



MARYLAND DEPARTMENT OF THE ENVIRONMENT
Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
410-537-3442 410-537-3092 (fax) 1-800-633-6101, ext. 3442

Larry Hogan
Governor

Ben Grumbles
Secretary

Boyd Rutherford
Lieutenant Governor

October 27, 2015

Mr. Herbert M. Meade
Environmental, Health and Safety Director
Carroll Independent Fuel Company
2700 Loch Raven Road
Baltimore MD 21218

RE: APPROVAL FOR MONITORING WELL ABANDONMENT
Case No. 2005-0834-FR
Green Valley Citgo
11791 Fingerboard Road, Monrovia
Frederick County, Maryland
Facility I.D. No. 11836

Dear Mr. Meade:

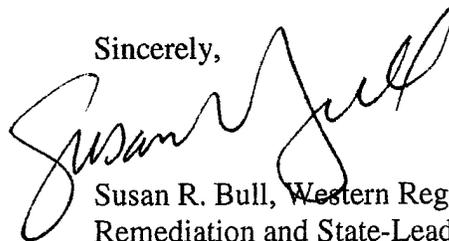
The Oil Control Program recently completed a review of the case file for the above-referenced property, including the *MW-18S Replacement Well Installation Report - March 17, 2015* and the *Second Quarter 2015 Monitoring Report - August 14, 2015*. In January 2015, a Maryland-licensed well driller completed the installation of replacement monitoring well MW-18S-R. The replacement well is located in close proximity to MW-18S and downgradient of the former In-situ Chemical Oxidation (ISCO) treatment system injection wells. The replacement well was installed to obtain additional geochemical information for the subsurface formation and to determine if the time series data collected from original monitoring well MW-18S is anomalous or if it is representative of impacts relating to the ISCO activities.

During replacement well installation, soil and groundwater samples were analyzed and compared to the previously reported data (i.e., geochemical, metals, and volatile organic compounds [VOCs]) obtained from original monitoring well MW-18S and the monitoring well network. When compared to the times series data, the soil and groundwater data obtained from MW-18S-R indicates that the replacement well will serve as a representative monitoring point for the continued evaluation of groundwater conditions in the vicinity of the active underground storage tank (UST) systems. The data confirms that original monitoring well MW-18S does not provide representative samples of the subsurface formation. Based on our review, the Department requires the following:

- 1) **No later than November 30, 2015**, properly abandon monitoring well MW-18S in accordance with Code of Maryland Regulations (COMAR) 26.04.04.34-.37 and under the direction of a Maryland-licensed well driller. Upon completion of well abandonment activities, provide a copy of the well abandonment report to both the Oil Control Program (Attn: Mr. Jim Richmond) and the Frederick County Health Department (Attn: Mr. Barry Glotfelty). The Oil Control Program anticipates receiving the well abandonment report **no later than December 30, 2015**.
- 2) Notify the Oil Control Program at least five working days prior to completing well abandonment so we have an opportunity to observe field activities.
- 3) Continue the collection/analysis of on-site and off-site groundwater samples in accordance with the Department's July 29, 2015 correspondence (copy enclosed), excluding the requirements of item 10. All samples collected from the monitoring well network must be analyzed for full-suite volatile organic compounds, including fuel oxygenates and naphthalene, using EPA Method 8260 and for total petroleum hydrocarbons - gasoline range organics (TPH-GRO) using EPA Method 8015.

If you have any questions, please contact the case manager, Mr. Jim Richmond, at 410-537-3337 (jim.richmond@maryland.gov) or me at 410-537-3499 (susan.bull@maryland.gov)

Sincerely,



Susan R. Bull, Western Regional Manager
Remediation and State-Lead Division
Oil Control Program

JWR/nln

Enclosure: Site Status and Modifications to Sampling Program - July 29, 2015

cc: Mr. Steven M. Slatnick (Groundwater and Environmental Services, Inc.)
Mr. Barry Glotfelty (Frederick County Health Dept.)
Mr. John Grace (MDE-Water Supply Program)
Mr. Andrew B. Miller
Mr. Christopher H. Ralston
Priscilla N. Carroll
Ms. Hilary Miller



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July 29, 2015

Mr. Herbert M. Meade
Environmental, Health and Safety Director
Carroll Independent Fuel Company
2700 Loch Raven Road
Baltimore MD 21218

RE: SITE STATUS AND MODIFICATIONS TO SAMPLING PROGRAM

Case No. 2005-0834-FR

Green Valley Citgo

11791 Fingerboard Road, Monrovia

Frederick County, Maryland

Facility I.D. No. 11836

Dear Mr. Meade:

The Oil Control Program has completed a review of the case file for the above-referenced property, including the *Fourth Quarter 2014 Monitoring Report with Data Trend Analysis and Revised Monitoring Plan - February 15, 2015* and the *First Quarter 2015 Monitoring Report - May 15, 2015*. In October 2014, the Department approved the *Revised Corrective Action Plan (CAP)* and agreed to amend the groundwater sampling program to include the analysis of certain groundwater parameters to determine if natural attenuation of the contaminant plume is occurring at this site. As part of the *Revised CAP*, the Department required regularly scheduled sampling of the on-site monitoring well network and supply wells and the off-site private drinking water supply wells.

In April 2015, methyl tertiary-butyl ether (MTBE) was reported up to 96 parts per billion (ppb) in one of the six off-site private drinking water supply wells retrofitted with a granular activated carbon (GAC) filtration system. With the exception of the six GAC protected wells, all other off-site private drinking water supply wells have remained non-detect or well below established safe drinking water standards for petroleum constituents for a period of approximately eight years. After evaluating the time series groundwater data and considering the decreasing trend of the dissolved phase petroleum contaminants, the *Fourth Quarter 2014 Monitoring Report with Data Trend Analysis and Revised Monitoring Plan - February 15, 2015* proposes additional changes to the groundwater sampling program. The proposed changes include discontinuing sampling of specific on-site monitoring wells, several on-site supply wells, and multiple off-site private drinking water supply wells.



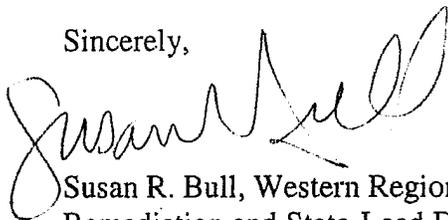
Based on our review of information provided and the decreasing trends of petroleum constituents in the groundwater data, the Department agrees to amend the groundwater sampling program as outlined below. The on-site and off-site drinking water supply wells at which sampling has been discontinued remain in the study area. The Department reserves the right to require additional sampling based on changing site conditions.

- 1) The Department no longer requires the sampling of monitoring wells MW-4, MW-5, MW-6, and MW-12. Continue quarterly sampling of all other on-site monitoring wells and tank field monitoring pipes. All samples collected from the monitoring well network must be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, using EPA Method 8260 and for total petroleum hydrocarbons - gasoline range organics (TPH-GRO) using EPA Method 8015.
- 2) Continue quarterly sampling/data collection from the on-site monitoring well network for the monitored natural attenuation parameters as approved by the Department in October 2014.
- 3) Continue quarterly sampling of Green Valley Plaza supply wells FR-94-1233 and FR-94-1281 and the Green Valley Plaza POET system.
- 4) All samples collected from the referenced supply wells must be analyzed for full suite VOCs, including fuel oxygenates and naphthalene, in accordance with EPA Method 524.2.
- 5) The Department requires operation of the GAC filtration system on the combined flow from supply wells FR-94-1233 and FR-94-1281.
- 6) Continue quarterly sampling of the following off-site private drinking water supply wells:
 - 3990, 3992, 3994, 3996, 3997 Farm Lane; and 3923 Rosewood Road
- 7) Continue semi-annual sampling of the following off-site private drinking water supply wells:
 - 3991, 3993, 3995 and 3998 Farm Lane; and 3740 Blueberry Court
- 8) All samples collected from the referenced off-site private drinking water supply wells must be analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, in accordance with EPA Method 524.2. Where GAC filtration systems are installed and maintained by Carroll Independent Fuel Company, the samples must be collected pre-, mid-, and post-filtration.
- 9) By copy of this letter, the respective property owners (see enclosed list) have received notification that the Department is no longer requiring the collection of samples from their private drinking water supply wells. The analytical data collected from these wells confirms that contaminant concentrations have remained non-detect or well below established safe drinking water standards for more than eight years.

- 10) Analyze a final round of samples for total and dissolved lead and chromium, and hexavalent chromium from monitoring wells MW-7, MW-13, MW-15D, MW18S, MW-18D, MW-18S-R, and supply wells FR-94-1233 and FR-81-5955, as agreed in the *Notice of Dispute Response – November 7, 2014*. The Department will provide comments under separate cover *MW-18S Replacement Well Installation Report - March 17, 2015*.
- 11) Continue to submit groundwater monitoring reports as required by the Administrative Consent Order. Continue to evaluate and discuss the data obtained as part of the *Revised CAP* activities and determine if groundwater conditions warrant the initiation of a more aggressive remedial technology beyond monitored natural attenuation.

If you have any questions, please contact the case manager, Mr. Jim Richmond, at 410-537-3337 (jim.richmond@maryland.gov) or me at 410-537-3499 (susan.bull@maryland.gov)

Sincerely,



Susan R. Bull, Western Regional Manager
Remediation and State-Lead Division
Oil Control Program

JWR/nln

Enclosure: List of Properties Approved to be Removed from Sampling Requirements

cc: Mr. Steven M. Slatnick (Groundwater and Environmental Services, Inc.)
Mr. Barry Glotfelty (Frederick County Health Dept.)
Mr. John Grace (MDE-Water Supply Program)
Priscilla N. Carroll, Esq.
Mr. Andrew B. Miller
Mr. Christopher H. Ralston
Ms. Hilary Miller