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July 30, 2020  
Kleinfelder Project No.: 20193011.001A

Mr. Christopher Ralston  
Maryland Department of the Environment  
Remediation Division, Oil Control Program  
1800 Washington Blvd., Suite 620  
Baltimore, MD 21230-1719

**SUBJECT: BIOSPARGE PILOT TEST REPORT AND WORKPLAN  
Inactive Exxon Facility #28077  
14258 Jarrettsville Pike, Phoenix, Maryland  
Case Number 2006-0303-BA2  
Facility I.D. No. 12342**

Dear Mr. Ralston:

Enclosed please find the Biosparge Pilot Test Report and Workplan for the above referenced site. Three hard copies and one electronic copy of the report are included in this submittal.

The workplan portion is requesting MDE-approval for continuation of the same air-sparge activity in MW-91C as completed during the pilot test reported herein.

Please feel free to contact us at 410.850.0404 if you have questions or require additional information.

Sincerely,

**KLEINFELDER**

Leslie D. Steele, P.E.  
Principal Engineer

Mark J. Schaaf, C.P.G.  
Project Director

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**BIOSPARGE PILOT TEST REPORT AND  
WORKPLAN  
INACTIVE EXXON FACILITY #28077  
14258 JARRETTSVILLE PIKE  
PHOENIX, BALTIMORE COUNTY, MARYLAND  
MDE CASE # 2006-0303-BA2  
KLEINFELDER PROJECT NO.: 20193011.001A**

**JULY 30, 2020**

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PROJECT FOR WHICH THIS REPORT WAS PREPARED.**

A Report Prepared for:

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Maryland Department of the Environment  
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**BIOSPARGE PILOT TEST REPORT AND WORK PLAN  
INACTIVE EXXON FACILITY #28077  
14258 JARRETTSVILLE PIKE  
PHOENIX, BALTIMORE COUNTY, MARYLAND  
MDE CASE # 2006-0303-BA2  
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July 30, 2020  
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## 1 INTRODUCTION

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This report presents the testing, results, and evaluation of data for biosparge field pilot testing performed at the site to evaluate lines of evidence indicating biosparging can enhance the activity and effectiveness of biodegradation of constituents of concern (COCs) at the former Exxon service station (#28077) located in Phoenix, Baltimore County, Maryland (**Figure 1**). The area of biosparge pilot testing discussed in this report is shown on **Figure 2**.

### 1.1 BACKGROUND

Since the 2006 release of gasoline, a combination of total fluids pumping, multi-phase vacuum extraction, and soil vapor extraction have been effective at removing hydrocarbon mass. Concentrations of dissolved-phase hydrocarbons have been significantly reduced and the lateral extent of COC impacts exceeding the Maryland Department of the Environment (MDE) standards has been achieved as the result of these remediation activities.

### 1.2 PREVIOUS MNA PARAMETER AND MICROBIAL ACTIVITY ASSESSMENT

An evaluation of natural attenuation at monitoring wells was proposed (Kleinfelder, 2019a) to determine whether groundwater conditions at the Site are conducive to natural attenuation, principally biodegradation. The proposal was approved by the MDE in letter dated March 20, 2019, and MNA assessment was completed consistent with the Work Plan.

The conclusions of the MNA assessment suggested there is potential for microbial biodegradation in shallow and deeper portions of the aquifer based on the following observations and conditions:

- There is an abundance of MtBE and BTEX degraders present throughout the aquifer, especially aerobic degraders.
- Microbial environmental conditions (temperature and pH) are within the optimal range for microbial activity, and the microbial nutrient, orthophosphate, is available.
- Oxygen is available for aerobic biodegradation:
  - Positive ORP conditions exist throughout much of the aquifer
  - The shallow zone is replenished with oxygenated water through recharge and water table fluctuation.

A discrete area of negative ORP occurs in the deeper portion of the aquifer beneath 3501 Hampshire Glen Court, which corresponds to residual concentrations of gasoline constituents that remain sequestered at depth. Additionally, this zone does not experience as much remediation influence nor substantial replenishment of oxygenated water via recharge. This pattern is evidence of active biodegradation occurring at the remaining 'pocket' of sequestered and recalcitrant gasoline constituents in the aquifer. Downgradient migration of gasoline constituents, particularly MtBE from this area would enter an aerobic portion of the aquifer with the dissolved oxygen capacity and aerobic MtBE degraders necessary to degrade and mineralize MtBE, limiting migration. Additionally, this area beneath 3501 Hampshire Glen Court was determined as a candidate for enhanced biodegradation by the addition of dissolved oxygen (Kleinfelder 2019b).

Results of the natural attenuation study indicated that environmental conditions (temperature and pH) are within optimal ranges for microbial activity and that the microbial nutrient orthophosphate is available to support microbial activity. ORP is predominantly positive throughout the shallow zone, reflecting aquifer restoration due to the removal of gasoline constituents by active remediation (**Figure 3a**). The shallow zone is also more directly replenished by recharge of oxygenated water from precipitation and is susceptible to aeration as the water table fluctuates. This is favorable for aerobic biodegradation in the shallow zone. The deep zone also exhibits positive ORP, but less than the shallow zone (**Figure 3b**). The deep zone is not as susceptible to direct recharge of oxygenated water or aerating water table fluctuations (Kleinfelder 2019b).

Depletion of electron acceptors (dissolved oxygen, nitrate, and sulfate) and accumulation of redox byproducts are not strongly indicated, which is consistent with the spatial distribution of predominantly positive ORP in the aquifer. This is attributed to contaminant mass removal / aquifer restoration, replenishment of oxygenated water to the shallow zone, and potential limited electron acceptor availability with regards to nitrate. This is not an indicator adverse to biodegradation, rather it is an indicator of improved aquifer conditions and an abundance of dissolved oxygen (oxygenated water) to support aerobic biodegradation. Monitoring well MW-184, located within the discrete zone of negative ORP beneath 3501 Hampshire Glen Court, exhibits the lowest detected nitrate concentration, consistent with negative ORP and indicating biodegradation. Microbial results are favorable, indicating a high abundance of the aerobic MtBE and BTEX degraders with a moderate abundance of anaerobic BTEX degraders (Kleinfelder 2019b). Also, of note is the property at 3506 Hampshire Glen Court, which has groundwater monitoring wells located approximately 250 feet downgradient from the proposed biosparge well. Historical groundwater field and analytical results for beneath this property indicated dissolved concentrations of MtBE that exceed MDE threshold criteria.

### 1.3 PURPOSE AND OBJECTIVES

Biosparge pilot testing was proposed for a select area of the site (Kleinfelder, 2019b and 2019c). The biosparge pilot test was designed to assess the feasibility and effectiveness of enhancing naturally occurring aerobic biodegradation of constituents of concern (COCs) in the aquifer by evaluating multiple lines of evidence, including:

- The presence of microbes capable of degrading gasoline constituents, including methyl tertiary butyl ether (MtBE);
- Whether these degraders are active;
- Geochemical indicators of biodegradation through aerobic and/or anaerobic processes; and,
- Whether aquifer conditions are favorable for, or can be enhanced to facilitate, microbial activity.



## 2 BIOSPARGE PILOT TESTING, MONITORING, SAMPLING AND ANALYSIS

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A biosparge pilot test was performed from November 2019 to mid-April 2020 to assess the effectiveness of enhancing biodegradation occurring in the dissolved phase at the site. Biosparge pilot testing was performed in the area shown on **Figure 2**. Biosparge pre-, during-, and post-pilot test activities are described below.

Field monitoring, and sampling and analysis activities conducted during the biosparge pilot test, included: 1) additional study of naturally occurring microbes in groundwater samples collected from select wells, with the assistance of Microbial Insights, Inc.; 2) field monitoring for several MNA parameters; 3) collecting of MNA parameter data using transducers and in-well probes at select wells; and, 4) groundwater sampling and analyses at selected wells. This section presents the testing, sampling, and analysis, including the monitoring well network used during the biosparge pilot test, and field and laboratory methods utilized. The full testing, sampling, and analysis plan in the form of a matrix organized by site area, monitoring wells, and testing/analyses is presented in **Table 1**.

### 2.1 TARGETED BIOSPARGE PILOT TESTING

A targeted biosparge pilot test was performed to evaluate the effectiveness of stimulating and/or enhancing aerobic biodegradation within the deeper saturated zone beneath 3501 Hampshire Glen Court, by injecting oxygen into the aquifer upgradient. The current groundwater remediation system for inactive Exxon Facility #28077 is configured to distribute compressed air to multiple recovery wells containing pneumatic groundwater recovery pumps. The engineering concept was to use the existing air compressor and airlines to sparge air into an existing well (MW-91C) at a relatively low flowrate compared to air sparging. This was expected to increase the amount of dissolved oxygen in the formation with the goal of stimulating and enhancing aerobic biodegradation. The biosparge pilot test included:

- 1) Evaluating the ability to deliver air into groundwater using existing apparatus and infrastructure;
- 2) Evaluating the ability to oxygenate the aquifer proximate to and downgradient of the biosparge well; and,

- 3) Monitoring for evidence of enhanced biodegradation as a result of oxygen delivery into the aquifer.

## 2.2 BIOSPARGE PILOT TEST AND MONITORING WELL NETWORK

The biosparge pilot test was conducted by using well MW-91C for injection of oxygen into the aquifer, and using wells MW-91, MW-183 [R], MW-184 [R], and MW-185 [R] as primary observation wells to monitor the effects of biosparging at Well MW-91C. In addition, field monitoring, sampling, and analyses were conducted at MW-47C, MW-138D [R], MW-168, MW-171C, MW-176 [R], and MW-177, as needed.

### 2.2.1 Pilot Test Layout and Configuration

Well MW-91C, located in the middle of 3501 Hampshire Glen Court (**Figure 2**), was identified as the candidate biosparge pilot test delivery well for the following reasons:

- Groundwater monitoring results at this well exhibited negative ORP (-112.5 mV during the first 2019 semiannual groundwater sampling event), indicating biodegradation can be enhanced with additional dissolved oxygen;
- Groundwater monitoring results at this well exhibit residual concentrations of MtBE (16 µg/L [March 13, 2019]) that can be further reduced;
  - MW-91C is central to the discrete 'pocket' of negative ORP and within the northeast line of dissolved MtBE plume migration along strike;
  - The formation near MW-91C has a demonstrated water-bearing fracture at approximately 145 feet below top of casing (ft-toc) that may facilitate delivery of oxygenated water into the formation (Kleinfelder, August 15, 2011);
  - MW-91C was recently deactivated as a recovery well, and is equipped with necessary air delivery apparatus, and would not require removing from service an active recovery well;
  - Downgradient monitoring wells (MW-185 [R] and MW-177) also exhibit negative ORP and residual dissolved MtBE concentrations, making these appropriate as relevant monitoring locations;
  - Downgradient migration of dissolved oxygen may be enhanced with newly activated recovery well MW-138D [R] located farther downgradient.

## 2.2.2 Methodology and Sequence

The steps of the testing methodology performed are summarized below:

- 1) Collected and analyzed groundwater samples for BTEX and MtBE, ethyl tertiary butyl ether (EtBE), tertiary butyl alcohol (TBA), tertiary amyl methyl ether (TAME), and ethanol (collectively known as Oxy5) per Method 8260B and measured baseline field parameter readings (DO, ORP, pH, temperature, and ferrous iron via field test kit) and depth to groundwater in MW-91, MW-91C, MW-185 [R], MW-176 [R], MW-177, and MW-168, prior to initiating biosparging.
- 2) Reconfigured existing pumping and tubing apparatus in MW-91C to deliver air for biosparging, targeting the prominent water-bearing fracture in MW-91C, previously identified by borehole geophysical and hydraulic testing at approximately 145 ft-toc (Kleinfelder, August 15, 2011). Placed air discharge approximately 5 feet below the fracture (target depth = 150 ft-toc).
- 3) Deployed transducers in Wells MW-91 and MW-185 [R] to measure and log temperature, pH, ORP, specific conductivity, and depth to water proximate to MW-91C, and continuously for the duration of the biosparge pilot test.
- 4) Initiated biosparging in MW-91C and collected and analyzed groundwater samples from monitoring wells (MW-91, MW-168, MW-176 [R], MW-177, and MW-185 [R]) for BTEX and Oxy5 per Method 8260B and measured field parameters (DO, ORP, pH, temperature, and ferrous iron via field test kit) and depth to water approximately monthly for the duration of the biosparge pilot test (6 months).
- 5) Shut off biosparge in MW-91C and collected groundwater samples for monitoring and analyses from biosparge well MW-91C and monitoring wells MW-91, MW-185 [R], MW-176, MW-177, and MW-168, and analyzed samples for BTEX + Oxy5 analyses. Also measured field parameter readings (DO, ORP, pH, temperature, and ferrous iron test kit) and depth to groundwater in MW-91, MW-91C, MW-168, MW-176 [R], MW-177, and MW-185 [R] daily for five days.

### 2.2.3 Equipment and Apparatus

The existing pneumatic line was extended into monitoring well MW-91C and connected to a ¾-inch schedule 80 (SCH 80) polyvinyl chloride (PVC) pipe. The ¾-inch SCH 80 PVC was extended to a diffuser using couplings and adapters to the target depth of 150 ft-toc, which was approximately 5 feet below the target fracture. The dedicated airline was connected to the air delivery line within the well vault, and the air line to the pneumatic pump was disconnected from the air line in the vault, and the pneumatic pump was retrieved. The existing regulator was used to adjust the air delivery pressure and flow (approximately 65 pounds per square inch [psi] and 2 cubic feet per minute [cfm]). The air line within the well vault, leading to the diffuser, was fitted with a rotameter to allow an estimate of the volume of air/oxygen injected into groundwater during the pilot test.

## 2.3 MICROBIAL ACTIVITY SAMPLING AND ANALYSIS

Prior to initiating biosparge pilot testing, groundwater samples were collected from monitoring wells MW-91C, MW-183 [R], MW-184 [R], and MW-185 [R] and submitted to Microbial Insights, Inc. for analysis. Microbial Insights' QuantArray® analysis was performed to assess the presence of evidence of microbes capable of degrading MtBE, BTEX, polycyclic aromatic hydrocarbons (PAHs), and a variety of short and long chain alkanes by quantification of the specific functional genes responsible for both aerobic and anaerobic biodegradation of these compounds. This information was collected to supplement information included in the previous MNA assessment report. One-liter aqueous samples were collected from MW-91C, MW-183 [R], MW-184 [R], and MW-185 [R] and shipped on ice overnight to Microbial Insights in Knoxville, TN for QuantArray® analysis. The results of these analyses are discussed in Section 3, are shown on **Figures 4a through 4d**, and the Microbial Insights laboratory report is provided in **Appendix A**.

## 2.4 BASELINE DEPLOYMENT OF TRANSDUCERS

Transducers linked to down-well YSI 6920 Sondes with multiparameter probes were installed in Wells MW-91 and MW-185 [R] just prior to the biosparge pilot test to monitor dissolved oxygen (DO), oxidation reduction potential (ORP), pH, conductivity, and temperature. These transducers were retrieved, and data was downloaded for evaluation following the biosparge pilot test. Transducer data is included in **Appendix B**.

## 2.5 BASELINE MONITORING, SAMPLING, AND ANALYSIS

Prior to initiating biosparge pilot testing, depth to groundwater was gauged, groundwater was monitored for MNA parameters, and groundwater samples were collected and analyzed from monitoring wells MW-47C, MW-91, MW-91C, MW-138D [R], MW-168, MW-171C, MW-176 [R], MW-177, MW-183 [R], MW-184 [R], MW-185 [R]. MNA parameters monitored in groundwater included dissolved oxygen (DO), oxidation reduction potential (ORP), pH, conductivity, and temperature. Monitoring wells included in the biosparge pilot test well network were sampled via low-flow techniques, HydraSleeve™ or from sample ports (active recovery wells), using a YSI 6920 water quality meter to record pH, temperature, ORP, and DO. For wells usually sampled via HydraSleeve™, the samples were collected from the interval with the highest historical MtBE concentrations. For non-recovery wells without target sample depths, the pump intake was set at the middle of the water column within the screened/open hole portion of the well. The wells were allowed to stabilize before samples were collected. Samples were shipped on ice under chain-of-custody to Eurofins for analysis for BTEX and Oxy5 via EPA method 8260B. A Hach DS9000 unit and reagents were used in the field to measure ferrous iron. Groundwater samples were collected using conventional methods (low-flow, HydraSleeve™, or via the sampling port for recovery wells) from these wells and submitted to a licensed analytical laboratory for analysis for benzene, toluene, ethylbenzene, and total xylenes (BTEX), as well as for Oxy5 constituents. In addition, A Hach DS9000 unit and reagent was used in the field to measure ferrous iron in groundwater samples from select wells (MW-91C, MW-183 [R], MW-184 [R], and MW-185 [R]); and orthophosphate was tested for in groundwater samples collected from these same wells. Analytical laboratory data and select field monitoring data are summarized in **Table 2**, and analytical laboratory reports are included in **Appendix C**. Additional field monitoring and test kit data associated with baseline monitoring are tabulated in **Table D-1** in **Appendix D**.

## 2.6 BIOSPARGE PILOT TESTING OPERATIONS

As discussed above, Well MW-91C was modified to allow the injection of air into groundwater at a depth of approximately 150 feet below top of casing, which positioned air injection apparatus approximately 5 feet below a fracture observed in the formation in this well. This was anticipated to allow dispersion of air into the aquifer to enhance bioremediation occurring in the dissolved phase. Biosparging was initiated at Well MW-91C on November 5, 2019, and a flow rate of approximately two (2) cubic feet per minute (cfm) at a pressure of 65 pounds per square inch (psi). Biosparging at this flow rate and pressure continued throughout the biosparge pilot test, until it was ceased on April 20, 2020.

## 2.7 MONITORING, SAMPLING, AND ANALYSIS DURING BIOSPARGING

Monitoring of groundwater wells was performed a minimum of monthly following initiating biosparge pilot testing included depth to groundwater gauging, groundwater monitoring for DO, ORP, pH, conductivity, and temperature. Select wells were monitored for ferrous iron using field test kits. Groundwater samples were collected in the same manner as described above from monitoring wells MW-47C, MW-91, MW-91C, MW-138D [R], MW-168, MW-171C, MW-176 [R], MW-177, MW-183 [R], MW-184 [R], MW-185 [R] and analyzed for BTEX and Oxy5. MNA parameters monitored in groundwater included dissolved oxygen (DO), oxidation reduction potential (ORP), pH, and temperature. Analytical laboratory data and select field monitoring data are summarized in **Table 2**, and analytical laboratory reports are included in **Appendix C**. Additional field monitoring and test kit data associated with normal biosparge pilot testing are tabulated in **Table D-2** in **Appendix D**.

## 2.8 POST-BIOSPARGING MONITORING, SAMPLING, AND ANALYSIS

Biosparge pilot testing was ceased on April 20, 2020 by stopping air injection at Well MW-91C. Monitoring of groundwater wells was performed for five (5) days following cessation of air injection at Well MW-91C. On April 20, 2020, gauging of depth to groundwater, and groundwater monitoring for DO, ORP, pH, conductivity, and temperature, field kit testing for ferrous iron, plus analytical testing for nitrate, sulfate, methane, and carbon dioxide were performed. Select wells were monitored for ferrous iron using field test kits. Groundwater samples were collected in the same manner as described above from monitoring wells MW-47C, MW-91, MW-91C, MW-138D [R], MW-168, MW-171C, MW-176 [R], MW-177, MW-183 [R], MW-184 [R], MW-185 [R] and analyzed for BTEX and Oxy5. MNA parameters monitored in groundwater included dissolved oxygen (DO), oxidation reduction potential (ORP), pH, and temperature. Analytical laboratory data and select field monitoring data are summarized in **Table 2**, and analytical laboratory reports are included in **Appendix C**. Additional field monitoring and test kit data associated with normal biosparge pilot testing are tabulated in **Table D-3** in **Appendix D**.

Following the completion of air injection as part of the biosparge pilot test, groundwater samples were collected from monitoring wells MW-91C, MW-183 [R], MW-184 [R], and MW-185 [R] and submitted to Microbial Insights, Inc. for analysis. Microbial Insights' QuantArray® analysis was performed to assess the presence of evidence of microbes capable of degrading MtBE, BTEX, polycyclic aromatic hydrocarbons (PAHs), and short- and long-chain alkanes, as described in Section 2.3.

The results of these analyses are presented in Section 3, are shown on **Figures 5a through 5d**. The Microbial Insights laboratory report is provided in **Appendix A**.

## 3 RESULTS

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This section summarizes the field measurements, analyses, and testing results obtained for the evaluation of biosparge pilot testing conducted at the Site. Results include discussion of additional microbial testing, field parameter monitoring in groundwater, groundwater sample analytical laboratory results, field test kit results, and other observations recorded during field activities. **Table 2** summarizes and consolidates field monitoring and analytical laboratory results. Microbial testing laboratory reports provided by Microbial Insights, Inc. are included in **Appendix A**. Analytical laboratory reports for BTEX and Oxy5 are included as **Appendix C**. Additional field data are summarized in tables within **Appendix D**.

### 3.1 FIELD MONITORING AND ANALYTICAL RESULTS

This section presents the results of field monitoring for MNA parameters, as well as analytical and microbial testing laboratory results for collected groundwater samples.

#### 3.1.1 Baseline Microbial Testing Results

Microbial Insights performed QuantArray<sup>®</sup> analysis of baseline groundwater samples to further assess the presence and abundance of microbes in groundwater capable of degrading MtBE, BTEX, polycyclic aromatic hydrocarbons (PAHs), plus short- and long-chain alkanes by quantifying specific functional genes responsible for both aerobic and anaerobic biodegradation of these compounds. The results indicated a high proportion of the aerobic MtBE degrader PM1 in samples subjected to QuantArray<sup>®</sup> analysis in one-liter aqueous samples collected from Wells MW-91C, MW-183 [R], MW-184 [R], and MW-185 [R]. These results demonstrate the abundance of MtBE and BTEX degraders at the locations and depths groundwater was analyzed, which is a positive indication of the biodegradation potential in the low ORP portion of the aquifer, especially under aerobic conditions. Analytical results from Microbial Insights indicate that microbes are present in groundwater at concentrations moderately or highly capable of degrading MtBE and BTEX, as summarized below:



**Relative Abundance of Microbial Degraders – Baseline**

Monitoring Well	Aerobic MtBE	Aerobic BTEX	Anaerobic BTEX
MW-91C	High	Moderate	Moderate
MW-183 [R]	High	Moderate	Moderate
MW-184 [R]	High	Moderate	Moderate
MW-185 [R]	High	Moderate	Moderate

This suggests that the addition of oxygen by injecting air into groundwater is a potentially feasible means of enhancing biodegradation activities already occurring in groundwater. **Figures 4a through 4d** are charts showing the relative abundance of MtBE- and BTEX-degrading microbes in each of these wells. The Microbial Insights laboratory report is provided in **Appendix A**.

**3.1.2 Baseline Field Monitoring and Analytical Results**

An area of negative ORP was previously noted beneath the vicinity of 3501 Hampshire Glen Court where residual gasoline constituents remain at depth, are less influenced by active remediation, and receive less recharge of oxygenated water than shallower groundwater. ORP contours during the previous semiannual monitoring event are shown as **Figures 3a and 3b**. This pattern of ORP data indicated that biodegradation processes are active in this remaining area of residual gasoline constituents. Prior to initiating biosparging, baseline readings for field parameters were recorded, and groundwater samples were collected and analyzed for BTEX and Oxy5 constituents. Baseline DO and ORP data relative to analyzed MtBE concentrations in wells in the test area, are summarized as follows:

Date	Monitoring Well	MtBE (µg/L)	DO (µg/L)	ORP (mV)
11/04/2019	MW-47C	0.6 J	2.39	-89.4
11/04/2019	MW-91	ND<1	5.06	17.8
11/04/2019	MW-91C	ND<1	3.59	9.4
11/04/2019	MW-138D [R]	340	10.61	-30.3
11/04/2019	MW-168	--	3.02	132.9
11/04/2019	MW-171C	1	4.39	-15.5
11/04/2019	MW-176 [R]	1	7.55	-12.8
11/04/2019	MW-177	--	4.55	-8.9
11/04/2019	MW-183 [R]	1	9.73	-44.4
11/04/2019	MW-184 [R]	0.8 J	19.45	180.6
11/04/2019	MW-185 [R]	ND<1	3.41	-13.4

Numerous wells included in the biosparge pilot test showed very low or negative ORP prior to initiating biosparging. The highest baseline dissolved MtBE concentration in wells included in the biosparge pilot test was detected in MW-138D [R] (340 µg/L)(**Table 2**).

Baseline temperature readings for groundwater in pilot test wells, were between 5°C and 25°C, which is reported optimum for metabolic activity. Similarly, the pH readings at pilot test wells, with few exceptions, were within the range of 6 to 8 standard units, which is favorable for the proliferation of microbes capable of degrading petroleum hydrocarbons. Therefore, pH and temperature measurements in wells monitored during the biosparge pilot test are favorable for biodegradation (Wiedemeier, et al., 1995)(**Table 2** and **Appendix D, Table D-1**).

Baseline sampling and laboratory analysis also included testing for nitrate, sulfate, methane, carbon dioxide in groundwater from Wells MW-91C, MW-183 [R], MW-184 [R], and MW-185 [R]. Methane was non-detectable in these wells at baseline. Carbon dioxide was non-detectable in Wells MW-91C, MW-183 [R], and MW-184 [R] at baseline, and at 2,700J mg/L in Wells MW-185 [R]. Field test kits were also used for these wells to test for ferrous iron and orthophosphate in groundwater. Ferrous iron detections indicated that iron reduction is not a mechanism of reducing BTEX and Oxy5 constituents in the wells tested. Orthophosphate, which serves as a nutrient for microbes, was not detected in groundwater from MW-91C or MW-185 [R]. Detections of these constituents were below concentrations that would indicate potential for benefitting bioremediation of BTEX and Oxy5 constituents (**Table 2** and **Appendix D, Table D-1**).

### 3.1.3 Field Monitoring and Analytical Results During Biosparging

Concentrations of BTEX and Oxy5 constituents in groundwater samples collected from Wells MW-47C, MW-91, MW-91C, MW-168, MW-171C, MW-176 [R], MW-177, and MW-185 [R] were non-detectable or below MDE standards during the biosparge pilot test. MtBE concentrations in groundwater samples from MW-138D [R] were initially 340 µg/L and declined to 3 µg/L on April 15, 2020 near the end of pilot testing. Also note, MtBE and TBA concentrations in groundwater samples from Well MW-183 [R] were below MDE criteria prior to and during the biosparge pilot test. Similarly, the concentration of MtBE in Well MW-184[R] was below MDE standards prior to and during biosparging (**Table 2**).

Temperature readings for groundwater in pilot test wells during biosparging, were between 5°C and 25°C. Similarly, the pH readings at pilot test wells, with few exceptions, were within the range of 6 to 8 standard units. Therefore, pH and temperature measurements in wells monitored during

the biosparge pilot test are favorable for biodegradation (Wiedemeier, et al., 1995) (**Table 2** and **Appendix D, Table D-2**).

Wells proximate to or downgradient of injection well MW-91C included MW-91, MW-176C, and MW-138D [R]. The DO and ORP readings at MW-91 ranged from 5.06 to 10.34 µg/L, and 17.8 to 275.6 mV, respectively. Similarly, for MW-176C, the DO and ORP readings ranged from 7.55 to 10.12 µg/L, and -12.8 to 159.7 mV, respectively. For Well MW-138D [R], DO concentrations in groundwater (Well MW-138D [R] is approximately 250 feet downgradient from injection well MW-91C) increased with time while the dissolved concentrations of MtBE declined. ORP readings in Well MW-138D [R] were negative at baseline (-30.3 mV) but increased and stabilized (ranging from 135.7 to 144.2 mV) during biosparging. Field data and analytical laboratory results for these and other wells incorporated into the biosparge pilot test monitoring well network are summarized in **Table 2** and **Appendix D, Table D-2**.

### 3.1.4 Post-Biosparging Microbial Testing Results

Microbial Insights performed QuantArray® analysis of post-biosparging groundwater samples to assess the effects of biosparging, if any, on the presence and abundance of microbes in groundwater capable of degrading MtBE, BTEX, polycyclic aromatic hydrocarbons (PAHs), plus short- and long-chain alkanes. The results indicate similar abundance of the aerobic MtBE degrader PM1 in samples subjected to QuantArray® analysis in aqueous samples collected from Wells MW-183 [R], MW-184 [R], and MW-185 [R]; however, concentrations of these microbes declined in Well MW-91C by approximately four orders of magnitude following biosparge testing. Analytical results from Microbial Insights are summarized below:

**Relative Abundance of Microbial Degraders – Post Biosparging**

Monitoring Well	Aerobic MtBE	Aerobic BTEX	Anaerobic BTEX
MW-91C	Low	Low	Low
MW-183 [R]	High	Moderate	Moderate
MW-184 [R]	High	Moderate	Moderate
MW-185 [R]	High	Moderate	Moderate

**Figures 5a through 5d** show the relative abundance of MtBE- and BTEX-degrading microbes in each of these wells. The Microbial Insights laboratory report is provided in **Appendix A**.

### 3.1.5 Post-Biosparge Pilot Test Field Monitoring and Analytical Results

MNA field parameters were recorded at monitoring well network wells for 5 days following cessation of biosparging at Well MW-91C. Monitoring wells included MW-47C, MW-91, MW-91C, MW-138D [R], MW-168, MW-171C, MW-176 [R], MW-177, MW-183 [R], MW-184 [R], and MW-185 [R]. Methane was non-detectable in Wells MW-91C, MW-183 [R], and MW-184 [R] post-biosparge test; and was 3.2J mg/L for Well MW-185 [R]. Tabulated data is included in **Table 2** and **Appendix D, Table D-3**.

Post-biosparge pilot test temperature readings for groundwater in pilot test wells continued to be recorded between 5°C and 25°C. Similarly, the pH readings at pilot test wells were within the range of 6 to 8 standard units, with few exceptions. Therefore, temperature and pH measurements in wells monitored post-biosparge pilot test remained favorable for biodegradation (**Table 2**).

Concentrations of BTEX and Oxy5 constituents were non-detectable or below MDE standards, following the biosparge pilot test, in wells MW-47C, MW-91, MW-91C, MW-168, MW-171C, MW-176 [R], MW-177, and MW-185 [R]. MtBE concentrations in groundwater samples from MW-138D [R] were initially 340 µg/L at baseline, declined to 3 µg/L on April 15, 2020 near the end of biosparge pilot testing, but rebounded to between 150 to 190 µg/L during the five days of monitoring following cessation of biosparging. Also note, MtBE and TBA concentrations in groundwater samples from Well MW-183 [R] were below MDE criteria at baseline and during biosparging; but increased to concentrations exceeding MDE standards post-biosparge pilot test (66 µg/L and 290 µg/L, respectively). Similarly, the concentrations of MtBE in Well MW-184 [R] were below MDE standards prior to and during biosparging; but exceeded MDE standards post-biosparge pilot test (24 µg/L).

Post-biosparge pilot test sampling and laboratory analysis included testing for nitrate, sulfate, methane, and carbon dioxide in groundwater from Wells MW-91C, MW-183 [R], MW-184 [R], and MW-185 [R]. Detections of these constituents were non-detectable or below concentrations that would indicate their stimulating bioremediation of BTEX and Oxy5 constituents. Field test kits were also used for these wells to test for ferrous iron and orthophosphate in groundwater, again indicating detections of these constituents below concentrations that would benefit bioremediation of BTEX and Oxy5 constituents.

Select post-biosparge field data and analytical laboratory results for other wells incorporated into the biosparge pilot test monitoring well network are summarized below and in **Table 2**.

<b>Date</b>	<b>Monitoring Well</b>	<b>MtBE (µg/L)</b>	<b>DO (µg/L)</b>	<b>ORP (mV)</b>
4/27/2020	MW-47C	ND<1	5.44	-69.7
4/27/2020	MW-91	ND<1	4.33	68.1
4/27/2020	MW-91C	ND<1	4.69	80.6
4/27/2020	MW-138D [R]	150	12.88	119.6
4/27/2020	MW-168 (235)	ND<1	10.29	120.3
4/27/2020	MW-171C	ND<1	5.82	-15.2
4/27/2020	MW-176 [R]	0.7J	9.44	154.2
4/27/2020	MW-177 (187.75)	ND<1	6.22	-5.9
4/21/2020	MW-183 [R]	--	9.83	111.2
4/21/2020	MW-184 [R]	--	10.21	131.4
4/27/2020	MW-185 [R]	ND<1	11.61	211.9

### 3.1.6 Anomalous Field Observations

The DO readings in Well MW-185 [R] were monitored using a YSI Series 6920 multi-parameter meter, which provided concentrations ranging from approximately 3.41 to 18.48. Many of the DO readings at this well significantly exceeded the theoretical DO saturation concentration at the temperatures recorded in groundwater. Kleinfelder worked the field equipment vendor, as well as the manufacturer, to identify possible causes for these anomalous readings. The probes and instrument were replaced, and field activities were performed to collect DO readings at depth intervals above, at, and below the depth at which these readings were recorded. Despite these efforts, DO readings continued to exceed theoretical saturation concentrations throughout biosparge pilot testing.

## 4 DISCUSSION

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Results of the previous natural attenuation study indicate aquifer physical conditions (temperature and pH) are within the optimal ranges for microbial activity and the microbial nutrient orthophosphate is available in support of microbial activity (Kleinfelder, 2019b). Temperature and pH readings during the biosparge pilot test were consistent with those findings; but orthophosphate was not detected during the biosparge pilot test. In addition, DO and ORP readings that would provide adequate conditions for bioremediation were observed during the natural attenuation study were also in a favorable range during the biosparge test. Additional observations are summarized below.

- Baseline microbial testing results (QuantArray<sup>®</sup> analysis) indicated a high proportion of aerobic MtBE degrader PM1 present in grab groundwater samples from MW-91C, MW-183 [R], MW-184 [R], and MW-185 [R].
- Post-biosparge microbial testing results (QuantArray<sup>®</sup> analysis) indicated similar proportions of aerobic MtBE degrader PM1 present in grab groundwater samples from MW-183 [R], MW-184 [R], and MW-185 [R]; however, results for Well MW-91C were four orders of magnitude lower than baseline, possibly due to dispersion caused by air injection into this well.
- Temperature readings ranged between approximately 10 to 13 °C.
- pH remained consistently within the range of 6 to 8 in the injection well and observations wells throughout biosparge pilot testing (see chart in **Appendix E**).
- The field tests for orthophosphate did not show the presence of this nutrient in groundwater samples tested from Wells MW-91C and MW-185 [R].
- DO concentrations in observations wells remained consistent throughout biosparge pilot testing, except for Wells MW-91C and MW-138D [R] (see chart in **Appendix E**).
- DO concentrations in injection well MW-91C declined from baseline (17.65 mg/L) to post-biosparge observations (ranging from 3.56 to 4.69 mg/L) (see chart in **Appendix E**).
- DO concentrations in Well MW-138D [R], which is approximately 250 feet downgradient from biosparge injection well MW-91C, increased with time while the dissolved concentrations of MtBE declined, which suggests that injection of air into groundwater near the fracture/"strike-line" feature was likely beneficial (see chart in **Appendix E**).

- ORP concentrations in MW-138D [R] downgradient of injection well MW-91C was also a positive indicator. ORP in MW-138D [R] was negative at baseline and increased with time while the MtBE concentration declined (see chart in **Appendix E**).
- Similarly, ORP concentrations in MW-176 [R], downgradient of injection well MW-91C, were negative at baseline and increased with time (see chart in **Appendix E**).
- Concentrations of MtBE and TBA in MW-183 [R] were below MDE standards prior to and during the biosparge pilot test; but during the days following ceasing of air injection at MW-91C, these concentrations increase and exceeded MDE standards.
- Groundwater in MW-91, downgradient and most proximate to air injection MW91C, indicated little or no change to temperature, pH, DO readings; and ORP readings dropped an order of magnitude from baseline to post-biosparge pilot test.

## 5 CONCLUSIONS

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An approximately 6-month biosparge pilot test was completed northeast of inactive Exxon Facility #28077 during November 2019 through April 2020, using well MW-91C for injection of air into groundwater. Monitoring wells MW-91, MW-183 [R], MW-184 [R], and MW-185 [R] were used as primary observation wells. Other wells monitored during the pilot test included MW-47C, MW-138D [R], MW-168, MW-171C, MW-176 [R], and MW-177. Conclusions from the biosparge pilot testing activities include:

- There is evidence of MtBE and BTEX degraders at all locations and depths analyzed during the biosparge pilot test, a positive indicator for the biodegradation potential throughout the aquifer, especially under aerobic conditions.
- Natural biodegradation of COCs is likely occurring in shallow and deeper groundwater.
- According to Wiedemeier et al. (1995, 1999), metabolic activity is affected by groundwater temperature, and biodegradation rates increase with increasing temperature between 5°C and 25°C. Temperature data (**Table 2**) was within this range for wells monitored during the biosparge pilot test, indicating favorable conditions for biodegradation.
- The pH readings from the pilot test wells, with few exceptions, were within the range of 6 to 8 standard units, which is favorable for proliferation of microbes capable of degrading petroleum hydrocarbons (Wiedemeier, et al., 1995) (**Table 2**).
- DO results observed during the biosparge pilot test are relatively elevated, indicating little depletion of this electron acceptor consistent with the ORP results. This confirms the availability of dissolved oxygen for aerobic biodegradation; however, some measurements were excessively high, suggesting sample agitation during measurement or difficulties with field instrumentation.
- Limited ferrous iron and nitrate indicate limited anaerobic biodegradation is occurring in the vicinity of the pilot test.
- During the biosparge pilot test, dissolved DO and ORP concentrations in MW-138D [R] (250 feet downgradient from well MW-91C) increased with time while the corresponding MtBE concentrations declined indicating biosparging at MW-91C has had a positive impact on MtBE concentrations in MW-138D [R].



## 6 RECOMMENDATIONS AND WORKPLAN

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Based on (i) the results of the biosparge pilot test, (ii) the positive indication of biodegradation potential and (iii) the evidence of biodegradation activity within the discrete zone of sequestered gasoline constituents, additional biosparge activity is considered beneficial to further promote and/or accelerate bioremediation activity in the aquifer.

### 6.1 WORKPLAN - RESTART BIOSPARGE ACTIVITIES

Based on the results of the biosparge pilot test, recommendations and activities going forward are summarized below:

- Resumption of the same biosparge activities as completed during the pilot test using MW-91C as the biosparge injection well
- Monthly collection of DO, ORP, temperature and pH from MW-91, MW-183 [R], MW-184 [R], MW-185 [R], MW-138D, MW-176 [R], MW-168
- Groundwater sampling and gauging based on the current MDE-approved frequency
- Data and related interpretation will be included in the quarterly Remedial Action Progress Reports

## 7 REFERENCES

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## 8 LIMITATIONS

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Kleinfelder performed the services for this project under the Enabling Agreement with Procurement, a division of ExxonMobil Global Services Company (signed on November 28, 2012). Kleinfelder states that the services performed are consistent with professional standard of care defined as that level of services provided by similar professionals under like circumstances. This report is based on the regulatory standards in effect on the date of the report. It has been produced for the primary benefit of ExxonMobil Global Services Company and its affiliates.

## TABLES

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**Table 1 – Biosparge Pilot Test Sampling Matrix**

**Inactive Exxon Facility #28077  
14528 Jarrettsville Pike  
Phoenix, Maryland**

MW	Gasoline Constituents	Field Parameters				Laboratory Analysis (Chemistry)						Laboratory Analysis (Microbial)		Rationale	
	BTEX/ Oxy5	Conditions		Electron Donor / Acceptor Indicators			Microbial Nutrient			Microbial Indicators					
		pH	Temp	ORP	D.O.	Ferrous Iron (test kit)	Nitrate	Sulfate	Ferrous Iron	Methane	CO <sub>2</sub>	Orthophosphate	QuantArray (MtBE & TBA)	QuantArray (Full Petro)	
<b>Pre-Sparge Baseline (once)</b>															
MW-183 [R]	X	X	X	X	X	X	X	X	X	X	X	X	X (aqueous)		Discrete area of negative ORP & dissolved residual petroleum constituents at depth
MW-184 [R]	X	X	X	X	X	X	X	X	X	X	X	X		X (aqueous)	
MW-185	X	X	X	X	X	X	X	X	X	X	X	X	X (aqueous)		
MW-91C	X	X	X	X	X	X	X	X	X	X	X	X		X (aqueous)	
MW-91	X	X	X	X	X	X									Adjacent to MW-91C
MW-138D [R]	X	X	X	X	X	X									Far downgradient well
MW-168	X	X	X	X	X	X									Downgradient from MW-91C
MW-176 [R]	X	X	X	X	X	X									
MW-177	X	X	X	X	X	X									
<b>During Sparge Test (monthly for 6 mos.)</b>															
MW-185	X	X	X	X	X	X									
MW-91	X	X	X	X	X	X									
MW-138D [R]	X	X	X	X	X	X									
MW-168	X	X	X	X	X	X									
MW-176 [R]	X	X	X	X	X	X									
MW-177	X	X	X	X	X	X									
<b>Post-Sparge (once)</b>															
MW-183 [R]							X	X	X	X	X	X	X (aqueous)		
MW-184 [R]							X	X	X	X	X	X		X (aqueous)	
MW-185							X	X	X	X	X	X	X (aqueous)		
MW-91C							X	X	X	X	X	X		X (aqueous)	
<b>Post-Sparge (daily for 5 days)</b>															
MW-185	X	X	X	X	X	X									
MW-91C	X	X	X	X	X	X									
MW-91	X	X	X	X	X	X									
MW-138D [R]	X	X	X	X	X	X									
MW-168	X	X	X	X	X	X									
MW-176 [R]	X	X	X	X	X	X									
MW-177	X	X	X	X	X	X									

TABLE 2

Summary of Groundwater Analytical Results  
 Inactive Exxon Facility #28077  
 14528 Jarrettsville Pike  
 Phoenix, Maryland

October 9, 2019 through April 27, 2020

Sample ID	Date	Gauging Data											Analytical Data										Comments
		Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (pH units)	Temperature (°C)	Ferrous Iron (mg/L)	Conductivity (mS/cm)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	
MW-47C	01/10/2020	NM	NM	NM	NM	NM	4.88	-74.2	7.92	11.65	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
MW-47C(212.5)	10/21/2019	587.18	59.4	ND	ND	527.78	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
	11/04/2019	587.18	58.43	ND	ND	528.75	2.39	-89.4	6.2	13.6	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.6 J	ND(1)	ND(1)	ND(1)	ND(25)	
	11/07/2019	587.18	58.46	ND	ND	528.72	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
	11/18/2019	587.18	58.5	ND	ND	528.68	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	2	ND(1)	ND(1)	ND(1)	ND(25)	
	12/09/2019	587.18	57.9	ND	ND	529.28	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	0.2 J	ND(1)	ND(25)	
	12/20/2019	587.18	57.45	ND	ND	529.73	4.59	-80.8	7.82	11.76	1	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
	02/14/2020	587.18	64.32	ND	ND	522.86	4.73	-81.6	7.81	11.43	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
	03/11/2020	587.18	57.97	ND	ND	529.21	5.03	-93.7	7.61	11.56	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
	04/16/2020	587.18	NM	NM	NM	NM	4.89	-77.2	7.44	11.73	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
	04/21/2020	587.18	NM	NM	NM	NM	4.97	-80.2	7.49	11.8	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
	04/22/2020	587.18	NM	NM	NM	NM	5.88	-77.4	7.44	11.87	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	0.2 J	ND(1)	ND(25)	
	04/23/2020	587.18	NM	NM	NM	NM	6.11	-80.3	7.5	11.9	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
	04/24/2020	587.18	NM	NM	NM	NM	6.17	-80.2	7.49	12.03	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
	04/27/2020	587.18	NM	NM	NM	NM	5.44	-69.7	7.31	12.31	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	ND(1)	ND(1)	ND(25)	
MW-91	11/04/2019	585.95	36.22	ND	ND	549.73	5.06	17.8	9.3	12	NA	0.1215	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	11/26/2019	585.95	36.44	ND	ND	549.51	NA	NA	NA	NA	NA	146.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/17/2019	585.95	36.47	ND	ND	549.48	NA	NA	NA	NA	NA	0.1425	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/20/2019	585.95	36.32	ND	ND	549.63	7.44	200.7	6.2	12.87	0	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	01/08/2020	585.95	NM	NM	NM	NM	5.68	215	5.82	12.02	0	0.127	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	02/12/2020	585.95	34.66	ND	ND	551.29	10.34	275.6	5.69	12.1	0	0.161	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	02/14/2020	585.95	36.11	ND	ND	549.84	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	03/11/2020	585.95	34.81	ND	ND	551.14	2.12	222.5	5.96	11.99	0	0.143	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/16/2020	585.95	NM	NM	NM	NM	6.5	58.4	6.25	12.9	0	0.156	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/21/2020	585.95	NM	NM	NM	NM	6.2	60.2	6.27	11.37	0	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/22/2020	585.95	NM	NM	NM	NM	7	62.3	6.29	11.4	0	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/23/2020	585.95	NM	NM	NM	NM	8.11	64.1	6.31	11.32	0	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/24/2020	585.95	NM	NM	NM	NM	6.81	64.8	6.31	11.35	0	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/27/2020	585.95	NM	NM	NM	NM	4.33	68.1	6.44	11.22	0	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
MW-91C [R]	10/23/2019	586.25	58.88	ND	ND	527.37	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	2	ND(1)	0.4 J	ND(1)	ND(25)	
	11/04/2019	586.25	52.10	ND	ND	534.15	3.59	9.4	7.84	12.84	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	12/09/2019	586.25	61.20	ND	ND	525.05	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	03/30/2020	586.25	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/21/2020	586.25	NM	NM	NM	NM	3.56	70.3	6.29	12.11	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/22/2020	586.25	NM	NM	NM	NM	3.87	73.2	6.31	12.07	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/23/2020	586.25	NM	NM	NM	NM	3.89	74.1	6.45	12.03	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/24/2020	586.25	NM	NM	NM	NM	4.22	75.1	6.45	12.13	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
04/27/2020	586.25	NM	NM	NM	NM	4.69	80.6	6.57	12.1	0.5	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)		
MW-138D [R]	10/09/2019	572.92	148.9	ND	ND	424.02	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	390	1	4	26	ND(25)	
	11/04/2019	572.92	168.4	ND	ND	404.52	10.61	-30.3	6.49	13.44	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	340	1	4	19	ND(25)	
	12/06/2019	572.92	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	340	1	4	20	ND(25)	
	12/20/2019	572.92	199.53	ND	ND	373.39	9.55	139.8	7.01	10.47	0	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	310	1	4	18	ND(25)	

**TABLE 2**  
**Summary of Groundwater Analytical Results**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

October 9, 2019 through April 27, 2020

Sample ID	Date	Gauging Data					Analytical Data						Comments										
		Top of Casing Elevation	Depth to Water (feet)	Depth to Hydrocarbon (feet)	Hydrocarbon Thickness (feet)	Corrected GW Elevation (feet)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (pH units)	Temperature (°C)	Ferrous Iron (mg/L)	Conductivity (mS/cm)		Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-138D [R]	01/03/2020	572.92	168.71	ND	ND	404.21	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	290	1	4	15	ND(25)
	01/10/2020	572.92	NM	NM	NM	NM	10.11	144.2	7.11	10.32	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	250	1	4	13	ND(25)
	02/14/2020	572.92	169.09	ND	ND	403.83	10.26	135.9	7.02	10.46	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	240	1	4	9	ND(25)
	03/11/2020	572.92	168.39	ND	ND	404.53	10.11	143.2	7.06	10.33	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	170	1	3	5	ND(25)
	04/15/2020	572.92	NM	NM	NM	NM	11.1	135.7	7.11	10.45	0	NA	0.7 J	ND(1)	ND(1)	ND(1)	ND(3)	0.7 J	3	0.4 J	1	0.4 J	ND(25)
	04/21/2020	572.92	NM	NM	NM	NM	12.3	142.1	7.13	11.69	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	190	1	3	ND(1)	ND(25)
	04/22/2020	572.92	NM	NM	NM	NM	13.12	144.2	7.08	11.72	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	170	1	3	4	ND(25)
	04/23/2020	572.92	NM	NM	NM	NM	12.73	150.2	7.11	11.81	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	190	1	3	4	ND(25)
	04/24/2020	572.92	NM	NM	NM	NM	14.31	148.1	7.19	12.04	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	170	1	3	3	ND(25)
04/27/2020	572.92	NM	NM	NM	NM	12.88	119.6	7.14	11.88	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	150	1	3	2	ND(25)	
MW-168	10/21/2019	581.78	35.72	ND	ND	546.06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/04/2019	581.78	35.53	ND	ND	546.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/18/2019	581.78	34.7	ND	ND	547.08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/20/2019	581.78	34.21	ND	ND	547.57	3.64	131	7.82	12.1	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/10/2020	581.78	NM	NM	NM	NM	4.02	129.8	7.9	11.98	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
03/11/2020	581.78	35.61	ND	ND	546.17	4.22	130.5	7.75	11.88	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-168(157.5)	10/21/2019	581.78	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
	11/04/2019	581.78	NM	NM	NM	NM	1.09	-9.8	5.75	14.78	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
	11/18/2019	581.78	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
MW-168(235)	12/20/2019	581.78	NM	NM	NM	NM	3.64	131	7.82	12.1	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
	02/14/2020	581.78	33.75	ND	ND	548.03	3.65	122.4	7.81	11.74	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
	03/11/2020	581.78	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
	04/16/2020	581.78	33.81	NM	NM	547.97	5.13	121.6	7.64	11.95	1	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
	04/21/2020	581.78	NM	NM	NM	NM	5.29	123.6	7.7	12.03	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
	04/22/2020	581.78	NM	NM	NM	NM	9.82	117.2	7.81	11.99	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
	04/23/2020	581.78	NM	NM	NM	NM	10.29	120.3	7.78	11.89	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
	04/24/2020	581.78	NM	NM	NM	NM	10.22	120.3	7.93	12.17	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)
04/27/2020	581.78	NM	NM	NM	NM	8.29	130.2	7.33	12.21	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
MW-171C	11/04/2019	583.36	41.87	ND	ND	541.49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/20/2019	583.36	41.66	ND	ND	541.7	4.84	-32.5	7.57	11.65	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/02/2020	583.36	41.71	ND	ND	541.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/10/2020	583.36	NA	NA	NA	NA	5.08	-41.2	7.32	11.57	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	0.2 J	ND(1)	ND(25)
	03/11/2020	583.36	41.21	ND	ND	542.15	5.35	-12.6	7.2	11.73	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	04/21/2020	583.36	NM	NM	NM	NM	5.77	-14.1	6.94	11.91	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	0.2 J	ND(1)	ND(25)
	04/22/2020	583.36	NM	NM	NM	NM	6.21	-20.1	7.01	11.95	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	0.2 J	ND(1)	ND(25)
	04/23/2020	583.36	NM	NM	NM	NM	6.37	-24.1	6.93	11.82	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	0.2 J	ND(1)	ND(25)
04/24/2020	583.36	NM	NM	NM	NM	5.87	-17.4	7.12	12.21	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	0.2 J	ND(1)	ND(25)	
04/27/2020	583.36	NM	NM	NM	NM	5.82	-15.2	6.88	12.22	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.6 J	ND(1)	ND(1)	ND(1)	ND(25)	
MW-171C(HS-D)	02/14/2020	583.36	54.67	ND	ND	528.69	5.01	-35.4	7.17	11.52	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-171C(207.5)	11/04/2019	583.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	0.2 J	ND(1)	ND(25)
	12/20/2019	583.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	0.2 J	ND(1)	ND(25)
	01/02/2020	583.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	0.2 J	ND(1)	ND(25)

TABLE 2

Summary of Groundwater Analytical Results  
Inactive Exxon Facility #28077  
14528 Jarrettsville Pike  
Phoenix, Maryland

October 9, 2019 through April 27, 2020

Sample ID	Date	Gauging Data					Analytical Data						Comments										
		Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (pH units)	Temperature (°C)	Ferrous Iron (mg/L)	Conductivity (mS/cm)		Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)
MW-171C(207.5)	02/14/2020	583.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	ND(1)	ND(1)	ND(25)
	03/11/2020	583.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	ND(1)	ND(1)	ND(25)
	04/16/2020	583.36	41.06	NA	NA	542.3	5.63	-13.6	6.89	11.86	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.6 J	ND(1)	ND(1)	ND(1)	ND(25)
MW-176 [R]	10/14/2019	582.88	131.27	ND	ND	451.61	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	0.4 J	ND(1)	ND(25)
	11/04/2019	582.88	48.1	ND	ND	534.78	7.55	-12.8	7.8	15.59	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	0.6 J	ND(1)	ND(25)
	12/20/2019	582.88	47.8	ND	ND	535.08	9.94	159.7	6.75	11.2	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.7 J	ND(1)	0.4 J	ND(1)	ND(25)
	01/10/2020	582.88	NM	NM	NM	NM	9.67	167	6.68	11.06	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.6 J	ND(1)	0.4 J	ND(1)	ND(25)
	02/14/2020	582.88	125.44	ND	ND	457.44	9.88	149.8	6.73	10.92	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	2	0.4 J	1	ND(1)	ND(25)
	03/11/2020	582.88	126.62	ND	ND	456.26	10.12	155.7	6.68	11.06	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.8 J	0.3 J	1 J	ND(1)	ND(25)
	04/16/2020	582.88	NM	NM	NM	NM	9.61	148.1	6.81	11.23	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	10	ND(1)	0.6 J	ND(1)	ND(25)
	04/21/2020	582.88	NM	NM	NM	NM	10.1	155.3	6.85	11.29	1	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.8 J	ND(1)	0.4 J	ND(1)	ND(25)
	04/22/2020	582.88	NM	NM	NM	NM	11.6	160.3	6.89	11.35	1	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.8 J	ND(1)	0.4 J	ND(1)	ND(25)
	04/23/2020	582.88	NM	NM	NM	NM	10.31	157.2	6.92	11.47	1	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.8 J	ND(1)	0.4 J	ND(1)	ND(25)
MW-177	11/04/2019	581.48	35.22	ND	ND	546.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/20/2019	581.48	34.99	ND	ND	546.49	4.27	-16.9	7.1	11.14	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-177(HS-D)	01/10/2020	581.48	NM	NM	NM	NM	4.35	-17.9	7.15	10.99	2.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	5	ND(1)	0.3 J	ND(1)	ND(25)
	03/11/2020	581.48	35.64	ND	ND	545.84	4.71	-11.7	7.03	11.37	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-177(187.75)	02/14/2020	581.48	38.67	ND	ND	542.81	4.21	-5.1	7.06	11.02	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-177(187.75)	11/04/2019	581.48	NM	NM	NM	NM	1.51	-71.6	6.25	13.39	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	5	ND(1)	0.3 J	ND(1)	ND(25)
	12/20/2019	581.48	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	5	ND(1)	0.3 J	ND(1)	ND(25)
	02/14/2020	581.48	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	4	ND(1)	0.2 J	ND(1)	ND(25)
	03/11/2020	581.48	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	4	ND(1)	0.2 J	ND(1)	ND(25)
	04/16/2020	581.48	NM	NM	NM	NM	4.35	-6.9	7.07	11.61	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	3	ND(1)	ND(1)	ND(1)	ND(25)
	04/21/2020	581.48	NM	NM	NM	NM	5.21	-7.1	7.11	11.57	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	4	ND(1)	ND(1)	ND(1)	ND(25)
	04/22/2020	581.48	NM	NM	NM	NM	5.37	-8.3	7.17	11.63	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	3	ND(1)	0.2 J	ND(1)	ND(25)
	04/23/2020	581.48	NM	NM	NM	NM	6.32	-10.2	7.22	11.71	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	4	ND(1)	0.2 J	ND(1)	ND(25)
	04/24/2020	581.48	NM	NM	NM	NM	4.22	-9.4	7.22	11.93	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	3	ND(1)	ND(1)	ND(1)	ND(25)
	04/27/2020	581.48	NM	NM	NM	NM	6.22	-5.9	7.25	11.82	0.5	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	3	ND(1)	ND(1)	ND(1)	ND(25)
MW-183 [R]	10/14/2019	590.47	199.15	ND	ND	391.32	NA	NA	NA	NA	NA	NA	0.9 J	2	0.8 J	ND(3)	4 J	2	ND(1)	0.2 J	ND(1)	ND(25)	
	11/04/2019	590.47	198.9	ND	ND	391.57	9.73	-44.4	9.93	18.8	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	0.6 J	2	ND(1)	ND(25)	
	11/19/2019	590.47	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.4 J	0.4 J	2	ND(1)	ND(25)	
	12/06/2019	590.47	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.5 J	0.4 J	1	ND(1)	ND(25)	
	02/18/2020	590.47	198.74	ND	ND	391.73	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	0.6 J	2	ND(1)	ND(25)	
	04/16/2020	590.47	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	66	2	8	2	290	
MW-184 [R]	04/21/2020	590.47	NM	NM	NM	NM	9.83	111.2	6.99	11.25	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/14/2019	588.44	149.79	ND	ND	438.65	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	0.3 J	1	ND(1)	ND(25)
	11/04/2019	588.44	149	ND	ND	439.44	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.8 J	0.5 J	1	ND(1)	ND(25)
	02/18/2020	588.44	148.77	ND	ND	439.67	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	0.5 J	2	ND(1)	ND(25)
	04/16/2020	588.44	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	24	0.3 J	1	0.4 J	ND(25)
04/21/2020	588.44	NM	NM	NM	NM	10.21	131.4	7.11	11.65	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	



TABLE 2

**Summary of Groundwater Analytical Results  
Inactive Exxon Facility #28077  
14528 Jarrettsville Pike  
Phoenix, Maryland**

October 9, 2019 through April 27, 2020

Sample ID	Date	Gauging Data					Analytical Data											Comments						
		Top of Casing Elevation	Depth to Water (feet)	Depth to Hydro-carbon (feet)	Hydro-carbon Thickness (feet)	Corrected GW Elevation (feet)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (pH units)	Temperature (°C)	Ferrous Iron (mg/L)	Conductivity (mS/cm)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)		MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	
MW-185 [R]	10/15/2019	584.64	58.14	ND	ND	526.5	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.6 J	ND(1)	0.2 J	ND(1)	ND(25)	
	10/23/2019	584.64	56.21	ND	ND	528.43	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	11/04/2019	584.64	49.6	ND	ND	535.04	3.41	-13.4	5.73	13.51	NA	1.4416	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	11/18/2019	584.64	56.83	ND	ND	527.81	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	11/26/2019	584.64	49.87	ND	ND	534.77	NA	NA	NA	NA	NA	1.395	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	12/06/2019	584.64	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.4 J	ND(1)	ND(1)	ND(1)	ND(25)	
	12/20/2019	584.64	49.67	ND	ND	534.97	17.55	123.7	6.48	10.8	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	0.4 J	ND(1)	ND(1)	ND(1)	ND(25)	
	01/08/2020	584.64	NM	NM	NM	NM	17.64	128.5	6.3	10.62	0	0.631	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	1	ND(1)	0.4 J	ND(1)	ND(25)	
	02/14/2020	584.64	49.22	ND	ND	535.42	18.48	211.6	6.46	12.1	0	1.395	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	03/11/2020	584.64	48.12	ND	ND	536.52	12.57	250.1	5.96	12.73	0	1.2056	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/16/2020	584.64	NM	NM	NM	NM	14.68	236.9	6.31	11.33	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/21/2020	584.64	NM	NM	NM	NM	13.22	220.1	6.36	11.32	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/22/2020	584.64	NM	NM	NM	NM	12.21	217.3	6.44	11.26	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/23/2020	584.64	NM	NM	NM	NM	11.86	222.3	6.44	11.32	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/24/2020	584.64	NM	NM	NM	NM	9.31	212.4	6.48	11.35	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	
	04/27/2020	584.64	NM	NM	NM	NM	11.61	211.9	6.61	11.41	0	NA	NA	ND(1)	ND(1)	ND(1)	ND(3)	BRL	ND(1)	ND(1)	ND(1)	ND(1)	ND(25)	

**Notes:**

[R] - Indicates the well was used for remediation at the time of reporting.

µg/L - micrograms per liter

AP - above packer

BP - below packer

BRL - Below laboratory reporting limits

BTEX - Benzene, toluene, ethylbenzene, and total xylenes

DIPE - di-isopropyl ether

ETBE - ethyl tert butyl ether

GW - Groundwater

HS - Composite HydraSleeve

HS-D - deep composite HydraSleeve sampler; set at bottom of open borehole

HS-S - shallow composite HydraSleeve sampler; set at ½ of open borehole

J - Indicates an estimated value

mg/L - milligram per liter

MTBE - methyl tertiary butyl ether

mV - millivolts

NA - Not analyzed

ND - Not detected

ND(5.0) - Not detected at or above the laboratory reporting limit, laboratory reporting limit included.

NM - Not measured

NS - Not sampled

NSVD - Not surveyed to vertical datum

°C - degrees Celsius

pH units - pH units

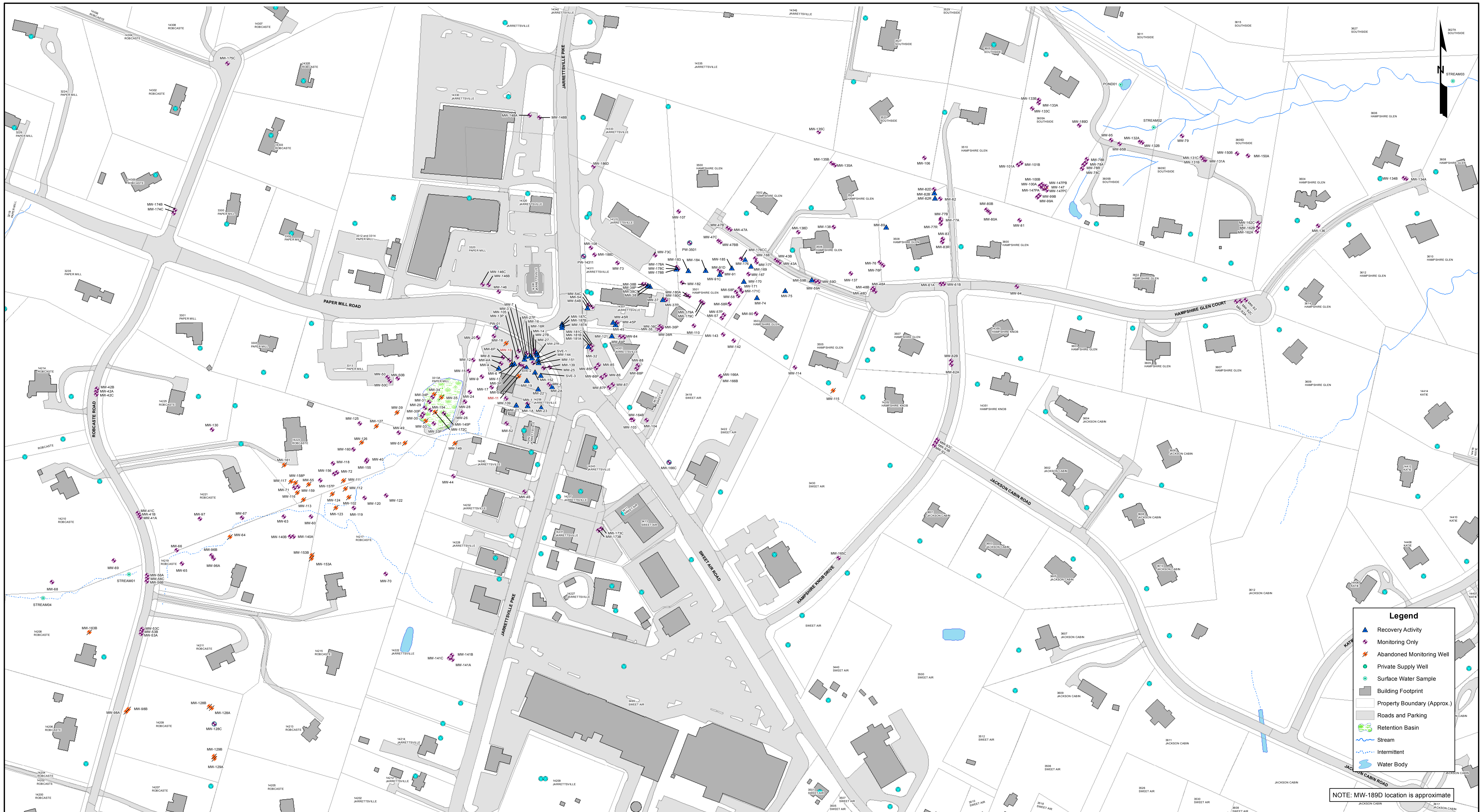
PW - Inactive supply well being used as a monitoring/sampling location

TAME - tert-amyl methyl ether

TBA - tert butyl alcohol

## FIGURES

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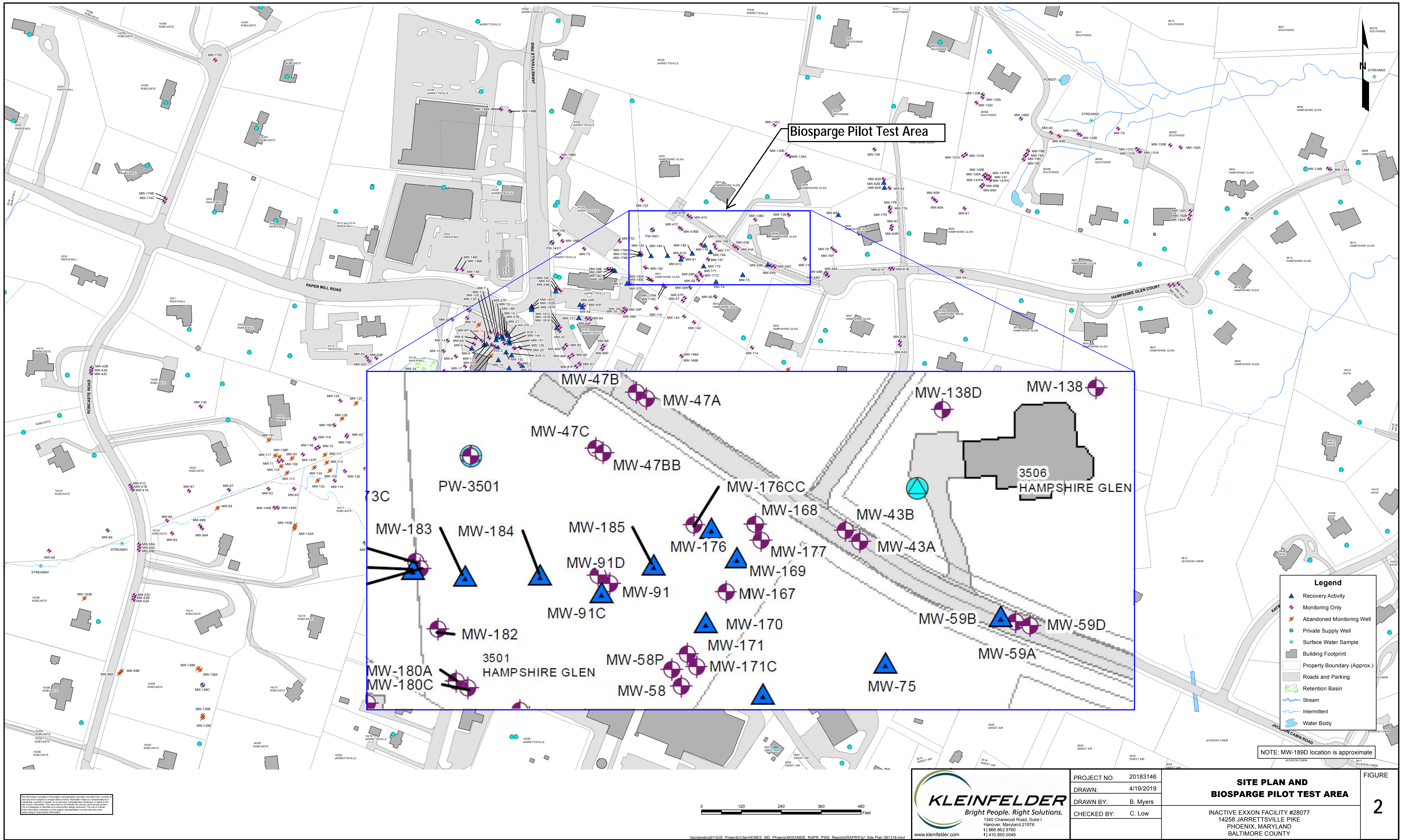


PROJECT NO.	20183146
DRAWN:	4/19/2019
DRAWN BY:	B. Myers
CHECKED BY:	C. Low

**SITE PLAN  
AS OF MARCH 31, 2019**

INACTIVE EXXON FACILITY #28077  
14258 JARRETTVILLE PIKE  
PHOENIX, MARYLAND  
BALTIMORE COUNTY

FIGURE  
**1**



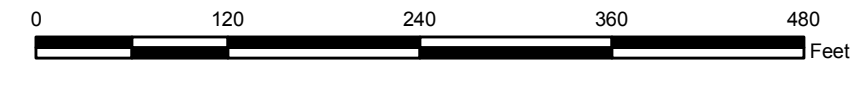
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NOTE: Immobile remedial equipment at MW-59B and MW-155 (inactive pneumatic pumps). MW-189D location is approximate

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NOTES:  
ORP = Oxidation-Reduction Potential  
mV = millivolts

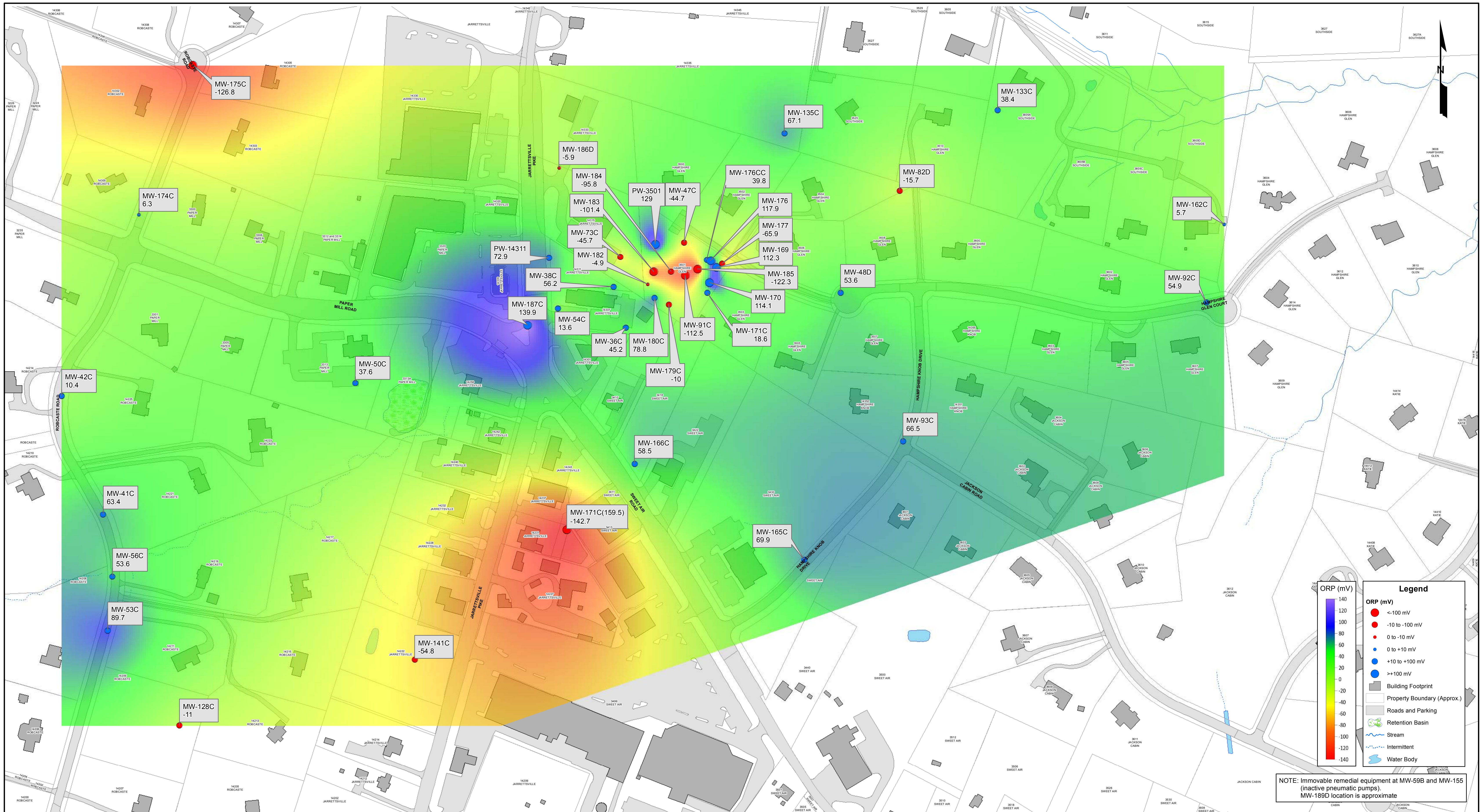


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PROJECT NO.	20193011
DRAWN:	7/16/2019
DRAWN BY:	B. Myers
CHECKED BY:	S. Schiding

**ORP SAMPLE RESULTS 2019 (SHALLOW)**  
  
INACTIVE EXXON FACILITY #28077  
14258 JARRETTSVILLE PIKE  
PHOENIX, MARYLAND  
BALTIMORE COUNTY

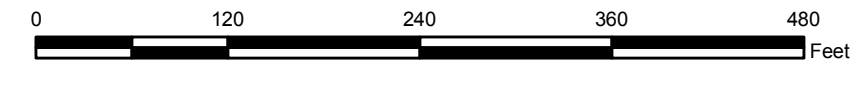
FIGURE  
3a



NOTE: Immobile remedial equipment at MW-59B and MW-155 (inactive pneumatic pumps). MW-189D location is approximate

The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Therefore, the user is responsible for the use of such information. This document is not intended for use as a legal instrument and should not be relied upon as such. The user is advised to consult with the appropriate legal counsel for any use of this information.

NOTES:  
ORP = Oxidation-Reduction Potential  
mV = millivolts



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PROJECT NO.	20193011
DRAWN:	7/16/2019
DRAWN BY:	B. Myers
CHECKED BY:	S. Schiding

**ORP SAMPLE RESULTS 2019 (DEEP)**

INACTIVE EXXON FACILITY #28077  
14258 JARRETTVILLE PIKE  
PHOENIX, MARYLAND  
BALTIMORE COUNTY

FIGURE  
3b

### Microbial Populations MW-91C

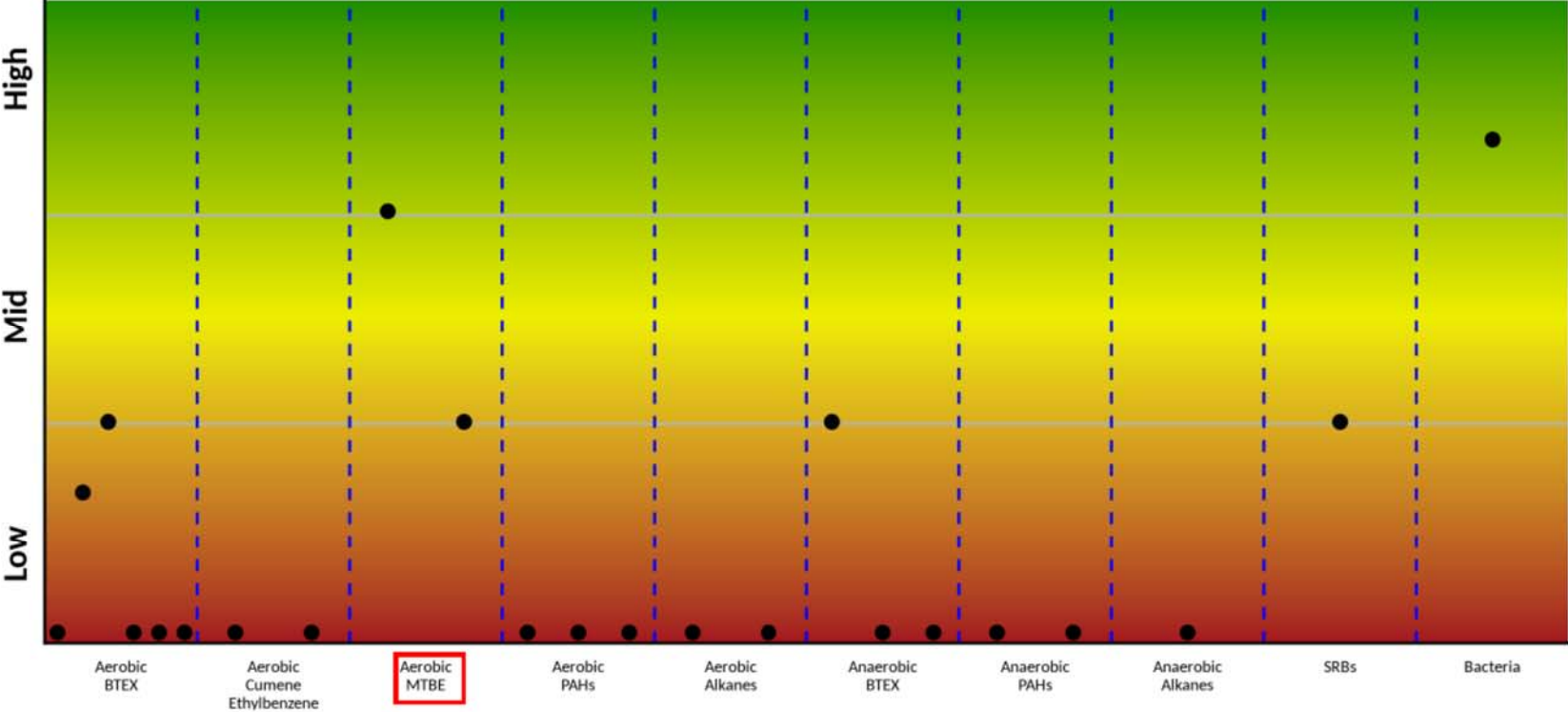


Figure 4a – Pre-Biosparge Pilot Test

### Microbial Populations MW-183

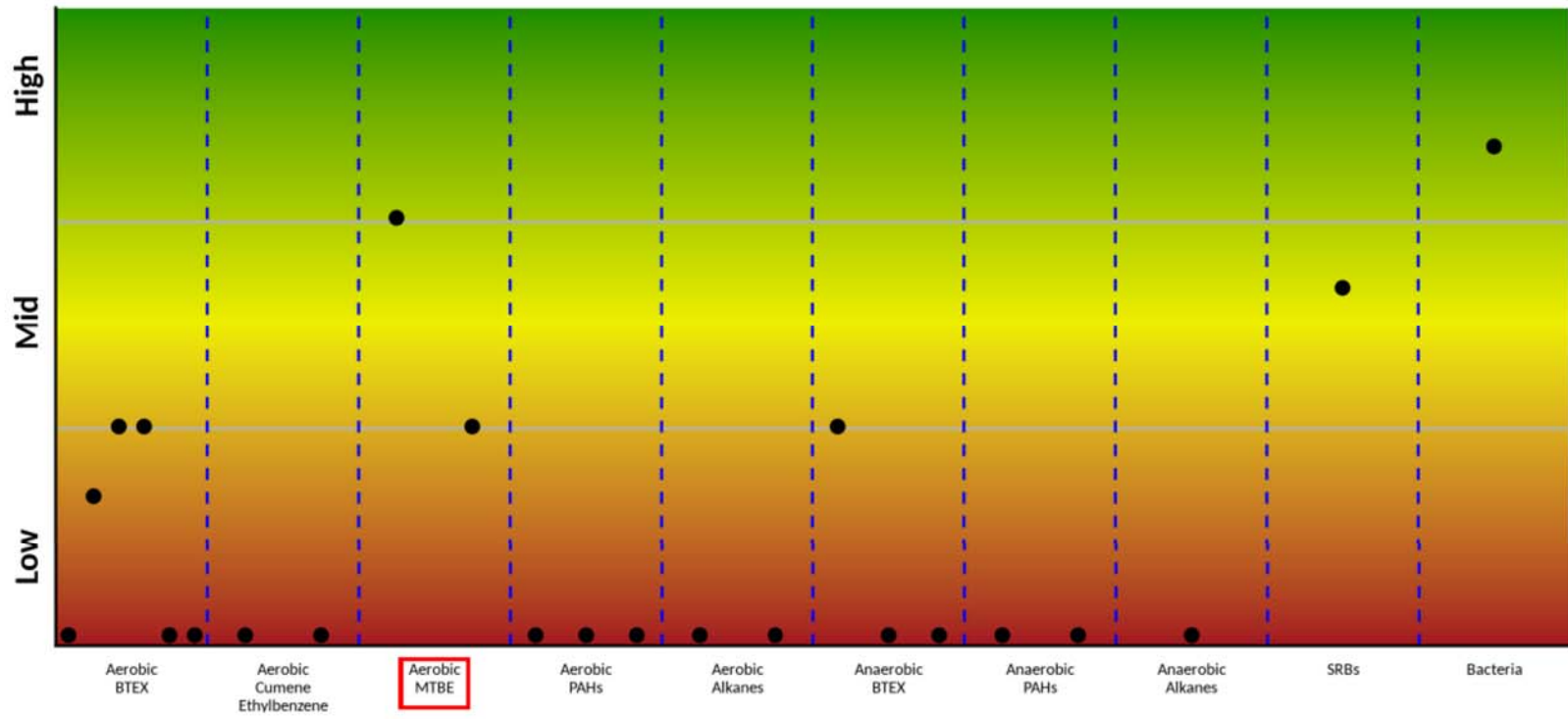


Figure 4b – Pre-Biosparge Pilot Test



### Microbial Populations MW-184

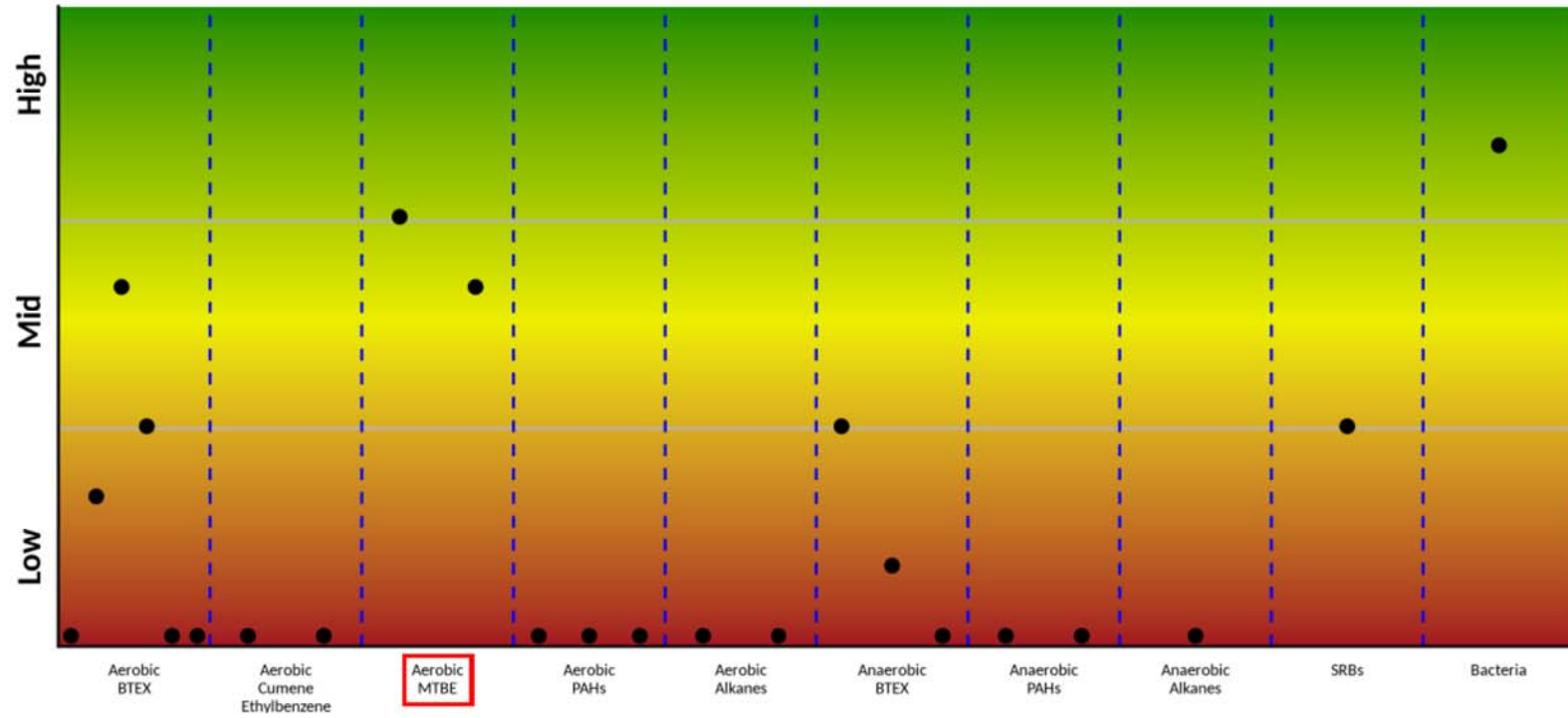


Figure 4c – Pre-Biosparge Pilot Test

### Microbial Populations MW-185

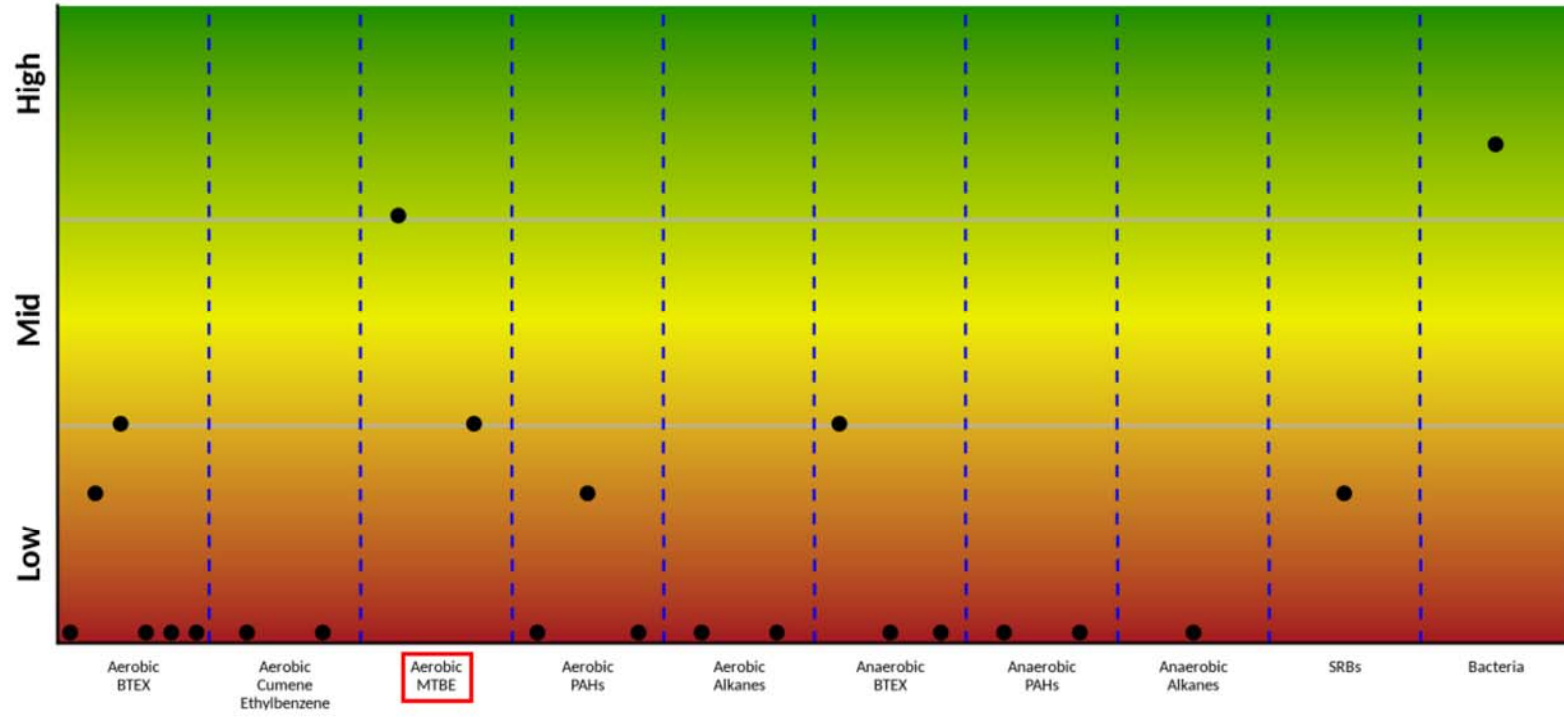


Figure 4d – Pre-Biosparge Pilot Test

### Microbial Populations MW-91C[R]

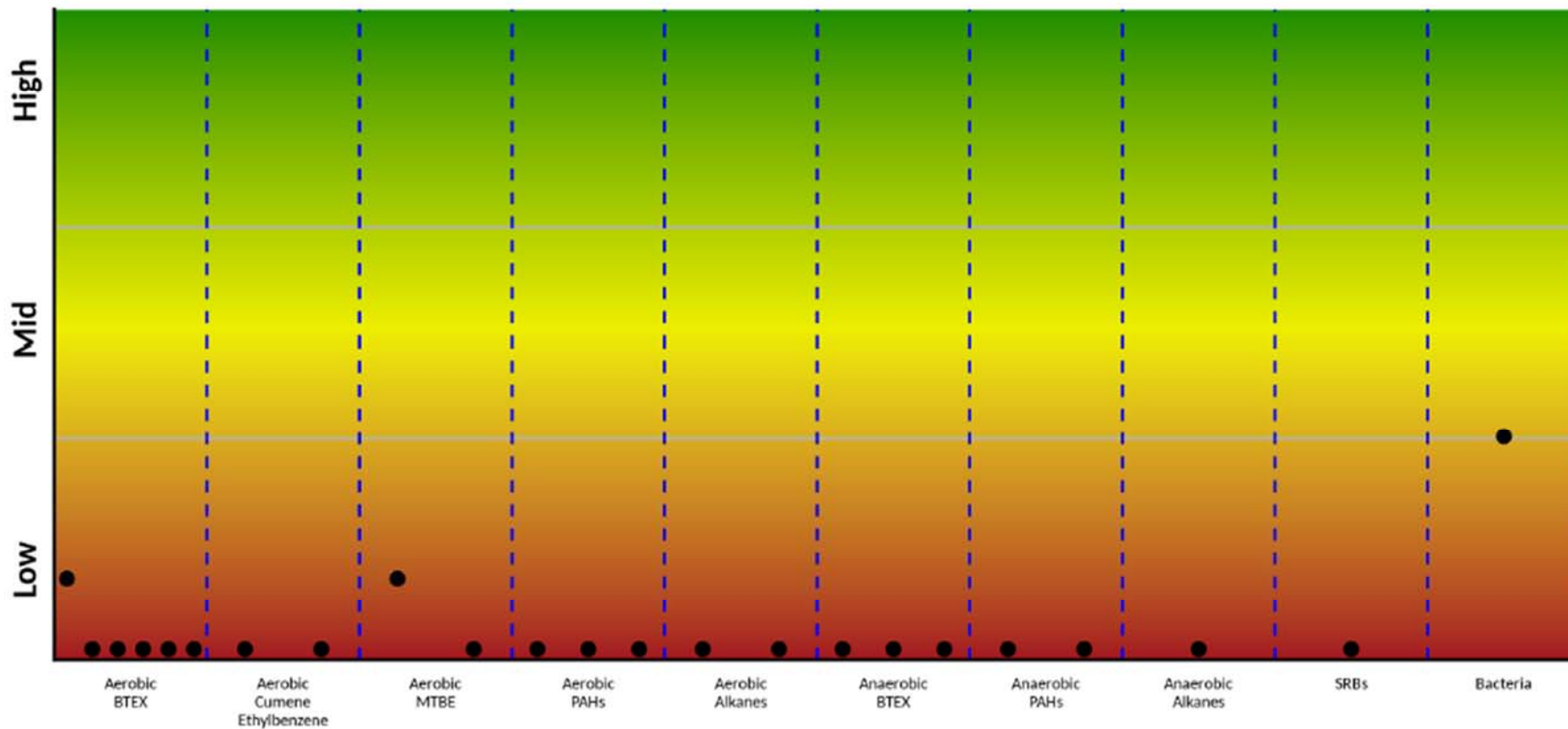


Figure 5a – Post-Biosparge Pilot Test

### Microbial Populations MW-183[R]

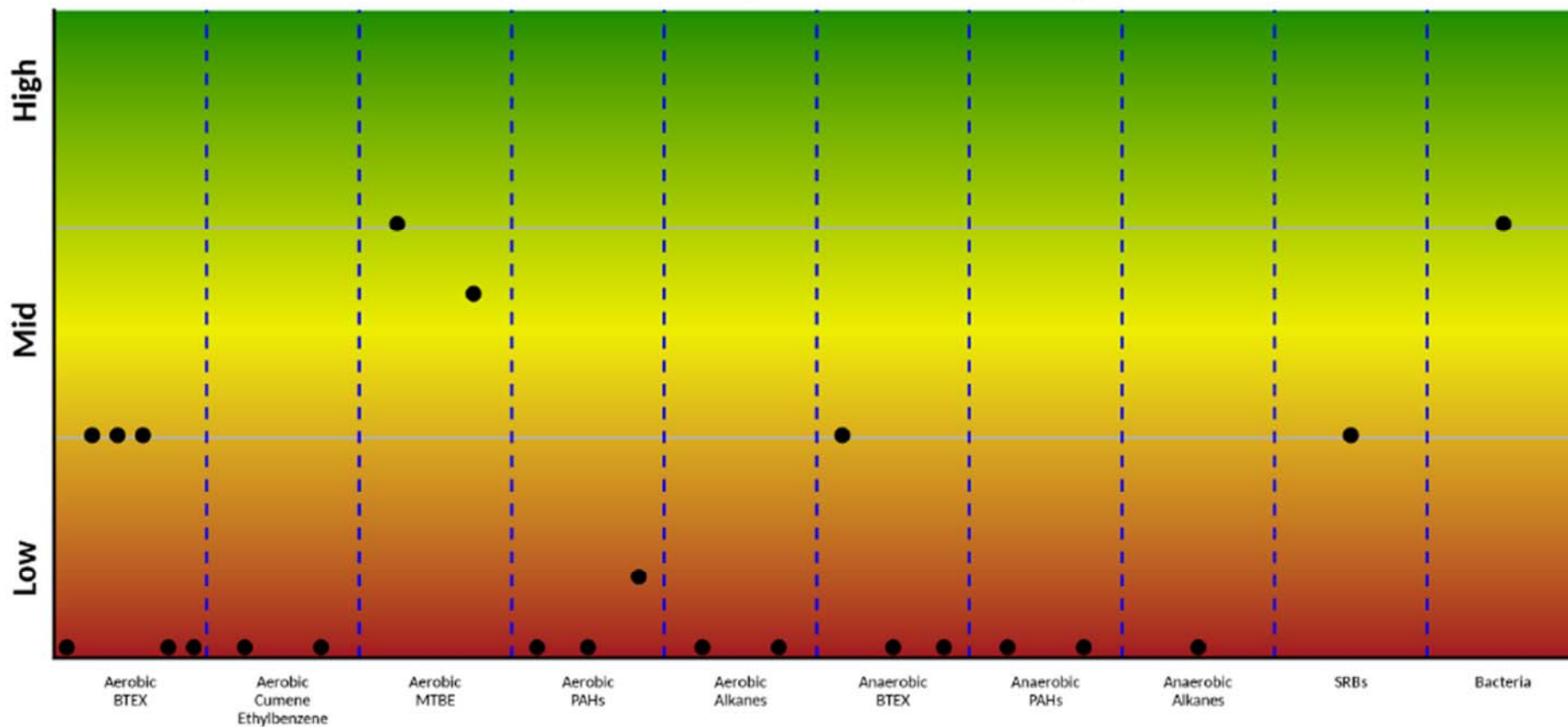


Figure 5b – Post-Biosparge Pilot Test

### Microbial Populations MW-184[R]

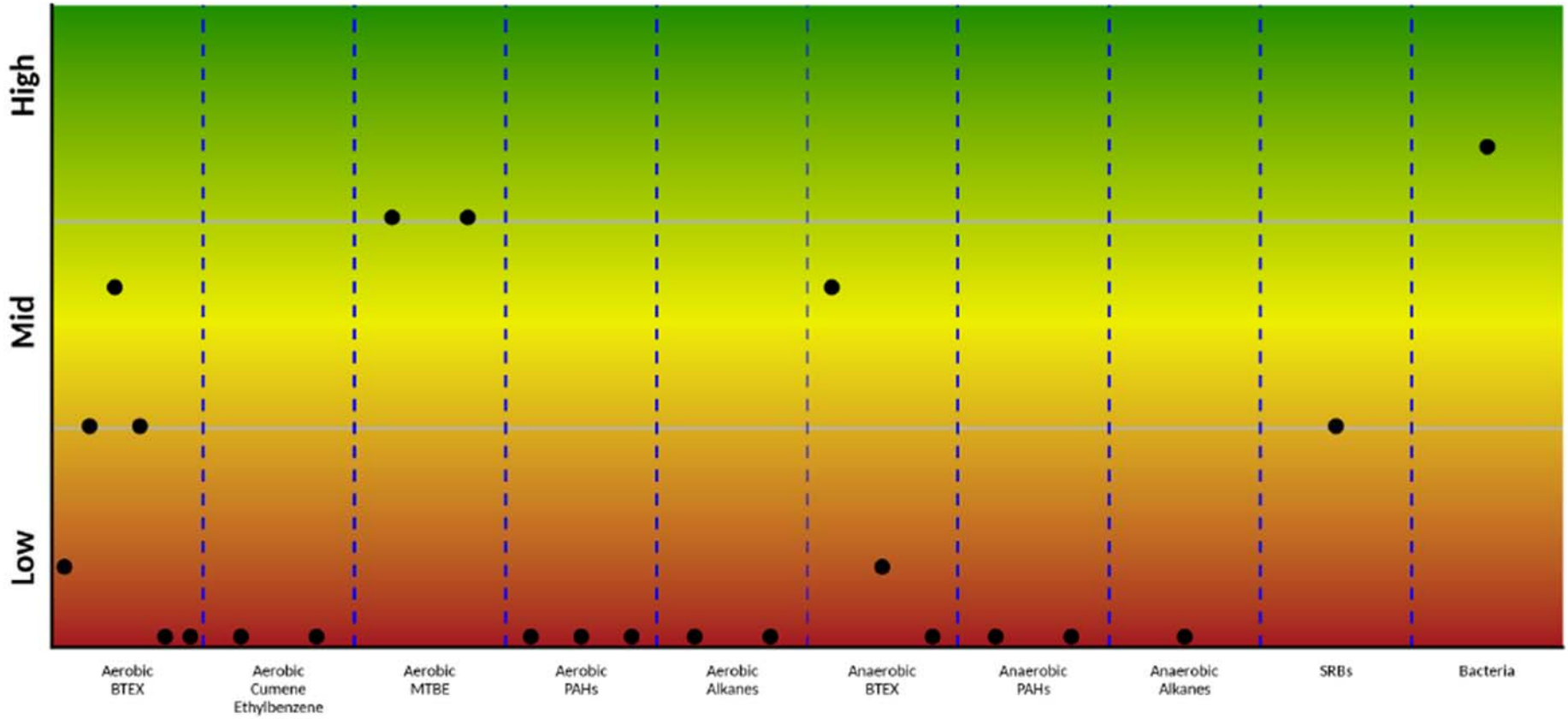


Figure 5c – Post-Biosparge Pilot Test

### Microbial Populations MW-185[R]

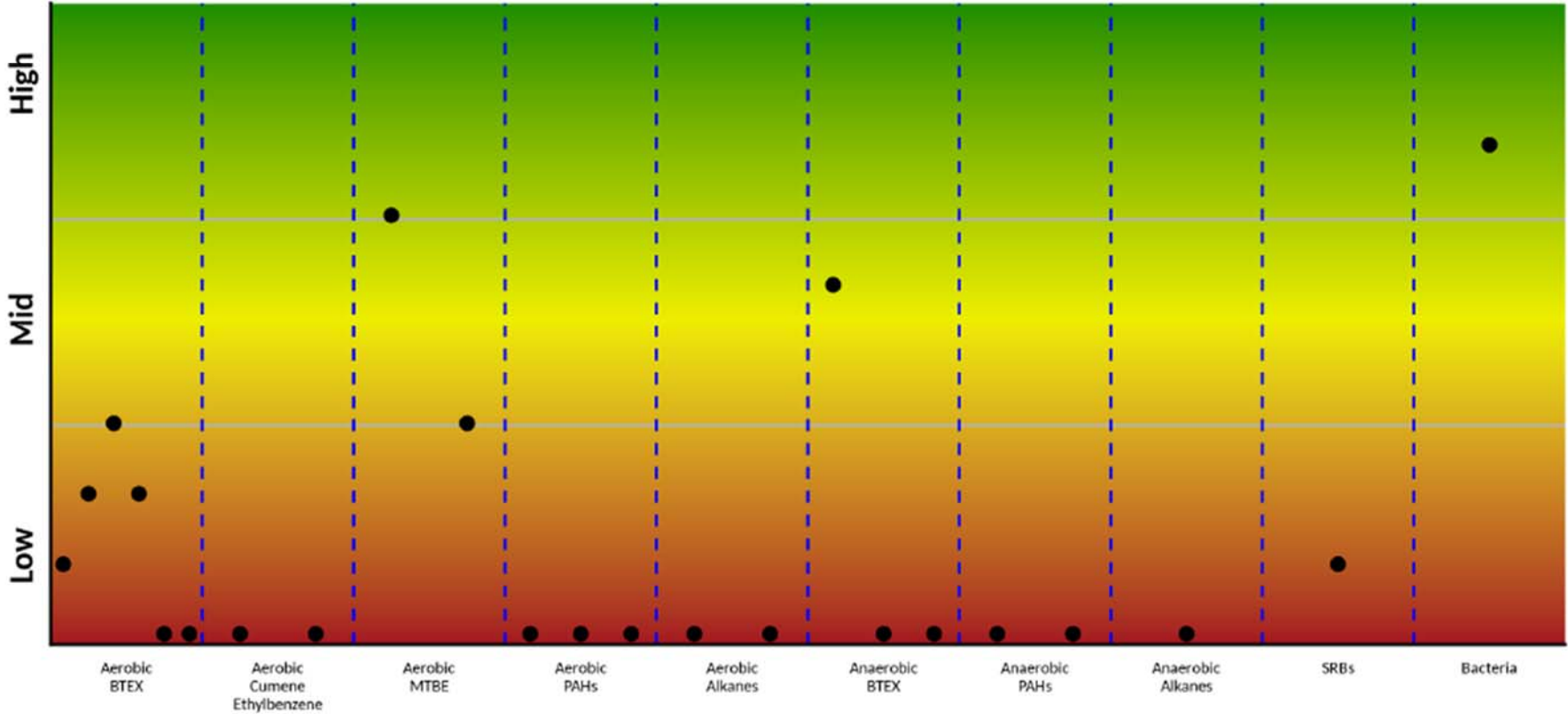


Figure 5d – Post-Biosparge Pilot Test



## **APPENDIX A**

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### **Laboratory Analytical Report – Microbial**

# SITE LOGIC Report

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## *QuantArray<sup>®</sup>-Petro Study*

**Contact:** Mark Schaaf

**Phone:** 410-850-0404

**Address:** Kleinfelder  
1745 Dorsey Road  
Suite J  
Hanover, MD 21076

**Email:** mschaaf@kleinfelder.com

**MI Identifier:** 013QK

**Report Date:** 11/19/2019

**Project:** 14258 Jarrettsville Pike, 20193011  
**Comments:**

---

**NOTICE:** This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.



## The QuantArray®-Petro Approach

Comprehensive evaluation of biodegradation potential at petroleum impacted sites is inherently problematic due to two factors:

- (1) Petroleum products are complex mixtures of hundreds of aliphatic, aromatic, cyclic, and heterocyclic compounds.
- (2) Even for common classes of contaminants like benzene, toluene, ethylbenzene, and xylenes (BTEX), biodegradation can proceed by a multitude of pathways.

The QuantArray®-Petro has been designed to address both of these issues by providing the simultaneous quantification of the specific functional genes responsible for both aerobic and anaerobic biodegradation of BTEX, PAHs, and a variety of short and long chain alkanes.

Thus, when combined with chemical and geochemical groundwater monitoring programs, the QuantArray®-Petro allows site managers to simultaneously yet economically evaluate the potential for biodegradation of a spectrum of petroleum hydrocarbons through a multitude of aerobic and anaerobic pathways to give a much clearer and comprehensive view of contaminant biodegradation.

The QuantArray®-Petro is used to quantify specific microorganisms and functional genes to evaluate aerobic and anaerobic biodegradation of the following classes of compounds present in petroleum products:

### BTEX and MTBE

Toluene dioxygenase (TOD) and monooxygenase (RMO, RDEG, PHE, TOL) genes for aerobic BTEX biodegradation

Includes MTBE utilizing strain *Methylibium petroleiphilum* PM1 and TBA monooxygenase

Benzylsuccinate synthase (BSS) for anaerobic biodegradation of toluene, ethylbenzene, and xylenes

Benzene carboxylase (ABC) for anaerobic benzene biodegradation]

### Naphthalene and PAHs

Includes two groups of naphthalene dioxygenase genes (NAH, PHN) for aerobic biodegradation

Naphthylmethylsuccinate synthase (MNSSA) for anaerobic biodegradation of methyl-naphthalenes

Naphthalene carboxylase (ANC) initiates the only known pathway for anaerobic naphthalene biodegradation

### Alkanes/TPH

The *n*-alkanes are a substantial portion of petroleum products

The QuantArray®-Petro includes quantification of alkane monooxygenase genes (ALK and ALMA)

Also includes quantification of alkylsuccinate synthase (assA) genes to evaluate anaerobic biodegradation of alkanes

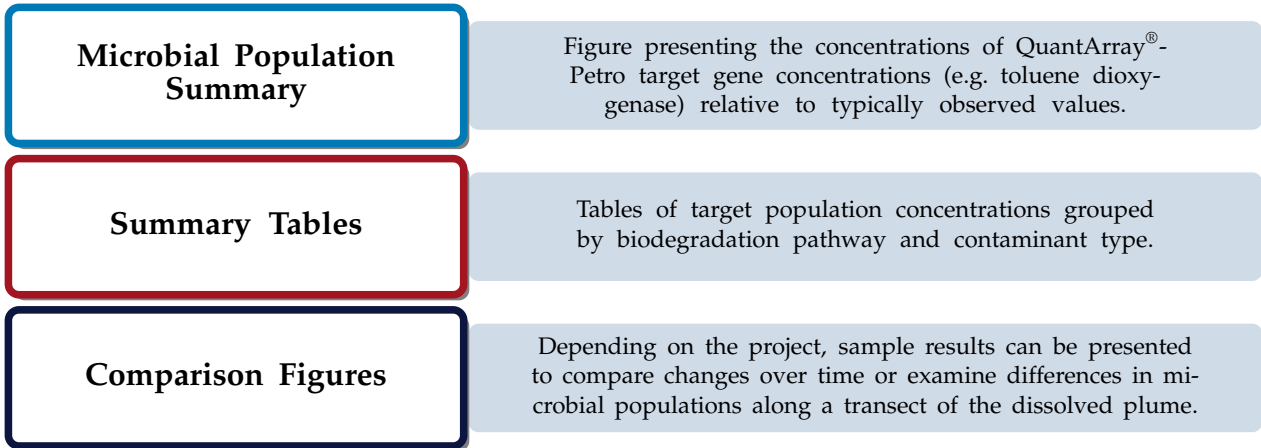
### How do QuantArrays® work?

The QuantArray®-Petro in many respects is a hybrid technology combining the highly parallel detection of microarrays with the accurate and precise quantification provided by qPCR into a single platform. The key to highly parallel qPCR reactions is the nanoliter fluidics platform for low volume, solution phase qPCR reactions.

### How are QuantArray® results reported?

One of the primary advantages of the QuantArray®-Petro is the simultaneous quantification of a broad spectrum of different microorganisms and key functional genes involved in a variety of pathways for hydrocarbon biodegradation. However, highly parallel quantification combined with various metabolic and cometabolic capabilities of different target organisms can complicate data presentation. Therefore, in addition to Summary Tables, QuantArray®-Petro results will be presented as Microbial Population Summary and Comparison Figures to aid in the data interpretation and subsequent evaluation of site management activities.

### Types of Tables and Figures:



## Results

Table 1: Summary of the QuantArray®-Petro results obtained for samples MW-183, MW-184, MW-185, and MW-91C.

Sample Name Sample Date	MW-183 11/04/2019	MW-184 11/04/2019	MW-185 11/04/2019	MW-91C 11/04/2019
<i>Aerobic BTEX and MTBE</i>				
	cells/mL	cells/mL	cells/mL	cells/mL
Toluene/Benzene Dioxygenase (TOD)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Phenol Hydroxylase (PHE)	<b>7.79E+02</b>	<b>6.16E+02</b>	<b>5.90E+02</b>	<b>7.67E+02</b>
Toluene 2 Monooxygenase/Phenol Hydroxylase (RDEG)	<b>3.93E+03</b>	<b>1.02E+04</b>	<b>5.99E+03</b>	<b>2.59E+03</b>
Toluene Ring Hydroxylating Monooxygenases (RMO)	<b>1.54E+02</b>	<b>1.02E+02</b>	<1.22E+01	<2.38E+01
Xylene/Toluene Monooxygenase (TOL)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Ethylbenzene/Isopropylbenzene Dioxygenase (EDO)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Biphenyl/Isopropylbenzene Dioxygenase (BPH4)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
<b>Methylibium petroleiphilum PM1 (PM1)</b>	<b>3.53E+04</b>	<b>4.20E+04</b>	<b>1.49E+04</b>	<b>5.51E+04</b>
TBA Monooxygenase (TBA)	<b>7.77E+02</b>	<b>4.81E+03</b>	<b>2.36E+02</b>	<b>1.50E+02</b>
<i>Aerobic PAHs and Alkanes</i>				
Naphthalene Dioxygenase (NAH)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Naphthalene-inducible Dioxygenase (NidA)	<4.50E+00	<4.50E+00	<b>4.17E+02</b>	<2.38E+01
Phenanthrene Dioxygenase (PHN)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Alkane Monooxygenase (ALK)	<b>9.90E+00</b>	<4.50E+00	<1.22E+01	<2.38E+01
Alkane Monooxygenase (ALMA)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
<i>Anaerobic BTEX</i>				
Benzoyl Coenzyme A Reductase (BCR)	<b>2.92E+02</b>	<b>1.71E+02</b>	<b>6.92E+02</b>	<b>4.25E+02</b>
Benzylsuccinate Synthase (BSS)	<4.50E+00	<b>2.97E+01</b>	<1.22E+01	<2.38E+01
Benzene Carboxylase (ABC)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
<i>Anaerobic PAHs and Alkanes</i>				
Naphthylmethylsuccinate Synthase (MNSSA)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Naphthalene Carboxylase (ANC)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Alkylsuccinate Synthase (ASSA)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
<i>Other</i>				
Total Eubacteria (EBAC)	<b>1.61E+06</b>	<b>2.43E+06</b>	<b>8.02E+06</b>	<b>9.05E+06</b>
Sulfate Reducing Bacteria (APS)	<b>1.55E+04</b>	<b>2.85E+03</b>	<b>3.33E+02</b>	<b>1.94E+03</b>

### Legend:

NA = Not Analyzed  
I = Inhibited

NS = Not Sampled  
< = Result Not Detected

J = Estimated Gene Copies Below PQL but Above LQL

### Microbial Populations MW-183

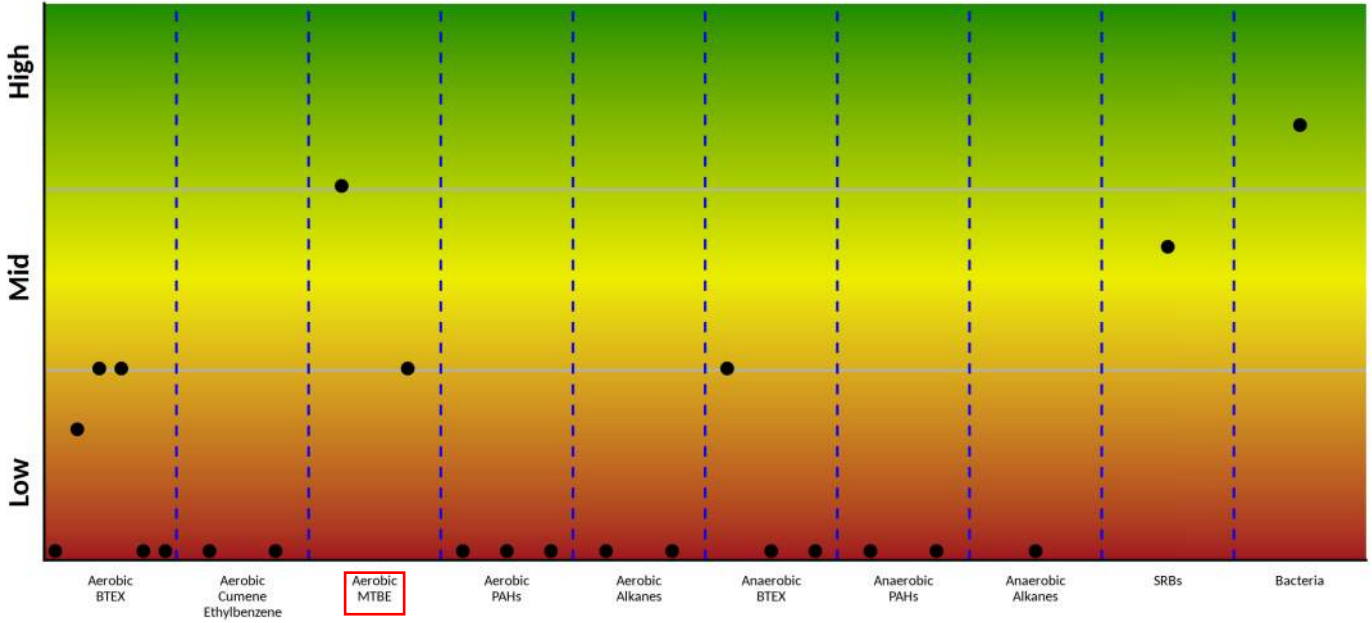


Figure 1: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

Aerobic		Anaerobic
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene
MTBE/TBA	PMI, TBA	Alkanes
Naphthalene	NAH, NidA	BCR, BSS, ABC
Phenanthrene	PHN	MNSSA, ANC
Alkanes	ALK, ALMA	assA

### Microbial Populations MW-184

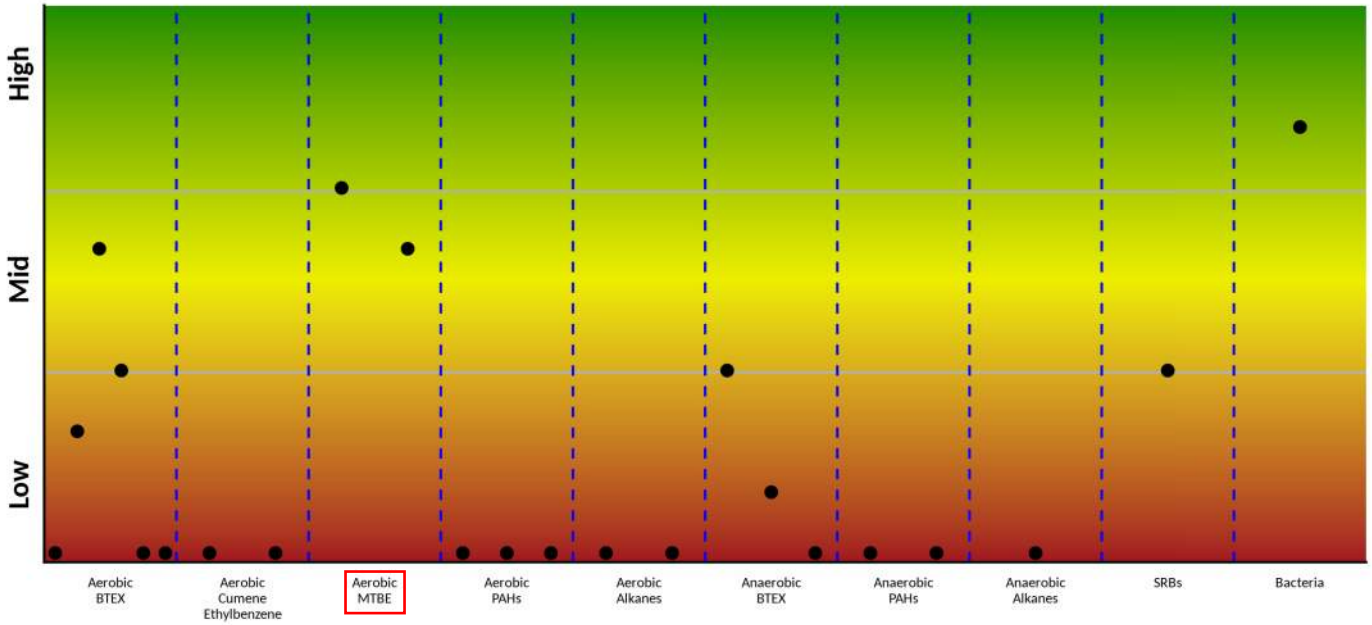


Figure 2: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

Aerobic		Anaerobic
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene
MTBE/TBA	PMI, TBA	Alkanes
Naphthalene	NAH, NidA	BCR, BSS, ABC
Phenanthrene	PHN	MNSSA, ANC
Alkanes	ALK, ALMA	assA

### Microbial Populations MW-185

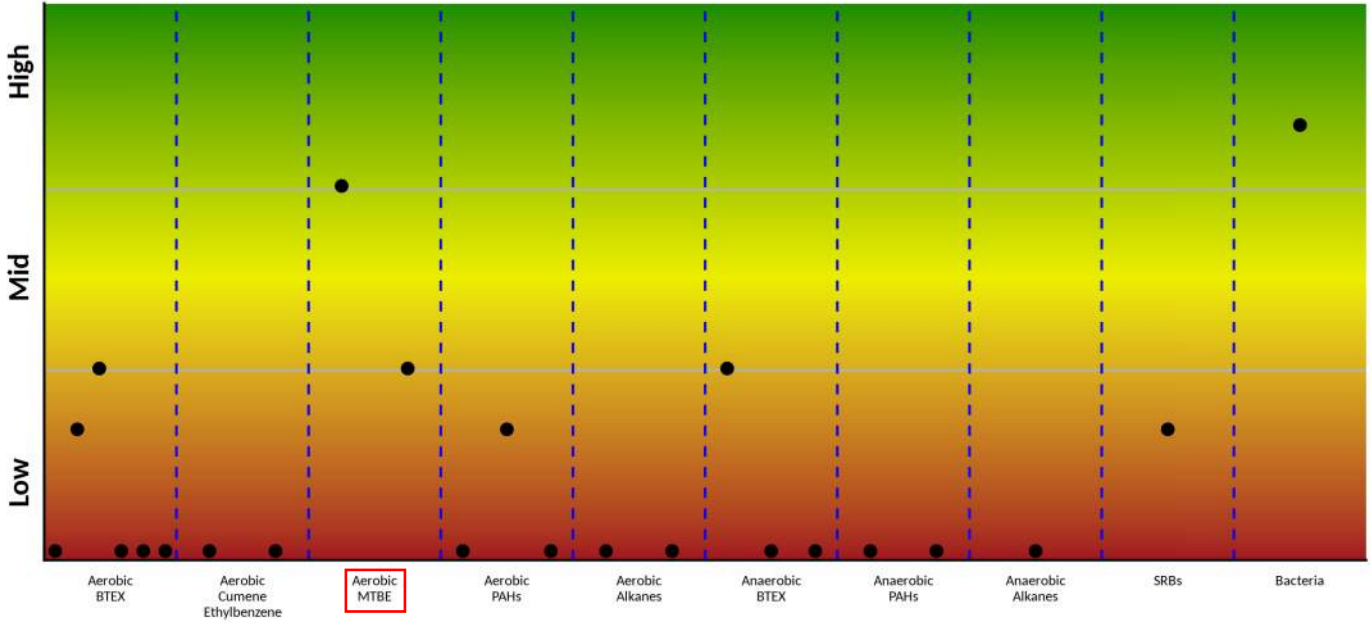


Figure 3: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

Aerobic		Anaerobic
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene
MTBE/TBA	PM1, TBA	Alkanes
Naphthalene	NAH, NidA	BCR, BSS, ABC
Phenanthrene	PHN	MNSSA, ANC
Alkanes	ALK, ALMA	assA

### Microbial Populations MW-91C

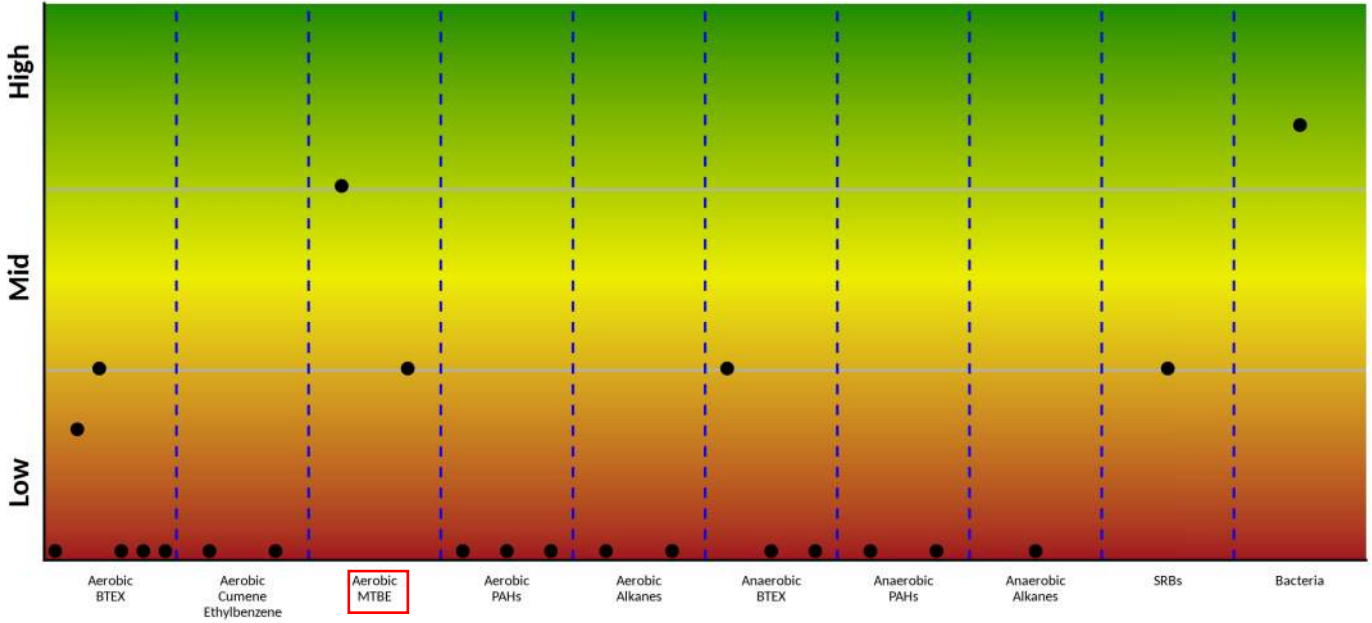


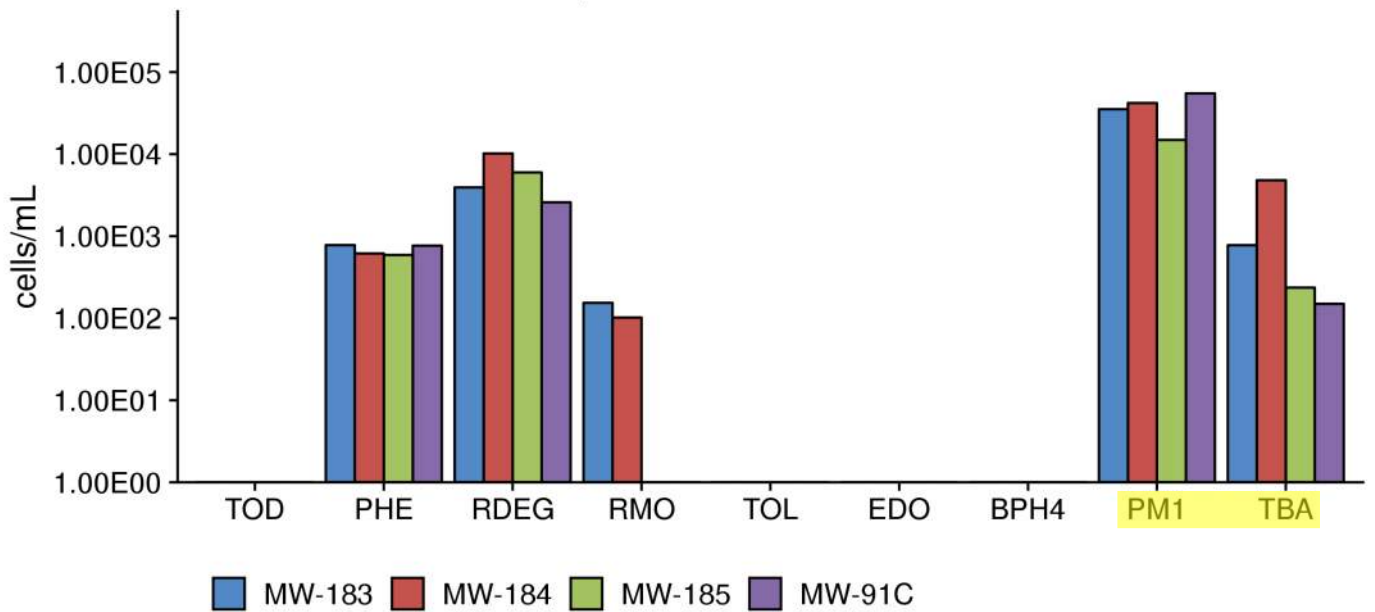
Figure 4: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

Aerobic		Anaerobic
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene
MTBE/TBA	PMI, TBA	Alkanes
Naphthalene	NAH, NidA	BCR, BSS, ABC
Phenanthrene	PHN	MNSSA, ANC
Alkanes	ALK, ALMA	assA

**Table 2:** Summary of the QuantArray®-Petro results for microorganisms responsible for aerobic biodegradation of BTEX and MTBE for samples MW-183, MW-184, MW-185, and MW-91C.

Sample Name	MW-183	MW-184	MW-185	MW-91C
Sample Date	11/04/2019	11/04/2019	11/04/2019	11/04/2019
<i>Aerobic BTEX and MTBE</i>	cells/mL	cells/mL	cells/mL	cells/mL
Toluene/Benzene Dioxygenase (TOD)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Phenol Hydroxylase (PHE)	7.79E+02	6.16E+02	5.90E+02	7.67E+02
Toluene 2 Monooxygenase/Phenol Hydroxylase (RDEG)	3.93E+03	1.02E+04	5.99E+03	2.59E+03
Toluene Ring Hydroxylating Monooxygenases (RMO)	1.54E+02	1.02E+02	<1.22E+01	<2.38E+01
Xylene/Toluene Monooxygenase (TOL)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Ethylbenzene/Isopropylbenzene Dioxygenase (EDO)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Biphenyl/Isopropylbenzene Dioxygenase (BPH4)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
<i>Methylibium petroleiphilum</i> PM1 (PM1)	3.53E+04	4.20E+04	1.49E+04	5.51E+04
TBA Monooxygenase (TBA)	7.77E+02	4.81E+03	2.36E+02	1.50E+02

**Microbial Populations - Aerobic BTEX and MTBE**



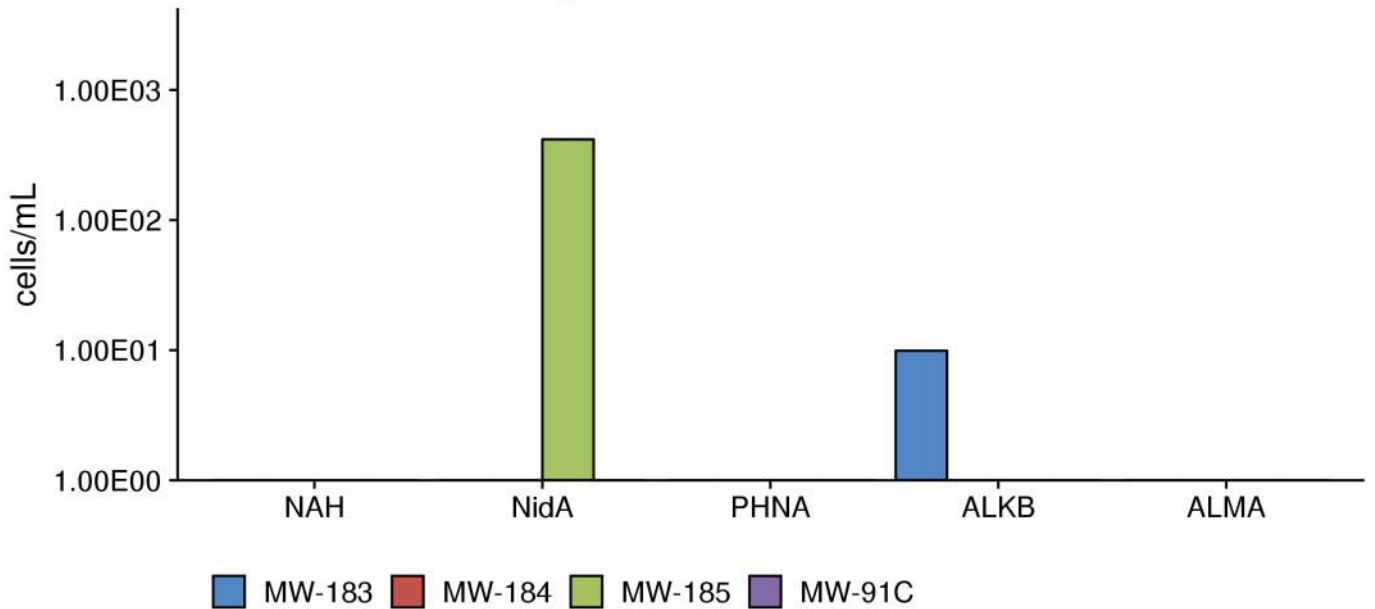
**Figure 5:** Comparison - microbial populations involved in aerobic biodegradation of BTEX and MTBE.



**Table 3:** Summary of the QuantArray®-Petro results for microorganisms responsible for aerobic biodegradation of PAHs and alkanes for samples MW-183, MW-184, MW-185, and MW-91C.

Sample Name	MW-183	MW-184	MW-185	MW-91C
Sample Date	11/04/2019	11/04/2019	11/04/2019	11/04/2019
<i>Aerobic PAHs and Alkanes</i>	cells/mL	cells/mL	cells/mL	cells/mL
Naphthalene Dioxygenase (NAH)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Naphthalene-inducible Dioxygenase (NidA)	<4.50E+00	<4.50E+00	<b>4.17E+02</b>	<2.38E+01
Phenanthrene Dioxygenase (PHN)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Alkane Monooxygenase (ALK)	<b>9.90E+00</b>	<4.50E+00	<1.22E+01	<2.38E+01
Alkane Monooxygenase (ALMA)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01

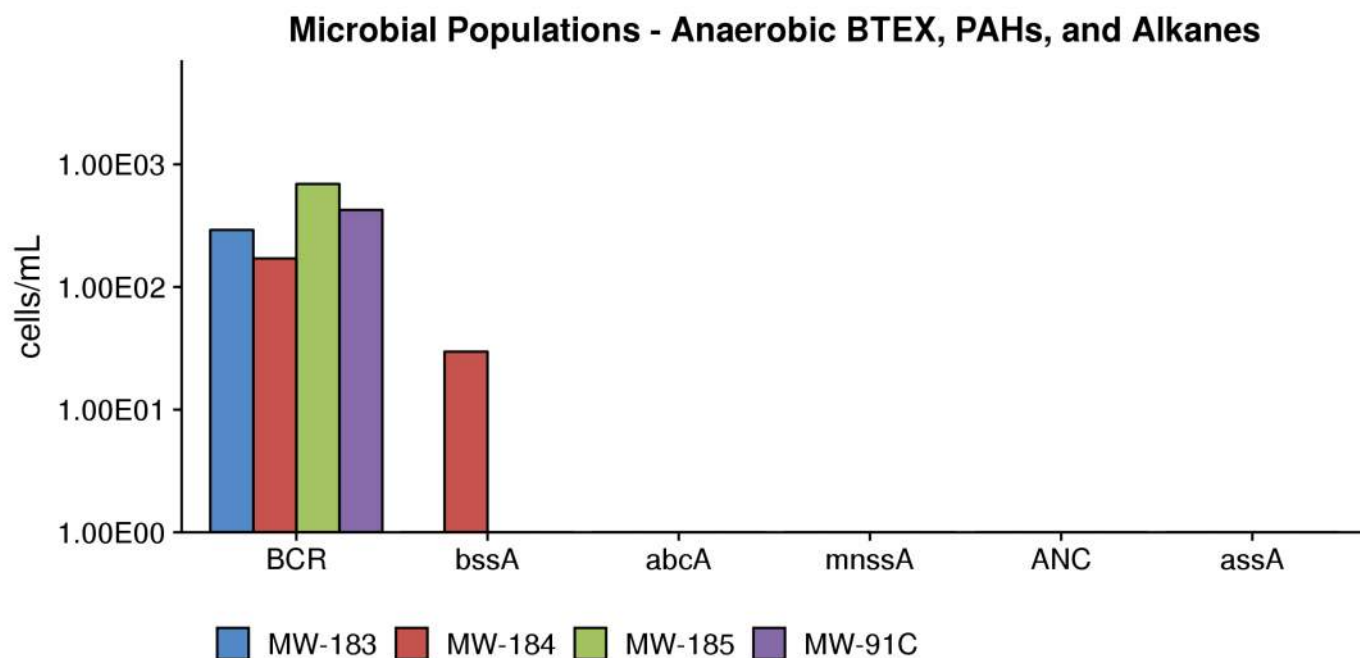
### Microbial Populations - Aerobic PAHs and Alkanes



**Figure 6:** Comparison - microbial populations involved in aerobic biodegradation of PAHs and alkanes.

**Table 4:** Summary of the QuantArray®-Petro results for microorganisms responsible for anaerobic biodegradation of BTEX, PAHs and alkanes for samples MW-183, MW-184, MW-185, and MW-91C.

Sample Name	MW-183	MW-184	MW-185	MW-91C
Sample Date	11/04/2019	11/04/2019	11/04/2019	11/04/2019
<i>Anaerobic BTEX</i>				
	cells/mL	cells/mL	cells/mL	cells/mL
Benzoyl Coenzyme A Reductase (BCR)	2.92E+02	1.71E+02	6.92E+02	4.25E+02
Benzylsuccinate Synthase (BSS)	<4.50E+00	2.97E+01	<1.22E+01	<2.38E+01
Benzene Carboxylase (ABC)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
<i>Anaerobic PAHs and Alkanes</i>				
Naphthylmethylsuccinate Synthase (MNSSA)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Naphthalene Carboxylase (ANC)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01
Alkylsuccinate Synthase (ASS)	<4.50E+00	<4.50E+00	<1.22E+01	<2.38E+01



**Figure 7:** Comparison - microbial populations involved in anaerobic biodegradation of BTEX, PAHs and alkanes.

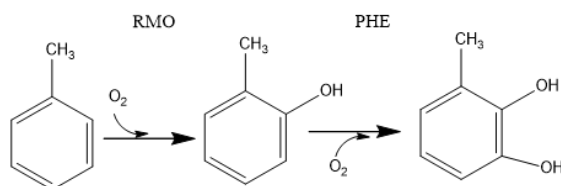
## Interpretation

The overall purpose of the QuantArray<sup>®</sup>-Petro is to give site managers the ability to simultaneously yet economically evaluate the potential for biodegradation of a spectrum of contaminants found in petroleum products through a multitude of aerobic and anaerobic pathways to give a much more clear and comprehensive view of contaminant biodegradation. The following discussion describes interpretation of results in general terms and is meant to serve as a guide.

**Aerobic Biodegradation - Benzene Toluene, Ethylbenzene, and Xylenes (BTEX):** At sites impacted by petroleum products, aromatic hydrocarbons including BTEX are often contaminants of concern. Aerobic biodegradation of aromatic hydrocarbons has been intensively studied and multiple catabolic pathways have been well characterized. The substrate specificity of each pathway (range of compounds biodegraded via each pathway) is largely determined by the specificity of the initial oxygenase enzyme. The QuantArray<sup>®</sup>-Petro includes a suite of assays targeting the initial oxygenase genes of the known pathways for aerobic BTEX biodegradation.

**Toluene/Benzene Dioxygenase (TOD):** Toluene/benzene dioxygenase (TOD) incorporates both atoms of molecular oxygen into the aromatic ring. Although commonly called toluene dioxygenase, the substrate specificity of this enzyme is relaxed, allowing growth on toluene and benzene along with co-oxidation of a variety of compounds including ethylbenzene, *o*-xylene, *m*-xylene, and trichloroethene (TCE) when expressed.

**Toluene/Benzene Monooxygenases (RMO/RDEG) and Phenol Hydroxylases (PHE):** The next three known pathways for aerobic biodegradation of toluene (as well as benzene and xylenes) involve two steps: (1) an initial oxidation mediated by a toluene monooxygenase and (2) a second oxidation step catalyzed by a phenol hydroxylase. In these pathways, the toluene monooxygenases have been referred to as “ring hydroxylating monooxygenases” because they initiate biodegradation of toluene by incorporating oxygen directly into the aromatic ring rather than at a methyl group. The ring hydroxylating monooxygenases (RMOs) can be further described as toluene-2-monooxygenases, toluene-3-monooxygenases, or toluene-4-monooxygenases based upon where they attack the aromatic ring.



In General, phenol hydroxylases (PHE) catalyze the continued oxidation of phenols produced by RMOs. However, the difference between toluene monooxygenases (RMOs) and phenol hydroxylases (PHEs) is not absolute in terms of substrate specificity and catabolic function. For example, the TbmD toluene/benzene-2-monooxygenase [1] may be responsible for both the initial and second oxidation step [2].

The RMO, RDEG, and PHE assays target groups of genes encoding enzymes which perform the critical first and/or second steps in the aerobic biodegradation of BTEX compounds. In general terms, the RMO assay quantifies families of toluene-3-monooxygenase and toluene-4-monooxygenase genes. The RDEG assay is used to quantify groups of toluene-2-monooxygenase and phenol hydroxylase genes. Similarly, the PHE assay targets phenol hydroxylase genes and several benzene monooxygenase genes which catalyze both oxidation steps.

**Toluene/Xylene Monooxygenase (TOL):** The final known pathway for aerobic toluene biodegradation involves initial monooxygenase attack at the methyl group by a toluene/xylene monooxygenase.

**Ethylbenzene Dioxygenase (EDO):** Similar to TOD, this group of aromatic oxygenases exhibits relatively broad specificity and is responsible for aerobic biodegradation of alkylbenzenes including ethylbenzene and isopropylbenzene or cumene [3].

**Biphenyl Dioxygenase (BPH4):** In environmental restoration, biphenyl dioxygenases are best known for cometabolism of polychlorinated biphenyls (PCBs). However, this subfamily includes benzene [4] and isopropylbenzene [5] dioxygenases from *Rhodococcus* spp.

**Aerobic Biodegradation - MTBE and TBA:** With increased use in the 1990s, the fuel oxygenate methyl *tert*-butyl ether (MTBE) has become one of the most commonly detected groundwater contaminants at gasoline contaminated sites. Pure cultures capable of utilizing MTBE as a growth supporting substrate have been isolated [6] and aerobic biodegradation of MTBE and the intermediate *tert*-butyl alcohol (TBA) has been reasonably well characterized. The QuantArray<sup>®</sup>-Petro includes quantification of two gene targets to assess the potential for aerobic biodegradation of MTBE and TBA.

***Methylibium petroleiphilum* PM1 (PM1):** One of the few organisms isolated to date which is capable of utilizing MTBE and TBA as growth supporting substrates [6].

**TBA Monooxygenase (TBA):** Targets the TBA monooxygenase gene responsible for oxidation of TBA by *Methylibium petroleiphilum* PM1 [7].

#### **Aerobic Biodegradation - Naphthalene and Other PAHs:**

**Naphthalene Dioxygenase (NAH):** Naphthalene dioxygenase incorporates both atoms of molecular oxygen into naphthalene to initiate aerobic metabolism of the compound. However, the broad substrate specificity of naphthalene dioxygenase has been widely noted. When expressed, naphthalene dioxygenase is capable of catalyzing the oxidation of larger PAHs like anthracene, phenanthrene, acenaphthylene, fluorene, and acenaphthene. For a more comprehensive list of reactions mediated by naphthalene dioxygenases, see the University of Minnesota Biocatalysis/Biodegradation Database. (<http://eawag-bbd.ethz.ch/naph/ndo.html>, [8]).

**Phenanthrene Dioxygenases (PHN):** The PHN assays quantify phenanthrene/naphthalene dioxygenase genes from a diverse collection of microorganisms including *Pseudomonas*, *Burkholderia*, *Sphingomonas*, and *Acidovorax* spp. As with other naphthalene dioxygenases, substrate specificity is relatively broad and phenanthrene dioxygenases have been implicated in the biodegradation of naphthalene, phenanthrene, and anthracene and the co-oxidation of larger PAHs. Moreover, at least one research group has suggested that the PHN group of phenanthrene/naphthalene dioxygenases may be more environmentally relevant than the classical *nah*-like naphthalene dioxygenase [9].

**Aerobic Biodegradation - *n*-alkanes:** The *n*-alkanes are a substantial portion of petroleum products and are a component of TPH concentrations. The QuantArray<sup>®</sup>-Petro also includes quantification of alkane monooxygenase genes (ALK) which allow a wide range of *Proteobacteria* and *Actinomycetals* to grow on *n*-alkanes with carbon lengths from C<sub>5</sub> to C<sub>16</sub> [10]. The QuantArray<sup>®</sup>-Petro also includes a second type of alkane hydroxylase (*almA*) which catalyzes the aerobic biodegradation of longer chain alkanes (C<sub>20</sub>-C<sub>32</sub>) by some *Alcanivorax* spp. considered dominant in marine systems [11].

**Anaerobic Biodegradation - Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX):** BTEX compounds are also susceptible to biodegradation under anoxic and anaerobic conditions although biodegradation pathways for each compound are not as well characterized as aerobic pathways. The QuantArray<sup>®</sup>-Petro includes sets of assays targeting a number of upper and lower pathway functional genes involved in the anaerobic catabolism of BTEX compounds for better evaluation of anaerobic biodegradation at petroleum contaminated sites.

**Benzylsuccinate Synthase (BSS):** Of the BTEX compounds, toluene biodegradation under anaerobic conditions is the most extensively studied and best characterized. The first step in this pathway, mediated by benzylsuccinate synthase (*bssA*) is the addition of fumarate onto the toluene methyl group to form benzylsuccinate. While additional pathways are possible, some bacterial isolates capable of anaerobic biodegradation of ethylbenzene and xylenes follow the same metabolic approach where the first step is the addition of fumarate.

**Anaerobic Benzene Carboxylase (ABC):** Although additional pathways are possible, the only pathway for anaerobic biodegradation of benzene elucidated to date is initiated by a benzene carboxylase enzyme.

**Benzoyl Coenzyme A Reductase (BCR):** Benzoyl-CoA is the central intermediate in the anaerobic biodegradation of many aromatic hydrocarbons. Benzoyl-CoA Reductase (BCR) is the essential enzyme for reducing the benzene ring structure.

**Anaerobic Biodegradation - PAHs:** The anaerobic biodegradation of PAHs involves analogous mechanisms to those described for anaerobic biodegradation of BTEX compounds. For example, the anaerobic biodegradation of methyl-substituted PAHs like 2-methylnaphthalene is initiated by fumarate addition to the methyl group while the only characterized pathway for anaerobic naphthalene biodegradation is initiated by a carboxylase.

**Naphthylmethylsuccinate Synthase (MNSSA):** MNSSA is analogous to the benzylsuccinate synthase described above for anaerobic biodegradation of toluene. Naphthylmethylsuccinate synthase catalyzes the addition of fumarate onto the methyl group of 2-methylnaphthalene [12].

**Anaerobic Naphthalene Carboxylase (ANC):** To date, the only pathway that has been characterized for anaerobic biodegradation of naphthalene is initiated by a naphthalene carboxylase enzyme [13].

**Anaerobic Biodegradation - *n*-alkanes:** As mentioned previously, the *n*-alkanes are a substantial portion of petroleum products and should be considered particularly when site cleanup goals include TPH reduction. The addition of fumarate is a common mechanism for activating and initiating biodegradation of a variety of petroleum hydrocarbons under anaerobic conditions including *n*-alkanes. The QuantArray<sup>®</sup>-Petro includes quantification of alkyl succinate synthase genes (*assA*) which have been characterized in nitrate reducing and sulfate reducing isolates utilizing *n*-alkanes from C<sub>6</sub> to at least C<sub>18</sub> [14].

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# SITE LOGIC Report

## *QuantArray<sup>®</sup>-Petro Study*

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**Project:** Exxon Mobil 28077, 20193011  
**Comments:**

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## The QuantArray<sup>®</sup>-Petro Approach

Comprehensive evaluation of biodegradation potential at petroleum impacted sites is inherently problematic due to two factors:

- (1) Petroleum products are complex mixtures of hundreds of aliphatic, aromatic, cyclic, and heterocyclic compounds.
- (2) Even for common classes of contaminants like benzene, toluene, ethylbenzene, and xylenes (BTEX), biodegradation can proceed by a multitude of pathways.

The QuantArray<sup>®</sup>-Petro has been designed to address both of these issues by providing the simultaneous quantification of the specific functional genes responsible for both aerobic and anaerobic biodegradation of BTEX, PAHs, and a variety of short and long chain alkanes.

Thus, when combined with chemical and geochemical groundwater monitoring programs, the QuantArray<sup>®</sup>-Petro allows site managers to simultaneously yet economically evaluate the potential for biodegradation of a spectrum of petroleum hydrocarbons through a multitude of aerobic and anaerobic pathways to give a much clearer and comprehensive view of contaminant biodegradation.

The QuantArray<sup>®</sup>-Petro is used to quantify specific microorganisms and functional genes to evaluate aerobic and anaerobic biodegradation of the following classes of compounds present in petroleum products:

### BTEX and MTBE

Toluene dioxygenase (TOD) and monooxygenase (RMO, RDEG, PHE, TOL) genes for aerobic BTEX biodegradation

Includes MTBE utilizing strain *Methylibium petroleiphilum* PM1 and TBA monooxygenase

Benzylsuccinate synthase (BSS) for anaerobic biodegradation of toluene, ethylbenzene, and xylenes

Benzene carboxylase (ABC) for anaerobic benzene biodegradation]

### Naphthalene and PAHs

Includes two groups of naphthalene dioxygenase genes (NAH, PHN) for aerobic biodegradation

Naphthylmethylsuccinate synthase (MNSSA) for anaerobic biodegradation of methyl-naphthalenes

Naphthalene carboxylase (ANC) initiates the only known pathway for anaerobic naphthalene biodegradation

### Alkanes/TPH

The *n*-alkanes are a substantial portion of petroleum products

The QuantArray<sup>®</sup>-Petro includes quantification of alkane monooxygenase genes (ALK and ALMA)

Also includes quantification of alkylsuccinate synthase (assA) genes to evaluate anaerobic biodegradation of alkanes

### How do QuantArrays<sup>®</sup> work?

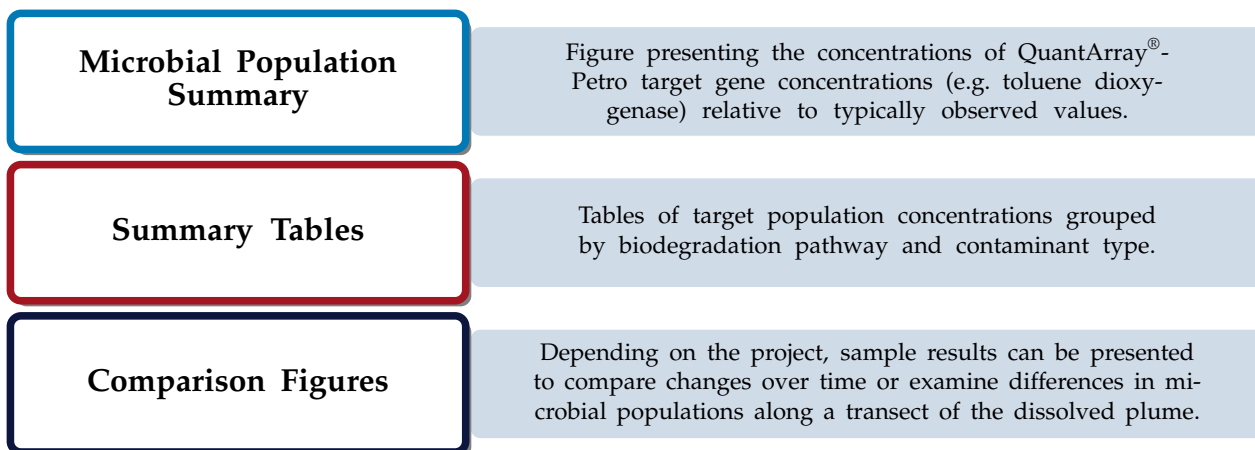
The QuantArray<sup>®</sup>-Petro in many respects is a hybrid technology combining the highly parallel detection of microarrays with the accurate and precise quantification provided by qPCR into a single platform. The key to highly parallel qPCR reactions is the nanoliter fluidics platform for low volume, solution phase qPCR reactions.



### How are QuantArray® results reported?

One of the primary advantages of the QuantArray®-Petro is the simultaneous quantification of a broad spectrum of different microorganisms and key functional genes involved in a variety of pathways for hydrocarbon biodegradation. However, highly parallel quantification combined with various metabolic and cometabolic capabilities of different target organisms can complicate data presentation. Therefore, in addition to Summary Tables, QuantArray®-Petro results will be presented as Microbial Population Summary and Comparison Figures to aid in the data interpretation and subsequent evaluation of site management activities.

### Types of Tables and Figures:



## Results

**Table 1:** Summary of the QuantArray®-Petro results obtained for samples MW-183[R], MW-184[R], MW-185[R], and MW-91C[R].

Sample Name Sample Date	MW-183[R] 04/21/2020	MW-184[R] 04/21/2020	MW-185[R] 04/21/2020	MW-91C[R] 04/21/2020
<i>Aerobic BTEX and MTBE</i>				
	cells/mL	cells/mL	cells/mL	cells/mL
Toluene/Benzene Dioxygenase (TOD)	<4.50E+00	6.00E-01 (J)	1.60E+00 (J)	7.00E-01 (J)
Phenol Hydroxylase (PHE)	1.40E+03	2.67E+03	6.40E+02	<4.50E+00
Toluene 2 Monooxygenase/Phenol Hydroxylase (RDEG)	4.49E+03	4.14E+04	4.18E+03	<4.50E+00
Toluene Ring Hydroxylating Monooxygenases (RMO)	2.79E+02	2.51E+02	5.98E+01	<4.50E+00
Xylene/Toluene Monooxygenase (TOL)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Ethylbenzene/Isopropylbenzene Dioxygenase (EDO)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Biphenyl/Isopropylbenzene Dioxygenase (BPH4)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
<i>Methylibium petroleiphilum</i> PM1 (PM1)	1.73E+04	6.59E+04	6.03E+04	1.50E+00 (J)
TBA Monooxygenase (TBA)	2.31E+03	1.90E+04	3.33E+02	<4.50E+00
<i>Aerobic PAHs and Alkanes</i>				
Naphthalene Dioxygenase (NAH)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Naphthalene-inducible Dioxygenase (NidA)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Phenanthrene Dioxygenase (PHN)	5.00E-01 (J)	<4.50E+00	<4.50E+00	<4.50E+00
Alkane Monooxygenase (ALK)	8.90E+00	<4.50E+00	5.10E+00	<4.50E+00
Alkane Monooxygenase (ALMA)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
<i>Anaerobic BTEX</i>				
Benzoyl Coenzyme A Reductase (BCR)	4.19E+02	1.23E+03	1.59E+03	<4.50E+00
Benzylsuccinate Synthase (BSS)	<4.50E+00	7.53E+01	<4.50E+00	<4.50E+00
Benzene Carboxylase (ABC)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
<i>Anaerobic PAHs and Alkanes</i>				
Naphthylmethylsuccinate Synthase (MNSSA)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Naphthalene Carboxylase (ANC)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Alkylsuccinate Synthase (ASSA)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
<i>Other</i>				
Total Eubacteria (EBAC)	5.75E+05	1.30E+06	1.62E+06	1.83E+03
Sulfate Reducing Bacteria (APS)	8.61E+03	4.07E+03	8.19E+01	<4.50E+00

### Legend:

NA = Not Analyzed  
I = Inhibited

NS = Not Sampled  
< = Result Not Detected

J = Estimated Gene Copies Below PQL but Above LQL

### Microbial Populations MW-183[R]

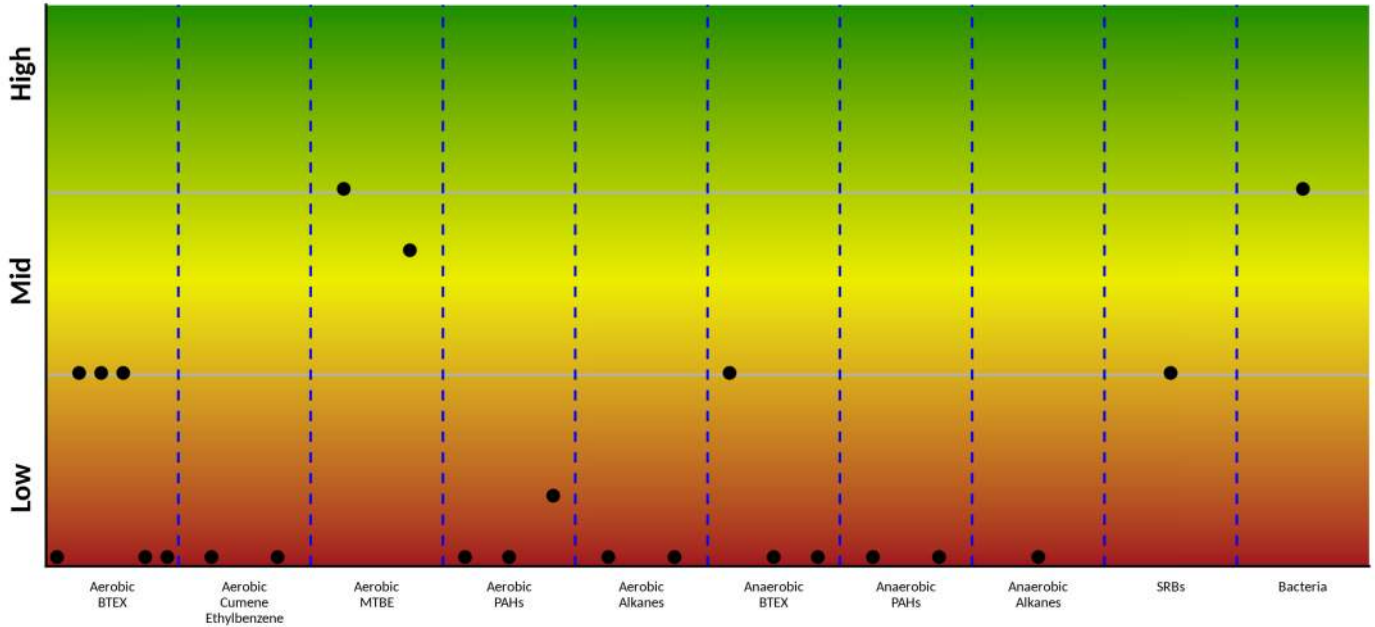


Figure 1: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

Aerobic		Anaerobic	
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX	BCR, BSS, ABC
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene	MNSSA, ANC
MTBE/TBA	PM1, TBA	Alkanes	assA
Naphthalene	NAH, NidA		
Phenanthrene	PHN		
Alkanes	ALK, ALMA		

### Microbial Populations MW-184[R]

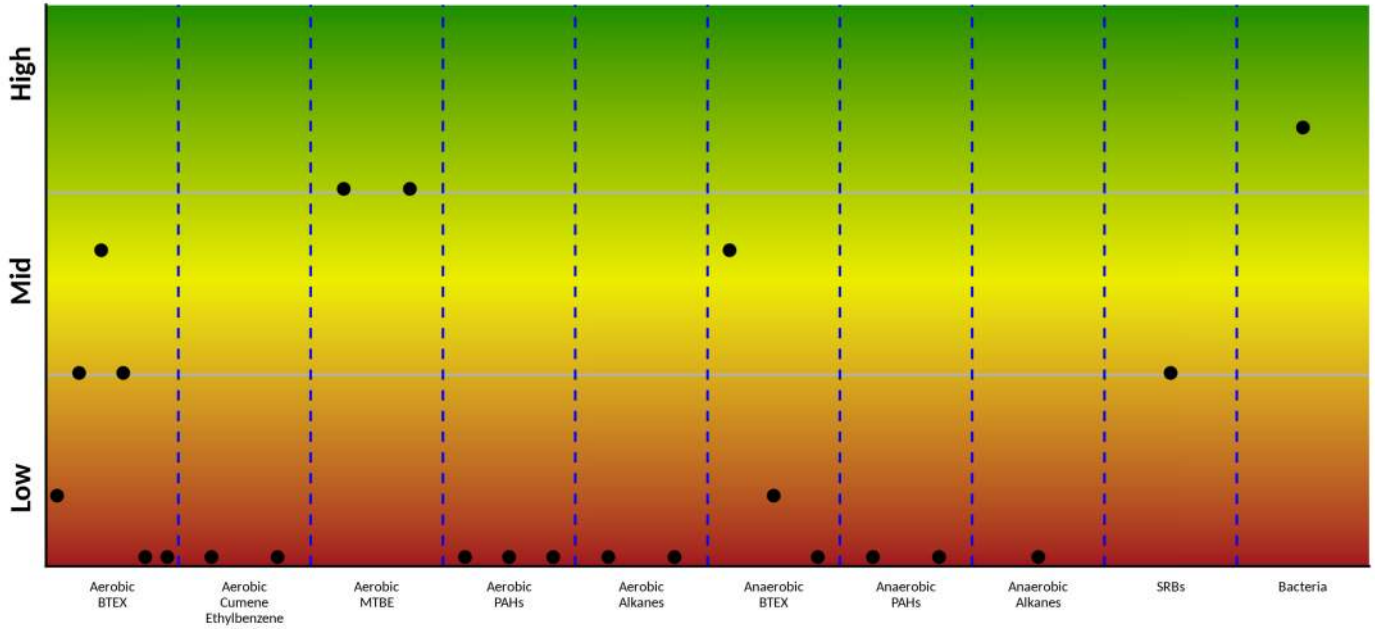


Figure 2: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

	Aerobic	Anaerobic
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene
MTBE/TBA	PM1, TBA	Alkanes
Naphthalene	NAH, NidA	BCR, BSS, ABC
Phenanthrene	PHN	MNSSA, ANC
Alkanes	ALK, ALMA	assA

### Microbial Populations MW-185[R]

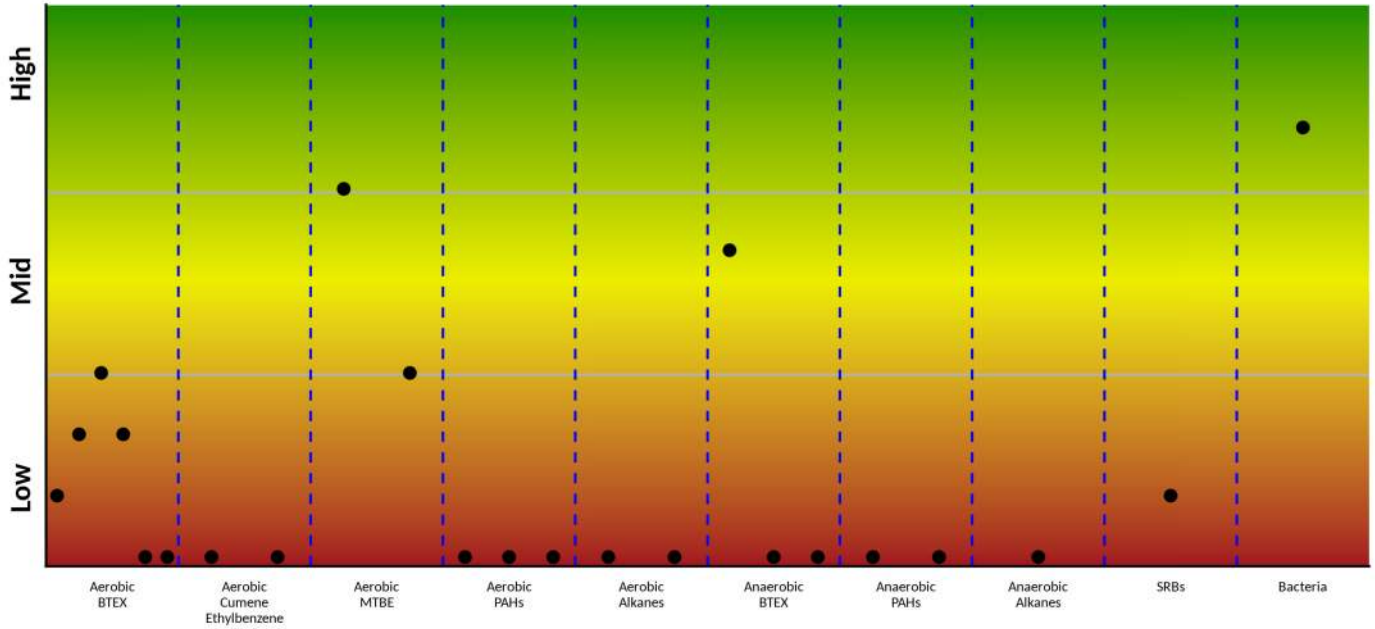


Figure 3: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

Aerobic		Anaerobic	
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX	BCR, BSS, ABC
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene	MNSSA, ANC
MTBE/TBA	PM1, TBA	Alkanes	assA
Naphthalene	NAH, NidA		
Phenanthrene	PHN		
Alkanes	ALK, ALMA		

### Microbial Populations MW-91C[R]

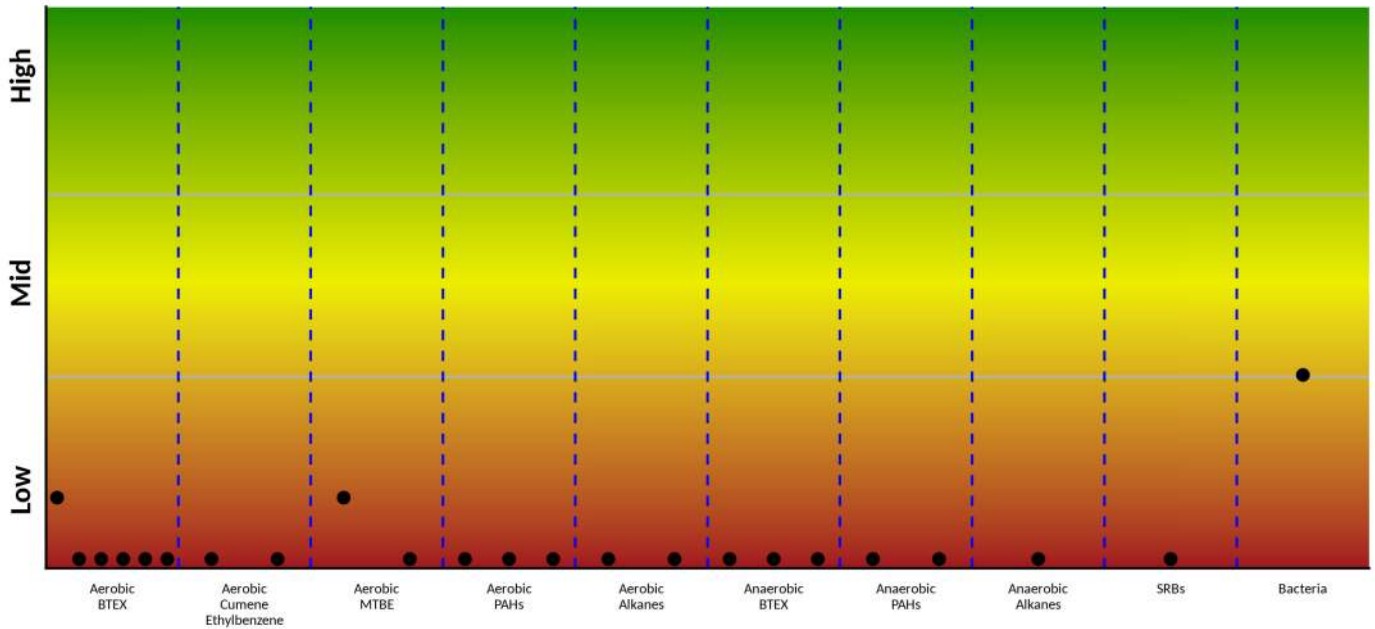
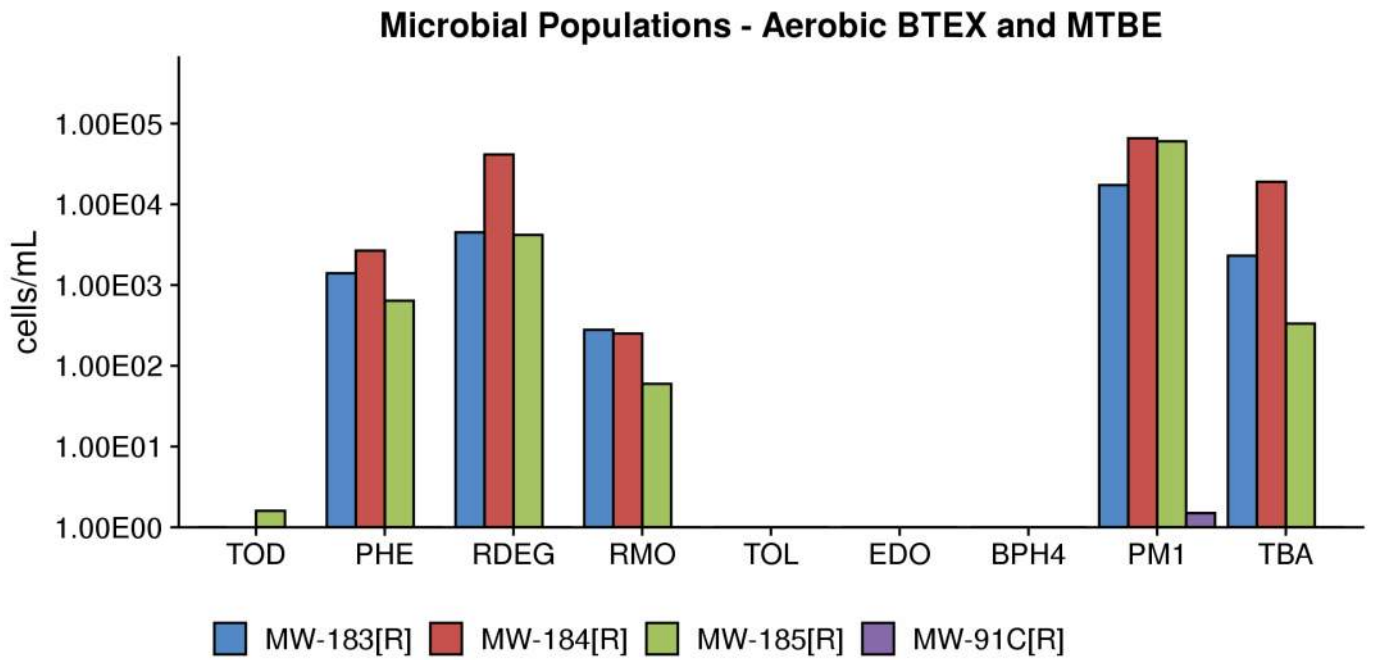


Figure 4: Microbial population summary to aid in evaluating potential pathways and biodegradation of specific contaminants.

Aerobic		Anaerobic
BTEX	TOD, PHE, RDEG, RMO, TOL, EDO	BTEX
Cumene, Ethylbenzene	EDO, BPH4	Naphthalene/Methylnaphthalene
MTBE/TBA	PM1, TBA	Alkanes
Naphthalene	NAH, NidA	BCR, BSS, ABC
Phenanthrene	PHN	MNSSA, ANC
Alkanes	ALK, ALMA	assA

**Table 2:** Summary of the QuantArray®-Petro results for microorganisms responsible for aerobic biodegradation of BTEX and MTBE for samples MW-183[R], MW-184[R], MW-185[R], and MW-91C[R].

Sample Name	MW-183[R]	MW-184[R]	MW-185[R]	MW-91C[R]
Sample Date	04/21/2020	04/21/2020	04/21/2020	04/21/2020
<i>Aerobic BTEX and MTBE</i>	cells/mL	cells/mL	cells/mL	cells/mL
Toluene/Benzene Dioxygenase (TOD)	<4.50E+00	6.00E-01 (J)	1.60E+00 (J)	7.00E-01 (J)
Phenol Hydroxylase (PHE)	1.40E+03	2.67E+03	6.40E+02	<4.50E+00
Toluene 2 Monooxygenase/Phenol Hydroxylase (RDEG)	4.49E+03	4.14E+04	4.18E+03	<4.50E+00
Toluene Ring Hydroxylating Monooxygenases (RMO)	2.79E+02	2.51E+02	5.98E+01	<4.50E+00
Xylene/Toluene Monooxygenase (TOL)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Ethylbenzene/Isopropylbenzene Dioxygenase (EDO)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Biphenyl/Isopropylbenzene Dioxygenase (BPH4)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
<i>Methylibium petroleiphilum</i> PM1 (PM1)	1.73E+04	6.59E+04	6.03E+04	1.50E+00 (J)
TBA Monooxygenase (TBA)	2.31E+03	1.90E+04	3.33E+02	<4.50E+00

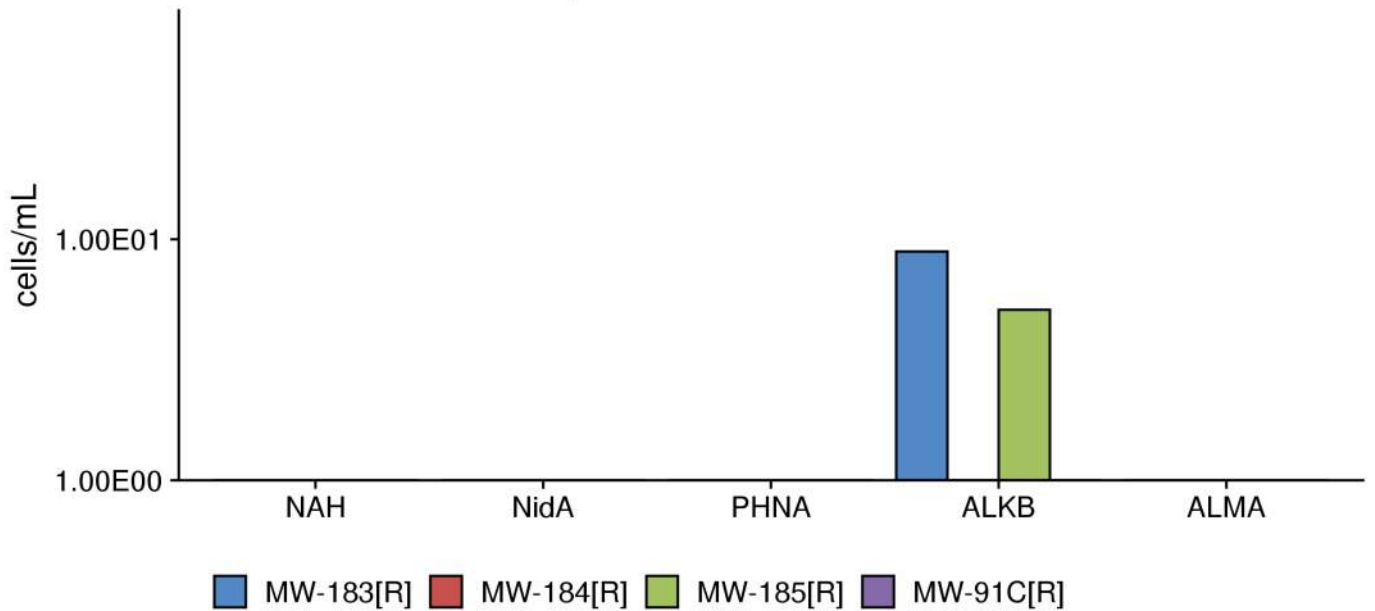


**Figure 5:** Comparison - microbial populations involved in aerobic biodegradation of BTEX and MTBE.

**Table 3:** Summary of the QuantArray®-Petro results for microorganisms responsible for aerobic biodegradation of PAHs and alkanes for samples MW-183[R], MW-184[R], MW-185[R], and MW-91C[R].

Sample Name	MW-183[R]	MW-184[R]	MW-185[R]	MW-91C[R]
Sample Date	04/21/2020	04/21/2020	04/21/2020	04/21/2020
<i>Aerobic PAHs and Alkanes</i>	cells/mL	cells/mL	cells/mL	cells/mL
Naphthalene Dioxygenase (NAH)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Naphthalene-inducible Dioxygenase (NidA)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Phenanthrene Dioxygenase (PHN)	<b>5.00E-01 (J)</b>	<4.50E+00	<4.50E+00	<4.50E+00
Alkane Monooxygenase (ALK)	<b>8.90E+00</b>	<4.50E+00	<b>5.10E+00</b>	<4.50E+00
Alkane Monooxygenase (ALMA)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00

### Microbial Populations - Aerobic PAHs and Alkanes

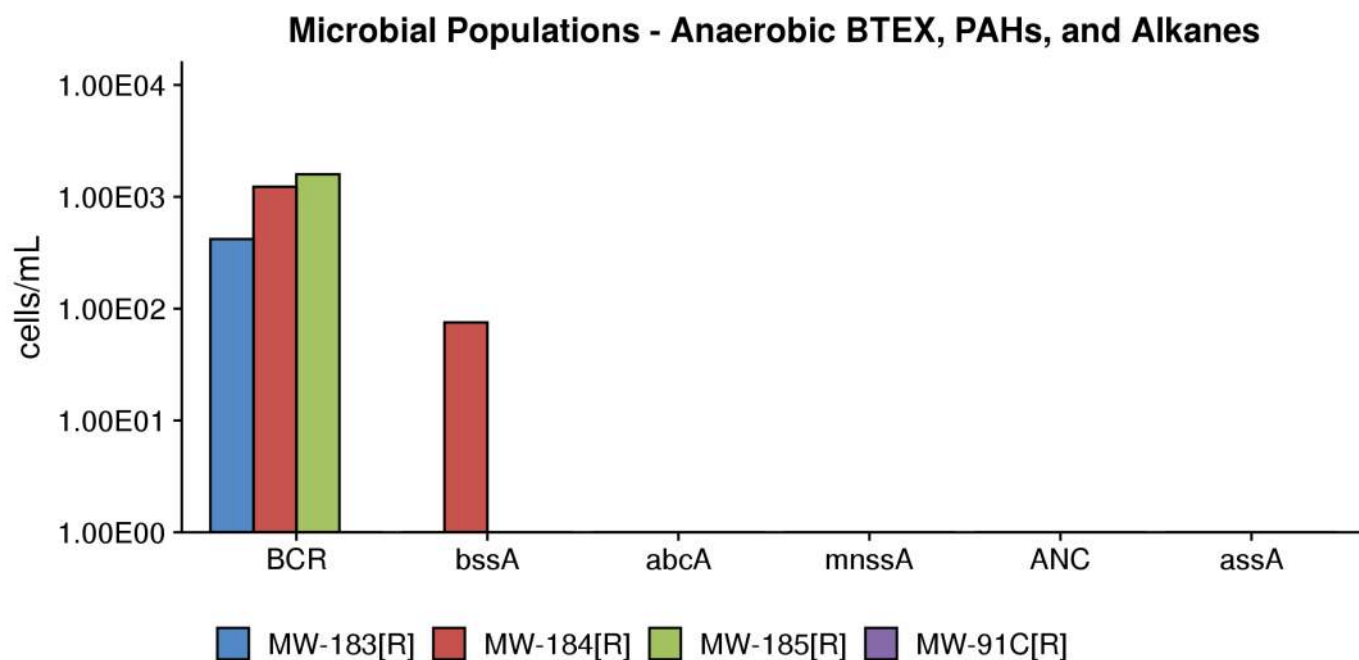


**Figure 6:** Comparison - microbial populations involved in aerobic biodegradation of PAHs and alkanes.



**Table 4:** Summary of the QuantArray®-Petro results for microorganisms responsible for anaerobic biodegradation of BTEX, PAHs and alkanes for samples MW-183[R], MW-184[R], MW-185[R], and MW-91C[R].

Sample Name	MW-183[R]	MW-184[R]	MW-185[R]	MW-91C[R]
Sample Date	04/21/2020	04/21/2020	04/21/2020	04/21/2020
<i>Anaerobic BTEX</i>	cells/mL	cells/mL	cells/mL	cells/mL
Benzoyl Coenzyme A Reductase (BCR)	4.19E+02	1.23E+03	1.59E+03	<4.50E+00
Benzylsuccinate Synthase (BSS)	<4.50E+00	7.53E+01	<4.50E+00	<4.50E+00
Benzene Carboxylase (ABC)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
<i>Anaerobic PAHs and Alkanes</i>				
Naphthylmethylsuccinate Synthase (MNSSA)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Naphthalene Carboxylase (ANC)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00
Alkylsuccinate Synthase (ASS)	<4.50E+00	<4.50E+00	<4.50E+00	<4.50E+00



**Figure 7:** Comparison - microbial populations involved in anaerobic biodegradation of BTEX, PAHs and alkanes.

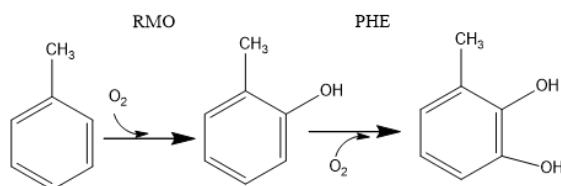
## Interpretation

The overall purpose of the QuantArray<sup>®</sup>-Petro is to give site managers the ability to simultaneously yet economically evaluate the potential for biodegradation of a spectrum of contaminants found in petroleum products through a multitude of aerobic and anaerobic pathways to give a much more clear and comprehensive view of contaminant biodegradation. The following discussion describes interpretation of results in general terms and is meant to serve as a guide.

**Aerobic Biodegradation - Benzene Toluene, Ethylbenzene, and Xylenes (BTEX):** At sites impacted by petroleum products, aromatic hydrocarbons including BTEX are often contaminants of concern. Aerobic biodegradation of aromatic hydrocarbons has been intensively studied and multiple catabolic pathways have been well characterized. The substrate specificity of each pathway (range of compounds biodegraded via each pathway) is largely determined by the specificity of the initial oxygenase enzyme. The QuantArray<sup>®</sup>-Petro includes a suite of assays targeting the initial oxygenase genes of the known pathways for aerobic BTEX biodegradation.

**Toluene/Benzene Dioxygenase (TOD):** Toluene/benzene dioxygenase (TOD) incorporates both atoms of molecular oxygen into the aromatic ring. Although commonly called toluene dioxygenase, the substrate specificity of this enzyme is relaxed, allowing growth on toluene and benzene along with co-oxidation of a variety of compounds including ethylbenzene, *o*-xylene, *m*-xylene, and trichloroethene (TCE) when expressed.

**Toluene/Benzene Monooxygenases (RMO/RDEG) and Phenol Hydroxylases (PHE):** The next three known pathways for aerobic biodegradation of toluene (as well as benzene and xylenes) involve two steps: (1) an initial oxidation mediated by a toluene monooxygenase and (2) a second oxidation step catalyzed by a phenol hydroxylase. In these pathways, the toluene monooxygenases have been referred to as “ring hydroxylating monooxygenases” because they initiate biodegradation of toluene by incorporating oxygen directly into the aromatic ring rather than at a methyl group. The ring hydroxylating monooxygenases (RMOs) can be further described as toluene-2-monooxygenases, toluene-3-monooxygenases, or toluene-4-monooxygenases based upon where they attack the aromatic ring.



In General, phenol hydroxylases (PHE) catalyze the continued oxidation of phenols produced by RMOs. However, the difference between toluene monooxygenases (RMOs) and phenol hydroxylases (PHEs) is not absolute in terms of substrate specificity and catabolic function. For example, the TbmD toluene/benzene-2-monooxygenase [1] may be responsible for both the initial and second oxidation step [2].

The RMO, RDEG, and PHE assays target groups of genes encoding enzymes which perform the critical first and/or second steps in the aerobic biodegradation of BTEX compounds. In general terms, the RMO assay quantifies families of toluene-3-monooxygenase and toluene-4-monooxygenase genes. The RDEG assay is used to quantify groups of toluene-2-monooxygenase and phenol hydroxylase genes. Similarly, the PHE assay targets phenol hydroxylase genes and several benzene monooxygenase genes which catalyze both oxidation steps.

**Toluene/Xylene Monooxygenase (TOL):** The final known pathway for aerobic toluene biodegradation involves initial monooxygenase attack at the methyl group by a toluene/xylene monooxygenase.

**Ethylbenzene Dioxygenase (EDO):** Similar to TOD, this group of aromatic oxygenases exhibits relatively broad specificity and is responsible for aerobic biodegradation of alkylbenzenes including ethylbenzene and isopropylbenzene or cumene [3].

**Biphenyl Dioxygenase (BPH4):** In environmental restoration, biphenyl dioxygenases are best known for cometabolism of polychlorinated biphenyls (PCBs). However, this subfamily includes benzene [4] and isopropylbenzene [5] dioxygenases from *Rhodococcus* spp.

**Aerobic Biodegradation - MTBE and TBA:** With increased use in the 1990s, the fuel oxygenate methyl *tert*-butyl ether (MTBE) has become one of the most commonly detected groundwater contaminants at gasoline contaminated sites. Pure cultures capable of utilizing MTBE as a growth supporting substrate have been isolated [6] and aerobic biodegradation of MTBE and the intermediate *tert*-butyl alcohol (TBA) has been reasonably well characterized. The QuantArray<sup>®</sup>-Petro includes quantification of two gene targets to assess the potential for aerobic biodegradation of MTBE and TBA.

***Methylibium petroleiphilum* PM1 (PM1):** One of the few organisms isolated to date which is capable of utilizing MTBE and TBA as growth supporting substrates [6].

**TBA Monooxygenase (TBA):** Targets the TBA monooxygenase gene responsible for oxidation of TBA by *Methylibium petroleiphilum* PM1 [7].

#### **Aerobic Biodegradation - Naphthalene and Other PAHs:**

**Naphthalene Dioxygenase (NAH):** Naphthalene dioxygenase incorporates both atoms of molecular oxygen into naphthalene to initiate aerobic metabolism of the compound. However, the broad substrate specificity of naphthalene dioxygenase has been widely noted. When expressed, naphthalene dioxygenase is capable of catalyzing the oxidation of larger PAHs like anthracene, phenanthrene, acenaphthylene, fluorene, and acenaphthene. For a more comprehensive list of reactions mediated by naphthalene dioxygenases, see the University of Minnesota Biocatalysis/Biodegradation Database. (<http://eawag-bbd.ethz.ch/naph/ndo.html>, [8]).

**Phenanthrene Dioxygenases (PHN):** The PHN assays quantify phenanthrene/naphthalene dioxygenase genes from a diverse collection of microorganisms including *Pseudomonas*, *Burkholderia*, *Sphingomonas*, and *Acidovorax* spp. As with other naphthalene dioxygenases, substrate specificity is relatively broad and phenanthrene dioxygenases have been implicated in the biodegradation of naphthalene, phenanthrene, and anthracene and the co-oxidation of larger PAHs. Moreover, at least one research group has suggested that the PHN group of phenanthrene/naphthalene dioxygenases may be more environmentally relevant than the classical *nah*-like naphthalene dioxygenase [9].

**Aerobic Biodegradation - *n*-alkanes:** The *n*-alkanes are a substantial portion of petroleum products and are a component of TPH concentrations. The QuantArray<sup>®</sup>-Petro also includes quantification of alkane monooxygenase genes (ALK) which allow a wide range of *Proteobacteria* and *Actinomycetals* to grow on *n*-alkanes with carbon lengths from C<sub>5</sub> to C<sub>16</sub> [10]. The QuantArray<sup>®</sup>-Petro also includes a second type of alkane hydroxylase (*almA*) which catalyzes the aerobic biodegradation of longer chain alkanes (C<sub>20</sub>-C<sub>32</sub>) by some *Alcanivorax* spp. considered dominant in marine systems [11].

**Anaerobic Biodegradation - Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX):** BTEX compounds are also susceptible to biodegradation under anoxic and anaerobic conditions although biodegradation pathways for each compound are not as well characterized as aerobic pathways. The QuantArray<sup>®</sup>-Petro includes sets of assays targeting a number of upper and lower pathway functional genes involved in the anaerobic catabolism of BTEX compounds for better evaluation of anaerobic biodegradation at petroleum contaminated sites.

**Benzylsuccinate Synthase (BSS):** Of the BTEX compounds, toluene biodegradation under anaerobic conditions is the most extensively studied and best characterized. The first step in this pathway, mediated by benzylsuccinate synthase (*bssA*) is the addition of fumarate onto the toluene methyl group to form benzylsuccinate. While additional pathways are possible, some bacterial isolates capable of anaerobic biodegradation of ethylbenzene and xylenes follow the same metabolic approach where the first step is the addition of fumarate.

**Anaerobic Benzene Carboxylase (ABC):** Although additional pathways are possible, the only pathway for anaerobic biodegradation of benzene elucidated to date is initiated by a benzene carboxylase enzyme.

**Benzoyl Coenzyme A Reductase (BCR):** Benzoyl-CoA is the central intermediate in the anaerobic biodegradation of many aromatic hydrocarbons. Benzoyl-CoA Reductase (BCR) is the essential enzyme for reducing the benzene ring structure.

**Anaerobic Biodegradation - PAHs:** The anaerobic biodegradation of PAHs involves analogous mechanisms to those described for anaerobic biodegradation of BTEX compounds. For example, the anaerobic biodegradation of methyl-substituted PAHs like 2-methylnaphthalene is initiated by fumarate addition to the methyl group while the only characterized pathway for anaerobic naphthalene biodegradation is initiated by a carboxylase.

**Naphthylmethylsuccinate Synthase (MNSSA):** MNSSA is analogous to the benzylsuccinate synthase described above for anaerobic biodegradation of toluene. Naphthylmethylsuccinate synthase catalyzes the addition of fumarate onto the methyl group of 2-methylnaphthalene [12].

**Anaerobic Naphthalene Carboxylase (ANC):** To date, the only pathway that has been characterized for anaerobic biodegradation of naphthalene is initiated by a naphthalene carboxylase enzyme [13].

**Anaerobic Biodegradation - *n*-alkanes:** As mentioned previously, the *n*-alkanes are a substantial portion of petroleum products and should be considered particularly when site cleanup goals include TPH reduction. The addition of fumarate is a common mechanism for activating and initiating biodegradation of a variety of petroleum hydrocarbons under anaerobic conditions including *n*-alkanes. The QuantArray<sup>®</sup>-Petro includes quantification of alkyl succinate synthase genes (*assA*) which have been characterized in nitrate reducing and sulfate reducing isolates utilizing *n*-alkanes from C<sub>6</sub> to at least C<sub>18</sub> [14].

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## **APPENDIX B**

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### **Transducer Data**

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/04/19	14:00	30.1	0.001	0.001	5.5	313.4	17.5	97.7	7		
11/04/19	14:10	27.0	0.001	0.001	5.48	308	17.5	98.9	8		
11/04/19	14:20	25.5	0.001	0.001	5.5	302.6	17	99.0	8		
11/04/19	14:30	25.6	0.001	0.001	5.48	298.3	22.7	98.8	8		
11/04/19	14:40	25.9	0.001	0.001	5.45	297.2	17.4	98.6	8		
11/04/19	14:50	26.0	0.001	0.001	5.43	297.6	21.1	99.1	8		
11/04/19	15:00	12.9	0.154	0.118	7.42	119.1	3.6	93.7	10		install transducer
11/04/19	15:10	12.9	0.153	0.118	6.29	149	6.1	93.8	10		
11/04/19	15:20	12.9	0.153	0.118	6.02	164.6	1.8	93.0	10		
11/04/19	15:30	12.9	0.153	0.118	5.94	173	1.5	92.6	10		
11/04/19	15:40	12.9	0.153	0.118	5.93	178.6	3.1	91.7	10		
11/04/19	15:50	12.9	0.153	0.117	5.94	182.3	3.6	90.7	10		
11/04/19	16:00	12.9	0.153	0.118	5.96	185	3.6	89.8	9		
11/04/19	16:10	12.9	0.153	0.118	5.98	187.4	2.1	88.3	9		
11/04/19	16:20	12.9	0.153	0.118	6	188.4	1.5	87.2	9		
11/04/19	16:30	12.9	0.154	0.118	6.02	190.4	2.3	86.9	9		
11/04/19	16:40	12.9	0.154	0.118	6.04	186	0.6	86.1	9		
11/04/19	16:50	12.9	0.154	0.118	6.04	189.5	1.3	86.3	9		
11/04/19	17:00	12.9	0.154	0.119	6.06	192.1	1.9	86.9	9		
11/04/19	17:10	12.9	0.154	0.119	6.07	194.5	1.5	86.8	9		
11/04/19	17:20	12.9	0.155	0.119	6.09	196.3	1.8	86.0	9		
11/04/19	17:30	12.9	0.155	0.119	6.1	197.9	0.1	86.0	9		
11/04/19	17:40	12.9	0.155	0.119	6.11	199.3	-0.6	86.4	9		
11/04/19	17:50	12.9	0.155	0.119	6.12	200.7	0.5	86.1	9		
11/04/19	18:00	12.9	0.154	0.119	6.13	201.5	0.3	85.6	9		
11/04/19	18:10	12.9	0.154	0.119	6.13	203.2	0.3	85.3	9		
11/04/19	18:20	12.9	0.154	0.119	6.14	204.2	0.7	85.2	9		
11/04/19	18:30	12.9	0.154	0.119	6.14	205.1	-0.3	85.1	9		
11/04/19	18:40	12.9	0.154	0.119	6.13	206.3	0.4	85.0	9		
11/04/19	18:50	12.9	0.154	0.119	6.14	206.8	1.5	85.1	9		
11/04/19	19:00	12.9	0.154	0.119	6.14	208.2	1.2	85.0	9		
11/04/19	19:10	12.9	0.154	0.119	6.15	208.4	0	85.0	9		
11/04/19	19:20	12.9	0.154	0.119	6.15	209.3	-0.6	85.0	9		
11/04/19	19:30	12.9	0.154	0.119	6.15	210.5	0.2	85.1	9		
11/04/19	19:40	12.9	0.154	0.119	6.16	210.6	0.3	85.1	9		
11/04/19	19:50	12.9	0.154	0.118	6.16	211.4	0.8	85.2	9		
11/04/19	20:00	12.9	0.154	0.118	6.17	211.8	0.9	85.2	9		
11/04/19	20:10	12.9	0.154	0.118	6.17	212.3	0.6	85.1	9		
11/04/19	20:20	12.9	0.154	0.118	6.17	213	0	85.1	9		
11/04/19	20:30	12.9	0.154	0.118	6.18	213	1.7	85.1	9		
11/04/19	20:40	12.9	0.154	0.118	6.18	213.6	0	85.2	9		
11/04/19	20:50	12.9	0.154	0.118	6.18	214	1.7	85.1	9		
11/04/19	21:00	12.9	0.154	0.118	6.19	214	1.3	85.1	9		
11/04/19	21:10	12.9	0.154	0.118	6.19	214.5	-0.4	85.2	9		
11/04/19	21:20	12.9	0.154	0.118	6.19	215	0.9	85.2	9		
11/04/19	21:30	12.9	0.154	0.118	6.19	215.5	0.5	85.2	9		
11/04/19	21:40	12.9	0.154	0.118	6.18	216.4	0.6	85.2	9		
11/04/19	21:50	12.9	0.154	0.118	6.19	216.6	1	85.3	9		
11/04/19	22:00	12.9	0.154	0.118	6.19	217	0.6	85.3	9		
11/04/19	22:10	12.9	0.154	0.118	6.2	216.5	0.7	85.3	9		
11/04/19	22:20	12.9	0.154	0.118	6.18	217.4	-0.3	85.4	9		
11/04/19	22:30	12.9	0.154	0.118	6.18	217.6	2.1	85.4	9		
11/04/19	22:40	12.9	0.154	0.118	6.18	217.7	1.8	85.5	9		
11/04/19	22:50	12.9	0.154	0.118	6.18	217.5	1.1	85.4	9		
11/04/19	23:00	12.9	0.154	0.118	6.18	217.8	2.5	85.3	9		
11/04/19	23:10	12.9	0.154	0.118	6.19	217.2	0	85.4	9		
11/04/19	23:20	12.9	0.154	0.118	6.19	217.3	0.3	85.4	9		
11/04/19	23:30	12.9	0.154	0.118	6.18	217.6	0.6	85.4	9		
11/04/19	23:40	12.9	0.154	0.118	6.19	217.3	2.3	85.5	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/04/19	23:50	12.9	0.154	0.118	6.2	216.7	0.6	85.6	9		
11/05/19	0:00	12.9	0.154	0.118	6.19	217.2	1.3	85.7	9		
11/05/19	0:10	12.9	0.154	0.118	6.2	216.9	0.9	85.7	9		
11/05/19	0:20	12.9	0.154	0.118	6.19	216.9	0.4	85.7	9		
11/05/19	0:30	12.9	0.154	0.118	6.2	216.9	1.5	85.8	9		
11/05/19	0:40	12.9	0.154	0.118	6.19	217.1	0.9	85.9	9		
11/05/19	0:50	12.9	0.154	0.118	6.19	217.5	1.7	85.9	9		
11/05/19	1:00	12.9	0.154	0.118	6.2	216.9	1.2	86.1	9		
11/05/19	1:10	12.9	0.154	0.118	6.19	217	0.4	86.1	9		
11/05/19	1:20	12.9	0.154	0.118	6.19	217.3	0.4	86.2	9		
11/05/19	1:30	12.9	0.154	0.118	6.21	215.8	-1	86.4	9		
11/05/19	1:40	12.9	0.154	0.118	6.21	215.9	-0.2	86.4	9		
11/05/19	1:50	12.9	0.154	0.118	6.21	215.5	1.2	86.4	9		
11/05/19	2:00	12.9	0.154	0.118	6.21	215.4	1.4	86.4	9		
11/05/19	2:10	12.9	0.154	0.118	6.21	215.4	1	86.5	9		
11/05/19	2:20	12.9	0.154	0.118	6.2	215.8	0.9	86.5	9		
11/05/19	2:30	12.9	0.154	0.118	6.2	215.7	-0.1	86.7	9		
11/05/19	2:40	12.9	0.154	0.118	6.2	215.1	1.7	86.6	9		
11/05/19	2:50	12.9	0.154	0.118	6.2	215.4	-0.9	86.5	9		
11/05/19	3:00	12.9	0.154	0.118	6.19	215.9	0.8	86.5	9		
11/05/19	3:10	12.9	0.153	0.118	6.19	215.9	0.3	86.7	9		
11/05/19	3:20	12.9	0.153	0.118	6.19	216.1	2.1	86.9	9		
11/05/19	3:30	12.9	0.154	0.118	6.2	215.5	0.8	87.0	9		
11/05/19	3:40	12.9	0.154	0.118	6.19	215.8	0.2	87.1	9		
11/05/19	3:50	12.9	0.154	0.118	6.19	215.6	0.9	87.2	9		
11/05/19	4:00	12.9	0.154	0.118	6.19	215.3	1.2	87.2	9		
11/05/19	4:10	12.9	0.154	0.118	6.19	215.2	2.1	87.2	9		
11/05/19	4:20	12.9	0.154	0.118	6.2	215	0.7	87.4	9		
11/05/19	4:30	12.9	0.154	0.118	6.19	215.3	0.4	87.3	9		
11/05/19	4:40	12.9	0.154	0.118	6.2	215	-0.3	87.3	9		
11/05/19	4:50	12.9	0.154	0.118	6.18	215.5	-0.2	87.3	9		
11/05/19	5:00	12.9	0.153	0.118	6.19	215.1	0.8	87.4	9		
11/05/19	5:10	12.9	0.154	0.118	6.17	215.9	0.5	87.3	9		
11/05/19	5:20	12.9	0.154	0.118	6.17	215.6	2	87.4	9		
11/05/19	5:30	12.9	0.154	0.118	6.17	215.8	0.4	87.4	9		
11/05/19	5:40	12.9	0.154	0.118	6.18	215.1	0.9	87.5	9		
11/05/19	5:50	12.9	0.154	0.118	6.19	214.5	0.4	87.4	9		
11/05/19	6:00	12.9	0.154	0.118	6.17	215.2	0.4	87.6	9		
11/05/19	6:10	12.9	0.154	0.118	6.17	215	0.3	87.6	9		
11/05/19	6:20	12.9	0.154	0.118	6.17	215.1	0.1	87.7	9		
11/05/19	6:30	12.9	0.154	0.118	6.18	214	0.3	87.8	9		
11/05/19	6:40	12.9	0.153	0.118	6.18	214	-0.5	87.7	9		
11/05/19	6:50	12.9	0.154	0.118	6.17	214.2	0.5	87.7	9		
11/05/19	7:00	12.9	0.154	0.118	6.18	213.4	-0.2	87.8	9		
11/05/19	7:10	12.9	0.154	0.118	6.19	212.9	-0.7	87.8	9		
11/05/19	7:20	12.9	0.154	0.118	6.19	212.6	0.4	87.9	9		
11/05/19	7:30	12.9	0.154	0.118	6.18	212.7	0.2	88.0	9		
11/05/19	7:40	12.9	0.154	0.118	6.17	213.1	0.6	88.0	9		
11/05/19	7:50	12.9	0.154	0.118	6.18	212.4	0.6	88.0	9		
11/05/19	8:00	12.9	0.154	0.118	6.18	212.1	2.1	88.0	9		
11/05/19	8:10	12.9	0.154	0.118	6.17	212.5	0.6	88.0	9		
11/05/19	8:20	12.9	0.154	0.118	6.18	212	0.2	88.2	9		
11/05/19	8:30	12.9	0.154	0.118	6.17	212	-0.2	88.1	9		
11/05/19	8:40	12.9	0.153	0.118	6.17	211.8	0.5	88.2	9		
11/05/19	8:50	12.9	0.154	0.118	6.18	211.4	0.7	88.2	9		
11/05/19	9:00	12.9	0.153	0.118	6.18	211.1	0.9	88.3	9		
11/05/19	9:10	12.9	0.154	0.118	6.17	211.5	0.8	88.2	9		
11/05/19	9:20	12.9	0.153	0.118	6.17	210.9	0.5	88.3	9		
11/05/19	9:30	12.9	0.154	0.118	6.17	210.7	1	88.3	9		



**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/05/19	9:40	12.9	0.154	0.118	6.18	209.8	-0.3	88.3	9		
11/05/19	9:50	12.9	0.153	0.118	6.18	209.5	1.4	88.3	9		
11/05/19	10:00	12.9	0.154	0.118	6.18	209.5	1.4	88.2	9		
11/05/19	10:10	12.9	0.153	0.118	6.19	208.4	0	88.3	9		
11/05/19	10:20	12.9	0.153	0.118	6.19	208.3	0.3	88.4	9		
11/05/19	10:30	12.9	0.153	0.118	6.19	207.9	1.8	88.4	9		
11/05/19	10:40	12.9	0.153	0.117	6.14	209.2	9.8	87.2	9		
11/05/19	10:50	12.9	0.153	0.118	6.17	191.5	2.8	86.6	9		
11/05/19	11:00	12.9	0.154	0.118	6.18	188.2	1.9	85.0	9		
11/05/19	11:10	12.9	0.154	0.119	6.19	181.9	0.7	83.4	9		
11/05/19	11:20	12.9	0.154	0.119	6.17	175.5	1	84.1	9		
11/05/19	11:30	12.9	0.154	0.119	6.17	173.1	0.4	84.0	9		
11/05/19	11:40	12.9	0.154	0.119	6.17	173	0.4	84.1	9		
11/05/19	11:50	12.9	0.154	0.119	6.18	172.7	0.9	83.7	9		
11/05/19	12:00	12.9	0.154	0.119	6.18	173.9	0.1	83.5	9		
11/05/19	12:10	12.9	0.154	0.119	6.18	173.8	1	83.4	9		
11/05/19	12:20	12.9	0.154	0.119	6.18	173.8	0.6	83.4	9		
11/05/19	12:30	12.9	0.154	0.119	6.19	173.6	0.1	83.4	9		
11/05/19	12:40	12.9	0.154	0.119	6.19	173.3	0.4	83.4	9		
11/05/19	12:50	12.9	0.154	0.119	6.19	173.3	0.7	83.4	9		
11/05/19	13:00	12.9	0.155	0.119	6.18	173.5	0.7	83.4	9		
11/05/19	13:10	12.9	0.155	0.119	6.18	173.4	0.9	83.4	9		
11/05/19	13:20	12.9	0.155	0.119	6.19	173.2	2.3	83.4	9		
11/05/19	13:30	12.9	0.155	0.119	6.18	173.5	0.6	83.4	9		
11/05/19	13:40	12.9	0.155	0.119	6.19	173.5	0.7	83.6	9		
11/05/19	13:50	12.9	0.155	0.119	6.19	173.8	1.9	83.5	9		
11/05/19	14:00	12.9	0.154	0.119	6.19	174	-0.1	83.6	9		
11/05/19	14:10	12.9	0.154	0.119	6.19	174	1.5	83.6	9		
11/05/19	14:20	12.9	0.154	0.119	6.2	173.9	0.4	83.7	9		
11/05/19	14:30	12.9	0.154	0.119	6.2	174.4	0.4	83.7	9		
11/05/19	14:40	12.9	0.154	0.119	6.2	174.6	0.6	83.8	9		
11/05/19	14:50	12.9	0.154	0.119	6.21	174	1	83.8	9		
11/05/19	15:00	12.9	0.154	0.119	6.19	174.4	2	83.8	9		
11/05/19	15:10	12.9	0.154	0.119	6.2	174.1	-0.2	83.9	9		
11/05/19	15:20	12.9	0.154	0.119	6.2	173.6	0.9	83.9	9		
11/05/19	15:30	12.9	0.154	0.119	6.19	173.9	1.9	83.8	9		
11/05/19	15:40	12.9	0.154	0.119	6.2	173.7	1.2	83.9	9		
11/05/19	15:50	12.9	0.154	0.119	6.19	174.1	1.4	83.9	9		
11/05/19	16:00	12.9	0.154	0.119	6.19	174	-0.3	83.9	9		
11/05/19	16:10	12.9	0.154	0.119	6.2	173.7	0.6	83.9	9		
11/05/19	16:20	12.9	0.154	0.119	6.2	173.8	0	84.0	9		
11/05/19	16:30	12.9	0.154	0.119	6.19	174.3	1	83.9	9		
11/05/19	16:40	12.9	0.154	0.119	6.2	174	0.5	83.9	9		
11/05/19	16:50	12.9	0.154	0.119	6.19	175	0.1	83.9	9		
11/05/19	17:00	12.9	0.154	0.119	6.19	175.4	-0.5	83.9	9		
11/05/19	17:10	12.9	0.154	0.119	6.18	177.1	-0.1	84.0	9		
11/05/19	17:20	12.9	0.154	0.119	6.18	177.5	0.4	83.9	9		
11/05/19	17:30	12.9	0.154	0.119	6.18	178.1	0.9	84.0	9		
11/05/19	17:40	12.9	0.154	0.119	6.17	179.2	0.1	83.9	9		
11/05/19	17:50	12.9	0.154	0.119	6.18	179.2	0.6	84.0	9		
11/05/19	18:00	12.9	0.154	0.119	6.18	179.6	0.4	84.0	9		
11/05/19	18:10	12.9	0.154	0.119	6.16	180.5	1.3	84.0	9		
11/05/19	18:20	12.9	0.154	0.119	6.17	180.2	1.2	83.9	9		
11/05/19	18:30	12.9	0.154	0.119	6.17	180.6	1.2	83.9	9		
11/05/19	18:40	12.9	0.154	0.119	6.16	181.2	1.1	83.9	9		
11/05/19	18:50	12.9	0.154	0.119	6.16	181.3	0	84.0	9		
11/05/19	19:00	12.9	0.154	0.119	6.17	181	-0.4	83.9	9		
11/05/19	19:10	12.9	0.154	0.119	6.17	181	0.1	84.0	9		
11/05/19	19:20	12.9	0.154	0.119	6.17	181.2	1	84.0	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/05/19	19:30	12.9	0.154	0.119	6.17	181.3	-0.6	83.9	9		
11/05/19	19:40	12.9	0.154	0.119	6.17	181.3	0.3	84.0	9		
11/05/19	19:50	12.9	0.154	0.118	6.17	181.3	0.4	84.0	9		
11/05/19	20:00	12.9	0.154	0.118	6.15	182.1	0.6	84.0	9		
11/05/19	20:10	12.9	0.154	0.118	6.16	181.6	1.4	84.1	9		
11/05/19	20:20	12.9	0.154	0.118	6.15	182.1	0.3	84.1	9		
11/05/19	20:30	12.9	0.154	0.119	6.15	181.6	0.6	84.2	9		
11/05/19	20:40	12.9	0.154	0.118	6.16	181.3	0.7	84.2	9		
11/05/19	20:50	12.9	0.154	0.118	6.15	181.2	0	84.1	9		
11/05/19	21:00	12.9	0.154	0.118	6.15	181.2	0.1	84.1	9		
11/05/19	21:10	12.9	0.154	0.118	6.16	181	-0.2	84.1	9		
11/05/19	21:20	12.9	0.154	0.118	6.15	181.3	-0.2	84.1	9		
11/05/19	21:30	12.9	0.154	0.118	6.16	181	0	84.2	9		
11/05/19	21:40	12.9	0.154	0.118	6.16	181	1.1	84.3	9		
11/05/19	21:50	12.9	0.154	0.118	6.15	180.8	0.5	84.3	9		
11/05/19	22:00	12.9	0.154	0.118	6.16	180.5	0	84.3	9		
11/05/19	22:10	12.9	0.154	0.118	6.14	181	-0.1	84.3	9		
11/05/19	22:20	12.9	0.154	0.118	6.14	181.2	0.7	84.4	9		
11/05/19	22:30	12.9	0.154	0.118	6.15	180.8	1.1	84.3	9		
11/05/19	22:40	12.9	0.154	0.118	6.15	180.3	0.8	84.4	9		
11/05/19	22:50	12.9	0.154	0.118	6.16	179.9	1.2	84.4	9		
11/05/19	23:00	12.9	0.154	0.118	6.16	179.6	0.1	84.4	9		
11/05/19	23:10	12.9	0.154	0.118	6.15	179.8	-0.3	84.5	9		
11/05/19	23:20	12.9	0.154	0.118	6.15	179.6	0.5	84.5	9		
11/05/19	23:30	12.9	0.154	0.118	6.15	179.7	0.9	84.5	9		
11/05/19	23:40	12.9	0.154	0.118	6.14	179.8	0.6	84.6	9		
11/05/19	23:50	12.9	0.154	0.118	6.14	179.5	0.2	84.7	9		
11/06/19	0:00	12.9	0.154	0.118	6.14	179.7	1.7	84.7	9		
11/06/19	0:10	12.9	0.154	0.118	6.14	179.4	-0.7	84.7	9		
11/06/19	0:20	12.9	0.154	0.118	6.14	179.3	1.6	84.7	9		
11/06/19	0:30	12.9	0.154	0.118	6.15	179	1.4	84.7	9		
11/06/19	0:40	12.9	0.154	0.118	6.15	178.8	-0.5	84.8	9		
11/06/19	0:50	12.9	0.154	0.118	6.14	179.2	-0.2	84.7	9		
11/06/19	1:00	12.9	0.154	0.118	6.15	178.2	0.1	84.6	9		
11/06/19	1:10	12.9	0.154	0.118	6.14	178.5	1.4	84.7	9		
11/06/19	1:20	12.9	0.154	0.118	6.13	178.5	1.2	84.8	9		
11/06/19	1:30	12.9	0.154	0.118	6.13	178.3	0.7	84.8	9		
11/06/19	1:40	12.9	0.154	0.118	6.14	177.6	0.3	84.8	9		
11/06/19	1:50	12.9	0.154	0.118	6.15	177.2	0.5	84.8	9		
11/06/19	2:00	12.9	0.154	0.118	6.14	177.2	0.9	84.8	9		
11/06/19	2:10	12.9	0.154	0.118	6.14	176.8	0.4	84.7	9		
11/06/19	2:20	12.9	0.154	0.118	6.14	177.1	-0.7	84.8	9		
11/06/19	2:30	12.9	0.154	0.118	6.14	176.6	0.1	84.8	9		
11/06/19	2:40	12.9	0.154	0.118	6.14	176.8	2	84.7	9		
11/06/19	2:50	12.9	0.154	0.118	6.13	176.9	-0.7	84.8	9		
11/06/19	3:00	12.9	0.154	0.118	6.14	176.6	0	84.7	9		
11/06/19	3:10	12.9	0.154	0.118	6.13	176.6	-0.8	84.8	9		
11/06/19	3:20	12.9	0.154	0.118	6.13	176.6	0.6	84.8	9		
11/06/19	3:30	12.9	0.154	0.118	6.12	176.9	0.7	84.7	9		
11/06/19	3:40	12.9	0.154	0.118	6.12	176.6	0.4	84.7	9		
11/06/19	3:50	12.9	0.154	0.118	6.12	176.7	-0.8	84.7	9		
11/06/19	4:00	12.9	0.154	0.118	6.11	176.9	0.5	84.6	9		
11/06/19	4:10	12.9	0.154	0.118	6.13	175.8	-1.1	84.7	9		
11/06/19	4:20	12.9	0.154	0.118	6.12	176.1	0.4	84.7	9		
11/06/19	4:30	12.9	0.154	0.118	6.11	176.3	0.3	84.7	9		
11/06/19	4:40	12.9	0.154	0.118	6.11	176.1	0.1	84.6	9		
11/06/19	4:50	12.9	0.154	0.118	6.13	175.2	0.6	84.7	9		
11/06/19	5:00	12.9	0.154	0.118	6.11	175.9	-0.8	84.7	9		
11/06/19	5:10	12.9	0.154	0.118	6.11	175.7	-0.2	84.6	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/06/19	5:20	12.9	0.154	0.118	6.12	175.2	-0.9	84.5	9		
11/06/19	5:30	12.9	0.154	0.118	6.11	175.7	-0.5	84.6	9		
11/06/19	5:40	12.9	0.154	0.118	6.11	175.5	0.4	84.7	9		
11/06/19	5:50	12.9	0.154	0.118	6.1	175.9	1	84.7	9		
11/06/19	6:00	12.9	0.154	0.118	6.11	175.4	-0.1	84.6	9		
11/06/19	6:10	12.9	0.154	0.118	6.11	175.1	-1.1	84.7	9		
11/06/19	6:20	12.9	0.154	0.118	6.12	174.6	-0.8	84.6	9		
11/06/19	6:30	12.9	0.154	0.118	6.11	174.8	-0.3	84.7	9		
11/06/19	6:40	12.9	0.154	0.118	6.11	175.1	0.2	84.7	9		
11/06/19	6:50	12.9	0.154	0.118	6.11	174.8	-0.8	84.6	9		
11/06/19	7:00	12.9	0.154	0.118	6.11	175	-0.2	84.7	9		
11/06/19	7:10	12.9	0.154	0.118	6.11	175.2	-0.2	84.7	9		
11/06/19	7:20	12.9	0.154	0.118	6.12	174.8	0.3	84.7	9		
11/06/19	7:30	12.9	0.154	0.118	6.11	174.9	0.2	84.8	9		
11/06/19	7:40	12.9	0.154	0.118	6.11	174.4	1.4	84.8	9		
11/06/19	7:50	12.9	0.154	0.118	6.12	174.1	0.1	84.7	9		
11/06/19	8:00	12.9	0.154	0.118	6.11	174.1	0.1	84.9	9		
11/06/19	8:10	12.9	0.154	0.118	6.11	174.1	0.2	84.8	9		
11/06/19	8:20	12.9	0.154	0.118	6.11	174.1	-0.5	84.8	9		
11/06/19	8:30	12.9	0.154	0.118	6.11	173.8	0.1	84.9	9		
11/06/19	8:40	12.9	0.154	0.118	6.1	174.3	0.4	85.0	9		
11/06/19	8:50	12.9	0.154	0.118	6.1	173.7	-0.2	84.9	9		
11/06/19	9:00	12.9	0.154	0.118	6.11	173.3	-0.8	85.0	9		
11/06/19	9:10	12.9	0.154	0.118	6.1	173.5	-1.1	85.1	9		
11/06/19	9:20	12.9	0.154	0.118	6.1	173.7	-0.4	85.2	9		
11/06/19	9:30	12.9	0.154	0.118	6.1	173.4	-1.5	85.2	9		
11/06/19	9:40	12.9	0.154	0.118	6.1	173.3	-1.6	85.1	9		
11/06/19	9:50	12.9	0.154	0.118	6.09	173.3	0.9	85.3	9		
11/06/19	10:00	12.9	0.154	0.118	6.1	172.5	0.4	85.3	9		
11/06/19	10:10	12.9	0.154	0.118	6.1	172.7	-1.1	85.4	9		
11/06/19	10:20	12.9	0.154	0.118	6.1	172.9	1	85.4	9		
11/06/19	10:30	12.9	0.154	0.118	6.1	172.9	-0.2	85.5	9		
11/06/19	10:40	12.9	0.154	0.118	6.09	172.9	-0.8	85.6	9		
11/06/19	10:50	12.9	0.154	0.118	6.09	173.1	-0.7	85.6	9		
11/06/19	11:00	12.9	0.154	0.118	6.08	173.6	0.6	85.7	9		
11/06/19	11:10	12.9	0.154	0.118	6.09	172.7	-0.8	85.7	9		
11/06/19	11:20	12.9	0.154	0.118	6.08	172.9	-0.2	85.7	9		
11/06/19	11:30	12.9	0.154	0.118	6.09	172.8	-1.4	85.9	9		
11/06/19	11:40	12.9	0.154	0.118	6.08	173.2	-0.9	86.0	9		
11/06/19	11:50	12.9	0.154	0.118	6.08	173.2	-0.9	86.0	9		
11/06/19	12:00	12.9	0.154	0.118	6.08	173	0.3	86.0	9		
11/06/19	12:10	12.9	0.154	0.118	6.08	173.1	0.7	86.1	9		
11/06/19	12:20	12.9	0.154	0.118	6.07	173.3	0.2	86.4	9		
11/06/19	12:30	12.9	0.154	0.118	6.07	173.8	-0.4	86.6	9		
11/06/19	12:40	12.9	0.154	0.118	6.08	173.4	0	86.8	9		
11/06/19	12:50	12.9	0.154	0.118	6.07	174	0	86.8	9		
11/06/19	13:00	12.9	0.154	0.118	6.06	174.9	0	86.9	9		
11/06/19	13:10	12.9	0.154	0.118	6.06	175.1	0.4	87.0	9		
11/06/19	13:20	12.9	0.154	0.118	6.06	175.2	-0.4	87.1	9		
11/06/19	13:30	12.9	0.154	0.118	6.06	175.4	-0.2	87.2	9		
11/06/19	13:40	12.9	0.154	0.118	6.07	175.2	-0.3	87.2	9		
11/06/19	13:50	12.9	0.154	0.118	6.07	175	0.6	87.4	9		
11/06/19	14:00	12.9	0.154	0.118	6.06	175.5	-0.1	87.5	9		
11/06/19	14:10	12.9	0.154	0.119	6.06	175.3	1	87.6	9		
11/06/19	14:20	12.9	0.154	0.119	6.06	174.9	-0.7	87.6	9		
11/06/19	14:30	12.9	0.154	0.119	6.06	175.2	0.4	87.7	9		
11/06/19	14:40	12.9	0.154	0.119	6.06	175.4	-0.5	87.7	9		
11/06/19	14:50	12.9	0.154	0.119	6.06	175.8	0.8	87.9	9		
11/06/19	15:00	12.9	0.154	0.119	6.06	176	0.4	87.8	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/06/19	15:10	12.9	0.154	0.119	6.05	176.2	1.8	87.9	9		
11/06/19	15:20	12.9	0.154	0.119	6.05	176.5	0.6	87.8	9		
11/06/19	15:30	12.9	0.154	0.119	6.06	176.2	-0.8	87.8	9		
11/06/19	15:40	12.9	0.154	0.119	6.05	176.4	0.3	87.8	9		
11/06/19	15:50	12.9	0.154	0.119	6.06	176.1	-0.4	87.8	9		
11/06/19	16:00	12.9	0.154	0.119	6.06	176.5	1.1	87.8	9		
11/06/19	16:10	12.9	0.154	0.119	6.07	176.5	0.2	87.8	9		
11/06/19	16:20	12.9	0.154	0.119	6.07	176.5	-0.1	87.9	9		
11/06/19	16:30	12.9	0.154	0.119	6.06	176.8	0.4	88.0	9		
11/06/19	16:40	12.9	0.154	0.119	6.06	176.6	0.6	88.1	9		
11/06/19	16:50	12.9	0.154	0.119	6.06	176.3	-0.8	88.0	9		
11/06/19	17:00	12.9	0.154	0.119	6.06	176.8	0.4	88.0	9		
11/06/19	17:10	12.9	0.154	0.119	6.07	176.5	-0.4	88.0	9		
11/06/19	17:20	12.9	0.154	0.119	6.06	176.9	0.1	88.0	9		
11/06/19	17:30	12.9	0.154	0.119	6.06	176.8	0.6	87.9	9		
11/06/19	17:40	12.9	0.155	0.119	6.06	177.1	-0.3	88.0	9		
11/06/19	17:50	12.9	0.155	0.119	6.07	177.7	-1.6	88.3	9		
11/06/19	18:00	12.9	0.155	0.119	6.08	177.8	-0.3	88.3	9		
11/06/19	18:10	12.9	0.155	0.119	6.09	177.5	1	88.4	9		
11/06/19	18:20	12.9	0.155	0.119	6.1	177.8	1.4	88.3	9		
11/06/19	18:30	12.9	0.155	0.119	6.1	178	0.3	88.3	9		
11/06/19	18:40	12.9	0.155	0.119	6.1	178.3	1	88.3	9		
11/06/19	18:50	12.9	0.155	0.119	6.1	178.8	-1.6	88.2	9		
11/06/19	19:00	12.9	0.155	0.119	6.1	179	0.3	88.3	9		
11/06/19	19:10	12.9	0.155	0.119	6.1	178.9	0.7	88.3	9		
11/06/19	19:20	12.9	0.155	0.119	6.1	179.1	-0.2	88.3	9		
11/06/19	19:30	12.9	0.155	0.119	6.1	179.4	-0.7	88.4	9		
11/06/19	19:40	12.9	0.155	0.119	6.1	179.4	-0.2	88.3	9		
11/06/19	19:50	12.9	0.155	0.119	6.1	179.4	-1.3	88.3	9		
11/06/19	20:00	12.9	0.155	0.119	6.09	179.7	-0.3	88.3	9		
11/06/19	20:10	12.9	0.155	0.119	6.09	179.6	-0.4	88.3	9		
11/06/19	20:20	12.9	0.155	0.119	6.08	179.6	0.7	88.3	9		
11/06/19	20:30	12.9	0.155	0.119	6.09	179	-0.2	88.3	9		
11/06/19	20:40	12.9	0.155	0.119	6.09	178.9	-0.2	88.2	9		
11/06/19	20:50	12.9	0.155	0.119	6.08	179.1	0.9	88.3	9		
11/06/19	21:00	12.9	0.155	0.119	6.08	179	0.3	88.3	9		
11/06/19	21:10	12.9	0.155	0.119	6.07	179.2	-0.7	88.2	9		
11/06/19	21:20	12.9	0.155	0.119	6.07	179.1	-0.5	88.2	9		
11/06/19	21:30	12.9	0.155	0.119	6.07	179.4	0.9	88.3	9		
11/06/19	21:40	12.9	0.155	0.119	6.07	179.6	-0.4	88.2	9		
11/06/19	21:50	12.9	0.155	0.119	6.06	180.2	-0.8	88.2	9		
11/06/19	22:00	12.9	0.155	0.119	6.07	179.7	-0.7	88.2	9		
11/06/19	22:10	12.9	0.155	0.119	6.06	180.2	0.3	88.2	9		
11/06/19	22:20	12.9	0.155	0.119	6.06	180.4	-0.2	88.2	9		
11/06/19	22:30	12.9	0.155	0.119	6.05	180.5	-0.3	88.3	9		
11/06/19	22:40	12.9	0.155	0.119	6.05	180.8	0.7	88.2	9		
11/06/19	22:50	12.9	0.155	0.119	6.05	180.7	-0.7	88.2	9		
11/06/19	23:00	12.9	0.155	0.119	6.06	180.4	-0.2	88.2	9		
11/06/19	23:10	12.9	0.155	0.119	6.05	180.4	0.7	88.2	9		
11/06/19	23:20	12.9	0.155	0.119	6.04	180.8	0.5	88.3	9		
11/06/19	23:30	12.9	0.155	0.119	6.05	180.5	0.6	88.2	9		
11/06/19	23:40	12.9	0.155	0.119	6.05	180.1	0.6	88.2	9		
11/06/19	23:50	12.9	0.155	0.119	6.04	180.4	-0.3	88.2	9		
11/07/19	0:00	12.9	0.155	0.119	6.04	180.3	0	88.2	9		
11/07/19	0:10	12.9	0.155	0.119	6.05	179.9	0.7	88.2	9		
11/07/19	0:20	12.9	0.155	0.119	6.04	180.2	0	88.2	9		
11/07/19	0:30	12.9	0.155	0.119	6.03	180.6	-1	88.3	9		
11/07/19	0:40	12.9	0.155	0.119	6.04	180.3	0	88.3	9		
11/07/19	0:50	12.9	0.155	0.119	6.03	180.4	0.5	88.3	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/07/19	1:00	12.9	0.155	0.119	6.03	180.3	1	88.3	9		
11/07/19	1:10	12.9	0.155	0.119	6.03	180.4	0	88.4	9		
11/07/19	1:20	12.9	0.155	0.119	6.03	180	0.3	88.3	9		
11/07/19	1:30	12.9	0.155	0.119	6.03	180.4	0.7	88.3	9		
11/07/19	1:40	12.9	0.155	0.119	6.03	180.4	0.6	88.3	9		
11/07/19	1:50	12.9	0.155	0.119	6.02	180.7	0	88.3	9		
11/07/19	2:00	12.9	0.155	0.119	6.03	180	-0.7	88.4	9		
11/07/19	2:10	12.9	0.155	0.119	6.02	180.2	-0.9	88.3	9		
11/07/19	2:20	12.9	0.155	0.119	6.02	180.2	2.5	88.2	9		
11/07/19	2:30	12.9	0.155	0.119	6.03	179.8	0.2	88.3	9		
11/07/19	2:40	12.9	0.155	0.119	6.03	179.7	-0.8	88.2	9		
11/07/19	2:50	12.9	0.155	0.119	6.03	179.2	0	88.2	9		
11/07/19	3:00	12.9	0.155	0.119	6.02	179.8	0.8	88.2	9		
11/07/19	3:10	12.9	0.155	0.119	6.03	179.3	0.4	88.3	9		
11/07/19	3:20	12.9	0.155	0.119	6.02	179.6	0.5	88.3	9		
11/07/19	3:30	12.9	0.155	0.119	6.02	179.6	-0.3	88.2	9		
11/07/19	3:40	12.9	0.155	0.119	6.02	179.5	0.8	88.3	9		
11/07/19	3:50	12.9	0.155	0.119	6.01	180.2	-0.8	88.2	9		
11/07/19	4:00	12.9	0.155	0.119	6.01	180.1	-1.3	88.3	9		
11/07/19	4:10	12.9	0.155	0.119	6.02	179.9	1.6	88.1	9		
11/07/19	4:20	12.9	0.155	0.119	6.02	179.4	0	88.2	9		
11/07/19	4:30	12.9	0.155	0.119	6.03	179.3	0.9	88.3	9		
11/07/19	4:40	12.9	0.155	0.119	6.03	179.4	-1.4	88.2	9		
11/07/19	4:50	12.9	0.155	0.119	6.02	179.9	-0.5	88.2	9		
11/07/19	5:00	12.9	0.155	0.119	6.02	179.6	-0.2	88.2	9		
11/07/19	5:10	12.9	0.155	0.119	6.02	179.4	-0.4	88.2	9		
11/07/19	5:20	12.9	0.155	0.119	6.02	179.3	0.1	88.3	9		
11/07/19	5:30	12.9	0.155	0.119	6.02	179.3	-0.7	88.3	9		
11/07/19	5:40	12.9	0.155	0.119	6.02	179.4	-0.4	88.2	9		
11/07/19	5:50	12.9	0.155	0.119	6.02	179.1	1.4	88.2	9		
11/07/19	6:00	12.9	0.155	0.119	6.01	179.2	-0.4	88.3	9		
11/07/19	6:10	12.9	0.155	0.119	6.01	179.4	-1.3	88.2	9		
11/07/19	6:20	12.9	0.155	0.119	6.01	178.8	0.6	88.1	9		
11/07/19	6:30	12.9	0.155	0.119	6.01	179.1	0	88.2	9		
11/07/19	6:40	12.9	0.155	0.119	6.01	178.6	-0.8	88.2	9		
11/07/19	6:50	12.9	0.155	0.119	6.01	178.6	-0.8	88.1	9		
11/07/19	7:00	12.9	0.155	0.119	6.01	178.3	0.1	88.2	9		
11/07/19	7:10	12.9	0.155	0.119	6.02	178.2	1.2	88.1	9		
11/07/19	7:20	12.9	0.155	0.119	6.02	178.2	-0.3	88.0	9		
11/07/19	7:30	12.9	0.155	0.119	6.02	178.3	-0.4	88.0	9		
11/07/19	7:40	12.9	0.155	0.119	6.02	178.4	-0.8	88.0	9		
11/07/19	7:50	12.9	0.155	0.119	6.02	178.3	-1.1	88.0	9		
11/07/19	8:00	12.9	0.155	0.119	6.02	178.3	-0.6	88.0	9		
11/07/19	8:10	12.9	0.155	0.119	6.02	178.3	-0.7	87.9	9		
11/07/19	8:20	12.9	0.155	0.119	6.01	178.6	-0.8	88.0	9		
11/07/19	8:30	12.9	0.155	0.119	6.01	178.6	-0.4	87.9	9		
11/07/19	8:40	12.9	0.155	0.119	6.01	178.8	-1.1	88.0	9		
11/07/19	8:50	12.9	0.155	0.119	6.01	178.9	-1.1	87.9	9		
11/07/19	9:00	12.9	0.155	0.119	6	179.3	0	87.9	9		
11/07/19	9:10	12.9	0.155	0.119	6.01	179.1	-0.7	87.9	9		
11/07/19	9:20	12.9	0.155	0.119	6.01	179.1	-0.8	87.8	9		
11/07/19	9:30	12.9	0.155	0.119	6.01	178.8	-0.8	87.8	9		
11/07/19	9:40	12.9	0.155	0.119	6	179.1	0.2	87.9	9		
11/07/19	9:50	12.9	0.155	0.119	6.01	178.6	0.8	87.8	9		
11/07/19	10:00	12.9	0.155	0.119	6.01	178.6	0.1	87.8	9		
11/07/19	10:10	12.9	0.155	0.119	6.01	178.6	-0.2	87.8	9		
11/07/19	10:20	12.9	0.155	0.119	6	178.7	0.3	87.8	9		
11/07/19	10:30	12.9	0.155	0.119	6	178.4	0.7	87.8	9		
11/07/19	10:40	12.9	0.155	0.119	6	178.3	-0.5	87.6	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/07/19	10:50	12.9	0.155	0.119	6	178.4	-0.8	87.7	9		
11/07/19	11:00	12.9	0.155	0.119	6	178.3	-0.7	87.6	9		
11/07/19	11:10	12.9	0.155	0.119	6	178	0.4	87.7	9		
11/07/19	11:20	12.9	0.155	0.119	5.99	178.3	2	87.8	9		
11/07/19	11:30	12.9	0.155	0.119	5.99	178.2	-0.4	87.7	9		
11/07/19	11:40	12.9	0.155	0.119	5.99	178.3	-0.7	87.8	9		
11/07/19	11:50	12.9	0.155	0.119	5.99	178	-1	87.8	9		
11/07/19	12:00	12.9	0.155	0.119	5.99	177.9	1.2	87.7	9		
11/07/19	12:10	12.9	0.155	0.119	6	177.4	0	87.7	9		
11/07/19	12:20	12.9	0.155	0.119	5.99	177.7	0	87.7	9		
11/07/19	12:30	12.9	0.155	0.119	5.99	177.5	-0.9	87.8	9		
11/07/19	12:40	12.9	0.155	0.119	5.99	177.3	-0.6	87.7	9		
11/07/19	12:50	12.9	0.155	0.119	5.99	177.2	-1.8	87.7	9		
11/07/19	13:00	12.9	0.155	0.12	5.99	177	0.3	87.6	9		
11/07/19	13:10	12.9	0.155	0.119	5.99	176.8	-0.8	87.7	9		
11/07/19	13:20	12.9	0.155	0.119	5.98	176.8	-0.7	87.6	9		
11/07/19	13:30	12.9	0.155	0.119	5.98	176.6	-1	87.6	9		
11/07/19	13:40	12.9	0.155	0.12	5.98	176.6	0.6	87.7	9		
11/07/19	13:50	12.9	0.155	0.119	5.98	176.8	-0.7	87.7	9		
11/07/19	14:00	12.9	0.155	0.119	5.98	176.3	-1.5	87.6	9		
11/07/19	14:10	12.9	0.155	0.119	5.98	176.1	-0.8	87.6	9		
11/07/19	14:20	12.9	0.156	0.12	5.98	176.1	-0.5	87.6	9		
11/07/19	14:30	12.9	0.156	0.12	5.98	176.3	0	87.6	9		
11/07/19	14:40	12.9	0.156	0.12	5.97	176.4	-0.7	87.5	9		
11/07/19	14:50	12.9	0.156	0.12	5.97	176.2	0	87.5	9		
11/07/19	15:00	12.9	0.156	0.12	5.97	176.5	0	87.5	9		
11/07/19	15:10	12.9	0.156	0.12	5.97	176.1	0.9	87.5	9		
11/07/19	15:20	12.9	0.156	0.12	5.96	176.4	0.4	87.5	9		
11/07/19	15:30	12.9	0.156	0.12	5.97	176.1	0	87.6	9		
11/07/19	15:40	12.9	0.156	0.12	5.96	176.2	-0.3	87.5	9		
11/07/19	15:50	12.9	0.156	0.12	5.96	176	0	87.5	9		
11/07/19	16:00	12.9	0.156	0.12	5.96	176	-1	87.5	9		
11/07/19	16:10	12.9	0.156	0.12	5.96	175.8	-1.2	87.4	9		
11/07/19	16:20	12.9	0.156	0.12	5.96	176.1	0.7	87.5	9		
11/07/19	16:30	12.9	0.156	0.12	5.96	175.9	0.1	87.3	9		
11/07/19	16:40	12.9	0.156	0.12	5.96	175.8	0.2	87.4	9		
11/07/19	16:50	12.9	0.156	0.12	5.95	176.1	-0.2	87.3	9		
11/07/19	17:00	12.9	0.156	0.12	5.96	175.6	-0.6	87.3	9		
11/07/19	17:10	12.9	0.156	0.12	5.95	176.3	-1.4	87.3	9		
11/07/19	17:20	12.9	0.156	0.12	5.95	176	-0.5	87.4	9		
11/07/19	17:30	12.9	0.156	0.12	5.95	175.7	2	87.4	9		
11/07/19	17:40	12.9	0.156	0.12	5.95	175.8	-0.4	87.3	9		
11/07/19	17:50	12.9	0.156	0.12	5.95	175.5	-0.6	87.3	9		
11/07/19	18:00	12.9	0.156	0.12	5.95	175.7	-0.2	87.3	9		
11/07/19	18:10	12.9	0.156	0.12	5.93	175.9	-0.5	87.3	9		
11/07/19	18:20	12.9	0.156	0.12	5.94	175.2	-0.7	87.2	9		
11/07/19	18:30	12.9	0.156	0.12	5.92	175.7	0.4	87.3	9		
11/07/19	18:40	12.9	0.156	0.12	5.93	175.2	0.3	87.2	9		
11/07/19	18:50	12.9	0.156	0.12	5.93	175.2	0	87.2	9		
11/07/19	19:00	12.9	0.156	0.12	5.93	175	-0.4	87.1	9		
11/07/19	19:10	12.9	0.156	0.12	5.92	175.5	-0.4	87.2	9		
11/07/19	19:20	12.9	0.156	0.12	5.93	174.9	0.7	87.3	9		
11/07/19	19:30	12.9	0.156	0.12	5.93	175.1	-0.2	87.2	9		
11/07/19	19:40	12.9	0.156	0.12	5.92	175.4	-1.3	87.2	9		
11/07/19	19:50	12.9	0.156	0.12	5.93	175.2	0.3	87.1	9		
11/07/19	20:00	12.9	0.156	0.12	5.92	175.2	0.6	87.2	9		
11/07/19	20:10	12.9	0.156	0.12	5.92	175	0.2	87.2	9		
11/07/19	20:20	12.9	0.156	0.12	5.92	175	1.4	87.1	9		
11/07/19	20:30	12.9	0.156	0.12	5.93	174.7	-0.4	87.2	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/07/19	20:40	12.9	0.156	0.12	5.92	175	-0.7	87.1	9		
11/07/19	20:50	12.9	0.156	0.12	5.92	175.1	0.7	87.1	9		
11/07/19	21:00	12.9	0.156	0.12	5.92	175.2	0.3	87.0	9		
11/07/19	21:10	12.9	0.156	0.12	5.92	175.2	1	87.1	9		
11/07/19	21:20	12.9	0.156	0.12	5.92	175.4	1	87.0	9		
11/07/19	21:30	12.9	0.156	0.12	5.92	175.5	-1	87.0	9		
11/07/19	21:40	12.9	0.156	0.12	5.93	175.2	0.2	87.0	9		
11/07/19	21:50	12.9	0.156	0.12	5.92	175.7	-0.3	87.0	9		
11/07/19	22:00	12.9	0.156	0.12	5.92	175.8	-0.2	87.0	9		
11/07/19	22:10	12.9	0.156	0.12	5.92	175.7	-0.1	87.0	9		
11/07/19	22:20	12.9	0.156	0.12	5.92	175.8	-1.3	86.9	9		
11/07/19	22:30	12.9	0.156	0.12	5.92	175.6	0.4	87.0	9		
11/07/19	22:40	12.9	0.156	0.12	5.93	175.4	0.6	86.9	9		
11/07/19	22:50	12.9	0.156	0.12	5.93	175.3	0.3	87.0	9		
11/07/19	23:00	12.9	0.156	0.12	5.93	175.2	-0.7	86.9	9		
11/07/19	23:10	12.9	0.156	0.12	5.92	175.3	-1.1	86.8	9		
11/07/19	23:20	12.9	0.156	0.12	5.93	174.9	0.3	86.8	9		
11/07/19	23:30	12.9	0.156	0.12	5.93	175	0	86.7	9		
11/07/19	23:40	12.9	0.156	0.12	5.93	175.3	0.9	86.6	9		
11/07/19	23:50	12.9	0.156	0.12	5.93	175.4	0.6	86.6	9		
11/08/19	0:00	12.9	0.156	0.12	5.93	175.6	-0.2	86.6	9		
11/08/19	0:10	12.9	0.156	0.12	5.92	176.1	-0.1	86.6	9		
11/08/19	0:20	12.9	0.156	0.12	5.92	175.5	0.3	86.6	9		
11/08/19	0:30	12.9	0.156	0.12	5.92	175.6	-0.4	86.6	9		
11/08/19	0:40	12.9	0.156	0.12	5.92	175.4	-0.5	86.7	9		
11/08/19	0:50	12.9	0.156	0.12	5.92	175.4	-0.2	86.6	9		
11/08/19	1:00	12.9	0.156	0.12	5.92	175.3	-1	86.5	9		
11/08/19	1:10	12.9	0.156	0.12	5.92	175.2	-0.6	86.5	9		
11/08/19	1:20	12.9	0.156	0.12	5.91	175.2	-1.1	86.5	9		
11/08/19	1:30	12.9	0.156	0.12	5.92	175.1	-0.8	86.5	9		
11/08/19	1:40	12.9	0.156	0.12	5.91	175.2	0.6	86.5	9		
11/08/19	1:50	12.9	0.156	0.12	5.91	175.6	1	86.4	9		
11/08/19	2:00	12.9	0.156	0.12	5.91	175.5	-1.8	86.5	9		
11/08/19	2:10	12.9	0.156	0.12	5.91	175.6	-1.4	86.4	9		
11/08/19	2:20	12.9	0.156	0.12	5.91	175.7	0	86.4	9		
11/08/19	2:30	12.9	0.156	0.12	5.91	175.7	0.1	86.5	9		
11/08/19	2:40	12.9	0.156	0.12	5.9	175.8	-0.2	86.4	9		
11/08/19	2:50	12.9	0.156	0.12	5.91	175.5	-0.2	86.4	9		
11/08/19	3:00	12.9	0.156	0.12	5.91	175.5	-0.2	86.5	9		
11/08/19	3:10	12.9	0.156	0.12	5.9	175.4	1.5	86.5	9		
11/08/19	3:20	12.9	0.156	0.12	5.9	175.7	0.4	86.4	9		
11/08/19	3:30	12.9	0.157	0.12	5.9	175.5	-0.5	86.4	9		
11/08/19	3:40	12.9	0.156	0.12	5.89	175.7	-0.4	86.4	9		
11/08/19	3:50	12.9	0.156	0.12	5.89	175.7	0.2	86.3	9		
11/08/19	4:00	12.9	0.156	0.12	5.89	175.4	-0.2	86.3	9		
11/08/19	4:10	12.9	0.156	0.12	5.89	175.7	0.4	86.3	9		
11/08/19	4:20	12.9	0.156	0.12	5.89	175.6	-1.1	86.2	9		
11/08/19	4:30	12.9	0.156	0.12	5.89	175.6	-0.7	86.2	9		
11/08/19	4:40	12.9	0.156	0.12	5.89	175.4	-0.8	86.3	9		
11/08/19	4:50	12.9	0.156	0.12	5.89	175.4	-0.9	86.1	9		
11/08/19	5:00	12.9	0.156	0.12	5.89	175.4	0	86.1	9		
11/08/19	5:10	12.9	0.156	0.12	5.89	175.2	-1.6	86.2	9		
11/08/19	5:20	12.9	0.156	0.12	5.88	175.5	-0.4	86.1	9		
11/08/19	5:30	12.9	0.157	0.12	5.88	175.2	-0.2	86.2	9		
11/08/19	5:40	12.9	0.157	0.12	5.88	175.5	0	86.1	9		
11/08/19	5:50	12.9	0.157	0.12	5.89	175	-0.8	86.0	9		
11/08/19	6:00	12.9	0.157	0.12	5.88	175.5	-0.3	86.0	9		
11/08/19	6:10	12.9	0.157	0.12	5.88	175.5	0.2	86.0	9		
11/08/19	6:20	12.9	0.157	0.12	5.88	175.6	-0.4	85.9	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/08/19	6:30	12.9	0.157	0.12	5.88	175.4	-0.1	85.9	9		
11/08/19	6:40	12.9	0.157	0.12	5.88	175.4	0.7	85.9	9		
11/08/19	6:50	12.9	0.157	0.12	5.88	175	0.8	85.8	9		
11/08/19	7:00	12.9	0.157	0.12	5.89	174.9	0.1	85.8	9		
11/08/19	7:10	12.9	0.157	0.12	5.88	175.2	-1.6	85.9	9		
11/08/19	7:20	12.9	0.157	0.12	5.89	174.8	-0.4	85.8	9		
11/08/19	7:30	12.9	0.157	0.12	5.89	175.2	0.1	85.9	9		
11/08/19	7:40	12.9	0.157	0.12	5.89	175.7	0.3	85.8	9		
11/08/19	7:50	12.9	0.157	0.12	5.89	175	0.2	85.8	9		
11/08/19	8:00	12.9	0.157	0.12	5.89	175.3	-0.3	85.8	9		
11/08/19	8:10	12.9	0.157	0.12	5.9	175.1	0.9	85.9	9		
11/08/19	8:20	12.9	0.157	0.12	5.9	175.2	-1.1	85.7	9		
11/08/19	8:30	12.9	0.157	0.12	5.9	174.8	0.4	85.8	9		
11/08/19	8:40	12.9	0.157	0.12	5.89	174.8	0	85.7	9		
11/08/19	8:50	12.9	0.157	0.12	5.89	175.1	0	85.7	9		
11/08/19	9:00	12.9	0.157	0.12	5.89	175.1	1	85.7	9		
11/08/19	9:10	12.9	0.157	0.12	5.89	175.4	-1.3	85.7	9		
11/08/19	9:20	12.9	0.157	0.12	5.89	175.3	-1.2	85.7	9		
11/08/19	9:30	12.9	0.157	0.12	5.89	175.4	-0.8	85.5	9		
11/08/19	9:40	12.9	0.157	0.12	5.9	174.9	-0.4	85.5	9		
11/08/19	9:50	12.9	0.157	0.12	5.9	175.2	-0.5	85.5	9		
11/08/19	10:00	12.9	0.157	0.12	5.9	175	-1.5	85.5	9		
11/08/19	10:10	12.9	0.157	0.12	5.91	175	-0.5	85.4	9		
11/08/19	10:20	12.9	0.157	0.12	5.91	175.2	1.3	85.4	9		
11/08/19	10:30	12.9	0.157	0.12	5.85	178.2	-0.3	86.0	9		
11/08/19	10:40	12.9	0.157	0.12	5.91	173.8	-0.7	85.5	9		
11/08/19	10:50	12.9	0.157	0.12	5.9	173.8	0.8	85.4	9		
11/08/19	11:00	12.9	0.157	0.12	5.9	174	0.1	85.4	9		
11/08/19	11:10	12.9	0.157	0.12	5.91	173.6	-0.7	85.3	9		
11/08/19	11:20	12.9	0.157	0.12	5.89	174.7	0.1	85.4	9		
11/08/19	11:30	12.9	0.157	0.12	5.89	175.2	-0.5	85.4	9		
11/08/19	11:40	12.9	0.157	0.121	5.89	175.4	-0.1	85.3	9		
11/08/19	11:50	12.9	0.157	0.12	5.89	175	-0.3	85.3	9		
11/08/19	12:00	12.9	0.157	0.12	5.89	175	-0.2	85.3	9		
11/08/19	12:10	12.9	0.157	0.12	5.89	174.8	-1.1	85.3	9		
11/08/19	12:20	12.9	0.157	0.12	5.88	175.4	0.3	85.2	9		
11/08/19	12:30	12.9	0.157	0.12	5.88	174.9	0.5	85.1	9		
11/08/19	12:40	12.9	0.157	0.12	5.88	174.5	-1.2	85.1	9		
11/08/19	12:50	12.9	0.157	0.12	5.88	174.9	1.2	85.2	9		
11/08/19	13:00	12.9	0.157	0.121	5.89	174.3	-1.3	85.1	9		
11/08/19	13:10	12.9	0.157	0.121	5.88	174.6	-0.1	85.1	9		
11/08/19	13:20	12.9	0.157	0.121	5.88	174.6	-0.7	85.0	9		
11/08/19	13:30	12.9	0.157	0.12	5.87	174.9	-0.4	85.0	9		
11/08/19	13:40	12.9	0.157	0.12	5.88	174.6	1	85.0	9		
11/08/19	13:50	12.9	0.157	0.121	5.88	174.6	0.1	85.0	9		
11/08/19	14:00	12.9	0.157	0.121	5.87	175	0.2	85.0	9		
11/08/19	14:10	12.9	0.157	0.121	5.88	174.7	-0.2	84.9	9		
11/08/19	14:20	12.9	0.157	0.121	5.88	174.7	0.4	85.0	9		
11/08/19	14:30	12.9	0.157	0.121	5.88	174.9	0	84.9	9		
11/08/19	14:40	12.9	0.157	0.121	5.88	175.1	0.2	84.9	9		
11/08/19	14:50	12.9	0.157	0.121	5.88	174.9	-1	84.8	9		
11/08/19	15:00	12.9	0.157	0.121	5.88	175.1	-0.7	84.8	9		
11/08/19	15:10	12.9	0.157	0.121	5.89	174.9	0.1	84.8	9		
11/08/19	15:20	12.9	0.157	0.121	5.89	175	-1.2	84.8	9		
11/08/19	15:30	12.9	0.157	0.121	5.89	175	-0.2	84.7	9		
11/08/19	15:40	12.9	0.157	0.121	5.89	174.9	0.7	84.7	9		
11/08/19	15:50	12.9	0.157	0.121	5.89	175.3	-0.1	84.7	9		
11/08/19	16:00	12.9	0.157	0.121	5.88	175.1	0.2	84.7	9		
11/08/19	16:10	12.9	0.157	0.121	5.91	175.4	1	84.7	9		



**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/08/19	16:20	12.9	0.157	0.121	5.92	175.4	-0.5	84.8	9		
11/08/19	16:30	12.9	0.157	0.121	5.92	175.5	-0.3	84.7	9		
11/08/19	16:40	12.9	0.157	0.121	5.93	175.5	0.3	84.7	9		
11/08/19	16:50	12.9	0.157	0.121	5.93	175.6	1.1	84.7	9		
11/08/19	17:00	12.9	0.157	0.121	5.94	175.5	0.6	84.6	9		
11/08/19	17:10	12.9	0.157	0.121	5.94	175.6	0.1	84.7	9		
11/08/19	17:20	12.9	0.157	0.121	5.94	175.6	0.1	84.7	9		
11/08/19	17:30	12.9	0.157	0.121	5.93	175.6	-0.2	84.6	9		
11/08/19	17:40	12.9	0.157	0.121	5.94	175.4	0	84.6	9		
11/08/19	17:50	12.9	0.157	0.121	5.93	175.4	0.3	84.5	9		
11/08/19	18:00	12.9	0.157	0.121	5.93	175.9	-0.6	84.5	9		
11/08/19	18:10	12.9	0.157	0.121	5.92	175.9	-1.2	84.5	9		
11/08/19	18:20	12.9	0.157	0.121	5.92	175.7	0	84.5	9		
11/08/19	18:30	12.9	0.157	0.121	5.92	175.5	0.3	84.6	9		
11/08/19	18:40	12.9	0.157	0.121	5.92	175.6	-0.8	84.5	9		
11/08/19	18:50	12.9	0.157	0.121	5.91	175.6	0	84.5	9		
11/08/19	19:00	12.9	0.157	0.121	5.92	175	-0.6	84.5	9		
11/08/19	19:10	12.9	0.157	0.121	5.91	175	0.1	84.4	9		
11/08/19	19:20	12.9	0.157	0.121	5.91	174.7	-0.6	84.4	9		
11/08/19	19:30	12.9	0.157	0.121	5.91	174.7	0.4	84.4	9		
11/08/19	19:40	12.9	0.157	0.121	5.91	174.9	0.1	84.3	9		
11/08/19	19:50	12.9	0.157	0.121	5.92	174.6	0.4	84.4	9		
11/08/19	20:00	12.9	0.157	0.121	5.92	174.8	0.3	84.3	9		
11/08/19	20:10	12.9	0.157	0.121	5.93	174.9	-0.2	84.3	9		
11/08/19	20:20	12.9	0.157	0.121	5.93	175	0.9	84.3	9		
11/08/19	20:30	12.9	0.157	0.121	5.93	175	0	84.2	9		
11/08/19	20:40	12.9	0.157	0.121	5.93	175.2	0	84.2	9		
11/08/19	20:50	12.9	0.157	0.121	5.93	175.1	-0.2	84.2	9		
11/08/19	21:00	12.9	0.157	0.121	5.93	174.9	-0.5	84.1	9		
11/08/19	21:10	12.9	0.157	0.121	5.93	174.9	-0.2	84.0	9		
11/08/19	21:20	12.9	0.157	0.121	5.93	175	-0.7	84.1	9		
11/08/19	21:30	12.9	0.157	0.121	5.93	175.2	-0.2	84.0	9		
11/08/19	21:40	12.9	0.157	0.121	5.93	174.9	-0.7	84.0	9		
11/08/19	21:50	12.9	0.157	0.121	5.93	175	1	84.0	9		
11/08/19	22:00	12.9	0.157	0.121	5.94	174.9	0.3	83.9	9		
11/08/19	22:10	12.9	0.157	0.121	5.94	175	2.1	84.0	9		
11/08/19	22:20	12.9	0.157	0.121	5.94	174.9	-0.5	83.9	9		
11/08/19	22:30	12.9	0.157	0.121	5.94	174.9	-0.1	83.9	9		
11/08/19	22:40	12.9	0.157	0.121	5.93	175	-0.2	83.8	9		
11/08/19	22:50	12.9	0.157	0.121	5.94	174.6	-1	83.8	9		
11/08/19	23:00	12.9	0.157	0.121	5.94	174.9	0	83.8	9		
11/08/19	23:10	12.9	0.157	0.121	5.94	174.6	-0.3	83.7	9		
11/08/19	23:20	12.9	0.157	0.121	5.94	174.6	-0.2	83.7	9		
11/08/19	23:30	12.9	0.157	0.121	5.94	174.5	-0.2	83.7	9		
11/08/19	23:40	12.9	0.157	0.121	5.93	175	0.9	83.6	9		
11/08/19	23:50	12.9	0.157	0.121	5.94	174.6	0	83.6	9		
11/09/19	0:00	12.9	0.157	0.121	5.94	174.7	-0.9	83.5	9		
11/09/19	0:10	12.9	0.157	0.121	5.94	174.9	-0.9	83.5	9		
11/09/19	0:20	12.9	0.157	0.121	5.94	174.6	0.7	83.5	9		
11/09/19	0:30	12.9	0.157	0.121	5.94	174.8	-1.6	83.5	9		
11/09/19	0:40	12.9	0.157	0.121	5.95	174.4	-0.8	83.5	9		
11/09/19	0:50	12.9	0.157	0.121	5.94	175	-0.1	83.5	9		
11/09/19	1:00	12.9	0.157	0.121	5.94	175	-1.1	83.5	9		
11/09/19	1:10	12.9	0.157	0.121	5.95	174.9	-0.2	83.5	9		
11/09/19	1:20	12.9	0.157	0.121	5.95	174.8	0	83.5	9		
11/09/19	1:30	12.9	0.157	0.121	5.94	175.3	-0.7	83.5	9		
11/09/19	1:40	12.9	0.157	0.121	5.94	175.5	0.1	83.5	9		
11/09/19	1:50	12.9	0.157	0.121	5.94	174.8	0	83.5	9		
11/09/19	2:00	12.9	0.157	0.121	5.94	175	0.3	83.5	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/09/19	2:10	12.9	0.157	0.121	5.95	174.8	-0.5	83.4	9		
11/09/19	2:20	12.9	0.157	0.121	5.94	175.4	1.5	83.6	9		
11/09/19	2:30	12.9	0.157	0.121	5.95	175	0.4	83.6	9		
11/09/19	2:40	12.9	0.157	0.121	5.94	175.7	0.7	83.6	9		
11/09/19	2:50	12.9	0.157	0.121	5.94	176.1	0	83.6	9		
11/09/19	3:00	12.9	0.157	0.121	5.94	175.8	0.1	83.5	9		
11/09/19	3:10	12.9	0.157	0.121	5.93	176	-0.4	83.6	9		
11/09/19	3:20	12.9	0.157	0.121	5.93	175.5	-0.9	83.6	9		
11/09/19	3:30	12.9	0.157	0.121	5.93	175.7	-1	83.6	9		
11/09/19	3:40	12.9	0.157	0.121	5.93	175.5	-0.5	83.7	9		
11/09/19	3:50	12.9	0.157	0.121	5.93	175.7	0.4	83.7	9		
11/09/19	4:00	12.9	0.157	0.121	5.92	175.8	-0.8	83.7	9		
11/09/19	4:10	12.9	0.157	0.121	5.93	175.5	1	83.6	9		
11/09/19	4:20	12.9	0.157	0.121	5.92	175.4	-0.6	83.6	9		
11/09/19	4:30	12.9	0.158	0.121	5.92	175.4	-0.7	83.5	9		
11/09/19	4:40	12.9	0.158	0.121	5.92	175.4	0	83.4	9		
11/09/19	4:50	12.9	0.157	0.121	5.92	175.5	-0.2	83.4	9		
11/09/19	5:00	12.9	0.157	0.121	5.92	175.4	-0.1	83.3	9		
11/09/19	5:10	12.9	0.157	0.121	5.92	175.4	-0.7	83.3	9		
11/09/19	5:20	12.9	0.157	0.121	5.93	175	-0.5	83.4	9		
11/09/19	5:30	12.9	0.157	0.121	5.93	174.8	-1.1	83.3	9		
11/09/19	5:40	12.9	0.157	0.121	5.93	175.1	-0.4	83.4	9		
11/09/19	5:50	12.9	0.157	0.121	5.93	174.7	-1.7	83.4	9		
11/09/19	6:00	12.9	0.157	0.121	5.93	174.8	0.1	83.3	9		
11/09/19	6:10	12.9	0.157	0.121	5.92	175.2	0.7	83.4	9		
11/09/19	6:20	12.9	0.157	0.121	5.92	175.1	-1.3	83.3	9		
11/09/19	6:30	12.9	0.157	0.121	5.93	174.9	0	83.3	9		
11/09/19	6:40	12.9	0.157	0.121	5.93	174.9	-1.2	83.4	9		
11/09/19	6:50	12.9	0.157	0.121	5.92	175.2	-2	83.4	9		
11/09/19	7:00	12.9	0.157	0.121	5.92	175.1	-0.1	83.4	9		
11/09/19	7:10	12.9	0.157	0.121	5.92	175.3	0.8	83.5	9		
11/09/19	7:20	12.9	0.157	0.121	5.92	174.9	-0.2	83.4	9		
11/09/19	7:30	12.9	0.157	0.121	5.92	175.2	0.1	83.3	9		
11/09/19	7:40	12.9	0.158	0.121	5.92	174.9	0.6	83.3	9		
11/09/19	7:50	12.9	0.158	0.121	5.91	174.7	-0.4	83.3	9		
11/09/19	8:00	12.9	0.157	0.121	5.91	174.8	-1	83.4	9		
11/09/19	8:10	12.9	0.157	0.121	5.91	174.6	-1	83.3	9		
11/09/19	8:20	12.9	0.157	0.121	5.91	174.9	0.4	83.3	9		
11/09/19	8:30	12.9	0.157	0.121	5.9	175.1	-0.8	83.3	9		
11/09/19	8:40	12.9	0.157	0.121	5.9	175.2	-0.2	83.3	9		
11/09/19	8:50	12.9	0.157	0.121	5.9	175.1	-1	83.3	9		
11/09/19	9:00	12.9	0.157	0.121	5.9	175.2	-1.4	83.3	9		
11/09/19	9:10	12.9	0.157	0.121	5.9	175.2	0.1	83.3	9		
11/09/19	9:20	12.9	0.157	0.121	5.9	175.2	0.1	83.3	9		
11/09/19	9:30	12.9	0.157	0.121	5.9	174.9	-1.7	83.3	9		
11/09/19	9:40	12.9	0.158	0.121	5.9	174.8	-0.1	83.4	9		
11/09/19	9:50	12.9	0.158	0.121	5.9	174.7	0.9	83.3	9		
11/09/19	10:00	12.9	0.158	0.121	5.9	175	0.4	83.3	9		
11/09/19	10:10	12.9	0.158	0.121	5.9	175	-0.7	83.1	9		
11/09/19	10:20	12.9	0.158	0.121	5.89	175.2	-0.6	83.1	9		
11/09/19	10:30	12.9	0.158	0.121	5.89	175.8	-0.5	83.1	9		
11/09/19	10:40	12.9	0.158	0.121	5.88	175.8	0.3	83.0	9		
11/09/19	10:50	12.9	0.158	0.121	5.88	175.6	-0.7	83.1	9		
11/09/19	11:00	12.9	0.158	0.121	5.88	175.6	1	83.1	9		
11/09/19	11:10	12.9	0.158	0.121	5.88	175.2	-0.4	83.1	9		
11/09/19	11:20	12.9	0.158	0.121	5.88	175.4	-0.5	83.1	9		
11/09/19	11:30	12.9	0.158	0.121	5.88	175.5	-0.7	83.0	9		
11/09/19	11:40	12.9	0.158	0.121	5.89	175	-1.4	83.0	9		
11/09/19	11:50	12.9	0.158	0.121	5.88	175.1	-0.4	83.0	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/09/19	12:00	12.9	0.158	0.121	5.88	175.2	-0.5	83.0	9		
11/09/19	12:10	12.9	0.158	0.121	5.88	175.5	-1	83.0	9		
11/09/19	12:20	12.9	0.158	0.121	5.88	175.2	-0.3	83.0	9		
11/09/19	12:30	12.9	0.158	0.121	5.88	175.5	-0.2	83.0	9		
11/09/19	12:40	12.9	0.158	0.121	5.88	175	0.5	82.9	9		
11/09/19	12:50	12.9	0.158	0.121	5.88	175	-0.5	82.9	9		
11/09/19	13:00	12.9	0.158	0.121	5.88	174.9	0.3	82.8	9		
11/09/19	13:10	12.9	0.158	0.121	5.88	175.3	0.2	82.9	9		
11/09/19	13:20	12.9	0.158	0.121	5.88	174.9	-0.7	82.8	9		
11/09/19	13:30	12.9	0.158	0.121	5.88	175.1	-0.2	82.8	9		
11/09/19	13:40	12.9	0.158	0.121	5.88	175	-0.3	82.9	9		
11/09/19	13:50	12.9	0.158	0.121	5.88	175	-1.3	82.8	9		
11/09/19	14:00	12.9	0.158	0.121	5.89	174.6	-0.8	82.8	9		
11/09/19	14:10	12.9	0.158	0.121	5.89	174.4	-0.9	82.8	9		
11/09/19	14:20	12.9	0.158	0.121	5.89	174.7	-0.7	82.8	9		
11/09/19	14:30	12.9	0.158	0.121	5.89	174.6	-0.3	82.8	9		
11/09/19	14:40	12.9	0.158	0.121	5.88	175.1	-0.5	82.8	9		
11/09/19	14:50	12.9	0.158	0.121	5.89	174.7	-0.2	82.8	9		
11/09/19	15:00	12.9	0.158	0.121	5.89	174.4	-0.7	82.8	9		
11/09/19	15:10	12.9	0.158	0.121	5.88	174.4	-0.8	82.8	9		
11/09/19	15:20	12.9	0.158	0.121	5.89	174.2	-0.3	82.7	9		
11/09/19	15:30	12.9	0.158	0.121	5.88	174.3	-0.4	82.8	9		
11/09/19	15:40	12.9	0.158	0.121	5.89	174	-0.4	82.7	9		
11/09/19	15:50	12.9	0.158	0.121	5.88	174.4	-1.5	82.7	9		
11/09/19	16:00	12.9	0.158	0.121	5.89	173.6	-1.5	82.7	9		
11/09/19	16:10	12.9	0.158	0.121	5.88	174.2	-1.2	82.7	9		
11/09/19	16:20	12.9	0.158	0.121	5.88	174	1.4	82.6	9		
11/09/19	16:30	12.9	0.158	0.121	5.88	174.3	-1.1	82.7	9		
11/09/19	16:40	12.9	0.158	0.121	5.88	174	0.5	82.7	9		
11/09/19	16:50	12.9	0.158	0.121	5.87	174.4	0.7	82.7	9		
11/09/19	17:00	12.9	0.158	0.121	5.88	174	0.7	82.8	9		
11/09/19	17:10	12.9	0.158	0.121	5.88	173.6	0.3	82.8	9		
11/09/19	17:20	12.9	0.158	0.121	5.87	174.5	-0.5	82.8	9		
11/09/19	17:30	12.9	0.158	0.121	5.87	174.3	-1.3	82.9	9		
11/09/19	17:40	12.9	0.158	0.121	5.87	174.4	-0.7	82.8	9		
11/09/19	17:50	12.9	0.158	0.121	5.87	173.8	0.4	82.7	9		
11/09/19	18:00	12.9	0.158	0.121	5.87	174.6	-0.3	82.7	9		
11/09/19	18:10	12.9	0.158	0.121	5.87	174.6	-0.2	82.7	9		
11/09/19	18:20	12.9	0.158	0.121	5.87	174.6	-1	82.7	9		
11/09/19	18:30	12.9	0.158	0.121	5.87	174.7	-0.7	82.6	9		
11/09/19	18:40	12.9	0.158	0.121	5.87	174.4	-0.6	82.6	9		
11/09/19	18:50	12.9	0.158	0.121	5.87	174.9	-0.6	82.7	9		
11/09/19	19:00	12.9	0.158	0.121	5.87	174.3	0.3	82.6	9		
11/09/19	19:10	12.9	0.158	0.121	5.87	174.7	-1.9	82.6	9		
11/09/19	19:20	12.9	0.158	0.121	5.87	174.7	-0.6	82.5	9		
11/09/19	19:30	12.9	0.158	0.121	5.87	174.6	0.4	82.6	9		
11/09/19	19:40	12.9	0.158	0.121	5.87	174.8	0.3	82.5	9		
11/09/19	19:50	12.9	0.158	0.121	5.87	174.7	-1.5	82.5	9		
11/09/19	20:00	12.9	0.158	0.121	5.86	174.7	-0.7	82.5	9		
11/09/19	20:10	12.9	0.158	0.121	5.87	174.3	-0.2	82.4	9		
11/09/19	20:20	12.9	0.158	0.121	5.87	174.4	-1.1	82.4	9		
11/09/19	20:30	12.9	0.158	0.121	5.86	174.4	-0.4	82.4	9		
11/09/19	20:40	12.9	0.158	0.121	5.86	174.4	0	82.4	9		
11/09/19	20:50	12.9	0.158	0.121	5.86	174.3	-0.1	82.5	9		
11/09/19	21:00	12.9	0.158	0.121	5.86	174.9	-1.1	82.4	9		
11/09/19	21:10	12.9	0.158	0.121	5.86	174.9	-0.8	82.4	9		
11/09/19	21:20	12.9	0.158	0.121	5.86	174.9	0.4	82.3	9		
11/09/19	21:30	12.9	0.158	0.121	5.86	174.6	-0.7	82.2	9		
11/09/19	21:40	12.9	0.158	0.121	5.86	175	-0.8	82.2	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/09/19	21:50	12.9	0.158	0.121	5.86	175	-1.8	82.2	9		
11/09/19	22:00	12.9	0.158	0.121	5.86	174.7	0.1	82.2	9		
11/09/19	22:10	12.9	0.158	0.121	5.87	174.7	-0.7	82.1	9		
11/09/19	22:20	12.9	0.158	0.121	5.87	174.6	0	82.2	9		
11/09/19	22:30	12.9	0.158	0.121	5.87	174.4	0.3	82.2	9		
11/09/19	22:40	12.9	0.158	0.121	5.87	174.4	0.2	82.3	9		
11/09/19	22:50	12.9	0.158	0.121	5.87	174.7	-0.5	82.2	9		
11/09/19	23:00	12.9	0.158	0.121	5.87	174.3	-1.1	82.2	9		
11/09/19	23:10	12.9	0.158	0.121	5.87	174.4	-0.1	82.1	9		
11/09/19	23:20	12.9	0.158	0.121	5.87	174.3	-0.7	82.1	9		
11/09/19	23:30	12.9	0.158	0.121	5.87	174.2	-0.3	82.1	9		
11/09/19	23:40	12.9	0.158	0.121	5.87	174.5	-0.8	82.1	9		
11/09/19	23:50	12.9	0.158	0.121	5.87	174.4	-0.8	82.1	9		
11/10/19	0:00	12.9	0.158	0.121	5.86	174.6	0	82.1	9		
11/10/19	0:10	12.9	0.158	0.121	5.87	174.1	-0.2	82.2	9		
11/10/19	0:20	12.9	0.158	0.121	5.87	174.3	1	82.2	9		
11/10/19	0:30	12.9	0.158	0.121	5.87	174.4	-1.3	82.1	9		
11/10/19	0:40	12.9	0.158	0.121	5.86	174.2	-0.7	82.1	9		
11/10/19	0:50	12.9	0.158	0.121	5.86	174.3	-1	82.0	9		
11/10/19	1:00	12.9	0.158	0.121	5.86	174.3	0	82.0	9		
11/10/19	1:10	12.9	0.158	0.121	5.86	174.5	0	82.0	9		
11/10/19	1:20	12.9	0.158	0.121	5.86	174.1	-0.4	81.9	9		
11/10/19	1:30	12.9	0.158	0.121	5.86	174.1	0.6	82.0	9		
11/10/19	1:40	12.9	0.158	0.121	5.85	174	0.1	81.9	9		
11/10/19	1:50	12.9	0.158	0.121	5.85	174.3	-0.2	82.0	9		
11/10/19	2:00	12.9	0.158	0.121	5.85	173.9	0.2	82.0	9		
11/10/19	2:10	12.9	0.158	0.121	5.85	174	-0.5	82.0	9		
11/10/19	2:20	12.9	0.158	0.121	5.84	174.3	-0.3	82.0	9		
11/10/19	2:30	12.9	0.158	0.121	5.84	173.9	-0.3	82.0	9		
11/10/19	2:40	12.9	0.158	0.121	5.84	173.6	-1.7	81.9	9		
11/10/19	2:50	12.9	0.158	0.121	5.84	174	-0.7	82.0	9		
11/10/19	3:00	12.9	0.158	0.121	5.84	174.1	1	82.0	9		
11/10/19	3:10	12.9	0.158	0.121	5.84	173.5	-0.6	81.9	9		
11/10/19	3:20	12.9	0.158	0.121	5.83	173.5	-1.4	81.9	9		
11/10/19	3:30	12.9	0.158	0.121	5.83	173.3	0.1	81.9	9		
11/10/19	3:40	12.9	0.158	0.121	5.82	173.6	0.1	81.9	9		
11/10/19	3:50	12.9	0.158	0.121	5.82	173.9	-0.6	81.9	9		
11/10/19	4:00	12.9	0.158	0.121	5.82	173.6	-0.8	81.9	9		
11/10/19	4:10	12.9	0.158	0.121	5.82	173.2	-0.3	81.8	9		
11/10/19	4:20	12.9	0.158	0.121	5.82	173.3	-0.4	81.7	9		
11/10/19	4:30	12.9	0.158	0.121	5.82	173.5	-0.1	81.7	9		
11/10/19	4:40	12.9	0.158	0.121	5.82	173.3	-0.5	81.8	9		
11/10/19	4:50	12.9	0.158	0.121	5.82	172.9	-0.4	81.7	9		
11/10/19	5:00	12.9	0.158	0.121	5.82	173.2	-0.4	81.7	9		
11/10/19	5:10	12.9	0.158	0.121	5.82	173.3	0.6	81.7	9		
11/10/19	5:20	12.9	0.158	0.121	5.82	172.9	-1.2	81.6	9		
11/10/19	5:30	12.9	0.158	0.121	5.82	173.2	-0.5	81.6	9		
11/10/19	5:40	12.9	0.158	0.121	5.82	172.9	0	81.6	9		
11/10/19	5:50	12.9	0.158	0.121	5.82	173.1	-0.4	81.6	9		
11/10/19	6:00	12.9	0.158	0.121	5.82	172.7	0.6	81.6	9		
11/10/19	6:10	12.9	0.158	0.121	5.82	172.5	-0.4	81.6	9		
11/10/19	6:20	12.9	0.158	0.121	5.82	172.9	0.1	81.6	9		
11/10/19	6:30	12.9	0.158	0.121	5.81	172.7	-1.5	81.6	9		
11/10/19	6:40	12.9	0.158	0.121	5.81	172.6	0.1	81.5	9		
11/10/19	6:50	12.9	0.158	0.121	5.81	173.3	-1	81.6	9		
11/10/19	7:00	12.9	0.158	0.121	5.82	172.7	-0.8	81.6	9		
11/10/19	7:10	12.9	0.158	0.121	5.82	172.4	0	81.5	9		
11/10/19	7:20	12.9	0.158	0.121	5.81	172.5	0.6	81.4	9		
11/10/19	7:30	12.9	0.158	0.121	5.81	173	-1	81.5	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/10/19	7:40	12.9	0.158	0.121	5.82	172.4	-1.1	81.4	9		
11/10/19	7:50	12.9	0.158	0.121	5.81	172.1	-0.8	81.5	9		
11/10/19	8:00	12.9	0.158	0.121	5.81	172.3	0.7	81.5	9		
11/10/19	8:10	12.9	0.158	0.121	5.81	172.2	-0.1	81.4	9		
11/10/19	8:20	12.9	0.158	0.121	5.8	173	-0.2	81.3	9		
11/10/19	8:30	12.9	0.158	0.121	5.8	173	1.2	81.2	9		
11/10/19	8:40	12.9	0.158	0.121	5.8	172.8	-0.9	81.4	9		
11/10/19	8:50	12.9	0.158	0.121	5.81	172.1	-0.4	81.4	9		
11/10/19	9:00	12.9	0.158	0.121	5.8	172.7	0	81.4	9		
11/10/19	9:10	12.9	0.158	0.121	5.81	172.3	-0.9	81.3	9		
11/10/19	9:20	12.9	0.158	0.121	5.81	172.5	1	81.4	9		
11/10/19	9:30	12.9	0.158	0.121	5.81	172.5	-0.8	81.4	9		
11/10/19	9:40	12.9	0.158	0.121	5.8	172.7	0	81.3	9		
11/10/19	9:50	12.9	0.158	0.121	5.8	172.6	0.9	81.3	9		
11/10/19	10:00	12.9	0.158	0.121	5.81	172.7	-0.4	81.3	9		
11/10/19	10:10	12.9	0.158	0.121	5.81	172.4	-0.2	81.3	9		
11/10/19	10:20	12.9	0.158	0.121	5.81	172	0.3	81.3	9		
11/10/19	10:30	12.9	0.158	0.121	5.81	172.1	-0.7	81.3	9		
11/10/19	10:40	12.9	0.158	0.121	5.81	171.9	-1.6	81.3	9		
11/10/19	10:50	12.9	0.158	0.121	5.81	171.8	0.5	81.3	9		
11/10/19	11:00	12.9	0.158	0.121	5.81	172	-1.8	81.3	9		
11/10/19	11:10	12.9	0.158	0.122	5.81	171.9	-0.3	81.2	9		
11/10/19	11:20	12.9	0.158	0.121	5.81	171.8	0.1	81.2	9		
11/10/19	11:30	12.9	0.158	0.122	5.81	171.8	0.6	81.3	9		
11/10/19	11:40	12.9	0.158	0.121	5.81	172.2	-0.3	81.2	9		
11/10/19	11:50	12.9	0.158	0.122	5.81	172.1	-0.5	81.2	9		
11/10/19	12:00	12.9	0.158	0.122	5.81	172.1	0.6	81.2	9		
11/10/19	12:10	12.9	0.158	0.122	5.81	171.8	-0.3	81.2	9		
11/10/19	12:20	12.9	0.158	0.122	5.81	171.9	0	81.2	9		
11/10/19	12:30	12.9	0.158	0.121	5.82	171.4	-0.3	81.1	9		
11/10/19	12:40	12.9	0.158	0.121	5.82	171.6	-0.7	81.1	9		
11/10/19	12:50	12.9	0.158	0.121	5.81	172.1	0.8	81.0	9		
11/10/19	13:00	12.9	0.158	0.121	5.81	171.9	-0.7	81.1	9		
11/10/19	13:10	12.9	0.158	0.121	5.81	171.5	-0.6	81.1	9		
11/10/19	13:20	12.9	0.158	0.121	5.81	171.4	0.5	81.0	9		
11/10/19	13:30	12.9	0.158	0.121	5.81	171.3	-1.2	81.0	9		
11/10/19	13:40	12.9	0.158	0.121	5.8	171.4	0.6	81.1	9		
11/10/19	13:50	12.9	0.158	0.121	5.8	171.4	-0.6	81.1	9		
11/10/19	14:00	12.9	0.158	0.121	5.8	171.3	0.1	81.1	9		
11/10/19	14:10	12.9	0.158	0.121	5.8	171.1	-0.3	81.1	9		
11/10/19	14:20	12.9	0.158	0.121	5.8	171	-1.1	81.1	9		
11/10/19	14:30	12.9	0.158	0.121	5.8	170.7	-0.5	81.1	9		
11/10/19	14:40	12.9	0.158	0.122	5.8	171	0.1	81.1	9		
11/10/19	14:50	12.9	0.158	0.121	5.8	170.8	-0.7	81.1	9		
11/10/19	15:00	12.9	0.158	0.122	5.79	171	0.7	81.0	9		
11/10/19	15:10	12.9	0.158	0.122	5.79	170.8	-0.1	81.0	9		
11/10/19	15:20	12.9	0.158	0.122	5.79	170.8	-0.4	81.0	9		
11/10/19	15:30	12.9	0.158	0.122	5.79	170.7	-0.2	81.0	9		
11/10/19	15:40	12.9	0.158	0.121	5.79	170.3	0.1	81.0	9		
11/10/19	15:50	12.9	0.158	0.121	5.79	170.5	-0.2	80.9	9		
11/10/19	16:00	12.9	0.158	0.121	5.79	170.3	-0.5	81.0	9		
11/10/19	16:10	12.9	0.158	0.121	5.79	169.8	-0.7	81.0	9		
11/10/19	16:20	12.9	0.158	0.121	5.79	170.1	-0.7	80.9	9		
11/10/19	16:30	12.9	0.158	0.121	5.8	169.1	-0.2	81.0	9		
11/10/19	16:40	12.9	0.158	0.122	5.79	170.2	-1.1	80.9	9		
11/10/19	16:50	12.9	0.158	0.122	5.79	170	-1	81.0	9		
11/10/19	17:00	12.9	0.158	0.122	5.8	169.3	-0.3	81.0	9		
11/10/19	17:10	12.9	0.158	0.121	5.79	169.7	-0.2	81.0	9		
11/10/19	17:20	12.9	0.158	0.122	5.8	169.6	0.1	81.1	9		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/10/19	17:30	12.9	0.158	0.122	5.79	169.7	-1.3	81.1	9		
11/10/19	17:40	12.9	0.158	0.122	5.8	169.7	-0.8	80.9	9		
11/10/19	17:50	12.9	0.158	0.122	5.8	169.6	0.4	81.0	9		
11/10/19	18:00	12.9	0.158	0.122	5.8	169.7	0	81.0	9		
11/10/19	18:10	12.9	0.158	0.122	5.8	169.8	0.3	80.9	9		
11/10/19	18:20	12.9	0.158	0.122	5.8	169.8	-1.2	80.9	9		
11/10/19	18:30	12.9	0.158	0.122	5.8	169.6	-0.5	80.9	9		
11/10/19	18:40	12.9	0.158	0.121	5.8	169.6	-0.4	81.0	9		
11/10/19	18:50	12.9	0.158	0.121	5.8	169.9	-0.4	80.9	9		
11/10/19	19:00	12.9	0.158	0.121	5.8	169.7	0.2	81.0	9		
11/10/19	19:10	12.9	0.158	0.121	5.79	170	-1.3	80.9	9		
11/10/19	19:20	12.9	0.158	0.121	5.8	169.6	-0.6	80.9	9		
11/10/19	19:30	12.9	0.158	0.121	5.8	169.1	-1.1	80.9	9		
11/10/19	19:40	12.9	0.158	0.122	5.8	169.4	-0.4	80.9	9		
11/10/19	19:50	12.9	0.158	0.122	5.8	168.9	-0.8	80.8	9		
11/10/19	20:00	12.9	0.158	0.122	5.8	169.2	-0.8	80.9	9		
11/10/19	20:10	12.9	0.158	0.122	5.8	169.1	0	80.8	9		
11/10/19	20:20	12.9	0.158	0.122	5.81	168.5	-0.4	80.8	9		
11/10/19	20:30	12.9	0.158	0.122	5.79	169.5	-0.7	80.8	9		
11/10/19	20:40	12.9	0.158	0.121	5.79	169.4	0.1	80.7	9		
11/10/19	20:50	12.9	0.158	0.122	5.8	169.2	-1	80.8	9		
11/10/19	21:00	12.9	0.158	0.121	5.8	168.9	-1.3	80.7	9		
11/10/19	21:10	12.9	0.158	0.121	5.8	169.1	-1.4	80.7	9		
11/10/19	21:20	12.9	0.158	0.121	5.8	168.9	-1	80.6	9		
11/10/19	21:30	12.9	0.158	0.121	5.8	168.8	-0.4	80.6	9		
11/10/19	21:40	12.9	0.158	0.121	5.8	168.8	-0.4	80.7	9		
11/10/19	21:50	12.9	0.158	0.122	5.8	169	-0.7	80.7	9		
11/10/19	22:00	12.9	0.158	0.122	5.8	168.9	-0.1	80.7	9		
11/10/19	22:10	12.9	0.158	0.122	5.8	168.4	-1.1	80.8	9		
11/10/19	22:20	12.9	0.158	0.122	5.8	168.1	0.8	80.7	9		
11/10/19	22:30	12.9	0.158	0.122	5.8	168.4	-0.2	80.6	9		
11/10/19	22:40	12.9	0.158	0.122	5.8	167.9	0.4	80.7	9		
11/10/19	22:50	12.9	0.158	0.122	5.8	168.4	-1.9	80.6	9		
11/10/19	23:00	12.9	0.158	0.122	5.8	168	-1.5	80.6	9		
11/10/19	23:10	12.9	0.158	0.121	5.8	168	-0.2	80.6	9		
11/10/19	23:20	12.9	0.158	0.122	5.79	168.3	0.1	80.6	9		
11/10/19	23:30	12.9	0.158	0.121	5.8	168.5	-0.5	80.7	9		
11/10/19	23:40	12.9	0.158	0.121	5.79	168.5	-0.9	80.6	9		
11/10/19	23:50	12.9	0.158	0.121	5.79	168.5	-1.3	80.6	9		
11/11/19	0:00	12.9	0.158	0.121	5.8	168.4	-0.9	80.6	9		
11/11/19	0:10	12.9	0.158	0.121	5.78	168.9	-0.3	80.5	9		
11/11/19	0:20	12.9	0.158	0.121	5.78	168.7	-1.6	80.5	9		
11/11/19	0:30	12.9	0.158	0.122	5.78	168.6	-0.5	80.5	9		
11/11/19	0:40	12.9	0.158	0.122	5.78	168.3	-0.4	80.6	9		
11/11/19	0:50	12.9	0.158	0.122	5.78	168.7	-0.4	80.5	9		
11/11/19	1:00	12.9	0.158	0.122	5.78	168.3	-1.1	80.5	9		
11/11/19	1:10	12.9	0.158	0.122	5.79	168	-1.1	80.4	8		
11/11/19	1:20	12.9	0.158	0.122	5.79	168	0.6	80.4	8		
11/11/19	1:30	12.9	0.158	0.122	5.79	168	-0.5	80.4	8		
11/11/19	1:40	12.9	0.158	0.122	5.79	168	-0.7	80.4	8		
11/11/19	1:50	12.9	0.158	0.122	5.78	168.2	0.9	80.5	9		
11/11/19	2:00	12.9	0.158	0.122	5.79	168.2	-1	80.4	8		
11/11/19	2:10	12.9	0.158	0.122	5.78	168.2	0.1	80.4	8		
11/11/19	2:20	12.9	0.158	0.121	5.78	168.2	-0.4	80.3	8		
11/11/19	2:30	12.9	0.158	0.122	5.79	167.7	-1.3	80.4	8		
11/11/19	2:40	12.9	0.158	0.122	5.78	168.1	-0.7	80.3	8		
11/11/19	2:50	12.9	0.158	0.121	5.79	167.4	-1.4	80.3	8		
11/11/19	3:00	12.9	0.158	0.121	5.78	167.8	-0.2	80.4	8		
11/11/19	3:10	12.9	0.158	0.122	5.79	167.5	-1.4	80.4	8		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/11/19	3:20	12.9	0.158	0.122	5.79	167.2	-1.3	80.4	8		
11/11/19	3:30	12.9	0.158	0.122	5.79	167.4	0.4	80.4	8		
11/11/19	3:40	12.9	0.158	0.122	5.78	167.4	-1.7	80.4	8		
11/11/19	3:50	12.9	0.158	0.122	5.79	167.2	-0.7	80.4	8		
11/11/19	4:00	12.9	0.158	0.122	5.78	167.2	-0.1	80.3	8		
11/11/19	4:10	12.9	0.158	0.122	5.78	167.5	-1.6	80.3	8		
11/11/19	4:20	12.9	0.158	0.122	5.79	166.9	-0.8	80.4	8		
11/11/19	4:30	12.9	0.158	0.121	5.77	167.1	-0.4	80.4	8		
11/11/19	4:40	12.9	0.158	0.122	5.77	167.1	-0.7	80.4	8		
11/11/19	4:50	12.9	0.158	0.121	5.78	167.1	-0.4	80.5	8		
11/11/19	5:00	12.9	0.158	0.122	5.78	167.1	-0.7	80.4	8		
11/11/19	5:10	12.9	0.158	0.122	5.78	167	-0.7	80.4	8		
11/11/19	5:20	12.9	0.158	0.122	5.78	167	-1	80.3	8		
11/11/19	5:30	12.9	0.158	0.121	5.78	166.7	0	80.3	8		
11/11/19	5:40	12.9	0.158	0.122	5.78	167.4	-0.3	80.2	8		
11/11/19	5:50	12.9	0.158	0.122	5.78	166.8	-1.2	80.2	8		
11/11/19	6:00	12.9	0.158	0.122	5.78	167.3	-0.5	80.2	8		
11/11/19	6:10	12.9	0.158	0.121	5.78	167.2	-1.1	80.2	8		
11/11/19	6:20	12.9	0.158	0.121	5.78	167.2	-0.2	80.1	8		
11/11/19	6:30	12.9	0.158	0.121	5.78	166.9	-1	80.1	8		
11/11/19	6:40	12.9	0.158	0.121	5.79	166.6	-0.6	80.0	8		
11/11/19	6:50	12.9	0.158	0.122	5.79	166.6	0	80.1	8		
11/11/19	7:00	12.9	0.158	0.121	5.78	167.1	-0.7	80.1	8		
11/11/19	7:10	12.9	0.158	0.121	5.78	166.7	0.4	80.0	8		
11/11/19	7:20	12.9	0.158	0.122	5.79	166.5	-0.7	80.1	8		
11/11/19	7:30	12.9	0.158	0.122	5.8	166.4	-0.5	80.0	8		
11/11/19	7:40	12.9	0.158	0.122	5.8	166.6	1	80.0	8		
11/11/19	7:50	12.9	0.158	0.122	5.8	166.7	-0.7	80.0	8		
11/11/19	8:00	12.9	0.158	0.122	5.8	166.9	-0.7	80.0	8		
11/11/19	8:10	12.9	0.158	0.122	5.8	167.1	0.5	79.9	8		
11/11/19	8:20	12.9	0.158	0.122	5.8	167.2	0	80.0	8		
11/11/19	8:30	12.9	0.158	0.122	5.8	167.1	-0.8	80.0	8		
11/11/19	8:40	12.9	0.158	0.122	5.8	167.1	-0.7	80.0	8		
11/11/19	8:50	12.9	0.158	0.122	5.81	166.6	-1	79.9	8		
11/11/19	9:00	12.9	0.158	0.122	5.8	167.1	0.7	80.0	8		
11/11/19	9:10	12.9	0.158	0.122	5.8	167.1	0.9	80.0	8		
11/11/19	9:20	12.9	0.158	0.122	5.8	166.9	-0.3	80.0	8		
11/11/19	9:30	12.9	0.158	0.122	5.8	166.9	-0.2	80.0	8		
11/11/19	9:40	12.9	0.158	0.122	5.8	166.6	-0.8	80.0	8		
11/11/19	9:50	12.9	0.158	0.122	5.8	166.4	-0.6	80.0	8		
11/11/19	10:00	12.9	0.158	0.122	5.8	167.1	0	80.0	8		
11/11/19	10:10	12.9	0.158	0.122	5.8	166.7	-0.5	79.9	8		
11/11/19	10:20	12.9	0.158	0.122	5.8	166.6	-0.5	80.0	8		
11/11/19	10:30	12.9	0.158	0.122	5.8	166.8	0.3	79.9	8		
11/11/19	10:40	12.9	0.158	0.122	5.8	166.6	0.8	80.0	8		
11/11/19	10:50	12.9	0.158	0.122	5.79	166.9	-1.3	79.9	8		
11/11/19	11:00	12.9	0.158	0.122	5.79	166.8	0	79.8	8		
11/11/19	11:10	12.9	0.158	0.122	5.79	166.7	-0.7	79.8	8		
11/11/19	11:20	12.9	0.158	0.122	5.79	166.7	-0.2	79.9	8		
11/11/19	11:30	12.9	0.158	0.122	5.79	166.7	-1.3	79.9	8		
11/11/19	11:40	12.9	0.158	0.122	5.78	166.8	0.2	79.8	8		
11/11/19	11:50	12.9	0.158	0.122	5.78	166.5	0.4	79.8	8		
11/11/19	12:00	12.9	0.158	0.122	5.78	166.6	-1.5	79.7	8		
11/11/19	12:10	12.9	0.158	0.122	5.78	166.9	-0.8	79.8	8		
11/11/19	12:20	12.9	0.158	0.122	5.78	166.9	-1.1	79.7	8		
11/11/19	12:30	12.9	0.158	0.122	5.78	166.6	-1.6	79.8	8		
11/11/19	12:40	12.9	0.158	0.122	5.78	166.6	-0.7	79.7	8		
11/11/19	12:50	12.9	0.158	0.122	5.78	166.6	-1.8	79.7	8		
11/11/19	13:00	12.9	0.158	0.122	5.78	166.6	-0.2	79.7	8		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/11/19	13:10	12.9	0.158	0.122	5.78	166.7	-1	79.7	8		
11/11/19	13:20	12.9	0.158	0.122	5.77	167.2	-0.3	79.7	8		
11/11/19	13:30	12.9	0.158	0.122	5.78	166.6	-0.2	79.7	8		
11/11/19	13:40	12.9	0.158	0.122	5.78	166.7	-1.3	79.7	8		
11/11/19	13:50	12.9	0.158	0.122	5.77	166.8	-0.3	79.7	8		
11/11/19	14:00	12.9	0.158	0.122	5.78	166.2	-0.4	79.7	8		
11/11/19	14:10	12.9	0.158	0.122	5.78	166	-1.6	79.7	8		
11/11/19	14:20	12.9	0.158	0.121	5.77	166.7	-0.7	79.8	8		
11/11/19	14:30	12.9	0.158	0.122	5.78	166.6	-0.8	79.8	8		
11/11/19	14:40	12.9	0.158	0.122	5.78	166.5	-1.2	79.7	8		
11/11/19	14:50	12.9	0.158	0.121	5.78	166.4	-0.7	79.7	8		
11/11/19	15:00	12.9	0.158	0.121	5.77	166.7	-0.7	79.8	8		
11/11/19	15:10	12.9	0.158	0.122	5.77	166.6	-0.7	79.6	8		
11/11/19	15:20	12.9	0.158	0.121	5.77	166.7	-0.6	79.6	8		
11/11/19	15:30	12.9	0.158	0.121	5.77	166.7	-0.8	79.6	8		
11/11/19	15:40	12.9	0.158	0.121	5.77	166.8	-1.3	79.6	8		
11/11/19	15:50	12.9	0.158	0.121	5.77	166.9	-1	79.7	8		
11/11/19	16:00	12.9	0.158	0.121	5.77	167	-1	79.6	8		
11/11/19	16:10	12.9	0.158	0.122	5.77	166.6	-0.7	79.6	8		
11/11/19	16:20	12.9	0.158	0.121	5.77	167.2	0	79.6	8		
11/11/19	16:30	12.9	0.158	0.121	5.77	167.2	0	79.6	8		
11/11/19	16:40	12.9	0.158	0.121	5.76	167.3	-0.9	79.6	8		
11/11/19	16:50	12.9	0.158	0.121	5.77	166.9	-1.2	79.5	8		
11/11/19	17:00	12.9	0.158	0.121	5.77	167	-1.5	79.6	8		
11/11/19	17:10	12.9	0.158	0.121	5.77	166.9	-0.7	79.7	8		
11/11/19	17:20	12.9	0.158	0.121	5.76	167.1	-1	79.8	8		
11/11/19	17:30	12.9	0.158	0.121	5.76	166.9	-1.4	79.8	8		
11/11/19	17:40	12.9	0.158	0.121	5.76	167.2	-0.9	79.8	8		
11/11/19	17:50	12.9	0.158	0.122	5.76	167.2	0.1	79.8	8		
11/11/19	18:00	12.9	0.158	0.121	5.77	166.7	0.1	79.8	8		
11/11/19	18:10	12.9	0.158	0.122	5.76	166.5	-0.2	79.8	8		
11/11/19	18:20	12.9	0.158	0.122	5.76	166.3	-0.9	79.7	8		
11/11/19	18:30	12.9	0.158	0.121	5.77	166	-0.4	79.8	8		
11/11/19	18:40	12.9	0.158	0.121	5.77	165.5	0	79.8	8		
11/11/19	18:50	12.9	0.158	0.122	5.76	166.2	-1	79.8	8		
11/11/19	19:00	12.9	0.158	0.121	5.76	165.6	-0.5	79.7	8		
11/11/19	19:10	12.9	0.158	0.122	5.76	165.8	0.2	79.7	8		
11/11/19	19:20	12.9	0.158	0.122	5.76	165.8	0	79.7	8		
11/11/19	19:30	12.9	0.158	0.121	5.76	165.8	-0.7	79.7	8		
11/11/19	19:40	12.9	0.158	0.121	5.76	166	-0.8	79.7	8		
11/11/19	19:50	12.9	0.158	0.121	5.76	165.8	0	79.7	8		
11/11/19	20:00	12.9	0.158	0.121	5.76	165.8	0	79.7	8		
11/11/19	20:10	12.9	0.158	0.122	5.76	165.8	-0.5	79.6	8		
11/11/19	20:20	12.9	0.158	0.122	5.76	165.9	-0.6	79.6	8		
11/11/19	20:30	12.9	0.158	0.122	5.76	165.8	-0.2	79.6	8		
11/11/19	20:40	12.9	0.158	0.122	5.75	166	-0.7	79.6	8		
11/11/19	20:50	12.9	0.158	0.122	5.75	166	-0.8	79.6	8		
11/11/19	21:00	12.9	0.158	0.122	5.75	166	-1.6	79.6	8		
11/11/19	21:10	12.9	0.158	0.122	5.75	166.1	-0.9	79.7	8		
11/11/19	21:20	12.9	0.158	0.122	5.75	166.3	-0.1	79.6	8		
11/11/19	21:30	12.9	0.158	0.121	5.75	166.4	-0.8	79.7	8		
11/11/19	21:40	12.9	0.158	0.122	5.75	166	-0.7	79.7	8		
11/11/19	21:50	12.9	0.158	0.121	5.75	166.3	-1.2	79.7	8		
11/11/19	22:00	12.9	0.158	0.122	5.75	166.1	-0.7	79.7	8		
11/11/19	22:10	12.9	0.158	0.122	5.75	166.1	-1.5	79.7	8		
11/11/19	22:20	12.9	0.158	0.122	5.74	166.2	0.3	79.6	8		
11/11/19	22:30	12.9	0.158	0.122	5.74	166.3	-0.2	79.7	8		
11/11/19	22:40	12.9	0.158	0.122	5.74	166.3	-1.3	79.6	8		
11/11/19	22:50	12.9	0.158	0.121	5.74	166.3	-0.3	79.6	8		



**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/11/19	23:00	12.9	0.158	0.121	5.73	166.2	-0.4	79.4	8		
11/11/19	23:10	12.9	0.158	0.121	5.73	166.3	-0.5	79.4	8		
11/11/19	23:20	12.9	0.158	0.121	5.73	166.6	-0.3	79.4	8		
11/11/19	23:30	12.9	0.158	0.121	5.73	166.6	-1.2	79.3	8		
11/11/19	23:40	12.9	0.158	0.121	5.72	166.7	-0.8	79.4	8		
11/11/19	23:50	12.9	0.158	0.121	5.72	166.7	-0.9	79.4	8		
11/12/19	0:00	12.9	0.158	0.121	5.72	167	-0.8	79.3	8		
11/12/19	0:10	12.9	0.158	0.121	5.72	167.1	-1.3	79.3	8		
11/12/19	0:20	12.9	0.158	0.121	5.72	167.2	-0.5	79.4	8		
11/12/19	0:30	12.9	0.158	0.121	5.72	167.1	-1	79.4	8		
11/12/19	0:40	12.9	0.158	0.122	5.72	166.9	-1.3	79.4	8		
11/12/19	0:50	12.9	0.158	0.122	5.72	167.2	-0.6	79.4	8		
11/12/19	1:00	12.9	0.158	0.122	5.71	167.1	-1.1	79.4	8		
11/12/19	1:10	12.9	0.158	0.122	5.72	166.7	0.4	79.3	8		
11/12/19	1:20	12.9	0.158	0.121	5.72	166.4	-0.9	79.3	8		
11/12/19	1:30	12.9	0.158	0.121	5.71	166.8	-1.3	79.3	8		
11/12/19	1:40	12.9	0.158	0.121	5.72	166.5	-1.3	79.4	8		
11/12/19	1:50	12.9	0.158	0.121	5.71	166.9	-0.8	79.3	8		
11/12/19	2:00	12.9	0.158	0.121	5.71	166.9	-0.5	79.3	8		
11/12/19	2:10	12.9	0.158	0.121	5.71	166.6	-0.2	79.2	8		
11/12/19	2:20	12.9	0.158	0.121	5.71	166.4	-0.7	79.2	8		
11/12/19	2:30	12.9	0.158	0.121	5.71	166.4	-0.5	79.3	8		
11/12/19	2:40	12.9	0.158	0.121	5.7	166.7	-1.7	79.2	8		
11/12/19	2:50	12.9	0.158	0.121	5.7	166.9	0.3	79.3	8		
11/12/19	3:00	12.9	0.158	0.121	5.71	166.9	0.3	79.2	8		
11/12/19	3:10	12.9	0.158	0.121	5.7	166.9	0	79.3	8		
11/12/19	3:20	12.9	0.158	0.121	5.7	166.9	-1.2	79.3	8		
11/12/19	3:30	12.9	0.158	0.121	5.71	166.3	-1.1	79.3	8		
11/12/19	3:40	12.9	0.158	0.121	5.7	166.3	-1	79.3	8		
11/12/19	3:50	12.9	0.158	0.121	5.7	166.6	-0.8	79.3	8		
11/12/19	4:00	12.9	0.158	0.121	5.7	166.6	-0.5	79.3	8		
11/12/19	4:10	12.9	0.158	0.121	5.71	166.3	-0.3	79.3	8		
11/12/19	4:20	12.9	0.158	0.121	5.7	166.5	-0.7	79.3	8		
11/12/19	4:30	12.9	0.158	0.121	5.7	166.4	-0.8	79.3	8		
11/12/19	4:40	12.9	0.158	0.121	5.7	166.3	0.3	79.3	8		
11/12/19	4:50	12.9	0.158	0.121	5.7	166.5	0	79.2	8		
11/12/19	5:00	12.9	0.158	0.121	5.7	166.6	-0.2	79.2	8		
11/12/19	5:10	12.9	0.158	0.121	5.71	166.3	0.3	79.2	8		
11/12/19	5:20	12.9	0.158	0.121	5.71	166.3	-1.4	79.1	8		
11/12/19	5:30	12.9	0.158	0.121	5.71	166.1	-1	79.2	8		
11/12/19	5:40	12.9	0.158	0.121	5.7	166.3	-1	79.1	8		
11/12/19	5:50	12.9	0.158	0.121	5.7	166.4	0.2	79.0	8		
11/12/19	6:00	12.9	0.158	0.121	5.7	166.4	0.4	79.1	8		
11/12/19	6:10	12.9	0.158	0.121	5.7	166.4	-0.2	79.0	8		
11/12/19	6:20	12.9	0.158	0.121	5.7	166.6	-0.5	79.0	8		
11/12/19	6:30	12.9	0.158	0.121	5.7	166.6	-1.1	79.0	8		
11/12/19	6:40	12.9	0.158	0.121	5.7	166.3	-0.8	79.0	8		
11/12/19	6:50	12.9	0.158	0.121	5.7	166.5	-0.1	79.0	8		
11/12/19	7:00	12.9	0.158	0.121	5.7	166.2	-0.5	79.0	8		
11/12/19	7:10	12.9	0.158	0.121	5.7	166.3	-0.4	78.9	8		
11/12/19	7:20	12.9	0.158	0.121	5.7	166.1	-0.6	78.9	8		
11/12/19	7:30	12.9	0.158	0.121	5.71	166.1	-0.2	78.9	8		
11/12/19	7:40	12.9	0.158	0.121	5.73	166	-0.7	79.0	8		
11/12/19	7:50	12.9	0.158	0.121	5.74	166.2	-0.7	79.0	8		
11/12/19	8:00	12.9	0.158	0.121	5.75	166	-0.4	79.0	8		
11/12/19	8:10	12.9	0.158	0.121	5.75	166.1	-1.4	79.0	8		
11/12/19	8:20	12.9	0.158	0.121	5.75	166.3	-1.4	79.0	8		
11/12/19	8:30	12.9	0.158	0.121	5.75	166.1	-0.3	79.0	8		
11/12/19	8:40	12.9	0.158	0.121	5.75	166.1	0.6	79.0	8		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/12/19	8:50	12.9	0.158	0.121	5.75	165.9	-0.1	79.0	8		
11/12/19	9:00	12.9	0.158	0.121	5.75	165.7	-0.2	78.9	8		
11/12/19	9:10	12.9	0.158	0.121	5.75	165.6	-0.8	79.0	8		
11/12/19	9:20	12.9	0.158	0.121	5.75	165.5	-0.8	79.0	8		
11/12/19	9:30	12.9	0.158	0.121	5.75	165.5	-0.2	79.0	8		
11/12/19	9:40	12.9	0.158	0.121	5.75	165.3	-1.8	78.9	8		
11/12/19	9:50	12.9	0.158	0.121	5.75	165.3	-0.8	78.9	8		
11/12/19	10:00	12.9	0.158	0.121	5.75	165.3	-0.9	78.9	8		
11/12/19	10:10	12.9	0.158	0.122	5.75	165.3	0.1	78.8	8		
11/12/19	10:20	12.9	0.158	0.121	5.75	165.2	0	78.9	8		
11/12/19	10:30	12.9	0.158	0.122	5.75	164.8	-1.2	78.9	8		
11/12/19	10:40	12.9	0.158	0.121	5.75	165.2	0.3	78.9	8		
11/12/19	10:50	12.9	0.158	0.121	5.74	165.4	0.3	78.8	8		
11/12/19	11:00	12.9	0.158	0.121	5.75	165	-1.1	78.9	8		
11/12/19	11:10	12.9	0.158	0.121	5.75	165.2	0.3	79.0	8		
11/12/19	11:20	12.9	0.158	0.121	5.74	165.2	0.3	79.0	8		
11/12/19	11:30	12.9	0.158	0.121	5.74	165.5	-0.6	78.9	8		
11/12/19	11:40	12.9	0.158	0.121	5.74	165	-1	78.9	8		
11/12/19	11:50	12.9	0.158	0.121	5.74	165.5	-0.2	78.8	8		
11/12/19	12:00	12.9	0.158	0.121	5.74	165.5	-1.1	78.8	8		
11/12/19	12:10	12.9	0.158	0.121	5.74	165.6	-0.2	78.8	8		
11/12/19	12:20	12.9	0.158	0.121	5.74	165.4	-0.3	78.8	8		
11/12/19	12:30	12.9	0.158	0.121	5.74	165.8	0.2	78.8	8		
11/12/19	12:40	12.9	0.158	0.121	5.74	165.9	-0.4	78.7	8		
11/12/19	12:50	12.9	0.158	0.121	5.74	165.6	-1.6	78.7	8		
11/12/19	13:00	12.9	0.158	0.121	5.74	165.6	-1.3	78.7	8		
11/12/19	13:10	12.9	0.158	0.121	5.73	165.9	-0.7	78.7	8		
11/12/19	13:20	12.9	0.158	0.121	5.73	165.5	-1.2	78.7	8		
11/12/19	13:30	12.9	0.158	0.121	5.73	165.6	-1.1	78.7	8		
11/26/2019	13:30	12.9	0.204	0.157	6.19	95.1	-0.8	58.7	6.2	43.9	28.6
11/26/2019	13:40	12.88	0.212	0.163	6.19	98.4	-1.5	58.3	6.16	42.8	28.7
11/26/2019	13:50	12.88	0.221	0.17	6.19	101.7	-1.8	57.0	6.02	43.9	28.9
11/26/2019	14:00	12.88	0.232	0.178	6.19	104.7	-1.9	56.5	5.96	43.9	29
11/26/2019	14:10	12.87	0.24	0.185	6.19	107	-1.9	56.1	5.93	42.8	28.9
11/26/2019	14:20	12.87	0.246	0.189	6.19	110.6	-2.2	55.7	5.88	43.9	29
11/26/2019	14:30	12.87	0.251	0.193	6.19	112.2	-2.2	56.1	5.93	41	29
11/26/2019	14:40	12.87	0.254	0.195	6.18	114.6	-2.2	56.1	5.92	43.9	29.2
11/26/2019	14:50	12.88	0.256	0.197	6.16	118.2	-2.3	55.5	5.86	42.8	30.5
11/26/2019	15:00	12.88	0.257	0.198	6.15	119.3	-2.4	55.4	5.85	42.8	30.9
11/26/2019	15:10	12.88	0.26	0.2	6.15	121.1	-2.4	55.0	5.81	43.9	31.1
11/26/2019	15:20	12.88	0.259	0.199	6.15	122.7	-2.3	55.3	5.83	42.8	31.1
11/26/2019	15:30	12.88	0.262	0.201	6.14	123.5	-2.3	55.3	5.83	43.9	31.3
11/26/2019	15:40	12.88	0.263	0.202	6.14	123.8	-2.4	55.1	5.82	43.9	31.3
11/26/2019	15:50	12.88	0.266	0.204	6.14	124.7	-2.4	55.2	5.83	43.9	31.4
11/26/2019	16:00	12.88	0.266	0.205	6.14	125.6	-2.3	55.6	5.87	43.9	31.6
11/26/2019	16:10	12.88	0.268	0.206	6.13	126.5	-2.4	56.0	5.91	42.8	31.7
11/26/2019	16:20	12.88	0.27	0.208	6.13	127.2	-2.3	56.0	5.91	42.8	31.8
11/26/2019	16:30	12.88	0.27	0.208	6.13	128.1	-2.4	55.9	5.9	42.8	31.9
11/26/2019	16:40	12.88	0.273	0.209	6.13	128.9	-2.4	55.9	5.9	43.9	31.9
11/26/2019	16:50	12.88	0.273	0.21	6.13	129.7	-2.4	55.8	5.89	43.9	31.9
11/26/2019	17:00	12.88	0.272	0.209	6.13	130.7	-2.4	55.7	5.89	42.8	32
11/26/2019	17:10	12.88	0.271	0.209	6.13	131.7	-2.4	55.7	5.88	43.9	32
11/26/2019	17:20	12.88	0.272	0.209	6.13	132.4	-2.4	55.6	5.87	42.8	32
11/26/2019	17:30	12.88	0.181	0.139	6.12	133.6	-15.2	55.9	5.9	43.9	32.5
11/26/2019	17:40	12.87	243.6	187.2	6.13	134.2	-17.4	54.6	1.39	43.9	32
11/26/2019	17:50	12.88	243.6	187.2	6.12	135.6	-7.4	56.4	1.44	42.8	32.7
11/26/2019	18:00	13.02	241.8	186.5	6.05	139.6	-19	54.5	1.41	42.8	36.2
11/26/2019	18:10	12.91	243.4	187.2	6.12	136.5	-16.3	57.0	1.45	43.9	32.8
11/26/2019	18:20	12.89	243.5	187.2	6.12	137	-7.8	55.6	1.42	42.8	32.5

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/26/2019	18:30	12.88	243.5	187.1	6.11	138.1	-13.4	57.1	1.46	42.8	33
11/26/2019	18:40	12.87	243.6	187.2	6.11	138.4	-13.9	59.2	1.51	42.8	33
11/26/2019	18:50	12.87	243.6	187.2	6.1	139.5	-14.1	59.6	1.52	42.8	33.4
11/26/2019	19:00	12.89	243.5	187.2	6.11	140.1	-13.8	58.6	1.49	43.9	33
11/26/2019	19:10	12.88	243.5	187.1	6.06	143.6	-13.5	58.7	1.5	42.8	35.4
11/26/2019	19:20	12.99	239.6	184.6	3.93	252.7	-11.2	56.0	1.47	42.8	146.1
11/26/2019	19:30	12.9	243.4	187.2	6.1	142.3	-10.9	56.6	1.44	43.9	33.6
11/26/2019	19:40	12.89	243	186.8	5.73	163.1	-11.2	56.8	1.45	43.9	52.9
11/26/2019	19:50	12.89	243.1	186.9	5.84	157.2	-11.1	56.3	1.44	41.6	47.3
11/26/2019	20:00	12.88	243	186.8	5.64	168.1	-11.1	55.9	1.43	43.9	57.3
11/26/2019	20:10	12.93	242.7	186.7	5.66	168.6	-11.1	55.8	1.43	43.9	56.4
11/26/2019	20:20	12.89	243	186.8	5.79	163.4	-11.1	55.9	1.43	41.6	49.7
11/26/2019	20:30	12.89	243.1	186.9	5.92	157.7	-11	55.9	1.43	43.9	43
11/26/2019	20:40	12.93	242.8	186.8	6.08	150	-11.1	55.8	1.43	41.6	34.4
11/26/2019	20:50	12.86	243.6	187.1	6.07	150.3	-11	56.0	1.43	42.8	35
11/26/2019	21:00	12.88	243.4	187.1	4.32	247.6	-11	56.0	1.43	41.6	126
11/26/2019	21:10	-9.99	439.6	145.7	0	638.4	-200	97.8	0.76	44.5	619
11/26/2019	21:20	-9.99	427.3	141.6	0	634.3	-200	112.9	1.02	39.8	614.6
11/26/2019	21:30	-9.99	462.9	153.4	0	709.5	-200	131.9	0.75	43.9	687.5
11/26/2019	21:40	-9.99	456.8	151.4	0	627.8	-200	125.0	0.77	37.5	607.5
11/26/2019	21:50	-9.99	452.6	150.1	0	687.5	-200	102.2	0.67	39.8	666.8
11/26/2019	22:00	-9.99	455.9	151.1	0	1009.5	-200	129.3	0.81	43.9	989.8
11/26/2019	22:10	-9.99	463.4	153.6	0	730.3	-200	112.4	0.64	43.9	709.7
11/26/2019	22:20	-9.99	457.9	151.8	0	702.5	-200	113.6	0.69	44.5	682.7
11/26/2019	22:30	-9.99	473.2	156.9	0	678.6	-200	118.0	0.58	42.8	658.1
11/26/2019	22:40	-9.99	454.8	150.8	0	632.8	-200	108.3	0.69	43.9	613
11/26/2019	22:50	-9.99	457.6	151.7	0	627.5	-200	89.7	0.55	43.9	607.8
11/26/2019	23:00	-9.99	450.7	149.4	0	628.5	-200	105.3	0.71	46.9	608.8
11/26/2019	23:10	-9.99	453	150.2	0	629.5	-200	109.4	0.71	36.9	609.7
11/26/2019	23:20	-9.99	427.5	141.7	0	628.5	-200	97.7	0.88	39.8	608.8
11/26/2019	23:30	-9.99	462.8	153.4	0	628.8	-200	113.2	0.65	42.8	608.9
11/26/2019	23:40	-9.99	452.8	150.1	0	628.2	-200	106.6	0.7	45.7	608.5
11/26/2019	23:50	-9.99	444	147.2	0	628.4	-200	94.3	0.69	44.5	608.6
11/27/2019	0:00	-9.99	443.3	147	0	628.2	-200	100.0	0.74	41.6	608.4
11/27/2019	0:10	-9.99	446.7	148.1	0	628.5	-200	104.6	0.74	44.5	608.8
11/27/2019	0:20	-9.99	447.2	148.3	0	628.5	-200	101.4	0.71	42.8	608.7
11/27/2019	0:30	-9.99	447.5	148.3	0	628	-200	146.8	1.03	42.8	608.3
11/27/2019	0:40	-9.99	489	162.1	0	629.2	-111.3	122.4	0.48	41.6	609.5
11/27/2019	0:50	-9.99	442.7	146.8	0	628.9	-197.6	92.5	0.69	43.9	608.6
11/27/2019	1:00	-9.99	452.5	150	0	628.2	-186.3	105.3	0.69	43.9	608.3
11/27/2019	1:10	-9.99	449.5	149	0	628.2	-196.6	96.4	0.66	41.6	608.4
11/27/2019	1:20	-9.99	454.8	150.8	0	627.5	-175.5	99.7	0.63	43.9	607.1
11/27/2019	1:30	-9.99	446.5	148	0	628.5	-182.4	89.1	0.63	43.9	608.6
11/27/2019	1:40	-9.99	448.5	148.7	0	628.4	-179.4	91.8	0.64	41.6	608.6
11/27/2019	1:50	-9.99	446.1	147.9	0	628.6	-148.6	114.4	0.82	42.8	608.9
11/27/2019	2:00	-9.99	445.4	147.6	0	627.4	-166.5	87.5	0.63	37.5	607.7
11/27/2019	2:10	-9.99	445.8	147.8	0	627.9	-165.9	83.3	0.6	42.8	608
11/27/2019	2:20	-9.99	443	146.8	0	484.8	-156.2	83.9	0.62	37.5	675.2
11/27/2019	2:30	-9.99	441	146.2	0	620.4	-162.2	81.8	0.62	41.6	600.5
11/27/2019	2:40	-9.99	434.1	143.9	0	628.1	-200	103.7	0.86	41.6	608.3
11/27/2019	2:50	-9.99	451.4	149.6	0	627.9	-197.3	102.0	0.68	41.6	608.1
11/27/2019	3:00	-9.99	446.4	148	0	628.5	-190.6	97.8	0.7	42.8	608.7
11/27/2019	3:10	-9.99	437	144.9	0	628.2	-183.8	88.9	0.71	42.8	608.3
11/27/2019	3:20	-9.99	448.8	148.8	0	628.3	-168	89.1	0.61	42.8	608.5
11/27/2019	3:30	-9.99	441.8	146.5	0	638.7	540.1	66.9	0.51	39.8	617.9
11/27/2019	3:40	-9.99	454.8	150.8	0	628.7	-184.4	95.8	0.61	42.8	608.5
11/27/2019	3:50	-9.99	411.6	136.5	0	624.9	-187.2	88.0	0.97	41	605.3
11/27/2019	4:00	-9.99	447.7	148.4	0	628.2	-180.1	106.4	0.74	39.8	608.5
11/27/2019	4:10	-9.99	451.4	149.6	0	628.8	-174.9	84.1	0.56	39.8	609

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
11/27/2019	4:20	-9.99	449.3	148.9	0	628.5	-171.7	93.0	0.64	41.6	608.6
11/27/2019	4:30	-9.99	446.9	148.1	0	628.2	-191.5	94.8	0.67	39.8	608.3
11/27/2019	4:40	-9.99	445.2	147.6	0	628.2	-185	90.8	0.66	41.6	608.4
11/27/2019	4:50	-9.99	450.1	149.2	0	628.3	-190.2	101.3	0.69	42.8	608.5
11/27/2019	5:00	-9.99	451.6	149.7	0	628.5	-179.2	92.9	0.62	38.7	608.6
11/27/2019	5:10	-9.99	448.7	148.7	0	628.2	-187.1	92.8	0.64	39.8	608.4
11/27/2019	5:20	-9.99	447.3	148.3	0	628.4	-194.9	92.5	0.65	42.8	608.6
11/27/2019	5:30	-9.99	445.9	147.8	0	628.4	-193.3	86.1	0.62	35.7	608.6
11/27/2019	5:40	-9.99	441.3	146.3	0	628.2	-200	82.5	0.63	42.8	608.4
11/27/2019	5:50	-9.99	451.4	149.6	0	628.1	-200	99.6	0.66	35.7	608.2
11/27/2019	6:00	-9.99	445.7	147.7	0	628.2	-200	125.8	0.9	39.8	608.3
11/27/2019	6:10	-9.99	453.7	150.4	0	628.5	-200	104.6	0.68	41.6	608.5
11/27/2019	6:20	-9.99	447	148.2	0	629	-200	105.2	0.74	36.9	608.8
11/27/2019	6:30	-9.99	450.5	149.3	0	628.2	-199	85.5	0.58	41.6	608.3
11/27/2019	6:40	-9.99	453.2	150.2	0	628.4	-200	138.0	0.9	41.6	608.4
11/27/2019	6:50	-9.99	446.5	148	0	628.5	-200	96.7	0.69	34.6	608.7
11/27/2019	7:00	-9.99	443.4	147	0	628.2	-200	94.7	0.7	41.6	608.5
11/27/2019	7:10	-9.99	447.7	148.4	0	628.4	-200	109.0	0.76	41	608.6
11/27/2019	7:20	-9.99	459.1	152.2	0	633.6	-200	129.9	0.78	42.8	611.7
11/27/2019	7:30	-9.99	452.3	149.9	0	628.2	-200	116.0	0.76	41	608.3
11/27/2019	7:40	-9.99	451.8	149.8	0	628.4	-200	98.1	0.65	41.6	608.7
11/27/2019	7:50	-9.99	445.5	147.7	0	628.8	-200	133.2	0.96	41.6	608.9
11/27/2019	8:00	-9.99	458.9	152.1	0	680.1	-188.7	197.0	1.19	42.8	660
11/27/2019	8:10	-9.99	456.5	151.3	0	630.3	-200	119.9	0.75	42.8	609.7
11/27/2019	8:20	-9.99	449.7	149.1	0	628.4	-200	101.9	0.69	41.6	608.6
11/27/2019	8:30	-9.99	439	145.5	0	628	-200	75.7	0.59	41	608.2
11/27/2019	8:40	-9.99	450.3	149.3	0	628.5	-200	107.3	0.73	39.8	608.7
11/27/2019	8:50	-9.99	458.8	152.1	0	628.4	-200	121.3	0.73	41.6	608.7
11/27/2019	9:00	-9.99	452	149.8	0	628.5	-200	100.0	0.66	41.6	608.9
11/27/2019	9:10	-9.99	448.4	148.6	0	627.9	-200	118.2	0.82	41.6	608.2
11/27/2019	9:20	-9.99	452.2	149.9	0	628.4	-200	107.7	0.71	41.6	608.6
11/27/2019	9:30	-9.99	449.6	149	0	628.4	-200	106.9	0.73	38.7	608.6
11/27/2019	9:40	-9.99	455.5	151	0	628.5	-200	105.2	0.66	41	608.7
11/27/2019	9:50	-9.99	457.8	151.8	0	628.6	-200	116.0	0.71	44.5	608.8
11/27/2019	10:00	-9.99	453.7	150.4	0	628.4	-200	118.3	0.76	41	608.7
11/27/2019	10:10	-9.99	448.7	148.8	0	628.2	-200	110.0	0.76	42.8	608.3
11/27/2019	10:20	-9.99	431.3	143	0	628	-200	102.3	0.88	39.8	608.1
11/27/2019	10:30	-9.99	448.3	148.6	0	628	-200	139.4	0.97	41	608.3
11/27/2019	10:40	-9.99	455.5	151	0	628.4	-200	119.1	0.75	39.8	608
11/27/2019	10:50	-9.99	451.8	149.8	0	628.1	-200	118.6	0.79	41	607.7
11/27/2019	11:00	-9.99	440.7	146.1	0	628	-200	113.4	0.87	41	607.9
11/27/2019	11:10	-9.99	448.2	148.6	0	628.5	-200	109.7	0.76	43.9	608.5
11/27/2019	11:20	-9.99	453	150.2	0	628.4	-200	123.6	0.81	42.8	608.2
11/27/2019	11:30	-9.99	446	147.9	0	603.3	-200	118.4	0.85	42.8	589.7
11/27/2019	11:40	-9.99	448.4	148.7	0	611.5	-200	127.0	0.88	42.8	601
11/27/2019	11:50	-9.99	454.3	150.6	0	628.4	-200	118.7	0.76	39.8	608
11/27/2019	12:00	-9.99	450.9	149.5	0	628.4	-200	127.0	0.85	41	607.9
11/27/2019	12:10	-9.99	452.3	149.9	0	628.4	-200	117.4	0.77	39.8	608.1
11/27/2019	12:20	-9.99	452.6	150	0	628.4	-200	118.8	0.78	41.6	607.9
11/27/2019	12:30	-9.99	455.9	151.1	0	652.8	-200	120.6	0.76	41.6	632.4
11/27/2019	12:40	-9.99	451.1	149.5	0	687.3	-200	121.1	0.81	42.8	666.7
11/27/2019	12:50	-9.99	450	149.2	0	605.3	-200	120.8	0.82	35.7	587.8
11/27/2019	13:00	-9.99	440.7	146.1	0	632.9	-200	120.3	0.92	42.8	613
11/27/2019	13:10	-9.99	431.5	143.1	0	630.1	-200	118.5	1.02	42.8	610.7
11/27/2019	13:20	-9.99	430.3	142.6	0	629.4	-200	116.7	1.02	41.6	609.7
12/3/2019	9:53	-9.99	422.2	140	0	629	-59.3	168.2	1.62	44.5	609.1
12/3/2019	11:00	12.7	0.045	0.035	6.08	256.2	-12.4	106.9	11.34	44.5	34.5
12/3/2019	11:10	-9.99	422.3	140	0	1450.9	-15.9	101.8	0.98	43.9	1429.2
12/3/2019	11:20	-9.99	422.1	139.9	0	1281.6	-18.3	119.6	1.16	41.6	1246.6

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
12/3/2019	11:30	-9.99	423.6	140.4	0	1239.6	-12.3	125.2	1.19	43.9	1209.8
12/3/2019	11:40	-9.99	422.3	140	0	1286.3	-21.9	116.2	1.12	42.8	1262.2
12/3/2019	11:50	12.84	0.185	0.142	6.03	155.3	-10.3	83.1	8.78	42.8	37.4
12/3/2019	12:00	12.84	0.177	0.136	6.02	158.4	21.9	84.3	8.91	42.8	37.7
12/3/2019	12:10	12.84	0.178	0.137	6.02	160.6	-10.4	82.2	8.69	41.6	37.5
12/3/2019	12:20	12.84	0.176	0.135	6.02	162.9	-10.1	84.0	8.87	42.8	37.7
12/3/2019	12:30	12.84	0.177	0.136	6.02	165	-10.1	83.9	8.86	42.8	37.8
12/3/2019	12:40	12.84	0.177	0.136	6.02	166.8	-10.4	83.2	8.79	43.9	37.8
12/3/2019	12:50	12.84	0.178	0.137	6.02	168.2	-10.4	82.5	8.72	42.8	37.5
12/3/2019	13:00	12.84	0.27	0.208	6.02	170	-10.3	83.9	8.87	42.8	37.8
12/3/2019	13:10	12.84	0.383	0.294	6.02	171.3	-9.6	83.2	8.79	42.8	37.7
12/3/2019	13:20	12.85	0.207	0.159	6.02	172.9	-10.5	83.7	8.84	42.8	37.8
12/3/2019	13:30	12.85	0.18	0.138	6.02	174	-10.4	83.6	8.84	42.8	37.8
12/3/2019	13:40	12.84	0.189	0.145	6.03	175	-10.5	81.8	8.64	42.8	37.4
12/3/2019	13:50	12.85	0.204	0.157	6.02	176.3	-10.4	83.3	8.81	42.8	37.7
12/3/2019	14:00	12.85	0.267	0.205	6.02	177.4	-10.6	81.6	8.62	42.8	37.5
12/3/2019	14:10	12.85	0.178	0.137	6.02	178.8	-10.4	83.8	8.86	42.8	37.7
12/3/2019	14:20	12.85	0.177	0.136	6.03	179.6	-10.5	81.9	8.65	43.9	37.4
12/3/2019	14:30	12.85	0.176	0.135	6.02	180.8	-10.5	82.5	8.71	42.8	37.5
12/3/2019	14:40	12.85	0.176	0.135	6.02	182.3	-10.4	84.0	8.87	42.8	37.8
12/3/2019	14:50	12.85	0.176	0.135	6.02	183.1	-10.5	82.9	8.77	42.8	37.5
12/3/2019	15:00	12.85	0.176	0.135	6.02	184.3	-10.5	82.8	8.75	42.8	37.7
12/3/2019	15:10	12.85	0.176	0.135	6.01	185.7	-10.3	83.5	8.83	43.9	38.2
12/3/2019	15:20	12.85	0.176	0.135	6.01	186.9	-8.9	83.7	8.84	42.8	38.4
12/3/2019	15:30	12.85	0.176	0.135	6.01	187.9	-8.8	83.6	8.83	42.8	38.5
12/3/2019	15:40	12.85	0.176	0.135	6.01	188.8	-8.5	83.6	8.83	43.9	38.5
12/3/2019	15:50	12.85	0.176	0.135	6.01	189.7	-7.6	83.5	8.83	43.9	38.5
12/3/2019	16:00	12.85	0.176	0.135	6.01	190.6	-7.3	83.5	8.83	42.8	38.5
12/3/2019	16:10	12.85	0.176	0.135	6	191.3	-7.4	83.5	8.82	42.8	38.5
12/3/2019	16:20	12.85	0.177	0.136	6.01	191.8	-8.3	81.3	8.59	42.8	38
12/3/2019	16:30	12.85	0.176	0.135	6.01	193	-7	83.4	8.82	42.8	38.4
12/3/2019	16:40	12.85	0.176	0.135	6.01	193.5	-7.6	81.7	8.63	42.8	38
12/3/2019	16:50	12.85	0.176	0.135	6.01	194.4	-8.6	82.7	8.74	42.8	38.1
12/3/2019	17:00	12.85	0.176	0.135	6.01	195.4	-15.4	83.6	8.84	41.6	38.3
12/3/2019	17:10	12.85	0.176	0.135	6.01	195.9	-8.3	81.5	8.61	42.8	38
12/3/2019	17:20	12.85	0.176	0.135	6.01	197.1	-21.8	83.3	8.8	42.8	38.3
12/3/2019	17:30	12.85	0.176	0.135	6.01	197.9	-16.2	83.3	8.81	41.6	38.4
12/3/2019	17:40	12.85	0.176	0.135	6.01	198.5	-39.8	83.3	8.81	42.8	38.4
12/3/2019	17:50	12.85	0.176	0.135	6.01	199.2	-9.4	82.5	8.72	42.8	38.3
12/3/2019	18:00	12.85	0.176	0.135	6.01	199.9	-42.9	83.0	8.77	43.9	38.3
12/3/2019	18:10	12.85	0.176	0.135	6.01	200.6	-43.9	83.1	8.78	42.8	38.4
12/3/2019	18:20	12.85	0.176	0.135	6.01	201.2	-7.9	82.3	8.69	43.9	38.2
12/3/2019	18:30	12.85	0.176	0.135	6.01	202	-43.9	83.0	8.77	42.8	38.3
12/3/2019	18:40	12.85	0.176	0.135	6.01	202.6	-35.8	83.0	8.77	42.8	38.4
12/3/2019	18:50	12.85	0.176	0.135	6.01	203.2	-7.5	83.0	8.77	42.8	38.3
12/3/2019	19:00	12.85	0.176	0.135	6.02	203.3	-8	81.2	8.59	41.6	37.8
12/3/2019	19:10	12.86	0.176	0.135	6.02	204	-7.6	81.7	8.63	41.6	37.9
12/3/2019	19:20	12.86	0.176	0.135	6.01	204.8	28.5	82.7	8.74	42.8	38.1
12/3/2019	19:30	12.86	0.176	0.135	6.02	205.3	640.1	81.6	8.63	43.9	37.8
12/3/2019	19:40	12.86	0.176	0.135	6.01	206	-13.8	83.0	8.77	43.9	38
12/3/2019	19:50	12.85	0.176	0.135	6.01	206.4	16.8	83.0	8.77	41.6	38
12/3/2019	20:00	12.86	0.176	0.135	6.02	206.8	-8	81.6	8.62	42.8	37.7
12/3/2019	20:10	12.86	0.176	0.135	6.03	207.2	-8.2	80.5	8.5	42.8	37.3
12/3/2019	20:20	12.86	0.176	0.135	6.02	207.9	-7.7	82.2	8.69	42.8	37.6
12/3/2019	20:30	12.86	0.176	0.135	6.02	208.7	-4.6	82.9	8.76	42.8	37.8
12/3/2019	20:40	12.86	0.176	0.135	6.03	208.7	-53	81.1	8.57	43.9	37.4
12/3/2019	20:50	12.86	0.176	0.135	6.03	209.4	-52.1	81.5	8.61	41.6	37.4
12/3/2019	21:00	-9.99	5.403	1.791	14	1999.9	32.7	500.0	97.69	41.6	1999.9
12/3/2019	21:10	12.86	0.176	0.135	6.02	209.8	-24.2	82.8	8.74	41.6	37.7

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
12/3/2019	21:20	12.86	0.176	0.135	6.02	210.3	-51.2	81.9	8.66	41.6	37.5
12/3/2019	21:30	12.86	0.176	0.135	6.02	210.8	-10.6	82.4	8.7	43.9	37.6
12/3/2019	21:40	12.86	0.176	0.135	6.02	211.2	-9.5	82.6	8.73	43.9	37.7
12/3/2019	21:50	12.86	0.176	0.135	6.02	211.5	-7.8	82.0	8.66	42.8	37.5
12/3/2019	22:00	12.86	0.176	0.136	6.03	211.7	-47.5	80.4	8.5	42.8	37.1
12/3/2019	22:10	12.86	0.176	0.136	6.02	212.6	-45.5	82.6	8.73	43.9	37.5
12/3/2019	22:20	12.86	0.177	0.136	6.03	212.9	-43.7	80.5	8.5	41.6	37.1
12/3/2019	22:30	12.86	0.177	0.136	6.03	213	-7.7	81.2	8.58	41.6	37.1
12/3/2019	22:40	12.86	0.177	0.136	6.02	213.6	-7.8	82.7	8.73	42.8	37.5
12/3/2019	22:50	12.86	0.177	0.136	6.02	213.9	-8.1	82.6	8.73	41.6	37.5
12/3/2019	23:00	12.86	0.176	0.136	6.03	214.3	-7.9	82.5	8.72	43.9	37.4
12/3/2019	23:10	12.86	0.176	0.135	6.03	214.5	-8.2	80.3	8.48	41.6	37.2
12/3/2019	23:20	12.86	0.176	0.136	6.03	214.9	-7.6	82.4	8.71	42.8	37.3
12/3/2019	23:30	12.86	0.176	0.136	6.03	215.5	-7.7	81.1	8.57	43.9	37
12/3/2019	23:40	12.86	0.177	0.136	6.03	215.9	-7.7	82.1	8.67	41.6	37.3
12/3/2019	23:50	12.86	0.177	0.136	6.03	216.2	-12.7	82.1	8.67	42.8	37.3
12/4/2019	0:00	12.86	0.177	0.136	6.03	216.6	-7.8	80.9	8.55	42.8	37.1
12/4/2019	0:10	12.86	0.177	0.136	6.03	217	-5.5	81.6	8.63	42.8	37.2
12/4/2019	0:20	12.86	0.177	0.136	6.03	217.3	-7.9	81.0	8.56	43.9	37.2
12/4/2019	0:30	12.86	0.177	0.136	6.03	217.6	-4.9	81.0	8.55	43.9	37.3
12/4/2019	0:40	12.86	0.176	0.136	6.03	217.6	-7.7	81.2	8.58	41.6	37
12/4/2019	0:50	12.86	0.176	0.136	6.03	217.6	-7.8	80.7	8.52	42.8	37
12/4/2019	1:00	12.86	0.176	0.135	6.03	218	-8.2	81.2	8.57	42.8	37.2
12/4/2019	1:10	12.86	0.177	0.136	6.03	218.3	-8	81.2	8.58	42.8	37
12/4/2019	1:20	12.86	0.177	0.136	6.03	218.5	-7.7	81.1	8.57	41.6	37
12/4/2019	1:30	12.86	0.177	0.136	6.03	219.4	44.8	81.6	8.62	42.8	37.2
12/4/2019	1:40	12.86	0.177	0.136	6.03	219.3	-3	80.7	8.52	41.6	36.9
12/4/2019	1:50	12.86	0.177	0.136	6.03	219.5	-7.8	82.9	8.76	42.8	37
12/4/2019	2:00	12.86	0.177	0.136	6.03	219.8	158.8	81.2	8.58	41.6	36.9
12/4/2019	2:10	12.86	0.176	0.135	6.03	220.5	139.4	82.0	8.66	42.8	37.1
12/4/2019	2:20	12.86	0.176	0.135	6.03	220.8	-52.6	82.1	8.67	42.8	37
12/4/2019	2:30	12.86	0.176	0.136	6.03	220.8	-6.6	82.2	8.68	42.8	37.2
12/4/2019	2:40	12.86	0.177	0.136	6.03	220.9	-34.5	79.8	8.44	41.6	37
12/4/2019	2:50	12.86	0.177	0.136	6.03	221.2	-9.1	82.0	8.66	43.9	37
12/4/2019	3:00	12.86	0.177	0.136	6.03	221.7	-33.1	82.1	8.68	41.6	37.1
12/4/2019	3:10	12.86	0.177	0.136	6.04	221.9	-30.6	80.2	8.48	42.8	36.8
12/4/2019	3:20	12.86	0.177	0.136	6.03	222.5	-33.4	80.6	8.52	41.6	36.9
12/4/2019	3:30	12.86	0.177	0.136	6.03	222.8	-11.2	82.1	8.68	43.9	36.9
12/4/2019	3:40	12.86	0.177	0.136	6.03	223.3	-35.3	82.1	8.68	41.6	37
12/4/2019	3:50	12.86	0.177	0.136	6.03	223.4	1266.9	80.7	8.53	42.8	36.9
12/4/2019	4:00	12.86	0.177	0.136	6.03	223.5	-34.8	83.2	8.79	42.8	37
12/4/2019	4:10	12.86	0.177	0.136	6.03	223.6	-34.9	81.8	8.65	43.9	37
12/4/2019	4:20	12.86	0.177	0.136	6.03	223.8	-5.8	82.1	8.67	41.6	37
12/4/2019	4:30	12.86	0.176	0.136	6.04	223.7	2.3	80.3	8.49	42.8	36.7
12/4/2019	4:40	12.86	0.177	0.136	6.04	223.8	-5.2	79.7	8.42	42.8	36.6
12/4/2019	4:50	12.86	0.177	0.136	6.04	224.2	5.1	79.9	8.44	42.8	36.7
12/4/2019	5:00	12.86	0.177	0.136	6.04	224.9	-18.3	79.5	8.4	42.8	36.6
12/4/2019	5:10	12.86	0.176	0.136	6.03	225.1	-27.9	84.3	8.91	41.6	36.9
12/4/2019	5:20	12.86	0.176	0.136	6.04	225.2	-27.1	80.4	8.49	42.8	36.7
12/4/2019	5:30	12.86	0.176	0.136	6.04	225.5	-29	80.7	8.52	41.6	36.7
12/4/2019	5:40	12.86	0.176	0.135	6.04	225.5	-29	80.8	8.54	42.8	36.8
12/4/2019	5:50	12.86	0.177	0.136	6.04	225.3	-31.8	79.5	8.4	41.6	36.6
12/4/2019	6:00	12.86	0.176	0.136	6.04	225.7	129.8	80.8	8.53	42.8	36.8
12/4/2019	6:10	12.86	0.177	0.136	6.03	226	364.9	80.7	8.53	42.8	37
12/4/2019	6:20	12.86	0.177	0.136	6.04	226	-11.6	78.8	8.33	42.8	36.7
12/4/2019	6:30	12.86	0.177	0.136	6.04	226.1	-31.5	78.3	8.28	41.6	36.4
12/4/2019	6:40	12.86	0.177	0.136	6.04	226.2	-33.7	78.7	8.32	41.6	36.5
12/4/2019	6:50	12.86	0.177	0.136	6.04	226.6	-34.7	78.7	8.31	42.8	36.7
12/4/2019	7:00	12.86	0.177	0.136	6.04	226.6	-28.4	79.5	8.4	42.8	36.4

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
12/4/2019	7:10	12.86	0.177	0.136	6.04	227	-33.7	82.6	8.73	42.8	36.6
12/4/2019	7:20	12.86	0.177	0.136	6.04	227.1	42.1	81.0	8.56	43.9	36.4
12/4/2019	7:30	12.86	0.177	0.136	6.04	227.4	39.3	81.3	8.59	42.8	36.4
12/4/2019	7:40	12.86	0.176	0.136	6.04	227.7	-7.8	82.5	8.71	42.8	36.5
12/4/2019	7:50	12.86	0.176	0.135	6.04	228.1	-11.6	85.1	8.99	43.9	36.6
12/4/2019	8:00	12.85	0.176	0.135	6.04	228.5	-11.8	84.6	8.94	43.9	36.7
12/4/2019	8:10	12.85	0.176	0.135	6.04	228.8	-11.9	84.9	8.97	42.8	36.7
12/4/2019	8:20	12.85	0.176	0.135	6.04	229	-26.8	85.1	8.99	42.8	36.8
12/4/2019	8:30	9.13	0.001	0.001	4.82	269.1	-35.7	106.7	12.29	42.8	98.2
12/4/2019	8:40	5.18	0.002	0.001	5.64	271.1	-12.6	111.6	14.19	42.8	55.5
12/4/2019	8:50	7.1	0.001	0	6.23	250.2	-11.6	107.6	13.03	43.9	26.1
12/4/2019	9:00	8.65	0.001	0	6.16	256.3	-40.6	105.9	12.34	42.8	30
12/4/2019	9:10	9.77	0.001	0	5.02	273.9	-22.1	108.1	12.27	43.9	88.6
12/4/2019	9:20	10.94	0.001	0	4.16	286.4	-7.6	106.1	11.72	43.9	133.2
12/4/2019	9:30	12.41	0.001	0	4.8	291.2	-32	106.2	11.34	44.5	101
12/4/2019	9:40	13.4	0.001	0	4.95	294.7	-5.8	105.7	11.03	43.9	93.3
12/4/2019	9:50	14.1	0.001	0	5.17	298	-30.9	105.3	10.83	43.9	82.3
12/4/2019	10:00	14.57	0.001	0	5.29	306.7	-6.9	104.9	10.68	44.5	76
12/4/2019	10:10	14.9	0.001	0	5.63	312.7	-2.7	102.3	10.34	43.9	58.5
12/4/2019	10:20	15.07	0	0	5.6	320.3	-32.8	102.9	10.36	43.9	59.9
12/4/2019	10:30	15.94	0	0	5.7	332.8	-7.7	102.0	10.08	43.9	54.9
12/4/2019	10:40	16.45	0	0	5.61	326.8	-33.8	102.4	10.01	43.9	59.8
12/4/2019	10:50	16.77	0	0	5.61	322.4	-13.5	101.9	9.9	43.9	59.9
12/17/2019	11:10	16.46	0.002	0.002	6.55	274.8	-10.7	103.5	10.12		
12/17/2019	11:20	17.1	0.002	0.002	6.57	276.6	-10.9	103.0	9.93		
12/17/2019	11:30	17.8	0.004	0.004	6.69	236.6	-12.9	102.3	9.72		
12/17/2019	11:40	18.13	0.006	0.005	6.69	240.8	-12.9	101.5	9.58		
12/17/2019	11:50	12.88	0.184	0.142	6.14	166	-10.8	80.5	8.5		
12/17/2019	12:00	12.88	0.188	0.145	6.19	139.5	-10.9	64.2	6.78		
12/17/2019	12:10	12.13	0.001	0	4.5	171.1	-12.6	87.3	9.38		
12/17/2019	12:20	5.5	0	0	4.93	258.1	-12	102.2	12.89		
12/17/2019	12:30	4.42	0	0	5.75	252.5	-11.8	101.9	13.21		
12/17/2019	12:40	3.98	0	0	5.67	267.8	-11.7	101.3	13.29		
12/17/2019	12:50	3.79	0	0	5.99	274.8	-11.8	101.2	13.34		
12/17/2019	13:00	12.8	0.183	0.14	6.24	191.6	-9.5	81.8	8.66		
12/17/2019	13:10	12.79	0.183	0.14	6.22	195.7	-10	84.2	8.91		
12/17/2019	13:20	12.8	0.184	0.141	6.23	195.5	-10.2	79.9	8.45		
12/17/2019	13:30	12.79	0.185	0.142	6.24	194.9	-11.6	75.6	8		
12/17/2019	13:40	12.79	0.185	0.142	6.24	190.7	-11.6	73.9	7.82		
12/17/2019	13:50	12.79	0.186	0.142	6.24	188.6	-11.8	71.5	7.57		
12/17/2019	14:00	12.79	0.186	0.142	6.24	186.2	-12.5	70.8	7.49		
12/17/2019	14:10	12.79	0.186	0.143	6.24	183.8	-12.3	70.5	7.46		
12/17/2019	14:20	12.79	0.186	0.143	6.24	182.6	-12.2	70.8	7.49		
12/17/2019	14:30	12.8	0.186	0.143	6.24	181.7	-12.3	69.8	7.38		
12/17/2019	14:40	12.8	0.186	0.143	6.24	181	-12.3	69.5	7.35		
12/17/2019	14:50	12.8	0.186	0.143	6.24	179.5	-12.2	70.2	7.43		
12/17/2019	15:00	12.81	0.186	0.143	6.24	178.6	-12.3	70.9	7.5		
12/17/2019	15:10	12.81	0.186	0.143	6.24	177.9	-12.1	71.3	7.54		
12/17/2019	15:20	12.81	0.186	0.143	6.24	176.3	-12.1	71.8	7.59		
12/17/2019	15:30	12.81	0.186	0.143	6.24	174.9	-12.2	72.0	7.61		
12/17/2019	15:40	12.82	0.186	0.143	6.24	174.4	-12.1	71.8	7.6		
12/17/2019	15:50	12.82	0.186	0.143	6.23	174	-12.1	72.3	7.64		
12/17/2019	16:00	12.82	0.186	0.143	6.23	173.9	-12.2	72.5	7.66		
12/17/2019	16:10	12.82	0.186	0.143	6.23	174.4	-12.2	72.6	7.68		
12/17/2019	16:20	12.83	0.186	0.143	6.23	175	-12.1	72.6	7.68		
12/17/2019	16:30	12.83	0.186	0.143	6.23	174.8	-12.2	72.7	7.68		
12/17/2019	16:40	12.83	0.186	0.143	6.23	174.7	-12.2	72.8	7.7		
12/17/2019	16:50	12.83	0.186	0.143	6.23	174.9	-12.2	72.9	7.7		
12/17/2019	17:00	12.83	0.186	0.143	6.23	175.2	-12.2	72.7	7.69		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
12/17/2019	17:10	12.84	0.186	0.143	6.23	176	-12.2	72.6	7.67		
12/17/2019	17:20	12.84	0.186	0.143	6.23	176.1	-12.2	72.4	7.65		
12/17/2019	17:30	12.84	0.186	0.143	6.23	175.8	-12.1	72.3	7.64		
12/17/2019	17:40	12.84	0.186	0.143	6.23	175.6	-12.3	72.3	7.65		
12/17/2019	17:50	12.84	0.186	0.142	6.23	175.6	-12.2	72.4	7.65		
12/17/2019	18:00	12.84	0.186	0.143	6.22	176.3	-12.2	72.3	7.64		
12/17/2019	18:10	12.84	0.186	0.143	6.22	176.2	-12.1	72.3	7.64		
12/17/2019	18:20	12.85	0.186	0.143	6.22	175.9	-12.1	72.1	7.62		
12/17/2019	18:30	12.85	0.186	0.143	6.22	175.9	-12.2	71.8	7.59		
12/17/2019	18:40	12.85	0.186	0.143	6.22	176.1	-12.1	71.6	7.57		
12/17/2019	18:50	12.85	0.186	0.143	6.22	176.6	-12.2	71.6	7.57		
12/17/2019	19:00	12.85	0.186	0.143	6.22	177.3	-12.1	71.6	7.57		
12/17/2019	19:10	12.85	0.186	0.142	6.22	178.2	-12.1	71.6	7.57		
12/17/2019	19:20	12.85	0.186	0.142	6.22	179.1	-12.1	71.5	7.56		
12/17/2019	19:30	12.85	0.186	0.143	6.22	179.4	-12.2	71.3	7.54		
12/17/2019	19:40	12.85	0.186	0.143	6.22	179.3	-12.1	71.2	7.52		
12/17/2019	19:50	12.85	0.186	0.142	6.22	179	-12.2	71.1	7.51		
12/17/2019	20:00	12.85	0.186	0.143	6.22	179	-12.2	71.0	7.51		
12/17/2019	20:10	12.86	0.186	0.143	6.22	179.3	-12.1	71.2	7.52		
12/17/2019	20:20	12.86	0.186	0.143	6.22	179.7	-12.1	71.2	7.52		
12/17/2019	20:30	12.86	0.186	0.143	6.22	180.2	-12.1	70.9	7.49		
12/17/2019	20:40	12.86	0.186	0.143	6.22	180.7	-12.1	70.8	7.49		
12/17/2019	20:50	12.86	0.186	0.143	6.22	181.4	-12.1	70.8	7.48		
12/17/2019	21:00	12.86	0.186	0.143	6.22	182.3	-12.1	70.7	7.47		
12/17/2019	21:10	12.86	0.186	0.143	6.22	183.2	-12.1	70.8	7.48		
12/17/2019	21:20	12.86	0.186	0.143	6.22	183.9	-12.1	70.7	7.47		
12/17/2019	21:30	12.86	0.186	0.143	6.22	184.3	-12.1	70.5	7.45		
12/17/2019	21:40	12.86	0.186	0.143	6.22	184.4	-12.1	70.3	7.42		
12/17/2019	21:50	12.86	0.186	0.143	6.22	184.4	-12.1	70.2	7.41		
12/17/2019	22:00	12.86	0.186	0.143	6.22	184.6	-12.1	70.1	7.4		
12/17/2019	22:10	12.86	0.186	0.143	6.22	184.8	-12.1	70.1	7.4		
12/17/2019	22:20	12.86	0.186	0.143	6.22	185.1	-12.1	70.3	7.43		
12/17/2019	22:30	12.86	0.186	0.143	6.22	185.4	-12.1	70.3	7.42		
12/17/2019	22:40	12.86	0.186	0.143	6.22	185.8	-12.1	70.2	7.41		
12/17/2019	22:50	12.86	0.186	0.143	6.22	186.2	-12.1	70.1	7.41		
12/17/2019	23:00	12.87	0.186	0.143	6.21	185.7	-12.1	70.1	7.4		
12/17/2019	23:10	12.87	0.186	0.143	6.21	185.5	-12.1	70.1	7.4		
12/17/2019	23:20	12.87	0.186	0.143	6.21	185.1	-12.2	70.0	7.39		
12/17/2019	23:30	12.87	0.186	0.143	6.21	184.8	-12.1	70.1	7.4		
12/17/2019	23:40	12.87	0.186	0.143	6.21	184.8	-12.2	70.2	7.42		
12/17/2019	23:50	12.87	0.186	0.143	6.21	184.9	-12.1	70.2	7.42		
12/18/2019	0:00	12.87	0.186	0.143	6.21	185.2	-12.1	70.4	7.44		
12/18/2019	0:10	12.87	0.186	0.143	6.21	185.6	-12.1	70.6	7.46		
12/18/2019	0:20	12.87	0.186	0.143	6.21	186	-12.2	70.6	7.46		
12/18/2019	0:30	12.87	0.186	0.143	6.21	186.4	-12.1	70.8	7.47		
12/18/2019	0:40	12.87	0.186	0.143	6.21	186.7	-12	70.7	7.47		
12/18/2019	0:50	12.87	0.186	0.143	6.21	187.3	-12.1	70.5	7.45		
12/18/2019	1:00	12.87	0.186	0.143	6.21	188.2	-12.1	70.3	7.42		
12/18/2019	1:10	12.87	0.186	0.143	6.21	189	-12.1	70.3	7.43		
12/18/2019	1:20	12.87	0.186	0.143	6.21	189.7	-12.1	70.5	7.45		
12/18/2019	1:30	12.87	0.186	0.143	6.21	190.5	-12.1	70.4	7.44		
12/18/2019	1:40	12.87	0.186	0.143	6.21	191	-12.1	70.6	7.46		
12/18/2019	1:50	12.87	0.186	0.143	6.21	191.8	-12.1	70.6	7.46		
12/18/2019	2:00	12.87	0.186	0.143	6.21	192.6	-12.1	70.6	7.46		
12/18/2019	2:10	12.87	0.186	0.143	6.21	193.3	-12	70.7	7.47		
12/18/2019	2:20	12.87	0.186	0.143	6.21	193.5	-12	70.7	7.47		
12/18/2019	2:30	12.87	0.186	0.143	6.21	193.8	-12	70.7	7.47		
12/18/2019	2:40	12.87	0.186	0.143	6.21	194.2	-12.1	70.6	7.46		
12/18/2019	2:50	12.87	0.186	0.143	6.21	194.6	-12.1	70.5	7.45		



**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
12/18/2019	3:00	12.87	0.186	0.143	6.21	194.7	-12.1	70.5	7.44		
12/18/2019	3:10	12.87	0.186	0.143	6.21	194.9	-12.1	70.5	7.45		
12/18/2019	3:20	12.87	0.186	0.143	6.21	195.1	-12.1	70.5	7.45		
12/18/2019	3:30	12.87	0.186	0.143	6.21	195.3	-12.1	70.5	7.44		
12/18/2019	3:40	12.87	0.186	0.143	6.21	195.6	-12.1	70.3	7.42		
12/18/2019	3:50	12.87	0.185	0.142	6.21	195.8	-12	70.1	7.4		
12/18/2019	4:00	12.87	0.185	0.142	6.21	196	-12.1	70.0	7.4		
12/18/2019	4:10	12.87	0.185	0.142	6.21	196.3	-12	69.9	7.39		
12/18/2019	4:20	12.87	0.185	0.143	6.21	196.1	-12.1	69.9	7.39		
12/18/2019	4:30	12.87	0.186	0.143	6.21	195.4	-12	69.9	7.38		
12/18/2019	4:40	12.87	0.185	0.143	6.21	194.9	-12.1	70.0	7.4		
12/18/2019	4:50	12.87	0.186	0.143	6.21	194.8	-12	70.1	7.4		
12/18/2019	5:00	12.87	0.185	0.143	6.2	195.2	-12	70.3	7.42		
12/18/2019	5:10	12.87	0.186	0.143	6.2	195.9	-12	70.4	7.43		
12/18/2019	5:20	12.87	0.186	0.143	6.21	196.6	-12.1	70.3	7.43		
12/18/2019	5:30	12.87	0.186	0.143	6.21	197.1	-12.1	70.4	7.44		
12/18/2019	5:40	12.87	0.186	0.143	6.21	197.4	-12	70.4	7.44		
12/18/2019	5:50	12.87	0.186	0.143	6.21	197.6	-12	70.5	7.44		
12/18/2019	6:00	12.87	0.186	0.143	6.21	198.1	-12.1	70.5	7.44		
12/18/2019	6:10	12.87	0.186	0.143	6.2	199	-12.1	70.4	7.44		
12/18/2019	6:20	12.87	0.185	0.142	6.21	199.8	-12.2	70.5	7.44		
12/18/2019	6:30	12.87	0.185	0.142	6.21	200.3	-12.1	70.5	7.44		
12/18/2019	6:40	12.87	0.186	0.143	6.21	200.7	-12.1	70.5	7.44		
12/18/2019	6:50	12.87	0.185	0.143	6.21	201	-12.1	70.4	7.44		
12/18/2019	7:00	12.87	0.186	0.143	6.21	201.3	-12.1	70.3	7.43		
12/18/2019	7:10	12.87	0.185	0.143	6.21	201.5	-12	70.3	7.42		
12/18/2019	7:20	12.87	0.186	0.143	6.2	201.7	-12	70.2	7.41		
12/18/2019	7:30	12.87	0.185	0.143	6.2	202.1	-12.1	70.1	7.4		
12/18/2019	7:40	12.87	0.186	0.143	6.2	202.7	-12.1	70.0	7.39		
12/18/2019	7:50	12.87	0.185	0.143	6.2	203.3	-12.1	69.9	7.38		
12/18/2019	8:00	12.87	0.185	0.143	6.2	204	-12.1	69.8	7.38		
12/18/2019	8:10	12.87	0.186	0.143	6.2	204.5	-12.1	69.8	7.37		
12/18/2019	8:20	12.87	0.186	0.143	6.2	204.7	-12.1	69.6	7.36		
12/18/2019	8:30	12.87	0.186	0.143	6.2	204.7	-12.1	69.5	7.34		
12/18/2019	8:40	12.87	0.185	0.143	6.2	204.7	-12.1	69.5	7.34		
12/18/2019	8:50	12.87	0.185	0.143	6.2	204.8	-12.1	69.7	7.36		
12/18/2019	9:00	12.87	0.186	0.143	6.2	205	-12	69.9	7.38		
12/18/2019	9:10	12.87	0.185	0.142	6.2	205.3	-12	70.0	7.39		
12/18/2019	9:20	12.87	0.185	0.142	6.2	205.5	-12.1	70.1	7.4		
12/18/2019	9:30	12.87	0.186	0.143	6.2	205.7	-12.1	70.0	7.4		
12/18/2019	9:40	12.87	0.185	0.143	6.2	206.1	-12.1	69.9	7.39		
12/18/2019	9:50	12.87	0.185	0.143	6.2	206.3	-12.1	69.8	7.38		
12/18/2019	10:00	12.87	0.185	0.143	6.2	206.5	-12.1	69.8	7.37		
12/18/2019	10:10	12.87	0.185	0.142	6.2	206.8	-12	69.7	7.37		
12/18/2019	10:20	12.87	0.185	0.143	6.2	207.1	-12.1	69.5	7.34		
12/18/2019	10:30	12.87	0.185	0.142	6.2	207.3	-12	69.3	7.32		
12/18/2019	10:40	12.87	0.185	0.142	6.2	207.6	-12	69.3	7.32		
12/18/2019	10:50	12.87	0.186	0.143	6.2	208.2	-12	69.3	7.32		
1/8/2020	13:50	20	0.001	0.001	7.1	173.3	2.2	95.8	8.71		
1/8/2020	14:00	12.8	0.001	0.001	5.8	317.4	-7.1	103.3	10.94		
1/8/2020	14:10	12	0.199	0.149	7.25	128.8	0.1	81.4	8.77		
1/8/2020	14:20	12	0.203	0.153	6.16	138.7	-2.9	69.4	7.47		
1/8/2020	14:30	12.01	0.203	0.153	5.87	143.5	-3.7	60.6	6.53		
1/8/2020	14:40	12.01	0.203	0.153	5.8	148.6	-4.6	58.5	6.3		
1/8/2020	14:50	12.01	0.204	0.153	5.8	149.8	-4.1	56.9	6.13		
1/8/2020	15:00	12.01	0.204	0.153	5.79	150.3	-5.2	55.5	5.98		
1/8/2020	15:10	12.01	0.204	0.154	5.81	150.9	-4.9	55.4	5.97		
1/8/2020	15:20	12.02	0.204	0.154	5.81	152.1	-5.1	55.6	5.99		
1/8/2020	15:30	12.02	0.204	0.154	5.82	153	-5.3	55.4	5.97		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
1/8/2020	15:40	12.02	0.204	0.154	5.82	155	-5.4	55.1	5.93		
1/8/2020	15:50	12.02	0.204	0.154	5.83	157	-5.1	54.9	5.91		
1/8/2020	16:00	12.02	0.204	0.154	5.83	159.4	-5.4	54.7	5.89		
1/8/2020	16:10	12.02	0.204	0.154	5.84	161.4	-5.2	54.2	5.84		
1/8/2020	16:20	12.02	0.204	0.154	5.84	162.8	-5.4	53.8	5.79		
1/8/2020	16:30	12.02	0.204	0.154	5.84	163.7	-5.5	53.6	5.77		
1/8/2020	16:40	12.02	0.204	0.154	5.84	164.6	-5.5	54.0	5.81		
1/8/2020	16:50	12.02	0.204	0.154	5.85	165.4	-5.5	55.2	5.94		
1/8/2020	17:00	12.02	0.204	0.153	5.84	167	-5.5	55.7	6		
1/8/2020	17:10	12.02	0.204	0.153	5.85	168.2	-5.6	55.7	6		
1/8/2020	17:20	12.02	0.204	0.153	5.84	170.3	-5.6	55.5	5.98		
1/8/2020	17:30	12.02	0.204	0.153	5.84	172	-5.6	55.4	5.97		
1/8/2020	17:40	12.02	0.204	0.153	5.84	173.5	-5.5	55.2	5.95		
1/8/2020	17:50	12.02	0.204	0.153	5.84	174.6	-5.6	55.1	5.93		
1/8/2020	18:00	12.02	0.204	0.153	5.84	175.6	-5.6	55.0	5.92		
1/8/2020	18:10	12.02	0.204	0.153	5.84	176.7	-5.8	54.9	5.91		
1/8/2020	18:20	12.02	0.204	0.153	5.85	177.5	-5.7	54.7	5.89		
1/8/2020	18:30	12.02	0.204	0.153	5.85	178.5	-5.5	54.5	5.87		
1/8/2020	18:40	12.02	0.204	0.153	5.84	179.6	-5.5	54.3	5.85		
1/8/2020	18:50	12.02	0.204	0.153	5.84	180.5	-5.6	54.3	5.84		
1/8/2020	19:00	12.02	0.204	0.153	5.85	181	-5.6	54.2	5.84		
1/8/2020	19:10	12.02	0.204	0.153	5.85	181.8	-5.6	54.2	5.83		
1/8/2020	19:20	12.02	0.203	0.153	5.84	182.8	-5.5	54.1	5.83		
1/8/2020	19:30	12.02	0.203	0.153	5.84	183.5	-5.6	54.0	5.82		
1/8/2020	19:40	12.02	0.203	0.153	5.84	184.2	-5.5	54.0	5.81		
1/8/2020	19:50	12.02	0.203	0.153	5.84	184.9	-5.5	53.9	5.8		
1/8/2020	20:00	12.02	0.203	0.153	5.85	185.2	-5.5	53.8	5.8		
1/8/2020	20:10	12.02	0.203	0.153	5.85	185.9	-5.5	53.9	5.8		
1/8/2020	20:20	12.02	0.203	0.153	5.84	186.7	-5.5	53.8	5.79		
1/8/2020	20:30	12.02	0.203	0.153	5.84	186.9	-5.5	53.8	5.8		
1/8/2020	20:40	12.02	0.203	0.153	5.85	187.4	-5.5	53.8	5.79		
1/8/2020	20:50	12.02	0.203	0.152	5.84	187.9	-5.4	53.8	5.79		
1/8/2020	21:00	12.02	0.203	0.152	5.84	188.6	-5.6	53.8	5.79		
1/8/2020	21:10	12.02	0.203	0.152	5.84	188.9	-5.5	53.8	5.79		
1/8/2020	21:20	12.02	0.203	0.152	5.84	189	-5.5	53.7	5.79		
1/8/2020	21:30	12.02	0.203	0.152	5.84	189.6	-5.7	53.7	5.79		
1/8/2020	21:40	12.02	0.202	0.152	5.83	189.9	-5.5	53.7	5.78		
1/8/2020	21:50	12.02	0.202	0.152	5.84	189.9	-5.6	53.7	5.78		
1/8/2020	22:00	12.02	0.202	0.152	5.83	190.6	-5.5	53.7	5.78		
1/8/2020	22:10	12.02	0.202	0.152	5.83	190.7	-5.6	53.7	5.78		
1/8/2020	22:20	12.02	0.202	0.152	5.83	191.4	-5.6	53.6	5.77		
1/8/2020	22:30	12.02	0.202	0.152	5.83	191.7	-5.6	53.7	5.78		
1/8/2020	22:40	12.02	0.202	0.152	5.83	191.8	-5.5	53.7	5.78		
1/8/2020	22:50	12.02	0.202	0.152	5.84	192.1	-5.6	53.7	5.78		
1/8/2020	23:00	12.02	0.202	0.152	5.84	192.5	-5.5	53.7	5.78		
1/8/2020	23:10	12.02	0.202	0.152	5.84	192.9	-5.5	53.7	5.78		
1/8/2020	23:20	12.02	0.202	0.152	5.83	193.7	-5.5	53.8	5.79		
1/8/2020	23:30	12.02	0.202	0.152	5.84	193.8	-5.5	53.9	5.8		
1/8/2020	23:40	12.02	0.202	0.152	5.83	194.5	-5.4	53.9	5.81		
1/8/2020	23:50	12.02	0.202	0.152	5.83	194.9	-5.5	54.0	5.82		
1/9/2020	0:00	12.02	0.202	0.152	5.84	195	-5.5	54.1	5.83		
1/9/2020	0:10	12.02	0.202	0.152	5.83	195.8	-5.5	54.2	5.83		
1/9/2020	0:20	12.02	0.202	0.152	5.83	196.3	-5.6	54.3	5.84		
1/9/2020	0:30	12.02	0.202	0.152	5.84	196.5	-5.5	54.3	5.85		
1/9/2020	0:40	12.02	0.202	0.152	5.83	197.3	-5.5	54.4	5.86		
1/9/2020	0:50	12.02	0.202	0.152	5.83	197.9	-5.6	54.5	5.87		
1/9/2020	1:00	12.02	0.202	0.152	5.83	198.4	-5.4	54.6	5.88		
1/9/2020	1:10	12.02	0.202	0.152	5.83	198.8	-5.5	54.7	5.88		
1/9/2020	1:20	12.02	0.202	0.152	5.84	198.9	-5.6	54.7	5.89		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
1/9/2020	1:30	12.02	0.202	0.152	5.83	199.6	-5.5	54.7	5.89		
1/9/2020	1:40	12.02	0.202	0.152	5.84	199.7	-5.6	54.7	5.89		
1/9/2020	1:50	12.02	0.202	0.152	5.83	200.4	-5.5	54.7	5.89		
1/9/2020	2:00	12.02	0.202	0.152	5.83	200.8	-5.5	54.8	5.9		
1/9/2020	2:10	12.02	0.202	0.152	5.84	200.9	-5.6	54.8	5.9		
1/9/2020	2:20	12.02	0.202	0.152	5.83	201.5	-5.7	54.8	5.9		
1/9/2020	2:30	12.02	0.202	0.152	5.83	201.8	-5.7	54.8	5.91		
1/9/2020	2:40	12.02	0.202	0.152	5.84	201.8	-5.5	54.8	5.9		
1/9/2020	2:50	12.02	0.202	0.152	5.84	202.1	-5.7	54.8	5.9		
1/9/2020	3:00	12.02	0.202	0.152	5.83	202.8	-5.7	54.7	5.89		
1/9/2020	3:10	12.02	0.202	0.152	5.83	203.1	-5.7	54.7	5.89		
1/9/2020	3:20	12.02	0.202	0.152	5.84	203.1	-5.6	54.7	5.89		
1/9/2020	3:30	12.02	0.202	0.152	5.84	203.4	-5.7	54.6	5.88		
1/9/2020	3:40	12.02	0.202	0.152	5.83	204.1	-5.7	54.6	5.88		
1/9/2020	3:50	12.02	0.202	0.152	5.84	204.1	-5.7	54.5	5.87		
1/9/2020	4:00	12.02	0.202	0.152	5.84	204.4	-5.6	54.5	5.87		
1/9/2020	4:10	12.02	0.202	0.152	5.83	205.1	-5.6	54.4	5.86		
1/9/2020	4:20	12.02	0.202	0.152	5.83	205.1	-5.7	54.3	5.85		
1/9/2020	4:30	12.02	0.202	0.152	5.83	205.7	-5.6	54.3	5.85		
1/9/2020	4:40	12.02	0.202	0.152	5.83	206.1	-5.7	54.2	5.83		
1/9/2020	4:50	12.02	0.202	0.152	5.83	206	-5.7	54.1	5.83		
1/9/2020	5:00	12.02	0.202	0.152	5.83	206.7	-5.5	54.1	5.82		
1/9/2020	5:10	12.02	0.202	0.152	5.83	207.2	-5.5	54.0	5.82		
1/9/2020	5:20	12.02	0.202	0.152	5.82	207.5	-5.5	54.0	5.81		
1/9/2020	5:30	12.02	0.202	0.152	5.83	207.7	-5.5	53.9	5.8		
1/9/2020	5:40	12.02	0.202	0.152	5.83	208.2	-5.5	53.9	5.8		
1/9/2020	5:50	12.02	0.202	0.152	5.83	208.9	-5.5	53.8	5.8		
1/9/2020	6:00	12.02	0.202	0.152	5.83	209.3	-5.6	53.8	5.79		
1/9/2020	6:10	12.02	0.202	0.152	5.83	209.3	-5.5	53.7	5.78		
1/9/2020	6:20	12.02	0.202	0.152	5.83	210	-5.5	53.7	5.78		
1/9/2020	6:30	12.02	0.202	0.152	5.83	209.9	-5.5	53.7	5.78		
1/9/2020	6:40	12.02	0.202	0.152	5.83	210.4	-5.5	53.6	5.77		
1/9/2020	6:50	12.02	0.202	0.152	5.83	210.2	-5.5	53.5	5.76		
1/9/2020	7:00	12.02	0.202	0.152	5.83	210.6	-5.5	53.3	5.74		
1/9/2020	7:10	12.02	0.202	0.152	5.83	210.4	-5.5	53.2	5.73		
1/9/2020	7:20	12.02	0.202	0.152	5.83	210.5	-5.6	53.1	5.72		
1/9/2020	7:30	12.02	0.202	0.152	5.83	210.7	-5.5	53.0	5.7		
1/9/2020	7:40	12.02	0.202	0.152	5.82	211.2	-5.5	53.0	5.7		
1/9/2020	7:50	12.02	0.202	0.152	5.82	211.4	-5.6	53.0	5.7		
1/9/2020	8:00	12.02	0.202	0.152	5.82	211.6	-5.5	53.0	5.71		
1/9/2020	8:10	12.02	0.202	0.152	5.83	211.5	-5.5	53.1	5.72		
1/9/2020	8:20	12.02	0.202	0.152	5.82	212	-5.5	53.2	5.73		
1/9/2020	8:30	12.02	0.202	0.152	5.83	211.9	-5.5	53.3	5.73		
1/9/2020	8:40	12.02	0.202	0.152	5.83	212	-5.5	53.3	5.74		
1/9/2020	8:50	12.02	0.202	0.152	5.82	212.5	-5.5	53.3	5.74		
1/9/2020	9:00	12.02	0.202	0.152	5.82	212.8	-5.4	53.3	5.74		
1/9/2020	9:10	12.02	0.202	0.152	5.83	212.6	-5.5	53.3	5.74		
1/9/2020	9:20	12.02	0.202	0.152	5.82	213.1	-5.5	53.3	5.73		
1/9/2020	9:30	12.02	0.202	0.152	5.82	213.4	-5.5	53.2	5.73		
1/9/2020	9:40	12.02	0.202	0.152	5.82	213.6	-5.6	53.1	5.72		
1/9/2020	9:50	12.02	0.202	0.152	5.82	213.8	-5.5	53.0	5.71		
1/9/2020	10:00	12.02	0.202	0.152	5.82	214.1	-5.6	53.0	5.71		
1/9/2020	10:10	12.02	0.202	0.152	5.83	214	-5.6	52.8	5.69		
1/9/2020	10:20	12.02	0.202	0.152	5.82	214.5	-5.7	52.8	5.69		
1/9/2020	10:30	12.02	0.202	0.152	5.83	214.5	-5.6	52.7	5.68		
1/9/2020	10:40	12.02	0.202	0.152	5.82	215	-5.7	52.7	5.68		
1/9/2020	10:50	7.98	0.003	0.002	5.95	223.1	-11.8	79.8	9.46		
2/11/2020	15:30	12.1	0.214	0.161	5.65	200.7	1.5	96.6	10.38		
2/11/2020	15:40	12.1	0.214	0.161	5.63	205.1	0.6	96.6	10.39		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
2/11/2020	15:50	12.1	0.214	0.161	5.63	208.3	0.6	96.8	10.41		
2/11/2020	16:00	12.1	0.213	0.161	5.62	211.7	0.6	97.0	10.42		
2/11/2020	16:10	12.1	0.213	0.161	5.63	214.3	0.7	97.1	10.43		
2/11/2020	16:20	12.1	0.213	0.16	5.64	216.7	0.4	97.0	10.43		
2/11/2020	16:30	12.1	0.212	0.16	5.65	219.1	0.3	96.9	10.42		
2/11/2020	16:40	12.1	0.212	0.16	5.65	221.1	0.3	97.0	10.42		
2/11/2020	16:50	12.1	0.212	0.16	5.66	223	0.3	97.0	10.43		
2/11/2020	17:00	12.11	0.212	0.16	5.68	224.5	0.1	97.0	10.42		
2/11/2020	17:10	12.11	0.212	0.16	5.67	226.5	-0.1	97.0	10.42		
2/11/2020	17:20	12.11	0.212	0.16	5.68	228	-0.1	96.9	10.42		
2/11/2020	17:30	12.11	0.212	0.16	5.69	229.1	0	97.0	10.42		
2/11/2020	17:40	12.11	0.212	0.16	5.69	230.5	0	96.9	10.42		
2/11/2020	17:50	12.11	0.212	0.16	5.69	232.4	0	97.0	10.42		
2/11/2020	18:00	12.11	0.212	0.16	5.69	233.8	0.1	97.1	10.43		
2/11/2020	18:10	12.11	0.212	0.16	5.69	235.2	0.2	97.0	10.42		
2/11/2020	18:20	12.11	0.212	0.159	5.69	236.6	0.3	97.0	10.42		
2/11/2020	18:30	12.11	0.211	0.159	5.69	237.6	0.1	97.0	10.42		
2/11/2020	18:40	12.11	0.211	0.159	5.69	238.9	0.1	97.0	10.42		
2/11/2020	18:50	12.11	0.211	0.159	5.68	240.5	0.2	97.1	10.43		
2/11/2020	19:00	12.11	0.211	0.159	5.69	241.4	0.3	97.1	10.43		
2/11/2020	19:10	12.11	0.211	0.159	5.68	242.9	0.2	97.0	10.42		
2/11/2020	19:20	12.11	0.211	0.159	5.69	243.6	0.1	97.0	10.42		
2/11/2020	19:30	12.11	0.211	0.159	5.68	244.9	0.1	97.1	10.43		
2/11/2020	19:40	12.11	0.211	0.159	5.68	245.8	0.2	97.2	10.45		
2/11/2020	19:50	12.11	0.21	0.159	5.68	246.8	0.1	97.4	10.46		
2/11/2020	20:00	12.11	0.21	0.159	5.68	247.7	0.2	97.5	10.47		
2/11/2020	20:10	12.11	0.21	0.158	5.69	248.1	0	97.4	10.47		
2/11/2020	20:20	12.11	0.21	0.158	5.69	249	0.1	97.5	10.47		
2/11/2020	20:30	12.11	0.21	0.158	5.68	250.2	0.1	97.6	10.48		
2/11/2020	20:40	12.11	0.21	0.158	5.69	250.7	0.1	97.6	10.48		
2/11/2020	20:50	12.11	0.21	0.158	5.69	251.2	0.1	97.5	10.48		
2/11/2020	21:00	12.11	0.21	0.158	5.69	252.2	0	97.6	10.48		
2/11/2020	21:10	12.11	0.21	0.158	5.69	252.8	0	97.5	10.47		
2/11/2020	21:20	12.11	0.21	0.158	5.69	252.9	0.1	97.5	10.48		
2/11/2020	21:30	12.11	0.21	0.158	5.69	253.9	0.1	97.6	10.48		
2/11/2020	21:40	12.11	0.21	0.158	5.69	254.3	0	97.5	10.48		
2/11/2020	21:50	12.11	0.21	0.158	5.69	254.8	0	97.5	10.48		
2/11/2020	22:00	12.11	0.209	0.158	5.69	255.1	0	97.5	10.48		
2/11/2020	22:10	12.11	0.209	0.158	5.69	255.6	0	97.6	10.49		
2/11/2020	22:20	12.11	0.209	0.158	5.69	256.1	0	97.6	10.48		
2/11/2020	22:30	12.11	0.209	0.158	5.7	256.3	0	97.5	10.48		
2/11/2020	22:40	12.11	0.209	0.158	5.7	256.7	0	97.5	10.48		
2/11/2020	22:50	12.11	0.209	0.158	5.7	257.3	0.1	97.6	10.48		
2/11/2020	23:00	12.11	0.209	0.158	5.69	258	-0.1	97.6	10.48		
2/11/2020	23:10	12.11	0.209	0.158	5.7	258	-0.2	97.5	10.48		
2/11/2020	23:20	12.11	0.209	0.158	5.69	258.7	-0.2	97.6	10.49		
2/11/2020	23:30	12.11	0.209	0.158	5.69	259	-0.2	97.6	10.48		
2/11/2020	23:40	12.11	0.209	0.158	5.69	259.3	-0.2	97.5	10.48		
2/11/2020	23:50	12.11	0.209	0.158	5.7	259.3	-0.2	97.6	10.49		
2/12/2020	0:00	12.11	0.209	0.158	5.7	259.6	-0.2	97.5	10.48		
2/12/2020	0:10	12.11	0.209	0.158	5.69	260.3	-0.1	97.5	10.48		
2/12/2020	0:20	12.11	0.209	0.158	5.7	260.2	-0.2	97.6	10.49		
2/12/2020	0:30	12.11	0.209	0.158	5.7	260.4	-0.1	97.5	10.47		
2/12/2020	0:40	12.11	0.209	0.157	5.69	260.9	-0.2	97.5	10.47		
2/12/2020	0:50	12.11	0.209	0.157	5.7	260.7	-0.1	97.5	10.47		
2/12/2020	1:00	12.11	0.209	0.158	5.69	261.2	-0.2	97.4	10.47		
2/12/2020	1:10	12.11	0.209	0.158	5.69	261.4	0	97.4	10.47		
2/12/2020	1:20	12.11	0.209	0.157	5.7	261.2	0	97.4	10.47		
2/12/2020	1:30	12.11	0.209	0.157	5.7	261.5	-0.2	97.4	10.46		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
2/12/2020	1:40	12.11	0.209	0.157	5.69	262.1	-0.2	97.5	10.48		
2/12/2020	1:50	12.11	0.209	0.157	5.69	262.5	-0.2	97.5	10.47		
2/12/2020	2:00	12.11	0.209	0.158	5.69	262.4	-0.1	97.5	10.48		
2/12/2020	2:10	12.11	0.209	0.158	5.69	262.7	-0.1	97.5	10.47		
2/12/2020	2:20	12.11	0.209	0.158	5.69	263.4	-0.2	97.5	10.48		
2/12/2020	2:30	12.11	0.209	0.158	5.69	263.4	-0.2	97.5	10.48		
2/12/2020	2:40	12.11	0.209	0.158	5.69	263.7	-0.2	97.5	10.48		
2/12/2020	2:50	12.11	0.209	0.158	5.68	264.3	-0.2	97.5	10.47		
2/12/2020	3:00	12.11	0.209	0.157	5.68	264.6	-0.2	97.5	10.47		
2/12/2020	3:10	12.1	0.209	0.158	5.68	264.8	-0.2	97.6	10.48		
2/12/2020	3:20	12.1	0.209	0.158	5.68	265.1	-0.1	97.5	10.48		
2/12/2020	3:30	12.11	0.209	0.157	5.69	264.8	-0.2	97.5	10.48		
2/12/2020	3:40	12.1	0.209	0.158	5.69	265	-0.2	97.5	10.48		
2/12/2020	3:50	12.1	0.209	0.158	5.68	265.6	-0.2	97.5	10.48		
2/12/2020	4:00	12.1	0.209	0.157	5.69	265.4	-0.1	97.5	10.48		
2/12/2020	4:10	12.1	0.209	0.157	5.68	265.9	-0.2	97.5	10.48		
2/12/2020	4:20	12.11	0.209	0.158	5.69	265.7	-0.2	97.5	10.48		
2/12/2020	4:30	12.1	0.209	0.158	5.68	266.2	-0.3	97.6	10.48		
2/12/2020	4:40	12.1	0.209	0.157	5.69	266	-0.2	97.5	10.48		
2/12/2020	4:50	12.1	0.209	0.158	5.69	266.5	-0.2	97.6	10.48		
2/12/2020	5:00	12.1	0.209	0.157	5.68	266.5	-0.3	97.6	10.49		
2/12/2020	5:10	12.1	0.209	0.158	5.69	266.2	-0.2	97.5	10.48		
2/12/2020	5:20	12.1	0.209	0.158	5.69	266.4	-0.2	97.2	10.45		
2/12/2020	5:30	12.1	0.209	0.158	5.68	266.8	-0.2	97.3	10.45		
2/12/2020	5:40	12.1	0.209	0.158	5.69	266.7	-0.4	97.3	10.46		
2/12/2020	5:50	12.1	0.209	0.158	5.69	266.8	-0.2	97.4	10.47		
2/12/2020	6:00	12.1	0.209	0.158	5.69	266.8	-0.3	97.4	10.46		
2/12/2020	6:10	12.1	0.209	0.158	5.68	267.3	-0.3	97.5	10.47		
2/12/2020	6:20	12.1	0.209	0.158	5.69	267	-0.3	97.5	10.48		
2/12/2020	6:30	12.1	0.209	0.158	5.69	267.2	-0.4	97.5	10.47		
2/12/2020	6:40	12.1	0.209	0.158	5.69	267.2	-0.2	97.4	10.47		
2/12/2020	6:50	12.1	0.209	0.158	5.68	267.7	-0.3	97.4	10.46		
2/12/2020	7:00	12.1	0.209	0.158	5.69	267.4	-0.3	97.2	10.45		
2/12/2020	7:10	12.1	0.209	0.158	5.69	267.5	-0.4	97.1	10.43		
2/12/2020	7:20	12.1	0.209	0.158	5.69	267.9	-0.4	97.1	10.43		
2/12/2020	7:30	12.1	0.209	0.158	5.68	268	-0.5	97.2	10.45		
2/12/2020	7:40	12.1	0.209	0.158	5.69	267.7	-0.3	97.2	10.45		
2/12/2020	7:50	12.1	0.209	0.158	5.68	268.1	-0.4	97.2	10.45		
2/12/2020	8:00	12.1	0.209	0.158	5.68	268.2	-0.4	97.2	10.44		
2/12/2020	8:10	12.1	0.209	0.158	5.68	268.2	-0.4	97.0	10.42		
2/12/2020	8:20	12.1	0.209	0.158	5.69	267.9	-0.3	97.1	10.44		
2/12/2020	8:30	12.11	0.21	0.158	5.69	268	-0.2	97.1	10.44		
2/12/2020	8:40	12.1	0.21	0.158	5.69	268.1	-0.4	97.2	10.44		
2/12/2020	8:50	12.1	0.21	0.158	5.69	268.1	-0.3	97.2	10.44		
2/12/2020	9:00	12.1	0.21	0.158	5.68	268.4	-0.4	97.2	10.45		
2/12/2020	9:10	12.1	0.21	0.159	5.69	268.1	-0.4	97.1	10.44		
2/12/2020	9:20	12.1	0.21	0.159	5.68	268.6	-0.4	97.2	10.44		
2/12/2020	9:30	12.1	0.21	0.159	5.69	268.2	-0.4	97.1	10.44		
2/12/2020	9:40	12.1	0.21	0.158	5.68	268.7	-0.4	97.1	10.43		
2/12/2020	9:50	12.1	0.21	0.158	5.69	268.4	-0.4	97.1	10.43		
2/12/2020	10:00	12.11	0.21	0.158	5.68	268.8	-0.4	97.2	10.44		
2/12/2020	10:10	12.11	0.21	0.158	5.69	268.5	-0.4	97.2	10.44		
2/12/2020	10:20	12.1	0.211	0.159	5.69	268.5	-0.4	97.2	10.44		
2/12/2020	10:30	12.11	0.211	0.159	5.69	268.5	-0.5	97.1	10.43		
2/12/2020	10:40	12.1	0.211	0.159	5.69	268.6	-0.4	97.0	10.42		
2/12/2020	10:50	12.1	0.211	0.159	5.69	268.7	-0.5	97.0	10.42		
2/12/2020	11:00	12.1	0.211	0.159	5.69	268.8	-0.5	97.1	10.43		
2/12/2020	11:10	12.1	0.211	0.159	5.68	269.2	-0.5	97.0	10.42		
2/12/2020	11:20	12.11	0.211	0.159	5.68	269.3	-0.5	97.0	10.42		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
2/12/2020	11:30	12.1	0.211	0.159	5.68	269.4	-0.4	96.9	10.41		
2/12/2020	11:40	12.1	0.211	0.159	5.68	269.4	-0.4	97.0	10.42		
2/12/2020	11:50	12.1	0.211	0.159	5.69	269.1	-0.5	97.0	10.42		
2/12/2020	12:00	12.1	0.211	0.159	5.68	269.5	-0.5	97.0	10.42		
2/12/2020	12:10	12.11	0.211	0.159	5.68	269.7	-0.4	97.0	10.43		
2/12/2020	12:20	12.11	0.211	0.159	5.69	269.5	-0.4	97.1	10.43		
2/12/2020	12:30	12.11	0.211	0.159	5.69	269.5	-0.4	97.1	10.44		
2/12/2020	12:40	12.11	0.212	0.16	5.69	269.7	-0.4	97.0	10.42		
2/12/2020	12:50	12.11	0.212	0.16	5.69	269.7	-0.5	96.8	10.4		
2/12/2020	13:00	12.1	0.212	0.16	5.69	269.8	-0.4	96.9	10.41		
2/12/2020	13:10	12.1	0.212	0.16	5.69	269.9	-0.5	97.0	10.43		
2/12/2020	13:20	12.1	0.212	0.16	5.69	270	-0.5	97.1	10.44		
2/12/2020	13:30	12.1	0.212	0.16	5.68	270.4	-0.4	97.1	10.43		
2/12/2020	13:40	12.1	0.212	0.16	5.69	270.1	-0.5	97.2	10.44		
2/12/2020	13:50	12.1	0.212	0.159	5.68	270.6	-0.4	97.1	10.44		
2/12/2020	14:00	12.1	0.211	0.159	5.69	270.3	-0.4	96.9	10.41		
2/12/2020	14:10	12.1	0.211	0.159	5.69	270.3	-0.5	96.7	10.4		
2/12/2020	14:20	12.1	0.211	0.159	5.68	270.8	-0.5	96.8	10.4		
2/12/2020	14:30	12.1	0.211	0.159	5.68	270.8	-0.5	96.9	10.41		
2/12/2020	14:40	12.1	0.212	0.159	5.68	270.9	-0.4	96.8	10.4		
2/12/2020	14:50	12.1	0.212	0.159	5.68	270.9	-0.5	96.7	10.39		
2/12/2020	15:00	12.1	0.212	0.159	5.68	271	-0.4	96.7	10.4		
2/12/2020	15:10	12.1	0.212	0.16	5.69	270.7	-0.4	96.8	10.41		
2/12/2020	15:20	12.1	0.212	0.16	5.68	271.2	-0.5	96.8	10.4		
2/12/2020	15:30	12.1	0.212	0.16	5.69	270.9	-0.4	96.8	10.4		
2/12/2020	15:40	12.1	0.212	0.16	5.68	271.4	-0.5	96.7	10.4		
2/12/2020	15:50	12.1	0.212	0.159	5.68	271.4	-0.4	96.8	10.41		
2/12/2020	16:00	12.1	0.212	0.16	5.68	271.4	-0.4	96.9	10.41		
2/12/2020	16:10	12.1	0.212	0.16	5.69	270.9	-0.5	96.8	10.41		
2/12/2020	16:20	12.1	0.212	0.16	5.68	271.3	-0.5	96.8	10.4		
2/12/2020	16:30	12.1	0.212	0.16	5.69	271	-0.5	96.9	10.41		
2/12/2020	16:40	12.1	0.212	0.16	5.68	271.3	-0.5	96.9	10.41		
2/12/2020	16:50	12.1	0.212	0.16	5.69	270.9	-0.5	96.9	10.41		
2/12/2020	17:00	12.1	0.212	0.16	5.68	271.2	-0.5	97.0	10.42		
2/12/2020	17:10	12.1	0.212	0.16	5.68	271.2	-0.4	97.1	10.43		
2/12/2020	17:20	12.1	0.212	0.16	5.69	270.8	-0.5	96.8	10.4		
2/12/2020	17:30	12.1	0.212	0.16	5.69	270.8	-0.5	96.8	10.4		
2/12/2020	17:40	12.1	0.212	0.16	5.69	271.2	-0.5	96.8	10.41		
2/12/2020	17:50	12.1	0.212	0.16	5.7	270.7	-0.5	96.9	10.41		
2/12/2020	18:00	12.1	0.212	0.16	5.7	270.8	-0.5	96.8	10.4		
2/12/2020	18:10	12.1	0.212	0.16	5.69	271.4	-0.5	96.8	10.4		
2/12/2020	18:20	12.1	0.212	0.16	5.7	271	-0.5	96.8	10.4		
2/12/2020	18:30	12.1	0.212	0.16	5.69	271.5	-0.5	96.8	10.4		
2/12/2020	18:40	12.1	0.212	0.16	5.69	271.7	-0.5	96.8	10.41		
2/12/2020	18:50	12.1	0.212	0.16	5.69	271.8	-0.5	97.0	10.42		
2/12/2020	19:00	12.1	0.213	0.16	5.69	271.9	-0.5	97.1	10.43		
2/12/2020	19:10	12.1	0.213	0.16	5.7	271.4	-0.5	97.1	10.43		
2/12/2020	19:20	12.1	0.213	0.161	5.7	271.4	-0.4	97.1	10.44		
2/12/2020	19:30	12.1	0.213	0.161	5.7	271.5	-0.5	97.1	10.43		
2/12/2020	19:40	12.1	0.213	0.161	5.69	272	-0.4	97.2	10.44		
2/12/2020	19:50	12.1	0.213	0.161	5.7	271.6	-0.5	97.1	10.43		
2/12/2020	20:00	12.1	0.213	0.16	5.7	271.6	-0.5	96.9	10.41		
2/12/2020	20:10	12.1	0.213	0.16	5.7	271.7	-0.5	96.9	10.41		
2/12/2020	20:20	12.1	0.213	0.161	5.7	271.7	-0.5	96.8	10.4		
2/12/2020	20:30	12.1	0.213	0.161	5.69	272.3	-0.5	96.8	10.4		
2/12/2020	20:40	12.1	0.213	0.161	5.69	272.4	-0.5	96.8	10.4		
2/12/2020	20:50	12.1	0.213	0.161	5.7	271.9	-0.4	96.8	10.41		
2/12/2020	21:00	12.1	0.213	0.16	5.7	272	-0.5	96.9	10.42		
2/12/2020	21:10	12.1	0.213	0.16	5.7	271.9	-0.5	96.9	10.42		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
2/12/2020	21:20	12.1	0.213	0.16	5.7	271.9	-0.5	97.0	10.42		
2/12/2020	21:30	12.1	0.212	0.16	5.69	272.5	-0.4	97.0	10.42		
2/12/2020	21:40	12.1	0.212	0.16	5.7	272	-0.5	97.1	10.43		
2/12/2020	21:50	12.1	0.212	0.16	5.7	272	-0.4	96.8	10.4		
2/12/2020	22:00	12.1	0.212	0.16	5.7	272	-0.5	96.8	10.4		
2/12/2020	22:10	12.1	0.212	0.16	5.69	272.5	-0.5	96.7	10.39		
2/12/2020	22:20	12.1	0.212	0.16	5.69	272.5	-0.5	96.9	10.41		
2/12/2020	22:30	12.1	0.212	0.16	5.7	272	-0.5	96.9	10.41		
2/12/2020	22:40	12.1	0.212	0.16	5.7	272.1	-0.4	96.7	10.4		
2/12/2020	22:50	12.1	0.213	0.16	5.7	272.1	-0.5	96.7	10.39		
2/12/2020	23:00	12.1	0.213	0.161	5.69	272.7	-0.5	96.8	10.4		
2/12/2020	23:10	12.1	0.213	0.161	5.7	272.2	-0.5	96.8	10.4		
2/12/2020	23:20	12.1	0.213	0.161	5.69	272.8	-0.5	96.9	10.41		
2/12/2020	23:30	12.1	0.213	0.161	5.7	272.4	-0.5	96.9	10.41		
2/12/2020	23:40	12.1	0.213	0.16	5.7	272.3	-0.5	96.7	10.4		
2/12/2020	23:50	12.1	0.213	0.16	5.7	272.4	-0.5	96.7	10.39		
2/13/2020	0:00	12.1	0.213	0.16	5.69	272.9	-0.5	96.6	10.39		
2/13/2020	0:10	12.1	0.213	0.16	5.68	272.9	-0.5	96.7	10.39		
2/13/2020	0:20	12.1	0.213	0.16	5.68	272.9	-0.5	96.7	10.39		
2/13/2020	0:30	12.1	0.213	0.16	5.69	272.5	-0.5	96.8	10.4		
2/13/2020	0:40	12.1	0.213	0.16	5.69	273	-0.5	96.8	10.4		
2/13/2020	0:50	12.1	0.213	0.16	5.69	273.1	-0.5	96.9	10.41		
2/13/2020	1:00	12.1	0.213	0.16	5.7	272.7	-0.5	96.8	10.4		
2/13/2020	1:10	12.1	0.213	0.161	5.7	272.7	-0.5	96.7	10.39		
2/13/2020	1:20	12.1	0.213	0.16	5.7	272.7	-0.5	96.6	10.38		
2/13/2020	1:30	12.1	0.213	0.16	5.7	272.8	-0.5	96.6	10.38		
2/13/2020	1:40	12.1	0.213	0.16	5.69	273.3	-0.5	96.7	10.39		
2/13/2020	1:50	12.1	0.213	0.16	5.69	273.3	-0.5	96.8	10.41		
2/13/2020	2:00	12.1	0.213	0.16	5.69	273.3	-0.5	96.9	10.41		
2/13/2020	2:10	12.1	0.213	0.16	5.68	273.3	-0.5	96.8	10.4		
2/13/2020	2:20	12.1	0.213	0.16	5.69	272.8	-0.5	96.8	10.4		
2/13/2020	2:30	12.1	0.213	0.16	5.69	272.7	-0.5	96.7	10.39		
2/13/2020	2:40	12.1	0.213	0.161	5.69	272.7	-0.5	96.6	10.38		
2/13/2020	2:50	12.1	0.213	0.161	5.68	273.3	-0.5	96.6	10.38		
2/13/2020	3:00	12.1	0.213	0.161	5.69	272.9	-0.5	96.6	10.38		
2/13/2020	3:10	12.1	0.213	0.161	5.69	272.9	-0.5	96.8	10.4		
2/13/2020	3:20	12.1	0.213	0.161	5.68	273.5	-0.5	96.7	10.4		
2/13/2020	3:30	12.1	0.213	0.161	5.68	273.6	-0.5	96.6	10.38		
2/13/2020	3:40	12.1	0.213	0.161	5.68	273.6	-0.5	96.4	10.36		
2/13/2020	3:50	12.1	0.213	0.16	5.69	273.1	-0.5	96.5	10.37		
2/13/2020	4:00	12.1	0.213	0.16	5.69	273	-0.5	96.4	10.36		
2/13/2020	4:10	12.1	0.213	0.16	5.68	273.6	-0.5	96.5	10.37		
2/13/2020	4:20	12.1	0.213	0.16	5.69	273.1	-0.5	96.5	10.37		
2/13/2020	4:30	12.1	0.213	0.16	5.69	273.1	-0.5	96.5	10.37		
2/13/2020	4:40	12.1	0.213	0.16	5.68	273.6	-0.5	96.5	10.37		
2/13/2020	4:50	12.1	0.213	0.16	5.69	273.2	-0.5	96.6	10.38		
2/13/2020	5:00	12.1	0.213	0.16	5.68	273.7	-0.5	96.6	10.38		
2/13/2020	5:10	12.1	0.213	0.16	5.69	273.3	-0.5	96.6	10.39		
2/13/2020	5:20	12.1	0.213	0.16	5.69	273.3	-0.5	96.5	10.37		
2/13/2020	5:30	12.1	0.213	0.16	5.68	273.9	-0.5	96.4	10.35		
2/13/2020	5:40	12.1	0.213	0.16	5.69	273.4	-0.5	96.4	10.36		
2/13/2020	5:50	12.1	0.213	0.16	5.68	273.9	-0.5	96.5	10.37		
2/13/2020	6:00	12.1	0.213	0.16	5.68	274	-0.5	96.6	10.38		
2/13/2020	6:10	12.1	0.213	0.16	5.69	273.5	-0.5	96.6	10.38		
2/13/2020	6:20	12.1	0.213	0.16	5.68	274.1	-0.5	96.6	10.38		
2/13/2020	6:30	12.1	0.213	0.16	5.69	273.6	-0.5	96.6	10.38		
2/13/2020	6:40	12.1	0.213	0.16	5.68	274.2	-0.4	96.6	10.38		
2/13/2020	6:50	12.1	0.213	0.161	5.69	273.7	-0.5	96.5	10.37		
2/13/2020	7:00	12.1	0.213	0.161	5.69	273.7	-0.5	96.5	10.38		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
2/13/2020	7:10	12.1	0.213	0.161	5.69	273.7	-0.5	96.5	10.37		
2/13/2020	7:20	12.1	0.213	0.161	5.68	274.2	-0.5	96.5	10.38		
2/13/2020	7:30	12.1	0.213	0.161	5.68	274.4	-0.5	96.4	10.36		
2/13/2020	7:40	12.1	0.213	0.161	5.69	273.8	-0.5	96.3	10.35		
2/13/2020	7:50	12.1	0.213	0.161	5.69	273.9	-0.5	96.3	10.35		
2/13/2020	8:00	12.1	0.213	0.16	5.68	274.4	-0.5	96.3	10.35		
2/13/2020	8:10	12.1	0.213	0.161	5.68	274.5	-0.5	96.3	10.35		
2/13/2020	8:20	12.1	0.213	0.16	5.68	274.6	-0.5	96.3	10.35		
2/13/2020	8:30	12.1	0.213	0.161	5.68	274.7	-0.5	96.2	10.34		
2/13/2020	8:40	12.1	0.213	0.161	5.69	274.2	-0.5	96.2	10.34		
2/13/2020	8:50	12.1	0.213	0.161	5.69	274.2	-0.5	96.1	10.33		
2/13/2020	9:00	12.1	0.213	0.16	5.68	274.8	-0.5	96.1	10.33		
2/13/2020	9:10	12.1	0.213	0.16	5.69	274.4	-0.5	96.1	10.32		
2/13/2020	9:20	12.1	0.213	0.16	5.68	274.9	-0.5	96.1	10.33		
2/13/2020	9:30	12.1	0.212	0.16	5.68	274.9	-0.5	96.1	10.33		
2/13/2020	9:40	12.1	0.213	0.16	5.68	274.9	-0.5	96.1	10.33		
2/13/2020	9:50	12.1	0.213	0.161	5.69	274.3	-0.5	96.1	10.32		
2/13/2020	10:00	12.1	0.213	0.161	5.68	274.8	-0.5	96.1	10.33		
2/13/2020	10:10	12.1	0.213	0.161	5.68	274.9	-0.5	96.1	10.32		
2/13/2020	10:20	12.1	0.214	0.161	5.68	275	-0.5	96.1	10.32		
2/13/2020	10:30	12.1	0.214	0.161	5.68	275	-0.5	96.1	10.32		
2/13/2020	10:40	12.1	0.214	0.161	5.68	275	-0.5	96.1	10.33		
2/13/2020	10:50	12.1	0.214	0.161	5.69	274.5	-0.5	96.1	10.33		
2/13/2020	11:00	12.1	0.214	0.162	5.69	274.5	-0.5	96.2	10.34		
2/13/2020	11:10	12.1	0.215	0.162	5.69	274.5	-0.5	96.1	10.33		
2/13/2020	11:20	12.1	0.215	0.162	5.68	275.1	-0.5	96.1	10.33		
2/13/2020	11:30	12.1	0.215	0.162	5.69	274.7	-0.5	96.1	10.33		
2/13/2020	11:40	12.1	0.215	0.162	5.68	275.2	-0.5	96.3	10.35		
2/13/2020	11:50	12.1	0.215	0.162	5.68	275.3	-0.5	96.3	10.35		
2/13/2020	12:00	12.1	0.215	0.162	5.69	274.7	-0.5	96.3	10.35		
2/13/2020	12:10	12.1	0.214	0.161	5.69	274.7	-0.5	96.2	10.34		
2/13/2020	12:20	12.1	0.214	0.161	5.69	274.7	-0.5	96.3	10.34		
2/13/2020	12:30	12.1	0.214	0.161	5.68	275.3	-0.5	96.4	10.36		
2/13/2020	12:40	12.1	0.214	0.161	5.69	274.8	-0.5	96.4	10.36		
2/13/2020	12:50	12.1	0.214	0.161	5.69	274.8	-0.5	96.5	10.37		
2/13/2020	13:00	12.1	0.213	0.161	5.68	275.4	-0.5	96.5	10.37		
2/13/2020	13:10	12.1	0.213	0.161	5.69	275	-0.5	96.5	10.37		
2/13/2020	13:20	12.1	0.214	0.161	5.69	275	-0.5	96.4	10.36		
2/13/2020	13:30	12.1	0.214	0.161	5.69	275	-0.5	96.2	10.33		
2/13/2020	13:40	12.1	0.214	0.161	5.69	275	-0.6	96.2	10.34		
2/13/2020	13:50	12.1	0.214	0.161	5.69	275	-0.5	96.2	10.34		
2/13/2020	14:00	12.1	0.214	0.161	5.68	275.6	-0.6	96.2	10.34		
2/13/2020	14:10	12.1	0.214	0.161	5.68	275.7	-0.5	96.2	10.34		
2/13/2020	14:20	12.1	0.214	0.161	5.68	275.8	-0.5	96.3	10.34		
2/13/2020	14:30	12.1	0.214	0.161	5.69	275.3	-0.5	96.4	10.36		
2/13/2020	14:40	12.1	0.214	0.161	5.69	275.3	-0.5	96.2	10.34		
2/13/2020	14:50	12.1	0.213	0.161	5.69	275.3	-0.5	96.1	10.33		
2/13/2020	15:00	12.1	0.213	0.161	5.69	275.4	-0.5	96.2	10.33		
2/13/2020	15:10	12.1	0.213	0.161	5.68	276	-0.5	96.2	10.34		
2/13/2020	15:20	12.1	0.214	0.161	5.69	275.6	-0.5	96.2	10.34		
3/10/2020	9:00	11.98	0.195	0.146	7.12	128.8	15.5	43.9	4.73		
3/10/2020	9:10	11.98	0.194	0.146	6.13	151.5	4.6	31.8	3.42		
3/10/2020	9:20	11.98	0.194	0.146	5.88	157.6	1.8	31.2	3.36		
3/10/2020	9:30	11.98	0.194	0.146	5.83	159.2	1.6	32.4	3.5		
3/10/2020	9:40	11.99	0.194	0.146	5.83	163.8	0.7	32.9	3.55		
3/10/2020	9:50	11.99	0.194	0.146	5.85	163.6	0.3	32.4	3.49		
3/10/2020	10:00	11.99	0.194	0.146	5.87	164.8	0	31.9	3.44		
3/10/2020	10:10	11.99	0.194	0.146	5.89	166.7	-0.3	31.5	3.4		
3/10/2020	10:20	11.99	0.194	0.146	5.9	168.2	-0.5	31.4	3.38		



**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
3/10/2020	10:30	11.99	0.194	0.146	5.91	171.9	-0.4	31.4	3.38		
3/10/2020	10:40	11.99	0.194	0.146	5.92	173.8	-0.4	31.6	3.4		
3/10/2020	10:50	11.99	0.194	0.146	5.94	174.9	-0.3	31.7	3.42		
3/10/2020	11:00	11.99	0.194	0.146	5.94	176.6	-0.4	32.0	3.45		
3/10/2020	11:10	11.99	0.194	0.146	5.95	177.2	-0.6	31.8	3.43		
3/10/2020	11:20	12	0.194	0.146	5.95	178.6	-0.7	31.5	3.39		
3/10/2020	11:30	12	0.194	0.146	5.96	179.3	-0.5	31.3	3.37		
3/10/2020	11:40	12	0.193	0.145	5.96	180.7	-0.6	31.5	3.39		
3/10/2020	11:50	12	0.193	0.145	5.97	181.2	-0.6	31.5	3.39		
3/10/2020	12:00	12	0.193	0.145	5.97	182.5	-0.6	31.4	3.39		
3/10/2020	12:10	12	0.193	0.145	5.98	182.5	-0.7	31.4	3.38		
3/10/2020	12:20	12	0.193	0.145	5.98	183.2	-0.5	31.2	3.37		
3/10/2020	12:30	12	0.193	0.145	5.98	184.3	-0.6	31.1	3.35		
3/10/2020	12:40	12	0.193	0.145	5.98	184.7	-0.7	31.0	3.33		
3/10/2020	12:50	12	0.193	0.145	5.99	184.6	-0.6	30.8	3.32		
3/10/2020	13:00	12	0.193	0.145	5.98	185.5	-0.7	30.8	3.31		
3/10/2020	13:10	12	0.193	0.145	5.99	185.4	-0.6	30.7	3.3		
3/10/2020	13:20	12	0.193	0.145	5.99	185.8	-0.6	30.6	3.29		
3/10/2020	13:30	12	0.193	0.145	5.98	186.6	-0.5	30.5	3.29		
3/10/2020	13:40	12	0.193	0.145	5.99	186.6	-0.6	30.5	3.28		
3/10/2020	13:50	12	0.193	0.145	6	187.1	-0.6	30.4	3.28		
3/10/2020	14:00	12	0.193	0.145	6	187.7	-0.6	30.3	3.27		
3/10/2020	14:10	12	0.193	0.145	6	188.4	-0.7	30.2	3.26		
3/10/2020	14:20	12	0.193	0.145	6	189	-0.5	30.1	3.24		
3/10/2020	14:30	12	0.193	0.145	6	189.8	-0.5	29.9	3.22		
3/10/2020	14:40	12	0.193	0.145	5.99	191.2	-0.5	29.7	3.2		
3/10/2020	14:50	12	0.193	0.145	5.99	192.4	-0.6	29.4	3.17		
3/10/2020	15:00	12	0.193	0.145	6.01	193.5	-0.5	29.3	3.16		
3/10/2020	15:10	12	0.193	0.145	6	195.7	-0.5	29.2	3.15		
3/10/2020	15:20	12	0.193	0.145	6.02	196.8	-0.5	29.1	3.13		
3/10/2020	15:30	12	0.193	0.145	6.02	198.2	-0.5	28.8	3.1		
3/10/2020	15:40	12	0.193	0.145	6.02	199.6	-0.5	28.7	3.09		
3/10/2020	15:50	12	0.193	0.145	6.02	201	-0.5	28.7	3.09		
3/10/2020	16:00	12	0.193	0.145	6.02	202.3	-0.5	28.7	3.09		
3/10/2020	16:10	12	0.193	0.145	6.02	202.8	-0.5	28.7	3.09		
3/10/2020	16:20	12	0.193	0.145	6.01	201.2	-0.4	28.6	3.09		
3/10/2020	16:30	12	0.193	0.145	6	199.1	-0.4	28.6	3.08		
3/10/2020	16:40	11.99	0.193	0.145	6	197.1	-0.4	28.6	3.08		
3/10/2020	16:50	11.99	0.193	0.145	5.99	197.3	-0.5	28.5	3.07		
3/10/2020	17:00	11.99	0.193	0.145	6	196.4	-0.5	28.3	3.05		
3/10/2020	17:10	11.99	0.192	0.145	5.99	196.2	-0.4	28.0	3.02		
3/10/2020	17:20	11.99	0.192	0.145	5.98	196.8	-0.4	27.8	3		
3/10/2020	17:30	11.99	0.192	0.145	5.98	198	-0.4	27.9	3		
3/10/2020	17:40	11.99	0.192	0.145	5.99	198.5	-0.4	27.9	3		
3/10/2020	17:50	11.99	0.192	0.145	5.99	199.2	-0.2	27.8	3		
3/10/2020	18:00	11.99	0.192	0.145	5.99	199.7	-0.2	27.7	2.99		
3/10/2020	18:10	11.99	0.192	0.145	5.98	200.7	-0.3	27.6	2.98		
3/10/2020	18:20	11.99	0.192	0.145	5.98	201.2	-0.2	27.6	2.97		
3/10/2020	18:30	11.99	0.192	0.144	5.98	200.9	-0.2	27.7	2.98		
3/10/2020	18:40	11.99	0.192	0.144	5.99	200.1	-0.2	27.8	3		
3/10/2020	18:50	11.99	0.192	0.144	5.99	200.5	-0.2	27.8	2.99		
3/10/2020	19:00	11.99	0.192	0.144	5.98	202	-0.2	27.8	2.99		
3/10/2020	19:10	11.99	0.192	0.144	5.98	202.9	-0.2	27.7	2.98		
3/10/2020	19:20	11.99	0.192	0.144	5.98	203.4	0	27.5	2.96		
3/10/2020	19:30	11.99	0.192	0.144	5.99	202.9	-0.1	27.2	2.93		
3/10/2020	19:40	11.99	0.192	0.144	5.98	203.4	-0.1	27.0	2.91		
3/10/2020	19:50	11.99	0.192	0.144	5.99	202.6	-0.1	26.9	2.89		
3/10/2020	20:00	11.99	0.192	0.144	5.99	202.6	0	26.8	2.88		
3/10/2020	20:10	11.99	0.192	0.144	5.98	203.6	0	26.6	2.87		

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**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
3/10/2020	20:20	11.99	0.192	0.144	5.98	204.1	0	26.5	2.85		
3/10/2020	20:30	11.99	0.192	0.144	5.98	204.5	0.1	26.3	2.83		
3/10/2020	20:40	11.99	0.192	0.144	5.99	204.3	0.1	25.9	2.79		
3/10/2020	20:50	11.99	0.192	0.144	5.98	205.3	0.1	25.6	2.76		
3/10/2020	21:00	11.99	0.192	0.144	5.99	204.8	0.1	25.5	2.74		
3/10/2020	21:10	11.99	0.192	0.144	5.98	205.2	0.2	25.4	2.74		
3/10/2020	21:20	11.99	0.192	0.144	5.99	205	0.2	25.4	2.73		
3/10/2020	21:30	11.99	0.192	0.144	5.99	205	0.2	25.3	2.73		
3/10/2020	21:40	11.99	0.191	0.144	5.98	205.7	0.3	25.2	2.72		
3/10/2020	21:50	11.99	0.191	0.144	5.97	206	0.3	25.1	2.71		
3/10/2020	22:00	11.99	0.191	0.144	5.97	206.2	0.3	25.0	2.7		
3/10/2020	22:10	11.99	0.191	0.144	5.98	205.9	0.4	24.9	2.69		
3/10/2020	22:20	11.99	0.191	0.144	5.98	205.9	0.4	24.9	2.68		
3/10/2020	22:30	11.99	0.191	0.144	5.97	206.8	0.4	24.8	2.67		
3/10/2020	22:40	11.99	0.191	0.144	5.98	206.9	0.4	24.7	2.66		
3/10/2020	22:50	11.99	0.191	0.144	5.97	208.4	0.6	24.6	2.65		
3/10/2020	23:00	11.99	0.191	0.144	5.98	208.4	0.6	24.4	2.62		
3/10/2020	23:10	11.99	0.191	0.144	5.97	209.4	0.6	24.2	2.6		
3/10/2020	23:20	11.99	0.191	0.144	5.98	210.1	0.6	23.9	2.58		
3/10/2020	23:30	11.99	0.191	0.144	5.98	211.7	0.6	23.7	2.55		
3/10/2020	23:40	11.99	0.191	0.144	5.97	213.7	0.7	23.4	2.53		
3/10/2020	23:50	11.99	0.191	0.144	5.98	214.2	0.8	23.2	2.5		
3/11/2020	0:00	11.99	0.191	0.144	5.98	214.1	0.7	22.9	2.47		
3/11/2020	0:10	11.99	0.191	0.144	5.98	213.6	0.8	22.7	2.45		
3/11/2020	0:20	11.99	0.191	0.144	5.98	213	0.9	22.4	2.42		
3/11/2020	0:30	11.99	0.191	0.144	5.98	213.2	0.9	22.2	2.39		
3/11/2020	0:40	11.99	0.191	0.144	5.97	214.1	0.9	21.9	2.36		
3/11/2020	0:50	11.99	0.191	0.144	5.97	213.6	0.9	21.6	2.33		
3/11/2020	1:00	11.99	0.191	0.144	5.97	213.7	1	21.4	2.31		
3/11/2020	1:10	11.99	0.191	0.144	5.96	214.3	1	21.3	2.29		
3/11/2020	1:20	11.99	0.191	0.143	5.97	213.9	1	21.1	2.27		
3/11/2020	1:30	11.99	0.191	0.143	5.96	214.8	1.1	20.9	2.25		
3/11/2020	1:40	11.99	0.191	0.143	5.97	214.7	1	20.8	2.24		
3/11/2020	1:50	11.99	0.191	0.143	5.96	215.5	1.2	20.6	2.22		
3/11/2020	2:00	11.99	0.191	0.143	5.96	215.8	1.2	20.4	2.2		
3/11/2020	2:10	11.99	0.191	0.143	5.96	216.1	1.2	20.3	2.18		
3/11/2020	2:20	11.99	0.191	0.143	5.97	216	1.3	20.2	2.18		
3/11/2020	2:30	11.99	0.191	0.143	5.96	216.8	1.4	20.2	2.18		
3/11/2020	2:40	11.99	0.191	0.143	5.97	216.6	1.4	20.1	2.17		
3/11/2020	2:50	11.99	0.191	0.143	5.97	217.2	1.5	20.0	2.16		
3/11/2020	3:00	11.99	0.191	0.143	5.97	218.1	1.5	19.9	2.14		
3/11/2020	3:10	11.99	0.191	0.143	5.96	219.4	1.5	19.7	2.12		
3/11/2020	3:20	11.99	0.191	0.143	5.97	219.2	1.5	19.5	2.1		
3/11/2020	3:30	11.99	0.191	0.143	5.96	219.9	1.5	19.3	2.08		
3/11/2020	3:40	11.99	0.191	0.143	5.97	219.7	1.4	19.2	2.07		
3/11/2020	3:50	11.99	0.191	0.143	5.97	220.4	1.5	19.1	2.06		
3/11/2020	4:00	11.99	0.191	0.143	5.97	221.5	1.5	19.1	2.05		
3/11/2020	4:10	11.99	0.19	0.143	5.96	223	1.6	19.0	2.04		
3/11/2020	4:20	11.99	0.19	0.143	5.97	222.8	1.6	18.9	2.04		
3/11/2020	4:30	11.99	0.19	0.143	5.97	222.9	1.7	18.9	2.04		
3/11/2020	4:40	11.99	0.19	0.143	5.96	223.9	1.7	18.8	2.02		
3/11/2020	4:50	11.99	0.19	0.143	5.96	223.9	1.7	18.7	2.01		
3/11/2020	5:00	11.99	0.19	0.143	5.96	224.4	1.7	18.5	2		
3/11/2020	5:10	11.99	0.19	0.143	5.96	224.9	1.7	18.4	1.98		
3/11/2020	5:20	11.99	0.19	0.143	5.96	225.6	1.7	18.2	1.97		
3/11/2020	5:30	11.99	0.19	0.143	5.96	226.4	1.7	18.0	1.94		
3/11/2020	5:40	11.99	0.19	0.143	5.96	227.4	1.8	17.9	1.92		
3/11/2020	5:50	11.99	0.19	0.143	5.95	228.8	1.8	17.8	1.92		
3/11/2020	6:00	11.99	0.19	0.143	5.96	229.1	1.8	17.7	1.9		

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Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
3/11/2020	6:10	11.99	0.19	0.143	5.96	230.1	1.8	17.7	1.9		
3/11/2020	6:20	11.99	0.19	0.143	5.96	231	1.9	17.7	1.9		
3/11/2020	6:30	11.99	0.19	0.143	5.96	231.5	1.9	17.7	1.9		
3/11/2020	6:40	11.99	0.19	0.143	5.96	231.8	1.9	17.7	1.91		
3/11/2020	6:50	11.99	0.19	0.143	5.95	232.7	1.8	17.7	1.9		
3/11/2020	7:00	11.99	0.19	0.143	5.96	232.7	1.8	17.6	1.89		
3/11/2020	7:10	11.99	0.19	0.143	5.96	233.4	2	17.4	1.87		
3/11/2020	7:20	11.99	0.19	0.143	5.96	234.6	2	17.3	1.87		
3/11/2020	7:30	11.99	0.19	0.143	5.95	236.4	2	17.3	1.86		
3/11/2020	7:40	11.99	0.19	0.143	5.95	237.2	1.9	17.2	1.86		
3/11/2020	7:50	11.99	0.19	0.143	5.96	236.9	2.1	17.3	1.86		
3/11/2020	8:00	11.99	0.19	0.143	5.95	237.5	2.1	17.2	1.86		
3/11/2020	8:10	11.99	0.19	0.143	5.96	237.6	2.1	17.2	1.86		
04/15/20	16:00	12.9	0.207	0.159	6.19	30.9	9.5	25.9	3		
04/15/20	16:10	12.9	0.206	0.158	6.22	38.8	8.3	25.9	3		
04/15/20	16:20	12.9	0.207	0.159	6.27	36.1	8.2	26.3	3		
04/15/20	16:30	12.9	0.207	0.159	6.29	37.8	5.6	26.4	3		
04/15/20	16:40	12.9	0.209	0.161	6.3	40	4.2	25.7	3		
04/15/20	16:50	12.9	0.209	0.16	6.29	44	4.8	25.2	3		
04/15/20	17:00	12.9	0.208	0.16	6.29	46.4	4.1	25.0	3		
04/15/20	17:10	12.9	0.208	0.16	6.29	47.8	3.5	25.8	3		
04/15/20	17:20	12.9	0.207	0.16	6.3	49.2	3.6	24.7	3		
04/15/20	17:30	12.9	0.207	0.159	6.3	49.9	3.6	24.2	3		
04/15/20	17:40	12.9	0.207	0.159	6.3	53.8	2.7	23.7	3		
04/15/20	17:50	12.9	0.207	0.159	6.3	54.7	2.1	23.3	2		
04/15/20	18:00	12.9	0.207	0.159	6.3	54.6	2.9	22.8	2		
04/15/20	18:10	12.9	0.206	0.159	6.3	54.6	2.4	22.5	2		
04/15/20	18:20	12.9	0.206	0.159	6.3	55.5	2	22.2	2		
04/15/20	18:30	12.9	0.206	0.158	6.3	56.3	2	22.0	2		
04/15/20	18:40	12.9	0.206	0.158	6.3	57.7	1.5	21.7	2		
04/15/20	18:50	12.9	0.206	0.158	6.3	58.2	1.7	21.5	2		
04/15/20	19:00	12.9	0.206	0.158	6.3	58.7	1.6	21.2	2		
04/15/20	19:10	12.9	0.206	0.158	6.3	59.1	1.4	20.8	2		
04/15/20	19:20	12.9	0.205	0.158	6.3	59.4	1.5	20.7	2		
04/15/20	19:30	12.9	0.205	0.158	6.3	59.9	1.4	20.4	2		
04/15/20	19:40	12.9	0.205	0.158	6.3	60.5	1.8	20.1	2		
04/15/20	19:50	12.9	0.205	0.158	6.3	61.2	1	19.9	2		
04/15/20	20:00	12.9	0.205	0.158	6.3	61.6	1.3	19.9	2		
04/15/20	20:10	12.9	0.205	0.158	6.3	61.8	1.4	19.6	2		
04/15/20	20:20	12.9	0.205	0.158	6.29	62.3	1.7	19.4	2		
04/15/20	20:30	12.9	0.204	0.157	6.29	62.7	1.3	19.4	2		
04/15/20	20:40	12.9	0.205	0.157	6.29	63.1	1.4	19.1	2		
04/15/20	20:50	12.9	0.204	0.157	6.3	63.3	1.6	18.9	2		
04/15/20	21:00	12.9	0.205	0.157	6.3	63.6	1.5	18.7	2		
04/15/20	21:10	12.9	0.204	0.157	6.3	63.9	1.2	18.2	2		
04/15/20	21:20	12.9	0.204	0.157	6.3	64.2	1.3	17.7	2		
04/15/20	21:30	12.9	0.204	0.157	6.3	64.6	0.7	17.4	2		
04/15/20	21:40	12.9	0.204	0.157	6.3	64.8	1.6	17.0	2		
04/15/20	21:50	12.9	0.204	0.157	6.3	64.9	1.3	16.8	2		
04/15/20	22:00	12.9	0.204	0.157	6.3	65	1.7	16.5	2		
04/15/20	22:10	12.9	0.204	0.157	6.3	65.2	1.1	16.3	2		
04/15/20	22:20	12.9	0.204	0.157	6.3	65.2	1.2	16.1	2		
04/15/20	22:30	12.9	0.204	0.157	6.3	65.4	1.2	16.2	2		
04/15/20	22:40	12.9	0.204	0.157	6.3	65.5	1.3	16.0	2		
04/15/20	22:50	12.9	0.204	0.157	6.3	65.7	1	15.9	2		
04/15/20	23:00	12.9	0.203	0.156	6.3	66.2	1.4	15.8	2		
04/15/20	23:10	12.9	0.204	0.157	6.3	66.8	2.1	15.4	2		
04/15/20	23:20	12.9	0.204	0.157	6.3	67.5	1.8	15.2	2		
04/15/20	23:30	12.9	0.203	0.156	6.3	67.4	1.5	15.1	2		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
04/15/20	23:40	12.9	0.203	0.156	6.29	67.1	1.4	15.2	2		
04/15/20	23:50	12.9	0.204	0.157	6.29	66.9	2	15.2	2		
04/16/20	0:00	12.9	0.204	0.157	6.3	66.7	1.5	15.0	2		
04/16/20	0:10	12.9	0.204	0.157	6.3	66.7	1.7	14.9	2		
04/16/20	0:20	12.9	0.203	0.156	6.3	66.8	1	14.8	2		
04/16/20	0:30	12.9	0.203	0.156	6.3	66.8	2	14.6	2		
04/16/20	0:40	12.9	0.203	0.156	6.3	66.8	1.7	14.2	2		
04/16/20	0:50	12.9	0.203	0.156	6.3	67	1.4	14.1	1		
04/16/20	1:00	12.9	0.203	0.156	6.29	67.1	2.5	14.1	1		
04/16/20	1:10	12.9	0.203	0.156	6.29	67.3	1.3	13.9	1		
04/16/20	1:20	12.9	0.203	0.156	6.29	67.5	1.3	13.8	1		
04/16/20	1:30	12.9	0.203	0.156	6.29	67.4	1.5	13.6	1		
04/16/20	1:40	12.9	0.203	0.156	6.29	67.4	1.3	13.4	1		
04/16/20	1:50	12.9	0.203	0.156	6.29	67.6	1.2	13.2	1		
04/16/20	2:00	12.9	0.203	0.156	6.29	67.7	1.7	13.1	1		
04/16/20	2:10	12.9	0.203	0.156	6.29	67.7	2	12.8	1		
04/16/20	2:20	12.9	0.203	0.156	6.29	67.6	1.7	12.6	1		
04/16/20	2:30	12.9	0.203	0.156	6.29	67.6	1.8	12.5	1		
04/16/20	2:40	12.9	0.203	0.156	6.29	67.6	1.3	12.4	1		
04/16/20	2:50	12.9	0.203	0.156	6.29	67.5	2.1	12.2	1		
04/16/20	3:00	12.9	0.203	0.156	6.29	67.6	2.7	11.9	1		
04/16/20	3:10	12.9	0.203	0.156	6.29	67.6	3.1	11.9	1		
04/16/20	3:20	12.9	0.203	0.156	6.29	67.7	2	11.8	1		
04/16/20	3:30	12.9	0.203	0.156	6.29	67.7	2	11.7	1		
04/16/20	3:40	12.9	0.203	0.156	6.29	67.7	2	11.5	1		
04/16/20	3:50	12.9	0.203	0.156	6.29	67.7	1.8	11.5	1		
04/16/20	4:00	12.9	0.203	0.156	6.29	67.6	1.4	11.4	1		
04/16/20	4:10	12.9	0.203	0.156	6.29	67.6	2	11.3	1		
04/16/20	4:20	12.9	0.203	0.156	6.29	67.6	1.7	11.2	1		
04/16/20	4:30	12.9	0.203	0.156	6.29	67.6	2.1	11.1	1		
04/16/20	4:40	12.9	0.203	0.156	6.29	67.4	1.8	11.0	1		
04/16/20	4:50	12.9	0.203	0.156	6.29	67.5	1.5	11.0	1		
04/16/20	5:00	12.9	0.203	0.156	6.29	67.6	1.2	11.0	1		
04/16/20	5:10	12.9	0.203	0.156	6.29	67.6	1.4	11.1	1		
04/16/20	5:20	12.9	0.203	0.156	6.29	67.7	2	11.0	1		
04/16/20	5:30	12.9	0.203	0.156	6.29	67.6	2.1	10.9	1		
04/16/20	5:40	12.9	0.203	0.156	6.29	67.5	1.5	10.7	1		
04/16/20	5:50	12.9	0.202	0.156	6.28	67.5	1.6	10.4	1		
04/16/20	6:00	12.9	0.203	0.156	6.28	67.6	1.4	10.1	1		
04/16/20	6:10	12.9	0.202	0.156	6.28	67.7	1.3	9.9	1		
04/16/20	6:20	12.9	0.203	0.156	6.28	67.9	1.8	9.9	1		
04/16/20	6:30	12.9	0.203	0.156	6.28	67.8	2.1	9.9	1		
04/16/20	6:40	12.9	0.203	0.156	6.28	67.9	2.6	9.8	1		
04/16/20	6:50	12.9	0.203	0.156	6.28	67.9	1.6	9.8	1		
04/16/20	7:00	12.9	0.203	0.156	6.28	67.9	2.6	9.6	1		
04/16/20	7:10	12.9	0.203	0.156	6.28	68	2	9.4	1		
04/16/20	7:20	12.9	0.203	0.156	6.28	68.1	2.5	9.3	1		
04/16/20	7:30	12.9	0.202	0.156	6.28	68.2	2.1	9.2	1		
04/16/20	7:40	12.9	0.202	0.155	6.28	68.4	1.9	8.7	1		
04/16/20	7:50	12.9	0.202	0.156	6.28	68.4	1.6	7.9	1		
04/16/20	8:00	12.9	0.202	0.156	6.28	68.4	3.3	7.9	1		
04/16/20	8:10	12.9	0.202	0.156	6.28	68.5	3.3	7.4	1		
04/16/20	8:20	12.9	0.203	0.156	6.28	68.4	4.5	6.7	1		
04/16/20	8:30	12.9	0.202	0.156	6.28	68.4	4.5	6.7	1		
04/16/20	8:40	12.9	0.202	0.156	6.28	68.6	4	6.6	1		
04/16/20	8:50	12.9	0.202	0.156	6.28	68.8	3.7	6.6	1		
04/16/20	9:00	12.9	0.202	0.156	6.27	69.6	2.9	6.5	1		
04/16/20	9:10	12.9	0.202	0.156	6.27	69.6	2.6	6.5	1		
04/16/20	9:20	12.9	0.202	0.155	6.27	69.9	3.1	6.5	1		

**Transducer Data: MW-91**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO	DOchrg	pH
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L		mV
04/16/20	9:30	12.9	0.202	0.155	6.27	70.7	3.3	6.6	1		
04/16/20	9:40	12.9	0.202	0.155	6.27	70.5	3.2	6.5	1		
04/16/20	9:50	12.9	0.202	0.156	6.27	70.7	4.1	6.5	1		
04/16/20	10:00	12.9	0.202	0.155	6.27	71.1	4.2	6.5	1		
04/16/20	10:10	12.9	0.202	0.155	6.27	71.2	3.7	6.5	1		
04/16/20	10:20	12.9	0.202	0.155	6.27	69.8	3.6	6.5	1		
04/16/20	10:30	12.9	0.202	0.156	6.27	69.7	3.3	6.5	1		
04/16/20	10:40	12.9	0.202	0.156	6.27	65.4	3.7	6.5	1		
04/16/20	10:50	12.9	0.203	0.156	6.27	62.4	4.5	6.5	1		
04/16/20	11:00	12.9	0.202	0.155	6.27	60.7	3.9	6.5	1		
04/16/20	11:10	12.9	0.202	0.155	6.27	59.4	5.6	6.5	1		
04/16/20	11:20	12.9	0.202	0.155	6.27	59.4	3.4	6.5	1		
04/16/20	11:30	12.9	0.202	0.155	6.27	58.9	4.4	6.5	1		
04/16/20	11:40	12.9	0.202	0.155	6.27	58.8	3.4	6.5	1		
04/16/20	11:50	12.9	0.202	0.155	6.27	58.8	4.6	6.5	1		
04/16/20	12:00	12.9	0.202	0.155	6.27	59	4.5	6.5	1		
04/16/20	12:10	12.9	0.202	0.155	6.27	60.2	3.9	6.5	1		
04/16/20	12:20	12.9	0.202	0.155	6.27	59.8	5.3	6.5	1		
04/16/20	12:30	12.9	0.202	0.155	6.26	58.7	4.4	6.5	1		
04/16/20	12:40	12.9	0.202	0.155	6.26	59.5	3.1	6.5	1		
04/16/20	12:50	12.9	0.202	0.155	6.26	60.5	4.2	6.5	1		
04/16/20	13:00	12.9	0.202	0.156	6.26	61.1	5.1	6.5	1		
04/16/20	13:10	12.9	0.203	0.156	6.26	60.4	5.8	6.5	1		
04/16/20	13:20	12.9	0.203	0.156	6.26	59.6	5.9	6.5	1		
04/16/20	13:30	12.9	0.203	0.156	6.26	60.2	4.6	6.5	1		
04/16/20	13:40	12.9	0.203	0.156	6.26	60.2	4.3	6.5	1		
04/16/20	13:50	12.9	0.203	0.156	6.26	60.1	4.2	6.5	1		
04/16/20	14:00	12.9	0.203	0.156	6.26	60	3.7	6.5	1		
04/16/20	14:10	12.9	0.203	0.156	6.26	59.6	4.9	6.5	1		
04/16/20	14:20	12.9	0.203	0.156	6.26	59.6	5.1	6.5	1		
04/16/20	14:30	12.9	0.202	0.156	6.26	59.6	4.2	6.5	1		
04/16/20	14:40	12.9	0.203	0.156	6.26	59.4	5.7	6.5	1		
04/16/20	14:50	12.9	0.202	0.156	6.25	59.5	5.9	6.5	1		
04/16/20	15:00	12.9	0.203	0.156	6.25	59.2	4.7	6.5	1		
04/16/20	15:10	12.9	0.203	0.156	6.25	59.5	5.5	6.5	1		
04/16/20	15:20	12.9	0.202	0.156	6.25	58.9	4.7	6.5	1		
04/16/20	15:30	12.9	0.203	0.156	6.25	59	5.2	6.5	1		
04/16/20	15:40	12.9	0.202	0.156	6.25	58.6	6.3	6.5	1		
04/16/20	15:50	12.9	0.203	0.156	6.25	58.4	7	6.5	1		

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/4/2019	13:50:16	17.06	0.083	0.07	5.73	121.2	-0.7	101.6	9.8
11/4/2019	14:00:16	19.77	0.096	0.087	5.65	109.6	-0.5	101.4	9.26
11/4/2019	14:10:16	19.9	0.121	0.109	5.65	105.2	0.1	102.7	9.36
11/4/2019	14:20:16	19.58	0.133	0.119	5.59	96.4	0	105.1	9.63
11/4/2019	14:30:16	18.85	0.142	0.126	5.59	72.3	-0.5	106.5	9.91
11/4/2019	14:40:16	12.15	2.082	1.571	6.48	27	20.2	118.1	12.6
11/4/2019	14:50:16	12.12	2.229	1.68	5.77	112.9	7.9	175.7	18.75
11/4/2019	15:00:16	12.14	2.253	1.699	5.72	125.8	4.3	177.3	18.91
11/4/2019	15:10:16	12.12	2.245	1.693	5.73	130.2	10	177.4	18.93
11/4/2019	15:20:16	12.12	2.238	1.687	5.74	131.2	8.7	172	18.36
11/4/2019	15:30:16	12.12	2.248	1.695	5.75	132.6	9.1	170.3	18.17
11/4/2019	15:40:16	12.12	2.25	1.696	5.75	134.1	7.6	173.1	18.47
11/4/2019	15:50:16	12.11	2.257	1.702	5.75	136.2	6.2	173.2	18.49
11/4/2019	16:00:16	12.11	2.261	1.704	5.75	138.1	7.3	173.2	18.48
11/4/2019	16:10:16	12.11	2.264	1.707	5.75	139.4	3.9	173.2	18.49
11/4/2019	16:20:16	12.11	2.267	1.708	5.75	139.8	4.6	174	18.58
11/4/2019	16:30:16	12.11	2.269	1.71	5.75	141.1	2.6	174.7	18.64
11/4/2019	16:40:16	12.1	2.271	1.712	5.75	142.2	3.3	174.9	18.67
11/4/2019	16:50:16	12.1	2.273	1.713	5.75	142.9	2.9	176.5	18.85
11/4/2019	17:00:16	12.1	2.275	1.715	5.75	144	2.3	176.5	18.84
11/4/2019	17:10:16	12.1	2.279	1.718	5.74	144.7	2.6	177.4	18.93
11/4/2019	17:20:16	12.1	2.283	1.72	5.74	145.6	2.4	178	19
11/4/2019	17:30:16	12.1	2.283	1.721	5.74	146.2	2.6	178.7	19.07
11/4/2019	17:40:16	12.1	2.286	1.723	5.74	146.8	1.6	178.6	19.06
11/4/2019	17:50:16	12.1	2.286	1.723	5.73	147.2	2.7	178.2	19.02
11/4/2019	18:00:16	12.1	2.288	1.725	5.73	147.7	2.8	178.3	19.03
11/4/2019	18:10:16	12.1	2.288	1.725	5.73	148.1	2.6	178.5	19.05
11/4/2019	18:20:16	12.1	2.289	1.725	5.72	148.5	2.5	178	19
11/4/2019	18:30:16	12.1	2.292	1.727	5.72	148.9	2.3	178.2	19.02
11/4/2019	18:40:16	12.1	2.29	1.726	5.72	149.4	2	178.5	19.05
11/4/2019	18:50:16	12.1	2.293	1.728	5.72	149.7	2.2	178.4	19.04
11/4/2019	19:00:16	12.1	2.292	1.728	5.71	150.1	1.8	178.9	19.1
11/4/2019	19:10:16	12.1	2.293	1.728	5.71	150.5	2	178.8	19.09
11/4/2019	19:20:16	12.1	2.294	1.729	5.71	150.6	3.4	178.9	19.1
11/4/2019	19:30:16	12.1	2.295	1.729	5.71	150.7	1.7	179.5	19.16
11/4/2019	19:40:16	12.1	2.294	1.729	5.71	151.1	2.5	179.3	19.13
11/4/2019	19:50:16	12.1	2.289	1.725	5.71	151.4	2.5	178.3	19.04

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/4/2019	20:00:16	12.1	2.288	1.724	5.7	151.8	2.3	178.9	19.1
11/4/2019	20:10:16	12.1	2.288	1.724	5.7	152.2	2.3	179.5	19.16
11/4/2019	20:20:16	12.1	2.287	1.723	5.7	152.3	1.4	180	19.22
11/4/2019	20:30:16	12.1	2.289	1.725	5.7	152.4	1.6	179.9	19.2
11/4/2019	20:40:16	12.1	2.289	1.725	5.7	152.4	1.2	180	19.21
11/4/2019	20:50:16	12.1	2.274	1.714	5.7	152.3	2.5	180.4	19.26
11/4/2019	21:00:16	12.1	2.272	1.712	5.7	151.7	3.6	180.3	19.25
11/4/2019	21:10:16	12.1	2.263	1.705	5.71	150.9	1.6	180.3	19.25
11/4/2019	21:20:16	12.1	2.263	1.706	5.71	150.8	1.7	180.3	19.24
11/4/2019	21:30:16	12.1	2.264	1.706	5.71	150	2.1	178.6	19.07
11/4/2019	21:40:16	12.1	2.264	1.706	5.71	149.6	2	174.7	18.65
11/4/2019	21:50:16	12.1	2.263	1.706	5.71	150.3	2	173.8	18.55
11/4/2019	22:00:16	12.1	2.262	1.705	5.71	150.9	2.1	173.2	18.49
11/4/2019	22:10:16	12.1	2.264	1.706	5.71	151.4	1.7	173.5	18.52
11/4/2019	22:20:16	12.1	2.265	1.706	5.71	152	1.8	173.6	18.53
11/4/2019	22:30:16	12.1	2.261	1.704	5.71	152.2	1.4	173.4	18.52
11/4/2019	22:40:16	12.1	2.262	1.704	5.71	152.5	2.3	173.7	18.54
11/4/2019	22:50:16	12.1	2.266	1.708	5.71	152.6	1.8	174.2	18.59
11/4/2019	23:00:16	12.1	2.266	1.708	5.71	152.8	2.5	175	18.68
11/4/2019	23:10:16	12.1	2.267	1.708	5.71	152.8	2	175.4	18.72
11/4/2019	23:20:16	12.1	2.266	1.708	5.71	152.6	1.5	176	18.79
11/4/2019	23:30:16	12.1	2.266	1.707	5.71	152.8	1.9	177.7	18.97
11/4/2019	23:40:16	12.1	2.266	1.708	5.71	153	2.4	178.9	19.1
11/4/2019	23:50:16	12.1	2.266	1.708	5.71	153.2	1.7	175.6	18.75
11/5/2019	0:00:16	12.1	2.267	1.709	5.71	153.3	1.3	173.4	18.52
11/5/2019	0:10:16	12.1	2.265	1.707	5.71	153.1	1.2	174.1	18.59
11/5/2019	0:20:16	12.1	2.265	1.707	5.72	152.6	0.7	175.2	18.7
11/5/2019	0:30:16	12.1	2.258	1.702	5.72	151.7	1.5	175.7	18.75
11/5/2019	0:40:16	12.1	2.258	1.702	5.72	151.3	2.5	175.9	18.78
11/5/2019	0:50:16	12.1	2.257	1.701	5.72	151.4	2.1	175.9	18.78
11/5/2019	1:00:16	12.1	2.258	1.702	5.72	151.9	1.6	175.8	18.77
11/5/2019	1:10:16	12.1	2.256	1.7	5.72	151.1	1.4	175.3	18.72
11/5/2019	1:20:16	12.1	2.258	1.701	5.72	150.5	3.1	175.2	18.71
11/5/2019	1:30:16	12.1	2.258	1.702	5.73	150.1	2.5	173.3	18.5
11/5/2019	1:40:16	12.1	2.256	1.7	5.73	149.6	1.4	172.1	18.37
11/5/2019	1:50:16	12.1	2.256	1.7	5.73	149.4	2.1	172	18.36
11/5/2019	2:00:16	12.1	2.253	1.698	5.73	149.2	1.2	172.4	18.4

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/5/2019	2:10:16	12.1	2.255	1.7	5.73	148.9	1	172.1	18.38
11/5/2019	2:20:16	12.1	2.254	1.698	5.73	148.7	1	172.8	18.45
11/5/2019	2:30:16	12.1	2.258	1.702	5.72	148.7	2.1	173	18.47
11/5/2019	2:40:16	12.1	2.255	1.699	5.71	148.7	2.7	173.3	18.5
11/5/2019	2:50:16	12.1	2.254	1.698	5.71	148.6	3.7	174.1	18.58
11/5/2019	3:00:16	12.1	2.258	1.702	5.71	148.7	3.4	174.1	18.59
11/5/2019	3:10:16	12.1	2.259	1.702	5.71	148.9	3.2	173.6	18.53
11/5/2019	3:20:16	12.1	2.259	1.702	5.71	148.8	4	173.2	18.49
11/5/2019	3:30:16	12.1	2.258	1.702	5.71	148.9	2.9	172.8	18.45
11/5/2019	3:40:16	12.1	2.257	1.701	5.72	148.9	3.1	173.4	18.51
11/5/2019	3:50:16	12.1	2.252	1.697	5.72	148.7	3	173.1	18.48
11/5/2019	4:00:16	12.1	2.252	1.697	5.72	148.2	3.4	172.8	18.45
11/5/2019	4:10:16	12.1	2.252	1.697	5.72	147.9	3.6	172.4	18.41
11/5/2019	4:20:16	12.1	2.254	1.698	5.72	147.9	2.2	172.3	18.39
11/5/2019	4:30:16	12.1	2.252	1.697	5.72	148	2.9	172.3	18.4
11/5/2019	4:40:16	12.1	2.252	1.697	5.72	147.6	2.4	172.5	18.42
11/5/2019	4:50:16	12.1	2.251	1.696	5.72	147.7	4.9	173.1	18.48
11/5/2019	5:00:16	12.1	2.251	1.696	5.72	147.6	0.9	175.4	18.72
11/5/2019	5:10:16	12.1	2.249	1.695	5.72	147.3	2.9	177.2	18.92
11/5/2019	5:20:16	12.1	2.251	1.696	5.72	147.1	0.4	178.4	19.04
11/5/2019	5:30:16	12.1	2.251	1.696	5.72	147.1	0.9	178.1	19.01
11/5/2019	5:40:16	12.1	2.25	1.695	5.72	147.2	1.2	177.3	18.93
11/5/2019	5:50:16	12.1	2.25	1.695	5.72	147.1	1.7	177	18.89
11/5/2019	6:00:16	12.1	2.25	1.696	5.71	147.3	0.2	176.9	18.89
11/5/2019	6:10:16	12.1	2.25	1.695	5.71	147.3	-0.2	176.8	18.88
11/5/2019	6:20:16	12.1	2.249	1.695	5.71	147.3	1.1	176.8	18.88
11/5/2019	6:30:16	12.1	2.249	1.695	5.71	147.3	0.3	176.8	18.88
11/5/2019	6:40:16	12.1	2.251	1.696	5.71	147	0.1	176.8	18.87
11/5/2019	6:50:16	12.1	2.249	1.695	5.71	147.2	-0.5	177.4	18.94
11/5/2019	7:00:16	12.1	2.249	1.694	5.71	147	0.4	177.8	18.98
11/5/2019	7:10:16	12.1	2.248	1.694	5.71	147	-0.3	177.6	18.96
11/5/2019	7:20:16	12.1	2.252	1.697	5.71	147	0.5	177.6	18.96
11/5/2019	7:30:16	12.1	2.251	1.696	5.71	147	2.1	177.4	18.94
11/5/2019	7:40:16	12.1	2.251	1.696	5.72	147	1.5	178.1	19.01
11/5/2019	7:50:16	12.1	2.25	1.696	5.72	147	2.1	178.1	19.02
11/5/2019	8:00:16	12.1	2.25	1.695	5.72	146.9	3.3	178.1	19.02
11/5/2019	8:10:16	12.1	2.249	1.695	5.72	146.9	1.7	178.2	19.02



**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/5/2019	8:20:16	12.1	2.249	1.695	5.72	147.2	-0.3	177.7	18.97
11/5/2019	8:30:16	12.1	2.247	1.693	5.72	147.2	-0.2	177.1	18.9
11/5/2019	8:40:16	12.1	2.247	1.693	5.72	147.3	0.4	176.8	18.87
11/5/2019	8:50:16	12.1	2.245	1.692	5.72	147.3	1.7	176.9	18.88
11/5/2019	9:00:16	12.1	2.249	1.695	5.72	147.2	1.4	177.3	18.93
11/5/2019	9:10:16	12.1	2.247	1.693	5.73	147	2	178.1	19.01
11/5/2019	9:20:16	12.1	2.247	1.693	5.73	147	1.7	177.9	18.99
11/5/2019	9:30:16	12.1	2.246	1.692	5.73	147	1.3	178.3	19.04
11/5/2019	9:40:16	12.1	2.247	1.693	5.73	147	1	178.6	19.06
11/5/2019	9:50:16	12.1	2.243	1.69	5.73	147.2	1.1	178.3	19.04
11/5/2019	10:00:16	12.1	2.244	1.691	5.73	147.2	2.3	177.9	18.99
11/5/2019	10:10:16	12.1	2.247	1.693	5.73	147.2	1.4	177.5	18.95
11/5/2019	10:20:16	12.1	2.246	1.692	5.73	147.3	0.9	177.4	18.94
11/5/2019	10:30:16	12.1	2.246	1.693	5.72	147.3	1	178.5	19.06
11/5/2019	10:40:16	12.1	2.245	1.691	5.72	147.3	0.8	178.3	19.04
11/5/2019	10:50:16	12.08	2.242	1.689	5.73	147.5	2.9	179.4	19.16
11/5/2019	11:00:16	12.1	2.24	1.688	5.72	149	1.8	180	19.22
11/5/2019	11:10:16	12.1	2.239	1.687	5.72	149.4	0.9	180	19.21
11/5/2019	11:20:16	12.1	2.239	1.687	5.72	149.8	0.9	180	19.22
11/5/2019	11:30:16	12.1	2.239	1.687	5.72	150.5	1.2	179.7	19.19
11/5/2019	11:40:16	12.1	2.237	1.686	5.71	151.3	1.4	179.7	19.19
11/5/2019	11:50:16	12.1	2.236	1.685	5.71	151.9	0.9	179.6	19.18
11/5/2019	12:00:16	12.1	2.236	1.685	5.71	152	1	179.7	19.18
11/5/2019	12:10:16	12.1	2.236	1.685	5.71	152	0.7	179.6	19.17
11/5/2019	12:20:16	12.1	2.236	1.685	5.71	151.8	0.7	179.4	19.15
11/5/2019	12:30:16	12.1	2.235	1.684	5.71	152.3	1.2	179.5	19.16
11/5/2019	12:40:16	12.1	2.233	1.682	5.71	153	0.9	179.7	19.18
11/5/2019	12:50:16	12.1	2.235	1.684	5.71	153.1	0.3	179.8	19.2
11/5/2019	13:00:16	12.1	2.233	1.683	5.71	153.1	0.5	179.7	19.19
11/5/2019	13:10:16	12.1	2.233	1.683	5.71	153.3	-0.3	179.7	19.18
11/5/2019	13:20:16	12.1	2.23	1.68	5.71	153.1	0	179.4	19.16
11/5/2019	13:30:16	12.1	2.23	1.681	5.71	152.5	-0.4	179.5	19.17
11/5/2019	13:40:16	12.1	2.228	1.679	5.71	152.2	0.9	179.6	19.17
11/5/2019	13:50:16	12.1	2.228	1.679	5.71	151.7	1	179.6	19.18
11/5/2019	14:00:16	12.1	2.227	1.679	5.71	151.4	0.7	179.5	19.16
11/5/2019	14:10:16	12.1	2.226	1.677	5.71	151.2	0.6	179.3	19.14
11/5/2019	14:20:16	12.1	2.226	1.677	5.71	150.9	0.1	178.9	19.11

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/5/2019	14:30:16	12.1	2.226	1.677	5.71	150.9	-0.1	179	19.11
11/5/2019	14:40:16	12.1	2.224	1.676	5.71	150.9	0.4	179.3	19.14
11/5/2019	14:50:16	12.1	2.227	1.678	5.71	151.3	0.8	179.1	19.13
11/5/2019	15:00:16	12.1	2.227	1.678	5.71	151.9	1.2	179.2	19.13
11/5/2019	15:10:16	12.1	2.222	1.675	5.71	152.3	0.4	179	19.11
11/5/2019	15:20:16	12.1	2.225	1.676	5.71	152.7	0.4	179	19.11
11/5/2019	15:30:16	12.1	2.181	1.643	5.71	152.8	-0.3	179	19.11
11/5/2019	15:40:16	12.1	2.182	1.644	5.71	152.4	0.8	179.4	19.15
11/5/2019	15:50:16	12.1	2.181	1.643	5.71	152.2	1.2	180.1	19.23
11/5/2019	16:00:16	12.1	2.181	1.643	5.71	152.3	0.9	180.3	19.26
11/5/2019	16:10:16	12.1	2.18	1.643	5.7	152.8	2.1	180.4	19.26
11/5/2019	16:20:16	12.1	2.18	1.643	5.71	153	2.1	179.9	19.21
11/5/2019	16:30:16	12.1	2.181	1.643	5.71	153.3	1.5	179.5	19.16
11/5/2019	16:40:16	12.1	2.18	1.643	5.7	154	0.6	179	19.12
11/5/2019	16:50:16	12.1	2.176	1.64	5.7	154.5	1.2	179.2	19.13
11/5/2019	17:00:16	12.1	2.176	1.639	5.7	154.9	1.1	179	19.11
11/5/2019	17:10:16	12.1	2.176	1.64	5.7	154.8	0.3	178.8	19.1
11/5/2019	17:20:16	12.1	2.176	1.64	5.7	154.4	0.1	178.8	19.1
11/5/2019	17:30:16	12.1	2.175	1.639	5.7	154.4	-0.2	179	19.12
11/5/2019	17:40:16	12.1	2.175	1.639	5.7	154.5	-0.2	179.1	19.13
11/5/2019	17:50:16	12.09	2.174	1.638	5.7	154.4	-0.6	179.3	19.15
11/5/2019	18:00:16	12.09	2.173	1.637	5.7	154.8	0.1	179.5	19.17
11/5/2019	18:10:16	12.09	2.172	1.637	5.71	155.2	1	179.3	19.15
11/5/2019	18:20:16	12.09	2.171	1.636	5.7	155.4	0.6	178.9	19.11
11/5/2019	18:30:16	12.09	2.173	1.638	5.7	156	1.4	178.9	19.11
11/5/2019	18:40:16	12.09	2.173	1.637	5.71	156.3	1.2	179.1	19.13
11/5/2019	18:50:16	12.09	2.172	1.637	5.71	156.3	0.7	179.2	19.14
11/5/2019	19:00:16	12.09	2.172	1.637	5.71	156.1	0.9	179	19.12
11/5/2019	19:10:16	12.09	2.172	1.636	5.71	156.2	1.2	179.3	19.14
11/5/2019	19:20:16	12.1	2.169	1.634	5.71	156.4	1.2	179.3	19.15
11/5/2019	19:30:16	12.09	2.169	1.634	5.71	156.4	0.1	179.3	19.15
11/5/2019	19:40:16	12.1	2.166	1.632	5.71	156	0.3	179.1	19.12
11/5/2019	19:50:16	12.1	2.166	1.632	5.71	155.8	0.2	179.4	19.15
11/5/2019	20:00:16	12.09	2.168	1.634	5.71	155.4	0.1	180.4	19.26
11/5/2019	20:10:16	12.09	2.167	1.633	5.71	155.4	1	180.3	19.25
11/5/2019	20:20:16	12.09	2.167	1.633	5.71	155.9	0.6	180.3	19.26
11/5/2019	20:30:16	12.09	2.167	1.633	5.71	156.2	0	179.9	19.22

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/5/2019	20:40:16	12.1	2.166	1.632	5.71	155.8	0.1	179.4	19.16
11/5/2019	20:50:16	12.09	2.166	1.632	5.72	155.5	-0.3	179.2	19.14
11/5/2019	21:00:16	12.09	2.167	1.633	5.72	155.2	1	178.9	19.11
11/5/2019	21:10:16	12.1	2.163	1.63	5.72	155.1	-0.3	179.1	19.13
11/5/2019	21:20:16	12.1	2.163	1.63	5.72	154.9	0.2	179.3	19.14
11/5/2019	21:30:16	12.09	2.162	1.629	5.72	154.7	-1.1	179.2	19.13
11/5/2019	21:40:16	12.1	2.162	1.629	5.72	154.7	-0.7	179.6	19.18
11/5/2019	21:50:16	12.1	2.162	1.629	5.72	154.8	-0.5	180	19.22
11/5/2019	22:00:16	12.09	2.161	1.628	5.72	154.7	-0.2	180.2	19.25
11/5/2019	22:10:16	12.09	2.16	1.628	5.72	154.4	-1.3	179.7	19.19
11/5/2019	22:20:16	12.09	2.16	1.628	5.72	154.5	-1.4	179.3	19.15
11/5/2019	22:30:16	12.09	2.161	1.628	5.72	154.3	-0.8	179	19.12
11/5/2019	22:40:16	12.1	2.161	1.628	5.72	154.7	-0.4	178.7	19.08
11/5/2019	22:50:16	12.1	2.161	1.628	5.72	154.8	-1.3	179.3	19.15
11/5/2019	23:00:16	12.09	2.16	1.627	5.72	154.6	-0.4	180.2	19.25
11/5/2019	23:10:16	12.09	2.159	1.627	5.72	154.4	-0.2	180.3	19.26
11/5/2019	23:20:16	12.09	2.159	1.627	5.72	154.3	0.3	180	19.22
11/5/2019	23:30:16	12.09	2.159	1.627	5.72	154.2	-0.9	179.5	19.18
11/5/2019	23:40:16	12.09	2.159	1.627	5.72	154.3	-1.1	180.1	19.24
11/5/2019	23:50:16	12.09	2.159	1.627	5.72	154.3	-0.4	180.6	19.29
11/6/2019	0:00:16	12.1	2.158	1.626	5.72	154.5	-0.2	180.5	19.28
11/6/2019	0:10:16	12.1	2.157	1.626	5.72	154.1	-0.4	180.3	19.25
11/6/2019	0:20:16	12.1	2.158	1.626	5.72	154	0.4	179.9	19.21
11/6/2019	0:30:16	12.09	2.157	1.626	5.72	154.1	1.1	179.7	19.19
11/6/2019	0:40:16	12.09	2.158	1.626	5.72	153.9	0.8	179.7	19.19
11/6/2019	0:50:16	12.1	2.157	1.625	5.73	153.7	0.7	179.5	19.17
11/6/2019	1:00:16	12.09	2.156	1.625	5.72	153.7	0.1	179.4	19.16
11/6/2019	1:10:16	12.09	2.156	1.625	5.73	153.6	1.1	179.6	19.18
11/6/2019	1:20:16	12.09	2.156	1.625	5.73	153.5	0.9	179.4	19.16
11/6/2019	1:30:16	12.1	2.156	1.625	5.72	153.6	0.3	178.9	19.11
11/6/2019	1:40:16	12.09	2.155	1.624	5.72	153.6	0	178.9	19.1
11/6/2019	1:50:16	12.09	2.155	1.624	5.72	153.6	-0.5	178.7	19.09
11/6/2019	2:00:16	12.09	2.155	1.624	5.72	153.7	-0.2	178.6	19.08
11/6/2019	2:10:16	12.09	2.146	1.617	5.72	153.7	-0.9	178.1	19.03
11/6/2019	2:20:16	12.09	2.146	1.617	5.72	153.8	-1	178.5	19.07
11/6/2019	2:30:16	12.1	2.145	1.617	5.72	153.9	0	179.9	19.21
11/6/2019	2:40:16	12.09	2.146	1.617	5.72	153.9	0	180.4	19.27

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/6/2019	2:50:16	12.09	2.145	1.616	5.72	153.9	-0.9	180.4	19.27
11/6/2019	3:00:16	12.09	2.145	1.617	5.72	154.1	-0.2	179.9	19.22
11/6/2019	3:10:16	12.09	2.145	1.616	5.72	154.1	0.1	179.6	19.18
11/6/2019	3:20:16	12.09	2.146	1.617	5.72	154.4	0.1	179.5	19.17
11/6/2019	3:30:16	12.09	2.145	1.616	5.72	154.7	-0.2	179.6	19.19
11/6/2019	3:40:16	12.09	2.145	1.616	5.72	154.7	0.1	179.5	19.18
11/6/2019	3:50:16	12.09	2.144	1.615	5.72	154.8	-0.7	179.7	19.19
11/6/2019	4:00:16	12.09	2.145	1.616	5.72	154.6	-0.7	179.9	19.21
11/6/2019	4:10:16	12.09	2.144	1.616	5.72	154.5	-0.4	179.8	19.2
11/6/2019	4:20:16	12.09	2.145	1.616	5.72	154.5	-1	180	19.22
11/6/2019	4:30:16	12.09	2.144	1.615	5.72	154.5	-1.1	180.4	19.26
11/6/2019	4:40:16	12.09	2.144	1.615	5.72	154.8	-0.9	180.5	19.28
11/6/2019	4:50:16	12.09	2.144	1.615	5.72	155.2	0	180.3	19.26
11/6/2019	5:00:16	12.09	2.144	1.616	5.71	155.4	-0.2	180	19.22
11/6/2019	5:10:16	12.09	2.143	1.615	5.72	155.6	0.2	180.3	19.26
11/6/2019	5:20:16	12.09	2.144	1.616	5.71	156.1	0.6	180.6	19.29
11/6/2019	5:30:16	12.09	2.144	1.615	5.71	156.6	0.1	180.9	19.32
11/6/2019	5:40:16	12.09	2.144	1.616	5.71	156.6	-0.7	180.9	19.32
11/6/2019	5:50:16	12.09	2.144	1.615	5.71	156.1	-0.5	180.7	19.3
11/6/2019	6:00:16	12.09	2.144	1.615	5.71	155.8	-0.9	180.7	19.3
11/6/2019	6:10:16	12.09	2.144	1.615	5.72	155.6	-0.4	180.7	19.3
11/6/2019	6:20:16	12.09	2.143	1.615	5.71	155.9	-0.4	180.7	19.3
11/6/2019	6:30:16	12.09	2.143	1.615	5.71	156.6	0.2	180.5	19.28
11/6/2019	6:40:16	12.09	2.143	1.614	5.71	157.2	-0.4	180.5	19.27
11/6/2019	6:50:16	12.09	2.142	1.614	5.71	157.2	0.9	179.6	19.18
11/6/2019	7:00:16	12.09	2.141	1.614	5.71	157.2	0.4	179.6	19.18
11/6/2019	7:10:16	12.09	2.142	1.614	5.71	157.2	1.2	179.4	19.16
11/6/2019	7:20:16	12.09	2.141	1.613	5.71	157	1.7	179.3	19.15
11/6/2019	7:30:16	12.09	2.139	1.612	5.71	157	0.3	179.5	19.17
11/6/2019	7:40:16	12.09	2.139	1.611	5.71	157.3	-0.4	179.5	19.18
11/6/2019	7:50:16	12.09	2.139	1.612	5.71	157.3	-0.3	179.7	19.2
11/6/2019	8:00:16	12.09	2.139	1.611	5.71	157.5	-0.3	180.1	19.24
11/6/2019	8:10:16	12.09	2.139	1.612	5.71	157.7	-0.7	180.3	19.26
11/6/2019	8:20:16	12.09	2.139	1.612	5.71	157.5	1.6	180.4	19.27
11/6/2019	8:30:16	12.09	2.138	1.611	5.71	157.1	1.4	180.5	19.28
11/6/2019	8:40:16	12.09	2.138	1.611	5.71	157	1.8	180.3	19.26
11/6/2019	8:50:16	12.09	2.139	1.612	5.71	157.3	1.6	179.9	19.22

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/6/2019	9:00:16	12.09	2.139	1.612	5.71	158.1	0.5	179.6	19.18
11/6/2019	9:10:16	12.09	2.139	1.612	5.71	158.3	-0.1	179.8	19.2
11/6/2019	9:20:16	12.09	2.139	1.611	5.71	158.1	0.2	180.1	19.24
11/6/2019	9:30:16	12.09	2.139	1.611	5.71	158	1.1	180.6	19.28
11/6/2019	9:40:16	12.09	2.139	1.612	5.72	157.7	1.1	180.7	19.3
11/6/2019	9:50:16	12.09	2.139	1.611	5.72	157.7	1.4	180.5	19.28
11/6/2019	10:00:16	12.09	2.139	1.612	5.71	158.1	0.9	180.6	19.29
11/6/2019	10:10:16	12.09	2.139	1.612	5.71	158.1	0.7	180.5	19.28
11/6/2019	10:20:16	12.09	2.138	1.611	5.72	157.8	0.1	180.5	19.28
11/6/2019	10:30:16	12.09	2.138	1.611	5.72	157.7	0.3	180.6	19.29
11/6/2019	10:40:16	12.09	2.138	1.611	5.72	157.5	1.1	180.6	19.29
11/6/2019	10:50:16	12.09	2.138	1.611	5.72	157.3	1.3	180.6	19.29
11/6/2019	11:00:16	12.09	2.137	1.61	5.72	157.2	1.1	180.3	19.26
11/6/2019	11:10:16	12.09	2.136	1.61	5.72	157.2	1.4	180.2	19.25
11/6/2019	11:20:16	12.09	2.137	1.61	5.72	157	0.6	180.2	19.25
11/6/2019	11:30:16	12.09	2.136	1.61	5.72	156.9	0.3	180	19.22
11/6/2019	11:40:16	12.09	2.137	1.61	5.72	156.7	1.4	180	19.22
11/6/2019	11:50:16	12.09	2.137	1.61	5.72	156.7	1	179.6	19.18
11/6/2019	12:00:16	12.09	2.137	1.61	5.72	156.7	0.9	179.3	19.15
11/6/2019	12:10:16	12.09	2.136	1.61	5.72	157	0.7	179.4	19.16
11/6/2019	12:20:16	12.09	2.137	1.61	5.72	157.4	1	179.5	19.18
11/6/2019	12:30:16	12.09	2.137	1.61	5.72	157.5	0.9	180.1	19.24
11/6/2019	12:40:16	12.09	2.136	1.609	5.72	157.4	1.4	180.1	19.24
11/6/2019	12:50:16	12.09	2.137	1.61	5.72	157.5	-0.3	180.2	19.25
11/6/2019	13:00:16	12.09	2.137	1.61	5.72	157.4	-0.4	180.2	19.25
11/6/2019	13:10:16	12.09	2.137	1.61	5.72	157.2	-0.5	180.1	19.23
11/6/2019	13:20:16	12.09	2.136	1.61	5.72	157.2	-0.7	180.4	19.27
11/6/2019	13:30:16	12.09	2.136	1.61	5.72	157	0.2	180.7	19.3
11/6/2019	13:40:16	12.09	2.136	1.61	5.72	157	0.6	180.7	19.31
11/6/2019	13:50:16	12.09	2.137	1.61	5.72	156.9	1.7	180.7	19.3
11/6/2019	14:00:16	12.09	2.136	1.609	5.72	156.7	0.1	180.5	19.28
11/6/2019	14:10:16	12.09	2.137	1.61	5.73	156.6	1.7	180	19.23
11/6/2019	14:20:16	12.09	2.137	1.61	5.72	156.4	1.9	180.2	19.25
11/6/2019	14:30:16	12.09	2.135	1.609	5.73	156.3	1.8	180.4	19.27
11/6/2019	14:40:16	12.09	2.136	1.609	5.73	156.2	2	180.4	19.27
11/6/2019	14:50:16	12.09	2.135	1.608	5.72	156.3	2	180.4	19.27
11/6/2019	15:00:16	12.09	2.135	1.608	5.72	156.6	1.7	180.4	19.27

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/6/2019	15:10:16	12.09	2.134	1.608	5.72	156.7	0.3	180.2	19.24
11/6/2019	15:20:16	12.09	2.135	1.608	5.72	156.8	0.7	179.6	19.19
11/6/2019	15:30:16	12.09	2.135	1.609	5.72	156.9	0.7	179.6	19.18
11/6/2019	15:40:16	12.09	2.135	1.609	5.72	156.9	0.9	179.7	19.2
11/6/2019	15:50:16	12.09	2.135	1.608	5.72	156.7	0.4	179.6	19.18
11/6/2019	16:00:16	12.09	2.134	1.608	5.72	156.7	0.6	179.6	19.19
11/6/2019	16:10:16	12.09	2.135	1.609	5.72	156.6	1.2	179.7	19.2
11/6/2019	16:20:16	12.09	2.135	1.608	5.72	156.4	1.5	179.6	19.19
11/6/2019	16:30:16	12.09	2.135	1.608	5.72	156.6	0.7	179.5	19.17
11/6/2019	16:40:16	12.09	2.134	1.608	5.72	156.4	0.2	179.4	19.16
11/6/2019	16:50:16	12.09	2.134	1.608	5.72	156.4	0.4	179.2	19.14
11/6/2019	17:00:16	12.09	2.133	1.607	5.72	156.5	0.9	178.9	19.11
11/6/2019	17:10:16	12.09	2.133	1.607	5.72	156.6	0	179.2	19.14
11/6/2019	17:20:16	12.09	2.133	1.607	5.72	156.7	-0.4	180.4	19.27
11/6/2019	17:30:16	12.09	2.133	1.607	5.72	156.6	0.4	181	19.34
11/6/2019	17:40:16	12.09	2.133	1.607	5.72	156.6	-0.4	180.9	19.33
11/6/2019	17:50:16	12.09	2.131	1.605	5.72	156.6	-0.4	180.5	19.28
11/6/2019	18:00:16	12.09	2.131	1.605	5.72	156.7	0	180.3	19.26
11/6/2019	18:10:16	12.09	2.13	1.605	5.72	156.7	-0.4	180.5	19.28
11/6/2019	18:20:16	12.09	2.13	1.605	5.71	156.6	-0.2	180.6	19.29
11/6/2019	18:30:16	12.09	2.13	1.605	5.71	156.6	-0.2	180.7	19.3
11/6/2019	18:40:16	12.09	2.13	1.605	5.71	156.6	0.6	180.7	19.31
11/6/2019	18:50:16	12.09	2.13	1.605	5.72	156.6	1.7	180.7	19.3
11/6/2019	19:00:16	12.09	2.13	1.605	5.71	156.6	1.2	180.7	19.31
11/6/2019	19:10:16	12.09	2.13	1.605	5.71	156.7	0.4	180.9	19.32
11/6/2019	19:20:16	12.09	2.13	1.605	5.71	156.7	0.3	181.1	19.34
11/6/2019	19:30:16	12.09	2.13	1.605	5.71	156.6	-0.2	181	19.34
11/6/2019	19:40:16	12.09	2.129	1.604	5.71	156.6	1.5	180.8	19.31
11/6/2019	19:50:16	12.09	2.129	1.604	5.71	156.6	0.6	180.6	19.29
11/6/2019	20:00:16	12.09	2.129	1.604	5.71	156.5	0.1	180.9	19.32
11/6/2019	20:10:16	12.09	2.129	1.604	5.71	156.6	0.3	181.2	19.36
11/6/2019	20:20:16	12.09	2.129	1.604	5.71	156.5	-0.2	181.3	19.36
11/6/2019	20:30:16	12.09	2.128	1.603	5.71	156.4	1.1	180.9	19.32
11/6/2019	20:40:16	12.09	2.129	1.604	5.71	156.3	0.6	180.6	19.29
11/6/2019	20:50:16	12.09	2.127	1.603	5.71	156.5	1.8	180.5	19.28
11/6/2019	21:00:16	12.09	2.128	1.603	5.71	156.5	0.8	180.4	19.27
11/6/2019	21:10:16	12.09	2.127	1.603	5.71	156.4	0.1	179.8	19.21

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/6/2019	21:20:16	12.09	2.127	1.603	5.71	156.4	1.1	179.8	19.21
11/6/2019	21:30:16	12.09	2.128	1.603	5.71	156.5	0.9	179.7	19.2
11/6/2019	21:40:16	12.09	2.127	1.602	5.71	156.4	0.6	179.8	19.2
11/6/2019	21:50:16	12.09	2.127	1.602	5.71	156.4	0.7	180.2	19.25
11/6/2019	22:00:16	12.09	2.127	1.603	5.71	156.5	0.3	180.3	19.26
11/6/2019	22:10:16	12.09	2.127	1.603	5.71	156.7	0.4	180.5	19.28
11/6/2019	22:20:16	12.09	2.127	1.602	5.71	156.6	0	180.6	19.3
11/6/2019	22:30:16	12.09	2.127	1.603	5.71	156.8	0.7	180.3	19.26
11/6/2019	22:40:16	12.09	2.127	1.603	5.71	156.9	0	180.1	19.24
11/6/2019	22:50:16	12.09	2.127	1.603	5.71	156.7	0.1	180.6	19.29
11/6/2019	23:00:16	12.09	2.127	1.602	5.71	156.9	0.4	180.5	19.28
11/6/2019	23:10:16	12.09	2.127	1.602	5.71	157	0.6	180.7	19.31
11/6/2019	23:20:16	12.09	2.126	1.602	5.71	157.2	0.1	180.8	19.32
11/6/2019	23:30:16	12.09	2.126	1.602	5.71	157.1	-0.4	180.8	19.32
11/6/2019	23:40:16	12.09	2.126	1.602	5.71	157	0.1	180.8	19.31
11/6/2019	23:50:16	12.09	2.127	1.603	5.71	156.9	0.5	180.7	19.3
11/7/2019	0:00:16	12.09	2.126	1.602	5.7	157	0.5	181	19.34
11/7/2019	0:10:16	12.09	2.124	1.6	5.7	157	0.8	180.6	19.29
11/7/2019	0:20:16	12.09	2.123	1.599	5.7	157	0.7	180.5	19.28
11/7/2019	0:30:16	12.09	2.122	1.599	5.7	156.9	1.4	180.7	19.3
11/7/2019	0:40:16	12.09	2.122	1.599	5.7	157	0.1	180.8	19.32
11/7/2019	0:50:16	12.09	2.123	1.599	5.7	156.9	0	180.9	19.32
11/7/2019	1:00:16	12.09	2.121	1.598	5.7	157	0	180.7	19.3
11/7/2019	1:10:16	12.09	2.122	1.599	5.69	157.3	0.5	180.5	19.29
11/7/2019	1:20:16	12.09	2.122	1.598	5.69	157.3	-0.8	180.2	19.26
11/7/2019	1:30:16	12.09	2.121	1.598	5.69	157.3	-0.6	179.6	19.19
11/7/2019	1:40:16	12.09	2.121	1.598	5.69	157.3	0	179.1	19.13
11/7/2019	1:50:16	12.09	2.121	1.598	5.69	157.3	0.3	179.1	19.13
11/7/2019	2:00:16	12.09	2.119	1.596	5.69	157.5	0.1	179.2	19.14
11/7/2019	2:10:16	12.09	2.035	1.533	5.69	157.3	1.4	179.3	19.16
11/7/2019	2:20:16	12.09	2.033	1.531	5.69	157.3	0.6	179.3	19.16
11/7/2019	2:30:16	12.09	2.032	1.531	5.69	157.3	0.9	179.4	19.18
11/7/2019	2:40:16	12.09	2.031	1.53	5.69	157.2	1.4	179.5	19.18
11/7/2019	2:50:16	12.09	2.031	1.53	5.69	157.3	0.6	179.8	19.21
11/7/2019	3:00:16	12.09	2.031	1.53	5.69	157.3	0.5	180.3	19.27
11/7/2019	3:10:16	12.09	2.031	1.53	5.69	157.3	-0.2	180.7	19.31
11/7/2019	3:20:16	12.09	2.031	1.53	5.69	157.2	0.6	180.7	19.31

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/7/2019	3:30:16	12.09	2.031	1.53	5.69	157	1.2	180.4	19.28
11/7/2019	3:40:16	12.09	2.03	1.53	5.69	156.9	0.3	180.3	19.26
11/7/2019	3:50:16	12.09	2.031	1.53	5.69	156.8	-0.1	180	19.24
11/7/2019	4:00:16	12.09	2.03	1.529	5.69	156.8	-0.3	180	19.23
11/7/2019	4:10:16	12.09	2.03	1.529	5.69	156.9	0	180.2	19.25
11/7/2019	4:20:16	12.09	2.03	1.529	5.69	156.9	0.4	180.6	19.3
11/7/2019	4:30:16	12.09	2.03	1.529	5.69	156.9	0.3	180.8	19.32
11/7/2019	4:40:16	12.09	2.03	1.529	5.69	157	-0.8	180.8	19.32
11/7/2019	4:50:16	12.09	2.03	1.529	5.69	157.2	-0.4	180.6	19.3
11/7/2019	5:00:16	12.09	2.03	1.529	5.69	157.3	0.1	180.5	19.29
11/7/2019	5:10:16	12.09	2.029	1.529	5.69	157.3	-0.2	180.2	19.25
11/7/2019	5:20:16	12.09	2.03	1.529	5.7	157.2	0.3	180	19.23
11/7/2019	5:30:16	12.09	2.029	1.529	5.7	157.3	0.3	179.8	19.22
11/7/2019	5:40:16	12.09	2.029	1.529	5.7	157.4	0.7	179.6	19.19
11/7/2019	5:50:16	12.09	2.029	1.529	5.7	157.5	0.7	179.4	19.17
11/7/2019	6:00:16	12.09	2.029	1.529	5.7	157.5	0.2	179.4	19.18
11/7/2019	6:10:16	12.09	2.028	1.528	5.7	157.3	0.3	179.7	19.2
11/7/2019	6:20:16	12.09	2.028	1.528	5.7	157.3	0.6	179.7	19.2
11/7/2019	6:30:16	12.09	2.027	1.527	5.69	157.3	0.2	180.1	19.25
11/7/2019	6:40:16	12.09	2.027	1.527	5.69	157.3	1	180.4	19.27
11/7/2019	6:50:16	12.09	2.026	1.527	5.69	157.3	-0.2	180.3	19.27
11/7/2019	7:00:16	12.09	2.026	1.527	5.69	157.2	-0.3	180.3	19.27
11/7/2019	7:10:16	12.09	2.027	1.527	5.69	157.2	-0.1	180.1	19.25
11/7/2019	7:20:16	12.09	2.026	1.526	5.7	157.3	-0.5	180.2	19.26
11/7/2019	7:30:16	12.09	2.025	1.526	5.7	157.2	0.2	180.3	19.26
11/7/2019	7:40:16	12.09	2.026	1.526	5.7	157.3	0.6	180.2	19.26
11/7/2019	7:50:16	12.09	2.025	1.526	5.7	157.2	0.7	180.2	19.25
11/7/2019	8:00:16	12.09	2.025	1.525	5.7	157	0.3	180.1	19.24
11/7/2019	8:10:16	12.09	2.024	1.525	5.7	157.2	0	180	19.24
11/7/2019	8:20:16	12.09	2.017	1.52	5.7	157.2	-0.1	180.5	19.29
11/7/2019	8:30:16	12.09	2.017	1.52	5.7	157.3	-0.3	180.6	19.3
11/7/2019	8:40:16	12.09	2.016	1.519	5.7	157.3	1.2	180.6	19.3
11/7/2019	8:50:16	12.09	2.017	1.519	5.7	157.3	0.1	181.1	19.35
11/7/2019	9:00:16	12.09	2.016	1.519	5.7	157.1	-0.8	181.1	19.35
11/7/2019	9:10:16	12.09	2.016	1.519	5.7	157.2	0.9	180.6	19.3
11/7/2019	9:20:16	12.09	2.017	1.52	5.7	157.2	0.4	180.2	19.26
11/7/2019	9:30:16	12.09	2.015	1.518	5.69	157.3	0.1	179.9	19.23



**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/7/2019	9:40:16	12.09	2.016	1.519	5.69	157.3	0	180	19.23
11/7/2019	9:50:16	12.09	2.017	1.519	5.7	157.3	-0.4	180.3	19.26
11/7/2019	10:00:16	12.09	2.016	1.519	5.7	157.4	1.1	180.1	19.25
11/7/2019	10:10:16	12.09	2.016	1.519	5.69	157.5	0.7	180.5	19.29
11/7/2019	10:20:16	12.09	2.017	1.52	5.7	157.5	-0.4	180.6	19.3
11/7/2019	10:30:16	12.09	2.016	1.519	5.7	157.3	0.6	180.4	19.27
11/7/2019	10:40:16	12.09	2.015	1.518	5.7	157.3	0.7	179.7	19.2
11/7/2019	10:50:16	12.09	2.012	1.516	5.69	157.5	-0.3	179.9	19.22
11/7/2019	11:00:16	12.09	2.012	1.516	5.69	157.7	-0.5	179.8	19.22
11/7/2019	11:10:16	12.09	2.013	1.516	5.69	157.9	-0.7	180.1	19.24
11/7/2019	11:20:16	12.09	2.012	1.516	5.69	157.8	0.3	180.3	19.27
11/7/2019	11:30:16	12.09	2.012	1.516	5.69	157.8	1	180.5	19.29
11/7/2019	11:40:16	12.09	2.012	1.516	5.69	157.8	0	180.7	19.32
11/7/2019	11:50:16	12.09	2.012	1.516	5.69	157.7	0.9	180.6	19.3
11/7/2019	12:00:16	12.09	2.011	1.515	5.69	157.7	1.2	180.4	19.28
11/7/2019	12:10:16	12.09	2.011	1.515	5.69	157.7	0.8	180.4	19.28
11/7/2019	12:20:16	12.09	2.011	1.515	5.69	157.8	0.4	180.4	19.28
11/7/2019	12:30:16	12.09	2.011	1.515	5.69	157.9	0.2	180.4	19.28
11/7/2019	12:40:16	12.09	2.01	1.515	5.7	157.7	0.6	180.1	19.25
11/7/2019	12:50:16	12.09	2.011	1.515	5.69	157.8	0.1	179.6	19.19
11/7/2019	13:00:16	12.09	2.01	1.514	5.7	157.7	1	179.5	19.18
11/7/2019	13:10:16	12.09	2.01	1.514	5.69	157.8	0.8	179.5	19.19
11/7/2019	13:20:16	12.09	2.01	1.514	5.7	157.7	0.7	179.6	19.19
11/7/2019	13:30:16	12.09	2.01	1.514	5.7	157.8	0.8	179.5	19.18
11/7/2019	13:40:16	12.09	2.01	1.514	5.69	157.8	0.8	179.5	19.19
11/7/2019	13:50:16	12.09	2.008	1.513	5.7	157.7	0.5	179.3	19.16
11/7/2019	14:00:16	12.09	2.01	1.514	5.69	157.9	0.4	179.1	19.14
11/7/2019	14:10:16	12.09	2.009	1.514	5.69	158	0.4	178.6	19.09
11/7/2019	14:20:16	12.09	2.009	1.513	5.68	158	0.6	178.7	19.09
11/7/2019	14:30:16	12.09	2.008	1.513	5.68	158	0	178.8	19.11
11/7/2019	14:40:16	12.09	2.009	1.513	5.68	158	-0.3	179.2	19.15
11/7/2019	14:50:16	12.09	2.009	1.514	5.68	158.1	0	179.5	19.18
11/7/2019	15:00:16	12.09	2.01	1.514	5.69	158	-0.4	179.2	19.15
11/7/2019	15:10:16	12.09	2.008	1.513	5.69	158	-0.5	179.8	19.22
11/7/2019	15:20:16	12.09	2.008	1.513	5.69	158	-0.5	179.9	19.23
11/7/2019	15:30:16	12.09	2.009	1.514	5.69	158	0.1	180.3	19.27
11/7/2019	15:40:16	12.09	2.009	1.514	5.69	158	-0.8	180.3	19.27

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/7/2019	15:50:16	12.09	2.009	1.514	5.69	158.1	-0.4	180	19.24
11/7/2019	16:00:16	12.09	2.009	1.513	5.69	158.3	-0.3	180.1	19.25
11/7/2019	16:10:16	12.09	2.009	1.514	5.68	158.3	1.1	180.1	19.25
11/7/2019	16:20:16	12.09	2.008	1.513	5.68	158.1	1.2	180.4	19.29
11/7/2019	16:30:16	12.09	2.008	1.513	5.69	158.2	0.5	180.6	19.31
11/7/2019	16:40:16	12.09	2.008	1.513	5.69	158.2	-0.2	180.5	19.29
11/7/2019	16:50:16	12.09	2.008	1.513	5.68	158.2	-0.6	180.5	19.29
11/7/2019	17:00:16	12.09	2.008	1.513	5.68	158.3	-0.4	180.7	19.31
11/7/2019	17:10:16	12.09	2.007	1.512	5.68	158.3	0.2	180.7	19.31
11/7/2019	17:20:16	12.09	2.007	1.512	5.68	158.4	-0.2	180.4	19.28
11/7/2019	17:30:16	12.09	2.008	1.513	5.68	158.4	0.4	180.3	19.27
11/7/2019	17:40:16	12.09	2.008	1.512	5.68	158.4	0.1	180.3	19.27
11/7/2019	17:50:16	12.09	2.008	1.513	5.68	158.5	0.6	180.2	19.26
11/7/2019	18:00:16	12.09	2.007	1.512	5.68	158.5	-0.2	179.9	19.23
11/7/2019	18:10:16	12.09	2.006	1.512	5.68	158.6	0.1	179.5	19.19
11/7/2019	18:20:16	12.09	2.006	1.511	5.68	158.4	0.3	178.9	19.12
11/7/2019	18:30:16	12.09	2.005	1.511	5.68	158.4	0.5	178.9	19.12
11/7/2019	18:40:16	12.09	2.004	1.51	5.68	158.4	0.1	179	19.13
11/7/2019	18:50:16	12.09	2.004	1.51	5.68	158.3	-0.3	179.2	19.16
11/7/2019	19:00:16	12.09	2.005	1.51	5.68	158.4	-0.6	179	19.14
11/7/2019	19:10:16	12.09	2.004	1.51	5.68	158.3	0.1	178.8	19.11
11/7/2019	19:20:16	12.09	2.004	1.51	5.68	158.5	0.3	178.7	19.1
11/7/2019	19:30:16	12.09	2.004	1.51	5.68	158.6	-0.7	178.9	19.12
11/7/2019	19:40:16	12.09	2.003	1.509	5.68	158.6	-0.2	179.1	19.14
11/7/2019	19:50:16	12.09	2.003	1.509	5.68	158.6	0.1	179	19.13
11/7/2019	20:00:16	12.09	2.003	1.509	5.68	158.6	-0.6	178.9	19.12
11/7/2019	20:10:16	12.09	2.003	1.509	5.68	158.6	0	178.9	19.12
11/7/2019	20:20:16	12.09	1.999	1.506	5.68	158.6	0.1	178.8	19.11
11/7/2019	20:30:16	12.09	1.999	1.506	5.68	158.6	-0.2	178.9	19.12
11/7/2019	20:40:16	12.09	1.999	1.506	5.68	158.5	-0.3	178.8	19.11
11/7/2019	20:50:16	12.09	1.999	1.506	5.68	158.6	0	178.9	19.12
11/7/2019	21:00:16	12.09	1.998	1.505	5.68	158.5	0.3	179.2	19.15
11/7/2019	21:10:16	12.09	1.998	1.505	5.67	158.6	-0.2	179.4	19.17
11/7/2019	21:20:16	12.09	1.998	1.505	5.67	158.6	-0.2	180.1	19.25
11/7/2019	21:30:16	12.09	1.998	1.505	5.67	158.6	0	180	19.24
11/7/2019	21:40:16	12.09	1.998	1.505	5.67	158.6	0.7	179.3	19.17
11/7/2019	21:50:16	12.09	1.997	1.505	5.67	158.7	0.6	179	19.14

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/7/2019	22:00:16	12.09	1.997	1.505	5.67	158.8	0.3	178.7	19.1
11/7/2019	22:10:16	12.09	1.997	1.505	5.67	158.8	-0.2	178.5	19.08
11/7/2019	22:20:16	12.09	1.997	1.505	5.67	158.8	0.3	178.5	19.07
11/7/2019	22:30:16	12.09	1.997	1.504	5.67	158.8	-0.1	178.6	19.09
11/7/2019	22:40:16	12.09	1.997	1.504	5.67	158.8	0.1	179.6	19.2
11/7/2019	22:50:16	12.09	1.997	1.504	5.67	158.8	0.1	180.1	19.25
11/7/2019	23:00:16	12.09	1.997	1.504	5.67	158.8	0	180.6	19.3
11/7/2019	23:10:16	12.09	1.997	1.505	5.67	158.8	0.6	180.7	19.32
11/7/2019	23:20:16	12.09	1.997	1.504	5.67	158.6	0.5	181	19.35
11/7/2019	23:30:16	12.09	1.997	1.505	5.67	158.9	0.3	180.7	19.32
11/7/2019	23:40:16	12.09	1.997	1.505	5.67	159	-0.2	180.7	19.31
11/7/2019	23:50:16	12.09	1.997	1.505	5.67	158.9	-0.1	180.5	19.29
11/8/2019	0:00:16	12.09	1.997	1.504	5.67	158.9	-0.4	180.3	19.27
11/8/2019	0:10:16	12.09	1.997	1.505	5.67	159	-0.4	180.2	19.26
11/8/2019	0:20:16	12.09	1.997	1.505	5.68	158.9	-0.3	179.9	19.23
11/8/2019	0:30:16	12.09	1.996	1.504	5.67	159.1	-0.2	179.6	19.2
11/8/2019	0:40:16	12.09	1.997	1.504	5.67	159.1	-0.5	179.4	19.17
11/8/2019	0:50:16	12.09	1.996	1.504	5.68	159	1	179.4	19.18
11/8/2019	1:00:16	12.09	1.996	1.504	5.68	159	0	179.4	19.17
11/8/2019	1:10:16	12.09	1.996	1.504	5.68	158.9	-0.2	179.8	19.22
11/8/2019	1:20:16	12.09	1.996	1.504	5.68	159.1	-0.3	179.9	19.23
11/8/2019	1:30:16	12.09	1.996	1.504	5.68	159.1	-0.4	180.2	19.26
11/8/2019	1:40:16	12.09	1.996	1.504	5.68	159.1	-0.8	180.3	19.27
11/8/2019	1:50:16	12.09	1.996	1.504	5.68	159.1	0.1	180.2	19.26
11/8/2019	2:00:16	12.09	1.996	1.504	5.68	159.1	0.9	180.3	19.27
11/8/2019	2:10:16	12.09	1.996	1.504	5.68	159	0.6	180	19.24
11/8/2019	2:20:16	12.09	1.996	1.503	5.68	159	0.4	179.7	19.21
11/8/2019	2:30:16	12.09	1.996	1.504	5.68	159.1	-0.1	179.3	19.17
11/8/2019	2:40:16	12.09	1.995	1.503	5.69	159.1	-0.1	179.1	19.14
11/8/2019	2:50:16	12.09	1.996	1.503	5.69	159.1	-0.4	179.1	19.14
11/8/2019	3:00:16	12.08	1.996	1.503	5.68	159.1	-0.5	180.1	19.25
11/8/2019	3:10:16	12.08	1.996	1.504	5.68	159.2	-0.6	180.3	19.27
11/8/2019	3:20:16	12.09	1.995	1.503	5.69	159.1	-0.7	180.4	19.28
11/8/2019	3:30:16	12.08	1.995	1.503	5.69	159.1	-0.7	180.8	19.32
11/8/2019	3:40:16	12.09	1.995	1.503	5.69	159.1	0.8	180.8	19.32
11/8/2019	3:50:16	12.09	1.995	1.503	5.69	159.2	0.5	180.6	19.31
11/8/2019	4:00:16	12.09	1.995	1.503	5.69	159.2	0.1	180.4	19.29

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/8/2019	4:10:16	12.09	1.995	1.503	5.69	159.1	-0.2	180.4	19.28
11/8/2019	4:20:16	12.09	1.995	1.503	5.69	159.2	-0.2	180.5	19.3
11/8/2019	4:30:16	12.09	1.995	1.503	5.69	159.1	-0.3	180.7	19.31
11/8/2019	4:40:16	12.09	1.994	1.502	5.69	159.1	0.1	180.8	19.32
11/8/2019	4:50:16	12.08	1.994	1.502	5.68	159.2	0.7	180.5	19.29
11/8/2019	5:00:16	12.09	1.994	1.502	5.68	159.2	0.7	180.6	19.3
11/8/2019	5:10:16	12.09	1.994	1.502	5.68	159.2	0.8	180.8	19.33
11/8/2019	5:20:16	12.09	1.994	1.502	5.68	159.1	0.6	180.4	19.28
11/8/2019	5:30:16	12.08	1.995	1.503	5.68	159.1	0.6	180.2	19.26
11/8/2019	5:40:16	12.09	1.994	1.502	5.68	159.2	0.1	179.8	19.21
11/8/2019	5:50:16	12.09	1.994	1.503	5.68	159.5	0.1	180.4	19.28
11/8/2019	6:00:16	12.08	1.994	1.502	5.68	159.7	0	180.4	19.28
11/8/2019	6:10:16	12.09	1.994	1.502	5.68	159.6	-0.2	180.4	19.28
11/8/2019	6:20:16	12.09	1.994	1.502	5.68	159.5	0.7	180	19.24
11/8/2019	6:30:16	12.09	1.994	1.502	5.68	159.5	-0.7	180.1	19.25
11/8/2019	6:40:16	12.08	1.994	1.502	5.68	159.5	-0.5	179.6	19.2
11/8/2019	6:50:16	12.09	1.995	1.503	5.68	159.5	-0.5	179.9	19.23
11/8/2019	7:00:16	12.09	1.994	1.502	5.68	159.5	0.3	180	19.24
11/8/2019	7:10:16	12.09	1.994	1.502	5.68	159.5	0.6	180	19.24
11/8/2019	7:20:16	12.09	1.994	1.502	5.68	159.6	0.5	179.9	19.23
11/8/2019	7:30:16	12.09	1.993	1.502	5.68	159.7	-0.1	180.1	19.25
11/8/2019	7:40:16	12.08	1.995	1.503	5.68	159.6	-0.3	180.5	19.3
11/8/2019	7:50:16	12.09	1.994	1.502	5.68	159.5	-0.7	180.2	19.26
11/8/2019	8:00:16	12.08	1.994	1.502	5.68	159.6	-0.8	180.2	19.26
11/8/2019	8:10:16	12.09	1.994	1.502	5.68	159.7	0.6	180	19.24
11/8/2019	8:20:16	12.08	1.994	1.502	5.68	159.7	0.4	179.5	19.18
11/8/2019	8:30:16	12.09	1.993	1.501	5.68	159.7	0.1	179.1	19.15
11/8/2019	8:40:16	12.09	1.994	1.502	5.68	159.7	-0.4	179.4	19.18
11/8/2019	8:50:16	12.09	1.994	1.502	5.68	159.8	-0.2	179.3	19.16
11/8/2019	9:00:16	12.09	1.994	1.502	5.68	159.7	-0.3	179.7	19.21
11/8/2019	9:10:16	12.09	1.994	1.502	5.68	159.7	-0.3	180	19.24
11/8/2019	9:20:16	12.09	1.993	1.502	5.68	159.8	0.6	179.8	19.22
11/8/2019	9:30:16	12.09	1.993	1.502	5.68	159.7	0.6	179.8	19.22
11/8/2019	9:40:16	12.09	1.993	1.502	5.68	159.7	0.4	179.7	19.21
11/8/2019	9:50:16	12.09	1.993	1.502	5.68	159.7	-0.2	179.5	19.19
11/8/2019	10:00:16	12.09	1.993	1.502	5.68	159.7	-0.9	179.5	19.19
11/8/2019	10:10:16	12.09	1.993	1.501	5.68	159.7	0	180.4	19.29

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/8/2019	10:20:16	12.08	1.993	1.502	5.68	159.7	-0.4	180.7	19.31
11/8/2019	10:30:00	12.01	1.997	1.501	5.76	157	-0.3	181.1	19.39
11/8/2019	10:40:16	12.09	1.993	1.502	5.69	159.4	0.4	180.7	19.31
11/8/2019	10:50:16	12.09	1.993	1.502	5.69	159.9	0.1	180.5	19.3
11/8/2019	11:00:16	12.09	1.994	1.502	5.69	159.9	0.1	180.3	19.26
11/8/2019	11:10:16	12.09	1.993	1.501	5.68	160	0.4	180.3	19.27
11/8/2019	11:20:16	12.09	1.992	1.501	5.68	160	0.3	180.5	19.29
11/8/2019	11:30:16	12.09	1.993	1.501	5.68	160	0	180.8	19.32
11/8/2019	11:40:16	12.09	1.993	1.502	5.68	160	-0.5	180.6	19.3
11/8/2019	11:50:16	12.09	1.993	1.502	5.68	160.2	-0.4	180.7	19.32
11/8/2019	12:00:16	12.09	1.992	1.501	5.68	160.3	-0.5	181	19.35
11/8/2019	12:10:16	12.09	1.992	1.501	5.68	160.5	-0.2	181	19.35
11/8/2019	12:20:16	12.09	1.992	1.501	5.68	160.3	0	181.3	19.37
11/8/2019	12:30:16	12.09	1.992	1.501	5.68	160.2	-0.2	181.2	19.37
11/8/2019	12:40:16	12.09	1.992	1.5	5.68	160.2	-0.6	181.3	19.37
11/8/2019	12:50:16	12.09	1.991	1.5	5.68	160.1	-0.7	181.2	19.37
11/8/2019	13:00:16	12.09	1.992	1.501	5.67	160.1	-0.5	181.2	19.37
11/8/2019	13:10:16	12.09	1.991	1.5	5.67	160.2	0.3	180.8	19.32
11/8/2019	13:20:16	12.09	1.992	1.501	5.67	160.2	-0.5	180.5	19.29
11/8/2019	13:30:16	12.09	1.992	1.5	5.67	160.1	-0.4	180.6	19.31
11/8/2019	13:40:16	12.09	1.991	1.5	5.67	160.2	-0.7	180.9	19.33
11/8/2019	13:50:16	12.09	1.991	1.5	5.68	160	-0.8	180.6	19.31
11/8/2019	14:00:16	12.09	1.981	1.492	5.66	160.9	-0.9	180.5	19.29
11/8/2019	14:10:16	12.09	1.963	1.479	5.64	162	0.4	180.1	19.25
11/8/2019	14:20:16	12.09	1.961	1.477	5.63	162.2	0.3	179.8	19.22
11/8/2019	14:30:16	12.09	1.955	1.473	5.63	162.4	0	180	19.24
11/8/2019	14:40:16	12.09	1.955	1.473	5.63	162.4	-0.6	180.1	19.25
11/8/2019	14:50:16	12.08	1.953	1.471	5.63	162.5	0	180.3	19.27
11/8/2019	15:00:16	12.08	1.951	1.47	5.63	162.5	-0.4	180.3	19.28
11/8/2019	15:10:16	12.08	1.951	1.47	5.62	162.5	-0.1	180.4	19.28
11/8/2019	15:20:16	12.08	1.951	1.47	5.62	162.6	-0.4	180.4	19.29
11/8/2019	15:30:16	12.08	1.95	1.469	5.62	162.6	-0.5	180.8	19.33
11/8/2019	15:40:16	12.08	1.95	1.469	5.62	162.6	-0.7	180.9	19.34
11/8/2019	15:50:16	12.08	1.948	1.468	5.62	162.7	-0.9	180.9	19.33
11/8/2019	16:00:16	12.08	1.942	1.463	5.61	162.7	-0.7	180.9	19.34
11/8/2019	16:10:16	12.08	1.94	1.461	5.61	162.6	-1	181.1	19.36
11/8/2019	16:20:16	12.09	1.94	1.462	5.61	162.8	0.4	181	19.34

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/8/2019	16:30:16	12.08	1.94	1.461	5.61	163	0	180.4	19.29
11/8/2019	16:40:16	12.08	1.939	1.461	5.61	163	-0.6	180.6	19.31
11/8/2019	16:50:16	12.08	1.939	1.46	5.61	163	0.3	180.7	19.32
11/8/2019	17:00:16	12.08	1.939	1.461	5.61	163.1	0.1	180.8	19.33
11/8/2019	17:10:16	12.08	1.938	1.46	5.6	163.1	0.1	180.7	19.32
11/8/2019	17:20:16	12.08	1.938	1.46	5.6	163.1	0.3	180.9	19.34
11/8/2019	17:30:16	12.08	1.938	1.46	5.6	163.1	0	181.2	19.37
11/8/2019	17:40:16	12.08	1.937	1.459	5.6	163.1	0.1	181.5	19.4
11/8/2019	17:50:16	12.08	1.937	1.459	5.6	163.2	0.1	181.1	19.36
11/8/2019	18:00:16	12.08	1.937	1.459	5.6	163.2	-0.2	180.9	19.34
11/8/2019	18:10:16	12.08	1.937	1.459	5.6	163.3	-1	180.8	19.33
11/8/2019	18:20:16	12.08	1.935	1.457	5.6	163.3	-0.7	180.9	19.34
11/8/2019	18:30:16	12.08	1.933	1.456	5.6	163.3	-0.2	180.7	19.32
11/8/2019	18:40:16	12.08	1.933	1.456	5.6	163.3	0	180.7	19.32
11/8/2019	18:50:16	12.08	1.933	1.456	5.59	163.3	-0.3	180.5	19.3
11/8/2019	19:00:16	12.08	1.933	1.456	5.59	163.4	-0.6	180.2	19.26
11/8/2019	19:10:16	12.08	1.932	1.455	5.59	163.5	0.2	179.8	19.23
11/8/2019	19:20:16	12.08	1.931	1.455	5.59	163.5	0.4	179.5	19.19
11/8/2019	19:30:16	12.08	1.931	1.455	5.59	163.5	-0.2	180.2	19.27
11/8/2019	19:40:16	12.08	1.93	1.454	5.59	163.5	0	180	19.25
11/8/2019	19:50:16	12.08	1.93	1.454	5.59	163.5	-0.4	180.2	19.26
11/8/2019	20:00:16	12.08	1.93	1.454	5.59	163.6	-0.5	180.1	19.25
11/8/2019	20:10:16	12.08	1.93	1.454	5.59	163.6	-0.8	180.4	19.29
11/8/2019	20:20:16	12.08	1.929	1.453	5.58	163.6	-0.8	180.9	19.34
11/8/2019	20:30:16	12.08	1.93	1.453	5.58	163.6	-0.7	181.1	19.36
11/8/2019	20:40:16	12.08	1.929	1.453	5.58	163.6	-0.6	181.1	19.37
11/8/2019	20:50:16	12.08	1.929	1.453	5.58	163.6	-0.4	181.1	19.37
11/8/2019	21:00:16	12.08	1.929	1.453	5.58	163.6	0.3	180.9	19.35
11/8/2019	21:10:16	12.08	1.929	1.453	5.58	163.7	-0.3	180.9	19.34
11/8/2019	21:20:16	12.08	1.928	1.452	5.58	163.7	-0.4	180.6	19.31
11/8/2019	21:30:16	12.08	1.928	1.453	5.58	163.8	-0.2	179.8	19.23
11/8/2019	21:40:16	12.08	1.927	1.452	5.58	163.9	-0.4	179.4	19.18
11/8/2019	21:50:16	12.08	1.927	1.452	5.58	163.9	-0.5	179.3	19.17
11/8/2019	22:00:16	12.08	1.928	1.452	5.58	163.9	0.1	179.7	19.22
11/8/2019	22:10:16	12.08	1.927	1.452	5.58	163.9	-0.1	180.4	19.29
11/8/2019	22:20:16	12.08	1.928	1.452	5.58	163.9	-0.4	180.7	19.32
11/8/2019	22:30:16	12.08	1.928	1.452	5.59	163.9	-0.5	180.7	19.33

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/8/2019	22:40:16	12.08	1.927	1.452	5.59	163.9	0.1	180.8	19.33
11/8/2019	22:50:16	12.08	1.928	1.452	5.59	163.8	-0.6	180.4	19.29
11/8/2019	23:00:16	12.08	1.928	1.452	5.59	163.8	0.1	180.6	19.31
11/8/2019	23:10:16	12.08	1.928	1.452	5.59	163.8	0	180.7	19.33
11/8/2019	23:20:16	12.08	1.927	1.452	5.59	163.9	-0.4	180.6	19.31
11/8/2019	23:30:16	12.08	1.928	1.452	5.59	163.8	-0.6	180.7	19.32
11/8/2019	23:40:16	12.08	1.927	1.452	5.59	163.9	-1	180.8	19.33
11/8/2019	23:50:16	12.08	1.925	1.45	5.59	163.8	0.1	180.9	19.35
11/9/2019	0:00:16	12.08	1.925	1.45	5.59	163.8	0	180.9	19.34
11/9/2019	0:10:16	12.08	1.926	1.45	5.59	163.8	-0.5	180.8	19.33
11/9/2019	0:20:16	12.08	1.925	1.45	5.59	163.8	-0.4	180.5	19.3
11/9/2019	0:30:16	12.08	1.925	1.45	5.59	163.9	-0.5	180.4	19.29
11/9/2019	0:40:16	12.08	1.925	1.45	5.59	163.9	0.2	180.4	19.29
11/9/2019	0:50:16	12.08	1.925	1.45	5.59	163.8	0	180.3	19.27
11/9/2019	1:00:16	12.08	1.925	1.45	5.59	163.9	-0.2	180.2	19.27
11/9/2019	1:10:16	12.08	1.924	1.449	5.59	163.8	0.2	180.4	19.29
11/9/2019	1:20:16	12.08	1.924	1.449	5.59	163.9	0	180.5	19.3
11/9/2019	1:30:16	12.08	1.924	1.449	5.59	163.9	0.6	180.8	19.34
11/9/2019	1:40:16	12.08	1.924	1.449	5.59	163.9	0	180.7	19.32
11/9/2019	1:50:16	12.08	1.924	1.449	5.59	163.9	-0.4	180.4	19.29
11/9/2019	2:00:16	12.08	1.924	1.449	5.59	164	-0.8	180.5	19.29
11/9/2019	2:10:16	12.08	1.925	1.45	5.59	164	-0.8	180.3	19.27
11/9/2019	2:20:16	12.08	1.924	1.449	5.59	164	-0.8	180.1	19.26
11/9/2019	2:30:16	12.08	1.924	1.449	5.59	164	-0.7	180.2	19.26
11/9/2019	2:40:16	12.08	1.924	1.449	5.59	164.1	-0.1	180.8	19.33
11/9/2019	2:50:16	12.08	1.924	1.449	5.59	164	0.1	181	19.35
11/9/2019	3:00:16	12.08	1.924	1.449	5.59	164.1	-0.2	180.9	19.34
11/9/2019	3:10:16	12.08	1.924	1.449	5.59	164.2	-0.6	180.7	19.32
11/9/2019	3:20:16	12.08	1.925	1.449	5.59	164.2	-0.8	180.6	19.31
11/9/2019	3:30:16	12.08	1.925	1.45	5.59	164.2	-0.1	180.5	19.3
11/9/2019	3:40:16	12.08	1.924	1.449	5.59	164.2	-0.4	180.3	19.28
11/9/2019	3:50:16	12.08	1.924	1.449	5.59	164.4	-0.5	180.1	19.26
11/9/2019	4:00:16	12.08	1.924	1.449	5.59	164.3	-0.7	180.3	19.28
11/9/2019	4:10:16	12.08	1.924	1.449	5.59	164.3	-0.4	180.4	19.29
11/9/2019	4:20:16	12.08	1.923	1.448	5.59	164.3	-0.9	180.5	19.3
11/9/2019	4:30:16	12.08	1.923	1.449	5.59	164.3	-0.7	180.5	19.3
11/9/2019	4:40:16	12.08	1.923	1.448	5.59	164.2	-0.4	180.9	19.34

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/9/2019	4:50:16	12.07	1.924	1.449	5.59	164.2	-0.4	180.9	19.35
11/9/2019	5:00:16	12.08	1.924	1.449	5.59	164.3	-0.1	180.5	19.31
11/9/2019	5:10:16	12.08	1.923	1.449	5.59	164.2	-0.5	180	19.24
11/9/2019	5:20:16	12.08	1.923	1.448	5.59	164.2	-1	179.7	19.21
11/9/2019	5:30:16	12.07	1.924	1.449	5.59	164.3	0.3	180	19.25
11/9/2019	5:40:16	12.07	1.924	1.449	5.59	164.3	0	179.9	19.24
11/9/2019	5:50:16	12.07	1.923	1.449	5.59	164.3	-0.2	179.9	19.24
11/9/2019	6:00:16	12.07	1.923	1.448	5.59	164.4	-0.5	179.9	19.24
11/9/2019	6:10:16	12.07	1.923	1.449	5.59	164.4	-0.5	179.8	19.22
11/9/2019	6:20:16	12.07	1.923	1.448	5.59	164.4	-0.9	179.7	19.21
11/9/2019	6:30:16	12.07	1.923	1.448	5.59	164.4	0.1	179.6	19.21
11/9/2019	6:40:16	12.07	1.922	1.448	5.59	164.4	0.1	179.1	19.15
11/9/2019	6:50:16	12.07	1.922	1.448	5.59	164.4	0.1	179.4	19.19
11/9/2019	7:00:16	12.07	1.922	1.448	5.59	164.5	0	180.3	19.28
11/9/2019	7:10:16	12.07	1.922	1.447	5.59	164.4	-0.4	180.5	19.3
11/9/2019	7:20:16	12.07	1.922	1.447	5.59	164.4	-0.7	180.4	19.29
11/9/2019	7:30:16	12.07	1.921	1.447	5.59	164.4	-1	180.2	19.28
11/9/2019	7:40:16	12.07	1.922	1.447	5.59	164.5	-0.5	180	19.25
11/9/2019	7:50:16	12.07	1.921	1.447	5.59	164.6	-1.3	180	19.25
11/9/2019	8:00:16	12.07	1.921	1.447	5.59	164.5	-0.3	180.3	19.28
11/9/2019	8:10:16	12.07	1.922	1.447	5.59	164.4	-0.1	180.6	19.32
11/9/2019	8:20:16	12.07	1.923	1.448	5.59	164.6	0.1	179.9	19.24
11/9/2019	8:30:16	12.07	1.922	1.447	5.59	164.6	-0.2	179.6	19.2
11/9/2019	8:40:16	12.07	1.922	1.447	5.59	164.6	-0.3	179.5	19.2
11/9/2019	8:50:16	12.07	1.921	1.447	5.59	164.6	-0.4	179.2	19.17
11/9/2019	9:00:16	12.07	1.922	1.447	5.59	164.5	0.1	179.1	19.16
11/9/2019	9:10:16	12.07	1.922	1.447	5.59	164.6	0.1	178.5	19.09
11/9/2019	9:20:16	12.07	1.921	1.446	5.59	164.6	-0.4	178.5	19.1
11/9/2019	9:30:16	12.07	1.921	1.447	5.59	164.6	0	179.1	19.16
11/9/2019	9:40:16	12.07	1.922	1.447	5.59	164.6	0.1	179.2	19.16
11/9/2019	9:50:16	12.07	1.921	1.447	5.59	164.6	-0.2	179.1	19.16
11/9/2019	10:00:16	12.07	1.921	1.447	5.59	164.7	-0.2	179.1	19.15
11/9/2019	10:10:16	12.07	1.922	1.447	5.59	164.7	-0.4	179.3	19.17
11/9/2019	10:20:16	12.07	1.921	1.446	5.59	164.7	-0.8	179.3	19.17
11/9/2019	10:30:16	12.07	1.921	1.447	5.59	164.7	-0.7	179.2	19.17
11/9/2019	10:40:16	12.07	1.921	1.446	5.59	164.7	-0.4	179	19.14
11/9/2019	10:50:16	12.07	1.921	1.446	5.59	164.7	-0.4	179	19.14



**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/9/2019	11:00:16	12.06	1.922	1.447	5.59	164.6	-0.5	178.9	19.14
11/9/2019	11:10:16	12.07	1.922	1.447	5.59	164.7	0	179.3	19.17
11/9/2019	11:20:16	12.06	1.921	1.447	5.59	164.7	-0.4	179.3	19.18
11/9/2019	11:30:16	12.06	1.921	1.446	5.59	164.7	-0.5	179.6	19.21
11/9/2019	11:40:16	12.06	1.919	1.445	5.59	164.7	-0.4	180.3	19.28
11/9/2019	11:50:16	12.06	1.919	1.445	5.59	164.7	-0.5	180.7	19.32
11/9/2019	12:00:16	12.06	1.918	1.444	5.6	164.6	-0.8	180.9	19.35
11/9/2019	12:10:16	12.06	1.918	1.444	5.59	164.7	-1.3	180.9	19.35
11/9/2019	12:20:16	12.06	1.918	1.444	5.59	164.7	-0.1	180.9	19.35
11/9/2019	12:30:16	12.06	1.919	1.444	5.6	164.7	-1.4	180.5	19.31
11/9/2019	12:40:16	12.06	1.918	1.444	5.6	164.7	0	180.2	19.28
11/9/2019	12:50:16	12.06	1.919	1.444	5.6	164.7	-0.1	180	19.26
11/9/2019	13:00:16	12.06	1.918	1.444	5.6	164.7	-0.2	179.9	19.25
11/9/2019	13:10:16	12.06	1.919	1.444	5.6	164.7	-0.5	180	19.25
11/9/2019	13:20:16	12.06	1.918	1.444	5.6	164.7	-0.7	180	19.26
11/9/2019	13:30:16	12.06	1.918	1.444	5.6	164.7	-0.8	180.1	19.27
11/9/2019	13:40:16	12.06	1.918	1.444	5.6	164.7	-1	180.4	19.29
11/9/2019	13:50:16	12.06	1.918	1.444	5.6	164.7	-0.5	180.4	19.29
11/9/2019	14:00:16	12.06	1.919	1.444	5.6	164.7	-1.3	180.2	19.28
11/9/2019	14:10:16	12.06	1.919	1.445	5.59	164.7	0	180.1	19.27
11/9/2019	14:20:16	12.06	1.918	1.444	5.6	164.7	-0.3	179.9	19.24
11/9/2019	14:30:16	12.06	1.918	1.444	5.6	164.7	-0.2	179.8	19.23
11/9/2019	14:40:16	12.06	1.918	1.444	5.59	164.7	-0.4	180	19.26
11/9/2019	14:50:16	12.06	1.919	1.445	5.6	164.7	-0.1	180	19.25
11/9/2019	15:00:16	12.06	1.918	1.444	5.6	164.7	-0.2	180.1	19.27
11/9/2019	15:10:16	12.06	1.918	1.444	5.6	164.7	-0.8	180.7	19.33
11/9/2019	15:20:16	12.06	1.918	1.444	5.6	164.8	-0.7	181.1	19.38
11/9/2019	15:30:16	12.06	1.918	1.444	5.6	164.7	0	181.1	19.37
11/9/2019	15:40:16	12.06	1.919	1.444	5.6	164.8	0	181.1	19.37
11/9/2019	15:50:16	12.06	1.918	1.444	5.6	164.8	-0.2	180.4	19.3
11/9/2019	16:00:16	12.06	1.919	1.444	5.6	164.8	-0.5	179.9	19.25
11/9/2019	16:10:16	12.06	1.918	1.444	5.59	164.9	-0.6	180	19.26
11/9/2019	16:20:16	12.06	1.919	1.445	5.59	164.8	-0.7	180.5	19.31
11/9/2019	16:30:16	12.06	1.918	1.444	5.59	164.9	-0.2	180.7	19.33
11/9/2019	16:40:16	12.06	1.918	1.444	5.6	164.7	-0.3	180.8	19.34
11/9/2019	16:50:16	12.06	1.918	1.444	5.6	164.8	-0.5	180.7	19.33
11/9/2019	17:00:16	12.06	1.918	1.444	5.6	164.8	-0.4	180.3	19.29

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/9/2019	17:10:16	12.06	1.918	1.444	5.6	164.8	-0.1	180.8	19.34
11/9/2019	17:20:16	12.06	1.918	1.444	5.59	164.8	-0.4	180.9	19.35
11/9/2019	17:30:16	12.06	1.918	1.444	5.59	164.9	-0.8	180.6	19.32
11/9/2019	17:40:16	12.06	1.918	1.444	5.59	164.9	-1.1	180.6	19.32
11/9/2019	17:50:16	12.06	1.918	1.444	5.59	164.9	-0.8	181	19.36
11/9/2019	18:00:16	12.06	1.918	1.444	5.59	164.9	-0.8	181.1	19.38
11/9/2019	18:10:16	12.06	1.918	1.444	5.59	165	-0.7	180.5	19.31
11/9/2019	18:20:16	12.06	1.918	1.444	5.59	164.9	-0.2	180.5	19.3
11/9/2019	18:30:16	12.06	1.918	1.444	5.59	164.9	0.1	180.5	19.31
11/9/2019	18:40:16	12.06	1.918	1.444	5.59	164.9	-1	180.5	19.31
11/9/2019	18:50:16	12.06	1.918	1.444	5.59	164.9	0	180.4	19.3
11/9/2019	19:00:16	12.06	1.917	1.443	5.59	165	-0.1	180.2	19.28
11/9/2019	19:10:16	12.06	1.918	1.444	5.59	165	-0.4	180.3	19.29
11/9/2019	19:20:16	12.06	1.918	1.444	5.59	165	-0.7	180.4	19.29
11/9/2019	19:30:16	12.06	1.918	1.443	5.59	165	-0.7	180.2	19.27
11/9/2019	19:40:16	12.06	1.918	1.444	5.59	165	-1	179.8	19.24
11/9/2019	19:50:16	12.06	1.918	1.444	5.59	165	-0.9	179.4	19.19
11/9/2019	20:00:16	12.06	1.918	1.444	5.59	165	-0.7	179.2	19.17
11/9/2019	20:10:16	12.06	1.917	1.443	5.59	165	-0.4	179.4	19.2
11/9/2019	20:20:16	12.06	1.917	1.443	5.59	165	-1	179.4	19.19
11/9/2019	20:30:16	12.06	1.917	1.443	5.59	165	-0.9	179.6	19.21
11/9/2019	20:40:16	12.06	1.918	1.444	5.59	165	-1.2	179.8	19.23
11/9/2019	20:50:16	12.06	1.918	1.444	5.59	165	-1.5	180.1	19.27
11/9/2019	21:00:16	12.05	1.918	1.444	5.59	165	-1.4	180	19.25
11/9/2019	21:10:16	12.06	1.917	1.443	5.59	165.1	-0.4	180	19.26
11/9/2019	21:20:16	12.06	1.918	1.444	5.59	165.1	-0.3	180	19.25
11/9/2019	21:30:16	12.05	1.918	1.444	5.59	165.2	-0.5	180	19.26
11/9/2019	21:40:16	12.06	1.917	1.443	5.59	165.2	-0.2	180.2	19.28
11/9/2019	21:50:16	12.06	1.917	1.443	5.59	165.2	-0.4	180.3	19.29
11/9/2019	22:00:16	12.06	1.917	1.443	5.59	165.2	-0.3	180.4	19.3
11/9/2019	22:10:16	12.06	1.916	1.442	5.59	165.3	-0.2	180.8	19.34
11/9/2019	22:20:16	12.05	1.916	1.442	5.59	165.3	-0.4	180.5	19.32
11/9/2019	22:30:16	12.06	1.917	1.443	5.59	165.3	-0.1	180.6	19.32
11/9/2019	22:40:16	12.06	1.917	1.443	5.59	165.3	-0.3	180.8	19.34
11/9/2019	22:50:16	12.06	1.917	1.443	5.59	165.3	-0.5	180.9	19.35
11/9/2019	23:00:16	12.05	1.917	1.443	5.59	165.3	-0.4	180.4	19.3
11/9/2019	23:10:16	12.05	1.917	1.443	5.59	165.3	-0.4	181	19.36

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/9/2019	23:20:16	12.05	1.916	1.442	5.59	165.5	-0.9	180.8	19.35
11/9/2019	23:30:16	12.06	1.918	1.444	5.59	165.4	-1.3	180.2	19.27
11/9/2019	23:40:16	12.06	1.917	1.443	5.59	165.4	-1.3	179.6	19.22
11/9/2019	23:50:16	12.06	1.917	1.443	5.59	165.3	-0.7	180	19.26
11/10/2019	0:00:16	12.06	1.916	1.443	5.58	165.4	-1	180.8	19.34
11/10/2019	0:10:16	12.05	1.917	1.443	5.58	165.4	-0.4	181.1	19.38
11/10/2019	0:20:16	12.06	1.916	1.443	5.59	165.4	-0.4	181.3	19.4
11/10/2019	0:30:16	12.05	1.916	1.443	5.59	165.4	-0.6	181.2	19.38
11/10/2019	0:40:16	12.06	1.917	1.443	5.59	165.3	-1.1	181.1	19.37
11/10/2019	0:50:16	12.06	1.917	1.443	5.59	165.3	-1.3	180.7	19.33
11/10/2019	1:00:16	12.06	1.916	1.442	5.59	165.3	-0.8	180.1	19.27
11/10/2019	1:10:16	12.05	1.916	1.443	5.59	165.3	-0.3	179.7	19.22
11/10/2019	1:20:16	12.06	1.917	1.443	5.59	165.3	-0.4	179.8	19.23
11/10/2019	1:30:16	12.06	1.917	1.443	5.59	165.3	-0.2	179.6	19.22
11/10/2019	1:40:16	12.05	1.917	1.443	5.59	165.4	-0.7	179.3	19.18
11/10/2019	1:50:16	12.06	1.918	1.444	5.59	165.4	-0.7	179.2	19.17
11/10/2019	2:00:16	12.05	1.916	1.443	5.59	165.4	-0.7	179.4	19.19
11/10/2019	2:10:16	12.06	1.916	1.443	5.59	165.5	-0.9	179.6	19.22
11/10/2019	2:20:16	12.06	1.917	1.443	5.59	165.4	-0.9	179.9	19.25
11/10/2019	2:30:16	12.05	1.917	1.443	5.59	165.3	-0.7	179.8	19.23
11/10/2019	2:40:16	12.05	1.917	1.443	5.59	165.3	-0.5	179.7	19.22
11/10/2019	2:50:16	12.06	1.917	1.443	5.59	165.4	-0.2	179.4	19.2
11/10/2019	3:00:16	12.05	1.916	1.442	5.59	165.4	-0.5	179.3	19.18
11/10/2019	3:10:16	12.05	1.916	1.442	5.59	165.4	-0.5	179.4	19.2
11/10/2019	3:20:16	12.05	1.916	1.442	5.59	165.4	-0.6	179.9	19.25
11/10/2019	3:30:16	12.05	1.916	1.442	5.59	165.5	-0.5	180.2	19.28
11/10/2019	3:40:16	12.05	1.917	1.443	5.59	165.4	-0.2	180.6	19.32
11/10/2019	3:50:16	12.05	1.916	1.442	5.58	165.4	-0.5	180.9	19.36
11/10/2019	4:00:16	12.05	1.916	1.443	5.59	165.4	-0.1	181	19.37
11/10/2019	4:10:16	12.06	1.916	1.442	5.58	165.4	-0.3	181.2	19.38
11/10/2019	4:20:16	12.05	1.915	1.442	5.58	165.3	-0.3	181.2	19.39
11/10/2019	4:30:16	12.05	1.916	1.443	5.58	165.3	-0.4	181.1	19.38
11/10/2019	4:40:16	12.05	1.916	1.442	5.58	165.4	-0.4	181.3	19.39
11/10/2019	4:50:16	12.05	1.916	1.442	5.58	165.3	-0.4	181.5	19.41
11/10/2019	5:00:16	12.05	1.916	1.442	5.58	165.5	-0.9	181.5	19.42
11/10/2019	5:10:16	12.05	1.916	1.442	5.58	165.4	-0.5	181.2	19.39
11/10/2019	5:20:16	12.05	1.916	1.442	5.59	165.4	-0.8	180.7	19.33

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/10/2019	5:30:16	12.05	1.916	1.442	5.59	165.5	-0.3	180.9	19.35
11/10/2019	5:40:16	12.05	1.916	1.442	5.59	165.5	-1	181	19.36
11/10/2019	5:50:16	12.05	1.915	1.442	5.59	165.4	-0.5	181.2	19.38
11/10/2019	6:00:16	12.05	1.916	1.442	5.59	165.5	-0.8	181.2	19.38
11/10/2019	6:10:16	12.05	1.916	1.442	5.59	165.4	-0.3	180.8	19.34
11/10/2019	6:20:16	12.05	1.916	1.442	5.59	165.3	-0.4	180.2	19.28
11/10/2019	6:30:16	12.05	1.916	1.442	5.59	165.5	-0.8	180.4	19.3
11/10/2019	6:40:16	12.05	1.915	1.441	5.59	165.4	-0.7	180.6	19.32
11/10/2019	6:50:16	12.05	1.916	1.442	5.59	165.5	-1.1	180.8	19.34
11/10/2019	7:00:16	12.05	1.915	1.442	5.59	165.5	-0.9	181.1	19.38
11/10/2019	7:10:16	12.05	1.915	1.442	5.59	165.5	-1.2	181.4	19.41
11/10/2019	7:20:16	12.05	1.915	1.442	5.59	165.5	-1.2	181.4	19.41
11/10/2019	7:30:16	12.05	1.915	1.442	5.59	165.5	-0.5	181.2	19.38
11/10/2019	7:40:16	12.05	1.915	1.441	5.59	165.5	-0.7	180.8	19.34
11/10/2019	7:50:16	12.05	1.915	1.442	5.59	165.6	-0.9	180.9	19.35
11/10/2019	8:00:16	12.05	1.915	1.442	5.59	165.5	-1.3	181	19.37
11/10/2019	8:10:16	12.05	1.915	1.441	5.59	165.5	-1.4	181.3	19.39
11/10/2019	8:20:16	12.05	1.915	1.441	5.59	165.5	-0.2	181.4	19.4
11/10/2019	8:30:16	12.05	1.915	1.441	5.59	165.5	-0.3	181.5	19.41
11/10/2019	8:40:16	12.05	1.916	1.442	5.59	165.5	-0.4	181.4	19.41
11/10/2019	8:50:16	12.05	1.916	1.442	5.59	165.5	-0.3	181.1	19.38
11/10/2019	9:00:16	12.05	1.916	1.442	5.59	165.5	-0.5	180.8	19.34
11/10/2019	9:10:16	12.05	1.917	1.443	5.59	165.4	-0.8	180.7	19.34
11/10/2019	9:20:16	12.05	1.916	1.442	5.59	165.5	-1	180.1	19.27
11/10/2019	9:30:16	12.05	1.916	1.442	5.59	165.5	-0.4	179.7	19.23
11/10/2019	9:40:16	12.05	1.916	1.442	5.59	165.5	-0.2	180.3	19.29
11/10/2019	9:50:16	12.05	1.916	1.442	5.59	165.5	-0.2	180.3	19.29
11/10/2019	10:00:16	12.05	1.915	1.442	5.59	165.6	-0.5	180.4	19.31
11/10/2019	10:10:16	12.05	1.916	1.442	5.59	165.5	-0.7	180.6	19.32
11/10/2019	10:20:16	12.05	1.916	1.442	5.59	165.6	-0.5	180.4	19.3
11/10/2019	10:30:16	12.05	1.916	1.442	5.59	165.6	-0.8	180.2	19.28
11/10/2019	10:40:16	12.05	1.916	1.442	5.59	165.6	-1.1	179.9	19.25
11/10/2019	10:50:16	12.05	1.916	1.442	5.59	165.6	-0.5	180.1	19.27
11/10/2019	11:00:16	12.05	1.916	1.442	5.59	165.6	-0.3	180.2	19.28
11/10/2019	11:10:16	12.05	1.916	1.442	5.59	165.6	-0.5	180.5	19.32
11/10/2019	11:20:16	12.05	1.916	1.442	5.59	165.6	-0.9	180.4	19.3
11/10/2019	11:30:16	12.05	1.916	1.442	5.59	165.6	-0.9	180.1	19.27

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/10/2019	11:40:16	12.05	1.918	1.443	5.59	165.6	-0.7	180.1	19.27
11/10/2019	11:50:16	12.05	1.917	1.443	5.59	165.6	-1.4	180.4	19.31
11/10/2019	12:00:16	12.05	1.917	1.443	5.6	165.6	-0.4	181	19.37
11/10/2019	12:10:16	12.05	1.917	1.443	5.59	165.6	-0.5	181.2	19.39
11/10/2019	12:20:16	12.05	1.918	1.443	5.59	165.6	-0.5	181.3	19.4
11/10/2019	12:30:16	12.05	1.917	1.443	5.59	165.6	-0.8	181.6	19.43
11/10/2019	12:40:16	12.05	1.916	1.442	5.59	165.6	-0.9	181.5	19.42
11/10/2019	12:50:16	12.05	1.917	1.443	5.59	165.5	-0.8	181.6	19.43
11/10/2019	13:00:16	12.05	1.916	1.442	5.59	165.6	-0.5	181.5	19.42
11/10/2019	13:10:16	12.05	1.917	1.443	5.59	165.6	-0.9	181.4	19.4
11/10/2019	13:20:16	12.05	1.917	1.443	5.59	165.6	-0.5	181.3	19.39
11/10/2019	13:30:16	12.05	1.917	1.443	5.59	165.7	-0.4	181.2	19.39
11/10/2019	13:40:16	12.05	1.917	1.443	5.59	165.7	-0.4	180.8	19.34
11/10/2019	13:50:16	12.05	1.916	1.442	5.59	165.8	-0.4	180.3	19.29
11/10/2019	14:00:16	12.05	1.916	1.442	5.59	165.7	-0.8	180.4	19.3
11/10/2019	14:10:16	12.05	1.916	1.442	5.59	165.8	-0.8	180.4	19.3
11/10/2019	14:20:16	12.05	1.917	1.443	5.58	165.8	-1.1	180.1	19.27
11/10/2019	14:30:16	12.05	1.916	1.442	5.58	165.8	-0.8	179.3	19.18
11/10/2019	14:40:16	12.05	1.916	1.442	5.58	165.7	-0.4	179.7	19.23
11/10/2019	14:50:16	12.05	1.916	1.442	5.58	165.7	-0.5	180.4	19.3
11/10/2019	15:00:16	12.05	1.916	1.442	5.58	165.8	-0.7	180.8	19.34
11/10/2019	15:10:16	12.05	1.916	1.442	5.58	165.8	-0.7	181	19.37
11/10/2019	15:20:16	12.05	1.916	1.442	5.58	165.8	-1	181	19.37
11/10/2019	15:30:16	12.05	1.916	1.443	5.58	165.8	-1.1	181.3	19.4
11/10/2019	15:40:16	12.05	1.916	1.442	5.58	165.9	-1	181.5	19.42
11/10/2019	15:50:16	12.05	1.916	1.442	5.58	166	-0.4	181.6	19.43
11/10/2019	16:00:16	12.05	1.916	1.442	5.58	165.8	-0.4	181.5	19.42
11/10/2019	16:10:16	12.05	1.916	1.442	5.58	165.9	-0.4	181.7	19.44
11/10/2019	16:20:16	12.05	1.916	1.442	5.58	166	-0.7	181.4	19.41
11/10/2019	16:30:16	12.05	1.916	1.442	5.58	166	-0.7	180.9	19.36
11/10/2019	16:40:16	12.05	1.916	1.442	5.58	165.9	-1	180.3	19.3
11/10/2019	16:50:16	12.05	1.916	1.442	5.58	165.9	-1.1	179.9	19.25
11/10/2019	17:00:16	12.05	1.916	1.442	5.58	165.9	-0.4	179.8	19.24
11/10/2019	17:10:16	12.05	1.916	1.442	5.58	165.9	-0.7	179.7	19.23
11/10/2019	17:20:16	12.05	1.916	1.442	5.58	165.9	-1	179.3	19.19
11/10/2019	17:30:16	12.05	1.916	1.442	5.58	165.9	-1	180	19.26
11/10/2019	17:40:16	12.05	1.916	1.442	5.58	165.9	-0.8	180.8	19.35

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/10/2019	17:50:16	12.05	1.915	1.442	5.58	165.9	-1.3	181.1	19.38
11/10/2019	18:00:16	12.05	1.916	1.442	5.58	165.9	-1.2	181.1	19.38
11/10/2019	18:10:16	12.05	1.916	1.442	5.58	165.8	-0.4	181	19.37
11/10/2019	18:20:16	12.05	1.916	1.442	5.57	166	-0.4	180.9	19.35
11/10/2019	18:30:16	12.05	1.916	1.442	5.57	166	-0.4	181	19.37
11/10/2019	18:40:16	12.05	1.916	1.442	5.57	166	-0.4	181.2	19.38
11/10/2019	18:50:16	12.05	1.916	1.442	5.57	166	-0.4	180.7	19.34
11/10/2019	19:00:16	12.05	1.916	1.442	5.57	165.9	-0.4	180.6	19.32
11/10/2019	19:10:16	12.05	1.916	1.442	5.57	166	-0.6	180.8	19.34
11/10/2019	19:20:16	12.05	1.917	1.443	5.57	166	-0.7	180.6	19.33
11/10/2019	19:30:16	12.05	1.916	1.442	5.57	166	-0.4	180.4	19.31
11/10/2019	19:40:16	12.05	1.916	1.442	5.57	166	-0.5	180.4	19.31
11/10/2019	19:50:16	12.05	1.916	1.442	5.57	166	-0.5	180.6	19.32
11/10/2019	20:00:16	12.05	1.916	1.442	5.57	166	-0.5	180.8	19.34
11/10/2019	20:10:16	12.05	1.915	1.442	5.57	166	-0.5	180.7	19.33
11/10/2019	20:20:16	12.05	1.916	1.442	5.57	166	-0.5	180.6	19.32
11/10/2019	20:30:16	12.05	1.915	1.441	5.57	166	-0.9	180.6	19.32
11/10/2019	20:40:16	12.05	1.915	1.442	5.57	166	-1.3	180	19.26
11/10/2019	20:50:16	12.05	1.915	1.442	5.57	166	-1.3	179.9	19.25
11/10/2019	21:00:16	12.05	1.915	1.442	5.57	166	-1	180.8	19.34
11/10/2019	21:10:16	12.05	1.915	1.442	5.57	166	-0.5	181.3	19.39
11/10/2019	21:20:16	12.05	1.915	1.442	5.57	166	-0.7	181.3	19.4
11/10/2019	21:30:16	12.05	1.916	1.442	5.57	166.1	-0.6	181.3	19.4
11/10/2019	21:40:16	12.05	1.916	1.442	5.58	166	-0.5	181.3	19.4
11/10/2019	21:50:16	12.05	1.915	1.442	5.58	166	-0.5	181.4	19.41
11/10/2019	22:00:16	12.05	1.916	1.442	5.57	166.1	-0.4	181.5	19.42
11/10/2019	22:10:16	12.05	1.915	1.441	5.57	166.1	-0.7	181.3	19.4
11/10/2019	22:20:16	12.05	1.915	1.442	5.57	166	-0.4	181.1	19.38
11/10/2019	22:30:16	12.05	1.915	1.441	5.57	166.1	-0.5	180.7	19.34
11/10/2019	22:40:16	12.05	1.915	1.441	5.57	166.1	-0.7	180.6	19.33
11/10/2019	22:50:16	12.05	1.915	1.441	5.58	166.1	-0.6	180.7	19.34
11/10/2019	23:00:16	12.05	1.915	1.441	5.58	166.1	-0.8	180.8	19.34
11/10/2019	23:10:16	12.05	1.915	1.442	5.58	166.1	-0.6	180.3	19.29
11/10/2019	23:20:16	12.05	1.916	1.442	5.58	166.1	-0.4	180.3	19.29
11/10/2019	23:30:16	12.05	1.916	1.442	5.58	166.1	-0.5	180.6	19.32
11/10/2019	23:40:16	12.05	1.915	1.441	5.58	166.1	-0.4	180.7	19.34
11/10/2019	23:50:16	12.05	1.915	1.442	5.58	166.1	-0.4	180.4	19.3

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/11/2019	0:00:16	12.05	1.915	1.442	5.58	166.1	-0.8	180.3	19.29
11/11/2019	0:10:16	12.05	1.915	1.441	5.58	166.1	-0.8	180.4	19.3
11/11/2019	0:20:16	12.05	1.915	1.442	5.58	166.1	-0.4	180.5	19.32
11/11/2019	0:30:16	12.05	1.916	1.442	5.58	166.1	-0.4	180.5	19.31
11/11/2019	0:40:16	12.05	1.915	1.441	5.58	166.1	-0.5	180.6	19.33
11/11/2019	0:50:16	12.05	1.915	1.441	5.58	166.1	-0.7	180.5	19.32
11/11/2019	1:00:16	12.05	1.915	1.441	5.58	166.1	-0.7	180.3	19.29
11/11/2019	1:10:16	12.05	1.915	1.441	5.58	166.1	-0.7	180.2	19.28
11/11/2019	1:20:16	12.05	1.916	1.442	5.58	166.1	-0.5	180.7	19.33
11/11/2019	1:30:16	12.05	1.914	1.441	5.58	166.2	-0.5	181.2	19.39
11/11/2019	1:40:16	12.05	1.915	1.441	5.58	166.2	-0.7	181.5	19.42
11/11/2019	1:50:16	12.05	1.915	1.441	5.58	166.2	-0.7	181.4	19.41
11/11/2019	2:00:16	12.05	1.914	1.441	5.57	166.2	-0.7	181.5	19.43
11/11/2019	2:10:16	12.05	1.915	1.441	5.58	166.2	-0.7	181.8	19.45
11/11/2019	2:20:16	12.05	1.916	1.442	5.57	166.3	-1	181.7	19.45
11/11/2019	2:30:16	12.05	1.915	1.442	5.58	166.1	-0.5	181.9	19.46
11/11/2019	2:40:16	12.05	1.915	1.442	5.58	166.2	-0.7	181.7	19.44
11/11/2019	2:50:16	12.05	1.916	1.442	5.57	166.3	-0.5	181.7	19.44
11/11/2019	3:00:16	12.05	1.916	1.442	5.58	166.3	-0.4	181.6	19.43
11/11/2019	3:10:16	12.05	1.915	1.441	5.58	166.3	-0.7	181.5	19.42
11/11/2019	3:20:16	12.05	1.914	1.44	5.58	166.3	-0.8	181.8	19.45
11/11/2019	3:30:16	12.05	1.915	1.441	5.58	166.2	-0.5	181.7	19.44
11/11/2019	3:40:16	12.05	1.915	1.442	5.58	166.3	-0.4	181.5	19.42
11/11/2019	3:50:16	12.05	1.916	1.442	5.58	166.3	-0.4	181.5	19.42
11/11/2019	4:00:16	12.05	1.915	1.441	5.58	166.3	-0.7	181.7	19.44
11/11/2019	4:10:16	12.05	1.915	1.442	5.58	166.2	-0.8	181.7	19.44
11/11/2019	4:20:16	12.05	1.916	1.442	5.58	166.2	-0.7	181.6	19.43
11/11/2019	4:30:16	12.05	1.915	1.442	5.58	166.1	-0.5	181.2	19.39
11/11/2019	4:40:16	12.05	1.916	1.442	5.58	166.3	-0.7	181	19.37
11/11/2019	4:50:16	12.05	1.916	1.442	5.58	166.3	-0.5	180.8	19.35
11/11/2019	5:00:16	12.05	1.915	1.442	5.59	166.1	-0.7	180.5	19.32
11/11/2019	5:10:16	12.05	1.915	1.441	5.59	166.2	-1	180.4	19.31
11/11/2019	5:20:16	12.05	1.915	1.441	5.59	166.2	-0.8	180.3	19.3
11/11/2019	5:30:16	12.05	1.916	1.442	5.59	166.2	-0.7	180.3	19.29
11/11/2019	5:40:16	12.05	1.916	1.442	5.59	166.3	-1.5	179.7	19.22
11/11/2019	5:50:16	12.05	1.915	1.442	5.59	166.3	-1.1	179.4	19.19
11/11/2019	6:00:16	12.05	1.916	1.442	5.59	166.3	-0.7	179.2	19.17

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/11/2019	6:10:16	12.05	1.915	1.441	5.59	166.3	-1.2	179	19.16
11/11/2019	6:20:16	12.05	1.915	1.441	5.59	166.3	-0.7	178.9	19.15
11/11/2019	6:30:16	12.05	1.915	1.441	5.59	166.3	-1	179.3	19.19
11/11/2019	6:40:16	12.05	1.915	1.441	5.59	166.2	-1.1	179.8	19.24
11/11/2019	6:50:16	12.05	1.916	1.442	5.59	166.3	-1	180.3	19.29
11/11/2019	7:00:16	12.05	1.915	1.441	5.59	166.3	-1.3	180.7	19.34
11/11/2019	7:10:16	12.05	1.915	1.441	5.59	166.3	-1.1	181.1	19.38
11/11/2019	7:20:16	12.05	1.915	1.441	5.59	166.2	-0.8	181.3	19.4
11/11/2019	7:30:16	12.05	1.915	1.441	5.59	166.2	-0.7	181.5	19.42
11/11/2019	7:40:16	12.05	1.916	1.442	5.59	166.3	-0.5	181.7	19.44
11/11/2019	7:50:16	12.05	1.915	1.441	5.6	166.2	-0.8	181.7	19.44
11/11/2019	8:00:16	12.05	1.915	1.441	5.6	166.3	-0.8	181.7	19.45
11/11/2019	8:10:16	12.05	1.915	1.441	5.6	166.2	-1	181.3	19.4
11/11/2019	8:20:16	12.05	1.915	1.441	5.6	166.3	-1.1	180.7	19.34
11/11/2019	8:30:16	12.05	1.915	1.442	5.59	166.3	-1.3	180.9	19.35
11/11/2019	8:40:16	12.05	1.915	1.441	5.6	166.3	-0.6	180.9	19.36
11/11/2019	8:50:16	12.05	1.914	1.441	5.59	166.3	-0.6	181.1	19.37
11/11/2019	9:00:16	12.05	1.915	1.441	5.59	166.3	-1	180.7	19.34
11/11/2019	9:10:16	12.05	1.915	1.442	5.59	166.3	-0.9	180.4	19.3
11/11/2019	9:20:16	12.05	1.915	1.441	5.59	166.4	-1	180.5	19.31
11/11/2019	9:30:16	12.05	1.915	1.441	5.59	166.3	-0.4	181	19.37
11/11/2019	9:40:16	12.05	1.915	1.441	5.59	166.3	-0.5	181.4	19.41
11/11/2019	9:50:16	12.05	1.915	1.441	5.59	166.4	-0.8	181.4	19.41
11/11/2019	10:00:16	12.05	1.915	1.441	5.59	166.4	-0.5	181.4	19.41
11/11/2019	10:10:16	12.05	1.915	1.441	5.59	166.3	-0.5	181.2	19.38
11/11/2019	10:20:16	12.05	1.915	1.441	5.59	166.4	-0.6	181.2	19.39
11/11/2019	10:30:16	12.05	1.915	1.441	5.59	166.4	-0.5	181	19.37
11/11/2019	10:40:16	12.05	1.915	1.441	5.59	166.4	-0.6	181	19.37
11/11/2019	10:50:16	12.05	1.915	1.441	5.59	166.4	-0.5	180.9	19.36
11/11/2019	11:00:16	12.05	1.915	1.441	5.59	166.4	-0.7	180.8	19.34
11/11/2019	11:10:16	12.05	1.915	1.441	5.59	166.4	-0.7	180.3	19.29
11/11/2019	11:20:16	12.05	1.915	1.441	5.59	166.4	-0.9	180.9	19.35
11/11/2019	11:30:16	12.05	1.915	1.441	5.59	166.4	-0.8	181.3	19.39
11/11/2019	11:40:16	12.05	1.915	1.441	5.59	166.4	-0.7	181.4	19.41
11/11/2019	11:50:16	12.05	1.915	1.441	5.59	166.4	-0.8	181.5	19.42
11/11/2019	12:00:16	12.05	1.915	1.441	5.59	166.4	-0.8	181.5	19.42
11/11/2019	12:10:16	12.05	1.914	1.441	5.59	166.4	-0.7	181.4	19.41



**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/11/2019	12:20:16	12.05	1.915	1.441	5.59	166.4	-0.7	181.3	19.4
11/11/2019	12:30:16	12.05	1.915	1.441	5.59	166.4	-0.8	181.5	19.42
11/11/2019	12:40:16	12.05	1.915	1.441	5.59	166.4	-1	181.5	19.42
11/11/2019	12:50:16	12.05	1.915	1.441	5.59	166.3	-1.3	181.4	19.41
11/11/2019	13:00:16	12.05	1.915	1.441	5.59	166.4	-0.5	181.3	19.4
11/11/2019	13:10:16	12.05	1.915	1.441	5.59	166.4	-0.4	181.2	19.39
11/11/2019	13:20:16	12.05	1.915	1.441	5.59	166.4	-0.7	181.1	19.38
11/11/2019	13:30:16	12.05	1.914	1.441	5.59	166.4	-0.5	181	19.36
11/11/2019	13:40:16	12.05	1.915	1.441	5.59	166.4	-0.7	180.6	19.33
11/11/2019	13:50:16	12.05	1.915	1.441	5.59	166.4	-0.7	180.3	19.3
11/11/2019	14:00:16	12.05	1.915	1.441	5.59	166.4	-1	180.6	19.32
11/11/2019	14:10:16	12.05	1.915	1.441	5.59	166.4	-1.1	180.9	19.36
11/11/2019	14:20:16	12.05	1.915	1.441	5.59	166.4	-0.5	180.6	19.33
11/11/2019	14:30:16	12.05	1.915	1.441	5.59	166.3	-0.7	180.1	19.27
11/11/2019	14:40:16	12.05	1.915	1.441	5.59	166.3	-0.8	179.7	19.23
11/11/2019	14:50:16	12.05	1.915	1.441	5.59	166.3	-0.7	179.8	19.23
11/11/2019	15:00:16	12.05	1.916	1.442	5.59	166.3	-0.6	180	19.26
11/11/2019	15:10:16	12.05	1.914	1.441	5.59	166.3	-0.5	180.6	19.33
11/11/2019	15:20:16	12.05	1.915	1.441	5.59	166.3	-0.7	181	19.37
11/11/2019	15:30:16	12.05	1.915	1.441	5.59	166.3	-1	180.6	19.32
11/11/2019	15:40:16	12.05	1.915	1.441	5.59	166.3	-0.6	180.5	19.31
11/11/2019	15:50:16	12.05	1.915	1.441	5.59	166.3	-1.3	180.4	19.31
11/11/2019	16:00:16	12.05	1.915	1.441	5.59	166.3	-1.3	180.2	19.28
11/11/2019	16:10:16	12.05	1.914	1.441	5.59	166.3	-1.1	180.1	19.28
11/11/2019	16:20:16	12.05	1.914	1.441	5.59	166.3	-1	180.3	19.3
11/11/2019	16:30:16	12.05	1.915	1.441	5.59	166.3	-0.7	180.5	19.31
11/11/2019	16:40:16	12.05	1.914	1.441	5.59	166.3	-0.7	180.9	19.36
11/11/2019	16:50:16	12.05	1.914	1.441	5.59	166.4	-0.4	181.2	19.39
11/11/2019	17:00:16	12.05	1.914	1.441	5.6	166.3	-0.5	181.4	19.41
11/11/2019	17:10:16	12.05	1.915	1.441	5.59	166.4	-0.7	181.5	19.42
11/11/2019	17:20:16	12.05	1.914	1.441	5.6	166.4	-0.8	181.6	19.43
11/11/2019	17:30:16	12.05	1.914	1.441	5.6	166.3	-0.9	181.5	19.42
11/11/2019	17:40:16	12.05	1.915	1.441	5.59	166.3	-0.9	181	19.37
11/11/2019	17:50:16	12.05	1.914	1.44	5.6	166.3	-0.8	180.6	19.33
11/11/2019	18:00:16	12.05	1.914	1.44	5.6	166.3	-1.1	180.2	19.28
11/11/2019	18:10:16	12.05	1.914	1.44	5.6	166.4	-0.9	180.2	19.28
11/11/2019	18:20:16	12.05	1.915	1.441	5.6	166.4	-1.1	180	19.26

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/11/2019	18:30:16	12.05	1.914	1.44	5.6	166.4	-1	179.9	19.25
11/11/2019	18:40:16	12.05	1.915	1.441	5.6	166.4	-1	180.2	19.28
11/11/2019	18:50:16	12.05	1.915	1.441	5.6	166.4	-1	180.3	19.3
11/11/2019	19:00:16	12.05	1.915	1.442	5.59	166.4	-0.7	180.4	19.3
11/11/2019	19:10:16	12.05	1.915	1.441	5.59	166.4	-0.6	180.2	19.28
11/11/2019	19:20:16	12.05	1.915	1.441	5.59	166.4	-0.5	180.2	19.28
11/11/2019	19:30:16	12.05	1.915	1.441	5.59	166.4	-0.8	180	19.26
11/11/2019	19:40:16	12.05	1.915	1.441	5.59	166.4	-0.7	180.1	19.27
11/11/2019	19:50:16	12.05	1.915	1.441	5.59	166.5	-0.7	180.4	19.3
11/11/2019	20:00:16	12.05	1.915	1.441	5.59	166.4	-0.7	180.5	19.31
11/11/2019	20:10:16	12.05	1.915	1.441	5.59	166.4	-0.6	180.4	19.31
11/11/2019	20:20:16	12.05	1.915	1.441	5.59	166.5	-0.8	180.3	19.3
11/11/2019	20:30:16	12.05	1.914	1.441	5.6	166.4	-0.7	180.1	19.28
11/11/2019	20:40:16	12.05	1.914	1.44	5.6	166.5	-0.9	179.9	19.26
11/11/2019	20:50:16	12.05	1.915	1.441	5.59	166.5	-0.7	180.4	19.31
11/11/2019	21:00:16	12.05	1.914	1.44	5.59	166.5	-0.6	180.8	19.35
11/11/2019	21:10:16	12.05	1.914	1.441	5.59	166.5	-0.7	181.1	19.38
11/11/2019	21:20:16	12.05	1.915	1.441	5.59	166.5	-0.8	181	19.37
11/11/2019	21:30:16	12.05	1.915	1.441	5.59	166.5	-0.7	181	19.37
11/11/2019	21:40:16	12.05	1.914	1.44	5.59	166.6	-1	180.6	19.33
11/11/2019	21:50:16	12.05	1.914	1.441	5.59	166.6	-0.8	180.6	19.32
11/11/2019	22:00:16	12.05	1.915	1.441	5.59	166.5	-0.8	180.5	19.32
11/11/2019	22:10:16	12.05	1.914	1.441	5.59	166.6	-0.6	180.8	19.34
11/11/2019	22:20:16	12.05	1.915	1.441	5.59	166.6	-0.7	180.4	19.31
11/11/2019	22:30:16	12.05	1.914	1.441	5.59	166.6	-1.4	180.1	19.27
11/11/2019	22:40:16	12.05	1.914	1.44	5.6	166.6	-1	179.9	19.25
11/11/2019	22:50:16	12.05	1.914	1.441	5.59	166.6	-1	180.1	19.27
11/11/2019	23:00:16	12.05	1.914	1.44	5.59	166.6	-1	180.4	19.31
11/11/2019	23:10:16	12.05	1.914	1.44	5.6	166.6	-1	180.6	19.32
11/11/2019	23:20:16	12.05	1.914	1.44	5.6	166.6	-0.5	181.1	19.37
11/11/2019	23:30:16	12.05	1.914	1.44	5.6	166.6	-0.7	181.3	19.4
11/11/2019	23:40:16	12.05	1.913	1.44	5.6	166.7	-1.1	181.2	19.39
11/11/2019	23:50:16	12.05	1.913	1.44	5.59	166.7	-1.5	181.1	19.38
11/12/2019	0:00:16	12.05	1.913	1.44	5.59	166.7	-0.7	180.9	19.36
11/12/2019	0:10:16	12.05	1.914	1.44	5.59	166.7	-0.9	180.8	19.35
11/12/2019	0:20:16	12.05	1.913	1.44	5.59	166.7	-0.7	181	19.37
11/12/2019	0:30:16	12.05	1.914	1.44	5.59	166.7	-0.9	180.8	19.35

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/12/2019	0:40:16	12.04	1.913	1.44	5.59	166.7	-1.4	181	19.37
11/12/2019	0:50:16	12.04	1.913	1.44	5.59	166.7	-0.7	181	19.37
11/12/2019	1:00:16	12.05	1.913	1.44	5.59	166.7	-0.6	180.9	19.35
11/12/2019	1:10:16	12.05	1.914	1.44	5.59	166.7	-0.8	180.8	19.34
11/12/2019	1:20:16	12.05	1.913	1.439	5.59	166.7	-0.6	180.6	19.32
11/12/2019	1:30:16	12.05	1.913	1.439	5.59	166.7	-0.7	180.2	19.28
11/12/2019	1:40:16	12.04	1.914	1.44	5.59	166.7	-0.8	180	19.26
11/12/2019	1:50:16	12.05	1.913	1.44	5.59	166.7	-1	180.2	19.29
11/12/2019	2:00:16	12.05	1.913	1.44	5.59	166.7	-1	180.2	19.28
11/12/2019	2:10:16	12.05	1.913	1.44	5.59	166.8	-1	179.7	19.23
11/12/2019	2:20:16	12.05	1.914	1.44	5.59	166.8	-1.4	179.9	19.25
11/12/2019	2:30:16	12.05	1.913	1.44	5.59	166.7	-1.1	180.1	19.27
11/12/2019	2:40:16	12.05	1.913	1.44	5.59	166.7	-1.1	179.9	19.25
11/12/2019	2:50:16	12.05	1.913	1.439	5.59	166.7	-0.9	179.5	19.21
11/12/2019	3:00:16	12.05	1.913	1.439	5.59	166.7	-0.7	179.8	19.24
11/12/2019	3:10:16	12.04	1.913	1.44	5.59	166.7	-0.7	180	19.26
11/12/2019	3:20:16	12.05	1.913	1.439	5.59	166.7	-0.7	180.2	19.28
11/12/2019	3:30:16	12.05	1.912	1.439	5.59	166.7	-1.1	180.2	19.28
11/12/2019	3:40:16	12.04	1.913	1.439	5.59	166.7	-1	180.1	19.27
11/12/2019	3:50:16	12.04	1.913	1.44	5.59	166.7	-0.7	179.8	19.24
11/12/2019	4:00:16	12.05	1.913	1.44	5.59	166.8	-1.6	179.5	19.21
11/12/2019	4:10:16	12.05	1.913	1.44	5.59	166.7	-0.7	179.4	19.2
11/12/2019	4:20:16	12.05	1.913	1.44	5.59	166.9	-0.7	179.7	19.23
11/12/2019	4:30:16	12.05	1.912	1.439	5.59	166.9	-0.8	180.1	19.27
11/12/2019	4:40:16	12.04	1.913	1.44	5.59	166.9	-0.9	180.3	19.29
11/12/2019	4:50:16	12.05	1.912	1.439	5.59	166.9	-1	180.6	19.32
11/12/2019	5:00:16	12.05	1.913	1.44	5.59	166.9	-0.9	180.8	19.35
11/12/2019	5:10:16	12.04	1.913	1.439	5.59	166.9	-1.1	181.1	19.38
11/12/2019	5:20:16	12.05	1.913	1.439	5.59	166.9	-0.9	180.6	19.32
11/12/2019	5:30:16	12.04	1.913	1.44	5.59	166.9	-0.8	180.5	19.31
11/12/2019	5:40:16	12.04	1.913	1.44	5.59	166.9	-0.7	180.7	19.34
11/12/2019	5:50:16	12.05	1.912	1.439	5.59	166.9	-0.8	180.7	19.33
11/12/2019	6:00:16	12.05	1.913	1.439	5.59	166.9	-0.7	180.6	19.33
11/12/2019	6:10:16	12.05	1.913	1.439	5.59	166.9	-0.8	180.8	19.34
11/12/2019	6:20:16	12.05	1.913	1.439	5.59	166.9	-0.8	180.8	19.34
11/12/2019	6:30:16	12.05	1.913	1.44	5.59	166.9	-0.9	180.9	19.35
11/12/2019	6:40:16	12.04	1.913	1.439	5.59	166.9	-0.8	180.6	19.32

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/12/2019	6:50:16	12.04	1.913	1.44	5.59	166.9	-0.8	180.2	19.29
11/12/2019	7:00:16	12.05	1.913	1.44	5.59	166.9	-0.8	180.3	19.3
11/12/2019	7:10:16	12.04	1.913	1.44	5.59	167.1	-1	180.2	19.28
11/12/2019	7:20:16	12.04	1.913	1.44	5.59	167	-1	179.9	19.25
11/12/2019	7:30:16	12.04	1.913	1.44	5.59	167.1	-1	180.1	19.27
11/12/2019	7:40:16	12.04	1.913	1.439	5.59	167.2	-1.1	180.3	19.3
11/12/2019	7:50:16	12.04	1.912	1.439	5.59	167.1	-1.2	180.8	19.35
11/12/2019	8:00:16	12.04	1.913	1.439	5.59	167.1	-1	181.2	19.39
11/12/2019	8:10:16	12.04	1.912	1.439	5.59	167.1	-0.6	181.4	19.41
11/12/2019	8:20:16	12.05	1.912	1.439	5.59	167.1	-0.7	181.5	19.42
11/12/2019	8:30:16	12.04	1.912	1.439	5.59	167.2	-1	181.3	19.4
11/12/2019	8:40:16	12.05	1.912	1.439	5.59	167.2	-1	181.2	19.39
11/12/2019	8:50:16	12.05	1.912	1.439	5.59	167.1	-1	181.3	19.4
11/12/2019	9:00:16	12.05	1.912	1.439	5.59	167.1	-0.8	180.8	19.35
11/12/2019	9:10:16	12.04	1.912	1.439	5.59	167.2	-0.8	180.9	19.35
11/12/2019	9:20:16	12.04	1.913	1.439	5.59	167.1	-0.7	180.9	19.36
11/12/2019	9:30:16	12.05	1.913	1.439	5.59	167.2	-0.8	181.1	19.38
11/12/2019	9:40:16	12.04	1.912	1.439	5.59	167.2	-0.8	180.9	19.36
11/12/2019	9:50:16	12.04	1.912	1.439	5.59	167.1	-1	180.6	19.32
11/12/2019	10:00:16	12.04	1.912	1.439	5.59	166.9	-1.1	180.7	19.33
11/12/2019	10:10:16	12.04	1.912	1.439	5.59	167.2	-1.1	180.8	19.35
11/12/2019	10:20:16	12.04	1.912	1.439	5.59	167.1	-1	180.7	19.34
11/12/2019	10:30:16	12.05	1.912	1.439	5.6	167.1	-0.6	180.9	19.36
11/12/2019	10:40:16	12.05	1.912	1.439	5.59	167.1	-0.8	180.9	19.35
11/12/2019	10:50:16	12.05	1.912	1.439	5.6	167.1	-1.2	181	19.37
11/12/2019	11:00:16	12.04	1.913	1.44	5.59	167.1	-0.9	181	19.37
11/12/2019	11:10:16	12.04	1.912	1.439	5.59	167.1	-0.7	180.9	19.35
11/12/2019	11:20:16	12.04	1.913	1.44	5.59	167.1	-0.7	180.6	19.33
11/12/2019	11:30:16	12.04	1.912	1.439	5.6	167.1	-0.8	180.2	19.28
11/12/2019	11:40:16	12.04	1.912	1.439	5.6	167.1	-0.9	180.1	19.28
11/12/2019	11:50:16	12.04	1.912	1.439	5.6	167.1	-0.8	180.2	19.29
11/12/2019	12:00:16	12.04	1.913	1.439	5.6	167.1	-0.9	180.6	19.32
11/12/2019	12:10:16	12.05	1.912	1.439	5.6	167	-0.8	180.9	19.36
11/12/2019	12:20:16	12.04	1.912	1.439	5.6	166.9	-0.8	181.1	19.38
11/12/2019	12:30:16	12.05	1.912	1.439	5.6	167	-0.8	181.1	19.38
11/12/2019	12:40:16	12.04	1.913	1.439	5.6	167	-1	181.2	19.39
11/12/2019	12:50:16	12.04	1.913	1.439	5.6	167	-0.9	181	19.37

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/12/2019	13:00:16	12.05	1.912	1.439	5.6	167.1	-0.6	180.7	19.33
11/12/2019	13:10:16	12.04	1.912	1.439	5.6	167	-0.7	180.6	19.32
11/12/2019	13:20:16	12.04	1.912	1.439	5.6	167	-0.7	180.9	19.36
11/12/2019	13:30:16	12.04	1.913	1.439	5.6	166.8	-0.8	180.5	19.32
11/12/2019	13:40:16	12.04	1.913	1.439	5.6	167	-1.1	180.3	19.29
11/26/2019	13:30:16	19	0.023	0.021	4.38	282	-14.3	98.9	9.18
11/26/2019	13:40:16	19.11	0.031	0.028	4.39	282.1	-6.6	0	0
11/26/2019	13:50:16	23.6	0.028	0.027	4.45	264.6	-13.9	0	0
11/26/2019	14:00:16	26.77	0.023	0.024	4.55	247.6	-12.2	102.4	8.19
11/26/2019	14:10:16	26.93	0.024	0.025	4.47	255.1	-12.8	104	8.3
11/26/2019	14:20:16	24.93	0.028	0.028	4.34	279.7	-12.9	104.5	8.65
11/26/2019	14:30:16	27.86	0.021	0.022	4.42	272.3	-12.9	106.4	8.35
11/26/2019	14:40:16	25.78	0.02	0.02	4.42	275.5	-12.9	106.2	8.65
11/26/2019	14:50:16	28.93	0.016	0.017	4.52	270	-12.7	107.5	8.28
11/26/2019	15:00:16	27.91	0.019	0.02	4.41	271	-15.2	107	8.39
11/26/2019	15:10:16	10.91	1.89	1.381	6.78	77.2	-6.3	55.7	6.12
11/26/2019	15:20:16	10.91	1.906	1.393	6.3	111.5	-19.2	162.2	17.82
11/26/2019	15:30:16	10.91	1.906	1.393	6.34	128.6	-4.3	166.2	18.25
11/26/2019	15:40:16	10.91	1.904	1.391	6.41	131.9	10.4	166.9	18.33
11/26/2019	15:50:16	10.91	1.903	1.391	6.46	130.1	-4.3	167.1	18.35
11/26/2019	16:00:16	10.91	1.902	1.39	6.48	127.9	-8.9	167.4	18.39
11/26/2019	16:10:16	10.91	1.894	1.384	6.48	130.9	-9.8	166.5	18.29
11/26/2019	16:20:16	10.9	1.9	1.389	6.47	133.7	-16.5	167.9	18.45
11/26/2019	16:30:16	10.9	1.904	1.391	6.47	136.7	-20.7	168.7	18.53
11/26/2019	16:40:16	10.9	1.903	1.391	6.47	140	-21.4	168.9	18.55
11/26/2019	16:50:16	10.9	1.904	1.391	6.46	142.8	-20.7	168.8	18.54
11/26/2019	17:00:16	10.9	1.903	1.391	6.47	145.1	-21.4	169.1	18.58
11/26/2019	17:10:16	10.9	1.905	1.392	6.46	147.2	-21.2	169.3	18.59
11/26/2019	17:20:16	10.9	1.906	1.392	6.47	149.8	-21.5	168.7	18.54
11/26/2019	17:30:16	10.9	1.906	1.393	6.46	152.5	-21.5	168.6	18.52
11/26/2019	17:40:16	10.9	1.904	1.391	6.46	153.9	-21.5	168.6	18.52
11/26/2019	17:50:16	10.9	1.905	1.392	6.47	155.2	-21.2	166.8	18.33
11/26/2019	18:00:16	10.9	1.906	1.392	6.46	157.5	-21.4	167.9	18.45
11/26/2019	18:10:16	10.9	1.906	1.393	6.47	158.2	-21.4	167.4	18.39
11/26/2019	18:20:16	10.9	1.906	1.393	6.46	160	-21.4	166.8	18.33
11/26/2019	18:30:16	10.9	1.906	1.393	6.47	161.1	-20.8	166.4	18.28
11/26/2019	18:40:16	10.9	1.907	1.393	6.46	163.8	-21.3	166.8	18.32

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/26/2019	18:50:16	10.9	1.906	1.393	6.46	164.2	-21.3	167.4	18.39
11/26/2019	19:00:16	10.9	1.907	1.393	6.46	165	-21.5	168	18.46
11/26/2019	19:10:16	10.9	1.907	1.393	6.46	165.6	-21.7	168.5	18.51
11/26/2019	19:20:16	10.9	1.907	1.393	6.47	166	-21.6	169.4	18.61
11/26/2019	19:30:16	10.9	1.907	1.394	6.47	166.4	-21.7	170.1	18.69
11/26/2019	19:40:16	10.9	1.907	1.393	6.47	166.3	-21.6	169.9	18.66
11/26/2019	19:50:16	10.9	1.907	1.393	6.47	167.1	-21.7	170	18.68
11/26/2019	20:00:16	10.9	1.907	1.393	6.47	169.4	-21.6	170.1	18.68
11/26/2019	20:10:16	10.9	1.907	1.393	6.48	170.3	-21.7	169.5	18.62
11/26/2019	20:20:16	10.9	1.907	1.393	6.47	172.2	-21.7	168.7	18.53
11/26/2019	20:30:16	10.9	1.907	1.393	6.47	172.5	-21.8	168	18.46
11/26/2019	20:40:16	10.9	1.907	1.393	6.48	173	-21.6	168.7	18.53
11/26/2019	20:50:16	10.9	1.907	1.393	6.47	173.8	-21.8	168.3	18.49
11/26/2019	21:00:16	10.9	1.907	1.394	6.47	173.1	-21.9	168	18.46
11/26/2019	21:10:16	10.9	1.907	1.394	6.47	173.8	-22	169.5	18.63
11/26/2019	21:20:16	10.9	1.907	1.393	6.47	174.2	-19.7	169.4	18.61
11/26/2019	21:30:16	10.9	1.903	1.391	6.47	174.7	-19.8	170.1	18.68
11/26/2019	21:40:16	10.9	1.904	1.391	6.46	176.4	-19.6	168.9	18.55
11/26/2019	21:50:16	10.9	1.905	1.392	6.47	177.8	-20.4	169.5	18.62
11/26/2019	22:00:16	10.9	1.906	1.392	6.46	180.7	-20.9	168.1	18.47
11/26/2019	22:10:16	10.9	1.906	1.393	6.46	183.3	-20.9	167.2	18.37
11/26/2019	22:20:16	10.9	1.907	1.393	6.46	185.1	-21	167.6	18.42
11/26/2019	22:30:16	10.9	1.907	1.393	6.47	185.5	-21.3	168	18.45
11/26/2019	22:40:16	10.9	1.907	1.394	6.46	186.9	-21.5	168	18.45
11/26/2019	22:50:16	10.9	1.907	1.394	6.46	187.7	-21.6	168.4	18.5
11/26/2019	23:00:16	10.9	1.907	1.394	6.46	188.4	-21.7	168.2	18.48
11/26/2019	23:10:16	10.9	1.908	1.394	6.46	189.2	-21.6	168.2	18.48
11/26/2019	23:20:16	10.9	1.908	1.394	6.47	189.2	-21.8	168.2	18.48
11/26/2019	23:30:16	10.9	1.908	1.394	6.46	190.7	-21.8	168.3	18.49
11/26/2019	23:40:16	10.9	1.907	1.394	6.46	191.5	-21.8	169.5	18.62
11/26/2019	23:50:16	10.9	1.908	1.394	6.46	191.5	-21.8	168.6	18.52
11/27/2019	0:00:16	10.9	1.908	1.394	6.46	191.5	-21.5	168.7	18.54
11/27/2019	0:10:16	10.9	1.908	1.394	6.47	191.4	-21.6	169.1	18.58
11/27/2019	0:20:16	10.9	1.908	1.394	6.47	192.1	-21.7	169.4	18.61
11/27/2019	0:30:16	10.9	1.908	1.394	6.46	192.9	-21.7	169.3	18.6
11/27/2019	0:40:16	10.9	1.908	1.394	6.47	193.1	-21.8	168.4	18.5
11/27/2019	0:50:16	10.9	1.908	1.394	6.47	193.8	-21.8	167.9	18.45

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/27/2019	1:00:16	10.9	1.908	1.394	6.46	194.7	-21.7	168	18.46
11/27/2019	1:10:16	10.9	1.908	1.394	6.46	195.6	-21.8	167.7	18.42
11/27/2019	1:20:16	10.9	1.909	1.395	6.46	196.7	-21.8	168.2	18.48
11/27/2019	1:30:16	10.9	1.909	1.395	6.46	197.8	-22	168.4	18.51
11/27/2019	1:40:16	10.9	1.909	1.395	6.46	198.9	-21.8	168.4	18.5
11/27/2019	1:50:16	10.9	1.909	1.395	6.46	199.8	-21.8	169.6	18.64
11/27/2019	2:00:16	10.9	1.909	1.395	6.46	200.6	-21.8	169.5	18.63
11/27/2019	2:10:16	10.9	1.909	1.395	6.46	201.4	-21.7	168.2	18.47
11/27/2019	2:20:16	10.9	1.908	1.394	6.47	201.6	-21.9	167.9	18.44
11/27/2019	2:30:16	10.9	1.908	1.394	6.47	201.7	-22	168	18.46
11/27/2019	2:40:16	10.9	1.909	1.395	6.47	201.6	-22	168.1	18.46
11/27/2019	2:50:16	10.9	1.909	1.395	6.46	202	-22	168	18.45
11/27/2019	3:00:16	10.9	1.909	1.395	6.47	202.1	-22	168.1	18.46
11/27/2019	3:10:16	10.9	1.909	1.395	6.46	203.2	-22.2	167.9	18.45
11/27/2019	3:20:16	10.9	1.909	1.395	6.47	203.8	-22.2	167.9	18.44
11/27/2019	3:30:16	10.9	1.909	1.394	6.47	204	-22.1	167.8	18.44
11/27/2019	3:40:16	10.9	1.908	1.394	6.47	204.9	-22.1	168	18.46
11/27/2019	3:50:16	10.9	1.909	1.395	6.47	205	-22.1	167.9	18.44
11/27/2019	4:00:16	10.9	1.909	1.395	6.47	205.3	-22.1	168	18.46
11/27/2019	4:10:16	10.9	1.909	1.395	6.47	206.1	-22	167.8	18.43
11/27/2019	4:20:16	10.9	1.909	1.395	6.47	206.2	-22	167.9	18.44
11/27/2019	4:30:16	10.9	1.909	1.395	6.47	205.9	-22.1	167.5	18.4
11/27/2019	4:40:16	10.9	1.909	1.394	6.47	205.8	-22.1	168	18.46
11/27/2019	4:50:16	10.9	1.909	1.395	6.47	206.1	-22.2	168.1	18.47
11/27/2019	5:00:16	10.9	1.909	1.395	6.47	205.6	-22.1	168.1	18.46
11/27/2019	5:10:16	10.9	1.909	1.394	6.47	205.8	-22.1	168.1	18.46
11/27/2019	5:20:16	10.9	1.909	1.395	6.47	205.9	-22.1	168.1	18.47
11/27/2019	5:30:16	10.9	1.909	1.395	6.47	205.5	-22.1	168	18.46
11/27/2019	5:40:16	10.9	1.909	1.394	6.46	206.1	-22.1	168	18.46
11/27/2019	5:50:16	10.9	1.909	1.395	6.46	206.2	-22.3	168.2	18.48
11/27/2019	6:00:16	10.9	1.909	1.394	6.46	206.4	-22.3	167.6	18.41
11/27/2019	6:10:16	10.9	1.908	1.394	6.46	206.7	-22.3	167.7	18.43
11/27/2019	6:20:16	10.9	1.909	1.395	6.46	207	-22.3	167.8	18.43
11/27/2019	6:30:16	10.9	1.909	1.395	6.47	206.7	-22.2	167.8	18.43
11/27/2019	6:40:16	10.9	1.909	1.395	6.46	207.2	-22.2	168	18.46
11/27/2019	6:50:16	10.9	1.909	1.395	6.46	207.5	-22.3	167.9	18.45
11/27/2019	7:00:16	10.9	1.909	1.395	6.46	207.8	-22.2	168	18.46

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/27/2019	7:10:16	10.9	1.909	1.395	6.46	207.9	-22.3	168.1	18.47
11/27/2019	7:20:16	10.9	1.909	1.395	6.46	208.2	-22.3	168.2	18.48
11/27/2019	7:30:16	10.9	1.909	1.395	6.46	208.6	-22.2	168.2	18.48
11/27/2019	7:40:16	10.9	1.909	1.395	6.46	208.9	-22.3	168.1	18.47
11/27/2019	7:50:16	10.9	1.909	1.395	6.47	208.7	-22.3	168	18.46
11/27/2019	8:00:16	10.9	1.909	1.395	6.47	208.9	-22.2	168	18.45
11/27/2019	8:10:16	10.9	1.909	1.395	6.47	209.1	-22.3	168.1	18.47
11/27/2019	8:20:16	10.9	1.909	1.395	6.47	209.6	-22.1	168	18.46
11/27/2019	8:30:16	10.9	1.909	1.395	6.47	209	-22.1	167.9	18.45
11/27/2019	8:40:16	10.9	1.909	1.395	6.46	209.3	-22.1	168.2	18.48
11/27/2019	8:50:16	10.9	1.909	1.395	6.46	209.4	-22.1	168	18.45
11/27/2019	9:00:16	10.9	1.909	1.395	6.46	209.5	-22.3	168.2	18.48
11/27/2019	9:10:16	10.9	1.909	1.395	6.46	209.7	-22.2	168.1	18.47
11/27/2019	9:20:16	10.9	1.909	1.395	6.46	209.8	-22.4	168.1	18.46
11/27/2019	9:30:16	10.9	1.909	1.395	6.46	209.9	-22.3	168	18.46
11/27/2019	9:40:16	10.9	1.909	1.395	6.46	210.2	-22.3	168	18.46
11/27/2019	9:50:16	10.9	1.909	1.395	6.46	210.4	-22.1	168	18.46
11/27/2019	10:00:16	10.9	1.909	1.395	6.46	210.8	-22	167.9	18.45
11/27/2019	10:10:16	10.9	1.909	1.395	6.46	211.1	-22	167.9	18.45
11/27/2019	10:20:16	10.9	1.909	1.395	6.47	211.1	-22.1	167.9	18.44
11/27/2019	10:30:16	10.9	1.909	1.395	6.46	211.7	-22.1	167.8	18.44
11/27/2019	10:40:16	10.9	1.909	1.395	6.46	212.1	-21.9	167.9	18.44
11/27/2019	10:50:16	10.9	1.909	1.395	6.46	212.3	-21.8	167.7	18.43
11/27/2019	11:00:16	10.9	1.909	1.395	6.46	212.5	-21.8	167.9	18.45
11/27/2019	11:10:16	10.9	1.909	1.395	6.47	212.1	-21.9	168.1	18.46
11/27/2019	11:20:16	10.9	1.909	1.395	6.47	212.2	-21.9	168	18.45
11/27/2019	11:30:16	10.9	1.909	1.395	6.46	212.5	-22	168.2	18.47
11/27/2019	11:40:16	10.9	1.909	1.395	6.47	212	-22.1	168.1	18.47
11/27/2019	11:50:16	10.9	1.909	1.395	6.46	212.3	-22.3	168	18.46
11/27/2019	12:00:16	10.9	1.909	1.395	6.47	211.9	-22.1	167.7	18.43
11/27/2019	12:10:16	10.9	1.909	1.395	6.47	211.9	-22	168	18.46
11/27/2019	12:20:16	10.9	1.909	1.395	6.46	212.4	-22.1	168.2	18.48
11/27/2019	12:30:16	10.9	1.909	1.395	6.47	212	-22.1	168	18.45
11/27/2019	12:40:16	10.9	1.909	1.395	6.46	212.2	-22.1	167.8	18.43
11/27/2019	12:50:16	10.9	1.909	1.395	6.47	211.6	-22.1	167.8	18.43
11/27/2019	13:00:16	10.9	1.909	1.395	6.46	211.9	-22.1	167.9	18.45
11/27/2019	13:10:16	10.9	1.909	1.395	6.47	211.4	-22.1	168.1	18.47



**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
11/27/2019	13:20:16	10.9	1.909	1.395	6.46	211.9	-22.1	168.2	18.48
12/3/2019	10:57:59	26.44	0.002	0.002	6.17	207.6	-12.7	97.2	7.83
12/3/2019	11:00:16	25.86	0.002	0.002	6.16	210.3	-12.7	97.5	7.93
12/3/2019	11:10:16	21.45	0.002	0.002	5.96	236.5	-11.9	97.7	8.64
12/3/2019	11:20:16	17.61	0.002	0.002	5.93	244.4	-11.9	99.5	9.5
12/3/2019	11:30:16	15.13	0.002	0.002	5.94	242.1	-12.1	99.2	9.98
12/3/2019	11:40:16	13.42	0.002	0.002	5.95	239.8	-11.8	99.1	10.35
12/3/2019	11:50:16	12.15	0.002	0.002	5.97	237.7	-12.7	98.5	10.58
12/3/2019	12:00:16	11.4	0.002	0.002	6.03	230.6	-13.3	97.9	10.7
12/3/2019	12:10:16	10.88	1.908	1.393	7.23	66.9	-9.5	111.8	12.29
12/3/2019	12:20:16	10.89	1.909	1.394	6.44	108.4	-19.6	162.7	17.88
12/3/2019	12:30:16	10.89	1.908	1.394	6.39	128.1	-20.3	165.6	18.2
12/3/2019	12:40:16	10.89	1.908	1.394	6.38	140.2	-21	166.5	18.3
12/3/2019	12:50:16	10.9	1.907	1.394	6.38	148.2	-20	165.1	18.14
12/3/2019	13:00:16	10.89	1.908	1.393	6.38	153.7	-18.8	155.9	17.13
12/3/2019	13:10:16	10.88	1.908	1.394	6.39	158.1	-19.8	147.7	16.23
12/3/2019	13:20:16	10.89	1.907	1.393	6.39	161.7	-20.8	157.5	17.31
12/3/2019	13:30:16	10.89	1.905	1.391	6.39	163.5	-21.2	160.3	17.62
12/3/2019	13:40:16	10.89	1.905	1.391	6.39	165.7	-21	160.4	17.63
12/3/2019	13:50:16	10.88	1.905	1.392	6.4	167.3	-21	161.4	17.73
12/3/2019	14:00:16	10.88	1.907	1.393	6.41	169.1	-21	162.5	17.86
12/3/2019	14:10:16	10.88	1.908	1.393	6.4	171.1	-21.2	161.7	17.77
12/3/2019	14:20:16	10.88	1.907	1.393	6.41	172.6	-21.4	161.3	17.73
12/3/2019	14:30:16	10.88	1.907	1.393	6.41	173.4	-21.2	161.4	17.74
12/3/2019	14:40:16	10.88	1.907	1.393	6.4	174.6	-21.2	162.3	17.84
12/3/2019	14:50:16	10.88	1.907	1.393	6.41	175.2	-21.2	162.7	17.88
12/3/2019	15:00:16	10.88	1.908	1.393	6.4	177.1	-21.4	161.8	17.79
12/3/2019	15:10:16	10.88	1.908	1.393	6.41	177.9	-21.4	161.7	17.77
12/3/2019	15:20:16	10.88	1.908	1.393	6.41	178.6	-21.5	160.2	17.6
12/3/2019	15:30:16	10.88	1.908	1.393	6.41	180.2	-21.7	160.1	17.6
12/3/2019	15:40:16	10.88	1.908	1.393	6.41	181.4	-21.7	160.1	17.6
12/3/2019	15:50:16	10.88	1.908	1.393	6.41	182.6	-21.6	160.3	17.62
12/3/2019	16:00:16	10.88	1.908	1.393	6.41	183.5	-21.7	161	17.69
12/3/2019	16:10:16	10.88	1.907	1.393	6.41	184.3	-21.7	159.6	17.54
12/3/2019	16:20:16	10.88	1.908	1.393	6.41	184.4	-21.7	159.4	17.52
12/3/2019	16:30:16	10.88	1.908	1.393	6.42	184.6	-21.7	159	17.47
12/3/2019	16:40:16	10.88	1.908	1.393	6.41	184.8	-21.7	160.8	17.67

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
12/3/2019	16:50:16	10.88	1.908	1.393	6.41	185.5	-21.9	163	17.91
12/3/2019	17:00:16	10.88	1.908	1.394	6.41	186.5	-21.8	160.8	17.67
12/3/2019	17:10:16	10.88	1.908	1.393	6.41	187.3	-21.7	160.7	17.66
12/3/2019	17:20:16	10.88	1.908	1.394	6.41	188	-21.7	160.4	17.63
12/3/2019	17:30:16	10.88	1.909	1.394	6.41	188.7	-21.8	161	17.7
12/3/2019	17:40:16	10.88	1.909	1.394	6.41	189.3	-21.5	161.4	17.74
12/3/2019	17:50:16	10.88	1.909	1.394	6.41	189.9	-21.7	158.9	17.46
12/3/2019	18:00:16	10.88	1.909	1.394	6.42	190.2	-21.7	159.5	17.54
12/3/2019	18:10:16	10.88	1.909	1.394	6.42	190.1	-21.8	161.2	17.72
12/3/2019	18:20:16	10.88	1.909	1.394	6.42	190.9	-21.7	161.7	17.78
12/3/2019	18:30:16	10.88	1.909	1.394	6.41	191.3	-21.7	160	17.59
12/3/2019	18:40:16	10.88	1.909	1.394	6.42	191	-21.8	161.2	17.71
12/3/2019	18:50:16	10.88	1.909	1.394	6.43	191.2	-21.8	159.8	17.56
12/3/2019	19:00:16	10.88	1.909	1.394	6.42	191.8	-21.9	158.6	17.43
12/3/2019	19:10:16	10.88	1.909	1.394	6.42	192.1	-21.8	158.1	17.38
12/3/2019	19:20:16	10.88	1.909	1.394	6.43	191.8	-21.8	158.1	17.38
12/3/2019	19:30:16	10.88	1.91	1.394	6.43	192.1	-21.7	157.7	17.33
12/3/2019	19:40:16	10.88	1.909	1.394	6.43	192.4	-21.8	157.7	17.33
12/3/2019	19:50:16	10.88	1.909	1.394	6.42	193.2	-21.8	160.1	17.6
12/3/2019	20:00:16	10.88	1.91	1.395	6.43	193.1	-21.7	162.4	17.85
12/3/2019	20:10:16	10.88	1.91	1.395	6.42	193.8	-21.6	160.6	17.65
12/3/2019	20:20:16	10.88	1.91	1.394	6.42	194	-21.7	160	17.59
12/3/2019	20:30:16	10.88	1.91	1.395	6.43	193.5	-21.7	161.8	17.78
12/3/2019	20:40:16	10.88	1.91	1.395	6.43	193.5	-21.7	162.1	17.82
12/3/2019	20:50:16	10.88	1.91	1.395	6.42	194.2	-21.9	161.6	17.76
12/3/2019	21:00:16	10.88	1.91	1.394	6.42	194.3	-21.7	161.3	17.73
12/3/2019	21:10:16	10.88	1.91	1.395	6.43	194	-21.7	160.8	17.67
12/3/2019	21:20:16	10.88	1.91	1.395	6.43	194	-21.7	160.1	17.59
12/3/2019	21:30:16	10.88	1.91	1.395	6.42	194.4	-21.7	161.8	17.79
12/3/2019	21:40:16	10.88	1.91	1.395	6.42	194.5	-21.8	163.6	17.98
12/3/2019	21:50:16	10.88	1.91	1.395	6.42	194.6	-21.7	165.7	18.21
12/3/2019	22:00:16	10.88	1.91	1.395	6.42	194.8	-21.7	166.3	18.28
12/3/2019	22:10:16	10.88	1.91	1.395	6.42	194.9	-21.7	165.4	18.18
12/3/2019	22:20:16	10.88	1.91	1.395	6.42	195	-21.7	164	18.03
12/3/2019	22:30:16	10.88	1.91	1.395	6.43	194.6	-21.7	164.3	18.06
12/3/2019	22:40:16	10.88	1.91	1.395	6.42	195.1	-21.7	164.4	18.08
12/3/2019	22:50:16	10.88	1.91	1.395	6.43	194.6	-22	165	18.13

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
12/3/2019	23:00:16	10.88	1.911	1.395	6.43	195.3	-21.8	166.1	18.26
12/3/2019	23:10:16	10.88	1.911	1.395	6.42	195.4	-21.8	166.3	18.28
12/3/2019	23:20:16	10.88	1.911	1.395	6.43	194.9	-22	165.9	18.24
12/3/2019	23:30:16	10.88	1.91	1.395	6.42	195.5	-22	166.2	18.27
12/3/2019	23:40:16	10.88	1.911	1.395	6.42	195.6	-21.8	165.9	18.23
12/3/2019	23:50:16	10.88	1.911	1.395	6.42	195.7	-21.8	166.7	18.33
12/4/2019	0:00:16	10.88	1.911	1.395	6.42	195.8	-21.8	167.2	18.37
12/4/2019	0:10:16	10.88	1.911	1.395	6.43	195.3	-21.7	166.3	18.28
12/4/2019	0:20:16	10.88	1.911	1.395	6.42	195.9	-21.8	166.8	18.34
12/4/2019	0:30:16	10.88	1.911	1.395	6.42	196	-21.8	167.2	18.38
12/4/2019	0:40:16	10.88	1.91	1.395	6.42	196	-21.7	166.4	18.29
12/4/2019	0:50:16	10.88	1.911	1.395	6.43	195.5	-21.7	166.6	18.31
12/4/2019	1:00:16	10.88	1.911	1.395	6.43	195.5	-21.7	166.8	18.33
12/4/2019	1:10:16	10.88	1.911	1.395	6.43	195.5	-21.8	166.1	18.26
12/4/2019	1:20:16	10.88	1.911	1.395	6.43	195.4	-21.8	166.1	18.25
12/4/2019	1:30:16	10.88	1.911	1.395	6.43	195.3	-21.8	165.1	18.14
12/4/2019	1:40:16	10.88	1.911	1.395	6.42	195.8	-21.8	165.7	18.22
12/4/2019	1:50:16	10.88	1.911	1.395	6.42	195.8	-22	166.6	18.31
12/4/2019	2:00:16	10.88	1.911	1.395	6.42	195.7	-22	166.4	18.29
12/4/2019	2:10:16	10.88	1.911	1.395	6.43	195.2	-22	166.3	18.27
12/4/2019	2:20:16	10.88	1.911	1.395	6.42	195.7	-22	166.1	18.26
12/4/2019	2:30:16	10.87	1.911	1.395	6.42	195.7	-21.8	166.7	18.33
12/4/2019	2:40:16	10.88	1.911	1.395	6.42	195.7	-21.9	166.4	18.29
12/4/2019	2:50:16	10.88	1.911	1.395	6.43	195.3	-21.8	166.3	18.27
12/4/2019	3:00:16	10.88	1.911	1.395	6.43	195.4	-21.7	165.6	18.2
12/4/2019	3:10:16	10.88	1.911	1.396	6.43	195.6	-21.8	165.7	18.21
12/4/2019	3:20:16	10.88	1.911	1.395	6.43	195.7	-21.7	165.1	18.15
12/4/2019	3:30:16	10.88	1.911	1.395	6.42	196.5	-21.8	165.8	18.22
12/4/2019	3:40:16	10.87	1.911	1.396	6.42	196.7	-21.7	165.7	18.21
12/4/2019	3:50:16	10.88	1.911	1.395	6.42	196.8	-21.8	166	18.25
12/4/2019	4:00:16	10.87	1.911	1.395	6.42	197	-21.8	166.6	18.31
12/4/2019	4:10:16	10.87	1.911	1.395	6.42	197.1	-21.8	166.2	18.27
12/4/2019	4:20:16	10.87	1.911	1.395	6.43	196.6	-21.8	166.8	18.33
12/4/2019	4:30:16	10.87	1.911	1.396	6.43	196.7	-21.8	167.4	18.4
12/4/2019	4:40:16	10.88	1.911	1.396	6.42	197.3	-21.9	166.8	18.34
12/4/2019	4:50:16	10.88	1.911	1.395	6.43	196.8	-21.8	166.6	18.32
12/4/2019	5:00:16	10.87	1.911	1.395	6.42	197.2	-21.9	166.1	18.26

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
12/4/2019	5:10:16	10.87	1.911	1.396	6.42	197.2	-21.9	166.7	18.32
12/4/2019	5:20:16	10.87	1.911	1.396	6.42	197.2	-21.8	166.7	18.32
12/4/2019	5:30:16	10.88	1.911	1.395	6.43	196.7	-21.9	166.3	18.28
12/4/2019	5:40:16	10.88	1.911	1.396	6.42	197.1	-22.1	166.6	18.31
12/4/2019	5:50:16	10.88	1.911	1.395	6.42	197.2	-22	165.8	18.23
12/4/2019	6:00:16	10.87	1.911	1.396	6.43	196.7	-21.9	166.1	18.26
12/4/2019	6:10:16	10.87	1.911	1.395	6.42	197.1	-21.8	166.1	18.26
12/4/2019	6:20:16	10.87	1.911	1.396	6.42	197.2	-21.8	166.4	18.29
12/4/2019	6:30:16	10.87	1.911	1.396	6.43	196.7	-21.9	166.4	18.3
12/4/2019	6:40:16	10.87	1.911	1.396	6.42	197.3	-21.8	166.4	18.29
12/4/2019	6:50:16	10.87	1.911	1.396	6.43	196.8	-21.8	166.6	18.31
12/4/2019	7:00:16	10.87	1.911	1.396	6.42	197.4	-21.8	166.1	18.26
12/4/2019	7:10:16	10.87	1.911	1.396	6.43	196.9	-21.9	166.5	18.3
12/4/2019	7:20:16	10.87	1.912	1.396	6.43	196.9	-21.8	167	18.36
12/4/2019	7:30:16	10.87	1.912	1.396	6.42	197.5	-21.9	166.5	18.3
12/4/2019	7:40:16	10.87	1.911	1.396	6.42	197.6	-21.8	166.9	18.35
12/4/2019	7:50:16	10.87	1.912	1.396	6.42	197.7	-21.8	166.6	18.31
12/4/2019	8:00:16	10.87	1.911	1.396	6.42	197.8	-21.8	166.7	18.32
12/4/2019	8:10:16	10.87	1.911	1.396	6.42	197.8	-21.8	167.2	18.38
12/4/2019	8:20:16	10.87	1.912	1.396	6.43	197.3	-21.9	166.4	18.29
12/4/2019	8:30:16	10.87	1.912	1.396	6.42	197.9	-21.9	166.5	18.3
12/4/2019	8:40:16	10.87	1.912	1.396	6.42	197.9	-22	166.2	18.27
12/4/2019	8:50:16	10.87	1.912	1.396	6.42	198	-21.9	167	18.36
12/4/2019	9:00:16	10.87	1.912	1.396	6.43	197.4	-22	166.3	18.28
12/4/2019	9:10:16	10.87	1.911	1.396	6.42	197.9	-21.9	166.6	18.32
12/4/2019	9:20:16	10.87	1.911	1.396	6.42	197.9	-21.9	166.3	18.28
12/4/2019	9:30:16	10.87	1.912	1.396	6.42	198	-21.9	165.7	18.22
12/4/2019	9:40:16	2.62	0.005	0.003	6.45	198.5	-21.4	100	13.61
12/4/2019	9:50:16	5.97	0.003	0.002	7.23	152	-21.9	97.9	12.19
12/4/2019	10:00:16	7.21	0.004	0.003	7.19	144.2	-22.1	97.7	11.8
12/4/2019	10:10:16	7.87	0.003	0.002	6.62	180.2	-22.3	98	11.64
12/4/2019	10:20:16	8.64	0.004	0.003	5.76	215.6	-22.6	98.5	11.48
12/4/2019	10:30:16	11.23	0.004	0.003	5.88	222.9	-23	97.1	10.65
12/4/2019	10:40:16	12.63	0.003	0.003	6.06	231.1	-23.2	96.8	10.28
12/4/2019	10:50:16	14.11	0.003	0.002	6.27	235.3	-23.5	95.8	9.85
12/17/2019	10:56:07	15.68	0.053	0.043	6.42	170.6	1.5	95.9	9.53
12/17/2019	11:00:06	15.82	0.032	0.027	6.5	163.6	20.9	95.7	9.48

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
12/17/2019	11:10:16	16.82	0.037	0.031	6.35	151.7	13.2	95.9	9.31
12/17/2019	11:20:00	17.37	0.026	0.022	6.51	174.4	-6.3	96.3	9.23
12/17/2019	11:30:16	17.45	0.036	0.031	7.23	160.6	33	98	9.38
12/17/2019	11:40:16	17.6	0.033	0.028	7.34	147.7	30.6	98.2	9.37
12/17/2019	11:50:16	12.7	0.008	0.006	6.4	232.8	-7.6	99.2	10.52
12/17/2019	12:00:16	10.9	1.756	1.283	8.4	-59.2	-5.5	64.6	7.11
12/17/2019	12:10:16	10.8	1.977	1.441	6.96	67.6	-5.5	155.8	17.16
12/17/2019	12:20:16	10.8	1.978	1.442	6.69	101.5	-5.2	158.7	17.47
12/17/2019	12:30:16	10.8	1.98	1.443	6.59	117.9	-5.5	159.7	17.58
12/17/2019	12:40:16	10.81	1.981	1.444	6.54	127.7	-4.3	159.8	17.58
12/17/2019	12:50:00	3.58	0.004	0.002	7.22	80.7	-6.4	99	13.13
12/17/2019	13:00:16	11.02	0.299	0.219	8.63	-129.6	15.5	25.3	2.79
12/17/2019	13:10:16	11.02	0.288	0.211	8.7	-52.6	14.5	23.3	2.57
12/17/2019	13:20:16	10.8	1.973	1.437	7.66	-56	-3	139.1	15.32
12/17/2019	13:30:16	10.79	1.976	1.44	6.88	-53.6	-4.9	155.7	17.14
12/17/2019	13:40:16	10.78	1.976	1.439	6.67	-44.7	-5.3	157.4	17.34
12/17/2019	13:50:16	10.79	1.976	1.44	6.59	-32.3	-6.2	156.3	17.22
12/17/2019	14:00:16	10.78	1.976	1.44	6.56	-8.7	-5.8	156.3	17.21
12/17/2019	14:10:16	10.79	1.976	1.44	6.53	0.1	-6.4	153.3	16.88
12/17/2019	14:20:16	10.8	1.976	1.44	6.51	8.6	-6.5	154.8	17.04
12/17/2019	14:30:16	10.8	1.976	1.44	6.5	15.9	-6	154.4	17
12/17/2019	14:40:16	10.8	1.976	1.44	6.5	24.2	-6	154.8	17.04
12/17/2019	14:50:16	10.8	1.976	1.44	6.49	16.6	-6	154.7	17.03
12/17/2019	15:00:16	10.8	1.976	1.44	6.49	18.5	-6.5	155.4	17.11
12/17/2019	15:10:16	10.8	1.976	1.44	6.48	19.5	-6.6	155.2	17.08
12/17/2019	15:20:16	10.8	1.976	1.44	6.48	19.5	-6.5	154.6	17.02
12/17/2019	15:30:16	10.8	1.975	1.44	6.48	18.9	-6.2	154.2	16.97
12/17/2019	15:40:16	10.8	1.975	1.44	6.48	24.7	-6.4	154.9	17.05
12/17/2019	15:50:16	10.8	1.975	1.439	6.47	29.3	-6.4	155	17.06
12/17/2019	16:00:16	10.8	1.975	1.439	6.47	29.7	-6.2	156.1	17.18
12/17/2019	16:10:16	10.8	1.975	1.439	6.47	37	-6.3	157.1	17.3
12/17/2019	16:20:16	10.8	1.975	1.439	6.48	44.3	-6.5	158.1	17.41
12/17/2019	16:30:16	10.8	1.975	1.439	6.48	36.1	-6.6	158.8	17.48
12/17/2019	16:40:16	10.8	1.975	1.439	6.48	44.9	-6.6	158.8	17.48
12/17/2019	16:50:16	10.8	1.975	1.439	6.48	54.7	-6.6	158.1	17.41
12/17/2019	17:00:16	10.8	1.975	1.439	6.49	62.9	-6.7	157.5	17.34
12/17/2019	17:10:16	10.8	1.975	1.439	6.48	65.3	-6.7	156.9	17.27

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
12/17/2019	17:20:16	10.8	1.975	1.439	6.48	69.3	-6.7	157.2	17.31
12/17/2019	17:30:16	10.8	1.975	1.439	6.49	81.6	-6.6	157.5	17.33
12/17/2019	17:40:16	10.8	1.975	1.439	6.49	106.6	-6.6	158.5	17.45
12/17/2019	17:50:16	10.8	1.975	1.44	6.49	108.7	-6.7	159.1	17.52
12/17/2019	18:00:16	10.8	1.975	1.44	6.48	112.7	-6.6	158.3	17.42
12/17/2019	18:10:16	10.8	1.975	1.439	6.48	108	-6.6	158	17.39
12/17/2019	18:20:16	10.8	1.975	1.439	6.48	114	-6.7	156.9	17.28
12/17/2019	18:30:16	10.8	1.976	1.44	6.49	119	-6.6	156.2	17.19
12/17/2019	18:40:16	10.8	1.975	1.439	6.49	121.8	-6.6	156.9	17.28
12/17/2019	18:50:16	10.8	1.975	1.44	6.49	122.1	-6.8	157.1	17.29
12/17/2019	19:00:16	10.8	1.975	1.439	6.49	122	-6.9	156.8	17.26
12/17/2019	19:10:16	10.8	1.975	1.439	6.49	119.1	-6.6	156.1	17.19
12/17/2019	19:20:16	10.8	1.975	1.44	6.49	122.6	-6.7	157.5	17.34
12/17/2019	19:30:16	10.8	1.975	1.439	6.49	123.7	-6.8	158.2	17.42
12/17/2019	19:40:16	10.8	1.975	1.44	6.48	124.6	-6.6	159	17.5
12/17/2019	19:50:16	10.8	1.976	1.44	6.48	125	-6.7	158.5	17.45
12/17/2019	20:00:16	10.8	1.976	1.44	6.49	124.5	-6.6	158.4	17.44
12/17/2019	20:10:16	10.8	1.975	1.44	6.49	124.5	-6.6	158.5	17.45
12/17/2019	20:20:16	10.8	1.975	1.439	6.49	121.2	-6.8	158.3	17.42
12/17/2019	20:30:16	10.8	1.975	1.44	6.49	123.4	-6.8	158.7	17.48
12/17/2019	20:40:16	10.8	1.975	1.439	6.49	124	-6.7	157.8	17.37
12/17/2019	20:50:16	10.8	1.975	1.439	6.48	124.8	-6.8	157	17.28
12/17/2019	21:00:16	10.8	1.975	1.44	6.48	124.9	-6.9	156.5	17.23
12/17/2019	21:10:16	10.8	1.975	1.44	6.49	124.9	-6.8	157.3	17.31
12/17/2019	21:20:16	10.8	1.975	1.439	6.49	125.3	-6.6	158.6	17.46
12/17/2019	21:30:16	10.8	1.976	1.44	6.48	123.2	-6.7	158.3	17.43
12/17/2019	21:40:16	10.8	1.976	1.44	6.49	124.2	-6.7	158.4	17.44
12/17/2019	21:50:16	10.8	1.975	1.44	6.49	125	-6.7	158.7	17.47
12/17/2019	22:00:16	10.8	1.975	1.44	6.48	125.8	-6.8	159.4	17.54
12/17/2019	22:10:16	10.8	1.976	1.44	6.48	126.2	-6.7	159	17.51
12/17/2019	22:20:16	10.8	1.975	1.439	6.49	125.4	-6.8	159	17.5
12/17/2019	22:30:16	10.8	1.976	1.44	6.49	125.4	-6.7	158.7	17.47
12/17/2019	22:40:16	10.8	1.976	1.44	6.48	126	-6.7	158.3	17.43
12/17/2019	22:50:16	10.8	1.976	1.44	6.49	125.7	-6.6	159.2	17.53
12/17/2019	23:00:16	10.8	1.975	1.44	6.48	126.3	-6.7	158.6	17.46
12/17/2019	23:10:16	10.8	1.976	1.44	6.48	126.3	-6.6	158.3	17.43
12/17/2019	23:20:16	10.8	1.975	1.44	6.48	125.7	-6.6	159.2	17.52

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
12/17/2019	23:30:16	10.8	1.976	1.44	6.49	123.2	-6.7	159.3	17.53
12/17/2019	23:40:16	10.8	1.976	1.44	6.49	121.9	-6.6	158.8	17.48
12/17/2019	23:50:16	10.8	1.976	1.44	6.49	121.3	-6.7	159.5	17.56
12/18/2019	0:00:16	10.8	1.976	1.44	6.49	119.9	-6.6	159.3	17.53
12/18/2019	0:10:16	10.8	1.975	1.44	6.49	121	-6.5	159.1	17.51
12/18/2019	0:20:16	10.8	1.976	1.44	6.48	122	-6.6	158.2	17.41
12/18/2019	0:30:16	10.8	1.976	1.44	6.49	122	-6.7	159.3	17.53
12/18/2019	0:40:16	10.8	1.975	1.439	6.48	123.1	-6.7	159.1	17.51
12/18/2019	0:50:16	10.8	1.976	1.44	6.49	124.8	-6.6	158.5	17.45
12/18/2019	1:00:16	10.8	1.975	1.44	6.48	126.5	-6.6	158.6	17.46
12/18/2019	1:10:16	10.8	1.976	1.44	6.49	126.6	-6.7	158.8	17.48
12/18/2019	1:20:16	10.8	1.975	1.44	6.48	127.4	-6.7	158.3	17.43
12/18/2019	1:30:16	10.8	1.976	1.44	6.49	127	-6.8	159.2	17.53
12/18/2019	1:40:16	10.8	1.976	1.44	6.48	127.6	-6.8	158.9	17.49
12/18/2019	1:50:16	10.8	1.976	1.44	6.48	127.5	-6.7	158.8	17.48
12/18/2019	2:00:16	10.8	1.976	1.44	6.49	127.4	-6.6	158.4	17.44
12/18/2019	2:10:16	10.8	1.976	1.44	6.48	127.9	-6.7	158.6	17.46
12/18/2019	2:20:16	10.8	1.976	1.44	6.48	128.4	-6.7	159.3	17.53
12/18/2019	2:30:16	10.8	1.976	1.44	6.49	128.1	-6.8	158.8	17.48
12/18/2019	2:40:16	10.8	1.975	1.44	6.48	128.9	-6.8	159	17.5
12/18/2019	2:50:16	10.8	1.976	1.44	6.48	129	-6.7	159.4	17.55
12/18/2019	3:00:16	10.8	1.976	1.44	6.49	129	-6.8	159	17.5
12/18/2019	3:10:16	10.8	1.976	1.44	6.49	128.1	-6.7	158.8	17.49
12/18/2019	3:20:16	10.8	1.976	1.44	6.48	129.3	-6.8	159.4	17.55
12/18/2019	3:30:16	10.8	1.976	1.44	6.49	129.1	-6.8	159.2	17.53
12/18/2019	3:40:16	10.8	1.976	1.44	6.49	127.6	-6.8	159.3	17.53
12/18/2019	3:50:16	10.8	1.976	1.44	6.48	128.8	-6.7	158.4	17.43
12/18/2019	4:00:16	10.8	1.976	1.44	6.49	129	-6.7	158.3	17.43
12/18/2019	4:10:16	10.8	1.976	1.44	6.48	129.4	-6.7	159.2	17.52
12/18/2019	4:20:16	10.8	1.976	1.44	6.49	129	-6.8	159.2	17.53
12/18/2019	4:30:16	10.8	1.975	1.44	6.48	103.5	-6.6	159.5	17.56
12/18/2019	4:40:16	10.8	1.976	1.44	6.48	115.7	-6.6	159.5	17.56
12/18/2019	4:50:16	10.8	1.976	1.44	6.49	122.4	-6.6	159.6	17.58
12/18/2019	5:00:16	10.8	1.976	1.44	6.48	124.9	-6.6	159.5	17.55
12/18/2019	5:10:16	10.8	1.976	1.44	6.49	109.9	-6.7	159.5	17.56
12/18/2019	5:20:16	10.8	1.976	1.44	6.49	122.4	-6.6	158.6	17.46
12/18/2019	5:30:16	10.8	1.975	1.44	6.48	125.4	-6.6	158.5	17.44

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
12/18/2019	5:40:16	10.8	1.975	1.44	6.48	125.6	-6.6	158.7	17.47
12/18/2019	5:50:16	10.8	1.976	1.44	6.49	125.2	-6.7	158.4	17.44
12/18/2019	6:00:16	10.8	1.976	1.44	6.48	125.4	-6.7	158.2	17.42
12/18/2019	6:10:16	10.8	1.976	1.44	6.48	126.2	-6.7	158.5	17.46
12/18/2019	6:20:16	10.8	1.976	1.44	6.48	125.5	-6.8	158.6	17.46
12/18/2019	6:30:16	10.8	1.976	1.44	6.48	125.9	-6.8	159.6	17.57
12/18/2019	6:40:16	10.8	1.976	1.44	6.49	125.8	-6.8	159.8	17.59
12/18/2019	6:50:16	10.8	1.976	1.44	6.49	124.5	-6.7	159.4	17.55
12/18/2019	7:00:16	10.8	1.975	1.44	6.48	117	-6.7	159.6	17.58
12/18/2019	7:10:16	10.8	1.976	1.44	6.49	121.5	-6.6	159.7	17.59
12/18/2019	7:20:16	10.8	1.976	1.44	6.49	123	-6.6	159.7	17.58
12/18/2019	7:30:16	10.8	1.975	1.44	6.49	123.5	-6.7	160	17.62
12/18/2019	7:40:16	10.8	1.976	1.44	6.49	123.7	-6.7	159.7	17.58
12/18/2019	7:50:16	10.8	1.976	1.44	6.49	123.6	-6.6	159.4	17.55
12/18/2019	8:00:16	10.8	1.976	1.44	6.48	123.7	-6.6	159.4	17.54
12/18/2019	8:10:16	10.8	1.976	1.44	6.48	124.3	-6.7	159.7	17.58
12/18/2019	8:20:16	10.8	1.976	1.44	6.48	124.2	-6.8	159.2	17.52
12/18/2019	8:30:16	10.8	1.976	1.44	6.48	124.5	-6.8	159.1	17.51
12/18/2019	8:40:16	10.8	1.976	1.44	6.48	118.6	-6.8	159.3	17.54
12/18/2019	8:50:16	10.8	1.976	1.44	6.49	119.1	-6.8	159.5	17.57
12/18/2019	9:00:16	10.8	1.976	1.44	6.48	122.9	-6.7	158.9	17.5
12/18/2019	9:10:16	10.8	1.975	1.44	6.48	123.9	-6.8	159.3	17.53
12/18/2019	9:20:16	10.8	1.976	1.44	6.48	124.3	-6.8	159.8	17.59
12/18/2019	9:30:16	10.8	1.976	1.44	6.48	124.6	-6.7	159.3	17.54
12/18/2019	9:40:16	10.8	1.976	1.44	6.49	124.8	-6.7	159.5	17.56
12/18/2019	9:50:16	10.8	1.976	1.44	6.48	126	-6.6	159.1	17.52
12/18/2019	10:00:16	10.8	1.976	1.44	6.48	125.7	-6.7	159	17.5
12/18/2019	10:10:16	10.8	1.976	1.44	6.49	126	-6.7	159.2	17.53
12/18/2019	10:20:16	10.8	1.976	1.44	6.48	126.3	-6.9	159.4	17.55
12/18/2019	10:30:16	10.8	1.976	1.44	6.47	126.6	-6.8	159.3	17.54
12/18/2019	10:40:16	10.8	1.976	1.44	6.47	126.8	-6.9	159.1	17.52
12/18/2019	10:50:16	10.8	1.975	1.439	6.48	106.6	-6.8	159.2	17.52
1/8/2020	13:32:25	15.53	0.003	0.003	7.16	119	7.6	99.5	9.92
1/8/2020	13:40:16	13.47	0.003	0.002	6.29	142.8	-3.6	102.5	10.69
1/8/2020	13:50:16	13.2	0.002	0.002	6.25	147.2	-3.8	103.4	10.84
1/8/2020	14:00:16	12.15	0.002	0.001	6.15	169.4	-3.2	103.8	11.15
1/8/2020	14:20:16	10.62	1.887	1.369	6.57	-33.9	-4.2	152.4	16.85



**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
1/8/2020	14:30:16	10.63	1.89	1.371	6.32	-3.8	-4	155	17.13
1/8/2020	14:40:16	10.65	1.887	1.37	6.29	-0.6	-4	153.8	16.99
1/8/2020	14:50:16	10.65	1.877	1.362	6.26	16	-4.3	113.4	12.54
1/8/2020	15:00:16	10.64	1.875	1.36	6.25	28.7	-4.5	127	14.04
1/8/2020	15:10:16	10.64	1.873	1.359	6.26	10.4	-4.5	124.3	13.74
1/8/2020	15:20:16	10.63	1.876	1.361	6.27	16.4	-4.6	126.3	13.96
1/8/2020	15:30:16	10.63	1.876	1.361	6.26	4.5	-4.6	128.2	14.17
1/8/2020	15:40:16	10.63	1.879	1.364	6.27	14	-4.6	132.8	14.68
1/8/2020	15:50:16	10.63	1.882	1.366	6.27	27.4	-4.7	135.8	15.02
1/8/2020	16:00:16	10.63	1.885	1.367	6.27	34.6	-4.6	138.1	15.27
1/8/2020	16:10:16	10.63	1.886	1.368	6.27	55.4	-4.7	136.6	15.11
1/8/2020	16:20:16	10.63	1.886	1.368	6.27	30.3	-4.6	136.8	15.12
1/8/2020	16:30:16	10.63	1.886	1.368	6.27	4.2	-4.6	141.6	15.66
1/8/2020	16:40:16	10.63	1.887	1.369	6.27	7.8	-4.7	143.6	15.88
1/8/2020	16:50:16	10.63	1.887	1.369	6.27	30	-4.6	142.9	15.8
1/8/2020	17:00:16	10.63	1.888	1.369	6.28	71.8	-4.6	145.1	16.05
1/8/2020	17:10:16	10.63	1.888	1.37	6.27	30	-4.7	147.2	16.27
1/8/2020	17:20:16	10.63	1.889	1.37	6.27	4.9	-4.5	147.3	16.29
1/8/2020	17:30:16	10.63	1.889	1.37	6.28	27.8	-4.6	150.4	16.63
1/8/2020	17:40:16	10.63	1.889	1.37	6.28	24.7	-4.7	152.5	16.86
1/8/2020	17:50:16	10.63	1.889	1.37	6.28	24.2	-4.5	154.6	17.09
1/8/2020	18:00:16	10.63	1.89	1.371	6.28	31.1	-4.6	154.9	17.12
1/8/2020	18:10:16	10.63	1.889	1.371	6.28	26.9	-4.6	157	17.36
1/8/2020	18:20:16	10.63	1.889	1.371	6.29	41.1	-4.7	154.5	17.09
1/8/2020	18:30:16	10.63	1.89	1.371	6.29	41.6	-4.7	153.9	17.02
1/8/2020	18:40:16	10.63	1.89	1.371	6.3	50.1	-4.7	156	17.25
1/8/2020	18:50:16	10.63	1.89	1.371	6.3	57.1	-4.7	156	17.24
1/8/2020	19:00:16	10.63	1.89	1.371	6.29	52.9	-4.7	154.8	17.11
1/8/2020	19:10:16	10.63	1.89	1.371	6.3	59.4	-4.5	155.6	17.2
1/8/2020	19:20:16	10.63	1.89	1.371	6.3	65.3	-4.6	157	17.35
1/8/2020	19:30:16	10.63	1.89	1.371	6.29	62	-4.7	157.9	17.46
1/8/2020	19:40:16	10.63	1.89	1.371	6.29	63.8	-4.6	157.3	17.4
1/8/2020	19:50:16	10.63	1.89	1.371	6.29	66.3	-4.6	157.3	17.4
1/8/2020	20:00:16	10.63	1.89	1.371	6.29	71.4	-4.7	157.3	17.4
1/8/2020	20:10:16	10.63	1.89	1.371	6.29	65.7	-4.6	157.5	17.42
1/8/2020	20:20:16	10.63	1.891	1.371	6.29	84.2	-4.6	157.8	17.45
1/8/2020	20:30:16	10.63	1.891	1.371	6.29	78.3	-4.6	158	17.47

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
1/8/2020	20:40:16	10.63	1.891	1.372	6.29	76	-4.6	157.8	17.44
1/8/2020	20:50:16	10.63	1.891	1.372	6.3	81.4	-4.7	157.7	17.44
1/8/2020	21:00:16	10.63	1.891	1.372	6.29	78.5	-4.7	158.5	17.52
1/8/2020	21:10:16	10.63	1.891	1.371	6.3	62.4	-4.7	158.9	17.57
1/8/2020	21:20:16	10.63	1.89	1.371	6.3	75.9	-4.7	158.7	17.55
1/8/2020	21:30:16	10.63	1.891	1.372	6.3	76.5	-4.6	158.8	17.56
1/8/2020	21:40:16	10.63	1.89	1.371	6.29	77.3	-4.6	158.8	17.56
1/8/2020	21:50:16	10.63	1.89	1.371	6.3	77.3	-4.6	158.5	17.53
1/8/2020	22:00:16	10.63	1.89	1.371	6.3	84.2	-4.6	159.2	17.6
1/8/2020	22:10:16	10.63	1.891	1.371	6.29	77	-4.6	160	17.69
1/8/2020	22:20:16	10.63	1.891	1.372	6.29	102.4	-4.7	159.8	17.67
1/8/2020	22:30:16	10.63	1.89	1.371	6.3	104.3	-4.6	159.5	17.64
1/8/2020	22:40:16	10.63	1.891	1.371	6.29	67.5	-4.7	159.4	17.63
1/8/2020	22:50:16	10.63	1.891	1.372	6.29	49	-4.6	160	17.69
1/8/2020	23:00:16	10.63	1.891	1.371	6.3	53.2	-4.7	159.8	17.67
1/8/2020	23:10:16	10.63	1.891	1.372	6.29	72	-4.6	159.6	17.65
1/8/2020	23:20:16	10.63	1.891	1.372	6.29	86.4	-4.7	159.8	17.67
1/8/2020	23:30:16	10.62	1.891	1.372	6.3	81.5	-4.7	160	17.69
1/8/2020	23:40:16	10.63	1.891	1.372	6.29	81.9	-4.7	159.7	17.66
1/8/2020	23:50:16	10.62	1.891	1.372	6.3	83.7	-4.6	159.2	17.6
1/9/2020	0:00:16	10.63	1.891	1.371	6.29	87.6	-4.6	159.4	17.63
1/9/2020	0:10:16	10.63	1.891	1.372	6.3	85.4	-4.7	159.9	17.68
1/9/2020	0:20:16	10.63	1.891	1.372	6.29	79.8	-4.7	160.4	17.74
1/9/2020	0:30:16	10.63	1.891	1.372	6.3	76.7	-4.7	160	17.69
1/9/2020	0:40:16	10.62	1.891	1.372	6.29	68.2	-4.7	159.5	17.64
1/9/2020	0:50:16	10.63	1.891	1.372	6.3	79.8	-4.6	159.7	17.66
1/9/2020	1:00:16	10.62	1.891	1.372	6.3	86.4	-4.7	159.6	17.64
1/9/2020	1:10:16	10.63	1.891	1.372	6.3	95	-4.7	159.3	17.62
1/9/2020	1:20:16	10.62	1.891	1.372	6.3	98.4	-4.6	159.1	17.59
1/9/2020	1:30:16	10.62	1.891	1.372	6.29	103.9	-4.7	159.1	17.59
1/9/2020	1:40:16	10.62	1.891	1.372	6.29	103.1	-4.6	159.6	17.65
1/9/2020	1:50:16	10.62	1.891	1.372	6.29	109.7	-4.9	159.8	17.67
1/9/2020	2:00:16	10.62	1.891	1.372	6.29	109.3	-4.8	159.4	17.63
1/9/2020	2:10:16	10.62	1.891	1.372	6.29	95.3	-4.7	159.4	17.63
1/9/2020	2:20:16	10.62	1.891	1.372	6.29	84.3	-4.7	159.2	17.6
1/9/2020	2:30:16	10.62	1.891	1.372	6.29	85.9	-4.7	159.5	17.63
1/9/2020	2:40:16	10.62	1.891	1.372	6.29	86.5	-4.7	159.6	17.64

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
1/9/2020	2:50:16	10.62	1.891	1.372	6.29	89.9	-4.9	159.7	17.66
1/9/2020	3:00:16	10.62	1.891	1.372	6.3	80.4	-4.8	159.3	17.62
1/9/2020	3:10:16	10.62	1.891	1.372	6.29	86.3	-4.6	159.6	17.65
1/9/2020	3:20:16	10.62	1.891	1.372	6.3	77.3	-4.7	159.5	17.63
1/9/2020	3:30:16	10.62	1.891	1.372	6.29	79.8	-4.7	159.2	17.61
1/9/2020	3:40:16	10.62	1.891	1.372	6.29	63	-4.7	159.4	17.62
1/9/2020	3:50:16	10.62	1.891	1.372	6.29	73	-4.7	159.4	17.63
1/9/2020	4:00:16	10.62	1.891	1.372	6.29	76.8	-4.7	159.3	17.61
1/9/2020	4:10:16	10.62	1.891	1.372	6.3	106.8	-4.7	159.2	17.61
1/9/2020	4:20:16	10.62	1.891	1.372	6.3	113.5	-4.7	159.2	17.6
1/9/2020	4:30:16	10.62	1.891	1.372	6.29	116.3	-4.7	159.3	17.61
1/9/2020	4:40:16	10.62	1.891	1.372	6.29	118.5	-4.7	159.2	17.6
1/9/2020	4:50:16	10.62	1.891	1.372	6.29	120.3	-4.7	159.2	17.6
1/9/2020	5:00:16	10.62	1.891	1.372	6.3	106.1	-4.7	159.3	17.62
1/9/2020	5:10:16	10.62	1.891	1.372	6.3	115.7	-4.6	159.3	17.61
1/9/2020	5:20:16	10.62	1.891	1.372	6.3	120.8	-4.7	159.1	17.6
1/9/2020	5:30:16	10.62	1.891	1.372	6.3	122.8	-4.7	159.3	17.61
1/9/2020	5:40:16	10.62	1.891	1.372	6.3	123.7	-4.7	159.4	17.62
1/9/2020	5:50:16	10.62	1.891	1.372	6.3	123.9	-4.7	159.5	17.64
1/9/2020	6:00:16	10.62	1.891	1.372	6.3	123	-4.7	159.3	17.61
1/9/2020	6:10:16	10.62	1.891	1.372	6.3	125.1	-4.7	159.4	17.63
1/9/2020	6:20:16	10.62	1.891	1.372	6.29	70.7	-4.7	159.4	17.63
1/9/2020	6:30:16	10.62	1.892	1.372	6.3	105.8	-4.7	159.3	17.61
1/9/2020	6:40:16	10.62	1.891	1.372	6.29	121.1	-4.6	159.3	17.61
1/9/2020	6:50:16	10.62	1.891	1.372	6.29	123.8	-4.7	159.3	17.61
1/9/2020	7:00:16	10.62	1.891	1.372	6.3	124.5	-4.7	159.3	17.62
1/9/2020	7:10:16	10.62	1.891	1.372	6.29	126.3	-4.8	159.4	17.62
1/9/2020	7:20:16	10.62	1.891	1.372	6.29	126.8	-4.7	159.4	17.62
1/9/2020	7:30:16	10.62	1.891	1.372	6.29	127.3	-4.6	159.5	17.64
1/9/2020	7:40:16	10.62	1.891	1.372	6.29	126.9	-4.7	159.4	17.63
1/9/2020	7:50:16	10.62	1.891	1.372	6.3	126.7	-4.7	159.7	17.65
1/9/2020	8:00:16	10.62	1.891	1.372	6.29	110.4	-4.6	159.7	17.65
1/9/2020	8:10:16	10.62	1.892	1.372	6.3	119.7	-4.6	159.6	17.65
1/9/2020	8:20:16	10.62	1.891	1.372	6.3	125.4	-4.7	159.3	17.61
1/9/2020	8:30:16	10.62	1.892	1.372	6.29	125.1	-4.7	159.7	17.65
1/9/2020	8:40:16	10.62	1.892	1.372	6.3	127	-4.6	159.7	17.65
1/9/2020	8:50:16	10.62	1.891	1.372	6.29	127.2	-4.6	159.4	17.62

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
1/9/2020	9:00:16	10.62	1.892	1.372	6.3	123.5	-4.6	159.5	17.64
1/9/2020	9:10:16	10.62	1.891	1.372	6.29	125.1	-4.7	159.6	17.64
1/9/2020	9:20:16	10.62	1.891	1.372	6.3	126.1	-4.7	159.8	17.67
1/9/2020	9:30:16	10.62	1.891	1.372	6.3	125.9	-4.7	159.7	17.66
1/9/2020	9:40:16	10.62	1.892	1.372	6.3	111.9	-4.8	159.5	17.64
1/9/2020	9:50:16	10.62	1.891	1.372	6.3	116.8	-4.9	159.7	17.66
1/9/2020	10:00:16	10.62	1.891	1.372	6.29	109.1	-4.7	159.9	17.67
1/9/2020	10:10:16	10.62	1.892	1.372	6.29	125.7	-4.7	159.8	17.67
1/9/2020	10:20:16	10.62	1.891	1.372	6.29	128.1	-4.8	159.5	17.64
1/9/2020	10:30:16	10.62	1.891	1.372	6.3	128.8	-4.7	159.5	17.64
1/9/2020	10:40:16	10.62	1.892	1.372	6.29	129.5	-4.7	159.4	17.63
1/9/2020	10:50:16	10.62	1.891	1.372	6.3	128.2	-4.6	159.4	17.63
1/9/2020	11:00:16	10.62	1.891	1.372	6.29	128.5	-4.8	159.5	17.64
1/9/2020	11:10:16	10.63	1.891	1.372	6.29	97.8	1	162	17.91
1/9/2020	11:20:16	10.63	1.891	1.372	6.29	113	-1.2	162.2	17.93
1/9/2020	11:30:16	10.65	1.891	1.373	6.28	121.1	0	161.6	17.86
1/9/2020	11:40:16	10.65	1.891	1.373	6.29	125.6	-2.1	161.6	17.86
1/9/2020	11:50:16	10.63	1.74	1.263	6.47	105.4	-0.7	33.3	3.69
1/9/2020	12:00:16	10.63	1.745	1.266	6.48	93.7	-1	31.2	3.46
1/9/2020	12:20:16	10.68	1.696	1.232	7.08	17.9	-1.7	6.3	0.7
1/9/2020	12:30:16	10.77	1.281	0.933	7.93	-163.6	2	4.3	0.48
1/9/2020	12:40:16	10.77	1.296	0.944	7.96	-192.1	1	4.5	0.5
1/9/2020	12:50:16	10.85	0.459	0.335	8.79	-241.8	11.5	3.8	0.42
1/9/2020	13:00:16	10.85	0.464	0.339	8.78	-222.7	11.4	4.3	0.47
1/9/2020	13:10:16	-0.26	0.005	0.003	7.09	-15.7	-2.2	101.5	14.95
2/11/2020	17:10:12	10.91	1.89	1.381	6.78	77.2	-6.3	55.7	6.12
2/11/2020	17:20:12	10.91	1.906	1.393	6.3	111.5	-19.2	162.2	17.82
2/11/2020	17:30:12	10.91	1.906	1.393	6.34	128.6	-4.3	166.2	18.25
2/11/2020	17:40:12	10.91	1.904	1.391	6.41	131.9	10.4	166.9	18.33
2/11/2020	17:50:12	10.91	1.903	1.391	6.46	130.1	-4.3	167.1	18.35
2/11/2020	18:00:12	10.91	1.902	1.39	6.48	127.9	-8.9	167.4	18.39
2/11/2020	18:10:12	10.91	1.894	1.384	6.48	130.9	-9.8	166.5	18.29
2/11/2020	18:20:12	10.9	1.9	1.389	6.47	133.7	-16.5	167.9	18.45
2/11/2020	18:30:12	10.9	1.904	1.391	6.47	136.7	-20.7	168.7	18.53
2/11/2020	18:40:12	10.9	1.903	1.391	6.47	140.0	-21.4	168.9	18.55
2/11/2020	18:50:12	10.9	1.904	1.391	6.46	142.8	-20.7	168.8	18.54
2/11/2020	19:00:12	10.9	1.903	1.391	6.47	145.1	-21.4	169.1	18.58

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
2/11/2020	19:10:12	10.9	1.905	1.392	6.46	147.2	-21.2	169.3	18.59
2/11/2020	19:20:12	10.9	1.906	1.392	6.47	149.8	-21.5	168.7	18.54
2/11/2020	19:30:12	10.9	1.906	1.393	6.46	152.5	-21.5	168.6	18.52
2/11/2020	19:40:12	10.9	1.904	1.391	6.46	153.9	-21.5	168.6	18.52
2/11/2020	19:50:12	10.9	1.905	1.392	6.47	155.2	-21.2	166.8	18.33
2/11/2020	20:00:12	10.9	1.906	1.392	6.46	157.5	-21.4	167.9	18.45
2/11/2020	20:10:12	10.9	1.906	1.393	6.47	158.2	-21.4	167.4	18.39
2/11/2020	20:20:12	10.9	1.906	1.393	6.46	160.0	-21.4	166.8	18.33
2/11/2020	20:30:12	10.9	1.906	1.393	6.47	161.1	-20.8	166.4	18.28
2/11/2020	20:40:12	10.9	1.907	1.393	6.46	163.8	-21.3	166.8	18.32
2/11/2020	20:50:12	10.9	1.906	1.393	6.46	164.2	-21.3	167.4	18.39
2/11/2020	21:00:12	10.9	1.907	1.393	6.46	165.0	-21.5	168.0	18.46
2/11/2020	21:10:12	10.9	1.907	1.393	6.46	165.6	-21.7	168.5	18.51
2/11/2020	21:20:12	10.9	1.907	1.393	6.47	166.0	-21.6	169.4	18.61
2/11/2020	21:30:12	10.9	1.907	1.394	6.47	166.4	-21.7	170.1	18.69
2/11/2020	21:40:12	10.9	1.907	1.393	6.47	166.3	-21.6	169.9	18.66
2/11/2020	21:50:12	10.9	1.907	1.393	6.47	167.1	-21.7	170.0	18.68
2/11/2020	22:00:12	10.9	1.907	1.393	6.47	169.4	-21.6	170.1	18.68
2/11/2020	22:10:12	10.9	1.907	1.393	6.48	170.3	-21.7	169.5	18.62
2/11/2020	22:20:12	10.9	1.907	1.393	6.47	172.2	-21.7	168.7	18.53
2/11/2020	22:30:12	10.9	1.907	1.393	6.47	172.5	-21.8	168.0	18.46
2/11/2020	22:40:12	10.9	1.907	1.393	6.48	173.0	-21.6	168.7	18.53
2/11/2020	22:50:12	10.9	1.907	1.393	6.47	173.8	-21.8	168.3	18.49
2/11/2020	23:00:12	10.9	1.907	1.394	6.47	173.1	-21.9	168.0	18.46
2/11/2020	23:10:12	10.9	1.907	1.394	6.47	173.8	-22	169.5	18.63
2/11/2020	23:20:12	10.9	1.907	1.393	6.47	174.2	-19.7	169.4	18.61
2/11/2020	23:30:12	10.9	1.903	1.391	6.47	174.7	-19.8	170.1	18.68
2/11/2020	23:40:12	10.9	1.904	1.391	6.46	176.4	-19.6	168.9	18.55
2/11/2020	23:50:12	10.9	1.905	1.392	6.47	177.8	-20.4	169.5	18.62
2/12/2020	0:00:12	10.9	1.906	1.392	6.46	180.7	-20.9	168.1	18.47
2/12/2020	0:10:12	10.9	1.906	1.393	6.46	183.3	-20.9	167.2	18.37
2/12/2020	0:20:12	10.9	1.907	1.393	6.46	185.1	-21	167.6	18.42
2/12/2020	0:30:12	10.9	1.907	1.393	6.47	185.5	-21.3	168.0	18.45
2/12/2020	0:40:12	10.9	1.907	1.394	6.46	186.9	-21.5	168.0	18.45
2/12/2020	0:50:12	10.9	1.907	1.394	6.46	187.7	-21.6	168.4	18.50
2/12/2020	1:00:12	10.9	1.907	1.394	6.46	188.4	-21.7	168.2	18.48
2/12/2020	1:10:12	10.9	1.908	1.394	6.46	189.2	-21.6	168.2	18.48

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
2/12/2020	1:20:12	10.9	1.908	1.394	6.47	189.2	-21.8	168.2	18.48
2/12/2020	1:30:12	10.9	1.908	1.394	6.46	190.7	-21.8	168.3	18.49
2/12/2020	1:40:12	10.9	1.907	1.394	6.46	191.5	-21.8	169.5	18.62
2/12/2020	1:50:12	10.9	1.908	1.394	6.46	191.5	-21.8	168.6	18.52
2/12/2020	2:00:12	10.9	1.908	1.394	6.46	191.5	-21.5	168.7	18.54
2/12/2020	2:10:12	10.9	1.908	1.394	6.47	191.4	-21.6	169.1	18.58
2/12/2020	2:20:12	10.9	1.908	1.394	6.47	192.1	-21.7	169.4	18.61
2/12/2020	2:30:12	10.9	1.908	1.394	6.46	192.9	-21.7	169.3	18.60
2/12/2020	2:40:12	10.9	1.908	1.394	6.47	193.1	-21.8	168.4	18.50
2/12/2020	2:50:12	10.9	1.908	1.394	6.47	193.8	-21.8	167.9	18.45
2/12/2020	3:00:12	10.9	1.908	1.394	6.46	194.7	-21.7	168.0	18.46
2/12/2020	3:10:12	10.9	1.908	1.394	6.46	195.6	-21.8	167.7	18.42
2/12/2020	3:20:12	10.9	1.909	1.395	6.46	196.7	-21.8	168.2	18.48
2/12/2020	3:30:12	10.9	1.909	1.395	6.46	197.8	-22	168.4	18.51
2/12/2020	3:40:12	10.9	1.909	1.395	6.46	198.9	-21.8	168.4	18.50
2/12/2020	3:50:12	10.9	1.909	1.395	6.46	199.8	-21.8	169.6	18.64
2/12/2020	4:00:12	10.9	1.909	1.395	6.46	200.6	-21.8	169.5	18.63
2/12/2020	4:10:12	10.9	1.909	1.395	6.46	201.4	-21.7	168.2	18.47
2/12/2020	4:20:12	10.9	1.908	1.394	6.47	201.6	-21.9	167.9	18.44
2/12/2020	4:30:12	10.9	1.908	1.394	6.47	201.7	-22	168.0	18.46
2/12/2020	4:40:12	10.9	1.909	1.395	6.47	201.6	-22	168.1	18.46
2/12/2020	4:50:12	10.9	1.909	1.395	6.46	202.0	-22	168.0	18.45
2/12/2020	5:00:12	10.9	1.909	1.395	6.47	202.1	-22	168.1	18.46
2/12/2020	5:10:12	10.9	1.909	1.395	6.46	203.2	-22.2	167.9	18.45
2/12/2020	5:20:12	10.9	1.909	1.395	6.47	203.8	-22.2	167.9	18.44
2/12/2020	5:30:12	10.9	1.909	1.394	6.47	204.0	-22.1	167.8	18.44
2/12/2020	5:40:12	10.9	1.908	1.394	6.47	204.9	-22.1	168.0	18.46
2/12/2020	5:50:12	10.9	1.909	1.395	6.47	205.0	-22.1	167.9	18.44
2/12/2020	6:00:12	10.9	1.909	1.395	6.47	205.3	-22.1	168.0	18.46
2/12/2020	6:10:12	10.9	1.909	1.395	6.47	206.1	-22	167.8	18.43
2/12/2020	6:20:12	10.9	1.909	1.395	6.47	206.2	-22	167.9	18.44
2/12/2020	6:30:12	10.9	1.909	1.395	6.47	205.9	-22.1	167.5	18.40
2/12/2020	6:40:12	10.9	1.909	1.394	6.47	205.8	-22.1	168.0	18.46
2/12/2020	6:50:12	10.9	1.909	1.395	6.47	206.1	-22.2	168.1	18.47
2/12/2020	7:00:12	10.9	1.909	1.395	6.47	205.6	-22.1	168.1	18.46
2/12/2020	7:10:12	10.9	1.909	1.394	6.47	205.8	-22.1	168.1	18.46
2/12/2020	7:20:12	10.9	1.909	1.395	6.47	205.9	-22.1	168.1	18.47

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
2/12/2020	7:30:12	10.9	1.909	1.395	6.47	205.5	-22.1	168.0	18.46
2/12/2020	7:40:12	10.9	1.909	1.394	6.46	206.1	-22.1	168.0	18.46
2/12/2020	7:50:12	10.9	1.909	1.395	6.46	206.2	-22.3	168.2	18.48
2/12/2020	8:00:12	10.9	1.909	1.394	6.46	206.4	-22.3	167.6	18.41
2/12/2020	8:10:12	10.9	1.908	1.394	6.46	206.7	-22.3	167.7	18.43
2/12/2020	8:20:12	10.9	1.909	1.395	6.46	207.0	-22.3	167.8	18.43
2/12/2020	8:30:12	10.9	1.909	1.395	6.47	206.7	-22.2	167.8	18.43
2/12/2020	8:40:12	10.9	1.909	1.395	6.46	207.2	-22.2	168.0	18.46
2/12/2020	8:50:12	10.9	1.909	1.395	6.46	207.5	-22.3	167.9	18.45
2/12/2020	9:00:12	10.9	1.909	1.395	6.46	207.8	-22.2	168.0	18.46
2/12/2020	9:10:12	10.9	1.909	1.395	6.46	207.9	-22.3	168.1	18.47
2/12/2020	9:20:12	10.9	1.909	1.395	6.46	208.2	-22.3	168.2	18.48
2/12/2020	9:30:12	10.9	1.909	1.395	6.46	208.6	-22.2	168.2	18.48
2/12/2020	9:40:12	10.9	1.909	1.395	6.46	208.9	-22.3	168.1	18.47
2/12/2020	9:50:12	10.9	1.909	1.395	6.47	208.7	-22.3	168.0	18.46
2/12/2020	10:00:12	10.9	1.909	1.395	6.47	208.9	-22.2	168.0	18.45
2/12/2020	10:10:12	10.9	1.909	1.395	6.47	209.1	-22.3	168.1	18.47
2/12/2020	10:20:12	10.9	1.909	1.395	6.47	209.6	-22.1	168.0	18.46
2/12/2020	10:30:12	10.9	1.909	1.395	6.47	209.0	-22.1	167.9	18.45
2/12/2020	10:40:12	10.9	1.909	1.395	6.46	209.3	-22.1	168.2	18.48
2/12/2020	10:50:12	10.9	1.909	1.395	6.46	209.4	-22.1	168.0	18.45
2/12/2020	11:00:12	10.9	1.909	1.395	6.46	209.5	-22.3	168.2	18.48
2/12/2020	11:10:12	10.9	1.909	1.395	6.46	209.7	-22.2	168.1	18.47
2/12/2020	11:20:12	10.9	1.909	1.395	6.46	209.8	-22.4	168.1	18.46
2/12/2020	11:30:12	10.9	1.909	1.395	6.46	209.9	-22.3	168.0	18.46
2/12/2020	11:40:12	10.9	1.909	1.395	6.46	210.2	-22.3	168.0	18.46
2/12/2020	11:50:12	10.9	1.909	1.395	6.46	210.4	-22.1	168.0	18.46
2/12/2020	12:00:12	10.9	1.909	1.395	6.46	210.8	-22	167.9	18.45
2/12/2020	12:10:12	10.9	1.909	1.395	6.46	211.1	-22	167.9	18.45
2/12/2020	12:20:12	10.9	1.909	1.395	6.47	211.1	-22.1	167.9	18.44
2/12/2020	12:30:12	10.9	1.909	1.395	6.46	211.7	-22.1	167.8	18.44
2/12/2020	12:40:12	10.9	1.909	1.395	6.46	212.1	-21.9	167.9	18.44
2/12/2020	12:50:12	10.9	1.909	1.395	6.46	212.3	-21.8	167.7	18.43
2/12/2020	13:00:12	10.9	1.909	1.395	6.46	212.5	-21.8	167.9	18.45
2/12/2020	13:10:12	10.9	1.909	1.395	6.47	212.1	-21.9	168.1	18.46
2/12/2020	13:20:12	10.9	1.909	1.395	6.47	212.2	-21.9	168.0	18.45
2/12/2020	13:30:12	10.9	1.909	1.395	6.46	212.5	-22	168.2	18.47

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
2/12/2020	13:40:12	10.9	1.909	1.395	6.47	212.0	-22.1	168.1	18.47
2/12/2020	13:50:12	10.9	1.909	1.395	6.46	212.3	-22.3	168.0	18.46
2/12/2020	14:00:12	10.9	1.909	1.395	6.47	211.9	-22.1	167.7	18.43
2/12/2020	14:10:12	10.9	1.909	1.395	6.47	211.9	-22	168.0	18.46
2/12/2020	14:20:12	10.9	1.909	1.395	6.46	212.4	-22.1	168.2	18.48
2/12/2020	14:30:12	10.9	1.909	1.395	6.47	212.0	-22.1	168.0	18.45
2/12/2020	14:40:12	10.9	1.909	1.395	6.46	212.2	-22.1	167.8	18.43
2/12/2020	14:50:12	10.9	1.909	1.395	6.47	211.6	-22.1	167.8	18.43
2/12/2020	15:00:12	10.9	1.909	1.395	6.46	211.9	-22.1	167.9	18.45
2/12/2020	15:10:12	10.9	1.909	1.395	6.47	211.4	-22.1	168.1	18.47
2/12/2020	15:20:12	10.9	1.909	1.395	6.46	211.9	-22.1	168.2	18.48
2/12/2020	15:30:12	10.9	1.909	1.395	6.46	211.6	-22.1	168.2	18.48
2/12/2020	15:40:12	10.9	1.909	1.395	6.46	211.5	-22.1	168.2	18.49
2/12/2020	15:50:12	10.9	1.909	1.395	6.46	211.4	-22.1	168.3	18.50
2/12/2020	16:00:12	10.9	1.909	1.395	6.45	211.4	-22.1	168.3	18.51
2/12/2020	16:10:12	10.9	1.909	1.395	6.45	211.3	-22.1	168.4	18.51
2/12/2020	16:20:12	10.9	1.909	1.395	6.46	211.2	-22.1	168.5	18.52
2/12/2020	16:30:12	10.9	1.909	1.395	6.45	211.1	-22.1	168.5	18.53
2/12/2020	16:40:12	10.9	1.909	1.395	6.45	211.1	-22.1	168.6	18.54
2/12/2020	16:50:12	10.9	1.909	1.395	6.45	211.0	-22.1	168.6	18.55
2/12/2020	17:00:12	10.9	1.909	1.395	6.45	210.9	-22.1	168.7	18.56
2/12/2020	17:10:12	10.9	1.909	1.395	6.45	210.8	-22.1	168.7	18.56
2/12/2020	17:20:12	10.9	1.909	1.395	6.46	210.8	-22.1	168.8	18.57
2/12/2020	17:30:12	10.9	1.909	1.395	6.46	210.7	-22.1	168.9	18.58
2/12/2020	17:40:12	10.9	1.909	1.395	6.46	210.6	-22.1	168.9	18.59
2/12/2020	17:50:12	10.9	1.909	1.395	6.45	210.5	-22.1	169.0	18.60
2/12/2020	18:00:12	10.9	1.909	1.395	6.46	210.5	-22.1	169.0	18.60
2/12/2020	18:10:12	10.9	1.909	1.395	6.47	210.4	-22.1	169.1	18.61
2/12/2020	18:20:12	10.9	1.909	1.395	6.46	210.3	-22.1	169.1	18.62
2/12/2020	18:30:12	10.9	1.909	1.395	6.46	210.2	-22.1	169.2	18.63
2/12/2020	18:40:12	10.9	1.909	1.395	6.47	210.2	-22.1	169.3	18.64
2/12/2020	18:50:12	10.9	1.909	1.395	6.47	210.1	-22.1	169.3	18.65
2/12/2020	19:00:12	10.9	1.909	1.395	6.47	210.0	-22.1	169.4	18.65
2/12/2020	19:10:12	10.9	1.909	1.395	6.46	209.9	-22.1	169.4	18.66
2/12/2020	19:20:12	10.9	1.909	1.395	6.46	209.9	-22.1	169.5	18.67
2/12/2020	19:30:12	10.9	1.909	1.395	6.47	209.8	-22.1	169.5	18.68
2/12/2020	19:40:12	10.9	1.909	1.395	6.45	209.7	-22.1	169.6	18.69



**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
2/12/2020	19:50:12	10.9	1.909	1.395	6.45	209.6	-22.1	169.7	18.70
2/12/2020	20:00:12	10.9	1.909	1.395	6.46	209.6	-22.1	169.7	18.70
2/12/2020	20:10:12	10.9	1.909	1.395	6.47	209.5	-22.1	169.8	18.71
2/12/2020	20:20:12	10.9	1.909	1.395	6.47	209.4	-22.1	169.8	18.72
2/12/2020	20:30:12	10.9	1.909	1.395	6.46	209.3	-22.1	169.9	18.73
2/12/2020	20:40:12	10.9	1.909	1.395	6.46	209.3	-22.1	169.9	18.74
2/12/2020	20:50:12	10.9	1.909	1.395	6.47	209.2	-22.1	170.0	18.75
2/12/2020	21:00:12	10.9	1.909	1.395	6.46	209.1	-22.1	170.1	18.75
2/12/2020	21:10:12	10.9	1.909	1.395	6.46	209.0	-22.1	170.1	18.76
2/12/2020	21:20:12	10.9	1.909	1.395	6.46	209.0	-22.1	170.2	18.77
2/12/2020	21:30:12	10.9	1.909	1.395	6.46	208.9	-22.1	170.2	18.78
2/12/2020	21:40:12	10.9	1.909	1.395	6.46	208.8	-22.1	170.3	18.79
2/12/2020	21:50:12	10.9	1.909	1.395	6.46	208.8	-22.1	170.3	18.80
2/12/2020	22:00:12	10.9	1.909	1.395	6.46	208.7	-22.1	170.4	18.80
2/12/2020	22:10:12	10.9	1.909	1.395	6.47	208.6	-22.1	170.5	18.81
2/12/2020	22:20:12	10.9	1.909	1.395	6.47	208.5	-22.1	170.5	18.82
2/12/2020	22:30:12	10.9	1.909	1.395	6.47	208.5	-22.1	170.6	18.83
2/12/2020	22:40:12	10.9	1.909	1.395	6.47	208.4	-22.1	170.6	18.84
2/12/2020	22:50:12	10.9	1.909	1.395	6.46	208.3	-22.1	170.7	18.85
2/12/2020	23:00:12	10.9	1.909	1.395	6.47	208.2	-22.1	170.7	18.85
2/12/2020	23:10:12	10.9	1.909	1.395	6.46	208.2	-22.1	170.8	18.86
2/12/2020	23:20:12	10.9	1.909	1.395	6.46	208.1	-22.1	170.9	18.87
2/12/2020	23:30:12	10.9	1.909	1.395	6.46	208.0	-22.1	170.9	18.88
2/12/2020	23:40:12	10.9	1.909	1.395	6.47	207.9	-22.1	171.0	18.89
2/12/2020	23:50:12	10.9	1.909	1.395	6.47	207.9	-22.1	171.0	18.89
2/13/2020	0:00:12	10.9	1.909	1.395	6.46	207.8	-22.1	171.1	18.90
2/13/2020	0:10:12	10.9	1.909	1.395	6.47	207.7	-22.1	171.1	18.91
2/13/2020	0:20:12	10.9	1.909	1.395	6.47	207.6	-22.1	171.2	18.92
2/13/2020	0:30:12	10.9	1.909	1.395	6.47	207.6	-22.1	171.3	18.93
2/13/2020	0:40:12	10.9	1.909	1.395	6.46	207.5	-22.1	171.3	18.94
2/13/2020	0:50:12	10.9	1.909	1.395	6.47	207.4	-22.1	171.4	18.94
2/13/2020	1:00:12	10.9	1.909	1.395	6.45	207.3	-22.1	171.4	18.95
2/13/2020	1:10:12	10.9	1.909	1.395	6.46	207.3	-22.1	171.5	18.96
2/13/2020	1:20:12	10.9	1.909	1.395	6.46	207.2	-22.1	171.5	18.97
2/13/2020	1:30:12	10.9	1.909	1.395	64.7	207.1	-22.1	171.6	18.98
2/13/2020	1:40:12	10.9	1.909	1.395	6.47	207.0	-22.1	171.7	18.99
2/13/2020	1:50:12	10.9	1.909	1.395	6.46	207.0	-22.1	171.7	18.99

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
2/13/2020	2:00:12	10.9	1.909	1.395	6.47	206.9	-22.1	171.8	19.00
2/13/2020	2:10:12	10.9	1.909	1.395	6.46	206.8	-22.1	171.8	19.01
2/13/2020	2:20:12	10.9	1.909	1.395	6.46	206.7	-22.1	171.9	19.02
2/13/2020	2:30:12	10.9	1.909	1.395	6.47	206.7	-22.1	171.9	19.03
2/13/2020	2:40:12	10.9	1.909	1.395	6.47	206.6	-22.1	172.0	19.04
2/13/2020	2:50:12	10.9	1.909	1.395	6.47	206.5	-22.1	172.1	19.04
2/13/2020	3:00:12	10.9	1.909	1.395	6.47	206.4	-22.1	172.1	19.05
2/13/2020	3:10:12	10.9	1.909	1.395	6.47	206.4	-22.1	172.2	19.06
2/13/2020	3:20:12	10.9	1.909	1.395	6.47	206.3	-22.1	172.2	19.07
2/13/2020	3:30:12	10.9	1.909	1.395	6.46	206.2	-22.1	172.3	19.08
2/13/2020	3:40:12	10.9	1.909	1.395	6.47	206.2	-22.1	172.3	19.09
2/13/2020	3:50:12	10.9	1.909	1.395	6.46	206.1	-22.1	172.4	19.09
2/13/2020	4:00:12	10.9	1.909	1.395	6.46	206.0	-22.1	172.5	19.10
2/13/2020	4:10:12	10.9	1.909	1.395	6.46	205.9	-22.1	172.5	19.11
2/13/2020	4:20:12	10.9	1.909	1.395	6.46	205.9	-22.1	172.6	19.12
2/13/2020	4:30:12	10.9	1.909	1.395	6.46	205.8	-22.1	172.6	19.13
2/13/2020	4:40:12	10.9	1.909	1.395	6.46	205.7	-22.1	172.7	19.14
2/13/2020	4:50:12	10.9	1.909	1.395	6.46	205.6	-22.1	172.7	19.14
2/13/2020	5:00:12	10.9	1.909	1.395	6.47	205.6	-22.1	172.8	19.15
2/13/2020	5:10:12	10.9	1.909	1.395	6.47	205.5	-22.1	172.9	19.16
2/13/2020	5:20:12	10.9	1.909	1.395	6.47	205.4	-22.1	172.9	19.17
2/13/2020	5:30:12	10.9	1.909	1.395	6.46	205.3	-22.1	173.0	19.18
2/13/2020	5:40:12	10.9	1.909	1.395	6.46	205.3	-22.1	173.0	19.18
2/13/2020	5:50:12	10.9	1.909	1.395	6.47	205.2	-22.1	173.1	19.19
2/13/2020	6:00:12	10.9	1.909	1.395	6.46	205.1	-22.1	173.1	19.20
2/13/2020	6:10:12	10.9	1.909	1.395	6.46	205.0	-22.1	173.2	19.21
2/13/2020	6:20:12	10.9	1.909	1.395	6.46	205.0	-22.1	173.3	19.22
2/13/2020	6:30:12	10.9	1.909	1.395	6.47	204.9	-22.1	173.3	19.23
2/13/2020	6:40:12	10.9	1.909	1.395	6.47	204.8	-22.1	173.4	19.23
2/13/2020	6:50:12	10.9	1.909	1.395	6.47	204.7	-22.1	173.4	19.24
2/13/2020	7:00:12	10.9	1.909	1.395	6.46	204.7	-22.1	173.5	19.25
2/13/2020	7:10:12	10.9	1.909	1.395	6.46	204.6	-22.1	173.5	19.26
2/13/2020	7:20:12	10.9	1.909	1.395	6.46	204.5	-22.1	173.6	19.27
2/13/2020	7:30:12	10.9	1.909	1.395	6.46	204.4	-22.1	173.7	19.28
2/13/2020	7:40:12	10.9	1.909	1.395	6.46	204.4	-22.1	173.7	19.28
2/13/2020	7:50:12	10.9	1.909	1.395	6.47	204.3	-22.1	173.8	19.29
2/13/2020	8:00:12	10.9	1.909	1.395	6.46	204.2	-22.1	173.8	19.30

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
2/13/2020	8:10:12	10.9	1.909	1.395	6.47	204.1	-22.1	173.9	19.31
2/13/2020	8:20:12	10.9	1.909	1.395	6.46	204.1	-22.1	173.9	19.32
2/13/2020	8:30:12	10.9	1.909	1.395	6.46	204.0	-22.1	174.0	19.33
2/13/2020	8:40:12	10.9	1.909	1.395	6.47	203.9	-22.1	174.1	19.33
2/13/2020	8:50:12	10.9	1.909	1.395	6.46	203.8	-22.1	174.1	19.34
2/13/2020	9:00:12	10.9	1.909	1.395	6.46	203.8	-22.1	174.2	19.35
2/13/2020	9:10:12	10.9	1.909	1.395	6.47	203.7	-22.1	174.2	19.36
2/13/2020	9:20:12	10.9	1.909	1.395	6.46	203.6	-22.1	174.3	19.37
2/13/2020	9:30:12	10.9	1.909	1.395	6.46	203.6	-22.1	174.3	19.38
2/13/2020	9:40:12	10.9	1.909	1.395	6.47	203.5	-22.1	174.4	19.38
2/13/2020	9:50:12	10.9	1.909	1.395	6.46	203.4	-22.1	174.5	19.39
2/13/2020	10:00:12	10.9	1.909	1.395	6.46	203.3	-22.1	174.5	19.40
2/13/2020	10:10:12	10.9	1.909	1.395	6.46	203.3	-22.1	174.6	19.41
2/13/2020	10:20:12	10.9	1.909	1.395	6.46	203.2	-22.1	174.6	19.42
2/13/2020	10:30:12	10.9	1.909	1.395	6.46	203.1	-22.1	174.7	19.43
2/13/2020	10:40:12	10.9	1.909	1.395	6.45	203.0	-22.1	174.7	19.43
2/13/2020	10:50:12	10.9	1.909	1.395	6.46	203.0	-22.1	174.8	19.44
2/13/2020	11:00:12	10.9	1.909	1.395	6.46	202.9	-22.1	174.9	19.45
2/13/2020	11:10:12	10.9	1.909	1.395	6.46	202.8	-22.1	174.9	19.46
2/13/2020	11:20:12	10.9	1.909	1.395	6.46	202.7	-22.1	175.0	19.47
2/13/2020	11:30:12	10.9	1.909	1.395	6.46	202.7	-22.1	175.0	19.47
2/13/2020	11:40:12	10.9	1.909	1.395	6.46	202.6	-22.1	175.1	19.48
2/13/2020	11:50:12	10.9	1.909	1.395	6.47	202.5	-22.1	175.1	19.49
2/13/2020	12:00:12	10.9	1.909	1.395	6.47	202.4	-22.1	175.2	19.50
2/13/2020	12:10:12	10.9	1.909	1.395	6.46	202.4	-22.1	175.3	19.51
2/13/2020	12:20:12	10.9	1.909	1.395	6.46	202.3	-22.1	175.3	19.52
2/13/2020	12:30:12	10.9	1.909	1.395	6.46	202.2	-22.1	175.4	19.52
2/13/2020	12:40:12	10.9	1.909	1.395	6.46	202.1	-22.1	175.4	19.53
2/13/2020	12:50:12	10.9	1.909	1.395	6.46	202.1	-22.1	175.5	19.54
2/13/2020	13:00:12	10.9	1.909	1.395	6.47	202.0	-22.1	175.5	19.55
2/13/2020	13:10:12	10.9	1.909	1.395	6.46	201.9	-22.1	175.6	19.56
2/13/2020	13:20:12	10.9	1.909	1.395	6.47	201.8	-22.1	175.7	19.57
2/13/2020	13:30:12	10.9	1.909	1.395	6.46	201.8	-22.1	175.7	19.57
2/13/2020	13:40:12	10.9	1.909	1.395	6.46	201.7	-22.1	175.8	19.58
2/13/2020	13:50:12	10.9	1.909	1.395	6.46	201.6	-22.1	175.8	19.59
2/13/2020	14:00:12	10.9	1.909	1.395	6.47	201.5	-22.1	175.9	19.60
2/13/2020	14:10:12	10.9	1.909	1.395	6.46	201.5	-22.1	175.9	19.61

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
2/13/2020	14:20:12	10.9	1.909	1.395	6.46	201.4	-22.1	176.0	19.62
2/13/2020	14:30:12	10.9	1.909	1.395	6.46	201.3	-22.1	176.1	19.62
2/13/2020	14:40:12	10.9	1.909	1.395	6.46	201.2	-22.1	176.1	19.63
2/13/2020	14:50:12	10.9	1.909	1.395	6.47	201.2	-22.1	176.2	19.64
2/13/2020	15:00:12	10.9	1.909	1.395	6.46	201.1	-22.1	176.2	19.65
2/13/2020	15:10:12	10.9	1.909	1.395	6.46	201.0	-22.1	176.3	19.66
2/13/2020	15:20:12	10.9	1.909	1.395	6.46	211.6	-22.1	168.1	18.48
3/10/2020	9:10:50	12.72	1.563	1.197	6.19	165.5	2.9	65.4	6.9
3/10/2020	9:20:50	12.72	1.572	1.203	6.17	199.3	1.7	83.1	8.76
3/10/2020	9:30:50	12.73	1.564	1.197	6.22	197.5	3.8	79.3	8.37
3/10/2020	9:40:51	12.72	1.561	1.195	6.27	185.3	2	88.2	9.3
3/10/2020	9:50:50	12.73	1.557	1.192	6.28	185.6	4.2	88.8	9.37
3/10/2020	10:00:51	12.73	1.556	1.191	6.29	187.1	2.4	94.1	9.93
3/10/2020	10:10:51	12.72	1.56	1.194	6.29	188.7	3.2	94.7	10
3/10/2020	10:20:50	12.72	1.563	1.196	6.29	190.7	1.7	90.7	9.57
3/10/2020	10:30:50	12.72	1.563	1.197	6.28	187.3	1.8	97.1	10.24
3/10/2020	10:40:51	12.72	1.564	1.197	6.28	190.9	1.5	100.5	10.6
3/10/2020	10:50:50	12.72	1.561	1.195	6.28	188.9	1.4	111.5	11.76
3/10/2020	11:00:51	12.72	1.568	1.2	6.27	189.4	1.2	115	12.14
3/10/2020	11:10:51	12.72	1.567	1.2	6.27	191	1.2	118.1	12.46
3/10/2020	11:20:51	12.72	1.567	1.199	6.27	191	1.2	118.7	12.52
3/10/2020	11:30:50	12.72	1.57	1.202	6.28	191.5	1.2	118.6	12.51
3/10/2020	11:40:50	12.72	1.571	1.203	6.28	193.3	1.1	118.7	12.53
3/10/2020	11:50:51	12.72	1.572	1.204	6.29	198.6	1	118.6	12.51
3/10/2020	12:00:51	12.73	1.573	1.204	6.29	195.4	1.2	119	12.55
3/10/2020	12:10:51	12.73	1.574	1.205	6.29	199.9	1.2	119.3	12.59
3/10/2020	12:20:51	12.73	1.574	1.205	6.3	201.5	1	119.1	12.57
3/10/2020	12:30:51	12.73	1.576	1.206	6.31	205.8	1	119.3	12.59
3/10/2020	12:40:51	12.73	1.575	1.206	6.31	209	1.1	119.6	12.62
3/10/2020	12:50:51	12.73	1.576	1.207	6.31	212.7	1	119.7	12.63
3/10/2020	13:00:51	12.73	1.576	1.207	6.32	215	1	120.1	12.67
3/10/2020	13:10:50	12.73	1.576	1.207	6.32	215.9	1	120.2	12.68
3/10/2020	13:20:51	12.73	1.576	1.207	6.32	216.8	1	120.1	12.67
3/10/2020	13:30:51	12.73	1.577	1.207	6.32	217.8	1	119.9	12.65
3/10/2020	13:40:51	12.73	1.577	1.207	6.33	219.3	1.1	119.8	12.64
3/10/2020	13:50:51	12.73	1.577	1.207	6.32	221.9	1	119.7	12.63
3/10/2020	14:00:51	12.73	1.576	1.206	6.32	221.6	1	119.7	12.63

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
3/10/2020	14:10:51	12.73	1.575	1.206	6.32	215.3	1	119.5	12.61
3/10/2020	14:20:51	12.73	1.577	1.208	6.33	215.7	1	119.3	12.58
3/10/2020	14:30:51	12.73	1.576	1.207	6.32	220.7	1	119.4	12.6
3/10/2020	14:40:51	12.73	1.576	1.207	6.32	223.3	1	119.5	12.61
3/10/2020	14:50:51	12.73	1.576	1.206	6.32	225.8	1	119.8	12.64
3/10/2020	15:00:51	12.73	1.576	1.207	6.32	228.5	1	119.9	12.65
3/10/2020	15:10:51	12.73	1.576	1.207	6.32	229.5	1	120.2	12.68
3/10/2020	15:20:51	12.73	1.575	1.206	6.32	229.7	1	120.4	12.7
3/10/2020	15:30:51	12.73	1.575	1.206	6.32	230.1	1	120.6	12.72
3/10/2020	15:40:51	12.73	1.576	1.207	6.32	231	1	120.6	12.73
3/10/2020	15:50:51	12.73	1.576	1.206	6.32	231.6	0.9	120.7	12.73
3/10/2020	16:00:51	12.73	1.575	1.206	6.32	231.9	1	120.6	12.72
3/10/2020	16:10:51	12.73	1.576	1.207	6.32	232.8	1	120.6	12.72
3/10/2020	16:20:51	12.73	1.575	1.206	6.32	234.1	1	120.6	12.72
3/10/2020	16:30:51	12.73	1.576	1.207	6.32	235.3	1	120.6	12.72
3/10/2020	16:40:51	12.73	1.576	1.207	6.32	236.6	1	120.6	12.72
3/10/2020	16:50:51	12.73	1.576	1.207	6.33	237.7	1	120.5	12.72
3/10/2020	17:00:51	12.73	1.576	1.207	6.33	238.8	1	120.3	12.69
3/10/2020	17:10:51	12.73	1.576	1.207	6.33	239.8	1	120.3	12.69
3/10/2020	17:20:51	12.73	1.577	1.207	6.33	240.7	1	120.2	12.68
3/10/2020	17:30:50	12.73	1.577	1.208	6.33	241.6	1	120.2	12.68
3/10/2020	17:40:51	12.73	1.577	1.207	6.33	242.3	1	120.2	12.68
3/10/2020	17:50:51	12.73	1.576	1.207	6.33	242.9	1	120.2	12.68
3/10/2020	18:00:50	12.73	1.577	1.207	6.33	243.3	1	120	12.66
3/10/2020	18:10:50	12.73	1.576	1.207	6.33	243.7	1	120	12.66
3/10/2020	18:20:51	12.73	1.576	1.207	6.33	244	1	120	12.65
3/10/2020	18:30:51	12.74	1.577	1.207	6.33	244.1	1	119.9	12.65
3/10/2020	18:40:51	12.73	1.577	1.207	6.33	244.4	1	120	12.66
3/10/2020	18:50:51	12.73	1.577	1.208	6.32	244.9	1	120	12.66
3/10/2020	19:00:51	12.73	1.576	1.207	6.31	236.6	1	120.2	12.68
3/10/2020	19:10:51	12.73	1.577	1.208	6.31	231.3	1	120.2	12.68
3/10/2020	19:20:51	12.73	1.576	1.207	6.31	229.1	1	120.2	12.68
3/10/2020	19:30:51	12.73	1.577	1.207	6.31	228.8	1	120.1	12.66
3/10/2020	19:40:51	12.73	1.577	1.207	6.31	229.8	1	120	12.66
3/10/2020	19:50:51	12.73	1.576	1.207	6.31	230.8	1	120.1	12.66
3/10/2020	20:00:51	12.73	1.576	1.207	6.32	231.3	1	120.1	12.67
3/10/2020	20:10:51	12.73	1.576	1.207	6.32	231.3	0.9	119.9	12.65

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
3/10/2020	20:20:51	12.73	1.576	1.207	6.32	231.5	1	119.9	12.65
3/10/2020	20:30:51	12.73	1.576	1.207	6.32	232.5	1	119.9	12.64
3/10/2020	20:40:51	12.73	1.576	1.207	6.32	234.4	1	120	12.66
3/10/2020	20:50:51	12.73	1.576	1.207	6.32	236.2	1	119.8	12.64
3/10/2020	21:00:51	12.73	1.576	1.207	6.32	237.8	1.1	120	12.66
3/10/2020	21:10:51	12.73	1.576	1.207	6.32	239.1	1	119.9	12.65
3/10/2020	21:20:51	12.73	1.576	1.207	6.32	240.3	1	119.9	12.65
3/10/2020	21:30:51	12.73	1.576	1.207	6.32	241.3	1.1	120	12.66
3/10/2020	21:40:51	12.73	1.576	1.207	6.32	242	1	120.1	12.66
3/10/2020	21:50:51	12.73	1.576	1.207	6.32	242.7	1	119.9	12.65
3/10/2020	22:00:51	12.74	1.576	1.207	6.32	241	1	120	12.66
3/10/2020	22:10:51	12.74	1.575	1.206	6.32	235.4	1.2	120	12.65
3/10/2020	22:20:51	12.73	1.577	1.207	6.32	232.8	1	120	12.66
3/10/2020	22:30:51	12.73	1.575	1.206	6.32	233.3	1.1	120	12.65
3/10/2020	22:40:51	12.73	1.575	1.206	6.32	234.6	1.1	120	12.65
3/10/2020	22:50:51	12.73	1.575	1.206	6.32	236	1	120	12.66
3/10/2020	23:00:51	12.73	1.576	1.207	6.32	237.3	1	119.9	12.65
3/10/2020	23:10:51	12.73	1.576	1.207	6.32	238.1	0.9	120	12.66
3/10/2020	23:20:51	12.73	1.575	1.206	6.32	238.8	1	120.1	12.66
3/10/2020	23:30:51	12.73	1.576	1.206	6.32	239.2	1	120.1	12.66
3/10/2020	23:40:51	12.73	1.575	1.206	6.32	239.7	1.1	120	12.65
3/10/2020	23:50:51	12.73	1.575	1.206	6.32	240.3	1	119.9	12.65
3/11/2020	0:00:51	12.73	1.575	1.206	6.32	241.1	1	120	12.65
3/11/2020	0:10:51	12.74	1.576	1.207	6.32	241.8	1	119.9	12.64
3/11/2020	0:20:51	12.73	1.575	1.206	6.32	242.5	1	119.7	12.63
3/11/2020	0:30:51	12.73	1.575	1.206	6.32	243.1	1	119.9	12.64
3/11/2020	0:40:51	12.73	1.575	1.206	6.32	243.7	1	119.7	12.63
3/11/2020	0:50:51	12.74	1.575	1.206	6.32	244.3	1	119.7	12.63
3/11/2020	1:00:51	12.74	1.576	1.206	6.32	244.8	1.1	119.7	12.63
3/11/2020	1:10:51	12.73	1.575	1.206	6.32	245.2	1	119.7	12.62
3/11/2020	1:20:51	12.74	1.575	1.206	6.32	245.7	1.2	119.6	12.61
3/11/2020	1:30:51	12.73	1.576	1.207	6.32	246	1.2	119.6	12.61
3/11/2020	1:40:51	12.74	1.575	1.206	6.32	246.4	1	119.6	12.61
3/11/2020	1:50:51	12.73	1.575	1.206	6.32	246.7	1	119.6	12.62
3/11/2020	2:00:51	12.74	1.575	1.206	6.32	246.9	1	119.6	12.62
3/11/2020	2:10:51	12.74	1.575	1.206	6.32	247.3	1.1	119.6	12.61
3/11/2020	2:20:51	12.74	1.575	1.206	6.32	247.5	1.1	119.6	12.61

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
3/11/2020	2:30:51	12.74	1.574	1.205	6.32	247.9	1.1	119.5	12.6
3/11/2020	2:40:51	12.73	1.575	1.206	6.32	248	1	119.5	12.6
3/11/2020	2:50:51	12.74	1.576	1.207	6.32	248.2	1	119.5	12.6
3/11/2020	3:00:51	12.74	1.575	1.206	6.32	248.4	1	119.4	12.59
3/11/2020	3:10:51	12.74	1.576	1.207	6.31	248.7	1	119.3	12.58
3/11/2020	3:20:51	12.73	1.575	1.206	6.31	248.9	1	119.4	12.6
3/11/2020	3:30:51	12.74	1.574	1.206	6.31	249.1	1.1	119.3	12.59
3/11/2020	3:40:51	12.74	1.575	1.206	6.31	249.3	1.1	119.3	12.59
3/11/2020	3:50:51	12.74	1.575	1.206	6.31	249.5	1.1	119.3	12.58
3/11/2020	4:00:51	12.74	1.575	1.206	6.31	249.8	1	119.3	12.59
3/11/2020	4:10:51	12.73	1.575	1.206	6.31	250	1.2	119.3	12.58
3/11/2020	4:20:51	12.74	1.575	1.206	6.31	250.1	1.1	119.3	12.58
3/11/2020	4:30:51	12.74	1.575	1.206	6.31	250.3	1.1	119.2	12.57
3/11/2020	4:40:51	12.74	1.575	1.206	6.31	250.5	1	119.1	12.56
3/11/2020	4:50:51	12.74	1.574	1.206	6.31	250.8	1.1	119.2	12.57
3/11/2020	5:00:51	12.74	1.575	1.206	6.31	250.8	1.1	119.1	12.56
3/11/2020	5:10:51	12.74	1.574	1.206	6.31	251	1	119.1	12.56
3/11/2020	5:20:51	12.74	1.574	1.206	6.31	251.2	1	119.1	12.56
3/11/2020	5:30:51	12.74	1.575	1.206	6.31	251.2	1.1	119	12.55
3/11/2020	5:40:51	12.74	1.574	1.206	6.31	251.3	1	119	12.55
3/11/2020	5:50:51	12.74	1.574	1.205	6.31	251.4	1.2	119	12.55
3/11/2020	6:00:51	12.74	1.575	1.206	6.31	251.6	1	119	12.55
3/11/2020	6:10:51	12.73	1.575	1.206	6.31	251.7	1	119	12.56
3/11/2020	6:20:51	12.74	1.575	1.206	6.31	251.9	1	119	12.55
3/11/2020	6:30:51	12.74	1.574	1.206	6.31	252.1	1.2	118.9	12.54
3/11/2020	6:40:51	12.73	1.574	1.206	6.31	252.2	1.2	118.9	12.54
3/11/2020	6:50:51	12.74	1.575	1.206	6.31	252.1	1	118.9	12.54
3/11/2020	7:00:51	12.73	1.575	1.206	6.31	252.2	1	118.9	12.54
3/11/2020	7:10:51	12.74	1.575	1.206	6.31	252.3	1	118.9	12.54
3/11/2020	7:20:51	12.74	1.575	1.206	6.31	252.2	1	118.9	12.54
3/11/2020	7:30:51	12.74	1.574	1.206	6.31	252.2	1.1	118.9	12.54
3/11/2020	7:40:51	12.74	1.575	1.206	6.31	252.3	1	118.9	12.54
3/11/2020	7:50:51	12.74	1.574	1.206	6.31	252.3	1.1	119	12.55
3/11/2020	8:00:51	12.74	1.575	1.206	6.31	252.4	1	118.9	12.54
3/11/2020	8:10:51	12.73	1.574	1.205	6.31	252.5	1	118.9	12.55
3/11/2020	8:20:51	12.73	1.574	1.205	6.31	252.6	1	118.9	12.54
4/15/2020	16:00:50	11.33	1.576		6.29	198.2	-0.3	132.2	14.39

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
4/15/2020	16:10:50	11.35	1.58		6.26	210.8	-0.7	132.3	14.4
4/15/2020	16:20:50	11.35	1.582		6.28	218.7	-0.2	132.7	14.44
4/15/2020	16:30:50	11.35	1.581		6.28	204.4	-0.8	132.7	14.44
4/15/2020	16:40:51	11.34	1.576		6.29	160.9	-0.7	132.3	14.4
4/15/2020	16:50:51	11.33	1.577		6.29	159.1	-1.1	133.2	14.51
4/15/2020	17:00:51	11.34	1.576		6.29	156	-0.3	133.7	14.55
4/15/2020	17:10:51	11.34	1.575		6.3	158.1	-1	133.5	14.53
4/15/2020	17:20:51	11.33	1.576		6.3	162.7	-1.4	133	14.48
4/15/2020	17:30:50	11.33	1.576		6.29	163.3	-1.5	132.7	14.45
4/15/2020	17:40:50	11.33	1.575		6.3	162	-1.4	132.6	14.44
4/15/2020	17:50:51	11.33	1.574		6.3	171.5	-1.4	132.9	14.47
4/15/2020	18:00:51	11.33	1.574		6.3	176.3	-1.1	132.1	14.39
4/15/2020	18:10:51	11.33	1.574		6.31	170	-1.4	132.8	14.46
4/15/2020	18:20:51	11.33	1.574		6.31	173	-1.5	133.5	14.53
4/15/2020	18:30:51	11.33	1.574		6.31	178.7	-1.4	132.5	14.43
4/15/2020	18:40:51	11.33	1.575		6.31	181.3	-1.5	132.7	14.45
4/15/2020	18:50:51	11.33	1.576		6.31	183	-1.5	133.6	14.54
4/15/2020	19:00:51	11.33	1.576		6.31	178.6	-1.5	133.4	14.53
4/15/2020	19:10:51	11.33	1.576		6.31	188.4	-1.5	133	14.48
4/15/2020	19:20:50	11.33	1.576		6.31	192.6	-1.5	133.2	14.5
4/15/2020	19:30:51	11.33	1.576		6.31	193.2	-1.5	133.3	14.52
4/15/2020	19:40:50	11.33	1.577		6.31	194	-1.5	133.8	14.57
4/15/2020	19:50:50	11.33	1.577		6.31	190.7	-1.5	133.7	14.56
4/15/2020	20:00:50	11.33	1.577		6.31	191.3	-1.5	133.8	14.57
4/15/2020	20:10:51	11.33	1.577		6.31	195.4	-1.4	133.6	14.55
4/15/2020	20:20:50	11.33	1.577		6.31	197	-1.5	133.7	14.56
4/15/2020	20:30:51	11.33	1.577		6.31	195.1	-1.3	133.9	14.58
4/15/2020	20:40:51	11.33	1.577		6.31	199.1	-1.5	134	14.6
4/15/2020	20:50:51	11.33	1.577		6.31	204.3	-1.5	134.1	14.6
4/15/2020	21:00:51	11.33	1.577		6.31	205.6	-1.5	134	14.59
4/15/2020	21:10:51	11.33	1.577		6.31	206.8	-1.5	134	14.6
4/15/2020	21:20:51	11.33	1.577		6.31	207.8	-1.5	133.9	14.59
4/15/2020	21:30:51	11.33	1.577		6.31	208.1	-1.4	133.8	14.57
4/15/2020	21:40:51	11.33	1.577		6.31	208.6	-1.4	133.7	14.55
4/15/2020	21:50:51	11.33	1.577		6.31	210	-1.4	133.5	14.54
4/15/2020	22:00:51	11.33	1.577		6.31	209.5	-1.5	133.6	14.55
4/15/2020	22:10:51	11.33	1.576		6.32	211.1	-1.5	133.6	14.55



**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
4/15/2020	22:20:51	11.33	1.577		6.31	212.9	-1.4	134	14.59
4/15/2020	22:30:51	11.33	1.577		6.31	213.9	-1.4	134	14.6
4/15/2020	22:40:51	11.33	1.576		6.31	213.6	-1.5	134.1	14.61
4/15/2020	22:50:51	11.33	1.576		6.31	212.7	-1.4	134.1	14.61
4/15/2020	23:00:51	11.33	1.577		6.31	213.3	-1.5	134	14.59
4/15/2020	23:10:51	11.33	1.576		6.31	213.7	-1.4	134.1	14.61
4/15/2020	23:20:51	11.33	1.576		6.32	213.7	-1.5	134.2	14.61
4/15/2020	23:30:51	11.33	1.576		6.32	214.8	-1.4	134.1	14.6
4/15/2020	23:40:51	11.33	1.576		6.32	215.3	-1.5	134.2	14.61
4/15/2020	23:50:51	11.33	1.576		6.32	215.2	-1.3	134.2	14.61
4/16/2020	0:00:51	11.33	1.576		6.32	214.8	-1.4	134.2	14.62
4/16/2020	0:10:51	11.33	1.576		6.32	214.7	-1.5	134.3	14.62
4/16/2020	0:20:51	11.33	1.576		6.32	216	-1.5	134.2	14.61
4/16/2020	0:30:51	11.33	1.576		6.32	217.7	-1.4	134.2	14.61
4/16/2020	0:40:51	11.33	1.576		6.32	218.8	-1.5	134.3	14.62
4/16/2020	0:50:51	11.33	1.576		6.32	219.8	-1.4	134.2	14.61
4/16/2020	1:00:51	11.33	1.576		6.32	220.6	-1.5	134.2	14.61
4/16/2020	1:10:51	11.33	1.576		6.32	221.1	-1.6	134.1	14.61
4/16/2020	1:20:51	11.33	1.576		6.32	221.1	-1.5	134.1	14.61
4/16/2020	1:30:51	11.33	1.576		6.32	221.1	-1.5	134.1	14.6
4/16/2020	1:40:51	11.33	1.576		6.32	221.4	-1.5	134.1	14.6
4/16/2020	1:50:51	11.33	1.576		6.32	221.8	-1.5	134	14.6
4/16/2020	2:00:51	11.33	1.576		6.32	222.4	-1.5	134.1	14.6
4/16/2020	2:10:51	11.33	1.576		6.32	223.2	-1.5	134.1	14.61
4/16/2020	2:20:51	11.33	1.576		6.32	223.9	-1.5	134.1	14.6
4/16/2020	2:30:51	11.33	1.576		6.32	224.5	-1.5	134.2	14.61
4/16/2020	2:40:51	11.33	1.576		6.32	224.9	-1.4	134.1	14.61
4/16/2020	2:50:51	11.33	1.576		6.32	225	-1.5	134.1	14.61
4/16/2020	3:00:50	11.33	1.576		6.32	225.1	-1.5	134.2	14.61
4/16/2020	3:10:50	11.33	1.576		6.32	225.1	-1.5	134.2	14.61
4/16/2020	3:20:50	11.33	1.576		6.32	225.3	-1.3	134.2	14.61
4/16/2020	3:30:50	11.33	1.576		6.32	225.6	-1.3	134.1	14.6
4/16/2020	3:40:50	11.33	1.576		6.32	225.8	-1.5	134.1	14.6
4/16/2020	3:50:50	11.33	1.576		6.31	226.1	-1.6	134.2	14.61
4/16/2020	4:00:51	11.33	1.576		6.31	226.5	-1.5	134.1	14.61
4/16/2020	4:10:51	11.33	1.576		6.31	226.9	-1.5	134.1	14.61
4/16/2020	4:20:51	11.33	1.576		6.31	227.4	-1.5	134.1	14.61

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

**November 4, 2019 through April 16, 2020**

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
4/16/2020	4:30:51	11.33	1.576		6.31	227.7	-1.4	134.1	14.61
4/16/2020	4:40:51	11.33	1.576		6.31	228.1	-1.5	134.1	14.6
4/16/2020	4:50:51	11.33	1.576		6.31	228.3	-1.5	134	14.6
4/16/2020	5:00:51	11.33	1.576		6.31	228.6	-1.5	134	14.59
4/16/2020	5:10:50	11.33	1.576		6.31	228.9	-1.4	134.1	14.6
4/16/2020	5:20:51	11.33	1.576		6.31	229.1	-1.5	134.1	14.6
4/16/2020	5:30:50	11.33	1.577		6.31	229.2	-1.5	134.3	14.63
4/16/2020	5:40:50	11.33	1.576		6.31	229.4	-1.4	134.4	14.64
4/16/2020	5:50:51	11.33	1.576		6.31	229.4	-1.3	134.6	14.66
4/16/2020	6:00:51	11.33	1.576		6.31	229.5	-1.4	134.6	14.65
4/16/2020	6:10:51	11.33	1.576		6.31	229.6	-1.5	134.4	14.64
4/16/2020	6:20:51	11.33	1.576		6.31	229.7	-1.5	134.2	14.61
4/16/2020	6:30:51	11.33	1.576		6.31	229.9	-1.1	134.3	14.62
4/16/2020	6:40:51	11.33	1.576		6.31	230.2	-1.5	134.3	14.63
4/16/2020	6:50:51	11.33	1.576		6.31	230.3	-1.4	134.3	14.63
4/16/2020	7:00:51	11.33	1.576		6.31	230.7	-1.4	134.3	14.62
4/16/2020	7:10:51	11.33	1.576		6.31	230.8	-1.5	134.2	14.61
4/16/2020	7:20:51	11.33	1.576		6.31	231	-1.4	134.4	14.64
4/16/2020	7:30:51	11.33	1.576		6.31	231	-1.4	134.8	14.68
4/16/2020	7:40:51	11.33	1.576		6.31	231.3	-1.5	135.2	14.72
4/16/2020	7:50:51	11.33	1.576		6.31	231.4	-1.4	135.2	14.72
4/16/2020	8:00:51	11.33	1.577		6.31	231.4	-1.5	135.1	14.72
4/16/2020	8:10:51	11.33	1.576		6.31	231.4	-1.4	134.9	14.68
4/16/2020	8:20:51	11.33	1.577		6.31	231.5	-1.5	134.8	14.68
4/16/2020	8:30:51	11.33	1.576		6.31	231.7	-1.4	134.9	14.69
4/16/2020	8:40:51	11.33	1.576		6.31	231.8	-1.3	135	14.7
4/16/2020	8:50:51	11.33	1.576		6.31	231.9	-1.4	135.1	14.71
4/16/2020	9:00:51	11.33	1.576		6.31	232.1	-1.5	135.2	14.72
4/16/2020	9:10:51	11.33	1.576		6.31	232.1	-1.5	135.3	14.73
4/16/2020	9:20:51	11.33	1.576		6.31	232.2	-1.5	135.3	14.73
4/16/2020	9:30:51	11.33	1.576		6.31	232.3	-1.4	135.2	14.72
4/16/2020	9:40:51	11.33	1.576		6.31	232.5	-1.4	135.2	14.73
4/16/2020	9:50:51	11.33	1.576		6.31	232.7	-1.4	135.1	14.72
4/16/2020	10:00:51	11.33	1.576		6.31	232.8	-1.4	135.2	14.72
4/16/2020	10:10:51	11.33	1.576		6.31	232.9	-1.5	135.1	14.71
4/16/2020	10:20:51	11.33	1.576		6.31	233.2	-1.4	135.3	14.73
4/16/2020	10:30:51	11.33	1.576		6.31	233.4	-1.4	135.4	14.75

**Transducer Data: MW-185**  
**Inactive Exxon Facility #28077**  
**14528 Jarrettsville Pike**  
**Phoenix, Maryland**

November 4, 2019 through April 16, 2020

Date	Time	Temp	SpCond	Cond	pH	Orp	Turbid+	ODOsat	ODO
m/d/y	hh:mm:ss	C	mS/cm	mS/cm		mV	NTU	%	mg/L
4/16/2020	10:40:51	11.33	1.576		6.31	233.6	-1.5	135.5	14.76
4/16/2020	10:50:51	11.33	1.577		6.31	233.8	-1.5	135.6	14.76
4/16/2020	11:00:51	11.33	1.577		6.31	233.9	-1.4	135.5	14.75
4/16/2020	11:10:51	11.33	1.576		6.31	234	-1.5	135.5	14.75
4/16/2020	11:20:50	11.33	1.577		6.31	234.1	-1.4	135.6	14.76
4/16/2020	11:30:50	11.33	1.576		6.31	234.3	-1.5	135.5	14.76
4/16/2020	11:40:51	11.33	1.577		6.31	234.5	-1.4	135.4	14.74
4/16/2020	11:50:51	11.33	1.577		6.31	234.7	-1.5	135.2	14.73
4/16/2020	12:00:51	11.33	1.577		6.31	234.9	-1.4	135.2	14.72
4/16/2020	12:10:51	11.33	1.577		6.31	234.9	-1.3	135	14.7
4/16/2020	12:20:51	11.33	1.576		6.31	235	-1.4	134.7	14.67
4/16/2020	12:30:51	11.33	1.576		6.31	235	-1.4	134.5	14.65
4/16/2020	12:40:51	11.33	1.577		6.31	235.1	-1.4	134.4	14.63
4/16/2020	12:50:51	11.33	1.577		6.31	235.2	-1.3	134.3	14.62
4/16/2020	13:00:51	11.33	1.577		6.31	235.2	-1.4	134	14.6
4/16/2020	13:10:51	11.33	1.577		6.31	235.4	-1.5	134	14.59
4/16/2020	13:20:51	11.33	1.577		6.31	235.5	-1.5	134	14.59
4/16/2020	13:30:51	11.33	1.577		6.31	235.7	-1.4	134.1	14.6
4/16/2020	13:40:51	11.33	1.577		6.31	235.7	-1.5	134.1	14.61
4/16/2020	13:50:51	11.33	1.577		6.31	235.8	-1.3	134.1	14.6
4/16/2020	14:00:51	11.33	1.577		6.31	235.8	-1.3	134.2	14.61
4/16/2020	14:10:50	11.33	1.577		6.31	235.8	-1.5	134.1	14.61
4/16/2020	14:20:51	11.33	1.577		6.31	235.9	-1.5	134.1	14.61
4/16/2020	14:30:51	11.33	1.577		6.31	236	-1.4	134.2	14.61
4/16/2020	14:40:51	11.33	1.577		6.31	236.2	-1.5	134.3	14.62
4/16/2020	14:50:51	11.33	1.577		6.31	236.4	-1.5	134.5	14.65
4/16/2020	15:00:51	11.33	1.577		6.31	236.5	-1.5	134.8	14.68
4/16/2020	15:10:51	11.33	1.577		6.31	236.6	-1.5	135	14.7
4/16/2020	15:20:51	11.33	1.577		6.31	236.8	-1.5	135	14.7
4/16/2020	15:30:50	11.33	1.577		6.31	236.8	-1.3	134.9	14.69
4/16/2020	15:40:51	11.33	1.578		6.3	236.9	-1.3	134.9	14.69
4/16/2020	15:50:51	11.33	1.577		6.31	236.9	-1.5	134.8	14.68



## **APPENDIX C**

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# **Laboratory Analytical Reports – Chemical Constituents**



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: October 23, 2019 12:51

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2068928  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
Stream02 Groundwater	10/09/2019 09:30	1173697
MW-137 [R] Groundwater	10/09/2019 10:05	1173698
MW-76 [R] Groundwater	10/09/2019 10:35	1173699
MW-59B [R] Groundwater	10/09/2019 11:00	1173700
MW-138D Groundwater	10/09/2019 11:30	1173701
MW-138 Groundwater	10/09/2019 12:00	1173702
MW-80B Groundwater	10/09/2019 12:35	1173703
MW-80A Groundwater	10/09/2019 14:10	1173704
Stream01 Groundwater	10/09/2019 14:30	1173705
MW-63 Groundwater	10/09/2019 09:30	1173706
MW-159 Groundwater	10/09/2019 09:40	1173707
MW-72 Groundwater	10/09/2019 10:00	1173708
MW-40 Groundwater	10/09/2019 10:40	1173709
MW-160 Groundwater	10/09/2019 10:20	1173710
MW-125 Groundwater	10/09/2019 11:00	1173711
MW-187C Groundwater	10/09/2019 13:30	1173712
MW-36P Groundwater	10/09/2019 14:20	1173713
MW-36R[R] Groundwater	10/09/2019 14:40	1173714
TB19272 Water	10/02/2019	1173715

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** Stream02 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173697  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 14:22	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 14:21	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-137 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173698  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 10:05

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 14:46	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 14:45	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-76 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173699  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 10:35

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 15:10	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 15:09	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-59B [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173700  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.5 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	26	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	3 J	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 15:34	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 15:33	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173701  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	26	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	4	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	390	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 15:58	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 15:57	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173702  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 16:22	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 16:21	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-80B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173703  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 12:35

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 16:46	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 16:45	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-80A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173704  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 14:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 17:10	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 17:09	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** Stream01 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173705  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 14:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 17:34	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 17:33	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-63 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173706  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 17:58	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 17:57	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-159 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173707  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 09:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 18:23	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 18:22	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-72 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173708  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.9 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 18:47	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 18:46	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-40 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173709  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 10:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.6 J	1	0.3	1
10945	Benzene	71-43-2	2	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.3 J	1	0.2	1
10945	Ethylbenzene	100-41-4	5	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	22	1	0.2	1
10945	Toluene	108-88-3	1	1	0.2	1
10945	Xylene (Total)	1330-20-7	4	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 19:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 19:10	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-160 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173710  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192911AA	10/18/2019 19:35	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192911AA	10/18/2019 19:34	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-125 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173711  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D192922AA	10/19/2019 20:33	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D192922AA	10/19/2019 20:32	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-187C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173712  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	20	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	11	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	3	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	550	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 14:43	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 14:42	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-36P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173713  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	6	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 15:05	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 15:04	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-36R[R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173714  
ELLE Group #: 2068928  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/09/2019 14:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	5	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 15:27	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 15:26	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** TB19272 Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1173715  
ELLE Group #: 2068928  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/10/2019 17:45  
Collection Date/Time: 10/02/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z192902AA	10/17/2019 13:25	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z192902AA	10/17/2019 13:24	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/23/2019 12:51

Group Number: 2068928

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Batch number: D192911AA	Sample number(s): 1173697-1173710		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: D192922AA	Sample number(s): 1173711		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: F192952AA	Sample number(s): 1173712-1173714		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: Z192902AA	Sample number(s): 1173715		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/23/2019 12:51

Group Number: 2068928

### Method Blank (continued)

Analysis Name	Result	LOQ** ug/l	MDL ug/l
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D192911AA Sample number(s): 1173697-1173710									
t-Amyl methyl ether	20	18.63			93		66-120		
Benzene	20	19.25			96		80-120		
t-Butyl alcohol	200	156.71			78		60-130		
Ethyl t-butyl ether	20	18.09			90		68-121		
Ethylbenzene	20	16.81			84		80-120		
di-Isopropyl ether	20	18.12			91		70-124		
Methyl Tertiary Butyl Ether	20	18.59			93		69-122		
Toluene	20	16.84			84		80-120		
Xylene (Total)	60	50.95			85		80-120		
Batch number: D192922AA Sample number(s): 1173711									
t-Amyl methyl ether	20	19.32			97		66-120		
Benzene	20	20.65			103		80-120		
t-Butyl alcohol	200	172.78			86		60-130		
Ethyl t-butyl ether	20	19.32			97		68-121		
Ethylbenzene	20	17.95			90		80-120		
di-Isopropyl ether	20	19.29			96		70-124		
Methyl Tertiary Butyl Ether	20	19.07			95		69-122		
Toluene	20	17.55			88		80-120		
Xylene (Total)	60	55.69			93		80-120		
Batch number: F192952AA Sample number(s): 1173712-1173714									
t-Amyl methyl ether	20	16.63			83		66-120		
Benzene	20	17.86			89		80-120		
t-Butyl alcohol	200	175.19			88		60-130		
Ethyl t-butyl ether	20	17.75			89		68-121		
Ethylbenzene	20	16.89			84		80-120		
di-Isopropyl ether	20	19.47			97		70-124		
Methyl Tertiary Butyl Ether	20	17.59			88		69-122		
Toluene	20	17.39			87		80-120		
Xylene (Total)	60	49.82			83		80-120		
Batch number: Z192902AA Sample number(s): 1173715									
t-Amyl methyl ether	20	16.06			80		66-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/23/2019 12:51

Group Number: 2068928

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzene	20	20.37			102		80-120		
t-Butyl alcohol	200	214.39			107		60-130		
Ethyl t-butyl ether	20	18.47			92		68-121		
Ethylbenzene	20	19.74			99		80-120		
di-Isopropyl ether	20	17.21			86		70-124		
Methyl Tertiary Butyl Ether	20	19.44			97		69-122		
Toluene	20	20.26			101		80-120		
Xylene (Total)	60	62.57			104		80-120		

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D192911AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1173697	107	98	91	97
1173698	105	99	92	97
1173699	105	98	90	96
1173700	105	97	91	98
1173701	104	96	91	97
1173702	105	99	91	95
1173703	105	97	91	97
1173704	105	98	91	97
1173705	106	99	89	96
1173706	106	99	91	96
1173707	105	98	91	96
1173708	106	100	90	96
1173709	105	99	92	99
1173710	105	94	90	95
Blank	105	96	92	99
LCS	104	99	93	103
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D192922AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1173711	104	100	92	94
Blank	106	94	89	97

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/23/2019 12:51

Group Number: 2068928

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D192922AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
LCS	104	100	89	105
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F192952AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1173712	91	98	103	97
1173713	94	94	103	96
1173714	93	96	103	97
Blank	94	98	102	95
LCS	94	102	102	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: Z192902AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1173715	100	98	94	94
Blank	101	100	94	94
LCS	100	100	94	96
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.







Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 10/10/2019  
 Number of Packages: 1      Number of Projects: 1

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Melvin Sanchez*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.*

<u>Cooler #</u>	<u>Matrix</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	Water	DT42-03	0.7	DT	Wet	Y	Bagged	N

**Sample ID Discrepancy Details**

<u>Sample ID on COC</u>	<u>Sample ID on Label</u>	<u>Comments</u>
MW-80A	MW-80B	
MW-137 [R]	MW-137	
MW-76 [R]	MW-76	
MW-59B [R]	MW-59	



# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: October 25, 2019 14:38

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2069439  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-178C [R] Groundwater	10/14/2019 09:00	1176172
MW-183 [R] Groundwater	10/14/2019 13:00	1176173
MW-184 [R] Groundwater	10/14/2019 13:20	1176174
MW-176 [R] Groundwater	10/14/2019 15:00	1176175
MW-82R [R] Groundwater	10/14/2019 15:20	1176176
MW-82B [R] Groundwater	10/14/2019 15:40	1176177
MW-82D Groundwater	10/14/2019 16:00	1176178
MW-178B Groundwater	10/15/2019 09:50	1176179
MW-179C(250) Groundwater	10/15/2019 09:30	1176180
MW-185 [R] Groundwater	10/15/2019 10:10	1176181
MW-169 [R] Groundwater	10/15/2019 10:30	1176182
MW-4 [R] Groundwater	10/15/2019 13:00	1176183
SVE-2 [R] Groundwater	10/15/2019 13:40	1176184
SVE-3 [R] Groundwater	10/15/2019 14:00	1176185
TB19276 Water	10/07/2019	1176186

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-178C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176172  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/14/2019 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	9	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	2	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z192972AA	10/24/2019 11:12	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z192972AA	10/24/2019 11:11	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-183 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176173  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/14/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	0.9 J	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	0.8 J	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	1	0.2	1
10945	Toluene	108-88-3	2	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z192972AA	10/24/2019 11:36	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z192972AA	10/24/2019 11:35	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-184 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176174  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/14/2019 13:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.3 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z192972AA	10/24/2019 12:01	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z192972AA	10/24/2019 12:00	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-176 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176175  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/14/2019 15:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z192972AA	10/24/2019 12:25	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z192972AA	10/24/2019 12:24	Anita M Dale	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-82R [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176176  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/14/2019 15:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	0.6 J	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z192972AA	10/24/2019 12:49	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z192972AA	10/24/2019 12:48	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-82B [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176177  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/14/2019 15:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z192972AA	10/24/2019 13:14	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z192972AA	10/24/2019 13:13	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-82D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176178  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/14/2019 16:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	10	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z192972AA	10/24/2019 13:38	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z192972AA	10/24/2019 13:37	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-178B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176179  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/15/2019 09:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.7 J	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	20	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 18:02	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 18:01	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-179C(250) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176180  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/15/2019 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 13:59	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 13:58	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176181  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/15/2019 10:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 14:21	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 14:20	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-169 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176182  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/15/2019 10:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 18:46	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 18:45	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-4 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176183  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/15/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 19:08	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 19:07	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** SVE-2 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176184  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/15/2019 13:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 19:30	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 19:29	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** SVE-3 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176185  
ELLE Group #: 2069439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/15/2019 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	33	1	0.3	1
10945	Benzene	71-43-2	11	1	0.2	1
10945	t-Butyl alcohol	75-65-0	37	25	10	1
10945	Ethyl t-butyl ether	637-92-3	3	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	2	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	140	1	0.2	1
10945	Toluene	108-88-3	20	1	0.2	1
10945	Xylene (Total)	1330-20-7	220	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192951AA	10/22/2019 19:20	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192951AA	10/22/2019 19:19	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** TB19276 Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1176186  
ELLE Group #: 2069439  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/15/2019 17:24  
Collection Date/Time: 10/07/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F192952AA	10/22/2019 12:30	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F192952AA	10/22/2019 12:29	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/25/2019 14:38

Group Number: 2069439

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: F192951AA	Sample number(s): 1176185		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: F192952AA	Sample number(s): 1176179-1176184,1176186		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: Z192972AA	Sample number(s): 1176172-1176178		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
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\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/25/2019 14:38

Group Number: 2069439

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F192951AA	Sample number(s): 1176185								
t-Amyl methyl ether	20	19.51			98		66-120		
Benzene	20	20.16			101		80-120		
t-Butyl alcohol	200	199.41			100		60-130		
Ethyl t-butyl ether	20	20.56			103		68-121		
Ethylbenzene	20	19.27			96		80-120		
di-Isopropyl ether	20	21.89			109		70-124		
Methyl Tertiary Butyl Ether	20	19.61			98		69-122		
Toluene	20	19.87			99		80-120		
Xylene (Total)	60	56.66			94		80-120		
Batch number: F192952AA	Sample number(s): 1176179-1176184,1176186								
t-Amyl methyl ether	20	16.63			83		66-120		
Benzene	20	17.86			89		80-120		
t-Butyl alcohol	200	175.19			88		60-130		
Ethyl t-butyl ether	20	17.75			89		68-121		
Ethylbenzene	20	16.89			84		80-120		
di-Isopropyl ether	20	19.47			97		70-124		
Methyl Tertiary Butyl Ether	20	17.59			88		69-122		
Toluene	20	17.39			87		80-120		
Xylene (Total)	60	49.82			83		80-120		
Batch number: Z192972AA	Sample number(s): 1176172-1176178								
t-Amyl methyl ether	20	14.72			74		66-120		
Benzene	20	19.77			99		80-120		
t-Butyl alcohol	200	208.61			104		60-130		
Ethyl t-butyl ether	20	16.57			83		68-121		
Ethylbenzene	20	19.16			96		80-120		
di-Isopropyl ether	20	15.79			79		70-124		
Methyl Tertiary Butyl Ether	20	18.32			92		69-122		
Toluene	20	19.46			97		80-120		
Xylene (Total)	60	60.91			102		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/25/2019 14:38

Group Number: 2069439

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F192951AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1176185	92	95	102	97
Blank	95	99	102	96
LCS	92	97	103	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F192952AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1176179	91	96	102	97
1176180	93	97	103	98
1176181	92	91	103	98
1176182	96	94	101	96
1176183	93	95	102	98
1176184	95	98	102	97
1176186	92	93	101	98
Blank	94	98	102	95
LCS	94	102	102	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: Z192972AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1176172	104	101	93	92
1176173	105	99	94	94
1176174	104	102	92	91
1176175	105	100	92	92
1176176	106	101	92	92
1176177	105	101	92	91
1176178	105	101	92	92
Blank	104	101	93	92
LCS	102	102	93	96
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



1345A
2069439
1176172-86
③ 10/14/19  
**CHAIN OF CUSTODY- ExxonMobil Projects**    Drop Box - MW    **PAGE 2 OF 2**

Eurofins Lancaster Laboratories Environmental  
 2425 New Holland Pike, Lancaster, PA 17605  
 TEL. 717-656-2300  
 www.lancasterlabs.com

FEO-EX Tracking #	Bottle Order Control #
Lancaster Quote #	Lancaster Job #

Client / Reporting Information	SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects	Requested Analysis ( see TEST CODE sheet)	Matrix Codes
<b>Company Name</b> <b>Kleinfelder</b>	<b>Retail Project (Site Name)</b> <b>Exxon - Phoenix 28077</b>		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank
<b>Street Address</b> <b>1745 Dorsey Road, Suite J</b>	<b>Major Project (AFE)</b> <b>ExxonMobil Environmental Services Co.</b>		
<b>City State Zip</b> <b>Hanover, MD 21076</b>	<b>Project Name</b> <b>14258 Jarrettsville Pike</b>		
<b>Project Contact</b> <b>Stacey Schiding</b>	<b>Company Name</b> <b>Phoenix MD</b>		
<b>Phone #</b> <b>410-850-0404</b>	<b>ExxonMobil Manager</b> <b>Joe Ogren</b>		
<b>Sampler(s) Name(s)</b> <b>Charlie Brehm</b>	<b>ExxonMobil Purchase Order #</b> <b>Direct Bill to Exxon Mobil</b>		

Lancaster Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection				Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY									
			Date	Time	Sampled by	Matrix			HCl	NaOH	HN03	H2SO4	NONE	DI Water	MEOH	ENCORE												
	MW-178C [R]		10/14/19	0900	CB	GW	3	X									X											
	MW-183 [R]		10/14/19	1300	CB	GW	3	X									X											
	MW-184 [R]		10/14/19	1320	CB	GW	3	X									X											
	MW-176 [R]		10/14/19	1500	CB	GW	3	X									X											
	MW-82R [R]		10/14/19	1520	CB	GW	3	X									X											
	MW-82B [R]		10/14/19	1540	CB	GW	3	X									X											
	MW-82D		10/14/19	1600	CB	GW	3	X									X											

Data Deliverable Information	Comments / Special Instructions
<p><input checked="" type="checkbox"/> Std. 10 Business Days</p> <p><input type="checkbox"/> 8 Day RUSH</p> <p><input type="checkbox"/> 6 Day RUSH</p> <p><input type="checkbox"/> 3 Day EMERGENCY</p> <p><input type="checkbox"/> 2 Day EMERGENCY</p> <p><input type="checkbox"/> 1 Day EMERGENCY</p>	<p>Approved By (Accutest PM): / Date: _____</p> <p><input checked="" type="checkbox"/> Commercial "A" ( Level 1 )      <input type="checkbox"/> NYASP Category A</p> <p><input type="checkbox"/> Commercial "B" ( Level 2 )      <input type="checkbox"/> NYASP Category B</p> <p><input type="checkbox"/> FULLT1 ( Level 3+4 )              <input type="checkbox"/> State Forms</p> <p><input type="checkbox"/> NJ Reduced                              <input type="checkbox"/> EDD Format</p> <p><input type="checkbox"/> Commercial "C"                        <input type="checkbox"/> Other _____</p> <p align="center">           Commercial "A" = Results Only            Commercial "B" = Results + QC Summary            NJ Reduced = Results + QC Summary + Partial Raw data         </p>

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 <i>Charlie Brehm</i>		1 <i>John</i> 10/15/19 14:45	2 <i>John</i> 10/15/19	17:15	2 <i>[Signature]</i>
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3 <i>[Signature]</i>		3 <i>[Signature]</i>	4 <i>[Signature]</i>		4 <i>[Signature]</i>
Relinquished by:	Date Time:	Received By:	Custody Seal #	<input type="checkbox"/> Intact      Preserved where applicable	<input type="checkbox"/> On Ice      Cooler Temp.
5 <i>[Signature]</i>		5 <i>[Signature]</i> 10-15-19 17:24		<input type="checkbox"/> Not Intact <input type="checkbox"/>	<input type="checkbox"/> 0.8



13059 2069439 1176172-86  
**CHAIN OF CUSTODY- ExxonMobil Projects**

Drop Box - MW **PAGE 1 OF 2** ③<sup>MW</sup> 2308 10/14/19

Eurofins Lancaster Laboratories Environmental  
 2425 New Holland Pike, Lancaster, PA 17605  
 TEL. 717-656-2300  
 www.lancasterlabs.com

FEO-EX Tracking #	Bottle Order Control #
Lancaster Quote #	Lancaster Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects				Requested Analysis ( see TEST CODE sheet)													Matrix Codes
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix 28077</b>		ExxonMobil Environmental Services Co.		Requested Analysis ( see TEST CODE sheet)													Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank
Street Address <b>1745 Dorsey Road, Suite J</b>		Major Project (AFE)		If Project is Direct Bill to Consultant															
City State Zip <b>Hanover, MD 21076</b>		Project Name <b>14258 Jarrettsville Pike</b>		Company Name		Requested Analysis ( see TEST CODE sheet)													Matrix Codes
Project Contact E-mail <b>Stacey Schiding</b>		City State <b>Phoenix MD</b>		Street Address															
Phone # Fax # <b>410-850-0404 410-850-0049</b>		ExxonMobil Manager <b>Joe Ogren</b>		City State Zip															
Sampler(s) Name(s) Phone # <b>Charlie Brehm</b>		ExxonMobil Purchase Order # <b>Direct Bill to Exxon Mobil</b>		Attention: PO#		Requested Analysis ( see TEST CODE sheet)													Matrix Codes
Lancaster Sample #		Collection		Number of preserved Bottles															
Field ID / Point of Collection		MEOH/DI Vial #		Date Time															

Lancaster Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B	Full List VOCs + Oxy5 by 8260	Nitrate Nitrogen, Sulfate, Volatile Headspace Hydrocarbon, CO2 by Headspace	LAB USE ONLY
	MW-178B		10/15/19	0950	CB	GW	3	X								X			
	MW-179C(250)		10/15/19	0930	CB	GW	3	X								X			
	MW-185 [R]		10/15/19	1010	CB	GW	3	X								X			
	MW-169 [R]		10/15/19	1030	CB	GW	3	X								X			
	MW-4 [R]		10/15/19	1300	CB	GW	3	X								X			
	SVE-2 [R]		10/15/19	1340	CB	GW	3	X								X			
	SVE-3 [R]		10/15/19	1400	CB	GW	3	X								X			
	TB19276		10/7/19		RR	TB	2	X								X			

<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 8 Oay RUSH <input type="checkbox"/> 6 Oay RUSH <input type="checkbox"/> 3 Oay EMERGENCY <input type="checkbox"/> 2 Oay EMERGENCY <input type="checkbox"/> 1 Oay EMERGENCY		Approved By (Accutest PM): / Date: _____	<input checked="" type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDO Format <input type="checkbox"/> Other _____		Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data
---	--	--	---	--	--

Sample Custody must be documented below each time samples change possession, including courier delivery.

1 Relinquished by Sampler: <i>Charlie Brehm</i>	Date Time:	Received By: <i>John 10/15/19 14:45</i>	Relinquished By: <i>John 10/15/19</i>	Date Time: <i>17:15</i>	Received By: _____
3 Relinquished by Sampler: _____	Date Time:	Received By: _____	Relinquished By: _____	Date Time:	Received By: _____
5 Relinquished by: _____	Date Time:	Received By: <i>Edie 10-15-19 17:16</i>	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/> On Ice Cooler Temp. <i>0.8</i>





Client: ExxonMobil Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 10/15/2019  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Leah Foreman*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.*

<u>Cooler #</u>	<u>Matrix</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	Water	DT42-03	0.8	DT	Wet	Y	Loose	N

**Sample ID Discrepancy Details**

<u>Sample ID on COC</u>	<u>Sample ID on Label</u>	<u>Comments</u>
MW-178C [R]	MW-178B	
MW-82D	MW-82D [R]	

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: November 07, 2019 16:50

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2070676  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

A previous version of this report was generated on 11/06/2019 10:58.

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/>. Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-168 Groundwater	10/21/2019 09:15	1182349
MW-167 Groundwater	10/21/2019 09:45	1182350
MW-109 [R] Groundwater	10/21/2019 14:20	1182351
MW-84P Groundwater	10/21/2019 13:00	1182352
MW-90 Groundwater	10/21/2019 10:30	1182353
MW-59A Groundwater	10/21/2019 11:00	1182354
MW-47C Groundwater	10/21/2019 11:30	1182355
MW-47BB Groundwater	10/21/2019 11:55	1182356
MW-52 Groundwater	10/21/2019 13:55	1182357
MW-43B Groundwater	10/21/2019 12:30	1182358
MW-46 Groundwater	10/21/2019 13:30	1182359
TB19282 Water	10/21/2019	1182360
MW-45 [R] Groundwater	10/21/2019 09:00	1182361
MW-54B [R] Groundwater	10/21/2019 09:40	1182362
MW-1A [R] Groundwater	10/21/2019 14:00	1182363
MW-6 [R] Groundwater	10/21/2019 14:20	1182364
MW-152 [R] Groundwater	10/21/2019 14:40	1182365
MW-22 [R] Groundwater	10/21/2019 15:20	1182366
MW-17 [R] Groundwater	10/22/2019 12:30	1182367
MW-4A Groundwater	10/22/2019 13:10	1182368
MW-2 Groundwater	10/22/2019 13:35	1182369
MW-1 Groundwater	10/22/2019 14:10	1182370

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

REVISED

**Sample Description:** MW-168 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1182349  
ELLE Group #: 2070676  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/22/2019 17:33  
Collection Date/Time: 10/21/2019 09:15

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-168 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182349  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 09:15

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	0.3 J	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193021AA	10/29/2019 15:17	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 15:16	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-167 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182350  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 09:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result



REVISED

**Sample Description:** MW-167 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182350  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 09:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	5	0.5	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193021AA	10/29/2019 16:23	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 16:22	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-109 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182351  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-109 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182351  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	N193021AA	10/29/2019 16:45	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 16:44	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-84P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182352  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	2 J	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-84P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182352  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193021AA	10/29/2019 17:08	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 17:07	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-90 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1182353  
ELLE Group #: 2070676  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/22/2019 17:33  
Collection Date/Time: 10/21/2019 10:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>SW-846 8260B</b>						
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-90 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182353  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 10:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	N193021AA	10/29/2019 17:30	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 17:29	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-59A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182354  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	1 J	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result



REVISED

**Sample Description:** MW-59A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182354  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>SW-846 8260B</b>					
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193021AA	10/29/2019 17:52	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 17:51	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-47C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1182355  
ELLE Group #: 2070676  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/22/2019 17:33  
Collection Date/Time: 10/21/2019 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>SW-846 8260B</b>						
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-47C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182355  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	N193021AA	10/29/2019 18:14	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 18:13	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47BB Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182356  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 11:55

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-47BB Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182356  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 11:55

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy + hexane	SW-846 8260B	1	N193021AA	10/29/2019 18:36	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 18:35	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-52 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182357  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 13:55

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-52 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182357  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 13:55

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	N193021AA	10/29/2019 18:58	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 18:57	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-43B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182358  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result



REVISED

**Sample Description:** MW-43B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182358  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193021AA	10/29/2019 19:20	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 19:19	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-46 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182359  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-46 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182359  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>SW-846 8260B</b>					
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxys + hexane	SW-846 8260B	1	N193021AA	10/29/2019 19:42	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 19:41	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** TB19282 Water  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182360  
**ELLE Group #:** 2070676  
**Matrix:** Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** TB19282 Water  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182360  
**ELLE Group #:** 2070676  
**Matrix:** Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	0.3 J	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193021AA	10/29/2019 20:04	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 20:03	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-45 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1182361  
ELLE Group #: 2070676  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/22/2019 17:33  
Collection Date/Time: 10/21/2019 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	6	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	6	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	2	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	190	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193042AA	10/31/2019 19:59	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193042AA	10/31/2019 19:58	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-54B [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1182362  
ELLE Group #: 2070676  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/22/2019 17:33  
Collection Date/Time: 10/21/2019 09:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.4 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	9	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193042AA	10/31/2019 20:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193042AA	10/31/2019 20:23	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-1A [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182363  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result



REVISED

**Sample Description:** MW-1A [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182363  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	0.2 J	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193021AA	10/29/2019 20:26	Chelsea B Riehl	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193021AA	10/29/2019 20:25	Chelsea B Riehl	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-6 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182364  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-6 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182364  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193031AA	10/30/2019 16:56	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193031AA	10/30/2019 16:55	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-152 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182365  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 14:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-152 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182365  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 14:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193031AA	10/30/2019 20:37	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193031AA	10/30/2019 20:36	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-22 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1182366  
ELLE Group #: 2070676  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/22/2019 17:33  
Collection Date/Time: 10/21/2019 15:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>SW-846 8260B</b>						
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-22 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182366  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/21/2019 15:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	0.2 J	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193031AA	10/30/2019 21:00	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193031AA	10/30/2019 20:59	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-17 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182367  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/22/2019 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result



REVISED

**Sample Description:** MW-17 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182367  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/22/2019 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	0.2 J	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	N193031AA	10/30/2019 21:22	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193031AA	10/30/2019 21:21	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-4A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182368  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/22/2019 13:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-4A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182368  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/22/2019 13:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193031AA	10/30/2019 21:44	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193031AA	10/30/2019 21:43	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-2 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182369  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/22/2019 13:35

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-2 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182369  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/22/2019 13:35

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193031AA	10/30/2019 22:06	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193031AA	10/30/2019 22:05	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-1 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1182370  
ELLE Group #: 2070676  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/22/2019 17:33  
Collection Date/Time: 10/22/2019 14:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	15 J	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	0.2 J	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	5 J	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	1 J	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	23	1	0.2	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-1 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1182370  
**ELLE Group #:** 2070676  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/22/2019 17:33  
**Collection Date/Time:** 10/22/2019 14:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	5 J	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	4 J	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	7 J	10	4	1
10335	n-Propylbenzene	103-65-1	5 J	5	0.2	1
10335	Styrene	100-42-5	5	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	82	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	24	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	8	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	85	2	0.5	1
10335	o-Xylene	95-47-6	44	1	0.3	1
10335	Xylene (Total)	1330-20-7	130	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	N193031AA	10/30/2019 22:28	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193031AA	10/30/2019 22:27	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Batch number: D193042AA	Sample number(s): 1182361-1182362		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: N193021AA	Sample number(s): 1182349-1182360,1182363		
Acetone	N.D.	20	0.8
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
Bromobenzene	N.D.	5	0.2
Bromochloromethane	N.D.	5	0.4
Bromodichloromethane	N.D.	1	0.2
Bromoform	N.D.	5	2
Bromomethane	N.D.	1	0.5
2-Butanone	N.D.	10	1
t-Butyl alcohol	N.D.	25	10
n-Butylbenzene	N.D.	5	0.9
sec-Butylbenzene	N.D.	5	0.2
tert-Butylbenzene	N.D.	5	0.2
Carbon Disulfide	N.D.	5	0.3
Carbon Tetrachloride	N.D.	1	0.2
Chlorobenzene	N.D.	1	0.2
Chloroethane	N.D.	1	0.3
Chloroform	N.D.	1	0.2
Chloromethane	N.D.	1	0.3
2-Chlorotoluene	N.D.	5	0.2
4-Chlorotoluene	N.D.	5	0.2
1,2-Dibromo-3-chloropropane	N.D.	5	1
Dibromochloromethane	N.D.	1	0.4
1,2-Dibromoethane	N.D.	1	0.3
Dibromomethane	N.D.	1	0.2
1,2-Dichlorobenzene	N.D.	5	0.2
1,3-Dichlorobenzene	N.D.	5	0.2
1,4-Dichlorobenzene	N.D.	5	0.2

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### Method Blank (continued)

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Dichlorodifluoromethane	N.D.	1	0.3
1,1-Dichloroethane	N.D.	1	0.2
1,2-Dichloroethane	N.D.	5	2
1,1-Dichloroethene	N.D.	1	0.2
cis-1,2-Dichloroethene	N.D.	1	0.2
trans-1,2-Dichloroethene	N.D.	1	0.2
1,2-Dichloropropane	N.D.	1	0.2
1,3-Dichloropropane	N.D.	1	0.2
2,2-Dichloropropane	N.D.	1	0.2
1,1-Dichloropropene	N.D.	5	0.2
cis-1,3-Dichloropropene	N.D.	1	0.2
trans-1,3-Dichloropropene	N.D.	1	0.4
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
Hexachlorobutadiene	3 J	5	2
n-Hexane	N.D.	5	1
2-Hexanone	N.D.	10	3
di-Isopropyl ether	N.D.	1	0.2
Isopropylbenzene	N.D.	5	0.3
p-Isopropyltoluene	N.D.	5	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
4-Methyl-2-pentanone	N.D.	10	0.5
Methylene Chloride	N.D.	1	0.2
Naphthalene	N.D.	10	4
n-Propylbenzene	N.D.	5	0.2
Styrene	N.D.	5	0.2
1,1,1,2-Tetrachloroethane	N.D.	1	0.4
1,1,2,2-Tetrachloroethane	N.D.	1	0.2
Tetrachloroethene	N.D.	1	0.2
Toluene	N.D.	1	0.2
1,2,3-Trichlorobenzene	N.D.	10	3
1,2,4-Trichlorobenzene	N.D.	5	0.4
1,1,1-Trichloroethane	N.D.	1	0.2
1,1,2-Trichloroethane	N.D.	1	0.2
Trichloroethene	N.D.	1	0.2
Trichlorofluoromethane	N.D.	1	0.4
1,2,3-Trichloropropane	N.D.	5	0.2
1,2,4-Trimethylbenzene	N.D.	5	0.3
1,3,5-Trimethylbenzene	N.D.	5	0.3
Vinyl Chloride	N.D.	1	0.4
m+p-Xylene	N.D.	2	0.5
o-Xylene	N.D.	1	0.3
Xylene (Total)	N.D.	3	0.8

Batch number: N193031AA

Sample number(s): 1182364-1182370

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### Method Blank (continued)

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Acetone	N.D.	20	0.8
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
Bromobenzene	N.D.	5	0.2
Bromochloromethane	N.D.	5	0.4
Bromodichloromethane	N.D.	1	0.2
Bromoform	N.D.	5	2
Bromomethane	N.D.	1	0.5
2-Butanone	N.D.	10	1
t-Butyl alcohol	N.D.	25	10
n-Butylbenzene	N.D.	5	0.9
sec-Butylbenzene	N.D.	5	0.2
tert-Butylbenzene	N.D.	5	0.2
Carbon Disulfide	N.D.	5	0.3
Carbon Tetrachloride	N.D.	1	0.2
Chlorobenzene	N.D.	1	0.2
Chloroethane	N.D.	1	0.3
Chloroform	N.D.	1	0.2
Chloromethane	N.D.	1	0.3
2-Chlorotoluene	N.D.	5	0.2
4-Chlorotoluene	N.D.	5	0.2
1,2-Dibromo-3-chloropropane	N.D.	5	1
Dibromochloromethane	N.D.	1	0.4
1,2-Dibromoethane	N.D.	1	0.3
Dibromomethane	N.D.	1	0.2
1,2-Dichlorobenzene	N.D.	5	0.2
1,3-Dichlorobenzene	N.D.	5	0.2
1,4-Dichlorobenzene	N.D.	5	0.2
Dichlorodifluoromethane	N.D.	1	0.3
1,1-Dichloroethane	N.D.	1	0.2
1,2-Dichloroethane	N.D.	5	2
1,1-Dichloroethene	N.D.	1	0.2
cis-1,2-Dichloroethene	N.D.	1	0.2
trans-1,2-Dichloroethene	N.D.	1	0.2
1,2-Dichloropropane	N.D.	1	0.2
1,3-Dichloropropane	N.D.	1	0.2
2,2-Dichloropropane	N.D.	1	0.2
1,1-Dichloropropene	N.D.	5	0.2
cis-1,3-Dichloropropene	N.D.	1	0.2
trans-1,3-Dichloropropene	N.D.	1	0.4
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
Hexachlorobutadiene	N.D.	5	2
n-Hexane	N.D.	5	1
2-Hexanone	N.D.	10	3

\*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### Method Blank (continued)

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
di-Isopropyl ether	N.D.	1	0.2
Isopropylbenzene	N.D.	5	0.3
p-Isopropyltoluene	N.D.	5	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
4-Methyl-2-pentanone	N.D.	10	0.5
Methylene Chloride	N.D.	1	0.2
Naphthalene	N.D.	10	4
n-Propylbenzene	N.D.	5	0.2
Styrene	N.D.	5	0.2
1,1,1,2-Tetrachloroethane	N.D.	1	0.4
1,1,2,2-Tetrachloroethane	N.D.	1	0.2
Tetrachloroethene	N.D.	1	0.2
Toluene	N.D.	1	0.2
1,2,3-Trichlorobenzene	N.D.	10	3
1,2,4-Trichlorobenzene	N.D.	5	0.4
1,1,1-Trichloroethane	N.D.	1	0.2
1,1,2-Trichloroethane	N.D.	1	0.2
Trichloroethene	N.D.	1	0.2
Trichlorofluoromethane	N.D.	1	0.4
1,2,3-Trichloropropane	N.D.	5	0.2
1,2,4-Trimethylbenzene	N.D.	5	0.3
1,3,5-Trimethylbenzene	N.D.	5	0.3
Vinyl Chloride	N.D.	1	0.4
m+p-Xylene	N.D.	2	0.5
o-Xylene	N.D.	1	0.3
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: D193042AA	Sample number(s): 1182361-1182362								
t-Amyl methyl ether	20	19.3			97		66-120		
Benzene	20	20.96			105		80-120		
t-Butyl alcohol	200	197.37			99		60-130		
Ethyl t-butyl ether	20	21.22			106		68-121		
Ethylbenzene	20	20.26			101		80-120		
di-Isopropyl ether	20	22.21			111		70-124		
Methyl Tertiary Butyl Ether	20	20.76			104		69-122		
Toluene	20	20.05			100		80-120		
Xylene (Total)	60	59.63			99		80-120		

\*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: N193021AA									
Sample number(s): 1182349-1182360,1182363									
Acetone	150	170.06	150	175.54	113	117	54-157	3	30
t-Amyl methyl ether	20	18.64	20	18.63	93	93	66-120	0	30
Benzene	20	23.06	20	22.15	115	111	80-120	4	30
Bromobenzene	20	22.63	20	22.16	113	111	80-120	2	30
Bromochloromethane	20	21.74	20	21.29	109	106	80-120	2	30
Bromodichloromethane	20	21.93	20	21.27	110	106	71-120	3	30
Bromoform	20	18.39	20	18.51	92	93	51-120	1	30
Bromomethane	20	16.66	20	15.52	83	78	53-128	7	30
2-Butanone	150	147.74	150	147.05	98	98	59-135	0	30
t-Butyl alcohol	200	207.71	200	208.59	104	104	60-130	0	30
n-Butylbenzene	20	21.75	20	20.99	109	105	76-120	4	30
sec-Butylbenzene	20	21.81	20	21.15	109	106	77-120	3	30
tert-Butylbenzene	20	20.93	20	20.82	105	104	78-120	1	30
Carbon Disulfide	20	20.24	20	19.45	101	97	65-128	4	30
Carbon Tetrachloride	20	24.46	20	23.53	122	118	64-134	4	30
Chlorobenzene	20	22.81	20	22.22	114	111	80-120	3	30
Chloroethane	20	18.19	20	16.99	91	85	55-123	7	30
Chloroform	20	23.49	20	22.85	117	114	80-120	3	30
Chloromethane	20	15.3	20	14.62	77	73	56-121	5	30
2-Chlorotoluene	20	22.15	20	21.61	111	108	80-120	2	30
4-Chlorotoluene	20	22.38	20	22.1	112	110	80-120	1	30
1,2-Dibromo-3-chloropropane	20	17.29	20	17.02	86	85	47-131	2	30
Dibromochloromethane	20	21.35	20	20.99	107	105	71-120	2	30
1,2-Dibromoethane	20	21.18	20	20.83	106	104	77-120	2	30
Dibromomethane	20	22.53	20	21.93	113	110	80-120	3	30
1,2-Dichlorobenzene	20	22.97	20	22.47	115	112	80-120	2	30
1,3-Dichlorobenzene	20	23.08	20	22.48	115	112	80-120	3	30
1,4-Dichlorobenzene	20	23.38	20	22.91	117	115	80-120	2	30
Dichlorodifluoromethane	20	10.02	20	9.56	50	48	41-127	5	30
1,1-Dichloroethane	20	22.78	20	21.61	114	108	80-120	5	30
1,2-Dichloroethane	20	24.42	20	23.71	122	119	73-124	3	30
1,1-Dichloroethene	20	23.27	20	22.58	116	113	80-131	3	30
cis-1,2-Dichloroethene	20	23.78	20	23.08	119	115	80-125	3	30
trans-1,2-Dichloroethene	20	23.02	20	22.13	115	111	80-126	4	30
1,2-Dichloropropane	20	23.01	20	22.26	115	111	80-120	3	30
1,3-Dichloropropane	20	21.25	20	21.14	106	106	80-120	0	30
2,2-Dichloropropane	20	23.97	20	22.69	120	113	55-142	6	30
1,1-Dichloropropene	20	23.31	20	22.32	117	112	78-120	4	30
cis-1,3-Dichloropropene	20	21.45	20	20.84	107	104	75-120	3	30
trans-1,3-Dichloropropene	20	20.27	20	20.22	101	101	67-120	0	30
Ethyl t-butyl ether	20	18.89	20	18.75	94	94	68-121	1	30
Ethylbenzene	20	23.16	20	22.44	116	112	80-120	3	30

\*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Hexachlorobutadiene	20	22.6	20	21.91	113	110	63-120	3	30
n-Hexane	20	23.01	20	22.05	115	110	61-138	4	30
2-Hexanone	100	101.16	100	101.57	101	102	56-135	0	30
di-Isopropyl ether	20	20.88	20	20.36	104	102	70-124	3	30
Isopropylbenzene	20	23.57	20	22.7	118	114	80-120	4	30
p-Isopropyltoluene	20	21.61	20	21.02	108	105	76-120	3	30
Methyl Tertiary Butyl Ether	20	19.98	20	19.96	100	100	69-122	0	30
4-Methyl-2-pentanone	100	102.02	100	100.29	102	100	62-133	2	30
Methylene Chloride	20	22.53	20	22.22	113	111	80-120	1	30
Naphthalene	20	18.34	20	18.27	92	91	53-124	0	30
n-Propylbenzene	20	23.65	20	22.96	118	115	79-121	3	30
Styrene	20	21.72	20	20.98	109	105	80-120	3	30
1,1,1,2-Tetrachloroethane	20	22.25	20	21.84	111	109	78-120	2	30
1,1,2,2-Tetrachloroethane	20	20.23	20	20.39	101	102	72-120	1	30
Tetrachloroethene	20	23.82	20	22.92	119	115	80-120	4	30
Toluene	20	22.8	20	21.97	114	110	80-120	4	30
1,2,3-Trichlorobenzene	20	21.01	20	20.74	105	104	66-120	1	30
1,2,4-Trichlorobenzene	20	21.67	20	21.24	108	106	63-120	2	30
1,1,1-Trichloroethane	20	23.93	20	22.87	120	114	67-126	5	30
1,1,2-Trichloroethane	20	22.51	20	22.02	113	110	80-120	2	30
Trichloroethene	20	22.91	20	22.01	115	110	80-120	4	30
Trichlorofluoromethane	20	16.26	20	15.48	81	77	55-135	5	30
1,2,3-Trichloropropane	20	20.85	20	21.03	104	105	75-124	1	30
1,2,4-Trimethylbenzene	20	22.31	20	21.91	112	110	75-120	2	30
1,3,5-Trimethylbenzene	20	22.66	20	22.23	113	111	75-120	2	30
Vinyl Chloride	20	17.19	20	15.92	86	80	56-120	8	30
m+p-Xylene	40	46.79	40	45.29	117	113	80-120	3	30
o-Xylene	20	22.18	20	22.06	111	110	80-120	1	30
Xylene (Total)	60	68.97	60	67.35	115	112	80-120	2	30
Batch number: N193031AA	Sample number(s): 1182364-1182370								
Acetone	150	169.32			113		54-157		
t-Amyl methyl ether	20	17.61			88		66-120		
Benzene	20	21.2			106		80-120		
Bromobenzene	20	21.29			106		80-120		
Bromochloromethane	20	21.27			106		80-120		
Bromodichloromethane	20	20.63			103		71-120		
Bromoform	20	17.98			90		51-120		
Bromomethane	20	16.79			84		53-128		
2-Butanone	150	138.53			92		59-135		
t-Butyl alcohol	200	194.14			97		60-130		
n-Butylbenzene	20	20.66			103		76-120		
sec-Butylbenzene	20	20.06			100		77-120		
tert-Butylbenzene	20	19.82			99		78-120		

\*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Carbon Disulfide	20	18.87			94		65-128		
Carbon Tetrachloride	20	22.98			115		64-134		
Chlorobenzene	20	21.43			107		80-120		
Chloroethane	20	18.18			91		55-123		
Chloroform	20	21.98			110		80-120		
Chloromethane	20	17.07			85		56-121		
2-Chlorotoluene	20	20.89			104		80-120		
4-Chlorotoluene	20	20.84			104		80-120		
1,2-Dibromo-3-chloropropane	20	17.18			86		47-131		
Dibromochloromethane	20	20.56			103		71-120		
1,2-Dibromoethane	20	20.39			102		77-120		
Dibromomethane	20	21.22			106		80-120		
1,2-Dichlorobenzene	20	21.58			108		80-120		
1,3-Dichlorobenzene	20	21.69			108		80-120		
1,4-Dichlorobenzene	20	21.9			110		80-120		
Dichlorodifluoromethane	20	12.8			64		41-127		
1,1-Dichloroethane	20	21.29			106		80-120		
1,2-Dichloroethane	20	22.94			115		73-124		
1,1-Dichloroethene	20	21.94			110		80-131		
cis-1,2-Dichloroethene	20	22.19			111		80-125		
trans-1,2-Dichloroethene	20	21.26			106		80-126		
1,2-Dichloropropane	20	21.54			108		80-120		
1,3-Dichloropropane	20	20.48			102		80-120		
2,2-Dichloropropane	20	22.52			113		55-142		
1,1-Dichloropropene	20	21.46			107		78-120		
cis-1,3-Dichloropropene	20	20.08			100		75-120		
trans-1,3-Dichloropropene	20	19.6			98		67-120		
Ethyl t-butyl ether	20	17.88			89		68-121		
Ethylbenzene	20	21.47			107		80-120		
Hexachlorobutadiene	20	21.39			107		63-120		
n-Hexane	20	21.55			108		61-138		
2-Hexanone	100	99.09			99		56-135		
di-Isopropyl ether	20	19.53			98		70-124		
Isopropylbenzene	20	21.73			109		80-120		
p-Isopropyltoluene	20	19.92			100		76-120		
Methyl Tertiary Butyl Ether	20	18.81			94		69-122		
4-Methyl-2-pentanone	100	99.08			99		62-133		
Methylene Chloride	20	21.35			107		80-120		
Naphthalene	20	17.96			90		53-124		
n-Propylbenzene	20	22.12			111		79-121		
Styrene	20	20.43			102		80-120		
1,1,1,2-Tetrachloroethane	20	21.46			107		78-120		
1,1,1,2,2-Tetrachloroethane	20	19.77			99		72-120		
Tetrachloroethene	20	22.28			111		80-120		

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## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Toluene	20	21.22			106		80-120		
1,2,3-Trichlorobenzene	20	20.56			103		66-120		
1,2,4-Trichlorobenzene	20	20.82			104		63-120		
1,1,1-Trichloroethane	20	22.24			111		67-126		
1,1,2-Trichloroethane	20	21.42			107		80-120		
Trichloroethene	20	21.37			107		80-120		
Trichlorofluoromethane	20	16.85			84		55-135		
1,2,3-Trichloropropane	20	20.33			102		75-124		
1,2,4-Trimethylbenzene	20	20.87			104		75-120		
1,3,5-Trimethylbenzene	20	21.14			106		75-120		
Vinyl Chloride	20	18.71			94		56-120		
m+p-Xylene	40	43.34			108		80-120		
o-Xylene	20	20.72			104		80-120		
Xylene (Total)	60	64.06			107		80-120		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: N193021AA	Sample number(s): 1182349-1182360,1182363 UNSPK: 1182349									
Acetone	N.D.	150	178.15	150	182.23	119	121	54-157	2	30
t-Amyl methyl ether	N.D.	20	18.23	20	18.96	91	95	66-120	4	30
Benzene	N.D.	20	23.3	20	24.05	116	120	80-120	3	30
Bromobenzene	N.D.	20	22.99	20	23.48	115	117	80-120	2	30
Bromochloromethane	N.D.	20	21.57	20	22.17	108	111	80-120	3	30
Bromodichloromethane	N.D.	20	21.79	20	22.6	109	113	71-120	4	30
Bromoform	N.D.	20	18.03	20	18.74	90	94	51-120	4	30
Bromomethane	N.D.	20	16.67	20	16.97	83	85	53-128	2	30
2-Butanone	N.D.	150	140.7	150	147.28	94	98	59-135	5	30
t-Butyl alcohol	N.D.	200	188.49	200	190.83	94	95	60-130	1	30
n-Butylbenzene	N.D.	20	22.57	20	23.21	113	116	76-120	3	30
sec-Butylbenzene	N.D.	20	22.59	20	23.25	113	116	77-120	3	30
tert-Butylbenzene	N.D.	20	23.27	20	24.29	116	121*	78-120	4	30
Carbon Disulfide	N.D.	20	20.84	20	21.77	104	109	65-128	4	30
Carbon Tetrachloride	N.D.	20	25.68	20	25.99	128	130	64-134	1	30
Chlorobenzene	N.D.	20	22.8	20	24.03	114	120	80-120	5	30
Chloroethane	N.D.	20	18.89	20	18.8	94	94	55-123	0	30
Chloroform	N.D.	20	23.88	20	24.51	119	123*	80-120	3	30
Chloromethane	N.D.	20	15.96	20	15.92	80	80	56-121	0	30

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## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
2-Chlorotoluene	N.D.	20	22.37	20	23.4	112	117	80-120	4	30
4-Chlorotoluene	N.D.	20	22.57	20	23.5	113	117	80-120	4	30
1,2-Dibromo-3-chloropropane	N.D.	20	16.33	20	17.31	82	87	47-131	6	30
Dibromochloromethane	N.D.	20	20.88	20	22	104	110	71-120	5	30
1,2-Dibromoethane	N.D.	20	20.8	20	21.46	104	107	77-120	3	30
Dibromomethane	N.D.	20	22.25	20	22.82	111	114	80-120	3	30
1,2-Dichlorobenzene	N.D.	20	23.02	20	23.76	115	119	80-120	3	30
1,3-Dichlorobenzene	N.D.	20	23.37	20	24.21	117	121*	80-120	4	30
1,4-Dichlorobenzene	N.D.	20	23.59	20	24.43	118	122*	80-120	4	30
Dichlorodifluoromethane	N.D.	20	10.61	20	10.13	53	51	41-127	5	30
1,1-Dichloroethane	N.D.	20	22.96	20	24.07	115	120	80-120	5	30
1,2-Dichloroethane	N.D.	20	24.63	20	24.8	123	124	73-124	1	30
1,1-Dichloroethene	N.D.	20	24.42	20	25.42	122	127	80-131	4	30
cis-1,2-Dichloroethene	N.D.	20	23.86	20	24.86	119	124*	80-120	4	30
trans-1,2-Dichloroethene	N.D.	20	23.54	20	24.41	118	122*	80-120	4	30
1,2-Dichloropropane	N.D.	20	23.03	20	23.88	115	119	80-120	4	30
1,3-Dichloropropane	N.D.	20	21.16	20	21.92	106	110	80-120	4	30
2,2-Dichloropropane	N.D.	20	24.11	20	25.38	121	127	55-142	5	30
1,1-Dichloropropene	N.D.	20	24.34	20	24.83	122*	124*	78-120	2	30
cis-1,3-Dichloropropene	N.D.	20	20.24	20	21.2	101	106	75-120	5	30
trans-1,3-Dichloropropene	N.D.	20	19.72	20	20.71	99	104	67-120	5	30
Ethyl t-butyl ether	N.D.	20	18.29	20	19.46	91	97	68-121	6	30
Ethylbenzene	N.D.	20	23.64	20	24.4	118	122*	80-120	3	30
Hexachlorobutadiene	N.D.	20	23.2	20	23.96	116	120	63-120	3	30
n-Hexane	N.D.	20	24.04	20	24.79	120	124	61-138	3	30
2-Hexanone	N.D.	100	98.77	100	102.11	99	102	56-135	3	30
di-Isopropyl ether	N.D.	20	20.43	20	21.42	102	107	70-124	5	30
Isopropylbenzene	N.D.	20	23.95	20	24.64	120	123*	80-120	3	30
p-Isopropyltoluene	N.D.	20	22.25	20	22.94	111	115	76-120	3	30
Methyl Tertiary Butyl Ether	N.D.	20	19.44	20	20.36	97	102	69-122	5	30
4-Methyl-2-pentanone	N.D.	100	97.8	100	101.79	98	102	62-133	4	30
Methylene Chloride	N.D.	20	22.52	20	23.66	113	118	80-120	5	30
Naphthalene	N.D.	20	18.11	20	18.57	91	93	53-124	2	30
n-Propylbenzene	N.D.	20	24.41	20	25.23	122*	126*	79-121	3	30
Styrene	N.D.	20	21.71	20	22.68	109	113	80-120	4	30
1,1,1,2-Tetrachloroethane	N.D.	20	22.65	20	23.35	113	117	78-120	3	30
1,1,2,2-Tetrachloroethane	N.D.	20	20.09	20	20.91	100	105	72-120	4	30
Tetrachloroethene	N.D.	20	24.87	20	25.27	124*	126*	80-120	2	30
Toluene	N.D.	20	22.98	20	23.95	115	120	80-120	4	30
1,2,3-Trichlorobenzene	N.D.	20	20.76	20	21.58	104	108	66-120	4	30
1,2,4-Trichlorobenzene	N.D.	20	21.62	20	22.19	108	111	63-120	3	30
1,1,1-Trichloroethane	N.D.	20	24.44	20	25.21	122	126	67-126	3	30
1,1,2-Trichloroethane	N.D.	20	22.17	20	22.84	111	114	80-120	3	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Trichloroethene	0.300	20	23.58	20	24.55	116	121*	80-120	4	30
Trichlorofluoromethane	N.D.	20	17.27	20	17.19	86	86	55-135	0	30
1,2,3-Trichloropropane	N.D.	20	20.75	20	21.18	104	106	75-124	2	30
1,2,4-Trimethylbenzene	N.D.	20	22.82	20	23.41	114	117	75-120	3	30
1,3,5-Trimethylbenzene	N.D.	20	23.15	20	23.91	116	120	75-120	3	30
Vinyl Chloride	N.D.	20	18.3	20	18.11	92	91	56-120	1	30
m+p-Xylene	N.D.	40	47.42	40	48.36	119	121*	80-120	2	30
o-Xylene	N.D.	20	22.46	20	23.24	112	116	80-120	3	30
Xylene (Total)	N.D.	60	69.88	60	71.6	116	119	80-120	2	30
Batch number: N193031AA	Sample number(s): 1182364-1182370 UNSPK: 1182364									
Acetone	N.D.	150	190.28	150	178.43	127	119	54-157	6	30
t-Amyl methyl ether	N.D.	20	17.45	20	18.15	87	91	66-120	4	30
Benzene	N.D.	20	22.73	20	23.35	114	117	80-120	3	30
Bromobenzene	N.D.	20	22.28	20	22.53	111	113	80-120	1	30
Bromochloromethane	N.D.	20	22.01	20	22.41	110	112	80-120	2	30
Bromodichloromethane	N.D.	20	21.55	20	21.82	108	109	71-120	1	30
Bromoform	N.D.	20	17.53	20	17.91	88	90	51-120	2	30
Bromomethane	N.D.	20	18.82	20	18.53	94	93	53-128	2	30
2-Butanone	N.D.	150	140.71	150	143.03	94	95	59-135	2	30
t-Butyl alcohol	N.D.	200	212.77	200	204.11	106	102	60-130	4	30
n-Butylbenzene	N.D.	20	22.12	20	22.6	111	113	76-120	2	30
sec-Butylbenzene	N.D.	20	21.95	20	22.32	110	112	77-120	2	30
tert-Butylbenzene	N.D.	20	21.01	20	21.67	105	108	78-120	3	30
Carbon Disulfide	N.D.	20	19.89	20	20.31	99	102	65-128	2	30
Carbon Tetrachloride	N.D.	20	25.01	20	25.34	125	127	64-134	1	30
Chlorobenzene	N.D.	20	22.85	20	22.95	114	115	80-120	0	30
Chloroethane	N.D.	20	19.95	20	20.9	100	104	55-123	5	30
Chloroform	N.D.	20	23.64	20	23.74	118	119	80-120	0	30
Chloromethane	N.D.	20	19.35	20	19.41	97	97	56-121	0	30
2-Chlorotoluene	N.D.	20	22.3	20	22.26	112	111	80-120	0	30
4-Chlorotoluene	N.D.	20	22.12	20	22.48	111	112	80-120	2	30
1,2-Dibromo-3-chloropropane	N.D.	20	16.64	20	16.49	83	82	47-131	1	30
Dibromochloromethane	N.D.	20	20.16	20	20.74	101	104	71-120	3	30
1,2-Dibromoethane	N.D.	20	20.09	20	20.68	100	103	77-120	3	30
Dibromomethane	N.D.	20	21.93	20	22.08	110	110	80-120	1	30
1,2-Dichlorobenzene	N.D.	20	22.34	20	22.52	112	113	80-120	1	30
1,3-Dichlorobenzene	N.D.	20	22.78	20	23.05	114	115	80-120	1	30
1,4-Dichlorobenzene	N.D.	20	23.01	20	23.34	115	117	80-120	1	30
Dichlorodifluoromethane	N.D.	20	14.54	20	14.48	73	72	41-127	0	30
1,1-Dichloroethane	N.D.	20	22.47	20	23.14	112	116	80-120	3	30
1,2-Dichloroethane	N.D.	20	23.54	20	23.64	118	118	73-124	0	30
1,1-Dichloroethene	N.D.	20	23.35	20	24.09	117	120	80-131	3	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
cis-1,2-Dichloroethene	N.D.	20	23.54	20	24.13	118	121*	80-120	3	30
trans-1,2-Dichloroethene	N.D.	20	23.09	20	23.45	115	117	80-120	2	30
1,2-Dichloropropane	N.D.	20	22.77	20	23.03	114	115	80-120	1	30
1,3-Dichloropropane	N.D.	20	20.63	20	20.92	103	105	80-120	1	30
2,2-Dichloropropane	N.D.	20	23.7	20	24.41	118	122	55-142	3	30
1,1-Dichloropropene	N.D.	20	23.32	20	24.01	117	120	78-120	3	30
cis-1,3-Dichloropropene	N.D.	20	19.78	20	20.42	99	102	75-120	3	30
trans-1,3-Dichloropropene	N.D.	20	19.17	20	19.72	96	99	67-120	3	30
Ethyl t-butyl ether	N.D.	20	17.81	20	18.44	89	92	68-121	3	30
Ethylbenzene	N.D.	20	22.91	20	23.27	115	116	80-120	2	30
Hexachlorobutadiene	N.D.	20	22.73	20	22.68	114	113	63-120	0	30
n-Hexane	N.D.	20	22.75	20	23.28	114	116	61-138	2	30
2-Hexanone	N.D.	100	98.2	100	99.59	98	100	56-135	1	30
di-Isopropyl ether	N.D.	20	19.87	20	20.51	99	103	70-124	3	30
Isopropylbenzene	N.D.	20	23.15	20	23.66	116	118	80-120	2	30
p-Isopropyltoluene	N.D.	20	21.73	20	22.04	109	110	76-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	18.73	20	19.49	94	97	69-122	4	30
4-Methyl-2-pentanone	N.D.	100	98.03	100	99.24	98	99	62-133	1	30
Methylene Chloride	N.D.	20	22.21	20	22.76	111	114	80-120	2	30
Naphthalene	N.D.	20	17.26	20	17.61	86	88	53-124	2	30
n-Propylbenzene	N.D.	20	23.99	20	24.15	120	121	79-121	1	30
Styrene	N.D.	20	21.64	20	21.73	108	109	80-120	0	30
1,1,1,2-Tetrachloroethane	N.D.	20	21.97	20	22.64	110	113	78-120	3	30
1,1,2,2-Tetrachloroethane	N.D.	20	20.21	20	20.49	101	102	72-120	1	30
Tetrachloroethene	N.D.	20	23.81	20	24.47	119	122*	80-120	3	30
Toluene	N.D.	20	22.44	20	22.94	112	115	80-120	2	30
1,2,3-Trichlorobenzene	N.D.	20	20.19	20	20.42	101	102	66-120	1	30
1,2,4-Trichlorobenzene	N.D.	20	20.52	20	21.06	103	105	63-120	3	30
1,1,1-Trichloroethane	N.D.	20	24.01	20	24.39	120	122	67-126	2	30
1,1,2-Trichloroethane	N.D.	20	21.72	20	21.96	109	110	80-120	1	30
Trichloroethene	N.D.	20	23.17	20	23.38	116	117	80-120	1	30
Trichlorofluoromethane	N.D.	20	18.91	20	18.89	95	94	55-135	0	30
1,2,3-Trichloropropane	N.D.	20	20.51	20	20.53	103	103	75-124	0	30
1,2,4-Trimethylbenzene	N.D.	20	22	20	22.47	110	112	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	22.58	20	22.93	113	115	75-120	2	30
Vinyl Chloride	N.D.	20	21.4	20	21.52	107	108	56-120	1	30
m+p-Xylene	N.D.	40	46.2	40	46.8	115	117	80-120	1	30
o-Xylene	N.D.	20	21.73	20	22.18	109	111	80-120	2	30
Xylene (Total)	N.D.	60	67.92	60	68.98	113	115	80-120	2	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193042AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1182361	96	97	102	103
1182362	95	94	100	103
Blank	96	98	101	103
LCS	96	100	103	103
Limits:	80-120	80-120	80-120	80-120

Analysis Name: Full list + oxys + hexane  
Batch number: N193021AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1182349	102	106	98	90
1182350	100	102	99	92
1182351	103	104	99	91
1182352	102	104	98	90
1182353	102	103	98	90
1182354	102	104	98	91
1182355	101	102	98	90
1182356	102	104	98	90
1182357	103	104	98	89
1182358	102	104	98	89
1182359	102	104	98	90
1182360	102	104	98	90
1182363	103	105	98	89
Blank	102	104	99	92
LCS	101	101	100	97
LCSD	101	102	100	97
MS	102	102	100	97
MSD	101	100	100	97
Limits:	80-120	80-120	80-120	80-120

Analysis Name: Full list + oxys + hexane  
Batch number: N193031AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1182364	103	103	98	90
1182365	103	104	98	90
1182366	104	105	98	89
1182367	104	104	98	89
1182368	104	105	98	88
1182369	104	100	98	88

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/07/2019 16:50

Group Number: 2070676

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Full list + oxys + hexane

Batch number: N193031AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1182370	100	102	99	97
Blank	102	105	98	91
LCS	101	100	102	98
MS	102	102	100	97
MSD	102	100	100	98
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

13459/2070676/1182349-70



CHAIN OF CUSTODY- ExxonMobil Projects

Drop Box - MW

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17605
TEL. 717-656-2300
www.lancasterlabs.com

JBA

Table with 2 columns: FED-EX Tracking #, Bottle Order Control #; Accutest Quote #, Accutest Job #

Client / Reporting Information, SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects, Requested Analysis ( see TEST CODE sheet), Matrix Codes

Table with columns: Accutest Sample #, Field ID / Point of Collection, MECH/DI Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MECH, ENCORE, LAB USE ONLY

Turnaround Time ( Business days), Data Deliverable Information, Comments / Special Instructions, Approved By (Accutest PM): / Date, Commercial "A" (Level 1), Commercial "B" (Level 2), FULLT1 (Level 3+4), NJ Reduced, Commercial "C", NYASP Category A, NYASP Category B, State Forms, EDD Format, Other

Table with 5 rows for Chain of Custody, columns: Relinquished by, Date Time, Received By, Relinquished by, Date Time, Received By, Custody Seal #, Intact, Not intact, Preserved where applicable, On Ice, Cooler Temp.



CHAIN OF CUSTODY- ExxonMobil Projects

Drop Box - MW PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17605
TEL. 717-656-2300
www.lancasterlabs.com

Handwritten signature

Client / Reporting Information, SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects, Requested Analysis ( see TEST CODE sheet), Matrix Codes

Table with columns: Lancaster Sample #, Field ID / Point of Collection, MEOH/DI Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MEOH, ENCORE, MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B, Full List VOCs + Oxy5 by 8260, Nitrate Nitrogen, Sulfate, Volatile Headspace Hydrocarbon, CO2 by Headspace, LAB USE ONLY

Approved By (Accutest PM): / Date:
[X] Std. 10 Business Days
8 Day RUSH
5 Day RUSH
3 Day EMERGENCY
2 Day EMERGENCY
1 Day EMERGENCY
Commercial "A" (Level 1)
Commercial "B" (Level 2)
FULLT1 (Level 3+4)
NJ Reduced
Commercial "C"
NYASP Category A
NYASP Category B
State Forms
EDD Format
Other
Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Sample Custody must be documented below each time samples change possession, including courier delivery.
Relinquished by Sampler: 1, 3, 5
Date Time: 10/22/19 14:30, 10/22/19 17:25, 10/22/19
Received By: 1, 2, 4, 5
Date Time: 10/22/19 14:35, 10/22/19 17:25, 10/22/19
Custody Seal #: 1733
Intact / Not Intact
Preserved where applicable
On Ice / Cooler Temp.





Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 10/22/2019  
 Number of Packages: 1      Number of Projects: 1

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Tamara Lugardo*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)*    *IR = Infrared (Surface Temp)*    All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT42-03	2.8	DT	Wet	Y	Loose	N



# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: October 31, 2019 21:28

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2071121  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
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Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

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## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-91C [R] Groundwater	10/23/2019 09:40	1184542
MW-185 [R] Groundwater	10/23/2019 10:00	1184543
MW-169 [R] Groundwater	10/23/2019 10:20	1184544
MW-170 [R] Groundwater	10/23/2019 10:40	1184545
MW-74 [R] Groundwater	10/23/2019 13:20	1184546
MW-75 [R] Groundwater	10/23/2019 13:40	1184547
MW-2A [R] Groundwater	10/23/2019 14:20	1184548
MW-21 [R] Groundwater	10/23/2019 14:40	1184549
MW-19 [R] Groundwater	10/23/2019 15:00	1184550
MW-23 [R] Groundwater	10/23/2019 15:20	1184551
TB19282 Water	10/21/2019	1184552

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-91C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1184542  
ELLE Group #: 2071121  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/24/2019 17:51  
Collection Date/Time: 10/23/2019 09:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	3 J	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1184542  
ELLE Group #: 2071121  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 10/24/2019 17:51  
Collection Date/Time: 10/23/2019 09:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	2	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	4193022AB	10/30/2019 14:33	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 14:32	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184543  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>SW-846 8260B</b>					
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184543  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	4193022AB	10/30/2019 14:56	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 14:55	Linda C Pape	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-169 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184544  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-169 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184544  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxs + hexane	SW-846 8260B	1	4193022AB	10/30/2019 15:19	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 15:18	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-170 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184545  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 10:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-170 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184545  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 10:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	4193022AB	10/30/2019 15:41	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 15:40	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-74 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184546  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 13:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	1 J	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	1	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-74 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184546  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 13:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	9	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	5	0.5	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	4193022AB	10/30/2019 13:25	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 13:24	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-75 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1184547  
ELLE Group #: 2071121  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/24/2019 17:51  
Collection Date/Time: 10/23/2019 13:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-75 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184547  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 13:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	0.5 J	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy + hexane	SW-846 8260B	1	4193022AB	10/30/2019 16:04	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 16:03	Linda C Pape	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-2A [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1184548  
ELLE Group #: 2071121  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/24/2019 17:51  
Collection Date/Time: 10/23/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-2A [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184548  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	4193022AB	10/30/2019 16:27	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 16:26	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-21 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1184549  
ELLE Group #: 2071121  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/24/2019 17:51  
Collection Date/Time: 10/23/2019 14:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	0.8 J	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-21 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1184549  
ELLE Group #: 2071121  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 10/24/2019 17:51  
Collection Date/Time: 10/23/2019 14:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	4193022AB	10/30/2019 16:50	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 16:49	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-19 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1184550  
ELLE Group #: 2071121  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/24/2019 17:51  
Collection Date/Time: 10/23/2019 15:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-19 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184550  
**ELLE Group #:** 2071121  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/23/2019 15:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	4193022AB	10/30/2019 17:12	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 17:11	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-23 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1184551  
ELLE Group #: 2071121  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 10/24/2019 17:51  
Collection Date/Time: 10/23/2019 15:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-23 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1184551  
ELLE Group #: 2071121  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 10/24/2019 17:51  
Collection Date/Time: 10/23/2019 15:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	2	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	4193022AB	10/30/2019 17:35	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 17:34	Linda C Pape	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** TB19282 Water  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184552  
**ELLE Group #:** 2071121  
**Matrix:** Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/21/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>SW-846 8260B</b>						
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** TB19282 Water  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1184552  
**ELLE Group #:** 2071121  
**Matrix:** Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 10/24/2019 17:51  
**Collection Date/Time:** 10/21/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy's + hexane	SW-846 8260B	1	4193022AB	10/30/2019 11:54	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	4193022AB	10/30/2019 11:53	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/31/2019 21:28

Group Number: 2071121

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Batch number: 4193022AB	Sample number(s): 1184542-1184552		
Acetone	N.D.	20	0.8
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
Bromobenzene	N.D.	5	0.2
Bromochloromethane	N.D.	5	0.4
Bromodichloromethane	N.D.	1	0.2
Bromoform	N.D.	5	2
Bromomethane	N.D.	1	0.5
2-Butanone	N.D.	10	1
t-Butyl alcohol	N.D.	25	10
n-Butylbenzene	N.D.	5	0.9
sec-Butylbenzene	N.D.	5	0.2
tert-Butylbenzene	N.D.	5	0.2
Carbon Disulfide	N.D.	5	0.3
Carbon Tetrachloride	N.D.	1	0.2
Chlorobenzene	N.D.	1	0.2
Chloroethane	N.D.	1	0.3
Chloroform	N.D.	1	0.2
Chloromethane	N.D.	1	0.3
2-Chlorotoluene	N.D.	5	0.2
4-Chlorotoluene	N.D.	5	0.2
1,2-Dibromo-3-chloropropane	N.D.	5	1
Dibromochloromethane	N.D.	1	0.4
1,2-Dibromoethane	N.D.	1	0.3
Dibromomethane	N.D.	1	0.2
1,2-Dichlorobenzene	N.D.	5	0.2
1,3-Dichlorobenzene	N.D.	5	0.2
1,4-Dichlorobenzene	N.D.	5	0.2
Dichlorodifluoromethane	N.D.	1	0.3
1,1-Dichloroethane	N.D.	1	0.2
1,2-Dichloroethane	N.D.	5	2
1,1-Dichloroethene	N.D.	1	0.2
cis-1,2-Dichloroethene	N.D.	1	0.2
trans-1,2-Dichloroethene	N.D.	1	0.2
1,2-Dichloropropane	N.D.	1	0.2
1,3-Dichloropropane	N.D.	1	0.2
2,2-Dichloropropane	N.D.	1	0.2
1,1-Dichloropropene	N.D.	5	0.2
cis-1,3-Dichloropropene	N.D.	1	0.2

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/31/2019 21:28

Group Number: 2071121

### Method Blank (continued)

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
trans-1,3-Dichloropropene	N.D.	1	0.4
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
Hexachlorobutadiene	N.D.	5	2
n-Hexane	N.D.	5	1
2-Hexanone	N.D.	10	3
di-Isopropyl ether	N.D.	1	0.2
Isopropylbenzene	N.D.	5	0.3
p-Isopropyltoluene	N.D.	5	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
4-Methyl-2-pentanone	N.D.	10	0.5
Methylene Chloride	N.D.	1	0.2
Naphthalene	N.D.	10	4
n-Propylbenzene	N.D.	5	0.2
Styrene	N.D.	5	0.2
1,1,1,2-Tetrachloroethane	N.D.	1	0.4
1,1,2,2-Tetrachloroethane	N.D.	1	0.2
Tetrachloroethene	N.D.	1	0.2
Toluene	N.D.	1	0.2
1,2,3-Trichlorobenzene	N.D.	10	3
1,2,4-Trichlorobenzene	N.D.	5	0.4
1,1,1-Trichloroethane	N.D.	1	0.2
1,1,2-Trichloroethane	N.D.	1	0.2
Trichloroethene	N.D.	1	0.2
Trichlorofluoromethane	N.D.	1	0.4
1,2,3-Trichloropropane	N.D.	5	0.2
1,2,4-Trimethylbenzene	N.D.	5	0.3
1,3,5-Trimethylbenzene	N.D.	5	0.3
Vinyl Chloride	N.D.	1	0.4
m+p-Xylene	N.D.	2	0.5
o-Xylene	N.D.	1	0.3
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: 4193022AB	Sample number(s): 1184542-1184552								
Acetone	150	157.39			105		54-157		
t-Amyl methyl ether	20	17.32			87		66-120		
Benzene	20	20.56			103		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/31/2019 21:28

Group Number: 2071121

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bromobenzene	20	18.6			93		80-120		
Bromochloromethane	20	20.2			101		80-120		
Bromodichloromethane	20	20.06			100		71-120		
Bromoform	20	16.15			81		51-120		
Bromomethane	20	16.26			81		53-128		
2-Butanone	150	145.49			97		59-135		
t-Butyl alcohol	200	187.23			94		60-130		
n-Butylbenzene	20	18.49			92		76-120		
sec-Butylbenzene	20	18.29			91		77-120		
tert-Butylbenzene	20	17.63			88		78-120		
Carbon Disulfide	20	17.79			89		65-128		
Carbon Tetrachloride	20	21.42			107		64-134		
Chlorobenzene	20	19.84			99		80-120		
Chloroethane	20	18.52			93		55-123		
Chloroform	20	21.28			106		80-120		
Chloromethane	20	18.34			92		56-121		
2-Chlorotoluene	20	18.76			94		80-120		
4-Chlorotoluene	20	18.79			94		80-120		
1,2-Dibromo-3-chloropropane	20	18.64			93		47-131		
Dibromochloromethane	20	17.5			87		71-120		
1,2-Dibromoethane	20	19.37			97		77-120		
Dibromomethane	20	20.84			104		80-120		
1,2-Dichlorobenzene	20	19.14			96		80-120		
1,3-Dichlorobenzene	20	18.66			93		80-120		
1,4-Dichlorobenzene	20	19.2			96		80-120		
Dichlorodifluoromethane	20	14.79			74		41-127		
1,1-Dichloroethane	20	21.02			105		80-120		
1,2-Dichloroethane	20	22.39			112		73-124		
1,1-Dichloroethene	20	20.91			105		80-131		
cis-1,2-Dichloroethene	20	21.57			108		80-125		
trans-1,2-Dichloroethene	20	20.31			102		80-126		
1,2-Dichloropropane	20	20.94			105		80-120		
1,3-Dichloropropane	20	19.73			99		80-120		
2,2-Dichloropropane	20	20.92			105		55-142		
1,1-Dichloropropene	20	20.47			102		78-120		
cis-1,3-Dichloropropene	20	19.46			97		75-120		
trans-1,3-Dichloropropene	20	18.76			94		67-120		
Ethyl t-butyl ether	20	17.41			87		68-121		
Ethylbenzene	20	19.41			97		80-120		
Hexachlorobutadiene	20	16.11			81		63-120		
n-Hexane	20	19.09			95		61-138		
2-Hexanone	100	98.35			98		56-135		
di-Isopropyl ether	20	18.98			95		70-124		
Isopropylbenzene	20	18.86			94		80-120		

\*- Outside of specification

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## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/31/2019 21:28

Group Number: 2071121

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
p-Isopropyltoluene	20	18.04			90		76-120		
Methyl Tertiary Butyl Ether	20	18.08			90		69-122		
4-Methyl-2-pentanone	100	98.2			98		62-133		
Methylene Chloride	20	20.36			102		80-120		
Naphthalene	20	17.28			86		53-124		
n-Propylbenzene	20	19.48			97		79-121		
Styrene	20	19.03			95		80-120		
1,1,1,2-Tetrachloroethane	20	19.72			99		78-120		
1,1,2,2-Tetrachloroethane	20	19.19			96		72-120		
Tetrachloroethene	20	20.34			102		80-120		
Toluene	20	19.51			98		80-120		
1,2,3-Trichlorobenzene	20	17.16			86		66-120		
1,2,4-Trichlorobenzene	20	17.19			86		63-120		
1,1,1-Trichloroethane	20	21.24			106		67-126		
1,1,2-Trichloroethane	20	20.57			103		80-120		
Trichloroethene	20	20.58			103		80-120		
Trichlorofluoromethane	20	17.85			89		55-135		
1,2,3-Trichloropropane	20	19.38			97		75-124		
1,2,4-Trimethylbenzene	20	18.45			92		75-120		
1,3,5-Trimethylbenzene	20	18.53			93		75-120		
Vinyl Chloride	20	18.6			93		56-120		
m+p-Xylene	40	38.88			97		80-120		
o-Xylene	20	18.68			93		80-120		
Xylene (Total)	60	57.56			96		80-120		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 4193022AB	Sample number(s): 1184542-1184552 UNSPK: 1184546									
Acetone	1.21	150	158.75	150	167.29	105	111	54-157	5	30
t-Amyl methyl ether	1.08	20	19.38	20	20.53	92	97	66-120	6	30
Benzene	N.D.	20	22.93	20	23.84	115	119	80-120	4	30
Bromobenzene	N.D.	20	19.99	20	20.66	100	103	80-120	3	30
Bromochloromethane	N.D.	20	21.41	20	21.94	107	110	80-120	2	30
Bromodichloromethane	N.D.	20	22.06	20	22.82	110	114	71-120	3	30
Bromoform	N.D.	20	16.4	20	16.93	82	85	51-120	3	30
Bromomethane	N.D.	20	16.35	20	17.29	82	86	53-128	6	30
2-Butanone	N.D.	150	153.04	150	161.35	102	108	59-135	5	30

\*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/31/2019 21:28

Group Number: 2071121

### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
t-Butyl alcohol	N.D.	200	194.55	200	206.3	97	103	60-130	6	30
n-Butylbenzene	N.D.	20	19.83	20	19.27	99	96	76-120	3	30
sec-Butylbenzene	N.D.	20	20.04	20	20	100	100	77-120	0	30
tert-Butylbenzene	N.D.	20	19.27	20	19.76	96	99	78-120	3	30
Carbon Disulfide	N.D.	20	19.42	20	19.84	97	99	65-128	2	30
Carbon Tetrachloride	N.D.	20	25.05	20	24.93	125	125	64-134	0	30
Chlorobenzene	N.D.	20	21.72	20	22.28	109	111	80-120	3	30
Chloroethane	N.D.	20	19.62	20	20.13	98	101	55-123	3	30
Chloroform	N.D.	20	23.4	20	24.51	117	123*	80-120	5	30
Chloromethane	N.D.	20	18.94	20	19.51	95	98	56-121	3	30
2-Chlorotoluene	N.D.	20	19.84	20	20.77	99	104	80-120	5	30
4-Chlorotoluene	N.D.	20	20.31	20	20.87	102	104	80-120	3	30
1,2-Dibromo-3-chloropropane	N.D.	20	19.69	20	20.34	98	102	47-131	3	30
Dibromochloromethane	N.D.	20	18.36	20	19.49	92	97	71-120	6	30
1,2-Dibromoethane	N.D.	20	20.64	20	21.56	103	108	77-120	4	30
Dibromomethane	N.D.	20	22.37	20	22.58	112	113	80-120	1	30
1,2-Dichlorobenzene	N.D.	20	20.36	20	20.92	102	105	80-120	3	30
1,3-Dichlorobenzene	N.D.	20	20.12	20	20.45	101	102	80-120	2	30
1,4-Dichlorobenzene	N.D.	20	20.38	20	20.75	102	104	80-120	2	30
Dichlorodifluoromethane	N.D.	20	15.64	20	14.65	78	73	41-127	7	30
1,1-Dichloroethane	N.D.	20	22.97	20	24.34	115	122*	80-120	6	30
1,2-Dichloroethane	N.D.	20	24.53	20	25.14	123	126*	73-124	2	30
1,1-Dichloroethene	N.D.	20	24.23	20	24.88	121	124	80-131	3	30
cis-1,2-Dichloroethene	N.D.	20	23.59	20	24.4	118	122*	80-120	3	30
trans-1,2-Dichloroethene	N.D.	20	22.82	20	23.96	114	120	80-120	5	30
1,2-Dichloropropane	N.D.	20	23.12	20	23.89	116	119	80-120	3	30
1,3-Dichloropropane	N.D.	20	20.94	20	21.97	105	110	80-120	5	30
2,2-Dichloropropane	N.D.	20	22.93	20	23.4	115	117	55-142	2	30
1,1-Dichloropropene	N.D.	20	23.32	20	24.19	117	121*	78-120	4	30
cis-1,3-Dichloropropene	N.D.	20	19.88	20	21.21	99	106	75-120	6	30
trans-1,3-Dichloropropene	N.D.	20	19.47	20	20.4	97	102	67-120	5	30
Ethyl t-butyl ether	0.219	20	18.43	20	19.84	91	98	68-121	7	30
Ethylbenzene	N.D.	20	21.54	20	21.88	108	109	80-120	2	30
Hexachlorobutadiene	N.D.	20	17.34	20	17.02	87	85	63-120	2	30
n-Hexane	N.D.	20	19.96	20	17.89	100	89	61-138	11	30
2-Hexanone	N.D.	100	103.4	100	107.95	103	108	56-135	4	30
di-Isopropyl ether	N.D.	20	20.55	20	21.64	103	108	70-124	5	30
Isopropylbenzene	N.D.	20	20.81	20	21.28	104	106	80-120	2	30
p-Isopropyltoluene	N.D.	20	19.59	20	19.79	98	99	76-120	1	30
Methyl Tertiary Butyl Ether	8.87	20	28.35	20	29.63	97	104	69-122	4	30
4-Methyl-2-pentanone	N.D.	100	102.69	100	107.11	103	107	62-133	4	30
Methylene Chloride	N.D.	20	22.59	20	23.75	113	119	80-120	5	30
Naphthalene	N.D.	20	17.84	20	18.69	89	93	53-124	5	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/31/2019 21:28

Group Number: 2071121

### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
n-Propylbenzene	N.D.	20	21.2	20	21.2	106	106	79-121	0	30
Styrene	N.D.	20	20.44	20	21.24	102	106	80-120	4	30
1,1,1,2-Tetrachloroethane	N.D.	20	21.22	20	21.91	106	110	78-120	3	30
1,1,1,2-Tetrachloroethane	N.D.	20	20.1	20	21.37	101	107	72-120	6	30
Tetrachloroethene	N.D.	20	22.26	20	22.09	111	110	80-120	1	30
Toluene	N.D.	20	21.43	20	22.12	107	111	80-120	3	30
1,2,3-Trichlorobenzene	N.D.	20	17.99	20	18.59	90	93	66-120	3	30
1,2,4-Trichlorobenzene	N.D.	20	17.61	20	18.35	88	92	63-120	4	30
1,1,1-Trichloroethane	N.D.	20	24.11	20	24.96	121	125	67-126	3	30
1,1,2-Trichloroethane	N.D.	20	21.78	20	22.79	109	114	80-120	5	30
Trichloroethene	N.D.	20	22.83	20	23.26	114	116	80-120	2	30
Trichlorofluoromethane	N.D.	20	19.9	20	19.58	100	98	55-135	2	30
1,2,3-Trichloropropane	N.D.	20	20.69	20	21.28	103	106	75-124	3	30
1,2,4-Trimethylbenzene	N.D.	20	19.98	20	20.32	100	102	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	20.32	20	20.47	102	102	75-120	1	30
Vinyl Chloride	N.D.	20	19.73	20	20.26	99	101	56-120	3	30
m+p-Xylene	N.D.	40	42.88	40	43.89	107	110	80-120	2	30
o-Xylene	N.D.	20	20.35	20	21.18	102	106	80-120	4	30
Xylene (Total)	N.D.	60	63.23	60	65.07	105	108	80-120	3	30

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Full list + oxy's + hexane  
Batch number: 4193022AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1184542	102	104	99	97
1184543	104	105	99	97
1184544	104	106	99	97
1184545	103	104	100	97
1184546	104	105	99	98
1184547	105	106	100	98
1184548	103	103	100	96
1184549	104	105	99	97
1184550	104	105	100	97
1184551	105	106	100	97
1184552	104	106	100	96
Blank	103	104	99	97

\*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 10/31/2019 21:28

Group Number: 2071121

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Full list + oxys + hexane

Batch number: 4193022AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
LCS	101	104	100	102
MS	102	103	100	102
MSD	101	101	100	102
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

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**CHAIN OF CUSTODY- ExxonMobil Projects**

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Eurofins Lancaster Laboratories Environmental  
 2425 New Holland Pike, Lancaster, PA 17605  
 TEL: 717-656-2300  
 www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Lancaster Quote #	Lancaster Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects		Requested Analysis ( see TEST CODE sheet)								Matrix Codes	
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix 28077</b>		ExxonMobil Environmental Services Co.  If Project is Direct Bill to Consultant								DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED- Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank	
Street Address <b>1745 Dorsey Road, Suite J</b>		Major Project (AFE)											
City State Zip <b>Hanover, MD 21076</b>		Project Name <b>14258 Jarrettsville Pike</b>											
Project Contact <b>Stacey Schiding</b>		City State <b>Phoenix MD</b>		Company Name <b>ExxonMobil Manager</b>		Street Address		City State Zip		Attention: PO#			
Phone # Fax # <b>410-850-0404 410-850-0049</b>		ExonMobil Purchase Order #		Full List VOCs + Oxy5 by 8260 Nitrate Nitrogen, Sulfate, Volatile Hydrocarbon, CO2 by Headspace								LAB USE ONLY	
Sampler(s) Name(s) <b>Charlie Brehm</b>		Direct Bill to Exxon Mobil		MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B Full List VOCs + Oxy5 by 8260								Nitrate Nitrogen, Sulfate, Volatile Hydrocarbon, CO2 by Headspace	

Lancaster Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles										MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B	Full List VOCs + Oxy5 by 8260	Nitrate Nitrogen, Sulfate, Volatile Hydrocarbon, CO2 by Headspace	LAB USE ONLY
			Date	Time	Sampled by			HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE						
	MW-91C [R]		10/23/19	0940	CB	GW	3	X										X			
	MW-185 [R]		10/23/19	1000	CB	GW	3	X										X			
	MW-169 [R]		10/23/19	1020	CB	GW	3	X										X			
	MW-170 [R]		10/23/19	1040	CB	GW	3	X										X			
	MW-74 [R]		10/23/19	1320	CB	GW	3	X										X			
	MW-75 [R]		10/23/19	1340	CB	GW	3	X										X			
	MW-2A [R]		10/23/19	1420	CB	GW	3	X										X			
	MW-21 [R]		10/23/19	1440	CB	GW	3	X										X			
	MW-19 [R]		10/23/19	1500	CB	GW	3	X										X			
	MW-23 [R]		10/23/19	1520	CB	GW	3	X										X			

Approved By (Accutest PM): / Date:		Data Deliverable Information								Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 8 Day RUSH <input type="checkbox"/> 6 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		<input checked="" type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format <input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other _____  Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data									

Sample Custody must be documented below each time samples change possession, including courier delivery.					
1	Relinquished by Sampler: <i>[Signature]</i>	Date Time:	Received By: <i>[Signature]</i>	Date Time: <i>10/24/19 14:45</i>	Received By: <i>[Signature]</i>
2	Relinquished by Sampler: <i>[Signature]</i>	Date Time:	Received By: <i>[Signature]</i>	Date Time: <i>10/24/19 17:10</i>	Received By: <i>[Signature]</i>
3	Relinquished by Sampler:	Date Time:	Received By:	Date Time:	Received By:
4	Relinquished by Sampler:	Date Time:	Received By:	Date Time:	Received By:
5	Relinquished by Sampler: <i>[Signature]</i>	Date Time:	Received By: <i>[Signature]</i>	Date Time: <i>10-24-19 1751</i>	Received By: <i>[Signature]</i>



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CHAIN OF CUSTODY- ExxonMobil Projects

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Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike, Lancaster, PA 17605  
TEL 717-656-2300  
www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Lancaster Quote #	Lancaster Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects				Requested Analysis ( see TEST CODE sheet)												Matrix Codes							
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix 28077</b>		ExxonMobil Environmental Services Co.		MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B Full List VOCs + Oxy5 by 8260 Nitrate Nitrogen, Sulfate, Volatile Headspace Hydrocarbon, CO2 by Headspace																			DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank
Street Address <b>1745 Dorsey Road, Suite J</b>		Major Project (AFE)		If Project is Direct Bill to Consultant																					
City State Zip <b>Hanover, MD 21076</b>		Project Name <b>14258 Jarrettsville Pike</b>		Company Name																					
Project Contact <b>Stacey Schidng</b>		City State <b>Phoenix MD</b>		Street Address																					
Phone # Fax # <b>410-850-0040 410-850-0049</b>		ExxonMobil Manager <b>Joe Ogren</b>		City State Zip																					
Sampler(s) Name(s) Phone # <b>Charlie Brehm</b>		ExxonMobil Purchase Order # <b>Direct Bill to Exxon Mobil</b>		Attention: PO#																					

Lancaster Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles											LAB USE ONLY					
			Date	Time	Sampled by			HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE									
	TB19282		10/21/19	-	EH	TB	2	X																

Approved By (Accutest PM): / Date: \_\_\_\_\_

Std. 10 Business Days  
 8 Day RUSH  
 5 Day RUSH  
 3 Day EMERGENCY  
 2 Day EMERGENCY  
 1 Day EMERGENCY

Commercial "A" (Level 1)       NYASP Category A  
 Commercial "B" (Level 2)       NYASP Category B  
 FULLT1 (Level 3+4)       State Forms  
 NJ Reduced       EDD Format  
 Commercial "C"       Other \_\_\_\_\_  
  
Commercial "A" = Results Only  
Commercial "B" = Results + QC Summary  
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: <i>[Signature]</i>	Date Time:	Received By: <i>[Signature]</i>	Date Time: <i>10/24/19 14:45</i>	Relinquished By: <i>[Signature]</i>	Date Time: <i>17:10</i>	Received By:
Relinquished by Sampler:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:
Relinquished by:	Date Time:	Received By: <i>[Signature]</i>	Date Time: <i>10/21/19 17:51</i>	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact	<input checked="" type="checkbox"/> On Ice Cooler Temp.



Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 10/24/2019  
 Number of Packages: 1      Number of Projects: 1

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Tamara Lugardo*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.*

<u>Cooler #</u>	<u>Matrix</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	Water	DT42-03	1.2	DT	Wet	Y	Bagged	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: November 21, 2019 15:29

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2072864  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/>. Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-91 Groundwater	11/04/2019 10:25	1193472
MW-185 [R] Groundwater	11/04/2019 12:05	1193473
MW-91C [R] Groundwater	11/04/2019 11:20	1193474
MW-183 [R] Groundwater	11/04/2019 13:00	1193475
MW-184 [R] Groundwater	11/04/2019 12:20	1193476
MW-168 Groundwater	11/04/2019 13:50	1193477
MW-176 [R] Groundwater	11/04/2019 14:05	1193478
MW-177 Groundwater	11/04/2019 14:20	1193479
MW-47C Groundwater	11/04/2019 14:50	1193480
MW-171C Groundwater	11/04/2019 14:35	1193481
MW-138D Groundwater	11/04/2019 15:00	1193482
TB19282 Water	10/31/2019	1193483

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1193472  
ELLE Group #: 2072864  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 11/05/2019 17:23  
Collection Date/Time: 11/04/2019 10:25

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 11:25	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 11:24	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1193473  
ELLE Group #: 2072864  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/05/2019 17:23  
Collection Date/Time: 11/04/2019 12:05

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1
<b>GC Miscellaneous</b>		<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08097	CO2 by Headspace	124-38-9	2,700 J	12,000	2,600	1
07105	Methane	74-82-8	N.D.	5.0	3.0	1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00368	Nitrate Nitrogen	14797-55-8	3.1	0.50	0.25	5
00228	Sulfate	14808-79-8	2.2 J	5.0	1.5	5

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 11:47	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 11:46	Alexander D Sechrist	1
08097	CO2 by Headspace	RSKSOP-175 modified	1	193110005A	11/07/2019 12:41	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	193120003A	11/08/2019 14:06	Johanna C Kennedy	1
00368	Nitrate Nitrogen	EPA 300.0	1	19310720109A	11/06/2019 10:38	Samantha Faverio	5
00228	Sulfate	EPA 300.0	1	19310720109A	11/06/2019 10:38	Samantha Faverio	5

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1193474  
**ELLE Group #:** 2072864  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 11/05/2019 17:23  
**Collection Date/Time:** 11/04/2019 11:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1
<b>GC Miscellaneous</b>		<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08097	CO2 by Headspace	124-38-9	N.D.	12,000	2,600	1
07105	Methane	74-82-8	N.D.	5.0	3.0	1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00368	Nitrate Nitrogen	14797-55-8	0.91	0.50	0.25	5
00228	Sulfate	14808-79-8	2.2 J	5.0	1.5	5

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 12:10	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 12:09	Alexander D Sechrist	1
08097	CO2 by Headspace	RSKSOP-175 modified	1	193110005A	11/07/2019 12:49	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	193120003A	11/08/2019 14:45	Johanna C Kennedy	1
00368	Nitrate Nitrogen	EPA 300.0	1	19310720109A	11/06/2019 09:45	Samantha Faverio	5
00228	Sulfate	EPA 300.0	1	19310720109A	11/06/2019 09:45	Samantha Faverio	5

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-183 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1193475  
ELLE Group #: 2072864  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/05/2019 17:23  
Collection Date/Time: 11/04/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.6 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1
<b>GC Miscellaneous</b>		<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08097	CO2 by Headspace	124-38-9	N.D.	12,000	2,600	1
07105	Methane	74-82-8	N.D.	5.0	3.0	1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00368	Nitrate Nitrogen	14797-55-8	0.72	0.50	0.25	5
00228	Sulfate	14808-79-8	48.1	5.0	1.5	5

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 13:16	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 13:15	Alexander D Sechrist	1
08097	CO2 by Headspace	RSKSOP-175 modified	1	193110005A	11/07/2019 12:57	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	193120003A	11/08/2019 15:03	Johanna C Kennedy	1
00368	Nitrate Nitrogen	EPA 300.0	1	19310720109A	11/06/2019 10:56	Samantha Faverio	5
00228	Sulfate	EPA 300.0	1	19310720109A	11/06/2019 10:56	Samantha Faverio	5

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-184 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1193476  
**ELLE Group #:** 2072864  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 11/05/2019 17:23  
**Collection Date/Time:** 11/04/2019 12:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.5 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.8 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1
<b>GC Miscellaneous</b>		<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08097	CO2 by Headspace	124-38-9	N.D.	12,000	2,600	1
07105	Methane	74-82-8	N.D.	5.0	3.0	1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00368	Nitrate Nitrogen	14797-55-8	0.67	0.50	0.25	5
00228	Sulfate	14808-79-8	28.9	5.0	1.5	5

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 13:38	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 13:37	Alexander D Sechrist	1
08097	CO2 by Headspace	RSKSOP-175 modified	1	193110005A	11/07/2019 13:04	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	193120003A	11/08/2019 15:21	Johanna C Kennedy	1
00368	Nitrate Nitrogen	EPA 300.0	1	19310720109A	11/06/2019 11:13	Samantha Faverio	5
00228	Sulfate	EPA 300.0	1	19310720109A	11/06/2019 11:13	Samantha Faverio	5

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1193477  
ELLE Group #: 2072864  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/05/2019 17:23  
Collection Date/Time: 11/04/2019 13:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 14:00	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 13:59	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-176 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1193478  
ELLE Group #: 2072864  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/05/2019 17:23  
Collection Date/Time: 11/04/2019 14:05

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.6 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 14:22	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 14:21	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1193479  
ELLE Group #: 2072864  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 11/05/2019 17:23  
Collection Date/Time: 11/04/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.3 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	5	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 14:44	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 14:43	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-47C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1193480  
ELLE Group #: 2072864  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/05/2019 17:23  
Collection Date/Time: 11/04/2019 14:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 15:06	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 15:05	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-171C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1193481  
ELLE Group #: 2072864  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/05/2019 17:23  
Collection Date/Time: 11/04/2019 14:35

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 15:28	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 15:27	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1193482  
ELLE Group #: 2072864  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/05/2019 17:23  
Collection Date/Time: 11/04/2019 15:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	19	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	4	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	340	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193182AA	11/14/2019 15:50	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 15:49	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** TB19282 Water  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1193483  
**ELLE Group #:** 2072864  
**Matrix:** Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 11/05/2019 17:23  
**Collection Date/Time:** 10/31/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1
<b>GC Miscellaneous</b>		<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08097	CO2 by Headspace	124-38-9	N.D.	12,000	2,600	1
	The holding time was not met. The client was notified and the data reported.					
07105	Methane	74-82-8	N.D.	5.0	3.0	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxy	SW-846 8260B	1	F193182AA	11/14/2019 16:12	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193182AA	11/14/2019 16:11	Alexander D Sechrist	1
08097	CO2 by Headspace	RSKSOP-175 modified	2	193190009A	11/15/2019 15:04	Johanna C Kennedy	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	193120003A	11/08/2019 15:39	Johanna C Kennedy	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 15:29

Group Number: 2072864

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Batch number: F193182AA	Sample number(s): 1193472-1193483		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: 193110005A	Sample number(s): 1193473-1193476		
CO2 by Headspace	N.D.	12,000	2,600
Batch number: 193120003A	Sample number(s): 1193473-1193476,1193483		
Methane	N.D.	5.0	3.0
Batch number: 193190009A	Sample number(s): 1193483		
CO2 by Headspace	N.D.	12,000	2,600
	mg/l	mg/l	mg/l
Batch number: 19310720109A	Sample number(s): 1193473-1193476		
Nitrate Nitrogen	N.D.	0.10	0.050
Sulfate	N.D.	1.0	0.30

### LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: F193182AA	Sample number(s): 1193472-1193483								
t-Amyl methyl ether	20	16.59			83		66-120		
Benzene	20	16.71			84		80-120		
t-Butyl alcohol	200	157.64			79		60-130		
Ethyl t-butyl ether	20	16.71			84		68-121		
Ethylbenzene	20	15.99			80		80-120		
di-Isopropyl ether	20	16.76			84		70-124		
Methyl Tertiary Butyl Ether	20	18.12			91		69-122		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 15:29

Group Number: 2072864

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Toluene	20	16.26			81		80-120		
Xylene (Total)	60	48.01			80		80-120		
	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>					
Batch number: 193110005A CO2 by Headspace	Sample number(s): 1193473-1193476 35820 33585.1				94		72-116		
Batch number: 193120003A Methane	Sample number(s): 1193473-1193476,1193483 59.83 53.73				90		85-115		
Batch number: 193190009A CO2 by Headspace	Sample number(s): 1193483 35820 35552.93 35820 33542.8				99	94	72-116	6	20
	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>					
Batch number: 19310720109A Nitrate Nitrogen	Sample number(s): 1193473-1193476 0.750 0.682				91		90-110		
Sulfate	7.50	7.31			98		90-110		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F193182AA	Sample number(s): 1193472-1193483 UNSPK: 1193474									
t-Amyl methyl ether	N.D.	20	17.57	20	17.36	88	87	66-120	1	30
Benzene	N.D.	20	19.29	20	19.79	96	99	80-120	3	30
t-Butyl alcohol	N.D.	200	172.89	200	164.62	86	82	60-130	5	30
Ethyl t-butyl ether	N.D.	20	18.14	20	18.58	91	93	68-121	2	30
Ethylbenzene	N.D.	20	18.62	20	18.49	93	92	80-120	1	30
di-Isopropyl ether	N.D.	20	18.38	20	18.59	92	93	70-124	1	30
Methyl Tertiary Butyl Ether	N.D.	20	19.51	20	19.92	98	100	69-122	2	30
Toluene	N.D.	20	18.89	20	19.22	94	96	80-120	2	30
Xylene (Total)	N.D.	60	55.18	60	55.49	92	92	80-120	1	30
	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>					
Batch number: 19310720109A	Sample number(s): 1193473-1193476 UNSPK: 1193474									
Nitrate Nitrogen	0.913	2.50	3.23	2.50	3.54	93	105	90-110	9	20
Sulfate	2.19	25	25.68	25	28.99	94	107	90-110	12	20

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 15:29

Group Number: 2072864

### Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 19310720109A	Sample number(s): 1193473-1193476 BKG: 1193474			
Nitrate Nitrogen	0.913	0.873	4 (1)	15
Sulfate	2.19	1.91	14 (1)	15

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F193182AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1193472	95	93	99	96
1193473	96	93	99	98
1193474	96	94	100	97
1193475	98	98	99	97
1193476	96	93	99	97
1193477	96	93	98	96
1193478	97	95	99	97
1193479	98	94	100	98
1193480	96	94	99	98
1193481	96	91	100	100
1193482	98	93	99	100
1193483	97	96	101	100
Blank	97	95	100	96
LCS	96	96	99	97
MS	97	98	99	100
MSD	96	98	99	100
Limits:	80-120	80-120	80-120	80-120

Analysis Name: Volatile Headspace Hydrocarbon  
Batch number: 193120003A

	Propene
1193473	63
1193474	57
1193475	55
1193476	61
1193483	78
Blank	87

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 15:29

Group Number: 2072864

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Volatile Headspace Hydrocarbon

Batch number: 193120003A

Propene

LCS	95
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Limits: 46-135

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



13459/2672864/1193472-83



CHAIN OF CUSTODY- ExxonMobil Projects

Drop Box - MW

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 2425 New Holland Pike, Lancaster, PA 17605  
 TEL. 717-656-2300  
 www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects												Requested Analysis ( see TEST CODE sheet)					Matrix Codes																					
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix</b>				ExxonMobil Environmental Services Co.								DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WIP - Wipe FB-Field Blank																										
Street Address <b>1745 Dorsey Rd. Suite J</b>		Major Project (AFE) <b>28077</b>				If Project is Direct Bill to Consultant																																		
City State Zip <b>Hanover, MD 21076</b>		Project Name <b>14258 Jarrettsville Pike</b>				Company Name								Nitrate Nitrogen Sulfate Volatile Headspace Hydrocarbon CO2 by Headspace																										
Project Contact E-mail <b>Stacey Schiding</b>		City State <b>Phoenix MD</b>				Street Address																																		
Phone # Fax # <b>410-850-0404</b>		ExxonMobil Manager <b>Joseph Ogren</b>				City State Zip								BTEX + 5 Oxy's by 8260 Nitrate Nitrogen Sulfate Volatile Headspace Hydrocarbon CO2 by Headspace																										
Sampler(s) Name(s) Phone # <b>Brendan Haffey</b>		ExxonMobil Purchase Order #				Attention: PO#																																		
Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles											LAB USE ONLY																					
			Date	Time	Sampled by			HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Unpreserv																								
	MW-91		11/4/19	1025	BH	GW	3	X										X	X	X	X	X																		
	MW-185 [R]		11/4/19	1205	BH	GW	8	X										X	X	X	X	X	X																	
	MW-91C [R]		11/4/19	1120	BH	GW	8	X										X	X	X	X	X	X																	
	MW-183 [R]		11/4/19	1300	BH	GW	8	X										X	X	X	X	X	X																	
	MW-184 [R]		11/4/19	1220	BH	GW	8	X										X	X	X	X	X	X																	
	MW-168		11/4/19	1350	BH	GW	3	X										X	X	X	X	X	X																	
	MW-176[R]		11/4/19	1405	BH	GW	3	X										X	X	X	X	X	X																	
	MW-177		11/4/19	1420	BH	GW	3	X										X	X	X	X	X	X																	
	MW-47C		11/4/19	1450	BH	GW	3	X										X	X	X	X	X	X																	
	MW-171C		11/4/19	1435	BH	GW	3	X										X	X	X	X	X	X																	
	MW-138D		11/4/19	1500	BH	GW	3	X										X	X	X	X	X	X																	
	TB19282		10/31/19	-	MM	TB	4	X										X	X	X	X	X	X																	

Turnaround Time ( Business days) Data Deliverable Information Comments / Special Instructions

Approved By (Accutest PM): / Date: \_\_\_\_\_

Std. 10 Business Days  
 8 Day RUSH  
 6 Day KUSH  
 3 Day EMERGENCY  
 2 Day EMERGENCY  
 1 Day EMERGENCY

Commercial "A" (Level 1)     NYASP Category A  
 Commercial "B" (Level 2)     NYASP Category B  
 FULLT1 (Level 3+4)         State Forms  
 NJ Reduced                     EDD Format  
 Commercial "C"                 Other \_\_\_\_\_

Commercial "A" = Results Only  
 Commercial "B" = Results + QC Summary  
 NJ Reduced = Results + QC Summary + Partial Raw data

Emergency & Rush T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: <b>1 [Signature]</b>	Date Time: <b>11/4/19 1550</b>	Received By: <b>1 [Signature]</b>	Date Time: <b>11/5/19 14:45</b>	Relinquished By: <b>2 [Signature]</b>	Date Time: <b>11/5/19 17:05</b>
Relinquished by Sampler: <b>3</b>	Date Time:	Received By: <b>3</b>	Date Time:	Relinquished By: <b>4</b>	Date Time:
Relinquished by: <b>5</b>	Date Time: <b>11-5-19 1723</b>	Received By: <b>5 [Signature]</b>	Date Time:	Custody Seal # <b>Not Present</b>	<input type="checkbox"/> Intact <input checked="" type="checkbox"/> Not intact
				Preserved where applicable <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> On Ice Cooler Temp. <b>1.0 °C</b>



Client: Exxon: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 11/05/2019  
 Number of Packages: 1      Number of Projects: 1

**Arrival Condition Summary**

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	6
Paperwork Enclosed:	Yes	Trip Blank Type:	See Below
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Trip Blank Type(s): 4 HCl / 2 Unp

*Unpacked by Carolyn Cyms*

**Samples Chilled Details**

Thermometer Types:    DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	192050133	1.0	IR	Wet	Y	Loose/Bag	N

General Comments: COC is incorrectly marked, all of the samples that say "3" only have HCl vials.

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: November 21, 2019 16:38

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2073559  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-78C Groundwater	11/07/2019 10:20	1196674
MW-47C Groundwater	11/07/2019 12:30	1196675
MW-24 Groundwater	11/07/2019 13:00	1196676
MW-29 Groundwater	11/07/2019 13:30	1196677
MW-30 Groundwater	11/07/2019 13:50	1196678
MW-49 Groundwater	11/07/2019 14:20	1196679

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-78C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1196674  
ELLE Group #: 2073559  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 11/08/2019 17:15  
Collection Date/Time: 11/07/2019 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>SW-846 8260B</b>					
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-78C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1196674  
**ELLE Group #:** 2073559  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 11/08/2019 17:15  
**Collection Date/Time:** 11/07/2019 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>SW-846 8260B</b>					
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	N193232AA	11/19/2019 22:33	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193232AA	11/19/2019 22:32	Don V Viray	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-47C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1196675  
**ELLE Group #:** 2073559  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 11/08/2019 17:15  
**Collection Date/Time:** 11/07/2019 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1196675  
**ELLE Group #:** 2073559  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 11/08/2019 17:15  
**Collection Date/Time:** 11/07/2019 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	N193232AA	11/19/2019 22:55	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193232AA	11/19/2019 22:54	Don V Viray	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-24 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1196676  
**ELLE Group #:** 2073559  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 11/08/2019 17:15  
**Collection Date/Time:** 11/07/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>SW-846 8260B</b>					
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-24 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1196676  
**ELLE Group #:** 2073559  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 11/08/2019 17:15  
**Collection Date/Time:** 11/07/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy + hexane	SW-846 8260B	1	N193232AA	11/19/2019 23:17	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193232AA	11/19/2019 23:16	Don V Viray	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-29 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1196677  
**ELLE Group #:** 2073559  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 11/08/2019 17:15  
**Collection Date/Time:** 11/07/2019 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
<b>SW-846 8260B</b>						
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-29 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1196677  
**ELLE Group #:** 2073559  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 11/08/2019 17:15  
**Collection Date/Time:** 11/07/2019 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + oxy + hexane	SW-846 8260B	1	N193241AA	11/20/2019 14:36	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193241AA	11/20/2019 14:35	Corie Mellinger	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-30 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1196678  
ELLE Group #: 2073559  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/08/2019 17:15  
Collection Date/Time: 11/07/2019 13:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-30 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1196678  
**ELLE Group #:** 2073559  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 11/08/2019 17:15  
**Collection Date/Time:** 11/07/2019 13:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	N193241AA	11/20/2019 14:59	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193241AA	11/20/2019 14:58	Corie Mellinger	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-49 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1196679  
**ELLE Group #:** 2073559  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 11/08/2019 17:15  
**Collection Date/Time:** 11/07/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>						
<b>SW-846 8260B</b>			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Acetone	67-64-1	N.D.	20	0.8	1
10335	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10335	Benzene	71-43-2	N.D.	1	0.2	1
10335	Bromobenzene	108-86-1	N.D.	5	0.2	1
10335	Bromochloromethane	74-97-5	N.D.	5	0.4	1
10335	Bromodichloromethane	75-27-4	N.D.	1	0.2	1
10335	Bromoform	75-25-2	N.D.	5	2	1
10335	Bromomethane	74-83-9	N.D.	1	0.5	1
10335	2-Butanone	78-93-3	N.D.	10	1	1
10335	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10335	n-Butylbenzene	104-51-8	N.D.	5	0.9	1
10335	sec-Butylbenzene	135-98-8	N.D.	5	0.2	1
10335	tert-Butylbenzene	98-06-6	N.D.	5	0.2	1
10335	Carbon Disulfide	75-15-0	N.D.	5	0.3	1
10335	Carbon Tetrachloride	56-23-5	N.D.	1	0.2	1
10335	Chlorobenzene	108-90-7	N.D.	1	0.2	1
10335	Chloroethane	75-00-3	N.D.	1	0.3	1
10335	Chloroform	67-66-3	N.D.	1	0.2	1
10335	Chloromethane	74-87-3	N.D.	1	0.3	1
10335	2-Chlorotoluene	95-49-8	N.D.	5	0.2	1
10335	4-Chlorotoluene	106-43-4	N.D.	5	0.2	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	5	1	1
10335	Dibromochloromethane	124-48-1	N.D.	1	0.4	1
10335	1,2-Dibromoethane	106-93-4	N.D.	1	0.3	1
10335	Dibromomethane	74-95-3	N.D.	1	0.2	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	5	0.2	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	5	0.2	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	5	0.2	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	0.3	1
10335	1,1-Dichloroethane	75-34-3	N.D.	1	0.2	1
10335	1,2-Dichloroethane	107-06-2	N.D.	5	2	1
10335	1,1-Dichloroethene	75-35-4	N.D.	1	0.2	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.2	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.2	1
10335	1,2-Dichloropropane	78-87-5	N.D.	1	0.2	1
10335	1,3-Dichloropropane	142-28-9	N.D.	1	0.2	1
10335	2,2-Dichloropropane	594-20-7	N.D.	1	0.2	1
10335	1,1-Dichloropropene	563-58-6	N.D.	5	0.2	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.2	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.4	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10335	Ethylbenzene	100-41-4	N.D.	1	0.2	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-49 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1196679  
ELLE Group #: 2073559  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 11/08/2019 17:15  
Collection Date/Time: 11/07/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10335	Hexachlorobutadiene	87-68-3	N.D.	5	2	1
10335	n-Hexane	110-54-3	N.D.	5	1	1
10335	2-Hexanone	591-78-6	N.D.	10	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10335	Isopropylbenzene	98-82-8	N.D.	5	0.3	1
10335	p-Isopropyltoluene	99-87-6	N.D.	5	0.2	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	10	0.5	1
10335	Methylene Chloride	75-09-2	N.D.	1	0.2	1
10335	Naphthalene	91-20-3	N.D.	10	4	1
10335	n-Propylbenzene	103-65-1	N.D.	5	0.2	1
10335	Styrene	100-42-5	N.D.	5	0.2	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	1	0.4	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.2	1
10335	Tetrachloroethene	127-18-4	N.D.	1	0.2	1
10335	Toluene	108-88-3	N.D.	1	0.2	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	10	3	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	5	0.4	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.2	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.2	1
10335	Trichloroethene	79-01-6	N.D.	1	0.2	1
10335	Trichlorofluoromethane	75-69-4	N.D.	1	0.4	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	5	0.2	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	5	0.3	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	5	0.3	1
10335	Vinyl Chloride	75-01-4	N.D.	1	0.4	1
10335	m+p-Xylene	179601-23-1	N.D.	2	0.5	1
10335	o-Xylene	95-47-6	N.D.	1	0.3	1
10335	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	Full list + olys + hexane	SW-846 8260B	1	N193241AA	11/20/2019 15:21	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N193241AA	11/20/2019 15:20	Corie Mellinger	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 16:38

Group Number: 2073559

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Batch number: N193232AA	Sample number(s): 1196674-1196676		
Acetone	N.D.	20	0.8
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
Bromobenzene	N.D.	5	0.2
Bromochloromethane	N.D.	5	0.4
Bromodichloromethane	N.D.	1	0.2
Bromoform	N.D.	5	2
Bromomethane	N.D.	1	0.5
2-Butanone	N.D.	10	1
t-Butyl alcohol	N.D.	25	10
n-Butylbenzene	N.D.	5	0.9
sec-Butylbenzene	N.D.	5	0.2
tert-Butylbenzene	N.D.	5	0.2
Carbon Disulfide	N.D.	5	0.3
Carbon Tetrachloride	N.D.	1	0.2
Chlorobenzene	N.D.	1	0.2
Chloroethane	N.D.	1	0.3
Chloroform	N.D.	1	0.2
Chloromethane	N.D.	1	0.3
2-Chlorotoluene	N.D.	5	0.2
4-Chlorotoluene	N.D.	5	0.2
1,2-Dibromo-3-chloropropane	N.D.	5	1
Dibromochloromethane	N.D.	1	0.4
1,2-Dibromoethane	N.D.	1	0.3
Dibromomethane	N.D.	1	0.2
1,2-Dichlorobenzene	N.D.	5	0.2
1,3-Dichlorobenzene	N.D.	5	0.2
1,4-Dichlorobenzene	N.D.	5	0.2
Dichlorodifluoromethane	N.D.	1	0.3
1,1-Dichloroethane	N.D.	1	0.2
1,2-Dichloroethane	N.D.	5	2
1,1-Dichloroethene	N.D.	1	0.2
cis-1,2-Dichloroethene	N.D.	1	0.2
trans-1,2-Dichloroethene	N.D.	1	0.2
1,2-Dichloropropane	N.D.	1	0.2
1,3-Dichloropropane	N.D.	1	0.2
2,2-Dichloropropane	N.D.	1	0.2
1,1-Dichloropropene	N.D.	5	0.2
cis-1,3-Dichloropropene	N.D.	1	0.2

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 16:38

Group Number: 2073559

### Method Blank (continued)

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
trans-1,3-Dichloropropene	N.D.	1	0.4
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
Hexachlorobutadiene	N.D.	5	2
n-Hexane	N.D.	5	1
2-Hexanone	N.D.	10	3
di-Isopropyl ether	N.D.	1	0.2
Isopropylbenzene	N.D.	5	0.3
p-Isopropyltoluene	N.D.	5	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
4-Methyl-2-pentanone	N.D.	10	0.5
Methylene Chloride	N.D.	1	0.2
Naphthalene	N.D.	10	4
n-Propylbenzene	N.D.	5	0.2
Styrene	N.D.	5	0.2
1,1,1,2-Tetrachloroethane	N.D.	1	0.4
1,1,2,2-Tetrachloroethane	N.D.	1	0.2
Tetrachloroethene	N.D.	1	0.2
Toluene	N.D.	1	0.2
1,2,3-Trichlorobenzene	N.D.	10	3
1,2,4-Trichlorobenzene	N.D.	5	0.4
1,1,1-Trichloroethane	N.D.	1	0.2
1,1,2-Trichloroethane	N.D.	1	0.2
Trichloroethene	N.D.	1	0.2
Trichlorofluoromethane	N.D.	1	0.4
1,2,3-Trichloropropane	N.D.	5	0.2
1,2,4-Trimethylbenzene	N.D.	5	0.3
1,3,5-Trimethylbenzene	N.D.	5	0.3
Vinyl Chloride	N.D.	1	0.4
m+p-Xylene	N.D.	2	0.5
o-Xylene	N.D.	1	0.3
Xylene (Total)	N.D.	3	0.8
Batch number: N193241AA	Sample number(s): 1196677-1196679		
Acetone	N.D.	20	0.8
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
Bromobenzene	N.D.	5	0.2
Bromochloromethane	N.D.	5	0.4
Bromodichloromethane	N.D.	1	0.2
Bromoform	N.D.	5	2
Bromomethane	N.D.	1	0.5
2-Butanone	N.D.	10	1
t-Butyl alcohol	N.D.	25	10
n-Butylbenzene	N.D.	5	0.9

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 16:38

Group Number: 2073559

### Method Blank (continued)

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
sec-Butylbenzene	N.D.	5	0.2
tert-Butylbenzene	N.D.	5	0.2
Carbon Disulfide	N.D.	5	0.3
Carbon Tetrachloride	N.D.	1	0.2
Chlorobenzene	N.D.	1	0.2
Chloroethane	N.D.	1	0.3
Chloroform	N.D.	1	0.2
Chloromethane	N.D.	1	0.3
2-Chlorotoluene	N.D.	5	0.2
4-Chlorotoluene	N.D.	5	0.2
1,2-Dibromo-3-chloropropane	N.D.	5	1
Dibromochloromethane	N.D.	1	0.4
1,2-Dibromoethane	N.D.	1	0.3
Dibromomethane	N.D.	1	0.2
1,2-Dichlorobenzene	N.D.	5	0.2
1,3-Dichlorobenzene	N.D.	5	0.2
1,4-Dichlorobenzene	N.D.	5	0.2
Dichlorodifluoromethane	N.D.	1	0.3
1,1-Dichloroethane	N.D.	1	0.2
1,2-Dichloroethane	N.D.	5	2
1,1-Dichloroethene	N.D.	1	0.2
cis-1,2-Dichloroethene	N.D.	1	0.2
trans-1,2-Dichloroethene	N.D.	1	0.2
1,2-Dichloropropane	N.D.	1	0.2
1,3-Dichloropropane	N.D.	1	0.2
2,2-Dichloropropane	N.D.	1	0.2
1,1-Dichloropropene	N.D.	5	0.2
cis-1,3-Dichloropropene	N.D.	1	0.2
trans-1,3-Dichloropropene	N.D.	1	0.4
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
Hexachlorobutadiene	N.D.	5	2
n-Hexane	N.D.	5	1
2-Hexanone	N.D.	10	3
di-Isopropyl ether	N.D.	1	0.2
Isopropylbenzene	N.D.	5	0.3
p-Isopropyltoluene	N.D.	5	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
4-Methyl-2-pentanone	N.D.	10	0.5
Methylene Chloride	N.D.	1	0.2
Naphthalene	N.D.	10	4
n-Propylbenzene	N.D.	5	0.2
Styrene	N.D.	5	0.2
1,1,1,2-Tetrachloroethane	N.D.	1	0.4
1,1,2,2-Tetrachloroethane	N.D.	1	0.2

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 16:38

Group Number: 2073559

### Method Blank (continued)

Analysis Name	Result	LOQ** ug/l	MDL ug/l
Tetrachloroethene	N.D.	1	0.2
Toluene	N.D.	1	0.2
1,2,3-Trichlorobenzene	N.D.	10	3
1,2,4-Trichlorobenzene	N.D.	5	0.4
1,1,1-Trichloroethane	N.D.	1	0.2
1,1,2-Trichloroethane	N.D.	1	0.2
Trichloroethene	N.D.	1	0.2
Trichlorofluoromethane	N.D.	1	0.4
1,2,3-Trichloropropane	N.D.	5	0.2
1,2,4-Trimethylbenzene	N.D.	5	0.3
1,3,5-Trimethylbenzene	N.D.	5	0.3
Vinyl Chloride	N.D.	1	0.4
m+p-Xylene	N.D.	2	0.5
o-Xylene	N.D.	1	0.3
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: N193232AA	Sample number(s): 1196674-1196676								
Acetone	150	168.56			112		54-157		
t-Amyl methyl ether	20	18.34			92		66-120		
Benzene	20	22.59			113		80-120		
Bromobenzene	20	21.91			110		80-120		
Bromochloromethane	20	20.51			103		80-120		
Bromodichloromethane	20	20.76			104		71-120		
Bromoform	20	17.18			86		51-120		
Bromomethane	20	10.64			53		53-128		
2-Butanone	150	149.19			99		59-135		
t-Butyl alcohol	200	199.19			100		60-130		
n-Butylbenzene	20	22			110		76-120		
sec-Butylbenzene	20	21.78			109		77-120		
tert-Butylbenzene	20	20.4			102		78-120		
Carbon Disulfide	20	19.83			99		65-128		
Carbon Tetrachloride	20	20.73			104		64-134		
Chlorobenzene	20	22.48			112		80-120		
Chloroethane	20	12.25			61		55-123		
Chloroform	20	21.9			109		80-120		
Chloromethane	20	12.06			60		56-121		
2-Chlorotoluene	20	22.01			110		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 16:38

Group Number: 2073559

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
4-Chlorotoluene	20	22.3			112		80-120		
1,2-Dibromo-3-chloropropane	20	17.94			90		47-131		
Dibromochloromethane	20	20.45			102		71-120		
1,2-Dibromoethane	20	21.06			105		77-120		
Dibromomethane	20	22.06			110		80-120		
1,2-Dichlorobenzene	20	22.74			114		80-120		
1,3-Dichlorobenzene	20	22.69			113		80-120		
1,4-Dichlorobenzene	20	23.15			116		80-120		
Dichlorodifluoromethane	20	9.67			48		41-127		
1,1-Dichloroethane	20	22.22			111		80-120		
1,2-Dichloroethane	20	22.21			111		73-124		
1,1-Dichloroethene	20	22.74			114		80-131		
cis-1,2-Dichloroethene	20	23.44			117		80-125		
trans-1,2-Dichloroethene	20	22.52			113		80-126		
1,2-Dichloropropane	20	22.97			115		80-120		
1,3-Dichloropropane	20	21.88			109		80-120		
2,2-Dichloropropane	20	20.28			101		55-142		
1,1-Dichloropropene	20	21.29			106		78-120		
cis-1,3-Dichloropropene	20	20.62			103		75-120		
trans-1,3-Dichloropropene	20	19.47			97		67-120		
Ethyl t-butyl ether	20	18.14			91		68-121		
Ethylbenzene	20	22.13			111		80-120		
Hexachlorobutadiene	20	21.43			107		63-120		
n-Hexane	20	20.61			103		61-138		
2-Hexanone	100	100.24			100		56-135		
di-Isopropyl ether	20	20.1			100		70-124		
Isopropylbenzene	20	22.22			111		80-120		
p-Isopropyltoluene	20	21.39			107		76-120		
Methyl Tertiary Butyl Ether	20	20.05			100		69-122		
4-Methyl-2-pentanone	100	98.27			98		62-133		
Methylene Chloride	20	23.44			117		80-120		
Naphthalene	20	19.21			96		53-124		
n-Propylbenzene	20	23.84			119		79-121		
Styrene	20	21.74			109		80-120		
1,1,1,2-Tetrachloroethane	20	20.95			105		78-120		
1,1,2,2-Tetrachloroethane	20	22.6			113		72-120		
Tetrachloroethene	20	21.68			108		80-120		
Toluene	20	22.29			111		80-120		
1,2,3-Trichlorobenzene	20	20.93			105		66-120		
1,2,4-Trichlorobenzene	20	20.64			103		63-120		
1,1,1-Trichloroethane	20	20.68			103		67-126		
1,1,2-Trichloroethane	20	23.02			115		80-120		
Trichloroethene	20	21.73			109		80-120		
Trichlorofluoromethane	20	13.08			65		55-135		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 16:38

Group Number: 2073559

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2,3-Trichloropropane	20	21.84			109		75-124		
1,2,4-Trimethylbenzene	20	22.74			114		75-120		
1,3,5-Trimethylbenzene	20	23.05			115		75-120		
Vinyl Chloride	20	13.33			67		56-120		
m+p-Xylene	40	45.41			114		80-120		
o-Xylene	20	21.58			108		80-120		
Xylene (Total)	60	66.98			112		80-120		
Batch number: N193241AA	Sample number(s): 1196677-1196679								
Acetone	150	193.74			129		54-157		
t-Amyl methyl ether	20	17.23			86		66-120		
Benzene	20	22.32			112		80-120		
Bromobenzene	20	20.9			104		80-120		
Bromochloromethane	20	21.01			105		80-120		
Bromodichloromethane	20	20.19			101		71-120		
Bromoform	20	16.65			83		51-120		
Bromomethane	20	12.27			61		53-128		
2-Butanone	150	142.71			95		59-135		
t-Butyl alcohol	200	197.22			99		60-130		
n-Butylbenzene	20	20.86			104		76-120		
sec-Butylbenzene	20	20.5			102		77-120		
tert-Butylbenzene	20	18.95			95		78-120		
Carbon Disulfide	20	19.46			97		65-128		
Carbon Tetrachloride	20	20.84			104		64-134		
Chlorobenzene	20	22.3			111		80-120		
Chloroethane	20	13.24			66		55-123		
Chloroform	20	21.65			108		80-120		
Chloromethane	20	15.45			77		56-121		
2-Chlorotoluene	20	20.99			105		80-120		
4-Chlorotoluene	20	21.29			106		80-120		
1,2-Dibromo-3-chloropropane	20	16.96			85		47-131		
Dibromochloromethane	20	19.86			99		71-120		
1,2-Dibromoethane	20	20.4			102		77-120		
Dibromomethane	20	21.39			107		80-120		
1,2-Dichlorobenzene	20	21.72			109		80-120		
1,3-Dichlorobenzene	20	21.9			109		80-120		
1,4-Dichlorobenzene	20	22.08			110		80-120		
Dichlorodifluoromethane	20	13.26			66		41-127		
1,1-Dichloroethane	20	22.06			110		80-120		
1,2-Dichloroethane	20	21.54			108		73-124		
1,1-Dichloroethene	20	23			115		80-131		
cis-1,2-Dichloroethene	20	23.03			115		80-125		
trans-1,2-Dichloroethene	20	22.28			111		80-126		
1,2-Dichloropropane	20	22.43			112		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 16:38

Group Number: 2073559

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,3-Dichloropropane	20	21.09			105		80-120		
2,2-Dichloropropane	20	20.72			104		55-142		
1,1-Dichloropropene	20	21.09			105		78-120		
cis-1,3-Dichloropropene	20	19.59			98		75-120		
trans-1,3-Dichloropropene	20	18.56			93		67-120		
Ethyl t-butyl ether	20	16.68			83		68-121		
Ethylbenzene	20	21.73			109		80-120		
Hexachlorobutadiene	20	20.18			101		63-120		
n-Hexane	20	20.38			102		61-138		
2-Hexanone	100	97.12			97		56-135		
di-Isopropyl ether	20	19.02			95		70-124		
Isopropylbenzene	20	21.34			107		80-120		
p-Isopropyltoluene	20	19.98			100		76-120		
Methyl Tertiary Butyl Ether	20	19.17			96		69-122		
4-Methyl-2-pentanone	100	94.38			94		62-133		
Methylene Chloride	20	23.47			117		80-120		
Naphthalene	20	17.55			88		53-124		
n-Propylbenzene	20	22.7			113		79-121		
Styrene	20	21.21			106		80-120		
1,1,1,2-Tetrachloroethane	20	20.61			103		78-120		
1,1,2,2-Tetrachloroethane	20	20.98			105		72-120		
Tetrachloroethene	20	22.27			111		80-120		
Toluene	20	21.85			109		80-120		
1,2,3-Trichlorobenzene	20	19.16			96		66-120		
1,2,4-Trichlorobenzene	20	19.25			96		63-120		
1,1,1-Trichloroethane	20	20.75			104		67-126		
1,1,2-Trichloroethane	20	22.41			112		80-120		
Trichloroethene	20	21.45			107		80-120		
Trichlorofluoromethane	20	14.8			74		55-135		
1,2,3-Trichloropropane	20	20.72			104		75-124		
1,2,4-Trimethylbenzene	20	21.71			109		75-120		
1,3,5-Trimethylbenzene	20	21.86			109		75-120		
Vinyl Chloride	20	16.12			81		56-120		
m+p-Xylene	40	44.56			111		80-120		
o-Xylene	20	20.86			104		80-120		
Xylene (Total)	60	65.42			109		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 11/21/2019 16:38

Group Number: 2073559

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Full list + oxys + hexane  
Batch number: N193232AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1196674	101	106	99	91
1196675	101	105	98	91
1196676	100	106	98	90
Blank	100	105	99	91
LCS	98	104	102	100
Limits:	80-120	80-120	80-120	80-120

Analysis Name: Full list + oxys + hexane  
Batch number: N193241AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1196677	103	106	98	91
1196678	102	107	98	91
1196679	103	108	98	90
Blank	101	106	98	91
LCS	98	104	102	100
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



CHAIN OF CUSTODY- ExxonMobil Projects

Eurofins Lancaster Laboratories Environmental  
 2425 New Holland Pike, Lancaster, PA 17605  
 TEL. 717-656-2300  
 www.lancasterlabs.com

Drop Box - MW

PAGE \_\_\_\_ OF \_\_\_\_

13US9 203559

1196674-79

<b>Client / Reporting Information</b>		<b>SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects</b>		<b>Requested Analysis ( see TEST CODE sheet)</b>		<b>Matrix Codes</b>	
---------------------------------------	--	--	--	--	--	---------------------	--

Company Name <b>Kleinfelder</b>	Retail Project (Site Name) <b>Exxon - Phoenix 28077</b>	Company Name <b>ExxonMobil Environmental Services Co.</b>
Street Address <b>1745 Dorsey Road, Suite J</b>	Major Project (AFE)	<b>If Project is Direct Bill to Consultant</b>
City State Zip <b>Hanover, MD 21076</b>	Project Name <b>14258 Jarrettsville Pike</b>	Company Name
Project Contact E-mail <b>Stacey Schiding</b>	City State <b>Phoenix MD</b>	Street Address
Phone # Fax # <b>410-850-0404 410-850-0049</b>	ExxonMobil Manager <b>Joe Ogren</b>	City State Zip
Sampler(s) Name(s) Phone # <b>Charlie Brehm</b>	ExxonMobil Purchase Order # <b>Direct Bill to Exxon Mobil</b>	Attention: PO#

Lancaster Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection					# of bottles	Number of preserved Bottles								MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B	Full List VOCs + Oxy5 by 8260	Nitrate Nitrogen, Sulfate, Volatile Headspace Hydrocarbon, CO2 by Headspace	LAB USE ONLY					
			Date	Time	Sampled by	Matrix	HCl		NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE										
	MW-78C		11/7/19	1020	CB	GW	3	X										X							
	MW-47C		11/7/19	1230	CB	GW	3	X										X							
	MW-24		11/7/19	1300	CB	GW	3	X										X							
	MW-29		11/7/19	1330	CB	GW	3	X										X							
	MW-30		11/7/19	1350	CB	GW	3	X										X							
	MW-49		11/7/19	1420	CB	GW	3	X										X							

			<b>Data Deliverable Information</b>											<b>Comments / Special Instructions</b>	
--	--	--	-------------------------------------	--	--	--	--	--	--	--	--	--	--	--	--

Approved By (Accutest PM): / Date:

Std. 10 Business Days  
 8 Day RUSH  
 5 Day RUSH  
 3 Day EMERGENCY  
 2 Day EMERGENCY  
 1 Day EMERGENCY

Commercial "A" ( Level 1 )       NYASP Category A  
 Commercial "B" ( Level 2 )       NYASP Category B  
 FULLT1 ( Level 3+4 )       State Forms  
 NJ Reduced       EOD Format  
 Commercial "C"       Other \_\_\_\_\_

Commercial "A" = Results Only  
 Commercial "B" = Results + QC Summary  
 NJ Reduced = Results + QC Summary + Partial Raw data

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1 [Signature]	Date Time: 11/8/19 14:45	Received By: 1 [Signature]	Relinquished By: 2 [Signature]	Date Time: 11/8/19 17:15	Received By: 2 [Signature]
Relinquished by Sampler: 3 [Signature]	Date Time:	Received By: 3 [Signature]	Relinquished By:	Date Time:	Received By:
Relinquished by: 5 [Signature]	Date Time:	Received By: 5 [Signature]	Custody Seal # 5	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not intact <input checked="" type="checkbox"/> On Ice Cooler Temp: 0.7C	



Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 11/08/2019  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Melvin Sanchez*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)*    *IR = Infrared (Surface Temp)*    *All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT131	0.7	DT	Wet	Y	Loose	N

**Sample ID Discrepancy Details**

Sample ID on COC	Sample ID on Label	Comments
MW-78C	MW-78C (180)	
MW-47C	MW-47C (212.5)	

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: December 02, 2019 20:36

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2075483  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-168 Groundwater	11/18/2019 08:45	1205860
MW-167 Groundwater	11/18/2019 09:15	1205861
MW-47C Groundwater	11/18/2019 09:40	1205862
MW-47BB Groundwater	11/18/2019 10:25	1205863
MW-84P Groundwater	11/18/2019 11:30	1205864
MW-43B Groundwater	11/18/2019 11:00	1205865
TB19308 Water	11/11/2019	1205866

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



**Sample Description:** MW-168 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1205860  
ELLE Group #: 2075483  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/19/2019 17:35  
Collection Date/Time: 11/18/2019 08:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193311AA	11/27/2019 18:04	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193311AA	11/27/2019 18:03	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-167 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1205861  
ELLE Group #: 2075483  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/19/2019 17:35  
Collection Date/Time: 11/18/2019 09:15

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193311AA	11/27/2019 18:29	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193311AA	11/27/2019 18:28	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1205862  
ELLE Group #: 2075483  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/19/2019 17:35  
Collection Date/Time: 11/18/2019 09:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193311AA	11/27/2019 18:53	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193311AA	11/27/2019 18:52	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47BB Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1205863  
ELLE Group #: 2075483  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/19/2019 17:35  
Collection Date/Time: 11/18/2019 10:25

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193311AA	11/27/2019 19:17	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193311AA	11/27/2019 19:16	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-84P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1205864  
ELLE Group #: 2075483  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/19/2019 17:35  
Collection Date/Time: 11/18/2019 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193311AA	11/27/2019 19:41	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193311AA	11/27/2019 19:40	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-43B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1205865  
ELLE Group #: 2075483  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/19/2019 17:35  
Collection Date/Time: 11/18/2019 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193311AA	11/27/2019 20:05	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193311AA	11/27/2019 20:04	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** TB19308 Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1205866  
ELLE Group #: 2075483  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/19/2019 17:35  
Collection Date/Time: 11/11/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F193265AA	11/22/2019 21:51	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F193265AA	11/22/2019 21:50	Kevin A Sposito	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/02/2019 20:36

Group Number: 2075483

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: D193311AA	Sample number(s): 1205860-1205865		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: F193265AA	Sample number(s): 1205866		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D193311AA	Sample number(s): 1205860-1205865								
t-Amyl methyl ether	20	20.8			104		66-120		
Benzene	20	19.86			99		80-120		
t-Butyl alcohol	200	197.06			99		60-130		
Ethyl t-butyl ether	20	20.56			103		68-121		
Ethylbenzene	20	19.37			97		80-120		
di-Isopropyl ether	20	20.22			101		70-124		
Methyl Tertiary Butyl Ether	20	20.63			103		69-122		
Toluene	20	19.41			97		80-120		
Xylene (Total)	60	58.49			97		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/02/2019 20:36

Group Number: 2075483

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F193265AA	Sample number(s): 1205866								
t-Amyl methyl ether	20	18.17			91		66-120		
Benzene	20	20.42			102		80-120		
t-Butyl alcohol	200	181.68			91		60-130		
Ethyl t-butyl ether	20	19.49			97		68-121		
Ethylbenzene	20	19.55			98		80-120		
di-Isopropyl ether	20	20.36			102		70-124		
Methyl Tertiary Butyl Ether	20	19.05			95		69-122		
Toluene	20	19.85			99		80-120		
Xylene (Total)	60	58.06			97		80-120		

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193311AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1205860	99	91	99	96
1205861	101	91	99	96
1205862	101	95	99	96
1205863	101	92	99	95
1205864	100	96	100	96
1205865	100	95	99	95
Blank	102	92	99	95
LCS	100	95	100	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F193265AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1205866	91	97	104	100
Blank	92	97	104	98
LCS	91	101	105	101
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike, Lancaster, PA 17605  
TEL. 717-656-2300  
www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information			SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects				Requested Analysis ( see TEST CODE sheet)											Matrix Codes				
Company Name <b>Kleinfelder</b>			Retail Project (Site Name) <b>Exxon - Phoenix</b>		Major Project (AFE) <b>28077</b>					ExxonMobil Environmental Services Co.											DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank	
Street Address <b>1746 Dorsey Rd. Suite J</b>			Project Name <b>14258 Jarrettsville Rd</b>				If Project is Direct Bill to Consultant															
City State Zip <b>Hanover, MD 21076</b>			City State <b>Phoenix MD</b>		Company Name																	
Project Contact <b>Stacey Schiding</b>			City State <b>Phoenix MD</b>		Street Address					Full List VOCs +Oxy's by 8260 MTBE, BTEX, ETBE, TAME, DIPE, TBA by 8260B												
Phone # <b>410-850-0404</b>			ExxonMobil Manager <b>Joe Ogren</b>				City State Zip															
Sampler(s) Name(s) <b>Brendan Haffey</b>			ExxonMobil Purchase Order #				Attention: PO#															
Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection				Number of preserved Bottles										LAB USE ONLY					
			Date	Time	Sampled by	Matrix	# of bottles	HCI	NaOH	HNO3	H2SO4	NONE	DI Vial	MEOH	ENCO							
	MW-168		11/18/19	0845	BH	GW	3	X												X		
	MW-167		11/18/19	0915	BH	GW	3	X												X		
	MW-47C		11/18/19	0940	BH	GW	3	X												X		
	MW-47BB		11/18/19	1025	BH	GW	3	X												X		
	MW-84P		11/18/19	1130	BH	GW	3	X												X		
	MW-43B		11/18/19	1100	BH	GW	3	X												X		
	TB19308		11/11/19	-	EH	TB	2	X												X		

Turnaround Time (Business days)	Approved By (Accutest PM): / Date:	Data Deliverable Information	Comments / Special Instructions
---------------------------------	------------------------------------	------------------------------	---------------------------------

<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 8 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush TIA data available VIA Lablink	<input checked="" type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format <input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other	
	Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data	

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: <b>1</b> <i>[Signature]</i>	Date Time: 11/18/19 1250	Received By: <i>[Signature]</i>	Relinquished By: <i>[Signature]</i>	Date Time: 11/19/19 1657	Received By: <i>[Signature]</i>
Relinquished by Sampler: <b>3</b>	Date Time:	Received By:	Relinquished By:	Date Time:	Received By: <i>[Signature]</i> 11-19-19 0735



Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Date:	<u>11/19/2019</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>MD</u>		

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Amy Morrow*

**Samples Chilled Details**

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

<u>Cooler #</u>	<u>Matrix</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	Water	192050133	2.7	IR	Wet	Y	Loose	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: December 04, 2019 13:46

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2076438  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

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## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-152 [R] Groundwater	11/18/2019 12:05	1210566
MW-23 [R] Groundwater	11/19/2019 12:30	1210567
MW-19 [R] Groundwater	11/19/2019 12:00	1210568
MW-183 [R] Groundwater	11/19/2019 15:00	1210569
MW-38 [R] Groundwater	11/19/2019 11:00	1210570
MW-16 [R] Groundwater	11/18/2019 12:40	1210571
MW-74 [R] Groundwater	11/20/2019 09:00	1210572
MW-21 [R] Groundwater	11/18/2019 14:00	1210573
MW-170 [R] Groundwater	11/19/2019 14:30	1210574
MW-75 [R] Groundwater	11/20/2019 09:30	1210575
MW-90 Groundwater	11/19/2019 14:50	1210576
MW-109 [R] Groundwater	11/19/2019 09:45	1210577
MW-59A Groundwater	11/19/2019 14:25	1210578
MW-52 Groundwater	11/19/2019 15:20	1210579
MW-46 Groundwater	11/19/2019 15:45	1210580
MW-1 Groundwater	11/19/2019 13:00	1210581
MW-2 Groundwater	11/19/2019 12:35	1210582
MW-4A Groundwater	11/19/2019 10:50	1210583
MW-17 [R] Groundwater	11/19/2019 10:20	1210584
MW-38P Groundwater	11/19/2019 13:40	1210585
TB19308 Water	11/11/2019	1210586

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-152 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210566  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/18/2019 12:05

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 16:12	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 16:11	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-23 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210567  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.8 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 13:12	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 13:11	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-19 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210568  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 14:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 14:23	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-183 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210569  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 15:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.4 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 14:48	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 14:47	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-38 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210570  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 15:12	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 15:11	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-16 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210571  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/18/2019 12:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 16:36	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 16:35	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-74 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210572  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/20/2019 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193371AA	12/03/2019 11:12	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193371AA	12/03/2019 11:11	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-21 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210573  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/18/2019 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 17:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 17:00	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-170 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210574  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 14:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 15:37	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 15:36	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-75 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210575  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/20/2019 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193371AA	12/03/2019 12:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193371AA	12/03/2019 12:23	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-90 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210576  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 14:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 16:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 16:00	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-109 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210577  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 09:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 16:25	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 16:24	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-59A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210578  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 14:25

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 16:49	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 16:48	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-52 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210579  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 15:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 17:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 17:12	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-46 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210580  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 15:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 17:37	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 17:36	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-1 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210581  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	0.5 J	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	6	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	1	0.2	1
10945	Toluene	108-88-3	72	1	0.2	1
10945	Xylene (Total)	1330-20-7	120	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 18:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 18:00	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-2 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210582  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 12:35

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 18:25	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 18:24	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-4A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210583  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 10:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 18:49	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 18:48	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-17 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210584  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 19:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 19:12	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-38P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210585  
ELLE Group #: 2076438  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/19/2019 13:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193321AA	11/28/2019 19:37	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193321AA	11/28/2019 19:36	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** TB19308 Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210586  
ELLE Group #: 2076438  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/11/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 18:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 18:12	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/04/2019 13:46

Group Number: 2076438

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: D193321AA	Sample number(s): 1210567-1210570,1210574,1210576-1210585		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: D193371AA	Sample number(s): 1210572,1210575		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: Z193311AA	Sample number(s): 1210566,1210571,1210573,1210586		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
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\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/04/2019 13:46

Group Number: 2076438

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D193321AA	Sample number(s): 1210567-1210570,1210574,1210576-1210585								
t-Amyl methyl ether	20	20.98			105		66-120		
Benzene	20	19.83			99		80-120		
t-Butyl alcohol	200	197.26			99		60-130		
Ethyl t-butyl ether	20	20.24			101		68-121		
Ethylbenzene	20	19.54			98		80-120		
di-Isopropyl ether	20	20.33			102		70-124		
Methyl Tertiary Butyl Ether	20	20.51			103		69-122		
Toluene	20	19.47			97		80-120		
Xylene (Total)	60	59.04			98		80-120		
Batch number: D193371AA	Sample number(s): 1210572,1210575								
t-Amyl methyl ether	20	20.42			102		66-120		
Benzene	20	18.75			94		80-120		
t-Butyl alcohol	200	186.33			93		60-130		
Ethyl t-butyl ether	20	19.45			97		68-121		
Ethylbenzene	20	17.75			89		80-120		
di-Isopropyl ether	20	18.89			94		70-124		
Methyl Tertiary Butyl Ether	20	19.55			98		69-122		
Toluene	20	17.66			88		80-120		
Xylene (Total)	60	53.64			89		80-120		
Batch number: Z193311AA	Sample number(s): 1210566,1210571,1210573,1210586								
t-Amyl methyl ether	20	16.71			84		66-120		
Benzene	20	17.89			89		80-120		
t-Butyl alcohol	200	166.48			83		60-130		
Ethyl t-butyl ether	20	18.1			90		68-121		
Ethylbenzene	20	17.73			89		80-120		
di-Isopropyl ether	20	17.39			87		70-124		
Methyl Tertiary Butyl Ether	20	18.21			91		69-122		
Toluene	20	17.52			88		80-120		
Xylene (Total)	60	54.27			90		80-120		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D193321AA	Sample number(s): 1210567-1210570,1210574,1210576-1210585 UNSPK: 1210567									
t-Amyl methyl ether	N.D.	20	19.03	20	22.51	95	113	66-120	17	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/04/2019 13:46

Group Number: 2076438

### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Benzene	N.D.	20	19.06	20	22.72	95	114	80-120	17	30
t-Butyl alcohol	N.D.	200	182.5	200	210.36	91	105	60-130	14	30
Ethyl t-butyl ether	N.D.	20	18.95	20	22.39	95	112	68-121	17	30
Ethylbenzene	N.D.	20	18.77	20	22.02	94	110	80-120	16	30
di-Isopropyl ether	N.D.	20	19.07	20	22.58	95	113	70-124	17	30
Methyl Tertiary Butyl Ether	0.773	20	19.84	20	23.17	95	112	69-122	15	30
Toluene	N.D.	20	18.69	20	21.49	93	107	80-120	14	30
Xylene (Total)	N.D.	60	56.38	60	65.27	94	109	80-120	15	30
Batch number: D193371AA	Sample number(s): 1210572,1210575 UNSPK: 1210572									
t-Amyl methyl ether	N.D.	20	18.33	20	20.91	92	105	66-120	13	30
Benzene	N.D.	20	18.41	20	20.94	92	105	80-120	13	30
t-Butyl alcohol	N.D.	200	165.64	200	189.75	83	95	60-130	14	30
Ethyl t-butyl ether	N.D.	20	18.21	20	20.61	91	103	68-121	12	30
Ethylbenzene	N.D.	20	17.45	20	19.8	87	99	80-120	13	30
di-Isopropyl ether	N.D.	20	17.96	20	20.64	90	103	70-124	14	30
Methyl Tertiary Butyl Ether	0.363	20	18.5	20	21.09	91	104	69-122	13	30
Toluene	N.D.	20	17.26	20	19.94	86	100	80-120	14	30
Xylene (Total)	N.D.	60	52.22	60	59.48	87	99	80-120	13	30
Batch number: Z193311AA	Sample number(s): 1210566,1210571,1210573,1210586 UNSPK: 1210573									
t-Amyl methyl ether	N.D.	20	19.12	20	19.5	96	98	66-120	2	30
Benzene	N.D.	20	21.26	20	22.17	106	111	80-120	4	30
t-Butyl alcohol	N.D.	200	182.33	200	186.58	91	93	60-130	2	30
Ethyl t-butyl ether	N.D.	20	20.59	20	21.49	103	107	68-121	4	30
Ethylbenzene	N.D.	20	20.95	20	21.74	105	109	80-120	4	30
di-Isopropyl ether	N.D.	20	19.82	20	20.67	99	103	70-124	4	30
Methyl Tertiary Butyl Ether	N.D.	20	20.96	20	21.8	105	109	69-122	4	30
Toluene	N.D.	20	20.75	20	21.38	104	107	80-120	3	30
Xylene (Total)	N.D.	60	64.23	60	65.73	107	110	80-120	2	30

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193321AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1210567	100	95	99	94
1210568	101	95	99	95

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/04/2019 13:46

Group Number: 2076438

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193321AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1210569	100	95	99	96
1210570	100	94	100	95
1210574	100	93	100	97
1210576	100	93	99	97
1210577	99	95	98	95
1210578	99	94	98	94
1210579	100	92	99	95
1210580	98	93	98	95
1210581	101	95	99	99
1210582	99	95	99	95
1210583	98	94	99	96
1210584	100	95	99	96
1210585	98	92	100	95
Blank	100	91	99	95
LCS	99	92	100	99
MS	99	95	99	98
MSD	99	96	98	98
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193371AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1210572	101	93	99	96
1210575	99	96	98	96
Blank	101	94	99	97
LCS	99	96	98	97
MS	101	99	99	97
MSD	99	94	99	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: Z193311AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1210566	101	95	99	99
1210571	101	94	99	98
1210573	101	95	99	98
1210586	102	95	99	98
Blank	100	96	99	99
LCS	101	97	100	99
MS	101	97	99	99

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/04/2019 13:46

Group Number: 2076438

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys

Batch number: Z193311AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
MSD	101	98	99	98
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



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2076438

1210566-86

CHAIN OF CUSTODY- ExxonMobil Projects

Drop Box - MW

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental  
 2425 New Holland Pike, Lancaster, PA 17605  
 TEL. 717-656-2300  
 www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Lancaster Quote #	Lancaster Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects														Requested Analysis ( see TEST CODE sheet)											Matrix Codes
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix 28077</b>				Major Project (AFE) <b>ExxonMobil Environmental Services Co.</b>																					DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank
Street Address <b>1745 Dorsey Road, Suite J</b>		Major Project (AFE)				If Project is Direct Bill to Consultant																					
City State Zip <b>Hanover, MD 21076</b>		Project Name <b>14258 Jarrettsville Pike</b>				Company Name																					
Project Contact E-mail <b>Stacey Schiding</b>		City State <b>Phoenix MD</b>				Street Address																					
Phone # Fax # <b>410-850-0404 410-850-0049</b>		ExxonMobil Manager <b>Joe Ogren</b>				City State Zip																					
Sampler(s) Name(s) Phone # <b>Charlie Brehm</b>		ExxonMobil Purchase Order #				Attention: PO#																					
Direct Bill to Exxon Mobil																											
Lancaster Sample #		Collection														Number of preserved Bottles											LAB USE ONLY
Field ID / Point of Collection		MEOH/DI Vial # Date Time Sampled by Matrix # of bottles HCl NaOH HNO3 H2SO4 NONE DI Water MEOH ENCORE														MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B Full List VOCs + Oxy5 by 8260 Nitrate Nitrogen, Sulfate, Volatile Headspace Hydrocarbon, CO2 by Headspace											
<b>MW-152 [R]</b>		<b>11/18/19 1205 CB GW 3 X</b>														<b>X</b>											
<b>MW-23 [R]</b>		<b>11/19/19 1230 CB GW 3 X</b>														<b>X</b>											
<b>MW-19 [R]</b>		<b>11/19/19 1200 CB GW 3 X</b>														<b>X</b>											
<b>MW-183 [R]</b>		<b>11/19/19 1500 CB GW 3 X</b>														<b>X</b>											
<b>MW-38 [R]</b>		<b>11/19/19 1100 CB GW 3 X</b>														<b>X</b>											
<b>MW-16 [R]</b>		<b>11/18/19 1240 CB GW 3 X</b>														<b>X</b>											
<b>MW-74 [R]</b>		<b>11/20/19 0900 CB GW 3 X</b>														<b>X</b>											
<b>MW-21 [R]</b>		<b>11/18/19 1400 CB GW 3 X</b>														<b>X</b>											
<b>MW-170 [R]</b>		<b>11/19/19 1430 CB GW 3 X</b>														<b>X</b>											
<b>MW-75 [R]</b>		<b>11/20/19 0930 CB GW 3 X</b>														<b>X</b>											

<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 8 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PM) / Date: _____	<input checked="" type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format <input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data											Comments / Special Instructions										
---	--	--	--	--	--	--	--	--	--	--	--	--	--	---------------------------------	--	--	--	--	--	--	--	--	--	--

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: <b>1 Charlie Brehm</b>	Date Time: <b>11/22/19 1230</b>	Received By: <b>1 Coster Rasmussen</b>	Relinquished By: <b>2</b>	Date Time: <b></b>	Received By: <b>2</b>
Relinquished by Sampler: <b>3 J. Hoak</b>	Date Time: <b>11/22/19 1440</b>	Received By: <b>3 [Signature]</b>	Relinquished By: <b>4 [Signature]</b>	Date Time: <b>11-22-19 1750</b>	Received By: <b>4 [Signature]</b>
Relinquished by: <b>5 [Signature]</b>	Date Time: <b>11/21/19 1815</b>	Received By: <b>5 [Signature]</b>	Custody Seal #	<input type="checkbox"/> Intact Preserved where applicable <input type="checkbox"/> Not Intact	



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2076438

1210966-86

CHAIN OF CUSTODY- ExxonMobil Projects

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike, Lancaster, PA 17605  
TEL. 717-656-2300  
www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects				Requested Analysis ( see TEST CODE sheet)										Matrix Codes
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix</b>		Major Project (AFE) <b>28077</b>		<b>ExxonMobil Environmental Services Co.</b>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED-Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid W/P - Wipe FB-Field Blank
Street Address <b>1745 Dorsey Rd. Suite J</b>		Project Name <b>14258 Jarrettsville Rd</b>		Company Name <b>If Project is Direct Bill to Consultant</b>												
City State Zip <b>Hanover, MD 21076</b>		City State <b>Phoenix MD</b>		Street Address												LAB USE ONLY
Project Contact E-mail <b>Stacey Schiding</b>		ExxonMobil Manager <b>Joe Ogren</b>		City State Zip												
Phone # Fax # <b>410-850-0404</b>		ExxonMobil Purchase Order #		Attention: PO#												
Sampler(s) Name(s) Phone # <b>Brendan Haffey</b>																

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection			Matrix	# of bottles	Number of preserved Bottles										Full List VOCs +Oxy5 by 8260	LAB USE ONLY
			Date	Time	Sampled by			HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCO				
	MW-90		11/19/19	1450	BH	GW	3	X										X	
	MW-109 [R]		11/19/19	0945	BH	GW	3	X										X	
	MW-59A		11/19/19	1425	BH	GW	3	X										X	
	MW-52		11/19/19	1520	BH	GW	3	X										X	
	MW-46		11/19/19	1545	BH	GW	3	X										X	
	MW-1		11/19/19	1300	BH	GW	3	X										X	
	MW-2		11/19/19	1235	BH	GW	3	X										X	
	MW-4A		11/19/19	1050	BH	GW	3	X										X	
	MW-17 [R]		11/19/19	1020	BH	GW	3	X										X	
	MW-38P		11/19/19	1340	BH	GW	3	X										X	
	TB19308		11/11/19	-	EH	TB	2	X										X	

Turnaround Time ( Business days)	Data Deliverable Information	Comments / Special Instructions
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<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 8 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink	Approved By (Accutest PM) / Date:	<input checked="" type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C"  Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data	<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other	Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: 1 <i>J.B. A</i>	Date Time: 11/19/19 1600	Received By: 1 <i>Cooler Room</i>	Relinquished By: 2	Date Time: 11-22-19	Received By: 2
Relinquished by Sampler: 3 <i>J. Hozak</i>	Date Time: 11/22/19 14:45	Received By: 3 <i>[Signature]</i>	Relinquished By: 4 <i>[Signature]</i>	Date Time: 11-22-19 1756	Received By: 4 <i>[Signature]</i>



Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 11/22/2019  
 Number of Packages: 1      Number of Projects: 2  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	2
Samples Chilled:	Yes	Trip Blank Type:	HCI
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Melvin Sanchez*

**Samples Chilled Details**

Thermometer Types:      DT = Digital (Temp. Bottle)      IR = Infrared (Surface Temp)      All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT42-01	0.5	DT	Wet	Y	Loose/Bag	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: December 03, 2019 10:33

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2076439  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-6 [R] Groundwater	11/18/2019 11:30	1210587
MW-22 [R] Groundwater	11/18/2019 14:30	1210588
MW-2A [R] Groundwater	11/18/2019 13:30	1210589
MW-1A [R] Groundwater	11/18/2019 11:00	1210590
MW-169 [R] Groundwater	11/18/2019 10:20	1210591
MW-185 [R] Groundwater	11/18/2019 10:00	1210592

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



**Sample Description:** MW-6 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210587  
ELLE Group #: 2076439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/18/2019 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.2 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 18:38	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 18:37	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-22 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210588  
ELLE Group #: 2076439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/18/2019 14:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 19:02	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 19:01	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-2A [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210589  
ELLE Group #: 2076439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/18/2019 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 19:26	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 19:25	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-1A [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210590  
ELLE Group #: 2076439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/18/2019 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 19:51	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 19:50	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-169 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210591  
ELLE Group #: 2076439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/18/2019 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 20:14	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 20:13	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1210592  
ELLE Group #: 2076439  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 11/22/2019 18:15  
Collection Date/Time: 11/18/2019 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z193311AA	11/27/2019 20:39	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z193311AA	11/27/2019 20:38	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/03/2019 10:33

Group Number: 2076439

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: Z193311AA	Sample number(s): 1210587-1210592		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Z193311AA	Sample number(s): 1210587-1210592								
t-Amyl methyl ether	20	16.71			84		66-120		
Benzene	20	17.89			89		80-120		
t-Butyl alcohol	200	166.48			83		60-130		
Ethyl t-butyl ether	20	18.1			90		68-121		
Ethylbenzene	20	17.73			89		80-120		
di-Isopropyl ether	20	17.39			87		70-124		
Methyl Tertiary Butyl Ether	20	18.21			91		69-122		
Toluene	20	17.52			88		80-120		
Xylene (Total)	60	54.27			90		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/03/2019 10:33

Group Number: 2076439

## Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys

Batch number: Z193311AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1210587	101	96	99	98
1210588	101	96	99	99
1210589	102	96	99	98
1210590	101	95	100	99
1210591	101	96	100	99
1210592	100	95	99	98
Blank	100	96	99	99
LCS	101	97	100	99
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



13459

2076439

1210587-92



CHAIN OF CUSTODY- ExxonMobil Projects

Drop Box - MW

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17605
TEL, 717-656-2300
www.lancasterlabs.com

Table with 2 columns: FED-EX Tracking #, Bottle Order Control #; Lancaster Quote #, Lancaster Job #

Client / Reporting Information, SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects, Requested Analysis (see TEST CODE sheet), Matrix Codes

Table with columns: Lancaster Sample #, Field ID / Point of Collection, MEOH/DI Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MEOH, ENCORE, MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B, Full List VOCs + Oxy5 by 8260, Nitrate Nitrogen, Sulfate, Volatile Headspace Hydrocarbon, CO2 by Headspace, LAB USE ONLY

Data Deliverable Information, Comments / Special Instructions, Approved By (Accutest PM) / Date, Commercial "A" (Level 1), Commercial "B" (Level 2), FULLT1 (Level 3+4), NJ Reduced, Commercial "C", NYASP Category A, NYASP Category B, State Forms, EDD Format, Other

Sample Custody must be documented below each time samples change possession, including courier delivery. Table with columns: Relinquished by Sampler, Date Time, Received By, Relinquished By, Date Time, Received By, Custody Seal #, Intact, Not Intact, Preserved where applicable, On Ice, Cooler Temp



Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 11/22/2019  
 Number of Packages: 1      Number of Projects: 2  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	0
Samples Chilled:	Yes	Air Quality Samples Present:	No
Paperwork Enclosed:	Yes		
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Leah Foreman*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)*    *IR = Infrared (Surface Temp)*    *All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT42-01	0.5	DT	Wet	Y	Loose/Bag	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: December 15, 2019 16:08

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2078691  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-59B Groundwater	12/06/2019 11:00	1220196
MW-138D Groundwater	12/06/2019 11:15	1220197
MW-181A Groundwater	12/06/2019 10:30	1220198
MW-178B Groundwater	12/06/2019 11:30	1220199
MW-178C [R] Groundwater	12/06/2019 11:45	1220200
MW-74 [R] Groundwater	12/06/2019 13:15	1220201
MW-75 [R] Groundwater	12/06/2019 13:30	1220202
MW-90 Groundwater	12/06/2019 13:40	1220203
MW-183 [R] Groundwater	12/06/2019 14:00	1220204
MW-185 [R] Groundwater	12/06/2019 14:15	1220205
MW-170 Groundwater	12/06/2019 14:30	1220206
MW-169 [R] Groundwater	12/06/2019 14:45	1220207
MW-167 Groundwater	12/06/2019 15:00	1220208
MW-59A Groundwater	12/06/2019 15:15	1220209
MW-84P Groundwater	12/09/2019 14:55	1220210
MW-90 Groundwater	12/09/2019 13:55	1220211
MW-52 Groundwater	12/09/2019 15:30	1220212
MW-46 Groundwater	12/09/2019 16:00	1220213
MW-47BB Groundwater	12/09/2019 13:05	1220214
MW-47C Groundwater	12/09/2019 13:30	1220215
MW-91C [R] Groundwater	12/09/2019 12:40	1220216
MW-43B Groundwater	12/09/2019 14:20	1220217
MW-1 Groundwater	12/09/2019 15:15	1220218
MW-1A [R] Groundwater	12/09/2019 15:30	1220219
MW-4A Groundwater	12/09/2019 15:50	1220220
TB19325 Water	12/04/2019	1220221
SVE-3 Groundwater	12/06/2019 13:00	1220222

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-59B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220196  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.8 J	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	12	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	2 J	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 07:43	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 07:42	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220197  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 11:15

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	20	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	4	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	340	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 08:55	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 08:54	Anita M Dale	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-181A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220198  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 10:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.5 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 09:19	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 09:18	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-178B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220199  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.9 J	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.3 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	22	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 09:43	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 09:42	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-178C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220200  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 11:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	5	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	86	25	10	1
10945	Ethyl t-butyl ether	637-92-3	7	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	2	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	110	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 10:07	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 10:06	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-74 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220201  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 13:15

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 10:31	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 10:30	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-75 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220202  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 10:55	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 10:54	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-90 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220203  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 13:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 11:20	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 11:19	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-183 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220204  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.4 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.5 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 11:44	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 11:43	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220205  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 14:15

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 12:08	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 12:07	Anita M Dale	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-170 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220206  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 14:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193482AA	12/14/2019 12:32	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193482AA	12/14/2019 12:31	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-169 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220207  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 14:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 10:44	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 10:43	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-167 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220208  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 15:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.2 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 11:09	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 11:08	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-59A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220209  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 15:15

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 11:33	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 11:32	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-84P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220210  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 14:55

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 11:57	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 11:56	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-90 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220211  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 13:55

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 12:21	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 12:20	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-52 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220212  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 15:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.9 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 12:45	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 12:44	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-46 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220213  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 16:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 13:09	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 13:08	Anita M Dale	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-47BB Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220214  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 13:05

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.2 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 13:33	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 13:32	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220215  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 13:57	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 13:56	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220216  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 12:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 14:21	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 14:20	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-43B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220217  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 14:45	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 14:44	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-1 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220218  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 15:15

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.9 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 15:09	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 15:08	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-1A [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220219  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 15:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 15:34	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 15:33	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-4A Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220220  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/09/2019 15:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 15:58	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 15:57	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** TB19325 Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220221  
ELLE Group #: 2078691  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/04/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 07:08	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 07:07	Anita M Dale	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** SVE-3 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1220222  
ELLE Group #: 2078691  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/10/2019 17:37  
Collection Date/Time: 12/06/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.6 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193481AA	12/14/2019 07:32	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193481AA	12/14/2019 07:31	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/15/2019 16:08

Group Number: 2078691

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: D193481AA	Sample number(s): 1220207-1220222		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: D193482AA	Sample number(s): 1220196-1220206		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D193481AA	Sample number(s): 1220207-1220222								
t-Amyl methyl ether	20	22.58			113		66-120		
Benzene	20	21.67			108		80-120		
t-Butyl alcohol	200	200.6			100		60-130		
Ethyl t-butyl ether	20	22.16			111		68-121		
Ethylbenzene	20	20.5			103		80-120		
di-Isopropyl ether	20	21.66			108		70-124		
Methyl Tertiary Butyl Ether	20	22.45			112		69-122		
Toluene	20	20.58			103		80-120		
Xylene (Total)	60	61.49			102		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/15/2019 16:08

Group Number: 2078691

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D193482AA	Sample number(s): 1220196-1220206								
t-Amyl methyl ether	20	20.9			104		66-120		
Benzene	20	21.19			106		80-120		
t-Butyl alcohol	200	198.4			99		60-130		
Ethyl t-butyl ether	20	21.14			106		68-121		
Ethylbenzene	20	19.75			99		80-120		
di-Isopropyl ether	20	21.21			106		70-124		
Methyl Tertiary Butyl Ether	20	21.64			108		69-122		
Toluene	20	20.34			102		80-120		
Xylene (Total)	60	59.17			99		80-120		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D193481AA	Sample number(s): 1220207-1220222 UNSPK: 1220222									
t-Amyl methyl ether	N.D.	20	20.05	20	21.22	100	106	66-120	6	30
Benzene	N.D.	20	20.96	20	21.71	105	109	80-120	4	30
t-Butyl alcohol	N.D.	200	184.26	200	192.86	92	96	60-130	5	30
Ethyl t-butyl ether	1.38	20	21.24	20	22.28	99	104	68-121	5	30
Ethylbenzene	N.D.	20	19.54	20	19.89	98	99	80-120	2	30
di-Isopropyl ether	0.584	20	20.44	20	21.53	99	105	70-124	5	30
Methyl Tertiary Butyl Ether	3.31	20	23.05	20	24.4	99	105	69-122	6	30
Toluene	N.D.	20	19.55	20	20.08	98	100	80-120	3	30
Xylene (Total)	N.D.	60	58.07	60	59.57	97	99	80-120	3	30
Batch number: D193482AA	Sample number(s): 1220196-1220206 UNSPK: 1220196									
t-Amyl methyl ether	0.785	20	21.93	20	21.86	106	105	66-120	0	30
Benzene	N.D.	20	22.62	20	22.4	113	112	80-120	1	30
t-Butyl alcohol	N.D.	200	194.14	200	189.68	97	95	60-130	2	30
Ethyl t-butyl ether	N.D.	20	21.78	20	21.1	109	105	68-121	3	30
Ethylbenzene	N.D.	20	21.24	20	20.51	106	103	80-120	3	30
di-Isopropyl ether	N.D.	20	21.57	20	21.32	108	107	70-124	1	30
Methyl Tertiary Butyl Ether	11.59	20	34.04	20	32.9	112	107	69-122	3	30
Toluene	N.D.	20	21.46	20	20.56	107	103	80-120	4	30
Xylene (Total)	2.13	60	65.61	60	63.15	106	102	80-120	4	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/15/2019 16:08

Group Number: 2078691

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193481AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1220207	100	93	96	97
1220208	98	94	96	97
1220209	101	95	96	95
1220210	105	93	97	97
1220211	100	96	96	96
1220212	100	93	97	96
1220213	100	94	95	96
1220214	101	94	96	96
1220215	101	93	96	99
1220216	101	93	97	98
1220217	100	95	96	96
1220218	100	93	96	97
1220219	101	93	98	99
1220220	100	93	97	100
1220221	101	92	97	96
1220222	99	96	97	96
Blank	99	95	97	97
LCS	98	96	97	99
MS	100	96	97	99
MSD	100	94	98	98
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193482AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1220196	100	100	97	97
1220197	101	100	98	98
1220198	100	100	97	97
1220199	103	101	97	98
1220200	101	102	97	97
1220201	103	99	99	96
1220202	101	99	98	97
1220203	103	102	98	95
1220204	101	98	97	95
1220205	100	97	97	97
1220206	102	100	99	98
Blank	104	100	96	97
LCS	98	99	97	99
MS	101	103	99	100

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 12/15/2019 16:08

Group Number: 2078691

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193482AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
MSD	101	104	97	100
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.





Eurofins Lancaster Laboratories Environmental  
 2425 New Holland Pike, Lancaster, PA 17605  
 TEL. 717-656-2300  
 www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Lancaster Quote #	Lancaster Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects													Requested Analysis ( see TEST CODE sheet)											Matrix Codes	
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix 28077</b>					ExxonMobil Environmental Services Co.								MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B Full List VOCs + Oxy5 by 8260 Nitrate Nitrogen, Sulfate, Volatile Headspace Hydrocarbon, CO2 by Headspace											DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WVP - Wipe FB-Field Blank	
Street Address <b>1745 Dorsey Road, Suite J</b>		Major Project (AFE)					If Project is Direct Bill to Consultant																				
City State Zip <b>Hanover, MD 21076</b>		Project Name <b>14258 Jarrettsville Pike</b>					Company Name																				
Project Contact E-mail <b>Stacey Schiding</b>		City State <b>Phoenix MD</b>					Street Address																				
Phone # Fax # <b>410-850-0404 410-850-0049</b>		ExxonMobil Manager <b>Joe Ogren</b>					City State Zip																				
Sampler(s) Name(s) Phone # <b>Charlie Brehm</b>		ExxonMobil Purchase Order #					Attention: PO#								LAB USE ONLY												
Lancaster Sample #		Direct Bill to Exxon Mobil					Number of preserved Bottles																				
Field ID / Point of Collection		MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HN03	H2SO4	NONE	DI Water	MEOH	ENCORE												
<b>MW-170</b>			12/6/19	1430	CB	GW	3	X								X											
<b>MW-169 [R]</b>			12/6/19	1445	CB	GW	3	X								X											
<b>MW-167</b>			12/6/19	1500	CB	GW	3	X								X											
<b>MW-59A</b>			12/6/19	1515	CB	GW	3	X								X											

<input checked="checked" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 8 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PM) / Oate: _____ _____ _____ _____		<input checked="checked" type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format <input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other _____						Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data											
--	--	---	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample Custody must be documented below each time samples change possession, including courier delivery.										
Relinquished by Sampler:		Date Time:	Received By:		Date Time:		Relinquished By:		Date Time:	Received By:
1			12/10/19 14:45		12/10/19		17:18			2
Relinquished by Sampler:		Date Time:	Received By:		Date Time:		Relinquished By:		Date Time:	Received By:
3			3		4		4			4
Relinquished by:		Date Time:	Received By:		Date Time:		Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact	<input type="checkbox"/> Preserved where applicable <input type="checkbox"/> Dn Ice <input type="checkbox"/> Cooler Temp.
5			12/10/19 17:37							2.8







Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 12/10/2019  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	Yes		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Amy Morrow*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.*

<u>Cooler #</u>	<u>Matrix</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	Water	46730060WS	2.8	IR	Wet	Y	Loose	N

**Extra Sample Details**

<u>Sample ID on Label</u>	<u>Number of Extra Containers</u>	<u>Date on Label</u>	<u>Comments</u>
SVE-3	3	12/06/2019 13:00	

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: January 02, 2020 11:49

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2080739  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-185[R] Groundwater	12/20/2019 12:00	1230251
MW-91 Groundwater	12/20/2019 12:30	1230252
MW-138D Groundwater	12/20/2019 15:45	1230253
MW-168(235) Groundwater	12/20/2019 13:00	1230254
MW-176[R] Groundwater	12/20/2019 13:30	1230255
MW-177(187.5) Groundwater	12/20/2019 14:00	1230256
MW-47C(212.5) Groundwater	12/20/2019 15:10	1230257
MW-171C(207.5) Groundwater	12/20/2019 14:30	1230258
Trip Blank (TB19325) Water	12/02/2019	1230259

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-185[R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1230251  
ELLE Group #: 2080739  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/23/2019 20:20  
Collection Date/Time: 12/20/2019 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193651AA	12/31/2019 13:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193651AA	12/31/2019 13:12	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1230252  
ELLE Group #: 2080739  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/23/2019 20:20  
Collection Date/Time: 12/20/2019 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193651AA	12/31/2019 13:37	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193651AA	12/31/2019 13:36	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1230253  
ELLE Group #: 2080739  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/23/2019 20:20  
Collection Date/Time: 12/20/2019 15:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	18	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	4	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	310	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193651AA	12/31/2019 14:00	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193651AA	12/31/2019 13:59	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-168(235) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1230254  
ELLE Group #: 2080739  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/23/2019 20:20  
Collection Date/Time: 12/20/2019 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193651AA	12/31/2019 14:25	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193651AA	12/31/2019 14:24	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-176[R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1230255  
ELLE Group #: 2080739  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/23/2019 20:20  
Collection Date/Time: 12/20/2019 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193651AA	12/31/2019 14:49	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193651AA	12/31/2019 14:48	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177(187.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1230256  
ELLE Group #: 2080739  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/23/2019 20:20  
Collection Date/Time: 12/20/2019 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.3 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	5	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193651AA	12/31/2019 15:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193651AA	12/31/2019 15:12	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C(212.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1230257  
ELLE Group #: 2080739  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/23/2019 20:20  
Collection Date/Time: 12/20/2019 15:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193651AA	12/31/2019 15:37	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193651AA	12/31/2019 15:36	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1230258  
ELLE Group #: 2080739  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/23/2019 20:20  
Collection Date/Time: 12/20/2019 14:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193651AA	12/31/2019 16:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193651AA	12/31/2019 16:00	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** Trip Blank (TB19325) Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1230259  
ELLE Group #: 2080739  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 12/23/2019 20:20  
Collection Date/Time: 12/02/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D193612AA	12/27/2019 19:54	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D193612AA	12/27/2019 19:53	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/02/2020 11:49

Group Number: 2080739

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: D193612AA	Sample number(s): 1230259		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: D193651AA	Sample number(s): 1230251-1230258		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D193612AA	Sample number(s): 1230259								
t-Amyl methyl ether	20	21.15			106		66-120		
Benzene	20	22.79			114		80-120		
t-Butyl alcohol	200	181.02			91		60-130		
Ethyl t-butyl ether	20	21.45			107		68-121		
Ethylbenzene	20	19.2			96		80-120		
di-Isopropyl ether	20	22.22			111		70-124		
Methyl Tertiary Butyl Ether	20	21.71			109		69-122		
Toluene	20	19.61			98		80-120		
Xylene (Total)	60	57.37			96		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/02/2020 11:49

Group Number: 2080739

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D193651AA	Sample number(s): 1230251-1230258								
t-Amyl methyl ether	20	18.38			92		66-120		
Benzene	20	19.16			96		80-120		
t-Butyl alcohol	200	180.23			90		60-130		
Ethyl t-butyl ether	20	18.17			91		68-121		
Ethylbenzene	20	18.31			92		80-120		
di-Isopropyl ether	20	18.69			93		70-124		
Methyl Tertiary Butyl Ether	20	18.26			91		69-122		
Toluene	20	18.45			92		80-120		
Xylene (Total)	60	54.84			91		80-120		

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193612AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1230259	98	102	101	94
Blank	103	102	93	99
LCS	100	105	94	101
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D193651AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1230251	96	95	101	94
1230252	94	95	100	94
1230253	97	94	100	94
1230254	96	96	100	93
1230255	98	94	100	94
1230256	97	94	100	93
1230257	96	93	99	92
1230258	97	94	100	94
Blank	96	96	100	93
LCS	96	97	102	97
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/02/2020 11:49

Group Number: 2080739

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

A-13459 G-2000739 S-1230251-59



CHAIN OF CUSTODY- ExxonMobil Projects

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental  
 2425 New Holland Pike, Lancaster, PA 17605  
 TEL. 717-656-2300  
 www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Lancaster Quote #	Lancaster Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects										Requested Analysis ( see TEST CODE sheet)										Matrix Codes							
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix 28077</b>					Major Project (AFE) <b>ExxonMobil Environmental Services Co.</b>					MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B Full List VOCs + Oxy5 by 8260 DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank										LAB USE ONLY							
Street Address <b>1745 Dorsey Road, Suite J</b>		Major Project (AFE) <b>ExxonMobil Environmental Services Co.</b>					If Project is Direct Bill to Consultant																						
City State Zip <b>Hanover, MD 21076</b>		Project Name <b>14258 Jarrettsville Pike</b>					Company Name																						
Project Contact E-mail <b>Stacey Schiding</b>		City State <b>Phoenix MD</b>					Street Address																						
Phone # Fax # <b>410-850-0404 410-850-0049</b>		ExxonMobil Manager <b>Joe Ogren</b>					City State Zip																						
Sampler(s) Name(s) Phone # <b>Charlie Low</b>		ExxonMobil Purchase Order #					Attention. PO#																						
Lancaster Sample #		Field ID / Point of Collection		MEQHDl Vial #		Collection			Number of preserved Bottles																				
						Date	Time	Sampled by	Matrix	# of bottles	HCl	NiOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE											
		<b>MW-185[R]</b>				12/20/19	1200	CL	GW	3	X																		X
		<b>MW-91</b>				12/20/19	1230	CL	GW	3	X																		X
		<b>MW-138D</b>				12/20/19	1545	CL	GW	3	X																		X
		<b>MW-168(235)</b>				12/20/19	1300	CL	GW	3	X																		X
		<b>MW-176[R]</b>				12/20/19	1330	CL	GW	3	X																		X
		<b>MW-177(187.5)</b>				12/20/19	1400	CL	GW	3	X																		X
		<b>MW-47C(212.5)</b>				12/20/19	1510	CL	GW	3	X																		X
		<b>MW-171C(207.5)</b>				12/20/19	1430	CL	GW	3	X																		X
		<b>Trip Blank (TB19325)</b>				12/2/19		KG	TB	2	X																		X

<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 8 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PM): / Date: _____ _____ _____ _____		Data Deliverable Information <input checked="" type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> State Forms <input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format <input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data										Comments / Special Instructions DROP BOX - MW									
---	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1 <i>Chub L</i>	Date Time: 12/20/19 @ 1730	Received By: 1 <i>Station</i>	Relinquished By: 2 <i>Station</i>	Date Time: 12/23/19	Received By: 2 <i>Cooler room 1:30pm</i>		
Relinquished by Sampler: 3 <i>J. Mozak</i>	Date Time: 12/23/19 2:05pm	Received By: 4 <i>[Signature]</i>	Relinquished By: 4 <i>[Signature]</i>	Date Time: 12/23/19 4:17	Received By: 4 <i>[Signature]</i>		
Relinquished by: 5 <i>[Signature]</i>	Date Time: 12/23/19 20:20	Received By: 5 <i>[Signature]</i>	Custody Seal #	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable <input type="checkbox"/>	On Ice <input type="checkbox"/>	Cooler Temp.



Client: Kleinfelder

**28077**

**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Date:	<u>12/23/2019</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>MD</u>		

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	No
Custody Seal Intact:	Yes	Total Trip Blank Qty:	2
Samples Chilled:	Yes	Trip Blank Type:	HCL
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Christine Knoedler*

**Samples Chilled Details: 28077**

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

<u>Cooler #</u>	<u>Matrix</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	Water	DT42-03	2.0	DT	Wet	Y	Loose	N

**Sample Date/Time Discrepancy Details: 28077**

<u>Sample ID on COC</u>	<u>Date/Time on Label</u>	<u>Comments</u>
MW-185[R]	12/20/2019 12:30	
MW-91	12/20/2019 12:00	

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: January 17, 2020 13:03

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2082191  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

Previous versions of this report were generated on:

01/13/2020 19:06

01/15/2020 11:34

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/>. Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-178B Groundwater	01/02/2020 13:00	1235585
MW-178C [R] Groundwater	01/02/2020 13:20	1235586
MW-171C(207.5) Groundwater	01/02/2020 13:45	1235587
MW-179C(250) Groundwater	01/02/2020 14:05	1235588
MW-138D Groundwater	01/03/2020 11:20	1235589
MW-59B [R] Groundwater	01/03/2020 11:00	1235590
TB19342 Water	12/19/2019	1235591
MW-57 [R] Groundwater	01/03/2020 09:30	1235592
MW-57P Groundwater	01/03/2020 09:50	1235593
MW-58 [R] Groundwater	01/03/2020 10:10	1235594
MW-58R [R] Groundwater	01/03/2020 10:30	1235595
MW-182(200) Groundwater	01/06/2020 10:00	1235596
MW-170 [R] Groundwater	01/06/2020 10:20	1235597
MW-169 [R] Groundwater	01/06/2020 10:40	1235598

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

REVISED

**Sample Description:** MW-178B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235585  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/02/2020 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.7 J	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.3 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	20	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 15:21	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 15:20	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result



REVISED

**Sample Description:** MW-178C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235586  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/02/2020 13:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	7	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	490	25	10	1
10945	Ethyl t-butyl ether	637-92-3	8	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	2	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	130	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 15:42	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 15:41	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235587  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/02/2020 13:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 16:49	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 16:48	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-179C(250) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235588  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/02/2020 14:05

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.3 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 17:10	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 17:09	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235589  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/03/2020 11:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	15	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	4	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	290	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 17:33	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 17:32	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-59B [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235590  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/03/2020 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.6 J	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	10	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	2 J	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 17:55	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 17:54	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** TB19342 Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235591  
ELLE Group #: 2082191  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/08/2020 17:39  
Collection Date/Time: 12/19/2019

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 18:17	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 18:16	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-57 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235592  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/03/2020 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 18:39	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 18:38	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-57P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235593  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/03/2020 09:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 19:01	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 19:00	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result



REVISED

**Sample Description:** MW-58 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235594  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/03/2020 10:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.9 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	16	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 19:23	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 19:22	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-58R [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235595  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/03/2020 10:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 19:45	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 19:44	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-182(200) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235596  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/06/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	5	1	0.3	1
10945	Benzene	71-43-2	0.4 J	1	0.2	1
10945	t-Butyl alcohol	75-65-0	20 J	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.7 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	98	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 20:07	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 20:06	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-170 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235597  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/06/2020 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 20:29	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 20:28	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-169 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1235598  
ELLE Group #: 2082191  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/08/2020 17:39  
Collection Date/Time: 01/06/2020 10:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200121AA	01/12/2020 20:50	Stephen C Nolte	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200121AA	01/12/2020 20:49	Stephen C Nolte	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/17/2020 13:03

Group Number: 2082191

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: F200121AA	Sample number(s): 1235585-1235598		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F200121AA	Sample number(s): 1235585-1235598								
t-Amyl methyl ether	20	18.97	20	19.64	95	98	66-120	3	30
Benzene	20	21.55	20	21.91	108	110	80-120	2	30
t-Butyl alcohol	200	184.44	200	188.81	92	94	60-130	2	30
Ethyl t-butyl ether	20	20.26	20	20.6	101	103	68-121	2	30
Ethylbenzene	20	19.92	20	20	100	100	80-120	0	30
di-Isopropyl ether	20	22.19	20	22.61	111	113	70-124	2	30
Methyl Tertiary Butyl Ether	20	20.18	20	20.48	101	102	69-122	1	30
Toluene	20	20.47	20	20.7	102	104	80-120	1	30
Xylene (Total)	60	60.05	60	60.43	100	101	80-120	1	30

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
---------------	--------------------------	---------------------------	--------------------	----------------------------	---------------------	------------	-------------	------------------	-----	------------

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/17/2020 13:03

Group Number: 2082191

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F200121AA	Sample number(s): 1235585-1235598 UNSPK: 1235586									
t-Amyl methyl ether	6.52	20	25.87	20	26.39	97	99	66-120	2	30
Benzene	N.D.	20	22.96	20	22.95	115	115	80-120	0	30
t-Butyl alcohol	486.41	200	663.77	200	671.49	89	93	60-130	1	30
Ethyl t-butyl ether	8.46	20	28.98	20	28.99	103	103	68-121	0	30
Ethylbenzene	N.D.	20	20.72	20	21.26	104	106	80-120	3	30
di-Isopropyl ether	2.08	20	24.98	20	25.14	114	115	70-124	1	30
Methyl Tertiary Butyl Ether	129.05	20	146.95	20	147.12	90 (2)	90 (2)	69-122	0	30
Toluene	N.D.	20	21.61	20	22.01	108	110	80-120	2	30
Xylene (Total)	N.D.	60	63.03	60	63.51	105	106	80-120	1	30

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F200121AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1235585	96	99	101	93
1235586	96	93	100	94
1235587	97	100	101	95
1235588	97	99	100	95
1235589	98	99	101	94
1235590	98	98	102	95
1235591	96	100	101	95
1235592	99	100	100	95
1235593	97	99	100	95
1235594	96	97	101	98
1235595	97	98	101	95
1235596	97	95	101	94
1235597	97	100	102	95
1235598	96	95	101	94
Blank	96	98	101	96
LCS	94	101	101	97
LCSD	96	101	102	97
MS	96	102	102	97
MSD	96	100	102	98
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/17/2020 13:03

Group Number: 2082191

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



13459

2082191

1235585-98



CHAIN OF CUSTODY- ExxonMobil Projects

Drop Box - MW

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17605
TEL. 717-656-2300
www.lancasterlabs.com

FED-EX Tracking #
Bottle Order Control #
Lancaster Quote #
Lancaster Job #

Client / Reporting Information
SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects
Requested Analysis ( see TEST CODE sheet)
Matrix Codes

Table with columns: Lancaster Sample #, Field ID / Point of Collection, MEOH/DI Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MEOH, ENCORE, and LAB USE ONLY.

Data Deliverable Information
Comments / Special Instructions
[X] Std. 10 Business Days
[ ] 8 Day RUSH
[ ] 5 Day RUSH
[ ] 3 Day EMERGENCY
[ ] 2 Day EMERGENCY
[ ] 1 Day EMERGENCY

Sample Custody must be documented below each time samples change possession, including courier delivery.
Relinquished by Sampler:
Date Time:
Received By:
Date Time:
Custody Seal #
Intact
Not intact
Preserved where applicable
On Ice
Cooler Temp.



13459

2082191

1235585-9B

**CHAIN OF CUSTODY- ExxonMobil Projects**

Drop Box - MW

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental  
 2425 New Holland Pike, Lancaster, PA 17605  
 TEL. 717-656-2300  
 www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Lancaster Quote #	Lancaster Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects				Requested Analysis ( see TEST CODE sheet)											Matrix Codes		
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix 28077</b>		ExxonMobil Environmental Services Co.				MT, BE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B Full List VOCs + Oxy5 by 8260 Nitrate Nitrogen, Sulfate, Volatile Headspace Hydrocarbon, CO2 by Headspace											DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank
Street Address <b>1745 Dorsey Road, Suite J</b>		Major Project (AFE)		If Project is Direct Bill to Consultant															
City State Zip <b>Hanover, MD 21076</b>		Project Name <b>14258 Jarrettsville Pike</b>		Company Name															
Project Contact E-mail <b>Stacey Schlding</b>		City State <b>Phoenix MD</b>		Street Address															
Phone # Fax # <b>410-850-0404 410-850-0049</b>		ExxonMobil Manager <b>Joe Ogren</b>		City State Zip															
Sampler(s) Name(s) Phone # <b>Charlie Brehm</b>		ExxonMobil Purchase Order #		Attention: PO#															
<b>Direct Bill to Exxon Mobil</b>																			

Lancaster Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection				Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY									
			Date	Time	Sampled by				HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MeOH	ENCORE												
	MW-57 [R]		1/3/20	0930	CB	GW	3	X									X											
	MW-57P		1/3/20	0950	CB	GW	3	X									X											
	MW-58 [R]		1/3/20	1010	CB	GW	3	X									X											
	MW-58R [R]		1/3/20	1030	CB	GW	3	X									X											

<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 8 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PM) / Date: _____ _____ _____ _____	<input checked="" type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format _____ <input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other _____  Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data	Data Deliverable Information Comments / Special Instructions
---	--	--	--	---

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1 <i>[Signature]</i>	Date Time: _____	Received By: 1 <i>[Signature]</i> 1/8/20 14:48	Relinquished By: 2 _____	Date Time: _____	Received By: 2 _____
Relinquished by Sampler: 3 <i>[Signature]</i>	Date Time: 1/8/20 17:39	Received By: 3 _____	Relinquished By: 4 _____	Date Time: _____	Received By: 4 _____
Relinquished by: 5 _____	Date Time: 1/8/20 1739	Received By: 5 <i>[Signature]</i>	Custody Seal #	<input type="checkbox"/> Intact      Preserved where applicable <input type="checkbox"/> Not Intact <input type="checkbox"/> On Ice      Cooler Temp.	



13469 2082191

1235585-98 98 @ 1/9/2020

CHAIN OF CUSTODY- ExxonMobil Projects

Drop Box - MW

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17605
TEL. 717-656-2300
www.lancasterlabs.com

FED-EX Tracking #
Bottle Order Control #
Lancaster Quote #
Lancaster Job #

Client / Reporting Information
SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects
Requested Analysis ( see TEST CODE sheet)
Matrix Codes

Table with columns: Lancaster Sample #, Field ID / Point of Collection, MEQ/ID Vial #, Date, Time, Sampled by, Matrix, # of bottles, HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MEQ, ENCORE, and LAB USE ONLY.

Data Deliverable Information
Comments / Special Instructions
Approved By (Accutest PM) / Date:
[X] Std. 10 Business Days
[ ] 8 Day RUSH
[ ] 5 Day RUSH
[ ] 3 Day EMERGENCY
[ ] 2 Day EMERGENCY
[ ] 1 Day EMERGENCY
[ ] Commercial "A" (Level 1)
[ ] Commercial "B" (Level 2)
[ ] FULLT1 (Level 3+4)
[ ] NJ Reduced
[ ] Commercial "C"
[ ] NYASP Category A
[ ] NYASP Category B
[ ] State Forms
[ ] EDD Format
[ ] Other
Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Sample Custody must be documented below each time samples change possession, including courier delivery.
Relinquished by Sampler:
Date Time:
Received By:
Relinquished By:
Date Time:
Received By:
Custody Seal #
[ ] Intact
[ ] Not Intact
Preserved where applicable
On Ice
Cooler Temp.



Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 01/08/2020  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Nicole Reiff*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	46730060WS	1.3	IR	Wet	Y	Loose	N

**Sample ID Discrepancy Details**

Sample ID on COC	Sample ID on Label	Comments
MW-178B(R)	MW-178C(R)	Time matches
MW-138D	MW-138D(R)	Time matches

**Sample Date/Time Discrepancy Details**

Sample ID on COC	Date/Time on Label	Comments
MW-171C(207.5)	1/02/2020 14:05	
MW-179C(250)	1/02/2020 13:45	

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: January 16, 2020 21:20

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2082511  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-138D Groundwater	01/10/2020 13:30	1236888
MW-168 Groundwater	01/10/2020 12:00	1236889
MW-177 Groundwater	01/10/2020 12:30	1236890
MW-171C Groundwater	01/10/2020 09:40	1236891
MW-176 [R] Groundwater	01/10/2020 13:50	1236892
MW-47C Groundwater	01/10/2020 09:00	1236893
TB19352 Water	01/07/2020	1236894

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236888  
ELLE Group #: 2082511  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/10/2020 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	13	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	4	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	250	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 14:39	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 14:38	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236889  
ELLE Group #: 2082511  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/10/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 15:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 15:00	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236890  
ELLE Group #: 2082511  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/10/2020 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.3 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	5	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 15:23	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 15:22	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-171C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236891  
ELLE Group #: 2082511  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/10/2020 09:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 15:45	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 15:44	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-176 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236892  
ELLE Group #: 2082511  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/10/2020 13:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 16:06	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 16:05	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236893  
ELLE Group #: 2082511  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/10/2020 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 16:28	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 16:27	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** TB19352 Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236894  
ELLE Group #: 2082511  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/07/2020

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 16:50	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 16:49	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/16/2020 21:20

Group Number: 2082511

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: F200161AA	Sample number(s): 1236888-1236894		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F200161AA	Sample number(s): 1236888-1236894								
t-Amyl methyl ether	20	17.51			88		66-120		
Benzene	20	19.46			97		80-120		
t-Butyl alcohol	200	183.28			92		60-130		
Ethyl t-butyl ether	20	19.36			97		68-121		
Ethylbenzene	20	19.23			96		80-120		
di-Isopropyl ether	20	22.04			110		70-124		
Methyl Tertiary Butyl Ether	20	18.54			93		69-122		
Toluene	20	19.54			98		80-120		
Xylene (Total)	60	56.43			94		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/16/2020 21:20

Group Number: 2082511

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys

Batch number: F200161AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1236888	94	98	105	97
1236889	95	98	104	94
1236890	95	98	104	94
1236891	95	100	103	94
1236892	94	99	104	96
1236893	94	98	105	96
1236894	96	99	106	97
Blank	94	98	104	97
LCS	93	100	106	99
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.





Group Number(s): 2082511

Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 01/10/2020  
 Number of Packages: 1      Number of Projects: 2  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCI
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Melvin Sanchez*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)*    *IR = Infrared (Surface Temp)*    *All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT131	1.5	DT	Wet	Y	Loose	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: January 17, 2020 13:22

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2082512  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low  
Attn: Brendan Haffey

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

A previous version of this report was generated on 01/16/2020 21:20.

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/>. Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-185 [R] Groundwater	01/08/2020 13:10	1236895
MW-91 Groundwater	01/08/2020 12:30	1236896
MW-187A [R] Groundwater	01/09/2020 09:20	1236897
MW-187B [R] Groundwater	01/09/2020 09:25	1236898
MW-187C [R] Groundwater	01/09/2020 09:30	1236899

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

REVISED

**Sample Description:** MW-185 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236895  
ELLE Group #: 2082512  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/08/2020 13:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 17:12	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 17:11	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



REVISED

**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236896  
ELLE Group #: 2082512  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/08/2020 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 17:34	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 17:33	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-187A [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236897  
ELLE Group #: 2082512  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/09/2020 09:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	13	1	0.3	1
10945	Benzene	71-43-2	0.3 J	1	0.2	1
10945	t-Butyl alcohol	75-65-0	13 J	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.9 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.8 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	43	1	0.2	1
10945	Toluene	108-88-3	2	1	0.2	1
10945	Xylene (Total)	1330-20-7	20	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 17:56	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 17:55	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-187B [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236898  
ELLE Group #: 2082512  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/09/2020 09:25

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	2	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	59	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.2 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	37	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 18:18	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 18:17	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-187C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1236899  
ELLE Group #: 2082512  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 01/10/2020 17:24  
Collection Date/Time: 01/09/2020 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	2	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	14	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	4	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	280	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200161AA	01/16/2020 18:40	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200161AA	01/16/2020 18:39	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/17/2020 13:22

Group Number: 2082512

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: F200161AA	Sample number(s): 1236895-1236899		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F200161AA	Sample number(s): 1236895-1236899								
t-Amyl methyl ether	20	17.51			88		66-120		
Benzene	20	19.46			97		80-120		
t-Butyl alcohol	200	183.28			92		60-130		
Ethyl t-butyl ether	20	19.36			97		68-121		
Ethylbenzene	20	19.23			96		80-120		
di-Isopropyl ether	20	22.04			110		70-124		
Methyl Tertiary Butyl Ether	20	18.54			93		69-122		
Toluene	20	19.54			98		80-120		
Xylene (Total)	60	56.43			94		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 01/17/2020 13:22

Group Number: 2082512

## Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys

Batch number: F200161AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1236895	96	97	104	95
1236896	94	99	106	96
1236897	94	98	105	96
1236898	93	97	104	95
1236899	93	98	104	97
Blank	94	98	104	97
LCS	93	100	106	99
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

A-13459

G-2082512

S-1236895-99



CHAIN OF CUSTODY- ExxonMobil Projects

Drop Box - MW

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17605
TEL. 717-656-2300
www.lancasterlabs.com

FED-EX Tracking #
Bottle Order Control #
Lancaster Quote #
Lancaster Job #

Client / Reporting Information
SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects
Requested Analysis ( see TEST CODE sheet)
Matrix Codes
Company Name: Kleinfelder
Retail Project (Site Name): Exxon - Phoenix 28077
ExxonMobil Environmental Services Co.
Street Address: 1745 Dorsey Road, Suite J
Major Project (AFE):
If Project is Direct Bill to Consultant
City: Hanover, MD State: Zip: 21076
Project Name: 14258 Jarrettsville Pike
Company Name:
Project Contact: Stacey Schiding E-mail: Phone #: 410-850-0404 410-850-0049
City: Phoenix State: MD Street Address:
ExxonMobil Manager: Joe Ogren City: State: Zip:
ExxonMobil Purchase Order #: Attention: PO#
Direct Bill to Exxon Mobil
Collection table with columns: Date, Time, Sampled by, Matrix, # of bottles, HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MEOH, ENCORE, and Number of preserved Bottles.

Data Deliverable Information
Comments / Special Instructions
Approved By (Accutest PM) / Date:
[X] Std. 10 Business Days
[ ] 8 Day RUSH
[ ] 5 Day RUSH
[ ] 3 Day EMERGENCY
[ ] 2 Day EMERGENCY
[ ] 1 Day EMERGENCY
[ ] Commercial "A" (Level 1)
[ ] Commercial "B" (Level 2)
[ ] FULLT1 (Level 3+4)
[ ] NJ Reduced
[ ] Commercial "C"
[ ] NYASP Category A
[ ] NYASP Category B
[ ] State Forms
[ ] EDD Format
[ ] Other
Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data
Drop Box - MW

Sample Custody must be documented below each time samples change possession, including courier delivery.
Relinquished by Sampler: 1, 3, 5
Date Time:
Received By: John 11/10/2014 5:55, [Signature] 11/10/2020 17:17, [Signature] 11/10/2019 17:24
Custody Seal #
[ ] Intact Preserved where applicable
[ ] Not intact
On Ice [ ] Cooler Temp. 15 C

1724
DLS
Page 10 of 13
120-20
12489



Client: Kleinfelder

### Delivery and Receipt Information

Delivery Method: ELLE Courier      Arrival Date: 01/10/2020  
 Number of Packages: 1      Number of Projects: 2  
 State/Province of Origin: MD

### Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Christopher Stief*

### Samples Chilled Details

Thermometer Types:    *DT = Digital (Temp. Bottle)*    *IR = Infrared (Surface Temp)*    *All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT131	1.5	DT	Wet	Y	Loose	N

### Sample ID Discrepancy Details

Sample ID on COC	Sample ID on Label	Comments
MW-187 [R]	MW-187C [R]	

### Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	Comments
MW-185 [R]	1/08/2020 13:10	
MW-91	1/08/2020 12:30	
MW-187A [R]	1/09/2020 09:20	
MW-187B [R]	1/09/2020 09:25	
MW-187 [R]	1/09/2020 09:30	



# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: February 24, 2020 16:26

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2088097  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-185 [R] Groundwater	02/14/2020 12:00	1260896
MW-91 Groundwater	02/14/2020 12:20	1260897
MW-138D Groundwater	02/14/2020 12:40	1260898
MW-168(235) Groundwater	02/14/2020 13:00	1260899
MW-176 [R] Groundwater	02/14/2020 13:20	1260900
MW-177(187.75) Groundwater	02/14/2020 13:40	1260901
MW-47C(212.5) Groundwater	02/14/2020 14:00	1260902
MW-171C(207.5) Groundwater	02/14/2020 14:20	1260903
Trip Blank Water	02/14/2020	1260904

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-185 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1260896  
ELLE Group #: 2088097  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/14/2020 18:21  
Collection Date/Time: 02/14/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z200511AA	02/20/2020 18:02	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z200511AA	02/20/2020 18:01	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1260897  
ELLE Group #: 2088097  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/14/2020 18:21  
Collection Date/Time: 02/14/2020 12:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z200511AA	02/20/2020 18:27	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z200511AA	02/20/2020 18:26	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1260898  
ELLE Group #: 2088097  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/14/2020 18:21  
Collection Date/Time: 02/14/2020 12:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	9	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	4	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	240	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z200511AA	02/20/2020 18:51	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z200511AA	02/20/2020 18:50	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168(235) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1260899  
ELLE Group #: 2088097  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/14/2020 18:21  
Collection Date/Time: 02/14/2020 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z200511AA	02/20/2020 19:15	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z200511AA	02/20/2020 19:14	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-176 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1260900  
ELLE Group #: 2088097  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/14/2020 18:21  
Collection Date/Time: 02/14/2020 13:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.4 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	2	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z200511AA	02/20/2020 19:40	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z200511AA	02/20/2020 19:39	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177(187.75) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1260901  
ELLE Group #: 2088097  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/14/2020 18:21  
Collection Date/Time: 02/14/2020 13:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z200511AA	02/20/2020 20:04	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z200511AA	02/20/2020 20:03	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C(212.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1260902  
ELLE Group #: 2088097  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/14/2020 18:21  
Collection Date/Time: 02/14/2020 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z200511AA	02/20/2020 20:28	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z200511AA	02/20/2020 20:27	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1260903  
ELLE Group #: 2088097  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/14/2020 18:21  
Collection Date/Time: 02/14/2020 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z200511AA	02/20/2020 20:53	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z200511AA	02/20/2020 20:52	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** Trip Blank Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1260904  
ELLE Group #: 2088097  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/14/2020 18:21  
Collection Date/Time: 02/14/2020

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200512AA	02/20/2020 12:52	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200512AA	02/20/2020 12:51	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 02/24/2020 16:26

Group Number: 2088097

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: F200512AA			
Sample number(s): 1260904			
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: Z200511AA			
Sample number(s): 1260896-1260903			
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F200512AA									
Sample number(s): 1260904									
t-Amyl methyl ether	20	17.35			87		66-120		
Benzene	20	18.88			94		80-120		
t-Butyl alcohol	200	159.76			80		60-130		
Ethyl t-butyl ether	20	17.79			89		68-121		
Ethylbenzene	20	18.14			91		80-120		
di-Isopropyl ether	20	17.14			86		70-124		
Methyl Tertiary Butyl Ether	20	17.91			90		69-122		
Toluene	20	18.42			92		80-120		
Xylene (Total)	60	55.59			93		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 02/24/2020 16:26

Group Number: 2088097

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Z200511AA	Sample number(s): 1260896-1260903								
t-Amyl methyl ether	20	18.57			93		66-120		
Benzene	20	18.86			94		80-120		
t-Butyl alcohol	200	186.46			93		60-130		
Ethyl t-butyl ether	20	19.58			98		68-121		
Ethylbenzene	20	19.17			96		80-120		
di-Isopropyl ether	20	18.15			91		70-124		
Methyl Tertiary Butyl Ether	20	18.97			95		69-122		
Toluene	20	18.98			95		80-120		
Xylene (Total)	60	61.47			102		80-120		

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F200512AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1260904	98	97	97	96
Blank	97	98	98	97
LCS	97	98	98	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: Z200511AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1260896	107	103	101	95
1260897	107	102	102	95
1260898	106	100	101	95
1260899	107	102	102	98
1260900	107	103	101	95
1260901	107	101	102	94
1260902	108	103	101	93
1260903	108	103	101	94
Blank	107	103	101	95
LCS	104	102	102	101
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 02/24/2020 16:26

Group Number: 2088097

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



A-13459

6-2088097

S-1260896-904



CHAIN OF CUSTODY- ExxonMobil Projects Drop Box - MW

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17605
TEL. 717-656-2300
www.lancasterlabs.com

FED-EX Tracking #
Bottle Order Control #
Lancaster Quote #
Lancaster Job #

Client / Reporting Information SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects Requested Analysis ( see TEST CODE sheet) Matrix Codes

Company Name: Kleinfelder
Street Address: 1745 Dorsey Road, Suite J
City: Hanover, MD
Project Contact: Stacey Schiding
ExxonMobil Manager: Joe Ogren
SAMPLER(S) Name(s): Charlie Brehm
SITE NAME: Exxon - Phoenix 28077
Major Project (AFE):
Project Name: 14258 Jarrettsville Pike
ExxonMobil Manager: Joe Ogren
Direct Bill to Exxon Mobil

Table with columns: Lancaster Sample #, Field ID / Point of Collection, MEQH/DI Vial #, Date, Time, Collected by, Matrix, # of bottles, HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MEQH, ENCORE, and LAB USE ONLY. Rows include MW-185 [R], MW-91, MW-138D, MW-168(235), MW-176 [R], MW-177(187.75), MW-47C(212.5), MW-171C(207.5).

Data Deliverable Information Comments / Special Instructions

Approved By (Accutest PM): / Date:
[X] Std. 10 Business Days
[ ] 8 Day RUSH
[ ] 5 Day RUSH
[ ] 3 Day EMERGENCY
[ ] 2 Day EMERGENCY
[ ] 1 Day EMERGENCY
Commercial "A" (Level 1)
Commercial "B" (Level 2)
FULLT1 (Level 3+4)
NJ Reduced
Commercial "C"
NYASP Category A
NYASP Category B
State Forms
EDD Format
Other

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1, 2, 3, 4, 5
Date Time: 2/14/20 1450, 16:52, 1821
Received By: [Signatures]
Custody Seal #
Intact / Not Intact
Preserved where applicable
On Ice / Cooler Temp.



Group Number(s): 2088097

Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 02/14/2020  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Melvin Sanchez*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)*    *IR = Infrared (Surface Temp)*    *All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	46730060WS	0.7	IR	Wet	Y	Loose	N

**Sample ID Discrepancy Details**

Sample ID on COC	Sample ID on Label	Comments
MW-168 (235)	MW-168	
MW-177 (187.75)	MW-177	
MW-47C (212.5)	MW-47C	
MW-171C (207.5)	MW-171C	

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: February 28, 2020 14:46

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2088794  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

A previous version of this report was generated on 02/25/2020 15:14.

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/>. Historical copies may be requested through your project manager.



### SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-38 [R] Groundwater	02/19/2020 12:20	1263952
MW-38B Groundwater	02/19/2020 12:40	1263953
MW-38C [R] Groundwater	02/19/2020 13:00	1263954
MW-38P Groundwater	02/19/2020 13:20	1263955
MW-36 Groundwater	02/19/2020 10:00	1263956
MW-36C (274.5) Groundwater	02/19/2020 10:20	1263957
MW-36P Groundwater	02/19/2020 10:40	1263958
MW-36R [R] Groundwater	02/19/2020 11:00	1263959
MW-110 [R] Groundwater	02/19/2020 11:20	1263960
MW-37 Groundwater	02/19/2020 11:40	1263961
MW-37P Groundwater	02/19/2020 12:00	1263962
MW-184 Groundwater	02/18/2020 14:00	1263963
MW-183 Groundwater	02/18/2020 13:40	1263964
MW-75 Groundwater	02/18/2020 14:20	1263965
MW-74 Groundwater	02/18/2020 14:40	1263966

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

February 28, 2020

Mr. Mark Schaaf  
Kleinfelder  
Suite J  
1745 Dorsey Road  
Hanover, MD 21076

Dear Mr. Mark Schaaf:

I am writing to inform you of revised analytical reports that are being issued for the following:

**Project: 2-8077 - Phoenix, MD (GW)**  
**Group No.: 2088794**

ELLE Sample No.	Client Sample Identification	Collection Date
1263952	MW-38 [R] Groundwater	02/19/2020
1263953	MW-38B Groundwater	02/19/2020
1263954	MW-38C [R] Groundwater	02/19/2020
1263955	MW-38P Groundwater	02/19/2020
1263956	MW-36 Groundwater	02/19/2020
1263957	MW-36C (274.5) Groundwater	02/19/2020
1263958	MW-36P Groundwater	02/19/2020
1263959	MW-36R [R] Groundwater	02/19/2020
1263960	MW-110 [R] Groundwater	02/19/2020
1263961	MW-37 Groundwater	02/19/2020
1263962	MW-37P Groundwater	02/19/2020
1263963	MW-184 Groundwater	02/18/2020
1263964	MW-183 Groundwater	02/18/2020
1263965	MW-75 Groundwater	02/18/2020
1263966	MW-74 Groundwater	02/18/2020

The correction to the data affects the GC/MS Volatiles analysis only.

During an additional review of the data, it was determined the surrogate recoveries for the Matrix Spike associated with the above samples were missing from the QC Summary in the Initial Analysis Report. The missing surrogate recoveries have been added and an updated QC Summary has been generated. All QC is within specification.

The revised analytical report reflects this correction and is enclosed.

Page 2  
Mr. Mark Schaaf  
February 28, 2020

You are a valued client and we apologize for any inconvenience that this incident may have caused. If you have any questions or require further assistance, please call me at 717-656-9332. We appreciate your business and look forward to continuing to serve your laboratory needs.

Sincerely,



Richard R. Samson  
Senior Data Review Specialist  
GC/MS VOA

RRS/jll  
Enclosures

cc: Megan A. Moeller



REVISED

**Sample Description:** MW-38 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263952  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 12:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 12:20	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 12:19	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-38B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263953  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 12:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 13:26	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 13:25	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-38C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1263954  
**ELLE Group #:** 2088794  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 02/20/2020 17:26  
**Collection Date/Time:** 02/19/2020 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.6 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.5 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 13:48	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 13:47	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-38P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263955  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 13:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 14:10	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 14:09	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-36 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263956  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 14:32	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 14:31	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-36C (274.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263957  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 14:55	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 14:54	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-36P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263958  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 10:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	8	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 15:17	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 15:16	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-36R [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263959  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	5	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 15:39	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 15:38	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



REVISED

**Sample Description:** MW-110 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263960  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 11:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 16:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 16:00	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-37 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263961  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 11:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.9 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.3 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 16:23	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 16:22	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-37P Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263962  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/19/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 16:45	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 16:44	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-184 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263963  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/18/2020 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.5 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 17:07	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 17:06	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-183 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263964  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/18/2020 13:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.6 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 17:29	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 17:28	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-75 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263965  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/18/2020 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.4 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 17:51	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 17:50	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

REVISED

**Sample Description:** MW-74 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1263966  
ELLE Group #: 2088794  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 02/20/2020 17:26  
Collection Date/Time: 02/18/2020 14:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200552AA	02/24/2020 18:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200552AA	02/24/2020 18:12	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 02/28/2020 14:46

Group Number: 2088794

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: F200552AA	Sample number(s): 1263952-1263966		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F200552AA	Sample number(s): 1263952-1263966								
t-Amyl methyl ether	20	17.69			88		66-120		
Benzene	20	19.02			95		80-120		
t-Butyl alcohol	200	166.11			83		60-130		
Ethyl t-butyl ether	20	17.64			88		68-121		
Ethylbenzene	20	18.18			91		80-120		
di-Isopropyl ether	20	17.35			87		70-124		
Methyl Tertiary Butyl Ether	20	17.99			90		69-122		
Toluene	20	18.06			90		80-120		
Xylene (Total)	60	54.86			91		80-120		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
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\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 02/28/2020 14:46

Group Number: 2088794

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F200552AA	Sample number(s): 1263952-1263966 UNSPK: 1263952									
t-Amyl methyl ether	N.D.	20	18.36	20	18.62	92	93	66-120	1	30
Benzene	N.D.	20	21.29	20	21.1	106	106	80-120	1	30
t-Butyl alcohol	N.D.	200	163.91	200	165.49	82	83	60-130	1	30
Ethyl t-butyl ether	N.D.	20	18.47	20	18.7	92	94	68-121	1	30
Ethylbenzene	N.D.	20	20.06	20	20.03	100	100	80-120	0	30
di-Isopropyl ether	N.D.	20	18.88	20	18.8	94	94	70-124	0	30
Methyl Tertiary Butyl Ether	N.D.	20	19.15	20	19.12	96	96	69-122	0	30
Toluene	N.D.	20	20.21	20	20.4	101	102	80-120	1	30
Xylene (Total)	N.D.	60	61.14	60	60.49	102	101	80-120	1	30

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F200552AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1263952	98	96	96	96
1263953	98	99	95	95
1263954	99	98	96	96
1263955	96	96	95	95
1263956	98	98	98	97
1263957	100	98	96	96
1263958	98	98	97	95
1263959	96	96	97	96
1263960	99	100	96	97
1263961	98	99	95	95
1263962	98	98	97	97
1263963	97	100	97	97
1263964	99	98	96	95
1263965	97	98	97	96
1263966	98	96	96	97
Blank	98	98	97	97
LCS	97	101	99	99
MS	98	99	97	99
MSD	97	100	97	98
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 02/28/2020 14:46

Group Number: 2088794

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.









Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Date:	<u>02/20/2020</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>MD</u>		

**Arrival Condition Summary**

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Melvin Sanchez*

**Samples Chilled Details**

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

<u>Cooler #</u>	<u>Matrix</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	Water	DT131	1.1	DT	Wet	Y	Loose	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.





## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: March 23, 2020 13:19

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2092237  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-45[R] Groundwater	03/10/2020 11:00	1279848
MW-45R[R] Groundwater	03/10/2020 11:20	1279849
MW-139 Groundwater	03/10/2020 09:40	1279850
MW-144 Groundwater	03/10/2020 10:00	1279851
MW-151[R] Groundwater	03/10/2020 10:20	1279852
MW-152[R] Groundwater	03/10/2020 10:40	1279853
MW-91D Groundwater	03/10/2020 14:30	1279854
MW-185 [R] Groundwater	03/11/2020 09:40	1279855
MW-91 Groundwater	03/11/2020 10:00	1279856
MW-138D Groundwater	03/11/2020 10:20	1279857
MW-168(235) Groundwater	03/11/2020 10:40	1279858
MW-176 [R] Groundwater	03/11/2020 11:00	1279859
MW-177(187.75) Groundwater	03/11/2020 11:20	1279860
MW-47C(212.5) Groundwater	03/11/2020 11:40	1279861
MW-171C(207.5) Groundwater	03/11/2020 12:00	1279862

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-45[R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279848  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/10/2020 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	2	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.7 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	30	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200811AA	03/21/2020 13:37	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200811AA	03/21/2020 13:36	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-45R[R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279849  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/10/2020 11:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	2	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.6 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	28	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200811AA	03/21/2020 13:59	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200811AA	03/21/2020 13:58	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-139 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279850  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/10/2020 09:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.3 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.3 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200811AA	03/21/2020 14:21	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200811AA	03/21/2020 14:20	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-144 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279851  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/10/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200811AA	03/21/2020 14:43	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200811AA	03/21/2020 14:42	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-151[R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279852  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/10/2020 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200811AA	03/21/2020 15:05	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200811AA	03/21/2020 15:04	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-152[R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279853  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/10/2020 10:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200811AA	03/21/2020 15:27	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200811AA	03/21/2020 15:26	Anita M Dale	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-91D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279854  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/10/2020 14:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200792AA	03/19/2020 14:22	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200792AA	03/19/2020 14:21	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279855  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/11/2020 09:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200792AA	03/19/2020 14:44	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200792AA	03/19/2020 14:43	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279856  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/11/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200792AA	03/19/2020 15:50	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200792AA	03/19/2020 15:49	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279857  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/11/2020 10:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	5	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	3	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	170	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200792AA	03/19/2020 16:12	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200792AA	03/19/2020 16:11	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168(235) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279858  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/11/2020 10:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200792AA	03/19/2020 16:34	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200792AA	03/19/2020 16:33	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-176 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279859  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/11/2020 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.3 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.8 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200792AA	03/19/2020 16:56	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200792AA	03/19/2020 16:55	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177(187.75) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279860  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/11/2020 11:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200792AA	03/19/2020 17:18	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200792AA	03/19/2020 17:17	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C(212.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279861  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/11/2020 11:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200792AA	03/19/2020 17:40	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200792AA	03/19/2020 17:39	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1279862  
ELLE Group #: 2092237  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 03/12/2020 17:42  
Collection Date/Time: 03/11/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F200792AA	03/19/2020 18:02	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F200792AA	03/19/2020 18:01	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 03/23/2020 13:19

Group Number: 2092237

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: F200792AA	Sample number(s): 1279854-1279862		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: F200811AA	Sample number(s): 1279848-1279853		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F200792AA	Sample number(s): 1279854-1279862								
t-Amyl methyl ether	20	17.13			86		66-120		
Benzene	20	19.13			96		80-120		
t-Butyl alcohol	200	172.7			86		60-130		
Ethyl t-butyl ether	20	17.55			88		68-121		
Ethylbenzene	20	17.76			89		80-120		
di-Isopropyl ether	20	17.98			90		70-124		
Methyl Tertiary Butyl Ether	20	17.69			88		69-122		
Toluene	20	18.14			91		80-120		
Xylene (Total)	60	54.2			90		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 03/23/2020 13:19

Group Number: 2092237

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F200811AA	Sample number(s): 1279848-1279853								
t-Amyl methyl ether	20	18.92			95		66-120		
Benzene	20	21.24			106		80-120		
t-Butyl alcohol	200	179.95			90		60-130		
Ethyl t-butyl ether	20	20.19			101		68-121		
Ethylbenzene	20	19.82			99		80-120		
di-Isopropyl ether	20	19.9			99		70-124		
Methyl Tertiary Butyl Ether	20	19.52			98		69-122		
Toluene	20	20.28			101		80-120		
Xylene (Total)	60	60.13			100		80-120		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F200792AA	Sample number(s): 1279854-1279862 UNSPK: 1279855									
t-Amyl methyl ether	N.D.	20	18.46	20	18.48	92	92	66-120	0	30
Benzene	N.D.	20	21.93	20	22.4	110	112	80-120	2	30
t-Butyl alcohol	N.D.	200	172.65	200	173.82	86	87	60-130	1	30
Ethyl t-butyl ether	N.D.	20	19.34	20	19.63	97	98	68-121	2	30
Ethylbenzene	N.D.	20	20.07	20	20.14	100	101	80-120	0	30
di-Isopropyl ether	N.D.	20	19.72	20	20.13	99	101	70-124	2	30
Methyl Tertiary Butyl Ether	N.D.	20	19.25	20	19.51	96	98	69-122	1	30
Toluene	N.D.	20	20.62	20	20.76	103	104	80-120	1	30
Xylene (Total)	N.D.	60	60.74	60	60.7	101	101	80-120	0	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 03/23/2020 13:19

Group Number: 2092237

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F200792AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1279854	96	97	96	96
1279855	96	95	96	95
1279856	97	99	96	96
1279857	96	99	98	97
1279858	96	96	96	96
1279859	98	99	96	94
1279860	96	98	97	97
1279861	97	96	96	95
1279862	95	96	96	97
Blank	96	96	98	97
LCS	94	98	97	97
MS	95	99	98	98
MSD	95	100	96	98
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F200811AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1279848	103	96	98	97
1279849	102	98	98	99
1279850	103	99	98	98
1279851	103	95	97	97
1279852	103	100	97	97
1279853	103	97	97	97
Blank	102	98	98	95
LCS	100	99	98	98
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.







Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 03/13/2020  
 Number of Packages: 1      Number of Projects: 2

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Tamara Lugardo*

**Samples Chilled Details**

Thermometer Types:    DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	46730060WS	2.3	IR	Wet	Y	Loose	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: April 06, 2020 21:38

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2094328  
PO Number: 51141-335196  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-56C(100-110) Groundwater	03/30/2020 13:30	1290475
MW-56C(310-315) Groundwater	03/30/2020 13:35	1290476
MW-56C(320-325) Groundwater	03/30/2020 13:40	1290477
MW-91C [R] Groundwater	03/30/2020 10:35	1290478
MW-73C Groundwater	03/30/2020 14:00	1290479
MW-1 Groundwater	03/30/2020 14:40	1290480
MW-1A [R] Groundwater	03/30/2020 15:00	1290481
MW-21 Groundwater	03/30/2020 15:20	1290482
MW-27B Groundwater	03/31/2020 10:45	1290483

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-56C(100-110) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1290475  
ELLE Group #: 2094328  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 03/31/2020 17:39  
Collection Date/Time: 03/30/2020 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D200931AA	04/02/2020 18:17	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D200931AA	04/02/2020 18:16	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-56C(310-315) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1290476  
ELLE Group #: 2094328  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/31/2020 17:39  
Collection Date/Time: 03/30/2020 13:35

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D200931AA	04/02/2020 09:10	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D200931AA	04/02/2020 09:09	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-56C(320-325) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1290477  
ELLE Group #: 2094328  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 03/31/2020 17:39  
Collection Date/Time: 03/30/2020 13:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D200932AA	04/02/2020 09:44	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D200932AA	04/02/2020 09:43	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1290478  
ELLE Group #: 2094328  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/31/2020 17:39  
Collection Date/Time: 03/30/2020 10:35

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D200932AA	04/02/2020 10:57	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D200932AA	04/02/2020 10:56	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-73C Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1290479  
ELLE Group #: 2094328  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/31/2020 17:39  
Collection Date/Time: 03/30/2020 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	7	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	600	25	10	1
10945	Ethyl t-butyl ether	637-92-3	12	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	3	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	110	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D200932AA	04/02/2020 11:21	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D200932AA	04/02/2020 11:20	Anita M Dale	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-1 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1290480  
ELLE Group #: 2094328  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/31/2020 17:39  
Collection Date/Time: 03/30/2020 14:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D200932AA	04/02/2020 11:45	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D200932AA	04/02/2020 11:44	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-1A [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1290481  
ELLE Group #: 2094328  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/31/2020 17:39  
Collection Date/Time: 03/30/2020 15:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D200932AA	04/02/2020 12:26	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D200932AA	04/02/2020 12:25	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-21 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1290482  
ELLE Group #: 2094328  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 03/31/2020 17:39  
Collection Date/Time: 03/30/2020 15:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D200932AA	04/02/2020 12:50	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D200932AA	04/02/2020 12:49	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-27B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1290483  
ELLE Group #: 2094328  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 03/31/2020 17:39  
Collection Date/Time: 03/31/2020 10:45

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.3 J	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	5	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D200932AA	04/02/2020 13:14	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D200932AA	04/02/2020 13:13	Anita M Dale	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 04/06/2020 21:38

Group Number: 2094328

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: D200931AA	Sample number(s): 1290475-1290476		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: D200932AA	Sample number(s): 1290477-1290483		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D200931AA	Sample number(s): 1290475-1290476								
t-Amyl methyl ether	20	17.59			88		66-120		
Benzene	20	18.42			92		80-120		
t-Butyl alcohol	200	168.65			84		60-130		
Ethyl t-butyl ether	20	16.96			85		68-121		
Ethylbenzene	20	17.46			87		80-120		
di-Isopropyl ether	20	17.02			85		70-124		
Methyl Tertiary Butyl Ether	20	16.96			85		69-122		
Toluene	20	17.61			88		80-120		
Xylene (Total)	60	53.07			88		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 04/06/2020 21:38

Group Number: 2094328

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D200932AA	Sample number(s): 1290477-1290483								
t-Amyl methyl ether	20	19.75			99		66-120		
Benzene	20	19.49			97		80-120		
t-Butyl alcohol	200	179.61			90		60-130		
Ethyl t-butyl ether	20	18.5			92		68-121		
Ethylbenzene	20	18.64			93		80-120		
di-Isopropyl ether	20	18.46			92		70-124		
Methyl Tertiary Butyl Ether	20	18.82			94		69-122		
Toluene	20	18.87			94		80-120		
Xylene (Total)	60	57.97			97		80-120		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D200932AA	Sample number(s): 1290477-1290483 UNSPK: 1290477									
t-Amyl methyl ether	N.D.	20	18.44	20	18.1	92	90	66-120	2	30
Benzene	N.D.	20	19.22	20	19.69	96	98	80-120	2	30
t-Butyl alcohol	N.D.	200	170.25	200	174.83	85	87	60-130	3	30
Ethyl t-butyl ether	N.D.	20	17.31	20	17.64	87	88	68-121	2	30
Ethylbenzene	N.D.	20	18.71	20	18.63	94	93	80-120	0	30
di-Isopropyl ether	N.D.	20	17.35	20	17.57	87	88	70-124	1	30
Methyl Tertiary Butyl Ether	N.D.	20	17.21	20	17.99	86	90	69-122	4	30
Toluene	N.D.	20	18.59	20	18.68	93	93	80-120	0	30
Xylene (Total)	N.D.	60	57.19	60	56.87	95	95	80-120	1	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 04/06/2020 21:38

Group Number: 2094328

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D200931AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1290475	98	97	98	93
1290476	99	96	98	93
Blank	98	97	98	95
LCS	100	98	98	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D200932AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1290477	98	100	100	95
1290478	97	94	99	94
1290479	98	94	98	94
1290480	95	95	97	94
1290481	99	96	98	93
1290482	99	97	97	94
1290483	98	96	98	94
Blank	100	97	98	92
LCS	96	99	99	98
MS	97	100	100	98
MSD	95	98	98	96
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.







Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Date:	<u>03/31/2020</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>MD</u>		

**Arrival Condition Summary**

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Melvin Sanchez*

**Samples Chilled Details**

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

<u>Cooler #</u>	<u>Matrix</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	Water	DT131	0.4	DT	Wet	Y	Loose	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: April 22, 2020 21:57

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2096500  
PO Number: 51141-339876  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-19 (R) Groundwater	04/14/2020 15:10	1299867
MW-22 (R) Groundwater	04/14/2020 14:50	1299868
MW-45 (R) Groundwater	04/15/2020 09:00	1299869
MW-178C (R) Groundwater	04/15/2020 09:30	1299870
MW-138D (R) Groundwater	04/15/2020 10:00	1299871

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-19 (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1299867  
ELLE Group #: 2096500  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/16/2020 17:16  
Collection Date/Time: 04/14/2020 15:10

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	Z201122AA	04/21/2020 11:28	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z201122AA	04/21/2020 11:27	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-22 (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1299868  
ELLE Group #: 2096500  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/16/2020 17:16  
Collection Date/Time: 04/14/2020 14:50

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201121AA	04/21/2020 17:54	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201121AA	04/21/2020 17:53	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-45 (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1299869  
ELLE Group #: 2096500  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/16/2020 17:16  
Collection Date/Time: 04/15/2020 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	1 J	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.6 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	17	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201121AA	04/21/2020 18:16	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201121AA	04/21/2020 18:15	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-178C (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1299870  
ELLE Group #: 2096500  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/16/2020 17:16  
Collection Date/Time: 04/15/2020 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	7	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	560	25	10	1
10945	Ethyl t-butyl ether	637-92-3	14	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	4	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	120	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201121AA	04/21/2020 18:38	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201121AA	04/21/2020 18:37	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1299871  
ELLE Group #: 2096500  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/16/2020 17:16  
Collection Date/Time: 04/15/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.4 J	1	0.3	1
10945	Benzene	71-43-2	0.7 J	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.4 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201121AA	04/21/2020 19:00	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201121AA	04/21/2020 18:59	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 04/22/2020 21:57

Group Number: 2096500

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: F201121AA	Sample number(s): 1299868-1299871		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: Z201122AA	Sample number(s): 1299867		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F201121AA	Sample number(s): 1299868-1299871								
t-Amyl methyl ether	20	17.52			88		66-120		
Benzene	20	20.41			102		80-120		
t-Butyl alcohol	200	178.75			89		60-130		
Ethyl t-butyl ether	20	19.4			97		68-121		
Ethylbenzene	20	19.2			96		80-120		
di-Isopropyl ether	20	20.06			100		70-124		
Methyl Tertiary Butyl Ether	20	18.96			95		69-122		
Toluene	20	19.83			99		80-120		
Xylene (Total)	60	57.76			96		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 04/22/2020 21:57

Group Number: 2096500

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Z201122AA	Sample number(s): 1299867								
t-Amyl methyl ether	20	17.11			86		66-120		
Benzene	20	18.27			91		80-120		
t-Butyl alcohol	200	174.28			87		60-130		
Ethyl t-butyl ether	20	18.16			91		68-121		
Ethylbenzene	20	17.71			89		80-120		
di-Isopropyl ether	20	18.15			91		70-124		
Methyl Tertiary Butyl Ether	20	18.69			93		69-122		
Toluene	20	17.89			89		80-120		
Xylene (Total)	60	54.2			90		80-120		

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F201121AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1299868	96	96	100	97
1299869	95	96	100	98
1299870	97	97	100	98
1299871	96	94	101	97
Blank	95	96	101	96
LCS	95	95	100	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: Z201122AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1299867	100	98	99	97
Blank	99	97	99	97
LCS	100	101	100	99
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.





Client: Kleinfelder

**Exxon - Phoenix**

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 04/16/2020  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by William Mathers*

**Samples Chilled Details: Exxon - Phoenix**

Thermometer Types:    *DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT42-01	1.2	DT	Wet	Y	Loose	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.





## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: April 28, 2020 19:59

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2096791  
PO Number: 51141-339876  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-91 Groundwater	04/16/2020 14:20	1301603
MW-177(187.75) Groundwater	04/16/2020 15:20	1301604
MW-47C(212.5) Groundwater	04/16/2020 15:40	1301605
MW-168(235) Groundwater	04/16/2020 14:40	1301606
MW-182(200) Groundwater	04/16/2020 08:00	1301607
MW-185(R) Groundwater	04/16/2020 14:00	1301608
MW-176(R) Groundwater	04/16/2020 15:00	1301609
MW-171C(207.5) Groundwater	04/16/2020 16:00	1301610
MW-184(R) Groundwater	04/16/2020 08:40	1301611
MW-183(R) Groundwater	04/16/2020 08:20	1301612
MW-63 Groundwater	04/17/2020 10:00	1301613
MW-82R(R) Groundwater	04/17/2020 12:00	1301614
MW-82B(R) Groundwater	04/17/2020 11:40	1301615
MW-82D(R) Groundwater	04/17/2020 12:20	1301616
MW-89(R) Groundwater	04/17/2020 11:00	1301617
MW-169(R) Groundwater	04/17/2020 13:20	1301618
MW-170(R) Groundwater	04/17/2020 13:00	1301619
MW-178B Groundwater	04/16/2020 12:00	1301620

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301603  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 14:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 14:36	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 14:35	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177(187.75) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301604  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 15:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 15:00	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 14:59	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C(212.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301605  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 15:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 15:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 15:23	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168(235) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301606  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 14:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 15:48	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 15:47	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-182(200) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301607  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 08:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	4	1	0.3	1
10945	Benzene	71-43-2	0.3 J	1	0.2	1
10945	t-Butyl alcohol	75-65-0	37	25	10	1
10945	Ethyl t-butyl ether	637-92-3	2	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.6 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	86	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 16:12	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 16:11	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301608  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 16:36	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 16:35	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-176(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301609  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 15:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.6 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	10	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 17:00	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 16:59	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301610  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 16:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 17:24	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 17:23	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-184(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301611  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 08:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.4 J	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	1	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	0.3 J	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	24	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 17:48	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 17:47	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-183(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301612  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 08:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	2	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	290	25	10	1
10945	Ethyl t-butyl ether	637-92-3	8	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	2	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	66	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 18:12	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 18:11	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-63 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301613  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/17/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201141AA	04/23/2020 18:36	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201141AA	04/23/2020 18:35	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-82R(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301614  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/17/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201151AA	04/24/2020 12:49	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201151AA	04/24/2020 12:48	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-82B(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301615  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/17/2020 11:40

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	14	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201151AA	04/24/2020 13:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201151AA	04/24/2020 13:10	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-82D(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301616  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/17/2020 12:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	17	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201151AA	04/24/2020 13:33	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201151AA	04/24/2020 13:32	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-89(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301617  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/17/2020 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201151AA	04/24/2020 13:55	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201151AA	04/24/2020 13:54	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-169(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301618  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/17/2020 13:20

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201151AA	04/24/2020 14:17	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201151AA	04/24/2020 14:16	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-170(R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301619  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/17/2020 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201151AA	04/24/2020 14:39	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201151AA	04/24/2020 14:38	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-178B Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1301620  
ELLE Group #: 2096791  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/20/2020 17:03  
Collection Date/Time: 04/16/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	0.5 J	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	15	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201151AA	04/24/2020 15:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201151AA	04/24/2020 15:00	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 04/28/2020 19:59

Group Number: 2096791

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: D201141AA	Sample number(s): 1301603-1301613		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: F201151AA	Sample number(s): 1301614-1301620		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D201141AA	Sample number(s): 1301603-1301613								
t-Amyl methyl ether	20	17.68			88		66-120		
Benzene	20	19.12			96		80-120		
t-Butyl alcohol	200	180.29			90		60-130		
Ethyl t-butyl ether	20	17.66			88		68-121		
Ethylbenzene	20	18.55			93		80-120		
di-Isopropyl ether	20	17.55			88		70-124		
Methyl Tertiary Butyl Ether	20	18.07			90		69-122		
Toluene	20	19.12			96		80-120		
Xylene (Total)	60	56.62			94		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 04/28/2020 19:59

Group Number: 2096791

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F201151AA	Sample number(s): 1301614-1301620								
t-Amyl methyl ether	20	18.37			92		66-120		
Benzene	20	21.15			106		80-120		
t-Butyl alcohol	200	178.95			89		60-130		
Ethyl t-butyl ether	20	20.31			102		68-121		
Ethylbenzene	20	19.79			99		80-120		
di-Isopropyl ether	20	20.96			105		70-124		
Methyl Tertiary Butyl Ether	20	19.83			99		69-122		
Toluene	20	20.49			102		80-120		
Xylene (Total)	60	59.43			99		80-120		

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D201141AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1301603	100	95	100	93
1301604	100	99	99	93
1301605	98	95	99	93
1301606	101	98	102	95
1301607	102	98	101	94
1301608	99	98	100	92
1301609	103	97	100	93
1301610	100	97	102	96
1301611	100	97	100	92
1301612	100	97	99	92
1301613	103	98	99	92
Blank	100	97	102	94
LCS	101	101	101	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F201151AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1301614	97	97	99	96
1301615	100	97	100	97
1301616	97	96	100	99

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 04/28/2020 19:59

Group Number: 2096791

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F201151AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1301617	99	98	99	97
1301618	98	96	99	97
1301619	98	95	98	96
1301620	97	95	97	96
Blank	97	94	99	98
LCS	96	99	99	100
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.









Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 04/20/2020  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Cory Jeremiah*

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.*

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	46730060WS	3.2	IR	Wet	Y	Loose	N

**Sample Date/Time Discrepancy Details**

Sample ID on COC	Date/Time on Label	Comments
MW-182(200)	4/16/2020 08:00	

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: May 04, 2020 09:20

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2097233  
PO Number: 51141-339876  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-91 Groundwater	04/21/2020 11:00	1303634
MW-91C (R) Groundwater	04/21/2020 14:30	1303635
MW-138D Groundwater	04/21/2020 11:30	1303636
MW-168(235) Groundwater	04/21/2020 12:00	1303637
MW-176 (R) Groundwater	04/21/2020 12:30	1303638
MW-177(187.75) Groundwater	04/21/2020 09:00	1303639
MW-185 Groundwater	04/21/2020 14:00	1303640
MW-47C(212.5) Groundwater	04/21/2020 08:30	1303641
MW-171C(207.5) Groundwater	04/21/2020 08:00	1303642
MW-91 Groundwater	04/23/2020 09:00	1303643
MW-91C (R) Groundwater	04/23/2020 09:30	1303644
MW-138D Groundwater	04/23/2020 10:00	1303645
MW-168(235) Groundwater	04/23/2020 10:30	1303646
MW-176 (R) Groundwater	04/23/2020 11:00	1303647
MW-177(187.75) Groundwater	04/23/2020 11:30	1303648
MW-185 Groundwater	04/23/2020 12:00	1303649
MW-47C(212.5) Groundwater	04/23/2020 12:30	1303650
MW-171C(207.5) Groundwater	04/23/2020 13:00	1303651
MW-91 Groundwater	04/22/2020 09:30	1303652
MW-91C (R) Groundwater	04/22/2020 09:00	1303653
MW-138D Groundwater	04/22/2020 10:30	1303654
MW-168(235) Groundwater	04/22/2020 11:00	1303655
MW-176 (R) Groundwater	04/22/2020 11:30	1303656
MW-177(187.75) Groundwater	04/22/2020 12:00	1303657
MW-185 Groundwater	04/22/2020 10:00	1303658
MW-47C(212.5) Groundwater	04/22/2020 12:30	1303659
MW-171C(207.5) Groundwater	04/22/2020 13:00	1303660
MW-183 (R) Groundwater	04/21/2020 13:00	1303661
MW-184 (R) Groundwater	04/21/2020 13:30	1303662
Trip Blank Water	04/21/2020	1303663

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303634  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 09:23	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 09:22	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91C (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1303635  
**ELLE Group #:** 2097233  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submittal Date/Time:** 04/23/2020 17:18  
**Collection Date/Time:** 04/21/2020 14:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>			<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1
<b>GC Miscellaneous</b>			<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	
08097	CO2 by Headspace	124-38-9	N.D.	12,000	2,600	1
07105	Methane	74-82-8	N.D.	5.0	3.0	1
<b>Wet Chemistry</b>			<b>EPA 300.0</b>	<b>mg/l</b>	<b>mg/l</b>	
00368	Nitrate Nitrogen	14797-55-8	4.0	0.50	0.25	5
The holding time was not met. The sample was submitted to the laboratory outside of the holding time.						
00228	Sulfate	14808-79-8	20.8	5.0	1.5	5

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 09:45	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 09:44	Alexander D Sechrist	1
08097	CO2 by Headspace	RSKSOP-175 modified	1	201150002A	04/24/2020 12:14	Esther Kathryn Lane	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	201150001A	04/24/2020 13:25	Esther Kathryn Lane	1
00368	Nitrate Nitrogen	EPA 300.0	1	20115667113A	04/24/2020 21:57	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	20115667113A	04/24/2020 21:57	Drew M Gerhart	5

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303636  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	3	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	190	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 10:51	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 10:50	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168(235) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303637  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 11:13	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 11:12	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-176 (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303638  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.8 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 11:35	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 11:34	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177(187.75) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303639  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 11:56	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 11:55	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

**ExxonMobil c/o Kleinfelder**  
**ELLE Sample #:** GW 1303640  
**ELLE Group #:** 2097233  
**Matrix:** Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

**Submission Date/Time:** 04/23/2020 17:18  
**Collection Date/Time:** 04/21/2020 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1
<b>GC Miscellaneous</b>		<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08097	CO2 by Headspace	124-38-9	N.D.	12,000	2,600	1
07105	Methane	74-82-8	3.2 J	5.0	3.0	1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00368	Nitrate Nitrogen	14797-55-8	1.1	0.50	0.25	5
The holding time was not met. The sample was submitted to the laboratory outside of the holding time.						
00228	Sulfate	14808-79-8	N.D.	5.0	1.5	5

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 12:18	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 12:17	Alexander D Sechrist	1
08097	CO2 by Headspace	RSKSOP-175 modified	1	201150002A	04/24/2020 12:21	Esther Kathryn Lane	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	201150001A	04/24/2020 13:43	Esther Kathryn Lane	1
00368	Nitrate Nitrogen	EPA 300.0	1	20115667113B	04/24/2020 23:22	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	20115667113B	04/24/2020 23:22	Drew M Gerhart	5

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C(212.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303641  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020 08:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 12:40	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 12:39	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303642  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020 08:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 13:02	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 13:01	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303643  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/23/2020 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 13:23	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 13:22	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-91C (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303644  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/23/2020 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 13:45	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 13:44	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303645  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/23/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	4	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	3	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	190	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 14:06	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 14:05	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168(235) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303646  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/23/2020 10:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 14:28	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 14:27	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-176 (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303647  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/23/2020 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.8 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 14:50	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 14:49	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177(187.75) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303648  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/23/2020 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 15:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 15:10	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303649  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/23/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 15:33	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 15:32	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C(212.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303650  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/23/2020 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 15:55	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 15:54	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303651  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/23/2020 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 16:17	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 16:16	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303652  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/22/2020 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 16:39	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 16:38	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91C (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303653  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/22/2020 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201211AA	04/30/2020 17:01	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201211AA	04/30/2020 17:00	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303654  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/22/2020 10:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	4	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	3	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	170	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 09:32	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 09:31	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168(235) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303655  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/22/2020 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 09:54	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 09:53	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-176 (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303656  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/22/2020 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.8 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 11:00	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 10:59	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177(187.75) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303657  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/22/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 11:22	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 11:21	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303658  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/22/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 11:44	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 11:43	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C(212.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303659  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/22/2020 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 12:06	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 12:05	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303660  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/22/2020 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 12:28	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 12:27	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-183 (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303661  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC Miscellaneous</b>		<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08097	CO2 by Headspace	124-38-9	N.D.	12,000	2,600	1
07105	Methane	74-82-8	N.D.	5.0	3.0	1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00368	Nitrate Nitrogen	14797-55-8	1.9	0.50	0.25	5
The holding time was not met. The sample was submitted to the laboratory outside of the holding time.						
00228	Sulfate	14808-79-8	21.6	5.0	1.5	5

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08097	CO2 by Headspace	RSKSOP-175 modified	1	201150002A	04/24/2020 12:29	Esther Kathryn Lane	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	201150001A	04/24/2020 14:01	Esther Kathryn Lane	1
00368	Nitrate Nitrogen	EPA 300.0	1	20115667213A	04/25/2020 00:13	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	20115667213A	04/25/2020 00:13	Drew M Gerhart	5

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-184 (R) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303662  
ELLE Group #: 2097233  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC Miscellaneous</b>		<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08097	CO2 by Headspace	124-38-9	N.D.	12,000	2,600	1
07105	Methane	74-82-8	N.D.	5.0	3.0	1
<b>Wet Chemistry</b>		<b>EPA 300.0</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00368	Nitrate Nitrogen	14797-55-8	1.5	0.50	0.25	5
00228	Sulfate	14808-79-8	33.0	5.0	1.5	5

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08097	CO2 by Headspace	RSKSOP-175 modified	1	201150002A	04/24/2020 12:37	Esther Kathryn Lane	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	201150001A	04/24/2020 14:20	Esther Kathryn Lane	1
00368	Nitrate Nitrogen	EPA 300.0	1	20115667217A	04/25/2020 05:15	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	20115667217A	04/25/2020 05:15	Drew M Gerhart	5

\*=This limit was used in the evaluation of the final result

**Sample Description:** Trip Blank Water  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1303663  
ELLE Group #: 2097233  
Matrix: Water

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/23/2020 17:18  
Collection Date/Time: 04/21/2020

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

CAT No.	Analysis Name	Method	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC Miscellaneous</b>		<b>RSKSOP-175 modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
07105	Methane	74-82-8	N.D.	5.0	3.0	1

Preservation requirements were not met. An unpreserved vial was submitted for analysis. The pH at the time of analysis was 7.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 12:50	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 12:49	Alexander D Sechrist	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	201150001A	04/24/2020 14:37	Esther Kathryn Lane	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 05/04/2020 09:20

Group Number: 2097233

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result	LOQ**	MDL
	ug/l	ug/l	ug/l
Batch number: F201211AA	Sample number(s): 1303634-1303653		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: F201212AA	Sample number(s): 1303654-1303660,1303663		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: 201150001A	Sample number(s): 1303635,1303640,1303661-1303663		
Methane	N.D.	5.0	3.0
Batch number: 201150002A	Sample number(s): 1303635,1303640,1303661-1303662		
CO2 by Headspace	N.D.	12,000	2,600
	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>
Batch number: 20115667113A	Sample number(s): 1303635		
Nitrate Nitrogen	N.D.	0.10	0.050
Sulfate	N.D.	1.0	0.30
Batch number: 20115667113B	Sample number(s): 1303640		
Nitrate Nitrogen	N.D.	0.10	0.050
Sulfate	N.D.	1.0	0.30
Batch number: 20115667213A	Sample number(s): 1303661		
Nitrate Nitrogen	N.D.	0.10	0.050
Sulfate	N.D.	1.0	0.30
Batch number: 20115667217A	Sample number(s): 1303662		
Nitrate Nitrogen	N.D.	0.10	0.050

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 05/04/2020 09:20

Group Number: 2097233

### Method Blank (continued)

Analysis Name	Result	LOQ**	MDL
	mg/l	mg/l	mg/l
Sulfate	N.D.	1.0	0.30

### LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: F201211AA	Sample number(s): 1303634-1303653								
t-Amyl methyl ether	20	18.55			93		66-120		
Benzene	20	20.85			104		80-120		
t-Butyl alcohol	200	166.47			83		60-130		
Ethyl t-butyl ether	20	20.29			101		68-121		
Ethylbenzene	20	18.95			95		80-120		
di-Isopropyl ether	20	20.49			102		70-124		
Methyl Tertiary Butyl Ether	20	19.7			98		69-122		
Toluene	20	19.52			98		80-120		
Xylene (Total)	60	56.29			94		80-120		
Batch number: F201212AA	Sample number(s): 1303654-1303660,1303663								
t-Amyl methyl ether	20	18.26			91		66-120		
Benzene	20	20.97			105		80-120		
t-Butyl alcohol	200	161.79			81		60-130		
Ethyl t-butyl ether	20	19.52			98		68-121		
Ethylbenzene	20	18.53			93		80-120		
di-Isopropyl ether	20	20.03			100		70-124		
Methyl Tertiary Butyl Ether	20	19.15			96		69-122		
Toluene	20	19.25			96		80-120		
Xylene (Total)	60	56.41			94		80-120		
Batch number: 201150001A	Sample number(s): 1303635,1303640,1303661-1303663								
Methane	59.42	58.08			98		85-115		
Batch number: 201150002A	Sample number(s): 1303635,1303640,1303661-1303662								
CO2 by Headspace	35820	35085.32			98		72-116		
Batch number: 20115667113A	Sample number(s): 1303635								
Nitrate Nitrogen	0.750	0.713			95		90-110		
Sulfate	7.50	8.02			107		90-110		
Batch number: 20115667113B	Sample number(s): 1303640								
Nitrate Nitrogen	0.750	0.713			95		90-110		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 05/04/2020 09:20

Group Number: 2097233

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Sulfate	7.50	8.02			107		90-110		
Batch number: 20115667213A	Sample number(s): 1303661								
Nitrate Nitrogen	0.750	0.712			95		90-110		
Sulfate	7.50	7.97			106		90-110		
Batch number: 20115667217A	Sample number(s): 1303662								
Nitrate Nitrogen	0.750	0.765			102		90-110		
Sulfate	7.50	7.84			105		90-110		

### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F201211AA	Sample number(s): 1303634-1303653 UNSPK: 1303635									
t-Amyl methyl ether	N.D.	20	18.69	20	18.68	93	93	66-120	0	30
Benzene	N.D.	20	22.11	20	22.92	111	115	80-120	4	30
t-Butyl alcohol	N.D.	200	169.11	200	177.21	85	89	60-130	5	30
Ethyl t-butyl ether	N.D.	20	20.56	20	21.22	103	106	68-121	3	30
Ethylbenzene	N.D.	20	20.03	20	20.58	100	103	80-120	3	30
di-Isopropyl ether	N.D.	20	20.73	20	21.67	104	108	70-124	4	30
Methyl Tertiary Butyl Ether	N.D.	20	19.94	20	20.79	100	104	69-122	4	30
Toluene	N.D.	20	20.93	20	21.23	105	106	80-120	1	30
Xylene (Total)	N.D.	60	58.77	60	61.44	98	102	80-120	4	30
Batch number: F201212AA	Sample number(s): 1303654-1303660,1303663 UNSPK: 1303655									
t-Amyl methyl ether	N.D.	20	19.4	20	19.74	97	99	66-120	2	30
Benzene	N.D.	20	23.31	20	24.34	117	122*	80-120	4	30
t-Butyl alcohol	N.D.	200	163.1	200	170.22	82	85	60-130	4	30
Ethyl t-butyl ether	N.D.	20	20.86	20	21.69	104	108	68-121	4	30
Ethylbenzene	N.D.	20	20.98	20	21.4	105	107	80-120	2	30
di-Isopropyl ether	N.D.	20	21.45	20	22.47	107	112	70-124	5	30
Methyl Tertiary Butyl Ether	N.D.	20	20.22	20	21.31	101	107	69-122	5	30
Toluene	N.D.	20	21.5	20	22.13	107	111	80-120	3	30
Xylene (Total)	N.D.	60	61.9	60	64.26	103	107	80-120	4	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 20115667113A	Sample number(s): 1303635 UNSPK: 1303635									
Nitrate Nitrogen	3.96	2.50	6.01			82*		90-110		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 05/04/2020 09:20

Group Number: 2097233

### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Sulfate	20.79	25	46.8			104		90-110		
Batch number: 20115667113B	Sample number(s): 1303640 UNSPK: 1303640									
Nitrate Nitrogen	1.08	2.50	3.26			87*		90-110		
Sulfate	N.D.	25	27.78			111*		90-110		
Batch number: 20115667213A	Sample number(s): 1303661 UNSPK: 1303661									
Nitrate Nitrogen	1.86	2.50	4.05			87*		90-110		
Sulfate	21.6	25	48.4			107		90-110		
Batch number: 20115667217A	Sample number(s): 1303662 UNSPK: 1303662									
Nitrate Nitrogen	1.53	2.50	4.02			100		90-110		
Sulfate	32.99	25	58.91			104		90-110		

### Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 20115667113A	Sample number(s): 1303635 BKG: 1303635			
Nitrate Nitrogen	3.96	3.99	1	15
Sulfate	20.79	21.24	2 (1)	15
Batch number: 20115667113B	Sample number(s): 1303640 BKG: 1303640			
Nitrate Nitrogen	1.08	1.06	2 (1)	15
Sulfate	N.D.	N.D.	0 (1)	15
Batch number: 20115667213A	Sample number(s): 1303661 BKG: 1303661			
Nitrate Nitrogen	1.86	1.82	3 (1)	15
Sulfate	21.6	21.64	0 (1)	15
Batch number: 20115667217A	Sample number(s): 1303662 BKG: 1303662			
Nitrate Nitrogen	1.53	1.52	0 (1)	15
Sulfate	32.99	32.7	1	15

### Surrogate Quality Control

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 05/04/2020 09:20

Group Number: 2097233

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F201211AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1303634	100	97	97	97
1303635	100	96	97	100
1303636	101	95	97	97
1303637	101	96	95	96
1303638	101	96	98	98
1303639	99	92	96	96
1303640	100	95	96	97
1303641	100	98	96	98
1303642	102	100	95	96
1303643	99	97	95	97
1303644	101	96	96	99
1303645	102	98	94	95
1303646	101	97	96	96
1303647	102	99	95	95
1303648	102	97	96	97
1303649	103	98	96	98
1303650	102	97	96	97
1303651	101	100	95	97
1303652	101	99	96	98
1303653	101	95	96	96
Blank	99	96	97	98
LCS	99	98	97	101
MS	99	101	98	101
MSD	97	98	99	101
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F201212AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1303654	95	98	98	99
1303655	95	98	95	97
1303656	96	96	96	97
1303657	95	97	95	96
1303658	97	98	95	95
1303659	94	93	96	97
1303660	96	97	94	96
1303663	96	97	95	96
Blank	96	100	97	99
LCS	96	101	96	99
MS	94	98	97	100
MSD	94	100	96	99
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 05/04/2020 09:20

Group Number: 2097233

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Volatile Headspace Hydrocarbon  
Batch number: 201150001A

	Propene
1303635	87
1303640	93
1303661	89
1303662	97
1303663	92
Blank	99
LCS	99
Limits:	28-140

\*- Outside of specification

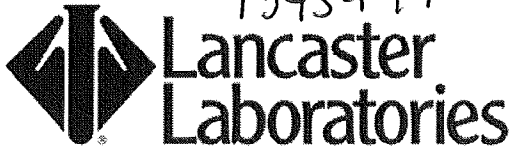
\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.







13459 | + 2097233 | 1303634-63

CHAIN OF CUSTODY- ExxonMobil Projects

Drop Box - MW

PAGE \_\_\_ OF \_\_\_

Eurofins Lancaster Laboratories Environmental  
 2425 New Holland Pike, Lancaster, PA 17605  
 TEL. 717-656-2300  
 www.lancasterlabs.com

FED-EX Tracking #	Bottle Order Control #
Lancaster Quote #	Lancaster Job #

Client / Reporting Information		SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects		Requested Analysis ( see TEST CODE sheet)								Matrix Codes	
Company Name <b>Kleinfelder</b>		Retail Project (Site Name) <b>Exxon - Phoenix 28077</b>		MTBE, BTEX, ETBE, TAME, DIPE, TBA by EPA 8260B Full List VOCs + OxyS by 8260 Nitrate Nitrogen, Sulfate, Volatile Headspace Hydrocarbon, CO2 by Headspace								DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL- Sludge SED- Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank	
Street Address <b>1745 Dorsey Road, Suite J</b>		Major Project (AFE) <b>ExxonMobil Environmental Services Co.</b>											
City State Zip <b>Hanover, MD 21076</b>		Project Name <b>14258 Jarrettsville Pike</b>		If Project is Direct Bill to Consultant								LAB USE ONLY	
Project Contact <b>Stacey Schiding</b>		Company Name <b>Phoenix MD</b>											
Phone # <b>410-850-0404</b>		ExxonMobil Manager <b>Joe Ogren</b>		City State Zip								Attention: PO#	
Fax # <b>410-850-0049</b>		ExxonMobil Purchase Order #											
Sampler(s) Name(s) <b>Charlie Brehm</b>		Direct Bill to Exxon Mobil		Number of preserved Bottles PCI NaOH HNO3 H2SO4 NONE DI Water MEOH ENCORE								Comments / Special Instructions	
E-mail		City State											

Lancaster Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection				Number of preserved Bottles										Matrix	# of bottles	Comments / Special Instructions
			Date	Time	Sampled by	Matrix	PCI	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE					
	MW-91		4/22/20	0930	CB	GW	3	X										X	
	MW-91C [R]		4/22/20	0900	CB	GW	3	X										X	
	MW-138D		4/22/20	1030	CB	GW	3	X										X	
	MW-168(235)		4/22/20	1100	CB	GW	3	X										X	
	MW-176 [R]		4/22/20	1130	CB	GW	3	X										X	
	MW-177(187.75)		4/22/20	1200	CB	GW	3	X										X	
	MW-185		4/22/20	1000	CB	GW	3	X										X	
	MW-47C(212.5)		4/22/20	1230	CB	GW	3	X										X	
	MW-171C(207.5)		4/22/20	1300	CB	GW	3	X										X	

<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 8 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PM): / Date: _____ _____ _____ _____	<input checked="" type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> NYASP Category A <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NYASP Category B <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> NJ Reduced <input type="checkbox"/> EDD Format <input type="checkbox"/> Commercial "C" <input type="checkbox"/> Other Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data	Comments / Special Instructions
---	--	---	--	---------------------------------

Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	Relinquished by Sampler:	Date Time:
1		1	2	16:56	2	3	
3		3	4		4	5	
5		5					

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Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 04/23/2020  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	No
Custody Seal Present:	No	Sample Date/Times match COC:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	4
Paperwork Enclosed:	Yes	Trip Blank Type:	See Below
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Trip Blank Type(s): 2-40 mL vials (HCl), 2-40 mL vials (Unpre)

*Unpacked by Melvin Sanchez*

**Samples Chilled Details**

Thermometer Types: DT = Digital (Temp. Bottle)    IR = Infrared (Surface Temp)    All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT131	1.0	DT	Wet	Y	Loose	N

**Sample ID Discrepancy Details**

Sample ID on COC	Sample ID on Label	Comments
MW-185	MW-185 [R]	Date 4-21-2020
MW-185	MW-185 [R]	Date 4-23-2020
MW-185	MW-185 [R]	Date 4-22-2020

**Sample Date/Time Discrepancy Details**

Sample ID on COC	Date/Time on Label	Comments
MW-185 [R]	4/21/2020 14:00	

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.

Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Kleinfelder  
550 West C Street  
Suite 1200  
San Diego CA 92101

Report Date: May 04, 2020 10:04

**Project: 2-8077 - Phoenix, MD (GW)**

Account #: 13459  
Group Number: 2097674  
PO Number: 51141-339876  
Release Number: CHILLEMI  
State of Sample Origin: MD

Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD  
Electronic Copy To Kleinfelder, MD

Attn: Jennifer Kozak  
Attn: Mark Schaaf  
Attn: Stacey Schiding  
Attn: Charlie Brehm  
Attn: Charlie Low

Respectfully Submitted,



Megan A. Moeller  
Senior Specialist

(717) 556-7261

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-91 Groundwater	04/24/2020 11:30	1305984
MW-91C [R] Groundwater	04/24/2020 12:00	1305985
MW-138D Groundwater	04/24/2020 08:00	1305986
MW-168(235) Groundwater	04/24/2020 08:30	1305987
MW-176 [R] Groundwater	04/24/2020 10:00	1305988
MW-177(187.75) Groundwater	04/24/2020 09:00	1305989
MW-185 Groundwater	04/24/2020 10:30	1305990
MW-47C(212.5) Groundwater	04/24/2020 11:00	1305991
MW-171C(207.5) Groundwater	04/24/2020 09:30	1305992
MW-91 Groundwater	04/27/2020 09:00	1305993
MW-91C [R] Groundwater	04/27/2020 09:30	1305994
MW-138D Groundwater	04/27/2020 10:00	1305995
MW-168(235) Groundwater	04/27/2020 10:30	1305996
MW-176 [R] Groundwater	04/27/2020 12:00	1305997
MW-177(187.75) Groundwater	04/27/2020 12:30	1305998
MW-185 Groundwater	04/27/2020 13:00	1305999
MW-47C(212.5) Groundwater	04/27/2020 13:30	1306000
MW-171C(207.5) Groundwater	04/27/2020 14:00	1306001

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305984  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/24/2020 11:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 13:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 13:10	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305985  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/24/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 13:33	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 13:32	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305986  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/24/2020 08:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	3	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	3	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	170	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 13:55	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 13:54	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168(235) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305987  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/24/2020 08:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 14:16	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 14:15	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-176 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305988  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/24/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.8 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 14:38	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 14:37	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-177(187.75) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305989  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/24/2020 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 15:00	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 14:59	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305990  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/24/2020 10:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 15:22	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 15:21	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C(212.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305991  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/24/2020 11:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 15:43	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 15:42	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305992  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/24/2020 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.2 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 16:05	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 16:04	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305993  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/27/2020 09:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 16:27	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 16:26	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-91C [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305994  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/27/2020 09:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 16:49	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 16:48	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-138D Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305995  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/27/2020 10:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	2	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	3	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	1	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	150	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	F201212AA	04/30/2020 17:11	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F201212AA	04/30/2020 17:10	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-168(235) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305996  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/27/2020 10:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201221AA	05/01/2020 10:28	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201221AA	05/01/2020 10:27	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** MW-176 [R] Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305997  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/27/2020 12:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	0.4 J	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.7 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201221AA	05/01/2020 10:52	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201221AA	05/01/2020 10:51	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-177(187.75) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305998  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/27/2020 12:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201221AA	05/01/2020 12:28	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201221AA	05/01/2020 12:27	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-185 Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1305999  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submission Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/27/2020 13:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201221AA	05/01/2020 12:52	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201221AA	05/01/2020 12:51	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-47C(212.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1306000  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/27/2020 13:30

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	1	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201221AA	05/01/2020 13:16	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201221AA	05/01/2020 13:15	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-171C(207.5) Groundwater  
S2010L4236 2-8077 - Phoenix, MD

ExxonMobil c/o Kleinfelder  
ELLE Sample #: GW 1306001  
ELLE Group #: 2097674  
Matrix: Groundwater

**Project Name:** 2-8077 - Phoenix, MD (GW)

Submittal Date/Time: 04/28/2020 17:16  
Collection Date/Time: 04/27/2020 14:00

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation*	Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
10945	t-Amyl methyl ether	994-05-8	N.D.	1	0.3	1
10945	Benzene	71-43-2	N.D.	1	0.2	1
10945	t-Butyl alcohol	75-65-0	N.D.	25	10	1
10945	Ethyl t-butyl ether	637-92-3	N.D.	1	0.2	1
10945	Ethylbenzene	100-41-4	N.D.	1	0.2	1
10945	di-Isopropyl ether	108-20-3	N.D.	1	0.2	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	0.6 J	1	0.2	1
10945	Toluene	108-88-3	N.D.	1	0.2	1
10945	Xylene (Total)	1330-20-7	N.D.	3	0.8	1

### Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX + 5 Oxys	SW-846 8260B	1	D201221AA	05/01/2020 13:40	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D201221AA	05/01/2020 13:39	Alexander D Sechrist	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 05/04/2020 10:04

Group Number: 2097674

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	LOQ** ug/l	MDL ug/l
Batch number: D201221AA	Sample number(s): 1305996-1306001		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8
Batch number: F201212AA	Sample number(s): 1305984-1305995		
t-Amyl methyl ether	N.D.	1	0.3
Benzene	N.D.	1	0.2
t-Butyl alcohol	N.D.	25	10
Ethyl t-butyl ether	N.D.	1	0.2
Ethylbenzene	N.D.	1	0.2
di-Isopropyl ether	N.D.	1	0.2
Methyl Tertiary Butyl Ether	N.D.	1	0.2
Toluene	N.D.	1	0.2
Xylene (Total)	N.D.	3	0.8

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D201221AA	Sample number(s): 1305996-1306001								
t-Amyl methyl ether	20	16.35			82		66-120		
Benzene	20	18			90		80-120		
t-Butyl alcohol	200	176.53			88		60-130		
Ethyl t-butyl ether	20	17.02			85		68-121		
Ethylbenzene	20	17.8			89		80-120		
di-Isopropyl ether	20	16.44			82		70-124		
Methyl Tertiary Butyl Ether	20	16.76			84		69-122		
Toluene	20	17.78			89		80-120		
Xylene (Total)	60	53.03			88		80-120		

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 05/04/2020 10:04

Group Number: 2097674

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F201212AA	Sample number(s): 1305984-1305995								
t-Amyl methyl ether	20	18.26			91		66-120		
Benzene	20	20.97			105		80-120		
t-Butyl alcohol	200	161.79			81		60-130		
Ethyl t-butyl ether	20	19.52			98		68-121		
Ethylbenzene	20	18.53			93		80-120		
di-Isopropyl ether	20	20.03			100		70-124		
Methyl Tertiary Butyl Ether	20	19.15			96		69-122		
Toluene	20	19.25			96		80-120		
Xylene (Total)	60	56.41			94		80-120		

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: D201221AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1305996	102	98	99	92
1305997	102	101	97	93
1305998	99	96	99	95
1305999	101	95	98	95
1306000	101	100	98	97
1306001	102	97	97	94
Blank	104	96	100	94
LCS	103	101	101	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F201212AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1305984	97	93	95	95
1305985	95	96	96	96
1305986	96	100	96	98
1305987	97	97	95	95
1305988	96	99	95	96
1305989	96	98	96	98
1305990	96	100	95	96
1305991	96	96	95	94

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ExxonMobil c/o Kleinfelder  
Reported: 05/04/2020 10:04

Group Number: 2097674

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX + 5 Oxys  
Batch number: F201212AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1305992	97	99	95	96
1305993	96	101	96	98
1305994	97	97	97	98
1305995	98	102	95	96
Blank	96	100	97	99
LCS	96	101	96	99
Limits:	80-120	80-120	80-120	80-120

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

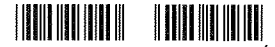
(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.









2097674

Client: Kleinfelder

**Delivery and Receipt Information**

Delivery Method: ELLE Courier      Arrival Date: 04/28/2020  
 Number of Packages: 1      Number of Projects: 1  
 State/Province of Origin: MD

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	0
Samples Chilled:	Yes	Air Quality Samples Present:	No
Paperwork Enclosed:	Yes		
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Christopher Stief*

**Samples Chilled Details**

Thermometer Types:      DT = Digital (Temp. Bottle)      IR = Infrared (Surface Temp)      All Temperatures in °C.

Cooler #	Matrix	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	Water	DT146	4.6	DT	Wet	Y	Loose	N

# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

**WARRANTY AND LIMITS OF LIABILITY** - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.



## **APPENDIX D**

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### **Additional Field Data**

TABLE D-1  
 Pre-Biosparge Pilot Test Field Monitoring  
 Inactive Exxon Facility #28077  
 14528 Jarrettsville Pike  
 Phoenix, Maryland

MW ID	Date	Field Parameters					Lab Analysis (Chemistry)					Lab Analysis (Microbial)		
		YSI 6920					Ferrous iron test kit (Color Wheel/ reagent)	Nitrate (mg/L)	Sulfate (mg/L)	Methane (mg/L)	CO <sub>2</sub> (mg/L)	Orthophosphate (HACH instrument w/ reagent)	QuantArray (MTBE & TBA)	QuantArray (full petro)
		pH	Temperature (°C)	ORP (mV)	DO (mg/L)									
MW-183 [R]	11/4/2019	6.6	10.45	145.8	17.22	0	0.72	48.1	ND(5)	ND(12000)	x	x	no sample	
MW-184 [R]	11/4/2019	6.73	10.11	180.6	19.45	0	0.67	28.9	ND(5)	ND(12000)	x	no sample	x	
MW-185 [R]	11/4/2019	6.51	10.7	125.3	17.12	0	3.1	2.2 J	ND(5)	2700 J	x	x	no sample	
MW-91C [R]	11/4/2019	6.77	10.96	139.1	17.65	0	0.91	2.2 J	ND(5)	ND(12000)	x	no sample	x	
<u>MW-91</u>	11/4/2019	6.04	12.55	201.1	5.55	0	--	--	--	--				
MW-138D [R]	11/4/2019	7.15	10.31	130.4	9.12	0	--	--	--	--				
MW-168	11/4/2019	7.88	12.13	132.9	3.01	0.5	--	--	--	--				
MW-176 [R]	11/4/2019	6.7	11.08	140.2	9.15	0	--	--	--	--				
MW-177	11/4/2019	7.09	11.03	-8.9	4.55	2	--	--	--	--				
MW-47C	11/4/2019	7.88	11.88	-70.1	5.02	0.5	--	--	--	--				
MW-171C	11/4/2019	7.59	11.56	-15.5	4.39	0	--	--	--	--				

**Notes:**

- °C = degrees Celsius
- CO<sub>2</sub> = carbon dioxide
- DO = dissolved oxygen
- mg/L = milligrams per liter
- MTBE = methyl tertiary butyl ether
- mV = millivolts
- ND = not detected
- ORP = oxidation/reduction potential
- pH = power of the concentration of hydrogen ions
- TBA = tertiary butyl alcohol

**bold/underline= transducer**

**red font = MNA sampling/data**

**blue font - both MNA and biosparge**

**black font = sparge sampling/data**

**TABLE D-2**  
**Field Monitoring During Biosparge Pilot Test**  
**Inactive Exxon Facility #28077**  
**14258 Jarrettsville Pike**  
**Phoenix, Maryland**

MW ID	Gasoline Constituents	Field Parameters					Lab Analysis (Chemistry)						Lab Analysis (Microbial)	
	BTEX/OxyS	pH	Temp (°C)	ORP (mV)	DO (mg/L)	Ferrous Iron Test Kit (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Methane (mg/L)	CO2 (mg/L)	Orthophosphate (mg/L)	QuantArray (MTBE & TBA)	QuantArray (full petro)
<b>12/16/2019</b>														
MW-185 [R]	12/20/2019	6.48	10.8	123.7	17.55	0	--	--	--	--	--	--	--	--
MW-91	12/20/2019	6.2	12.87	200.7	7.44	0	--	--	--	--	--	--	--	--
MW-138D	12/20/2019	7.01	10.47	139.8	9.55	0	--	--	--	--	--	--	--	--
MW-168	12/20/2019	7.82	12.1	131	3.64	0.5	--	--	--	--	--	--	--	--
MW-176 [R]	12/20/2019	6.75	11.2	159.7	9.94	0.5	--	--	--	--	--	--	--	--
MW-177	12/20/2019	7.1	11.14	-16.9	4.27	3	--	--	--	--	--	--	--	--
MW-47C	12/20/2019	7.82	11.76	-80.8	4.59	1	--	--	--	--	--	--	--	--
MW-171C	12/20/2019	7.57	11.65	-32.5	4.84	0	--	--	--	--	--	--	--	--
<b>1/6/2020</b>														
MW-185 [R]	1/8/2020	6.3	10.62	128.5	17.64	0	--	--	--	--	--	--	--	--
MW-91	1/8/2020	5.82	12.02	215	5.68	0	--	--	--	--	--	--	--	--
MW-138D	1/10/2020	7.11	10.32	144.2	10.11	0	--	--	--	--	--	--	--	--
MW-168	1/10/2020	7.9	11.98	129.8	4.02	0.5	--	--	--	--	--	--	--	--
MW-176 [R]	1/10/2020	6.68	11.06	167	9.67	0	--	--	--	--	--	--	--	--
MW-177	1/10/2020	7.15	10.99	-17.9	4.35	2.5	--	--	--	--	--	--	--	--
MW-47C	1/10/2020	7.92	11.65	-74.2	4.88	0.5	--	--	--	--	--	--	--	--
MW-171C	1/10/2020	7.32	11.57	-41.2	5.08	0	--	--	--	--	--	--	--	--
<b>2/17/2020</b>														
MW-185 [R]	2/13/2020	6.46	12.1	211.6	18.48	0	--	--	--	--	--	--	--	--
MW-91	2/13/2020	5.69	12.1	275.6	10.34	0	--	--	--	--	--	--	--	--
MW-138D	2/14/2020	7.02	10.46	135.9	10.26	0	--	--	--	--	--	--	--	--
MW-168	2/14/2020	7.81	11.74	122.4	3.65	0.5	--	--	--	--	--	--	--	--
MW-176 [R]	2/14/2020	6.73	10.92	149.8	9.88	0	--	--	--	--	--	--	--	--
MW-177	2/14/2020	7.06	11.02	-5.1	4.21	2	--	--	--	--	--	--	--	--
MW-47C	2/14/2020	7.81	11.43	-81.6	4.73	0.5	--	--	--	--	--	--	--	--
MW-171C	2/14/2020	7.17	11.52	-35.4	5.01	0	--	--	--	--	--	--	--	--



**TABLE D-2**  
**Field Monitoring During Biosparge Pilot Test**  
**Inactive Exxon Facility #28077**  
**14258 Jarrettsville Pike**  
**Phoenix, Maryland**

MW ID	Gasoline Constituents	Field Parameters					Lab Analysis (Chemistry)						Lab Analysis (Microbial)	
	BTEX/Oxy5	pH	Temp (°C)	ORP (mV)	DO (mg/L)	Ferrous Iron Test Kit (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Methane (mg/L)	CO2 (mg/L)	Orthophosphate (mg/L)	QuantArray (MTBE & TBA)	QuantArray (full petro)
<b>3/16/2020</b>														
MW-185 [R]	3/11/2020	5.96	12.73	250.1	12.57	0	--	--	--	--	--	--	--	--
MW-91	3/11/2020	5.96	11.99	222.5	2.12	0	--	--	--	--	--	--	--	--
MW-138D	3/11/2020	7.06	10.33	143.2	10.11	0	--	--	--	--	--	--	--	--
MW-168	3/11/2020	7.75	11.88	130.5	4.22	0.5	--	--	--	--	--	--	--	--
MW-176 [R]	3/11/2020	6.68	11.06	155.7	10.12	0	--	--	--	--	--	--	--	--
MW-177	3/11/2020	7.03	11.37	-11.7	4.71	1	--	--	--	--	--	--	--	--
MW-47C	3/11/2020	7.61	11.56	-93.7	5.03	0.5	--	--	--	--	--	--	--	--
MW-171C	3/11/2020	7.2	11.73	-12.6	5.35	0	--	--	--	--	--	--	--	--
<b>4/13/2020</b>														
MW-185 [R]	4/16/2020	6.31	11.33	236.9	14.68	0	--	--	--	--	--	--	--	--
MW-91	4/16/2020	6.25	12.9	58.4	6.5	0	--	--	--	--	--	--	--	--
MW-138D	4/15/2020	7.11	10.45	135.7	11.1	0	--	--	--	--	--	--	--	--
MW-168	4/16/2020	7.64	11.95	121.6	5.13	1	--	--	--	--	--	--	--	--
MW-176 [R]	4/16/2020	6.81	11.23	148.1	9.61	0.5	--	--	--	--	--	--	--	--
MW-177	4/16/2020	7.07	11.61	-6.9	4.35	0.5	--	--	--	--	--	--	--	--
MW-47C	4/16/2020	7.44	11.73	-77.2	4.89	0.5	--	--	--	--	--	--	--	--
MW-171C	4/16/2020	6.89	11.86	-13.6	5.63	0	--	--	--	--	--	--	--	--

**Notes:**

"--" = Not sampled or analyzed

BTEX = benzene, toluene, ethylbenzene, total xylenes

CO<sub>2</sub> = carbon dioxide

DO = dissolved oxygen

MTBE = methyl tertiary butyl ether

ND = not detected

ORP = oxidation/reduction potential

Oxy 5 = Ethyl tert-butyl ether, methyl tert-butyl ether, tert-amyl methyl ether, di-isopropyl ether, tert-butyl alcohol

pH = power of the concentration of hydrogen ions

TBA = tertiary butyl alcohol

**TABLE D-3**  
**Post-Biosparge Pilot Test Field Monitoring**  
**Inactive Exxon Facility #28077**  
**14258 Jarrettsville Pike**  
**Phoenix, Maryland**

MW ID	Gasoline Constituents	Field Parameters					Lab Analysis (Chemistry)						Lab Analysis (Microbial)	
	BTEX/Oxy5	pH	Temp (°C)	ORP (mV)	DO (mg/L)	Ferrous Iron Test Kit (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Methane (mg/L)	CO2 (mg/L)	Orthophosphate (mg/L)	QuantArray (MTBE & TBA)	QuantArray (full petro)
<b>Post-Sparge test - full-suite once (Install traps on 4/20/2020)</b>														
MW-183 [R]	4/21/2020	6.99	11.25	111.2	9.83	0.5	1.9	21.6	--	ND	ND	--	4/21/2020	--
MW-184 [R]	4/21/2020	7.11	11.65	131.4	10.21	0.5	1.5	33	--	ND	ND	--	--	4/21/2020
MW-185	4/21/2020	6.36	11.32	220.1	13.22	0	1.1	ND	--	3.2 J	ND	--	4/21/2020	--
MW-91C [R]	4/21/2020	6.29	12.11	70.3	3.56	0.5	4	20.8	--	ND	ND	--	--	4/21/2020
<b>Post-Sparge test - Day 1 (April 21, 2020)</b>														
MW-91	4/21/2020	6.27	11.37	60.2	6.2	0	--	--	--	--	--	--	--	--
MW-91C [R]	Collected above						--	--	--	--	--	--	--	--
MW-138D	4/21/2020	7.13	11.69	142.1	12.3	0	--	--	--	--	--	--	--	--
MW-168	4/21/2020	7.7	12.03	123.6	5.29	0.5	--	--	--	--	--	--	--	--
MW-176 [R]	4/21/2020	6.85	11.29	155.3	10.1	1	--	--	--	--	--	--	--	--
MW-177	4/21/2020	7.11	11.57	-7.1	5.21	0.5	--	--	--	--	--	--	--	--
MW-185	Collected above						--	--	--	--	--	--	--	--
MW-47C	4/21/2020	7.49	11.8	-80.2	4.97	0.5	--	--	--	--	--	--	--	--
MW-171C	4/21/2020	6.94	11.91	-14.1	5.77	0	--	--	--	--	--	--	--	--
<b>Post-Sparge test - Day 2</b>														
MW-91	4/22/2020	6.29	11.4	62.3	7	0	--	--	--	--	--	--	--	--
MW-91C [R]	4/22/2020	6.31	12.07	73.2	3.87	0.5	--	--	--	--	--	--	--	--
MW-138D	4/22/2020	7.08	11.72	144.2	13.12	0.5	--	--	--	--	--	--	--	--
MW-168	4/22/2020	7.81	11.99	117.2	9.82	0.5	--	--	--	--	--	--	--	--
MW-176 [R]	4/22/2020	6.89	11.35	160.3	11.6	1	--	--	--	--	--	--	--	--
MW-177	4/22/2020	7.17	11.63	-8.3	5.37	0.5	--	--	--	--	--	--	--	--
MW-185	4/22/2020	6.44	11.26	217.3	12.21	0	--	--	--	--	--	--	--	--
MW-47C	4/22/2020	7.44	11.87	-77.4	5.88	0.5	--	--	--	--	--	--	--	--
MW-171C	4/22/2020	7.01	11.95	-20.1	6.21	0	--	--	--	--	--	--	--	--

**TABLE D-3**  
**Post-Biosparge Pilot Test Field Monitoring**  
**Inactive Exxon Facility #28077**  
**14258 Jarrettsville Pike**  
**Phoenix, Maryland**

MW ID	Gasoline Constituents	Field Parameters					Lab Analysis (Chemistry)						Lab Analysis (Microbial)	
	BTEX/Oxy5	pH	Temp (°C)	ORP (mV)	DO (mg/L)	Ferrous Iron Test Kit (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Methane (mg/L)	CO2 (mg/L)	Orthophosphate (mg/L)	QuantArray (MTBE & TBA)	QuantArray (full petro)
<b>Post-Sparge test - Day 3</b>														
MW-91	4/23/2020	6.31	11.32	64.1	8.11	0	--	--	--	--	--	--	--	--
MW-91C [R]	4/23/2020	6.45	12.03	74.1	3.89	0.5	--	--	--	--	--	--	--	--
MW-138D	4/23/2020	7.11	11.81	150.2	12.73	0.5	--	--	--	--	--	--	--	--
MW-168	4/23/2020	7.78	11.89	120.3	10.29	0.5	--	--	--	--	--	--	--	--
MW-176 [R]	4/23/2020	6.92	11.47	157.2	10.31	1	--	--	--	--	--	--	--	--
MW-177	4/23/2020	7.22	11.71	-10.2	6.32	0.5	--	--	--	--	--	--	--	--
MW-185	4/23/2020	6.44	11.32	222.3	11.86	0	--	--	--	--	--	--	--	--
MW-47C	4/23/2020	7.5	11.9	-80.3	6.11	0.5	--	--	--	--	--	--	--	--
MW-171C	4/23/2020	6.93	11.82	-24.1	6.37	0	--	--	--	--	--	--	--	--
<b>Post-Sparge test - Day 4</b>														
MW-91	4/24/2020	6.31	11.35	64.8	6.81	0	--	--	--	--	--	--	--	--
MW-91C [R]	4/24/2020	6.45	12.13	75.1	4.22	0.5	--	--	--	--	--	--	--	--
MW-138D	4/24/2020	7.19	12.04	148.1	14.31	0	--	--	--	--	--	--	--	--
MW-168	4/24/2020	7.93	12.17	120.3	10.22	0.5	--	--	--	--	--	--	--	--
MW-176 [R]	4/24/2020	6.95	11.84	164.9	9.61	1	--	--	--	--	--	--	--	--
MW-177	4/24/2020	7.22	11.93	-9.4	4.22	0.5	--	--	--	--	--	--	--	--
MW-185	4/24/2020	6.48	11.35	212.4	9.31	0	--	--	--	--	--	--	--	--
MW-47C	4/24/2020	7.49	12.03	-80.2	6.17	0.5	--	--	--	--	--	--	--	--
MW-171C	4/24/2020	7.12	12.21	-17.4	5.87	0	--	--	--	--	--	--	--	--
<b>Post-Sparge test - Day 5</b>														
MW-91	4/27/2020	6.44	11.22	68.1	4.33	0	--	--	--	--	--	--	--	--
MW-91C [R]	4/27/2020	6.57	12.1	80.6	4.69	0.5	--	--	--	--	--	--	--	--
MW-138D	4/27/2020	7.14	11.88	119.6	12.88	0	--	--	--	--	--	--	--	--
MW-168	4/27/2020	7.33	12.21	130.2	8.29	0.5	--	--	--	--	--	--	--	--
MW-176 [R]	4/27/2020	6.77	11.53	154.2	9.44	1	--	--	--	--	--	--	--	--
MW-177	4/27/2020	7.25	11.82	-5.9	6.22	0.5	--	--	--	--	--	--	--	--
MW-185	4/27/2020	6.61	11.41	211.9	11.61	0	--	--	--	--	--	--	--	--
MW-47C	4/27/2020	7.31	12.31	-69.7	5.44	0.5	--	--	--	--	--	--	--	--
MW-171C	4/27/2020	6.88	12.22	-15.2	5.82	0	--	--	--	--	--	--	--	--

**TABLE D-3**  
**Post-Biosparge Pilot Test Field Monitoring**  
**Inactive Exxon Facility #28077**  
**14258 Jarrettsville Pike**  
**Phoenix, Maryland**

	Gasoline Constituents	Field Parameters					Lab Analysis (Chemistry)						Lab Analysis (Microbial)	
MW ID	BTEX/Oxy5	pH	Temp (°C)	ORP (mV)	DO (mg/L)	Ferrous Iron Test Kit (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Ferrous Iron (mg/L)	Methane (mg/L)	CO2 (mg/L)	Orthophosphate (mg/L)	QuantArray (MTBE & TBA)	QuantArray (full petro)

**Notes:**

BTEX = benzene, toluene, ethylbenzene, total xylenes

CO<sub>2</sub> = carbon dioxide

DO = dissolved oxygen

MTBE = methyl tertiary butyl ether

ND = not detected

ORP = oxidation/reduction potential

Oxy 5 = Ethyl tert-butyl ether, methyl tert-butyl ether, tert-amyl methyl ether, di-isopropyl ether, tert-butyl alcohol

pH = power of the concentration of hydrogen ions

TBA = tertiary butyl alcohol



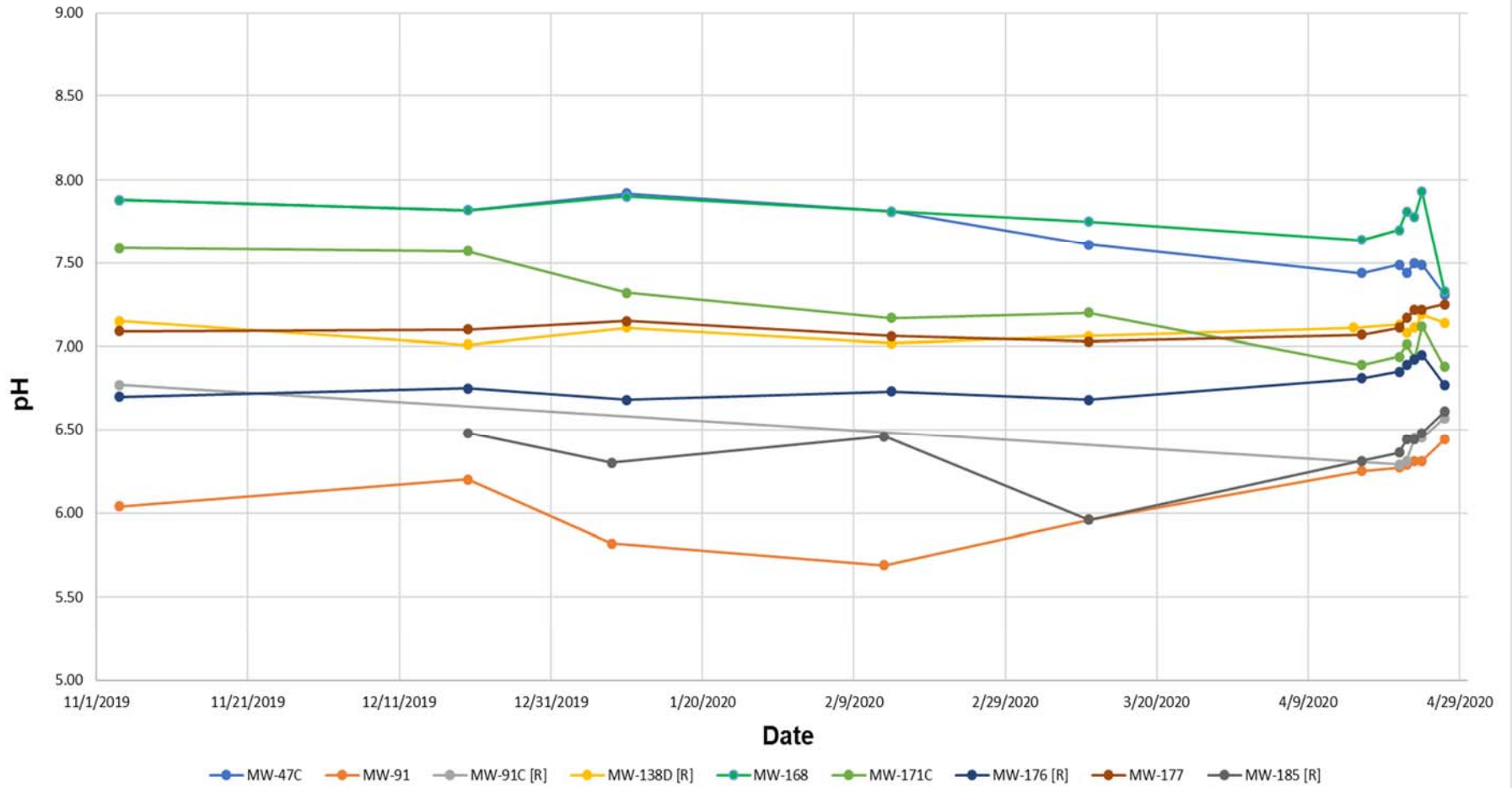
## APPENDIX E

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### Trend Charts of COCs and MNA Parameters

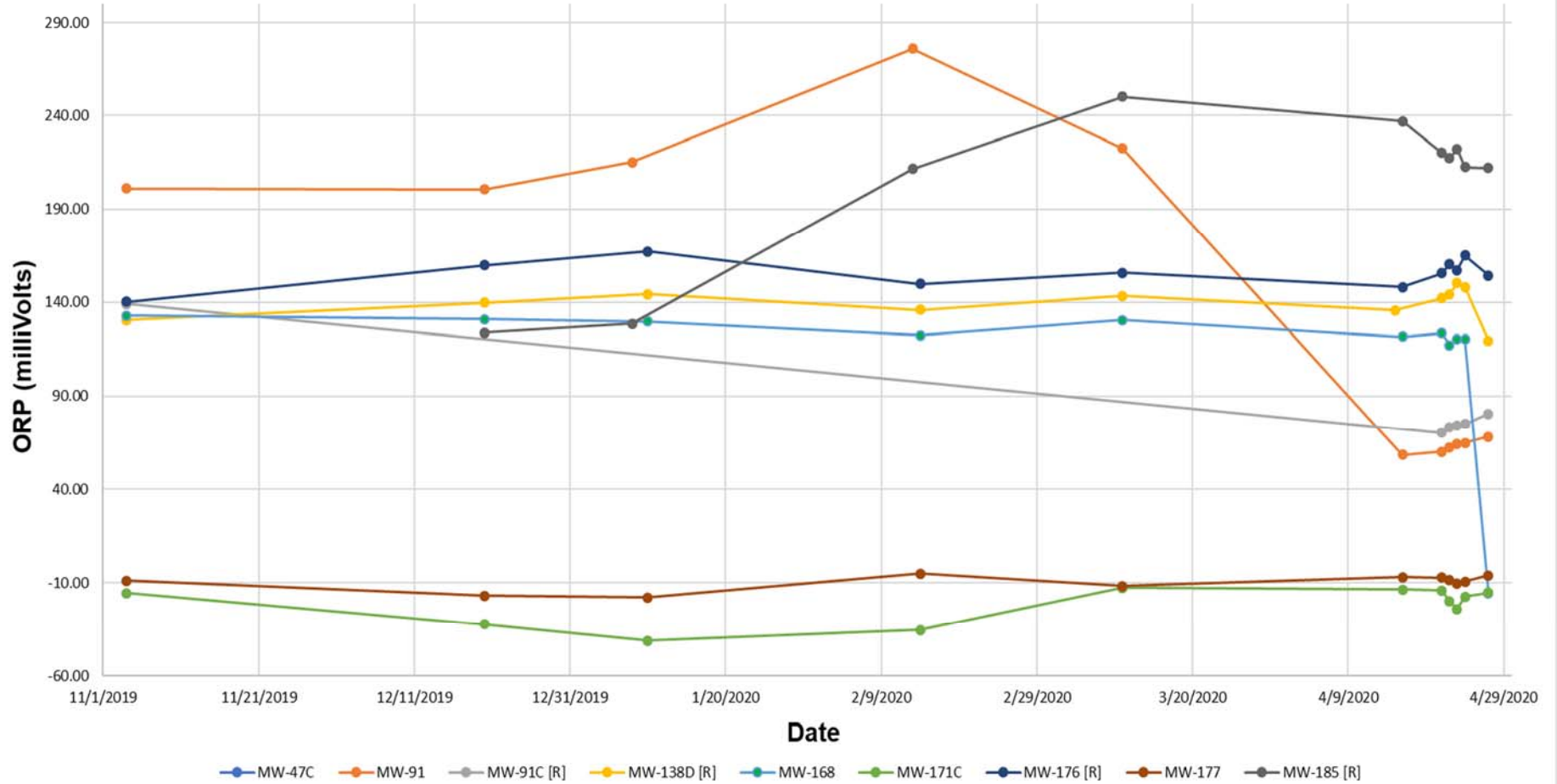
### Groundwater pH in Wells versus Time

Inactive Exxon Facility #28077  
14258 Jarrettsville Pike  
Phoenix, MD



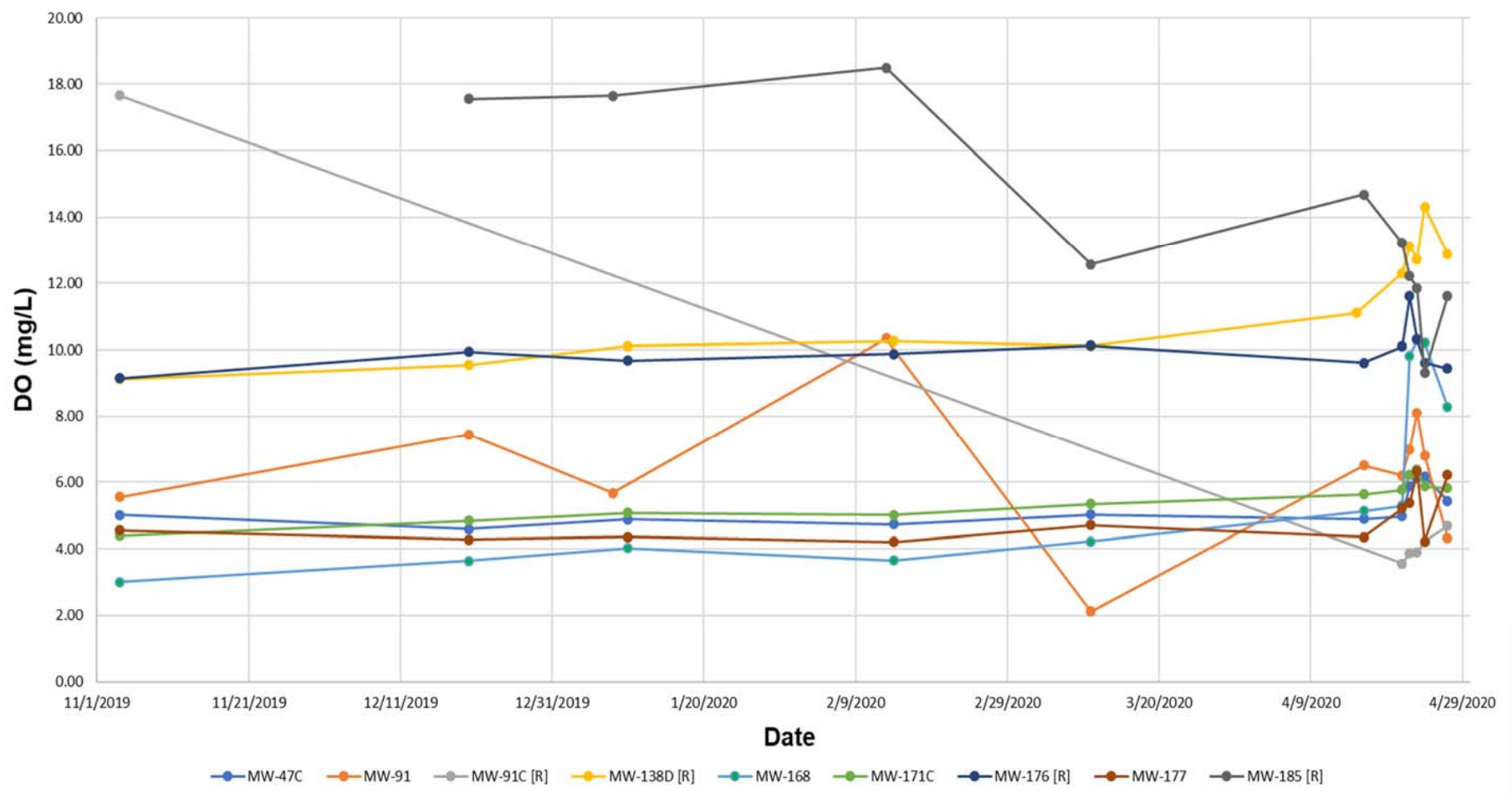
### Groundwater ORP in Wells versus Time

Inactive Exxon Facility #28077  
14258 Jarrettsville Pike  
Phoenix, MD



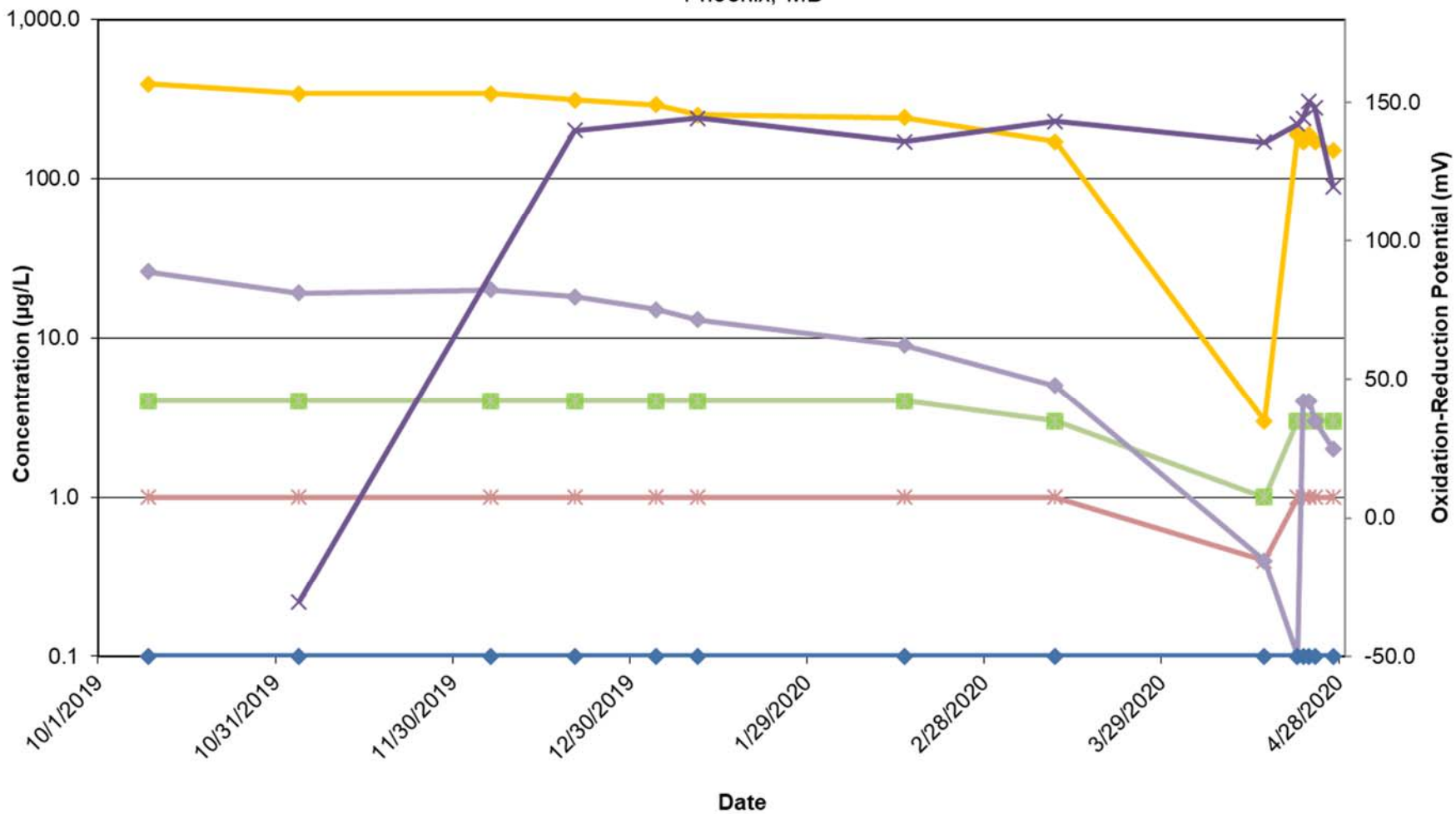
### Groundwater DO in Wells versus Time

Inactive Exxon Facility #28077  
14258 Jarrettsville Pike  
Phoenix, MD

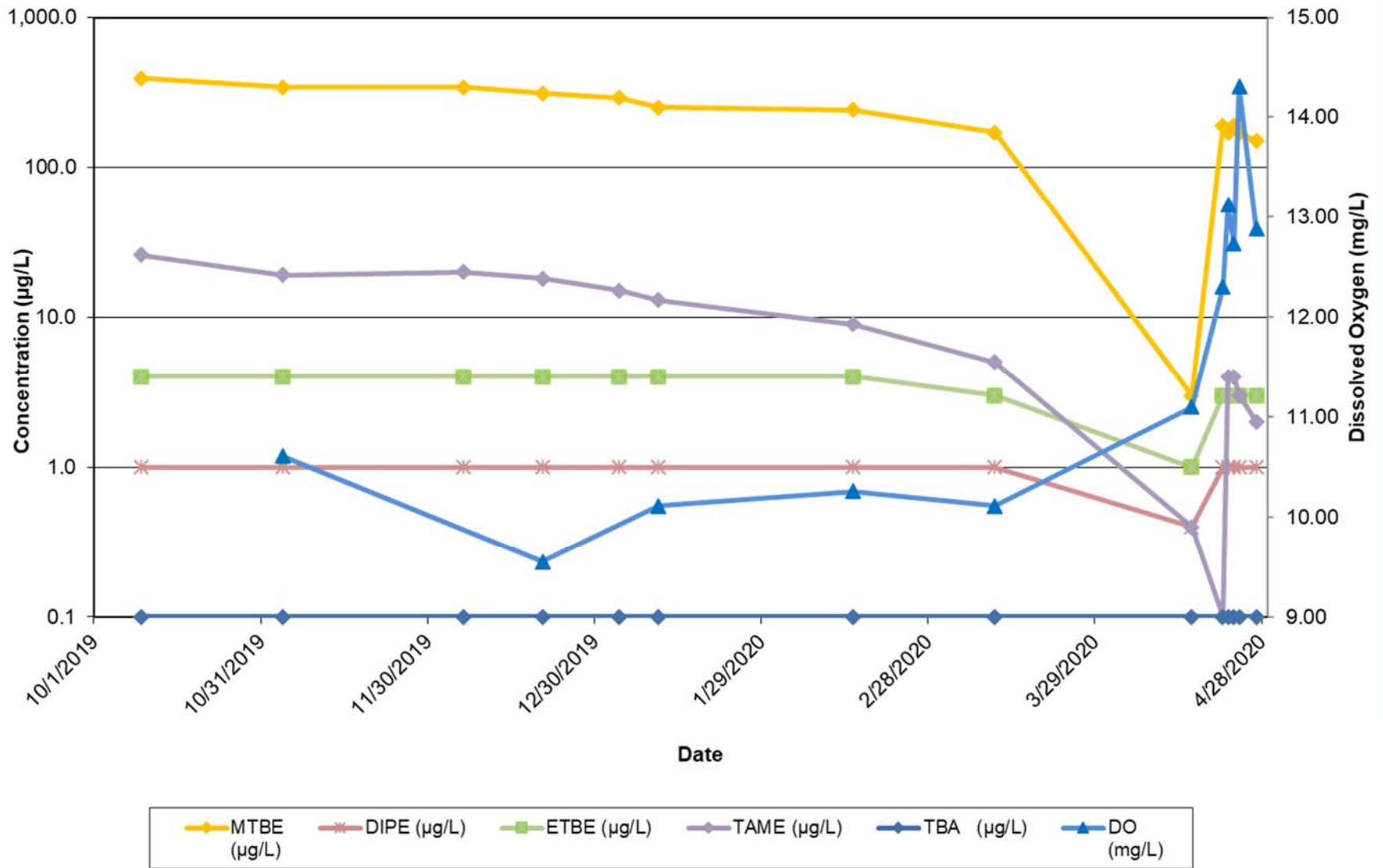




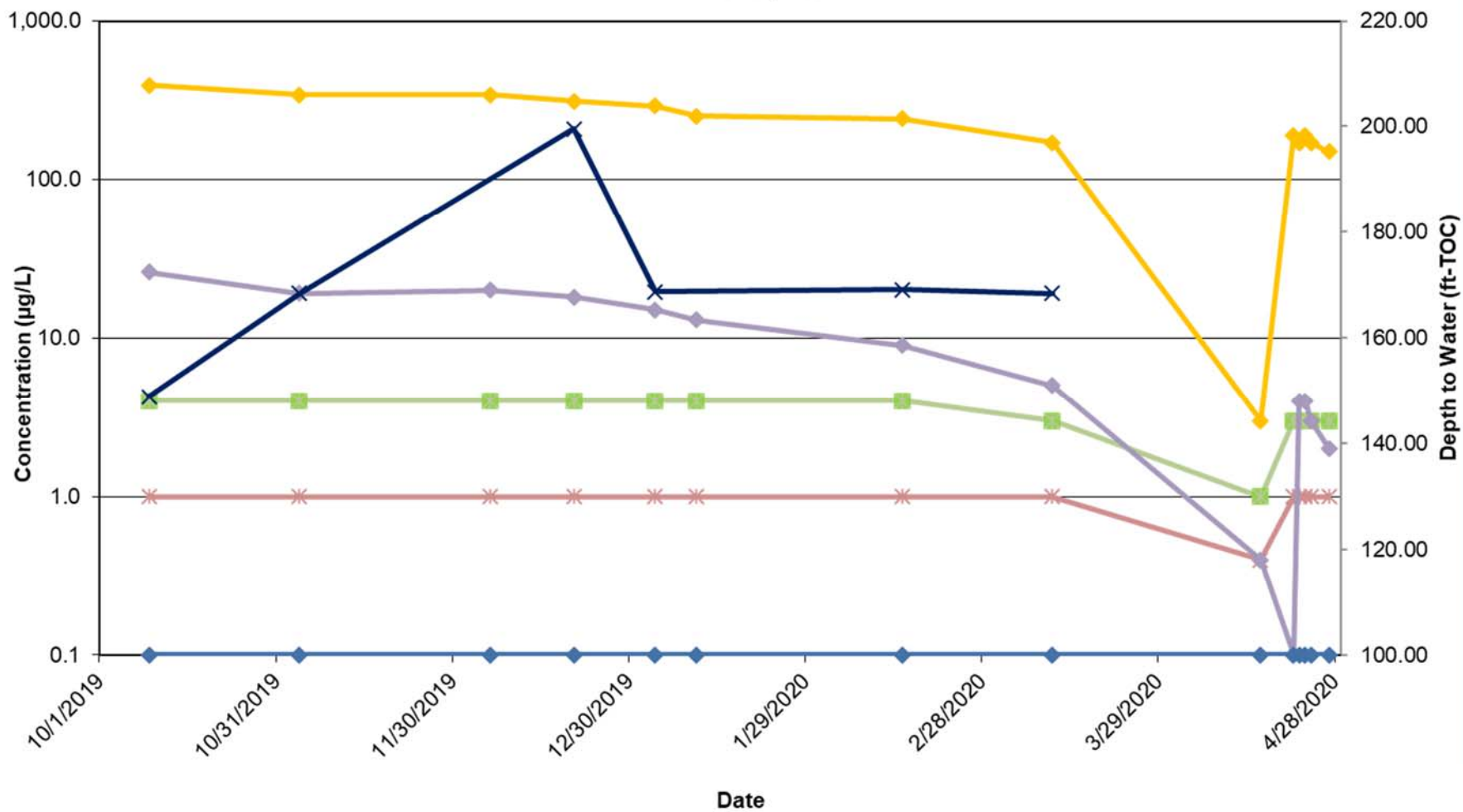
**MW-138D [R]**  
 MtBE, EtBE, DIPE, TAME, TBA and ORP Over Time  
 Inactive Exxon Facility # 28077  
 14258 Jarrettsville Pike  
 Phoenix, MD



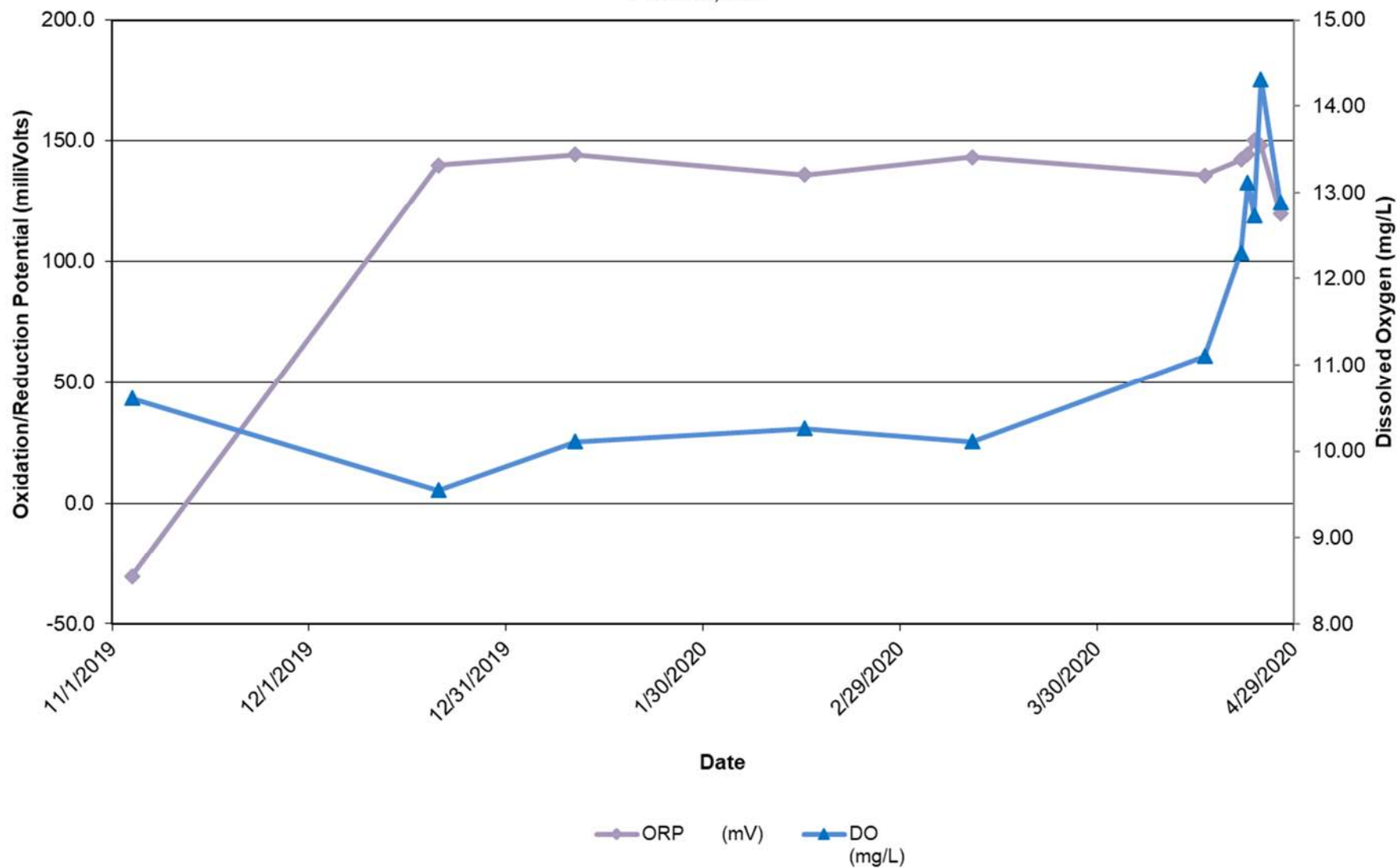
**MW-138D [R]**  
 Dissolved Oxygen and MTBE, DIPE, ETBE, TAME, TBA Concentrations Over Time  
 Inactive Exxon Facility # 28077  
 14258 Jarrettsville Pike  
 Phoenix, MD



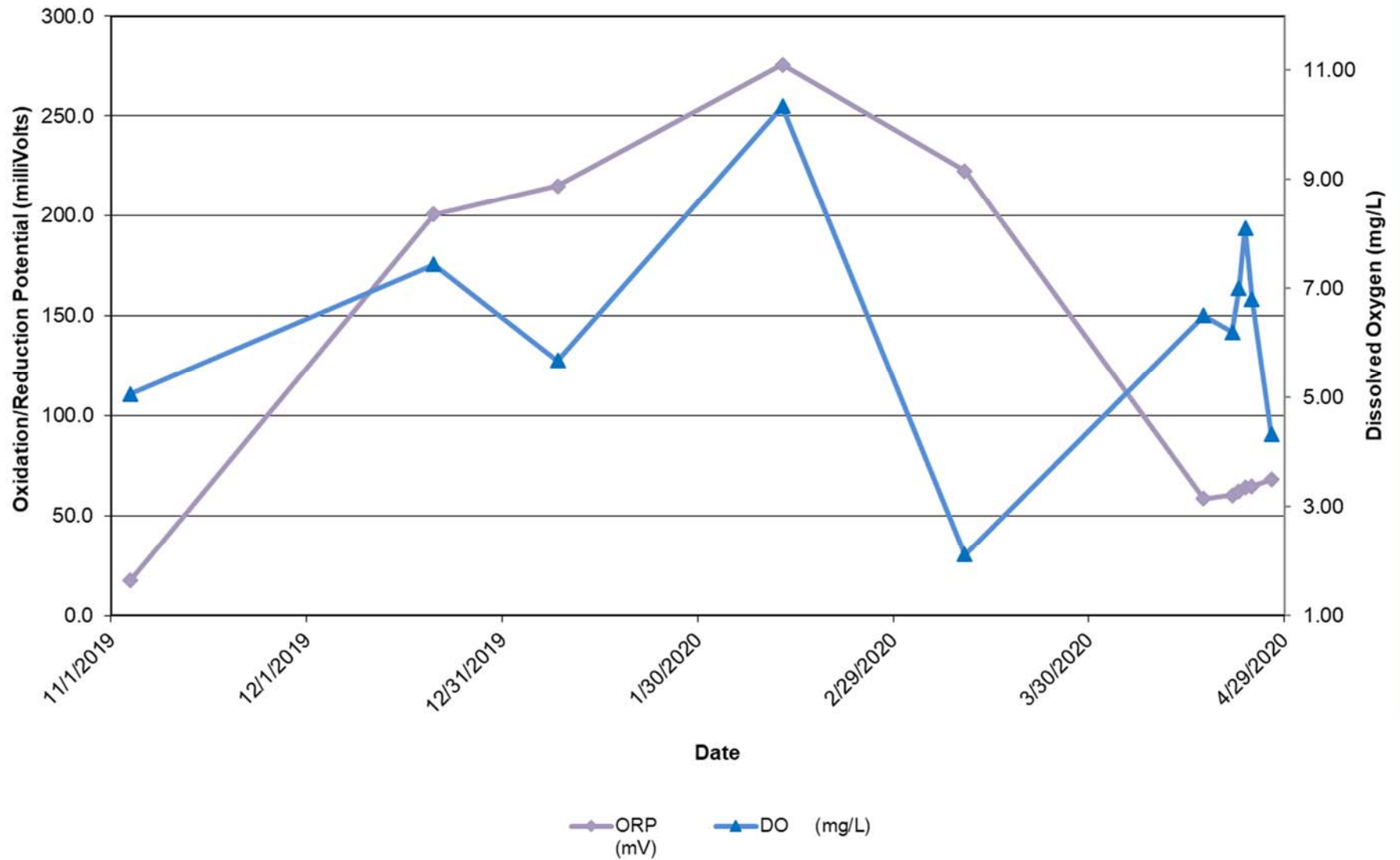
**MW-138D [R]**  
 Dissolved Oxygen and MTBE, DIPE, ETBE, TAME, TBA Concentrations Over Time  
 Inactive Exxon Facility # 28077  
 14258 Jarrettsville Pike  
 Phoenix, MD



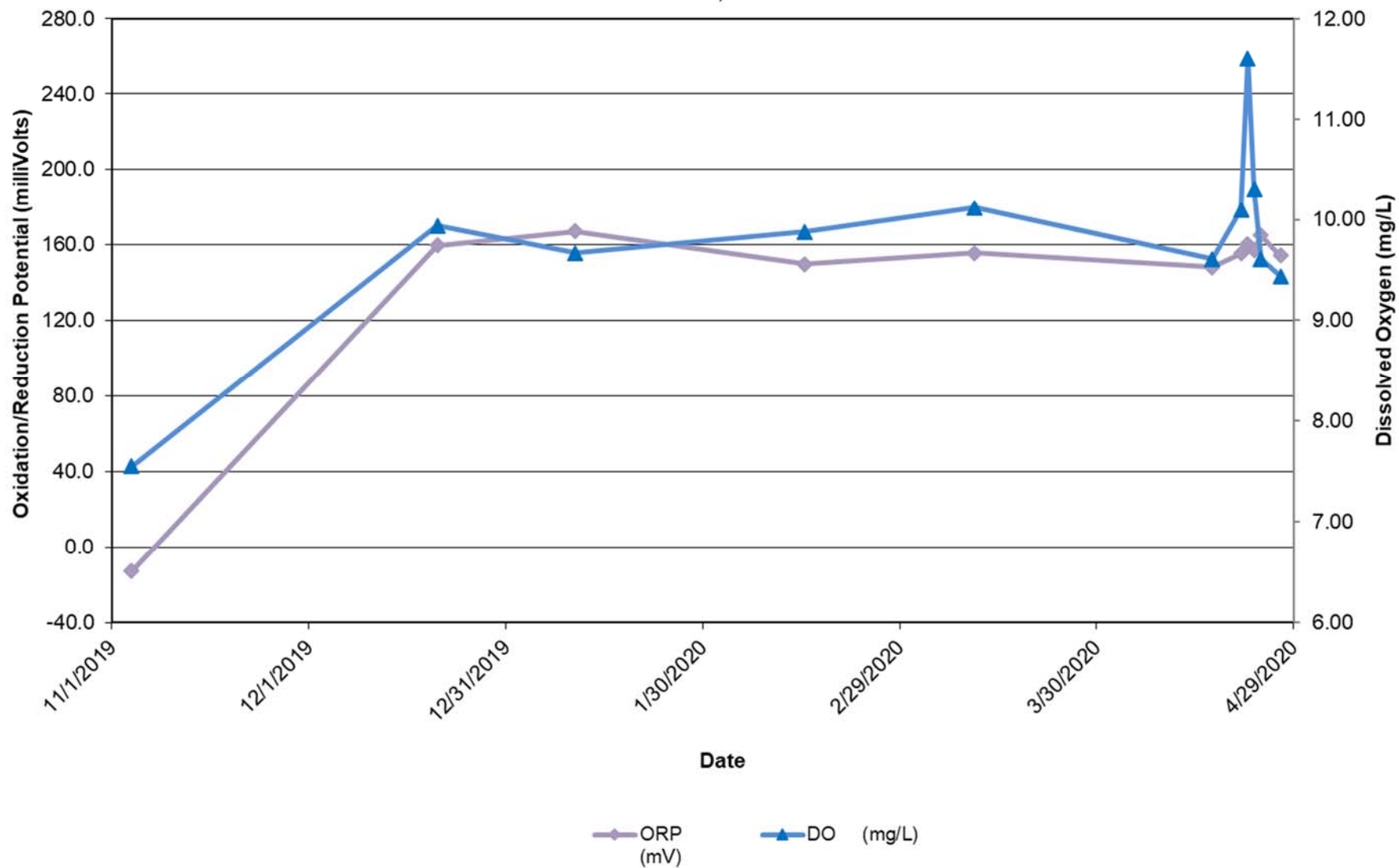
**MW-138D**  
Oxidation-Reduction Potential and Dissolved Oxygen Over Time  
Inactive Exxon Facility # 28077  
14258 Jarrettsville Pike  
Phoenix, MD



**MW-91**  
Oxidation-Reduction Potential and Dissolved Oxygen Over Time  
Inactive Exxon Facility # 28077  
14258 Jarrettsville Pike  
Phoenix, MD



**MW-176 [R]**  
Oxidation-Reduction Potential and Dissolved Oxygen Over Time  
Inactive Exxon Facility # 28077  
14258 Jarrettsville Pike  
Phoenix, MD



**MW-185 [R]**  
Oxidation-Reduction Potential and Dissolved Oxygen Over Time  
Inactive Exxon Facility # 28077  
14258 Jarrettsville Pike  
Phoenix, MD

