CAP IMP SP5 Meadows of Dan Food Market PC# 2014-2256

CORRECTIVE ACTION PLAN IMPLEMENTATION REPORT SUB-PHASE 5

Meadows of Dan Food Market
2609 Jeb Stuart Highway
Meadows of Dan, Virginia 24120

PC# 2014-2256
Greene Project# FMMD1010

February 3, 2017

DEQ Case Manager:
Mr. Douglas B. Carl

CORRECTIVE ACTION PLAN
IMPLEMENTATION REPORT
SUB-PHASE 5

Meadows of Dan Food Market
2609 Jeb Stuart Highway
Meadows of Dan, Virginia 24120
PC# 2014-2256

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EXECUTIVE SUMMARY

Corrective Action Plan Implementation Sub-Phase 5

This Corrective Action Plan Implementation Report Sub-Phase 5 (CAP IMP SP5) documents the operation of the Dual Phase Extraction (DPE) system as laid out in the Corrective Action Plan (CAP) submitted to the Virginia Department of Environmental Quality (VA DEQ) on June 30, 2015. These operations are being conducted at the Meadows of Dan Food Market facility (PC 2014-2256) located at 2609 Jeb Stuart Highway in Meadows of Dan, Virginia and the associated reports are to be submitted to the Roanoke Branch of the Blue Ridge Regional Office (BRRO-ROA) of the VA DEQ on a quarterly basis. The information contained within this Quarterly CAP IMP Report covers work conducted from October 1, 2016 to December 31, 2016.

During this phase of investigation the system operated for approximately 2,196.9 hours and recovered approximately 7,298 pounds of hydrocarbons. Data collected during this and the previous reporting period indicates that approximately 45,667 pounds of gasoline range contamination has been removed from the site during 7,268.1 hours of system operation. Based on the original mass estimate of 81,698 pounds, approximately 36,031 pounds of gasoline contamination remains in the subsurface at the site. Measurable free phase petroleum was not observed within any of the monitoring wells during this phase of investigation; however, monitoring well groundwater samples confirmed the presence of significant dissolved phase petroleum contamination. Drinking water samples collected from receptor IDs DW07/DW08, DW13, DW14, and DW17 yielded Non Detected for chemicals typically associated with petroleum contamination at method detection limits. The drinking water sample collected on December 14, 2016 from onsite supply well DW01 yielded a measurable tert-Butyl alcohol (TBA) concentration. However, a confirmation sample collected from DW01 on January 10, 2017 yielded Non Detected for petroleum contamination.

The dual-phase extraction system appears to be operating efficiently both in terms of effectiveness and cost at the Meadows of Dan Food Market facility. Greene recommends continuing with the system operation and maintenance schedule as outlined in the CAP.

This Executive Summary is an integral part of the Corrective Action Plan Implementation Sub-Phase 5. Greene recommends that the report be read in its entirety.

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CORRECTIVE ACTION PLAN
IMPLEMENTATION REPORT
SUB-PHASE 5
for
Meadows of Dan Food Market
Meadows of Dan, VA

1.0 Introduction

This Corrective Action Plan Implementation Report Sub-Phase 5 (CAP IMP SP5) documents the operation of the Dual Phase Extraction (DPE) system as described in the Corrective Action Plan (CAP) submitted to the Virginia Department of Environmental Quality (VA DEQ) on June 30, 2015. These operations are being conducted at the Meadows of Dan Food Market facility (PC 2014-2256) located at 2609 Jeb Stuart Highway in Meadows of Dan, Virginia and the associated reports are to be submitted to the Roanoke Branch of the Blue Ridge Regional Office (BRRO-ROA) of the VA DEQ on a quarterly basis. The information contained within this Quarterly CAP IMP Report covers work conducted from October 1, 2016 to December 31, 2016.

2.0 Site Location and Description

The subject property is an approximately 1.07-acre parcel located at 2609 Jeb Stuart Highway in a primarily commercial and residential area within the limits of Patrick County, Virginia. The subject site is improved with a two-story building that serves as the Meadows of Dan Food Market, as well as a coin-operated laundromat and rental apartment. It is believed that the subject site has operated as a retail gasoline station and convenience store from approximately 1976 to present. As part of underground storage tank (UST) system upgrade activities, one 10,000-gallon regular gasoline UST (UST #1) and one 10,000-gallon premium gasoline UST (UST #2) located within a common basin were removed from the ground on December 30, 2013. The subject site currently maintains one 10,000-gallon gasoline UST and one 8,000-gallon compartmentalized UST. The 8,000-gallon compartmentalized UST consists of a 4,000-gallon premium gasoline compartment and a 4,000-gallon kerosene compartment. In addition, the property maintains two gasoline dispensers and one kerosene dispenser. The subject site is further improved with asphalt access and parking areas. The Meadows of Dan Food Market obtains potable water from a drilled supply well located within the store building approximately 75 feet northwest of the tank basin. The subject site is bordered by Jeb Stuart Highway to the south, Baptist Church Lane to the north, and commercial properties to the east and west. A Site Map documenting pertinent features of the site and surrounding area is included in Appendix B.

3.0 Operations Summary

3.1 System Downtime

The DPE system is designed to be operated 24 hours a day 7 days a week until such time as endpoints are met. The system may experience routine downtime to perform normal maintenance of system components or non-routine downtime due to the logic circuit detecting an abnormal operating parameter. During this reporting period, the system was in operation for 2,196.9 hours of the possible 2,208 hours from October 1, 2016 to December 31, 2016 for a total of 11.1 hours of downtime. Based on this total downtime data, the system was operational for 99.50% of the time during this phase of work.

In order to make the appropriate adjustments to recovery rate and estimated recovery time period, an overall operational efficiency to date for system operation is necessary. Based on the 7,268.1 hours of runtime compared to the possible 7,502 hours from system start-up on February 23, 2016 to December 31, 2016 the overall operational efficiency has been 96.88%.

3.2 Remediation System Operation & Maintenance

During CAP IMP SP5, the dual-phase remediation system was monitored twice monthly during October and November 2016 and once during December 2016. Monthly monitoring events will continue to be performed during CAP IMP SP6 and thereafter for the duration of the project. During the scheduled site visits, the operation of system components and site conditions are observed/monitored and the data is utilized to maximize hydrocarbon recovery and prevent potential downtime conditions.

3.2.1 Remediation System Sampling

As part of CAP IMP SP5 activities, Greene collected three sample sets, one per month, from the remediation system. Each sample set includes one air sample and three water samples. The rotary claw pump exhaust samples, which are labeled RCP## are collected from a sample port located along the RCP exhaust piping. The influent water samples, which are labeled INF## are collected from a sample port located along the piping that transfers water from the oil-water separator to the air stripper. The midpoint water samples, which are labeled MID## are collected from a sample port located along the pipping between the air stripper and the carbon units, and the effluent water samples, which are labeled EFF##, are collected from a sample port located on the piping that discharges water from the carbon units to the outfall location. As stated in the CAP, system samples will continue to be collected approximately once per month for the duration of system operation.

3.2.2 Remediation System Flow Rates & Recovery Volume

By design, Dual-Phase Extraction technology recovers subsurface contamination via liquids removal/treatment and subsurface vapor phase removal. These two streams have been monitored during site visits in order to yield total flows during the CAP IMP SP5 phase of system operation.

3.2.2.1 Groundwater

Groundwater flow volume is measured on the discharge piping of the air stripper sump by a non-resettable totalizer. Upon delivery, the flow meter had registered a total of 240 gallons during system checks performed at the factory. For the purposes of this project, 240 gallons will serve as the zero point for total water flow volume calculations. The 1,122,770 gallons of effluent discharge recorded as of October 1, 2016 at 5:00 A.M. will serve as the starting point for the current reporting period. As of January 1, 2017 at 5:00 A.M., the totalizer had registered a total volume of 1,461,670 gallons, which indicated the system had discharged a total of 338,900 gallons or approximately 3,683.70 gallons per day during this phase of investigation.

3.2.2.2 Vapor Phase

It should be noted that the air stripper exhaust stream is not true vapor recovered from the subsurface and the exhaust volume of the air stripper portion of the groundwater treatment will not be included with the vapor stream for the purposes of flow rate/volume reporting. However, the contamination recovered via the air stripper will be used in calculating the vapor phase petroleum emissions as required by the VA DEQ Stationary Source Permit to Construct and Operate obtained by Greene prior to system start-up. A copy of the air permit is included in Appendix D.

Air flow volume has been calculated based on RCP runtime hours and the flow rates measured through the use of a pitot tube on the effluent RCP piping. The logic circuit has been programmed to calculate the flow rate in standard cubic feet per minute (SCFM). During the current reporting period, observed daily air flow data was averaged and multiplied across the total number of runtime hours to calculate the air flow volume estimate. Based on 2,196.9 hours of runtime and the average effluent air flow rate of 303.61 SCFM, the total exhaust discharge volume generated during CAP IMP SP5 is approximately 39,939,642 (standardized) cubic feet.

3.2.3 Petroleum Mass Concentrations & Recovery

DPE technology recovers petroleum contamination through the removal of vapor, dissolved, and free phases. During this phase of investigation, very limited free product has been observed in the remediation system components suggesting that the free phase contamination recovered by the system has shifted into

the vapor and dissolved phases during the recovery process. As such, mass estimates have been generated for the dissolved and vapor phases only.

3.2.3.1 Dissolved Phase

During CAP IMP SP5 activities, three sets of influent, midpoint, and effluent water samples have been collected and submitted for laboratory analysis. The influent samples were collected from a sample port located along the piping that transfers water from the oil-water separator to the air stripper. The midpoint samples were collected from a sample port located along the piping between the air stripper and the carbon units, and the effluent samples were collected from a sample port located on the piping that discharges water from the carbon units to the outfall location. All water samples were collected in glass sampling bottles, entered onto a chain of custody document, sealed inside a shipping cooler on ice, and shipped overnight to ESC Lab Sciences of Mt. Juliet, TN. The water samples were analyzed for total petroleum hydrocarbons-gasoline range organics (TPH-GRO) by EPA method 8015, benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tert-butyl ether (MTBE), naphthalene, and ethanol by EPA method 8260. In addition, as part of Virginia Pollutant Discharge Elimination System (VPDES) requirements, the three effluent samples were submitted for pH analysis via EPA method 9040. Table 1 - Summary of CAP IMP SP5 Remediation System Dissolved Phase Analytical Results is included in Appendix A, Page 1. Copies of the laboratory analytical results and chain of custody documentation for the water samples collected during CAP IMP SP5 are included in Appendix C.

As discussed in the Section 3.2.2.1, 338,900 gallons of contaminated groundwater was recovered and disposed of during this phase of investigation. The dissolved phase mass removal estimate has been calculated by applying averaged constituent concentrations across the entire water discharge volume. For the purposes of determining mass removal through the dissolved phase, the influent water sample results have been used. The calculation process is as follows: The influent water sample laboratory results for each constituent were averaged, converted from micrograms per liter (µg/L) into pounds per gallon (lbs/gal), and then multiplied by the total water discharge volume. Based on the analytical data obtained during this phase of work, approximately 17.26 pounds of hydrocarbon contamination was recovered in the dissolved phase during CAP IMP SP5. Table 2 - Summary of the Dissolved Phase Mass Recovery Totals is included in Appendix A, Page 1. A Calculation Sheet depicting this process for individual BTEX constituents, MTBE, and TPH-GRO is included in Appendix F.

The midpoint laboratory analytical results were utilized to calculate the air stripper efficiency (discussed in Section 3.2.3.3) and the mass of hydrocarbons emitted from the air striper as required by the air permit (discussed in Section 3.2.5). The effluent laboratory analytical results were utilized to calculate the carbon

efficiency and prepare the monthly Discharge Monitoring Reports (DMRs) as required by the VPDES General Permit. The monthly DMRs have been submitted to the BRRO-ROA of the VA DEQ. There was one (1) observed exceedance in the water being discharged from the remediation system during CAP IMP SP5. The pH of the effluent sample collected on December 14, 2016 (4.68) was outside the range of 6.0-9.0 required by the VPDES permit. As a result, the chlorine being utilized to control the growth of bacteria was reduced. Should a significant accumulation of bacteria be observed in the bag filters, air stripper, and/or carbon units, additional chlorine will be reintroduced to prevent unnecessary downtime due to fouled treatment components. A copy of the VPDES General Permit Coverage Letter is provided in Appendix E. Copies of the DMRs prepared and submitted during this phase of investigation are included in Appendix E.

3.2.3.2 Vapor Phase

During CAP IMP SP5 activities, three RCP exhaust air samples have been collected and submitted for laboratory analysis. All vapor samples were collected in tedlar bags, entered onto a chain of custody document, sealed inside a shipping cooler on ice, and shipped overnight to ESC Lab Sciences of Mt. Juliet, TN. The air samples were submitted for total volatile petroleum hydrocarbons (TVPH), BTEX, and MTBE analysis via EPA Method 18. Table 3 - Summary of CAP IMP SP5 Remediation System Vapor Phase Analytical Results is included in Appendix A, Page 2. Copies of the laboratory results and chain of custody documentation are included in Appendix C.

The vapor phase mass removal estimate has been calculated by applying monthly averaged constituent concentrations across the monthly exhaust discharge volume. The monthly totals were then combined to estimate quarterly recovery. For the purposes of determining mass removal through the vapor phase, the RCP sample results have been used. The calculation process is as follows: The RCP air sample laboratory results were averaged for each constituent, converted from milligrams per cubic meter (mg/m^3) into pounds per cubic foot (lbs/ft^3), and then multiplied by the monthly RCP exhaust discharge volume. Based on the analytical data obtained during this phase of work, approximately 7,280.69 pounds of hydrocarbon contamination was recovered in the vapor phase as TVPH during CAP IMP SP5. Table 4 - Summary of the Vapor Phase Mass Recovery Totals is included in Appendix A, Page 2. A Calculation Sheet depicting this process for individual BTEX constituents, MTBE, and TVPH is included in Appendix F.

3.2.3.3 Remediation System Treatment Efficiency

Individual and combined air stripper and liquid granular activated carbon (LGAC) efficiencies have been calculated based on the laboratory results for influent, midpoint, and effluent sample sets. Water sample laboratory results were broken down by individual constituents and then average midpoint results were

compared to the average influent results in order to determine the percentage of each constituent removed through air stripping. In addition, the average effluent results were compared to the average midpoint results in order to determine the percentage of each constituent removed through carbon polishing. Finally, the average effluent results were compared to the average influent results in order to determine the percentage of each constituent removed through both air stripping and carbon polishing. A Calculation Sheet depicting this process for individual BTEX constituents, MTBE, and TPH-GRO is included in Appendix F. Table 5 - Summary of Remediation System Components Treatment Efficiencies is included in Appendix A, Page 3.

3.2.4 Operational Adjustments

No significant adjustments have been made during this reporting period. Recovery wells turned off during the CAP IMP SP4 reporting period (MW12, MW22, MW25, and MW27) remained off throughout CAP IMP SP5. However, should ongoing monitoring and sampling activities yield the presence of free product and/or a significant increase in dissolved phase petroleum concentrations, recovery activities will resume at the identified well(s).

3.2.5 Air Emissions Data

As stated in the CAP, Greene submitted a completed Air Operating Permit Application requesting a nonbinding applicability determination to the BRRO-ROA of the VA DEQ on June 30, 2015. In a letter dated July 30, 2015, the VA DEQ determined the DPE remediation system would be subject to air permitting requirements based on the potential to emit VOCs at a rate greater than 25 tons per year (tpy). Over the next few months Greene provided a VA DEQ air permit writer with site specific information regarding the proposed remediation system and potential options for treatment of the air waste stream. Based on the estimated mass of petroleum contamination and the current site and PC conditions it was determined that the vapor phase VOCs associated with the DPE would not require control measures. On October 19, 2015, the VA DEQ issued the air permit for the Meadows of Dan Food Market, which stated emissions from the operation of the DPE remediation system must not exceed 65 tpy. Further, conditions of the permit include requirements for monthly sampling of the air waste stream and the preparation of monthly and annual air emissions calculations. Copies of the VA DEQ Stationary Source Permit to Construct and Operate and the monthly air emissions calculations are included Appendix D.

Operation of the DPE system during this reporting period resulted in measurable VOC emissions from the RCP and air stripper. As a result, Greene generated monthly emissions rates as well as the total emissions to date. Further, Greene predicted the annual emissions (observed monthly rates across one full year). Emissions calculations reveal that emissions of total VOCs is below the annual emission limit of 65 tpy.

It should be noted that the estimated total petroleum mass (approximately 40 tons) believed to be in the subsurface prior to CAP IMP at the site is below the VA DEQ air permit emission limit for the subject site and Greene does not anticipate exceeding 65 tpy. Table 6 – Summary of DPE Remediation System Air Emissions is included in Appendix A, Page 3. Emissions from the RCP and air stripper exhaust can be seen on the Vapor Phase Mass Recovery Calculation Sheets included in Appendix F.

3.3 Utilities, Consumables, & Waste Disposal

3.3.1 Utilities

Long-term implementation of DPE technology requires the usage of two utilities; electricity and cellular service. Three monthly bills for the electrical service have been received during this reporting period. The bills covering the usage period for CAP IMP SP5 averaged approximately $1,500.00. Future monthly electrical charges are expected to remain within this range and will depend on system runtime during each particular billing cycle as well as current rates. The majority of the electrical usage at the site is thought to be attributed to the three 15-horsepower motors that are operating the rotary claw pumps almost continually. Finally, a cellular service agreement has been implemented to provide offsite access to the system's logic circuit. The agreement is billed monthly at approximately $150.00.

3.3.2 Consumables

Consumables used during this reporting period include industrial type bag filters. A total of 10 bag filters have been installed in the bag filter housings within the DPE remediation system during CAP IMP SP5 activities. The filters are replaced on an as needed basis, which is determined by the pressure differential as observed on either side of the filter housings. No other consumables have been used during this reporting period.

3.3.3 Waste

The only waste generated during the current reporting period is the bag filters discussed in the previous section. These filters are being stored onsite in a 55-gallon drum awaiting disposal at the end of the project. No other wastes have been generated during the current reporting period.

3.4 Problems with System Operation

3.4.1 Remediation System

Following optimization/balancing during start-up activities, the DPE remediation system has functioned properly through approximately 10 months of operation. There have been no major operational issues

noted during this reporting period. However, the exhaust air flow transmitter and the LGAC pressure transmitter, which begin malfunctioning during CAP IMP SP4, will be replaced during CAP IMP SP6.

3.4.2 Subsurface Components

There have been no major issues noted with any of the subsurface components during CAP IMP SP5.

3.5 DPE Remediation System Components Maintenance & Modifications

3.5.1 Routine Maintenance

There has been no true maintenance performed on the remediation system or any subsurface components. During each site visit the oil water separator is checked for the presence of free phase petroleum. To date, only a limited layer of petroleum (sheen) has been observed within the oil water separator. Additional routine maintenance includes the cleaning of site glasses and wye-strainers on an as needed basis. Further, the LGAC vessels were backwashed four times during this reporting period and will continue to be backwashed as needed based on pressure readings and/or indication of the potential for significant breakthrough of petroleum hydrocarbons. As previously mentioned, the bag filters are removed and replaced on an as needed basis. Finally, locks have been installed on the system doors, system control panel, and power disconnects.

3.5.2 Modifications & Non-Routine Maintenance

There have been no system modifications during this reporting period. No non-routine maintenance was performed during this reporting period.

4.0 Subsurface Data

4.1 Water Level Measurements

During the current reporting period the site wells were monitored for depth to product and depth to water. These measurements were collected relative to the tops of the well casings and have been corrected to a relative elevation based on the surveyed well casing elevations. Table 7 – Summary of Corrective Action Plan Implementation Groundwater Elevation Data is included in Appendix A, Page 4.

Groundwater elevation data collected on October 11, 2016, November 14, 2016, and December 14, 2016 were selected for the generation of potentiometric surface maps. The Surfer program was employed to generate the potentiometric surface contour array over the base map created in DesignCAD. A minimum of pseudo data points were used and these were applied only when the kriging algorithm clearly

interpolated the contour lines into certain regions where a paucity of data resulted in an unnatural contour distribution. When pseudo points were used, they were based on nearest neighbors. The potentiometric surface maps generated from the relative elevations of equilibrated groundwater as measured on October 11, 2016, November 14, 2016, and December 14, 2016 are included in Appendix B. Relative groundwater elevations measured on October 11, 2016, November 14, 2016, and December 14, 2016 indicate a groundwater gradient pattern that slopes towards the recovery wells. It appears that DPE operation is effectively influencing groundwater flow in a manner which will promote system performance. This is further depicted in the Drawdown Maps included in Appendix B, which document the change in groundwater elevation on October 11, 2016, November 14, 2016, and December 14, 2016 following approximately eight, nine, and ten months of system operation, respectively, as compared to the groundwater elevations observed immediately prior to system operation on February 22, 2016.

4.2 Free Phase Petroleum

During this phase of investigation measurable free product was not observed in any of the onsite or offsite monitoring wells. It appears that DPE operation has removed the majority of the easily accessible free product and may be preventing its reforming. Table 8 – Summary of Corrective Action Plan Implementation Free Product Thicknesses is included in Appendix A, Page 31.

4.3 Dissolved Phase Petroleum

4.3.1 Groundwater Monitoring Wells

On December 14, 2016, groundwater samples were collected from the 28 monitoring wells associated with the Meadows of Dan Food Market investigation. The groundwater samples collected from the recovery wells (MW01A, MW02, MW03, MW07, MW12, MW14, MW15, MW19, and MW21-MW28) were collected using dedicated, disposable, HDPE bailers and were transferred directly into the appropriate sample containers. Further, monitoring well MW04, MW05, MW06, MW08, MW09, MW10, MW11, MW13, MW16, MW17, MW18, and MW19 groundwater samples were collected using a 12-volt S.S. Monsoon Proactive Environmental Products submersible pump with a low-flow controller. Dedicated, disposable, LDPE tubing was used to purge the wells and transfer the groundwater samples directly into the appropriate sample containers. The wells were purged until dry or a minimum of three well volumes had been displaced. Water samples were collected in the appropriate sample containers, stored on ice, and transported via courier to the REI Consultants, Inc. laboratory in Beaver, WV. The groundwater samples collected from the 28 monitoring wells were submitted for TPH-GRO via EPA method 8015, BTEX, MTBE, and naphthalene via EPA method 8260. Copies of the laboratory results and

chain of custody documentation are included in Appendix C. Isoconcentration Maps are provided in Appendix B.

The water samples collected from monitoring wells MW01A-MW05, MW07, MW09-MW26, and MW28 yielded measurable levels of petroleum contamination. However, selected results were flagged with J qualifiers and the concentrations are considered estimates due to the reported results being below the reported detection limits (RDLs) and equal to or above the method detection limits (MDLs). As a result, it is likely the analytes are present in the samples, but the results should be viewed only as qualitative and not quantitative. The water samples collected from monitoring wells MW06, MW08, and MW27 yielded Non Detected at MDLs. Table 9 - Summary of Monitoring Well Dissolved Phase Analytical Results is included in Appendix A, Page 47. A summary of the monitoring well dissolved phase analytical results is provided below:

The groundwater sample collected from monitoring well MW01A yielded measurable TPH-GRO, BTEX, MTBE, and naphthalene contamination. In addition, this sample yielded the highest TPH-GRO, toluene, ethylbenzene, xylenes, and naphthalene concentrations observed during CAP IMP SP5 monitoring well sampling activities. However, the reported MTBE and naphthalene concentrations were flagged with J qualifiers.

The groundwater sample collected from monitoring well MW02 yielded measurable TPH-GRO, BTEX, and MTBE concentrations during CAP IMP SP5 sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW03 yielded measurable TPH-GRO, BTEX, and MTBE concentrations during CAP IMP SP5 sampling activities. However, the reported ethylbenzene and MTBE concentrations were flagged with J qualifiers.

The groundwater sample collected from monitoring well MW04 yielded measurable TPH-GRO, BTEX, and MTBE concentrations during CAP IMP SP5 sampling activities. However, the reported toluene and ethylbenzene concentrations were flagged with J qualifiers.

The groundwater sample collected from monitoring well MW05 yielded measurable TPH-GRO and MTBE concentrations during CAP IMP SP5 sampling activities. However, the reported TPH-GRO concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW06 yielded Non Detected for petroleum contamination during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW07 yielded measurable TPH-GRO, BTEX, MTBE, and naphthalene concentrations during CAP IMP SP5 sampling activities. In addition, this sample yielded the highest benzene and MTBE concentrations observed during CAP IMP SP5 monitoring well sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW08 yielded Non Detected for petroleum contamination during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW09 yielded measurable TPH-GRO and MTBE concentrations during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW10 yielded measurable TPH-GRO and MTBE concentrations during CAP IMP SP5 sampling activities. However, the reported TPH-GRO concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW11 yielded measurable TPH-GRO, BTEX, MTBE and naphthalene concentrations during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW12 yielded measurable TPH-GRO, BTEX, naphthalene concentrations during CAP IMP SP5 sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW13 yielded only a measurable MTBE concentration during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW14 yielded measurable TPH-GRO, BTEX, MTBE, and naphthalene concentrations during CAP IMP SP5 sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW15 yielded measurable TPH-GRO, BTEX, MTBE, and naphthalene concentrations during CAP IMP SP5 sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW16 yielded measurable TPH-GRO and MTBE concentrations during CAP IMP SP5 sampling activities. However, the reported TPH-GRO concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW17 yielded only a measurable TPH-GRO concentration during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW18 yielded measurable TPH-GRO, BTEX, and naphthalene concentrations during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW19 yielded measurable TPH-GRO, BTEX, MTBE, and naphthalene concentrations during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW20 yielded only a measurable TPH-GRO concentration during CAP IMP SP5 sampling activities. However, the reported TPH-GRO concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW21 yielded measurable TPH-GRO, BTEX, MTBE, and naphthalene concentrations during CAP IMP SP5 sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW22 yielded measurable TPH-GRO, toluene, ethylbenzene, xylenes, MTBE, and naphthalene concentrations during CAP IMP SP5 sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW23 yielded measurable TPH-GRO, BTEX, MTBE, and naphthalene concentrations during CAP IMP SP5 sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW24 yielded measurable TPH-GRO, BTEX, and MTBE concentrations during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW25 yielded only a measurable MTBE concentration during CAP IMP SP5 sampling activities. However, the reported MTBE concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW26 yielded measurable TPH-GRO, BTEX, MTBE, and naphthalene concentrations during CAP IMP SP5 sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

The groundwater sample collected from monitoring well MW27 yielded Non Detected for petroleum contamination during CAP IMP SP5 sampling activities.

The groundwater sample collected from monitoring well MW28 yielded measurable BTEX and naphthalene concentrations during CAP IMP SP5 sampling activities. However, the reported naphthalene concentration was flagged with a J qualifier.

4.3.2 Supply Wells

As part of CAP IMP SP5 activities, groundwater samples were collected from receptor IDs DW01, DW07/DW08, DW13, DW14, and DW17. Due to the power being disconnected, Greene was unable to collect a drinking water sample from receptor ID DW16. Clean, disposable nitrile gloves were used during all phases of sample collection. All drinking water samples were collected in glass sampling bottles, entered onto a chain of custody document, placed on ice, and submitted to ESC Lab Sciences of Mt. Juliet, TN. The drinking water samples were submitted for VOCs analysis via EPA method 8260. Additional information regarding the potential receptors located proximal to the Meadows of Dan Food Market is included in the Summary of the ¼-Mile Radius Receptor Survey Results presented in Table 10 included in Appendix A, Page 52. A Potential Receptors Location Map is included in Appendix B.

As documented in the previously submitted site characterization, CAP Development, and CAP IMP reports, offsite receptors DW02, DW03, DW04/DW05/DW06, DW12, DW15, and DW19 have been impacted with petroleum. In an effort to mitigate concern associated with ingestion of petroleum impacted drinking water, carbon filtration unit (CFU) systems have been installed on the impacted supply wells as part of the VA DEQ Alternate Water Supply (AWS) program. As part of CFU system installation and maintenance activities pre-treatment drinking water samples are routinely collected. As a result, Greene did not collect a sample from receptors DW02, DW03, DW04/DW05/DW06, DW12, DW15, or DW19 during this phase of investigation. However, the available laboratory analytical results collected on behalf of the VA DEQ AWS program have been included in this report. Copies of the laboratory results and chain of custody documentation for the samples collected on behalf of the VA DEQ AWS program are not included in this report and any request for this documentation should be made to the VA DEQ AWS program.

The water samples collected from receptors DW07/DW08, DW13, DW14, and DW17 on December 14, 2016 yielded Non Detected for chemicals typically associated with petroleum contamination at method detection limits. However, the water sample collected from the offsite supply well (DW13) yielded a chloroform concentration of 0.756 µg/L and a tetrachloroethene concentration of 0.495 µg/L. The reported chloroform and tetrachloroethene concentrations were flagged with J qualifiers and are considered estimates due to the reported results being below the practical quantitation limit and equal to or above the method detection limit. Chloroform is not typically associated with petroleum products and its presence is likely a byproduct of the reaction of chlorine with naturally occurring organic compounds. Tetrachloroethene is primarily utilized as a solvent for dry cleaning, metal degreasing, and textile processing and is generally not associated with petroleum releases. Further, the observed chloroform and tetrachloroethene concentrations are well below the maximum contaminant levels (MCLs) of 70.0 µg/L and 5.0 µg/L, respectively, established by the United States Environmental Protection Agency (EPA). The MCL is an enforceable standard which defines the highest level of a containment that is allowed in drinking water.

The drinking water sample collected on December 14, 2016 from onsite supply well DW01 yielded a tert-Butyl alcohol (TBA) concentration of 2.51 µg/L. However, the TBA concentration was flagged with a J qualifier and is considered an estimate due to the reported result being below the reporting detection limit and above the method detection limit. Further, a confirmation sample collected from DW01 on January 10, 2017 yielded Non Detected for petroleum contamination. Copies of the laboratory results and chain of custody documentation are included in Appendix C. Table 11 - Summary of Historic & Current Drinking Water Dissolved Phase Analytical Results is included in Appendix A, Page 55.

4.3.3 Vacuum Measurements

During the current reporting period the site wells were monitored for vacuum. The measurements were obtained from vacuum gauges located within the recovery well vaults and from magnehelic gauges installed on the well casings of the remaining monitoring wells. The measurements were recorded in inches of mercury for the recovery wells and inches of water for the monitoring wells and were collected during the site visits. The data obtained during the October 11, November 14, and December 14, 2016 site visits were utilized to generate radius of influence maps. Monitoring data obtained during CAP IMP SP5 activities indicated a significant radius of influence. An area of measurable vacuum communication was observed extending approximately 250 feet northeast to southwest during CAP IMP SP5 activities. Throughout the current reporting period significant areas of influence were observed likely indicating acceptable communication throughout the subsurface soils. Table 12 - Summary of CAP IMP SP5

Vacuum Readings is included in Appendix A, Page 62. Copies of the Radius of Influence Maps are included in Appendix B.

5.0 Projected Time to Achieve Endpoints

5.1 Short-Term

As laid out in the CAP, the major goal of system operation is preventing the formation of subsurface free phase gasoline contamination. Based on the lack of observed free product during CAP IMP SP5 activities, the remediation system appears to have removed a significant portion of the readily available free phase petroleum within the onsite recovery wells. As a result the continued operation of the DPE remediation system is expected to ultimately prevent free product formation at the subject site.

5.2 Long-Term

As stated in the CAP, the major goal of system operation is achieving an endpoint of <0.01 feet of product thickness. In the short-term, the DPE remediation system appears to have reduced the observable free product within the recovery wells to <0.01. In the long-term, this means removing sufficient quantities of subsurface contamination to prevent future free product formation. As estimated in the CAP, approximately 81,698 pounds of petroleum contamination existed beneath the site as of the start of system operation. The mass of the free phase removed through free product recovery is thought to be relatively small and as such has not been subtracted from the original estimate. Data collected during this and the previous reporting period indicates that approximately 45,667 pounds of gasoline range contamination has been removed from the site during 7,268.1 hours of system operation.

Based on the original mass estimate of 81,698 pounds, approximately 36,031 pounds of gasoline contamination remains in the subsurface at the site. Using the mass prior to CAP IMP SP5 of 43,329 pounds of petroleum and the average daily petroleum recovery mass observed during CAP IMP SP5 activities of approximately 79.73 pounds, the average daily recovery rate was found to be 0.18%. Based on the decrease in the daily average recovery, it appears that the majority of the free phase petroleum readily available for removal in the well casings, sand packs, and nearby soils has been removed. As a result, recovery is expected to be best represented through use of an exponential decay model. The daily recovery rate of 0.18% was applied to an equation expressing exponential decay resulting in a calculated decay constant (k) of -2.0149×10^{-3}. Based on a decay constant of -2.0149×10^{-3}, the remaining petroleum mass is estimated to be reduced to one-half and one-quarter of its current mass following approximately 344 days and 688 days of DPE operation respectively. Greene will continue to adjust the estimated timeframe to achieve remedial endpoints based on the ongoing long-term implementation of the DPE

remediation system. Mass removal recovery rate calculation sheets and a remaining petroleum mass graph are included in Appendix F.

6.0 Recommendations & Suggested System Modifications

The dual-phase extraction system appears to be operating efficiently both in terms of effectiveness and cost at the Meadows of Dan Food Market facility. Greene recommends continuing with the system operation and maintenance schedule as outlined in the CAP. Should free phase petroleum and/or a significant increase in dissolved phase contamination be observed in MW12, MW22, MW25, and/or MW27, Greene will resume vacuum extraction at these wells. Further, Greene will consider stopping recovery from any additional recovery wells where significant decreases in dissolved phase petroleum contamination are observed.

End of the CAP Implementation Report Sub-Phase 5

APPENDIX A

Tables

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Table 1.

Summary of CAP IMP SP5 Remediation System Dissolved Phase Analytical Results

Sample ID	Date	TPH-GRO[1]	Benzene[2]	Toluene	Ethyl-benzene	Xylenes	MTBE	Naphthalene	Ethanol	pH[3]
INF13	10/25/16	6,260	16.9	339	171	1,110	50.6	92.5[4]	1,170	NA[5]
INF14	11/14/16	6,630	14.7	356	136	1,190	48.6	243	523[4]	NA
INF15	12/14/16	5,420	13.8	323	131	1,010	47.1	225	291	NA
MID07	10/25/16	940	1.09	26.9	9.67	98.4	16.1	104	1,140	NA
MID08	11/14/16	1,190	ND[6]	33.0	13.1	132	19.4	147	480	NA
MID09	12/14/16	639	0.878[4]	17.9	5.98	67.9	13.9	107	300	NA
EFF13	10/25/16	68.0[4]	ND	ND	ND	ND	19.0	ND	ND	6.02
EFF14	11/14/16	49.8[4]	ND	ND	ND	ND	20.5	9.03	68.4[4]	6.15
EFF15	12/14/16	80.9[4]	ND	ND	ND	ND	17.0	ND	ND	4.68

[1]TPH (gasoline range organics) analysis via U.S. EPA SW-846 method 8015; reported in micrograms per liter (µg/L).
[2]BTEX, MTBE, naphthalene, and ethanol analysis via U.S. EPA SW-846 method 8260; reported in µg/L.
[3]pH analysis via U.S. EPA SW-846 method 9040.
[4]The reported result is an estimate. The reported concentration is less than the reported detection limit (RDL) but equal to or above the method detection limit (MDL).
[5]NA = Not applicable.
[6]ND = Non detected at reporting limit or method detection limit.

Table 2.

Summary of the Dissolved Phase Mass Recovery Totals[1]

Reporting Period	TPH-GRO	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
07/01/15-03/31/16	125.37	1.13	15.69	4.17	24.65	3.25
04/01/16-06/30/16	80.29	0.58	9.07	2.25	14.57	1.61
07/01/16-09/30/16	22.22	0.09	1.57	0.65	3.54	0.27
10/01/16-12/31/16	17.26	0.04	0.96	0.41	3.12	0.14
Operation Total	**245.14**	**1.84**	**27.29**	**7.48**	**45.88**	**5.27**

[1]Recovery totals are reported in pounds.

Table 3.

Summary of CAP IMP SP5 Remediation System Vapor Phase Analytical Results

Sample ID	Date	TVPH[1]	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
RCP16	10/25/16	4,330	ND	279	87.9	507	2.09
RCP17	11/14/16	2,470	5.98	136	46.3	266.8	1.63
RCP18	12/14/16	2,020	5.73	143	47.2	319.2	1.55

[1]TVPH, BTEX, and MTBE analysis via U.S. EPA SW-846 method 18; reported in milligrams per cubic meter (mg/m^3).

Table 4.

Summary of the Vapor Phase Mass Recovery Totals[1]

Reporting Period	Exhaust Stream	TVPH	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
07/01/15-03/31/16	Rotary Claw Pump	10,067.26	55.18	930.01	150.55	606.91	17.40
04/01/16-06/30/16	Rotary Claw Pump	17,889.02	106.80	1,509.02	327.30	1,502.99	23.07
07/01/16-07/31/16	Rotary Claw Pump	5,147.19	16.44	311.48	82.29	404.01	5.50
08/01/16-08/31/16	Rotary Claw Pump	2,373.99	8.13	138.74	41.89	211.37	2.90
09/01/16-09/30/16	Rotary Claw Pump	2,656.32	7.54	174.01	50.18	291.94	2.29
10/01/16-10/31/16	Rotary Claw Pump	3,497.78	0.00	225.38	71.01	409.56	1.69
11/01/16-11/30/16	Rotary Claw Pump	2,050.62	4.96	112.91	38.44	221.50	1.35
12/01/16-12/31/16	Rotary Claw Pump	1,732.29	4.91	122.63	40.48	273.74	1.33
CAP IMP SP5 Total		**7,280.69**	**9.87**	**460.92**	**149.93**	**904.80**	**4.37**
Operation Total		**45,414.47**	**203.96**	**3,524.18**	**802.14**	**3,922.02**	**55.53**

[1]Recovery totals are reported in pounds.

Table 5.

Summary of Remediation System Components Treatment Efficiencies

Reporting Period	System Component	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TPH-GRO
07/01/15-03/31/16	Air Stripper & Carbon Units	100.00%	100.00%	100.00%	100.00%	96.88%	99.91%
04/01/16-06/30/16	Air Stripper	96.79%	95.47%	95.75%	94.68%	64.68%	91.48%
	Carbon Units	100.00%	98.67%	100.00%	99.34%	-25.22%	80.92%
	Air Stripper & Carbon Units	100.00%	99.94%	100.00%	99.97%	55.77%	98.37%
07/01/16-09/30/16	Air Stripper	93.59%	91.20%	93.67%	89.19%	67.55%	88.39%
	Carbon Units	100.00%	98.18%	100.00%	98.16%	5.84%	95.89%
	Air Stripper & Carbon Units	100.00%	99.84%	100.00%	99.80%	69.44%	99.52%
10/01/16-12/31/16	Air Stripper	95.67%	92.36%	93.44%	90.99%	66.23%	84.88%
	Carbon Units	100.00%	100.00%	100.00%	100.00%	-14.37%	92.82%
	Air Stripper & Carbon Units	100.00%	100.00%	100.00%	100.00%	61.38%	98.91%

Table 6.

Summary of DPE Remediation System Air Emissions

Reporting Period	System Component	Calculated Monthly Emissions (tons)	Total Monthly Emissions (tons)	Total Emissions to Date (tons)	Predicted Total Annual Emissions (tons)	Annual Exemption Rate (tons/year)
02/22/16-02/29/16	RCP Exhaust	0.66	0.68	0.68	8.16	65
	Air Stripper Exhaust	0.015				
03/01/16-03/31/16	RCP Exhaust	4.42	4.46	5.14	30.84	65
	Air Stripper Exhaust	0.038				
04/01/16-04/30/16	RCP Exhaust	4.88	4.91	10.05	40.20	65
	Air Stripper Exhaust	0.025				
05/01/16-05/31/16	RCP Exhaust	2.54	2.55	12.60	37.80	65
	Air Stripper Exhaust	0.007				
06/01/16-06/30/16	RCP Exhaust	1.64	1.65	14.25	34.20	65
	Air Stripper Exhaust	0.006				

Table 6 (Cont'd).

Summary of DPE Remediation System Air Emissions

Reporting Period	System Component	Calculated Monthly Emissions (tons)	Total Monthly Emissions (tons)	Total Emissions to Date (tons)	Predicted Total Annual Emissions (tons)	Annual Exemption Rate (tons/year)
07/01/16-07/31/16	RCP Exhaust	2.57	2.58	16.83	33.66	65
	Air Stripper Exhaust	0.005				
08/01/16-08/31/16	RCP Exhaust	1.19	1.19	18.02	30.89	65
	Air Stripper Exhaust	0.003				
09/01/16-09/30/16	RCP Exhaust	1.33	1.33	19.35	29.03	65
	Air Stripper Exhaust	0.002				
10/01/16-10/30/16	RCP Exhaust	1.75	1.75	21.10	28.13	65
	Air Stripper Exhaust	0.003				
11/01/16-11/30/16	RCP Exhaust	1.03	1.03	22.13	26.56	65
	Air Stripper Exhaust	0.002				
12/01/16-12/31/16	RCP Exhaust	0.87	0.87	23.00	25.09	65
	Air Stripper Exhaust	0.002				

Table 7.

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW01A	02/10/16	2,966.19	27.84	2,938.35
	02/22/16		27.59	2,938.60
	03/01/16		29.46	2,936.73
	03/04/16		28.54	2,937.65
	03/07/16		29.55	2,936.64
	03/11/16		29.37	2,936.82
	03/15/16		29.32	2,936.87
	03/18/16		29.78	2,936.41
	03/22/16		29.05	2,937.14
	03/25/16		30.83	2,935.36
	03/29/16		33.53	2,932.66
	04/01/16		34.33	2,931.86
	04/06/16		34.32	2,931.87

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW01A (Cont'd)	04/11/16	2,966.19	34.44	2,931.75
	04/18/16		32.96	2,933.23
	04/25/16		33.25	2,932.94
	05/02/16		34.07	2,932.12
	050/9/16		32.65	2,933.54
	05/16/16		34.15	2,932.04
	05/23/16		33.78	2,932.41
	05/31/16		33.83	2,932.36
	06/06/16		33.74	2,932.45
	06/13/16		33.48	2,932.71
	06/20/16		33.51	2,932.68
	07/06/16		34.55	2,931.64
	07/18/16		33.69	2,932.50
	08/01/16		35.91	2,930.28
	08/22/16		34.72	2,931.47
	09/12/16		36.03	2,930.16
	09/26/16		35.53	2,930.66
	10/11/16		37.78	2,928.41
	10/25/16		37.79	2,928.40
	11/14/16		37.99	2,928.20
	11/28/16		37.88	2,928.31
	12/14/16		37.79	2,928.40
MW02	02/10/16	2,966.24	28.14	2,938.10
	02/22/16		27.98	2,938.26
	03/01/16		32.25	2,933.99
	03/04/16		31.39	2,934.85
	03/07/16		32.61	2,933.63
	03/11/16		31.70	2,934.54
	03/15/16		31.50	2,934.74
	03/18/16		31.63	2,934.61
	03/22/16		31.23	2,935.01
	03/25/16		35.21	2,931.03
	03/29/16		36.24	2,930.00
	04/01/16		36.90	2,929.34
	04/06/16		36.98	2,929.26
	04/11/16		37.37	2,928.87
	04/18/16		36.04	2,930.20

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW02 (Cont'd)	04/25/16	2,966.24	37.36	2,928.88
	05/02/16		37.67	2,928.57
	05/09/16		35.73	2,930.51
	05/16/16		36.56	2,929.68
	05/23/16		37.56	2,928.68
	05/31/16		37.55	2,928.69
	06/06/16		38.05	2,928.19
	06/13/16		38.05	2,928.19
	06/20/16		37.96	2,928.28
	07/06/16		38.11	2,928.13
	07/18/16		38.03	2,928.21
	08/01/16		36.45	2,929.79
	08/22/16		38.37	2,927.87
	09/12/16		38.08	2,928.16
	09/26/16		37.48	2,928.76
	10/11/16		38.49	2,927.75
	10/25/16		38.73	2,927.51
	11/14/16		38.60	2,927.64
	11/28/16		38.36	2,927.88
	12/14/16		38.29	2,927.95
MW03	02/10/16	2,966.05	29.20	2,936.85
	02/22/16		29.14	2,936.91
	03/01/16		32.16	2,933.89
	03/04/16		30.94	2,935.11
	03/07/16		31.03	2,935.02
	03/11/16		31.38	2,934.67
	03/15/16		30.88	2,935.17
	03/18/16		31.21	2,934.84
	03/22/16		33.86	2,932.19
	03/25/16		33.72	2,932.33
	03/29/16		36.70	2,929.35
	04/01/16		36.88	2,929.17
	04/06/16		38.29	2,927.76
	04/11/16		38.36	2,927.69
	04/18/16		36.61	2,929.44
	04/25/16		36.33	2,929.72
	05/02/16		36.65	2,929.40

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW03 (Cont'd)	05/09/16	2,966.05	35.81	2,930.24
	05/16/16		37.30	2,928.75
	05/23/16		36.84	2,929.21
	05/31/16		37.74	2,928.31
	06/06/16		37.81	2,928.24
	06/13/16		37.77	2,928.28
	06/20/16		38.03	2,928.02
	07/06/16		38.18	2,927.87
	07/18/16		37.71	2,928.34
	08/01/16		38.98	2,927.07
	08/22/16		39.05	2,927.00
	09/12/16		39.68	2,926.37
	09/26/16		39.67	2,926.38
	10/11/16		40.20	2,925.85
	10/25/16		40.22	2,925.83
	11/14/16		39.94	2,926.11
	11/28/16		40.20	2,925.85
	12/14/16		39.72	2,926.33
MW04	02/10/16	2,965.67	28.95	2,936.72
	02/22/16		28.93	2,936.74
	03/01/16		30.08	2,935.59
	03/04/16		30.18	2,935.49
	03/07/16		30.20	2,935.47
	03/11/16		30.43	2,935.24
	03/15/16		30.47	2,935.20
	03/18/16		30.57	2,935.10
	03/22/16		30.57	2,935.10
	03/25/16		31.25	2,934.42
	03/29/16		32.01	2,933.66
	04/01/16		32.56	2,933.11
	04/06/16		33.61	2,932.06
	04/11/16		34.07	2,931.60
	04/18/16		34.26	2,931.41
	04/25/16		34.46	2,931.21
	05/02/16		34.74	2,930.93
	05/09/16		34.05	2,931.62
	05/16/16		34.86	2,930.81

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW04 (Cont'd)	05/23/16	2,965.67	34.96	2,930.71
	05/31/16		35.14	2,930.53
	06/06/16		35.48	2,930.19
	06/13/16		35.94	2,929.73
	06/20/16		34.34	2,931.33
	07/06/16		36.19	2,929.48
	07/18/16		36.43	2,929.24
	08/01/16		36.32	2,929.35
	08/22/16		36.27	2,929.40
	09/12/16		36.86	2,928.81
	09/26/16		37.56	2,928.11
	10/11/16		37.99	2,927.68
	10/25/16		37.82	2,927.85
	11/14/16		38.04	2,927.63
	11/28/16		37.92	2,927.75
	12/14/16		38.66	2,927.01
MW05	02/10/16	2,965.57	28.71	2,936.86
	02/22/16		28.70	2,936.87
	03/01/16		30.07	2,935.50
	03/04/16		30.01	2,935.56
	03/07/16		30.15	2,935.42
	03/11/16		30.28	2,935.29
	03/15/16		30.32	2,935.25
	03/18/16		30.43	2,935.14
	03/22/16		30.48	2,935.09
	03/25/16		31.20	2,934.37
	03/29/16		32.05	2,933.52
	04/01/16		32.54	2,933.03
	04/06/16		33.69	2,931.88
	04/11/16		34.21	2,931.36
	04/18/16		34.33	2,931.24
	04/25/16		34.53	2,931.04
	05/02/16		34.91	2,930.66
	05/09/16		34.02	2,931.55
	05/16/16		34.93	2,930.64
	05/23/16		35.06	2,930.51
	05/31/16		35.38	2,930.19

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW05 (Cont'd)	06/06/16	2,965.57	35.54	2,930.03
	06/13/16		36.19	2,929.38
	06/20/16		36.13	2,929.44
	07/06/16		36.25	2,929.32
	07/18/16		36.57	2,929.00
	08/01/16		36.94	2,928.63
	08/22/16		36.32	2,929.25
	09/12/16		37.03	2,928.54
	09/26/16		37.76	2,927.81
	10/11/16		38.20	2,927.37
	10/25/16		38.07	2,927.50
	11/14/16		38.33	2,927.24
	11/28/16		38.23	2,927.34
	12/14/16		38.85	2,926.72
MW06	02/10/16	2,967.63	27.65	2,939.98
	02/22/16		27.61	2,940.02
	03/01/16		28.94	2,938.69
	03/04/16		29.04	2,938.59
	03/07/16		29.23	2,938.40
	03/11/16		29.42	2,938.21
	03/15/16		29.41	2,938.22
	03/18/16		29.60	2,938.03
	03/22/16		29.72	2,937.91
	03/25/16		30.07	2,937.56
	03/29/16		30.61	2,937.02
	04/01/16		31.36	2,936.27
	04/06/16		32.14	2,935.49
	04/11/16		32.59	2,935.04
	04/18/16		32.80	2,934.83
	04/25/16		33.34	2,934.29
	05/02/16		33.82	2,933.81
	05/09/16		33.01	2,934.62
	05/16/16		34.30	2,933.33
	05/23/16		34.83	2,932.80
	05/31/16		34.81	2,932.82

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW06 (Cont'd)	06/06/16	2,967.63	34.96	2,932.67
	06/13/16		35.25	2,932.38
	06/20/16		35.54	2,932.09
	07/06/16		36.12	2,931.51
	07/18/16		36.35	2,931.28
	08/01/16		36.69	2,930.94
	08/22/16		35.51	2,932.12
	09/12/16		34.90	2,932.73
	09/26/16		35.64	2,931.99
	10/11/16		36.31	2,931.32
	10/25/16		36.51	2,931.12
	11/14/16		36.83	2,930.80
	11/28/16		37.13	2,930.50
	12/14/16		37.44	2,930.19
MW07	02/10/16	2,966.00	27.86	2,938.14
	02/22/16		27.76	2,938.24
	03/01/16		27.79	2,938.21
	03/04/16		26.46	2,939.54
	03/07/16		27.57	2,938.43
	03/11/16		27.42	2,938.58
	03/15/16		27.62	2,938.38
	03/18/16		27.60	2,938.40
	03/22/16		26.75	2,939.25
	03/25/16		27.30	2,938.70
	03/29/16		33.05	2,932.95
	04/01/16		29.08	2,936.92
	04/06/16		35.25	2,930.75
	04/11/16		35.79	2,930.21
	04/18/16		35.82	2,930.18
	04/25/16		36.54	2,929.46
	05/02/16		36.05	2,929.95
	05/09/16		36.52	2,929.48
	05/16/16		36.07	2,929.93
	05/23/16		35.57	2,930.43
	05/31/16		36.45	2,929.55
	06/06/16		36.34	2,929.66

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW07 (Cont'd)	06/13/16	2,966.00	36.20	2,929.80
	06/20/16		36.19	2,929.81
	07/06/16		36.34	2,929.66
	07/18/16		36.40	2,929.60
	08/01/16		36.25	2,929.75
	08/22/16		37.59	2,928.41
	09/12/16		37.63	2,928.37
	09/26/16		36.72	2,929.28
	10/11/16		38.66	2,927.34
	10/25/16		37.39	2,928.61
	11/14/16		37.58	2,928.42
	11/28/16		37.41	2,928.59
	12/14/16		36.78	2,929.22
MW08	02/10/16	2,966.74	30.44	2,936.30
	02/22/16		30.46	2,936.28
	03/01/16		30.71	2,936.03
	03/04/16		30.79	2,935.95
	03/07/16		30.94	2,935.80
	03/11/16		31.08	2,935.66
	03/15/16		31.16	2,935.58
	03/18/16		31.24	2,935.50
	03/22/16		31.45	2,935.29
	03/25/16		31.65	2,935.09
	03/29/16		32.17	2,934.57
	04/01/16		32.45	2,934.29
	04/06/16		33.09	2,933.65
	04/11/16		33.56	2,933.18
	04/18/16		34.08	2,932.66
	04/25/16		34.57	2,932.17
	05/02/16		36.94	2,929.80
	05/09/16		34.69	2,932.05
	05/16/16		35.15	2,931.59
	05/23/16		35.36	2,931.38
	05/31/16		35.51	2,931.23
	06/06/16		35.86	2,930.88
	06/13/16		36.08	2,930.66
	06/20/16		36.37	2,930.37

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW08 (Cont'd)	07/06/16	2,966.74	36.92	2,929.82
	07/18/16		37.25	2,929.49
	08/01/16		37.65	2,929.09
	08/22/16		36.57	2,930.17
	09/12/16		37.30	2,929.44
	09/26/16		37.98	2,928.76
	10/11/16		38.91	2,927.83
	10/25/16		38.84	2,927.90
	11/14/16		39.01	2,927.73
	11/28/16		39.19	2,927.55
	12/14/16		39.27	2,927.47
MW09	02/10/16	2,967.40	31.19	2,936.21
	02/22/16		31.21	2,936.19
	03/01/16		31.69	2,935.71
	03/04/16		31.79	2,935.61
	03/07/16		31.95	2,935.45
	03/11/16		32.08	2,935.32
	03/15/16		32.14	2,935.26
	03/18/16		32.25	2,935.15
	03/22/16		32.37	2,935.03
	03/25/16		32.73	2,934.67
	03/29/16		33.28	2,934.12
	04/01/16		33.63	2,933.77
	04/06/16		34.28	2,933.12
	04/11/16		34.78	2,932.62
	04/18/16		35.24	2,932.16
	04/25/16		35.58	2,931.82
	05/02/16		35.95	2,931.45
	05/09/16		35.47	2,931.93
	05/16/16		36.12	2,931.28
	05/23/16		36.32	2,931.08
	05/31/16		36.45	2,930.95
	06/06/16		36.74	2,930.66
	06/13/16		36.98	2,930.42
	06/20/16		37.22	2,930.18
	07/06/16		37.64	2,929.76

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW09 (Cont'd)	07/18/16	2,967.40	37.94	2,929.46
	08/01/16		38.31	2,929.09
	08/22/16		37.62	2,929.78
	09/12/16		38.18	2,929.22
	09/26/16		38.73	2,928.67
	10/11/16		39.76	2,927.64
	10/25/16		39.45	2,927.95
	11/14/16		39.51	2,927.89
	11/28/16		39.59	2,927.81
	12/14/16		39.63	2,927.77
MW10	02/10/16	2,966.76	31.87	2,934.89
	02/22/16		31.89	2,934.87
	03/01/16		31.71	2,935.05
	03/04/16		31.63	2,935.13
	03/07/16		31.99	2,934.77
	03/11/16		32.10	2,934.66
	03/15/16		32.10	2,934.66
	03/18/16		32.42	2,934.34
	03/22/16		32.54	2,934.22
	03/25/16		32.56	2,934.20
	03/29/16		32.91	2,933.85
	04/01/16		33.10	2,933.66
	04/06/16		33.57	2,933.19
	04/11/16		33.90	2,932.86
	04/18/16		34.79	2,931.97
	04/25/16		35.02	2,931.74
	05/02/16		32.55	2,934.21
	05/09/16		35.34	2,931.42
	05/16/16		35.41	2,931.35
	05/23/16		35.46	2,931.30
	05/31/16		35.82	2,930.94
	06/06/16		35.93	2,930.83
	06/13/16		36.16	2,930.60
	06/20/16		36.57	2,930.19
	07/06/16		36.94	2,929.82
	07/18/16		37.48	2,929.28

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW10 (Cont'd)	08/01/16	2,966.76	38.03	2,928.73
	08/22/16		36.16	2,930.60
	09/12/16		38.26	2,928.50
	09/26/16		39.60	2,927.16
	10/11/16		40.81	2,925.95
	10/25/16		39.42	2,927.34
	11/14/16		38.76	2,928.00
	11/28/16		38.77	2,927.99
	12/14/16		38.53	2,928.23
MW11	02/10/16	2,968.11	31.92	2,936.19
	02/22/16		31.91	2,936.20
	03/01/16		32.52	2,935.59
	03/04/16		32.62	2,935.49
	03/07/16		32.75	2,935.36
	03/11/16		32.88	2,935.23
	03/15/16		32.95	2,935.16
	03/18/16		33.03	2,935.08
	03/22/16		33.15	2,934.96
	03/25/16		33.57	2,934.54
	03/29/16		34.16	2,933.95
	04/01/16		34.54	2,933.57
	04/06/16		35.30	2,932.81
	04/11/16		35.74	2,932.37
	04/18/16		36.12	2,931.99
	04/25/16		36.42	2,931.69
	05/02/16		36.75	2,931.36
	05/09/16		36.18	2,931.93
	05/16/16		36.89	2,931.22
	05/23/16		37.12	2,930.99
	05/31/16		37.24	2,930.87
	06/06/16		37.43	2,930.68
	06/13/16		37.76	2,930.35
	06/20/16		38.02	2,930.09
	07/06/16		38.33	2,929.78
	07/18/16		38.63	2,929.48
	08/01/16		38.91	2,929.20
	08/22/16		38.53	2,929.58

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW11 (Cont'd)	09/12/16	2,968.11	38.90	2,929.21
	09/26/16		39.37	2,928.74
	10/11/16		40.42	2,927.69
	10/25/16		40.01	2,928.10
	11/14/16		40.14	2,927.97
	11/28/16		40.21	2,927.90
	12/14/16		40.24	2,927.87
MW12	02/10/16	2,965.94	27.59	2,938.35
	02/22/16		27.56	2,938.38
	03/01/16		31.10	2,934.84
	03/04/16		29.92	2,936.02
	03/07/16		30.18	2,935.76
	03/11/16		30.28	2,935.66
	03/15/16		30.49	2,935.45
	03/18/16		30.56	2,935.38
	03/22/16		30.42	2,935.52
	03/25/16		34.33	2,931.61
	03/29/16		34.89	2,931.05
	04/01/16		35.76	2,930.18
	04/06/16		35.69	2,930.25
	04/11/16		35.63	2,930.31
	04/18/16		35.71	2,930.23
	04/25/16		36.14	2,929.80
	05/02/16		35.75	2,930.19
	05/09/16		35.74	2,930.20
	05/16/16		36.09	2,929.85
	05/23/16		36.45	2,929.49
	05/31/16		34.73	2,931.21
	06/06/16		36.35	2,929.59
	06/13/16		35.87	2,930.07
	06/20/16		36.15	2,929.79
	07/06/16		36.28	2,929.66
	07/18/16		36.01	2,929.93
	08/01/16		36.13	2,929.81
	08/22/16		36.80	2,929.14
	09/12/16		35.40	2,930.54
	09/26/16		36.01	2,929.93

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW12 (Cont'd)	10/11/16	2,965.94	36.27	2,929.67
	10/25/16		36.46	2,929.48
	11/14/16		36.76	2,929.18
	11/28/16		36.98	2,928.96
	12/14/16		37.23	2,928.71
MW13	02/10/16	2,965.32	28.17	2,937.15
	02/22/16		28.20	2,937.12
	03/01/16		28.92	2,936.40
	03/04/16		30.96	2,934.36
	03/07/16		29.11	2,936.21
	03/11/16		29.29	2,936.03
	03/15/16		29.37	2,935.95
	03/18/16		29.52	2,935.80
	03/22/16		29.62	2,935.70
	03/25/16		30.90	2,934.42
	03/29/16		30.68	2,934.64
	04/01/16		31.08	2,934.24
	04/06/16		31.92	2,933.40
	04/11/16		32.49	2,932.83
	04/18/16		32.88	2,932.44
	04/25/16		33.28	2,932.04
	05/02/16		33.73	2,931.59
	05/09/16		33.14	2,932.18
	05/16/16		33.88	2,931.44
	05/23/16		34.06	2,931.26
	05/31/16		34.21	2,931.11
	06/06/16		34.48	2,930.84
	06/13/16		35.90	2,929.42
	06/20/16		36.08	2,929.24
	07/06/16		35.55	2,929.77
	07/18/16		35.93	2,929.39
	08/01/16		36.28	2,929.04
	08/22/16		35.13	2,930.19
	09/12/16		35.67	2,929.65
	09/26/16		36.49	2,928.83
	10/11/16		37.07	2,928.25
	10/25/16		37.14	2,928.18

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW13 (Cont'd)	11/14/16	2,965.32	37.52	2,927.80
	11/28/16		37.69	2,927.63
	12/14/16		38.09	2,927.23
MW14	02/10/16	2,966.11	29.35	2,936.76
	02/22/16		29.34	2,936.77
	03/01/16		30.95	2,935.16
	03/04/16		30.16	2,935.95
	03/07/16		30.20	2,935.91
	03/11/16		30.21	2,935.90
	03/15/16		30.00	2,936.11
	03/18/16		31.37	2,934.74
	03/22/16		29.98	2,936.13
	03/25/16		35.29	2,930.82
	03/29/16		35.87	2,930.24
	04/01/16		35.96	2,930.15
	04/06/16		36.69	2,929.42
	04/11/16		36.41	2,929.70
	04/18/16		36.32	2,929.79
	04/25/16		36.20	2,929.91
	05/02/16		36.38	2,929.73
	05/09/16		34.56	2,931.55
	05/16/16		35.58	2,930.53
	05/23/16		35.40	2,930.71
	05/31/16		35.86	2,930.25
	06/06/16		36.10	2,930.01
	06/13/16		36.15	2,929.96
	06/20/16		36.67	2,929.44
	07/06/16		36.68	2,929.43
	07/18/16		36.86	2,929.25
	08/01/16		37.12	2,928.99
	08/22/16		37.22	2,928.89
	09/12/16		37.48	2,928.63
	09/26/16		37.40	2,928.71
	10/11/16		37.55	2,928.56
	10/25/16		38.59	2,927.52
	11/14/16		37.68	2,928.43

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW14 (Cont'd)	11/28/16	2,966.11	37.60	2,928.51
	12/14/16		37.77	2,928.34
MW15	02/10/16	2,967.06	30.30	2,936.76
	02/22/16		30.26	2,936.80
	03/01/16		32.13	2,934.93
	03/04/16		31.28	2,935.78
	03/07/16		31.33	2,935.73
	03/11/16		31.16	2,935.90
	03/15/16		31.41	2,935.65
	03/18/16		31.49	2,935.57
	03/22/16		31.25	2,935.81
	03/25/16		35.16	2,931.90
	03/29/16		36.45	2,930.61
	04/01/16		35.69	2,931.37
	04/06/16		35.82	2,931.24
	04/11/16		35.83	2,931.23
	04/18/16		35.81	2,931.25
	04/25/16		35.89	2,931.17
	05/02/16		35.98	2,931.08
	05/09/16		35.83	2,931.23
	05/16/16		36.03	2,931.03
	05/23/16		36.09	2,930.97
	05/31/16		36.48	2,930.58
	06/06/16		36.54	2,930.52
	06/13/16		36.04	2,931.02
	06/20/16		36.15	2,930.91
	07/06/16		36.28	2,930.78
	07/18/16		36.24	2,930.82
	08/01/16		36.33	2,930.73
	08/22/16		36.31	2,930.75
	09/12/16		36.55	2,930.51
	09/26/16		36.51	2,930.55
	10/11/16		36.59	2,930.47
	10/25/16		36.69	2,930.37
	11/14/16		36.52	2,930.54
	11/28/16		36.49	2,930.57
	12/14/16		36.61	2,930.45

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW16	02/10/16	2,965.29	29.40	2,935.89
	02/22/16		29.44	2,935.85
	03/01/16		29.34	2,935.95
	03/04/16		29.34	2,935.95
	03/07/16		29.53	2,935.76
	03/11/16		29.69	2,935.60
	03/15/16		29.78	2,935.51
	03/18/16		29.91	2,935.38
	03/22/16		30.12	2,935.17
	03/25/16		30.18	2,935.11
	03/29/16		30.65	2,934.64
	04/01/16		30.81	2,934.48
	04/06/16		31.36	2,933.93
	04/11/16		31.82	2,933.47
	04/18/16		32.35	2,932.94
	04/25/16		32.86	2,932.43
	05/02/16		35.33	2,929.96
	05/09/16		33.19	2,932.10
	05/16/16		33.46	2,931.83
	05/23/16		33.64	2,931.65
	05/31/16		33.92	2,931.37
	06/06/16		34.12	2,931.17
	06/13/16		34.47	2,930.82
	06/20/16		34.91	2,930.38
	07/06/16		35.58	2,929.71
	07/18/16		36.01	2,929.28
	08/01/16		36.49	2,928.80
	08/22/16		34.81	2,930.48
	09/12/16		35.81	2,929.48
	09/26/16		36.74	2,928.55
	10/11/16		37.56	2,927.73
	10/25/16		37.67	2,927.62
	11/14/16		38.03	2,927.26
	11/28/16		38.34	2,926.95
	12/14/16		38.46	2,926.83
MW17	02/10/16	2,958.98	24.87	2,934.11
	02/22/16		24.79	2,934.19

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW17 (Cont'd)	03/01/16	2,958.98	23.68	2,935.30
	03/04/16		23.70	2,935.28
	03/07/16		24.10	2,934.88
	03/11/16		24.51	2,934.47
	03/15/16		24.77	2,934.21
	03/18/16		24.90	2,934.08
	03/22/16		25.00	2,933.98
	03/25/16		24.92	2,934.06
	03/29/16		25.53	2,933.45
	04/01/16		25.66	2,933.32
	04/06/16		26.43	2,932.55
	04/11/16		26.75	2,932.23
	04/18/16		27.28	2,931.70
	04/25/16		27.86	2,931.12
	05/02/16		28.32	2,930.66
	05/09/16		27.92	2,931.06
	05/16/16		27.59	2,931.39
	05/23/16		27.74	2,931.24
	05/31/16		28.08	2,930.90
	06/06/16		28.49	2,930.49
	06/13/16		29.02	2,929.96
	06/20/16		29.88	2,929.10
	07/06/16		30.59	2,928.39
	07/18/16		31.23	2,927.75
	08/01/16		31.69	2,927.29
	08/22/16		28.05	2,930.93
	09/12/16		27.81	2,931.17
	09/26/16		28.15	2,930.83
	10/11/16		27.98	2,931.00
	10/25/16		29.95	2,929.03
	11/14/16		33.28	2,925.70
	11/28/16		34.36	2,924.62
	12/14/16		34.99	2,923.99
MW18	02/10/16	2,969.25	31.35	2,937.90
	02/22/16		31.33	2,937.92
	03/01/16		32.34	2,936.91
	03/04/16		32.44	2,936.81

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW18 (Cont'd)	03/07/16	2,969.25	32.59	2,936.66
	03/11/16		32.77	2,936.48
	03/15/16		32.77	2,936.48
	03/18/16		32.86	2,936.39
	03/22/16		32.93	2,936.32
	03/25/16		33.64	2,935.61
	03/29/16		34.28	2,934.97
	04/01/16		34.70	2,934.55
	04/06/16		35.30	2,933.95
	04/11/16		35.79	2,933.46
	04/18/16		36.10	2,933.15
	04/25/16		36.43	2,932.82
	05/02/16		36.75	2,932.50
	05/09/16		35.77	2,933.48
	05/16/16		36.78	2,932.47
	05/23/16		36.87	2,932.38
	05/31/16		37.02	2,932.23
	06/06/16		37.31	2,931.94
	06/13/16		37.85	2,931.40
	06/20/16		37.74	2,931.51
	07/06/16		38.10	2,931.15
	07/18/16		38.32	2,930.93
	08/01/16		38.58	2,930.67
	08/22/16		37.69	2,931.56
	09/12/16		37.89	2,931.36
	09/26/16		38.55	2,930.70
	10/11/16		38.74	2,930.51
	10/25/16		38.88	2,930.37
	11/14/16		39.14	2,930.11
	11/28/16		39.29	2,929.96
	12/14/16		39.62	2,929.63
MW19	02/10/16	2,968.05	30.27	2,937.78
	02/22/16		30.27	2,937.78
	03/01/16		28.49	2,939.56
	03/04/16		27.96	2,940.09
	03/07/16		27.97	2,940.08
	03/11/16		27.94	2,940.11

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW19 (Cont'd)	03/15/16	2,968.05	28.14	2,939.91
	03/18/16		28.23	2,939.82
	03/22/16		28.30	2,939.75
	03/25/16		30.74	2,937.31
	03/29/16		35.89	2,932.16
	04/01/16		31.10	2,936.95
	04/06/16		35.79	2,932.26
	04/11/16		36.27	2,931.78
	04/18/16		36.46	2,931.59
	04/25/16		36.66	2,931.39
	05/02/16		36.73	2,931.32
	05/09/16		36.45	2,931.60
	05/16/16		36.79	2,931.26
	05/23/16		37.02	2,931.03
	05/31/16		36.80	2,931.25
	06/06/16		36.99	2,931.06
	06/13/16		37.03	2,931.02
	06/20/16		37.06	2,930.99
	07/06/16		37.09	2,930.96
	07/18/16		37.23	2,930.82
	08/01/16		37.13	2,930.92
	08/22/16		37.55	2,930.50
	09/12/16		38.27	2,929.78
	09/26/16		38.42	2,929.63
	10/11/16		38.66	2,929.39
	10/25/16		38.24	2,929.81
	11/14/16		38.44	2,929.61
	11/28/16		38.22	2,929.83
	12/14/16		38.13	2,929.92
MW20	02/10/16	2,968.47	32.38	2,936.09
	02/22/16		32.35	2,936.12
	03/01/16		32.90	2,935.57
	03/04/16		32.90	2,935.57
	03/07/16		33.14	2,935.33
	03/11/16		33.23	2,935.24
	03/15/16		33.29	2,935.18
	03/18/16		33.41	2,935.06

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW20 (Cont'd)	03/22/16	2,968.47	33.50	2,934.97
	03/25/16		33.86	2,934.61
	03/29/16		34.44	2,934.03
	04/01/16		34.80	2,933.67
	04/06/16		35.45	2,933.02
	04/11/16		35.90	2,932.57
	04/18/16		36.34	2,932.13
	04/25/16		36.64	2,931.83
	05/02/16		36.95	2,931.52
	05/09/16		36.46	2,932.01
	05/16/16		37.12	2,931.35
	05/23/16		37.34	2,931.13
	05/31/16		37.51	2,930.96
	06/06/16		37.80	2,930.67
	06/13/16		38.01	2,930.46
	06/20/16		38.16	2,930.31
	07/06/16		38.47	2,930.00
	07/18/16		38.84	2,929.63
	08/01/16		39.15	2,929.32
	08/22/16		39.26	2,929.21
	09/12/16		39.13	2,929.34
	09/26/16		39.62	2,928.85
	10/11/16		40.87	2,927.60
	10/25/16		40.21	2,928.26
	11/14/16		40.24	2,928.23
	11/28/16		40.46	2,928.01
	12/14/16		40.35	2,928.12
MW21	02/10/16	2,967.61	30.82	2,936.79
	02/22/16		30.79	2,936.82
	03/01/16		32.51	2,935.10
	03/04/16		31.75	2,935.86
	03/07/16		31.62	2,935.99
	03/11/16		31.86	2,935.75
	03/15/16		31.79	2,935.82
	03/18/16		32.00	2,935.61
	03/22/16		31.84	2,935.77
	03/25/16		36.12	2,931.49

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW21 (Cont'd)	03/29/16	2,967.61	37.50	2,930.11
	04/01/16		36.68	2,930.93
	04/06/16		36.81	2,930.80
	04/11/16		36.76	2,930.85
	04/18/16		36.84	2,930.77
	04/25/16		36.95	2,930.66
	05/02/16		36.95	2,930.66
	05/09/16		36.92	2,930.69
	05/16/16		36.95	2,930.66
	05/23/16		36.86	2,930.75
	05/31/16		37.04	2,930.57
	06/06/16		37.10	2,930.51
	06/13/16		36.92	2,930.69
	06/20/16		37.10	2,930.51
	07/06/16		37.08	2,930.53
	07/18/16		37.14	2,930.47
	08/01/16		37.18	2,930.43
	08/22/16		37.29	2,930.32
	09/12/16		37.33	2,930.28
	09/26/16		37.42	2,930.19
	10/11/16		37.49	2,930.12
	10/25/16		37.57	2,930.04
	11/14/16		37.59	2,930.02
	11/28/16		37.49	2,930.12
	12/14/16		37.37	2,930.24
MW22	02/10/16	2,966.98	28.69	2,938.29
	02/22/16		28.64	2,938.34
	03/01/16		32.29	2,934.69
	03/04/16		31.24	2,935.74
	03/07/16		31.28	2,935.70
	03/11/16		31.33	2,935.65
	03/15/16		32.14	2,934.84
	03/18/16		31.34	2,935.64
	03/22/16		31.20	2,935.78
	03/25/16		36.51	2,930.47
	03/29/16		37.14	2,929.84
	04/01/16		37.46	2,929.52

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW22 (Cont'd)	04/06/16	2,966.98	37.77	2,929.21
	04/11/16		37.32	2,929.66
	04/18/16		37.14	2,929.84
	04/25/16		37.79	2,929.19
	05/02/16		37.85	2,929.13
	05/09/16		36.44	2,930.54
	05/16/16		38.03	2,928.95
	05/23/16		37.11	2,929.87
	05/31/16		38.03	2,928.95
	06/06/16		38.31	2,928.67
	06/13/16		38.17	2,928.81
	06/20/16		38.31	2,928.67
	07/06/16		38.36	2,928.62
	07/18/16		38.46	2,928.52
	08/01/16		38.43	2,928.55
	08/22/16		38.81	2,928.17
	09/12/16		37.30	2,929.68
	09/26/16		37.72	2,929.26
	10/11/16		37.88	2,929.10
	10/25/16		38.01	2,928.97
	11/14/16		38.12	2,928.86
	11/28/16		39.18	2,927.80
	12/14/16		38.31	2,928.67
MW23	02/10/16	2,966.33	27.41	2,938.92
	02/22/16		27.25	2,939.08
	03/01/16		34.80	2,931.53
	03/04/16		34.71	2,931.62
	03/07/16		35.00	2,931.33
	03/11/16		35.00	2,931.33
	03/15/16		31.03	2,935.30
	03/18/16		35.25	2,931.08
	03/22/16		34.50	2,931.83
	03/25/16		34.64	2,931.69
	03/29/16		34.84	2,931.49
	04/01/16		37.54	2,928.79
	04/06/16		35.74	2,930.59
	04/11/16		35.48	2,930.85

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW23 (Cont'd)	04/18/16	2,966.33	35.23	2,931.10
	04/25/16		35.70	2,930.63
	05/02/16		35.24	2,931.09
	05/09/16		35.54	2,930.79
	05/16/16		35.42	2,930.91
	05/23/16		35.59	2,930.74
	05/31/16		35.23	2,931.10
	06/06/16		36.26	2,930.07
	06/13/16		34.93	2,931.40
	06/20/16		35.24	2,931.09
	07/06/16		35.25	2,931.08
	07/18/16		35.37	2,930.96
	08/01/16		35.27	2,931.06
	08/22/16		35.88	2,930.45
	09/12/16		35.92	2,930.41
	09/26/16		35.41	2,930.92
	10/11/16		35.94	2,930.39
	10/25/16		37.76	2,928.57
	11/14/16		35.90	2,930.43
	11/28/16		36.00	2,930.33
	12/14/16		35.66	2,930.67
MW24	02/10/16	2,965.79	28.82	2,936.97
	02/22/16		28.78	2,937.01
	03/01/16		28.56	2,937.23
	03/04/16		27.69	2,938.10
	03/07/16		27.98	2,937.81
	03/11/16		28.15	2,937.64
	03/15/16		28.07	2,937.72
	03/18/16		28.23	2,937.56
	03/22/16		27.60	2,938.19
	03/25/16		28.36	2,937.43
	03/29/16		33.42	2,932.37
	04/01/16		30.66	2,935.13
	04/06/16		36.10	2,929.69
	04/11/16		36.40	2,929.39
	04/18/16		36.25	2,929.54
	04/25/16		36.29	2,929.50

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW24 (Cont'd)	05/02/16	2,965.79	36.39	2,929.40
	05/09/16		36.53	2,929.26
	05/16/16		36.55	2,929.24
	05/23/16		36.82	2,928.97
	05/31/16		36.78	2,929.01
	06/06/16		36.70	2,929.09
	06/13/16		36.40	2,929.39
	06/20/16		36.71	2,929.08
	07/06/16		37.45	2,928.34
	07/18/16		36.74	2,929.05
	08/01/16		36.73	2,929.06
	08/22/16		37.86	2,927.93
	09/12/16		38.21	2,927.58
	09/26/16		36.95	2,928.84
	10/11/16		38.21	2,927.58
	10/25/16		38.21	2,927.58
	11/14/16		38.28	2,927.51
	11/28/16		38.01	2,927.78
	12/14/16		38.00	2,927.79
MW25	02/10/16	2,966.88	28.02	2,938.86
	02/22/16		27.97	2,938.91
	03/01/16		29.11	2,937.77
	03/04/16		29.85	2,937.03
	03/07/16		28.66	2,938.22
	03/11/16		28.83	2,938.05
	03/15/16		29.11	2,937.77
	03/18/16		28.66	2,938.22
	03/22/16		28.90	2,937.98
	03/25/16		29.45	2,937.43
	03/29/16		33.00	2,933.88
	04/01/16		35.18	2,931.70
	04/06/16		35.34	2,931.54
	04/11/16		35.48	2,931.40
	04/18/16		35.26	2,931.62
	04/25/16		35.80	2,931.08
	05/02/16		35.73	2,931.15
	05/09/16		35.60	2,931.28

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW25 (Cont'd)	05/16/16	2,966.88	35.91	2,930.97
	05/23/16		34.62	2,932.26
	05/31/16		36.18	2,930.70
	06/06/16		36.19	2,930.69
	06/13/16		36.20	2,930.68
	06/20/16		36.40	2,930.48
	07/06/16		36.55	2,930.33
	07/18/16		36.79	2,930.09
	08/01/16		36.31	2,930.57
	08/22/16		37.13	2,929.75
	09/12/16		35.48	2,931.40
	09/26/16		36.00	2,930.88
	10/11/16		36.42	2,930.46
	10/25/16		37.60	2,929.28
	11/14/16		36.85	2,930.03
	11/28/16		36.99	2,929.89
	12/14/16		37.14	2,929.74
MW26	02/10/16	2,965.54	28.65	2,936.89
	02/22/16		28.64	2,936.90
	03/01/16		30.08	2,935.46
	03/04/16		29.52	2,936.02
	03/07/16		29.60	2,935.94
	03/11/16		29.55	2,935.99
	03/15/16		29.59	2,935.95
	03/18/16		29.72	2,935.82
	03/22/16		29.30	2,936.24
	03/25/16		34.21	2,931.33
	03/29/16		35.00	2,930.54
	04/01/16		35.21	2,930.33
	04/06/16		35.55	2,929.99
	04/11/16		35.63	2,929.91
	04/18/16		35.55	2,929.99
	04/25/16		35.43	2,930.11
	05/02/16		35.72	2,929.82
	05/09/16		35.83	2,929.71
	05/16/16		36.51	2,929.03
	05/23/16		37.71	2,927.83

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW26 (Cont'd)	05/31/16	2,965.54	36.14	2,929.40
	06/06/16		35.98	2,929.56
	06/13/16		36.15	2,929.39
	06/20/16		36.25	2,929.29
	07/06/16		36.65	2,928.89
	07/18/16		36.18	2,929.36
	08/01/16		36.78	2,928.76
	08/22/16		36.54	2,929.00
	09/12/16		36.79	2,928.75
	09/26/16		39.57	2,925.97
	10/11/16		38.30	2,927.24
	10/25/16		37.15	2,928.39
	11/14/16		36.54	2,929.00
	11/28/16		37.21	2,928.33
	12/14/16		37.52	2,928.02
MW27	02/10/16	2,966.28	26.32	2,939.96
	02/22/16		26.30	2,939.98
	03/01/16		24.88	2,941.40
	03/04/16		24.39	2,941.89
	03/07/16		24.59	2,941.69
	03/11/16		24.86	2,941.42
	03/15/16		25.08	2,941.20
	03/18/16		25.02	2,941.26
	03/22/16		24.90	2,941.38
	03/25/16		29.00	2,937.28
	03/29/16		29.54	2,936.74
	04/01/16		25.95	2,940.33
	04/06/16		30.34	2,935.94
	04/11/16		31.12	2,935.16
	04/18/16		31.02	2,935.26
	04/25/16		31.34	2,934.94
	05/02/16		32.05	2,934.23
	05/09/16		33.37	2,932.91
	05/16/16		33.75	2,932.53
	05/23/16		33.95	2,932.33
	05/31/16		33.95	2,932.33
	06/06/16		33.83	2,932.45

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW27 (Cont'd)	06/13/16	2,966.28	33.85	2,932.43
	06/20/16		33.89	2,932.39
	07/06/16		33.90	2,932.38
	07/18/16		33.90	2,932.38
	08/01/16		33.90	2,932.38
	08/22/16		34.21	2,932.07
	09/12/16		33.97	2,932.31
	09/26/16		34.77	2,931.51
	10/11/16		35.56	2,930.72
	10/25/16		35.89	2,930.39
	11/14/16		36.53	2,929.75
	11/28/16		36.58	2,929.70
	12/14/16		36.80	2,929.48
MW28	02/10/16	2,967.54	29.46	2,938.08
	02/22/16		29.39	2,938.15
	03/01/16		32.03	2,935.51
	03/04/16		30.93	2,936.61
	03/07/16		31.12	2,936.42
	03/11/16		31.13	2,936.41
	03/15/16		30.93	2,936.61
	03/18/16		31.21	2,936.33
	03/22/16		30.90	2,936.64
	03/25/16		35.81	2,931.73
	03/29/16		38.53	2,929.01
	04/01/16		36.30	2,931.24
	04/06/16		36.55	2,930.99
	04/11/16		36.60	2,930.94
	04/18/16		36.62	2,930.92
	04/25/16		36.92	2,930.62
	05/02/16		35.90	2,931.64
	05/09/16		35.09	2,932.45
	05/16/16		37.12	2,930.42
	05/23/16		37.12	2,930.42
	05/31/16		37.14	2,930.40
	06/06/16		37.18	2,930.36
	06/13/16		36.85	2,930.69
	06/20/16		37.12	2,930.42

Table 7 (Cont'd).

Summary of Corrective Action Plan Implementation Groundwater Elevation Data

Location	Date	Relative Top of Casing Elevation[1] (feet)	Depth to Groundwater[2] (feet)	Relative Groundwater Elevation (feet)
MW28 (Cont'd)	07/06/16	2,967.54	36.94	2,930.60
	07/18/16		37.23	2,930.31
	08/01/16		37.21	2,930.33
	08/22/16		37.53	2,930.01
	09/12/16		37.44	2,930.10
	09/26/16		37.48	2,930.06
	10/11/16		37.67	2,929.87
	10/25/16		37.72	2,929.82
	11/14/16		37.80	2,929.74
	11/28/16		37.65	2,929.89
	12/14/16		37.67	2,929.87

[1]Elevations measured by Fork Mountain Surveying and Mapping, Inc. relative to an approximate site elevation of 2,968 feet.
[2]If free phase petroleum was observed, depth to groundwater was calculated using a site specific gasoline density of 0.7439 g/ml.

Table 8.

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW01A	02/10/16	27.09	30.03	2.94
	02/22/16	27.29	28.45	1.16
	03/01/16	NA[1]	29.46	0.00
	03/04/16	NA	28.54	0.00
	03/07/16	NA	29.55	0.00
	03/11/16	NA	29.37	0.00
	03/15/16	NA	29.32	0.00
	03/18/16	NA	29.78	0.00
	03/22/16	28.67	30.14	1.47
	03/25/16	NA	30.83	0.00
	03/29/16	33.52	33.55	0.03
	04/01/16	NA	34.33	0.00
	04/06/16	NA	34.32	0.00
	04/11/16	NA	34.44	0.00
	04/18/16	NA	32.96	0.00
	04/25/16	NA	33.25	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW01A (Cont'd)	05/02/16	NA	34.07	0.00
	05/09/16	NA	32.65	0.00
	05/16/16	NA	34.15	0.00
	05/23/16	NA	33.78	0.00
	05/31/16	NA	33.83	0.00
	06/06/16	NA	33.74	0.00
	06/13/16	NA	33.48	0.00
	06/20/16	NA	33.51	0.00
	07/06/16	NA	34.55	0.00
	07/18/16	NA	33.69	0.00
	08/01/16	NA	35.91	0.00
	08/22/16	NA	34.72	0.00
	09/12/16	NA	36.03	0.00
	09/26/16	NA	35.53	0.00
	10/11/16	NA	37.78	0.00
	10/25/16	NA	37.79	0.00
	11/14/16	NA	37.99	0.00
	11/28/16	NA	37.88	0.00
	12/14/16	NA	37.79	0.00
MW02	02/10/16	27.69	29.45	1.76
	02/22/16	27.69	28.84	1.15
	03/01/16	NA	32.25	0.00
	03/04/16	NA	31.39	0.00
	03/07/16	NA	32.61	0.00
	03/11/16	NA	31.70	0.00
	03/15/16	NA	31.50	0.00
	03/18/16	NA	31.63	0.00
	03/22/16	NA	31.23	0.00
	03/25/16	NA	35.21	0.00
	03/29/16	NA	36.24	0.00
	04/01/16	NA	36.90	0.00
	04/06/16	NA	36.98	0.00
	04/11/16	NA	37.37	0.00
	04/18/16	NA	36.04	0.00
	04/25/16	NA	37.36	0.00
	05/02/16	NA	37.67	0.00
	05/09/16	NA	35.73	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW02 (Cont'd)	05/16/16	NA	36.56	0.00
	05/23/16	NA	37.56	0.00
	05/31/16	NA	37.55	0.00
	06/06/16	NA	38.05	0.00
	06/13/16	NA	38.05	0.00
	06/20/16	NA	37.96	0.00
	07/06/16	NA	38.11	0.00
	07/18/16	NA	38.03	0.00
	08/01/16	NA	36.45	0.00
	08/22/16	NA	38.37	0.00
	09/12/16	NA	38.08	0.00
	09/26/16	NA	37.48	0.00
	10/11/16	NA	38.49	0.00
	10/25/16	NA	38.73	0.00
	11/14/16	NA	38.60	0.00
	11/28/16	NA	38.36	0.00
	12/14/16	NA	38.29	0.00
MW03	02/10/16	28.37	31.61	3.24
	02/22/16	28.33	31.49	3.16
	03/01/16	30.89	35.85	4.96
	03/04/16	NA	30.94	0.00
	03/07/16	NA	31.03	0.00
	03/11/16	NA	31.38	0.00
	03/15/16	NA	30.88	0.00
	03/18/16	NA	31.21	0.00
	03/22/16	NA	33.86	0.00
	03/25/16	33.70	33.78	0.08
	03/29/16	NA	36.70	0.00
	04/01/16	NA	36.88	0.00
	04/06/16	NA	38.29	0.00
	04/11/16	NA	38.36	0.00
	04/18/16	NA	36.61	0.00
	04/25/16	NA	36.33	0.00
	05/02/16	NA	36.65	0.00
	05/09/16	NA	35.81	0.00
	05/16/16	NA	37.30	0.00
	05/23/16	NA	36.84	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW03 (Cont'd)	05/31/16	NA	37.74	0.00
	06/06/16	NA	37.81	0.00
	06/13/16	NA	37.77	0.00
	06/20/16	NA	38.03	0.00
	07/06/16	NA	38.18	0.00
	07/18/16	NA	37.71	0.00
	08/01/16	NA	38.98	0.00
	08/22/16	NA	39.05	0.00
	09/12/16	NA	39.68	0.00
	09/26/16	NA	39.67	0.00
	10/11/16	NA	40.20	0.00
	10/25/16	NA	40.22	0.00
	11/14/16	NA	39.94	0.00
	11/28/16	NA	40.20	0.00
	12/14/16	NA	39.72	0.00
MW07	02/10/16	NA	27.86	0.00
	02/22/16	NA	27.76	0.00
	03/01/16	NA	27.79	0.00
	03/04/16	NA	26.46	0.00
	03/07/16	NA	27.57	0.00
	03/11/16	NA	27.42	0.00
	03/15/16	NA	27.62	0.00
	03/18/16	NA	27.60	0.00
	03/22/16	NA	26.75	0.00
	03/25/16	NA	27.30	0.00
	03/29/16	NA	33.05	0.00
	04/01/16	NA	29.08	0.00
	04/06/16	NA	35.25	0.00
	04/11/16	NA	35.79	0.00
	04/18/16	NA	35.82	0.00
	04/25/16	NA	36.54	0.00
	05/02/16	NA	36.05	0.00
	05/09/16	NA	36.52	0.00
	05/16/16	NA	36.07	0.00
	05/23/16	NA	35.57	0.00
	05/31/16	NA	36.45	0.00
	06/06/16	NA	36.34	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW07 (Cont'd)	06/13/16	NA	36.20	0.00
	06/20/16	NA	36.19	0.00
	07/06/16	NA	36.34	0.00
	07/18/16	NA	36.40	0.00
	08/01/16	NA	36.25	0.00
	08/22/16	NA	37.59	0.00
	09/12/16	NA	37.63	0.00
	09/26/16	NA	36.72	0.00
	10/11/16	NA	38.66	0.00
	10/25/16	NA	37.39	0.00
	11/14/16	NA	37.58	0.00
	11/28/16	NA	37.41	0.00
	12/14/16	NA	36.78	0.00
MW12	02/10/16	27.12	28.96	1.84
	02/22/16	27.08	28.95	1.87
	03/01/16	NA	31.10	0.00
	03/04/16	NA	29.92	0.00
	03/07/16	NA	30.18	0.00
	03/11/16	NA	30.28	0.00
	03/15/16	NA	30.49	0.00
	03/18/16	NA	30.56	0.00
	03/22/16	30.14	31.24	1.10
	03/25/16	NA	34.33	0.00
	03/29/16	NA	34.89	0.00
	04/01/16	NA	35.76	0.00
	04/06/16	NA	35.69	0.00
	04/11/16	NA	35.63	0.00
	04/18/16	NA	35.71	0.00
	04/25/16	NA	36.14	0.00
	05/02/16	NA	35.75	0.00
	05/09/16	NA	35.74	0.00
	05/16/16	NA	36.09	0.00
	05/23/16	NA	36.45	0.00
	05/31/16	NA	34.73	0.00
	06/06/16	NA	36.35	0.00
	06/13/16	NA	35.87	0.00
	06/20/16	NA	36.15	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW12 (Cont'd)	07/06/16	NA	36.28	0.00
	07/18/16	NA	36.01	0.00
	08/01/16	NA	36.13	0.00
	08/22/16	NA	36.80	0.00
	09/12/16	NA	35.40	0.00
	09/26/16	NA	36.01	0.00
	10/11/16	NA	36.27	0.00
	10/25/16	NA	36.46	0.00
	11/14/16	NA	36.76	0.00
	11/28/16	NA	36.98	0.00
	12/14/16	NA	37.23	0.00
MW14	02/10/16	28.84	30.85	2.01
	02/22/16	28.75	31.05	2.30
	03/01/16	NA	30.95	0.00
	03/04/16	NA	30.16	0.00
	03/07/16	NA	30.20	0.00
	03/11/16	NA	30.21	0.00
	03/15/16	NA	30.00	0.00
	03/18/16	NA	31.37	0.00
	03/22/16	NA	29.98	0.00
	03/25/16	NA	35.29	0.00
	03/29/16	NA	35.87	0.00
	04/01/16	NA	35.96	0.00
	04/06/16	NA	36.69	0.00
	04/11/16	NA	36.41	0.00
	04/18/16	NA	36.32	0.00
	04/25/16	NA	36.20	0.00
	05/02/16	NA	36.38	0.00
	05/09/16	NA	34.56	0.00
	05/16/16	NA	35.58	0.00
	05/23/16	NA	35.40	0.00
	05/31/16	NA	35.86	0.00
	06/06/16	NA	36.10	0.00
	06/13/16	NA	36.15	0.00
	06/20/16	NA	36.67	0.00
	07/06/16	NA	36.68	0.00
	07/18/16	NA	36.86	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW14 (Cont'd)	08/01/16	NA	37.12	0.00
	08/22/16	NA	37.22	0.00
	09/12/16	NA	37.48	0.00
	09/26/16	NA	37.40	0.00
	10/11/16	NA	37.55	0.00
	10/25/16	NA	38.59	0.00
	11/14/16	NA	37.68	0.00
	11/28/16	NA	37.60	0.00
	12/14/16	NA	37.77	0.00
MW15	02/10/16	29.64	32.20	2.56
	02/22/16	29.64	32.05	2.41
	03/01/16	NA	32.13	0.00
	03/04/16	NA	31.28	0.00
	03/07/16	NA	31.33	0.00
	03/11/16	NA	31.16	0.00
	03/15/16	NA	31.41	0.00
	03/18/16	NA	31.49	0.00
	03/22/16	NA	31.25	0.00
	03/25/16	NA	35.16	0.00
	03/29/16	NA	36.45	0.00
	04/01/16	NA	35.69	0.00
	04/06/16	NA	35.82	0.00
	04/11/16	NA	35.83	0.00
	04/18/16	NA	35.81	0.00
	04/25/16	NA	35.89	0.00
	05/02/16	NA	35.98	0.00
	05/09/16	NA	35.83	0.00
	05/16/16	NA	36.03	0.00
	05/23/16	NA	36.09	0.00
	05/31/16	NA	36.48	0.00
	06/06/16	NA	36.54	0.00
	06/13/16	NA	36.04	0.00
	06/20/16	NA	36.15	0.00
	07/06/16	NA	36.28	0.00
	07/18/16	NA	36.24	0.00
	08/01/16	NA	36.33	0.00
	08/22/16	NA	36.31	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW15 (Cont'd)	09/12/16	NA	36.55	0.00
	09/26/16	NA	36.51	0.00
	10/11/16	NA	36.59	0.00
	10/25/16	NA	36.69	0.00
	11/14/16	NA	36.52	0.00
	11/28/16	NA	36.49	0.00
	12/14/16	NA	36.61	0.00
MW19	02/10/16	NA	30.27	0.00
	02/22/16	NA	30.27	0.00
	03/01/16	NA	28.49	0.00
	03/04/16	NA	27.96	0.00
	03/07/16	NA	27.97	0.00
	03/11/16	NA	27.94	0.00
	03/15/16	NA	28.14	0.00
	03/18/16	NA	28.23	0.00
	03/22/16	NA	28.30	0.00
	03/25/16	NA	30.74	0.00
	03/29/16	35.87	35.96	0.09
	04/01/16	NA	31.10	0.00
	04/06/16	NA	35.79	0.00
	04/11/16	NA	36.27	0.00
	04/18/16	NA	36.46	0.00
	04/25/16	NA	36.66	0.00
	05/02/16	NA	36.73	0.00
	05/09/16	NA	36.45	0.00
	05/16/16	NA	36.79	0.00
	05/23/16	NA	37.02	0.00
	05/31/16	NA	36.80	0.00
	06/06/16	NA	36.99	0.00
	06/13/16	NA	37.03	0.00
	06/20/16	NA	37.06	0.00
	07/06/16	NA	37.09	0.00
	07/18/16	NA	37.23	0.00
	08/01/16	NA	37.13	0.00
	08/22/16	NA	37.55	0.00
	09/12/16	NA	38.27	0.00
	09/26/16	NA	38.42	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW19 (Cont'd)	10/11/16	NA	38.66	0.00
	10/25/16	NA	38.24	0.00
	11/14/16	NA	38.44	0.00
	11/28/16	NA	38.22	0.00
	12/14/16	NA	38.13	0.00
MW21	02/10/16	30.26	32.43	2.17
	02/22/16	30.26	32.33	2.07
	03/01/16	NA	32.51	0.00
	03/04/16	NA	31.75	0.00
	03/07/16	NA	31.62	0.00
	03/11/16	NA	31.86	0.00
	03/15/16	NA	31.79	0.00
	03/18/16	NA	32.00	0.00
	03/22/16	NA	31.84	0.00
	03/25/16	NA	36.12	0.00
	03/29/16	NA	37.50	0.00
	04/01/16	NA	36.68	0.00
	04/06/16	NA	36.81	0.00
	04/11/16	NA	36.76	0.00
	04/18/16	NA	36.84	0.00
	04/25/16	NA	36.95	0.00
	05/02/16	NA	36.95	0.00
	05/09/16	NA	36.92	0.00
	05/16/16	NA	36.95	0.00
	05/23/16	NA	36.86	0.00
	05/31/16	NA	37.04	0.00
	06/06/16	NA	37.10	0.00
	06/13/16	NA	36.92	0.00
	06/20/16	NA	37.10	0.00
	07/06/16	NA	37.08	0.00
	07/18/16	NA	37.14	0.00
	08/01/16	NA	37.18	0.00
	08/22/16	NA	37.29	0.00
	09/12/16	NA	37.33	0.00
	09/26/16	NA	37.42	0.00
	10/11/16	NA	37.49	0.00
	10/25/16	NA	37.57	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW21 (Cont'd)	11/14/16	NA	37.59	0.00
	11/28/16	NA	37.49	0.00
	12/14/16	NA	37.37	0.00
MW22	02/10/16	28.66	28.78	0.12
	02/22/16	28.63	28.68	0.05
	03/01/16	NA	32.29	0.00
	03/04/16	NA	31.24	0.00
	03/07/16	NA	31.28	0.00
	03/11/16	NA	31.33	0.00
	03/15/16	NA	32.14	0.00
	03/18/16	NA	31.34	0.00
	03/22/16	NA	31.20	0.00
	03/25/16	NA	36.51	0.00
	03/29/16	NA	37.14	0.00
	04/01/16	NA	37.46	0.00
	04/06/16	NA	37.77	0.00
	04/11/16	NA	37.32	0.00
	04/18/16	NA	37.14	0.00
	04/25/16	NA	37.79	0.00
	05/02/16	NA	37.85	0.00
	05/09/16	NA	36.44	0.00
	05/16/16	NA	38.03	0.00
	05/23/16	NA	37.11	0.00
	05/31/16	NA	38.03	0.00
	06/06/16	NA	38.31	0.00
	06/13/16	NA	38.17	0.00
	06/20/16	NA	38.31	0.00
	07/06/16	NA	38.36	0.00
	07/18/16	NA	38.46	0.00
	08/01/16	NA	38.43	0.00
	08/22/16	NA	38.81	0.00
	09/12/16	NA	37.30	0.00
	09/26/16	NA	37.72	0.00
	10/11/16	NA	37.88	0.00
	10/25/16	NA	38.01	0.00
	11/14/16	NA	38.12	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW22 (Cont'd)	11/28/16	NA	39.18	0.00
	12/14/16	NA	38.31	0.00
MW23	02/10/16	26.76	29.30	2.54
	02/22/16	26.74	28.74	2.00
	03/01/16	NA	34.80	0.00
	03/04/16	NA	34.71	0.00
	03/07/16	NA	35.00	0.00
	03/11/16	NA	35.00	0.00
	03/15/16	NA	31.03	0.00
	03/18/16	NA	35.25	0.00
	03/22/16	NA	34.50	0.00
	03/25/16	NA	34.64	0.00
	03/29/16	NA	34.84	0.00
	04/01/16	NA	37.54	0.00
	04/06/16	NA	35.74	0.00
	04/11/16	NA	35.48	0.00
	04/18/16	NA	35.23	0.00
	04/25/16	NA	35.70	0.00
	05/02/16	NA	35.24	0.00
	05/09/16	NA	35.54	0.00
	05/16/16	NA	35.42	0.00
	05/23/16	NA	35.59	0.00
	05/31/16	NA	35.23	0.00
	06/06/16	NA	36.26	0.00
	06/13/16	NA	34.93	0.00
	06/20/16	NA	35.24	0.00
	07/06/16	NA	35.25	0.00
	07/18/16	NA	35.37	0.00
	08/01/16	NA	35.27	0.00
	08/22/16	NA	35.88	0.00
	09/12/16	NA	35.92	0.00
	09/26/16	NA	35.41	0.00
	10/11/16	NA	35.94	0.00
	10/25/16	NA	37.76	0.00
	11/14/16	NA	35.90	0.00
	11/28/16	NA	36.00	0.00
	12/14/16	NA	35.66	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW24	02/10/16	28.79	28.91	0.12
	02/22/16	28.77	28.79	0.02
	03/01/16	NA	28.56	0.00
	03/04/16	NA	27.69	0.00
	03/07/16	NA	27.98	0.00
	03/11/16	NA	28.15	0.00
	03/15/16	NA	28.07	0.00
	03/18/16	NA	28.23	0.00
	03/22/16	NA	27.60	0.00
	03/25/16	NA	28.36	0.00
	03/29/16	33.39	33.52	0.13
	04/01/16	NA	30.66	0.00
	04/06/16	NA	36.10	0.00
	04/11/16	NA	36.40	0.00
	04/18/16	NA	36.25	0.00
	04/25/16	NA	36.29	0.00
	05/02/16	NA	36.39	0.00
	05/09/16	NA	36.53	0.00
	05/16/16	NA	36.55	0.00
	05/23/16	NA	36.82	0.00
	05/31/16	NA	36.78	0.00
	06/06/16	NA	36.70	0.00
	06/13/16	NA	36.40	0.00
	06/20/16	NA	36.71	0.00
	07/06/16	NA	37.45	0.00
	07/18/16	NA	36.74	0.00
	08/01/16	NA	36.73	0.00
	08/22/16	NA	37.86	0.00
	09/12/16	NA	38.21	0.00
	09/26/16	NA	36.95	0.00
	10/11/16	NA	38.21	0.00
	10/25/16	NA	38.21	0.00
	11/14/16	NA	38.28	0.00
	11/28/16	NA	38.01	0.00
	12/14/16	NA	38.00	0.00
MW25	02/10/16	NA	28.02	0.00
	02/22/16	NA	27.97	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW25 (Cont'd)	03/01/16	NA	29.11	0.00
	03/04/16	NA	29.85	0.00
	03/07/16	NA	28.66	0.00
	03/11/16	NA	28.83	0.00
	03/15/16	NA	29.11	0.00
	03/18/16	NA	28.66	0.00
	03/22/16	NA	28.90	0.00
	03/25/16	NA	29.45	0.00
	03/29/16	NA	33.00	0.00
	04/01/16	NA	35.18	0.00
	04/06/16	NA	35.34	0.00
	04/11/16	NA	35.48	0.00
	04/18/16	NA	35.26	0.00
	04/25/16	NA	35.80	0.00
	05/02/16	NA	35.73	0.00
	05/09/16	NA	35.60	0.00
	05/16/16	NA	35.91	0.00
	05/23/16	NA	34.62	0.00
	05/31/16	NA	36.18	0.00
	06/06/16	NA	36.19	0.00
	06/13/16	NA	36.20	0.00
	06/20/16	NA	36.40	0.00
	07/06/16	NA	36.55	0.00
	07/18/16	NA	36.79	0.00
	08/01/16	NA	36.31	0.00
	08/22/16	NA	37.13	0.00
	09/12/16	NA	35.48	0.00
	09/26/16	NA	36.00	0.00
	10/11/16	NA	36.42	0.00
	10/25/16	NA	37.60	0.00
	11/14/16	NA	36.85	0.00
	11/28/16	NA	36.99	0.00
	12/14/16	NA	37.14	0.00
MW26	02/10/16	27.91	30.81	2.90
	02/22/16	27.90	30.79	2.89
	03/01/16	NA	30.08	0.00
	03/04/16	NA	29.52	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW26 (Cont'd)	03/07/16	NA	29.60	0.00
	03/11/16	NA	29.55	0.00
	03/15/16	NA	29.59	0.00
	03/18/16	NA	29.72	0.00
	03/22/16	NA	29.30	0.00
	03/25/16	NA	34.21	0.00
	03/29/16	NA	35.00	0.00
	04/01/16	NA	35.21	0.00
	04/06/16	NA	35.55	0.00
	04/11/16	NA	35.63	0.00
	04/18/16	NA	35.55	0.00
	04/25/16	NA	35.43	0.00
	05/02/16	NA	35.72	0.00
	05/09/16	NA	35.83	0.00
	05/16/16	NA	36.51	0.00
	05/23/16	NA	37.71	0.00
	05/31/16	NA	36.14	0.00
	06/06/16	NA	35.98	0.00
	06/13/16	NA	36.15	0.00
	06/20/16	NA	36.25	0.00
	07/06/16	NA	36.65	0.00
	07/18/16	NA	36.18	0.00
	08/01/16	NA	36.78	0.00
	08/22/16	NA	36.54	0.00
	09/12/16	NA	36.79	0.00
	09/26/16	NA	39.57	0.00
	10/11/16	NA	38.30	0.00
	10/25/16	NA	37.15	0.00
	11/14/16	NA	36.54	0.00
	11/28/16	NA	37.21	0.00
	12/14/16	NA	37.52	0.00
MW27	02/10/16	NA	26.32	0.00
	02/22/16	NA	26.30	0.00
	03/01/16	NA	24.88	0.00
	03/04/16	NA	24.39	0.00
	03/07/16	NA	24.59	0.00
	03/11/16	NA	24.86	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW27 (Cont'd)	03/15/16	NA	25.08	0.00
	03/18/16	NA	25.02	0.00
	03/22/16	NA	24.90	0.00
	03/25/16	NA	29.00	0.00
	03/29/16	NA	29.54	0.00
	04/01/16	NA	25.95	0.00
	04/06/16	NA	30.34	0.00
	04/11/16	NA	31.12	0.00
	04/18/16	NA	31.02	0.00
	04/25/16	NA	31.34	0.00
	05/02/16	NA	32.05	0.00
	05/09/16	NA	33.37	0.00
	05/16/16	NA	33.75	0.00
	05/23/16	NA	33.95	0.00
	05/31/16	NA	33.95	0.00
	06/06/16	NA	33.83	0.00
	06/13/16	NA	33.85	0.00
	06/20/16	NA	33.89	0.00
	07/06/16	NA	33.90	0.00
	07/18/16	NA	33.90	0.00
	08/01/16	NA	33.90	0.00
	08/22/16	NA	34.21	0.00
	09/12/16	NA	33.97	0.00
	09/26/16	NA	34.77	0.00
	10/11/16	NA	35.56	0.00
	10/25/16	NA	35.89	0.00
	11/14/16	NA	36.53	0.00
	11/28/16	NA	36.58	0.00
	12/14/16	NA	36.80	0.00
MW28	02/10/16	29.19	30.24	1.05
	02/22/16	29.16	30.04	0.88
	03/01/16	NA	32.03	0.00
	03/04/16	NA	30.93	0.00
	03/07/16	NA	31.12	0.00
	03/11/16	NA	31.13	0.00
	03/15/16	NA	30.93	0.00
	03/18/16	NA	31.21	0.00

Table 8 (Cont'd).

Summary of Corrective Action Plan Implementation Free Product Thicknesses

Location	Date	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
MW28 (Cont'd)	03/22/16	NA	30.90	0.00
	03/25/16	NA	35.81	0.00
	03/29/16	NA	38.53	0.00
	04/01/16	NA	36.30	0.00
	04/06/16	NA	36.55	0.00
	04/11/16	NA	36.60	0.00
	04/18/16	NA	36.62	0.00
	04/25/16	NA	36.92	0.00
	05/02/16	NA	35.90	0.00
	05/09/16	NA	35.09	0.00
	05/16/16	NA	37.12	0.00
	05/23/16	NA	37.12	0.00
	05/31/16	NA	37.14	0.00
	06/06/16	NA	37.18	0.00
	06/13/16	NA	36.85	0.00
	06/20/16	NA	37.12	0.00
	07/06/16	NA	36.94	0.00
	07/18/16	NA	37.23	0.00
	08/01/16	NA	37.21	0.00
	08/22/16	NA	37.53	0.00
	09/12/16	NA	37.44	0.00
	09/26/16	NA	37.48	0.00
	10/11/16	NA	37.67	0.00
	10/25/16	NA	37.72	0.00
	11/14/16	NA	37.80	0.00
	11/28/16	NA	37.65	0.00
	12/14/16	NA	37.67	0.00

[1]NA = Not applicable.

Table 9.

Summary of Monitoring Well Dissolved Phase Analytical Results

Well Identification	Date	TPH-GRO[1]	TPH-DRO[2]	Benzene[3]	Toluene	Ethyl-benzene	Xylenes	MTBE	Naphthalene
MW01A	05/14/14	187,000	9,090	4,950	46,300	4,060	22,000	4,530	439
	11/05/14	158,000	NA[4]	6,470	36,100	3,880	21,500	17,500	438
	02/10/16	47,800[5]	NA	8,140	45,400	4,050	30,300	14,400	415
	06/13/16	187,000	NA	3,520	26,200	3,660	21,400	5,440	398[5]
	09/26/16	168,000	NA	1,630	23,500	4,110	31,200	1,920	783[5]
	12/14/16	119,000	NA	778	16,700	2,530	30,600	145[5]	699[5]
MW02	05/14/14	190,000	11,300	6,280	42,900	4,170	22,000	11,700	912
	11/05/14	171,000	NA	8,330	43,400	4,030	21,600	17,500	ND[6]
	02/10/16	44,400[5]	NA	7,660	42,400	3,810	28,100	17,700	413
	06/13/16	53,500	NA	901	2,570	1,840	3,730	879	224
	09/26/16	92,700	NA	1,070	14,000	2,710	14,800	505	ND
	12/14/16	72,000	NA	604	7,030	1,330	7,550	340	174[5]
MW03	05/14/14	122,000	5,550	2,130	27,000	3,100	16,400	1,750	444
	11/05/14	158,000	NA	7,140	42,000	3,850	20,900	8,080	463
	02/10/16	124,000	NA	6,250	43,600	4,410	34,500	6,620	470
	06/13/16	99,400	NA	732	2,830	836	4,780	664	162
	09/26/16	33,400	NA	677	2,450[5]	1,190	7,780	443[5]	ND
	12/14/16	37,000	NA	515	648	200[5]	1,510	177[5]	ND
MW04	03/12/14	3,870	1,220	483	81.4	30.4	347	1,500	11.7
	05/14/14	4,130	1,220	532	23.2	14.6	303	1,150	ND
	11/05/14	4,920	NA	680	4.25	12.4	375	2,340	ND
	02/11/16	13,200	NA	1,130	2,080	439	3,336	2,830	421
	06/13/16	621	NA	20.9	ND	2.52	26.5	318	ND
	09/26/16	382	NA	20.0	ND	0.653[5]	14.0	482	ND
	12/14/16	549	NA	34.0	0.476[5]	0.904[5]	18.5	417	ND
MW05	03/12/14	4,080	607	501	47.2	81.9	590	1,350	9.77
	05/14/14	651	120	67.3	3.32	13.1	94.8	228	ND
	11/05/14	5,680	NA	739	51.5	185	1,630	1,460	21.5
	02/11/16	411[5]	NA	1,130	1,890	416	2,981	2,300	69.0[5]
	06/13/16	472	NA	17.3	ND	2.17	54.8	158	1.27[5]

Table 9 (Cont'd).

Summary of Monitoring Well Dissolved Phase Analytical Results

Well Identification	Date	TPH-GRO[1]	TPH-DRO[2]	Benzene[3]	Toluene	Ethyl-benzene	Xylenes	MTBE	Naphthalene
MW05 (Cont'd)	09/26/16	ND	NA	ND	ND	ND	ND	72.3	ND
	12/14/16	77.1[5]	NA	ND	ND	ND	ND	53.8	ND
MW06	03/12/14	136	230	ND	3.18	2.98	18.7	4.46	ND
	05/14/14	ND	289	ND	ND	ND	ND	1.12	ND
	11/05/14	391	NA	5.24	7.12	4.28	5.06	111	ND
	02/11/16	476[5]	NA	16.4	34.5	1.02	7.35	ND	ND
	06/13/16	ND	NA	ND	ND	ND	ND	ND	ND
	09/26/16	ND	NA	ND	ND	ND	ND	ND	ND
	12/14/16	ND	NA	ND	ND	ND	ND	ND	ND
MW07	05/14/14	34,700	4,980	1,090	5,070	1,070	6,360	625	166
	11/05/14	63,200	NA	2,870	13,400	2,030	10,500	3,110	191
	02/11/16	55,600	NA	3,320	15,800	1,530	12,030	10,600	158
	06/13/16	61,800	NA	2,030	17,200	1,650	8,360	3,160	135
	09/26/16	133,000	NA	2,200	16,500	3,520	20,100	2,720	369[5]
	12/14/16	105,000	NA	1,630	12,100	2,010	14,400	1,920	321[5]
MW08	05/14/14	ND	145	ND	ND	ND	ND	1.32	ND
	11/06/14	ND	NA	ND	ND	ND	ND	ND	ND
	02/11/16	ND	NA	ND	1.31	ND	ND	ND	ND
	06/13/16	ND	NA	ND	ND	ND	ND	ND	ND
	09/26/16	ND	NA	ND	ND	ND	ND	ND	ND
	12/14/16	ND	NA	ND	ND	ND	ND	ND	ND
MW09	05/14/14	ND	ND	ND	ND	ND	ND	ND	ND
	11/06/14	ND	NA	ND	ND	ND	ND	ND	ND
	02/11/16	ND	NA	ND	ND	ND	ND	3.44[5]	ND
	06/13/16	ND	NA	ND	ND	ND	ND	1.97	ND
	09/26/16	ND	NA	ND	ND	ND	ND	1.79	ND
	12/14/16	652	NA	ND	ND	ND	ND	1.37	ND
MW10	05/14/14	ND	ND	ND	ND	ND	ND	129	ND
	11/06/14	192	NA	ND	ND	ND	ND	238	ND
	02/11/16	ND	NA	ND	ND	ND	ND	188	ND

Table 9 (Cont'd).

Summary of Monitoring Well Dissolved Phase Analytical Results

Well Identification	Date	TPH-GRO[1]	TPH-DRO[2]	Benzene[3]	Toluene	Ethyl-benzene	Xylenes	MTBE	Naphthalene
MW10 (Cont'd)	06/13/16	ND	NA	ND	ND	ND	ND	50.7	ND
	09/26/16	ND	NA	ND	ND	ND	ND	27.3	ND
	12/14/16	97.5[5]	NA	ND	ND	ND	ND	52.7	ND
MW11	05/14/14	ND	107	ND	ND	ND	ND	ND	ND
	11/06/14	ND	NA	1.2	5.66	ND	ND	10	ND
	02/11/16	17,700	NA	1,170	4,960	757	4,270	ND	ND
	06/13/16	1,320	NA	43.3	29.3	25.7	319	17.0	2.26[5]
	09/26/16	4,130	NA	198	54.4	133	786	42.4	10.6
	12/14/16	2,120	NA	176	16.1	97.2	612	50.2	6.41
MW12	05/14/14	124,000	23,700	762	19,800	5,260	28,800	117	710
	11/05/14	71,200	NA	167	5,140	2,390	15,400	33.1	1,250
	02/10/16	96,800	NA	6,760	36,500	4,460	35,700	1,380	678
	06/13/16	1,090	NA	221	1,270	509	2,590	21.6	48.3
	09/26/16	14,200	NA	174	705	599	3,820	7.21[5]	80.4
	12/14/16	18,300	NA	209	182	622	3,820	ND	92.6[5]
MW13	05/14/14	ND	ND	ND	ND	ND	ND	9.14	ND
	11/05/14	ND	NA	ND	ND	ND	ND	28.9	ND
	02/11/16	ND	NA	ND	ND	ND	ND	16.1	ND
	06/13/16	ND	NA	ND	ND	ND	1.18[5]	2.03	ND
	09/26/16	ND	NA	ND	ND	ND	ND	1.91	ND
	12/14/16	ND	NA	ND	ND	ND	ND	4.67	ND
MW14	05/14/14	189,000	7,380	7,720	44,800	5,260	29,400	5,850	628
	11/05/14	154,000	NA	7,200	39,200	3,890	21,500	4,830	455
	02/10/16	92,800	NA	5,920	37,600	4,520	39,400	2,930	1,530
	06/13/16	57,000	NA	1,030	3,070	630	4,210	680	123[5]
	09/26/16	60,000	NA	659	434[5]	154	9,190	743	274[5]
	12/14/16	11,000	NA	355	370	52.5	1,450	229	72.2[5]
MW15	05/14/14	178,000	8,500	9,310	48,700	5,160	27,500	4,040	547
	11/05/14	158,000	NA	7,890	41,200	3,980	21,700	2,270	472
	02/10/16	82,600	NA	7,250	34,300	4,040	31,200	973	ND

Table 9 (Cont'd).

Summary of Monitoring Well Dissolved Phase Analytical Results

Well Identification	Date	TPH-GRO[1]	TPH-DRO[2]	Benzene[3]	Toluene	Ethyl-benzene	Xylenes	MTBE	Naphthalene
MW15 (Cont'd)	06/13/16	138,000	NA	1,160	8,790	2,610	16,400	657	803
	09/26/16	44,000	NA	546	1,840	930	9,210	222	479[5]
	12/14/16	42,800	NA	628	1,230	516	4,810	206	221[5]
MW16	05/14/14	ND	ND	ND	ND	ND	ND	8.82	ND
	11/06/14	ND	NA	ND	ND	ND	ND	13.4	ND
	02/11/16	ND	NA	ND	ND	ND	ND	10.9	ND
	06/13/16	ND	NA	ND	ND	ND	2.12[5]	2.91	ND
	09/26/16	ND	NA	ND	ND	ND	ND	3.33	ND
	12/14/16	98.9[5]	NA	ND	ND	ND	ND	7.04	ND
MW17	05/14/14	ND	ND	ND	ND	ND	ND	ND	ND
	11/06/14	ND	NA	ND	ND	ND	ND	ND	ND
	02/11/16	ND	NA	ND	ND	ND	ND	ND	ND
	06/13/16	ND	NA	ND	ND	ND	ND	ND	ND
	09/26/16	ND	NA	ND	ND	ND	ND	ND	ND
	12/14/16	126	NA	ND	ND	ND	ND	ND	ND
MW18	05/14/14	ND	234	1.65	ND	ND	3.97	ND	ND
	11/05/14	ND	NA	ND	ND	ND	ND	ND	ND
	02/11/16	ND	NA	ND	ND	ND	0.800[5]	ND	ND
	06/13/16	2,650	NA	781	7.94	51.2	260	ND	29.3
	09/26/16	5,470	NA	1,230	16.5	171	482	ND	60.7
	12/14/16	6,150	NA	1,200	13.1	134	399	ND	52.2
MW19	05/14/14	29,900	7,220	315	4,400	994	4,680	97.3	179
	11/05/14	17,000	NA	201	2,160	526	3,020	39.3	244
	02/11/16	14,600	NA	201	1,930	530	4,500	ND	66.6
	06/13/16	22,200	NA	320	2,850	458	3,100	12.4[5]	57.9[5]
	09/26/16	2,420	NA	44.1	153	55.0	466	4.40	15.3
	12/14/16	2,310	NA	33.5	174	57.6	508	2.84	15.4
MW20	11/06/14	146	NA	ND	ND	ND	ND	20.4	ND
	02/11/16	310[5]	NA	16.6	19.7	ND	29.0	ND	ND
	06/13/16	386	NA	23.7	3.92[5]	6.23	39.6	1.87	1.44[5]

Table 9 (Cont'd).

Summary of Monitoring Well Dissolved Phase Analytical Results

Well Identification	Date	TPH-GRO[1]	TPH-DRO[2]	Benzene[3]	Toluene	Ethyl-benzene	Xylenes	MTBE	Naphthalene
MW20 (Cont'd)	09/26/16	ND	NA	2.43	ND	ND	2.94[5]	1.03	ND
	12/14/16	36.7[5]	NA	ND	ND	ND	ND	ND	ND
MW21	11/05/14	154,000	NA	7,710	40,700	3,710	20,200	1,820	1,100
	02/10/16	85,900	NA	7,760	44,200	4,240	33,400	1,260	540
	06/13/16	27,000	NA	1,180	3,710	685	4,920	134	102[5]
	09/26/16	43,400	NA	1,070	4,430	1,030	7,970	90.3	271
	12/14/16	34,100	NA	1,080	3,360	940	7,630	134	395[5]
MW22	11/05/14	124,000	NA	5,060	26,200	3,580	18,000	2,030	527
	02/10/16	80,400	NA	5,890	34,800	4,250	33,700	4,330	887
	06/13/16	3,190	NA	21.1	126	21.0	418	67.5	80.8
	09/26/16	2,430	NA	7.19	55.1	49.0	539	60.7	49.1
	12/14/16	1,510	NA	ND	15.5	15.7	212	9.01	14.4[5]
MW23	11/05/14	142,000	NA	3,850	34,600	4,300	22,600	2,080	494
	02/10/16	75,800	NA	5,160	35,600	4,040	30,500	6,140	717
	06/13/16	40,400	NA	317	5,660	624	3,990	299	76.9
	09/26/16	23,600	NA	193	4,440	813	6,130	128	135
	12/14/16	9,120	NA	31.3	721	167	2,020	100	59.2[5]
MW24	11/05/14	156,000	NA	5,800	36,700	4,000	23,200	2,350	731
	02/10/16	46,600[5]	NA	656	13,600	3,000	25,600	3,750	661
	06/13/16	59,700	NA	1,180	7,810	1,480	9,700	1,340	280[5]
	09/26/16	13,900	NA	596	1,830	355	3,930	489	131
	12/14/16	61,900	NA	517	1,050	236[5]	5,220	600	ND
MW25	11/05/14	135,000	NA	3,620	29,300	4,080	21,200	2,680	590
	02/11/16	11,100	NA	94.0[5]	1,770	465	3,960	411[5]	289
	06/13/16	4,210	NA	78.6	364	43.9	287	340	7.05[5]
	09/26/16	ND	NA	ND	ND	ND	1.28[5]	1.02	ND
	12/14/16	ND	NA	ND	ND	ND	ND	0.735[5]	ND
MW26	11/05/14	158,000	NA	6,330	38,900	3,610	19,200	5,400	425
	02/10/16	92,800	NA	7,080	35,700	3,880	33,200	6,900	758
	06/13/16	58,200	NA	2,430	8,570	1,650	8,830	3,570	149[5]

Table 9 (Cont'd).

Summary of Monitoring Well Dissolved Phase Analytical Results

Well Identification	Date	TPH-GRO[1]	TPH-DRO[2]	Benzene[3]	Toluene	Ethyl-benzene	Xylenes	MTBE	Naphthalene
MW26 (Cont'd)	09/26/16	10,000	NA	751	455	168	2,280	1,070	86.3
	12/14/16	4,670	NA	425	160	42.9	876	598	38.0[5]
MW27	11/05/14	755	NA	6.61	5.75	2.61	34.7	27.1	6.08
	02/11/16	ND	NA	ND	ND	ND	ND	ND	ND
	06/13/16	385	NA	ND	14.4	9.04	89.3	3.55	ND
	09/26/16	ND	NA	ND	ND	ND	1.53[5]	0.918[5]	ND
	12/14/16	ND	NA	ND	ND	ND	ND	ND	ND
MW28	11/05/14	99,600	NA	2,500	17,700	3,480	17,800	981	483
	02/10/16	69,800	NA	4,360	37,700	4,520	34,300	ND	798
	06/13/16	9,350	NA	38.9	315	55.3	901	7.72[5]	109
	09/26/16	109	NA	1.61	19.3	3.18	35.3	0.561[5]	3.30[5]
	12/14/16	ND	NA	1.24	12.0	1.65	21.8	ND	1.68[5]

[1]TPH (gasoline range organics) analysis via U.S. EPA SW-846 method 8015B; reported in micrograms per liter (µg/L).
[2]TPH (diesel range organics) analysis via U.S. EPA SW-846 method 8015B; reported in µg/L.
[3]BTEX, MTBE, naphthalene analysis via U.S. EPA SW-846 method 8021B; reported in µg/L.
[4]NA = Not applicable.
[5]The reported result is an estimate. The reported concentration is less than the reported detection limit (RDL) but equal to or above the method detection limit (MDL).
[6]ND = Non detected at method detection limit.

Table 10.

Summary of the ¼-Mile Radius Receptor Survey Results

Receptor ID	Name/Address[1]	Well/Spring Location From UST System	Potential Receptor Information, Current Use, Installation Date, & Construction Details
DW01	Meadows of Dan Food Market 2609 Jeb Stuart Highway	~75 feet Northwest	Property maintains a drilled supply well with steel casing located within the store building. The date of installation and additional construction details are unknown.
DW02	Poor Farmer's Market 2616 Jeb Stuart Highway	~135 feet South	Property maintains a drilled supply well with steel casing located within the store building. The well was reportedly installed in 1962. Additional construction details are unknown. A residence is also located on the property, which obtains potable water from the same onsite supply well. Carbon filtration units have been installed as part of the VA DEQ alternate water supply program.

Table 10 (Cont'd).

Summary of the ¼-Mile Radius Receptor Survey Results

Receptor ID	Name/Address[1]	Well/Spring Location From UST System	Potential Receptor Information, Current Use, Installation Date, & Construction Details
DW03	Jane's County Café 2588 Jeb Stuart Highway	~255 feet Southwest	Property maintains a drilled supply well with steel casing located within a well house behind the café. The date of installation and additional construction details are unknown. Carbon filtration units have been installed as part of the VA DEQ alternate water supply program.
DW04	Former Janie Stidham Property 2554 Jeb Stuart Highway	~375 feet Southwest	A drilled supply well is located beneath the wooden porch at the DW04 property. The drilled supply well provides potable water to the properties identified as DW04, DW05, and DW06. The date of installation and additional construction details are unknown. Carbon filtration units have been installed as part of the VA DEQ alternate water supply program.
DW05	Commercial Property (For Sale) Formerly Dan River Books 36 Concord Road		
DW06	Cassell Farms Property 10 Concord Road		
DW07	Mountain Meadow Farm & Craft (seasonal) 12134 Squirrel Spur Road	~1,210 feet Southwest	A spring/spring house is located on the DW08 property. The spring reportedly provides potable water to both the DW07 and DW08 properties.
DW08	Greenberry House Yarn 12206 Squirrel Spur Road	~730 feet Southwest	
DW09	Burnette Residence 282 Concord Road	~1,300 feet Southeast	Property maintains a spring/spring house that reportedly provides potable water to the property.
DW10	Meadows of Dan Community Center 2858 Jeb Stuart Highway	~1,350 feet East-Southeast	Property maintains a drilled supply well (DW10) located within the Meadows of Dan Community Center building. The date of installation and construction details are unknown.
DW23		~1,500 feet East-Southeast	Property maintains an additional drilled supply well (DW23) located on the property. Greene was unable to collect a sample during CAP IMP SP2 due to the pump having not yet been installed. The supply well was reportedly installed to a depth of 275 feet.
DW11	Agee Residence 2883 Jeb Stuart Highway	~1,415 feet East-Northeast	Property maintains a drilled supply well with PVC casing located on the east side of the residence. The date of installation and additional construction details are unknown.
DW22		~1,415 feet East-Northeast	Property maintains an additional drilled supply well (DW22) located on the property. The supply well is currently being utilized to provide potable water to the residence and was reportedly to a depth of 225 feet.
DW12	Spangler Residence 2734 Jeb Stuart Highway	~630 feet East-Southeast	Property reportedly maintains a drilled supply well located on the south side of the residence. The supply well casing is reportedly buried and its exact location is unknown. The date of installation and additional construction details are unknown. Carbon filtration units have been installed as part of the VA DEQ alternate water supply program.

Table 10 (Cont'd).

Summary of the ¼-Mile Radius Receptor Survey Results

Receptor ID	Name/Address[1]	Well/Spring Location From UST System	Potential Receptor Information, Current Use, Installation Date, & Construction Details
DW13	Stanley Residence 2727 Jeb Stuart Highway	~550 feet East-Northeast	Property maintains a drilled supply well with steel casing located on the south side of the residence. The supply well is reportedly 340 feet deep; however, the date of installation and additional construction details are unknown.
DW14	Private Residence 2685 Jeb Stuart Highway	~325 feet East	Property maintains a drilled supply well with PVC casing located on the south side of the residence. The supply well was reportedly installed in ~2008-2009. Additional construction details are unknown.
DW15	Nancy's Candy Company 2684 Jeb Stuart Highway	~470 feet Southeast	Property maintains a drilled supply well with steel casing located on the south side of the building. The supply well was installed in 1998 to approximately 405 feet below the ground surface. In addition, 105 feet of steel casing was installed and the well was grouted from 0-50 feet. Carbon filtration units have been installed as part of the VA DEQ alternate water supply program.
DW16	Commercial Property Former Mountain House Restaurant 2639 Jeb Stuart Highway	~175 feet East	Property maintains a drilled supply well with steel casing located within a well house on the east side of the property. The supply well was reportedly installed in 1982 to approximately 280 feet below the ground surface. Additional construction details are unknown.
DW17	Commercial Building (Multiple Businesses) 2577 Jeb Stuart Highway Meadows Merchant Building LLC	~200 feet Northwest	Property maintains a drilled supply well with steel casing located on the north side of the property. The top of casing is located below the ground within larger concrete casing. The date of installation and additional construction details are unknown.
DW18	Meadows of Dan Baptist Church 2511 Jeb Stuart Highway	~400 feet Northwest	Property maintains a drilled supply well with steel casing located within the parsonage. The date of installation and additional construction details are unknown.
DW19	Century Link Property 2646 Jeb Stuart Highway	~190 feet Southeast	Property maintains a drilled supply well located on the north side of the property. The top of casing is located below the ground within a manway. The date of installation and additional construction details are unknown.
DW20	Pond	~1,130 feet Southwest	The pond is located on the DW07 property and drains to an intermittent tributary to Tuggle Creek.
DW21	Stanley Residence 2827 Jeb Stuart Highway	~1,150 feet Northeast	Property maintains a drilled supply well. The well was reportedly installed to a depth of 185 feet.
DW24	Unnamed Tributary	~950 feet East	Unnamed intermittent tributary to Tuggle Creek.
DW25	Unnamed Tributary	~1,030 feet Southwest	Unnamed intermittent tributary to Tuggle Creek.

[1]Addresses are located in Meadows of Dan, VA 24120

Table 11.

Summary of Drinking Water Dissolved Phase Analytical Results

Receptor ID	Sample Date	VOCs[1]	SVOCs[2]
DW01	01/31/14	ND[3] for all VOCs via 8260	NA[4]
	02/10/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	05/14/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	11/07/14	ND for all VOCs via 8260	NA
	02/11/16	ND for all VOCs via 8260	NA
	06/13/16	ND for all VOCs via 8260	NA
	09/26/16	ND for all VOCs via 8260	NA
	12/14/16	tert-Butyl alcohol = 2.51[8] ND for all other VOCs via 8260	NA
	01/10/17	ND for all VOCs via 8260	NA
DW02 (outside hydrant)	01/31/14	MTBE = 76.9; ND for all other VOCs via 8260	NA
	02/07/14	MTBE = 74.6; ND for all other VOCs via 8260	NA
	02/10/14	NA	ND for all SVOCs via 8270
	02/19/14[5]	MTBE = 35.1; ND for all other VOCs via 8260	ND for all SVOCs via 8270
	05/15/14[5]	MTBE = 56.7 Diisopropyl ether (DIPE) = 0.7 ND for all other VOCs via 8260	NA
	08/26/14[5]	MTBE = 33.5; ND for all other VOCs via 8260	NA
	12/18/14[5]	MTBE = 14.9; ND for all other VOCs via 8260	NA
	04/23/15[5]	MTBE = 21.6; ND for all other VOCs via 8260	NA
	11/04/15[5]	DIPE = 0.7 MTBE = 98.1 TAME = 0.9 ND for all other VOCs via 8260	NA
	05/18/16[5]	MTBE = 28.0; ND for all other VOCs via 8260	NA
	09/12/16[5]	MTBE = 15.5; ND for all other VOCs via 8260	NA
DW02 (kitchen faucet)	02/07/14	MTBE = 76.5; ND for all other VOCs via 8260	NA
	02/10/14	NA	ND for all SVOCs via 8270
DW03[6]	01/31/14	Benzene = 14.4 1,2-Dichloroethane = 1.24 MTBE = 38.7 ND for all other VOCs via 8260	NA

Table 11 (Cont'd).

Summary of Drinking Water Dissolved Phase Analytical Results

Receptor ID	Sample Date	VOCs[1]	SVOCs[2]
DW03[6] (Cont'd)	02/07/14	MTBE = 2.71; ND for all other VOCs via 8260	NA
	02/10/14	NA	ND for all SVOCs via 8270
	02/17/14	MTBE = 1.83; ND for all other VOCs via 8260	ND for all SVOCs via 8270
	02/19/14[5]	MTBE = 5.0; ND for all other VOCs via 8260	ND for all SVOCs via 8270
	04/16/14[5]	MTBE = 4.4; ND for all other VOCs via 8260	NA
	10/30/14[5]	TAME = 0.8 Benzene = 6.7 1,2-Dichloroethane = 4.6 MTBE = 63.5 Xylenes = 7.9 ND for all other VOCs via 8260	NA
	04/23/15[5]	TAME = 0.6 Benzene = 22.6 1,2-Dichloroethane = 0.6 DIPE = 5.8 MTBE = 44.2 Naphthalene = 1.9 ND for all other VOCs via 8260	NA
	04/30/15[7]	ND for all VOCs via 8260	ND for all SVOCs via 8270
	05/12/15[7]	ND for all VOCs via 8260	ND for all SVOCs via 8270
	05/12/15[5]	TAME = 0.7 Benzene = 44.2 1,2-Dichloroethane = 1.1 DIPE = 7.7 MTBE = 51.4 Naphthalene = 3.0 Xylenes = 46.7 ND for all other VOCs via 8260	Naphthalene = 2.7; ND for all other SVOCs via 8270
	11/04/15[5]	MTBE = 3.4; ND for all other VOCs via 8260	NA
	05/18/16[5]	MTBE = 1.2; ND for all other VOCs via 8260	NA
	09/12/16[5]	Chloroform = 0.8; ND for all other VOCs via 8260	NA
DW04 DW05 DW06	03/30/15	Benzene = 21.9 Isopropylbenzene = 0.960 MTBE = 47.6 Naphthalene = 1.81 Xylenes = 26.9 ND for all other VOCs via 8260	Bis(2-ethylhexl) phthalate = 7.10; ND for all other SVOCs via 8270
	04/20/15	Benzene = 16.0 MTBE = 34.9 Xylenes = 24.3 ND for all other VOCs via 8260	ND for all SVOCs via 8270

Table 11 (Cont'd).

Summary of Drinking Water Dissolved Phase Analytical Results

Receptor ID	Sample Date	VOCs[1]	SVOCs[2]
DW04 DW05 DW06 (Cont'd)	05/12/15[5]	TAME = 0.9 Benzene = 62.4 DIPE = 8.3 MTBE = 55.3 Naphthalene = 3.1 Xylenes = 57.3 ND for all other VOCs via 8260	Naphthalene = 2.7; ND for all other SVOCs via 8270
	08/04/15[5]	1,2-Dichloroethane = 1.2 TAME = 1.3 TAA = 52.1 Benzene = 110 DIPE = 10.8 MTBE = 76.3 Naphthalene = 5.7 TBA = 27.1 Xylenes = 103 ND for all other VOCs via 8260	NA
	11/04/15[5]	1,2-Dichloroethane = 1.3 TAME = 1.4 TAA = 66.7 Benzene = 167 DIPE = 10.1 MTBE = 122 Naphthalene = 5.4 TBA = 35.6 Toluene = 3.0 Xylenes = 155 ND for all other VOCs via 8260	NA
	05/18/16[5]	TAME = 1.3 TAA = 40.7 Benzene = 63.5 DIPE = 8.2 MTBE = 72.2 Naphthalene = 3.4 TBA = 20.7 Xylenes = 58.0 ND for all other VOCs via 8260	NA
	08/19/16[5]	TAME = 1.1 TAA = 50.4 Benzene = 73.7 Toluene = 2.4 Ethylbenzene = 1.2 DIPE = 7.5 MTBE = 66.5 Naphthalene = 5.7 TBA = 21.9 Xylenes = 82.2 ND for all other VOCs via 8260	NA
DW07 DW08	03/12/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	05/14/14	ND for all VOCs via 8260	ND for all SVOCs via 8270

Table 11 (Cont'd).

Summary of Drinking Water Dissolved Phase Analytical Results

Receptor ID	Sample Date	VOCs[1]	SVOCs[2]
DW07 DW08 (Cont'd)	11/07/14	ND for all VOCs via 8260	NA
	02/11/16	ND for all VOCs via 8260	NA
	06/13/16	ND for all VOCs via 8260	NA
	09/26/16	ND for all VOCs via 8260	NA
	12/14/16	ND for all VOCs via 8260	NA
DW09	02/25/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	03/12/14	ND for all VOCs via 8260	Bis(2-ethylhexl) phthalate = 21.0; ND for all other SVOCs via 8270
DW10	02/10/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
DW11	02/10/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
DW12	01/31/14	MTBE = 3.62; ND for all other VOCs via 8260	NA
	02/07/14	MTBE = 3.40; ND for all other VOCs via 8260	NA
	02/10/14	NA	ND for all SVOCs via 8270
	03/06/14[5]	MTBE = 3.5; ND for all other VOCs via 8260	ND for all SVOCs via 8270
	05/15/14[5]	MTBE = 3.4; ND for all other VOCs via 8260	NA
	10/30/14[5]	MTBE = 3.5; ND for all other VOCs via 8260	NA
	04/23/15[5]	MTBE = 3.7; ND for all other VOCs via 8260	NA
	11/04/15[5]	MTBE = 5.4; ND for all other VOCs via 8260	NA
	05/17/16[5]	MTBE = 3.1; ND for all other VOCs via 8260	NA
	11/14/16[5]	MTBE = 2.7; ND for all other VOCs via 8260	NA
DW13	01/31/14	ND for all VOCs via 8260	NA
	02/10/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	05/14/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	11/07/14	ND for all VOCs via 8260	NA
	02/11/16	Chloroform = 0.620[8] ND for all other VOCs via 8260	NA
	06/13/16	ND for all VOCs via 8260	NA

Table 11 (Cont'd).

Summary of Drinking Water Dissolved Phase Analytical Results

Receptor ID	Sample Date	VOCs[1]	SVOCs[2]
DW13 (Cont'd)	09/26/16	Chloroform = 0.583[8] Tetrachloroethene = 0.541[8] ND for all other VOCs via 8260	NA
	12/14/16	Chloroform = 0.756[8] Tetrachloroethene = 0.495[8] ND for all other VOCs via 8260	NA
DW14	01/31/14	ND for all VOCs via 8260	NA
	02/10/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	05/14/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	11/07/14	ND for all VOCs via 8260	NA
	02/11/16	ND for all VOCs via 8260	NA
	06/13/16	ND for all VOCs via 8260	NA
	09/26/16	ND for all VOCs via 8260	NA
	12/14/16	ND for all VOCs via 8260	NA
DW15	02/10/14	MTBE = 10.9; ND for all other VOCs via 8260	ND for all SVOCs via 8270
	02/17/14	MTBE = 15.5; ND for all other VOCs via 8260	ND for all SVOCs via 8270
	02/19/14[5]	MTBE = 15.7; ND for all other VOCs via 8260	ND for all SVOCs via 8270
	03/14/14[5]	Acetone = 1,270 2-Butanone (MEK) = 926 MTBE = 15.6 ND for all other VOCs via 8260	NA
	04/16/14[5]	MTBE = 18.8; ND for all other VOCs via 8260	NA
	05/15/14[5]	MTBE = 18.3; ND for all other VOCs via 8260	NA
	08/26/14[5]	MTBE = 25.2; ND for all other VOCs via 8260	NA
	12/18/14[5]	MTBE = 17.3; ND for all other VOCs via 8260	NA
	04/23/15[5]	MTBE = 21.8; ND for all other VOCs via 8260	NA
	11/04/15[5]	MTBE = 28.3; ND for all other VOCs via 8260	NA
	05/18/16[5]	MTBE = 27.3 TAME = 0.5 ND for all other VOCs via 8260	NA
	11/14/16[5]	MTBE = 25.2 TAME = 0.6 ND for all other VOCs via 8260	NA

Table 11 (Cont'd).

Summary of Drinking Water Dissolved Phase Analytical Results

Receptor ID	Sample Date	VOCs[1]	SVOCs[2]
DW16	01/31/14	ND for all VOCs via 8260	NA
	02/10/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	07/01/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	08/01/14	Chloroform = 1.84; ND for all other VOCs via 8260	ND for all SVOCs via 8270
	09/25/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
DW17	01/31/14	ND for all VOCs via 8260	NA
	02/10/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	11/07/14	ND for all VOCs via 8260	NA
	03/04/16	ND for all VOCs via 8260	NA
	06/13/16	ND for all VOCs via 8260	NA
	09/26/16	ND for all VOCs via 8260	NA
	12/14/16	ND for all VOCs via 8260	NA
DW18	02/26/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	03/12/14	ND for all VOCs via 8260	Bis(2-ethylhexl) phthalate = 26.1; ND for all other SVOCs via 8270
DW19	02/25/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	03/12/14	ND for all VOCs via 8260	ND for all SVOCs via 8270
	06/25/14	ND for all VOCs via 8260	NA
	11/20/14	ND for all VOCs via 8260	NA
	02/11/16	Toluene = 3.87; ND for all other VOCs via 8260	NA
	02/26/16	DIPE = 1.41; ND for all other VOCs via 8260	NA
	03/15/16	1,1-Dichloroethane = 0.413[8] 1,2-Dichloroethane = 0.758[8] DIPE = 1.48 MTBE = 0.773[8] ND for all other VOCs via 8260	NA
	11/14/16[5]	1,1-Dichloroethane = 0.7 DIPE = 0.7 MTBE = 3.1 ND for all other VOCs via 8260	NA
DW21	02/11/16	ND for all VOCs via 8260	NA

Table 11 (Cont'd).

Summary of Drinking Water Dissolved Phase Analytical Results

Receptor ID	Sample Date	VOCs[1]	SVOCs[2]
DW22	02/26/16	ND for all VOCs via 8260	NA
DW23	06/13/16	2-Butanone (MEK) = 12.0; ND for all other VOCs via 8260	NA

[1]VOCs (Volatile Organic Compounds) analysis via U.S. EPA SW-846 method 8260B; reported in micrograms per liter (µg/L).
[2]SVOCs (Semi-Volatile Organic Compounds) analysis via U.S. EPA SW-846 method 8270C; reported in µg/L.
[3]ND = Non Detected at laboratory method detection limits.
[4]NA = Not Analyzed.
[5]Drinking water samples collected on behalf of the VA DEQ AWS program.
[6]Receptor ID DW03 has the ability to obtain potable water from the onsite well and from the well located at Receptor ID DW04.
[7]Confirmed drinking water samples collected by Greene from the onsite supply well located at Receptor ID DW03.
[8]The reported result is an estimate. The reported concentration is less than the reported detection limit (RDL) but equal to or above the method detection limit (MDL).

Table 12.
Summary of CAP IMP SP5 Vacuum Readings

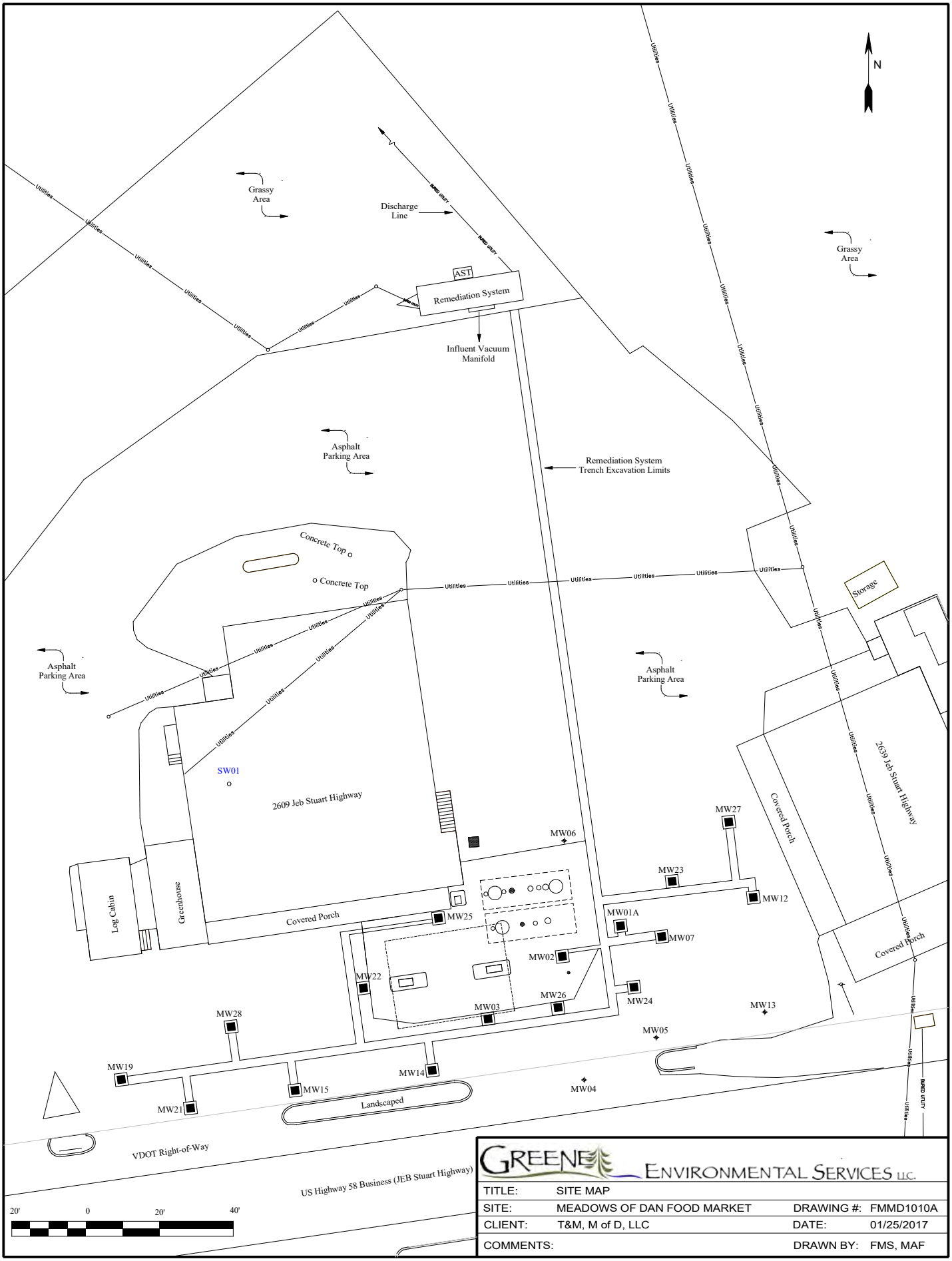
Well ID	Vacuum Readings (Inches of Water Column)				
	10/11/16	10/25/16	11/14/16	11/28/16	12/14/16
MW01A	203.94	203.94	203.94	203.94	203.94
MW02	169.95	176.75	176.75	163.15	149.56
MW03	176.75	163.15	176.75	149.56	169.95
MW04	10.0	2.4	7.4	5.9	5.0
MW05	6.7	4.3	4.6	4.6	6.6
MW06	0.33	0.15	0.16	0.2	0.24
MW07	217.54	231.13	231.13	176.75	224.33
MW08	0.25	0.15	0.10	0.05	7.28
MW09	0.5	0.35	0.30	0.2	0.58
MW10	0.0	0.0	0.0	0.0	0.0
MW11	0.5	1.0	0.9	0.65	1.6
MW12	NA	NA	11.0	10.5	11.0
MW13	3.2	2.3	2.1	2.1	2.8
MW14	203.94	203.94	203.94	203.94	197.14
MW15	190.34	190.34	176.75	169.95	176.75
MW16	0.0	0.0	0.0	0.0	0.1
MW17	0.0	0.0	0.0	0.0	0.0
MW18	3.5	3.0	3.1	2.7	3.4
MW19	203.94	203.94	203.94	203.94	203.94
MW20	1.5	0.8	0.8	0.8	1.5
MW21	203.94	217.54	190.34	176.75	176.75
MW22	NA	NA	19.5	18.0	18.0
MW23	217.54	217.54	217.54	217.54	217.54
MW24	244.73	244.73	244.73	231.13	231.13
MW25	NA	NA	10.5	11.0	10.0
MW26	163.15	149.56	156.35	156.35	183.55
MW27	NA	NA	0.15	0.12	0.80
MW28	190.34	190.34	190.34	183.55	190.34

[1]NA = Not Applicable.

APPENDIX B

Maps

Site Map
Potential Receptors Location Map
CAP IMP SP5 Potentiometric Surface Map (10/11/2016)
CAP IMP SP5 Potentiometric Surface Map (11/14/2016)
CAP IMP SP5 Potentiometric Surface Map (12/14/2016)
CAP IMP SP5 Drawdown Map (10/11/2016)
CAP IMP SP5 Drawdown Map (11/14/2016)
CAP IMP SP5 Drawdown Map (12/14/2016)
CAP IMP SP5 Radius of Influence Map (10/11/2016)
CAP IMP SP5 Radius of Influence Map (11/14/2016)
CAP IMP SP5 Radius of Influence Map (12/14/2016)
CAP IMP SP5 TPH-GRO Isoconcentration Map
CAP IMP SP5 Benzene Isoconcentration Map
CAP IMP SP5 Toluene Isoconcentration Map
CAP IMP SP5 Ethylbenzene Isoconcentration Map
CAP IMP SP5 Xylenes Isoconcentration Map
CAP IMP SP5 MTBE Isoconcentration Map
CAP IMP SP5 Naphthalene Isoconcentration Map
CAP IMP SP5 Total BTEX Isoconcentration Map

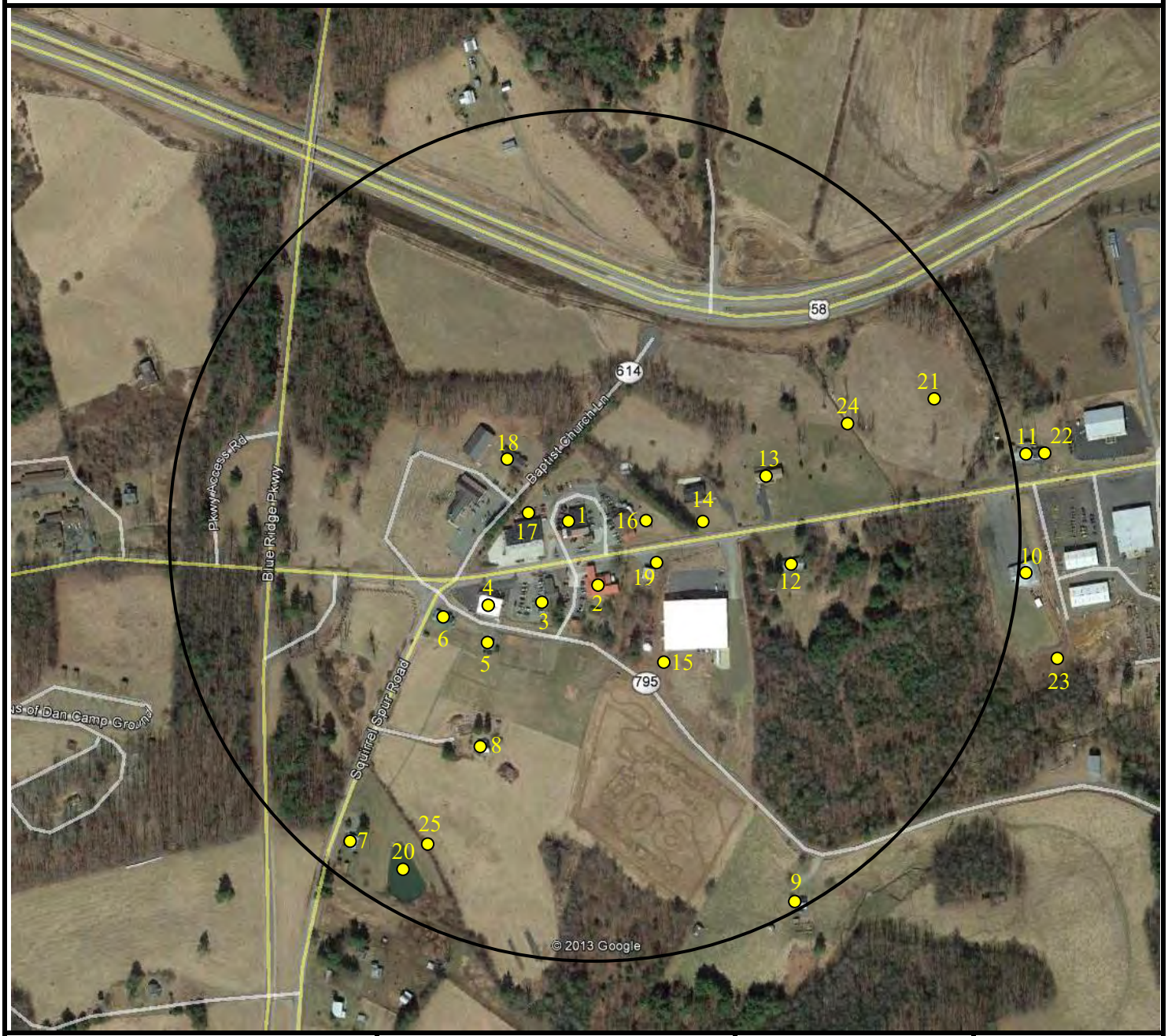


GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	SITE MAP		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010A
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:		DRAWN BY:	FMS, MAF

Potential Receptors Location Map

Meadows of Dan Food Market
2609 Jeb Stuart Highway
Meadows of Dan, Virginia 24120



GREENE ENVIRONMENTAL SERVICES LLC
200 Buckwheat Lane, Rocky Mount, Virginia 24151

Office: 540-483-3311 or 800-215-2596
Fax: 540-483-3381

www.greene-environmental.com

PATRICK COUNTY, VIRGINIA

Source: Google Earth

Scale: Not to Scale

Project: CAP IMP SP5

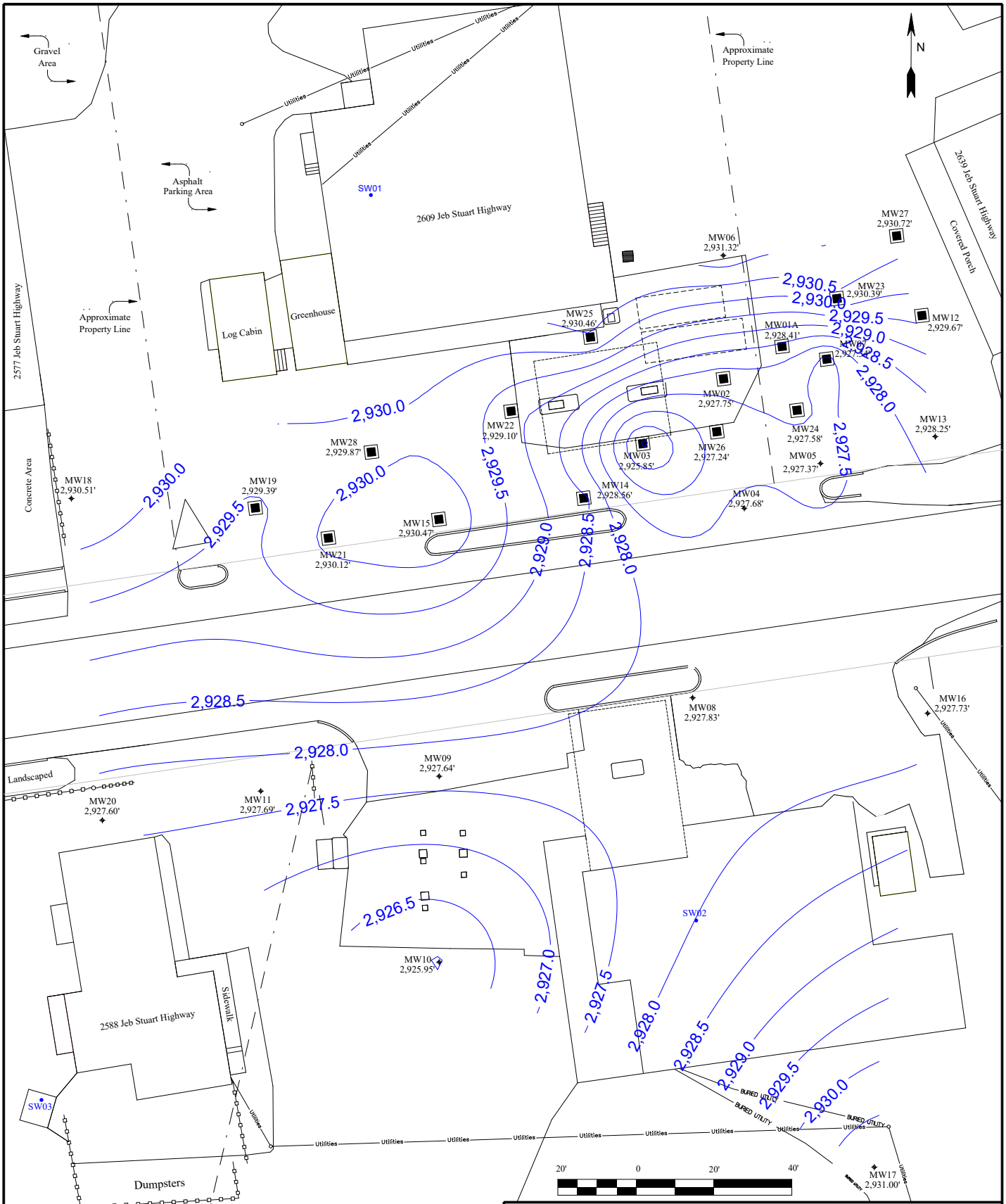
Client: T&M, M of D, L.L.C.

Greene Job #: FMMD1010

Date: January 25, 2017

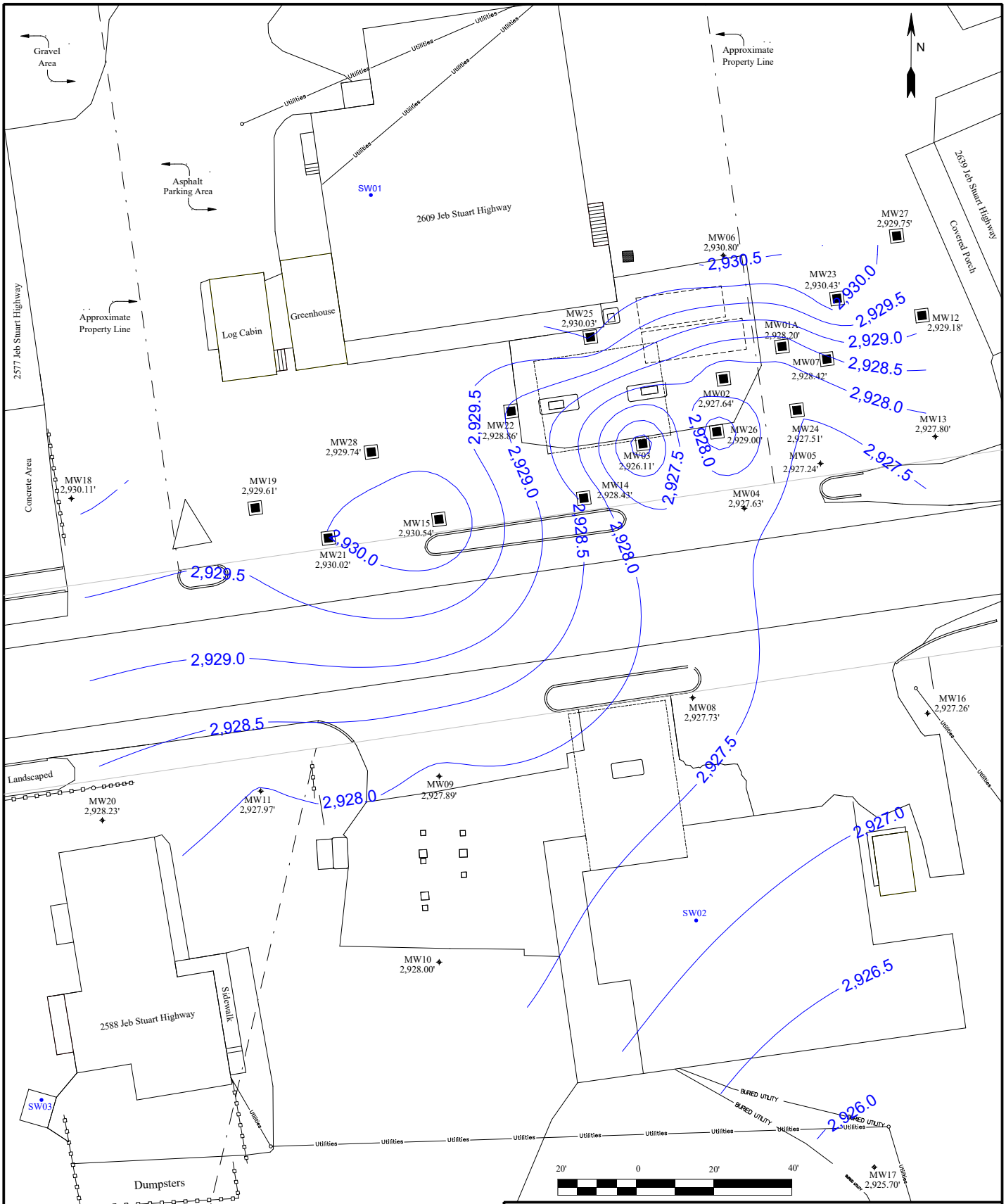
N
W E
S

Latitude:
036.7353972° N
Longitude:
080.4077838° W



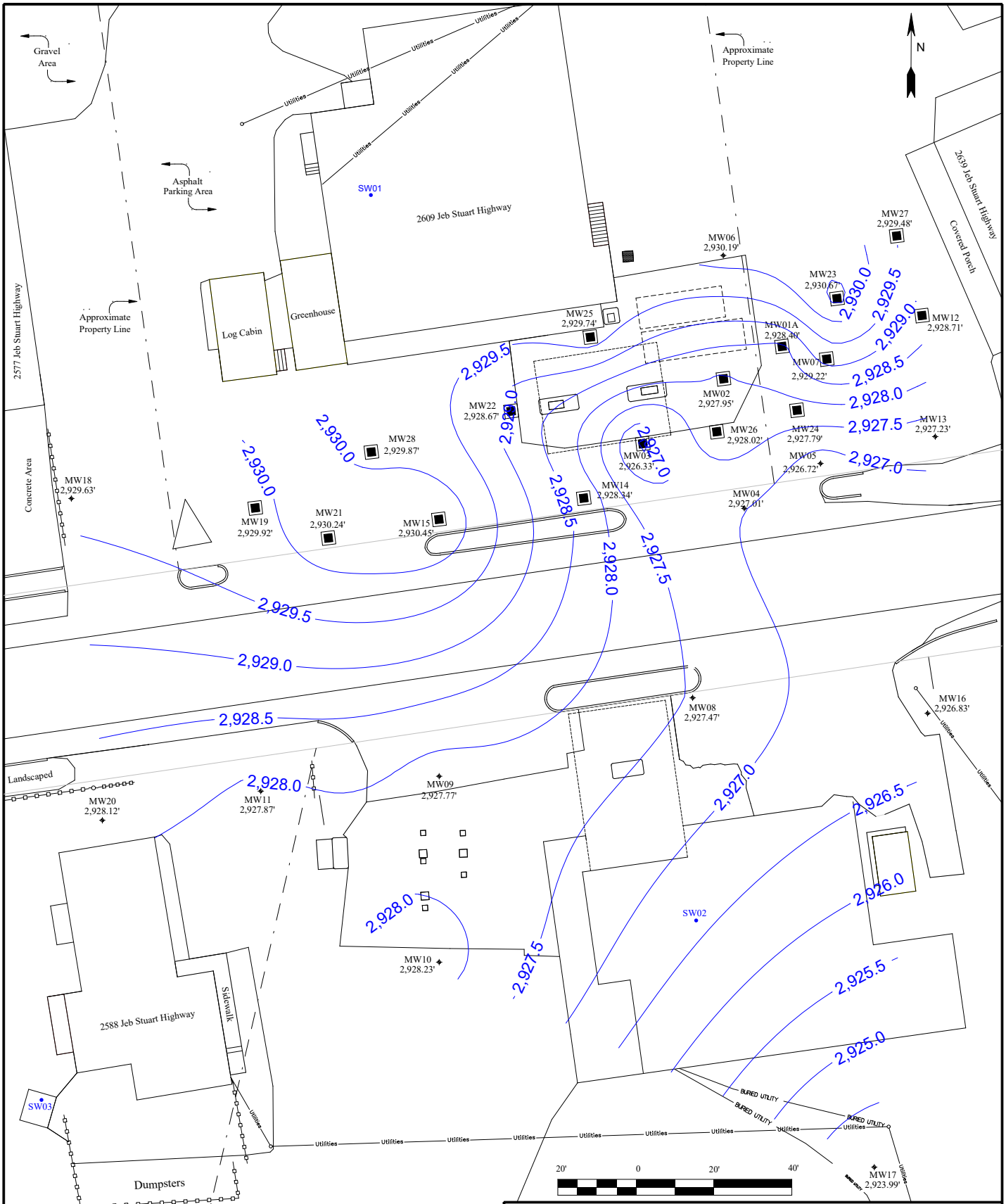
GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 POTENTIOMETRIC SURFACE MAP (10/11/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010B
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:		DRAWN BY:	FMS, MAF



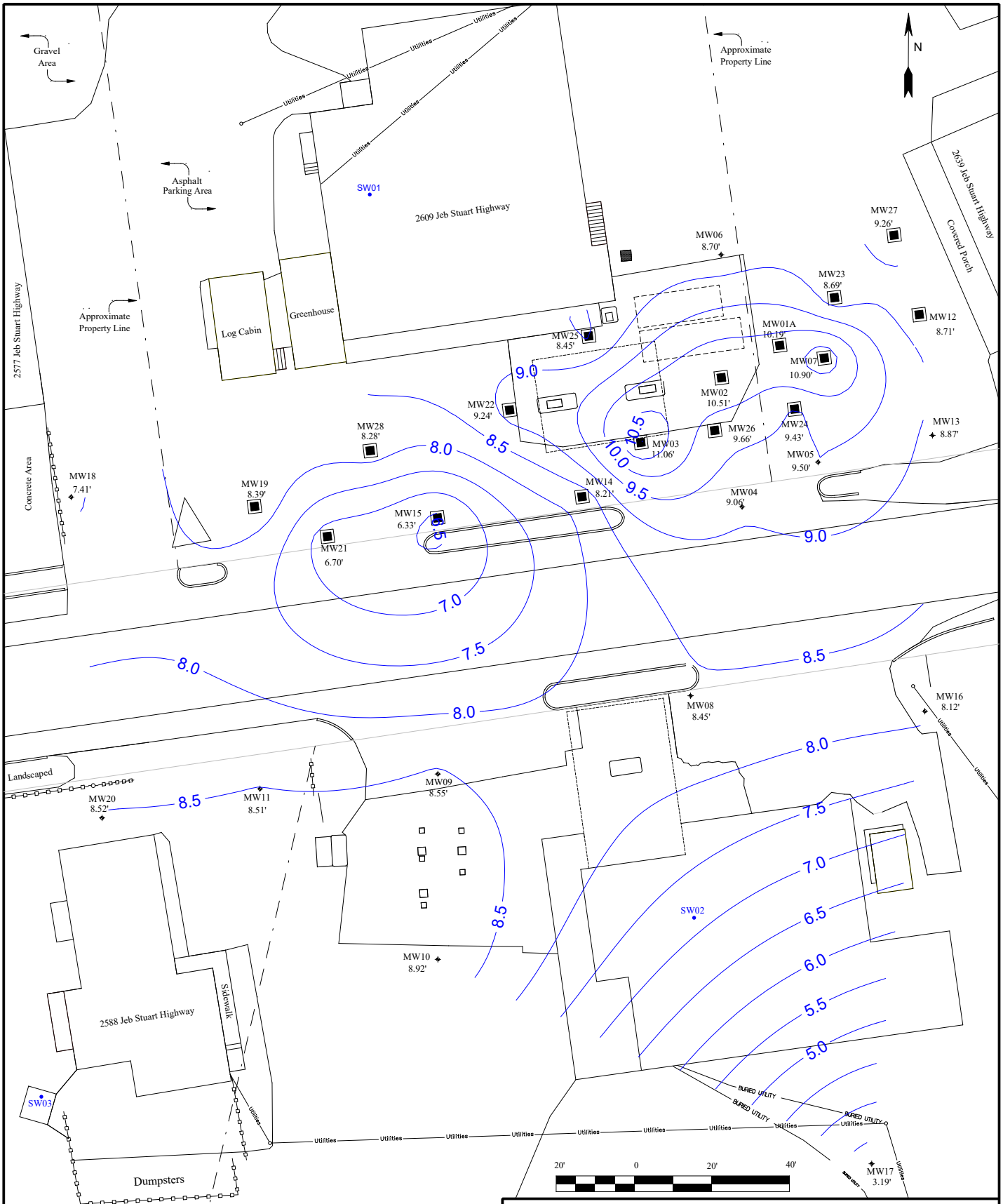
GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 POTENTIOMETRIC SURFACE MAP (11/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010C
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:		DRAWN BY:	FMS, MAF



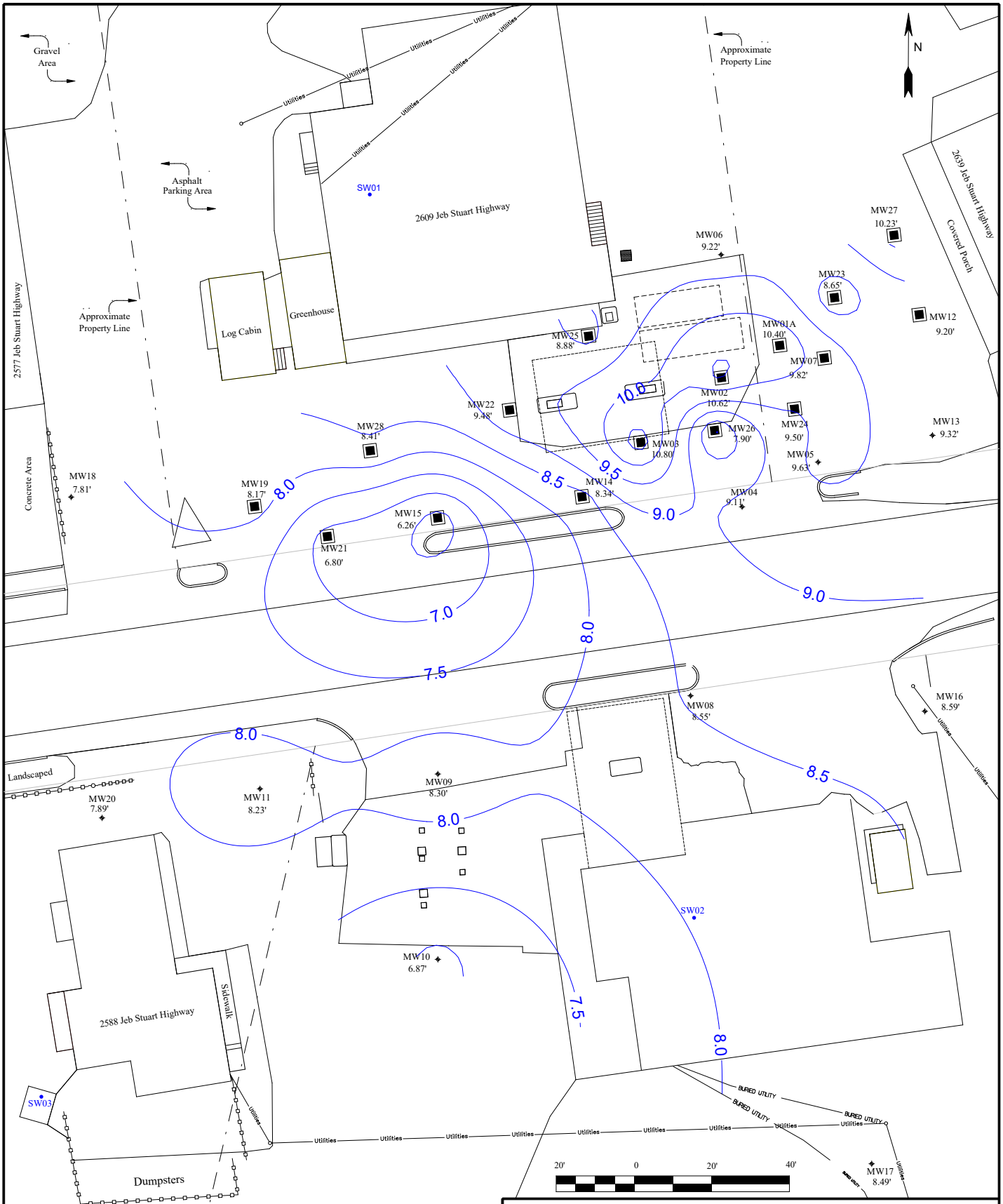
GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 POTENTIOMETRIC SURFACE MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010D
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:		DRAWN BY:	FMS, MAF



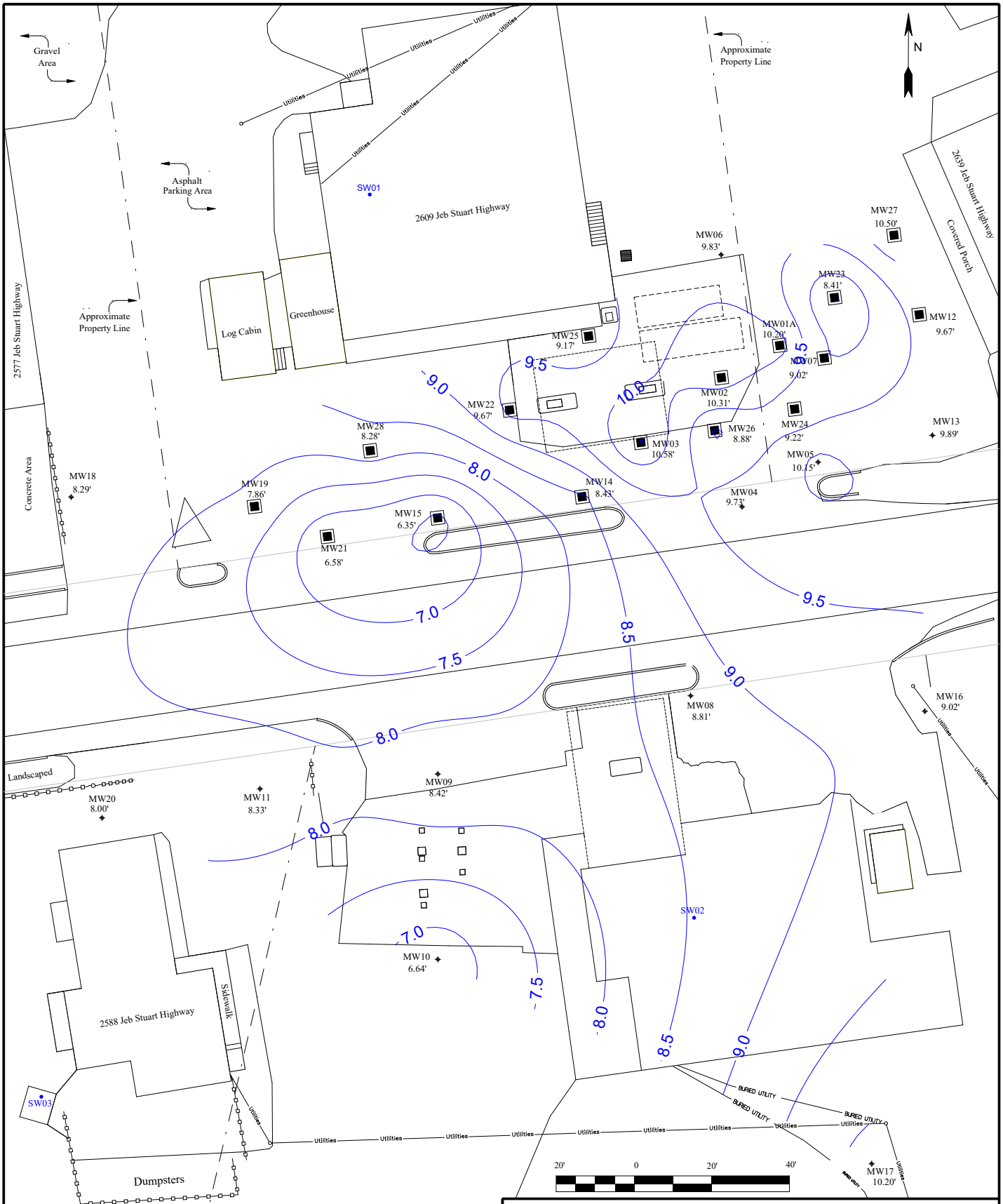
GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 DRAWDOWN MAP (10/11/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010E
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:		DRAWN BY:	FMS, MAF



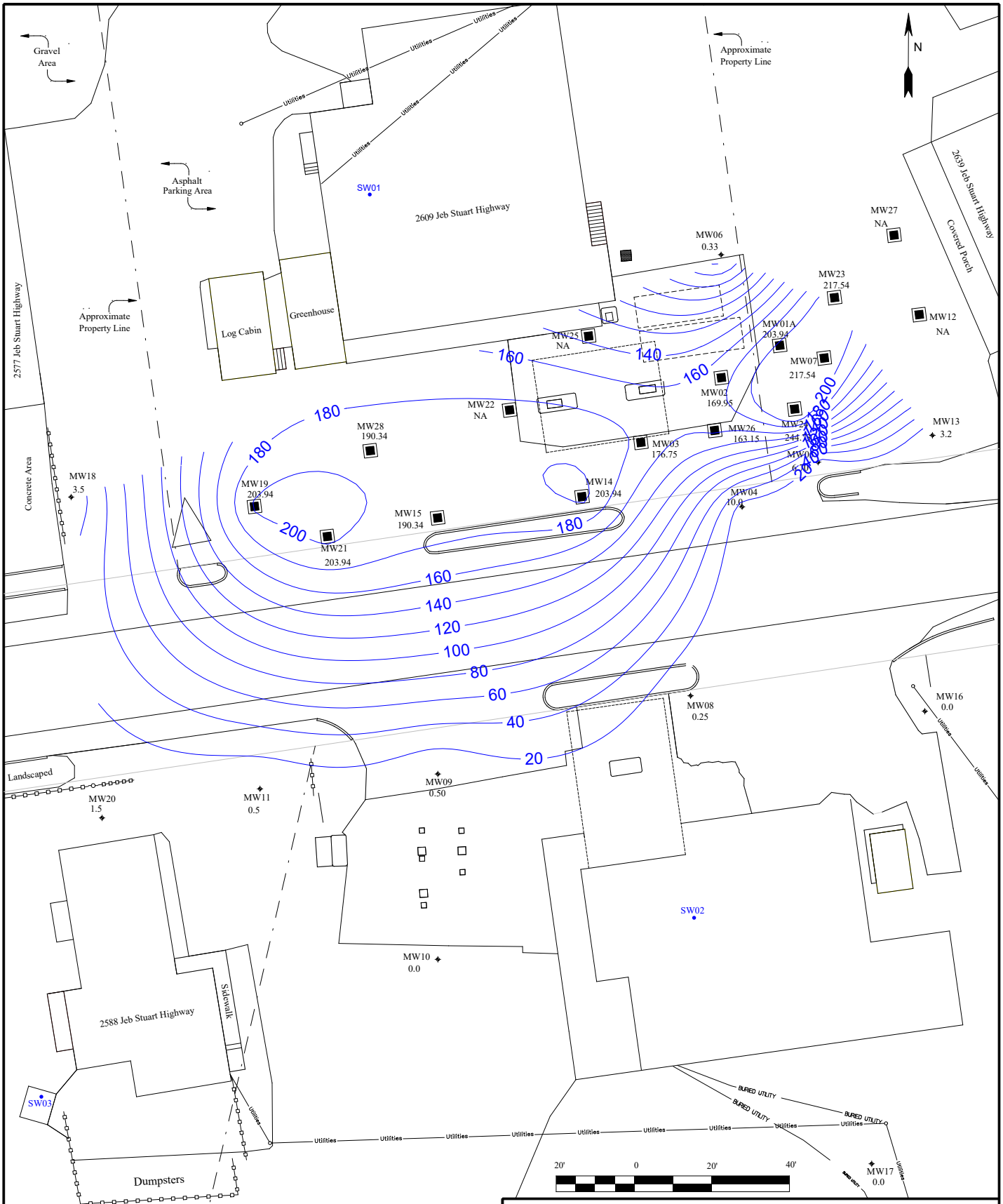
GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 DRAWDOWN MAP (11/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010F
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:		DRAWN BY:	FMS, MAF



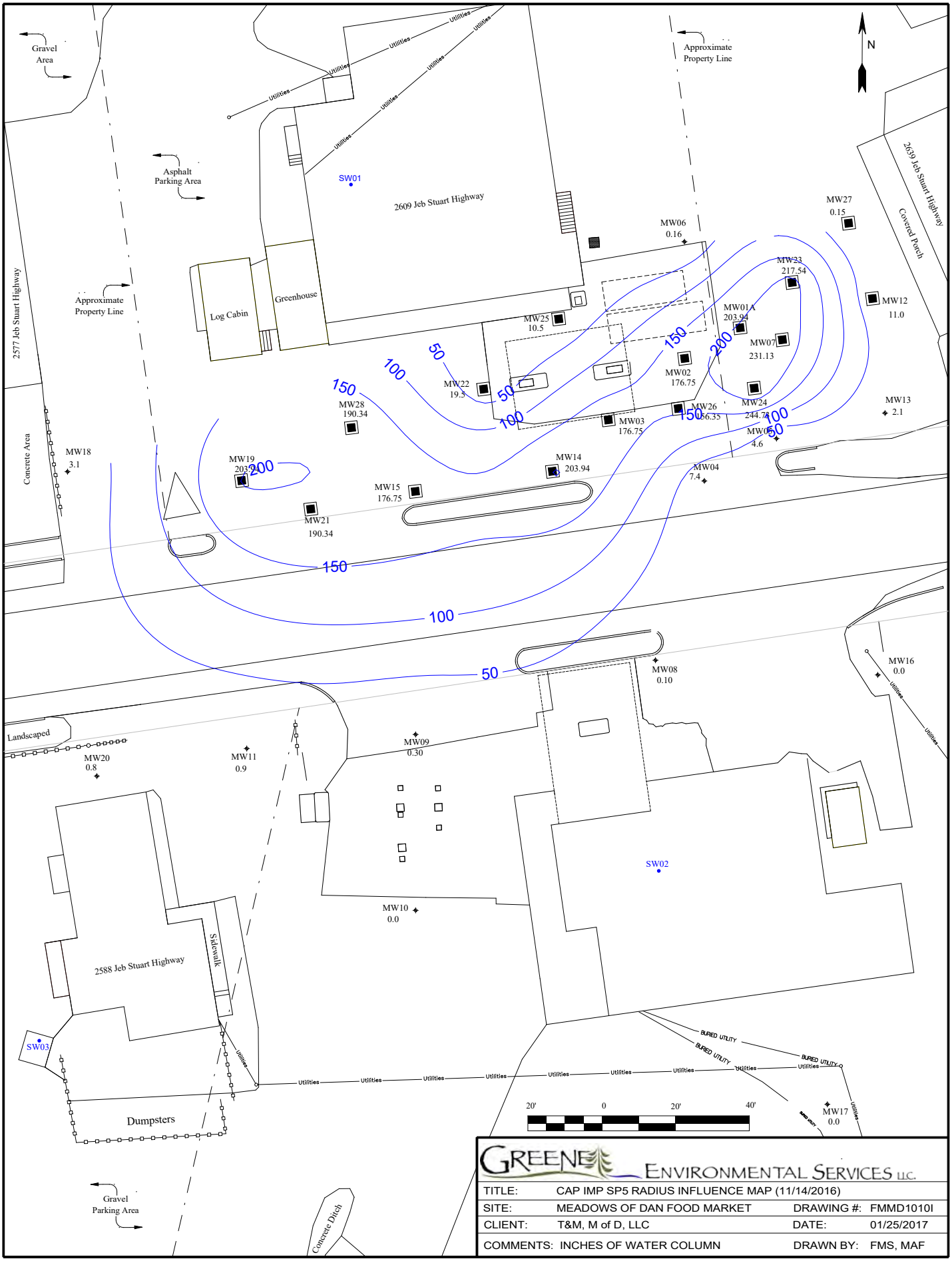
GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 DRAWDOWN MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010G
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:		DRAWN BY:	FMS, MAF



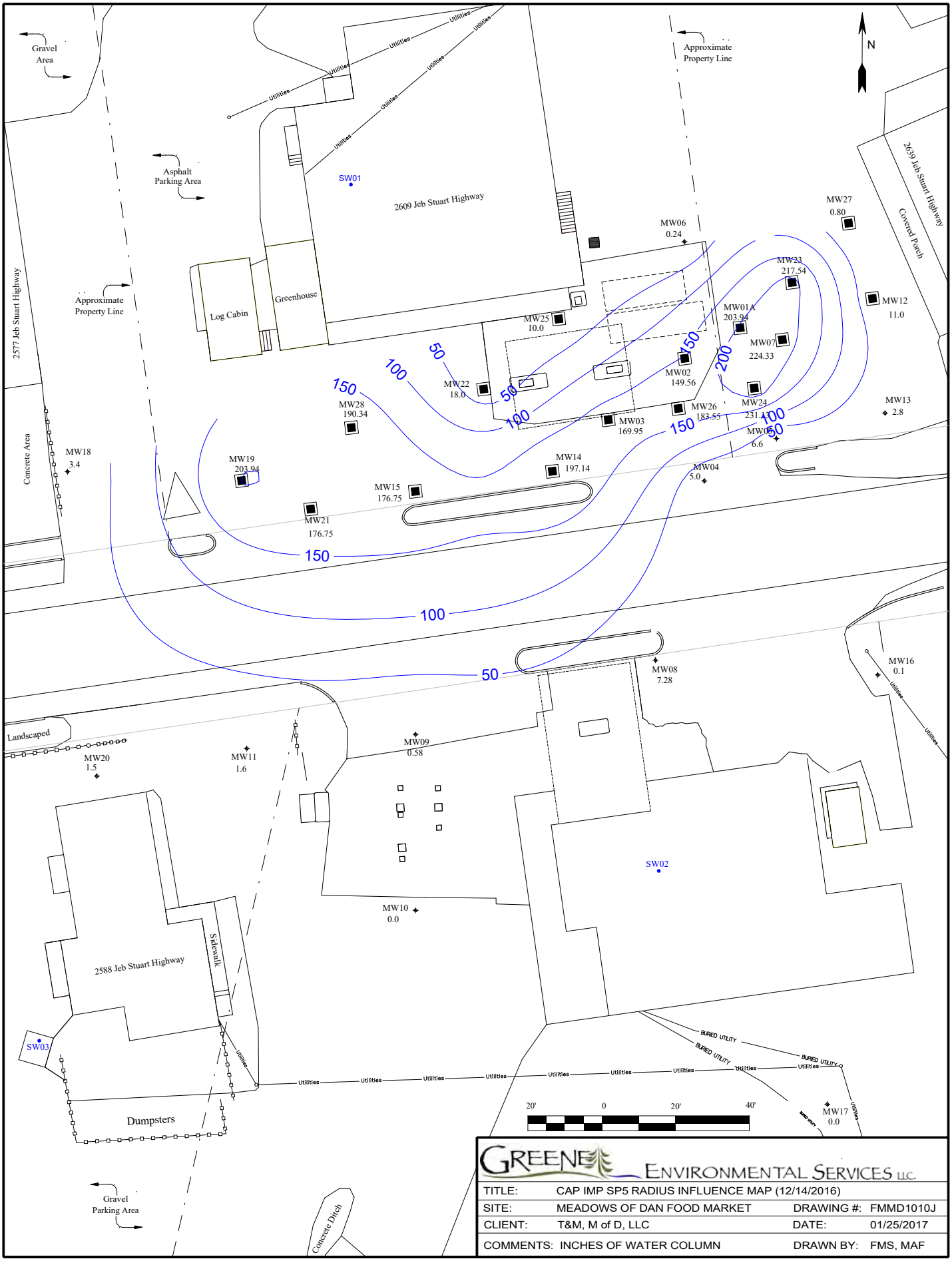
GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 RADIUS INFLUENCE MAP (10/11/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010H
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF



GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 RADIUS INFLUENCE MAP (11/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010I
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF



GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 RADIUS INFLUENCE MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010J
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF

GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 TPH-GRO ISOCONCENTRATION MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010K
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF

GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 BENZENE ISOCONCENTRATION MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010L
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF

GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 TOLUENE ISOCONCENTRATION MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010M
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF

GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 ETHYLBENZENE ISOCONCENTRATION MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010N
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF

GREENE ENVIRONMENTAL SERVICES LLC.

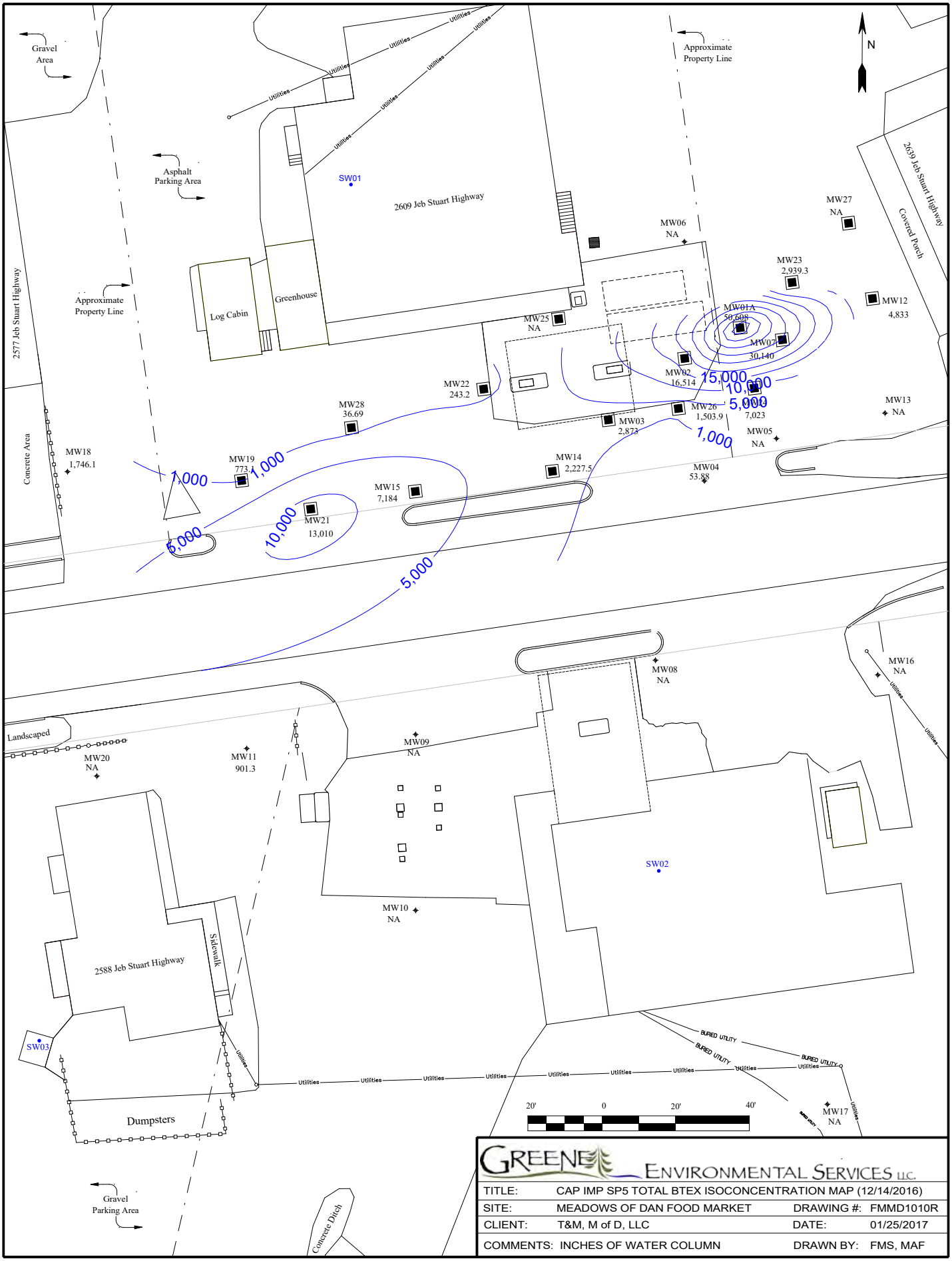
TITLE:	CAP IMP SP5 XYLENES ISOCONCENTRATION MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010O
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF

GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 MTBE ISOCONCENTRATION MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010P
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF

GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 NAPHTHALENE ISOCONCENTRATION MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010Q
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF



GREENE ENVIRONMENTAL SERVICES LLC.

TITLE:	CAP IMP SP5 TOTAL BTEX ISOCONCENTRATION MAP (12/14/2016)		
SITE:	MEADOWS OF DAN FOOD MARKET	DRAWING #:	FMMD1010R
CLIENT:	T&M, M of D, LLC	DATE:	01/25/2017
COMMENTS:	INCHES OF WATER COLUMN	DRAWN BY:	FMS, MAF

APPENDIX C

Laboratory Data

Laboratory Test Results
Chain of Custody Documentation

ANALYTICAL REPORT

November 04, 2016

Greene Env. Services, LLC

Sample Delivery Group:	L868630
Samples Received:	10/27/2016
Project Number:	FMMD1010
Description:	The Meadows of Dan Food Market
Report To:	Mr.Trev Greene 129 Bunny Ridge Lane Rocky Mount, VA 24151

Entire Report Reviewed By:

Terrie Fudge
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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RCP16 L868630-01 Air

Collected by: BM | Collected date/time: 10/25/16 10:03 | Received date/time: 10/27/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method M18-Mod	WG921359	1000	10/27/16 21:48	10/27/16 21:48	MBF
Volatile Organic Compounds (MS) by Method M18-Mod	WG921738	2500	10/28/16 19:43	10/28/16 19:43	MBF

INF13 L868630-02 GW

Collected by: BM | Collected date/time: 10/25/16 10:35 | Received date/time: 10/27/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG921542	1	10/28/16 12:22	10/28/16 12:22	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG921633	1	11/03/16 07:38	11/03/16 07:38	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG921633	25	11/03/16 19:57	11/03/16 19:57	JHH

MID07 L868630-03 GW

Collected by: BM | Collected date/time: 10/25/16 10:50 | Received date/time: 10/27/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG921542	1	10/28/16 12:51	10/28/16 12:51	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG921633	1	11/03/16 07:18	11/03/16 07:18	BMB

EFF13 L868630-04 GW

Collected by: BM | Collected date/time: 10/25/16 10:40 | Received date/time: 10/27/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG921542	1	10/28/16 13:20	10/28/16 13:20	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG921633	1	11/03/16 06:59	11/03/16 06:59	BMB
Wet Chemistry by Method 9040C	WG921914	1	11/02/16 14:11	11/02/16 14:11	MHM

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Terrie Fudge

Terrie Fudge
Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

ESC Sample ID	Project Sample ID	Method
L868630-04	EFF13	9040C

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	200	639	ND	ND		1000	WG921359
Toluene	108-88-3	92.10	500	1880	74000	279000		2500	WG921738
Ethylbenzene	100-41-4	106	200	867	20300	87900		1000	WG921359
m&p-Xylene	1330-20-7	106	400	1730	83200	361000		1000	WG921359
o-Xylene	95-47-6	106	200	867	33800	146000		1000	WG921359
Methyl tert-butyl ether	1634-04-4	88.10	200	721	580	2090		1000	WG921359
TPH (GC/MS) Low Fraction	8006-61-9	101	50000	207000	1050000	4330000		1000	WG921359
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*105*				WG921359
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*105*				WG921738

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	6260		31.4	100	1	10/28/2016 12:22	WG921542
(S) a,a,a-Trifluorotoluene(FID)	*108*			*62.0-128*		*10/28/2016 12:22*	WG921542

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	16.9		0.331	1.00	1	11/03/2016 07:38	WG921633
Ethylbenzene	171		0.384	1.00	1	11/03/2016 07:38	WG921633
Naphthalene	92.5	J	25.0	125	25	11/03/2016 19:57	WG921633
Toluene	339		19.5	125	25	11/03/2016 19:57	WG921633
Xylenes, Total	1110		26.5	75.0	25	11/03/2016 19:57	WG921633
Ethanol	1170		42.0	100	1	11/03/2016 07:38	WG921633
Methyl tert-butyl ether	50.6		0.367	1.00	1	11/03/2016 07:38	WG921633
(S) Toluene-d8	*96.6*			*90.0-115*		*11/03/2016 07:38*	WG921633
(S) Toluene-d8	*101*			*90.0-115*		*11/03/2016 19:57*	WG921633
(S) Dibromofluoromethane	*79.6*			*79.0-121*		*11/03/2016 19:57*	WG921633
(S) Dibromofluoromethane	*93.2*			*79.0-121*		*11/03/2016 07:38*	WG921633
(S) 4-Bromofluorobenzene	*104*			*80.1-120*		*11/03/2016 07:38*	WG921633
(S) 4-Bromofluorobenzene	*109*			*80.1-120*		*11/03/2016 19:57*	WG921633

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	940		31.4	100	1	10/28/2016 12:51	WG921542
(S) a,a,a-Trifluorotoluene(FID)	*109*			*62.0-128*		*10/28/2016 12:51*	WG921542

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1.09		0.331	1.00	1	11/03/2016 07:18	WG921633
Ethylbenzene	9.67		0.384	1.00	1	11/03/2016 07:18	WG921633
Naphthalene	104		1.00	5.00	1	11/03/2016 07:18	WG921633
Toluene	26.9		0.780	5.00	1	11/03/2016 07:18	WG921633
Xylenes, Total	98.4		1.06	3.00	1	11/03/2016 07:18	WG921633
Ethanol	1140		42.0	100	1	11/03/2016 07:18	WG921633
Methyl tert-butyl ether	16.1		0.367	1.00	1	11/03/2016 07:18	WG921633
(S) Toluene-d8	*94.6*			*90.0-115*		*11/03/2016 07:18*	WG921633
(S) Dibromofluoromethane	*94.4*			*79.0-121*		*11/03/2016 07:18*	WG921633
(S) 4-Bromofluorobenzene	*95.7*			*80.1-120*		*11/03/2016 07:18*	WG921633

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.02		1	11/02/2016 14:11	WG921914

Sample Narrative:

9040C L868630-04 WG921914: 6.02 at 9.0c

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	68.0	J	31.4	100	1	10/28/2016 13:20	WG921542
(S) α,α,α-Trifluorotoluene(FID)	*109*			*62.0-128*		*10/28/2016 13:20*	WG921542

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	11/03/2016 06:59	WG921633
Ethylbenzene	U		0.384	1.00	1	11/03/2016 06:59	WG921633
Naphthalene	U		1.00	5.00	1	11/03/2016 06:59	WG921633
Toluene	U		0.780	5.00	1	11/03/2016 06:59	WG921633
Xylenes, Total	U		1.06	3.00	1	11/03/2016 06:59	WG921633
Ethanol	U		42.0	100	1	11/03/2016 06:59	WG921633
Methyl tert-butyl ether	19.0		0.367	1.00	1	11/03/2016 06:59	WG921633
(S) Toluene-d8	*96.6*			*90.0-115*		*11/03/2016 06:59*	WG921633
(S) Dibromofluoromethane	*96.6*			*79.0-121*		*11/03/2016 06:59*	WG921633
(S) 4-Bromofluorobenzene	*95.5*			*80.1-120*		*11/03/2016 06:59*	WG921633

L868630-04 Original Sample (OS) • Duplicate (DUP)

(OS) L868630-04 11/02/16 14:11 • (DUP) WG921914-3 11/02/16 14:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.02	6.00	1	0.333		1

L868960-01 Original Sample (OS) • Duplicate (DUP)

(OS) L868960-01 11/02/16 14:11 • (DUP) WG921914-4 11/02/16 14:11

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.52	6.50	1	0.307		1

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG921914-1 11/02/16 14:11 • (LCSD) WG921914-2 11/02/16 14:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.11	6.11	6.13	100	100	98.4-102			0.327	1

Method Blank (MB)

(MB) R3174043-3 10/27/16 09:28

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
Ethylbenzene	U		0.0506	0.200
MTBE	U		0.0505	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
TPH (GC/MS) Low Fraction	U		6.91	50.0
(S) 1,4-Bromofluorobenzene	*91.8*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174043-1 10/27/16 07:57 • (LCSD) R3174043-2 10/27/16 08:42

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	4.22	4.23	112	113	70.0-130			0.200	25
Benzene	3.75	4.27	4.21	114	112	70.0-130			1.45	25
Ethylbenzene	3.75	4.21	4.18	112	112	70.0-130			0.730	25
m&p-Xylene	7.50	8.28	8.28	110	110	70.0-130			0.0500	25
o-Xylene	3.75	4.17	4.18	111	111	70.0-130			0.0100	25
TPH (GC/MS) Low Fraction	176	192	188	109	107	70.0-130			1.91	25
(S) 1,4-Bromofluorobenzene				*104*	*104*	*60.0-140*				

Method Blank (MB)

(MB) R3174338-3 10/28/16 10:46

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Toluene	U		0.0499	0.200
(S) 1,4-Bromofluorobenzene	*91.4*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174338-1 10/28/16 09:14 • (LCSD) R3174338-2 10/28/16 10:00

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	4.20	4.29	112	114	70.0-130			2.04	25
(S) 1,4-Bromofluorobenzene				*105*	*105*	*60.0-140*				

Method Blank (MB)

(MB) R3174054-2 10/27/16 15:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		31.4	100
(S) a,a,a-Trifluorotoluene(FID)	*107*			*62.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3174054-1 10/27/16 13:54 • (LCSD) R3174054-3 10/27/16 18:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	6380	5800	116	105	67.0-132			9.57	20
(S) a,a,a-Trifluorotoluene(FID)				*106*	*106*	*62.0-128*				

L868464-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L868464-01 10/28/16 00:12 • (MS) R3174054-4 10/27/16 21:19 • (MSD) R3174054-5 10/27/16 21:48

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	4060	9650	9940	102	107	1	50.0-143			3.01	20
(S) a,a,a-Trifluorotoluene(FID)					*104*	*103*		*62.0-128*				

Method Blank (MB)

(MB) R3175702-3 11/03/16 01:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Ethanol	U		42.0	100
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.780	5.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*96.6*			*90.0-115*
(S) Dibromofluoromethane	*94.5*			*79.0-121*
(S) 4-Bromofluorobenzene	*95.9*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3175702-1 11/03/16 00:29 • (LCSD) R3175702-2 11/03/16 00:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	22.0	22.8	88.1	91.1	73.0-122			3.32	20
Ethylbenzene	25.0	26.2	27.7	105	111	80.9-121			5.63	20
Methyl tert-butyl ether	25.0	20.1	21.7	80.2	86.9	70.1-125			7.94	20
Naphthalene	25.0	21.9	24.5	87.8	98.1	69.7-134			11.2	20
Toluene	25.0	23.0	24.1	92.2	96.6	77.9-116			4.66	20
Xylenes, Total	75.0	77.3	81.2	103	108	79.2-122			4.90	20
(S) Toluene-d8				*96.5*	*97.4*	*90.0-115*				
(S) Dibromofluoromethane				*95.8*	*94.5*	*79.0-121*				
(S) 4-Bromofluorobenzene				*98.6*	*97.5*	*80.1-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

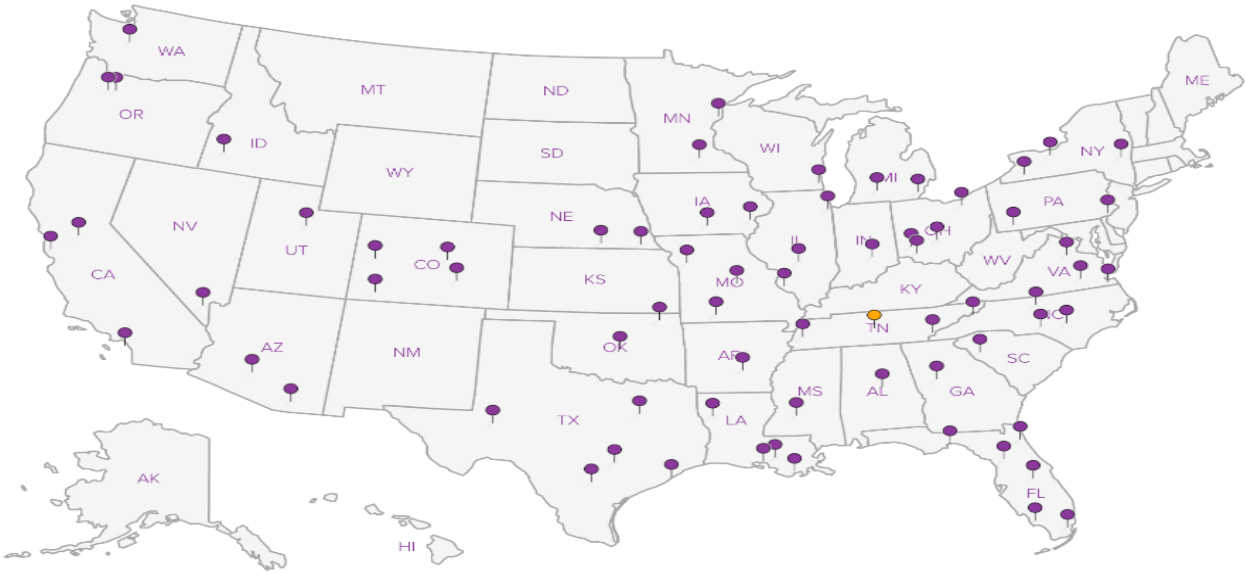
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Trev Greene
Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market
City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381
Client Project # FMMD1010
Lab Project #

L # L868630
I116

Collected by (print): BM
Site/Facility ID #
P.O. # GREENENVA120914S

Collected by (signature):
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed
Email? ___No ✓Yes
FAX? ___No ___Yes

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via: FEDEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX, MTBE via Method 18	TVPH via Method 18	BTEX, MTBE, Ethanol via V8260	TPH-GRO via 8015	pH						Rem./Contaminant	Sample # (lab only)
RCP16	Grab	Air		10/25/16	1003	1	X	X										-01
INF13	Grab	Air		10/25/16	1035	6			X	X								-02
MID07	Grab	GW		10/25/16	1050	6			X	X								-03
EFF13	Grab	GW		10/25/16	1040	7			X	X	X							-04

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____ 6272 8613 2480
Flow _____ Other _____
Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[illegible]	10-26-16	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			[illegible]

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____
Temp: 3.1 °C Bottles Received: 20
Date: 10-27-16 Time: 900

Condition: (lab use only) ok
COC Seal Intact: ✓Y ___N ___NA
pH Checked:
NCF:

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Form

Client: GREENEVA		SDG#	L868630
Cooler Received/Opened On: 10/27 /16		Temperature Upon Receipt:	3.1 °c
Received By: Michael Witherspoon			
Signature: MWi			

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	✓		
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)			✓
If applicable, was an observable VOA headspace present?		✓	
Non Conformance Generated. (If yes see attached NCF)			

ANALYTICAL REPORT

November 29, 2016

Greene Env. Services, LLC

Sample Delivery Group:	L873263
Samples Received:	11/17/2016
Project Number:	FMMD1010
Description:	Meadows of Dan Food Market
Report To:	Mr.Trev Greene 129 Bunny Ridge Lane Rocky Mount, VA 24151

Entire Report Reviewed By:

Terrie Fudge
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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RCP17 L873263-01 Air

Collected by: BM
Collected date/time: 11/14/16 10:15
Received date/time: 11/17/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method M18-Mod	WG928577	800	11/21/16 21:04	11/21/16 21:04	MBF

INF14 L873263-02 GW

Collected by: BM
Collected date/time: 11/14/16 10:00
Received date/time: 11/17/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG928361	1	11/28/16 05:18	11/28/16 05:18	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG928858	10	11/22/16 16:47	11/22/16 16:47	DAH

MID08 L873263-03 GW

Collected by: BM
Collected date/time: 11/14/16 10:05
Received date/time: 11/17/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG928361	1	11/25/16 04:37	11/25/16 04:37	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG928858	1	11/22/16 19:00	11/22/16 19:00	DAH

EFF14 L873263-04 GW

Collected by: BM
Collected date/time: 11/14/16 10:10
Received date/time: 11/17/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG928361	1	11/25/16 05:07	11/25/16 05:07	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG928858	1	11/22/16 19:22	11/22/16 19:22	DAH
Wet Chemistry by Method 9040C	WG927772	1	11/23/16 09:51	11/23/16 09:51	MHM

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Terrie Fudge

Terrie Fudge
Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

ESC Sample ID	Project Sample ID	Method
L873263-04	EFF14	9040C

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	160	511	1870	5980		800	WG928577
Toluene	108-88-3	92.10	160	603	36200	136000		800	WG928577
Ethylbenzene	100-41-4	106	160	694	10700	46300		800	WG928577
m&p-Xylene	1330-20-7	106	320	1390	43700	189000		800	WG928577
o-Xylene	95-47-6	106	160	694	17900	77800		800	WG928577
Methyl tert-butyl ether	1634-04-4	88.10	160	577	454	1630		800	WG928577
TPH (GC/MS) Low Fraction	8006-61-9	101	40000	165000	599000	2470000		800	WG928577
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG928577

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	6630	J3	31.4	100	1	11/28/2016 05:18	WG928361
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*62.0-128*		*11/28/2016 05:18*	WG928361

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	14.7		3.31	10.0	10	11/22/2016 16:47	WG928858
Ethylbenzene	136		3.84	10.0	10	11/22/2016 16:47	WG928858
Naphthalene	243		10.0	50.0	10	11/22/2016 16:47	WG928858
Toluene	356		7.80	50.0	10	11/22/2016 16:47	WG928858
Xylenes, Total	1190		10.6	30.0	10	11/22/2016 16:47	WG928858
Ethanol	523	J	420	1000	10	11/22/2016 16:47	WG928858
Methyl tert-butyl ether	48.6		3.67	10.0	10	11/22/2016 16:47	WG928858
(S) Toluene-d8	*102*			*90.0-115*		*11/22/2016 16:47*	WG928858
(S) Dibromofluoromethane	*102*			*79.0-121*		*11/22/2016 16:47*	WG928858
(S) 4-Bromofluorobenzene	*102*			*80.1-120*		*11/22/2016 16:47*	WG928858

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1190	J3	31.4	100	1	11/25/2016 04:37	WG928361
(S) a,a,a-Trifluorotoluene(FID)	*99.9*			*62.0-128*		*11/25/2016 04:37*	WG928361

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	11/22/2016 19:00	WG928858
Ethylbenzene	13.1		0.384	1.00	1	11/22/2016 19:00	WG928858
Naphthalene	147		1.00	5.00	1	11/22/2016 19:00	WG928858
Toluene	33.0		0.780	5.00	1	11/22/2016 19:00	WG928858
Xylenes, Total	132		1.06	3.00	1	11/22/2016 19:00	WG928858
Ethanol	480		42.0	100	1	11/22/2016 19:00	WG928858
Methyl tert-butyl ether	19.4		0.367	1.00	1	11/22/2016 19:00	WG928858
(S) Toluene-d8	*101*			*90.0-115*		*11/22/2016 19:00*	WG928858
(S) Dibromofluoromethane	*101*			*79.0-121*		*11/22/2016 19:00*	WG928858
(S) 4-Bromofluorobenzene	*103*			*80.1-120*		*11/22/2016 19:00*	WG928858

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.15		1	11/23/2016 09:51	WG927772

Sample Narrative:

9040C L873263-04 WG927772: 6.15 at 12.3c

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	49.8	J J3	31.4	100	1	11/25/2016 05:07	WG928361
(S) α,α,α-Trifluorotoluene(FID)	*100*			*62.0-128*		*11/25/2016 05:07*	WG928361

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	11/22/2016 19:22	WG928858
Ethylbenzene	U		0.384	1.00	1	11/22/2016 19:22	WG928858
Naphthalene	9.03		1.00	5.00	1	11/22/2016 19:22	WG928858
Toluene	U		0.780	5.00	1	11/22/2016 19:22	WG928858
Xylenes, Total	U		1.06	3.00	1	11/22/2016 19:22	WG928858
Ethanol	68.4	J	42.0	100	1	11/22/2016 19:22	WG928858
Methyl tert-butyl ether	20.5		0.367	1.00	1	11/22/2016 19:22	WG928858
(S) Toluene-d8	*101*			*90.0-115*		*11/22/2016 19:22*	WG928858
(S) Dibromofluoromethane	*104*			*79.0-121*		*11/22/2016 19:22*	WG928858
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*11/22/2016 19:22*	WG928858

L873088-04 Original Sample (OS) • Duplicate (DUP)

(OS) L873088-04 11/23/16 09:51 • (DUP) WG927772-3 11/23/16 09:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.34	7.32	1	0.273		1

L873829-01 Original Sample (OS) • Duplicate (DUP)

(OS) L873829-01 11/23/16 09:51 • (DUP) WG927772-4 11/23/16 09:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	3.96	3.96	1	0.000		1

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG927772-1 11/23/16 09:51 • (LCSD) WG927772-2 11/23/16 09:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.11	6.09	6.10	99.7	99.8	98.4-102			0.164	1

Method Blank (MB)

(MB) R3179760-3 11/21/16 10:24

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
Ethylbenzene	U		0.0506	0.200
MTBE	U		0.0505	0.200
Toluene	U		0.0499	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
TPH (GC/MS) Low Fraction	U		6.91	50.0
(S) 1,4-Bromofluorobenzene	*89.9*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3179760-1 11/21/16 08:52 • (LCSD) R3179760-2 11/21/16 09:37

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	4.00	4.06	107	108	70.0-130			1.46	25
Benzene	3.75	4.04	4.07	108	109	70.0-130			0.800	25
Toluene	3.75	3.97	4.03	106	108	70.0-130			1.54	25
Ethylbenzene	3.75	4.05	4.06	108	108	70.0-130			0.0900	25
m&p-Xylene	7.50	7.83	7.85	104	105	70.0-130			0.250	25
o-Xylene	3.75	3.97	3.99	106	106	70.0-130			0.650	25
TPH (GC/MS) Low Fraction	176	186	187	105	106	70.0-130			0.790	25
(S) 1,4-Bromofluorobenzene				*103*	*102*	*60.0-140*				

Method Blank (MB)

(MB) R3180438-2 11/24/16 13:07

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		31.4	100
(S) a,a,a-Trifluorotoluene(FID)	*101*			*62.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3180438-1 11/24/16 12:09 • (LCSD) R3180438-3 11/24/16 13:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	6050	4730	110	86.0	67.0-132		J3	24.5	20
(S) a,a,a-Trifluorotoluene(FID)				*99.8*	*99.3*	*62.0-128*				

Method Blank (MB)

(MB) R3179974-3 11/22/16 13:17

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Ethanol	U		42.0	100
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.780	5.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*100*			*90.0-115*
(S) Dibromofluoromethane	*101*			*79.0-121*
(S) 4-Bromofluorobenzene	*99.8*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3179974-1 11/22/16 11:49 • (LCSD) R3179974-2 11/22/16 12:11

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	25.7	26.1	103	104	73.0-122			1.39	20
Ethylbenzene	25.0	26.9	28.1	108	112	80.9-121			4.37	20
Methyl tert-butyl ether	25.0	25.2	26.1	101	105	70.1-125			3.52	20
Naphthalene	25.0	23.7	27.0	94.6	108	69.7-134			13.1	20
Toluene	25.0	25.6	25.9	102	104	77.9-116			1.11	20
Xylenes, Total	75.0	80.4	84.5	107	113	79.2-122			5.02	20
(S) Toluene-d8				*102*	*102*	*90.0-115*				
(S) Dibromofluoromethane				*103*	*101*	*79.0-121*				
(S) 4-Bromofluorobenzene				*98.2*	*102*	*80.1-120*				

L873263-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L873263-02 11/22/16 16:47 • (MS) R3179974-4 11/22/16 17:54 • (MSD) R3179974-5 11/22/16 18:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	14.7	287	272	109	103	10	58.6-133			5.35	20
Ethylbenzene	25.0	136	434	429	119	117	10	62.7-136			1.15	20
Methyl tert-butyl ether	25.0	48.6	312	308	105	104	10	61.4-136			1.42	20
Naphthalene	25.0	243	520	558	111	126	10	61.8-143			7.06	20
Toluene	25.0	356	639	624	113	107	10	67.8-124			2.37	20
Xylenes, Total	75.0	1190	2110	2090	123	120	10	65.6-133			1.20	20
(S) Toluene-d8					*101*	*102*		*90.0-115*				
(S) Dibromofluoromethane					*101*	*102*		*79.0-121*				

L873263-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L873263-02 11/22/16 16:47 • (MS) R3179974-4 11/22/16 17:54 • (MSD) R3179974-5 11/22/16 18:16

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 4-Bromofluorobenzene					*102*	*102*		*80.1-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

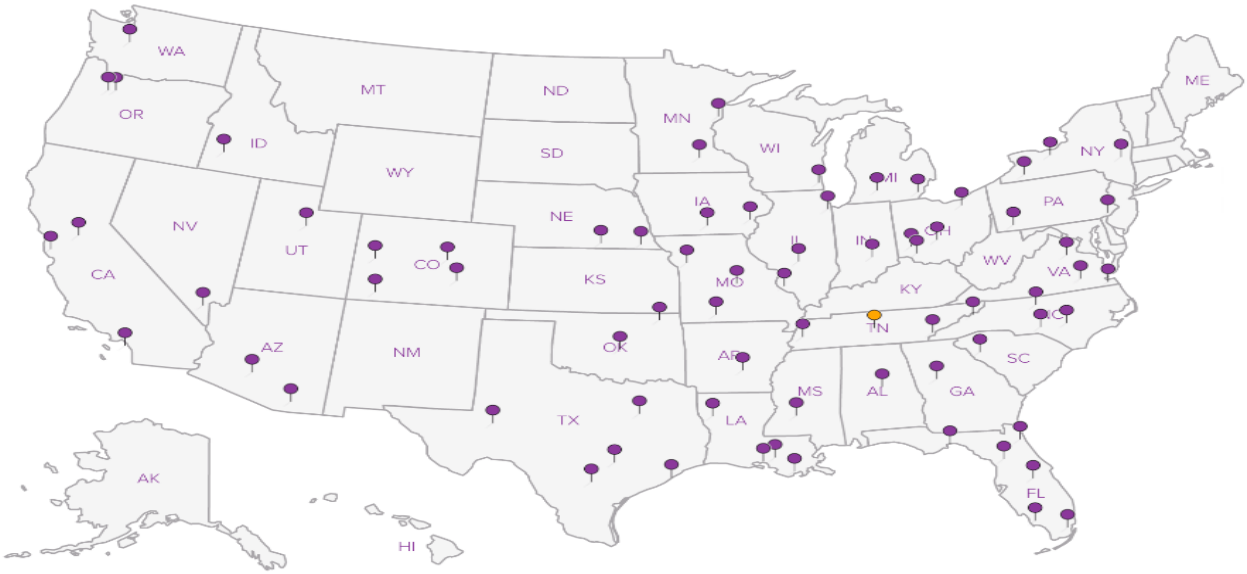
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Chain of Custody Page 1 of 1

ESC LAB SCIENCES

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1873263

C080

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via: FEDEX

Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Report to: Trev Greene

Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market

City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381

Client Project # FMMD1010

Lab Project #

Collected by (print): BM

Site/Facility ID #

P.O. # GREENENVA120914S

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX, MTBE via Method 18	TVPH via Method 18	BTEX, MTBE, Ethanol via V8260	TPH-GRO via 8015	pH	Rem./Contaminant	Sample # (lab only)
RCP17	Grab	Air		11/14/16	1015	1	X	X					-01
INF14	Grab	GW		11/14/16	1000	6			X	X			-02
MID08	Grab	GW		11/14/16	1005	6			X	X			-03
EFF14	Grab	GW		11/14/16	1010	7			X	X	X		-04

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____
Flow _____ Other _____

Remarks:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Caleb Harris	11/16/16	0915	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Joseph R

Samples returned via: ☐ UPS ✓ FedEx ☐ Courier ☐ _____

Temp: 2.1 °C Bottles Received: 20

Date: 11-17-16 Time: 0900

Hold #

Condition: (lab use only) ok TOH

COC Seal Intact: ✓Y ___N ___NA

pH Checked: NCF:

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Form

Client: GREENENVA		SDG#	L873263
Cooler Received/Opened On: 11/17/16		Temperature Upon Receipt:	2.1 °c
Received By: Joseph Roberts			
Signature: Joseph R			

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	✓		
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	✓		
If applicable, was an observable VOA headspace present?		✓	
Non Conformance Generated. (If yes see attached NCF)			

ANALYTICAL REPORT

December 24, 2016

Greene Env. Services, LLC

Sample Delivery Group:	L879241
Samples Received:	12/16/2016
Project Number:	FMMD1010
Description:	The Meadows of Dan Food Market
Report To:	Mr.Trev Greene 129 Bunny Ridge Lane Rocky Mount, VA 24151

Entire Report Reviewed By:

Tom Mellette
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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RCP18 L879241-01 Air

Collected by: BM | Collected date/time: 12/14/16 07:50 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method M18-Mod	WG936345	2000	12/17/16 22:39	12/17/16 22:39	MBF

INF15 L879241-02 GW

Collected by: BM | Collected date/time: 12/14/16 08:10 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG936554	1	12/18/16 05:37	12/18/16 05:37	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	1	12/20/16 03:14	12/20/16 03:14	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	10	12/21/16 07:01	12/21/16 07:01	ACG

MID09 L879241-03 GW

Collected by: BM | Collected date/time: 12/14/16 08:15 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG936554	1	12/18/16 06:01	12/18/16 06:01	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	1	12/20/16 03:33	12/20/16 03:33	DWR

EFF15 L879241-04 GW

Collected by: BM | Collected date/time: 12/14/16 08:20 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG936554	1	12/18/16 06:26	12/18/16 06:26	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	1	12/20/16 03:52	12/20/16 03:52	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	1	12/21/16 07:25	12/21/16 07:25	ACG
Wet Chemistry by Method 9040C	WG936243	1	12/19/16 19:03	12/19/16 19:03	MHM

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Tom Mellette
Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

ESC Sample ID	Project Sample ID	Method
L879241-04	EFF15	9040C

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	400	1280	1800	5730		2000	WG936345
Toluene	108-88-3	92.10	400	1510	38100	143000		2000	WG936345
Ethylbenzene	100-41-4	106	400	1730	10900	47200		2000	WG936345
m&p-Xylene	1330-20-7	106	800	3470	53500	232000		2000	WG936345
o-Xylene	95-47-6	106	400	1730	20100	87200		2000	WG936345
Methyl tert-butyl ether	1634-04-4	88.10	400	1440	430	1550		2000	WG936345
TPH (GC/MS) Low Fraction	8006-61-9	101	100000	413000	490000	2020000		2000	WG936345
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG936345

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	5420		31.4	100	1	12/18/2016 05:37	WG936554
(S) a,a,a-Trifluorotoluene(FID)	*115*			*62.0-128*		*12/18/2016 05:37*	WG936554

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	13.8		0.331	1.00	1	12/20/2016 03:14	WG936892
Ethylbenzene	131		0.384	1.00	1	12/20/2016 03:14	WG936892
Naphthalene	225		10.0	50.0	10	12/21/2016 07:01	WG936892
Toluene	323		7.80	50.0	10	12/21/2016 07:01	WG936892
Xylenes, Total	1010		10.6	30.0	10	12/21/2016 07:01	WG936892
Ethanol	291		42.0	100	1	12/20/2016 03:14	WG936892
Methyl tert-butyl ether	47.1		0.367	1.00	1	12/20/2016 03:14	WG936892
(S) Toluene-d8	*108*			*90.0-115*		*12/20/2016 03:14*	WG936892
(S) Toluene-d8	*102*			*90.0-115*		*12/21/2016 07:01*	WG936892
(S) Dibromofluoromethane	*98.1*			*79.0-121*		*12/21/2016 07:01*	WG936892
(S) Dibromofluoromethane	*101*			*79.0-121*		*12/20/2016 03:14*	WG936892
(S) 4-Bromofluorobenzene	*107*			*80.1-120*		*12/20/2016 03:14*	WG936892
(S) 4-Bromofluorobenzene	*103*			*80.1-120*		*12/21/2016 07:01*	WG936892

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	639		31.4	100	1	12/18/2016 06:01	WG936554
(S) a,a,a-Trifluorotoluene(FID)	*117*			*62.0-128*		*12/18/2016 06:01*	WG936554

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	0.878	J	0.331	1.00	1	12/20/2016 03:33	WG936892
Ethylbenzene	5.98		0.384	1.00	1	12/20/2016 03:33	WG936892
Naphthalene	107		1.00	5.00	1	12/20/2016 03:33	WG936892
Toluene	17.9		0.780	5.00	1	12/20/2016 03:33	WG936892
Xylenes, Total	67.9		1.06	3.00	1	12/20/2016 03:33	WG936892
Ethanol	300		42.0	100	1	12/20/2016 03:33	WG936892
Methyl tert-butyl ether	13.9		0.367	1.00	1	12/20/2016 03:33	WG936892
(S) Toluene-d8	*105*			*90.0-115*		*12/20/2016 03:33*	WG936892
(S) Dibromofluoromethane	*101*			*79.0-121*		*12/20/2016 03:33*	WG936892
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*12/20/2016 03:33*	WG936892

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	4.68		1	12/19/2016 19:03	WG936243

Sample Narrative:

9040C L879241-04 WG936243: 4.68 at 18.5c

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	80.9	J	31.4	100	1	12/18/2016 06:26	WG936554
(S) α,α,α-Trifluorotoluene(FID)	*117*			*62.0-128*		*12/18/2016 06:26*	WG936554

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/20/2016 03:52	WG936892
Ethylbenzene	U		0.384	1.00	1	12/20/2016 03:52	WG936892
Naphthalene	U		1.00	5.00	1	12/21/2016 07:25	WG936892
Toluene	U		0.780	5.00	1	12/20/2016 03:52	WG936892
Xylenes, Total	U		1.06	3.00	1	12/20/2016 03:52	WG936892
Ethanol	U		42.0	100	1	12/20/2016 03:52	WG936892
Methyl tert-butyl ether	17.0		0.367	1.00	1	12/20/2016 03:52	WG936892
(S) Toluene-d8	*106*			*90.0-115*		*12/20/2016 03:52*	WG936892
(S) Toluene-d8	*101*			*90.0-115*		*12/21/2016 07:25*	WG936892
(S) Dibromofluoromethane	*99.4*			*79.0-121*		*12/21/2016 07:25*	WG936892
(S) Dibromofluoromethane	*102*			*79.0-121*		*12/20/2016 03:52*	WG936892
(S) 4-Bromofluorobenzene	*98.2*			*80.1-120*		*12/20/2016 03:52*	WG936892
(S) 4-Bromofluorobenzene	*102*			*80.1-120*		*12/21/2016 07:25*	WG936892

L879019-04 Original Sample (OS) • Duplicate (DUP)

(OS) L879019-04 12/19/16 19:03 • (DUP) WG936243-3 12/19/16 19:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.02	6.01	1	0.166		1

L879259-02 Original Sample (OS) • Duplicate (DUP)

(OS) L879259-02 12/19/16 19:03 • (DUP) WG936243-4 12/19/16 19:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.86	7.89	1	0.381		1

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG936243-1 12/19/16 19:03 • (LCSD) WG936243-2 12/19/16 19:03

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.07	6.10	6.12	100	101	98.4-102			0.327	1

Method Blank (MB)

(MB) R3185501-3 12/17/16 08:40

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
Ethylbenzene	U		0.0506	0.200
MTBE	U		0.0505	0.200
Toluene	U		0.0499	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
TPH (GC/MS) Low Fraction	U		6.91	50.0
(S) 1,4-Bromofluorobenzene	*98.1*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3185501-1 12/17/16 07:17 • (LCSD) R3185501-2 12/17/16 07:57

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	3.75	3.80	100	101	70.0-130			1.30	25
Benzene	3.75	3.84	3.81	102	102	70.0-130			0.710	25
Toluene	3.75	3.96	3.92	106	105	70.0-130			1.07	25
Ethylbenzene	3.75	3.85	3.87	103	103	70.0-130			0.510	25
m&p-Xylene	7.50	7.73	7.81	103	104	70.0-130			1.01	25
o-Xylene	3.75	3.80	3.79	101	101	70.0-130			0.250	25
TPH (GC/MS) Low Fraction	176	161	161	91.4	91.4	70.0-130			0.000	25
(S) 1,4-Bromofluorobenzene				*99.8*	*100*	*60.0-140*				

Method Blank (MB)

(MB) R3185455-3 12/17/16 23:19

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		31.4	100
(S) a,a,a-Trifluorotoluene(FID)	*116*			*62.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3185455-1 12/17/16 22:05 • (LCSD) R3185455-2 12/17/16 22:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	6130	6140	111	112	67.0-132			0.160	20
(S) a,a,a-Trifluorotoluene(FID)				*119*	*119*	*62.0-128*				

L879113-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879113-01 12/18/16 01:13 • (MS) R3185455-4 12/18/16 00:01 • (MSD) R3185455-5 12/18/16 00:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	U	3590	3500	65.2	63.6	1	50.0-143			2.41	20
(S) a,a,a-Trifluorotoluene(FID)					*113*	*113*		*62.0-128*				

Method Blank (MB)

(MB) R3186006-3 12/19/16 23:04

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.331	1.00
Ethylbenzene	U		0.384	1.00
Ethanol	U		42.0	100
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
Toluene	U		0.780	5.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*109*			*90.0-115*
(S) Dibromofluoromethane	*108*			*79.0-121*
(S) 4-Bromofluorobenzene	*98.4*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3186006-1 12/19/16 21:10 • (LCSD) R3186006-2 12/19/16 21:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	23.0	25.0	91.9	100	73.0-122			8.54	20
Ethylbenzene	25.0	23.1	25.2	92.2	101	80.9-121			8.69	20
Methyl tert-butyl ether	25.0	22.0	24.0	88.1	95.9	70.1-125			8.52	20
Naphthalene	25.0	20.5	22.9	81.9	91.8	69.7-134			11.3	20
Toluene	25.0	23.8	26.1	95.2	104	77.9-116			9.05	20
Xylenes, Total	75.0	71.3	76.6	95.1	102	79.2-122			7.17	20
(S) Toluene-d8				*105*	*104*	*90.0-115*				
(S) Dibromofluoromethane				*101*	*102*	*79.0-121*				
(S) 4-Bromofluorobenzene				*100*	*97.4*	*80.1-120*				

L878841-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L878841-02 12/20/16 01:57 • (MS) R3186006-4 12/19/16 23:23 • (MSD) R3186006-5 12/19/16 23:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	25.0	5770	5510	5480	0.000	0.000	20	58.6-133	E V	E V	0.630	20
Ethylbenzene	25.0	2200	2330	2490	27.0	57.8	20	62.7-136	V	V	6.40	20
Methyl tert-butyl ether	25.0	2900	3040	3070	28.7	34.7	20	61.4-136	V	V	0.970	20
Naphthalene	25.0	593	863	957	54.1	72.9	20	61.8-143	J6		10.3	20
Toluene	25.0	12900	12000	11800	0.000	0.000	20	67.8-124	E V	E V	1.74	20
Xylenes, Total	75.0	10800	10900	11200	0.619	26.5	20	65.6-133	V	V	3.51	20
(S) Toluene-d8					*106*	*106*		*90.0-115*				
(S) Dibromofluoromethane					*89.1*	*87.0*		*79.0-121*				

L878841-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L878841-02 12/20/16 01:57 • (MS) R3186006-4 12/19/16 23:23 • (MSD) R3186006-5 12/19/16 23:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 4-Bromofluorobenzene					*99.1*	*101*		*80.1-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

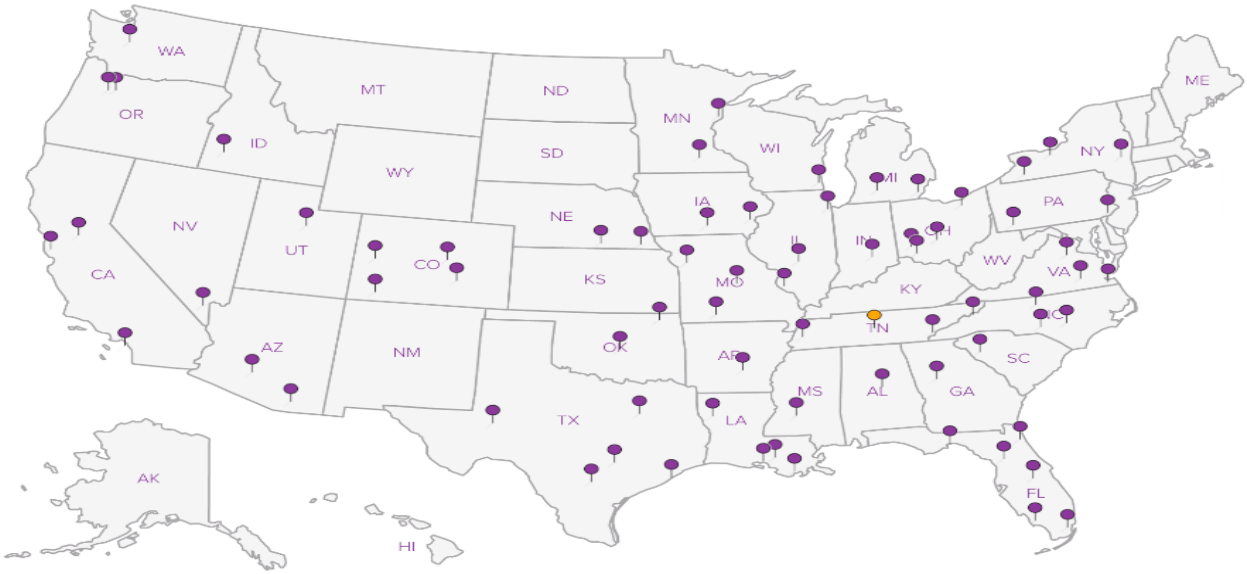
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1879241
C226

Report to: Trev Greene
Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market
City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381
Client Project # FMMD1010
Lab Project #

Collected by (print): BM
Site/Facility ID #
P.O. # GREENENVA120914S

Collected by (signature):
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed
Email? ___No ✓Yes
FAX? ___No ___Yes

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via: FEDEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX, MTBE via Method 18	TVPH via Method 18	BTEX, MTBE, Ethanol via V8260	TPH-GRO via 8015	pH						Rem./Contaminant	Sample # (lab only)
RCP18	Grab	Air		12/14/16	0750	1	X	X										-01
INF15	Grab	GW		12/14/16	0810	6			X	X								02
MID09	Grab	GW		12/14/16	0815	6			X	X								03
EFF15	Grab	GW		12/14/16	0820	7			X	X	X							04

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____
Flow _____ Other _____

Remarks:

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
Calvin Harris	12/15/16	1440			ok ok
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 °C Bottles Received: 20	COC Seal Intact: ✓ Y ___N ___NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Joseph R	Date: 12-16-16 Time: 9:00	pH Checked: NCF:

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Form

Client: GREENENVIR	SDG#	187924	
Cooler Received/Opened On: 12/16/16	Temperature Upon Receipt:	3.1 °c	
Received By: Joseph Roberts			
Signature: Joseph R.			

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	✓		
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC) N 12/16/16	✓		✓
If applicable, was an observable VOA headspace present?		✓	
Non Conformance Generated. (If yes see attached NCF)			

ANALYTICAL REPORT

January 10, 2017

Greene Env. Services, LLC

Sample Delivery Group:	L879482
Samples Received:	12/16/2016
Project Number:	FMMD1010
Description:	The Meadows of Dan Food Market
Report To:	Mr.Trev Greene 129 Bunny Ridge Lane Rocky Mount, VA 24151

Entire Report Reviewed By:

Terrie Fudge
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW01A L879482-01 GW

Collected by: CH | Collected date/time: 12/14/16 09:35 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG936562	50	12/20/16 02:36	12/20/16 02:36	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	250	01/09/17 16:17	01/09/17 16:17	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	250	12/24/16 08:29	12/24/16 08:29	ACG

MW02 L879482-02 GW

Collected by: CH | Collected date/time: 12/14/16 10:10 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG936562	50	12/20/16 02:58	12/20/16 02:58	DWR
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	100	12/24/16 09:51	12/24/16 09:51	JHH

MW03 L879482-03 GW

Collected by: CH | Collected date/time: 12/14/16 11:45 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	20	12/22/16 14:57	12/22/16 14:57	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	250	12/24/16 10:12	12/24/16 10:12	JHH

MW04 L879482-04 GW

Collected by: CH | Collected date/time: 12/14/16 11:28 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 13:29	12/22/16 13:29	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 10:32	12/24/16 10:32	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	20	12/27/16 12:55	12/27/16 12:55	ACG

MW05 L879482-05 GW

Collected by: CH | Collected date/time: 12/14/16 11:47 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 15:19	12/22/16 15:19	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 10:52	12/24/16 10:52	JHH

MW06 L879482-06 GW

Collected by: CH | Collected date/time: 12/14/16 12:20 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 15:42	12/22/16 15:42	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 11:13	12/24/16 11:13	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/27/16 13:07	12/27/16 13:07	ACG

MW07 L879482-07 GW

Collected by: CH | Collected date/time: 12/14/16 09:25 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	20	12/23/16 19:00	12/23/16 19:00	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	200	12/24/16 11:33	12/24/16 11:33	JHH

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW08 L879482-08 GW

Collected by: CH | Collected date/time: 12/14/16 09:50 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/23/16 19:29	12/23/16 19:29	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 11:54	12/24/16 11:54	JHH

MW09 L879482-09 GW

Collected by: CH | Collected date/time: 12/14/16 09:30 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 16:48	12/22/16 16:48	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 12:14	12/24/16 12:14	JHH

MW10 L879482-10 GW

Collected by: CH | Collected date/time: 12/14/16 09:17 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 17:10	12/22/16 17:10	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 12:35	12/24/16 12:35	JHH

MW11 L879482-11 GW

Collected by: CH | Collected date/time: 12/14/16 10:22 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 17:33	12/22/16 17:33	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 12:55	12/24/16 12:55	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	10	12/27/16 13:20	12/27/16 13:20	ACG

MW12 L879482-12 GW

Collected by: CH | Collected date/time: 12/14/16 12:40 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	5	12/23/16 19:58	12/23/16 19:58	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	25	12/24/16 13:16	12/24/16 13:16	JHH

MW13 L879482-13 GW

Collected by: CH | Collected date/time: 12/14/16 12:08 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/23/16 20:27	12/23/16 20:27	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 13:36	12/24/16 13:36	JHH

MW14 L879482-14 GW

Collected by: CH | Collected date/time: 12/14/16 11:55 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	5	12/23/16 21:10	12/23/16 21:10	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	25	12/24/16 13:56	12/24/16 13:56	JHH

MW15 L879482-15 GW

Collected by: CH | Collected date/time: 12/14/16 12:05 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	5	12/23/16 21:39	12/23/16 21:39	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	50	12/24/16 14:17	12/24/16 14:17	JHH

MW16 L879482-16 GW

Collected by: CH | Collected date/time: 12/14/16 10:04 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 19:23	12/22/16 19:23	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 14:37	12/24/16 14:37	JHH

MW17 L879482-17 GW

Collected by: CH | Collected date/time: 12/14/16 08:56 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 19:45	12/22/16 19:45	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 14:58	12/24/16 14:58	JHH

MW18 L879482-18 GW

Collected by: CH | Collected date/time: 12/14/16 11:09 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 20:08	12/22/16 20:08	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	10	01/09/17 16:39	01/09/17 16:39	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	10	12/24/16 15:18	12/24/16 15:18	ACG

MW19 L879482-19 GW

Collected by: CH | Collected date/time: 12/14/16 12:35 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 20:30	12/22/16 20:30	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 15:39	12/24/16 15:39	JHH

MW20 L879482-20 GW

Collected by: CH | Collected date/time: 12/14/16 10:47 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 20:52	12/22/16 20:52	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/24/16 15:59	12/24/16 15:59	JHH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936826	1	12/27/16 13:33	12/27/16 13:33	ACG

MW21 L879482-21 GW

Collected by: CH | Collected date/time: 12/14/16 12:25 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	10	12/22/16 21:14	12/22/16 21:14	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936827	100	12/24/16 08:39	12/24/16 08:39	JHH

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW22 L879482-22 GW

Collected by: CH | Collected date/time: 12/14/16 13:26 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937675	1	12/22/16 21:36	12/22/16 21:36	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936827	5	12/24/16 10:04	12/24/16 10:04	JHH

MW23 L879482-23 GW

Collected by: CH | Collected date/time: 12/14/16 09:20 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937677	1	12/23/16 14:55	12/23/16 14:55	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936827	20	12/24/16 10:25	12/24/16 10:25	JHH

MW24 L879482-24 GW

Collected by: CH | Collected date/time: 12/14/16 10:25 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937677	50	12/27/16 17:42	12/27/16 17:42	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936827	500	12/24/16 10:47	12/24/16 10:47	JHH

MW25 L879482-25 GW

Collected by: CH | Collected date/time: 12/14/16 13:34 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937677	1	12/23/16 15:39	12/23/16 15:39	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936827	1	12/24/16 11:08	12/24/16 11:08	ACG

MW26 L879482-26 GW

Collected by: CH | Collected date/time: 12/14/16 11:00 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937677	1	12/23/16 16:02	12/23/16 16:02	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936827	10	12/24/16 11:30	12/24/16 11:30	JHH

MW27 L879482-27 GW

Collected by: CH | Collected date/time: 12/14/16 13:10 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937677	1	12/23/16 16:24	12/23/16 16:24	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936827	1	12/24/16 11:51	12/24/16 11:51	JHH

MW28 L879482-28 GW

Collected by: CH | Collected date/time: 12/14/16 12:15 | Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG937677	1	12/23/16 16:46	12/23/16 16:46	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936827	1	12/24/16 12:13	12/24/16 12:13	ACG

DW01 L879482-29 GW

Collected by: CH
Collected date/time: 12/14/16 10:55
Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	1	12/20/16 04:12	12/20/16 04:12	DWR

DW08 L879482-30 GW

Collected by: CH
Collected date/time: 12/14/16 13:30
Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	1	12/20/16 04:31	12/20/16 04:31	DWR

DW13 L879482-31 GW

Collected by: CH
Collected date/time: 12/14/16 11:50
Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	1	12/20/16 04:50	12/20/16 04:50	DWR

DW14 L879482-32 GW

Collected by: CH
Collected date/time: 12/14/16 11:30
Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	1	12/20/16 05:09	12/20/16 05:09	DWR

DW17 L879482-33 GW

Collected by: CH
Collected date/time: 12/14/16 10:40
Received date/time: 12/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG936892	1	12/20/16 05:28	12/20/16 05:28	DWR

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Terrie Fudge

Terrie Fudge
Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

ESC Sample ID	Project Sample ID	Method
L879482-01	MW01A	8260B
L879482-18	MW18	8260B

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	119000		1570	5000	50	12/20/2016 02:36	WG936562
(S) a,a,a-Trifluorotoluene(FID)	*96.7*			*62.0-128*		*12/20/2016 02:36*	WG936562

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J3 J4	2500	12500	250	12/24/2016 08:29	WG936826
Acrylonitrile	U		468	2500	250	12/24/2016 08:29	WG936826
Benzene	778		82.8	250	250	12/24/2016 08:29	WG936826
Bromobenzene	U		88.0	250	250	12/24/2016 08:29	WG936826
Bromochloromethane	U		130	250	250	12/24/2016 08:29	WG936826
Bromodichloromethane	U		95.0	250	250	12/24/2016 08:29	WG936826
Bromoform	U		117	250	250	12/24/2016 08:29	WG936826
Bromomethane	U		216	1250	250	12/24/2016 08:29	WG936826
n-Butylbenzene	U		90.2	250	250	12/24/2016 08:29	WG936826
sec-Butylbenzene	U		91.2	250	250	12/24/2016 08:29	WG936826
tert-Butylbenzene	U		99.8	250	250	12/24/2016 08:29	WG936826
Carbon tetrachloride	U		94.8	250	250	12/24/2016 08:29	WG936826
Carbon disulfide	U		68.8	250	250	12/24/2016 08:29	WG936826
Chlorobenzene	U		87.0	250	250	12/24/2016 08:29	WG936826
Chlorodibromomethane	U		81.8	250	250	12/24/2016 08:29	WG936826
Chloroethane	U		113	1250	250	12/24/2016 08:29	WG936826
Chloroform	U		81.0	1250	250	12/24/2016 08:29	WG936826
Chloromethane	U		69.0	625	250	12/24/2016 08:29	WG936826
1,2-Dibromo-3-Chloropropane	U		332	1250	250	12/24/2016 08:29	WG936826
1,2-Dibromoethane	U		95.2	250	250	12/24/2016 08:29	WG936826
Dibromomethane	U		86.5	250	250	12/24/2016 08:29	WG936826
1,2-Dichlorobenzene	U		87.2	250	250	12/24/2016 08:29	WG936826
1,3-Dichlorobenzene	U		55.0	250	250	12/24/2016 08:29	WG936826
1,4-Dichlorobenzene	U		68.5	250	250	12/24/2016 08:29	WG936826
trans-1,4-Dichloro-2-butene	U		216	625	250	12/24/2016 08:29	WG936826
Dichlorodifluoromethane	U		138	1250	250	12/24/2016 08:29	WG936826
1,1-Dichloroethane	U		64.8	250	250	12/24/2016 08:29	WG936826
1,2-Dichloroethane	U		90.2	250	250	12/24/2016 08:29	WG936826
1,1-Dichloroethene	U		99.5	250	250	12/24/2016 08:29	WG936826
cis-1,2-Dichloroethene	U		65.0	250	250	12/24/2016 08:29	WG936826
trans-1,2-Dichloroethene	U		99.0	250	250	12/24/2016 08:29	WG936826
1,2-Dichloropropane	U		76.5	250	250	12/24/2016 08:29	WG936826
cis-1,3-Dichloropropene	U		104	250	250	12/24/2016 08:29	WG936826
trans-1,3-Dichloropropene	U		105	250	250	12/24/2016 08:29	WG936826
Ethylbenzene	2530		96.0	250	250	12/24/2016 08:29	WG936826
Hexachloro-1,3-butadiene	U		64.0	250	250	12/24/2016 08:29	WG936826
2-Hexanone	U		955	2500	250	12/24/2016 08:29	WG936826
2-Butanone (MEK)	U		982	2500	250	12/24/2016 08:29	WG936826
Iodomethane	U		428	2500	250	12/24/2016 08:29	WG936826
Methylene Chloride	U		250	1250	250	12/24/2016 08:29	WG936826
4-Methyl-2-pentanone (MIBK)	U		535	2500	250	12/24/2016 08:29	WG936826
Naphthalene	699	J	250	1250	250	12/24/2016 08:29	WG936826
n-Propylbenzene	533		87.2	250	250	12/24/2016 08:29	WG936826
Styrene	U		76.8	250	250	12/24/2016 08:29	WG936826
1,1,1,2-Tetrachloroethane	U		96.2	250	250	12/24/2016 08:29	WG936826
1,1,2,2-Tetrachloroethane	U		32.5	250	250	12/24/2016 08:29	WG936826
1,1,2-Trichlorotrifluoroethane	U		75.8	250	250	12/24/2016 08:29	WG936826
Tetrachloroethene	U		93.0	250	250	12/24/2016 08:29	WG936826
Toluene	16700		103	250	250	12/24/2016 08:29	WG936826

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		88.8	250	250	12/24/2016 08:29	WG936826
1,1,1-Trichloroethane	U		79.8	250	250	12/24/2016 08:29	WG936826
1,1,2-Trichloroethane	U		95.8	250	250	12/24/2016 08:29	WG936826
Trichloroethene	U		99.5	250	250	12/24/2016 08:29	WG936826
Trichlorofluoromethane	U		300	1250	250	12/24/2016 08:29	WG936826
1,2,3-Trichloropropane	U		202	625	250	12/24/2016 08:29	WG936826
1,2,4-Trimethylbenzene	5720		93.2	250	250	12/24/2016 08:29	WG936826
1,3,5-Trimethylbenzene	1270		96.8	250	250	12/24/2016 08:29	WG936826
Vinyl acetate	U		408	2500	250	12/24/2016 08:29	WG936826
Vinyl chloride	U		64.8	250	250	12/24/2016 08:29	WG936826
Xylenes, Total	30600		265	750	250	12/24/2016 08:29	WG936826
Di-isopropyl ether	U		80.0	250	250	12/24/2016 08:29	WG936826
Ethanol	U		10500	25000	250	01/09/2017 16:17	WG936826
Ethyl tert-butyl ether	U		67.5	250	250	12/24/2016 08:29	WG936826
Methyl tert-butyl ether	145	J	91.8	250	250	12/24/2016 08:29	WG936826
tert-Butyl alcohol	U		600	1250	250	12/24/2016 08:29	WG936826
tert-Amyl Methyl Ether	U		65.0	250	250	12/24/2016 08:29	WG936826
(S) Toluene-d8	*108*			*90.0-115*		*12/24/2016 08:29*	WG936826
(S) Toluene-d8	*105*			*90.0-115*		*01/09/2017 16:17*	WG936826
(S) Dibromofluoromethane	*104*			*79.0-121*		*01/09/2017 16:17*	WG936826
(S) Dibromofluoromethane	*109*			*79.0-121*		*12/24/2016 08:29*	WG936826
(S) 4-Bromofluorobenzene	*102*			*80.1-120*		*12/24/2016 08:29*	WG936826
(S) 4-Bromofluorobenzene	*103*			*80.1-120*		*01/09/2017 16:17*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	72000		1570	5000	50	12/20/2016 02:58	WG936562
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*62.0-128*		*12/20/2016 02:58*	WG936562

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	604		33.1	100	100	12/24/2016 09:51	WG936826
Toluene	7030		41.2	100	100	12/24/2016 09:51	WG936826
Ethylbenzene	1330		38.4	100	100	12/24/2016 09:51	WG936826
Total Xylenes	7550		106	300	100	12/24/2016 09:51	WG936826
Methyl tert-butyl ether	340		36.7	100	100	12/24/2016 09:51	WG936826
Naphthalene	174	J	100	500	100	12/24/2016 09:51	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 09:51*	WG936826
(S) Dibromofluoromethane	*107*			*79.0-121*		*12/24/2016 09:51*	WG936826
(S) a,a,a-Trifluorotoluene	*108*			*90.4-116*		*12/24/2016 09:51*	WG936826
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*12/24/2016 09:51*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	37000		628	2000	20	12/22/2016 14:57	WG937675
(S) a,a,a-Trifluorotoluene(FID)	*94.6*			*62.0-128*		*12/22/2016 14:57*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	515		82.8	250	250	12/24/2016 10:12	WG936826
Toluene	648		103	250	250	12/24/2016 10:12	WG936826
Ethylbenzene	200	J	96.0	250	250	12/24/2016 10:12	WG936826
Total Xylenes	1510		265	750	250	12/24/2016 10:12	WG936826
Methyl tert-butyl ether	177	J	91.8	250	250	12/24/2016 10:12	WG936826
Naphthalene	U		250	1250	250	12/24/2016 10:12	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 10:12*	WG936826
(S) Dibromofluoromethane	*107*			*79.0-121*		*12/24/2016 10:12*	WG936826
(S) a,a,a-Trifluorotoluene	*108*			*90.4-116*		*12/24/2016 10:12*	WG936826
(S) 4-Bromofluorobenzene	*99.6*			*80.1-120*		*12/24/2016 10:12*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	549		31.4	100	1	12/22/2016 13:29	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*91.1*			*62.0-128*		*12/22/2016 13:29*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	34.0		0.331	1.00	1	12/24/2016 10:32	WG936826
Toluene	0.476	J	0.412	1.00	1	12/24/2016 10:32	WG936826
Ethylbenzene	0.904	J	0.384	1.00	1	12/24/2016 10:32	WG936826
Total Xylenes	18.5		1.06	3.00	1	12/24/2016 10:32	WG936826
Methyl tert-butyl ether	417		7.34	20.0	20	12/27/2016 12:55	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 10:32	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 10:32*	WG936826
(S) Toluene-d8	*98.9*			*90.0-115*		*12/27/2016 12:55*	WG936826
(S) Dibromofluoromethane	*87.4*			*79.0-121*		*12/27/2016 12:55*	WG936826
(S) Dibromofluoromethane	*106*			*79.0-121*		*12/24/2016 10:32*	WG936826
(S) α,α,α-Trifluorotoluene	*108*			*90.4-116*		*12/24/2016 10:32*	WG936826
(S) α,α,α-Trifluorotoluene	*97.6*			*90.4-116*		*12/27/2016 12:55*	WG936826
(S) 4-Bromofluorobenzene	*95.6*			*80.1-120*		*12/27/2016 12:55*	WG936826
(S) 4-Bromofluorobenzene	*100*			*80.1-120*		*12/24/2016 10:32*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	77.1	J	31.4	100	1	12/22/2016 15:19	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*95.2*			*62.0-128*		*12/22/2016 15:19*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 10:52	WG936826
Toluene	U		0.412	1.00	1	12/24/2016 10:52	WG936826
Ethylbenzene	U		0.384	1.00	1	12/24/2016 10:52	WG936826
Total Xylenes	U		1.06	3.00	1	12/24/2016 10:52	WG936826
Methyl tert-butyl ether	53.8		0.367	1.00	1	12/24/2016 10:52	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 10:52	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 10:52*	WG936826
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 10:52*	WG936826
(S) α,α,α-Trifluorotoluene	*108*			*90.4-116*		*12/24/2016 10:52*	WG936826
(S) 4-Bromofluorobenzene	*100*			*80.1-120*		*12/24/2016 10:52*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		31.4	100	1	12/22/2016 15:42	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*95.4*			*62.0-128*		*12/22/2016 15:42*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 11:13	WG936826
Toluene	U		0.412	1.00	1	12/24/2016 11:13	WG936826
Ethylbenzene	U		0.384	1.00	1	12/24/2016 11:13	WG936826
Total Xylenes	U		1.06	3.00	1	12/24/2016 11:13	WG936826
Methyl tert-butyl ether	U		0.367	1.00	1	12/27/2016 13:07	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 11:13	WG936826
(S) Toluene-d8	*108*			*90.0-115*		*12/24/2016 11:13*	WG936826
(S) Toluene-d8	*100*			*90.0-115*		*12/27/2016 13:07*	WG936826
(S) Dibromofluoromethane	*88.1*			*79.0-121*		*12/27/2016 13:07*	WG936826
(S) Dibromofluoromethane	*107*			*79.0-121*		*12/24/2016 11:13*	WG936826
(S) α,α,α-Trifluorotoluene	*107*			*90.4-116*		*12/24/2016 11:13*	WG936826
(S) α,α,α-Trifluorotoluene	*99.3*			*90.4-116*		*12/27/2016 13:07*	WG936826
(S) 4-Bromofluorobenzene	*97.0*			*80.1-120*		*12/27/2016 13:07*	WG936826
(S) 4-Bromofluorobenzene	*99.5*			*80.1-120*		*12/24/2016 11:13*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	105000		628	2000	20	12/23/2016 19:00	WG937675
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*62.0-128*		*12/23/2016 19:00*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1630		66.2	200	200	12/24/2016 11:33	WG936826
Toluene	12100		82.4	200	200	12/24/2016 11:33	WG936826
Ethylbenzene	2010		76.8	200	200	12/24/2016 11:33	WG936826
Total Xylenes	14400		212	600	200	12/24/2016 11:33	WG936826
Methyl tert-butyl ether	1920		73.4	200	200	12/24/2016 11:33	WG936826
Naphthalene	321	J	200	1000	200	12/24/2016 11:33	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 11:33*	WG936826
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 11:33*	WG936826
(S) a,a,a-Trifluorotoluene	*109*			*90.4-116*		*12/24/2016 11:33*	WG936826
(S) 4-Bromofluorobenzene	*102*			*80.1-120*		*12/24/2016 11:33*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		31.4	100	1	12/23/2016 19:29	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*100*			*62.0-128*		*12/23/2016 19:29*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 11:54	WG936826
Toluene	U		0.412	1.00	1	12/24/2016 11:54	WG936826
Ethylbenzene	U		0.384	1.00	1	12/24/2016 11:54	WG936826
Total Xylenes	U		1.06	3.00	1	12/24/2016 11:54	WG936826
Methyl tert-butyl ether	U		0.367	1.00	1	12/24/2016 11:54	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 11:54	WG936826
(S) Toluene-d8	*108*			*90.0-115*		*12/24/2016 11:54*	WG936826
(S) Dibromofluoromethane	*109*			*79.0-121*		*12/24/2016 11:54*	WG936826
(S) α,α,α-Trifluorotoluene	*109*			*90.4-116*		*12/24/2016 11:54*	WG936826
(S) 4-Bromofluorobenzene	*98.1*			*80.1-120*		*12/24/2016 11:54*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	652		31.4	100	1	12/22/2016 16:48	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*95.9*			*62.0-128*		*12/22/2016 16:48*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 12:14	WG936826
Toluene	U		0.412	1.00	1	12/24/2016 12:14	WG936826
Ethylbenzene	U		0.384	1.00	1	12/24/2016 12:14	WG936826
Total Xylenes	U		1.06	3.00	1	12/24/2016 12:14	WG936826
Methyl tert-butyl ether	1.37		0.367	1.00	1	12/24/2016 12:14	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 12:14	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 12:14*	WG936826
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 12:14*	WG936826
(S) α,α,α-Trifluorotoluene	*107*			*90.4-116*		*12/24/2016 12:14*	WG936826
(S) 4-Bromofluorobenzene	*98.7*			*80.1-120*		*12/24/2016 12:14*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	97.5	J	31.4	100	1	12/22/2016 17:10	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*95.6*			*62.0-128*		*12/22/2016 17:10*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 12:35	WG936826
Toluene	U		0.412	1.00	1	12/24/2016 12:35	WG936826
Ethylbenzene	U		0.384	1.00	1	12/24/2016 12:35	WG936826
Total Xylenes	U		1.06	3.00	1	12/24/2016 12:35	WG936826
Methyl tert-butyl ether	52.7		0.367	1.00	1	12/24/2016 12:35	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 12:35	WG936826
(S) Toluene-d8	*106*			*90.0-115*		*12/24/2016 12:35*	WG936826
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 12:35*	WG936826
(S) α,α,α-Trifluorotoluene	*107*			*90.4-116*		*12/24/2016 12:35*	WG936826
(S) 4-Bromofluorobenzene	*100*			*80.1-120*		*12/24/2016 12:35*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2120		31.4	100	1	12/22/2016 17:33	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*93.2*			*62.0-128*		*12/22/2016 17:33*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	176		0.331	1.00	1	12/24/2016 12:55	WG936826
Toluene	16.1		0.412	1.00	1	12/24/2016 12:55	WG936826
Ethylbenzene	97.2		0.384	1.00	1	12/24/2016 12:55	WG936826
Total Xylenes	612		10.6	30.0	10	12/27/2016 13:20	WG936826
Methyl tert-butyl ether	50.2		0.367	1.00	1	12/24/2016 12:55	WG936826
Naphthalene	6.41		1.00	5.00	1	12/24/2016 12:55	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 12:55*	WG936826
(S) Toluene-d8	*98.8*			*90.0-115*		*12/27/2016 13:20*	WG936826
(S) Dibromofluoromethane	*86.6*			*79.0-121*		*12/27/2016 13:20*	WG936826
(S) Dibromofluoromethane	*106*			*79.0-121*		*12/24/2016 12:55*	WG936826
(S) α,α,α-Trifluorotoluene	*107*			*90.4-116*		*12/24/2016 12:55*	WG936826
(S) α,α,α-Trifluorotoluene	*99.4*			*90.4-116*		*12/27/2016 13:20*	WG936826
(S) 4-Bromofluorobenzene	*97.8*			*80.1-120*		*12/27/2016 13:20*	WG936826
(S) 4-Bromofluorobenzene	*103*			*80.1-120*		*12/24/2016 12:55*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	18300		157	500	5	12/23/2016 19:58	WG937675
(S) a,a,a-Trifluorotoluene(FID)	*98.1*			*62.0-128*		*12/23/2016 19:58*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	209		8.28	25.0	25	12/24/2016 13:16	WG936826
Toluene	182		10.3	25.0	25	12/24/2016 13:16	WG936826
Ethylbenzene	622		9.60	25.0	25	12/24/2016 13:16	WG936826
Total Xylenes	3820		26.5	75.0	25	12/24/2016 13:16	WG936826
Methyl tert-butyl ether	U		9.18	25.0	25	12/24/2016 13:16	WG936826
Naphthalene	92.6	J	25.0	125	25	12/24/2016 13:16	WG936826
(S) Toluene-d8	*108*			*90.0-115*		*12/24/2016 13:16*	WG936826
(S) Dibromofluoromethane	*109*			*79.0-121*		*12/24/2016 13:16*	WG936826
(S) a,a,a-Trifluorotoluene	*109*			*90.4-116*		*12/24/2016 13:16*	WG936826
(S) 4-Bromofluorobenzene	*103*			*80.1-120*		*12/24/2016 13:16*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		31.4	100	1	12/23/2016 20:27	WG937675
(S) a,a,a-Trifluorotoluene(FID)	*102*			*62.0-128*		*12/23/2016 20:27*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 13:36	WG936826
Toluene	U		0.412	1.00	1	12/24/2016 13:36	WG936826
Ethylbenzene	U		0.384	1.00	1	12/24/2016 13:36	WG936826
Total Xylenes	U		1.06	3.00	1	12/24/2016 13:36	WG936826
Methyl tert-butyl ether	4.67		0.367	1.00	1	12/24/2016 13:36	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 13:36	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 13:36*	WG936826
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 13:36*	WG936826
(S) a,a,a-Trifluorotoluene	*108*			*90.4-116*		*12/24/2016 13:36*	WG936826
(S) 4-Bromofluorobenzene	*98.6*			*80.1-120*		*12/24/2016 13:36*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	11000		157	500	5	12/23/2016 21:10	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*98.3*			*62.0-128*		*12/23/2016 21:10*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	355		8.28	25.0	25	12/24/2016 13:56	WG936826
Toluene	370		10.3	25.0	25	12/24/2016 13:56	WG936826
Ethylbenzene	52.5		9.60	25.0	25	12/24/2016 13:56	WG936826
Total Xylenes	1450		26.5	75.0	25	12/24/2016 13:56	WG936826
Methyl tert-butyl ether	229		9.18	25.0	25	12/24/2016 13:56	WG936826
Naphthalene	72.2	J	25.0	125	25	12/24/2016 13:56	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 13:56*	WG936826
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 13:56*	WG936826
(S) α,α,α-Trifluorotoluene	*107*			*90.4-116*		*12/24/2016 13:56*	WG936826
(S) 4-Bromofluorobenzene	*99.2*			*80.1-120*		*12/24/2016 13:56*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	42800		157	500	5	12/23/2016 21:39	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*97.0*			*62.0-128*		*12/23/2016 21:39*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	628		16.6	50.0	50	12/24/2016 14:17	WG936826
Toluene	1230		20.6	50.0	50	12/24/2016 14:17	WG936826
Ethylbenzene	516		19.2	50.0	50	12/24/2016 14:17	WG936826
Total Xylenes	4810		53.0	150	50	12/24/2016 14:17	WG936826
Methyl tert-butyl ether	206		18.4	50.0	50	12/24/2016 14:17	WG936826
Naphthalene	221	J	50.0	250	50	12/24/2016 14:17	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 14:17*	WG936826
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 14:17*	WG936826
(S) α,α,α-Trifluorotoluene	*107*			*90.4-116*		*12/24/2016 14:17*	WG936826
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*12/24/2016 14:17*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	98.9	J	31.4	100	1	12/22/2016 19:23	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*96.1*			*62.0-128*		*12/22/2016 19:23*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 14:37	WG936826
Toluene	U		0.412	1.00	1	12/24/2016 14:37	WG936826
Ethylbenzene	U		0.384	1.00	1	12/24/2016 14:37	WG936826
Total Xylenes	U		1.06	3.00	1	12/24/2016 14:37	WG936826
Methyl tert-butyl ether	7.04		0.367	1.00	1	12/24/2016 14:37	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 14:37	WG936826
(S) Toluene-d8	*108*			*90.0-115*		*12/24/2016 14:37*	WG936826
(S) Dibromofluoromethane	*110*			*79.0-121*		*12/24/2016 14:37*	WG936826
(S) α,α,α-Trifluorotoluene	*108*			*90.4-116*		*12/24/2016 14:37*	WG936826
(S) 4-Bromofluorobenzene	*99.4*			*80.1-120*		*12/24/2016 14:37*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	126		31.4	100	1	12/22/2016 19:45	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*95.9*			*62.0-128*		*12/22/2016 19:45*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 14:58	WG936826
Toluene	U		0.412	1.00	1	12/24/2016 14:58	WG936826
Ethylbenzene	U		0.384	1.00	1	12/24/2016 14:58	WG936826
Total Xylenes	U		1.06	3.00	1	12/24/2016 14:58	WG936826
Methyl tert-butyl ether	U		0.367	1.00	1	12/24/2016 14:58	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 14:58	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 14:58*	WG936826
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 14:58*	WG936826
(S) α,α,α-Trifluorotoluene	*107*			*90.4-116*		*12/24/2016 14:58*	WG936826
(S) 4-Bromofluorobenzene	*98.3*			*80.1-120*		*12/24/2016 14:58*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	6150		31.4	100	1	12/22/2016 20:08	WG937675
(S) a,a,a-Trifluorotoluene(FID)	*100*			*62.0-128*		*12/22/2016 20:08*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	100	500	10	12/24/2016 15:18	WG936826
Acrylonitrile	U		18.7	100	10	12/24/2016 15:18	WG936826
Benzene	1200		3.31	10.0	10	12/24/2016 15:18	WG936826
Bromobenzene	U		3.52	10.0	10	12/24/2016 15:18	WG936826
Bromochloromethane	U		5.20	10.0	10	12/24/2016 15:18	WG936826
Bromodichloromethane	U		3.80	10.0	10	12/24/2016 15:18	WG936826
Bromoform	U		4.69	10.0	10	12/24/2016 15:18	WG936826
Bromomethane	U		8.66	50.0	10	12/24/2016 15:18	WG936826
n-Butylbenzene	U		3.61	10.0	10	12/24/2016 15:18	WG936826
sec-Butylbenzene	U		3.65	10.0	10	12/24/2016 15:18	WG936826
tert-Butylbenzene	U		3.99	10.0	10	12/24/2016 15:18	WG936826
Carbon tetrachloride	U		3.79	10.0	10	12/24/2016 15:18	WG936826
Carbon disulfide	U		2.75	10.0	10	12/24/2016 15:18	WG936826
Chlorobenzene	U		3.48	10.0	10	12/24/2016 15:18	WG936826
Chlorodibromomethane	U		3.27	10.0	10	12/24/2016 15:18	WG936826
Chloroethane	U		4.53	50.0	10	12/24/2016 15:18	WG936826
Chloroform	U		3.24	50.0	10	12/24/2016 15:18	WG936826
Chloromethane	U		2.76	25.0	10	12/24/2016 15:18	WG936826
1,2-Dibromo-3-Chloropropane	U		13.3	50.0	10	12/24/2016 15:18	WG936826
1,2-Dibromoethane	U		3.81	10.0	10	12/24/2016 15:18	WG936826
Dibromomethane	U		3.46	10.0	10	12/24/2016 15:18	WG936826
1,2-Dichlorobenzene	U		3.49	10.0	10	12/24/2016 15:18	WG936826
1,3-Dichlorobenzene	U		2.20	10.0	10	12/24/2016 15:18	WG936826
1,4-Dichlorobenzene	U		2.74	10.0	10	12/24/2016 15:18	WG936826
trans-1,4-Dichloro-2-butene	U		8.66	25.0	10	12/24/2016 15:18	WG936826
Dichlorodifluoromethane	U		5.51	50.0	10	12/24/2016 15:18	WG936826
1,1-Dichloroethane	U		2.59	10.0	10	12/24/2016 15:18	WG936826
1,2-Dichloroethane	64.2		3.61	10.0	10	12/24/2016 15:18	WG936826
1,1-Dichloroethene	U		3.98	10.0	10	12/24/2016 15:18	WG936826
cis-1,2-Dichloroethene	U		2.60	10.0	10	12/24/2016 15:18	WG936826
trans-1,2-Dichloroethene	U		3.96	10.0	10	12/24/2016 15:18	WG936826
1,2-Dichloropropane	6.65	J	3.06	10.0	10	12/24/2016 15:18	WG936826
cis-1,3-Dichloropropene	U		4.18	10.0	10	12/24/2016 15:18	WG936826
trans-1,3-Dichloropropene	U		4.19	10.0	10	12/24/2016 15:18	WG936826
Ethylbenzene	134		3.84	10.0	10	12/24/2016 15:18	WG936826
Hexachloro-1,3-butadiene	U		2.56	10.0	10	12/24/2016 15:18	WG936826
2-Hexanone	U		38.2	100	10	12/24/2016 15:18	WG936826
2-Butanone (MEK)	U		39.3	100	10	12/24/2016 15:18	WG936826
Iodomethane	U		17.1	100	10	12/24/2016 15:18	WG936826
Methylene Chloride	U		10.0	50.0	10	12/24/2016 15:18	WG936826
4-Methyl-2-pentanone (MIBK)	25.9	J	21.4	100	10	12/24/2016 15:18	WG936826
Naphthalene	52.2		10.0	50.0	10	12/24/2016 15:18	WG936826
n-Propylbenzene	12.7		3.49	10.0	10	12/24/2016 15:18	WG936826
Styrene	U		3.07	10.0	10	12/24/2016 15:18	WG936826
1,1,1,2-Tetrachloroethane	U		3.85	10.0	10	12/24/2016 15:18	WG936826
1,1,2,2-Tetrachloroethane	U		1.30	10.0	10	12/24/2016 15:18	WG936826
1,1,2-Trichlorotrifluoroethane	U		3.03	10.0	10	12/24/2016 15:18	WG936826
Tetrachloroethene	U		3.72	10.0	10	12/24/2016 15:18	WG936826
Toluene	13.1		4.12	10.0	10	12/24/2016 15:18	WG936826

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		3.55	10.0	10	12/24/2016 15:18	WG936826
1,1,1-Trichloroethane	U		3.19	10.0	10	12/24/2016 15:18	WG936826
1,1,2-Trichloroethane	U		3.83	10.0	10	12/24/2016 15:18	WG936826
Trichloroethene	U		3.98	10.0	10	12/24/2016 15:18	WG936826
Trichlorofluoromethane	U		12.0	50.0	10	12/24/2016 15:18	WG936826
1,2,3-Trichloropropane	U		8.07	25.0	10	12/24/2016 15:18	WG936826
1,2,4-Trimethylbenzene	7.81	J	3.73	10.0	10	12/24/2016 15:18	WG936826
1,3,5-Trimethylbenzene	34.2		3.87	10.0	10	12/24/2016 15:18	WG936826
Vinyl acetate	U		16.3	100	10	12/24/2016 15:18	WG936826
Vinyl chloride	U		2.59	10.0	10	12/24/2016 15:18	WG936826
Xylenes, Total	399		10.6	30.0	10	12/24/2016 15:18	WG936826
Di-isopropyl ether	295		3.20	10.0	10	12/24/2016 15:18	WG936826
Ethanol	U		420	1000	10	01/09/2017 16:39	WG936826
Ethyl tert-butyl ether	U		2.70	10.0	10	12/24/2016 15:18	WG936826
Methyl tert-butyl ether	U		3.67	10.0	10	12/24/2016 15:18	WG936826
tert-Butyl alcohol	U		24.0	50.0	10	12/24/2016 15:18	WG936826
tert-Amyl Methyl Ether	U		2.60	10.0	10	12/24/2016 15:18	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 15:18*	WG936826
(S) Toluene-d8	*106*			*90.0-115*		*01/09/2017 16:39*	WG936826
(S) Dibromofluoromethane	*104*			*79.0-121*		*01/09/2017 16:39*	WG936826
(S) Dibromofluoromethane	*107*			*79.0-121*		*12/24/2016 15:18*	WG936826
(S) 4-Bromofluorobenzene	*99.7*			*80.1-120*		*12/24/2016 15:18*	WG936826
(S) 4-Bromofluorobenzene	*99.8*			*80.1-120*		*01/09/2017 16:39*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2310		31.4	100	1	12/22/2016 20:30	WG937675
(S) a,a,a-Trifluorotoluene(FID)	*95.0*			*62.0-128*		*12/22/2016 20:30*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	33.5		0.331	1.00	1	12/24/2016 15:39	WG936826
Toluene	174		0.412	1.00	1	12/24/2016 15:39	WG936826
Ethylbenzene	57.6		0.384	1.00	1	12/24/2016 15:39	WG936826
Total Xylenes	508		1.06	3.00	1	12/24/2016 15:39	WG936826
Methyl tert-butyl ether	2.84		0.367	1.00	1	12/24/2016 15:39	WG936826
Naphthalene	15.4		1.00	5.00	1	12/24/2016 15:39	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 15:39*	WG936826
(S) Dibromofluoromethane	*106*			*79.0-121*		*12/24/2016 15:39*	WG936826
(S) a,a,a-Trifluorotoluene	*107*			*90.4-116*		*12/24/2016 15:39*	WG936826
(S) 4-Bromofluorobenzene	*104*			*80.1-120*		*12/24/2016 15:39*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	36.7	J	31.4	100	1	12/22/2016 20:52	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*96.1*			*62.0-128*		*12/22/2016 20:52*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 15:59	WG936826
Toluene	U		0.412	1.00	1	12/27/2016 13:33	WG936826
Ethylbenzene	U		0.384	1.00	1	12/27/2016 13:33	WG936826
Total Xylenes	U		1.06	3.00	1	12/27/2016 13:33	WG936826
Methyl tert-butyl ether	U		0.367	1.00	1	12/24/2016 15:59	WG936826
Naphthalene	U		1.00	5.00	1	12/24/2016 15:59	WG936826
(S) Toluene-d8	*107*			*90.0-115*		*12/24/2016 15:59*	WG936826
(S) Toluene-d8	*98.8*			*90.0-115*		*12/27/2016 13:33*	WG936826
(S) Dibromofluoromethane	*87.2*			*79.0-121*		*12/27/2016 13:33*	WG936826
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 15:59*	WG936826
(S) α,α,α-Trifluorotoluene	*107*			*90.4-116*		*12/24/2016 15:59*	WG936826
(S) α,α,α-Trifluorotoluene	*98.0*			*90.4-116*		*12/27/2016 13:33*	WG936826
(S) 4-Bromofluorobenzene	*98.2*			*80.1-120*		*12/27/2016 13:33*	WG936826
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*12/24/2016 15:59*	WG936826

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	34100		314	1000	10	12/22/2016 21:14	WG937675
(S) a,a,a-Trifluorotoluene(FID)	*94.7*			*62.0-128*		*12/22/2016 21:14*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1080		33.1	100	100	12/24/2016 08:39	WG936827
Toluene	3360		41.2	100	100	12/24/2016 08:39	WG936827
Ethylbenzene	940		38.4	100	100	12/24/2016 08:39	WG936827
Total Xylenes	7630		106	300	100	12/24/2016 08:39	WG936827
Methyl tert-butyl ether	134		36.7	100	100	12/24/2016 08:39	WG936827
Naphthalene	395	J	100	500	100	12/24/2016 08:39	WG936827
(S) Toluene-d8	*104*			*90.0-115*		*12/24/2016 08:39*	WG936827
(S) Dibromofluoromethane	*104*			*79.0-121*		*12/24/2016 08:39*	WG936827
(S) a,a,a-Trifluorotoluene	*98.4*			*90.4-116*		*12/24/2016 08:39*	WG936827
(S) 4-Bromofluorobenzene	*100*			*80.1-120*		*12/24/2016 08:39*	WG936827

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1510		31.4	100	1	12/22/2016 21:36	WG937675
(S) α,α,α-Trifluorotoluene(FID)	*96.7*			*62.0-128*		*12/22/2016 21:36*	WG937675

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		1.66	5.00	5	12/24/2016 10:04	WG936827
Toluene	15.5		2.06	5.00	5	12/24/2016 10:04	WG936827
Ethylbenzene	15.7		1.92	5.00	5	12/24/2016 10:04	WG936827
Total Xylenes	212		5.30	15.0	5	12/24/2016 10:04	WG936827
Methyl tert-butyl ether	9.01		1.84	5.00	5	12/24/2016 10:04	WG936827
Naphthalene	14.4	J	5.00	25.0	5	12/24/2016 10:04	WG936827
(S) Toluene-d8	*105*			*90.0-115*		*12/24/2016 10:04*	WG936827
(S) Dibromofluoromethane	*107*			*79.0-121*		*12/24/2016 10:04*	WG936827
(S) α,α,α-Trifluorotoluene	*97.5*			*90.4-116*		*12/24/2016 10:04*	WG936827
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*12/24/2016 10:04*	WG936827

Sample Narrative:

8260B L879482-22 WG936827: Non-target compounds too high to run at a lower dilution.

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	9120		31.4	100	1	12/23/2016 14:55	WG937677
(S) α,α,α-Trifluorotoluene(FID)	*99.4*			*62.0-128*		*12/23/2016 14:55*	WG937677

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	31.3		6.62	20.0	20	12/24/2016 10:25	WG936827
Toluene	721		8.24	20.0	20	12/24/2016 10:25	WG936827
Ethylbenzene	167		7.68	20.0	20	12/24/2016 10:25	WG936827
Total Xylenes	2020		21.2	60.0	20	12/24/2016 10:25	WG936827
Methyl tert-butyl ether	100		7.34	20.0	20	12/24/2016 10:25	WG936827
Naphthalene	59.2	J	20.0	100	20	12/24/2016 10:25	WG936827
(S) Toluene-d8	*103*			*90.0-115*		*12/24/2016 10:25*	WG936827
(S) Dibromofluoromethane	*103*			*79.0-121*		*12/24/2016 10:25*	WG936827
(S) α,α,α-Trifluorotoluene	*98.0*			*90.4-116*		*12/24/2016 10:25*	WG936827
(S) 4-Bromofluorobenzene	*102*			*80.1-120*		*12/24/2016 10:25*	WG936827

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	61900		1570	5000	50	12/27/2016 17:42	WG937677
(S) α,α,α-Trifluorotoluene(FID)	*98.4*			*62.0-128*		*12/27/2016 17:42*	WG937677

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	517		166	500	500	12/24/2016 10:47	WG936827
Toluene	1050		206	500	500	12/24/2016 10:47	WG936827
Ethylbenzene	236	J	192	500	500	12/24/2016 10:47	WG936827
Total Xylenes	5220		530	1500	500	12/24/2016 10:47	WG936827
Methyl tert-butyl ether	600		184	500	500	12/24/2016 10:47	WG936827
Naphthalene	U		500	2500	500	12/24/2016 10:47	WG936827
(S) Toluene-d8	*104*			*90.0-115*		*12/24/2016 10:47*	WG936827
(S) Dibromofluoromethane	*105*			*79.0-121*		*12/24/2016 10:47*	WG936827
(S) α,α,α-Trifluorotoluene	*97.7*			*90.4-116*		*12/24/2016 10:47*	WG936827
(S) 4-Bromofluorobenzene	*102*			*80.1-120*		*12/24/2016 10:47*	WG936827

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		31.4	100	1	12/23/2016 15:39	WG937677
(S) a,a,a-Trifluorotoluene(FID)	*101*			*62.0-128*		*12/23/2016 15:39*	WG937677

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	12/24/2016 11:08	WG936827
Acrylonitrile	U		1.87	10.0	1	12/24/2016 11:08	WG936827
Benzene	U		0.331	1.00	1	12/24/2016 11:08	WG936827
Bromobenzene	U		0.352	1.00	1	12/24/2016 11:08	WG936827
Bromochloromethane	U		0.520	1.00	1	12/24/2016 11:08	WG936827
Bromodichloromethane	U		0.380	1.00	1	12/24/2016 11:08	WG936827
Bromoform	U	J4	0.469	1.00	1	12/24/2016 11:08	WG936827
Bromomethane	U		0.866	5.00	1	12/24/2016 11:08	WG936827
n-Butylbenzene	U		0.361	1.00	1	12/24/2016 11:08	WG936827
sec-Butylbenzene	U		0.365	1.00	1	12/24/2016 11:08	WG936827
tert-Butylbenzene	U		0.399	1.00	1	12/24/2016 11:08	WG936827
Carbon tetrachloride	U		0.379	1.00	1	12/24/2016 11:08	WG936827
Carbon disulfide	0.626	B J	0.275	1.00	1	12/24/2016 11:08	WG936827
Chlorobenzene	U		0.348	1.00	1	12/24/2016 11:08	WG936827
Chlorodibromomethane	U		0.327	1.00	1	12/24/2016 11:08	WG936827
Chloroethane	U		0.453	5.00	1	12/24/2016 11:08	WG936827
Chloroform	U		0.324	5.00	1	12/24/2016 11:08	WG936827
Chloromethane	U	J4	0.276	2.50	1	12/24/2016 11:08	WG936827
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/24/2016 11:08	WG936827
1,2-Dibromoethane	U		0.381	1.00	1	12/24/2016 11:08	WG936827
Dibromomethane	U		0.346	1.00	1	12/24/2016 11:08	WG936827
1,2-Dichlorobenzene	U		0.349	1.00	1	12/24/2016 11:08	WG936827
1,3-Dichlorobenzene	U		0.220	1.00	1	12/24/2016 11:08	WG936827
1,4-Dichlorobenzene	U		0.274	1.00	1	12/24/2016 11:08	WG936827
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	12/24/2016 11:08	WG936827
Dichlorodifluoromethane	U		0.551	5.00	1	12/24/2016 11:08	WG936827
1,1-Dichloroethane	U		0.259	1.00	1	12/24/2016 11:08	WG936827
1,2-Dichloroethane	U		0.361	1.00	1	12/24/2016 11:08	WG936827
1,1-Dichloroethene	U		0.398	1.00	1	12/24/2016 11:08	WG936827
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/24/2016 11:08	WG936827
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/24/2016 11:08	WG936827
1,2-Dichloropropane	U		0.306	1.00	1	12/24/2016 11:08	WG936827
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/24/2016 11:08	WG936827
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/24/2016 11:08	WG936827
Ethylbenzene	U		0.384	1.00	1	12/24/2016 11:08	WG936827
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/24/2016 11:08	WG936827
2-Hexanone	U		3.82	10.0	1	12/24/2016 11:08	WG936827
2-Butanone (MEK)	U		3.93	10.0	1	12/24/2016 11:08	WG936827
Iodomethane	U		1.71	10.0	1	12/24/2016 11:08	WG936827
Methylene Chloride	U		1.00	5.00	1	12/24/2016 11:08	WG936827
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/24/2016 11:08	WG936827
Naphthalene	U		1.00	5.00	1	12/24/2016 11:08	WG936827
n-Propylbenzene	U		0.349	1.00	1	12/24/2016 11:08	WG936827
Styrene	U		0.307	1.00	1	12/24/2016 11:08	WG936827
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/24/2016 11:08	WG936827
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/24/2016 11:08	WG936827
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/24/2016 11:08	WG936827
Tetrachloroethene	U		0.372	1.00	1	12/24/2016 11:08	WG936827
Toluene	U		0.412	1.00	1	12/24/2016 11:08	WG936827

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/24/2016 11:08	WG936827
1,1,1-Trichloroethane	U		0.319	1.00	1	12/24/2016 11:08	WG936827
1,1,2-Trichloroethane	U		0.383	1.00	1	12/24/2016 11:08	WG936827
Trichloroethene	U		0.398	1.00	1	12/24/2016 11:08	WG936827
Trichlorofluoromethane	U		1.20	5.00	1	12/24/2016 11:08	WG936827
1,2,3-Trichloropropane	U		0.807	2.50	1	12/24/2016 11:08	WG936827
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/24/2016 11:08	WG936827
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/24/2016 11:08	WG936827
Vinyl acetate	U		1.63	10.0	1	12/24/2016 11:08	WG936827
Vinyl chloride	U		0.259	1.00	1	12/24/2016 11:08	WG936827
Xylenes, Total	U		1.06	3.00	1	12/24/2016 11:08	WG936827
Di-isopropyl ether	U		0.320	1.00	1	12/24/2016 11:08	WG936827
Ethanol	U		42.0	100	1	12/24/2016 11:08	WG936827
Ethyl tert-butyl ether	U		0.270	1.00	1	12/24/2016 11:08	WG936827
Methyl tert-butyl ether	0.735	J	0.367	1.00	1	12/24/2016 11:08	WG936827
tert-Butyl alcohol	U		2.40	5.00	1	12/24/2016 11:08	WG936827
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/24/2016 11:08	WG936827
(S) Toluene-d8	*104*			*90.0-115*		*12/24/2016 11:08*	WG936827
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 11:08*	WG936827
(S) 4-Bromofluorobenzene	*103*			*80.1-120*		*12/24/2016 11:08*	WG936827

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	4670		31.4	100	1	12/23/2016 16:02	WG937677
(S) α,α,α-Trifluorotoluene(FID)	*95.8*			*62.0-128*		*12/23/2016 16:02*	WG937677

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	425		3.31	10.0	10	12/24/2016 11:30	WG936827
Toluene	160		4.12	10.0	10	12/24/2016 11:30	WG936827
Ethylbenzene	42.9		3.84	10.0	10	12/24/2016 11:30	WG936827
Total Xylenes	876		10.6	30.0	10	12/24/2016 11:30	WG936827
Methyl tert-butyl ether	598		3.67	10.0	10	12/24/2016 11:30	WG936827
Naphthalene	38.0	J	10.0	50.0	10	12/24/2016 11:30	WG936827
(S) Toluene-d8	*106*			*90.0-115*		*12/24/2016 11:30*	WG936827
(S) Dibromofluoromethane	*108*			*79.0-121*		*12/24/2016 11:30*	WG936827
(S) α,α,α-Trifluorotoluene	*98.4*			*90.4-116*		*12/24/2016 11:30*	WG936827
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*12/24/2016 11:30*	WG936827

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		31.4	100	1	12/23/2016 16:24	WG937677
(S) α,α,α-Trifluorotoluene(FID)	*101*			*62.0-128*		*12/23/2016 16:24*	WG937677

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/24/2016 11:51	WG936827
Toluene	U		0.412	1.00	1	12/24/2016 11:51	WG936827
Ethylbenzene	U		0.384	1.00	1	12/24/2016 11:51	WG936827
Total Xylenes	U		1.06	3.00	1	12/24/2016 11:51	WG936827
Methyl tert-butyl ether	U		0.367	1.00	1	12/24/2016 11:51	WG936827
Naphthalene	U		1.00	5.00	1	12/24/2016 11:51	WG936827
(S) Toluene-d8	*104*			*90.0-115*		*12/24/2016 11:51*	WG936827
(S) Dibromofluoromethane	*110*			*79.0-121*		*12/24/2016 11:51*	WG936827
(S) α,α,α-Trifluorotoluene	*98.6*			*90.4-116*		*12/24/2016 11:51*	WG936827
(S) 4-Bromofluorobenzene	*100*			*80.1-120*		*12/24/2016 11:51*	WG936827

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		31.4	100	1	12/23/2016 16:46	WG937677
(S) a,a,a-Trifluorotoluene(FID)	*102*			*62.0-128*		*12/23/2016 16:46*	WG937677

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	12/24/2016 12:13	WG936827
Acrylonitrile	U		1.87	10.0	1	12/24/2016 12:13	WG936827
Benzene	1.24		0.331	1.00	1	12/24/2016 12:13	WG936827
Bromobenzene	U		0.352	1.00	1	12/24/2016 12:13	WG936827
Bromochloromethane	U		0.520	1.00	1	12/24/2016 12:13	WG936827
Bromodichloromethane	U		0.380	1.00	1	12/24/2016 12:13	WG936827
Bromoform	U	J4	0.469	1.00	1	12/24/2016 12:13	WG936827
Bromomethane	U		0.866	5.00	1	12/24/2016 12:13	WG936827
n-Butylbenzene	U		0.361	1.00	1	12/24/2016 12:13	WG936827
sec-Butylbenzene	U		0.365	1.00	1	12/24/2016 12:13	WG936827
tert-Butylbenzene	U		0.399	1.00	1	12/24/2016 12:13	WG936827
Carbon tetrachloride	U		0.379	1.00	1	12/24/2016 12:13	WG936827
Carbon disulfide	0.518	B J	0.275	1.00	1	12/24/2016 12:13	WG936827
Chlorobenzene	U		0.348	1.00	1	12/24/2016 12:13	WG936827
Chlorodibromomethane	U		0.327	1.00	1	12/24/2016 12:13	WG936827
Chloroethane	U		0.453	5.00	1	12/24/2016 12:13	WG936827
Chloroform	U		0.324	5.00	1	12/24/2016 12:13	WG936827
Chloromethane	U	J4	0.276	2.50	1	12/24/2016 12:13	WG936827
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/24/2016 12:13	WG936827
1,2-Dibromoethane	U		0.381	1.00	1	12/24/2016 12:13	WG936827
Dibromomethane	U		0.346	1.00	1	12/24/2016 12:13	WG936827
1,2-Dichlorobenzene	U		0.349	1.00	1	12/24/2016 12:13	WG936827
1,3-Dichlorobenzene	U		0.220	1.00	1	12/24/2016 12:13	WG936827
1,4-Dichlorobenzene	U		0.274	1.00	1	12/24/2016 12:13	WG936827
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	12/24/2016 12:13	WG936827
Dichlorodifluoromethane	U		0.551	5.00	1	12/24/2016 12:13	WG936827
1,1-Dichloroethane	U		0.259	1.00	1	12/24/2016 12:13	WG936827
1,2-Dichloroethane	1.01		0.361	1.00	1	12/24/2016 12:13	WG936827
1,1-Dichloroethene	U		0.398	1.00	1	12/24/2016 12:13	WG936827
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/24/2016 12:13	WG936827
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/24/2016 12:13	WG936827
1,2-Dichloropropane	U		0.306	1.00	1	12/24/2016 12:13	WG936827
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/24/2016 12:13	WG936827
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/24/2016 12:13	WG936827
Ethylbenzene	1.65		0.384	1.00	1	12/24/2016 12:13	WG936827
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/24/2016 12:13	WG936827
2-Hexanone	U		3.82	10.0	1	12/24/2016 12:13	WG936827
2-Butanone (MEK)	U		3.93	10.0	1	12/24/2016 12:13	WG936827
Iodomethane	U		1.71	10.0	1	12/24/2016 12:13	WG936827
Methylene Chloride	U		1.00	5.00	1	12/24/2016 12:13	WG936827
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/24/2016 12:13	WG936827
Naphthalene	1.68	J	1.00	5.00	1	12/24/2016 12:13	WG936827
n-Propylbenzene	U		0.349	1.00	1	12/24/2016 12:13	WG936827
Styrene	U		0.307	1.00	1	12/24/2016 12:13	WG936827
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/24/2016 12:13	WG936827
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/24/2016 12:13	WG936827
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/24/2016 12:13	WG936827
Tetrachloroethene	1.01		0.372	1.00	1	12/24/2016 12:13	WG936827
Toluene	12.0		0.412	1.00	1	12/24/2016 12:13	WG936827

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/24/2016 12:13	WG936827
1,1,1-Trichloroethane	U		0.319	1.00	1	12/24/2016 12:13	WG936827
1,1,2-Trichloroethane	U		0.383	1.00	1	12/24/2016 12:13	WG936827
Trichloroethene	U		0.398	1.00	1	12/24/2016 12:13	WG936827
Trichlorofluoromethane	U		1.20	5.00	1	12/24/2016 12:13	WG936827
1,2,3-Trichloropropane	U		0.807	2.50	1	12/24/2016 12:13	WG936827
1,2,4-Trimethylbenzene	4.48		0.373	1.00	1	12/24/2016 12:13	WG936827
1,3,5-Trimethylbenzene	1.84		0.387	1.00	1	12/24/2016 12:13	WG936827
Vinyl acetate	U		1.63	10.0	1	12/24/2016 12:13	WG936827
Vinyl chloride	U		0.259	1.00	1	12/24/2016 12:13	WG936827
Xylenes, Total	21.8		1.06	3.00	1	12/24/2016 12:13	WG936827
Di-isopropyl ether	1.01		0.320	1.00	1	12/24/2016 12:13	WG936827
Ethanol	U		42.0	100	1	12/24/2016 12:13	WG936827
Ethyl tert-butyl ether	U		0.270	1.00	1	12/24/2016 12:13	WG936827
Methyl tert-butyl ether	U		0.367	1.00	1	12/24/2016 12:13	WG936827
tert-Butyl alcohol	U		2.40	5.00	1	12/24/2016 12:13	WG936827
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/24/2016 12:13	WG936827
(S) Toluene-d8	*104*			*90.0-115*		*12/24/2016 12:13*	WG936827
(S) Dibromofluoromethane	*109*			*79.0-121*		*12/24/2016 12:13*	WG936827
(S) 4-Bromofluorobenzene	*103*			*80.1-120*		*12/24/2016 12:13*	WG936827

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	12/20/2016 04:12	WG936892
Acrylonitrile	U		1.87	10.0	1	12/20/2016 04:12	WG936892
Benzene	U		0.331	1.00	1	12/20/2016 04:12	WG936892
Bromobenzene	U		0.352	1.00	1	12/20/2016 04:12	WG936892
Bromochloromethane	U		0.520	1.00	1	12/20/2016 04:12	WG936892
Bromodichloromethane	U		0.380	1.00	1	12/20/2016 04:12	WG936892
Bromoform	U		0.469	1.00	1	12/20/2016 04:12	WG936892
Bromomethane	U	J4	0.866	5.00	1	12/20/2016 04:12	WG936892
n-Butylbenzene	U		0.361	1.00	1	12/20/2016 04:12	WG936892
sec-Butylbenzene	U		0.365	1.00	1	12/20/2016 04:12	WG936892
tert-Butylbenzene	U		0.399	1.00	1	12/20/2016 04:12	WG936892
Carbon tetrachloride	U		0.379	1.00	1	12/20/2016 04:12	WG936892
Carbon disulfide	U		0.275	1.00	1	12/20/2016 04:12	WG936892
Chlorobenzene	U		0.348	1.00	1	12/20/2016 04:12	WG936892
Chlorodibromomethane	U		0.327	1.00	1	12/20/2016 04:12	WG936892
Chloroethane	U		0.453	5.00	1	12/20/2016 04:12	WG936892
Chloroform	U		0.324	5.00	1	12/20/2016 04:12	WG936892
Chloromethane	U		0.276	2.50	1	12/20/2016 04:12	WG936892
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/20/2016 04:12	WG936892
1,2-Dibromoethane	U		0.381	1.00	1	12/20/2016 04:12	WG936892
Dibromomethane	U		0.346	1.00	1	12/20/2016 04:12	WG936892
1,2-Dichlorobenzene	U		0.349	1.00	1	12/20/2016 04:12	WG936892
1,3-Dichlorobenzene	U		0.220	1.00	1	12/20/2016 04:12	WG936892
1,4-Dichlorobenzene	U		0.274	1.00	1	12/20/2016 04:12	WG936892
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	12/20/2016 04:12	WG936892
Dichlorodifluoromethane	U		0.551	5.00	1	12/20/2016 04:12	WG936892
1,1-Dichloroethane	U		0.259	1.00	1	12/20/2016 04:12	WG936892
1,2-Dichloroethane	U		0.361	1.00	1	12/20/2016 04:12	WG936892
1,1-Dichloroethene	U		0.398	1.00	1	12/20/2016 04:12	WG936892
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/20/2016 04:12	WG936892
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/20/2016 04:12	WG936892
1,2-Dichloropropane	U		0.306	1.00	1	12/20/2016 04:12	WG936892
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/20/2016 04:12	WG936892
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/20/2016 04:12	WG936892
Ethylbenzene	U		0.384	1.00	1	12/20/2016 04:12	WG936892
Ethanol	U		42.0	100	1	12/20/2016 04:12	WG936892
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/20/2016 04:12	WG936892
2-Hexanone	U		3.82	10.0	1	12/20/2016 04:12	WG936892
2-Butanone (MEK)	U		3.93	10.0	1	12/20/2016 04:12	WG936892
Iodomethane	U		1.71	10.0	1	12/20/2016 04:12	WG936892
Methylene Chloride	U		1.00	5.00	1	12/20/2016 04:12	WG936892
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/20/2016 04:12	WG936892
Naphthalene	U		1.00	5.00	1	12/20/2016 04:12	WG936892
n-Propylbenzene	U		0.349	1.00	1	12/20/2016 04:12	WG936892
Styrene	U		0.307	1.00	1	12/20/2016 04:12	WG936892
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/20/2016 04:12	WG936892
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/20/2016 04:12	WG936892
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/20/2016 04:12	WG936892
Tetrachloroethene	U		0.372	1.00	1	12/20/2016 04:12	WG936892
Toluene	U		0.780	5.00	1	12/20/2016 04:12	WG936892
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/20/2016 04:12	WG936892
1,1,1-Trichloroethane	U		0.319	1.00	1	12/20/2016 04:12	WG936892
1,1,2-Trichloroethane	U		0.383	1.00	1	12/20/2016 04:12	WG936892
Trichloroethene	U		0.398	1.00	1	12/20/2016 04:12	WG936892
Trichlorofluoromethane	U		1.20	5.00	1	12/20/2016 04:12	WG936892
1,2,3-Trichloropropane	U		0.807	2.50	1	12/20/2016 04:12	WG936892

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/20/2016 04:12	WG936892
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/20/2016 04:12	WG936892
Vinyl acetate	U		1.63	10.0	1	12/20/2016 04:12	WG936892
Vinyl chloride	U		0.259	1.00	1	12/20/2016 04:12	WG936892
Xylenes, Total	U		1.06	3.00	1	12/20/2016 04:12	WG936892
Di-isopropyl ether	U		0.320	1.00	1	12/20/2016 04:12	WG936892
Ethyl tert-butyl ether	U		0.270	1.00	1	12/20/2016 04:12	WG936892
Methyl tert-butyl ether	U		0.367	1.00	1	12/20/2016 04:12	WG936892
tert-Butyl alcohol	2.51	J	2.40	5.00	1	12/20/2016 04:12	WG936892
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/20/2016 04:12	WG936892
(S) Toluene-d8	*106*			*90.0-115*		*12/20/2016 04:12*	WG936892
(S) Dibromofluoromethane	*103*			*79.0-121*		*12/20/2016 04:12*	WG936892
(S) 4-Bromofluorobenzene	*99.2*			*80.1-120*		*12/20/2016 04:12*	WG936892

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	12/20/2016 04:31	WG936892
Acrylonitrile	U		1.87	10.0	1	12/20/2016 04:31	WG936892
Benzene	U		0.331	1.00	1	12/20/2016 04:31	WG936892
Bromobenzene	U		0.352	1.00	1	12/20/2016 04:31	WG936892
Bromochloromethane	U		0.520	1.00	1	12/20/2016 04:31	WG936892
Bromodichloromethane	U		0.380	1.00	1	12/20/2016 04:31	WG936892
Bromoform	U		0.469	1.00	1	12/20/2016 04:31	WG936892
Bromomethane	U	J4	0.866	5.00	1	12/20/2016 04:31	WG936892
n-Butylbenzene	U		0.361	1.00	1	12/20/2016 04:31	WG936892
sec-Butylbenzene	U		0.365	1.00	1	12/20/2016 04:31	WG936892
tert-Butylbenzene	U		0.399	1.00	1	12/20/2016 04:31	WG936892
Carbon tetrachloride	U		0.379	1.00	1	12/20/2016 04:31	WG936892
Carbon disulfide	U		0.275	1.00	1	12/20/2016 04:31	WG936892
Chlorobenzene	U		0.348	1.00	1	12/20/2016 04:31	WG936892
Chlorodibromomethane	U		0.327	1.00	1	12/20/2016 04:31	WG936892
Chloroethane	U		0.453	5.00	1	12/20/2016 04:31	WG936892
Chloroform	U		0.324	5.00	1	12/20/2016 04:31	WG936892
Chloromethane	U		0.276	2.50	1	12/20/2016 04:31	WG936892
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/20/2016 04:31	WG936892
1,2-Dibromoethane	U		0.381	1.00	1	12/20/2016 04:31	WG936892
Dibromomethane	U		0.346	1.00	1	12/20/2016 04:31	WG936892
1,2-Dichlorobenzene	U		0.349	1.00	1	12/20/2016 04:31	WG936892
1,3-Dichlorobenzene	U		0.220	1.00	1	12/20/2016 04:31	WG936892
1,4-Dichlorobenzene	U		0.274	1.00	1	12/20/2016 04:31	WG936892
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	12/20/2016 04:31	WG936892
Dichlorodifluoromethane	U		0.551	5.00	1	12/20/2016 04:31	WG936892
1,1-Dichloroethane	U		0.259	1.00	1	12/20/2016 04:31	WG936892
1,2-Dichloroethane	U		0.361	1.00	1	12/20/2016 04:31	WG936892
1,1-Dichloroethene	U		0.398	1.00	1	12/20/2016 04:31	WG936892
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/20/2016 04:31	WG936892
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/20/2016 04:31	WG936892
1,2-Dichloropropane	U		0.306	1.00	1	12/20/2016 04:31	WG936892
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/20/2016 04:31	WG936892
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/20/2016 04:31	WG936892
Ethylbenzene	U		0.384	1.00	1	12/20/2016 04:31	WG936892
Ethanol	U		42.0	100	1	12/20/2016 04:31	WG936892
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/20/2016 04:31	WG936892
2-Hexanone	U		3.82	10.0	1	12/20/2016 04:31	WG936892
2-Butanone (MEK)	U		3.93	10.0	1	12/20/2016 04:31	WG936892
Iodomethane	U		1.71	10.0	1	12/20/2016 04:31	WG936892
Methylene Chloride	U		1.00	5.00	1	12/20/2016 04:31	WG936892
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/20/2016 04:31	WG936892
Naphthalene	U		1.00	5.00	1	12/20/2016 04:31	WG936892
n-Propylbenzene	U		0.349	1.00	1	12/20/2016 04:31	WG936892
Styrene	U		0.307	1.00	1	12/20/2016 04:31	WG936892
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/20/2016 04:31	WG936892
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/20/2016 04:31	WG936892
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/20/2016 04:31	WG936892
Tetrachloroethene	U		0.372	1.00	1	12/20/2016 04:31	WG936892
Toluene	U		0.780	5.00	1	12/20/2016 04:31	WG936892
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/20/2016 04:31	WG936892
1,1,1-Trichloroethane	U		0.319	1.00	1	12/20/2016 04:31	WG936892
1,1,2-Trichloroethane	U		0.383	1.00	1	12/20/2016 04:31	WG936892
Trichloroethene	U		0.398	1.00	1	12/20/2016 04:31	WG936892
Trichlorofluoromethane	U		1.20	5.00	1	12/20/2016 04:31	WG936892
1,2,3-Trichloropropane	U		0.807	2.50	1	12/20/2016 04:31	WG936892

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/20/2016 04:31	WG936892
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/20/2016 04:31	WG936892
Vinyl acetate	U		1.63	10.0	1	12/20/2016 04:31	WG936892
Vinyl chloride	U		0.259	1.00	1	12/20/2016 04:31	WG936892
Xylenes, Total	U		1.06	3.00	1	12/20/2016 04:31	WG936892
Di-isopropyl ether	U		0.320	1.00	1	12/20/2016 04:31	WG936892
Ethyl tert-butyl ether	U		0.270	1.00	1	12/20/2016 04:31	WG936892
Methyl tert-butyl ether	U		0.367	1.00	1	12/20/2016 04:31	WG936892
tert-Butyl alcohol	U		2.40	5.00	1	12/20/2016 04:31	WG936892
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/20/2016 04:31	WG936892
(S) Toluene-d8	*106*			*90.0-115*		*12/20/2016 04:31*	WG936892
(S) Dibromofluoromethane	*104*			*79.0-121*		*12/20/2016 04:31*	WG936892
(S) 4-Bromofluorobenzene	*98.5*			*80.1-120*		*12/20/2016 04:31*	WG936892

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	12/20/2016 04:50	WG936892
Acrylonitrile	U		1.87	10.0	1	12/20/2016 04:50	WG936892
Benzene	U		0.331	1.00	1	12/20/2016 04:50	WG936892
Bromobenzene	U		0.352	1.00	1	12/20/2016 04:50	WG936892
Bromochloromethane	U		0.520	1.00	1	12/20/2016 04:50	WG936892
Bromodichloromethane	U		0.380	1.00	1	12/20/2016 04:50	WG936892
Bromoform	U		0.469	1.00	1	12/20/2016 04:50	WG936892
Bromomethane	U	J4	0.866	5.00	1	12/20/2016 04:50	WG936892
n-Butylbenzene	U		0.361	1.00	1	12/20/2016 04:50	WG936892
sec-Butylbenzene	U		0.365	1.00	1	12/20/2016 04:50	WG936892
tert-Butylbenzene	U		0.399	1.00	1	12/20/2016 04:50	WG936892
Carbon tetrachloride	U		0.379	1.00	1	12/20/2016 04:50	WG936892
Carbon disulfide	U		0.275	1.00	1	12/20/2016 04:50	WG936892
Chlorobenzene	U		0.348	1.00	1	12/20/2016 04:50	WG936892
Chlorodibromomethane	U		0.327	1.00	1	12/20/2016 04:50	WG936892
Chloroethane	U		0.453	5.00	1	12/20/2016 04:50	WG936892
Chloroform	0.756	J	0.324	5.00	1	12/20/2016 04:50	WG936892
Chloromethane	U		0.276	2.50	1	12/20/2016 04:50	WG936892
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/20/2016 04:50	WG936892
1,2-Dibromoethane	U		0.381	1.00	1	12/20/2016 04:50	WG936892
Dibromomethane	U		0.346	1.00	1	12/20/2016 04:50	WG936892
1,2-Dichlorobenzene	U		0.349	1.00	1	12/20/2016 04:50	WG936892
1,3-Dichlorobenzene	U		0.220	1.00	1	12/20/2016 04:50	WG936892
1,4-Dichlorobenzene	U		0.274	1.00	1	12/20/2016 04:50	WG936892
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	12/20/2016 04:50	WG936892
Dichlorodifluoromethane	U		0.551	5.00	1	12/20/2016 04:50	WG936892
1,1-Dichloroethane	U		0.259	1.00	1	12/20/2016 04:50	WG936892
1,2-Dichloroethane	U		0.361	1.00	1	12/20/2016 04:50	WG936892
1,1-Dichloroethene	U		0.398	1.00	1	12/20/2016 04:50	WG936892
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/20/2016 04:50	WG936892
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/20/2016 04:50	WG936892
1,2-Dichloropropane	U		0.306	1.00	1	12/20/2016 04:50	WG936892
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/20/2016 04:50	WG936892
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/20/2016 04:50	WG936892
Ethylbenzene	U		0.384	1.00	1	12/20/2016 04:50	WG936892
Ethanol	U		42.0	100	1	12/20/2016 04:50	WG936892
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/20/2016 04:50	WG936892
2-Hexanone	U		3.82	10.0	1	12/20/2016 04:50	WG936892
2-Butanone (MEK)	U		3.93	10.0	1	12/20/2016 04:50	WG936892
Iodomethane	U		1.71	10.0	1	12/20/2016 04:50	WG936892
Methylene Chloride	U		1.00	5.00	1	12/20/2016 04:50	WG936892
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/20/2016 04:50	WG936892
Naphthalene	U		1.00	5.00	1	12/20/2016 04:50	WG936892
n-Propylbenzene	U		0.349	1.00	1	12/20/2016 04:50	WG936892
Styrene	U		0.307	1.00	1	12/20/2016 04:50	WG936892
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/20/2016 04:50	WG936892
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/20/2016 04:50	WG936892
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/20/2016 04:50	WG936892
Tetrachloroethene	0.495	J	0.372	1.00	1	12/20/2016 04:50	WG936892
Toluene	U		0.780	5.00	1	12/20/2016 04:50	WG936892
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/20/2016 04:50	WG936892
1,1,1-Trichloroethane	U		0.319	1.00	1	12/20/2016 04:50	WG936892
1,1,2-Trichloroethane	U		0.383	1.00	1	12/20/2016 04:50	WG936892
Trichloroethene	U		0.398	1.00	1	12/20/2016 04:50	WG936892
Trichlorofluoromethane	U		1.20	5.00	1	12/20/2016 04:50	WG936892
1,2,3-Trichloropropane	U		0.807	2.50	1	12/20/2016 04:50	WG936892

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/20/2016 04:50	WG936892
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/20/2016 04:50	WG936892
Vinyl acetate	U		1.63	10.0	1	12/20/2016 04:50	WG936892
Vinyl chloride	U		0.259	1.00	1	12/20/2016 04:50	WG936892
Xylenes, Total	U		1.06	3.00	1	12/20/2016 04:50	WG936892
Di-isopropyl ether	U		0.320	1.00	1	12/20/2016 04:50	WG936892
Ethyl tert-butyl ether	U		0.270	1.00	1	12/20/2016 04:50	WG936892
Methyl tert-butyl ether	U		0.367	1.00	1	12/20/2016 04:50	WG936892
tert-Butyl alcohol	U		2.40	5.00	1	12/20/2016 04:50	WG936892
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/20/2016 04:50	WG936892
(S) Toluene-d8	*106*			*90.0-115*		*12/20/2016 04:50*	WG936892
(S) Dibromofluoromethane	*103*			*79.0-121*		*12/20/2016 04:50*	WG936892
(S) 4-Bromofluorobenzene	*98.0*			*80.1-120*		*12/20/2016 04:50*	WG936892

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	12/20/2016 05:09	WG936892
Acrylonitrile	U		1.87	10.0	1	12/20/2016 05:09	WG936892
Benzene	U		0.331	1.00	1	12/20/2016 05:09	WG936892
Bromobenzene	U		0.352	1.00	1	12/20/2016 05:09	WG936892
Bromochloromethane	U		0.520	1.00	1	12/20/2016 05:09	WG936892
Bromodichloromethane	U		0.380	1.00	1	12/20/2016 05:09	WG936892
Bromoform	U		0.469	1.00	1	12/20/2016 05:09	WG936892
Bromomethane	U	J4	0.866	5.00	1	12/20/2016 05:09	WG936892
n-Butylbenzene	U		0.361	1.00	1	12/20/2016 05:09	WG936892
sec-Butylbenzene	U		0.365	1.00	1	12/20/2016 05:09	WG936892
tert-Butylbenzene	U		0.399	1.00	1	12/20/2016 05:09	WG936892
Carbon tetrachloride	U		0.379	1.00	1	12/20/2016 05:09	WG936892
Carbon disulfide	U		0.275	1.00	1	12/20/2016 05:09	WG936892
Chlorobenzene	U		0.348	1.00	1	12/20/2016 05:09	WG936892
Chlorodibromomethane	U		0.327	1.00	1	12/20/2016 05:09	WG936892
Chloroethane	U		0.453	5.00	1	12/20/2016 05:09	WG936892
Chloroform	U		0.324	5.00	1	12/20/2016 05:09	WG936892
Chloromethane	U		0.276	2.50	1	12/20/2016 05:09	WG936892
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/20/2016 05:09	WG936892
1,2-Dibromoethane	U		0.381	1.00	1	12/20/2016 05:09	WG936892
Dibromomethane	U		0.346	1.00	1	12/20/2016 05:09	WG936892
1,2-Dichlorobenzene	U		0.349	1.00	1	12/20/2016 05:09	WG936892
1,3-Dichlorobenzene	U		0.220	1.00	1	12/20/2016 05:09	WG936892
1,4-Dichlorobenzene	U		0.274	1.00	1	12/20/2016 05:09	WG936892
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	12/20/2016 05:09	WG936892
Dichlorodifluoromethane	U		0.551	5.00	1	12/20/2016 05:09	WG936892
1,1-Dichloroethane	U		0.259	1.00	1	12/20/2016 05:09	WG936892
1,2-Dichloroethane	U		0.361	1.00	1	12/20/2016 05:09	WG936892
1,1-Dichloroethene	U		0.398	1.00	1	12/20/2016 05:09	WG936892
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/20/2016 05:09	WG936892
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/20/2016 05:09	WG936892
1,2-Dichloropropane	U		0.306	1.00	1	12/20/2016 05:09	WG936892
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/20/2016 05:09	WG936892
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/20/2016 05:09	WG936892
Ethylbenzene	U		0.384	1.00	1	12/20/2016 05:09	WG936892
Ethanol	U		42.0	100	1	12/20/2016 05:09	WG936892
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/20/2016 05:09	WG936892
2-Hexanone	U		3.82	10.0	1	12/20/2016 05:09	WG936892
2-Butanone (MEK)	U		3.93	10.0	1	12/20/2016 05:09	WG936892
Iodomethane	U		1.71	10.0	1	12/20/2016 05:09	WG936892
Methylene Chloride	U		1.00	5.00	1	12/20/2016 05:09	WG936892
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/20/2016 05:09	WG936892
Naphthalene	U		1.00	5.00	1	12/20/2016 05:09	WG936892
n-Propylbenzene	U		0.349	1.00	1	12/20/2016 05:09	WG936892
Styrene	U		0.307	1.00	1	12/20/2016 05:09	WG936892
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/20/2016 05:09	WG936892
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/20/2016 05:09	WG936892
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/20/2016 05:09	WG936892
Tetrachloroethene	U		0.372	1.00	1	12/20/2016 05:09	WG936892
Toluene	U		0.780	5.00	1	12/20/2016 05:09	WG936892
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/20/2016 05:09	WG936892
1,1,1-Trichloroethane	U		0.319	1.00	1	12/20/2016 05:09	WG936892
1,1,2-Trichloroethane	U		0.383	1.00	1	12/20/2016 05:09	WG936892
Trichloroethene	U		0.398	1.00	1	12/20/2016 05:09	WG936892
Trichlorofluoromethane	U		1.20	5.00	1	12/20/2016 05:09	WG936892
1,2,3-Trichloropropane	U		0.807	2.50	1	12/20/2016 05:09	WG936892

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/20/2016 05:09	WG936892
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/20/2016 05:09	WG936892
Vinyl acetate	U		1.63	10.0	1	12/20/2016 05:09	WG936892
Vinyl chloride	U		0.259	1.00	1	12/20/2016 05:09	WG936892
Xylenes, Total	U		1.06	3.00	1	12/20/2016 05:09	WG936892
Di-isopropyl ether	U		0.320	1.00	1	12/20/2016 05:09	WG936892
Ethyl tert-butyl ether	U		0.270	1.00	1	12/20/2016 05:09	WG936892
Methyl tert-butyl ether	U		0.367	1.00	1	12/20/2016 05:09	WG936892
tert-Butyl alcohol	U		2.40	5.00	1	12/20/2016 05:09	WG936892
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/20/2016 05:09	WG936892
(S) Toluene-d8	*106*			*90.0-115*		*12/20/2016 05:09*	WG936892
(S) Dibromofluoromethane	*104*			*79.0-121*		*12/20/2016 05:09*	WG936892
(S) 4-Bromofluorobenzene	*97.4*			*80.1-120*		*12/20/2016 05:09*	WG936892

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	12/20/2016 05:28	WG936892
Acrylonitrile	U		1.87	10.0	1	12/20/2016 05:28	WG936892
Benzene	U		0.331	1.00	1	12/20/2016 05:28	WG936892
Bromobenzene	U		0.352	1.00	1	12/20/2016 05:28	WG936892
Bromochloromethane	U		0.520	1.00	1	12/20/2016 05:28	WG936892
Bromodichloromethane	U		0.380	1.00	1	12/20/2016 05:28	WG936892
Bromoform	U		0.469	1.00	1	12/20/2016 05:28	WG936892
Bromomethane	U	J4	0.866	5.00	1	12/20/2016 05:28	WG936892
n-Butylbenzene	U		0.361	1.00	1	12/20/2016 05:28	WG936892
sec-Butylbenzene	U		0.365	1.00	1	12/20/2016 05:28	WG936892
tert-Butylbenzene	U		0.399	1.00	1	12/20/2016 05:28	WG936892
Carbon tetrachloride	U		0.379	1.00	1	12/20/2016 05:28	WG936892
Carbon disulfide	U		0.275	1.00	1	12/20/2016 05:28	WG936892
Chlorobenzene	U		0.348	1.00	1	12/20/2016 05:28	WG936892
Chlorodibromomethane	U		0.327	1.00	1	12/20/2016 05:28	WG936892
Chloroethane	U		0.453	5.00	1	12/20/2016 05:28	WG936892
Chloroform	U		0.324	5.00	1	12/20/2016 05:28	WG936892
Chloromethane	U		0.276	2.50	1	12/20/2016 05:28	WG936892
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	12/20/2016 05:28	WG936892
1,2-Dibromoethane	U		0.381	1.00	1	12/20/2016 05:28	WG936892
Dibromomethane	U		0.346	1.00	1	12/20/2016 05:28	WG936892
1,2-Dichlorobenzene	U		0.349	1.00	1	12/20/2016 05:28	WG936892
1,3-Dichlorobenzene	U		0.220	1.00	1	12/20/2016 05:28	WG936892
1,4-Dichlorobenzene	U		0.274	1.00	1	12/20/2016 05:28	WG936892
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	12/20/2016 05:28	WG936892
Dichlorodifluoromethane	U		0.551	5.00	1	12/20/2016 05:28	WG936892
1,1-Dichloroethane	U		0.259	1.00	1	12/20/2016 05:28	WG936892
1,2-Dichloroethane	U		0.361	1.00	1	12/20/2016 05:28	WG936892
1,1-Dichloroethene	U		0.398	1.00	1	12/20/2016 05:28	WG936892
cis-1,2-Dichloroethene	U		0.260	1.00	1	12/20/2016 05:28	WG936892
trans-1,2-Dichloroethene	U		0.396	1.00	1	12/20/2016 05:28	WG936892
1,2-Dichloropropane	U		0.306	1.00	1	12/20/2016 05:28	WG936892
cis-1,3-Dichloropropene	U		0.418	1.00	1	12/20/2016 05:28	WG936892
trans-1,3-Dichloropropene	U		0.419	1.00	1	12/20/2016 05:28	WG936892
Ethylbenzene	U		0.384	1.00	1	12/20/2016 05:28	WG936892
Ethanol	U		42.0	100	1	12/20/2016 05:28	WG936892
Hexachloro-1,3-butadiene	U		0.256	1.00	1	12/20/2016 05:28	WG936892
2-Hexanone	U		3.82	10.0	1	12/20/2016 05:28	WG936892
2-Butanone (MEK)	U		3.93	10.0	1	12/20/2016 05:28	WG936892
Iodomethane	U		1.71	10.0	1	12/20/2016 05:28	WG936892
Methylene Chloride	U		1.00	5.00	1	12/20/2016 05:28	WG936892
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	12/20/2016 05:28	WG936892
Naphthalene	U		1.00	5.00	1	12/20/2016 05:28	WG936892
n-Propylbenzene	U		0.349	1.00	1	12/20/2016 05:28	WG936892
Styrene	U		0.307	1.00	1	12/20/2016 05:28	WG936892
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	12/20/2016 05:28	WG936892
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	12/20/2016 05:28	WG936892
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	12/20/2016 05:28	WG936892
Tetrachloroethene	U		0.372	1.00	1	12/20/2016 05:28	WG936892
Toluene	U		0.780	5.00	1	12/20/2016 05:28	WG936892
1,2,4-Trichlorobenzene	U		0.355	1.00	1	12/20/2016 05:28	WG936892
1,1,1-Trichloroethane	U		0.319	1.00	1	12/20/2016 05:28	WG936892
1,1,2-Trichloroethane	U		0.383	1.00	1	12/20/2016 05:28	WG936892
Trichloroethene	U		0.398	1.00	1	12/20/2016 05:28	WG936892
Trichlorofluoromethane	U		1.20	5.00	1	12/20/2016 05:28	WG936892
1,2,3-Trichloropropane	U		0.807	2.50	1	12/20/2016 05:28	WG936892

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trimethylbenzene	U		0.373	1.00	1	12/20/2016 05:28	WG936892
1,3,5-Trimethylbenzene	U		0.387	1.00	1	12/20/2016 05:28	WG936892
Vinyl acetate	U		1.63	10.0	1	12/20/2016 05:28	WG936892
Vinyl chloride	U		0.259	1.00	1	12/20/2016 05:28	WG936892
Xylenes, Total	U		1.06	3.00	1	12/20/2016 05:28	WG936892
Di-isopropyl ether	U		0.320	1.00	1	12/20/2016 05:28	WG936892
Ethyl tert-butyl ether	U		0.270	1.00	1	12/20/2016 05:28	WG936892
Methyl tert-butyl ether	U		0.367	1.00	1	12/20/2016 05:28	WG936892
tert-Butyl alcohol	U		2.40	5.00	1	12/20/2016 05:28	WG936892
tert-Amyl Methyl Ether	U		0.260	1.00	1	12/20/2016 05:28	WG936892
(S) Toluene-d8	*106*			*90.0-115*		*12/20/2016 05:28*	WG936892
(S) Dibromofluoromethane	*105*			*79.0-121*		*12/20/2016 05:28*	WG936892
(S) 4-Bromofluorobenzene	*98.1*			*80.1-120*		*12/20/2016 05:28*	WG936892

Method Blank (MB)

(MB) R3185812-5 12/19/16 12:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		31.4	100
(S) a,a,a-Trifluorotoluene(FID)	*97.2*			*62.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3185812-3 12/19/16 11:09 • (LCSD) R3185812-4 12/19/16 11:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	5910	5710	107	104	67.0-132			3.53	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*104*	*62.0-128*				

L879321-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879321-01 12/19/16 14:16 • (MS) R3185812-8 12/19/16 16:07 • (MSD) R3185812-9 12/19/16 16:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	U	5030	5580	91.4	101	1	50.0-143			10.4	20
(S) a,a,a-Trifluorotoluene(FID)					*103*	*104*		*62.0-128*				

Method Blank (MB)

(MB) R3187069-3 12/22/16 12:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		31.4	100
(S) a,a,a-Trifluorotoluene(FID)	*95.2*			*62.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3187069-1 12/22/16 11:22 • (LCSD) R3187069-2 12/22/16 11:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	4900	4710	89.1	85.7	67.0-132			3.88	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*100*	*62.0-128*				

L879482-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879482-04 12/22/16 13:29 • (MS) R3187069-4 12/22/16 13:51 • (MSD) R3187069-5 12/22/16 14:13

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	549	5790	6280	95.2	104	1	50.0-143			8.20	20
(S) a,a,a-Trifluorotoluene(FID)					*98.7*	*99.3*		*62.0-128*				

Method Blank (MB)

(MB) R3187129-3 12/23/16 11:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		31.4	100
(S) a,a,a-Trifluorotoluene(FID)	*101*			*62.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3187129-1 12/23/16 10:44 • (LCSD) R3187129-2 12/23/16 11:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	5180	5210	94.2	94.7	67.0-132			0.460	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*102*	*62.0-128*				

L879364-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879364-02 12/23/16 14:33 • (MS) R3187129-4 12/23/16 12:20 • (MSD) R3187129-5 12/23/16 12:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	ND	6700	2990	122	54.4	1	50.0-143		J3	76.5	20
(S) a,a,a-Trifluorotoluene(FID)					*103*	*101*		*62.0-128*				

Method Blank (MB)

(MB) R3187199-3 12/24/16 07:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
trans-1,4-Dichloro-2-butene	U		0.866	2.50
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Ethanol	U		42.0	100
Hexachloro-1,3-butadiene	U		0.256	1.00
2-Hexanone	U		3.82	10.0
Iodomethane	U		1.71	10.0

Method Blank (MB)

(MB) R3187199-3 12/24/16 07:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl acetate	U		1.63	10.0
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
tert-Amyl Methyl Ether	U		0.260	1.00
Ethyl tert-butyl ether	U		0.270	1.00
tert-Butyl alcohol	U		2.40	5.00
(S) Toluene-d8	*107*			*90.0-115*
(S) Dibromofluoromethane	*108*			*79.0-121*
(S) a,a,a-Trifluorotoluene	*108*			*90.4-116*
(S) 4-Bromofluorobenzene	*101*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3187199-1 12/24/16 06:34 • (LCSD) R3187199-2 12/24/16 06:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	225	265	180	212	28.7-175	J4	J4	16.6	20.9
Acrylonitrile	125	151	148	121	118	58.2-145			1.99	20
Benzene	25.0	25.3	25.9	101	104	73.0-122			2.22	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3187199-1 12/24/16 06:34 • (LCSD) R3187199-2 12/24/16 06:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	25.0	24.8	24.9	99.2	99.5	81.5-115			0.310	20
Bromodichloromethane	25.0	25.2	25.1	101	100	75.5-121			0.460	20
Bromochloromethane	25.0	25.5	26.3	102	105	78.9-123			3.09	20
Bromoform	25.0	24.5	24.7	98.0	98.7	71.5-131			0.700	20
Bromomethane	25.0	26.3	26.4	105	106	22.4-187			0.400	20
n-Butylbenzene	25.0	25.8	26.1	103	104	75.9-134			1.18	20
sec-Butylbenzene	25.0	23.9	24.4	95.6	97.4	80.6-126			1.89	20
tert-Butylbenzene	25.0	23.6	24.1	94.3	96.3	79.3-127			2.07	20
Carbon disulfide	25.0	24.3	27.3	97.0	109	53.0-134			11.9	20
Carbon tetrachloride	25.0	23.8	24.8	95.2	99.3	70.9-129			4.27	20
Chlorobenzene	25.0	24.3	24.4	97.0	97.7	79.7-122			0.710	20
Chlorodibromomethane	25.0	25.2	25.3	101	101	78.2-124			0.190	20
Chloroethane	25.0	26.4	27.3	106	109	41.2-153			3.21	20
Chloroform	25.0	25.4	25.8	101	103	73.2-125			1.87	20
Chloromethane	25.0	25.5	26.3	102	105	55.8-134			2.92	20
1,2-Dibromo-3-Chloropropane	25.0	27.1	27.7	108	111	64.8-131			2.18	20
1,2-Dibromoethane	25.0	24.7	24.5	98.7	98.1	79.8-122			0.630	20
Dibromomethane	25.0	25.9	25.9	104	104	79.5-118			0.220	20
1,2-Dichlorobenzene	25.0	25.9	25.9	104	104	84.7-118			0.100	20
1,3-Dichlorobenzene	25.0	23.4	23.6	93.6	94.5	77.6-127			0.940	20
1,4-Dichlorobenzene	25.0	24.1	24.3	96.2	97.2	82.2-114			0.990	20
trans-1,4-Dichloro-2-butene	25.0	24.3	24.6	97.4	98.3	58.3-129			0.930	20
Dichlorodifluoromethane	25.0	25.3	25.9	101	103	56.0-134			2.38	20
1,1-Dichloroethane	25.0	27.6	28.0	110	112	71.7-127			1.53	20
1,2-Dichloroethane	25.0	26.9	27.5	108	110	65.3-126			2.01	20
1,1-Dichloroethene	25.0	22.2	23.3	88.8	93.1	59.9-137			4.74	20
cis-1,2-Dichloroethene	25.0	25.3	25.9	101	103	77.3-122			2.33	20
trans-1,2-Dichloroethene	25.0	25.4	26.0	102	104	72.6-125			2.25	20
1,2-Dichloropropane	25.0	27.1	27.0	108	108	77.4-125			0.480	20
cis-1,3-Dichloropropene	25.0	27.7	27.7	111	111	77.7-124			0.160	20
trans-1,3-Dichloropropene	25.0	26.7	26.9	107	108	73.5-127			0.500	20
Di-isopropyl ether	25.0	28.0	28.7	112	115	65.1-135			2.57	20
Ethylbenzene	25.0	23.6	23.6	94.5	94.3	80.9-121			0.240	20
Hexachloro-1,3-butadiene	25.0	24.5	25.3	97.9	101	73.7-133			3.43	20
2-Hexanone	125	149	155	119	124	59.4-151			3.80	20
Iodomethane	125	117	120	93.2	96.1	64.6-137			3.03	20
2-Butanone (MEK)	125	149	163	119	131	46.4-155			9.25	20
Methylene Chloride	25.0	23.6	24.2	94.3	96.7	69.5-120			2.49	20
4-Methyl-2-pentanone (MIBK)	125	152	153	122	122	63.3-138			0.200	20
Methyl tert-butyl ether	25.0	25.4	25.7	102	103	70.1-125			1.13	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3187199-1 12/24/16 06:34 • (LCSD) R3187199-2 12/24/16 06:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	25.0	26.2	26.8	105	107	69.7-134			2.48	20
n-Propylbenzene	25.0	24.8	24.8	99.3	99.3	81.9-122			0.0800	20
Styrene	25.0	24.6	24.4	98.4	97.8	79.9-124			0.600	20
1,1,1,2-Tetrachloroethane	25.0	24.6	25.1	98.5	100	78.5-125			1.83	20
1,1,2,2-Tetrachloroethane	25.0	24.6	24.3	98.6	97.4	79.3-123			1.25	20
Tetrachloroethene	25.0	23.8	23.9	95.1	95.7	73.5-130			0.550	20
Toluene	25.0	24.3	24.2	97.0	96.6	77.9-116			0.420	20
1,1,2-Trichlorotrifluoroethane	25.0	17.9	19.7	71.7	78.9	62.0-141			9.60	20
1,2,4-Trichlorobenzene	25.0	27.0	27.5	108	110	76.1-136			1.92	20
1,1,1-Trichloroethane	25.0	26.0	26.8	104	107	71.1-129			3.19	20
1,1,2-Trichloroethane	25.0	24.4	24.3	97.6	97.3	81.6-120			0.290	20
Trichloroethene	25.0	25.3	25.4	101	101	79.5-121			0.380	20
Trichlorofluoromethane	25.0	22.1	23.2	88.5	92.7	49.1-157			4.58	20
1,2,3-Trichloropropane	25.0	25.0	25.4	99.9	102	74.9-124			1.68	20
1,2,4-Trimethylbenzene	25.0	24.7	24.7	98.7	99.0	79.0-122			0.280	20
1,3,5-Trimethylbenzene	25.0	23.8	24.1	95.2	96.5	81.0-123			1.42	20
Vinyl acetate	125	137	132	110	105	41.7-159			4.15	20
Vinyl chloride	25.0	27.2	28.0	109	112	61.5-134			2.98	20
Xylenes, Total	75.0	71.2	71.8	94.9	95.7	79.2-122			0.810	20
(S) Toluene-d8				*107*	*106*	*90.0-115*				
(S) Dibromofluoromethane				*106*	*109*	*79.0-121*				
(S) a,a,a-Trifluorotoluene				*107*	*106*	*90.4-116*				
(S) 4-Bromofluorobenzene				*101*	*101*	*80.1-120*				

L879482-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879482-01 12/24/16 08:29 • (MS) R3187199-4 12/24/16 08:49 • (MSD) R3187199-5 12/24/16 09:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	U	38400	27000	123	86.3	250	25.0-156		J3	35.1	21.5
Acrylonitrile	125	U	43900	39300	140	126	250	55.9-161			11.0	20
Benzene	25.0	778	7640	7650	110	110	250	58.6-133			0.120	20
Bromobenzene	25.0	U	6760	6800	108	109	250	70.6-125			0.520	20
Bromodichloromethane	25.0	U	6860	6820	110	109	250	69.2-127			0.710	20
Bromochloromethane	25.0	U	6800	6640	109	106	250	74.4-128			2.33	20
Bromoform	25.0	U	6660	6830	107	109	250	66.3-140			2.58	20
Bromomethane	25.0	U	6840	6200	109	99.2	250	16.6-183			9.78	20.5
n-Butylbenzene	25.0	U	6820	6920	109	111	250	64.8-145			1.40	20
sec-Butylbenzene	25.0	U	6530	6570	105	105	250	66.8-139			0.510	20

L879482-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879482-01 12/24/16 08:29 • (MS) R3187199-4 12/24/16 08:49 • (MSD) R3187199-5 12/24/16 09:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
tert-Butylbenzene	25.0	U	6590	6580	105	105	250	67.1-138			0.150	20
Carbon disulfide	25.0	U	5140	4780	82.2	76.5	250	34.9-138			7.19	20
Carbon tetrachloride	25.0	U	6590	6160	105	98.6	250	60.6-139			6.69	20
Chlorobenzene	25.0	U	6590	6680	106	107	250	70.1-130			1.22	20
Chlorodibromomethane	25.0	U	6830	6900	109	110	250	71.6-132			1.08	20
Chloroethane	25.0	U	6900	7290	110	117	250	33.3-155			5.47	20
Chloroform	25.0	U	7010	6900	112	110	250	66.1-133			1.49	20
Chloromethane	25.0	U	6450	6690	103	107	250	40.7-139			3.56	20
1,2-Dibromo-3-Chloropropane	25.0	U	7280	7440	116	119	250	63.9-142			2.21	20.2
1,2-Dibromoethane	25.0	U	6370	6500	102	104	250	73.8-131			2.01	20
Dibromomethane	25.0	U	6990	6620	112	106	250	72.8-127			5.45	20
1,2-Dichlorobenzene	25.0	U	6840	6950	109	111	250	77.4-127			1.66	20
1,3-Dichlorobenzene	25.0	U	6250	6270	100	100	250	67.9-136			0.290	20
1,4-Dichlorobenzene	25.0	U	6390	6480	102	104	250	74.4-123			1.43	20
trans-1,4-Dichloro-2-butene	25.0	U	6460	6820	103	109	250	57.6-136			5.33	20
Dichlorodifluoromethane	25.0	U	6310	6600	101	106	250	42.2-146			4.49	20
1,1-Dichloroethane	25.0	U	7540	7360	121	118	250	64.0-134			2.40	20
1,2-Dichloroethane	25.0	U	7220	7160	115	115	250	60.7-132			0.780	20
1,1-Dichloroethene	25.0	U	5710	5130	91.4	82.1	250	48.8-144			10.7	20
cis-1,2-Dichloroethene	25.0	U	6940	6810	111	109	250	60.6-136			1.93	20
trans-1,2-Dichloroethene	25.0	U	6630	6560	106	105	250	61.0-132			1.05	20
1,2-Dichloropropane	25.0	U	7380	7110	118	114	250	69.7-130			3.76	20
cis-1,3-Dichloropropene	25.0	U	7350	7440	118	119	250	71.1-129			1.11	20
trans-1,3-Dichloropropene	25.0	U	7100	7110	114	114	250	66.3-136			0.120	20
Di-isopropyl ether	25.0	U	7690	7290	123	117	250	59.9-140			5.27	20
Ethylbenzene	25.0	2530	9080	9280	105	108	250	62.7-136			2.19	20
Hexachloro-1,3-butadiene	25.0	U	6520	6670	104	107	250	61.1-144			2.32	20.1
2-Hexanone	125	U	33700	34300	108	110	250	59.4-154			1.71	20.1
Iodomethane	125	U	30200	30000	96.7	96.0	250	55.2-140			0.770	20
2-Butanone (MEK)	125	U	32300	28100	103	89.8	250	45.0-156			14.0	20.8
Methylene Chloride	25.0	U	6290	6020	101	96.2	250	61.5-125			4.42	20
4-Methyl-2-pentanone (MIBK)	125	U	42100	41000	135	131	250	60.7-150			2.58	20
Methyl tert-butyl ether	25.0	145	7000	6550	110	102	250	61.4-136			6.62	20
Naphthalene	25.0	699	7680	7910	112	115	250	61.8-143			2.93	20
n-Propylbenzene	25.0	533	7240	7300	107	108	250	63.2-139			0.860	20
Styrene	25.0	U	7010	7070	112	113	250	68.2-133			0.870	20
1,1,1,2-Tetrachloroethane	25.0	U	6730	6760	108	108	250	70.5-132			0.440	20
1,1,2,2-Tetrachloroethane	25.0	U	6740	6800	108	109	250	64.9-145			0.830	20
Tetrachloroethene	25.0	U	6150	6330	98.4	101	250	57.4-141			2.89	20
Toluene	25.0	16700	23700	23800	112	113	250	67.8-124			0.420	20

L879482-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879482-01 12/24/16 08:29 • (MS) R3187199-4 12/24/16 08:49 • (MSD) R3187199-5 12/24/16 09:09

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1,2-Trichlorotrifluoroethane	25.0	U	4660	4460	74.5	71.4	250	53.7-150			4.28	20
1,2,4-Trichlorobenzene	25.0	U	7070	7120	113	114	250	67.0-146			0.620	20
1,1,1-Trichloroethane	25.0	U	7120	6910	114	111	250	58.7-134			3.06	20
1,1,2-Trichloroethane	25.0	U	6510	6710	104	107	250	74.1-130			3.06	20
Trichloroethene	25.0	U	6660	6640	107	106	250	48.9-148			0.340	20
Trichlorofluoromethane	25.0	U	6080	6330	97.2	101	250	39.9-165			4.15	20
1,2,3-Trichloropropane	25.0	U	6730	6820	108	109	250	71.5-134			1.32	20
1,2,4-Trimethylbenzene	25.0	5720	12900	12800	115	113	250	60.5-137			0.850	20
1,3,5-Trimethylbenzene	25.0	1270	7750	7760	104	104	250	67.9-134			0.140	20
Vinyl acetate	125	U	44000	42600	141	136	250	42.8-181			3.43	20
Vinyl chloride	25.0	U	7120	7420	114	119	250	44.3-143			4.10	20
Xylenes, Total	75.0	30600	51300	52000	110	114	250	65.6-133			1.43	20
(S) Toluene-d8					*106*	*106*		*90.0-115*				
(S) Dibromofluoromethane					*109*	*106*		*79.0-121*				
(S) a,a,a-Trifluorotoluene					*106*	*106*		*90.4-116*				
(S) 4-Bromofluorobenzene					*102*	*102*		*80.1-120*				

Method Blank (MB)

(MB) R3187222-3 12/24/16 07:37

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	0.673	J	0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
trans-1,4-Dichloro-2-butene	U		0.866	2.50
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Ethanol	U		42.0	100
Hexachloro-1,3-butadiene	U		0.256	1.00
2-Hexanone	U		3.82	10.0
Iodomethane	U		1.71	10.0

Method Blank (MB)

(MB) R3187222-3 12/24/16 07:37

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl acetate	U		1.63	10.0
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
tert-Amyl Methyl Ether	U		0.260	1.00
Ethyl tert-butyl ether	U		0.270	1.00
tert-Butyl alcohol	U		2.40	5.00
(S) Toluene-d8	*105*			*90.0-115*
(S) Dibromofluoromethane	*103*			*79.0-121*
(S) a,a,a-Trifluorotoluene	*101*			*90.4-116*
(S) 4-Bromofluorobenzene	*100*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3187222-1 12/24/16 06:11 • (LCSD) R3187222-2 12/24/16 06:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	83.9	82.6	67.2	66.1	28.7-175			1.62	20.9
Acrylonitrile	125	129	131	103	105	58.2-145			1.62	20
Benzene	25.0	27.7	27.5	111	110	73.0-122			0.610	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3187222-1 12/24/16 06:11 • (LCSD) R3187222-2 12/24/16 06:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	25.0	25.8	26.1	103	104	81.5-115			1.19	20
Bromodichloromethane	25.0	24.0	24.7	95.9	98.6	75.5-121			2.80	20
Bromochloromethane	25.0	30.1	29.9	120	120	78.9-123			0.630	20
Bromoform	25.0	18.1	17.2	72.2	69.0	71.5-131		J4	4.59	20
Bromomethane	25.0	31.0	28.4	124	114	22.4-187			8.70	20
n-Butylbenzene	25.0	27.4	28.3	109	113	75.9-134			3.26	20
sec-Butylbenzene	25.0	26.8	27.5	107	110	80.6-126			2.55	20
tert-Butylbenzene	25.0	26.6	27.4	107	110	79.3-127			2.82	20
Carbon disulfide	25.0	29.4	29.5	118	118	53.0-134			0.430	20
Carbon tetrachloride	25.0	21.5	21.6	85.9	86.4	70.9-129			0.540	20
Chlorobenzene	25.0	27.2	27.9	109	111	79.7-122			2.54	20
Chlorodibromomethane	25.0	22.4	22.5	89.7	89.9	78.2-124			0.260	20
Chloroethane	25.0	35.6	34.7	142	139	41.2-153			2.62	20
Chloroform	25.0	29.2	29.6	117	118	73.2-125			1.52	20
Chloromethane	25.0	37.2	37.3	149	149	55.8-134	J4	J4	0.250	20
1,2-Dibromo-3-Chloropropane	25.0	22.4	21.9	89.7	87.8	64.8-131			2.21	20
1,2-Dibromoethane	25.0	25.3	26.5	101	106	79.8-122			4.91	20
Dibromomethane	25.0	26.1	26.4	104	106	79.5-118			1.28	20
1,2-Dichlorobenzene	25.0	25.2	26.0	101	104	84.7-118			2.95	20
1,3-Dichlorobenzene	25.0	25.7	26.5	103	106	77.6-127			3.10	20
1,4-Dichlorobenzene	25.0	24.8	25.8	99.0	103	82.2-114			3.94	20
trans-1,4-Dichloro-2-butene	25.0	25.0	25.6	100	103	58.3-129			2.59	20
Dichlorodifluoromethane	25.0	30.6	32.0	123	128	56.0-134			4.46	20
1,1-Dichloroethane	25.0	27.9	28.5	112	114	71.7-127			1.91	20
1,2-Dichloroethane	25.0	27.5	27.5	110	110	65.3-126			0.0900	20
1,1-Dichloroethene	25.0	30.6	30.9	122	124	59.9-137			1.05	20
cis-1,2-Dichloroethene	25.0	28.4	28.5	114	114	77.3-122			0.130	20
trans-1,2-Dichloroethene	25.0	29.5	29.2	118	117	72.6-125			1.05	20
1,2-Dichloropropane	25.0	26.7	26.6	107	106	77.4-125			0.470	20
cis-1,3-Dichloropropene	25.0	26.5	27.0	106	108	77.7-124			1.75	20
trans-1,3-Dichloropropene	25.0	26.3	26.7	105	107	73.5-127			1.42	20
Di-isopropyl ether	25.0	25.1	25.1	100	100	65.1-135			0.0900	20
Ethylbenzene	25.0	27.2	27.5	109	110	80.9-121			1.08	20
Hexachloro-1,3-butadiene	25.0	19.5	22.6	78.2	90.2	73.7-133			14.3	20
2-Hexanone	125	103	104	82.6	83.2	59.4-151			0.820	20
Iodomethane	125	130	131	104	104	64.6-137			0.700	20
2-Butanone (MEK)	125	98.1	96.7	78.5	77.4	46.4-155			1.35	20
Methylene Chloride	25.0	26.9	26.9	108	107	69.5-120			0.310	20
4-Methyl-2-pentanone (MIBK)	125	115	119	92.2	94.8	63.3-138			2.84	20
Methyl tert-butyl ether	25.0	25.4	25.5	102	102	70.1-125			0.240	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3187222-1 12/24/16 06:11 • (LCSD) R3187222-2 12/24/16 06:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	25.0	25.2	27.5	101	110	69.7-134			8.65	20
n-Propylbenzene	25.0	27.5	28.0	110	112	81.9-122			1.86	20
Styrene	25.0	27.6	27.9	110	112	79.9-124			1.13	20
1,1,1,2-Tetrachloroethane	25.0	23.5	24.0	94.0	95.8	78.5-125			1.95	20
1,1,2,2-Tetrachloroethane	25.0	22.4	22.5	89.5	90.1	79.3-123			0.670	20
Tetrachloroethene	25.0	26.5	27.1	106	109	73.5-130			2.32	20
Toluene	25.0	27.1	27.6	109	110	77.9-116			1.59	20
1,1,2-Trichlorotrifluoroethane	25.0	29.5	30.6	118	122	62.0-141			3.57	20
1,2,4-Trichlorobenzene	25.0	23.4	25.3	93.7	101	76.1-136			7.65	20
1,1,1-Trichloroethane	25.0	28.4	28.8	114	115	71.1-129			1.49	20
1,1,2-Trichloroethane	25.0	24.6	24.9	98.2	99.5	81.6-120			1.25	20
Trichloroethene	25.0	27.0	27.9	108	112	79.5-121			3.21	20
Trichlorofluoromethane	25.0	32.8	33.4	131	134	49.1-157			1.63	20
1,2,3-Trichloropropane	25.0	25.6	25.1	102	100	74.9-124			2.09	20
1,2,4-Trimethylbenzene	25.0	26.1	26.7	105	107	79.0-122			2.19	20
1,3,5-Trimethylbenzene	25.0	26.4	26.7	105	107	81.0-123			1.29	20
Vinyl acetate	125	141	141	113	113	41.7-159			0.340	20
Vinyl chloride	25.0	30.3	31.1	121	124	61.5-134			2.64	20
Xylenes, Total	75.0	80.1	82.1	107	109	79.2-122			2.50	20
(S) Toluene-d8				*104*	*104*	*90.0-115*				
(S) Dibromofluoromethane				*97.8*	*96.8*	*79.0-121*				
(S) a,a,a-Trifluorotoluene				*98.4*	*101*	*90.4-116*				
(S) 4-Bromofluorobenzene				*106*	*106*	*80.1-120*				

L879482-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879482-21 12/24/16 08:39 • (MS) R3187222-4 12/24/16 09:00 • (MSD) R3187222-5 12/24/16 09:21

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	U	8020	8070	64.2	64.6	100	25.0-156			0.620	21.5
Acrylonitrile	125	U	12400	13000	99.0	104	100	55.9-161			4.66	20
Benzene	25.0	1080	3580	3600	100	101	100	58.6-133			0.610	20
Bromobenzene	25.0	U	2480	2510	99.2	100	100	70.6-125			1.10	20
Bromodichloromethane	25.0	U	2330	2380	93.0	95.1	100	69.2-127			2.25	20
Bromochloromethane	25.0	U	2790	2740	112	110	100	74.4-128			1.72	20
Bromoform	25.0	U	1650	1690	66.0	67.6	100	66.3-140	J6		2.39	20
Bromomethane	25.0	U	2380	2380	95.0	95.3	100	16.6-183			0.340	20.5
n-Butylbenzene	25.0	U	2570	2640	103	106	100	64.8-145			2.68	20
sec-Butylbenzene	25.0	U	2500	2560	99.9	102	100	66.8-139			2.38	20

L879482-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879482-21 12/24/16 08:39 • (MS) R3187222-4 12/24/16 09:00 • (MSD) R3187222-5 12/24/16 09:21

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
tert-Butylbenzene	25.0	290	2520	2610	89.1	92.7	100	67.1-138			3.55	20
Carbon disulfide	25.0	125	1830	1860	68.2	69.3	100	34.9-138			1.46	20
Carbon tetrachloride	25.0	U	1840	1940	73.8	77.6	100	60.6-139			4.98	20
Chlorobenzene	25.0	U	2550	2620	102	105	100	70.1-130			2.67	20
Chlorodibromomethane	25.0	U	2200	2200	88.0	87.8	100	71.6-132			0.240	20
Chloroethane	25.0	U	2830	2850	113	114	100	33.3-155			0.850	20
Chloroform	25.0	U	2750	2720	110	109	100	66.1-133			1.10	20
Chloromethane	25.0	48.1	2910	2910	115	115	100	40.7-139			0.0100	20
1,2-Dibromo-3-Chloropropane	25.0	U	2130	2220	85.3	88.9	100	63.9-142			4.16	20.2
1,2-Dibromoethane	25.0	U	2440	2470	97.7	98.8	100	73.8-131			1.15	20
Dibromomethane	25.0	U	2470	2430	98.8	97.0	100	72.8-127			1.85	20
1,2-Dichlorobenzene	25.0	U	2530	2560	101	102	100	77.4-127			1.15	20
1,3-Dichlorobenzene	25.0	U	2460	2510	98.5	101	100	67.9-136			2.06	20
1,4-Dichlorobenzene	25.0	U	2460	2500	98.6	99.9	100	74.4-123			1.35	20
trans-1,4-Dichloro-2-butene	25.0	174	2450	2460	90.9	91.4	100	57.6-136			0.610	20
Dichlorodifluoromethane	25.0	U	2360	2460	94.3	98.2	100	42.2-146			4.05	20
1,1-Dichloroethane	25.0	U	2600	2670	104	107	100	64.0-134			2.64	20
1,2-Dichloroethane	25.0	U	2680	2660	107	106	100	60.7-132			0.640	20
1,1-Dichloroethene	25.0	U	2460	2620	98.5	105	100	48.8-144			6.19	20
cis-1,2-Dichloroethene	25.0	U	2690	2710	108	108	100	60.6-136			0.810	20
trans-1,2-Dichloroethene	25.0	U	2400	2420	95.8	97.0	100	61.0-132			1.22	20
1,2-Dichloropropane	25.0	185	2490	2530	92.2	93.9	100	69.7-130			1.72	20
cis-1,3-Dichloropropene	25.0	U	2560	2560	102	102	100	71.1-129			0.0500	20
trans-1,3-Dichloropropene	25.0	U	2660	2580	106	103	100	66.3-136			2.94	20
Di-isopropyl ether	25.0	52.0	2480	2490	97.2	97.3	100	59.9-140			0.150	20
Ethylbenzene	25.0	940	3500	3620	103	107	100	62.7-136			3.27	20
Hexachloro-1,3-butadiene	25.0	U	1990	2110	79.8	84.5	100	61.1-144			5.68	20.1
2-Hexanone	125	U	10600	10800	84.5	86.7	100	59.4-154			2.51	20.1
Iodomethane	125	U	10500	10800	83.8	86.4	100	55.2-140			3.05	20
2-Butanone (MEK)	125	U	11500	11500	92.2	92.4	100	45.0-156			0.190	20.8
Methylene Chloride	25.0	U	2410	2400	96.4	95.8	100	61.5-125			0.560	20
4-Methyl-2-pentanone (MIBK)	125	U	11800	12000	94.8	96.1	100	60.7-150			1.43	20
Methyl tert-butyl ether	25.0	134	2620	2610	99.3	99.1	100	61.4-136			0.200	20
Naphthalene	25.0	395	2880	3040	99.4	106	100	61.8-143			5.34	20
n-Propylbenzene	25.0	172	2730	2810	102	106	100	63.2-139			3.05	20
Styrene	25.0	91.2	2670	2690	103	104	100	68.2-133			0.410	20
1,1,1,2-Tetrachloroethane	25.0	U	2280	2320	91.1	93.0	100	70.5-132			2.07	20
1,1,2,2-Tetrachloroethane	25.0	U	2250	2320	89.9	92.6	100	64.9-145			2.92	20
Tetrachloroethene	25.0	U	2250	2330	90.0	93.2	100	57.4-141			3.51	20
Toluene	25.0	3360	5820	5910	98.5	102	100	67.8-124			1.45	20

L879482-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L879482-21 12/24/16 08:39 • (MS) R3187222-4 12/24/16 09:00 • (MSD) R3187222-5 12/24/16 09:21

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1,2-Trichlorotrifluoroethane	25.0	U	2480	2650	99.3	106	100	53.7-150			6.59	20
1,2,4-Trichlorobenzene	25.0	U	2320	2420	92.7	96.9	100	67.0-146			4.48	20
1,1,1-Trichloroethane	25.0	U	2590	2640	104	106	100	58.7-134			1.97	20
1,1,2-Trichloroethane	25.0	U	2430	2500	97.3	99.9	100	74.1-130			2.62	20
Trichloroethene	25.0	U	2350	2480	94.1	99.1	100	48.9-148			5.21	20
Trichlorofluoromethane	25.0	U	2710	2760	108	110	100	39.9-165			1.64	20
1,2,3-Trichloropropane	25.0	U	2450	2520	98.1	101	100	71.5-134			2.87	20
1,2,4-Trimethylbenzene	25.0	2040	4660	4670	105	105	100	60.5-137			0.250	20
1,3,5-Trimethylbenzene	25.0	468	2940	3010	98.9	102	100	67.9-134			2.27	20
Vinyl acetate	125	U	15900	15900	127	127	100	42.8-181			0.170	20
Vinyl chloride	25.0	U	2330	2410	93.1	96.3	100	44.3-143			3.37	20
Xylenes, Total	75.0	7630	15300	15600	103	106	100	65.6-133			1.67	20
(S) Toluene-d8					*104*	*104*		*90.0-115*				
(S) Dibromofluoromethane					*98.3*	*97.1*		*79.0-121*				
(S) a,a,a-Trifluorotoluene					*97.6*	*100*		*90.4-116*				
(S) 4-Bromofluorobenzene					*103*	*104*		*80.1-120*				

Method Blank (MB)

(MB) R3186006-3 12/19/16 23:04

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
trans-1,4-Dichloro-2-butene	U		0.866	2.50
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Ethanol	U		42.0	100
Hexachloro-1,3-butadiene	U		0.256	1.00
2-Hexanone	U		3.82	10.0
Iodomethane	U		1.71	10.0

Method Blank (MB)

(MB) R3186006-3 12/19/16 23:04

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl acetate	U		1.63	10.0
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
tert-Amyl Methyl Ether	U		0.260	1.00
Ethyl tert-butyl ether	U		0.270	1.00
tert-Butyl alcohol	U		2.40	5.00
(S) Toluene-d8	*109*			*90.0-115*
(S) Dibromofluoromethane	*108*			*79.0-121*
(S) 4-Bromofluorobenzene	*98.4*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3186006-1 12/19/16 21:10 • (LCSD) R3186006-2 12/19/16 21:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	159	179	127	143	28.7-175			11.5	20.9
Acrylonitrile	125	106	119	84.6	94.9	58.2-145			11.4	20
Benzene	25.0	23.0	25.0	91.9	100	73.0-122			8.54	20
Bromobenzene	25.0	22.7	24.1	90.6	96.2	81.5-115			5.96	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3186006-1 12/19/16 21:10 • (LCSD) R3186006-2 12/19/16 21:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	25.0	23.1	25.1	92.3	100	75.5-121			8.35	20
Bromochloromethane	25.0	22.2	23.8	88.9	95.0	78.9-123			6.68	20
Bromoform	25.0	24.9	25.9	99.6	104	71.5-131			3.89	20
Bromomethane	25.0	48.4	49.1	194	197	22.4-187	J4	J4	1.49	20
n-Butylbenzene	25.0	23.6	25.9	94.3	104	75.9-134			9.42	20
sec-Butylbenzene	25.0	23.6	25.4	94.3	102	80.6-126			7.54	20
tert-Butylbenzene	25.0	24.1	26.3	96.5	105	79.3-127			8.77	20
Carbon disulfide	25.0	21.6	23.6	86.3	94.5	53.0-134			9.08	20
Carbon tetrachloride	25.0	24.4	26.4	97.7	106	70.9-129			7.76	20
Chlorobenzene	25.0	24.2	26.4	96.9	105	79.7-122			8.45	20
Chlorodibromomethane	25.0	24.6	26.7	98.3	107	78.2-124			8.16	20
Chloroethane	25.0	25.0	27.0	100	108	41.2-153			7.56	20
Chloroform	25.0	24.6	26.5	98.3	106	73.2-125			7.54	20
Chloromethane	25.0	20.2	20.2	80.7	80.8	55.8-134			0.180	20
1,2-Dibromo-3-Chloropropane	25.0	21.0	24.4	84.1	97.7	64.8-131			15.0	20
1,2-Dibromoethane	25.0	23.3	25.7	93.2	103	79.8-122			9.88	20
Dibromomethane	25.0	24.6	26.2	98.5	105	79.5-118			6.27	20
1,2-Dichlorobenzene	25.0	22.5	25.0	90.2	99.9	84.7-118			10.2	20
1,3-Dichlorobenzene	25.0	23.2	25.0	92.9	100	77.6-127			7.42	20
1,4-Dichlorobenzene	25.0	23.3	24.8	93.2	99.3	82.2-114			6.32	20
trans-1,4-Dichloro-2-butene	25.0	20.8	25.4	83.1	101	58.3-129			19.9	20
Dichlorodifluoromethane	25.0	25.7	27.9	103	111	56.0-134			7.89	20
1,1-Dichloroethane	25.0	23.1	25.2	92.6	101	71.7-127			8.42	20
1,2-Dichloroethane	25.0	23.8	26.1	95.2	104	65.3-126			9.15	20
1,1-Dichloroethene	25.0	20.8	22.8	83.1	91.4	59.9-137			9.56	20
cis-1,2-Dichloroethene	25.0	22.8	25.3	91.1	101	77.3-122			10.4	20
trans-1,2-Dichloroethene	25.0	23.3	25.7	93.0	103	72.6-125			10.1	20
1,2-Dichloropropane	25.0	22.8	24.4	91.1	97.7	77.4-125			6.97	20
cis-1,3-Dichloropropene	25.0	24.9	27.0	99.7	108	77.7-124			8.04	20
trans-1,3-Dichloropropene	25.0	24.7	26.7	98.7	107	73.5-127			7.97	20
Di-isopropyl ether	25.0	19.8	21.4	79.2	85.6	65.1-135			7.85	20
Ethylbenzene	25.0	23.1	25.2	92.2	101	80.9-121			8.69	20
Hexachloro-1,3-butadiene	25.0	23.3	25.5	93.1	102	73.7-133			8.96	20
2-Hexanone	125	109	121	87.5	96.9	59.4-151			10.1	20
Iodomethane	125	104	122	83.0	97.6	64.6-137			16.2	20
2-Butanone (MEK)	125	127	142	101	114	46.4-155			11.5	20
Methylene Chloride	25.0	22.2	23.5	88.8	94.2	69.5-120			5.84	20
4-Methyl-2-pentanone (MIBK)	125	102	115	81.4	92.1	63.3-138			12.3	20
Methyl tert-butyl ether	25.0	22.0	24.0	88.1	95.9	70.1-125			8.52	20
Naphthalene	25.0	20.5	22.9	81.9	91.8	69.7-134			11.3	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3186006-1 12/19/16 21:10 • (LCSD) R3186006-2 12/19/16 21:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Propylbenzene	25.0	24.9	27.0	99.6	108	81.9-122			8.07	20
Styrene	25.0	25.6	27.1	102	108	79.9-124			5.68	20
1,1,1,2-Tetrachloroethane	25.0	23.5	25.0	94.0	99.9	78.5-125			6.08	20
1,1,2,2-Tetrachloroethane	25.0	22.9	25.2	91.7	101	79.3-123			9.50	20
Tetrachloroethene	25.0	23.7	26.1	94.6	104	73.5-130			9.74	20
Toluene	25.0	23.8	26.1	95.2	104	77.9-116			9.05	20
1,1,2-Trichlorotrifluoroethane	25.0	21.5	22.6	86.0	90.5	62.0-141			5.04	20
1,2,4-Trichlorobenzene	25.0	23.1	25.4	92.5	102	76.1-136			9.44	20
1,1,1-Trichloroethane	25.0	24.6	26.3	98.3	105	71.1-129			6.67	20
1,1,2-Trichloroethane	25.0	23.3	25.2	93.2	101	81.6-120			7.78	20
Trichloroethene	25.0	24.8	27.2	99.3	109	79.5-121			9.07	20
Trichlorofluoromethane	25.0	31.4	35.0	126	140	49.1-157			10.7	20
1,2,3-Trichloropropane	25.0	25.3	27.7	101	111	74.9-124			9.12	20
1,2,4-Trimethylbenzene	25.0	24.7	26.4	98.9	106	79.0-122			6.55	20
1,3,5-Trimethylbenzene	25.0	24.1	25.8	96.6	103	81.0-123			6.72	20
Vinyl acetate	125	90.8	106	72.6	85.1	41.7-159			15.8	20
Vinyl chloride	25.0	21.9	24.0	87.7	96.0	61.5-134			9.00	20
Xylenes, Total	75.0	71.3	76.6	95.1	102	79.2-122			7.17	20
(S) Toluene-d8				*105*	*104*	*90.0-115*				
(S) Dibromofluoromethane				*101*	*102*	*79.0-121*				
(S) 4-Bromofluorobenzene				*100*	*97.4*	*80.1-120*				

L878841-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L878841-02 12/20/16 01:57 • (MS) R3186006-4 12/19/16 23:23 • (MSD) R3186006-5 12/19/16 23:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	ND	1780	2090	71.4	83.7	20	25.0-156			15.9	21.5
Acrylonitrile	125	ND	1710	2060	68.4	82.4	20	55.9-161			18.6	20
Benzene	25.0	5770	5510	5480	0.000	0.000	20	58.6-133	E V	E V	0.630	20
Bromobenzene	25.0	ND	394	493	78.8	98.6	20	70.6-125		J3	22.3	20
Bromodichloromethane	25.0	ND	390	479	78.1	95.7	20	69.2-127		J3	20.3	20
Bromochloromethane	25.0	ND	311	384	62.3	76.9	20	74.4-128	J6	J3	21.0	20
Bromoform	25.0	ND	414	532	82.7	106	20	66.3-140		J3	25.0	20
Bromomethane	25.0	ND	736	782	147	156	20	16.6-183			6.06	20.5
n-Butylbenzene	25.0	ND	392	498	76.0	97.0	20	64.8-145		J3	23.7	20
sec-Butylbenzene	25.0	ND	415	515	81.4	101	20	66.8-139		J3	21.5	20
tert-Butylbenzene	25.0	ND	420	524	84.0	105	20	67.1-138		J3	22.0	20
Carbon disulfide	25.0	ND	325	387	65.0	77.4	20	34.9-138			17.5	20

L878841-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L878841-02 12/20/16 01:57 • (MS) R3186006-4 12/19/16 23:23 • (MSD) R3186006-5 12/19/16 23:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	25.0	ND	403	455	80.5	91.0	20	60.6-139			12.2	20
Chlorobenzene	25.0	ND	441	548	88.2	110	20	70.1-130		J3	21.6	20
Chlorodibromomethane	25.0	ND	409	521	81.7	104	20	71.6-132		J3	24.1	20
Chloroethane	25.0	ND	373	423	74.5	84.7	20	33.3-155			12.8	20
Chloroform	25.0	ND	376	443	75.2	88.7	20	66.1-133			16.5	20
Chloromethane	25.0	ND	328	382	65.6	76.3	20	40.7-139			15.1	20
1,2-Dibromo-3-Chloropropane	25.0	ND	355	457	71.0	91.4	20	63.9-142		J3	25.1	20.2
1,2-Dibromoethane	25.0	ND	388	486	77.5	97.2	20	73.8-131		J3	22.5	20
Dibromomethane	25.0	ND	400	491	80.0	98.3	20	72.8-127		J3	20.4	20
1,2-Dichlorobenzene	25.0	ND	367	469	73.4	93.7	20	77.4-127	J6	J3	24.3	20
1,3-Dichlorobenzene	25.0	ND	386	489	77.1	97.8	20	67.9-136		J3	23.7	20
1,4-Dichlorobenzene	25.0	ND	380	483	76.0	96.6	20	74.4-123		J3	23.9	20
trans-1,4-Dichloro-2-butene	25.0	119	359	452	48.0	66.6	20	57.6-136	J6	J3	23.0	20
Dichlorodifluoromethane	25.0	ND	373	450	74.6	90.1	20	42.2-146			18.7	20
1,1-Dichloroethane	25.0	ND	346	426	69.3	85.2	20	64.0-134		J3	20.6	20
1,2-Dichloroethane	25.0	ND	352	430	70.3	86.1	20	60.7-132		J3	20.2	20
1,1-Dichloroethene	25.0	ND	318	401	63.6	80.2	20	48.8-144		J3	23.1	20
cis-1,2-Dichloroethene	25.0	ND	339	420	67.8	84.1	20	60.6-136		J3	21.5	20
trans-1,2-Dichloroethene	25.0	ND	345	430	69.0	86.1	20	61.0-132		J3	22.0	20
1,2-Dichloropropane	25.0	ND	382	475	76.4	95.0	20	69.7-130		J3	21.7	20
cis-1,3-Dichloropropene	25.0	ND	411	516	82.2	103	20	71.1-129		J3	22.7	20
trans-1,3-Dichloropropene	25.0	ND	416	508	83.1	102	20	66.3-136			19.9	20
Di-isopropyl ether	25.0	40.9	312	381	54.3	67.9	20	59.9-140	J6		19.7	20
Ethylbenzene	25.0	2200	2330	2490	27.0	57.8	20	62.7-136	V	V	6.40	20
Hexachloro-1,3-butadiene	25.0	ND	391	494	78.1	98.9	20	61.1-144		J3	23.5	20.1
2-Hexanone	125	ND	1660	2100	66.2	83.9	20	59.4-154		J3	23.5	20.1
Iodomethane	125	ND	1500	1990	59.8	79.7	20	55.2-140		J3	28.5	20
2-Butanone (MEK)	125	ND	1680	1950	67.1	78.2	20	45.0-156			15.2	20.8
Methylene Chloride	25.0	ND	320	387	64.0	77.3	20	61.5-125			18.8	20
4-Methyl-2-pentanone (MIBK)	125	ND	1730	2150	69.2	85.9	20	60.7-150		J3	21.5	20
Methyl tert-butyl ether	25.0	2900	3040	3070	28.7	34.7	20	61.4-136	V	V	0.970	20
Naphthalene	25.0	593	863	957	54.1	72.9	20	61.8-143	J6		10.3	20
n-Propylbenzene	25.0	205	616	725	82.4	104	20	63.2-139			16.2	20
Styrene	25.0	ND	530	648	106	130	20	68.2-133		J3	20.1	20
1,1,1,2-Tetrachloroethane	25.0	ND	397	492	79.5	98.4	20	70.5-132		J3	21.2	20
1,1,2,2-Tetrachloroethane	25.0	ND	393	505	78.7	101	20	64.9-145		J3	24.8	20
Tetrachloroethene	25.0	ND	416	528	83.3	106	20	57.4-141		J3	23.6	20
Toluene	25.0	12900	12000	11800	0.000	0.000	20	67.8-124	E V	E V	1.74	20
1,1,2-Trichlorotrifluoroethane	25.0	ND	333	406	66.5	81.2	20	53.7-150			19.9	20
1,2,4-Trichlorobenzene	25.0	ND	374	476	74.9	95.2	20	67.0-146		J3	23.9	20

L878841-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L878841-02 12/20/16 01:57 • (MS) R3186006-4 12/19/16 23:23 • (MSD) R3186006-5 12/19/16 23:43

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1,1-Trichloroethane	25.0	ND	385	454	76.9	90.7	20	58.7-134			16.4	20
1,1,2-Trichloroethane	25.0	ND	391	487	78.3	97.5	20	74.1-130		J3	21.8	20
Trichloroethene	25.0	ND	428	514	85.7	103	20	48.9-148			18.2	20
Trichlorofluoromethane	25.0	ND	470	566	94.0	113	20	39.9-165			18.6	20
1,2,3-Trichloropropane	25.0	ND	414	541	82.7	108	20	71.5-134		J3	26.6	20
1,2,4-Trimethylbenzene	25.0	2020	2230	2380	41.1	72.0	20	60.5-137	V		6.70	20
1,3,5-Trimethylbenzene	25.0	468	832	954	72.8	97.2	20	67.9-134			13.7	20
Vinyl acetate	125	ND	1530	1920	61.0	76.7	20	42.8-181		J3	22.8	20
Vinyl chloride	25.0	ND	325	378	65.0	75.7	20	44.3-143			15.2	20
Xylenes, Total	75.0	10800	10900	11200	0.619	26.5	20	65.6-133	V	V	3.51	20
(S) Toluene-d8					*106*	*106*		*90.0-115*				
(S) Dibromofluoromethane					*89.1*	*87.0*		*79.0-121*				
(S) 4-Bromofluorobenzene					*99.1*	*101*		*80.1-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

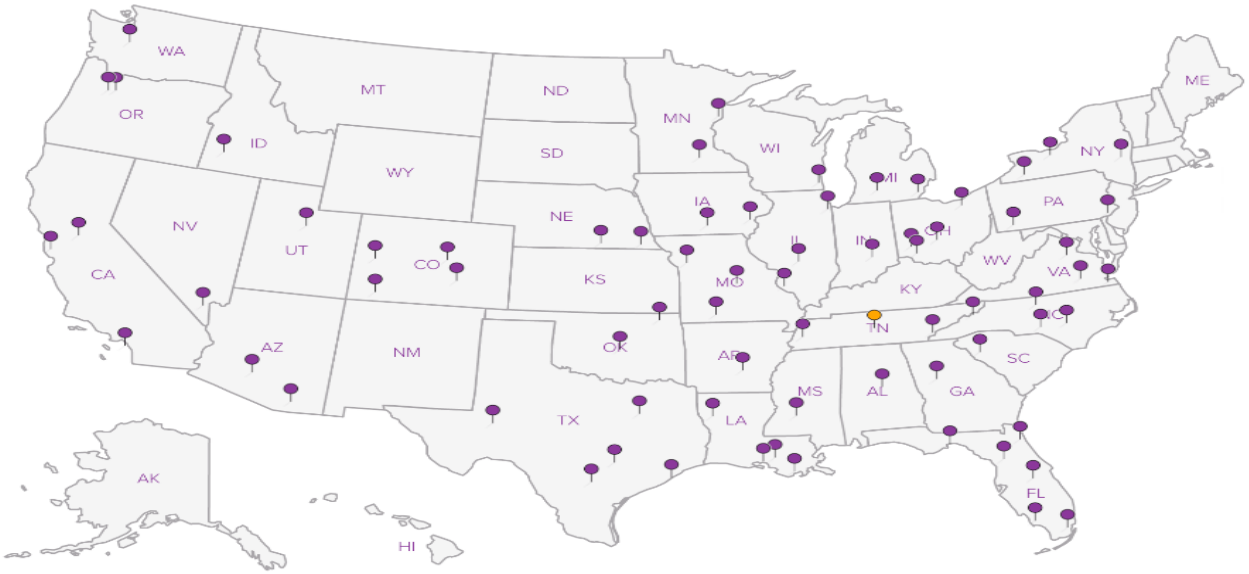
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Report to: Trev Greene

Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market

City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381

Client Project #: FMMD1010

Lab Project #

Collected by (print): CH

Site/Facility ID #

P.O. #: GREENENVA120914S

Collected by (signature):

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LABS
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L879482
C002

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via: FEDEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH-GRO via 8015	BTEX, MTBE, Naphthalene via 8021	VOCs via 8260 (including oxygenates) See Remarks								Rem./Contaminant	Sample # (lab only)
MW01A	Grab	GW		12/14/16	0935	4	X	X										-01
MW02	Grab	GW		12/14/16	1010	4	X	X										-02
MW03	Grab	GW		12/14/16	1145	4	X	X										-03
MW04	Grab	GW		12/14/16	1128	4	X	X										-04
MW05	Grab	GW		12/14/16	1147	4	X	X										-05
MW06	Grab	GW		12/14/16	1220	4	X	X										-06
MW07	Grab	GW		12/14/16	0925	4	X	X										-07
MW08	Grab	GW		12/14/16	0950	4	X	X										-08
MW09	Grab	GW		12/14/16	0930	4	X	X										-09
MW10	Grab	GW		12/14/16	0917	4	X	X										-10

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

6272 8413 2697

Remarks: **Include Oxygenates: Ethanol, TAA, TAEE, TAME, TBA, ETBE, DIPE**

PAGE 1 of 4

Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____	Condition:	(lab use only)
[signature]	12/15/16	1450			NB9	a
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.6 °C Bottles Received: 132 =VP	COC Seal Intact: ✓Y ___N ___NA	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12-16-16 Time: 0900	pH Checked:	NCF:

Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Report to: Trev Greene

Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market

City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381

Client Project # FMMD1010

Lab Project #

Collected by (print): CH

Site/Facility ID #

P.O. # GREENENVA120914S

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LABS
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L879482

Table #

Acctnum:
Template:
Prelogin:
TSR:
PB:

Shipped Via: FEDEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH-GRO via 8015	BTEX, MTBE, Naphthalene via 8021	VOCs via 8260 (including oxygenates) See Remarks								Rem./Contaminant	Sample # (lab only)
MW11	Grab	GW		12/14/16	1022	4	X	X										-11
MW12	Grab	GW		12/14/16	1240	4	X	X										-12
MW13	Grab	GW		12/14/16	1208	4	X	X										-13
MW14	Grab	GW		12/14/16	1155	4	X	X										-14
MW15	Grab	GW		12/14/16	1205	4	X	X										-15
MW16	Grab	GW		12/14/16	1004	4	X	X										-16
MW17	Grab	GW		12/14/16	0856	4	X	X										-17
MW18	Grab	GW		12/14/16	1109	4	X	X										-18
MW19	Grab	GW		12/14/16	1235	4	X	X										-19
MW20	Grab	GW		12/14/16	1047	4	X	X										-20

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: **Include Oxygenates: Ethanol, TAA, TAEE, TAME, TBA, ETBE, DIPE**

PAGE 2 of 4

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[signature]	12/15/16	1450	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			[signature]

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 1.6 °C Bottles Received: 132=up

Date: 12-16-16 Time: 0900

Condition: NBS (lab use only)

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF:

Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Report to: Trev Greene

Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market

City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381

Client Project #: FMMD1010

Lab Project #

Collected by (print): CH

Site/Facility ID #

P.O. #: GREENENVA120914S

Collected by (signature):

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LABS
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L929482
Table #
Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via: FEDEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH-GRO via 8015	BTEX, MTBE, Naphthalene via 8021	VOCs via 8260 (including oxygenates) See Remarks)								Rem./Contaminant	Sample # (lab only)
MW21	Grab	GW		12/14/16	1225	4	X	X										-21
MW22	Grab	GW		12/14/16	1326	4	X	X										-22
MW23	Grab	GW		12/14/16	0920	4	X	X										-23
MW24	Grab	GW		12/14/16	1025	4	X	X										-24
MW25	Grab	GW		12/14/16	1334	4	X	X										-25
MW26	Grab	GW		12/14/16	1100	4	X	X										-26
MW27	Grab	GW		12/14/16	1310	4	X	X										-27
MW28	Grab	GW		12/14/16	1215	4	X	X										-28
DW01	Grab	GW		12/14/16	1055	4			X									-29
DW08	Grab	GW		12/14/16	1330	4			X									-30

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____
Flow _____ Other _____

Remarks: **Include Oxygenates: Ethanol, TAA, TAEE, TAME, TBA, ETBE, DIPE**

PAGE 3 of 4

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[signature]	12/15/16	1450	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			[signature]

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 1.6 °C Bottles Received: 132=up

Date: 12-16-16 Time: 0900

Condition: MB9 (lab use only)

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF:

Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Report to: Trev Greene

Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market

City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381

Client Project #: FMMD1010

Lab Project #

Collected by (print): CH

Site/Facility ID #

P.O. #: GREENENVA120914S

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 4 of 4

ESC LABS SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L679482

Table #

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via: FEDEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH-GRO via 8015	BTEX, MTBE, Naphthalene via 8021	VOCs via 8260 (including oxygenates) See Remarks)	Rem./Contaminant	Sample # (lab only)
DW13	Grab	GW		12/14/16	1150	4			X		-31
DW14	Grab	GW		12/14/16	1130	4			X		-32
DW17	Grab	GW		12/14/16	1040	4			X		-33

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks: **Include Oxygenates: Ethanol, TAA, TAEE, TAME, TBA, ETBE, DIPE**

PAGE 4 of 4

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[signature]	12/15/16	1450	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			[signature]

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 1.6 °C Bottles Received: 132=VP

Date: 12-16-16 Time: 0900

Condition: NB9 (lab use only)

COC Seal Intact: ___Y ___N ___NA

pH Checked:

NCF:

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Form

Client: GREENENVA		SDG#	L879482
Cooler Received/Opened On: 12/16/16		Temperature Upon Receipt:	1.6 °c
Received By: Michael Witherspoon			
Signature: MWat			

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	✓		
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)			✓
If applicable, was an observable VOA headspace present?		✓	
Non Conformance Generated. (If yes see attached NCF)			

ANALYTICAL REPORT

January 17, 2017

Greene Env. Services, LLC

Sample Delivery Group:	L883333
Samples Received:	01/12/2017
Project Number:	FMMD1011
Description:	The Meadows of Dan Food Market
Report To:	Mr.Trev Greene 129 Bunny Ridge Lane Rocky Mount, VA 24151

Entire Report Reviewed By:

Terrie Fudge
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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RCP19 L883333-01 Air

Collected by: BM
Collected date/time: 01/10/17 12:55
Received date/time: 01/12/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method M18-Mod	WG942597	800	01/12/17 18:17	01/12/17 18:17	MBF

INF16 L883333-02 GW

Collected by: BM
Collected date/time: 01/10/17 13:18
Received date/time: 01/12/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG942981	1	01/13/17 13:40	01/13/17 13:40	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG942792	10	01/12/17 22:35	01/12/17 22:35	LRL

MID10 L883333-03 GW

Collected by: BM
Collected date/time: 01/10/17 13:30
Received date/time: 01/12/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG942981	1	01/13/17 14:02	01/13/17 14:02	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG942792	1	01/12/17 22:54	01/12/17 22:54	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG942792	10	01/14/17 14:04	01/14/17 14:04	JHH

EFF15 L883333-04 GW

Collected by: BM
Collected date/time: 01/10/17 13:20
Received date/time: 01/12/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG942981	1	01/13/17 14:24	01/13/17 14:24	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG942792	1	01/12/17 23:13	01/12/17 23:13	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG942792	10	01/14/17 14:27	01/14/17 14:27	JHH
Wet Chemistry by Method 9040C	WG943333	1	01/16/17 23:16	01/16/17 23:16	ASK

DW01 L883333-05 GW

Collected by: BM
Collected date/time: 01/10/17 14:20
Received date/time: 01/12/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG943225	1	01/14/17 20:10	01/14/17 20:10	CAH

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Terrie Fudge

Terrie Fudge
Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

ESC Sample ID	Project Sample ID	Method
L883333-04	EFF15	9040C

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	160	511	1050	3350		800	WG942597
Toluene	108-88-3	92.10	160	603	21400	80700		800	WG942597
Ethylbenzene	100-41-4	106	160	694	7360	31900		800	WG942597
m&p-Xylene	1330-20-7	106	320	1390	33400	145000		800	WG942597
o-Xylene	95-47-6	106	160	694	14100	61300		800	WG942597
Methyl tert-butyl ether	1634-04-4	88.10	160	577	250	902		800	WG942597
TPH (GC/MS) Low Fraction	8006-61-9	101	40000	165000	376000	1550000		800	WG942597
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*94.6*				WG942597

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	4480		31.4	100	1	01/13/2017 13:40	WG942981
(S) a,a,a-Trifluorotoluene(FID)	*96.9*			*77.0-122*		*01/13/2017 13:40*	WG942981

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	100	500	10	01/12/2017 22:35	WG942792
Acrylonitrile	U		18.7	100	10	01/12/2017 22:35	WG942792
Benzene	9.86	J	3.31	10.0	10	01/12/2017 22:35	WG942792
Bromobenzene	U		3.52	10.0	10	01/12/2017 22:35	WG942792
Bromochloromethane	U		5.20	10.0	10	01/12/2017 22:35	WG942792
Bromodichloromethane	U		3.80	10.0	10	01/12/2017 22:35	WG942792
Bromoform	U		4.69	10.0	10	01/12/2017 22:35	WG942792
Bromomethane	U		8.66	50.0	10	01/12/2017 22:35	WG942792
n-Butylbenzene	U		3.61	10.0	10	01/12/2017 22:35	WG942792
sec-Butylbenzene	U		3.65	10.0	10	01/12/2017 22:35	WG942792
tert-Butylbenzene	U		3.99	10.0	10	01/12/2017 22:35	WG942792
Carbon tetrachloride	U		3.79	10.0	10	01/12/2017 22:35	WG942792
Carbon disulfide	U		2.75	10.0	10	01/12/2017 22:35	WG942792
Chlorobenzene	U		3.48	10.0	10	01/12/2017 22:35	WG942792
Chlorodibromomethane	U		3.27	10.0	10	01/12/2017 22:35	WG942792
Chloroethane	U		4.53	50.0	10	01/12/2017 22:35	WG942792
Chloroform	U		3.24	50.0	10	01/12/2017 22:35	WG942792
Chloromethane	U		2.76	25.0	10	01/12/2017 22:35	WG942792
1,2-Dibromo-3-Chloropropane	U		13.3	50.0	10	01/12/2017 22:35	WG942792
1,2-Dibromoethane	U		3.81	10.0	10	01/12/2017 22:35	WG942792
Dibromomethane	U		3.46	10.0	10	01/12/2017 22:35	WG942792
1,2-Dichlorobenzene	U		3.49	10.0	10	01/12/2017 22:35	WG942792
1,3-Dichlorobenzene	U		2.20	10.0	10	01/12/2017 22:35	WG942792
1,4-Dichlorobenzene	U		2.74	10.0	10	01/12/2017 22:35	WG942792
trans-1,4-Dichloro-2-butene	U		8.66	25.0	10	01/12/2017 22:35	WG942792
Dichlorodifluoromethane	U		5.51	50.0	10	01/12/2017 22:35	WG942792
1,1-Dichloroethane	U		2.59	10.0	10	01/12/2017 22:35	WG942792
1,2-Dichloroethane	U		3.61	10.0	10	01/12/2017 22:35	WG942792
1,1-Dichloroethene	U		3.98	10.0	10	01/12/2017 22:35	WG942792
cis-1,2-Dichloroethene	U		2.60	10.0	10	01/12/2017 22:35	WG942792
trans-1,2-Dichloroethene	U		3.96	10.0	10	01/12/2017 22:35	WG942792
1,2-Dichloropropane	U		3.06	10.0	10	01/12/2017 22:35	WG942792
cis-1,3-Dichloropropene	U		4.18	10.0	10	01/12/2017 22:35	WG942792
trans-1,3-Dichloropropene	U		4.19	10.0	10	01/12/2017 22:35	WG942792
Ethylbenzene	75.1		3.84	10.0	10	01/12/2017 22:35	WG942792
Hexachloro-1,3-butadiene	U		2.56	10.0	10	01/12/2017 22:35	WG942792
2-Hexanone	U		38.2	100	10	01/12/2017 22:35	WG942792
2-Butanone (MEK)	U	J4	39.3	100	10	01/12/2017 22:35	WG942792
Iodomethane	U		17.1	100	10	01/12/2017 22:35	WG942792
Methylene Chloride	U		10.0	50.0	10	01/12/2017 22:35	WG942792
4-Methyl-2-pentanone (MIBK)	U		21.4	100	10	01/12/2017 22:35	WG942792
Naphthalene	182		10.0	50.0	10	01/12/2017 22:35	WG942792
n-Propylbenzene	20.3		3.49	10.0	10	01/12/2017 22:35	WG942792
Styrene	U		3.07	10.0	10	01/12/2017 22:35	WG942792
1,1,1,2-Tetrachloroethane	U		3.85	10.0	10	01/12/2017 22:35	WG942792
1,1,2,2-Tetrachloroethane	U		1.30	10.0	10	01/12/2017 22:35	WG942792
1,1,2-Trichlorotrifluoroethane	U		3.03	10.0	10	01/12/2017 22:35	WG942792
Tetrachloroethene	U		3.72	10.0	10	01/12/2017 22:35	WG942792
Toluene	233		4.12	10.0	10	01/12/2017 22:35	WG942792

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		3.55	10.0	10	01/12/2017 22:35	WG942792
1,1,1-Trichloroethane	U		3.19	10.0	10	01/12/2017 22:35	WG942792
1,1,2-Trichloroethane	U		3.83	10.0	10	01/12/2017 22:35	WG942792
Trichloroethene	U		3.98	10.0	10	01/12/2017 22:35	WG942792
Trichlorofluoromethane	U		12.0	50.0	10	01/12/2017 22:35	WG942792
1,2,3-Trichloropropane	U		8.07	25.0	10	01/12/2017 22:35	WG942792
1,2,4-Trimethylbenzene	336		3.73	10.0	10	01/12/2017 22:35	WG942792
1,3,5-Trimethylbenzene	63.3		3.87	10.0	10	01/12/2017 22:35	WG942792
Vinyl acetate	U		16.3	100	10	01/12/2017 22:35	WG942792
Vinyl chloride	U		2.59	10.0	10	01/12/2017 22:35	WG942792
Xylenes, Total	753		10.6	30.0	10	01/12/2017 22:35	WG942792
Di-isopropyl ether	U		3.20	10.0	10	01/12/2017 22:35	WG942792
Ethanol	U		420	1000	10	01/12/2017 22:35	WG942792
Ethyl tert-butyl ether	U		2.70	10.0	10	01/12/2017 22:35	WG942792
Methyl tert-butyl ether	35.6		3.67	10.0	10	01/12/2017 22:35	WG942792
tert-Butyl alcohol	291		24.0	50.0	10	01/12/2017 22:35	WG942792
tert-Amyl Methyl Ether	U		2.60	10.0	10	01/12/2017 22:35	WG942792
(S) Toluene-d8	*105*			*80.0-120*		*01/12/2017 22:35*	WG942792
(S) Dibromofluoromethane	*94.7*			*76.0-123*		*01/12/2017 22:35*	WG942792
(S) 4-Bromofluorobenzene	*97.5*			*80.0-120*		*01/12/2017 22:35*	WG942792

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	749		31.4	100	1	01/13/2017 14:02	WG942981
(S) a,a,a-Trifluorotoluene(FID)	*98.0*			*77.0-122*		*01/13/2017 14:02*	WG942981

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	83.1	J4	10.0	50.0	1	01/12/2017 22:54	WG942792
Acrylonitrile	U		1.87	10.0	1	01/12/2017 22:54	WG942792
Benzene	0.737	J	0.331	1.00	1	01/12/2017 22:54	WG942792
Bromobenzene	U		0.352	1.00	1	01/12/2017 22:54	WG942792
Bromochloromethane	U		0.520	1.00	1	01/12/2017 22:54	WG942792
Bromodichloromethane	U		0.380	1.00	1	01/12/2017 22:54	WG942792
Bromoform	U		0.469	1.00	1	01/12/2017 22:54	WG942792
Bromomethane	U	J3	0.866	5.00	1	01/12/2017 22:54	WG942792
n-Butylbenzene	U		0.361	1.00	1	01/12/2017 22:54	WG942792
sec-Butylbenzene	U		0.365	1.00	1	01/12/2017 22:54	WG942792
tert-Butylbenzene	U		0.399	1.00	1	01/12/2017 22:54	WG942792
Carbon tetrachloride	U		0.379	1.00	1	01/12/2017 22:54	WG942792
Carbon disulfide	U		0.275	1.00	1	01/12/2017 22:54	WG942792
Chlorobenzene	U		0.348	1.00	1	01/12/2017 22:54	WG942792
Chlorodibromomethane	U		0.327	1.00	1	01/12/2017 22:54	WG942792
Chloroethane	U		0.453	5.00	1	01/12/2017 22:54	WG942792
Chloroform	U		0.324	5.00	1	01/12/2017 22:54	WG942792
Chloromethane	U		0.276	2.50	1	01/12/2017 22:54	WG942792
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/12/2017 22:54	WG942792
1,2-Dibromoethane	U		0.381	1.00	1	01/12/2017 22:54	WG942792
Dibromomethane	U		0.346	1.00	1	01/12/2017 22:54	WG942792
1,2-Dichlorobenzene	U		0.349	1.00	1	01/12/2017 22:54	WG942792
1,3-Dichlorobenzene	U		0.220	1.00	1	01/12/2017 22:54	WG942792
1,4-Dichlorobenzene	U		0.274	1.00	1	01/12/2017 22:54	WG942792
trans-1,4-Dichloro-2-butene	U	J3	0.866	2.50	1	01/12/2017 22:54	WG942792
Dichlorodifluoromethane	U		0.551	5.00	1	01/12/2017 22:54	WG942792
1,1-Dichloroethane	U		0.259	1.00	1	01/12/2017 22:54	WG942792
1,2-Dichloroethane	U		0.361	1.00	1	01/12/2017 22:54	WG942792
1,1-Dichloroethene	U		0.398	1.00	1	01/12/2017 22:54	WG942792
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/12/2017 22:54	WG942792
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/12/2017 22:54	WG942792
1,2-Dichloropropane	U		0.306	1.00	1	01/12/2017 22:54	WG942792
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/12/2017 22:54	WG942792
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/12/2017 22:54	WG942792
Ethylbenzene	5.84		0.384	1.00	1	01/12/2017 22:54	WG942792
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/12/2017 22:54	WG942792
2-Hexanone	U		3.82	10.0	1	01/12/2017 22:54	WG942792
2-Butanone (MEK)	26.6	J4	3.93	10.0	1	01/12/2017 22:54	WG942792
Iodomethane	U		1.71	10.0	1	01/12/2017 22:54	WG942792
Methylene Chloride	U		1.00	5.00	1	01/12/2017 22:54	WG942792
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/12/2017 22:54	WG942792
Naphthalene	102		1.00	5.00	1	01/12/2017 22:54	WG942792
n-Propylbenzene	1.50		0.349	1.00	1	01/12/2017 22:54	WG942792
Styrene	U		0.307	1.00	1	01/12/2017 22:54	WG942792
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/12/2017 22:54	WG942792
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/12/2017 22:54	WG942792
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/12/2017 22:54	WG942792
Tetrachloroethene	U		0.372	1.00	1	01/12/2017 22:54	WG942792
Toluene	17.9		0.412	1.00	1	01/12/2017 22:54	WG942792

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/12/2017 22:54	WG942792
1,1,1-Trichloroethane	U		0.319	1.00	1	01/12/2017 22:54	WG942792
1,1,2-Trichloroethane	U		0.383	1.00	1	01/12/2017 22:54	WG942792
Trichloroethene	U		0.398	1.00	1	01/12/2017 22:54	WG942792
Trichlorofluoromethane	U		1.20	5.00	1	01/12/2017 22:54	WG942792
1,2,3-Trichloropropane	U		0.807	2.50	1	01/12/2017 22:54	WG942792
1,2,4-Trimethylbenzene	37.0		0.373	1.00	1	01/12/2017 22:54	WG942792
1,3,5-Trimethylbenzene	6.13		0.387	1.00	1	01/12/2017 22:54	WG942792
Vinyl acetate	U		1.63	10.0	1	01/12/2017 22:54	WG942792
Vinyl chloride	U		0.259	1.00	1	01/12/2017 22:54	WG942792
Xylenes, Total	67.2		1.06	3.00	1	01/12/2017 22:54	WG942792
Di-isopropyl ether	0.367	J	0.320	1.00	1	01/12/2017 22:54	WG942792
Ethanol	238		42.0	100	1	01/12/2017 22:54	WG942792
Ethyl tert-butyl ether	U		0.270	1.00	1	01/12/2017 22:54	WG942792
Methyl tert-butyl ether	13.7		0.367	1.00	1	01/12/2017 22:54	WG942792
tert-Butyl alcohol	288		24.0	50.0	10	01/14/2017 14:04	WG942792
tert-Amyl Methyl Ether	U		0.260	1.00	1	01/12/2017 22:54	WG942792
(S) Toluene-d8	*105*			*80.0-120*		*01/12/2017 22:54*	WG942792
(S) Toluene-d8	*95.7*			*80.0-120*		*01/14/2017 14:04*	WG942792
(S) Dibromofluoromethane	*95.8*			*76.0-123*		*01/14/2017 14:04*	WG942792
(S) Dibromofluoromethane	*95.9*			*76.0-123*		*01/12/2017 22:54*	WG942792
(S) 4-Bromofluorobenzene	*100*			*80.0-120*		*01/12/2017 22:54*	WG942792
(S) 4-Bromofluorobenzene	*99.8*			*80.0-120*		*01/14/2017 14:04*	WG942792

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	5.99		1	01/16/2017 23:16	WG943333

Sample Narrative:

9040C L883333-04 WG943333: 5.99 at 16.3c

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	67.4	J	31.4	100	1	01/13/2017 14:24	WG942981
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-122*		*01/13/2017 14:24*	WG942981

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	10.0	50.0	1	01/12/2017 23:13	WG942792
Acrylonitrile	U		1.87	10.0	1	01/12/2017 23:13	WG942792
Benzene	U		0.331	1.00	1	01/12/2017 23:13	WG942792
Bromobenzene	U		0.352	1.00	1	01/12/2017 23:13	WG942792
Bromochloromethane	U		0.520	1.00	1	01/12/2017 23:13	WG942792
Bromodichloromethane	U		0.380	1.00	1	01/12/2017 23:13	WG942792
Bromoform	U		0.469	1.00	1	01/12/2017 23:13	WG942792
Bromomethane	U	J3	0.866	5.00	1	01/12/2017 23:13	WG942792
n-Butylbenzene	U		0.361	1.00	1	01/12/2017 23:13	WG942792
sec-Butylbenzene	U		0.365	1.00	1	01/12/2017 23:13	WG942792
tert-Butylbenzene	U		0.399	1.00	1	01/12/2017 23:13	WG942792
Carbon tetrachloride	U		0.379	1.00	1	01/12/2017 23:13	WG942792
Carbon disulfide	U		0.275	1.00	1	01/12/2017 23:13	WG942792
Chlorobenzene	U		0.348	1.00	1	01/12/2017 23:13	WG942792
Chlorodibromomethane	U		0.327	1.00	1	01/12/2017 23:13	WG942792
Chloroethane	U		0.453	5.00	1	01/12/2017 23:13	WG942792
Chloroform	U		0.324	5.00	1	01/12/2017 23:13	WG942792
Chloromethane	U		0.276	2.50	1	01/12/2017 23:13	WG942792
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/12/2017 23:13	WG942792
1,2-Dibromoethane	U		0.381	1.00	1	01/12/2017 23:13	WG942792
Dibromomethane	U		0.346	1.00	1	01/12/2017 23:13	WG942792
1,2-Dichlorobenzene	U		0.349	1.00	1	01/12/2017 23:13	WG942792
1,3-Dichlorobenzene	U		0.220	1.00	1	01/12/2017 23:13	WG942792
1,4-Dichlorobenzene	U		0.274	1.00	1	01/12/2017 23:13	WG942792
trans-1,4-Dichloro-2-butene	U	J3	0.866	2.50	1	01/12/2017 23:13	WG942792
Dichlorodifluoromethane	U		0.551	5.00	1	01/12/2017 23:13	WG942792
1,1-Dichloroethane	U		0.259	1.00	1	01/12/2017 23:13	WG942792
1,2-Dichloroethane	U		0.361	1.00	1	01/12/2017 23:13	WG942792
1,1-Dichloroethene	U		0.398	1.00	1	01/12/2017 23:13	WG942792
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/12/2017 23:13	WG942792
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/12/2017 23:13	WG942792
1,2-Dichloropropane	U		0.306	1.00	1	01/12/2017 23:13	WG942792
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/12/2017 23:13	WG942792
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/12/2017 23:13	WG942792
Ethylbenzene	U		0.384	1.00	1	01/12/2017 23:13	WG942792
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/12/2017 23:13	WG942792
2-Hexanone	U		3.82	10.0	1	01/12/2017 23:13	WG942792
2-Butanone (MEK)	U	J4	3.93	10.0	1	01/12/2017 23:13	WG942792
Iodomethane	U		1.71	10.0	1	01/12/2017 23:13	WG942792
Methylene Chloride	U		1.00	5.00	1	01/12/2017 23:13	WG942792
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/12/2017 23:13	WG942792

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	1.55	J	1.00	5.00	1	01/12/2017 23:13	WG942792
n-Propylbenzene	U		0.349	1.00	1	01/12/2017 23:13	WG942792
Styrene	U		0.307	1.00	1	01/12/2017 23:13	WG942792
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/12/2017 23:13	WG942792
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/12/2017 23:13	WG942792
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/12/2017 23:13	WG942792
Tetrachloroethene	U		0.372	1.00	1	01/12/2017 23:13	WG942792
Toluene	U		0.412	1.00	1	01/12/2017 23:13	WG942792
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/12/2017 23:13	WG942792
1,1,1-Trichloroethane	U		0.319	1.00	1	01/12/2017 23:13	WG942792
1,1,2-Trichloroethane	U		0.383	1.00	1	01/12/2017 23:13	WG942792
Trichloroethene	U		0.398	1.00	1	01/12/2017 23:13	WG942792
Trichlorofluoromethane	U		1.20	5.00	1	01/12/2017 23:13	WG942792
1,2,3-Trichloropropane	U		0.807	2.50	1	01/12/2017 23:13	WG942792
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/12/2017 23:13	WG942792
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/12/2017 23:13	WG942792
Vinyl acetate	U		1.63	10.0	1	01/12/2017 23:13	WG942792
Vinyl chloride	U		0.259	1.00	1	01/12/2017 23:13	WG942792
Xylenes, Total	U		1.06	3.00	1	01/12/2017 23:13	WG942792
Di-isopropyl ether	U		0.320	1.00	1	01/12/2017 23:13	WG942792
Ethanol	U		42.0	100	1	01/12/2017 23:13	WG942792
Ethyl tert-butyl ether	U		0.270	1.00	1	01/12/2017 23:13	WG942792
Methyl tert-butyl ether	14.7		0.367	1.00	1	01/12/2017 23:13	WG942792
tert-Butyl alcohol	179		24.0	50.0	10	01/14/2017 14:27	WG942792
tert-Amyl Methyl Ether	U		0.260	1.00	1	01/12/2017 23:13	WG942792
(S) Toluene-d8	*105*			*80.0-120*		*01/12/2017 23:13*	WG942792
(S) Toluene-d8	*95.9*			*80.0-120*		*01/14/2017 14:27*	WG942792
(S) Dibromofluoromethane	*95.2*			*76.0-123*		*01/14/2017 14:27*	WG942792
(S) Dibromofluoromethane	*95.3*			*76.0-123*		*01/12/2017 23:13*	WG942792
(S) 4-Bromofluorobenzene	*95.7*			*80.0-120*		*01/12/2017 23:13*	WG942792
(S) 4-Bromofluorobenzene	*98.2*			*80.0-120*		*01/14/2017 14:27*	WG942792

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	01/14/2017 20:10	WG943225
Acrylonitrile	U		1.87	10.0	1	01/14/2017 20:10	WG943225
Benzene	U		0.331	1.00	1	01/14/2017 20:10	WG943225
Bromobenzene	U		0.352	1.00	1	01/14/2017 20:10	WG943225
Bromochloromethane	U		0.520	1.00	1	01/14/2017 20:10	WG943225
Bromodichloromethane	U		0.380	1.00	1	01/14/2017 20:10	WG943225
Bromoform	U		0.469	1.00	1	01/14/2017 20:10	WG943225
Bromomethane	U		0.866	5.00	1	01/14/2017 20:10	WG943225
n-Butylbenzene	U		0.361	1.00	1	01/14/2017 20:10	WG943225
sec-Butylbenzene	U		0.365	1.00	1	01/14/2017 20:10	WG943225
tert-Butylbenzene	U		0.399	1.00	1	01/14/2017 20:10	WG943225
Carbon tetrachloride	U		0.379	1.00	1	01/14/2017 20:10	WG943225
Carbon disulfide	U		0.275	1.00	1	01/14/2017 20:10	WG943225
Chlorobenzene	U		0.348	1.00	1	01/14/2017 20:10	WG943225
Chlorodibromomethane	U		0.327	1.00	1	01/14/2017 20:10	WG943225
Chloroethane	U		0.453	5.00	1	01/14/2017 20:10	WG943225
Chloroform	U		0.324	5.00	1	01/14/2017 20:10	WG943225
Chloromethane	U		0.276	2.50	1	01/14/2017 20:10	WG943225
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/14/2017 20:10	WG943225
1,2-Dibromoethane	U		0.381	1.00	1	01/14/2017 20:10	WG943225
Dibromomethane	U		0.346	1.00	1	01/14/2017 20:10	WG943225
1,2-Dichlorobenzene	U		0.349	1.00	1	01/14/2017 20:10	WG943225
1,3-Dichlorobenzene	U		0.220	1.00	1	01/14/2017 20:10	WG943225
1,4-Dichlorobenzene	U		0.274	1.00	1	01/14/2017 20:10	WG943225
trans-1,4-Dichloro-2-butene	U		0.866	2.50	1	01/14/2017 20:10	WG943225
Dichlorodifluoromethane	U		0.551	5.00	1	01/14/2017 20:10	WG943225
1,1-Dichloroethane	U		0.259	1.00	1	01/14/2017 20:10	WG943225
1,2-Dichloroethane	U		0.361	1.00	1	01/14/2017 20:10	WG943225
1,1-Dichloroethene	U		0.398	1.00	1	01/14/2017 20:10	WG943225
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/14/2017 20:10	WG943225
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/14/2017 20:10	WG943225
1,2-Dichloropropane	U		0.306	1.00	1	01/14/2017 20:10	WG943225
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/14/2017 20:10	WG943225
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/14/2017 20:10	WG943225
Ethylbenzene	U		0.384	1.00	1	01/14/2017 20:10	WG943225
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/14/2017 20:10	WG943225
2-Hexanone	U		3.82	10.0	1	01/14/2017 20:10	WG943225
2-Butanone (MEK)	U		3.93	10.0	1	01/14/2017 20:10	WG943225
Iodomethane	U		1.71	10.0	1	01/14/2017 20:10	WG943225
Methylene Chloride	U		1.00	5.00	1	01/14/2017 20:10	WG943225
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/14/2017 20:10	WG943225
Naphthalene	U		1.00	5.00	1	01/14/2017 20:10	WG943225
n-Propylbenzene	U		0.349	1.00	1	01/14/2017 20:10	WG943225
Styrene	U		0.307	1.00	1	01/14/2017 20:10	WG943225
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/14/2017 20:10	WG943225
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/14/2017 20:10	WG943225
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/14/2017 20:10	WG943225
Tetrachloroethene	U		0.372	1.00	1	01/14/2017 20:10	WG943225
Toluene	U		0.412	1.00	1	01/14/2017 20:10	WG943225
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/14/2017 20:10	WG943225
1,1,1-Trichloroethane	U		0.319	1.00	1	01/14/2017 20:10	WG943225
1,1,2-Trichloroethane	U		0.383	1.00	1	01/14/2017 20:10	WG943225
Trichloroethene	U		0.398	1.00	1	01/14/2017 20:10	WG943225
Trichlorofluoromethane	U		1.20	5.00	1	01/14/2017 20:10	WG943225
1,2,3-Trichloropropane	U		0.807	2.50	1	01/14/2017 20:10	WG943225
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/14/2017 20:10	WG943225

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/14/2017 20:10	WG943225
Vinyl acetate	U		1.63	10.0	1	01/14/2017 20:10	WG943225
Vinyl chloride	U		0.259	1.00	1	01/14/2017 20:10	WG943225
Xylenes, Total	U		1.06	3.00	1	01/14/2017 20:10	WG943225
Di-isopropyl ether	U		0.320	1.00	1	01/14/2017 20:10	WG943225
Ethanol	U		42.0	100	1	01/14/2017 20:10	WG943225
Ethyl tert-butyl ether	U		0.270	1.00	1	01/14/2017 20:10	WG943225
Methyl tert-butyl ether	U		0.367	1.00	1	01/14/2017 20:10	WG943225
tert-Butyl alcohol	U		2.40	5.00	1	01/14/2017 20:10	WG943225
tert-Amyl Methyl Ether	U		0.260	1.00	1	01/14/2017 20:10	WG943225
(S) Toluene-d8	*107*			*80.0-120*		*01/14/2017 20:10*	WG943225
(S) Dibromofluoromethane	*103*			*76.0-123*		*01/14/2017 20:10*	WG943225
(S) 4-Bromofluorobenzene	*101*			*80.0-120*		*01/14/2017 20:10*	WG943225

L883660-01 Original Sample (OS) • Duplicate (DUP)

(OS) L883660-01 01/16/17 23:16 • (DUP) WG943333-2 01/16/17 23:16

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	8.18	8.18	1	0.000		1

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG943333-3 01/16/17 23:16 • (LCSD) WG943333-4 01/16/17 23:16

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.07	6.09	6.10	100	100	98.4-102			0.164	1

Method Blank (MB)

(MB) R3190429-3 01/12/17 09:03

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0460	0.200
Ethylbenzene	U		0.0506	0.200
MTBE	U		0.0505	0.200
Toluene	U		0.0499	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
TPH (GC/MS) Low Fraction	U		6.91	50.0
(S) 1,4-Bromofluorobenzene	*89.8*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3190429-1 01/12/17 07:34 • (LCSD) R3190429-2 01/12/17 08:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	3.94	3.92	105	105	70.0-130			0.470	25
Benzene	3.75	4.05	4.04	108	108	70.0-130			0.230	25
Toluene	3.75	4.12	4.13	110	110	70.0-130			0.350	25
Ethylbenzene	3.75	4.28	4.28	114	114	70.0-130			0.0600	25
m&p-Xylene	7.50	9.03	8.87	120	118	70.0-130			1.81	25
o-Xylene	3.75	4.32	4.23	115	113	70.0-130			2.09	25
TPH (GC/MS) Low Fraction	176	195	193	110	109	70.0-130			0.890	25
(S) 1,4-Bromofluorobenzene				*98.5*	*97.1*	*60.0-140*				

Method Blank (MB)

(MB) R3190598-3 01/13/17 12:46

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
TPH (GC/FID) Low Fraction	U		31.4	100
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-122*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3190598-1 01/13/17 11:39 • (LCSD) R3190598-2 01/13/17 12:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	5780	5630	105	102	71.0-136			2.69	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*101*	*77.0-122*				

L883436-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L883436-01 01/13/17 14:46 • (MS) R3190598-4 01/13/17 19:35 • (MSD) R3190598-5 01/13/17 19:57

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5500	1050	5590	5840	82.6	87.1	1	18.0-160			4.33	20
(S) a,a,a-Trifluorotoluene(FID)					*104*	*104*		*77.0-122*				

Method Blank (MB)

(MB) R3190539-3 01/12/17 19:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
trans-1,4-Dichloro-2-butene	U		0.866	2.50
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Ethanol	U		42.0	100
Hexachloro-1,3-butadiene	U		0.256	1.00
2-Hexanone	U		3.82	10.0
Iodomethane	U		1.71	10.0

Method Blank (MB)

(MB) R3190539-3 01/12/17 19:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Tetrachloroethene	U		0.372	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
Toluene	U		0.412	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
Trichloroethene	U		0.398	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,4-Trimethylbenzene	U		0.373	1.00
Vinyl chloride	U		0.259	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl acetate	U		1.63	10.0
Xylenes, Total	U		1.06	3.00
tert-Amyl Methyl Ether	U		0.260	1.00
Ethyl tert-butyl ether	U		0.270	1.00
tert-Butyl alcohol	U		2.40	5.00
(S) Toluene-d8	*106*			*80.0-120*
(S) Dibromofluoromethane	*97.7*			*76.0-123*
(S) 4-Bromofluorobenzene	*96.8*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3190539-1 01/12/17 17:48 • (LCSD) R3190539-2 01/12/17 18:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	235	262	188	209	10.0-160	J4	J4	10.7	23
Acrylonitrile	125	115	127	91.6	101	60.0-142			10.1	20
Benzene	25.0	25.1	26.9	100	108	69.0-123			6.87	20
Bromobenzene	25.0	23.8	25.4	95.1	102	79.0-120			6.64	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3190539-1 01/12/17 17:48 • (LCSD) R3190539-2 01/12/17 18:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	25.0	23.5	25.4	94.1	102	76.0-120			7.81	20
Bromochloromethane	25.0	24.5	24.6	98.0	98.3	76.0-122			0.250	20
Bromoform	25.0	22.9	25.4	91.8	102	67.0-132			10.1	20
Bromomethane	25.0	21.0	25.8	83.8	103	18.0-160		J3	20.8	20
n-Butylbenzene	25.0	25.5	27.4	102	110	72.0-126			7.28	20
sec-Butylbenzene	25.0	24.6	25.7	98.2	103	74.0-121			4.36	20
tert-Butylbenzene	25.0	24.5	25.7	97.8	103	75.0-122			4.91	20
Carbon disulfide	25.0	27.9	29.1	112	117	55.0-127			4.15	20
Carbon tetrachloride	25.0	22.7	26.2	90.8	105	63.0-122			14.1	20
Chlorobenzene	25.0	24.0	25.9	96.2	104	79.0-121			7.48	20
Chlorodibromomethane	25.0	23.4	25.4	93.4	102	75.0-125			8.55	20
Chloroethane	25.0	12.3	12.7	49.0	50.9	47.0-152			3.72	20
Chloroform	25.0	24.4	25.7	97.6	103	72.0-121			5.28	20
Chloromethane	25.0	24.1	25.3	96.6	101	48.0-139			4.55	20
1,2-Dibromo-3-Chloropropane	25.0	19.3	22.3	77.1	89.3	64.0-127			14.6	20
1,2-Dibromoethane	25.0	22.1	24.2	88.3	96.6	77.0-123			8.97	20
Dibromomethane	25.0	23.4	25.0	93.8	100	78.0-120			6.56	20
1,2-Dichlorobenzene	25.0	24.0	26.4	96.1	106	80.0-120			9.58	20
1,3-Dichlorobenzene	25.0	23.5	25.1	93.9	100	72.0-123			6.57	20
1,4-Dichlorobenzene	25.0	24.3	26.2	97.1	105	77.0-120			7.50	20
trans-1,4-Dichloro-2-butene	25.0	19.1	24.0	76.5	96.0	55.0-134		J3	22.7	20
Dichlorodifluoromethane	25.0	26.3	28.2	105	113	49.0-155			6.95	20
1,1-Dichloroethane	25.0	26.6	28.1	107	113	70.0-126			5.40	20
1,2-Dichloroethane	25.0	22.2	23.8	89.0	95.4	67.0-126			6.95	20
1,1-Dichloroethene	25.0	25.8	27.6	103	110	64.0-129			6.48	20
cis-1,2-Dichloroethene	25.0	24.4	25.7	97.5	103	73.0-120			5.23	20
trans-1,2-Dichloroethene	25.0	25.0	26.6	100	106	71.0-121			6.17	20
1,2-Dichloropropane	25.0	28.4	29.8	114	119	75.0-125			4.57	20
cis-1,3-Dichloropropene	25.0	26.4	28.1	106	113	79.0-123			6.34	20
trans-1,3-Dichloropropene	25.0	24.5	26.5	98.0	106	74.0-127			7.85	20
Di-isopropyl ether	25.0	26.6	28.6	106	115	59.0-133			7.50	20
Ethylbenzene	25.0	24.4	26.8	97.4	107	77.0-120			9.69	20
Hexachloro-1,3-butadiene	25.0	28.9	30.3	116	121	64.0-131			4.76	20
2-Hexanone	125	150	170	120	136	58.0-147			12.1	20
Iodomethane	125	116	121	92.7	96.4	57.0-140			3.92	20
2-Butanone (MEK)	125	181	204	145	163	37.0-158		J4	11.8	20
Methylene Chloride	25.0	22.8	24.3	91.2	97.1	66.0-121			6.29	20
4-Methyl-2-pentanone (MIBK)	125	113	127	90.5	102	59.0-143			11.4	20
Methyl tert-butyl ether	25.0	22.2	24.1	88.9	96.6	64.0-123			8.22	20
Naphthalene	25.0	19.5	22.0	78.2	88.1	62.0-128			11.9	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3190539-1 01/12/17 17:48 • (LCSD) R3190539-2 01/12/17 18:07

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Propylbenzene	25.0	25.9	27.6	103	110	79.0-120			6.45	20
Styrene	25.0	25.7	27.8	103	111	78.0-124			8.03	20
1,1,1,2-Tetrachloroethane	25.0	22.3	23.9	89.1	95.5	75.0-122			6.91	20
1,1,2,2-Tetrachloroethane	25.0	22.5	24.6	89.8	98.5	71.0-122			9.22	20
Tetrachloroethene	25.0	26.5	28.1	106	112	70.0-127			6.03	20
Toluene	25.0	25.8	28.0	103	112	77.0-120			7.84	20
1,1,2-Trichlorotrifluoroethane	25.0	25.3	26.9	101	108	61.0-136			6.15	20
1,1,1-Trichloroethane	25.0	23.8	25.6	95.0	102	68.0-122			7.51	20
1,2,4-Trichlorobenzene	25.0	25.0	27.5	99.9	110	69.0-129			9.48	20
1,1,2-Trichloroethane	25.0	22.9	25.1	91.5	100	78.0-120			9.12	20
Trichloroethene	25.0	26.1	27.7	104	111	78.0-120			6.16	20
Trichlorofluoromethane	25.0	16.5	17.1	65.8	68.6	56.0-137			4.13	20
1,2,3-Trichloropropane	25.0	20.6	23.4	82.4	93.6	72.0-124			12.8	20
1,2,4-Trimethylbenzene	25.0	23.8	25.4	95.2	102	75.0-120			6.74	20
1,3,5-Trimethylbenzene	25.0	24.2	25.3	96.9	101	75.0-120			4.42	20
Vinyl acetate	125	126	136	101	109	46.0-160			7.24	20
Vinyl chloride	25.0	25.8	27.3	103	109	64.0-133			5.60	20
Xylenes, Total	75.0	75.6	78.8	101	105	77.0-120			4.12	20
(S) Toluene-d8				*105*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*92.0*	*93.3*	*76.0-123*				
(S) 4-Bromofluorobenzene				*98.8*	*99.1*	*80.0-120*				

L883333-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L883333-02 01/12/17 22:35 • (MS) R3190539-4 01/12/17 19:43 • (MSD) R3190539-5 01/12/17 20:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	U	1390	1420	111	114	10	10.0-139			2.07	25
Acrylonitrile	125	U	1430	1460	114	117	10	46.0-159			2.44	23
Benzene	25.0	9.86	295	290	114	112	10	34.0-147			1.69	20
Bromobenzene	25.0	U	277	279	111	112	10	51.0-137			0.490	20
Bromodichloromethane	25.0	U	276	270	110	108	10	52.0-135			1.93	20
Bromochloromethane	25.0	U	268	261	107	105	10	53.0-138			2.34	20
Bromoform	25.0	U	267	265	107	106	10	50.0-146			0.430	20
Bromomethane	25.0	U	267	240	107	95.8	10	10.0-160			10.9	23
n-Butylbenzene	25.0	U	302	300	121	120	10	50.0-144			0.630	20
sec-Butylbenzene	25.0	U	276	271	110	109	10	48.0-143			1.71	20
tert-Butylbenzene	25.0	U	278	275	111	110	10	50.0-142			1.08	20
Carbon disulfide	25.0	U	261	250	105	100	10	10.0-147			4.38	20

L883333-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L883333-02 01/12/17 22:35 • (MS) R3190539-4 01/12/17 19:43 • (MSD) R3190539-5 01/12/17 20:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	25.0	U	259	248	104	99.2	10	41.0-138			4.42	20
Chlorobenzene	25.0	U	284	282	114	113	10	52.0-141			0.920	20
Chlorodibromomethane	25.0	U	280	274	112	110	10	54.0-142			2.28	20
Chloroethane	25.0	U	137	121	54.9	48.4	10	23.0-160			12.5	20
Chloroform	25.0	U	284	281	114	112	10	50.0-139			0.920	20
Chloromethane	25.0	U	252	250	101	99.9	10	14.0-151			0.830	20
1,2-Dibromo-3-Chloropropane	25.0	U	249	253	99.4	101	10	49.0-144			1.82	24
1,2-Dibromoethane	25.0	U	262	259	105	104	10	54.0-140			1.08	20
Dibromomethane	25.0	U	265	267	106	107	10	53.0-138			0.580	20
1,2-Dichlorobenzene	25.0	U	284	284	114	114	10	56.0-139			0.0300	20
1,3-Dichlorobenzene	25.0	U	269	268	108	107	10	50.0-141			0.290	20
1,4-Dichlorobenzene	25.0	U	278	269	111	108	10	53.0-136			3.34	20
trans-1,4-Dichloro-2-butene	25.0	U	247	250	98.9	100	10	40.0-150			1.11	21
Dichlorodifluoromethane	25.0	U	305	278	122	111	10	20.0-160			9.21	21
1,1-Dichloroethane	25.0	U	311	304	124	122	10	47.0-143			2.19	20
1,2-Dichloroethane	25.0	U	269	264	108	106	10	47.0-141			1.97	20
1,1-Dichloroethene	25.0	U	293	283	117	113	10	31.0-148			3.75	20
cis-1,2-Dichloroethene	25.0	U	278	278	111	111	10	43.0-142			0.0700	20
trans-1,2-Dichloroethene	25.0	U	274	273	109	109	10	36.0-141			0.100	20
1,2-Dichloropropane	25.0	U	316	316	126	126	10	51.0-141			0.0400	20
cis-1,3-Dichloropropene	25.0	U	311	308	124	123	10	53.0-139			0.930	20
trans-1,3-Dichloropropene	25.0	U	285	282	114	113	10	51.0-143			1.00	20
Di-isopropyl ether	25.0	U	303	300	121	120	10	44.0-144			0.940	20
Ethylbenzene	25.0	75.1	367	360	117	114	10	42.0-147			1.86	20
Hexachloro-1,3-butadiene	25.0	U	310	314	124	126	10	44.0-146			1.36	21
2-Hexanone	125	U	1290	1330	103	106	10	36.0-145			2.72	23
Iodomethane	125	U	1180	1240	94.3	99.3	10	30.0-151			5.20	20
2-Butanone (MEK)	125	U	1470	1490	118	120	10	12.0-149			1.36	24
Methylene Chloride	25.0	U	261	257	104	103	10	42.0-135			1.47	20
4-Methyl-2-pentanone (MIBK)	125	U	1330	1350	106	108	10	44.0-160			1.11	22
Methyl tert-butyl ether	25.0	35.6	297	294	105	103	10	42.0-142			1.10	20
Naphthalene	25.0	182	411	430	91.5	99.0	10	42.0-146			4.45	24
n-Propylbenzene	25.0	20.3	314	309	117	116	10	47.0-144			1.45	20
Styrene	25.0	U	313	309	125	124	10	47.0-147			1.27	20
1,1,1,2-Tetrachloroethane	25.0	U	264	257	105	103	10	52.0-140			2.34	20
1,1,2,2-Tetrachloroethane	25.0	U	265	265	106	106	10	46.0-149			0.170	20
Tetrachloroethene	25.0	U	290	275	116	110	10	38.0-147			5.34	20
Toluene	25.0	233	528	519	118	114	10	42.0-141			1.72	20
1,1,2-Trichlorotrifluoroethane	25.0	U	293	280	117	112	10	40.0-151			4.39	21
1,1,1-Trichloroethane	25.0	U	281	266	112	106	10	46.0-140			5.69	20

L883333-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L883333-02 01/12/17 22:35 • (MS) R3190539-4 01/12/17 19:43 • (MSD) R3190539-5 01/12/17 20:02

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2,4-Trichlorobenzene	25.0	U	283	304	113	121	10	49.0-147			6.97	21
1,1,2-Trichloroethane	25.0	U	270	268	108	107	10	54.0-139			0.640	20
Trichloroethene	25.0	U	285	282	114	113	10	32.0-156			0.820	20
Trichlorofluoromethane	25.0	U	188	173	75.1	69.3	10	32.0-152			7.93	20
1,2,3-Trichloropropane	25.0	U	255	251	102	100	10	54.0-143			1.56	21
1,2,4-Trimethylbenzene	25.0	336	627	624	117	115	10	41.0-146			0.530	20
1,3,5-Trimethylbenzene	25.0	63.3	346	337	113	110	10	44.0-143			2.69	20
Vinyl acetate	125	U	1530	1530	122	123	10	30.0-160			0.360	20
Vinyl chloride	25.0	U	285	267	114	107	10	24.0-153			6.61	20
Xylenes, Total	75.0	753	1660	1610	120	115	10	41.0-148			2.56	20
(S) Toluene-d8					*105*	*104*		*80.0-120*				
(S) Dibromofluoromethane					*94.8*	*95.4*		*76.0-123*				
(S) 4-Bromofluorobenzene					*99.8*	*98.3*		*80.0-120*				

Method Blank (MB)

(MB) R3190825-3 01/14/17 18:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
trans-1,4-Dichloro-2-butene	U		0.866	2.50
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Ethanol	U		42.0	100
Hexachloro-1,3-butadiene	U		0.256	1.00
2-Hexanone	U		3.82	10.0
Iodomethane	U		1.71	10.0

Method Blank (MB)

(MB) R3190825-3 01/14/17 18:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl acetate	U		1.63	10.0
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
tert-Amyl Methyl Ether	U		0.260	1.00
Ethyl tert-butyl ether	U		0.270	1.00
tert-Butyl alcohol	U		2.40	5.00
(S) Toluene-d8	*103*			*80.0-120*
(S) Dibromofluoromethane	*104*			*76.0-123*
(S) 4-Bromofluorobenzene	*103*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3190825-1 01/14/17 17:17 • (LCSD) R3190825-2 01/14/17 17:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	105	106	84.2	85.0	10.0-160			0.850	23
Acrylonitrile	125	120	121	96.3	96.7	60.0-142			0.350	20
Benzene	25.0	27.6	26.5	110	106	69.0-123			3.95	20
Bromobenzene	25.0	25.2	24.3	101	97.3	79.0-120			3.53	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3190825-1 01/14/17 17:17 • (LCSD) R3190825-2 01/14/17 17:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	25.0	26.0	25.5	104	102	76.0-120			1.82	20
Bromochloromethane	25.0	30.0	29.6	120	118	76.0-122			1.34	20
Bromoform	25.0	23.9	23.4	95.7	93.5	67.0-132			2.34	20
Bromomethane	25.0	24.1	22.9	96.6	91.4	18.0-160			5.48	20
n-Butylbenzene	25.0	24.7	24.6	98.9	98.4	72.0-126			0.500	20
sec-Butylbenzene	25.0	25.6	24.6	102	98.3	74.0-121			4.11	20
tert-Butylbenzene	25.0	25.3	24.4	101	97.5	75.0-122			3.86	20
Carbon disulfide	25.0	27.8	27.2	111	109	55.0-127			2.10	20
Carbon tetrachloride	25.0	27.8	26.9	111	107	63.0-122			3.27	20
Chlorobenzene	25.0	26.9	25.8	108	103	79.0-121			4.25	20
Chlorodibromomethane	25.0	26.3	25.9	105	104	75.0-125			1.41	20
Chloroethane	25.0	27.7	27.8	111	111	47.0-152			0.0400	20
Chloroform	25.0	27.6	26.5	110	106	72.0-121			4.03	20
Chloromethane	25.0	25.3	24.4	101	97.5	48.0-139			3.65	20
1,2-Dibromo-3-Chloropropane	25.0	21.1	21.8	84.5	87.4	64.0-127			3.33	20
1,2-Dibromoethane	25.0	24.6	24.3	98.6	97.1	77.0-123			1.47	20
Dibromomethane	25.0	27.5	26.9	110	108	78.0-120			2.09	20
1,2-Dichlorobenzene	25.0	25.3	26.3	101	105	80.0-120			3.70	20
1,3-Dichlorobenzene	25.0	24.3	24.5	97.3	98.1	72.0-123			0.820	20
1,4-Dichlorobenzene	25.0	23.5	24.6	94.2	98.6	77.0-120			4.58	20
trans-1,4-Dichloro-2-butene	25.0	21.3	21.8	85.4	87.3	55.0-134			2.20	20
Dichlorodifluoromethane	25.0	28.8	28.4	115	114	49.0-155			1.58	20
1,1-Dichloroethane	25.0	28.3	27.3	113	109	70.0-126			3.67	20
1,2-Dichloroethane	25.0	28.5	27.7	114	111	67.0-126			2.77	20
1,1-Dichloroethene	25.0	28.5	27.6	114	110	64.0-129			3.34	20
cis-1,2-Dichloroethene	25.0	28.3	27.6	113	110	73.0-120			2.46	20
trans-1,2-Dichloroethene	25.0	28.5	28.0	114	112	71.0-121			1.65	20
1,2-Dichloropropane	25.0	27.2	26.5	109	106	75.0-125			2.53	20
cis-1,3-Dichloropropene	25.0	27.7	27.0	111	108	79.0-123			2.57	20
trans-1,3-Dichloropropene	25.0	26.2	25.7	105	103	74.0-127			2.00	20
Di-isopropyl ether	25.0	26.4	26.3	106	105	59.0-133			0.440	20
Ethylbenzene	25.0	25.9	25.0	103	99.9	77.0-120			3.52	20
Hexachloro-1,3-butadiene	25.0	23.3	23.5	93.2	94.1	64.0-131			1.03	20
2-Hexanone	125	107	110	85.7	87.7	58.0-147			2.30	20
Iodomethane	125	121	123	96.5	98.1	57.0-140			1.69	20
2-Butanone (MEK)	125	116	118	93.0	94.1	37.0-158			1.16	20
Methylene Chloride	25.0	27.2	26.5	109	106	66.0-121			2.56	20
4-Methyl-2-pentanone (MIBK)	125	117	116	93.4	93.1	59.0-143			0.330	20
Methyl tert-butyl ether	25.0	24.9	24.9	99.6	99.7	64.0-123			0.160	20
Naphthalene	25.0	21.1	22.1	84.4	88.4	62.0-128			4.73	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3190825-1 01/14/17 17:17 • (LCSD) R3190825-2 01/14/17 17:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Propylbenzene	25.0	26.4	25.7	106	103	79.0-120			2.64	20
Styrene	25.0	26.4	26.5	105	106	78.0-124			0.580	20
1,1,1,2-Tetrachloroethane	25.0	26.3	25.5	105	102	75.0-122			2.93	20
1,1,2,2-Tetrachloroethane	25.0	22.6	22.7	90.5	90.7	71.0-122			0.230	20
Tetrachloroethene	25.0	25.1	24.8	100	99.2	70.0-127			1.21	20
Toluene	25.0	26.7	25.7	107	103	77.0-120			3.86	20
1,1,2-Trichlorotrifluoroethane	25.0	27.5	27.6	110	110	61.0-136			0.0900	20
1,2,4-Trichlorobenzene	25.0	23.7	23.9	94.7	95.8	69.0-129			1.16	20
1,1,1-Trichloroethane	25.0	28.6	28.0	115	112	68.0-122			2.34	20
1,1,2-Trichloroethane	25.0	25.7	25.1	103	100	78.0-120			2.46	20
Trichloroethene	25.0	27.9	27.0	111	108	78.0-120			2.94	20
Trichlorofluoromethane	25.0	27.2	26.7	109	107	56.0-137			1.97	20
1,2,3-Trichloropropane	25.0	23.8	24.0	95.0	96.0	72.0-124			1.01	20
1,2,4-Trimethylbenzene	25.0	24.9	24.9	99.5	99.7	75.0-120			0.200	20
1,3,5-Trimethylbenzene	25.0	24.8	24.3	99.1	97.2	75.0-120			1.88	20
Vinyl acetate	125	121	110	96.6	87.7	46.0-160			9.65	20
Vinyl chloride	25.0	30.0	29.8	120	119	64.0-133			0.640	20
Xylenes, Total	75.0	77.8	76.4	104	102	77.0-120			1.82	20
(S) Toluene-d8				*106*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*105*	*103*	*76.0-123*				
(S) 4-Bromofluorobenzene				*105*	*103*	*80.0-120*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660
Alaska	UST-080
Arizona	AZ0612
Arkansas	88-0469
California	01157CA
Colorado	TN00003
Conneticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia [1]	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky [1]	90010
Kentucky [2]	16
Louisiana	AI30792
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086
Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico	TN00003
New York	11742
North Carolina	Env375
North Carolina [1]	DW21704
North Carolina [2]	41
North Dakota	R-140
Ohio–VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	221
South Carolina	84004
South Dakota	n/a
Tennessee [1 4]	2006
Texas	T 104704245-07-TX
Texas [5]	LAB0152
Utah	6157585858
Vermont	VT2006
Virginia	109
Washington	C1915
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

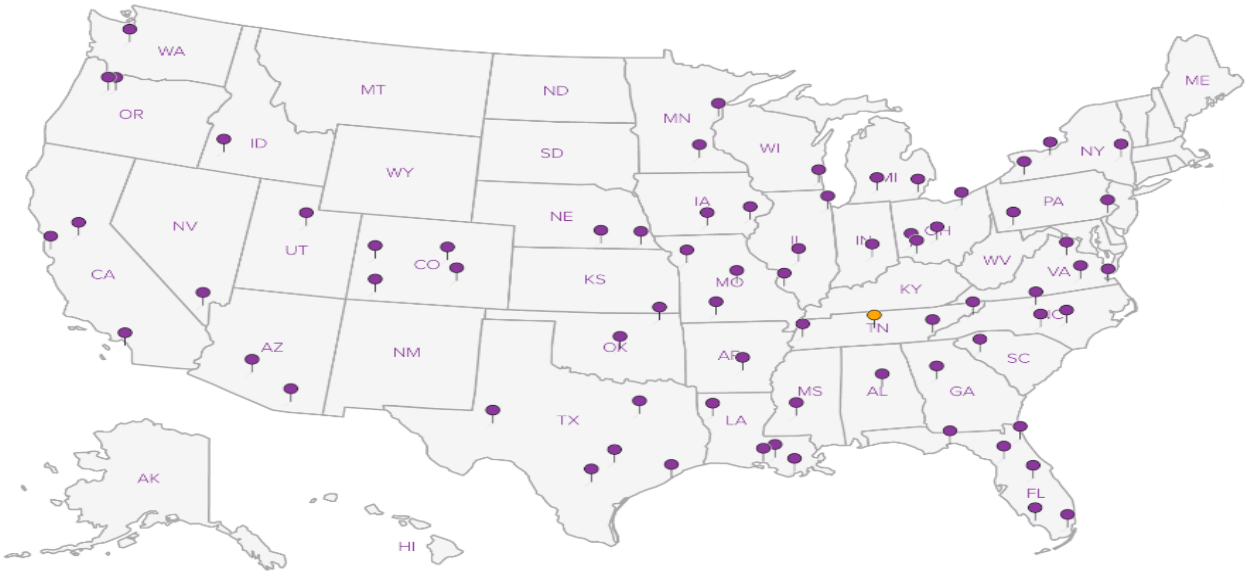
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01
A2LA – ISO 17025 [5]	1461.02
Canada	1461.01
EPA–Crypto	TN00003
AIHA	100789
DOD	1461.01
USDA	S-67674

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Report to: Trev Greene

Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market

City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381

Client Project #: FMMD1011

Lab Project #

Collected by (print): BM

Site/Facility ID #

P.O. #: GREENENVA120914S

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 883333
B152

Acctnum:
Template:
Prelogin:
TSR:
PB:

Shipped Via: FEDEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX, MTBE via Method 18	TVPH via Method 18	BTEX, MTBE, Ethanol via V8260	TPH-GRO via 8015	pH	VOCs via 8260 (including oxygenates) See Remarks)					Rem./Contaminant	Sample # (lab only)
RCP19	Grab	Air		01/10/17	1255	1	X	X										
INF16	Grab	GW		01/10/17	1318	6			X	X								01
MID10	Grab	GW		01/10/17	1330	6			X	X								02
EFF15	Grab	GW		01/10/17	1320	7			X	X	X							03
DW01	Grab	GW		01/10/17	1420	4						X						04
																		05

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks: Include Oxygenates: Ethanol, TAA, TAEE, TAME, TBA, ETBE, DIPE

pH ___ Temp ___
Flow ___ Other ___

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[signature]	01/11/17	0915	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature) 6645 0393 3599
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: 2.1°C °C Bottles Received: 24

Date: 1/12/17 Time: 0900

Hold #

Condition: (lab use only) 40/1

COC Seal Intact: ✓Y ___N ___NA

pH Checked: NCF:

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Form

Client: Greenews		SDG#	883333
Cooler Received/Opened On: 1/12/17		Temperature Upon Receipt:	2.1 °c
Received By: **Don Wright**			
Signature: [signature]			

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?	✓		
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)			✓
If applicable, was an observable VOA headspace present?		✓	
Non Conformance Generated. (If yes see attached NCF)			

APPENDIX D

Air Exhaust Stream Data

VA DEQ Stationary Source Permit to Construct and Operate
Monthly Air Emissions Calculations

COMMONWEALTH of VIRGINIA

David K. Paylor
Director

Molly Joseph Ward
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
Blue Ridge Regional Office
www.deq.virginia.gov

Robert J. Weld
Regional Director

Lynchburg Office
7705 Timberlake Road
Lynchburg, Virginia 24502
(434) 582-5120
Fax (434) 582-5125

Roanoke Office
3019 Peters Creek Road
Roanoke, Virginia 24019
(540) 562-6700
Fax (540) 562-6725

October 20, 2015

Mr. Marshall Adam Flora
Project Manager
Greene Environmental Services, LLC
200 Buckwheat Lane
Rocky Mount, VA 24151

Location: Patrick County, VA
Registration No.: 21600

Dear Mr. Flora:

Attached is a permit to construct and operate a dual phase extraction system in accordance with the provisions of the Virginia Regulations for the Control and Abatement of Air Pollution.

In the course of evaluating the application and arriving at a final decision to approve the project, the Department of Environmental Quality (DEQ) deemed the application complete on October 13, 2015.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to construct and operate shall not relieve the Meadows of Dan Food Market of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-200 provides that you may request direct consideration of the decision by the Board if the Director of the DEQ made the decision. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever

occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 10009
Richmond, VA 23240-0009

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact Margaret O. Wagner at 540-562-6700.

Sincerely,

Robert J. Weld
Regional Director

Attachment: Permit

cc: Frank Adams, Air Compliance Manager

COMMONWEALTH of VIRGINIA

David K. Paylor
Director

Molly Joseph Ward
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
Blue Ridge Regional Office
www.deq.virginia.gov

Robert J. Weld
Regional Director

Lynchburg Office
7705 Timberlake Road
Lynchburg, Virginia 24502
(434) 582-5120
Fax (434) 582-5125

Roanoke Office
3019 Peters Creek Road
Roanoke, Virginia 24019
(540) 562-6700
Fax (540) 562-6725

STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

The Meadows of Dan Food Market
2609 Jeb Stuart Highway
Meadows of Dan, VA 24120
Registration No.: 21600

is authorized to construct and operate

a dual-phase extraction system

located at

the Meadows of Dan Food Market at 2609 Jeb Stuart Highway,
Meadows of Dan, VA

in accordance with the Conditions of this permit.

Approved on October 20, 2015

Robert J. Weld
Regional Director

Permit consists of 6 pages.
Permit Conditions 1 to 16.

INTRODUCTION

This permit approval is based on the permit application dated June 30, 2015 with supplemental information received on August 6, 2015, August 28, 2015 and October 13, 2015. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the Virginia Department of Environmental Quality (DEQ) or the State Air Pollution Control Board (Board) for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

Equipment List - Equipment at this facility consists of:

Equipment to be Constructed			
Reference No.	**Equipment Description**	**Rated Capacity**	**Federal Requirements**
DPE - 1	Dual Phase Extraction System equipped with a 3-Ohio Medical Corporation rotary claw vacuum pumps (operated in parallel)	765 ACFM at 15" Hg vacuum	N/A
2	4 tray-EZ Tray Steel Air Stripper	25 gpm 140 SCFM	

Specifications included in the above table are for informational purposes only and do not form enforceable terms or conditions of the permit.
(9 VAC 80-1180 D 3)

PROCESS REQUIREMENTS

1. **VOC Work Practice Standards** – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9 VAC 5-80-1180 and 9 VAC 5-50-20 F)

2. **Emissions Monitoring** – Sampling of the exhaust stream from the DPE shall be conducted and mass removal calculations shall be performed monthly to determine compliance with the emissions limit in Condition 4.
(9 VAC 5-80-1180 and 9 VAC 5-50-30 F)

3. **Emissions Testing** – The DPE shall be constructed to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.
(9 VAC 5-80-1180 and 9 VAC 5-50-30 F)

EMISSION LIMITS

4. **Process Emission Limits** - Emissions from the operation of the DPE shall not exceed the limits specified below:

Volatile Organic Compounds	65 tons/yr

The annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. Compliance with this emission limit may be determined as stated in Condition 6.
(9 VAC 5-80-1180)

5. **Visible Emission Limit** - Visible emissions from the DPE shall not exceed five percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed ten percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A. This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

RECORDS

6. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

   a. Monthly and annual VOC emissions from the DPE to verify compliance with the ton/yr emission limitation in Condition 4. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. VOC emissions shall be calculated using methods approved in Attachment A to this permit.

   b. Notifications required in Condition 7.

   These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
   (9 VAC 5-80-1180 and 9 VAC 5-50-50)

NOTIFICATIONS

7. **Initial Notifications** - The permittee shall furnish written notification to the Blue Ridge Regional Office of:

   a. The actual date on which construction of the DPE commenced within 30 days after such date.

   b. The actual start-up date of the DPE within 15 days after such date.

   (9 VAC 5-80-1180 and 9 VAC 5-50-50)

GENERAL CONDITIONS

8. **Permit Invalidation** – This permit to construct the DPE shall become invalid, unless an extension is granted by the DEQ, if:

   a. A program of continuous construction is not commenced within 18 months from the date of this permit; or,

   b. A program of construction is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of a phased construction project.

   (9 VAC 5-80-1210)

9. **Permit Suspension/Revocation** - This permit may be suspended or revoked if the permittee:

   a. Knowingly makes material misstatements in the permit application or any amendments to it;

   b. Fails to comply with the conditions of this permit;

   c. Fails to comply with any emission standards applicable to a permitted emissions unit;

   d. Causes emissions from the stationary source which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard; or

   e. Fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time an application for this permit is submitted.

   (9 VAC 5-80-1210 F)

10. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

    a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;

    b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;

    c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and

    d. To sample or test at reasonable times.

    For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
    (9 VAC 5-170-130 and 9 VAC 5-80-1180)

11. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
    (9 VAC 5-50-20 E and 9 VAC 5-80-1180 D)

12. **Record of Malfunctions** – The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9 VAC 5-20-180 J and 9 VAC 5-80-1180 D)

13. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Blue Ridge Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Blue Ridge Regional Office.
(9 VAC 5-20-180 C and 9 VAC 5-80-1180)

14. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I and 9 VAC 5-80-1180)

15. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Regional Director, Blue Ridge Regional Office of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-1240)

16. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-1180)

CALCULATION SHEET
MONTHLY AIR EMISSIONS

PROBLEM:

Calculate the monthly air emissions as required by the VA DEQ Stationary Source Permit to Construct and Operate. As stated in the permit emissions from the operation of the DPE remediation system will not exceed 65 tons per year.

GIVEN:

Rotary Claw Pump Exhaust Average Air Sample Results

Air Stripper Exhaust Average Air Sample Results

Approximate RCP Exhaust Flow Rates

Approximate Air Stripper Flow Rates

Hours of operation

Conversion factor: $\frac{1mg}{M^3} = \frac{2.2046226218e{-6}\ \text{lbs}}{35.314\,666\,721\ \text{ft}^3}$

SOLUTION:

Using the site-specific information collected during operation of the DPE remediation system, monthly emissions have been calculated.

Table 1.

Monthly Emissions Calculations

Reporting Period	System Component	Calculated Monthly Emissions (tons)	Total Monthly Emissions (tons)	Total Emissions to Date (tons)	Predicted Total Annual Emissions (tons)	Annual Exemption Rate (tons/year)
02/22/16-02/29/16	RCP Exhaust	0.66	0.68	0.68	8.16	65
	Air Stripper Exhaust	0.015				
03/01/16-03/31/16	RCP Exhaust	4.42	4.46	5.14	30.84	65
	Air Stripper Exhaust	0.038				
04/01/16-04/30/16	RCP Exhaust	4.88	4.91	10.05	40.20	65
	Air Stripper Exhaust	0.025				

CALCULATION SHEET
MONTHLY AIR EMISSIONS

Table 1 (Cont'd).

Monthly Emissions Calculations

Reporting Period	System Component	Calculated Monthly Emissions (tons)	Total Monthly Emissions (tons)	Total Emissions to Date (tons)	Predicted Total Annual Emissions (tons)	Annual Exemption Rate (tons/year)
05/01/16-05/31/16	RCP Exhaust	2.54	2.55	12.60	37.80	65
	Air Stripper Exhaust	0.007				
06/01/16-06/30/16	RCP Exhaust	1.64	1.65	14.25	34.20	65
	Air Stripper Exhaust	0.006				
07/01/16-07/31/16	RCP Exhaust	2.57	2.58	16.83	33.66	65
	Air Stripper Exhaust	0.005				
08/01/16-08/31/16	RCP Exhaust	1.19	1.19	18.02	30.89	65
	Air Stripper Exhaust	0.003				
09/01/16-09/30/16	RCP Exhaust	1.33	1.33	19.35	29.03	65
	Air Stripper Exhaust	0.002				
10/01/16-10/31/16	RCP Exhaust	1.75	1.75	21.10	28.13	65
	Air Stripper Exhaust	0.003				
11/01/16-11/30/16	RCP Exhaust	1.03	1.03	22.13	26.56	65
	Air Stripper Exhaust	0.002				
12/01/16-12/31/16	RCP Exhaust	0.87	0.87	23.00	25.09	65
	Air Stripper Exhaust	0.002				

(Calculations performed in Excel Spreadsheet)

Note: These calculations should be considered estimates as they are an extrapolation of lab data representing a few seconds of exhaust flow over multiday exhaust discharges.

APPENDIX E

General VPDES Permit VAG83

VA DEQ Coverage Letter Dated June 2, 2015
CAP IMP SP5 Discharge Monitoring Reports

COMMONWEALTH of VIRGINIA

David K. Paylor
Director

Molly Joseph Ward
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
Blue Ridge Regional Office
www.deq.virginia.gov

Robert J. Weld
Regional Director

Lynchburg Office
7705 Timberlake Road
Lynchburg, Virginia 24502
(434) 582-5120
Fax (434) 582-5125

Roanoke Office
3019 Peters Creek Road
Roanoke, Virginia 24019
(540) 562-6700
Fax (540) 562-6725

June 2, 2015

Mr. Marshall Adam Flora
Project Manager
Greene Environmental Services, LLC
129 Bunny Ridge Lane
Rocky Mount, VA 24151

RE: Coverage under the General VPDES Permit for Discharges from Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests, VAG830483, Meadows of Dan Food Market, 2609 Jeb Stuart Highway, Meadows of Dan, PC 2014-2256

Dear Mr. Flora;

We have reviewed your Registration Statement received on May 26, 2015, and determined that the discharge outlined on that statement is hereby covered under the referenced general VPDES permit. The effective date of your coverage under this general permit is the date of this letter. The enclosed copy of the general permit contains the applicable effluent limitations, monitoring requirements and other conditions of coverage.

The permit requires effluent sampling on a monthly basis and reporting on a monthly basis. Discharge Monitoring Reports (DMRs) that you may use to report sampling results are enclosed. You are responsible for making additional copies of the DMR as needed. Separate DMRs must be completed for each permitted outfall and DMRs must be submitted for each outfall regardless of whether a discharge from that outfall occurred during the previous month. If a discharge did not occur from a particular outfall during the previous month, please write "no discharge" on the DMR. You are required to submit completed DMRs by the 10th of each month to:

Cathy Kibler
VA DEQ
3019 Peters Creek Road
Roanoke, VA 24019

Information provided on the registration statement indicates that wastewater will be discharged through a treatment works. Within 30 days of the date of this letter, you are required to develop and maintain on site an Operation and Maintenance (O&M) Manual for this permitted treatment works (see Part I.B.3 of the Permit).

This general permit will expire on February 28, 2018. The conditions of the permit require that you submit a new registration statement no later than 30 days prior to the date of permit expiration if you wish to continue coverage under the permit.

If you wish to terminate permit coverage for inactive outfalls or the entire site, please fill out the enclosed Termination of Coverage Request form and send it to Lewis Pillis at the address for the Roanoke office listed above.

Please review the enclosed materials carefully. If you have any questions, please contact Lewis Pillis at lewis.pillis@deq.virginia.gov or at 540-562-6789.

Sincerely,

Kip D. Foster
Water Permit Manager

Enclosures:
Discharge Monitoring Report
VPDES Permit No. VAG830483
Termination of Coverage Request form

cc: Lewis Pillis, DEQ, BRRO-R (electronic)
Doug Carl, DEQ, BRRO-R (electronic)

06/01/2015

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

PETROLEUM DISCHARGE PERMIT

DISCHARGE MONITORING REPORT(DMR)

PERMITTEE NAME/ADDRESS(INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME Meadows Of Dan Food Mart

ADDRESS

FACILITY LOCATION 2609 JEB Stuart Hwy
Meadows Of Dan VA 24120

VAG830483	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2016	10	01	TO	2016	10	31

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Blue Ridge Regional Office
3019 Peters Creek Road
Roanoke VA 24019

NOTE: **READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM**

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTED	*********	5,010	GPD	*********	*********	*********			1/M	EST
	REQUIREMENT	*********	NL	GPD	*********	*********	*********			1/M	EST
002 pH	REPORTED	*********	*********		6.02	*********	6.02	SU	0	1/M	GRAB
	REQUIREMENT	*********	*********		6.0	*********	9.0	SU		1/M	GRAB
146 ETHANOL	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	4100.0	UG/L		1/M	GRAB
172 ETHYLBENZENE	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	4.3	UG/L		1/M	GRAB
216 BENZENE (AS C6H6)	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	12.0	UG/L		1/M	GRAB
222 TOLUENE (AS C7H8)	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	43.0	UG/L		1/M	GRAB
331 METHYL-TERT-BUTYL ETHER	REPORTED	*********	*********		*********	*********	19.0	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	440.0	UG/L		1/M	GRAB
745 TOTAL XYLENES	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	33.0	UG/L		1/M	GRAB

Additional DMR Comments: ND = Non Detected at laboratory reported detection limit.

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)
	NA	NA	NA

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

OPERATOR IN RESPONSIBLE CHARGE			DATE		
Marshall Adam Flora		NA	2016	11	07
TYPED OR PRINTED NAME	**SIGNATURE**	**CERTIFICATE NO.**	**YEAR**	**MO.**	**DAY**
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		**TELEPHONE**			
Marshall Adam Flora		(540) 483-3311	2016	11	07
TYPED OR PRINTED NAME	**SIGNATURE**		**YEAR**	**MO.**	**DAY**

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.02		1	11/02/2016 14:11	WG921914

Sample Narrative:

9040C L868630-04 WG921914: 6.02 at 9.0c

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	68.0	J	31.4	100	1	10/28/2016 13:20	WG921542
(S) α,α,α-Trifluorotoluene(FID)	*109*			*62.0-128*		*10/28/2016 13:20*	WG921542

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	11/03/2016 06:59	WG921633
Ethylbenzene	U		0.384	1.00	1	11/03/2016 06:59	WG921633
Naphthalene	U		1.00	5.00	1	11/03/2016 06:59	WG921633
Toluene	U		0.780	5.00	1	11/03/2016 06:59	WG921633
Xylenes, Total	U		1.06	3.00	1	11/03/2016 06:59	WG921633
Ethanol	U		42.0	100	1	11/03/2016 06:59	WG921633
Methyl tert-butyl ether	19.0		0.367	1.00	1	11/03/2016 06:59	WG921633
(S) Toluene-d8	*96.6*			*90.0-115*		*11/03/2016 06:59*	WG921633
(S) Dibromofluoromethane	*96.6*			*79.0-121*		*11/03/2016 06:59*	WG921633
(S) 4-Bromofluorobenzene	*95.5*			*80.1-120*		*11/03/2016 06:59*	WG921633

Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Trev Greene
Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market
City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381
Client Project # FMMD1010
Lab Project #

L # L868630
I116

Collected by (print): BM
Site/Facility ID #
P.O. # GREENENVA120914S

Collected by (signature):
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed
Email? ___No ✓Yes
FAX? ___No ___Yes

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via: FEDEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX, MTBE via Method 18	TVPH via Method 18	BTEX, MTBE, Ethanol via V8260	TPH-GRO via 8015	pH						Rem./Contaminant	Sample # (lab only)
RCP16	Grab	Air		10/25/16	1003	1	X	X										-01
INF13	Grab	Air		10/25/16	1035	6			X	X								-02
MID07	Grab	GW		10/25/16	1050	6			X	X								-03
EFF13	Grab	GW		10/25/16	1040	7			X	X	X							-04

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____ 6272 8613 2480
Flow _____ Other _____
Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[illegible]	10-26-16	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			[illegible]

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____
Temp: 3.1 °C Bottles Received: 20
Date: 10-27-16 Time: 900

Condition: (lab use only) ok
COC Seal Intact: ✓Y ___N ___NA
pH Checked:
NCF:

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

06/01/2015

PERMITTEE NAME/ADDRESS(INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME Meadows Of Dan Food Mart
ADDRESS

FACILITY LOCATION 2609 JEB Stuart Hwy
Meadows Of Dan VA 24120

PETROLEUM DISCHARGE PERMIT
DISCHARGE MONITORING REPORT(DMR)

VAG830483	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2016	11	01	TO	2016	11	30

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Blue Ridge Regional Office
3019 Peters Creek Road
Roanoke VA 24019

NOTE: **READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM**

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTED	*********	3,900	GPD	*********	*********	*********			1/M	EST
	REQUIREMENT	*********	NL	GPD	*********	*********	*********			1/M	EST
002 pH	REPORTED	*********	*********		6.15	*********	6.15	SU	0	1/M	GRAB
	REQUIREMENT	*********	*********		6.0	*********	9.0	SU		1/M	GRAB
146 ETHANOL	REPORTED	*********	*********		*********	*********	68.4	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	4100.0	UG/L		1/M	GRAB
172 ETHYLBENZENE	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	4.3	UG/L		1/M	GRAB
216 BENZENE (AS C6H6)	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	12.0	UG/L		1/M	GRAB
222 TOLUENE (AS C7H8)	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	43.0	UG/L		1/M	GRAB
331 METHYL-TERT-BUTYL ETHER	REPORTED	*********	*********		*********	*********	20.5	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	440.0	UG/L		1/M	GRAB
745 TOTAL XYLENES	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	33.0	UG/L		1/M	GRAB

Additional DMR Comments: ND = Non Detected at laboratory reported detection limit.

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE			DATE		
	NA	NA	NA	Marshall Adam Flora		NA	2016	12	09
				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
				Marshall Adam Flora		(540) 483-3311	2016	12	09
				TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.15		1	11/23/2016 09:51	WG927772

Sample Narrative:

9040C L873263-04 WG927772: 6.15 at 12.3c

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	49.8	J J3	31.4	100	1	11/25/2016 05:07	WG928361
(S) α,α,α-Trifluorotoluene(FID)	*100*			*62.0-128*		*11/25/2016 05:07*	WG928361

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	11/22/2016 19:22	WG928858
Ethylbenzene	U		0.384	1.00	1	11/22/2016 19:22	WG928858
Naphthalene	9.03		1.00	5.00	1	11/22/2016 19:22	WG928858
Toluene	U		0.780	5.00	1	11/22/2016 19:22	WG928858
Xylenes, Total	U		1.06	3.00	1	11/22/2016 19:22	WG928858
Ethanol	68.4	J	42.0	100	1	11/22/2016 19:22	WG928858
Methyl tert-butyl ether	20.5		0.367	1.00	1	11/22/2016 19:22	WG928858
(S) Toluene-d8	*101*			*90.0-115*		*11/22/2016 19:22*	WG928858
(S) Dibromofluoromethane	*104*			*79.0-121*		*11/22/2016 19:22*	WG928858
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*11/22/2016 19:22*	WG928858

Chain of Custody Page 1 of 1

ESC LAB SCIENCES

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1873263

C080

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via: FEDEX

Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Report to: Trev Greene

Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market

City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381

Client Project # FMMD1010

Lab Project #

Collected by (print): BM

Site/Facility ID #

P.O. # GREENENVA120914S

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX, MTBE via Method 18	TVPH via Method 18	BTEX, MTBE, Ethanol via V8260	TPH-GRO via 8015	pH	Rem./Contaminant	Sample # (lab only)
RCP17	Grab	Air		11/14/16	1015	1	X	X					-01
INF14	Grab	GW		11/14/16	1000	6			X	X			-02
MID08	Grab	GW		11/14/16	1005	6			X	X			-03
EFF14	Grab	GW		11/14/16	1010	7			X	X	X		-04

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____
Flow _____ Other _____

Remarks:

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Caleb Harris	11/16/16	0915	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Joseph R

Samples returned via: ☐ UPS ✓ FedEx ☐ Courier ☐ _____

Temp: 2.1 °C Bottles Received: 20

Date: 11-17-16 Time: 0900

Hold #

Condition: (lab use only) ok TOH

COC Seal Intact: ✓Y ___N ___NA

pH Checked: NCF:

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

06/01/2015

PERMITTEE NAME/ADDRESS(INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME Meadows Of Dan Food Mart
ADDRESS

FACILITY LOCATION 2609 JEB Stuart Hwy
Meadows Of Dan VA 24120

PETROLEUM DISCHARGE PERMIT
DISCHARGE MONITORING REPORT(DMR)

VAG830483	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2016	12	01	TO	2016	12	31

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Blue Ridge Regional Office
3019 Peters Creek Road
Roanoke VA 24019

NOTE: **READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM**

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTED	*********	3,760	GPD	*********	*********	*********			1/M	EST
	REQUIREMENT	*********	NL	GPD	*********	*********	*********			1/M	EST
002 pH	REPORTED	*********	*********		4.68	*********	4.68	SU	1	1/M	GRAB
	REQUIREMENT	*********	*********		6.0	*********	9.0	SU		1/M	GRAB
146 ETHANOL	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	4100.0	UG/L		1/M	GRAB
172 ETHYLBENZENE	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	4.3	UG/L		1/M	GRAB
216 BENZENE (AS C6H6)	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	12.0	UG/L		1/M	GRAB
222 TOLUENE (AS C7H8)	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	43.0	UG/L		1/M	GRAB
331 METHYL-TERT-BUTYL ETHER	REPORTED	*********	*********		*********	*********	17.0	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	440.0	UG/L		1/M	GRAB
745 TOTAL XYLENES	REPORTED	*********	*********		*********	*********	ND	UG/L	0	1/M	GRAB
	REQUIREMENT	*********	*********		*********	*********	33.0	UG/L		1/M	GRAB

Additional DMR Comments: ND = Non Detected at laboratory reported detection limit. Changes will be made in an effort to increase the pH of the discharge.

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE			DATE		
	NA	NA	NA	Marshall Adam Flora		NA	2017	01	09
				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
				Marshall Adam Flora		(540) 483-3311	2017	01	09
				TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

Wet Chemistry by Method 9040C

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	4.68		1	12/19/2016 19:03	WG936243

Sample Narrative:

9040C L879241-04 WG936243: 4.68 at 18.5c

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	80.9	J	31.4	100	1	12/18/2016 06:26	WG936554
(S) α,α,α-Trifluorotoluene(FID)	*117*			*62.0-128*		*12/18/2016 06:26*	WG936554

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.331	1.00	1	12/20/2016 03:52	WG936892
Ethylbenzene	U		0.384	1.00	1	12/20/2016 03:52	WG936892
Naphthalene	U		1.00	5.00	1	12/21/2016 07:25	WG936892
Toluene	U		0.780	5.00	1	12/20/2016 03:52	WG936892
Xylenes, Total	U		1.06	3.00	1	12/20/2016 03:52	WG936892
Ethanol	U		42.0	100	1	12/20/2016 03:52	WG936892
Methyl tert-butyl ether	17.0		0.367	1.00	1	12/20/2016 03:52	WG936892
(S) Toluene-d8	*106*			*90.0-115*		*12/20/2016 03:52*	WG936892
(S) Toluene-d8	*101*			*90.0-115*		*12/21/2016 07:25*	WG936892
(S) Dibromofluoromethane	*99.4*			*79.0-121*		*12/21/2016 07:25*	WG936892
(S) Dibromofluoromethane	*102*			*79.0-121*		*12/20/2016 03:52*	WG936892
(S) 4-Bromofluorobenzene	*98.2*			*80.1-120*		*12/20/2016 03:52*	WG936892
(S) 4-Bromofluorobenzene	*102*			*80.1-120*		*12/21/2016 07:25*	WG936892

Company Name/Address:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151

Billing Information:
Greene Environmental
200 Buckwheat Lane
Rocky Mount, VA 24151
GREENENVA120914S

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1879241
C226

Report to: Trev Greene
Email To: tgreene@greene-environmental.com

Project Description: Meadows of Dan Food Market
City/State Collected: VA

Phone: 540-483-3311
Fax: 540-483-3381
Client Project # FMMD1010
Lab Project #

Collected by (print): BM
Site/Facility ID #
P.O. # GREENENVA120914S

Collected by (signature):
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed
Email? ___No ✓Yes
FAX? ___No ___Yes

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via: FEDEX

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX, MTBE via Method 18	TVPH via Method 18	BTEX, MTBE, Ethanol via V8260	TPH-GRO via 8015	pH						Rem./Contaminant	Sample # (lab only)
RCP18	Grab	Air		12/14/16	0750	1	X	X										-01
INF15	Grab	GW		12/14/16	0810	6			X	X								02
MID09	Grab	GW		12/14/16	0815	6			X	X								03
EFF15	Grab	GW		12/14/16	0820	7			X	X	X							04

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____
Flow _____ Other _____

Remarks:

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____	Condition: (lab use only)
Calvin Harris	12/15/16	1440			ok ok
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1 °C Bottles Received: 20	COC Seal Intact: ✓ Y ___N ___NA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Joseph R	Date: 12-16-16 Time: 9:00	pH Checked: NCF:

APPENDIX F

Mass Removal & Recovery Time Estimates

Dissolved Phase Petroleum Mass Removal Calculation Sheet
Vapor Phase Petroleum Mass Removal Calculation Sheet
Remediation System Treatment Efficiency Calculation Sheet
Mass Removal Recovery Rate Calculation Sheets
Remaining Petroleum Mass Graph

CALCULATION SHEET

DISSOLVED PHASE CONTAMINATION RECOVERY

PROBLEM:

Calculate a mass of dissolved phase constituent recovered through groundwater capture during Dual Phase Extraction Operation (CAP IMP SP5).

GIVEN:

Average Water Influent Sample Results

Gallons Discharged

Conversion factor: $\frac{1\mu g}{L} = \frac{2.2046226218e{-9}\ \text{lbs}}{0.26417205236\ \text{gallons}}$

SOLUTION:

Using the site-specific information collected during CAP IMP SP5, a calculation of the dissolved phase constituent recovery has been created.

Constituent	Average Concentration (µg/L)	Concentration (Converted to lbs/gal.)	Water Recovery (gallons)	Constituent Recovery (lbs)
Benzene	15.13	1.2629378737E-07	338,900	0.0428
Toluene	339.33	2.8318739106E-06		0.9597
Ethylbenzene	146.00	1.2184290500E-06		0.4129
Xylenes	1,103.33	9.2077629118E-06		3.1205
MTBE	48.77	4.0697755710E-07		0.1379
TPH-GRO	6,103.33	5.0934785171E-05		17.2618

(Calculations performed in Excel Spreadsheet)

Note: These calculations should be considered estimates as they are an extrapolation of lab data representing portions of isolated recovery batches over multiday discharge volumes.

CALCULATION SHEET
VAPOR PHASE CONTAMINATION RECOVERY

PROBLEM:

Calculate a mass of vapor phase constituent recovered through extraction of soil vapors during CAP IMP SP5.

GIVEN:

Rotary Claw Pump Exhaust Average Air Sample Results

Approximate RCP Exhaust Flow Rates

Hours of operation

Conversion factor: $\frac{1mg}{M^3} = \frac{2.2046226218e-6 \text{ lbs}}{35.314\,666\,721 \text{ ft}^3}$

SOLUTION:

Using the site-specific information collected during CAP IMP SP5, a calculation of the vapor phase constituent recovery has been created.

Constituent & Average Concentration (mg/M^3)		Concentration (Converted to lbs/ft^3)	Runtime Hours	Approximate Exhaust Flow Rate (SCFM)	Exhaust Volume (ft^3)	Recovery (lbs)
October 1, 2016 – October 31, 2016						
Benzene	0.00	0.00000000E+00	732.30	294.50	12,939,741	0.00
Toluene	279.00	1.74174010E-05				225.38
Ethylbenzene	87.90	5.48741773E-06				71.01
Xylenes	507.00	3.16509760E-05				409.56
MTBE	2.09	1.30474438E-07				1.69
TVPH	4,330.00	2.70313069E-04				3,497.78
November 1, 2016 – November 30, 2016						
Benzene	5.98	3.73319204E-07	720.00	307.84	13,298,688	4.96
Toluene	136.00	8.49020264E-06				112.91
Ethylbenzene	46.30	2.89041457E-06				38.44
Xylenes	266.80	1.66557799E-05				221.50
MTBE	1.63	1.01757576E-07				1.35
TVPH	2,470.00	1.54197063E-04				2,050.62

CALCULATION SHEET

VAPOR PHASE CONTAMINATION RECOVERY

Constituent & Average Concentration (mg/M^3)		Concentration (Converted to lbs/ft^3)	Runtime Hours	Approximate Exhaust Flow Rate (SCFM)	Exhaust Volume (ft^3)	Recovery (lbs)
December 1, 2016 – December 31, 2016						
Benzene	5.73	3.57712214E-07	744.60	307.48	13,736,976	4.91
Toluene	143.00	8.92719836E-06				122.63
Ethylbenzene	47.20	2.94659974E-06				40.48
Xylenes	319.20	1.99270050E-05				273.74
MTBE	1.55	9.67633389E-08				1.33
TVPH	2,020.00	1.26104480E-04				1,732.29

(Calculations performed in Excel Spreadsheet)

Note: These calculations should be considered estimates as they are an extrapolation of lab data representing a few seconds of exhaust flow over multiday exhaust discharges.

GREENE ENVIRONMENTAL SERVICES LLC.

CALCULATION SHEET

AIR STRIPPER EFFICIENCY

PROBLEM:

Calculate efficiency of the system's air stripper at removing individual constituents from process water during CAP IMP SP5.

GIVEN:

Average Water Influent and Midpoint Sample Results

Gallons Discharged

Conversion factor: $\frac{1\mu g}{L} = \frac{2.2046226218e{-9}\ \text{lbs}}{0.26417205236\ \text{gallons}}$

SOLUTION:

Using the site-specific information collected during CAP IMP SP5, a calculation of the air stripper efficiency by constituent has been created.

Constituent	Corresponding Concentration (µg/L)		Converted Concentration (lbs/gal.)		Water Recovery (gallons)	Constituent Mass (pounds)		Air Stripper Efficiency
	Influent	Midpoint	Influent	Midpoint		Influent	Midpoint	
Benzene	15.13	0.66	1.2629378737E-07	5.4745853204E-09	338,900	0.0428	0.001855	95.67%
Toluene	339.33	25.93	2.8318739106E-06	2.1642415545E-07		0.9597	0.073346	92.36%
Ethylbenzene	146.00	9.58	1.2184290500E-06	7.9976792663E-08		0.4129	0.027104	93.44%
Xylenes	1,103.33	99.43	9.2077629118E-06	8.2981138265E-07		3.1205	0.281223	90.99%
MTBE	48.77	16.47	4.0697755710E-07	1.3742099331E-07		0.1379	0.046572	66.23%
TPH-GRO	6,103.33	923.00	5.0934785171E-05	7.7028083090E-06		17.2618	2.610482	84.88%

(Calculations performed in Excel Spreadsheet)

Note: These calculations should be considered estimates as they are an extrapolation of lab data representing portions of isolated recovery batches over multiday discharge volumes.

GREENE ENVIRONMENTAL SERVICES LLC.

CALCULATION SHEET

LGAC EFFICIENCY

PROBLEM:

Calculate efficiency of the system's LGAC vessels at removing individual constituents from process water during CAP IMP SP5.

GIVEN:

Average Water Midpoint and Effluent Sample Results

Gallons Discharged

Conversion factor: $\frac{1\mu g}{L} = \frac{2.2046226218e-9 \text{ lbs}}{0.26417205236 \text{ gallons}}$

SOLUTION:

Using the site-specific information collected during CAP IMP SP5, a calculation of the LGAC efficiency by constituent has been created.

Constituent	Corresponding Concentration (µg/L)		Converted Concentration (lbs/gal.)		Water Recovery (gallons)	Constituent Mass (pounds)		LGAC Efficiency
	Midpoint	Effluent	Midpoint	Effluent		Midpoint	Effluent	
Benzene	0.66	0.00	5.4745853204E-09	0.0000000000E+00	338,900	0.001855	0.000000	100.00%
Toluene	25.93	0.00	2.1642415545E-07	0.0000000000E+00		0.073346	0.000000	100.00%
Ethylbenzene	9.58	0.00	7.9976792663E-08	0.0000000000E+00		0.027104	0.000000	100.00%
Xylenes	99.43	0.00	8.2981138265E-07	0.0000000000E+00		0.281223	0.000000	100.00%
MTBE	16.47	18.83	1.3742099331E-07	1.5717178384E-07		0.046572	0.053266	-14.37%
TPH-GRO	923.00	66.23	7.7028083090E-06	5.5274395486E-07		2.610482	0.187325	92.82%

(Calculations performed in Excel Spreadsheet)

Note: These calculations should be considered estimates as they are an extrapolation of lab data representing portions of isolated recovery batches over multiday discharge volumes.

GREENE ENVIRONMENTAL SERVICES LLC.

CALCULATION SHEET

AIR STRIPPER & LGAC EFFICIENCY

PROBLEM:

Calculate efficiency of the system's air stripper and LGAC vessels at removing individual constituents from process water during CAP IMP SP5.

GIVEN:

Average Water Influent and Effluent Sample Results

Gallons Discharged

Conversion factor: $\frac{1\mu g}{L} = \frac{2.2046226218e-9 \text{ lbs}}{0.26417205236 \text{ gallons}}$

SOLUTION:

Using the site-specific information collected during CAP IMP SP5, a calculation of the air stripper and LGAC efficiency by constituent has been created.

Constituent	Corresponding Concentration (µg/L)		Converted Concentration (lbs/gal.)		Water Recovery (gallons)	Constituent Mass (pounds)		Air Stripper & LGAC Efficiency
	Influent	Effluent	Influent	Effluent		Influent	Effluent	
Benzene	15.13	0.00	1.2629378737E-07	0.0000000000E+00	338,900	0.0428	0.000000	100.00%
Toluene	339.33	0.00	2.8318739106E-06	0.0000000000E+00		0.9597	0.000000	100.00%
Ethylbenzene	146.00	0.00	1.2184290500E-06	0.0000000000E+00		0.4129	0.000000	100.00%
Xylenes	1,103.33	0.00	9.2077629118E-06	0.0000000000E+00		3.1205	0.000000	100.00%
MTBE	48.77	18.83	4.0697755710E-07	1.5717178384E-07		0.1379	0.053266	61.38%
TPH-GRO	6,103.33	66.23	5.0934785171E-05	5.5274395486E-07		17.2618	0.187325	98.92%

(Calculations performed in Excel Spreadsheet)

Note: These calculations should be considered estimates as they are an extrapolation of lab data representing portions of isolated recovery batches over multiday discharge volumes.

CALCULATION SHEET

DPE Recovery Rate and Period

PROBLEM:

Determine rate of petroleum recovery based on data collected through the end of the fifth subphase of long-term Dual Phase Extraction Implementation. Also, determine length of DPE application based on recovery rate.

GIVEN:

Petroleum Mass Prior to CAP IMP SP5 =	43,329
Petroleum Mass Estimate After CAP IMP SP5 =	36,031
Petroleum Mass Recovered During CAP IMP SP5 =	7,298
Days of Operation During CAP IMP SP5 =	91.54

SOLUTION:

Using the site-specific information collected during CAP IMP SP5 of long-term DPE Implementation, a daily recovery rate of total petroleum has been calculated. TVPH in vapor phase and TPH-GRO in dissolved phase are the basis for this estimate. It should be noted that the given information consists of estimates and approximations.

Determine Daily Recovery Mass:

Daily Recovery Mass = Pet. Mass Recovery During CAP IMP SP5 / Days of DPE Operation

= 7,298 lbs / 91.54 days

= 79.727 lbs/day

≈ 80 lbs/day

Convert Daily Recovery Mass to Daily Recovery Rate:

Daily Recovery Rate = Daily Recovery Mass / Pet. Mass Prior to CAP IMP SP5

= 80 lbs/day / 43,329 lbs

= 0.0018/day

= 0.18% /day

CALCULATION SHEET

DPE Recovery Rate and Period

Several factors affect the recovery potential and rate of DPE when applied to subsurface petroleum contaminants. However, recovery trends are expected to reduce the petroleum mass in such a way that the operation may be modeled as exponential decay.

Exponential decay is expressed as $Y = ne^{kt}$ or $k = \frac{\ln\left(\frac{y}{n}\right)}{t}$ or $t = \frac{\ln\left(\frac{y}{n}\right)}{k}$

Where: Y=Final Mass
n=Initial Mass
e =2.71828 (Euler's Number)
k =Decay Constant
t =Time Period

In order to determine the length of time needed to reduce the current petroleum mass to fractions of itself, one must first determine the Decay Constant, k. By applying the observed recovery during CAP IMP SP5, k can be calculated:

$$k = \frac{\ln\left(\frac{y}{n}\right)}{t} \quad \Bigg| \quad k = \frac{\ln\left(\frac{36{,}031}{43{,}329}\right)}{91.54} \quad \Bigg| \quad k = -0.0020149$$

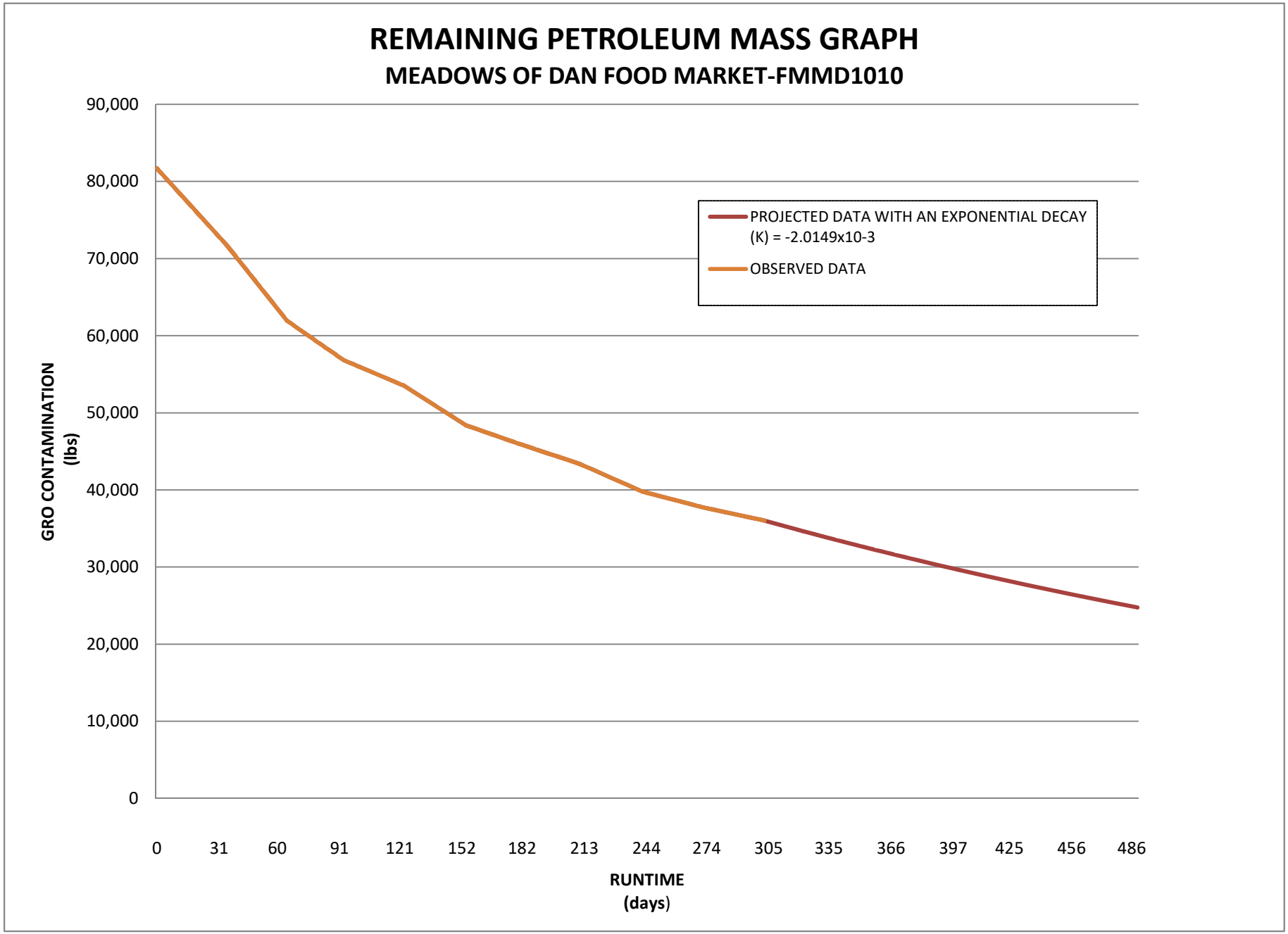
Now that k is known, we can solve for t, time period (in days) to reduce the remaining mass to ½ and ¼ of itself. This is an asymptotic recovery model so removing all of the initial mass is assumed to not be possible.

½ of initial mass:

$$t = \frac{\ln\left(\frac{y}{n}\right)}{k} \quad \Bigg| \quad t = \frac{\ln(18{,}015.5/36{,}031)}{-0.0020149} \quad \Bigg| \quad t \approx 344\ days$$

¼ of initial mass:

$$t = \frac{\ln\left(\frac{y}{n}\right)}{k} \quad \Bigg| \quad t = \frac{\ln(9{,}007.75/36{,}031)}{-0.0020149} \quad \Bigg| \quad t \approx 688\ days$$


REMAINING PETROLEUM MASS GRAPH
MEADOWS OF DAN FOOD MARKET-FMMD1010
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
GRO CONTAMINATION (lbs)
PROJECTED DATA WITH AN EXPONENTIAL DECAY (K) = -2.0149x10-3
OBSERVED DATA
0
31
60
91
121
152
182
213
244
274
305
335
366
397
425
456
486
RUNTIME (days)