathway from the groundwater to the interior of the residence would be necessary. The sample results from the lower floors of the residence do not indicate that such a pathway exists.
- Dual-phase extraction system recovery wells are currently in place to the southeast of the 1207 Chesaco Avenue property. Soil gas and groundwater are continuously extracted from the recovery wells which may coincide with the soil gas pathway from the source area of the petroleum release to the location of the 1207-IAQ-03 sample. The locations of these recovery wells are featured in Figure 2 of Attachment A.

Based on these lines of evidence, it is apparent that elevated concentrations in the 1207-IAQ-03 sample are not associated with vapor intrusion from the release of petroleum at the 7950 Pulaski Highway property.

Attachment C includes several tables which summarize the current and historical analytical results. The laboratory analytical reports and chain of custody documentation are presented in Attachment D.

If you should have any questions regarding these documents, or if we can be of further assistance, please contact the undersigned at (301) 776-0500.

Sincerely,

ADVANTAGE ENVIRONMENTAL CONSULTANTS, LLC

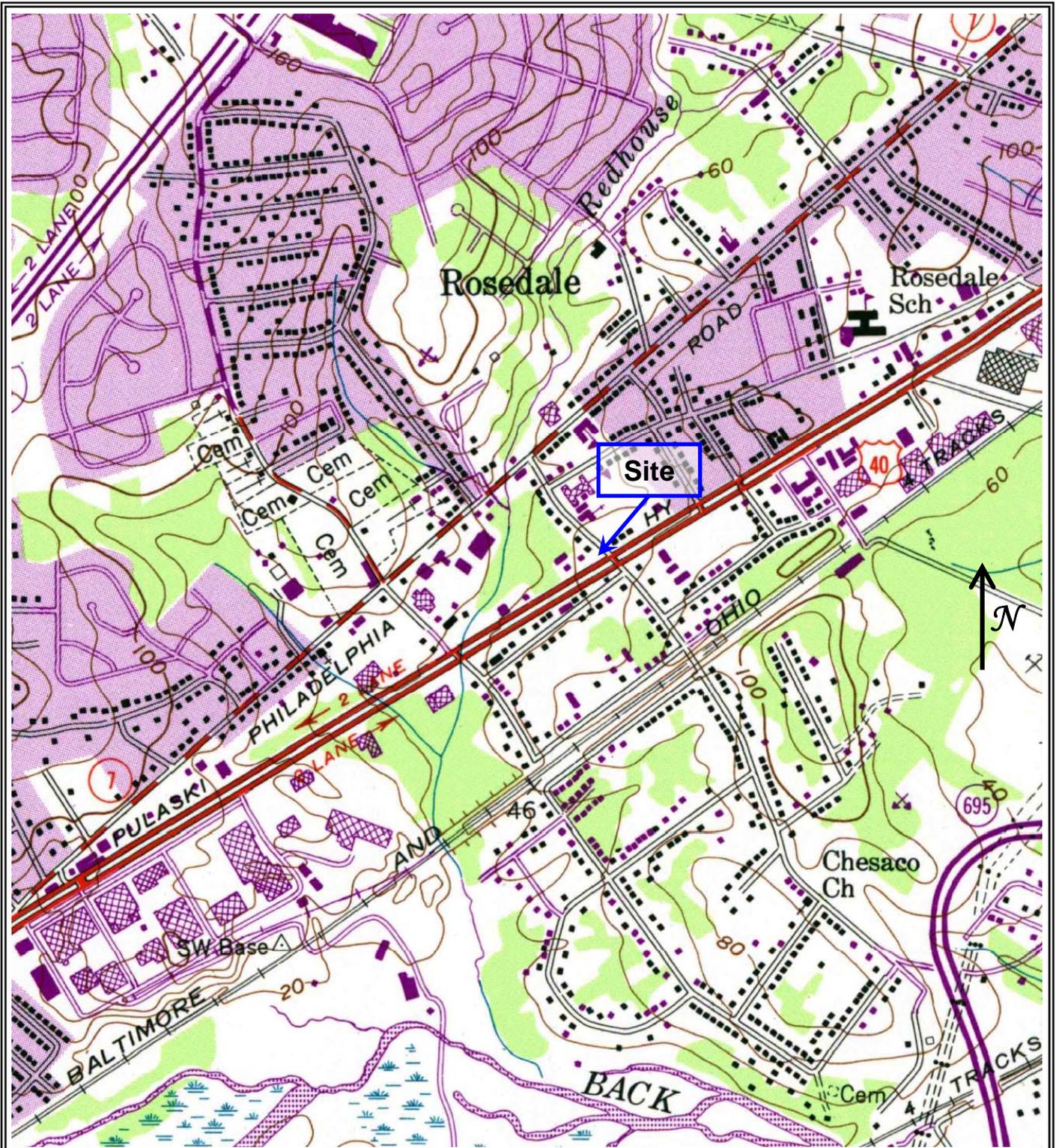


Jeffrey S. Stein, P.G.
Principal

Attachments

Cc: T Ruszin, Royal Farms
D. Cvach, Property Owner, 1207 Chesaco Avenue

ATTACHMENT A



USGS Topographic Quad Map, Baltimore East, MD, 1974

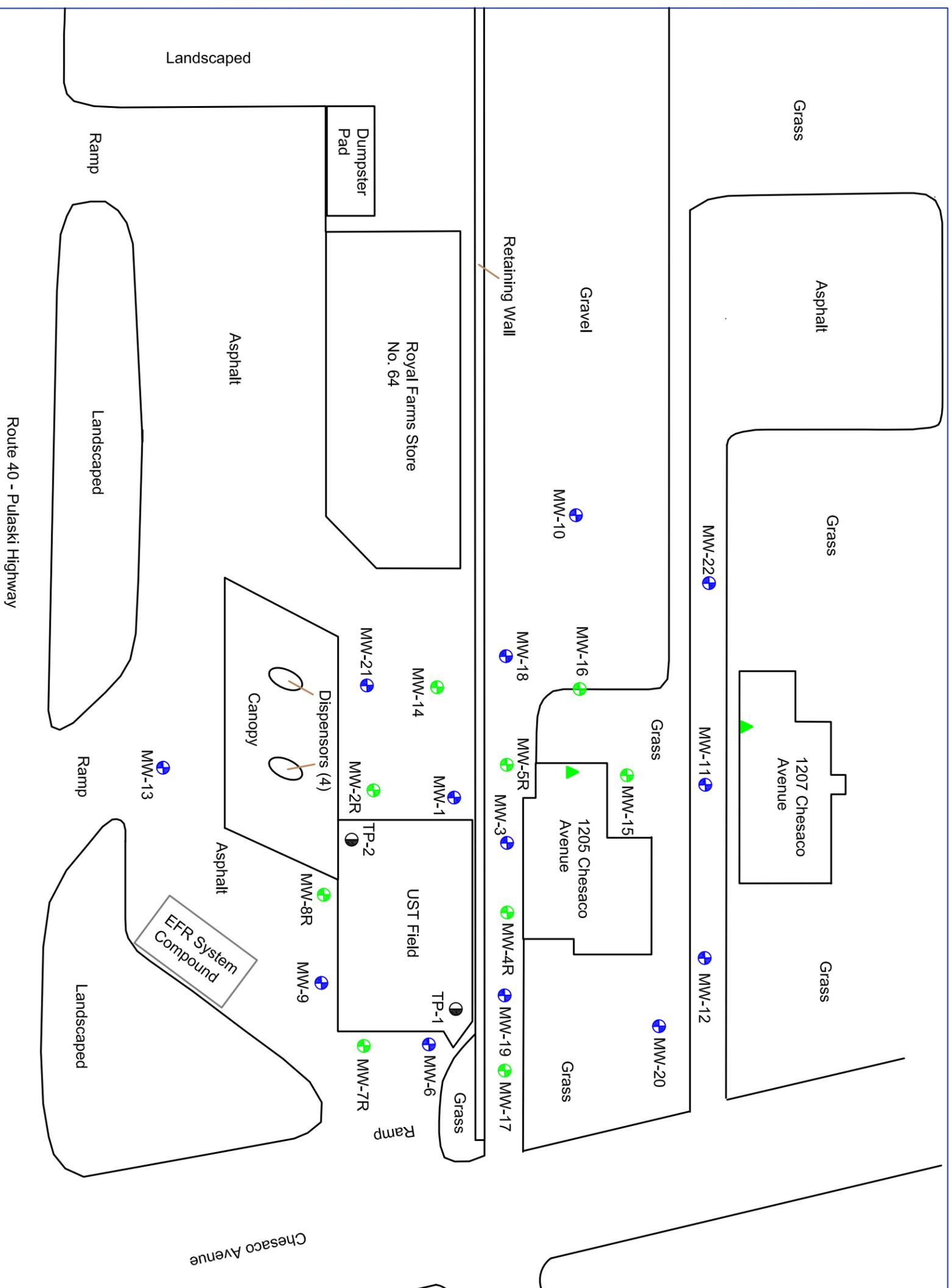


Figure 1 - Site Vicinity Map
 Royal Farms Store 64
 7950 Pulaski Highway
 Baltimore, Maryland 21237

Work Order No.:
 05-056RF064

Report Date:
 June 2012

Drawn By:
 JDW



Legend

- UST Observation Well
- ⊕ Recovery Well
- ⊕ Monitoring Well
- ▲ Sump Pit

0 20 40
Scale in Feet

Advantage Environmental Consultants, LLC
 8610 Washington Blvd. Suite 217
 Jessup, MD 20794
 Phone 301-776-0500 Fax 301-776-1123

Project No. 05-056	Drawn by: JDW
Task No. RF064	Date: June 2012
File: Site Features	Revision No. 3

Figure 2 - Site Features Map
 Royal Farms No. 64
 7950 Pulaski Highway
 Baltimore, MD 21237

ATTACHMENT B



Item #5

New Jersey Department of Environmental Protection

INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name: Tony Rubino Date: 9/27/12
Preparer's affiliation: AEC Phone #: 301-776-0500

Part I - Occupants

Building Address: 1205 Chesaco Ave., Rosedale, MD
Property Contact: Tom Ruzin Owner Renter / other:
Contact's Phone: home () NA work (410) 274-1621 cell (410) 274-1621
of Building occupants: Children under age 13 0 Children age 13-18 0 Adults 0

Part II - Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial
Describe building: 2-story w/ basement Year constructed: 1939
Sensitive population: day care / nursing home / hospital / school / other (specify): NA
Number of floors below grade: 1 (full basement) / crawl space / slab on grade
Number of floors at or above grade: 2
Depth of basement below grade surface: 0-5 ft. Basement size: 500 ft^2
Basement floor construction: concrete / dirt / floating / stone / other (specify):
Foundation walls: poured concrete / cinder blocks / stone / other (specify):
Basement sump present? Yes No Sump pump? Yes No Water in sump Yes / No
Type of heating system (circle all that apply): hot air circulation, hot air radiation, wood, steam radiation, heat pump, hot water radiation, kerosene heater, electric baseboard, other (specify):
Type of ventilation system (circle all that apply): central air conditioning, mechanical fans, bathroom ventilation fans, individual air conditioning units, kitchen range hood fan, outside air intake, other (specify):
Type of fuel utilized (circle all that apply): Natural gas / electric / fuel oil / wood / coal / solar / kerosene
Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes No

Is there a whole house fan?

Yes No

Septic system?

Yes / Yes (but not used) No

Irrigation/private well?

Yes / Yes (but not used) No

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) gravel

Existing subsurface depressurization (radon) system in place? Yes / No

*active/passive
out of use*

Sub-slab vapor/moisture barrier in place?

Yes / No

Type of barrier: _____

Part III - Outside Contaminant Sources

NJDEP contaminated site (1000-ft. radius): NA

Other stationary sources nearby (gas stations, emission stacks, etc.): RF-64

Heavy vehicular traffic nearby (or other mobile sources): Chesaco Ave. + Pulaski Hwy.

Part IV - Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	<i>All possible sources of VOCs removed 24 hrs prior to sampling. Structure has been cleared of misc. debris since last sampling event.</i>	
Gas-powered equipment		
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		
Oven cleaners		
Carpet / upholstery cleaners		
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor polish		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New furniture / upholstery		
New carpeting / flooring		NA
Hobbies - glues, paints, etc.		

Part V – Miscellaneous Items

Previous tenants may have smoked

Do any occupants of the building smoke? Yes No How often? _____

Last time someone smoked in the building? *unknown but > 1 yr.* hours / days ago

Does the building have an attached garage directly connected to living space? Yes No

If so, is a car usually parked in the garage? Yes No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes No

Do the occupants of the building have their clothes dry cleaned? Yes No

If yes, how often? weekly / monthly / 3-4 times a year

Do any of the occupants use solvents in work? Yes No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes No

Have any pesticides/herbicides been applied around the building or in the yard? Yes No

If so, when and which chemicals? _____

Has there ever been a fire in the building? Yes / No *unknown* If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes No

If yes, when _____ and where? _____

Part VI – Sampling Information

Sample Technician: *Tony Rubino* Phone number: *(301) 776-0500*

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Ambient Air

Sampler Type: Stainless Steel Canister / Other (specify): _____

Analytical Method: LL 10-15 Certified Laboratory: *Maryland Spectral Services, Inc.*

Sample locations (floor, room):

Field ID # _____ - *1205-IAQ-01* Field ID # _____ - *1205-IAQ-03*

Field ID # _____ - *1205-IAQ-02* Field ID # _____ - _____

Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: _____

Provide Drawing of Sample Location(s) in and outside Building

1205-IAQ-01 - Basement
1205-IAQ-02 - Kitchen
1205-IAQ-03 - Hallway on 2nd Floor.

Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes No

Describe the general weather conditions: Mostly Cloudy at the beginning of sampling period w/ light rain overnight between 9/27 and 9/28/2012

Part VIII - General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Store



Item #5

New Jersey Department of Environmental Protection

INDOOR AIR BUILDING SURVEY and SAMPLING FORM

Preparer's name: Tony Rubino Date: 9/27/12
Preparer's affiliation: AEC Phone #: 301-776-0500

Part I - Occupants

Building Address: 7450 Palaski Hwy., Rosedale, MD 21237
Property Contact: Tom Ruzin Owner / Renter / other:
Contact's Phone: home () NA work (410) 274-1621 cell (410) 274-1621
of Building occupants: Children under age 13 0 Children age 13-18 0 Adults 5-10

Part II - Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial
Describe building: 1-story Convenience Store Year constructed: 1993
Sensitive population: day care / nursing home / hospital / school / other (specify): NA
Number of floors below grade: 0 (full basement / crawl space / slab on grade)
Number of floors at or above grade: 0
Depth of basement below grade surface: NA ft. Basement size: ft^2
Basement floor construction: concrete / dirt / floating / stone / other (specify):
Foundation walls: poured concrete / cinder blocks / stone / other (specify):
Basement sump present? Yes / No Sump pump? Yes / No Water in sump? Yes / No
Type of heating system (circle all that apply):
hot air circulation hot air radiation wood steam radiation
heat pump hot water radiation kerosene heater electric baseboard
other (specify):
Type of ventilation system (circle all that apply):
central air conditioning mechanical fans bathroom ventilation fans
individual air conditioning units kitchen range hood fan outside air intake
other (specify):
Type of fuel utilized (circle all that apply):
Natural gas / electric / fuel oil / wood / coal / solar / kerosene
Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes / No

Is there a whole house fan?

Yes / No

Septic system?

Yes / Yes (but not used) / No

Irrigation/private well?

Yes / Yes (but not used) / No

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Existing subsurface depressurization (radon) system in place? Yes / No active / passive

Sub-slab vapor/moisture barrier in place? Yes / No

Type of barrier: possible plastic vapor barrier beneath slab

Part III - Outside Contaminant Sources

NJDEP contaminated site (1000-ft. radius): NA

Other stationary sources nearby (gas stations, emission stacks, etc.): There is an active gas station/remediation site

Heavy vehicular traffic nearby (or other mobile sources): Public Hwy, Chesaco Ave and heavy S. to traffic

Part IV - Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	<i>Numerous contamination sources are located within the site building. These sources were not removed from the building which is currently in operation.</i>	
Gas-powered equipment		
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		
Oven cleaners		
Carpet / upholstery cleaners		
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor polish		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New furniture / upholstery		
New carpeting / flooring		NA
Hobbies - glues, paints, etc.		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes / No How often? Unknown

Last time someone smoked in the building? 0 hours / days ago

Does the building have an attached garage directly connected to living space? Yes / No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No Site is an active gas station

Do the occupants of the building have their clothes dry cleaned? Yes / No

If yes, how often? weekly / monthly / 3-4 times a year

Do any of the occupants use solvents in work? Yes / No

If yes, what types of solvents are used? Cleaning Solvents in kitchen area

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes / No unknown

If so, when and which chemicals? _____

Has there ever been a fire in the building? Yes / No If yes, when? unknown

Has painting or staining been done in the building in the last 6 months? Yes / No

If yes, when _____ and where? _____

Part VI – Sampling Information

Sample Technician: Tony Rubino Phone number: (301) 776-0500

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Ambient Air

Sampler Type: Stainless Steel Canister / Other (specify): _____

Analytical Method: LL TO-15 Certified Laboratory: Maryland Spectral Services, Inc.

Sample locations (floor, room):

Field ID # _____ - 7450-IAQ-01 Field ID # _____ - _____

Field ID # _____ - _____ Field ID # _____ - _____

Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: The store is currently open. Sample was collected under normal site operating conditions

Provide Drawing of Sample Location(s) in and outside Building

7950-IAQ-01 collected from the kitchen and Food Kiosk.

Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes / (No)

Describe the general weather conditions: mostly cloudy during the sampling period.

Part VIII – General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

1207 Chesaco - 2nd Floor



Item #5

New Jersey Department of Environmental Protection

**INDOOR AIR BUILDING SURVEY
and SAMPLING FORM**

Preparer's name: Tony Rubino Date: 9/27/12

Preparer's affiliation: AEC Phone #: 301-776-0500

Part I - Occupants

Building Address: 1207 Chesaco Ave., Rariedell, MD 21237

Property Contact: Robert Harmiz Owner Renter other: _____

Contact's Phone: home (410) 918-4815 work () _____ cell () _____

of Building occupants: Children under age 13 0 Children age 13-18 0 Adults 2-3

Part II - Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial

Describe building: 2-story w/ basement Year constructed: 1951

Sensitive population: day care / nursing home / hospital / school / other (specify): NA

Number of floors below grade: 1 / full basement / crawl space / slab on grade

Number of floors at or above grade: 2

Depth of basement below grade surface: 0.5 ft. Basement size: 850 ft²

Basement floor construction: concrete / dirt / floating / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify) _____

Basement sump present? Yes / No Sump pump? Yes / No Water in sump? Yes / No

Type of heating system (circle all that apply):

hot air circulation hot air radiation wood steam radiation
heat pump hot water radiation kerosene heater electric baseboard
other (specify): _____

Type of ventilation system (circle all that apply):

central air conditioning mechanical fans bathroom ventilation fans
 individual air conditioning units kitchen range hood fan outside air intake
other (specify): 2 window AC units on South side of 2nd floor

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes No

Is there a whole house fan? Yes No

Septic system? Yes / Yes (but not used) No

Irrigation/private well? Yes / Yes (but not used) No

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Existing subsurface depressurization (radon) system in place? Yes No active / passive

Sub-slab vapor/moisture barrier in place? Yes No
 Type of barrier: _____

Part III - Outside Contaminant Sources

NJDEP contaminated site (1000-ft. radius): NA

Other stationary sources nearby (gas stations, emission stacks, etc.): RF-64

Heavy vehicular traffic nearby (or other mobile sources): Chuscco Ave. + Palast. Hwy.

Part IV - Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	<u>Standard household cleaning supplies were removed from the unit and stored in the steel cabinet in the back yard.</u>	
Gas-powered equipment		
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		
Oven cleaners		
Carpet / upholstery cleaners		
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor polish		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New furniture / upholstery		
New carpeting / flooring		NA
Hobbies - glues, paints, etc.		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes / No How often? _____

Last time someone smoked in the building? unknown hours / days ago - It was for the 2nd floor apartment

Does the building have an attached garage directly connected to living space? Yes / No was an occasional smoker.

If so, is a car usually parked in the garage? Yes / No his car was present at the time of the sampling and tobacco odor was noted.

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No

Do the occupants of the building have their clothes dry cleaned? Yes / No

If yes, how often? weekly / monthly / 3-4 times a year

Do any of the occupants use solvents in work? Yes / No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes / No

If so, when and which chemicals? Tragreen Chem lawn (last application was in spring 2012)

Has there ever been a fire in the building? Yes / No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes / No

If yes, when _____ and where? _____

Part VI – Sampling Information

Sample Technician: Tony Rubino Phone number: (301) 776-0500

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Ambient Air

Sampler Type: Stainless Steel Canister / Other (specify): _____

Analytical Method: LL TO-15 Certified Laboratory: Maryland Spectral Services, Inc.

Sample locations (floor, room):

Field ID # _____ - 207-IAR-03 Field ID # _____ - _____

Field ID # _____ - _____ Field ID # _____ - _____

Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: _____

Provide Drawing of Sample Location(s) in and outside Building

1207-IAQ-03 collected from dining room table

Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes No

Describe the general weather conditions: Mostly Cloudy at the time of sampling period w/ light rain overnight between 9/27 and 9/28/2012

Part VIII - General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Tobacco odor noted on 9/27 and 9/28/2012.

1207 Chesaco - 1st Floor



Item #5

New Jersey Department of Environmental Protection

**INDOOR AIR BUILDING SURVEY
and SAMPLING FORM**

Preparer's name: Tony Rubano Date: 9/27/12
Preparer's affiliation: AEC Phone #: 301-776-0500

Part I - Occupants

Building Address: 1207 Chesaco Ave., Rosedale, MD 21237
Property Contact: Margaret Zaby Owner Renter other: _____
Contact's Phone: home (410) 682-2155 work () _____ cell () _____
of Building occupants: Children under age 13 0 Children age 13-18 0 Adults 1

Part II - Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial
Describe building: 2-story w/ basement Year constructed: 1951
Sensitive population: day care / nursing home / hospital / school / other (specify): NA
Number of floors below grade: 1 full basement / crawl space / slab on grade
Number of floors at or above grade: 2
Depth of basement below grade surface: 0-5 ft. Basement size: 850 ft²
Basement floor construction: concrete / dirt / floating / stone / other (specify): _____
Foundation walls: poured concrete cinder blocks / stone / other (specify) _____
Basement sump present? Yes / No Sump pump? Yes / No Water in sump? Yes / No

Type of heating system (circle all that apply):
hot air circulation hot air radiation wood steam radiation
heat pump hot water radiation kerosene heater electric baseboard
other (specify): _____

Type of ventilation system (circle all that apply):
central air conditioning mechanical fans bathroom ventilation fans
 individual air conditioning units kitchen range hood fan outside air intake
other (specify): 2 window AC units on the south side of 2nd floor Apartment.

Type of fuel utilized (circle all that apply):
 Natural gas / electric / fuel oil / wood / coal / solar / kerosene

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes No

Is there a whole house fan? Yes / No

Septic system? Yes / Yes (but not used) / No

Irrigation/private well? Yes / Yes (but not used) / No

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Existing subsurface depressurization (radon) system in place? Yes / No active / passive

Sub-slab vapor/moisture barrier in place? Yes / No
 Type of barrier: _____

Part III - Outside Contaminant Sources

NJDEP contaminated site (1000-ft. radius): NA

Other stationary sources nearby (gas stations, emission stacks, etc.): RF-64

Heavy vehicular traffic nearby (or other mobile sources): Chesaco Ave. + Palast Hwy.

Part IV - Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	<i>Standard household cleaning supplies were removed from the unit 24 hrs prior to sampling. These items were stored in the shed at the rear of the 1207 Chesaco Ave. property at the request of the owner.</i>	
Gas-powered equipment		
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		
Oven cleaners		
Carpet / upholstery cleaners		
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor polish		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New furniture / upholstery		
New carpeting / flooring		NA
Hobbies - glues, paints, etc.		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes No How often? _____

Last time someone smoked in the building? unknown hours / days ago

Does the building have an attached garage directly connected to living space? Yes No

If so, is a car usually parked in the garage? Yes No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes No

Do the occupants of the building have their clothes dry cleaned? Yes No

If yes, how often? _____ weekly / monthly / 3-4 times a year

Do any of the occupants use solvents in work? Yes No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes No

Have any pesticides/herbicides been applied around the building or in the yard? Yes No

If so, when and which chemicals? Tragran Chemlawn (last application was in the Spring of 2002)

Has there ever been a fire in the building? Yes No If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes No

If yes, when _____ and where? _____

Part VI – Sampling Information

Sample Technician: Tony Rubino Phone number: (501) 776-0500

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Ambient Air

Sampler Type: Stainless Steel Canister / Other (specify): _____

Analytical Method: LL TO-15 Certified Laboratory: Marshall Spectral Services Inc.

Sample locations (floor, room):

Field ID # _____ - 1207-IAQ-02 Field ID # _____ - _____

Field ID # _____ - _____ Field ID # _____ - _____

Were "Instructions for Occupants" followed? Yes No

If not, describe modifications: _____

A visitor to the 2nd floor apartment was present at the time of sampling activities. Tobacco odor was noted.

Provide Drawing of Sample Location(s) in and outside Building

1207-IAQ-02 was collected from the dining room table.

Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes / No

Describe the general weather conditions: mostly cloudy at the beginning of the sampling period w/ light rain overnight between 9/27/12 and 9/28/12

Part VIII - General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air presence above table on the first floor.



Item #5

New Jersey Department of Environmental Protection

**INDOOR AIR BUILDING SURVEY
and SAMPLING FORM**

Preparer's name: Tony Rubano Date: 9/27/12

Preparer's affiliation: AEC Phone #: 301-776-0500

Part I - Occupants

Building Address: 207 Chesaco Ave., Rosedale, MD 21237

Property Contact: Margaret Zaby Owner Renter other: _____

Contact's Phone: home (410) 682-2155 work () _____ cell () _____

of Building occupants: Children under age 13 0 Children age 13-18 0 Adults 1

Part II - Building Characteristics

Building type: residential / multi-family residential / office / strip mall / commercial / industrial

Describe building: 2-Story w/ basement Year constructed: 1951

Sensitive population: day care / nursing home / hospital / school / other (specify): N/A

Number of floors below grade: 1 (full basement / crawl space / slab on grade)

Number of floors at or above grade: 2

Depth of basement below grade surface: 0.5 ft. Basement size: 850 ft²

Basement floor construction: concrete dirt / floating / stone / other (specify): _____

Foundation walls: poured concrete / cinder blocks / stone / other (specify) _____

Basement sump present? Yes / No Sump pump? Yes / No Water in sump? Yes / No

Type of heating system (circle all that apply):

- hot air circulation hot air radiation wood steam radiation
- heat pump hot water radiation kerosene heater electric baseboard
- other (specify): _____

Type of ventilation system (circle all that apply):

- central air conditioning mechanical fans bathroom ventilation fans
- individual air conditioning units kitchen range hood fan outside air intake
- other (specify): 2 AC units on south side of 2nd floor Apartment

Type of fuel utilized (circle all that apply):

- Natural gas electric fuel oil wood coal solar kerosene

Are the basement walls or floor sealed with waterproof paint or epoxy coatings? Yes / No

Is there a whole house fan? Yes No

Septic system? Yes / Yes (but not used) No

Irrigation/private well? Yes / Yes (but not used) No

Type of ground cover outside of building: grass / concrete / asphalt / other (specify) _____

Existing subsurface depressurization (radon) system in place? Yes / No active / passive

Sub-slab vapor/moisture barrier in place? Yes / No
 Type of barrier: _____

Part III - Outside Contaminant Sources

NJDEP contaminated site (1000-ft. radius): NA

Other stationary sources nearby (gas stations, emission stacks, etc.): RF 69

Heavy vehicular traffic nearby (or other mobile sources): Palaski Hwy + Chesaco Ave.

Part IV - Indoor Contaminant Sources

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor and room), and whether the item was removed from the building 48 hours prior to indoor air sampling event. Any ventilation implemented after removal of the items should be completed at least 24 hours prior to the commencement of the indoor air sampling event.

Potential Sources	Location(s)	Removed (Yes / No / NA)
Gasoline storage cans	<u>Standard household cleaning supplies and air fresheners were removed from the unit and stored in the shed in the rear of the 1207 Chesaco Ave. property at the request of the owner.</u>	
Gas-powered equipment		
Kerosene storage cans		
Paints / thinners / strippers		
Cleaning solvents		
Oven cleaners		
Carpet / upholstery cleaners		
Other house cleaning products		
Moth balls		
Polishes / waxes		
Insecticides		
Furniture / floor polish		
Nail polish / polish remover		
Hairspray		
Cologne / perfume		
Air fresheners		
Fuel tank (inside building)		NA
Wood stove or fireplace		NA
New furniture / upholstery		
New carpeting / flooring		NA
Hobbies - glues, paints, etc.		

Part V – Miscellaneous Items

Do any occupants of the building smoke? Yes / No

How often? _____

Last time someone smoked in the building? Unknown hours / days ago

A vic. to the 2nd floor apartment was present at the time of the sampling activities. A tobacco odor was noted.

Does the building have an attached garage directly connected to living space? Yes / No

If so, is a car usually parked in the garage? Yes / No

Are gas-powered equipment or cans of gasoline/fuels stored in the garage? Yes / No

Do the occupants of the building have their clothes dry cleaned? Yes / No

If yes, how often? weekly / monthly / 3-4 times a year

Do any of the occupants use solvents in work? Yes / No

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Yes / No

Have any pesticides/herbicides been applied around the building or in the yard? Yes / No

If so, when and which chemicals? Trigreen Chamber (last application was in spring 2012)

Has there ever been a fire in the building? Yes / No

If yes, when? _____

Has painting or staining been done in the building in the last 6 months? Yes / No

If yes, when _____ and where? _____

Part VI – Sampling Information

Sample Technician: Tony Rubino Phone number: (301) 776 - 0500

Sample Source: Indoor Air / Sub-Slab / Near Slab Soil Gas / Ambient Air

Sampler Type: Stainless Steel Canister / Other (specify): _____

Analytical Method: LL TO-15 Certified Laboratory: Maryland Spectral Services, Inc.

Sample locations (floor, room):

Field ID # _____ - 207-EAQ-01 Field ID # _____ - _____

Field ID # _____ - 207-AA-01 Field ID # _____ - _____

Were "Instructions for Occupants" followed? Yes / No

If not, describe modifications: _____

Provide Drawing of Sample Location(s) in and outside Building

1207-DAQ-01 was collected from the picnic table located in the basement

1207-AA-01 was collected from the bench located outside of the basement door. A canopy was constructed around the SUMMA canister in order to keep rain away from the canister.

Part VII - Meteorological Conditions

Was there significant precipitation within 12 hours prior to (or during) the sampling event? Yes No

Describe the general weather conditions: Mostly cloudy at the beginning of the sample period w/ some light rain overnight from 9/27 - 9/28/2012.

Part VIII - General Observations

Provide any information that may be pertinent to the sampling event and may assist in the data interpretation process.

A French drain was discovered around the exterior perimeter of the basement. The French drain is connected to the sample location in the southwest corner of the basement. The basement slab is approximately 3" thick w/ gravel sub-base. minor penetrations were noted in the ceiling along with a doorway at the top of the basement stairs.

ATTACHMENT C

Table 1 - 7950 Pulaski Highway Indoor Air Quality Analytical Results
Gasoline Fueling Station – Royal Farms #64
7950 Pulaski Highway, Rosedale, MD 21237

Location	Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene
Behind food- ordering kiosk	IAQ-01	4/26/2011	0.64	5.33	0.87 U	1.7 U	0.72 U	1.1 U
	IAQ-01	7/20/2011	1.59	22.70	1.06	3.97	0.72 U	1.79
	IAQ-01	10/5/2011	1.11	53.7	0.87 U	1.74	0.72 U	2.72
	IAQ-01	3/23/2012	1.37	8.14	0.87 U	1.78	0.72 U	1.1 U
	IAQ-01	6/14/2012	0.73	3.99	0.87 U	1.7 U	0.72 U	1.1 U
	IAQ-01	9/27/2012	0.93	4.15	0.87 U	1.7 U	0.72 U	1.1 U

All results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

All detected analytes are represented above

L = suspect artifact

U = less than reported quantitation limit

B = detected in laboratory blank

Table 2 - 1205 Chesaco Avenue Indoor Air Quality Analytical Results
Gasoline Fueling Station – Royal Farms #64
7950 Pulaski Highway, Rosedale, MD 21237

Location	Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene
2nd Floor	1	3/10/2011	1.04	4.09	0.87 U	1.7 U	0.72 U	1.1 U
	2	3/10/2011	1.10	5.97	0.87 U	1.90	0.72 U	1.1 U
	3	3/10/2011	1.00	6.78	0.87 U	1.7 U	0.72 U	1.1 U
	IAQ-03	7/20/2011	1.91	14.30	2.56	13.00	0.72 U	3.20
	IAQ-03	10/6/2011	0.64U	3.17	0.87U	1.7U	0.72 U	1.54
	IAQ-03	3/24/2012	1.34	7.27	0.91	4.43	0.72 U	1.1 U
	IAQ-03	6/14/2012	0.64U	1.92	0.87U	1.7 U	0.72 U	1.1 U
	IAQ-03	9/27/2012	0.77	2.34	0.87U	1.7 U	0.72 U	1.1 U
1st Floor	4	3/10/2011	0.99	2.13	0.87 U	1.7 U	0.72 U	1.1 U
	IAQ-02	7/20/2011	1.66	10.10	2.62	14.16	0.72 U	3.21
	IAQ-02	10/6/2011	0.64U	3.89	0.87U	1.7U	0.72 U	1.70
	IAQ-02	3/24/2012	1.34	6.90	0.87 U	4.21	0.72 U	1.1 U
	IAQ-02	6/14/2012	0.64U	1.39	0.87 U	1.7U	0.72 U	1.1 U
	IAQ-02	9/27/2012	0.64U	2.00	0.87 U	1.7U	0.72 U	1.1 U
Basement	5	3/10/2011	0.94	1.82	0.87 U	1.7 U	0.72 U	1.1 U
	IAQ-01	7/20/2011	1.59	13.10	1.77	16.62	0.72 U	6.31
	IAQ-01	10/6/2011	0.64U	4.33	0.87U	3.03	0.72 U	1.65
	IAQ-01	3/24/2012	1.25	15.50	1.35	6.08	0.72 U	1.1 U
	IAQ-01	6/14/2012	0.64U	4.07	0.87U	0.87U	0.72 U	1.1 U
	IAQ-01	9/27/2012	0.64U	3.62	0.87U	1.82	0.72 U	1.1 U
Background	Background-1	3/10/2011	0.80	1.06	0.87 U	1.7 U	0.72 U	1.1 U

All results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

All detected analytes are represented above

L = suspect artifact

U = less than reported quantitation limit

B = detected in laboratory blank

IAQ-01 is located in basement

IAQ-02 is located in kitchen

IAQ-03 is located in 2nd floor hallway

**Table 3 - 1207 Chesaco Avenue Indoor Air Quality Analytical Results
Gasoline Fueling Station – Royal Farms #64
7950 Pulaski Highway, Rosedale, MD 21237**

Location	Sample ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene
2nd Floor	IAQ-03	8/20/2010	2.72	9.96	0.87 U	2.60	0.72 U	1.1 U
	IAQ-03	4/26/2011	1.03	7.78	0.87 U	1.7 U	0.72 U	1.1 U
	IAQ-03	7/20/2011	3.45	10.70	1.11	4.52	0.72 U	2.60
	IAQ-03	10/6/2011	14.00	41.90	3.49	10.10	0.72 U	6.36
	IAQ-03	3/23/2012	4.86	17.80	1.56	5.82	0.72 U	1.1 U
	IAQ -03A	3/23/2012	4.19	15.30	1.39	5.08	0.72 U	1.1 U
	IAQ -03	6/14/2012	4.31	10.20	0.87 U	2.30	0.72 U	1.1 U
	IAQ -03	9/27/2012	5.24	12.90	1.39	5.30	0.72 U	1.83
1st Floor	IAQ-02	8/20/2010	2.00	4.88	0.87 U	1.7 U	0.72 U	1.2
	IAQ-02	4/26/2011	1.08	2.03	0.87 U	1.7 U	0.72 U	1.1 U
	IAQ-02	7/20/2011	2.23	4.31	0.90	3.97	0.72 U	1.32
	IAQ-02	10/6/2011	1.39	2.68	0.87 U	1.7 U	0.72 U	1.75
	IAQ-02	3/23/2012	2.24	6.75	0.91	2.82	0.72 U	1.1 U
	IAQ-02	6/14/2012	0.64U	0.75U	0.87 U	1.7 U	0.72 U	1.1 U
	IAQ-02	9/27/2012	0.93	1.58	0.87 U	1.7 U	0.72 U	1.1 U
	Basement	IAQ-01	8/20/2010	2.71	4.56	0.87 U	1.7 U	0.72 U
IAQ-01		4/26/2011	1.05	3.08	0.87 U	1.7 U	0.72 U	1.1 U
IAQ-01		7/20/2011	5.02	5.80	0.97	3.65	0.72 U	2.98
IAQ-01		10/6/2011	1.74	4.09	0.87 U	1.7 U	0.72 U	3.04
IAQ-01		3/23/2012	2.40	6.82	0.87 U	2.43	0.72 U	1.1 U
IAQ -01A		3/23/2012	2.36	6.44	0.87 U	2.39	0.72 U	1.1 U
SV-01		3/23/2012	10.20	9.69	1.00	4.69	0.72 U	1.1 U
SV-02		3/23/2012	1.47	2.26	1.74 U	3.4 U	1.44 U	2.2 U
IAQ-01		6/14/2012	0.64U	0.79	0.87 U	1.7 U	0.72 U	1.1 U
IAQ-01		9/27/2012	1.12	2.22	0.87 U	1.7 U	0.72 U	1.1 U
Outside		AA-01	8/20/2010	1.16	3.32	0.87 U	1.7 U	0.72 U
	AA-01	4/26/2011	0.64 U	1.07	0.87 U	1.7 U	0.72 U	1.1 U
	AA-01	7/20/2011	0.81	2.85	0.87 U	1.7 U	0.72 U	1.1 U
	AA-01	10/6/2011	0.64U	2.73	0.87 U	1.7 U	0.72 U	1.38
	AA-01	3/23/2012	1.82	5.80	0.87 U	2.04	0.72 U	1.1 U
	AA-01	6/14/2012	0.64U	0.75U	0.87 U	1.7 U	0.72 U	1.1 U
	AA-01	9/27/2012	0.64U	1.58	0.87 U	1.7 U	0.72 U	1.1 U

All results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

L = suspect artifact

U = less than reported quantitation limit

B = detected in laboratory blank

AA-01 located outside of basement door which was in down wind direction

SV-01 located in basement near sump

SV-02 located in basement near bathroom

ATTACHMENT D

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: **RF-64**

Project Number: 05-056 RF-64

Project Manager: Jeffery Stein

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Report Issued: 10/08/12 10:31

Jessup MD, 20794

CLIENT SAMPLE ID:	7950-IAQ-01	1205-IAQ-01	1205-IAQ-02	1205-IAQ-03	1207-IAQ-01	1207-IAQ-02
LAB SAMPLE ID:	2092806-01	2092806-02	2092806-03	2092806-04	2092806-05	2092806-06
SAMPLE DATE:	09/27/12	09/28/12	09/28/12	09/28/12	09/28/12	09/28/12
RECEIVED DATE:	09/28/12	09/28/12	09/28/12	09/28/12	09/28/12	09/28/12
MATRIX	Units	Vapor	Vapor	Vapor	Vapor	Vapor

VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (Vapor)

		44.5	13.1	11.9	13.5	47.0	48.3
Acetone	ug/m ³	44.5	13.1	11.9	13.5	47.0	48.3
Benzene	ug/m ³	0.93	<0.64	<0.64	0.77	1.12	0.93
Benzyl chloride	ug/m ³	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromodichloromethane	ug/m ³	<1.30	<1.30	<1.30	<1.30	<1.30	<1.30
Bromoform	ug/m ³	<2.10	<2.10	<2.10	<2.10	<2.10	<2.10
Bromomethane	ug/m ³	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78
1,3-Butadiene	ug/m ³	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
Carbon disulfide	ug/m ³	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62
Carbon tetrachloride	ug/m ³	<1.30	<1.30	<1.30	<1.30	<1.30	<1.30
Chlorobenzene	ug/m ³	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92
Chloroethane	ug/m ³	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53
Chloroform	ug/m ³	1.81	<0.97	<0.97	1.37	2.39	2.49
Chloromethane	ug/m ³	1.88	0.91	0.97	0.97	1.14	1.05
3-Chloropropene	ug/m ³	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63
Cyclohexane	ug/m ³	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69
Dibromochloromethane	ug/m ³	<1.30	<1.30	<1.30	<1.30	<1.30	<1.30
1,2-Dibromoethane (EDB)	ug/m ³	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40
1,2-Dichlorobenzene	ug/m ³	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20
1,3-Dichlorobenzene	ug/m ³	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20
1,4-Dichlorobenzene	ug/m ³	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20
Dichlorodifluoromethane	ug/m ³	1.73	1.78	1.88	1.88	1.98	2.03
1,1-Dichloroethane	ug/m ³	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
1,2-Dichloroethane	ug/m ³	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
1,1-Dichloroethene	ug/m ³	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79
cis-1,2-Dichloroethene	ug/m ³	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79
trans-1,2-Dichloroethene	ug/m ³	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79
1,2-Dichloropropane	ug/m ³	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92
cis-1,3-Dichloropropene	ug/m ³	<0.91	<0.91	<0.91	<0.91	<0.91	<0.91
trans-1,3-Dichloropropene	ug/m ³	<0.91	<0.91	<0.91	<0.91	<0.91	<0.91
1,4-Dioxane	ug/m ³	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72
Ethyl acetate	ug/m ³	2.45	<0.72	<0.72	<0.72	3.86	5.95
Ethylbenzene	ug/m ³	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87
4-Ethyltoluene	ug/m ³	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98
Freon 113	ug/m ³	<1.50	<1.50	<1.50	<1.50	<1.50	<1.50
Freon 114	ug/m ³	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40
Heptane	ug/m ³	2.38	<0.82	<0.82	<0.82	<0.82	<0.82

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: RF-64

Project Number: 05-056 RF-64

Project Manager: Jeffery Stein

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Report Issued: 10/08/12 10:31

Jessup MD, 20794

CLIENT SAMPLE ID:	7950-IAQ-01	1205-IAQ-01	1205-IAQ-02	1205-IAQ-03	1207-IAQ-01	1207-IAQ-02
LAB SAMPLE ID:	2092806-01	2092806-02	2092806-03	2092806-04	2092806-05	2092806-06
SAMPLE DATE:	09/27/12	09/28/12	09/28/12	09/28/12	09/28/12	09/28/12
RECEIVED DATE:	09/28/12	09/28/12	09/28/12	09/28/12	09/28/12	09/28/12
MATRIX	Units	Vapor	Vapor	Vapor	Vapor	Vapor

VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)

	7950-IAQ-01	1205-IAQ-01	1205-IAQ-02	1205-IAQ-03	1207-IAQ-01	1207-IAQ-02
Hexachlorobutadiene	ug/m ³	<2.10	<2.10	<2.10	<2.10	<2.10
Hexane	ug/m ³	<14.0	<14.0	<14.0	<14.0	<14.0
2-Hexanone	ug/m ³	<0.82	<0.82	<0.82	<0.82	<0.82
Methyl tert-butyl ether (MTBE)	ug/m ³	<0.72	<0.72	<0.72	<0.72	<0.72
Methylene chloride	ug/m ³	<14.0	<14.0	<14.0	<14.0	<14.0
Methyl ethyl ketone (2-Butanone)	ug/m ³	3.92	1.36	1.24	1.50	1.89
Methyl isobutyl ketone	ug/m ³	<0.82	<0.82	<0.82	<0.82	<0.82
Naphthalene	ug/m ³	<1.10	<1.10	<1.10	<1.10	<1.10
Propene	ug/m ³	<0.34	<0.34	<0.34	<0.34	<0.34
Styrene	ug/m ³	<0.85	<0.85	<0.85	<0.85	<0.85
1,1,2,2-Tetrachloroethane	ug/m ³	<1.40	<1.40	<1.40	<1.40	<1.40
Tetrachloroethene	ug/m ³	<1.40	<1.40	<1.40	<1.40	<1.40
Tetrahydrofuran	ug/m ³	<0.59	<0.59	<0.59	<0.59	<0.59
Toluene	ug/m ³	4.15	3.62	2.00	2.34	2.22
1,2,4-Trichlorobenzene	ug/m ³	<1.50	<1.50	<1.50	<1.50	<1.50
1,1,1-Trichloroethane	ug/m ³	<1.10	<1.10	<1.10	<1.10	<1.10
1,1,2-Trichloroethane	ug/m ³	<1.10	<1.10	<1.10	<1.10	<1.10
Trichloroethene	ug/m ³	<1.10	<1.10	<1.10	<1.10	<1.10
Trichlorofluoromethane	ug/m ³	5.00	<1.10	<1.10	<1.10	1.97
1,2,4-Trimethylbenzene	ug/m ³	<0.98	1.18	<0.98	<0.98	<0.98
1,3,5-Trimethylbenzene	ug/m ³	<0.98	<0.98	<0.98	<0.98	<0.98
2,2,4-Trimethylpentane	ug/m ³	1.50	2.06	1.59	2.15	1.07
Vinyl acetate	ug/m ³	7.22	<0.70	<0.70	<0.70	<0.70
Vinyl bromide	ug/m ³	<0.87	<0.87	<0.87	<0.87	<0.87
Vinyl chloride	ug/m ³	<0.51	<0.51	<0.51	<0.51	<0.51
o-Xylene	ug/m ³	<0.87	<0.87	<0.87	<0.87	<0.87
m- & p-Xylenes	ug/m ³	<1.70	1.82	<1.70	<1.70	<1.70

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: RF-64

Project Number: 05-056 RF-64

Project Manager: Jeffery Stein

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Report Issued: 10/08/12 10:31

Jessup MD, 20794

CLIENT SAMPLE ID:	1207-IAQ-03	1207-AA-01
LAB SAMPLE ID:	2092806-07	2092806-08
SAMPLE DATE:	09/28/12	09/28/12
RECEIVED DATE:	09/28/12	09/28/12
MATRIX	Units	Vapor

VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (Vapor)

Compound	Units	1207-IAQ-03	1207-AA-01
Acetone	ug/m ³	<u>110 [1]</u>	<u>7.84</u>
Benzene	ug/m ³	<u>5.24</u>	<0.64
Benzyl chloride	ug/m ³	<1.00	<1.00
Bromodichloromethane	ug/m ³	<1.30	<1.30
Bromoform	ug/m ³	<2.10	<2.10
Bromomethane	ug/m ³	<0.78	<0.78
1,3-Butadiene	ug/m ³	<u>6.02</u>	<0.44
Carbon disulfide	ug/m ³	<0.62	<0.62
Carbon tetrachloride	ug/m ³	<1.30	<1.30
Chlorobenzene	ug/m ³	<0.92	<0.92
Chloroethane	ug/m ³	<0.53	<0.53
Chloroform	ug/m ³	<u>2.93</u>	<0.97
Chloromethane	ug/m ³	<u>6.73</u>	<u>0.97</u>
3-Chloropropene	ug/m ³	<0.63	<0.63
Cyclohexane	ug/m ³	<0.69	<0.69
Dibromochloromethane	ug/m ³	<1.30	<1.30
1,2-Dibromoethane (EDB)	ug/m ³	<1.40	<1.40
1,2-Dichlorobenzene	ug/m ³	<1.20	<1.20
1,3-Dichlorobenzene	ug/m ³	<1.20	<1.20
1,4-Dichlorobenzene	ug/m ³	<1.20	<1.20
Dichlorodifluoromethane	ug/m ³	<u>1.83</u>	<u>1.93</u>
1,1-Dichloroethane	ug/m ³	<0.81	<0.81
1,2-Dichloroethane	ug/m ³	<u>1.13</u>	<0.81
1,1-Dichloroethene	ug/m ³	<0.79	<0.79
cis-1,2-Dichloroethene	ug/m ³	<0.79	<0.79
trans-1,2-Dichloroethene	ug/m ³	<0.79	<0.79
1,2-Dichloropropane	ug/m ³	<0.92	<0.92
cis-1,3-Dichloropropene	ug/m ³	<0.91	<0.91
trans-1,3-Dichloropropene	ug/m ³	<0.91	<0.91
1,4-Dioxane	ug/m ³	<0.72	<0.72
Ethyl acetate	ug/m ³	<u>17.1</u>	<0.72
Ethylbenzene	ug/m ³	<u>1.39</u>	<0.87
4-Ethyltoluene	ug/m ³	<0.98	<0.98
Freon 113	ug/m ³	<1.50	<1.50
Freon 114	ug/m ³	<1.40	<1.40
Heptane	ug/m ³	<u>1.39</u>	<0.82

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Analytical Results

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Jessup MD, 20794

CLIENT SAMPLE ID:	1207-IAQ-03	1207-AA-01
LAB SAMPLE ID:	2092806-07	2092806-08
SAMPLE DATE:	09/28/12	09/28/12
RECEIVED DATE:	09/28/12	09/28/12
MATRIX	Units	Vapor

VOLATILE ORGANICS BY EPA METHOD TO-15 (GC/MS) (continued)

Hexachlorobutadiene	ug/m ³	<2.10	<2.10
Hexane	ug/m ³	<14.0	<14.0
2-Hexanone	ug/m ³	0.90	<0.82
Methyl tert-butyl ether (MTBE)	ug/m ³	<0.72	<0.72
Methylene chloride	ug/m ³	<14.0	<14.0
Methyl ethyl ketone (2-Butanone)	ug/m ³	6.28	0.97
Methyl isobutyl ketone	ug/m ³	<0.82	<0.82
Naphthalene	ug/m ³	1.83	<1.10
Propene	ug/m ³	20.1	<0.34
Styrene	ug/m ³	2.30	<0.85
1,1,2,2-Tetrachloroethane	ug/m ³	<1.40	<1.40
Tetrachloroethene	ug/m ³	<1.40	<1.40
Tetrahydrofuran	ug/m ³	<0.59	<0.59
Toluene	ug/m ³	12.9	1.58
1,2,4-Trichlorobenzene	ug/m ³	<1.50	<1.50
1,1,1-Trichloroethane	ug/m ³	<1.10	<1.10
1,1,2-Trichloroethane	ug/m ³	<1.10	<1.10
Trichloroethene	ug/m ³	<1.10	<1.10
Trichlorofluoromethane	ug/m ³	1.18	<1.10
1,2,4-Trimethylbenzene	ug/m ³	<0.98	<0.98
1,3,5-Trimethylbenzene	ug/m ³	<0.98	<0.98
2,2,4-Trimethylpentane	ug/m ³	2.06	1.50
Vinyl acetate	ug/m ³	<0.70	<0.70
Vinyl bromide	ug/m ³	<0.87	<0.87
Vinyl chloride	ug/m ³	<0.51	<0.51
o-Xylene	ug/m ³	1.04	<0.87
m- & p-Xylenes	ug/m ³	4.26	<1.70

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Client Contact Information		Project Manager: <u>Jeff Stern</u>		Carrier: <u>AEC</u>		1 of 1 COCs				
Company: <u>Adventure Env. Consultants LLC</u>		Phone: <u>301-776-0500</u>		Samplers Name(s) <u>Tony Rubino</u>		Analysis Matrix				
Address: <u>8610 Washington Blvd.</u>		Site Contact: <u>Jeff Stern</u>				TO-15 FULL LIST				
City/State/Zip: <u>Jessup MD 20794</u>						TO-15 ABBREVIATED LIST				
Phone: <u>301-776-0500</u>						Indoor / Ambient Air				
FAX: <u>301-776-1123</u>						Soil Gas / Subslab				
Project Name: <u>RF-64</u>		Analysis Turnaround Time								
Site: <u>RF-64/205, 1207 Chesapeake Ave.</u>		Standard (Specify) <u>X</u>								
PO # <u>05-056 RF-64</u>		Rush (Specify)								
Client Sample ID	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size (L)	Comments
7950-IAQ-01	9/27/12	0852	1652	-30	-3		S-AF	066	6	209280601
1205-IAQ-01	9/27-28/12	0900	0900	-30	-2		S-E	045		02
1205-IAQ-02		0902	0902	-30	-4		S-MN	024		03
1205-IAQ-03		0904	0904	-30	-3		S-XX	023		04
1207-IAQ-01		1039	1028	-30	-7		S-AA	017		05
1207-IAQ-02		1035	1026	-30	-4		S-AO	072		06
1207-IAQ-03		1052	1024	-30	-4		S-T	070		07
1207- IAQ AA-01		1042	1032	-30	-6		S-LL	018		08
Special Instructions/QC Requirements & Comments: <u>jsstern@aec-env.com</u>										

Capisters Shipped by: <u>Carl R. C.</u>	Date/Time: <u>9/28/12</u>	Capisters Received by: <u>[Signature]</u>	Date/Time: <u>9-28-12 11am</u>
Samples Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time: